The Builder

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The Builder.

AN

ILLUSTRATED WEEKLY MAGAZINE,

FOR THE

Architect, Engineer, Archæologist, Constructor, & Artist,

CONDUCTED BY

GEORGE GODWIN, F.R.S.

Fellow of the Royal Institute of Architects, and Honorary Member of several Societies.

"Every man's proper mansion-house, and home, being the theater of his hospitality, the seate of selfe-fruition, the comfortablest part of his own life, the noblest of his sonne's inheritance, a kinde of private princedome, nay, to the possessors thereof, an epitome of the whole world, may well deserve, by these attributes, according to the degree of the master, to be decently and delightfully adorned."

"Architecture can want no commendation, where there are noble men, or noble mindes."——SIR HENRY WOTTON.

"Our English word To BUILD is the Anglo-Saxon Býlðan, to confirm, to establish, to make firm and sure and fast, to consolidate, to strengthen; and is applicable to all other things as well as to dwelling-places."——DIVERSIONS OF PURLEY.

"Art shows us man as he can by no other means be made known. Art gives us 'nobler loves and nobler cares,'—furnishing objects by the contemplation of which we are taught and exalted,—and so are ultimately led to seek beauty in its highest form, which is GOODNESS."

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THE METROPOLITAN BUILDING ACT, 1855.

An Act to amend the Laws relating to the Construction of Buildings in the Metropolis and its Neighbourhood.

[18*th* & 19*th Victoria, Cap.* 122. 14*th August*, 1855.]

WHEREAS it is expedient that the laws relating to buildings in the Metropolis and its neighbourhood should be amended: Be it therefore enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows; (that is to say,)

PRELIMINARY.

Short Title.

1. This Act may be cited for all purposes as "The Metropolitan Building Act, 1855."

Commencement of Act.

2. This Act shall, except in cases where it is otherwise expressly provided, come into operation on the first day of *January*, one thousand eight hundred and fifty-six.

Interpretation of certain Terms in this Act.

3. In the construction of this Act (if not inconsistent with the context) the following terms shall have the respective meanings hereinafter assigned to them; (that is to say,)

"The Treasury" shall mean the Commissioners of her Majesty's Treasury:

"Public building" shall mean every building used as a church, chapel, or other place of public worship; also every building used for purposes of public instruction; also every building used as a college, public hall, hospital, theatre, public concert room, public ball room, public lecture room, public exhibition room, or for any other public purposes:

"External wall" shall apply to every outer wall or vertical enclosure of any building not being a party wall:

"Party wall" shall apply to every wall used or built in order to be used as a separation of any building from any other building, with a view to the same being occupied by different persons:

"Cross wall" shall apply to every wall used or built in order to be used as a separation of one part of any building from another part of the same building, such building being wholly in one occupation:

"Party structure" shall include party walls, and also partitions, arches, floors, and other structures separating buildings, stories, or rooms which belong to different owners, or which are approached by distinct staircases or separate entrances from without:

The "area" of every building shall be deemed to be the superficies of a horizontal section of such building made at the point of its greatest surface, including the external walls and such portion of the party walls as belong to the building, but excluding any attached building the height of which does not exceed the height of the ground story:

"The base of the wall" shall mean the course immediately above the footings:

"Owner" shall apply to every person in possession or receipt either of the whole or of any part of the rents or profits of any land or tenement, or in the occupation of such land or tenement other than as a tenant from year to year or for any less term, or as a tenant at will:

"Builder" shall apply to and include the master-builder or other person employed to execute or who actually executes any work upon any building:

"District surveyor" shall mean every such surveyor who is appointed in pursuance of this Act, or whose appointment is hereby confirmed, and shall include any deputy or assistant surveyor appointed under this Act:

In all cases in which the name of an officer having local jurisdiction in respect of his office is referred to without mention of the locality to which the jurisdiction extends, such reference is to be understood to indicate the officer having jurisdiction in that place within which is situate the building or other subject-matter or any part thereof to which such reference applies:

"Person" shall include "a body corporate."

LIMITS OF ACT.

Act to extend to all Places within Limits defined by 18 & 19 *Vict. c.* 120.

4. This Act shall extend to all places within the limits of the Metropolis, as defined by an Act passed in the present session of Parliament, intituled *An Act for the better local Management of the Metropolis*, and to all other places to which such last-mentioned Act may be extended, unless such places are, in making such extension, expressly excepted from the operation of this Act; but nothing herein contained shall affect the exercise of any powers vested by any Act of Parliament in the Commissioners of Sewers of the city of *London* for the time being.

Division of Act.

5. This Act shall be divided into five parts:—

(1.) The first part relating to the regulation and supervision of buildings:

(2.) The second part relating to dangerous structures:

(3.) The third part relating to party structures:

(4.) The fourth part relating to miscellaneous provisions:

(5.) The fifth part relating to the repeal of former Acts, and to temporary provisions.

PART I.

REGULATION AND SUPERVISION OF BUILDINGS.

Buildings, &c. herein named exempt from Operation of Part I. of this Act.

6. The following buildings and works shall be exempt from the operation of the first part of this Act:—

Bridges, piers, jetties, embankment walls, retaining walls, and wharf or quay walls:

Her Majesty's royal palaces, and any building in the possession of her Majesty, her heirs and successors, or employed for her Majesty's use or service:

Common gaols, prisons, houses of correction, and places of confinement under the inspection of the Inspectors of Prisons, and Bethlehem Hospital, and the House of Occupations adjoining:

The Mansion House, Guildhall, and Royal Exchange of the city of *London*:

The offices and buildings of the Governor and Company of the Bank of *England* already erected, and which now form the edifice called "The Bank of *England*," and any offices and buildings hereafter to be erected for the use of the said Governor and Company, either on the site of, or in addition to, and in connexion with the said edifice:

The buildings of the *British* Museum:

The offices and buildings of the Honourable *East-India* Company already erected, and any offices or buildings hereafter to be erected, for the use of the said Company, on the site of, or in addition to, such existing offices and buildings:

Greenwich Hospital, and the buildings in the parish of *Greenwich* vested in the Commissioners of *Greenwich* Hospital for the purposes of the said hospital:

All county lunatic asylums, sessions houses, and other public buildings belonging to or occupied by the justices of the peace of the county or city in which the same are situated:

The erections and buildings authorized by an Act passed in the ninth year of the reign of his late Majesty King *George* the Fourth, for the purposes of a market in *Covent Garden*:

The Cattle Market, with its appurtenances, erected in pursuance of the Metropolitan Cattle Market Act, 1851:

The buildings belonging to any canal, dock, or railway company, and used for the purposes of such canal, dock, or railway, under the provisions of any Act of Parliament:

All buildings, not exceeding in height thirty feet, as measured from the footings of the walls, and not exceeding in extent one hundred and twenty-five thousand cubic feet, and not being public buildings, wholly in one occupation, and distant at least eight feet from the nearest street or alley, whether public or private, and at the least thirty feet from the nearest buildings and from the ground of any adjoining owner:

All buildings not exceeding in extent two hundred and sixteen thousand cubic feet, and not being public buildings, and distant at least thirty feet from the nearest street or alley, whether public or private, and at the least sixty feet from the nearest buildings and from the ground of an adjoining owner:

All party fence-walls and greenhouses, so far as regards the necessary woodwork of the sashes, doors, and frames:

Openings made into walls or flues for the purpose of inserting therein ventilating valves, of a superficial extent not greater than forty square inches, if such valves are not nearer than twelve inches to any timber or other combustible material.

Application of Act, except Exemptions before mentioned.

7. With the exemptions hereinbefore mentioned, this Act shall apply to all new buildings; and whenever mention is herein made of any building, it shall, unless the contrary appears from the context, be deemed to imply a new building.

Building, when deemed to be new.

8. A building shall be deemed to be new whenever the enclosing walls thereof have not been carried higher than the footings previously to the said first day of *January*, one thousand eight hundred and fifty-six: any other building shall be deemed to be an old building.

Alterations of and Additions to old Buildings.

9. Any alteration, addition, or other work made or done for any purpose, except that of necessary repair not affecting the construction of any external or party wall, in, to, or upon any old building, or in, to, or upon any new building after the roof has been covered in, shall, to the extent of such alteration, addition, or work, be subject to the regulations of this Act; and whenever mention is hereinafter made of any alteration, addition, or work in, to, or upon any building, it shall, unless the contrary appears from the context, be deemed to imply an alteration, addition, or work to which this Act applies.

Rebuilding old Buildings.

10. Whenever any old building has been taken down to an extent exceeding one half of such building, such half to be measured in cubic feet, the rebuilding thereof shall be deemed to be the erection of a new building; and every portion of such old building that is not in conformity with the regulations of this Act shall be forthwith taken down.

Division of old Buildings separated by irregular Partitions.

11. Whenever any old buildings are separated by timber or other partitions not in conformity with this Act, then, if such partitions are removed to the extent of one half thereof, such buildings shall as respects the separation thereof be deemed to be new buildings, and be forthwith divided from each other in the manner directed by this Act.

WALLS.

Structure and Thickness of Walls.

12. Walls shall be constructed of such substances, and of such thickness, and in such manner as are mentioned in the first schedule annexed hereto.

RECESSES AND OPENINGS.

Rules as to Recesses and Openings.

13. The following rules shall be observed with respect to recesses and openings in walls:

Recesses and openings may be made in external walls, provided,

First, that the backs of such recesses are not of less thickness than eight and a half inches; and,

Second, that the area of such recesses and openings do not, taken together, exceed one half of the whole area of the wall in which they are made:

Recesses may be made in party walls, provided that,

First, the backs of such recesses are not of less thickness than thirteen inches; and

Second, that every recess so formed is arched over, and that the area of such recesses do not, taken altogether, exceed one half of the whole area of the wall of the story in which they are made; and

Third, that such recesses do not come within one foot of the inner face of the external walls.

But no opening shall be made in any party wall except in accordance with the rules of this Act:

The word area, as used in this section, shall mean the area of the vertical face, or elevation, of the wall, pier, or recess to which it refers.

MISCELLANEOUS.

As to Timber in External Walls.

14. Loophole frames may be fixed within one inch and a half of the face of any external wall; but all other woodwork fixed in any external wall, except bressummers and story posts under the same, and frames of doors and windows of shops on the ground story of any building, shall be set back four inches at the least from the external face of such wall.

Rules as to Bressummers.

15. The following rules shall be observed with respect to bressummers and timbers:—

First, every bressummer must have a bearing in the direction of its length of four inches at the least at each end, upon a sufficient pier of brick or stone, or upon a timber or iron story post fixed on a solid foundation, in addition to its bearing upon any party wall; and the ends of such bressummer shall not be placed nearer to the centre line of the party walls than four and a half inches:

Second, no bond timber or wood plate shall be built into any party wall, and the ends of any beam or joist bearing on such walls shall be at the least four and a half inches distant from the centre line of the party walls:

Third, every bressummer bearing upon any party wall must be borne by a templet or corbel of stone or iron tailed through at least half the thickness of such wall, and of the full breadth of the bressummer.

Height and Thickness of Parapets to External Walls.

16. If any gutter, any part of which is formed of combustible materials, adjoins an external wall, then such wall must be carried up so as to form a parapet one foot at the least above the highest part of such gutter, and the thickness of the parapet so carried up must be at the least eight and a half inches, reckoned from the level of the under side of the gutter plate.

Height of Party Walls above Roof.

17. Every party wall shall be carried up above the roof flat or gutter of the highest building adjoining thereto, to such height as will give a distance of fifteen inches measured at right angles to the slope

of the roof, or fifteen inches above the highest part of any flat or gutter, as the case may be; and every party wall shall be carried up above any turret, dormer, lantern light, or other erection of combustible materials fixed upon the roof or flat of any building within four feet from such party wall, and shall extend at the least twelve inches higher and wider on each side than such erection; and every party wall shall be carried up above any part of any roof opposite thereto, and within four feet from such party wall.

As to Chases in Party Walls.

18. In a party wall no chase shall be made wider than fourteen inches, nor more than four and a half inches deep from the face of the wall, nor so as to leave less than eight and a half inches in thickness at the back or opposite side thereof, and no chase may be made within a distance of seven feet from any other chase on the same side of the wall.

As to Construction of Roofs.

19. The roofs of buildings shall be constructed as follows; that is to say,

First, the flat, gutter, and roof of every building, and every turret, dormer, lantern light, skylight, or other erection placed on the flat or roof thereof, shall be externally covered with slates, tiles, metal, or other incombustible materials, except the doors, door frames, windows, and window frames of such dormers, turrets, lantern lights, skylights, or other erections.

Second, the plane of the surface of the roof of a warehouse or other building, used either wholly or in part for purposes of trade or manufacture, shall not incline from the external or party walls upwards at a greater angle than forty-seven degrees with the horizon.

Rules as to Chimnies and Flues.

20. The following rules shall be observed as to chimnies and flues:—

First, chimnies built on corbels of brick, stone, or other incombustible materials, may be introduced above the level of the ceiling of the ground story if the work so corbelled out does not project from the wall more than the thickness of the wall, but all other chimnies shall be built on solid foundations, and with footings similar to the footings of the wall against which they are built.

Second, chimnies and flues having proper doors of not less than six inches square may be constructed at any angle, but in every other chimney or flue the angles shall be constructed of an obtuseness of not less than one hundred and thirty degrees, and shall be properly rounded.

Third, an arch of brick or stone or a bar of wrought iron must be built over the opening of every chimney to support the breast thereof, and if the breast projects more than four and a half inches from the face of the wall, and the jamb on either side is of less width than seventeen and a half inches, the abutments must be tied in by an iron bar or bars turned up and down at the ends and built into the jambs for at least eight and a half inches on each side:

Fourth, the inside of every flue, and the back or outside, unless forming part of the outer face of an external wall, must be rendered, pargeted, or lined with fireproof piping:

Fifth, the jambs of every chimney must at the least be eight and a half inches wide on each side of the opening thereof:

Sixth, the breast of every chimney, and the front, withe, partition, and back of every flue, must at the least be four inches in thickness:

Seventh, the back of every chimney opening, from the hearth up to the height of twelve inches above the mantel, must at the least be eight and a half inches thick if in a party wall, or four and a half inches thick if not in a party wall:

Eighth, the thickness of the upper side of every flue, when its course makes, with the horizon, an angle of less than forty-five degrees, must be at the least eight and a half inches:

Ninth, every chimney shaft shall be carried up in brick or stone work all round, at the least four inches thick, to a height of not less than three feet above the roof, flat, or gutter adjoining thereto, measured at the highest point in the line of junction with such roof, flat, or gutter:

Tenth, the brickwork or stonework of any chimney shaft, excepting that of the furnace of any steam-engine, brewery, distillery or manufactory, shall not be built higher above the roof, flat, or gutter adjoining thereto, measured from the highest point in the line of junction with such roof, flat, or gutter, than a height equal to six times the least width of such chimney shaft at the level of such highest point in the line of junction, unless such chimney shaft is built with and bonded to another chimney shaft not in the same line with the first, or otherwise rendered secure:

Eleventh, there shall be laid, level with the floor of every story, before the opening of every chimney, a slab of stone, slate, or other incombustible substance, at the least twelve inches longer than the width of such opening, and at the least eighteen inches wide in front of the breast thereof:

Twelfth, on every floor, except the lowest floor, such slab shall be laid wholly upon stone or iron bearers, or upon brick trimmers; but on the lowest floor it may be bedded on the solid ground:

Thirteenth, the hearth or slab of every chimney shall be bedded wholly on brick, stone, or other incombustible substance, and shall be solid for a thickness of seven inches at the least beneath the upper surface of such hearth or slab:

Fourteenth, no flue shall be built against any party structure, unless a withe is properly secured thereto, at the least four inches in thickness:

Fifteenth, no chimney breast or shaft built with or in any party wall shall be cut away, unless the district surveyor certifies that it can be done without injuriously affecting the stability of any building:

Sixteenth, no chimney shaft, jamb, breast, or flue shall be cut into, except for the purpose of repair or doing some one or more of the following things:

Of letting in, or removing, or altering flues, pipes, or funnels for the conveyance of smoke, hot air, or steam, or of letting in, removing, or altering smoke jacks:

Of forming openings for soot doors, such openings to be fitted with a close iron door and frame:

Of making openings for the insertion of ventilating valves, subject to the following restriction, That no opening shall be made nearer than twelve inches to any timber or combustible substance:

Seventeenth, no timber or woodwork shall be placed,

In any wall or chimney breast nearer than twelve inches to the inside of any flue or chimney opening;

Under any chimney opening within eighteen inches from the upper surface of the hearth of such chimney opening;

Within two inches from the face of the brickwork or stonework about any chimney or flue, where the substance of such brickwork or stonework is less than eight and a half inches thick, unless the face of such brickwork or stonework is rendered;

And no wooden plugs shall be driven nearer than six inches to the inside of any flue or chimney opening, nor any iron holdfast or other iron fastening nearer than two inches thereto.

Rules as to close Fires and Pipes for conveying Vapour, &c.

21. The following rules shall be observed as to close fires, and pipes for conveying heated vapour or water; that is to say,

First, the floor under every oven or stove used for the purpose of trade or manufacture, and the floor around the same for a space of eighteen inches, shall be formed of materials of an incombustible and non-conducting nature:

Second, no pipe for conveying smoke, heated air, steam, or hot water shall be fixed against any building on the face next to any street, alley, mews, or public way:

Third, no pipe for conveying heated air or steam shall be fixed nearer than six inches to any combustible materials:

Fourth, no pipe for conveying hot water shall be placed nearer than three inches to any combustible materials:

Fifth, no pipe for conveying smoke or other products of combustion shall be fixed nearer than nine inches to any combustible material:

And if any person fails in complying with the rules of this section, he shall for each offence incur a penalty not exceeding twenty pounds, to be recovered before a justice of the peace.

Rules as to Accesses and Stairs in certain Buildings.

22. The following rules shall be observed with respect to accesses and stairs:

In every public building, and in every other building containing more than one hundred and twenty-five thousand cubic feet, and used as a dwelling house for separate families, the floors of the lobbies, corridors, passages, and landings, and also the flights of stairs, shall be of stone or other fire-proof material, and carried by supports of a fire-proof material.

Rules as to habitable Rooms.

23. The following rules shall be observed with respect to habitable rooms in any building; that is to say,

First, every habitable room hereafter constructed in any building, except rooms in the roof thereof, and cellars, and underground rooms, shall be in every part at the least seven feet in height from the floor to the ceiling:

Second, every habitable room hereafter constructed in the roof of every building shall be at the least seven feet in height from the floor to the ceiling, throughout not less than one half the area of such room:

Third, cellars and underground rooms shall be constructed in manner directed by the said Act for the better Local Management of the Metropolis:

And whosoever knowingly suffers any room that is not constructed in conformity with this section to be inhabited shall, in addition to any other liabilities he may be subject to under this Act, incur a penalty not exceeding twenty shillings for every day during which such room is inhabited; and any room in which any person passes the night shall be deemed to be inhabited within the meaning of this Act.

As to Party Arches over public Ways.

24. Every party arch, and every arch or floor over any public way, or any passage leading to premises in other occupation, shall be formed of brick, stone, or other incombustible materials: If an arch of brick or stone is used, it shall, in cases where its span does not exceed nine feet, be of the thickness of four and a half inches at the least, but when its span exceeds nine feet, be of the thickness of eight and a half inches at the least: If an arch or floor of iron or other incombustible material is used, it shall be constructed in such manner as may be approved by the district surveyor.

As to Arches under public Ways.

25. Every arch under any public way shall be formed of brick, stone, or other incombustible materials: If an arch of brick or stone is used, it shall, in cases where its span does not exceed ten feet, be of the thickness of eight and a half inches at the least; where its span does not exceed fifteen feet, it shall be of the thickness of thirteen inches at least; and where its span exceeds fifteen feet, it shall be of such thickness as may be approved by the district surveyor: If an arch or other construction of iron or other incombustible material is used, it shall be constructed in such manner as may be approved by the district surveyor.

Rules as to Projections.

26. The following rules shall be observed as to projections:

First, every coping, cornice, facia, window dressing, portico, balcony, verandah, balustrade, and architectural projection or decoration whatsoever, and also the eaves or cornices to any overhanging roof, except the cornices and dressings to the window fronts of shops, and except the eaves and cornices to detached and semi-detached dwelling houses distant at least fifteen feet from any other building, and from the ground of any adjoining owner, shall, unless the Metropolitan Board otherwise permit, be of brick, tile, stone, artificial stone, slate, cement, or other fire-proof material:

Second, in streets or alleys of a less width than thirty feet, any shop front may project beyond the external wall of the building to which it belongs for five inches and no more, and any cornice of any such shop front may project thirteen inches and no more; and in any street or alley of a width greater than thirty feet, any shop front may project ten inches and no more, and the cornice may project for eighteen inches from the external walls, but no more:

Third, no part of the woodwork of any shop front shall be fixed nearer than four and a half inches from the line of junction of any adjoining premises, unless a pier or corbel of stone, brick, or other fire-proof material, four and a half inches wide at the least, is built or fixed next to such adjoining premises as high as such woodwork is fixed, and projects an inch at the least in front of the face thereof:

Fourth, the roof, flat, or gutter of every building, and every balcony, verandah, shop front, or other projection, must be so arranged and constructed, and so supplied with gutters and pipes, as to prevent the water therefrom from dropping upon or running over any public way:

Fifth, except in so far as is permitted by this section in the case of shop fronts, and with the exception of water pipes and their appurtenances, copings, cornices, facias, window dressings, and other like architectural decorations, no projection from any building shall extend beyond the general line of fronts in any street, except with the permission of the Metropolitan Board of Works hereinafter mentioned.

Rules as to the Separation of Buildings, and Limitation of their Areas.

27. The following rules shall be observed as to the separation of buildings, and limitation of their areas:

First, every building shall be separated by external or party walls from any adjoining building:

Second, separate sets of chambers or rooms tenanted by different persons shall, if contained in a building exceeding three thousand six hundred square feet in area, be deemed to be separate buildings, and be divided accordingly, so far as they adjoin vertically by party walls, and so far as they adjoin horizontally by party arches or fire-proof floors:

Third, if any building in one occupation is divided into two or more tenements, each having a separate entrance and staircase, or a separate entrance from without, every such tenement shall be deemed to be a separate building for the purposes of this Act:

Fourth, every warehouse, or other building used either wholly or in part for the purposes of trade or manufacture, containing more than two hundred and sixteen thousand cubic feet, shall be divided by party walls in such manner that the contents of each division thereof shall not exceed the above-mentioned number of cubic feet.

Rules as to uniting Buildings.

28. The following rules shall be observed as to uniting buildings:

First, no buildings shall be united unless they are wholly in the same occupation:

Second, no buildings shall be united, if when so united they will, considered as one building only, be in contravention of any of the provisions of this Act:

Third, no opening shall be made in any party wall dividing buildings, which, if taken together, would contain more than two hundred and sixteen thousand cubic feet, except under the following conditions:

Such opening shall not exceed in width seven feet or in height eight feet:

Such opening shall have the floor, jambs, and head formed of brick, stone, or iron, and be closed by two wrought iron doors, each one fourth of an inch thick in the panel, at a distance from each

other of the full thickness of the wall, fitted to rebated frames, without woodwork of any kind:

Fourth, whenever any buildings which have been united cease to be in the same occupation, any openings made in the party walls dividing the same shall be stopped up with brick or stone work of the full thickness of the wall itself, and properly bonded therewith.

As to Open Spaces near Dwelling Houses.

29. Every building used or intended to be used as a dwelling house, unless all the rooms can be lighted and ventilated from a street or alley adjoining, shall have in the rear or on the side thereof an open space exclusively belonging thereto of the extent at least of one hundred square feet.

Construction of Public Buildings.

30. Notwithstanding anything herein contained, every public building, including the walls, roofs, floors, galleries, and staircases, shall be constructed in such manner as may be approved by the district surveyor, or, in the event of disagreement, may be determined by the Metropolitan Board; and save in so far as respects the rules of construction, every public building shall throughout this Act be deemed to be included in the term building, and be subject to all the provisions of this Act, in the same manner as if it were a building erected for a purpose other than a public purpose.

DISTRICT SURVEYORS.

Buildings to be supervised by District Surveyors.

31. With the exemptions hereinbefore mentioned, every building, and every work done to, in, or upon any building, shall be subject to the supervision of the district surveyor appointed to the district in which the building is situate.

Power to Metropolitan Board of Works established under 18 & 19 *Vict. c.* 120.

32. The following things may be done by the Metropolitan Board of Works, established by the said Act for the better Local Management of the Metropolis, by order, at their discretion; that is to say,

First, they may alter the limits of any district, or unite any two or more districts together, and in any such case place such altered district under the supervision of any existing or of any future district surveyor, with power from time to time to alter any district so made, and do all such matters and things as are necessary for carrying into effect the power hereby given:

Second, they may dismiss any existing district surveyor, with the consent of one of her Majesty's principal secretaries of state; they may suspend any such surveyor as last aforesaid; they may dismiss or suspend any future district surveyor; and in case of any suspension or during any vacancy they may appoint a temporary substitute:

Third, whenever any vacancy occurs in the office of any existing or future district surveyor, they may appoint another qualified person in his place:

Fourth, they may pay such amount of compensation as they think fit to any district surveyor who may be deprived of his office, in pursuance of the power hereby given of altering the limits of districts:

But, subject to the provisions herein contained, the several places which, at the time when this Act comes into operation, are constituted districts, under an Act passed in the eighth year of the reign of her present Majesty, chapter eighty-four, and intituled *An Act for regulating the Construction and Use of Buildings in the Metropolis and its Neighbourhood*, for the purposes of that Act, shall continue to be districts for the purposes of this Act, and the several persons who, at the time when this Act comes into operation, are district surveyors under the provisions of the said Act, shall continue to be district surveyors under this Act.

Examination by Institute of British Architects.

33. The Institute of *British* Architects may from time to time cause to be examined, by such persons and in such manner as they think fit, all candidates presenting themselves for the purpose of being examined as to their competency to perform the duties of district surveyor, and shall grant certificates of competency to the candidates found deserving of the same; and no person who has not already filled the office of district surveyor, or has not already obtained a certificate of competency, in pursuance of the said Act of the eighth year of the reign of her present Majesty, chapter eighty-four, shall be qualified to be appointed to that office, unless he has received a certificate of competency from the said Institute of *British* Architects, or has been examined in such other manner as the said Metropolitan Board may direct, and been found competent in such examination.

District Surveyor to have and maintain an Office.

34. Every district surveyor shall have and maintain an office at his own expense in such part of his district as may be approved by the Metropolitan Board of Works.

District Surveyor may appoint Deputy with consent.

35. If any district surveyor is prevented by illness, infirmity, or any other unavoidable circumstance from attending to the duties of his office, he may, with the consent of the Metropolitan Board of Works, appoint some other person as his deputy to perform all his duties for such time as he may be prevented from executing them.

Assistant Surveyor may be appointed on Emergency.

36. If at any time it appears to the Metropolitan Board of Works that, on account of the pressure of business in any district, or any other account, the surveyor of that district cannot discharge his duties promptly and efficiently, then such Board may direct any other district surveyor to assist the surveyor of such district in the performance of his duties, or appoint some other person to give such assistance, and such assistant surveyor shall be entitled to receive all fees payable in respect of the services performed by him.

District Surveyor not to act in case of Works under his professional Superintendence.

37. If any building is executed, or any work done to, in, or upon any building, by or under the superintendence of any district surveyor acting professionally or on his own private account, it shall not be lawful for such surveyor to survey any such building for the purpose of this Act, or to act as district surveyor in respect thereof or in any matter connected therewith, but it shall be his duty to give notice thereof to the said Metropolitan Board, who shall then appoint some other district surveyor to act in respect of such matter.

NOTICES TO DISTRICT SURVEYORS.

Notices to be given to District Surveyor by Builder.

38. Two days before the following acts or event, that is to say,

Two days before any building, or any work to, in, or upon any building is commenced, and also, if the progress of any such building or work is after the commencement thereof suspended for any period exceeding three months, two days before such building or work is resumed, and also if during the progress of any such building or work the builder employed thereon is changed, then two days before any new builder enters upon the continuance of such building or work, it shall be the duty of the builder engaged in building or rebuilding such building, or in executing such work, or in continuing such building or work, to give to the district surveyor notice in writing stating the situation, area, and height, and intended use of the building or buildings about to be commenced, or to, in, or upon which any work is to be done, and the number of such buildings if more than one, and also the particulars of any such proposed work, and stating also his own name and address, but any works to, in, or upon the same building that are in progress at the same time may be included in one notice.

District Surveyor to cause Rules of this Act to be observed.

39. Every district surveyor shall, upon the receipt of any such notice as aforesaid, and also upon any work affected by the rules of this Act, but in respect of which no notice has been given, being observed by or made known to him, and also from time to time during the progress of any works affected by the rules and directions of this Act, as often as may be necessary for securing the due observance of such rules, survey any building or work hereby placed under their supervision, and cause all the rules of this Act to be duly observed.

Notice to be Evidence of intended Works.

40. Every notice given in pursuance of this Act shall be deemed, in any question relative to any building or work, to be *primâ facie* evidence as against such builder of the nature of the building or work proposed to be built or done.

Penalty on Builders neglecting to give Notice.

41. If any builder neglects to give notice in any of the cases aforesaid, or executes any works of which he is hereby required to give notice before giving the same, or having given due notice of any works executes the same before the expiration of two days from the time of giving such notice, such builder shall for every such offence incur a penalty not exceeding twenty pounds, to be recovered before a justice of the peace.

District Surveyor may enter and inspect Buildings affected by this Act—Penalty for Refusal.

42. At all reasonable times during the progress of any building or work affected by this Act, it shall be lawful for the district surveyor to enter and inspect such building or work; and if any person refuses to admit such surveyor to inspect such building or work, or refuses or neglects to afford such surveyor all reasonable assistance in such inspection, in every such case the offender shall incur for each offence a penalty not exceeding twenty pounds, to be recovered before a justice of the peace.

District Surveyor may enter Buildings to ascertain as to exempted Buildings.

43. The district surveyor may at all reasonable times enter any premises, with the exception of buildings hereinbefore exempted by name, for the purpose of ascertaining whether any buildings erected in such premises are in such a situation or possess such characteristics as are hereinbefore required in order to exempt them from the operation of this Act, and he may do all such things as are necessary for the above purpose; and if any person refuses to admit such surveyor to enter such premises or to inspect any such building, or neglects to afford to him all reasonable assistance in such inspection, in every such case the offender shall incur for each offence a penalty not exceeding twenty pounds, to be recovered before a justice of the peace.

In case of Emergency, Works may be commenced without Notice.

44. If by reason of any emergency any act or work is required to be done immediately, or before notice can be given as aforesaid, then it shall be lawful to do the act or work so required to be done, upon condition that before the expiration of twenty-four hours after such act or work has been begun, notice thereof is given to the district surveyor.

PROCEEDINGS BY DISTRICT SURVEYORS IN CASE OF IRREGULARITY.

Notice by District Surveyor in case of Irregularity.

45. In the following cases, that is to say,—

If, in erecting any building or in doing any work to, in, or upon any building, anything is done contrary to any of the rules of this Act, or anything required by this Act is omitted to be done; or

In cases where due notice has not been given,—

If the district surveyor, on surveying or inspecting any building or work, finds that the same is so far advanced that he cannot ascertain whether anything has been done contrary to the rules of this Act, or whether anything required by the rules of this Act has been omitted to be done;

In every such case the district surveyor shall give to the builder engaged in erecting such building, or in doing such work, notice in writing requiring such builder, within forty-eight hours from the date of such notice, to cause anything done contrary to the rules of this Act to be amended, or to do anything required to be done by this Act, but which has been omitted to be done, or to cause so much of any building or work as prevents such district surveyor from ascertaining whether anything has been done or omitted to be done as aforesaid to be to a sufficient extent cut into, laid open, or pulled down.

On Non-compliance with Notice, Justice to summon Builder, and make Order to comply with Requisition.

46. If the builder to whom such notice is given makes default in complying with the requisition thereof within such period of forty-eight hours, the district surveyor may cause complaint of such non-compliance to be made before a justice of the peace, and such justice shall thereupon issue a summons requiring the builder so in default to appear before him; and if upon his appearance, or in his absence, upon due proof of the service of such summons, it appears to such justice that the requisitions made by such notice or any of them are authorized by this Act, he shall make an order on such builder commanding him to comply with the requisitions of such notice, or any of such requisitions that may in his opinion be authorized by this Act, within a time to be named in such order.

Penalty on Non-compliance with Order of Justice.

47. If such order is not complied with, the builder on whom it is made shall incur a penalty not exceeding twenty pounds a day, to be recovered before a justice of the peace, during every day of the continuance of such noncompliance, and in addition thereto the district surveyor may, if he thinks fit, proceed with a sufficient number of workmen to enter upon the premises, and do all such things as may be necessary for enforcing the requisitions of such notice, and for bringing any building or work into conformity with the rules of this Act, and all expenses incurred by him in so doing and in any such proceedings as aforesaid, may be recovered from the builder on whom such order was made, in a summary manner, before a justice of the peace, or may be recovered from the owner of the premises in the same manner in which expenses incurred by the Commissioners hereinafter named in respect of dangerous buildings are hereinafter directed to be recovered from any owner; and if the owner cannot be found, or if, on demand, he refuses or neglects to pay the aforesaid expenses, the district surveyor shall have the same power of taking and selling the building in respect of which the order is made, and of applying the proceeds as is thereby given to the Commissioners.

Penalty on Workmen, &c. doing anything contrary to Rules of Act.

48. If any workman, labourer, servant, or other person employed in or about any building, wilfully, and without the privity or consent of the person causing such work to be done, does any thing in or about such building contrary to the rules of this Act, he shall for each such offence incur a penalty not exceeding fifty shillings.

FEES OF DISTRICT SURVEYORS.

Payments to District Surveyors in respect of Matters in First Part of Second Schedule.

49. There shall be paid to the district surveyors, in respect of the several matters specified in the first part of the second schedule hereto, the fees therein specified, or such other fees, not exceeding the amounts therein specified, as may from time to time be directed by the Metropolitan Board of Works; but one fee only shall be chargeable with respect to any such works done in, to, or upon any building as are in pursuance of the provisions hereinbefore contained included in one notice; and if in consequence of any reduction being made by the said Metropolitan Board in the amount of the said scheduled fees the income of any existing district surveyor is diminished, the Metropolitan Board shall grant to him compensation in respect of such diminution.

Metropolitan Board may appoint special Fees for Services not provided for.

50. If any special service is required to be performed by the district surveyor under the first part of this Act, for which no fee is specified in the said schedule, the Metropolitan Board of Works may order such fee to be paid for such service as they think fit, and the district surveyor shall have the same remedy for recovering such special fee as if the same were expressly named in the said schedule.

Periods when Surveyors entitled to Fees.

51. At the expiration of the following periods, that is to say,

Of one month after the roof of any building surveyed by any district surveyor under this Act has been covered in,

Of fourteen days after the completion of any such work as is by this Act placed under the supervision of the district surveyor,

Of fourteen days after any special service in respect of any building has been performed,

The district surveyor shall be entitled to receive the amount of fees due to him from the builder employed in erecting such building, or in doing such work, or in doing any matter in respect of which any special service has been performed by the surveyor, or from the owner or occupier of the building so erected or in respect of which such work has been done or service performed; and if any such builder, owner, or occupier refuses to pay the same, such fees may be recovered in a summary manner before a justice of the peace, upon its being shown to the satisfaction of such justice that a proper bill specifying the amount of such fees was delivered to such builder, owner, or occupier, or sent to him in a registered letter addressed to his last known residence.

RETURNS BY DISTRICT SURVEYORS.

District Surveyor to make monthly Returns to Metropolitan Board of Works.

52. Every district surveyor shall, within seven days after the first day of every month, make a return to the Metropolitan Board of Works, in such manner as they may appoint, of all notices and complaints received by him relative to the business of his district, and the results thereof, and of all matters brought by him before any justice of the peace, and of all the several works supervised and special services performed by him in the exercise of his office within the previous month, and of all fees charged or received in respect thereof, and specify in such return the description and locality of every building built, rebuilt, enlarged, or altered, or on which any work has been done under his supervision, with the particular nature of every work in respect of which any fee has been charged or received.

Return duly signed to be a Certificate that Works are agreeable to Act.

53. Every such return shall be signed by such surveyor, and shall be deemed to be a certificate that all the works enumerated therein as completed have been done in all respects agreeably to this Act, according to the best of his knowledge and belief, and that they have been duly surveyed by him.

Superintending Architect to audit Accounts of Fees charged by District Surveyors, and to report in case of Excess.

54. The officer hereinafter mentioned as the Superintending Architect of Metropolitan Buildings, or such other officer as the Metropolitan Board of Works appoint, shall from time to time examine the said monthly returns made by the district surveyors; and in case any fees therein specified appear to such officer to be unauthorized by this Act, or to exceed in amount the rates hereby made payable, or in case any such account appears to be in any respect fraudulent or untrue, he shall make his report in writing to that effect to the Metropolitan Board of Works, who shall thereupon take such steps in the matter as they deem expedient.

POWERS OF METROPOLITAN BOARD OF WORKS.

Power for Metropolitan Board of Works to modify Rules.

55. The Metropolitan Board of Works may, by order, made with the consent of her Majesty in Council, alter, in such manner as they may think fit, the rules for the regulation of the thickness of walls contained in the first schedule hereto.

Buildings to which Rules of Act are inapplicable.

56. Whenever any builder is desirous of erecting any iron building, or any other building to which the rules of this Act are inapplicable, he shall make an application to the Metropolitan Board of Works, stating such desire, and setting out a plan of the proposed building, with such particulars as to the construction thereof as may be required by the said Board; and the latter, if satisfied with such plan and particulars, shall signify their approval of the same, and thereupon such building may be constructed according to such plan and particulars; but it shall not be lawful for such Board to authorize any warehouse or other building, used either wholly or in part for the purposes of trade or manufacture, to be erected of greater dimensions than two hundred and sixteen thousand cubic feet, unless it is divided by party walls in manner hereinbefore required.

Power of Metropolitan Board to make General Rules.

57. The said Metropolitan Board may, for the purpose of regulating the proceedings of such applicants as aforesaid, from time to time issue such general rules as to the time and manner of making such applications, as to the plans to be presented, as to the expenses to be incurred, and as to any other matter or thing connected therewith, as they may think fit.

Approval of Board how signified.

58. The approval by the Metropolitan Board of Works of any plans or particulars, in pursuance of the foregoing provisions, shall be signified by writing under the hand of the Superintending Architect of Metropolitan Buildings, and countersigned by the Chairman of such Board, or by any other officer appointed by the Board.

Board to issue Forms of Notices.

59. The said Metropolitan Board may from time to time prepare or sanction forms of the various notices required by this Act, and may from time to time make such alterations therein as they deem requisite; and they shall cause every such form to be sealed with the seal of the Board, or marked with some other distinguishing mark; and any notice made in a form sanctioned by the Board shall in all proceedings be held sufficient in law.

Expenses of Orders to be borne by Builders.

60. All expenses incurred in and about the obtaining such approval of the Metropolitan Board of Works as aforesaid, shall be paid by the builder to the said Superintending Architect, or to such other person as the said Board may appoint, and in default of payment may be recovered in a summary manner.

District Surveyor to see Plans carried into execution.

61. A copy of any plans and particulars, approved by the Metropolitan Board of Works, shall be furnished to the surveyor within whose district the building to which such plans and particulars relate is situate, and thereupon it shall be the duty of such district surveyor to ascertain that the same is built in accordance with the said plans and particulars.

Power to Metropolitan Board to appoint Superintending Architect and Clerks.

62. The Metropolitan Board of Works may, for the purpose of aiding in the execution of this Act, appoint some fit person, to be called the "Superintending Architect of Metropolitan Buildings," together with such number of clerks as they think fit; such architect and clerks shall be removable by the said Metropolitan Board, and shall perform such duties as the said Board direct; but it shall not be lawful for any Superintending Architect to practise as an architect, or to follow any other occupation.

Superintending Architect may appoint Deputy, with Consent.

63. If the Superintending Architect is prevented by illness, infirmity, or any other unavoidable circumstance, from attending to the duties of his office, he may, with the consent of the Metropolitan Board of Works, appoint some other person as his deputy, to perform all his duties for such time as he may be temporarily prevented from executing them.

Salaries to Architects and Clerks.

64. There shall be paid to such Superintending Architect and clerks such salaries as the said Metropolitan Board may from time to time direct.

EXPENSES.

Power of Metropolitan Board to pay Salaries.

65. The said Metropolitan Board may at any time hereafter, by order, cause such fixed salary as they may determine to be paid to any district surveyor by way of remuneration instead of fees, provided the amount of such remuneration be not less than the amount of the average of the fees for the last three years; and thereupon such surveyor shall pay all fees received by him under this Act into the hands of the said Superintending Architect.

Monies received by Superintending Architect to be paid to the Metropolitan Board.

66. All monies received by the Superintending Architect in pursuance of this Act shall be accounted for and paid by him into the hands of the treasurer of the said Metropolitan Board, at such time and in such manner as the said Board may direct.

Metropolitan Board may pay Salaries out of Rates.

67. The said Metropolitan Board may at any time hereafter provide, either wholly or partially, for the payment of salaries to the district surveyors, or to any of them, out of the rates leviable by such Board, in pursuance of the said Act for the better Local Management of the Metropolis, and may thereupon abolish or reduce any fees hereby made payable to the district surveyors.

Expenses, how borne.

68. All expenses of carrying into execution this Act, not hereby otherwise provided for, shall be deemed to be expenses incurred by the said Metropolitan Board in the execution of the said Act for the better Local Management of the Metropolis, and shall be raised and paid accordingly.

PART II.

DANGEROUS STRUCTURES.

Survey to be made of dangerous Structures.
8 *Vict. c.* 84, *s.* 40.

69. Whenever it is made known to the Commissioners hereinafter named that any structure (including in such expression any building, wall, or other structure, and anything affixed to or projecting from any building, wall, or other structure) is in a dangerous state, such Commissioners shall require a survey of such structure to be made by the district surveyor, or by some other competent surveyor, and it shall also be the duty of the district surveyor to make known to the said Commissioners any information he may receive with respect to any structure being in such state as aforesaid.

Definition of "Commissioners."

70. In cases where any such structure is situate within the city of *London* or the liberties thereof, hereinafter included under the expression "the city of *London*," the expression "the Commissioners" shall mean "the Commissioners of Sewers of the city of *London*;" but when such structure is situate elsewhere it shall mean "the Commissioners of Police of the Metropolis," or such one of them as may be authorized by one of her Majesty's principal secretaries of state to act in the matter of this Act.

Surveyor, on completion of Survey, to give Certificate.

71. Upon the completion of his survey the surveyor employed shall certify to the said Commissioners his opinion as to the state of any such structure as aforesaid.

Proceedings to be taken in respect of Certificate.

72. If such certificate is to the effect that such structure is not in a dangerous state, no further proceedings shall be had in respect thereof, but if it is to the effect that the same is in a dangerous state, the Commissioners shall cause the same to be shored up, or otherwise secured, and a proper hoard or fence to be put up for the protection of passengers, and shall cause notice in writing to be given to the owner or occupier of such structure requiring him forthwith to take down, secure, or repair the same, as the case requires.

On Non-compliance with Notice, Justice to summon Owner, &c., and make Order to comply with Requisition.

73. If the owner or occupier to whom notice is given as last aforesaid fails to comply, as speedily as the nature of the case permits, with the requisition of such notice, the said Commissioners may make complaint thereof before a justice of the peace; and it shall be lawful for such justice to order the owner, or on his default the occupier, of any such structure to take down, repair, or otherwise secure, to the satisfaction of the surveyor who made such survey as aforesaid, or of such other surveyor as the said Commissioners may appoint, such structure or such part thereof as appears to him to be in a dangerous state, within a time to be fixed by such justice; and in case the same is not taken down, repaired, or otherwise secured within the time so limited, the said Commissioners may with all convenient speed cause all or so much of such structure as is in a dangerous condition to be taken down, repaired, or otherwise secured, in such manner as may be requisite; and all expenses incurred by the said Commissioners in respect of any dangerous structure by virtue of the second part of this Act shall be paid by the owner of such structure, but without prejudice to his right to recover the same from any lessee or other person liable to the expenses of repairs.

If Owner cannot be found, Commissioners may sell structure, giving the Surplus to Owner, &c.

74. If such owner cannot be found, or if, on demand, he refuses or neglects to pay the aforesaid expenses, the said Commissioners, after giving three months' notice of their intention to do so, by posting a printed or written notice in a conspicuous place on the structure in respect of which or of part of which they have incurred expense, or on the land whereon it stands, may sell such structure, and they shall, after deducting from the proceeds of such sale the amount of all expenses incurred by them, restore the surplus (if any) to the owner.

Payments by or to the Commissioners, how made.

75. All payments hereby directed to be made by or to the Commissioners shall, in the cases of payments in respect of any structure situate within the city of *London*, be made by or to the Chamberlain of the City, out of or to the consolidated rate made by the Commissioners of Sewers, and in the cases of payments in respect of any structure situate elsewhere within the limits of this Act be made by or to the Receiver of Metropolitan Police, in the same manner in which payments are made by or to such chamberlain and receiver respectively in the ordinary course of their business; but no Commissioner or other officer shall be liable in respect of any loss that may be sustained by any person in consequence of the exercise by the said Commissioners of the powers hereby given them, unless such loss happens through the wilful default of such Commissioner or other officer.

Surplus, how to be applied if no Demand made for it.

76. In cases where any surplus is hereby made payable to any owner, if no demand for the same is made by any person entitled thereto within one year, then the same shall be paid into the Bank of *England*, in the name and with the privity of the Accountant-General of the Court of Chancery, to be placed to his account there to the credit of the owner (describing him, so far as the Commissioners can), subject to the control of the Court, and to be paid out to the owner on his applying by petition, and proving his title thereto.

Fees to District Surveyor.

77. There shall be paid to the district surveyor, or to such other surveyor as aforesaid, in respect of his services under the second part of this Act, such fees, not exceeding the amounts specified in the second part of the second schedule hereto, as may from time to time be directed by the said Metropolitan Board.

Metropolitan Board may appoint special Fees for Services not provided for.

78. If any special service is required to be performed by the district surveyor, or by such other surveyor as aforesaid, under the second part of this Act, for which no fee is specified in the said schedule, the said Metropolitan Board may order such fee to be paid for such service as they think fit.

Fees to be deemed Part of Expenses.

79. All fees paid to the district surveyor, or to such other surveyor as aforesaid, by virtue of the second part of this Act, shall be deemed to be expenses incurred by the said Commissioners in the matter of the dangerous structure in respect of which such fees are paid, and shall be recoverable by them from the owner accordingly.

Justice of Peace may cause Inmates to be removed from dangerous Structures.

80. In cases where a structure has been certified by a district surveyor, or such other surveyor as aforesaid, to be dangerous to its inmates, a justice of the peace may, if satisfied of the correctness of such certificate, upon the application of the said Commissioners, by order under his hand direct any inmates of such structure to be removed therefrom by a constable or other peace-officer, and if they have no other abode he may require them to be received into the workhouse established for the reception of the poor of the place in which such structure is situate.

Powers of Commissioners to appoint Officers.

81. Subject to the approval of one of her Majesty's principal secretaries of state, the said Commissioners may appoint such persons at such salaries, and make such regulations, as they think fit for carrying into execution the second part of this Act; and all expenses incurred by them not hereby otherwise provided for shall, in the case of expenses incurred by the said Commissioners of Police, be deemed to be expenses incurred by them in respect of the police force of which they are Commissioners, and be payable accordingly; and all expenses incurred by the said Commissioners of Sewers shall be paid out of the said consolidated rate.

PART III.

PARTY STRUCTURES.

PRELIMINARY.

Definition of Building Owner and Adjoining Owner.

82. In the construction of the following provisions relating to party structures, such one of the owners of the premises separated by or adjoining to any party structure as is desirous of executing any work in respect to such party structure shall be called the building owner, and the owner of the other premises shall be called the adjoining owner.

RIGHTS OF BUILDING AND ADJOINING OWNERS.

Rights of Building Owner.

83. The building owner shall have the following rights in relation to party structures; that is to say,

(1.) A right to make good or repair any party structure that is defective or out of repair:

(2.) A right to pull down and rebuild any party structure that is so far defective or out of repair as to make it necessary or desirable to pull down the same:

(3.) A right to pull down any timber or other partition that divides any buildings, and is not conformable with the regulations of this Act, and to build instead a party wall conformable thereto:

(4.) In the case of buildings having rooms or stories the property of different owners intermixed, a right to pull down such of the said rooms or stories or any part thereof as are not built in conformity with this Act, and to rebuild the same in conformity with this Act:

(5.) In the case of buildings connected by arches or communications over public ways or over passages belonging to other persons, a right to pull down such of the said buildings, arches, or communications, or any part thereof, as are not built in conformity with this Act, and to rebuild the same in conformity with this Act:

(6.) A right to raise any party structure permitted by this Act to be raised, or any external wall built against such party structure, upon condition of making good all damage occasioned thereby to the adjoining premises or to the internal finishings and decorations thereof, and of carrying up to the requisite height all flues and chimney stacks belonging to the adjoining owner on or against such party structure or external wall:

(7.) A right to pull down any party structure that is of insufficient strength for any building intended to be built, and to rebuild the same of sufficient strength for the above purpose, upon condition of making good all damage occasioned thereby to the adjoining premises, or to the internal finishings and decorations thereof:

(8.) A right to cut into any party structure upon condition of making good all damage occasioned to the adjoining premises by such operation:

(9.) A right to cut away any footing or any chimney breasts, jambs, or flues projecting from any party wall, in order to erect an external wall against such party wall, or for any other purpose, upon condition of making good all damage occasioned to the adjoining premises by such operation:

(10.) A right to cut away or take down such parts of any wall or building of an adjoining owner as may be necessary in consequence of such wall or building overhanging the ground of the building owner, in order to erect an upright wall against the same, on condition of making good any damage sustained by the wall or building by reason of such cutting away or taking down:

(11.) A right to perform any other necessary works incident to the connexion of party structure with the premises adjoining thereto:

But the above rights shall be subject to this qualification, that any building which has been erected previously to the time of this Act coming into operation shall be deemed to be conformable with the provisions of this Act if it is conformable with the provisions of an Act passed in the fourteenth year of his late Majesty King *George* the Third, chapter seventy-eight, or with the provisions of the said Act of the eighth year of her present Majesty, chapter eighty-four.

Rights of Adjoining Owner.

84. Whenever the building owner proposes to exercise any of the foregoing rights with respect to party structures, the adjoining owner may require the building owner to build on any such party structure certain chimney jambs, breasts, or flues, or certain piers or recesses, or any other like works for the convenience of such adjoining owner; and it shall be the duty of the building owner to comply with such requisition in all cases where the execution of the required works will not be injurious to the building owner, or cause to him unnecessary inconvenience or unnecessary delay in the exercise of his right; and any difference that arises between any building owner and adjoining owner in respect of the execution of such works as aforesaid shall be determined in manner in which differences between building owners and adjoining owners are hereinafter directed to be determined.

Rules as to Exercise of Rights by Building and Adjoining Owners.

85. The following rules shall be observed with respect to the exercise by building owners and adjoining owners of their respective rights:—

(1.) No building owner shall, except with the consent of the adjoining owner, or in cases where any party structure is dangerous, in which cases the provisions hereby made as to dangerous structures shall apply, exercise any right hereby given in respect of any party structure, unless he has given at the least three months' previous notice to the adjoining owner by delivering the same to him personally, or by sending it by post in a registered letter addressed to such owner at his last known place of abode:

(2.) The notice so given shall be in writing or printed, and shall state the nature of the proposed work, and the time at which such work is proposed to be commenced:

(3.) No building owner shall exercise any right hereby given to him in such manner or at such time as to cause unnecessary inconvenience to the adjoining owner:

(4.) Upon the receipt of such notice the adjoining owner may require the building owner to build or may himself build on any such party structure any works to the construction of which he is hereinbefore mentioned to be entitled:

(5.) Any requisition so made by an adjoining owner shall be in writing or printed, and shall be delivered personally to the building owner within one month after the date of the notice being given by him, or be sent by post in a registered letter addressed to him at his last known place of residence: It shall specify the works required by the adjoining owner for his convenience, and shall, if necessary, be accompanied with explanatory plans and drawings:

(6.) If either owner does not, within fourteen days after the delivery to him of any notice or requisition, express his consent thereto, he shall be considered as having dissented therefrom, and thereupon a difference shall be deemed to have arisen between the building owner and the adjoining owner:

(7.) In all cases not hereby specially provided for where a difference arises between a building owner and adjoining owner in respect of any matter arising under this Act, unless both parties concur in the appointment of one surveyor they shall each appoint a surveyor, and the two surveyors so appointed shall select a third surveyor, and such one surveyor or three surveyors, or any two of them, shall settle any matter in dispute between such building and adjoining owner, with power by his or their award to determine the right to do, and the time and manner of doing any work, and generally any other matter arising out of or incidental to such difference; but any time so appointed for doing any work shall not commence until after the expiration of such period of three months, as is hereinbefore mentioned:

(8.) Any award given by such one surveyor, or by such three surveyors, or any two of them, shall be conclusive, and shall not be questioned in any court, with this exception, that either of the parties to the difference may appeal therefrom to the County Court within fourteen days from the date of the delivery of any such award as aforesaid, and such County Court may, subject as hereinafter mentioned, rescind, or modify the award so given in such manner as it thinks just:

(9.) If either party to the difference makes default in appointing a surveyor for ten days after notice has been given to him by the other party in manner aforesaid to make such appointment, the party giving the notice may make the appointment in the place of the party so making default:

(10.) The costs incurred in obtaining any such award as aforesaid shall be paid by such party as such one surveyor, or three surveyors, or any two of them, may determine:

(11.) If the appellant from any such award as aforesaid, on appearing before the County Court, declares his unwillingness to have the matter decided by such Court, and proves to the satisfaction of the judge of such Court that in the event of the matter being decided against him, he will be liable to pay a sum, exclusive of costs, exceeding fifty pounds, and give security, to be approved by such judge, duly to prosecute his appeal and to abide the event thereof, all proceedings in the County Court shall thereupon be stayed; and it shall be lawful for such appellant to bring an action in one of her Majesty's superior courts of law at *Westminster* against the other party to the difference; and the plaintiff in such action shall deliver to the defendants an issue or issues whereby the matters in difference between them may be tried; and the form of such issue or issues, in case of dispute, or in case of the non-appearance of the defendant, shall be settled by the Court in which the action is brought; and such action shall be prosecuted and issue or issues tried in the same manner and subject to the same incidents in and subject to which actions are prosecuted and issues tried in other cases within the jurisdiction of such Court, or as near thereto as circumstances admit:

(12.) If the parties to any such action agree as to the facts, a special case may be stated for the opinion of any such Superior Court as aforesaid, and any case so stated may be brought before the Court in like manner, and subject to the same incidents in and subject to which other special cases are brought before such Court, or as near thereto as circumstances admit; and any costs that may have been incurred in the County Court by the parties to such action as is mentioned in this section, shall be deemed to be costs incurred in such action, and be payable accordingly.

Power for Building Owner to make Entry on Premises to effect Works Penalty on Persons obstructing.

86. Whenever any building owner has become entitled, in pursuance of this Act, to execute any work, it shall be lawful for him, his servants, agents, or workmen, at all usual times of working, to enter on any premises, for the purpose of executing and to execute such work, removing any furniture, or doing any other thing that may be necessary, and if such premises are closed, he or they may, accompanied by a constable or other officer of the peace, break open any doors in order to such entry; and any owner or other person that hinders or obstructs any workman employed for any of the purposes aforesaid, or wilfully damages or injures the said work, shall incur for every such offence a penalty not exceeding ten pounds, to be recovered before a justice of the peace.

Security to be given by Building Owner, if required by Adjoining Owner.

87. Any adjoining owner may, if he thinks fit, by notice in writing given by himself or his agent, require the building owner, before commencing any work which he may be authorized by this Act to execute, to give such security as may be agreed upon, or in case of difference may be settled by the judge of the County Court, for the payment of all such costs and compensation in respect of such work as may be payable by such building owner.

Rules as to Expenses in respect of Party Structure.

88. The following rules shall be observed as to expenses in respect of any party structure; (that is to say,)

As to expenses to be borne jointly by the building owner and adjoining owner:

(1.) If any party structure is defective or out of repair the expense of making good or repairing the same shall be borne by the building owner and adjoining owner in due proportion, regard being had to the use that each owner makes of such structure:

(2.) If any party structure is pulled down and rebuilt by reason of its being so far defective or out of repair as to make it necessary or desirable to pull down the same, the expense of such pulling down and rebuilding shall be borne by the building owner and adjoining owner in due proportion, regard being had to the use that each owner makes of such structure:

(3.) If any timber or other partition dividing any building is pulled down, in exercise of the right hereinbefore vested in a building owner, and a party structure built instead thereof, the expense of building such party structure, and also of building any additional party structures that may be required by reason of such partition having been pulled down, shall be borne by the building owner and adjoining

owner in due proportion, regard being had to the use that each owner makes of such party structure, and to the thickness required to the respective buildings parted thereby:

(4.) If any room or stories, or any part of rooms or stories, the property of different owners, and intermixed in any building, are pulled down in pursuance of the right hereinbefore vested in any building owner, and rebuilt in conformity with this Act, the expense of such pulling down and rebuilding shall be borne by the building owner and adjoining owner in due proportion, regard being had to the use that each owner makes of such rooms or stories:

(5.) If any arches or communications, or any parts thereof, are pulled down in pursuance of the right hereinbefore vested in any building owner, and rebuilt in conformity with this Act, the expense of such pulling down and rebuilding shall be borne by the building owner and adjoining owner in due proportion, regard being had to the use that each owner makes of such arches or communications:

As to expenses to be borne by building owner:

(6.) If any party structure or external wall built against the same is raised in pursuance of the power hereinbefore vested in any building owner, the expense of raising the same, and of making good all such damage, and of carrying up to the requisite height all such flues and chimnies as are hereinbefore required to be made good and carried up, shall be borne by the building owner:

(7.) If any party structure which is of proper materials and sound, or not so far defective or out of repair as to make it necessary or desirable to pull down the same, is pulled down and rebuilt by the building owner, the expense of pulling down and rebuilding the same, and of making good all such damage as is hereinbefore required to be made good, shall be borne by the building owner:

(8.) If any party structure is cut into by the building owner, the expense of cutting into the same, and of making good any damage hereinbefore required to be made good, shall be borne by such building owner:

(9.) If any footing, chimney breast, jambs, or floor is cut away in pursuance of the powers hereinbefore vested in any building owner, the expense of such cutting away, and of making good any damage hereinbefore required to be made good, shall be borne by the building owner.

Account of Expenses of Works to be delivered to Adjoining Owner within One Month.

89. Within one month after the completion of any work which any building owner is by this Act authorized or required to execute, and the expense of which is in whole or in part to be borne by an adjoining owner, such building owner shall deliver to the adjoining owner an account in writing of the expense of the work, specifying any deduction to which such adjoining owner or other person may be entitled in respect of old materials, or in other respects; and every such work as aforesaid shall be estimated and valued at fair average rates and prices, according to the nature of the work and the locality, and the market price of materials and labour at the time.

Adjoining Owner may appeal against Account.

90. At any time within one month after the delivery of such account, the adjoining owner, if dissatisfied therewith, may declare his dissatisfaction to the party delivering the same, by notice in writing given by himself or his agent, and specifying his objections thereto; and upon such notice having been given, a difference shall be deemed to have arisen between the parties, and such difference shall be determined in manner hereinbefore provided for the determination of differences between building and adjoining owners.

Building Owner may recover, if no Appeal made.

91. If within such period of one month as aforesaid the party receiving such account does not declare in manner aforesaid his dissatisfaction therewith, he shall be deemed to have accepted the same, and shall pay the same, on demand, to the party delivering the account, and if he fails to do so the amount so due may be recovered as a debt.

Penalty on Delay of Payment by Adjoining Owner.

92. Where the adjoining owner is liable to contribute to the expenses of building any party structure, until such contribution is paid the building owner at whose expense the same was built shall stand possessed of the sole property in such structure.

As to Expenses incurred on Requisition of Adjoining Owner.

93. Where any building owner has incurred any expenses on the requisition of an adjoining owner, the adjoining owner making such requisition shall be liable for all such expenses, and in default of payment the same may be recovered from him as a debt.

Penalty on Building Owner failing to execute required Works.

94. Where any building owner is, by the third part of this Act, liable to make good any damage he may occasion to the property of the adjoining owner by any works authorized to be executed by him, or to do any other thing upon condition of doing which his right to execute such works is hereby limited to arise, and such building owner fails within a reasonable time to make good such damage, or to do such thing, he shall incur a penalty, to be recovered before a justice of the peace, not exceeding twenty pounds for each day during which such failure continues.

Consent, how given on behalf of Persons under Disability.

95. Where, in pursuance of this Act, any consent is required to be given, any notice to be served, or any other thing to be done by, on, or to any owner under disability, such consent may be given, such notice may be served, and such thing may be done by, on, or to the following persons, on behalf of such persons under disability; that is to say,

By, on, or to a husband, on behalf of his wife:

By, on, or to a trustee, on behalf of his cestui que trust:

By, on, or to a guardian or committee, on behalf of an infant, idiot, or lunatic.

Consent, how given on behalf of Persons not to be found.

96. Where any consent is required to be given or any other thing to be done by any owner in pursuance of this Act, if there is no owner capable of giving such consent or of doing such thing, and no person empowered by this Act to give such consent or to do such thing on behalf of such owner, or if any owner so capable, or any person so empowered, cannot be found, the judge of the County Court shall have power to give such consent or do or cause to be done such thing on behalf of such owner, upon such terms and subject to such conditions as he may think fit, having regard alike to the nature and purpose of the subject-matter in respect of which such consent is to be given, and to the fair claims of the parties on whose behalf such consent is to be given; and such judge shall have power to dispense with the service of any notice which would otherwise be required to be served.

PART IV.

MISCELLANEOUS PROVISIONS.

Payment of Expenses by Owners.

97. Where it is hereby declared that expenses are to be borne by the owner of any premises (including in the term "owner" the adjoining and building owner respectively), the following rules shall be observed with respect to the payment of such expenses:

(1.) The owner immediately entitled in possession to such premises, or the occupier thereof, shall in the first instance pay such expenses, with this limitation, that no occupier shall be liable to pay any sum exceeding in amount the rent due or that will thereafter accrue due from him in respect of such premises during the period of his occupancy:

(2.) If there are more owners than one, every owner shall be liable to contribute to such expenses in proportion to his interest:

(3.) If any difference arises as to the amount of contribution, such difference shall be decided by arbitration, to be conducted in manner directed by the Companies Clauses Consolidation Act, 1845; and for that purpose the clauses of the said Act with respect to the settlement of disputes by arbitration shall be incorporated with this Act:

(4.) If some of the owners liable to contribution cannot be found, the deficiency so arising shall be divided amongst the parties that can be found:

(5.) Any occupier of premises who has paid any expenses under this Act may deduct the amount so paid from any rent payable by him to any owner of the same premises; and any owner of premises who has paid more than his due proportion of any expenses may deduct the amount so overpaid from any rent that may be payable by him to any other owner of the same premises:

(6.) If default is made by any owner or occupier in payment of any expenses hereby made payable by him in the first instance, or if default is made by any owner in payment of any other expenses or monies due from him by way of contribution or otherwise in pursuance of this Act, then in addition to any other remedies hereby provided, such expenses and monies, if arising in respect of any matter within the provisions of the third part of this Act, may be recovered as a debt in due course of law, but if arising in respect of any other matter under this Act may be recovered in a summary manner.

Rules as to Service of Notices, Summonses, and Orders.

98. The following rules shall be observed with respect to the giving or service of any notice, summons, or order directed to be given or served under this Act in cases not hereinbefore provided for:

(1.) A notice, summons, or order may in all cases be served personally:

(2.) A notice, summons, or order may be served on any builder by leaving the same or sending it in a registered letter addressed to him at his place of address as stated by him to the district surveyor, or by putting up such notice, summons, or order on a conspicuous part of the building or premises to which the same relates:

(3.) A notice, summons, or order may be served on the owner or occupier of any premises by leaving the same with the occupier of such premises, or with some inmate of his abode, or if there is no occupier, by putting up such notice, summons, or order on a conspicuous part of the building or premises to which the same relates; and it shall not be necessary to name the owner or occupier of such premises; nevertheless, when the owner of any such premises and his residence, or that of his agent, are known to the party by whom or on whose behalf any notice, summons, or order is intended to be served, it shall be the duty of such party to send every such notice, summons, or order by the post in a registered letter addressed to the residence or last known residence of such owner or of his agent:

(4.) A notice, summons, or order may be served on any district surveyor by leaving the same at his office.

As to things authorized to be done by a County Court—11 & 12 Vict. c. lxxi.

99. Whenever anything is hereby authorized to be done by a County Court it may be done as follows; that is to say, if such thing arises in respect of any structure or other subject matter situate within the city of *London* or the liberties thereof, by the Sheriffs Court established by a local Act passed in the eleventh year of the reign of her Majesty, chapter seventy-one, intituled *An Act for the more easy Recovery of Small Debts and Demands within the City of* London *or the Liberties thereof*, and if such thing arises in respect of any structure or other subject matter situate elsewhere, by the County Court having jurisdiction within the district in which such structure or other subject matter is situate.

Manner of Determining Differences.

100. In cases where jurisdiction is hereby given to a County Court, such Court may from time to time make such order in respect of matters so brought before it as it may think fit, with power to settle the time and manner of executing any work, or of doing any other thing, and to put the parties to the case upon such terms as respects the execution of the work as it thinks fit: it shall also have power to award or refuse costs according to circumstances, and to settle the amount thereof.

Form of Proceedings in County Court.

101. Proceedings in any County Court, in respect of any matter arising under this Act, shall be conducted in the same manner as proceedings are conducted in any case within the ordinary jurisdiction of such Court, or as near thereto as circumstances permit; and orders made by the judge of any such court may be enforced by execution, committal, or otherwise, in a similar manner to that in which the orders of such Court are ordinarily enforced.

Appeal from Decision of County Court.

102. If either party, in any case over which jurisdiction is hereby given to a County Court, feels aggrieved with the decision of such Court in respect of any point of law, or the admission or rejection of any evidence, he may appeal therefrom in the same manner, and upon the same terms, in and upon which he might have appealed from the decision of such Court in any case within the ordinary jurisdiction of such Court, or as near thereto as circumstances permit; but no such appeal shall be allowed unless the value of the matter in difference between the parties exceeds fifty pounds; and the opinion of the judge before whom the case is tried as to such value shall be conclusive.

Recovery of Penalties.

103. All penalties under this Act, and all fees, monies, costs, or expenses by this Act directed to be recovered in a summary manner, may be recovered in manner directed by an Act passed in the eleventh and twelfth years of the reign of her present Majesty Queen *Victoria*, chapter forty-three, intituled *An Act to facilitate the Performance of the Duties of Justices of the Peace out of Sessions within* England *and* Wales *with respect to summary Convictions and Orders*; and whenever anything is hereby authorized or required to be done by or before a justice of the peace, it may be done as follows: that is to say, if such thing arises in respect of any building or wall situate within the city of *London*, by or before one or more justice or justices of the peace for the said city, or by any metropolitan police magistrate, and if such thing arises in respect of any building or wall situate elsewhere within the limits of this Act, by or before any metropolitan police magistrate.

Application of Penalties.

104. Any justice of the peace in any case over which jurisdiction is hereby given to him may make such order as to the costs of any proceedings of which he has cognizance as he thinks just; he may also direct the whole or any part of any penalty imposed by him under this Act to be applied in or towards payment of the costs of the proceedings; and, subject to such direction, all penalties shall be paid into the hands of the treasurer of the said Metropolitan Board, to be applied in such manner as the said Board thinks fit.

Provisions as to Limitation of Time when due Notice has not been given.

105. In cases where any building has been erected or work done without due notice being given to the district surveyor, the district surveyor may, at any time within one month after he has discovered that such building has been erected or work done, enter the premises for the purpose of seeing that the regulations of this Act have been complied with, and the time during which the district surveyor may take any proceeding, or do anything authorized or required by this Act to be done by him, in respect of such building or work, shall begin to run from the date of his discovering that such building has been erected or work done.

Power to Appeal to Superior Courts.

106. In every case, except in respect of fees of a district surveyor, in which jurisdiction is hereinbefore given to a justice of the peace, if either party to any such case is dissatisfied with the determination of the justice so convicting, in respect of any point of law, or of the admission or rejection of any evidence, such party may, upon giving notice within seven days to the other party of his intention to appeal, appeal therefrom to any of the Superior Courts of Common Law at *Westminster;* subject to this restriction, that no such appeal shall be made by any district surveyor except with the consent of the justice before whom the case is tried, and that no such appeal shall be made by any other party to the case except upon giving such security for costs, and, if the case requires it, in addition thereto, such undertaking in respect of desisting in the meantime from any works complained of, or in respect of any other matter or thing arising in the case, as the justice thinks fit.

Form of Appeal.

107. Any appeal so made shall be in the form of a special case, to be agreed on by both parties, or, if the parties cannot agree, to be settled by the justice from whose decision the appeal is made; and such case shall be transmitted by the appellant to the Rule department of the Master's office in the court in which the appeal is to be brought, and be heard in manner provided by the practice of such court.

Notice of Action.

108. No writ or process shall be sued out against any district surveyor or other person for anything done or intended to be done under the provisions of this Act until the expiration of one month next after notice in writing has been delivered to him, or left at his office or usual place of abode, stating the cause of action, and the name and place of abode of the intended plaintiff, and of his attorney or agent in the cause; and upon the trial of any such action the plaintiff shall not be permitted to go into evidence of any cause of action which is not stated in such last-mentioned notice; and unless such notice is proved, the jury shall find for the defendant; and every such action shall be brought or commenced within six months next after the accrual of the cause of action, and not afterwards, and shall be laid and tried in the county or place where the cause of action occurred, and not elsewhere; and the defendant shall be at liberty to plead the general issue, and give this Act and all special matter in evidence thereunder.

PART V.

REPEAL OF FORMER ACTS AND TEMPORARY PROVISIONS.

REPEAL.

Repeal of 8 & 9 *Vict. c.* 84, *except ss.* 54 *to* 63, *and* 9 & 10 *Vict. c.* 5.

109. From and after the commencement of this Act, the following Acts, that is to say, an Act passed in the eighth year of the reign of her present Majesty, chapter eighty-four, and intituled *An Act for regulating the Construction and the Use of Buildings in the Metropolis and its Neighbourhood*, with the exception of the sections relating to dangerous and noxious businesses, and numbered respectively fifty-four, fifty-five, fifty-six, fifty-seven, fifty-eight, fifty-nine, sixty, sixty-one, sixty-two, and sixty-three, and an Act passed in the ninth year of the reign of her present Majesty, chapter five, and intituled *An Act to amend an Act for regulating the Construction and Use of Buildings in the Metropolis and its Neighbourhood*, are throughout the limits of this Act and elsewhere hereby repealed, subject to the following provisions; that is to say,

First, that such repeal shall not affect any proceedings authorized to be taken by the said Acts or either of them in respect of any act, omission, penalty, matter, or thing, and pending before the official referees or any other tribunal at the time of the commencement of this Act:

Second, that in cases where any act, omission, or thing has occurred previously to the time of the commencement of this Act, in respect of which, if this Act had not passed, proceedings might have been taken under the said Acts or either of them, then proceedings in respect of such act, omission, or thing may be had under this Act in manner following; that is to say, if the matter in question is anything relating to the rights of building and adjoining owners in respect of party structures, proceedings may be had in the County Court, but if the matter in question relates to the recovery of any penalty or to any other thing, proceedings may be had before any justice of the peace:

Third, that so much of the Act of the fourteenth year of King *George* the Third, chapter seventy-eight, as was excepted from the operation of the said Act of the eighth year of her present Majesty, chapter eighty-four, (that is to say,) the sections numbered respectively seventy-four, seventy-five, seventy-six, seventy-seven, seventy-eight, eighty, eighty-one, eighty-two, eighty-three, eighty-four, eighty-five, and eighty-six, shall continue in full force.

As to Contracts made previously to passing of Act.

110. Any contract made previously to the passing of this Act for the erection of a new building shall be carried into effect in the same manner as if this Act had been passed at the time of the making thereof, and the necessary deviations from the terms of such contract may be made accordingly; and if any dispute arises in respect of any loss sustained by any party to such contract by reason of such necessary deviation, such dispute shall be determined by the County Court; and whenever any costs or expenses have been paid by any owner in pursuance of this Act, then as to any structure held under any lease or agreement made previously to the commencement of this Act it shall be lawful for such owner to recover the same from the persons hitherto liable by law, or by such existing lease or contract, to maintain or repair the structure in respect of which such costs and expenses have been incurred.

Liabilities under Contract between Landlord and Tenant not to be affected.

111. Nothing herein contained shall vary or affect the rights or liabilities as between landlord and tenant under any contract between them.

As to Iron Buildings constructed before this Act comes into operation.

112. In cases where any iron building has been constructed or is in the progress of construction previously to the time at which this Act comes into operation, and doubts are entertained whether such building is permitted by law, any person interested in such building may make an application to the Commissioners of Works and Buildings, to signify their approval of such building; and the Commissioners of Works and Buildings, upon being satisfied of the stability of such building, may approve of the same, and upon such approval being given such building shall be deemed to have been constructed in manner permitted by law, and this section shall come into operation immediately after the passing of this Act.

Compensation to Official Referees and Registrar.

113. The official referees and registrar of metropolitan buildings may, within six months from the time at which this Act comes into operation, apply to the Commissioners of her Majesty's Treasury for compensation in respect of the loss they have sustained by reason of the abolition of their offices; and the Commissioners shall take any such application into consideration, and award such compensation, either by way of a gross sum or annual payment, as they think just, having regard to the nature of the office, the time during which the applicant has held the same, and generally to the special circumstances of each case; and any compensation so given shall be paid out of monies to be provided by Parliament; and such compensation, when made by annual payment, shall be subject to this proviso, that if any such official referee or registrar is at any time thereafter appointed to any public office in respect of which he receives a salary, the payment of the compensation awarded to him under this Act shall be suspended so long as he receives such salary, if the amount thereof is greater than such compensation, or if not shall be diminished by the amount of such salary.

Compensation to Clerks in Office of Metropolitan Buildings.

114. Any person, except the said official referees and registrar, who at the time when this Act comes into operation is employed in the Office of Metropolitan Buildings may within six months from such time apply to the Metropolitan Board of Works for employment, and such Board shall thereupon take such application into consideration, and they shall either employ the applicant at a salary not less in amount than that which he enjoyed when in the said Office of Metropolitan Buildings, or at a less salary awarding to him compensation in respect of such diminution of salary, or they shall award to him such compensation, if any, as they, or in the event of the applicant feeling aggrieved with their decision, as the Commissioners of the Treasury, think just, having regard to the nature of the office, the time during which it has been held by the applicant, and generally to the special circumstances of the case; and any expenses incurred by the said Board in carrying into effect this section shall be deemed to be expenses incurred in the execution of the said Act for the better Local Management of the Metropolis, and be raised accordingly; nevertheless, if any such clerk or servant as aforesaid at any time thereafter is appointed to any public office, or to any office under the said Metropolitan Board, in respect of which he receives a salary, the payment of the compensation awarded to him under this Act shall be suspended so long as he receives such salary, if the amount thereof is greater than the amount of such compensation, or if not shall be diminished by the amount of such salary; but, notwithstanding anything herein contained, the Metropolitan Board may, in the event of their employing any person mentioned in this section, dismiss him, with the consent of the Treasury.

FIRST SCHEDULE.

PRELIMINARY.

Structure of Buildings.

1. Every building shall be enclosed with walls constructed of brick, stone, or other hard and incombustible substances, and the foundations shall rest on the solid ground, or upon concrete, or upon other solid substructure.

Construction of Walls of Brick, Stone, &c.

2. Every wall constructed of brick, stone, or other similar substances, shall be properly bonded and solidly put together with mortar or cement, and no part of such wall shall overhang any part underneath it, and all return walls shall be properly bonded together.

Extra Thickness of certain Stone Walls.

3. The thickness of every stone wall in which the beds of the masonry are not laid horizontally shall be one third greater than the thickness prescribed for stone walls in the rules hereinafter contained.

Thickness of Walls.

4. The thickness of every wall as hereinafter determined, shall be the minimum thickness.

Height of Story.

5. The height of every topmost story shall be measured from the level of its floor up to the under side of the tie of the roof, or up to half the vertical height of the rafters, when the roof has no tie; and the height of every other story shall be the clear height of such story exclusive of the thickness of the floor.

Height of External and Party Walls.

6. The height of every external and party wall shall be measured from the base of the wall to the level of the top of the topmost story.

Length of Walls.

7. Walls are deemed to be divided into distinct lengths by return walls, and the length of every wall is measured from the centre of one return wall to the centre of another; provided that such return walls are external, party, or cross walls of the thickness hereinafter required, and bonded into the walls so deemed to be divided.

Footings of Walls.

8. The projection of the bottom of the footing of every wall, on each side of the wall, shall be at least equal to one half of the thickness of the wall at its base; and the diminution of the footing of every wall shall be formed in regular offsets, and the height from the bottom of such footing to the base of the wall shall be at the least equal to one half of the thickness of the wall at its base.

PART I.

RULES FOR THE WALLS OF DWELLING HOUSES.

Thickness of Walls of Dwelling Houses.

1. The external and party walls of dwelling houses shall be made throughout the different stories of the thickness shown in the following table, arranged according to the heights and lengths of the walls, and calculated for walls up to one hundred feet in height, and supposed to be built of bricks not less than eight and a half inches and not more than nine and a half inches in length, the heights of the stories being subject to the condition hereinafter given.

2. TABLE. [*For this* TABLE, SEE *page* 8.]

Explanation of Tables.

3. In using the above table the height of the wall is to be reckoned on the first vertical column on the left hand of the table, and the length of the wall on the corresponding horizontal column. The thickness of the wall in each story is given in inches, and begins with the wall from the base upwards.

Qualification in case of certain Walls.

4. If any external or party wall, measured from centre to centre, is not more than twenty-five feet distant from any other external or party wall to which it is tied by the beams of any floor or floors, other than the ground floor, or the floor of any story formed in the roof, the length of such wall is not to be taken into consideration, and the thickness of the wall will be found in the second vertical column in the above table.

Condition in respect of Stories exceeding a certain Height.

5. If any story exceeds in height sixteen times the thickness prescribed for the walls of such story in the above table, the thickness of each external and party wall throughout such story shall be increased to one sixteenth part of the height of the story; but any such additional thickness may be confined to piers properly distributed, of which the collective widths amount to one fourth part of the length of the wall.

Restriction in case of certain Stories.

6. No story enclosed with walls less than thirteen inches in thickness shall be more than ten feet in height.

Thickness of Walls built of Materials other than such Bricks as aforesaid.

7. The thickness of any wall of a dwelling house, if built of materials other than such bricks as aforesaid, shall be deemed to be sufficient if made of the thickness required by the above tables, or of such less thickness as may be approved by the Metropolitan Board, with this exception, that in the case of walls built of stone in which the beds of the masonry are not laid horizontally, no diminution shall be allowed in the thickness required by the foregoing rules for such last-mentioned walls.

Rule as to Buildings not being Public Buildings or Buildings of the Warehouse Class.

8. All buildings, excepting public buildings, and such buildings as are hereinafter defined to be buildings of the warehouse class, shall, as respects the thickness of their walls, be subject to the rules given for dwelling houses.

PART II.

RULES FOR THE WALLS OF BUILDINGS OF THE WAREHOUSE CLASS.

Definition of Warehouse Class.

1. The warehouse class shall comprise all warehouses, manufactories, breweries, and distilleries.

Thickness at Base.

2. The external and party walls of buildings of the warehouse class shall at the base be made of the thickness shown in the adjoining table [Part II.], calculated for walls up to one hundred feet in height, and supposed to be built of bricks not less than eight and a half inches and not more than nine and a half inches in length.

3. TABLE. [*See* 2nd TABLE, *next column.*]

Explanation of Table.

4. The above table is to be used in the same manner as the table previously given for the walls of dwelling houses, and is subject to the same qualifications and conditions respecting walls not more than twenty-five feet distant from each other.

Thickness at Top of Walls and through Intermediate Space.

5. The thickness of the walls of buildings of the warehouse class at the top, and for sixteen feet below the top, shall be thirteen inches; and the intermediate parts of the wall between the base and such sixteen feet below the top shall be built solid throughout the space between straight lines drawn on each side of the wall, and joining the thickness at the base to the thickness at sixteen feet below the top, as above determined; nevertheless in walls not exceeding thirty feet in height the walls of the topmost story may be eight inches and a half thick.

Condition in respect of Stories exceeding a certain Height.

6. If in any story of a building of the warehouse class the thickness of the wall, as determined by the rules hereinbefore given, is less than one fourteenth part of the height of such story, the thickness of the wall shall be increased to one fourteenth part of the height of the story; but any such additional thickness may be confined to piers properly distributed, of which the collective widths amount to one fourth part of the length of the wall.

Thickness of Walls built of Materials other than such Bricks as aforesaid.

7. The thickness of any wall of a building of the warehouse class, if built of materials other than such bricks as aforesaid, shall be deemed to be sufficient if made of the thickness required by the above tables, or of such less thickness as may be approved by the Metropolitan Board, with this exception, that in the case of walls built of stone in which the beds of the masonry are not laid horizontally no diminution shall be allowed in the thickness required by the foregoing rules for such last-mentioned walls.

MISCELLANEOUS.

Cross Walls.

1. The thickness of a cross wall shall be two thirds of the thickness hereinbefore required for an external or party wall of the same dimensions, and belonging to the same class of buildings, but never less than eight and a half inches, and no wall subdividing any building shall be deemed to be a cross wall unless it is carried up two thirds of the height of the external or party walls, and unless the recesses and openings therein do not exceed one half of the vertical surface of the wall in each story.

Extra Thickness of certain Stone Walls.

2. The thickness of every stone wall in which the beds of the masonry are not laid horizontally shall be one third greater than the thickness prescribed in the rules aforesaid.

3. Buildings to which the preceding rules are inapplicable require the special sanction of the Metropolitan Board of Works.

SECOND SCHEDULE.

FEES PAYABLE TO DISTRICT SURVEYORS.

PART I.

Fees for New Buildings.

	s.	d.
For every building not exceeding four hundred square feet in area, and not more than two stories in height	30	0
For every additional story	5	0
For every additional square of 100 feet or fraction of such square .. .. But no fee shall exceed ten pounds.	2	6
And for every building not exceeding four hundred square feet in area, and of one story only in height, the fees shall be	15	0

Fees for Additions or Alterations.

For every addition or alteration made to any building after the roof thereof has been covered in, the fee shall be half of the fee charged in the case of a new building.		
For inspecting the arches or stone floors over or under public ways	10	0
For inspecting the formation of openings in party walls	10	0

PART II.

For inspecting dangerous structures, by direction of the Commissioners of Police or Sewers	20	0

N.B.—In this Schedule "area" shall include the area of any attached building.

TABLE REFERRED TO UNDER PART I.

I.	II.	III.	IV.
Height up to 100 Feet.	Length up to 45 Feet. Two Stories, 21½ inches. Three Stories, 17½ inches. Remainder, 13 inches.	Length up to 80 Feet. Two Stories, 26 inches. Two Stories, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.	Length unlimited. One Story, 30 inches. Two Stories, 26 inches. Two Stories, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.
Height up to 90 Feet.	Length up to 45 Feet. Two Stories, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.	Length up to 70 Feet. One Story, 26 inches. Two Stories, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.	Length unlimited. One Story, 30 inches. Two Stories, 26 inches. One Story, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.
Height up to 80 Feet.	Length up to 40 Feet. One Story, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.	Length up to 60 Feet. Two Stories, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.	Length unlimited. One Story, 26 inches. Two Stories, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.
Height up to 70 Feet.	Length up to 40 Feet. Two Stories, 17½ inches. Remainder, 13 inches.	Length up to 55 Feet. One Story, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.	Length unlimited. One Story, 26 inches. Two Stories, 21½ inches. One Story, 17½ inches. Remainder, 13 inches.
Height up to 60 Feet.	Length up to 30 Feet. One Story, 17½ inches. Remainder, 13 inches.	Length up to 50 Feet. Two Stories, 17½ inches. Remainder, 13 inches.	Length unlimited. One Story, 21½ inches. Two Stories, 17½ inches. Remainder, 13 inches.
Height up to 50 Feet.	Length up to 30 Feet. Wall below the Topmost Story, 13 inches Topmost Story, 8½ inches. Remainder, 8½ inches.	Length up to 45 Feet. One Story, 17½ inches. Rest of Wall below Topmost Story, 13 inches. Topmost Story, 8½ inches. Remainder, 8½ inches.	Length unlimited. One Story, 21½ inches. One Story, 17½ inches. Remainder, 13 inches.
Height up to 40 Feet.	Length up to 35 Feet. Wall below Two Topmost Stories, 13 inches. Two Topmost Stories, 8½ inches. Remainder, 8½ inches.	Length unlimited. One Story, 17½ inches. Rest of Wall below Topmost Story, 13 inches. Topmost Story, 8½ inches. Remainder, 8½ inches.	
Height up to 30 Feet.	Length up to 35 Feet. Wall below Two Topmost Stories, 13 inches Two Topmost Stories, 8½ inches. Remainder, 8½ inches.	Length unlimited. Wall below Topmost Story, 13 inches. Topmost Story, 8½ inches Remainder, 8½ inches.	
Height up to 25 Feet.	Length up to 30 Feet. From Base to top of Wall, 8½ inches.	Length unlimited. Wall below Topmost Story, 13 inches. Topmost Story, 8½ inches. Remainder, 8½ inches.	

TABLE REFERRED TO UNDER PART II.

I.	II.	III.	IV.
Height up to 100 Feet.	Length up to 55 Feet. Base, 26 inches.	Length up to 70 Feet. Base, 30 inches.	Length unlimited. Base, 34 inches.
Height up to 90 Feet.	Length up to 60 Feet. Base, 26 inches.	Length up to 70 Feet. Base, 30 inches.	Length unlimited. Base, 34 inches.
Height up to 80 Feet.	Length up to 45 Feet. Base, 21½ inches.	Length up to 60 Feet. Base, 26 inches.	Length unlimited. Base, 30 inches.
Height up to 70 Feet.	Length up to 30 Feet. Base, 17½ inches.	Length up to 45 Feet. Base, 21½ inches.	Length unlimited. Base, 26 inches.
Height up to 60 Feet.	Length up to 45 Feet Base, 17½ inches.	Length up to 50 Feet. Base, 21½ inches.	Length unlimited. Base, 26 inches.
Height up to 50 Feet.	Length up to 40 Feet. Base, 17½ inches.	Length up to 70 Feet. Base, 21½ inches	Length unlimited. Base, 26 inches.
Height up to 40 Feet.	Length up to 30 Feet. Base, 13 inches.	Length up to 60 Feet. Base, 17½ inches.	Length unlimited. Base, 21½ inches.
Height up to 30 Feet.	Length up to 45 Feet. Base, 13 inches.	Length unlimited Base, 17½ inches.	
Height up to 25 Feet.	Length unlimited. Base, 13 inches.		

The Builder.

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ADVERTISEMENTS.

THE ARCHITECTURAL EXHIBITION, and Collection of Patents, Manufactures, &c connected with Architecture, is NOW OPEN at the Gallery of the Society of British Artists, Suffolk-street, Pall-mall East. Admission, 1s.; Season Tickets, for students and others desirous to come frequently, 2s. 6d.; Catalogues, 6d.

JAS. FERGUSSON, F.R.A.S.
JAS. EDMESTON, Jun. } Hon. Secs.

COMPETITIONS.

OXFORD UNIVERSITY MUSEUM.—Architects who have sent in DESIGNS in COMPETITION for the OXFORD UNIVERSITY MUSEUM, are informed that their designs are packed up, and in the care of the Registrar of the University, by whom they will be sent, on application, to such addresses as the authors of the respective motto may have signified to "The Secretary of the Museum Delegacy, 15, St. Giles-street, Oxford." Jan. 3, 1855.

THE WATFORD CORN-EXCHANGE COMPANY are desirous of receiving DESIGNS for their intended EXCHANGE BUILDINGS and APPROACH thereto. The plans to be drawn to a uniform scale of one-eighth of an inch to the foot. The perspectives must not be coloured. The cost of the outlay not to exceed £3,000. The architect whose design shall be considered as the best will be employed to carry out the works at the usual commission of 5l. per cent. The author of the second best plan in the opinion of the provisional directors will be awarded the sum of Ten Guineas. The plans to become the property of the provisional directors. No allowance will be made whatever to any other competitor. The drawings to be sent in with the name and address of the author, and to be delivered to the Secretary, Mr. J. SEDGWICK, Solicitor, Watford, on or before the 1st FEBRUARY, 1855; from whom all necessary information may be obtained on application.

TO ARCHITECTS.

THE DIRECTORS of the BRIDGNORTH PUBLIC BUILDINGS and MARKETS COMPANY, are desirous of receiving DESIGNS and ESTIMATES for the ERECTION of PUBLIC BUILDINGS, to include accommodation for the butchers, fish, vegetable, poultry, cutlery, and other markets, a large room for lectures, and music, reading-room, and rooms for the sitting of the magistrates. A premium of £50 will be given for the most approved design, and £30 for the next best; the 2d. not to be paid for the most approved plan, if the person drawing that plan should be employed as architect to superintend the buildings. The drawings and estimates must be delivered at the Office of Mr. GORDON, Solicitor, Bridgnorth, the Secretary, on or before TEN o'clock in the FORENOON of SATURDAY, the 3rd day of FEBRUARY next, from whom a plan and section of the intended site may be obtained, together with any particulars that may be required upon payment of five shillings.

ALL Persons desirous of furnishing Proposals for HEATING the "BRUEN TESTIMONIAL CHURCH," Carlow will receive full particulars by applying by letter, prepaid, to J. M. DERICK, Esq. Architect, New Church, Carlow.

CONTRACTS.

ESTIMATES WANTED. — STIRLING POOR-HOUSE. The Parochial Board of the Parish of Stirling having resolved to erect a POOR-HOUSE, INFIRMARY, and ASYLUM, according to plans and specifications thereof, prepared by J. W. and J. Hay, of Liverpool, Architects, and approved of by the Board of Supervision, ESTIMATES for the various departments of the proposed building are required. These may either be given in, in one offer for the whole, or by the different officers for their respective departments of the work. If estimated for as a whole, then the prices for the different departments must be separately stated. Plans and specifications may be seen at the Council-room, Stirling, or at the Offices of Messrs. J. W. and J. HAY, Liverpool, on and after MONDAY, the 25th current. A competent Surveyor has measured out the quantities, copies of which may be had at the Offices of Messrs. HAY, on payment of five shillings. Sealed offers, marked "Tender for Stirling Poor-house," and addressed P. G. MORISON, Esq. Chairman of the Parochial Board, Stirling, must be lodged in or before the 24th JANUARY, 1855. The Board do not bind themselves to accept the lowest estimate. P. G. MORISON, Chairman.

Stirling, December 19, 1854.

CONTRACTS.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the Dover District hereby gives Notice that sealed TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before the 15th day of JANUARY, 1855, from Persons desirous of CONTRACTING with the Honourable Board of Ordnance for the following WORKS at DOVER CASTLE, viz. FITTING UP the CLIFF CASEMATES as BARRACKS, including the Construction of Ablution Rooms, Privies, and Urinals, and the Improvement of the Ventilation Shafts. Plans and specifications of the works may be seen, and forms of Tender obtained, at the Royal Engineer Office Dover, between the hours of TEN and FOUR o'clock, from the 29th DECEMBER, 1854, to the 10th JANUARY, 1855, Sundays excepted. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of £1,000, for the due performance of the contract. Tenders for the above works to be addressed to the "Secretary to the Board of Ordnance Ordnance Office, Pall-mall, London," and endorsed "Tender for Works at Dover Castle."

N.B. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, December 13, 1854.

TO BUILDERS.

SEALED TENDERS for BUILDING BARRACKS and STABLES for Royal Artillery, to be erected at Devonport; with separate Tenders for the Asphalte Work, will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 8th JANUARY next, at Noon, addressed to the Secretary to the Board of Ordnance, and endorsed "Tender for Artillery Barracks, Devonport," on the left hand corner of the envelope. The Royal Artillery Barracks comprise a building containing six officers' quarters and servants' rooms; a range of stables with harness-rooms, artillery-stores, ablution-rooms, with internal staircases, and soldiers' rooms over the whole range; infirmary stables and yard; forage-barn for hay, straw, and corn; forge, shoeing-shed, pharmacy, and cooking-house; guard-house and cells; orderly-room and workshops; privies, dung and ash pits; enclosure-walls, gates, side-doors, roads, parade, drains, Plans, forms, and conditions, with specifications, and additional particulars, may be seen, Forms of Tender, and the necessary information obtained, at the Royal Engineer Office, Devonport, between the hours of NINE and FOUR o'clock, from TUESDAY, the 19th inst. to SATURDAY, the 30th of JANUARY next, Sundays and Christmas-day excepted.

Royal Engineer Office, Devonport, 12th Dec. 1854.

TO BUILDERS AND OTHERS.

SEALED TENDERS for the following SERVICES at Ball Point viz.—

1. Building Cottages for a Foreman and Sixteen Labourers;
2. Building a Cook-house and Wash-house for the Crews of the two Powder Vessels, with Privy and Urinal;
3. Building an Office for the Ordnance Storekeeper;
4. Building a Civil Watch-house and a Shed for Waggons;
5. Building a Warder's Lodge and a Shoe-house;
6. Building an Engine-house;
7. Building a Boat-house;
8. Making the present Wooden Filling and Examining-house at Keyham to Ball Point;

For SPECIFIC SUMS, will be received at the Ordnance Office, Pall-mall, London, on or before the 29th of JANUARY, 1855. Detailed specifications of the above eight services, and every requisite information, may be obtained at the Royal Engineer Office, Ball Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from the 9th JANUARY next to the 29th JANUARY, both days inclusive.

Royal Engineer Office, Devonport, 15th December, 1854.

TO BUILDERS.

TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall-mall, London, on MONDAY, the 8th of JANUARY, 1855, from such persons as may be willing to undertake the ERECTION of a GUN and CARRIAGE SHED, at Hilsea Barracks, in the county of Hants. The plans, specifications, and conditions of contract for the above works may be seen, and every information obtained, on application to Mr. KIRTON, Clerk of Works, after the 28th inst. at this Office, between the hours of TEN and FOUR o'clock (Sundays excepted). Tenders to be endorsed "Tender for the Erection of a Gun and Carriage Shed, at Hilsea Barracks, county of Hants."

Royal Engineer Office, Portsmouth, 22nd Dec 1854.

TO BUILDERS.

GLOUCESTERSHIRE FREEHOLD LAND and HOUSE SOCIETY.—The Executive Committee are prepared to receive TENDERS for ERECTING and completely finishing a block of EIGHT COTTAGES, upon the Painswick road estate, near Gloucester. Also for Two Pairs of Semi-detached Cottages on the same estate. Drawings and specifications of the above, together with the conditions of contract, and forms of Tender, may be seen at the office of the Surveyors, Messrs. MEDLAND and MARRAY, Cheltenham-street, Gloucester, on and after WEDNESDAY, JANUARY 3rd, 1855. Tenders, according to form, are to be sent in to the Surveyors' Offices, addressed to the Committee, on or before FOUR o'clock p.m. on MONDAY, JANUARY 15th, 1855. The works may be Tendered for in three separate estimates. By order of the Committee.

JAMES DAWES, Secretary.

6, King-street, Dec 29, 1854.

TO NURSERYMEN, GARDENERS, and others.—Persons desirous of giving in TENDERS for the FORMING, MAKING, and LEVELLING the WALKS and CARRIAGE DRIVES, and for the LEVELLING, DRAINING, and PLANTING the ground for the DONCASTER CEMETERY (about seven acres and a half), may see the plan and specification, at Mr. ALEXANDER'S Office, in Saint George's-gate, Doncaster, from MONDAY, the 8th, to MONDAY, the 15th day of JANUARY, 1855. The Tenders, enclosed "Tender for making the Roads and Walks, and for Levelling, Draining, and Planting the Doncaster Cemetery Ground," to be addressed under cover, to the Clerk to the Commissioners, on or before the 20th day of JANUARY, 1855.

T. B. MASON, Clerk to the Commissioners.

Town Clerk's Office, Doncaster, December 26, 1854.

CONTRACTS.

WINDSOR UNION.—To SURVEYORS and LAND VALUERS. The Board of Guardians of the Windsor Union will be ready further to treat, to hold at the BOARD-ROOM of the said Union, situate at OLD Windsor, Berks, at half-past TEN o'clock in the forenoon of TUESDAY, the 9th day of JANUARY next, to receive TENDERS from persons competent to make a PLAN and VALUATION of the MESSUAGES, LANDS, and other HEREDITAMENTS liable to POOR-RATES in the parish of Upton, Surrey, according to their annual value. A form of contracts for the due performance of the work which the person whose Tender may be accepted will be required to execute, may be seen at my Office, at Windsor, until the day preceding that fixed for the said meeting, on which day the parish contract will be finally treated for, and the Tenders opened in the presence of such Tenderers as may attend. The Board of Guardians do not pledge themselves to accept the lowest or any other Tender.

GEORGE HENRY LONG, Clerk of the Union.

Windsor, 20th December, 1854.

TO BUILDERS AND OTHERS.

CONTRACT required to FINISH FOUR CARCASES, with 3 Shops, in the neighbourhood of Dalston. Money advanced. For further particulars, apply to Mr. CHAPPELL, Auctioneer, &c. 3, Clyde-terrace, City-road.

NOTICE.—The BURIAL BOARD for the PARISH of PORTSEA are prepared to receive TENDERS for DRAINING the new BURIAL GROUND and for FORMING the ROADS, PATHS, &c. The plans and specifications may be seen at the Office of Mr. C. B. SMITH, Surveyor to the Board, No. 9, Queen-street, Portsea, on and after FRIDAY, the 29th instant, at which time Tenders may be delivered. Tenders, sealed and endorsed, Burial Ground Drainage, to be sent in on or before TWELVE o'clock on TUESDAY, the 16th day of JANUARY next. The Board do not bind themselves to accept the lowest or any TENDER.—By order of the Board,

19, St. George's-square, Portsea, Dec. 21st, 1854.

TO SCAVENGERS

MANOR of SOUTHWARK or CLINK LIBERTY.—Notice is hereby given, that the Commissioners of Sewers of the Clink Liberty, in the parish of St. Saviour, Southwark, will hold a General Meeting at their committee-room, Princes-street, Southwark, on WEDNESDAY, the 17th day of JANUARY next, at SIX o'clock in the afternoon precisely, for receiving PROPOSALS for CLEANSING the SEWERS and PUBLIC PASSAGES, and other places except the Queen-street within the said Liberty, on three alternate days in every week, and Thursday, Saturday, and Sunday, on every day of the week, except Sunday, under contract for three years, commencing the 25th day of JANUARY next with power for the Commissioners to determine the same at the end of the first or second year at their option. The proposals must be made to include all the dust and ashes, as required by the Act of Parliament of 3 & 4 Geo. IV. cap. 113, and the form of contract may be seen by applying at the office of Mr. HOWE, Surveyor to the Commissioners, Bridge-street, Southwark, or at the office of the Clerk, at which places all necessary information may be obtained. The person wishing to contract will have to execute a contract in accordance with such draught contract, and he and two sureties will also be required to execute a bond (joint and several) in the penal sum of £50, conditioned for the performance of such contract. All persons desirous of contracting, must send proposals sealed up, and endorsed "Scavengers' Contract," addressed to the Commissioners, and to be delivered at the Committee-room, Princes-street, by before SIX o'clock in the evening of the same day, and signed with Christian and surnames by two responsible persons as their sureties; and each party tendering must be in attendance at the Committee Room, at half past SIX, when the tenders will be opened. The contract will be given to the person who shall enter into such contract and bond, and give such sureties as shall be approved by the Commissioners, or any other tenderer. Dated this first day of January, 1855, by order of the Commissioners,

GEORGE HOLMES, Clerk, 91, Bridge-street Southwark.

SAINT PANCRAS BURIAL BOARD.—TO ROAD CONTRACTORS and OTHERS.—The Burial Board of the above parish are desirous of receiving TENDERS for ONE THOUSAND YARDS of GOOD COARSE SCREENED GRAVEL, for Road Making, to be delivered as may be directed, on the south side of the Cemetery, at the Finchley-road, at Five shillings per yard. Each person tendering, to send in as a specimen one load to the Cemetery, before MONDAY, the 15th instant, of the material he intends to supply, for which load the highest price as the tender selected shall specify. Tenders sealed to be sent in, addressed to the Secretary to the Burial Board, at the Vestry-hall, Old Pancras-road, Euston-road, London, on or before the 22nd of MONDAY, the 22nd JANUARY last, at which time the Board will meet to inform their decision. The Board will not be bound to accept the lowest, or any of the tenders, unless satisfied therewith.

By Order of the Board,

CHARLES GREENE, Clerk.

Burial Board Office, St. Pancras Vestry-hall, Old St. Pancras-road, Jan. 4, 1855.

CRYSTAL PALACE DECORATIVE ARTISTS' PAINTING Messrs. DIENSEN and KUCKUCK, Artists-Decorators to His Majesty the King of Hanover, and executors of the Byzantine Courts, &c. Crystal Palace, Sydenham, most respectfully beg to intimate to the nobility and gentry, and their NEW CLIENTS, that they have entered into various agreements of interest deposit on several eligible private and public buildings. Apply at 33, Pall-mall, from Nine till Five o'clock. Show Rooms, Ground-floor.

IMPORTANT NOTICE to ARCHITECTS, BUILDERS, and OTHERS.—CHARLES NOSOTTI, Looking-glass Manufacturer, Interior Decorator, and General House Furnisher, begs most respectfully to inform those parties, that, in the extent of his trade, he is enabled to offer them any advantages both in quality and price. Designs made or carried out to any extent. An extensive assortment always on hand. Estimates free of charge.—Plate-glass for glazing purposes, at 393 and 395, Oxford-street.

THE PATENT GALVANIZED IRON.

TUPPER and CARR'S PATENT GALVANIZED IRON IS THE ONLY ARTICLE THAT HAS STOOD THE TEST OF TIME

Several Roofs in Woolwich and Deptford Dockyards, erected in 1843, are as perfect as on the day they were put up.

TUPPER and CARR'S process of Galvanizing is used here extensively in the Dockyards and by the Board of Ordnance: it can be applied to EVERY ARTICLE MADE OF IRON, and, when properly done is a SECURE and LASTING PREVENTIVE of RUST.

The PATENT GALVANIZED IRON is to be had ONLY of TUPPER and CARR, the Manufacturers and Patentees, at their Warehouses and Works,—

3, Mansion House-place, and Limehouse ..... LONDON.
Nos. 6 and 10, Berkley-street ..... BIRMINGHAM.

Where also are kept in Stock COMMON, BEST, and CHARCOAL (Block) SHEETS, GAS-TUBING, and TIN-PLATES.

IRON ROOFING FIXED IN TOWN OR COUNTRY.

Iron-plate working in all its branches; also Smith's Work and Castings.

Full particulars, Lists of Prices, Drawings, Estimates, &c can be obtained at TUPPER and CARR'S LONDON OFFICE,

3, MANSION HOUSE-PLACE, CITY,

Where it is requested all Letters may be addressed.

NO ALLOWANCE TO THE TRADE.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

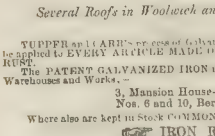
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls and Public Buildings of all kinds; these have been recently fixed at New College, Oxford, St. George's Catholic Cathedral, Southwark, and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

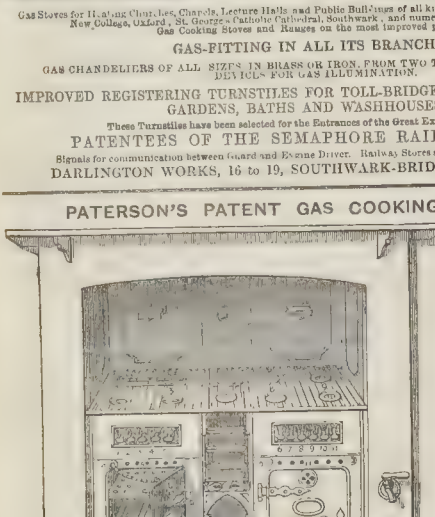
These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

PATERSON'S PATENT GAS COOKING APPARATUS.



May be seen by applying to the Patentee,

A. PATERSON,

53, VICTORIA-STREET,

WESTMINSTER,

Of whom LICENSES may be had for making them.

On reference to the plate, it will be seen that roasting can be carried on by the open fire, if required; thereby rendering this apparatus the most complete and efficient of any that has yet been brought out.

THEY ARE MANUFACTURED BY

T. WALLER and CO.

Ratcliff Iron works, Rose Lane, Ratcliff near the Stepney Railway Station.

Where they may be seen in operation, and where prospectuses and every information concerning them may be obtained.

Also Manufacturers of every description of

GAS STOVES, BATHS, OPEN AND CLOSE KITCHEN RANGES, HOT WATER APPARATUS, METAL CONSERVATORIES &c.

N B. The Trade supplied with Iron Sash Bars, bent to any shape or design. See "The Builder" of Sept. 16.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, which invites the attention of Builders, &c to his Stock of Ironmongery, Brass Furniture, Locks, wrought and cast, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wool Furnishers of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, as used in the new registered Venetian Ventilator, so much admired, &c. &c. &c. each

J. H. BOOBBYER (late SMITH and BOOBBYER), established nearly 300 years, for the supply of Goods from the best Manufactories, at the lowest prices.
14, Stanhope-street, Clare market, London.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price

"The novel and excellent principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions in the present state of the art. picking them would seem to be impracticable." *Mechanics' Magazine*

Depôt: 181, FLEET-STREET; where also may be had PRICE'S FIRE-PROOF SAFES, &c.

COPYING PRESSES, CASH and DEED BOXES.
Lists and Prospectuses free.

NAILS and IRONMONGERY, from BIRMINGHAM direct

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES.

a complete LIST of which will be forwarded upon application.

FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

AUSTIN'S IMPERIAL

PATENT SASH and BLIND LINE,

can be obtained of all

ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY.

Established 1774.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
1 & 2, Strand, London.
67, Hyde-park street, Glasgow.
87, Dale-street, Manchester.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK.

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

PATENT GALVANIZED IRON.
(IMPROVED PROCESS.)
JOHN SYMONDS and CO.
WORKS.—GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process, THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c.
Roofs fixed complete

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stocks of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEEL and STEDALL'S,

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

GALVANIZING WORKS.—SKAIFE'S PATENT GALVANIZED IRON Superior Process.—Works at the Regent's-canal-basin, Commercial-road, Limehouse, London. J. SKAIFE supplies this Metal in every form, viz. Sheets, plain and corrugated, of all sizes and gauges, Wire of every gauge, and Wire Netting of all descriptions; Gutt ring, Rain-water, Screwed Gas and Water-pipes; Hoopiron, Cisterns, Furnace pans, Sails, Buckets, &c wholesale retail and for export. Every description of Ship's Ironwork Galvanized; Deck-spikes, nails, &c kept ready Galvanized. Estimates and drawings given for roofs and buildings fixed complete.—J. SKAIFE is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, both flat and corrugated; also for Morewood and Rogers's Patent Galvanized Tinned Iron Tiles, for exportation; and Plumbin Zinc, Portable Emigrants' Houses and Substantial Stores supplied at moderate prices, and on the shortest notice. An allowance to the Trade.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, banners, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice

COTTAM'S NEW PATENT for STABLE REQUISITES.

COTTAM and HALLEN, of Wimsley-street, are the ORIGINAL INVENTORS of the arrangement of MANGER, RACK, and WATER TROUGH as ONE FITMENT, they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse while feeding, and both, rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every stable for the harness-room and stable kept in stock. Descriptive catalogues and estimates on application to COTTAM and HALLEN, 3, Wimsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.

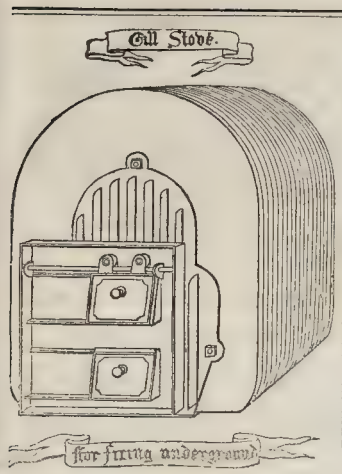
S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.
Castings Warehouse, 81, Upper Thames-street.

A STEAM-BOILER for SALE, 14 feet long, and 3 feet 9 inches diameter, with return flue, safety-valves, and fittings complete. It is equal to new, only having been used one month. Price £45.—Apply to Mr. RICHARDS and SON, Pump Makers, Christchurch, Blackfriars, Surrey.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a good variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a gate of a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.

W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, H & Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rogers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Paws, and other castings, to patterns or drawings.



STUART AND SMITH'S

PATENT GILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

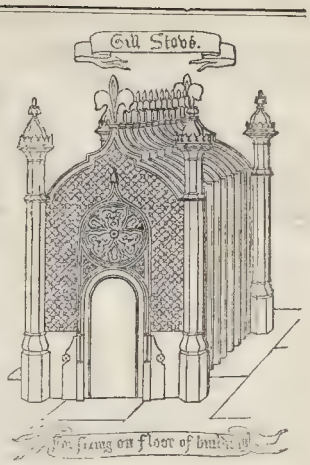
STUART AND SMITH,

ROSCOE-PLACE, SHEFFIELD,

confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

Prospectuses, and every information, sent on application.



TO ENGINEERS, ARCHITECTS, AND BUILDERS.

THE VIEILLE MONTAGNE ZINC MINING & MANUFACTURING COMPANY

ARE NOW PREPARED TO

UNDERTAKE CONTRACTS, THROUGH THEIR AGENTS, FOR ZINC ROOFING OF ALL DESCRIPTIONS;

TOGETHER WITH, WHEN REQUIRED,

ALL THE NECESSARY TIMBER OR IRON FRAMEWORK, IN WHICH A GREAT SAVING IS EFFECTED BY THE LIGHTNESS OF THE METAL.

It possesses all the Advantages of Galvanised Iron, and is far more Durable and Cheaper, especially for large Spans.

The long duration of these roofs without repair, their neat appearance, and the economy of materials employed, as well as of area covered, render them most advantageous for dwelling-houses.

Many roofs covered with zinc, especially on the continent, have remained since the first introduction of this metal till the present time without having required, or appearing likely to require, any repairs.

CERTIFICATES in proof of this from the FRENCH GOVERNMENT and other authentic sources CAN BE SEEN at the COMPANY'S OFFICES, where all information, Estimates Drawings, or Prices, together with every assistance in laying on or otherwise, may be obtained on application to the Company's Surveyor, at

No. 12, MANCHESTER-BUILDINGS, WESTMINSTER.

FLAVEL'S PRIZE KITCHENER.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

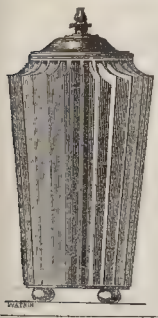
They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.



SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Galleries, Stores, Warehouses, Hotels, and Offices, require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stoves may be heated from one Boiler, and may be used equally well with Steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER

is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to SYLVESTER and CO.

Engineers, and Manufacturers of Heating Apparatus, 96, Great Russell-street, Bloomsbury.

DR. ARNOTT'S new OPEN SMOKELESS FIRE-GRATE having been brought to full perfection, may now be seen in daily operation at F. EDWARDS and SONS', 42, Poland-street, Oxford-street. By this grate a smoky chimney is prevented, no chimney sweeping is required, and a saving of at least thirty-five per cent. is effected in the consumption of coal. This principle is also now carried out with complete success in kitchen ranges, and hot air pedestal stoves. Old grates are altered to this principle. Prospectus sent on application.

MAGNUS'S PATENT ENAMELLED SLATE CABINET-FORMED FIRE PLACE. This is deededly the most novel, elegant, economic, and comfortable fire-place that has ever been introduced to the public. It moves on castors, and stands BEFORE the opening of the chimney, projecting into the room as a regular cabinet. It is composed of fire-stone and slate, and has hot-air chambers. It may also be fitted up for gas instead of coal. By the economical, who dislike to see half the heat from the coal wasted in the chimney, and by persons of taste, who object to the stiff unpleasing chimney-piece in ordinary use, the CABINET-FORMED FIRE-PLACE has only to be seen to ensure its adoption. Price from ten guineas upwards. Pimlico Slate Works, 39 and 40, Upper Belgrave-place, Pimlico.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO. (opening to the Monument), London-bridge. Established A.D. 1700.

THE ONLY STOVE WITHOUT a FLUE. JOYCE'S PATENT—Plain, from 12s. to 42s.; Ornamental from 31s. 6d. to 11 guineas.—for warming halls, passages, greenhouses, water-closets, shops, store-rooms, and all places requiring artificial warmth. To be seen in use at the sole Proprietor's, S. NASH, Ironmonger, &c. 263 Oxford-street, and at the City Depôt, 113, Newgate-street London. PATENT PREPARED FUEL for the stoves, 2s 6d. per bushel. JOYCE'S PORTABLE LAUNDRY STOVE will heat and keep hot for use six flat and Italian irons, with perfect cleanliness, for twelve hours, with one penny-worth of coke or cinders. Price 12s

*** Prospectuses, with drawings and reports, forwarded free.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office 145 Regent-street London.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark iron-bridge.

ELDRIDGE'S IMPROVED RANGES: with brick backs, ovens, and boilers. 3s in. 30 in. 32s.; 3 feet 6 in. extra strong and wrought bars, 30s.; Self-Acting Ranges, with oven and boiler, 36 in. 33s.; 42 in. 38s.; 4 feet patent Leamington Kitchener, with hot-plates, &c. 7l. 10s.; Furnace Boilers, 5d. per gallon, &c.—J. ELDRIDGE, Ironmonger, 78, Sun-street, Bishopsgate-street.

HOT AIR, GAS, VESTA, JOYCE'S STOVES.—STOVES for the economical and safe heating of halls, shops, warehouses, passages, basements, and the like, being at this season demanded, WILLIAM S. BURTON invites attention to his unrivalled assortment, adapted (one or the other) to every conceivable requirement, at prices from 10s. each to 30 guineas. His variety of register and other stoves is the largest in existence

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from all the various manufacturers all that is new and choice in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling rooms, as well as to have some designed expressly for him; these are now ON SHOW in one of his TEN LARGE ROOMS and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. (two light) to 10l.

WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY (including cutlery, nickel and silver plated, and japanned wares, iron and brass bedsteads), so arranged and classified that purchasers may easily and at once make their selections.

Catalogues, with engravings, sent per post free. The money returned for every article not approved of.

39, OXFORD-STREET (corner of Newman-street); 1, 2, and 3, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and Ogee Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other castings, Iron work for Bakers' Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

THE SMOKE-CONSUMING STOVE, invented by Dr ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 10, insures perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 97a, Holborn

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE - Messrs. Rylands and Sons' Books, Papers, and Bank notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, Hightstreet, Manchester, March 6th, 1854.

"Messrs. Chubb and Son.

"GENTLEMEN,—We make great pleasure in communicating to you, that the large "Patent Fire-proof Safe" that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Plate Boxes, of all sizes; Fire-proof Safes and Chests; Iron Doors and Fronts for Strong Rooms, all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to roofs, EVERY DESCRIPTION OF BUILDING, whether private or public.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

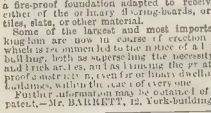
The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron, the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast iron girders and brick arches, and as forming the great desideratum of fire-proof construction in even the humblest dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 12, York-buildings, Adelphi.

SAW-MILL MANUFACTORY, Chelsea, London.—WORSSAM and CO. invite the attention of all concerned in sawing, planing, and moulding wood to the simplicity and compactness of their machines over those now in use, which are both cumbersome and expensive. Drawings and prices sent on application. Estimates given for complete saw-mills for exportation or otherwise.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and Fret Ranges fitted, always in Stock.



Improved Self acting Cottage Ranges, with Large Oven and Boiler,

30	32	34	36 inch.
28s.	30s.	32s.	34s.

Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch.
54s.	56s.	58s.	62s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 9d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong bars and fittings, 1l. per inch.

Best Solar Ditto, with Fine Brick Back, per inch, 10d.

Bright stoves, with Two Fires, 40s. to 80s. each.

Cast Rain-water Pipe	2 in.	2½ in.	3 inch.
	1s.	1s. 3d.	1s. 6d. per yard.

Cast Gutters—4 inch, 10d. per yard.

	4	4½ inch.
O G Gutters	1s. 4d.	1s. 6d. per yard

Best Cut Clasp	21	24	30	36 inch.
and Rose	16d.	17s.	17s.	16s. per cwt.

Cut Nails 1 Brads, 14s. 6d. per cwt.

Cast Lath, 13s.

Patent Line	2	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot.

6-inch R I Ward Mortice, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 1s. per cwt.

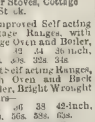
Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of iron-mongery, which cannot be surpassed for variety, quality, and cheapness by any house in London.



Flipple Stoves, double locks, 3d. per inch, and upwards.

Register Stoves, 6d. fold, 7d. 8d and 9d. per inch.

Self-acting Ranges, with circular grates and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 36s. each.

3-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 4s. per doz.

Best Town Grate, 6s. Ditto, Scotch, 6s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars Forge and Engine Work, Cast-iron for roofs, and

STEWART'S PATENT CAST IRON GAS and WATER PIPES. Office, No. 7, Bise-lane, London.

IRON ROOFS, Wrought-iron GIRDERS, Girder Bridges, Railway and Builders' Wrought-iron Work, Gasholders, Tanks, and Boilers.

CHARLES WALKER and SONS.

Midland Iron Works, Upton, Staffordshire.

Office, Little Sutton-street, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanised ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c. The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gasfitting, in Brass and Iron; Tap, Compression, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long acre, London.

FOR SALE by PRIVATE CONTRACT, parts of a new WROUGHT-IRON TELESCOPE GASHOLDER, intended for the London Gas works, of the following dimensions:—Inside lift, with cap, 99 feet 4 inches high, 77 feet diameter; outside lift, 97 feet high, 79 feet diameter. The parts consist of one-half the crown, of twelve segments, punched and partly riveted; the angle iron for cap and grip punched and bent, top curb punched and bent, angle iron for bottom curb punched and bent, flat bars for bottom curb bent, part of side frame 62 punched, part of bell iron for cap and grip punched and bent.—For further particulars apply to Messrs. FULLER and HORSLEY, 13, Hutters-rent City.

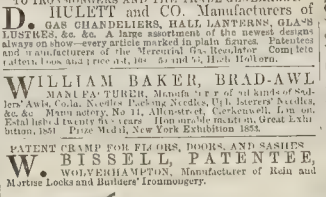
TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern book and price list, 55 and 56, High Holborn.

WILLIAM BAKER, BRAD-AWL MANUFACTURER, Manufacturer of all kinds of Saddlers' Awls, Cobblers' Awls, Needles, Packing Needles, Pegs, Lasters' Needles, &c. &c. Manufactory, No. 14, Allen-street, Clerkenwell, London. Established twenty-five years. Honourable mention, Great Exhibition, 1851. Prize Medal, New York Exhibition 1853.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES

W. BISSELL, PATENTEE, Wolverhampton, Manufacturer of Rebated and Mortise Locks and Builders' Ironmongery.

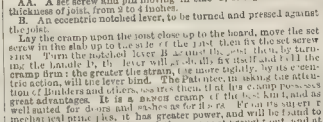


AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 2 to 4 inches.

B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist then fix the set screw firm. Turn the notched lever B around the joist the by turning the handle D, the lever will act, draw itself and fill the cramp firm: the greater the strain, the more tightly, by its eccentric action, will the lever bind. The Patentee is making the attractive section of Builders and others, to see them, that his cramp possesses great advantages. It is a handy cramp of the best kind, and is well suited for doors and sashes for fixing from its superior mechanical principles, it has greater power, and will be found to be more quickly and safely used than any yet brought out, and at the same time it is light and portable.

HART AND SON, IRONMONGERS AND MANUFACTURERS.



PITT'S PATENT SELF-ADJUSTING SPINDLED DOOR FURNITURE.

BELL-PULLS, LEVERS, HINGES, LOCKS, &c. 91, DRURY-LANE, and 54, 55, 56, WYCH-STREET, Strand, London.

MARBLE CHIMNEY-PIECES manufactured by Machinery, improved by the proprietors own invention to defy competition in price and quality. The trade supplied with Marble and Stone Chimney-pieces, Slabs, &c. at the Marble and Stone Sawing-mills, Cambridge-heath, Hackney. WM. HUTCHER, Proprietor.—Two Marble Masons wanted.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their stock of marbles received direct from the principal Quarry owners in Italy and Belgium, FOR SALE on COMMISSION ONLY, and that consequently they can supply the trade with the FINEST MARBLES at the LOWEST PRICES.

Just arrived, per *Rob*, do *Tibre*, *Betty*, *Nelson*, and *Hope*, 150 Blocks of Marble, and 12,000 feet of Saw, Slab, Mortars, Vases, &c. Yorkshire and Portland Stone, Timber Deals, Pavings, &c. for Sale on consignment.—The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARKET-WHARF, REGENT'S-PARK-BASIN, WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Lathe, and Fire Goods. WOOD and ROBARTS invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally, their extensive assortment of vein, Sicilian, and statuary marble, in slab and block, at prices never before offered. JAMES SIMMONS, Manager.

MARBLE.—Mr. J. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depot of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at NIAGARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. J. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, crescent terrace, Millbank, to offices on the own premises, at Chelsea Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Tapp is on leave no longer.

Mr. J. Fabbricotti hopes that the trade will continue to favour him as usual, as being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any other.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

TO BUILDERS, MASONS, AND OTHERS.

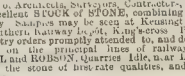
THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Brocatta, dove, black, black and gold, Sienna, &c. Also Statuary, serpentine, veined marble, &c. Portland, Hartwell, Park spring, and other stone, in blocks, slabs, landings, and headstone. Yorkshire paving, landings, curb, &c. All goods carefully packed and forwarded to any part of England.—THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

YORK STONE supplied direct from the Quarries.—NOWELL and ROBSON respectfully invite the attention of Architects, Surveyors, Contractors, Builders, &c. to their excellent STOCK of STONE, combining good colour with durability. Samples may be seen at Kensington Basin and the Great Northern Railway Depôt, King's-cross. Prices will be sent, and country orders promptly attended to, and delivered at the stations on the principal lines of railway, by addressing NOWELL and ROBSON, Quarries Idle, near Leeds. Purchasers will find the stone of first-rate qualities, and the prices very reasonable.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents—TRELOELLIS and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. THATHAN, Liskeard.

This Granite is selected for the New Westminster-bridge.



SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES for this most durable material. A large stock kept of Mantel pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Wantz and Wharf, Cannon-row, Westminster.

GATES and GEORGE, GENERAL STONE MERCHANTS, Caen Wharf, Rotherhithe, beg to inform Whitby Manufacturers, Builders, and Warehousemen, and Wordsdale Dealers in Hearth and Burr Stone, that they can be supplied in quantities from three tons and upwards with the above, delivered at the new South Eastern Railway Goods Depôt, Deptford Basin Station, Old Kent-road, at the current price. Terms, samples, and other information may be obtained at the Office of the Wharf above.

GODSTONE STONE.—This desirable building stone can be supplied to London and its vicinity in any quantity, either of rubble or ashlar, by sea or rail, on better terms than most other stones in blocks and ashlar of specified dimensions, and fine scappled; also random and coursed rubble. It is readily worked to a good bed and face, is of beautiful colour and durable quality, as may be seen by the old buildings and churches in the neighbourhood of the quarries and counties adjoining. For information and samples apply to GATES and GEORGE, General Stone Merchants, Caen Wharf, Rotherhithe.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, & Co.), General Stone Merchants, Caen Wharf, Rotherhithe, are supplying the above and Bath, Portland, Yorkshire, Granite, and other stones from the depôt, at current prices by land and water carriage; also by vessels direct from the quarries, at moderate ship freight to any part of the United Kingdom.

N.B. Heavy goods landed, transhipped, or carted with despatch, and at moderate charges.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôt, Union Wharf, East Greenwich; Lett's Watercourse, Cambridge. Offices: 246, High-street, Southwark, near the Townhall.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Batt. Stone Office, Corsham, Wilts.

BANGOR WHARF, King's-road-bridge, Camden-town.—STRINGFIELD and COOPER, late W. W. Rawsan, beg to call the attention of Builders and others to their stock of Bangor slates, lathe, plaster, Roman, Portland, and Keene's cements, lime, lias, Dorking, and chalk lime; plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and slabs for carnage paths, ballast, sand, &c. Materials landed, wharfed, and carted.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, Middlesex Asylum, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Yooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

FINDON QUARRIES, on the Cromarty Forth, Scotland, 200 MILES N.E. These well-known and extensive Quarries will be Let on lease from January next, for such a number of years as may be agreed on. They afford an unlimited supply of a valuable and ornamental freestone, suitable for all building and engineering purposes, which has been extensively used both at home and abroad. There is a good local trade, and the Great North of Scot and Railway, now in course of construction, is in the vicinity of the quarries. No land carriage, and ships of heavy draught can load at the quarry pier. The whole is in perfect working order.—For particulars and terms apply to Mr H. SMITH, 28, Southampton-buildings, London; or to the Proprietor, L. M. MACKENZIE, Esq. Balnyl-by-Dingwall, Rossshire, N.B.

THOMAS ROBINSON AND SON,

PATENTEES FOR THE MANUFACTURE OF

WOOD MOULDINGS AND OTHER JOINERS' WORK BY MACHINERY,

BEG TO CALL THE ATTENTION OF THE BUILDING TRADE AND THE PUBLIC TO THE DIFFERENT ARTICLES THEY MANUFACTURE, ALL OF WHICH WILL BE FOUND GREATLY SUPERIOR TO ANY OF THE SAME DESCRIPTION MADE BY HAND LABOUR.

SHIPPERS SUPPLIED ON LIBERAL TERMS. PATTERN-BOOKS AND PRICES SUPPLIED ON APPLICATION.

WORKS—ROCHDALE, near MANCHESTER. LONDON WAREHOUSE, 20, VINE-STREET, WATERLOO-ROAD, LAMBETH.

TO ARCHITECTS, BUILDERS, CONTRACTORS, &c.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th thick, or 3 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th, or 4 lbs. to the foot, for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, ENGINE SHEDS, MILLS, MARKET HALLS, AND PUBLIC BUILDINGS GENERALLY.

sing universally admitted that Glass in Roofs of a permanent character should not be less than one-eighth of an inch thick, weighing two pounds to the foot, Messrs. JAMES HARTLE and CO. have directed their attention to the manufacture of a description of

ROUGH PLATE GLASS, THAT COMBINES SIZE AND STRENGTH WITH ECONOMY OF COST.

The PATENT ROUGH PLATE is manufactured in sizes expressly for Ridge and Furrow Roofs, giving a span of from 5 to 12 feet, at a price not exceeding weight for weight that of common Crown Glass. Not being transparent, blinds are unnecessary, and when used in Greenhouses no scorching occurs; its NON-TRANSPARENCY and strength render it eminently suitable for the Glazing of Conservatories and Roofs of all kinds; also Factories, Workshops, &c for which purposes it is supplied in squares of all sizes, from 6 by 6 inches and upwards.

For further information apply to Messrs. JAMES HARTLEY and CO. Wear Glass Works, Sunderland.

N.B.—The Patent Rough Plate is supplied at a much lower cost than the common Rough Plate.—May 1, 1851.

GLASS.—HARTLEY AND CO.'S GLASS TARIFF NEWSPAPER

Will be forwarded Gratis, on application, "post-paid," to

Messrs. JAMES HARTLEY and CO. Wear Glass-works, Sunderland; or Purfleet Wharf, Earl-street, Blackfriars, London.

GLASS.

THOMAS MILLINGTON requests attention to the present PRICES of SHEET GLASS,

PACKED IN 100 FEET BOXES. THIRDS QUALITY. BOXES INCLUDED.

Inches.		Inches.	Per 100 feet.	Inches.		Inches.	Per 100 feet	Inches.		Inches.	Per 100 feet.	Inches.		Inches.	Per 100 feet.	Inches.		Inches.	Per 100 feet.
6	by	4		12	by	10		14	by	11		16½	by	13½		18	by	13		18	by	14	
6½	"	4½		12½	"	10½		14½	"	11½		17	"	13		18½	"	13½		18½	"	14½	
7	"	5	14s. 6d.	13	"	10		15	"	11		17½	"	13½		19	"	13		19	"	14	
7½	"	5½		13½	"	10½		15½	"	11½		18	"	13		19½	"	13½		19½	"	14½	
8	"	6		14	"	10		16	"	11		18½	"	13½		20	"	13		20	"	14	
8½	"	6½		14½	"	10½		16½	"	11½		19	"	13		20½	"	13½		20½	"	14½	
9	"	7		15	"	10	20s.	17	"	11½	30s.	19½	"	13½	39s.	21	"	13	20s.	21	"	14	30s.
9½	"	7½		15½	"	10½		17½	"	11½		20	"	13		21½	"	13½		21½	"	14½	
10	"	8		16	"	10		14	"	12		20½	"	13½		22	"	13		22	"	14	
10½	"	8½	17s. 3d.	16½	"	10½		14½	"	12½		16	"	13		16	"	14		22½	"	14½	
11	"	9		17	"	10		15	"	12		16½	"	13½		16½	"	14½		23	"	14	
11½	"	9½		17½	"	10½		15½	"	12½		17	"	13		17	"	14		23½	"	14½	
12	"	9		18	"	11		16	"	12		17½	"	13½		17½	"	14½		24	"	14	
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A SUPPLEMENT, GRATIS, with the WEEKLY DISPATCH, EVERY WEEK UNTIL FURTHER NOTICE. The unexampled interest which attaches to every incident connected with the operations of the Allied Armies in the East, has determined the Proprietors of the WEEKLY DISPATCH to devote a greater space to the intelligence from the seat of war than the ordinary limits of that, the largest newspaper published, could possibly afford; and, with the view of giving the amplest details, they have resolved upon the issue of a Series of Supplements Gratis, which will include every particular of interest connected with the Siege and decision of the contest at Sebastopol, and will be continued wherever demanded by the progress of the Campaign. By the publication of these Supplements the portion of the Paper usually devoted to incidents of domestic and political importance will be reserved intact, and the engrossing subject of the War will receive the fullest and most varied illustration. A Supplement will be published on Sunday next (Gratis), and on every succeeding week until further notice.—Orders may be given to all Newsvendors in town and country; and to the publisher, at the *Dispatch* Office, 139, Fleet-street, London.

The Builder

VOLUME FOR 1855.

WE cannot select a better subject for illustration in the first number of our new volume than the noble municipal building recently inaugurated in Liverpool.

St. George's Hall stands prominently on the rising bank of the Mersey, on the north-east side, about half-a-mile from the sea. From the mouth of this famous estuary it presents an imposing mass, towering over the city; and if, as it has been suggested, on its lofty roof a golden globe were proudly affixed, glittering in the sun, it would be the first object seen by the homeward-bound, to welcome their return, while it would aptly symbolize that sphere which the indefatigable commerce of its merchant princes has subjugated to the purposes of wealth and prosperity to our whole community.

St. George's Hall is situated on a rapid declivity, covering, together with its area and approaches, about 3½ acres. The building itself, 490 feet long by 165 feet wide, occupies the western or lower side of the site, which, being raised by a magnificent sub-basement, as it were upon one vast step, correcting the natural defect of the ground by a terrace occupying the whole site, presents a very elevated and striking aspect, and seems to derive even an advantage from the accident of the declivity.

The vastness of this plan, dedicated, as the inscription declares, "to the laws, the arts, and the councils of Liverpool," is the first subject of our admiration, surpassing, as we believe, any building of the kind in Europe. Perhaps the rival in extent and regularity that best compares with it is the Bourse of Paris, which covers about one-third less: the order also of the latter is only 50 feet, that at St. Paul's is 48 feet, while that of St. George's Hall is 56 feet 6 inches.

The symmetry and beauty of the arrangement next attract our attention. The great central hall, 169 feet long by 100 feet in the entire width, including corridors leading to the several offices of the courts and town, is terminated by the Criminal and Nisi Prius Courts of Justice. At the south end is the entrance to the grand jury rooms and dependants' offices, and at the north is a magnificent entrance-hall, leading to a music-room, equal to the largest theatre, being 88 feet long by 72 feet wide. The many subordinate appendages to these leading features will speak for themselves on the plan we append.

The arrangement of the plan is a delightful contemplation to the learned architect, and displays a knowledge of all the best examples and principles of architectural science, which the labour of a life would seem necessary to bestow on the experienced veteran, and which, in the youthful author of this work, seems little short of divination.

The mediæval system of commensuration, by a modulus of 13 feet, gives uniformity and proportion to all the parts,—especially in the hall it will be found to be exactly carried out. The modulus established by the axes of the columns (13 feet) being doubled in the width or depth of the portico, reproduces an admired feature of Classical architecture, the pseudo-dipteral peristyle flank of the Grecian temple; the axes of the interior granite columns of the hall are equally two moduli, or 26 feet; the entire length and width of the hall are 13 moduli by 8 moduli.

In the south front and courts this division is dispensed with, for overruling reasons. The systyle of the flank is changed in the south front to the more appropriate picnostyle; and we have the reproduction of the front of Jupiter Stator in the Roman Forum, varied only in the entablature, which is somewhat less rich and massive.

Nothing can better display the judgment of the young architect than the variation here remarked. The pedant would have enforced his modulus throughout, but the man of genius considers that the exception often proves the rule, and time, place, and circumstance are to have their due influence in the work. The elongated systyle intercolumniation harmonizes with the elongated eastern flank, while the serried, or narrow picnostyle, best harmonized with the narrower end of the building. In so doing, he reproduced to the English eye a most admired example of classical taste; and the brightest ornament of the Roman Forum, the Temple of Jupiter Stator, is displayed in England for the first time,—a masterpiece of proportion and symmetry.

The same scientific daring is exhibited in the grand feature of the hall, in which the architect proposed to reproduce, but to surpass, the Roman Hall, that great crux to the architects of Europe during fifteen centuries, which none in this country had yet presumed to execute. In solid brick vaulting, fire-proof, enduring, and masonic, England possesses for the first time a magnificent specimen of Roman grandeur, worthy of our not less than Roman country; and the trussed roof of combustible materials, its flat and plastered ceilings, are rejected and abandoned, let us hope for ever, in our enduring monuments.

The Hall of Diocletian, the last of the Roman vaults, was 79 feet between the walls, but 64 feet only between the columns, while St. George's Hall is 1 foot more wide,—65 feet between the columns, though 74 between the walls.

The span of the vault of Caracalla is 63 feet. The pendentives rest upon Aberdeen granite columns, 31 feet high, turned and polished as no classical columns ever were.

The proportion of the hall, 169 feet by 74 feet between the walls, and 83 feet high, presents 2¼ diameters of the width; the proportion of the Roman hall is generally about 2½ diameters in length,—yet we should not desire that of St. George's Hall to be altered. The proportion of the hall, as externally viewed in its vast parallelogram of 2¼ diameters raised into the air, is exceedingly satisfactory,—the breadth and simplicity of its large surfaces, unbroken by window and door-openings, and its uniform order throughout, produce an indescribable serenity, seclusion, and nobility, in this admirable building. The proportions of the order itself, and every part of the exterior, and no less of the interior, are finely and wisely ordered, and we derive that satisfaction in the contemplation of them, which has been the grand aim of all the great concurrent masters of this occult and most desired science of proportion. The contrast of the square parastas, or isolated pilaster, in the flank porticos, is new and admirable, as harmonizing with the work in which they are inserted, and relieving by their angular forms that monotony and satiety which the repetition of the column in the central portico might so easily have produced on the spectator.

Harvey Lonsdale Elmes was the author of this very remarkable work. At the age of twenty-three he obtained the premium in a large competition of the profession for the building of St. George's Hall, at first intended as a music-hall only. A competition for the building of the Assize Courts, in which he also gained the first premium, shortly succeeding, enabled him again to display his pre-eminent ability at the age of twenty-four. In the following year the two buildings, St. George's Hall and the Assize Courts, were incorporated, according to their actual form. The foundation stone was laid on the 28th June, 1838, and the work was actively prosecuted from 1841 till 1843, when, exhausted by these labours, and by the encroachments of a fatal malady, he sought the milder climate of Jamaica, in the vain hope of recovery; and there his brief career was terminated at the age of thirty-four.

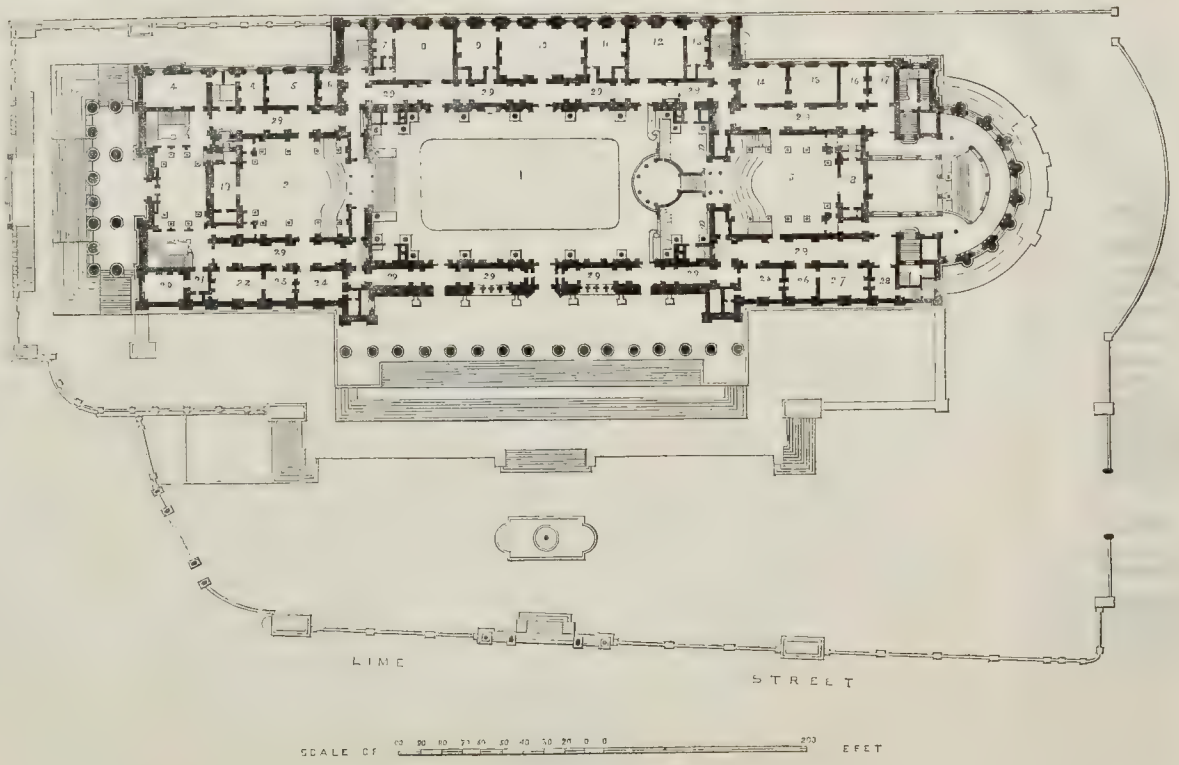
A delicate fibre, which enabled him to touch the violin like a professor, and design, with no less grace and mastery, a scientific and tasteful structure, involving so much conception, daring, and originality, was too subtle for the rude contact of such a world as ours; and his brief career, like that of a meteor, in his arduous profession will probably be memorable in the biography of architects. This title to distinction is further recommended by every honourable characteristic and moral exercise of his high gifts and privileges. Too soon removed from the means of reward and provision for his successors, he has left a young and accomplished widow and an only boy, with no other heritage than his renown and the obligations he has unquestionably conferred by his genius on the people of Liverpool, which there is every reason to hope they will acknowledge as a sacred duty. His short and brilliant life has conferred upon Liverpool a renown as enduring as the Aberdeen granite and the Darley Dale stone, which compose its massive walls, and his name will be associated with that of Roscoe and others, amongst the provincial glories of Liverpool; for though born and bred in London, his entire professional life, from the age of twenty-three, was spent in illustrating this great and spirited commercial emporium.

If the beasts of burden which drew the Pentelic marble of the Parthenon to its final resting-place, were honoured and preserved in green pastures for the remainder of their days by the Athenian gratitude, how much more sensibly will this duty be felt by the liberal and Christian population of Liverpool, and so to see the widow and orphan of their benefactor decently provided for and sustained in the social rank to which they have so distinct a title.

Since the year 1847, Mr. Cockerell has more or less directed the finishing of this important work. The pediment, from his design and under his superintendence, had already been

REFERENCES.

1. St. George's Hall.
2. Crown Court.
3. Nisi Prius Court.
4. Grand Jury-room.
5. Sheriff's Court.
6. Jury's Retiring-room.
7. Judge's room.
8. Sheriff's Court
9. Conference-room.
10. Library.
11. Robing room.
12. Vice Chancellor's Court.
13. Judge's room.
14. Solicitors' room.
15. Office.
16. Sheriff's Private-room.
17. Prothonotary.
18. Judge's room.
19. Judge's room.
20. Record-room.
21. Ante-room.
22. Witnesses' room.
23. Solicitors'-room.
24. Female Witnesses' room.
25. Female Witnesses' room.
26. Solicitors' room.
27. Witnesses' room.
28. Jury's Retiring-room.
29. Corridors.



GROUND PLAN OF ST. GEORGE'S HALL, LIVERPOOL.

in hand since 1845. The symbolism is trite, as such compositions should always be, as addressed to the common observer. Britannia armed, her lion by her side, and seated on a rock, holds in her left the olive-branch, and in her right the spear. She hails the four quarters of the globe, presented to her by Mercury; the last of whom, Africa, inclines with the form of the pediment, and, with her negro children, acknowledges her obligations to the queen of freedom, who laboured so long and successfully for their emancipation: beyond are the vine and foreign productions. To her right, Agriculture and the Arts, seated in a car, represent England and her productions; the husbandman and his plough, his wife with the distaff and her child, express industry, manufacture, and domesticity, the glory of our land; at the end are labourers at the anvil, the anchor, and the arms of mail, which, when occasion offers, she can so well use. But it is in the linear composition that we derive the benefit of those studies in Greece which this gentleman is known to have prosecuted. The number and size of the figures, and their diagonal positions, are conformable to the acknowledged principles of contrast set forth in a paper by Professor Cockerell, reported in the last volume of this journal, at p. 457. But it is in the arrangement of the centre dividing this obnoxious height, commonly so destructive of due relation with the other figures of the pediment, that he has succeeded, for by placing the ocean or Mersey at the feet of Britannia, the same dimension of figure is carried throughout harmoniously, and with the best effect of lines.

In 1848 his design for the terrace and steps under the south portico was adopted, together with the scheme for the approaches, not yet entirely carried out. The elaborate finishings of the interior have been designed by this gentleman, and very arduous and responsible, no doubt, has it been felt, to handle a framework so nobly designed; and great might well be the apprehension that its grace and nobility might suffer under any hands short of that of the original master himself. The ceiling, according to the apparent system of the Romans, is covered, like a firmament, with a multitude of appropriate detail to give space and magnitude to the whole. The provincial armorial bearings and the symbols appropriate to navigation, and the municipal and legal purposes of the structure, have been largely employed. These have been circumscribed to the crowns of the side-groining arches, and not carried down to the springing of the arched vault, as is commonly the case. The whole proportion is thereby heightened, and the parallelogram of the ceiling materially elongated. The six pendentives are adorned with symbolical figures, taken from Raffaelle's compositions in the Vatican, of Temperance, Prudence, Art, Science, Justice, and Fortitude, and in the paving under these are inscriptions illustrative of each of these virtues. A rich decoration of galleries, composed of Irish black marble, Derbyshire spar ballusters, and twenty-four Irish green niches adorn the lower part of the hall, the walls being decorated with slabs of various British marbles. Two of these niches are already occupied by illustrious tenants, Sir R. Peel and George Stevenson. The six doors are very magnificent, and surpass anything of the sort yet executed in England. The jambs are in solid grey granite, in single pieces, with cornices carved in Portland stone; the gates themselves are of bronze and brass, highly elaborated. Above these are ten chandeliers, of great magnificence in size, materials, and design; they are 7 feet diameter, with 140 lights each, in the form of stars. The paving, executed by Minton, after designs by Mr. Cockerell, Mr. Gruner, and Mr. Stevens, is unexampled in tesselated workmanship. The drawing of the Tritons and Sea-nymphs, in red and yellow, is highly classical, spirited, and beautiful.

A regulation of some interest in the direction of this structure has been vigorously observed in every detail, namely, that none but British materials and British workmanship should enter into the work.

The organ, an instrument of great compass and magnificence, has long been a vexed question, as impairing the perspective of the Hall and Nisi Prius Court; and its position in this regard must ever be lamented: but after extended deliberation, and the best advice, on acoustics and musical convenience, it was finally decided to be placed at the north end of the Hall. Pains have been taken by its form and structure, to play into the lines and perspective and uses of that part of the hall.

The area in the east front, together with the niches in the hall, afford space and position for all the illustrious of our land, and will furnish, in the growth of time, a museum of art and of renown, of the utmost historical interest.

We give a view of the interior (p. 7), and shall have occasion to return to the subject.*

A CRITICAL REVIEW OF ST. GEORGE'S HALL AND THE ASSIZE COURTS, LIVERPOOL.

AN example of classical architecture, fairly subdued to our service, and applied to our purposes, and thus made a creature, as it were, of the day and country, is a rarity at the present time, though it is the application of the ancient architecture that common sense dictates, and the only one that men who use their mental faculties, and intellectually and really live in England, and the nineteenth century, could make; for when climate, or some important circumstance differs with every parallel of latitude, and every meridian of longitude, and when change comes in with every generation of mankind, what age, what nation, can furnish us with a design, or do more than give us hints, teach us principles, or yield us elements? And even as regards these, life with us being neither Roman, nor Greek, nor Italian, our social system being more complicated, and its exigencies more multifarious than that of any ancient one, we must not adopt Italian only, nor Greek only, nor Roman only, but all of them: we want the warm and picturesque of Italy, the cool, and chaste, and solemn of Greece, and all intermediate qualities. If I adopt Greek only, or Italian only, I soon find that I have not a sufficient range,—it takes them all to give body to the great spirit of modern architecture, and compose a system sufficiently copious for the present day.

Italian architecture seems to be generally conceived of as a thing quite distinct from the antique, as if with the Greek it had no relation whatever; but pure Italian architecture *is* Greek architecture, heaved up again by the wave of time, fitted for the resumption of its ancient career in the fulfilment of purposes additional to those it was applied to by its inventors. And the architect who adopts the classical architecture has a right to avail himself of the purer elements of the Italian style, which, had its framers never existed, would in the working out of a modern system from the antique ordonnance, naturally have arisen to the inventive mind.

Rightly to use the columnar architecture of the Greeks, the architect must, therefore, conceive his design in the pure spirit that created it, and maintain that spirit when he is working upon ground that is peculiarly modern, and dealing with forms required by a new mode of life, and for which antiquity furnishes no precedent. Full limited is the sphere of ancient art, but in pursuing paths beyond its range, opened up by modern wants, his course must frequently run so parallel with the art of ancient Rome and modern Italy, that he may avail himself of their suggestive aid, and borrow or make an enlightened adoption of many of their elements, while he takes care to avoid the contamination of their vices, and also to test all knowledge from their reflected lights by the great and primary luminary of all nature herself.

An illustration of something like this is, I think, to be found in St. George's Hall, which is an application of classical architecture to the service of the day, evincing more than the usual freedom and breadth of mind in its author, who, though he has not for his ornamentation drawn upon the nature around him as directly and freely as she may be and *will* be (for classic architecture has its career yet to run in England); though he has not proved how beautifully and harmoniously such ornamentation will blend and unite with antique constructive forms; yet evidently went back to the fountain-head of art-elements, surveyed the whole stream, and feeling himself a master, used the materials he drew from it with authority. Adopting a columnar ordinance of Greek purity as the general framework of his design, he has not refused to let it embrace and draw into itself whatever had a natural affinity for it, or was capable of being brought into it in the crucible of art, no matter whence derived; and by so working has done much towards proving the strangely disputed power of vital development to meet the growing exigencies of the world, inherent in the style: for St. George's Hall, while it exhibits some of the finer qualities and properties of the ancient system, while it presents the style in its pristine purity, free from Roman and other vices of design, yet unfolds to us something of its breadth and power, its richness and vastness of resource, and stands forth a material and enduring contradiction, echoed from plinth to cornice, from column to pilaster, to those traducers of the style who declare it to cramp invention and render plagiarism a necessity.

With these elements its architect has given an appropriate character to the edifice, and avoided the reproach that attaches too well to the general practice of the day, which, reversing Shakspeare, erects *gorgeous temples* and *solemn palaces;* and the merit of this is enhanced in our estimation by a recollection of the distracting circumstances under which he had to work: I allude to the destination of the building to contain apartments devoted to two different and conflicting purposes, causing difficulties if not impossibilities which no architect should be called upon to contend with. Simplicity and singleness of purpose are essential to a great architectural conception, and to a high class work of art, a high and poetic one. A building intended, as was St. George's Hall, to rank among our national monuments of architecture, should have been for one purpose, and that of the most elevated and poetic nature that the town and times demanded; and I think it matter for regret, that leaving law and justice to seek quarters more befitting their matter-of-fact character, the building in question was not devoted exclusively to the muses, and made a worthy abode not for one but all the fine arts, in which painting, sculpture, and architecture might hold their exhibitions, and literature its meetings; for why should one art be so much distinguished above the rest? What right has music to this high and solitary enthronement? The sweet science, however, has perhaps not so much to boast of, for it was assuredly never more unpleasantly associated, raised, as the hall is, over the cells of the condemned, and the view into the courts, so much contended for as an artistic advantage, revealing a place where men are tried for their lives.

By the employment of a suitable order, properly treated in all its details, an appropriate expression is given to the exterior, which is at the same time a true exponent of the interior arrangement or plan; for while the one great chamber, the music-hall, has full voice in the external symphony, the law courts, and small surrounding apartments, have sufficient artistic utterance; and it is worthy of remark, that the central attic order, with its delicately inclined roof, that forms the unique crown to the build-

* With reference to the notice of a paper and discussion on St. George's Hall, read by Mr. Huggins, at the Liverpool Architectural Society, and which appeared in our journal (vol. xii. p. 63) and in one of the local papers, Mr. Huggins has written to us to deny its correctness. It was sent to us in such a way as to prevent us doubting its accuracy at the time it was inserted. We have also received an indignant letter from "The Father of the Architect:" it is rendered to some extent unnecessary by the denial; but there are some portions of it for which we shall endeavour to find a place. We now print the paper itself.

ng externally, and raises it into beautiful composition, is not a merely expletive feature put on for outward effect, but one that, in containing the vaulted ceiling of the great hall, while it supplies a practical exigency of the interior, meets at the same time an æsthetic demand of the exterior.

Without following too closely any celebrated type, or recombining common-place and hackneyed features, the exterior composition of St. George's Hall exhibits much artistic geniality in its conception. With front planes of sufficient elevation for nobleness of aspect, it is yet gracefully pyramidical in general outline, each façade showing, for the most part, in addition to the front ones, two other ranks of vertical planes; and the manner in which this general form of composition, so entirely in keeping with the nature and the style of the architecture, is preserved at the back by the insulated screen of semi-detached pilasters forming what may perhaps be termed a hypæthral loggia, though such an expenditure of material for mere effect would not be justifiable in a lower class building, is, I think, here worthy of admiration. In a domestic building we should be content with the irregular or merely picturesque form that its essential parts assume; but in a monumental work, the contrivance alluded to, instinct as it is with a vernal freshness of idea, is a worthy sacrifice to the great and solemn character that must be preserved.

The absence of uniformity between the north and south ends, which has been objected to, is to be defended in the first place on the ground of its increasing an element of beauty in the building—variety, which should not be sacrificed to a beauty that can only be appreciated on paper, in contemplation of the ground-plan. By the existing disposition, the spectator of the south-east view has, on arriving at Shaw's brow in his perambulation of the building, a new aspect presented to him by the circular end. While at either end he cannot see that the other is different; at least, there is no point of view from which the difference between the two ends can give offence. It is to be defended in the second place, on the ground of its being dictated by the arrangement of the interior, where the provision of a concert-room renders the north end entirely different to the south. This breach of uniformity might be a valid objection in a church or other building, where there is but one great apartment, the influence of which is naturally allowed to arrange apartments so small and insignificant as vestry or robing-room, in complete symmetry around it; but where, beside the great room, an uneven number of smaller ones, or any number of unequal ones, is called for, the whole is naturally thrown out of symmetry, and an irregular exterior disposition is suggested, so that the difference between the facades is a departure in the right direction from the beaten and monotonous track. How far it is such will be apparent to any one who has felt the wearisome sameness of our revenue buildings, whose two extreme porticoes, though they can never be seen together, and though they are entrances to parts of the edifice totally different in plan, are *facsimiles* of each other, and, taken with the centre one, as alike as so many peas.

Nevertheless, I must respectfully dissent from Mr. Fergusson on this subject, who, in his "Historical Inquiry into the Principles of Beauty in Art," considers irregularity to be a characteristic of all great buildings. I believe, that where the purpose of a building is such that it can consistently be perfectly symmetrical within, so that a line drawn through the centre would divide it into equal and like halves, it should be so without, and that it would be in consequence a more perfect building.

The real defect of the north end, for it has a defect, is not in its want of uniformity to the south, but in its having columns applied in a manner inconsistent with the spirit of the style, to the formation of a pseudo portico, instead of a real one, which, if, in consideration of interior exigencies, or of its facing the north, where the beauty produced by the varying light and shade could not be had, it was deemed inadvisable to have, still the circular end had been more properly relieved by attached pilasters of the usual projection, which would have given more repose to that part of the edifice.

It is to be questioned, however, whether the circle should have been so introduced in the plan at all in a building terminated above by a square form which the round end must render less pleasing and harmonious as a crowning feature than it otherwise would be.

It is not ultra-classicism, but false classicism that would cavil at the insular pilasters, in adopting which, the architect obeyed laws which, though not dreamt of in the philosophy of all, are yet quite legitimate. As a column is simply a round post raised from its low estate of mere utility to shine a sun-bright glory in the realm of art, so is the insular pilaster pervaded by the new spirit of the beautiful a glorification of the square one, which nobody objects to in its primitive condition. As they (the square columns) stand before us in St. George's Hall, they contribute largely to repose, while it is to their introduction that the building is chiefly indebted for the perfect unity between the porticoes and the masses which flank them on either side. Without pilasters of some kind, to prolong, as it were, the tones of the portico colonnade along the wings of a façade, no portico will properly blend with a building: the walls must have pilasters attached or detached, and I think the building under notice proves that the latter are more effectual in accomplishing this difficult object. The insular pilaster stands in respect of geometrical form and character between the wall-pilaster and the detached column; and it is this peculiarity, along with the continuance of the entablature entirely around the building, that gives St. George's Hall its singular unity of composition.

Reviewers of St. George's Hall, like most critics of art, who but seldom rise to the contemplation of the subject as a whole, have bestowed the staple of their praise on the graceful forms and proportions of the east and south porticoes, and said but little about the other elements composing the façades. But these porticoes might be all that their greatest admirers have pronounced them to be, and yet the building be an abortion as a work of art. The south one might be the front, and the east one the side of some Greek peripteral temple cut to pieces for the purpose, and stuck on in the approved manner to a lifeless body. The great characteristic merit of St. George's Hall lies not in the well-combined arrangement of the symmetrical parts of these porticoes, but in the perfection with which each, and especially the eastern one, unites with the trunk of the building, and makes harmony with the flanking wings; and this unity, in which I consider St. George's Hall is unrivalled by any modern building, is mainly owing to the features and peculiarities in question, namely, the semi-attached pilasters and their intercolumnar walls, which latter contribute much to the repose, and save the façades from the monotony apt to be attendant on the peripteral disposition.

So far from the south portico being the chief beauty of the edifice, I believe, if that and the north pseudo-portico had been omitted, and St. George's Hall had consisted alone of the eastern colonnade and flanking wings of insular pilasters, possessing, as it then would, greater simplicity of form,—a form but one remove, instead of two, from the Greek temple,—it would have been a more perfect building than at present, though as it is, I deem it one of the finest pieces of exterior architecture in the world.

Though the general arrangement and treatment of the classic features and elements just noticed are original and excellent, resulting in an attic refinement and grace that is above all praise, there is yet one quality which I would wish to see more abundant in the building, namely, repose, the needful degree of which it appears to me that the extreme wings or mural masses with their engaged pilasters, along with the dwarf intercolumnar walls, are insufficient to produce.* S. H.

MR. EDWARD PRENTIS.—Mr. Edward Prentis, an artist who made English domestic life a chief study, has recently died, in his 57th year, leaving a wife and no less than eleven children to lament his loss.

* To be continued.

EDWARD JAMES WILLSON,
ARCHITECT, F.S.A.

Born in Lincoln, June 21, 1787; died in the same city Sept 8, 1854; and buried at Bunton, near Lincoln, with his parents.

THE name and literary qualifications of the above gentleman must be well known to those architects of the modern school who have studied and had occasion to design any recent works in imitation of, or based on the principles of the miscalled "*Gothic* Architecture" of the mediæval age. It has frequently appeared publicly; first, in the account of Lincolnshire, part of the "Beauties of England;" next, in the "Architectural Antiquities;" afterwards in the "Cathedral Antiquities;" and, more specifically, in Pugin's "Specimens," and in "Examples" of Gothic Architecture. In these different works may be seen many writings from his pen, all manifesting intimate acquaintance with the Christian architecture and archæology of England. They allude to and serve to show the history, design, science, and what may be called taste, as inherent and displayed in ancient buildings, with their ornaments and appendages: in furniture, costume, and other objects belonging to the manners and customs of our ancestors. From many years' intimacy,—from a correspondence embracing more than five hundred letters on topographical and archæological subjects,—and from the examination of much manuscript for and proofs from the press, I am enabled to speak confidently and securely on the acquirements and mental qualifications of my esteemed friend. When in his teens, and working for his father, who was a respectable builder in Lincoln, I met him in the cathedral of his native city, where he was occupied in carving some of the fine stall work, which first awakened his young fancy and admiration for that species of beauty. I found him not only well informed on the history of the august edifice, which had become at once a school-house for study, and a seducing reward to his heart and intellect. I spent two or three happy days in viewing the antiquities of that extraordinary city, where Anglo-Roman, Saxon, and other antiquities of later ages abounded. I secured his company and exciting conversation, in visits to the very curious and interesting church of Stow, the seat of the Saxon bishops of the see; to Tattershal Castle, the most remarkable mansion-fortress of the kind in England; to Boston, where a gorgeous parish church and land-mark tower are to be seen; to Thornton Abbey, once a vast building, now a picturesque ruin, and to several other places. These journeys and this association became eminently beneficial both to the young topographer and his younger pupil, for both were inquiring, and incited to study, think, and act. The latter first employed his inexperienced pen in writing accounts of these and other antiquities for the "Beauties of England," which the former revised for the press. A friendship was cemented for life between the two, and whilst the professional author was actively and diligently occupied in writing for, and publishing "The Architectural Antiquities of Great Britain," "The Cathedral Antiquities," and "The Picturesque Antiquities of English Cities," the Lincoln architect (for Mr. Willson became qualified to act in that branch of art soon after the decease of his parent) continued to furnish papers and detailed drawings for each of the publications above announced. On all occasions, I may be allowed to state, that his communications were duly acknowledged, and the writer was paid for his labours and expenses. For my unfortunate work, "The Dictionary of Architecture and Archæology," he rendered occasional aid, and was thanked, with other correspondents and friends; but made up as that was, from numerous sources, I could not easily identify and particularise each and every one. I must, however, assert, that in the said dictionary, and all other substantial publications, I have been more than commonly scrupulous in clearly and fully acknowledging every quotation and every source, whence authentic information has been derived. I wish it were in my power to say the same of many writers who have copied from and profited by my labours and exertions, and from my pecuniary sacrifices.

From what has been said of Mr. Willson's

devotion to, and knowledge of antiquities generally, and especially of those connected with the "olden times," particularly churches, abbeys, castles, and mansions; and coming under the names of Ancient Christian, Castellated, and Domestic Architecture, it may be reasonably inferred that he was a "lover of books," a diligent student, a "bibliomaniac." He was all these, and had filled his house—mostly through my agency and mediation—with tomes of all sizes and of all ages. Since his decease, a sale for two days has been devoted to these literary treasures, and from the catalogue, we are informed that his readings extended over nearly the whole field of literature, and comprehended not merely archæology and architecture, but all departments of learning, science, and the fine arts.

Having thus shown the early career of Mr. Willson in the study and elucidation of architectural antiquities, it will be expedient to bring under notice the publications in which he was more directly concerned, and from which his knowledge and opinions may be more especially ascertained. There were two different works, which appeared before the public, and are recognised in book catalogues as "Pugin's Specimens of Gothic Architecture," 2 vols. 4to. 1820-25, and "Pugin's Examples of Gothic Architecture," 2 vols. 4to. 1826. The first of these works was the joint property of, and published by Josiah Taylor, A. Pugin, and J. Britton. As stated in my "Auto-biography," Vol. II. p. 150, I had engaged to "write parts of the work, advise as to drawings and engravings, and conduct the business details of printing, publishing, and examining the proof-sheets of the literary matter contributed by Mr. Willson." I declined to place my name in the title-page, or in any other part of this work, as my engagements with partners in the "Architectural and Cathedral" volumes, required nearly every working moment of time; but pleased with the illustrations, and believing that Mr. Willson would relieve me from all literary labour, and that a small portion of time would enable me to manage other duties, I speculated on a share of expenses, profits, and labours. The last, however, surpassed all anticipations, and I soon found that nearly the whole business department devolved on me, for the artist had not, at that time, any knowledge of its routine and details; and Mr. Willson, like myself, was often incapable of working from severe head-aches to which he was subjected. The titles, dedications, prefaces, indexes, and other writings were by myself, and also some of the description and historical matter. The drawings were all made by Mr. Pugin's pupils, and were mostly executed with labour and skill; whilst the literary matter, by Mr. Willson, was replete with sound judgment and discretion, and its historical and descriptive details at once judicious and discriminative. The introductory pages to the two volumes on "Gothic Architecture," and on "Modern Imitations," display an intimate familiarity with previous architectural publications and criticisms, and also with existing buildings in different parts of the country. In this work Mr. Willson brought forward the first "Glossary of Technical Terms descriptive of Gothic Architecture" which had been published. This portion attained a third edition in 1825, and was intended by the author to be a nucleus for a more copious and comprehensive publication on the same subject. On completing my fifth volume of "Architectural Antiquities," I introduced a copious list of architects of the Middle Ages, and also "An Architectural Dictionary, or Glossary of Terms," used by the older writers on that subject. This was finished in 1826; and in 1835 I produced a large volume in royal octavo, of more than 500 pages, closely printed, and with forty plates by J. Le Keux, with the title of "A Dictionary of the Architecture and Archæology of the Middle Ages." Of this work only a small number of copies was printed, and it is now very rarely to be seen in a bookseller's shop. An account of the manner in which I was finessed out of this property, is printed in the "Auto-biography," already referred to.

The "Specimens" proving to be a profitable and popular publication, induced the artist to furnish another series of drawings, on a small scale for "The Public Buildings of London," a work in two volumes, octavo, the management and writing for which I engaged to perform, as also another, in one large volume, quarto, on "The Architectural Antiquities of Normandy." In the progress of these publications the draughtsman and his friend the engraver, Mr. Le Keux, became involved in the meshes of a law net, which was thrown by the first over, and entangled the author in tantalizing litigation. A separation took place, and Mr. Pugin commenced his "Examples of Gothic Architecture," on his own responsibility and under the advice and authorship of Mr. Willson. This gentleman wrote the whole, extending to two quarto volumes; and during its progress, Mr. Pugin died, and the work was finished in the year 1836, by his executors, A. W. Pugin and Thos. L. Walker. The last gentleman afterwards published a third volume, in continuation of, and with the title of "Examples," whilst the other executor, the son of A. Pugin, wrote, etched, and published several other works on architecture, in which he produced many curious and clever designs, as well as essays and criticisms. The former exhibited much knowledge of the designs and details of buildings and monuments of the Middle Ages. Having become an inveterate Roman Catholic, after the decease of his parents, he poured forth invectives and many anathemas against Protestant architects and their works, and thereby provoked much enmity and ill feeling. How contrary to the character and principles of Mr. Willson, who proclaimed peace and goodwill to all sects, and never printed an angry word against any of his professional brethren. Yet he was born of Roman Catholic parents—professed and vindicated their tenets and practices—and believed they were the only true and genuine Christians. On this subject he and I had two or three little wordy battles, but I conditioned, at the onset, that we should fight with muffled gloves, and not hurt each other, mentally or physically, or even ruffle the smooth waters of temper.

Though Mr. Willson was not legally drilled and disciplined in an architect's office, he was schooled in the technicalities of practice in the workshop, and in the constructive science of building in his parent's business, and in studying the manifold details of the famed Minster, which was almost daily before his eye. These opportunities gave him more insight into the principles of design and construction than many students in architecture have obtained after five or seven years' attendance in some fashionable metropolitan studios. He was very early honoured by the friendly notice and patronage of the dean, his neighbour, and of Archdeacon Bayley, who recommended him to direct certain works in the Minster, and in country churches and clerical houses. Thus favoured, the magistrates of Lincolnshire, appointed him architect and surveyor to the county, an office he held for more than twenty years. That the regular clergy of the cathedral and the corporation of the city were friendly to him, is manifested by the circumstance of granting him free access to, and the use of, their respective archives and manuscript collections, from which he extracted a large mass of valuable materials for the history of the cathedral, and the topography of the city. This collection is possessed by his two sons, the executors of his will. It is hoped, however, that it may be purchased for, and deposited in, the city to which it legitimately belongs, and thereby be rendered available for the use of any future historians, topographers, and antiquaries. At the meeting of the Archæological Institute in Lincoln, in 1848, Mr. Willson's local knowledge, urbanity of manners, and valuable collections, were duly recognised and acknowledged by the council of that society, and proved very interesting to the inhabitants of the city, and to its visitors. I can never forget the cordial courtesies, and continued devotion of the Marquis of Northampton, nor the zealous and animated conduct of the scientific Bishop who then gave daily attendance to the memorable gathering of antiquaries. They animated and cheered every member and visitor, and gave an air of amenity and heartiness which never was surpassed, and perhaps may never occur again. The loss of those eminent and illustrious personages was painfully felt by all who knew them, for they were peculiarly qualified to preside at, and impart unanimity, harmony, and true friendliness to public assemblies.

On a careful retrospect of Mr. Willson's printed writings, and a long series of correspondence, by the evidence of some personal intercourse, and the testimony of familiar friends, I am justified in believing and asserting, that he was a sincere and confirmed Christian, a good and exemplary son, husband, and father, and very extensively informed, and even learned in the architecture and archæology of the mediæval age; whence he is entitled to the high praise of Pope, who proclaims,—"An honest man the noblest work of God."

Dec. 25, 1854. JOHN BRITTON.

LABOUR, CAPITAL, AND SKILL.*

KNOWLEDGE is power, we all know or believe. Charles Knight has just written a book to show us in how many ways this is true; for, according to the remark of Rousseau which he quotes, "it requires a great deal of philosophy to observe once what is seen every day." The book is a pleasant, nay, a valuable one, without pretending to tell us anything very new in point of fact, or propound anything very fresh in point of theory, but it has the interest and the charm of Charles Knight's best style and happiest mood. Like "Once upon a Time," and "The Old Printer and the Modern Press," in their own walk, both already mentioned by us, the book before us contains a large amount of information in a compact form, bearing upon the history of industrial effort, related with delightful ease, and intermixed with those curious, out-of-the-way scraps of lore which the author's copious antiquarian knowledge supplies. Altogether, a zest is lent to the subject, which makes the book charming. The volume is founded, we are told in the preface, upon two little works which the author wrote more than twenty years ago, and which were widely circulated. One of these books, "The Results of Machinery," was published in connection with the Society for the Diffusion of Useful Knowledge, at a period of great national alarm, when a blind rage against a power supposed to interfere with the claims of labour was generally prevalent, and led, in the southern agricultural districts especially, to many acts of daring violence. Happily that spirit is lessened. The spirit of knowledge has arisen; and we are told now, by an unquestionable authority, that labourers themselves begin to regard the tedious work of the flail as too irksome,—the same class that, in 1830, broke the thrashing-machines. In remodelling that portion of the volume, it has not been necessary to deprecate the evils of hostility to machinery, but rather to look forward to its more complete union with skilled labour, as the triumph of the productive forces of modern society. In the other little book upon which the volume is based, "Capital and Labour," the general subject of the *production* of wealth was popularly treated, and the argument is in this one carried forward. The writer has further endeavoured not to overlook the general relations of capital and labour in the *distribution* of wealth. As the mistakes about production have yielded in a great degree to improved education, so may those that belong to distribution also yield to the progress of knowledge. These are not mistakes which are confined to one class, and that the most numerous. The freedom of industry has as much claim to be regarded as the security of capital. In proof that these principles are better understood in another country, the author appeals to Mr. Whitworth's special Report on the Results obtained in the United States, a document from which we lately gave some extracts in our columns. Mr. Knight further remarks, that without attempting to give his volume the formal shape of a treatise on political economy, it is his wish to convey the broad parts of his subject in a somewhat desultory manner, but one which is not altogether devoid of logical arrangement. He

* Knowledge is Power: a View of the Productive Forces of Modern Society, and the Results of Labour, Capital, and Skill. By Charles Knight. Murray.

desires especially to be understood by the *young*: for upon their right appreciation of the principles which govern society will depend much of the security and happiness of our own and the coming time. As he very significantly observes,—"*The danger of our present period of transition is, that theory should expect too much, and that practice should do too little, in the amelioration of the condition of the people.*"

It is alike beyond our space and our purpose to follow the author into the chapters of consecutive argument on the questions mooted on such topics as we have indicated. To do that justice the work must be taken up. We shall be content to pick out, from the chapters relating to those matters which are of peculiar importance to our readers, some semi-anecdotical, semi-historical, memoranda.

On the common interest of Capital and Labour, we may say, with the old proverb,—

"That 'When two men ride on one horse, one man must ride behind.' Capital and Labour are, as we think, destined to perform a journey together to the end of time. We have shown how they proceed on this journey. We have shown that, although Labour is the parent of all wealth, its struggles for the conversion of the rude supplies of nature into objects of utility are most feeble in their effects till they are assisted by accumulation. Before the joint interests of Labour and Capital were at all understood, they kept separate: when they only began to be understood, as we shall show, they were constantly pulling different ways, instead of giving a 'long pull, a strong pull, and a pull altogether;' and even now, when these interests in many respects are still imperfectly understood, they occasionally quarrel about the conditions upon which they will continue to travel in company. In the very outset of the journey, Labour, doubtless, took the lead. In the dim morning of society Labour was up and stirring before Capital was awake. Labour did not then ride: he travelled slowly on foot through very dirty ways. Capital, at length, as slowly followed after, through the same mire, but at a humble distance from his parent. But when Capital grew into strength, he saw that there were quicker and more agreeable modes of travelling for both than Labour had found out. He procured that fleet and untiring horse Exchange; and when he proposed to Labour that they should mount together, he claimed the right, and kept it, for their mutual benefit, of taking the direction of the horse. For this reason, as it appears to us, we are called upon to assign to one of the companions, according to the practice of the old Knights Templars, the privilege of sitting before the other—holding the reins, indeed, but in all respects having a community of interests, and an equality of duties, as well as rights, with his fellow-traveller."

The possessions and household furnishings of the different classes in England, at different epochs, is not only a curious subject, but a correct appreciation of it is absolutely necessary to any satisfactory review of our own national history. We have a specimen taken from the ancient city of Colchester, at the close of the thirteenth century:—

"The whole stock of a carpenter's tools was valued at one shilling. They altogether consisted of two broad axes, an adze, a square, and a navegor or spoke-shave. Rough work must the carpenter have been able to perform with these humble instruments; but then let it be remembered that there was little capital to pay him for finer work, and that very little fine work was consequently required. The three hundred and ninety housekeepers of Colchester then lived in mud huts, with a rough door and no chimney. Harrison, speaking of the manners of a century later than the period we are describing, says, 'There were very few chimneys even in capital towns: the fire was laid to the wall, and the smoke issued out at the roof, or door, or window. The houses were wattled, and plastered over with clay; and all the furniture and utensils were of wood. The people slept on straw pallets, with a log of wood for a pillow.' When this old historian wrote, he mentions the erection of chimneys as a modern luxury. We had improved little upon our Anglo-Saxon ancestors in the article of chimneys. In their time, Alcuin, an abbot who had ten thousand vassals, writes to the emperor at Rome that he preferred living in his smoky house to visiting the palaces of Italy. This was in the ninth century. Five hundred years had made little difference in the chimneys of Colchester. The nobility had hangings against the walls to keep out the wind, which crept in through the crevices which the builder's bungling art had left: the middle orders had no hangings. Shakspeare alludes to this rough building of houses even in his time;—

'Imperial Cæsar, dead and turn'd to clay,
Might stop a hole to keep the wind away.'

Even the nobility went without glass to their windows in the fourteenth and fifteenth centuries. 'Of old time,' says Harrison, 'our country houses, instead of glass, did use much lattice, and that made either of wicker or fine rifts of oak, in checkerwise.' When glass was introduced, it was for a long time so scarce that at Alnwick Castle, in 1567, the glass was ordered to be taken out of the windows, and laid up in safety, when the lord was absent."

Mr. Knight's little book is full of wisdom and kindness.

PROVINCIAL NEWS.

Brierley-Hill.—The first column of the new market-place here was raised on 22nd ult. and some few stalls were expected to be ready by Saturday, the 30th. The foundation-works have been very extensive; between 5,000 and 6,000 tons of "pit bank" refuse being already carted on the spot to get it the required level. This has prevented the contractors from opening it by Christmas. The cartings are got up by Mr. Wm. Holcroft, of Bilston. The entrance-gates will be supplied by the Messrs. Haywood, of the Phœnix Foundry, Derby.

Dudley.—The exhibition of prize drawings of the several schools of art in the provinces has closed here. Many of the specimens, by young pupils, would do honour to a much older hand. Some of the designs for chimney-pieces, &c. were very good, but the principal design was one for the brazen doors of St. George's Hall, Liverpool. The erection of the new station at Dudley is deferred *sine die*, no arrangement having been entered into by the competing companies who occupy the present large area. The South Staffordshire have declined to accommodate the public using their line.

Milford Haven.—Progress has been lately made with the fortifications in Milford. The Stack Rock has been completed for some time, and the guns have been mounted, and the whole garrisoned by soldiers. At Thorny Island, at the entrance of the haven, a fort has been newly erected, and nine guns placed in it. It commands not only the mouth of the harbour, but also the whole haven up to Milford. The extensive works at Dale Point, opposite Thorny, are progressing. When completed, this battery will be able to cross fire with the one on Thorny, and command the whole haven up to Pembroke Dock, if the guns have a range long enough.

Liverpool.—A pile of business premises has been erected at the corner of George-street and in Oldhall-street, near Chapel-street, close to the Exchange. The style chosen by the architect, Mr. W. Culshaw, is Palladian. The stone dressings are from the Poolmouth quarries, near Wrexham; and the interspaces are filled in with patent red brick. The front to Oldhall-street, in the first or ground-floor story, consists of a series of segmental arches relieved by rustications. The entrance to the offices and court is through an arched gateway, with ornamental keystone, moulded dadoes, pilasters, and entablature, over which is a Venetian mirror, relieved with pilasters, entablature, and ornamental scrolls at the sides. The remaining windows of the first floor have pedimental heads and scrolls, the whole resting upon a dado balustrade. The upper windows have architraves and moulded heads, with scrolls, &c. The principal cornice is surmounted with a balustrade. The internal arrangements are adapted for brokers. The cellars extend under the whole area, and are arched with brick. They are suitable for wine-merchants and others. The persons engaged in carrying out the works are—Messrs. J. Burrows, joiner; R. Wells, stonemason; Duckworth, bricklayer; Lingard and Merrick, plumbers; T. Jones, plasterer; and W. Williams, ironfounder. The property belongs to Messrs. Myers, of this town. The outlay, it is said, must have been upwards of 10,000*l*. The rearing was celebrated by a dinner, at the Royal Hotel, Dale-street, to the architect, contractors, &c. together with about 140 of the men engaged in the works.

Doncaster.—A meeting of the local Cemetery Commissioners was held at the Town-hall here, on Wednesday before last, for the purpose of opening the tenders for the several works required in the erection of two cemetery chapels and a lodge and entrance gateway, after a design by Mr. R. J. Johnson, the architect. There were three complete tenders, and seven in all. It was unanimously agreed that that sent in by Messrs. T. and C. Anelay, of this town, builders, be accepted. It was also agreed to advertise for tenders for laying out the ground, according to the plans of Mr. Appleby, forthwith. The respective works, it appears, will be completed for the original sum proposed by the commissioners. "This," observes the local *Gazette*; "will set at rest the complaint of the competitors in the adoption of the present design, for competent parties have undertaken its completion at the amount not exceeding the sum fixed."

Huddersfield.—For a long time past the brethren of the "Sons of Truth" Lodge of Freemasons here, have felt the want of a suitable building for the transaction of their business, but not being able to meet with one, they resolved to build for themselves, and by perseverance this *desideratum* is now being accomplished, a site having been secured in Fitzwilliam-street, with frontage to the street, and ground being taken in the rear for a lodge-room, twenty-yards in length. On Wednesday before last, a number of the brethren met on the ground, and laid the "corner" stone, with the usual ceremonial, the building itself having been raised to the level of the ground. Brother W. H. Brooke is the architect; Brother J. Kirk, contractor; and Brother J. Ratcliffe, superintendent of works.

Keswick.—The foundation stone of a new building intended for a Mechanics' Institute and Lecture-hall, was laid on Saturday in week before last, at Keswick, by the Rev. T. D. H. Battersby, incumbent of St. John's Church in that town. The new building, which will adjoin the Keswick library, has been designed by Mr. G. Watson, jun. architect.

Wigan.—We are informed that the Burial Board has selected the designs of Mr. Barry, of Liverpool, for the erection of three chapels, two lodges, and railway-bridge, and that the works are to be commenced forthwith.

WAR, AND THEN THE ARTS.

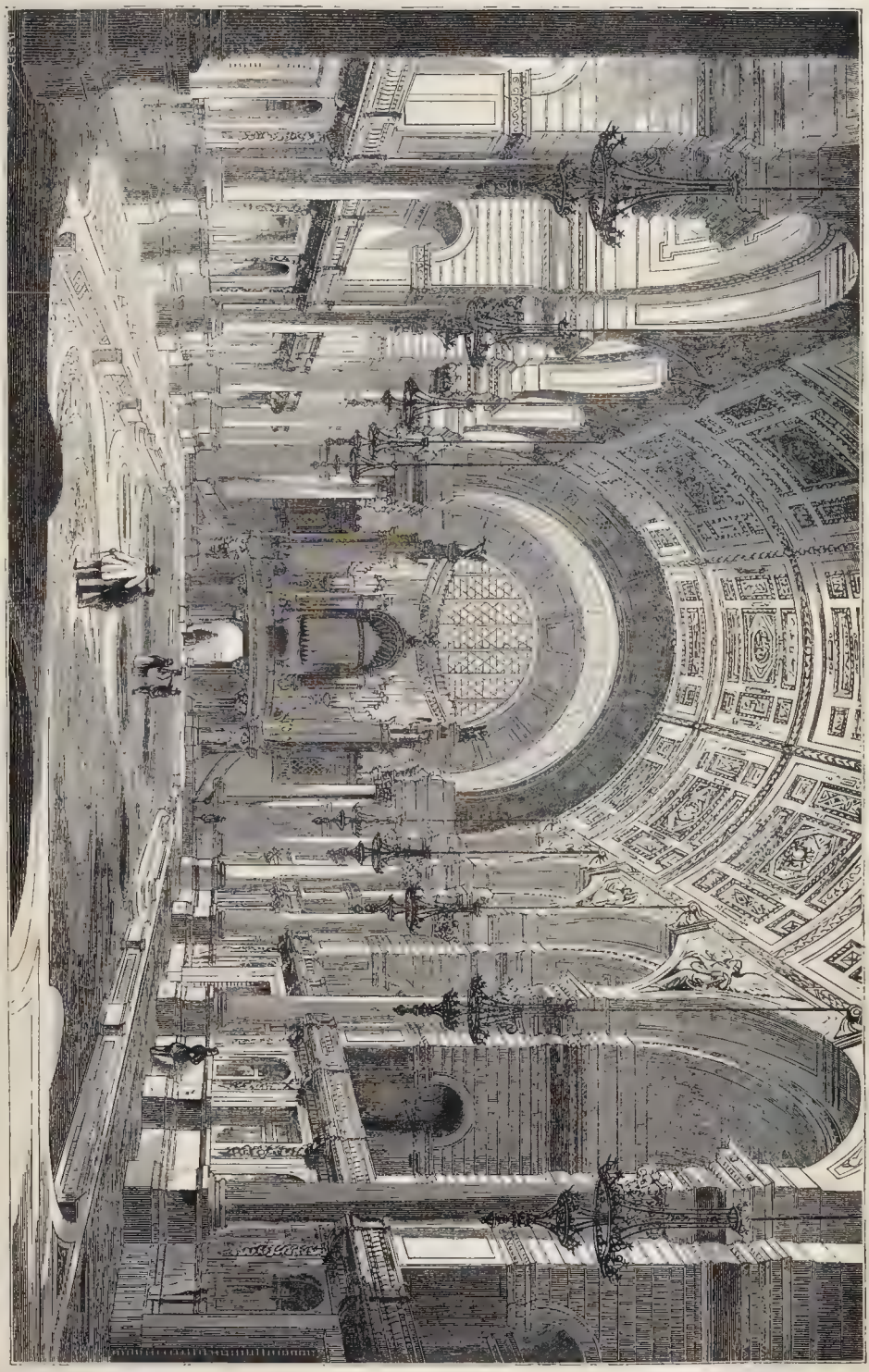
THE achievements of the warrior have exerted upon the arts a deep-felt influence, especially in the ancient heroic epochs. To the valour and to the victories of leading men in armies and in fleets we are indebted for some rich and attractive works of monumental art. Among these are master-pieces of the greatest sculptors. The finest and most complete effects of other arts—of painting, poetry, rhetoric, music, and the drama—have been produced in commemorating the warlike deeds of warlike men. Yet they have, perhaps, afforded to the art of sculpture, more particularly, some of the grandest subjects for representation. The awful—the tragical incidents of war,—the suffering borne with such fortitude by the wounded and dying,—the prompt action, the courage, and the skill of the soldiers,—these have called forth the abilities of the artist, and tasked his power of expressing the human passions.

The Parthenon of Minerva, at Athens, when in all its glory, exposed, to the view of the Athenians, the victories obtained by Theseus against the Centaurs and the Amazons,—victories which might have flattered their vanity, but which could not fail to have fired their bosoms with patriotism. These victories, sculptured by Phidias, were the objects of excessive admiration: they have always been esteemed the most celebrated relics of ancient art, and were worthy of the unrivalled fame they adorned.

The arts profited by the example of Phidias; and, although the frequent introduction of the Centaur in the metopes of the Temple was founded on a myth,—the mythology of Greece entering into everything,—yet we cannot but admire the agreeable form that the genius of Phidias gave to this mixture of the human figure with that of the horse; and we find a happy use was made of this in sculpture, chiefly as a temple-decoration, for several centuries.

The representation of these battles was calculated to elevate and to perpetuate the glory of the Athenians; nor were the impressions which, as perfect works of art, they conveyed, lost upon them,—impressions which we ourselves, fortunately, are enabled to receive at the present hour.

F. L.



INTERIOR OF ST. GEORGE'S HALL, LIVERPOOL.—The Late Mr. H. L. Elmes, Architect.

[see p. 1, *ante*]

ON THE PUMPING OF WATER FROM PITS AND MINES.

THE fundamental principle that regulates the arrangement of the apparatus employed for the purpose of pumping water from pits and mines, is simply the statical equilibrium that obtains, between the pressure of steam in the cylinder of the engine, and the weight of the column of water whose transverse section or base is the piston of the pump, and altitude the vertical distance between the surface of the water in the pit or mine, and the point at which the water is discharged. When the condition of equilibrium has been obtained, it is easy in practice to give the engine the preponderance, either by increasing the pressure of the steam, by enlarging the diameter of the cylinder, or by diminishing the diameter of the pump. This, however, is a point peculiar to the province of the practical engineer: our present object is to investigate the condition of equilibrium, and to simplify the rules for calculating that condition; and for this purpose,

Put D = the diameter of the cylinder of the steam-engine in inches;
p = the pressure of the steam on a square inch of the piston in pounds avoirdupois;
w = the entire pressure of the steam on the piston of the cylinder; and
0·7854 = the constant fractional coefficient, or the area of a circle of which the diameter is unity.

Then, by the rules of mensuration, the area of the piston is $0{\cdot}7854\,D^2$, and the whole pressure of the steam is

$$w = 0{\cdot}7854\,D^2\,p \quad \ldots\ldots\ldots\ldots (A).$$

This equation represents one member of the equilibrium, and in order to obtain another member with which to compare it, we must extend the notation in reference to the pump as follows:—

Put d = the diameter of the pump in inches.
h = the height to which the water is raised in feet.
w = the whole weight of the column of water in pounds avoirdupois, and
62·5 = the number of pounds in 1 cubic foot of water.

Then, by the rules of mensuration, the area of the pump-piston or bucket is $0{\cdot}7854\,d^2$, and the whole weight of the column of water is

$$w = \frac{0{\cdot}7854 \times 62{\cdot}5\ d^2 h}{144} \quad \ldots\ldots\ldots\ldots (B).$$

This, therefore, is the other member of the equilibrium; consequently, by equating the members (A) and (B), and casting out the common quantities, we finally obtain

$$2{\cdot}304\,D^2 p = d^2 h \quad \ldots\ldots\ldots\ldots (C).$$

Now, from this equation in the form it has here assumed, any one of the variable quantities which it involves, can be determined in terms of the other three, together with the constant multiplier or coefficient 2·304, which is the quotient of 144 divided by 62·5; that is, $\frac{144}{62{\cdot}5} = 2{\cdot}304$.

The equation marked (C) indicates the state of equilibrium between the pressure of the steam and the weight of water which opposes it when no work is performed, and we now proceed to determine from its analysis, the diameters of the cylinder of the engine and the pump when the condition of quiescence obtains, and also the effective pressure of the steam in the cylinder and the height of the column of water.

PROBLEM 1.—*To find the diameter of the pump, having given the diameter of the cylinder of the engine, the pressure of the steam on a square inch of the piston, and the height in feet to which the water is to be raised.*

Referring to the equation marked (C), which involves the conditions of equilibrium, and reducing it in reference to d, the symbol denoting the diameter required, we have—

$$d = \sqrt{\frac{2{\cdot}304\ D^2 p}{h}} \quad \ldots\ldots\ldots\ldots (1).$$

Now, the form of this equation is sufficiently simple for every practical purpose; but nevertheless, it will be useful for those who are unacquainted with analysis, to have the mode of reducing the equation expressed in words, as follows:—

RULE.—*Multiply the square of the diameter of the steam cylinder by the pressure of the steam upon a square inch of the piston, and again by the constant number* 2·304; *then divide the product by the height of the column of water in feet, and the square root of the quotient will be the diameter of the pump in inches.*

With the rule thus expressed, there can be no difficulty in finding the diameter of the pump from the same data, in any case that may be proposed; but the solution of a numerical example, will tend greatly to elucidate the subject.

EXAMPLE 1.—Suppose the diameter of the cylinder of a steam-engine to be 22 inches, the the pressure of steam upon a square inch of the piston 25 lbs. and the height to which the water has to be raised 66 feet; what will be the diameter of the pump, when the weight of the column of water and the pressure of the steam are in equilibrio with each other?

Here, by the rule, we have—

$$d = \sqrt{\frac{2{\cdot}304 \times 22 \times 22 \times 25}{66}} = 20{\cdot}552 \text{ inches},$$

the diameter of the pump; therefore, in the case of an equilibrium, it will be $2{\cdot}304 \times 22^2 \times 25 = 20{\cdot}552^2 \times 66$. But in this case, there will be no water raised; therefore, in order to render the apparatus effective, either the number 22 or 25 must be increased, or 20·552 must be diminished, no matter which; yet it may so happen in practice, that one may be more advantageous than another.

PROBLEM 2.—*To find the diameter of the cylinder of the steam-engine, having given the diameter of the pump, the height to which the water is to be raised, and the pressure of the steam upon a square inch of the piston.*

Recurring to the equation marked (C), in which the conditions of equilibrium are represented, and reducing it in reference to D, the symbol denoting the diameter of the cylinder, we have—

$$D = \sqrt{\frac{d^2 h}{2{\cdot}304\,p}} \quad \ldots\ldots\ldots\ldots (2).$$

This equation is not more difficult to reduce than the preceding one; but it is a little different in the manner of its composition; this, however, adds nothing to the labour of calculation, and the following is the rule for performing the operation.

RULE.—*Multiply the square of the diameter of the pump in inches by the height in feet to which the water has to be raised, and divide the product by* 2·304 *times the pressure of the steam on a square inch of the piston of the engine, then the square root of the quotient will be the diameter of the cylinder in inches.*

The following numerical example will show the manner of applying the rule:—

EXAMPLE 2.—Let the diameter of the pump be 26 inches, the height to which the water is to be raised 132 feet, and the pressure of steam upon a square inch of the piston of the engine 20 lbs.; what will be the diameter of the engine, when an equilibrium obtains between the pressure of the steam and the weight of water to be raised?

Here by the rule we have,

$$D = \sqrt{\frac{26^2 \times 132}{2{\cdot}304 \times 20}} = 44 \text{ inches},$$

the diameter of the cylinder. This is the diameter when the apparatus is in equilibrio; but in order that the engine may be made to preponderate, one or other of the quantities concerned must be altered, as stated in the previous example.

PROBLEM 3.—*To find the height of the column of water in feet, having given the diameter of the steam cylinder and that of the pump barrel, both in inches, together with the pressure of the steam on a square inch of the piston in pounds avoirdupois.*

Recurring to the equation of equilibrium marked (C), and reducing it in reference to the symbol h, we obtain the following expression for the height of the balancing column, viz.:—

$$h = \frac{2{\cdot}304\ D^2 p}{d^2} \quad \ldots\ldots\ldots\ldots (3).$$

This equation is simpler in its reduction than either of the former two, seeing that there is no extraction of the square root required in the operation, and the following is the practical rule for its reduction.

RULE.—*Multiply the square of the diameter of the steam cylinder in inches by* 2·304 *times the pressure of the steam in pounds avoirdupois per square inch, and divide the product by the square of the diameter of the pump in inches, for the height of the column of water in feet.*

EXAMPLE 3.—Suppose the diameter of the steam cylinder to be 44 inches, and that of the pump 26 inches; what must be the height of a column of water, to equipoise a pressure of steam of 20 lbs. on a square inch of the piston?

Here the operation, according to the rule, is

$$h = \frac{44^2 \times 2{\cdot}304 \times 20}{26^2} = 132 \text{ feet},$$

the height of the column.

PROBLEM 4.—*To find what pressure of steam on a square inch of the piston of the engine, will balance a column of water* 132 *feet in height, the diameter of the steam cylinder being* 44 *inches, and that of the pump* 26 *inches.*

Referring to the equation of equilibrium marked (C), and disengaging the symbol p from the terms with which it is combined, we get as follows, viz.:—

$$p = \frac{d^2 h}{2{\cdot}304\ D^2} \quad \ldots\ldots\ldots\ldots (4).$$

This equation, like the one immediately preceding, does not require the extraction of the square root; for the symbol p, whose value is represented by it, enters the equation of equilibrium only in the first degree, and consequently its value is found by simple multiplication and division, as directed by the rule following, viz.:—

RULE.—*Multiply the square of the diameter of the pump in inches, by the height of the column of water in feet, and divide the product by* 2·304 *times the square of the diameter of the steam cylinder in inches, for the pressure of the steam requisite to balance the column of water.*

EXAMPLE 4.—Suppose the diameter of the pump to be 26 inches, and that of the steam cylinder 44 inches, what pressure of steam will balance a column of water 132 feet in height, its diameter being the same as that of the pump?

Here, according to the rule, we have

$$p = \frac{26^2 \times 132}{44^2 \times 2{\cdot}304} = 20 \text{ lbs.}$$

the pressure required.

T.

CHURCH-BUILDING NEWS.

Swalcliffe (Banbury).—On 22nd ult. the ancient church of St. Peter and St. Paul, Swalcliffe, which has been recently closed for the purpose of renovation, was reopened for Divine service. The pews have been lowered and rearranged, the unsightly gallery at the west end entirely removed, and the whole nave cleaned and renovated. At the east end of the chancel is a window of stained glass (the donation of the warden of New College), representing four incidents in the Old Testament, and the like number in the New. Six other windows in the chancel,—two of them presented by the Fellows of New College,—three, the gifts of private individuals,—and one, with the figures of St. Peter and St. Paul, presented specially to the vicar by the clergy and others of the neighbourhood,—may be noticed. The seats in the chancel, which are of oak, have been thrown open. The screen between the chancel and nave has been lowered and repainted, and the sounding-board, which for many years disfigured the pulpit, has been removed.

Gornal Wood.—The new chapel at Gornal Wood, for the Methodist New Connection, just erected by Messrs. Hinton, under the superintendence of Mr. Wigginton, architect, was opened on the 19th ult. when 199*l.* was collected. The chapel is 44 feet by 36 feet in the clear, and accommodates 550 worshippers, and,

instead of a pulpit, it is fitted up with a platform, circular on face, 14 feet by 7 feet, for the purpose of facilitating the holding of missionary meetings.

Teignmouth.—A small Roman Catholic Church was opened with considerable ceremony in this town on the 19th ult. It is dedicated to St. Charles, and is in the Gothic style, from plans by Mr. Hansom. The cost, including internal fittings, is about 1,000*l.* Mr. S. Hayman, of this town, was the builder.

Greenacres (*Oldham*). — A Congregational Church was opened here in August last, and occupies a lofty position on Greenacres-hill, near the town of Oldham. The plan is in the form of a cross, the nave and transepts being all of the same width and height. Five arches of brickwork spring from the angles of the cross, and support the roof, in lieu of wood principals. The tower contains a centre shaft, which finishes with a small spire, and is made to ventilate the interior of the church. Each arm of the cross is occupied by a gallery, and there is accommodation for 800 people. The extreme outside length is 73 feet 6 inches; ditto width, 56 feet 6 inches. The total cost was 2,100*l.* including heating apparatus, architect's commission, &c.

Greenock.—Miss Stewart, sister of Sir Michael R. Shaw Stewart, Bart. has given 10,000*l.* to endow an Episcopal Chapel in Port Glasgow, securing 200*l.* a year to a rector, and 100*l.* to a curate. A church, having chancel and nave, and a rectory and schools, will also be erected by the same lady, and will be finished by Whit-Sunday, 1856. The ground will be given by Sir Michael. The congregation is to be burdened only with the maintenance of the fabric, in which there is to be daily service, and the seats are to be free and unappropriated for ever.

SIGHTS AND SCENERY.

Royal Princess's Theatre.—The pantomime here is founded on the immortal story of "Blue Beard," and is very neatly put together. The best scene in it, so far as the painter is concerned, is the Enchanted Garden, by Mr. Gordon, and the most excellent for what is technically called the "business" of it, is the Quarter Deck of the *Royal Albert*, fully manned by a crowd of children. The imitation of the Spanish Dancers by the clown, Mr. Huline, and the new French dance *La Flotte*, wherein the allied fleets are manœuvred on the heads of the ballet corps, are amongst the good points of the piece. Dramatically, the acting of Mr. C. Kean and Miss Heath, in "The Stranger," is the event of the week.

Royal Lyceum Theatre.—As usual in the extravaganzas at this theatre, Mr. Beverly puts forth his strength in the last scene of each act of "Prince Prettypet;" the first, a piece of fine painting, the Crystalline Haunt of the Butterflies; the second, one of those combinations of colour, mechanical arrangement, and pretty faces, for the invention of which the public are indebted to him. Scenes after the same type are now introduced at most of the theatres, but the originator maintains his ascendancy. The Crystalline Haunt is very like a scene in a previous piece, but is, nevertheless, singularly beautiful. The extravaganza is very well played and sung by Miss Gordon, Miss Ternan, and Mr. F. Matthews.

Theatre Royal, Adelphi.—The last scene of the first act of the extravaganza here, called "Zigzag Travels of Messrs. Danube and Pruth," represents the Banks of the Danube by Moonlight, and is very effective. It is of the character that Mr. Pitt does best. The piece itself is all about everything: it has some very good dancing in it, some pleasant singing, and one scene of genuine acting,—the fraternization of the French and English troops, represented respectively by Mr. Gardon (very cleverly) and Mr. Paul Bedford. The descent of the "divingbelle" in the first scene is a good notion.

Theatre Royal, Drury-lane.—Touching the glittering and in many respects very clever pantomime here, we will allow a correspondent to speak for himself:—

"In the Drury-lane pantomime 'Jack and Jill' may be seen two gigantic sticks of celery, fixed to the O.P. and P.S. wings. They are of the full height (21 feet 6 in.), from the 'boards' (or stage) to the 'flies,' and were modelled from nature by 'Dykwynkyn,' whose real name has appeared in nearly every number of the *Builder* from its commencement as the patentee, &c. of a material intimately known to and extensively used by every architect of eminence in the profession, and of course by *builders* generally. 'Dykwynkyn' claims the merit of being the first who ever *attempted* to model scenery, and its subsequent treatment—colouring and decoration, and the said 'Dykwynkyn' disclaims all connection with." K. M. C.

The Polytechnic.—Some excellent additions have been made to the entertainments here, including a capital exposition by Mr. Pepper, of Professor Wheatstone's experiments on the developments of sound by means of reciprocating surfaces. A band playing in a distant apartment are unheard; but connect the different instruments, by means of thin rods of wood, each with the sounding-board of a harp in the lecture-theatre, and the music is audible to all as if it were present. The experiments prove, what we have often speculated on, that music might be *laid on* to the houses of a town from a central source like power, gas, or the water. A well-known joker, at the private view, proposed the establishment of a "band-ditty" company on the spot. The wild story of Sindbad the sailor, is told by Mr. George Hodder, and is charmingly illustrated by a series of dissolving views and other optical effects,—the best, as a whole, ever seen. And then there is Perkins' steam-gun, with all sorts of things besides.

THE DECAY OF STONE.

The skilful combination of practice with science in your admirably conducted paper, induces me to send you the following observations, in the hope that they may prove interesting and useful to the intelligent practical men who read the *Builder*. The tower and spire of All Saints' Church, Wakefield, are built of the common sandstone of the neighbourhood, and are in a very dilapidated condition. The mortar used in the erection may fairly be supposed to have come from the nearest (which is also the best) source, and to be of the kind now employed, which is principally made from the magnesian limestone. Externally decay has done its work too completely to allow of the examination of its process which is possible within, and certainly when the perishing of the stone in this old building is taken in connection with certain appearances in new ones, much interest is attached to it. A few stones which have either been faulty when placed in the wall, or laid with vertical instead of horizontal beds, have perished variously, and often from the middle towards the edge. But, these excepted, the rule of decay is almost universally *from the edges towards the middle*, commencing at the stones' junction with the mortar. In the majority of instances, the tool marks in the centre are as fresh as when the workmen placed the stones in the building, while at each edge nearly every stone is perishing. The obvious inference from this is, that the contact between the mortar and the stone is the cause of the phenomenon. May not the *mode* of this action be learnt from what is seen in new buildings? The stone, when laid in a wall at first, is uniform in colour, and remains so for a few days, the time apparently depending upon the hygrometric state of the atmosphere, and the wetness of the mortar. Soon a dark discoloration is visible along the point, and creeps over much of the face of the stone, and I have even seen it extend over the whole of a quoin a foot square. In process of time, as the work becomes dry, the original dark band next the joint appears bleached, and remains permanently whiter than the rest of the stone. This *whitened portion* in modern work, corresponds accurately with the *perished portion* in the old, and if both have not the same origin, the coincidence is remarkable. But how are we to account for what we see take place at present? I believe analysis will show that the stone contains a soluble salt of the protoxide of iron as well as of soda. That the caustic hydrate of lime acts upon these, and withdraws so much of the iron as is within its reach (*i.e.* what was contained in the portion which becomes whitened), and forms a double salt with it, while it only deprives the soda salt of its acid. This latter gradually effloresces, whitening the stone, and causing it to decay. Confessedly this explanation is hypothetical till demonstrated by analysis, but yet I think the following fact will render it highly probable. When my church was built, the mortar for the external work was specified to be mixed with coal-ashes to darken it. For this I substituted sand from an ironfoundry, which after it is useless for moulding is mere waste. This necessarily contained a considerable quantity of protoxide of iron, and if the above explanation have any value, it ought to have prevented the phenomena witnessed, when lime is used in its normal state. Such was the fact. No discoloration and no subsequent bleaching were visible where this mortar was employed, whereas all the stone in the interior of the church exhibited the action of the mortar in a marked manner. It is now eight years (a considerable period for stone to remain uninjured by our smoke and wind), since the work was done, and I have not detected an instance of joint perishing in the whole. The stone inside a new church, recently erected in the town, is now passing through the dark stage, and I suppose by next summer it will reach the lighter one. The action of lime upon the bricks of this district, is to render them nearly as white from a soda efflorescence as if they had been dusted with flour. I should not have troubled you with these details, had they appeared generally known, which does not appear to be the fact. I called the attention of two friends, who are architects by profession, and of several practical builders, to the joint perishing, and its apparent connection with discoloration, and was informed that the subject was quite new to them. I thought, therefore, they might prove both interesting and useful. If so, two small walls of brick, and two of stone, might be built with each kind of mortar, and when all action appeared to cease, the mortar stones and brick in each case might be analyzed, and the results compared with an analysis of each made before the experimental walls were erected, and thus the question here raised would receive a solution.

W. R. Bowditch.

THE ABUSE OF WORKS BY LIVING ARCHITECTS.

No one, I suppose, will be bold enough to dispute the position of your correspondent "R. W." "that personal considerations should not be allowed to interfere with criticisms that have for their object the discovery of the truth." But there is a limit beyond which criticism loses itself, and begins to wear all the appearance of abuse, and when carried to this extent, I think it may well be doubted whether it in any way assists our progress towards the truth.

Suppose a man to have an earnest desire to enable the public to appreciate beauty in architecture. He begins to inculcate principles which he feels to be true and incontrovertible. Suppose, further, that they *are* so, and that he has put them forth in a clear, intelligible, and practical manner. Then his hearers and readers will be perfectly competent to decide for themselves on the merits of the buildings that are rising around them. He will have no occasion to go on and settle for them in strong language what buildings they may set down as bad, except, indeed, to minister to the indolence of those who like to have their thinking done for them, and to enable them to say, "I dislike it because Mr. So-and-so abused it." In any other way than this, the language of abuse can never add force to principles founded on truth; and if it be unnecessary, it surely is natural to expect that a critic of liberal mind will show a slight degree of consideration for private feeling by observing some moderation in his use of superlative adjectives.

M. A.

WATER IN COVENTRY.

As a humble inhabitant of Coventry, allow me to thank you for the well-merited strictures which appeared in your paper, on the late case of water-stealing which came before our magistrates; for the powers that be are so omipotent here that they are callous against any merely local rebukes. The true secret of this constituting of water-taking into a *criminal* offence is, that the corporation have of late years become *water sellers*, and, therefore, the waterworks are converted into an engine of taxation. These waterworks, although established at the public cost, by the sale of public property, or the mortgaging of the public rates, are a most oppressive instrument in the hands of the corporation. Coventry has a large

and poor population, which formerly used to be plentifully supplied with good water from numerous public pumps and wells. These have, to a great extent, been destroyed, dried up by tapping the springs, or otherwise rendered useless; and then the corporation, having effected or permitted this spoliation, caused informations to be laid, by hundreds at a time, charging people with being destitute of water, and compelling them to lay on from the public works, in order to swell the corporation revenue.

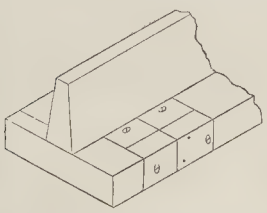
The principle of equity points out the old public gratuitous supply of water ought to be maintained; and I think it dictates with equal force, that inasmuch as the waterworks are the property of the town, the charge for water ought to be no more than is necessary to pay the working expenses, the interest of the capital, and a small annual amount towards the reduction of the debt upon them.

The manner of charging for water is also most anomalous and unfair. Under the Public Health Act, by which the corporation are enabled to compel persons to *purchase* water (after having dried up the gratuitous supply), they cannot charge more than at the rate of twopence per week; but under their own Waterworks Act they impose a water-tax of one shilling in the pound, on the full rental of a house. But then there is another system of compounding, whereby our householder, under certain circumstances, may get his water for little more than half what his next door neighbour does. In short, the entire system of water-supply, water-charge, and water-taxation in Coventry, is full of anomalies and injustice; and if the *Builder* can aid in the improvement or correction of such a system, by calling attention to it, a great boon will be conferred upon those who suffer from it.

A BURGESS OF COVENTRY.

STANDARD TO TEST LINEAL MEASURE.

BY an accident, the diagram showing the standard for testing lineal measures, proposed by the writer of the article in our last number (p. 664, vol. xii.) was not inserted. We now rectify the omission. The diagram is to about a one-third scale, and shows one end of the standard proposed. The bottom piece, or scale, is about 41 inches long, 3 inches broad, and ⅜ inch thick, with an edge-bar 1¼ inch deep. The material is straight-grained yellow pine, as full of turpentine as can be selected; and it is essential that the edge-bar shall be cut from the side of the same piece as the bottom or scale. The edge-bar is attached by six strong brass screws from under the bottom-piece. On one side of the scale there are four brass return-plates, and on the other side are two similar plates, all let in flush with the wood, and



securely screwed with brass screws; the four on one side being for 3 feet, and the two on the other for a length of 5 links of the land-chain. When finished, varnished, and suffered to stand by for a few weeks, the feet and links are struck off from the dividing-engine, taking an opportunity, when the temperature of the air is 62°, so as to get upon the wooden scale the true legal measure. A small plate of ivory or brass should be screwed on each side of the edge-bar, one stating that the measure is feet, the other links, with the temperature noted. Such a standard as this is strong, not liable to be put out of order, and is adapted for the office or workshop, for testing the various measures employed.

FIXTURES.

ELLIOTT AND BISHOP.

THIS was a special case in the Court of Exchequer, framed under the recent Act, for the opinion of this Court on facts which may be thus briefly stated:—

The plaintiff took a lease for 97 years of a newly-erected building in Camden-town, intended for a tavern, from the ground landlord, and, having expended a large sum of money in finishing and fitting it up fit for immediate occupation, he sold the lease, less a fractional part, to the defendant, for nearly 6,000*l.* including 5,000*l.* for goodwill, 50*l.* for trade-fixtures, and 72*l.* 16s. for tenant's fixtures, under the usual valuation. By the terms of the contract the new lease was to contain, and did contain, a clause which was in the original lease, and by that the defendant bound himself to give up the premises at the termination of his lease, "together with all locks, keys, bars, bolts, marble and other chimney-pieces, foot-pieces, slabs, and other fixtures and articles in the nature of fixtures, which at any time during the said term should be fixed or fastened to the said demised premises or be thereto belonging." Under these circumstances the defendant objected to pay the valuation for the trade and tenant's fixtures, contending that the plaintiff had no right to remove them, and could not therefore sell them, in which predicament the defendant would also be at the termination of his sub-lease. The plaintiff, on the other hand, contended that the words "other fixtures" ought to be confined to fixtures *ejusdem generis* with those which preceded it in the clause in question, and the operation of which would then apply only to landlord's fixtures.

The Court also differed in opinion on this case.

Mr. Baron Parke was of opinion that the clause applied both to trade and tenant's fixtures, and that the plaintiff could not recover in respect of either.

Mr. Baron Platt was of opinion that the clause applied to neither, and ought to be limited to landlord's fixtures, in which case the plaintiff would recover for both classes of fixtures sold to the defendant.

Mr. Baron Martin took a middle course, and a judgment was delivered on his behalf to the effect that the plaintiff could recover for the trade-fixtures, and not for the tenant's fixtures.

The consequence of this diversity of opinion was, that the judgment of a majority of the Court was against Mr. Baron Parke, and for the plaintiff in respect of the trade-fixtures, and a majority against Mr. Baron Platt, and in favour of the defendant, in respect of the tenant's fixtures. In the end, therefore, judgment was given for the plaintiff for 50*l.* that being the agreed value of the trade-fixtures.

Judgment for the plaintiff accordingly.

Notices of Books.

VARIORUM.

We have a pile of books before us, and must speak at length of some of them hereafter. Messrs. Longman have issued a fresh edition (the third) of Gwilt's very valuable "Encyclopædia of Architecture," but we do not observe that any considerable additions have been made since the second. It should be possessed, and used, by every architectural student.——Neville's "Hydraulic Tables, Coefficients and Formulæ," published by Weale, may be very usefully consulted by all who have occasion to investigate the discharge of water from orifices, notches, weirs, pipes, and rivers. Mr. Neville is the county surveyor of Louth and Drogheda. An elaborate set of tables is appended.——The second volume of "The Chemistry of Common Life," by Jas. F. W. Johnston, M.A. (Blackwood and Sons), is completed, and is full of valuable information, conveyed in a very interesting form.——"The Handbook for Young Painters," by C. R. Leslie, R.A. (Murray), is a very important manual, fully illustrated.——The same publisher has issued a work in three volumes, on "The Origin and Progress of the Mechanical Inventions of James Watt," by J. P. Muirhead, M.A. which will afford us matter for an article.——The reports of the Analytical Commission of the *Lancet*, on the solids and fluids consumed by all classes of the public, have now taken the shape of a book, under the title of "Food and its Adulterations," by Arthur Hill Hassall, M.D. (Longmans). Mr. Wakley incurred great responsibility by publishing the names and addresses of the parties from whom the articles examined were purchased, and Dr. Hassall bears testimony to the strict impartiality and disinterested conduct of Mr. Wakley throughout the publication of the reports.

AN AMERICAN MILL.—The *Lowell* (Mass.) *Journal* speaks of a mill called the Pacific, at Lawrance, of which the floor surface is sixteen acres. There are now in operation in this mill, it states, 40,000 cotton spindles, and 10,000 worsted spindles, and these are to be increased to 80,000 and 20,000 respectively. There are 1,200 looms in operation, to be increased to 2,400. These, with 2,000 hands, produce 300,000 pieces of cloth per annum, one-half delaines. Once a month the 2,000 hands (females chiefly, it would appear) assemble at the cashier's office, when they are paid about 50,000 dollars for wages.

Miscellanea.

VALUE OF BUILDINGS AND GROUND IN MELBOURNE.—In one case, a house purchased for 250*l.* lately fetched 12,000*l.* Another offered to Government for the use of military officers for 3,000*l.* a month after was valued at 5,000*l.* They still hesitated, and the price gradually rose to 6,000*l.* which sum Government declined giving, having about that time received iron barracks. As another instance, Government long desired Degrave's blue-stone store, and made many liberal overtures, but without tempting the proprietor to sell. They at last asked him to name a price. He meditated awhile, and then, as his *ultimatum*, named 85,000*l.* The price of town-land is declared to be almost beyond credit, there being no limit to the extravagant idea entertained by buyers, as well as sellers, as to its value. Of late there has been a sad depreciation, however, in all sorts of merchandize here. The recoil of glut is found in almost every department, and as a consequence, numerous failures have taken place. Some accounts state that firms, worth 20,000*l.* six months since, could not now strike a balance of as many shillings in their favour. Artisans are said to be suffering proportionately from the depression.

THE IRON TRADE.—Prices, as usual, after being screwed up to the highest possible pitch, are now tumbling down faster than they rose. At the preliminary quarterly meeting of South Staffordshire iron manufacturers last week, there was a complete split of the self-constituted authorities in the trade of that district, the majority being determined to pull down prices, which they formally did, to the extent of 30s. a ton for sheet iron, and 20s. for other kinds, while some went even so far as to insist on a reduction of 40s.—a determination which they declared they would carry out by circulars dating from 1st January, notwithstanding the decision of the majority; and those, on the other hand, who resisted all reduction, announced that they left the meeting under no obligation to abide by its decision. The nominal prices of the majority are—bars, 10*l.*; hoops, 11*l.*; sheets, 11*l.* 10s. Ordinary hot blast pigs are quoted at 4*l.* 10s. to 4*l.* 15s. Manufacturers are said to be pressing hard on the pig-furnace proprietors, offering prices so low as to be equal to a reduction of 4*l.* a ton on finished iron. The American trade seems to be near a close, as there is scarcely an order for iron of any description from America. Whether it be now too late for lower prices to tempt the Americans back again remains to be seen. New iron fields are being opened in the west of Scotland.

MILITARY TRAINING.—A correspondent of the *Bath Herald*, "H. L." suggests that Government should invite teachers to employ drill-sergeants to teach the boys under their tuition the manual exercise. Painful as it is to think there is any necessity for cultivating a military spirit in this way, it certainly would have its advantages in a sanitary view, as we have often urged in more peaceful times; and should the rising generation not require to use their gymnastic and manual acquisitions under military circumstances when they grow up, so much the better; meantime, they will certainly have derived both physical and moral benefit from such training.

THE SCOTTISH ARCHITECTURAL EXHIBITION.—On Friday, the 29th ult. the Scottish Exhibition of Arts and Manufactures connected with architecture, was opened in the new Exhibition-hall and Galleries, Bath-street, Glasgow, when a numerous assemblage took part in the opening ceremonial, including the Lord Provost of Glasgow, Sir Archibald Alison, Sheriff Bell, and the Committee of Management. We shall return to the subject; meantime we may state that the building consists of two large halls and several ante-rooms. The largest of the apartments extends the whole length of the building, and is lighted from the roof. On the east side of this hall are five rooms, each fitted up in a different style. Over these is the second hall, also lighted from the roof, but, of course, only half the height of the principal apartment. In the front building towards Bath-street, there are also several smaller rooms, each appropriated to a particular department.

THE BUILDERS' BALL.—As already announced, the usual annual ball in aid of the Builders' Benevolent Institution, will take place on the 8th of February, at Willis's Rooms, St. James's. We hope the gentlemen connected with the trade—but more especially the ladies of their families—are doing their utmost to render this charitable assembly a brilliant one. The amount, by the way, required for the almshouses, is accumulating slowly. Why do not the trade make a grand effort to have them erected at once?

THE CITY STREET TOLLS AND DUES, payable by non-freemen, have been abolished, by order of the Common Council, a measure recommended by the Royal Commissioners. The net income the corporation lose by the abolition of the tolls amounts, it is said, to 4,593*l.* 13s.

Gas in Rome.—The establishment here, under the management of Mr. Shepherd, is working well, and will return a good profit in the first year, a thing not very common in the annals of Continental gas-works. Great complaints are made of the way in which some of the work from England was done. The loss of gas was very great in consequence; but, by opening the ground and repairing, the evil has been cured.

Lectures on Gothic Architecture at Doncaster.—Mr. E. B. Denison, Q.C. has been lecturing at Doncaster on Architecture, in connection with the parish church now in course of re-erection. The lecturer took occasion to combat the notion that the ornamentation of churches or even the building of them in the Gothic style, is connected with Popery; and showed how in all ages and in all countries of the world the passion for magnificent building, not only for religious but for all other public purposes, seems to be inherent in the minds of civilized men; and after giving amply sufficient illustrations of his statement, he remarked that it would be strange indeed if churches, which are intended for the highest of all public objects, should be the only public buildings consecrated to ugliness. As to the supposed connection between Gothic architecture and Popery, he said that it was a striking fact, that, although Gothic architecture arose among the nations who overran the ancient Roman empire and city, it had never been able to take root in Rome, the head-quarters of the Romish religion, or even in any part of Italy. It is equally remarkable that Gothic architecture decayed and fell long before the Reformation; that it was not revived by the Roman Catholics when it did revive; and that to this day they have not among them a single architect whose works are equal to several that could be named among our own. The best that can be said of their best architect, Pugin, he thought, is, that before his death he had learnt enough of architecture to confess that he had never erected a single church that was not a failure.

Caterham Railway.—The directors of the company for forming a railway from Caterham to Godstone-road Station, and thence to the West Croydon Station, have introduced a new feature into their scheme. Considering that the value of the adjacent land will be increased in value by the formation of the line, they have secured 150 acres of it; and this, at the first meeting after the opening of the line will be conveyed to the shareholders or their nominees in the proportion of one acre to the holder of each twenty shares of the original capital, with power to such of the shareholders as desire it, on payment of their shares in full, to select and have immediate possession of the land, to be taken in respect of their shares, the order of selection to follow the order of the payments of the shares. Every resident freeholder or leaseholder on the estate is to be entitled to receive from the company a free pass over the railway for twenty-one years from the opening of the line.

Fatal Sewer Accident at Derby.—An inquest was held on Tuesday week, at the Town-hall, Derby, on view of the body of a labourer, who met his death by the bursting of a water-pipe in a new sewer at Duffield-road. It appeared from the evidence adduced that the trench, which is part of the sewerage works being carried on by the Board of Health, is 12 feet deep, and 2 feet 6 inches broad. By the side of it runs a cast-iron water-pipe, which broke, and the water, as well as the earth upheaped upon the pipe (the near proximity of which the workmen were unaware of), rushed upon the deceased, and he was suffocated. An hour elapsed ere the body could be extricated, and life was then extinct. The jury found a verdict of "Accidental death," but strongly recommended that greater caution should be observed in future in the removal of the stretchers, more especially where the sewerage was deep.

Strength of Bricks.—In your publication of last Saturday, in the paragraph headed, "A Brick," you stated there must be some mistake in the figures. We beg respectfully to state that the weight referred to by the *Athenæum* was the lateral strength of the brick, and not the weight required to crush it. The way these are tested, is by placing them on bearings, 7 inches apart, and the breaking weight is applied to the middle of the brick. We shall be glad if, in your next, you will be kind enough to correct this, your remarks referring to the capability of bricks to resist a crushing force. These experiments have been made long since. *We* refer solely to the *lateral* strength of the brick, and we are not aware that up to this time any experiments have been published relative to bricks so tested. It is important that it should be stated in its true light. We know of no brick which will bear the same pressure: the average of twenty-five only has been given. Several were upwards of 3,600 lbs. and one of them sustained a pressure of 3,733 lbs.—T. and W. F. Beale.

*** The patentees should have stated their experiment differently.

Baths, &c. in Berlin. Baths and wash-houses on the model of those at St. Martin's, are in course of erection at Berlin. The fittings in the first-class rooms are of pale apple-green enamelled slate. Those in the second-class rooms, swimming-bath, drying-rooms, &c. are of plain polished slate. We are informed the whole of the slate work is being executed at the Pimlico Slate Works. It must be gratifying to the proprietor, Mr. Magnus, to see his invention of enamelling slate adopted by almost every architect of eminence at home, and gradually finding its way into works of magnitude on the continent.

False Certificates and Dishonest Appropriation of Money.—Proceedings have recently taken place in the Court of Bankruptcy, in Basinghall-street, City, which we would much rather pass over in silence were it not that honesty itself demands a record of it in our pages. Mr. Wallen, a surveyor, or as he is called in the bankruptcy proceedings, "an architect, surveyor, and builder," of Lawrence Pountney-lane, City, has been declared bankrupt, with this blot upon his name, that the Judge, Commissioner Evans, declares the bankrupt to have been "guilty of a gross fraud," and "of getting money (500*l.*) on false certificates" as to work done, and which money he appropriated to expenditure, on his own part, in itself unjustifiable, instead of paying it over to another to whom it ought to have been paid. The bankrupt's certificate was, therefore, adjourned for one year, and, when granted, to be of the third class; protection also to be suspended for six months. A certificate of execution was also granted to the gentleman, Mr. Liddell, to whom the 500*l.* ought to have been paid, and who had been compelled to give a mortgage for 340*l.* in an action by Mr. Durant, who had paid the money to Wallen.

Quarrying.—An experiment has just been made at Nitshill, near Glasgow, which promises, it is said, to introduce an improvement in the art of quarrying. Mr. Dove, a quarrier at Nitshill, had received an order from the Clyde trustees for a supply of large foundation stones for the new quay on the south side of the harbour. A post of rock, 52 feet long, 9 feet wide, and 7 feet 6 inches high, was operated upon. Behind it a row of holes was drilled down at about 7 feet apart, and the whole depth of the post. Each of these was charged with about 7 lbs. of gunpowder, and all were fired simultaneously by electricity. The whole mass was shoved forward about half an inch, and lifted so much off its bed that the smoke of the powder was seen escaping from below. The quantity raised was about 250 tons in weight, and this with only 14 lbs. of powder. The battery used for firing the train had had thirty-six pairs of plates, 10 feet by 12 feet. A mass of rock, 3,000 tons in weight, was next prepared to be operated upon in the same way, but we have not heard of the result.

City Crossings.—There are some of our street crossings which are extremely dangerous after dark, and accidents are constantly occurring. Going from the City to West-end daily, the first passage I have to make is from Fenchurch-street to Lombard-street, which, on a slippery night, is not accomplished without difficulty. Then comes the bewildering pass to get to the Mansion-House. Here I often see ladies waiting hopeless and helpless, until some one politely volunteers to "put" them across. St. Paul's offers the next puzzle, and your mind is not easy until you have done Ludgate-street and Fleet-street. A bridge was proposed over these places, but the plan has difficulties. I would suggest that as the danger is most seriously felt after dark, a flood of light should be brought to bear on all important crossings. I do not consider myself rash or incapable, but I have frequently been nearly run over at these places, for the simple reason that the want of light has prevented me from seeing the presence of danger.—G. C.

New Motive Power.—A series of experiments with M. Du Tremblay's system of employing ether in conjunction with steam on board steam-vessels, and thereby, it is said, obtaining a great increase of motive-power, at less expense than that of steam by the existing system, were made lately at Toulon, on board a vessel called the *France*, which had been supplied with the necessary engines. These experiments are reported to have been attended with perfect success. The average speed obtained is said to have been nearly nine knots an hour, with a saving of fuel compared with the existing system of 50 per cent.

Glass a Substitute for Marble.—An American, we hear, has invented a process by which glass is made to perfectly resemble, and answer all the purposes of marble, at 50 per cent. less cost. Centre tables, mosaic floors, grave slabs, monuments, and even statuary as per mould, are the alleged fruits of this process. "The quarries of Carrara," says the *New York Churchman*, "can yield no more delicately-veined blocks: the sand that lies in the bill side, the open field, or out on the beach yonder, touched by the inventive genius of our age, becomes marble."

New Fibrous Materials for Paper Manufacture.—Ever since some paragraphs on the scarcity of paper material appeared in our columns, we have had occasional communications offering suggestions and enclosing specimens of materials. The latest of these latter has been forwarded to us by a correspondent at New Orleans, Mr. Walter Carswell, who appears to have patented its adaptation to paper manufacture, and is desirous to bring it into notice. To this end Mr. Carswell forwarded specimens to our Government, who referred the matter to the Board of Inland Revenue, the latter of whom appears to have reported favourably of its felting and other adaptabilities to paper manufacture, but the Government declined, as a matter of course, to interfere with actual production or trading operations. So far as regards ourselves, not being brokers we cannot entertain Mr. Carswell's proposals as to "brokerage," but we are willing to afford him the benefit of our circulation in assisting to bring the material referred to into notice. It consists of masses of strong and tough flax-like fibrous matter singularly matted together, or "anastomozed," as a physiologist would say, were it a mass of blood-vessels instead of vegetable fibres. We have examined the fibrous structure with a microscope, and find that it would appear to be easily reducible to very fine filaments, which, from their curiously interlaced arrangement, even as they are, we are disposed to think the report of the Board of Inland Revenue right in believing to possess a felting property adapted to paper manufacture. The Board have some doubt as to its bleachable quality, but they had it tested only with acids, whereas Mr. Carswell finds that alkalis do bleach it, and we have little fear but that chemists would find no difficulty with it in this respect.

Telegraphic.—A Dublin merchant has obtained a verdict for 20*l.* damages against the Magnetic Telegraph Company for failing to send a message which they undertook to transmit to a person in Scotland. The case for the defence was that their contract in this instance, as in all cases, was to be subject to casualties arising from the state of the weather; and that on the occasion in question, owing to that cause, they were unable to send the message further than Belfast.

Survey of the Township of New Brentford, Middlesex.—At the meeting of the Board of Guardians, Brentford Union, on the 27th ult. Mr. Paine was appointed to the survey of the parish and township of New Brentford, subject to the approval of the Poor-Law Board.

Death from Fall of a Roof at Brierly-Hill.—On Wednesday before last, a girl was killed by the falling-in of an arched brick roof of a smoking-house, at a small pottery at the Thorns, near Brierley-hill. The deceased, with some four or five other persons, including the owner, was engaged in the smoking-house, a place about 12 feet long and 8 feet wide, with an arched roof probably 10 feet high, when, from some cause at present unexplained, the roof suddenly fell in, burying the deceased, and severely injuring a man who happened to be there at the time.

TENDERS

For wood-work required in the erection of a shed at Batley, near Dewsbury. Mr. M. Sheard, jun. architect.

Booth	£1,145	0	0
Akeroyds	1,050	0	0
Stead	1,030	0	0
Fozard	990	0	0
Laycock	979	0	0
Williams	899	0	0
Fawcett (accepted)	742	0	0

For additions and alterations to the workhouse for the parish of Paddington. Mr. George Parminter, architect. Quantities supplied by Mr. Northcroft.

Myers	£10,234	0	0
Harding	9,985	0	0
B. and C. Hayne	9,972	0	0
Patrick and Son	9,788	0	0
Batterbury	9,739	0	0
J. and C. W. Todd	9,389	0	0
Lindfield	9,308	0	0
Rowland and Evans	9,296	0	0
C. Bennett	9,070	0	0
Higgs and Cullingford	9,015	0	0
Hopkins and Roberts	9,000	0	0
Wm. Higgs	8,999	0	0
Pollock and M'Lennan	8,880	0	0
S. Wilson (accepted)	7,951	0	0
Rudkin	7,950	0	0

TO CORRESPONDENTS.

Royal Academy Prizes.—The prize for best painting from life was awarded to Mr. E. F. Holt (not "Hall," as misprinted in the list already given).

"*Glue.*" How can I obtain the strongest glue for *wood* known to the arts; I mean for articles of small size? The marine glue, so indispensable for shipbuilding, does not answer my purpose. I believe the composition made use of by bow-and-arrow manufacturers is excellent, but I am not cognizant of its ingredients.—Artifex.

"J. M." (the cornice and the wall-mouldings should be measured separately; the backing for the frieze with the plain work), "W. Y." "W. R. B." (will appear), "R. R. R." (we shall be glad to hear result of inquiries), "J. E. and Sons," "E. G." "W. H. F." "W. M. H." "E. W. C." "J. M." "T. J. P." "S. H." "Architectural Student" (shall be borne in mind), "J. B." "T. D. B.' "E. B." "XXXX" (we have no great fraith in sounding boards), "E. H. M." "E. P. B." "W. H." "W. C. T." "J. E." "G. P." "R. D. S." "C. E." "W. H. T." "Dr. W." "R. L. C." (names are not clear), "J. J. L." "W. T. M'C." "An Old Subscriber," "P. A." "J. B. MG." "Reader of the *Builder*," "J. M." "J. E. G." "One who is thankful for 'The Shadows.'"

"*Books and Addresses.*"—We have not time to point out books or find addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

A PUPIL can be received immediately into an ENGINEER'S ESTABLISHMENT. The Pupil's progress will be duly attended to, and an opportunity will be offered for his learning all the principal branches of the profession. A moderate premium is required.—Address J. M. No 9, Strand.

TO GAS-MAKERS, GAS-FITTERS, MECHANICS, AND OTHERS.

AN intelligent, trustworthy Man, competent to keep accounts, and who can be well recommended, is WANTED as FOREMAN or MANAGER for the Uxbridge and Hillingdon Gas Consumers' Company. The salary will be about sixty guineas a year, with fuel, light, and residence.—Application by letter (post-paid), inclosing testimonials, may be addressed to Mr. W. GARDINER, Solicitor, Uxbridge, up to the 18th JANUARY, when the Board will meet.

CLERK WANTED.—A Young Man, about 25 years of age, practically acquainted with Contractors and Builders' accounts, and fully competent to pricing out the trades' charges. Keeping prime cost of works and the usual office books. Letters, inclosing testimonials, specimen of handwriting and figures, and stating age, where last employed, and salary expected, to be addressed to S. T. post-office, 1, Ranelagh-terrace, Pimlico.

GASWORKS.—The Directors of the Harwich Gaslight and Coke Company are desirous of ENGAGING a duly-qualified PERSON to SUPERINTEND their WORKS.—Particulars of duties and emolument may be had on application to the Engineer, Mr. JABEZ CHURCH, Chelmsford, to whom testimonials must be sent, not later than the 12th day of January, 1855.—Dec. 23, 1854

SMITHS' FOREMAN WANTED, in a House doing a general trade in grates, ranges, smiths' work, &c. Hours same as workmen. Apply by letter, stating age, where last employed, and salary expected.—Address Y.Z. at Mr. Hallifax's, 313, Oxford-street.

TO CABINET-MAKERS.

WANTED, a good CABINET-MAKER. Reference as to ability will be required.—Apply by letter, post-paid, to FOORD and SONS, Rochester, Kent.

WANTED, a Young Man as AGENT, with good education and address. A good agency will be allowed.—Letters, post paid, will be attended to. Direct, Mr. W. COUCH, 3, Croydon-street, Bryanstone-square.

TO ENGINEERS' CLERKS.

WANTED, a Person capable of TAKING CHARGE of the BOOKS of a manufacturing engineer —Apply, by letter (prepaid), to A. B. Mr. T. Weller's, News Agent, Lillipot-lane, City, stating salary required, and giving references.

TO FOREMEN OF SMITHS.

WANTED, a thoroughly good WORKING FOREMAN, accustomed to hot water and steam work, iron railing and gas-fitting.—Apply to W. T. at "The Builder" Office, stating where last employed and wages required.

WANTED, a confidential SITUATION, in the Timber or Building trades, management of repairs, &c, by a person of middle age, well educated, and of good practical experience in Carpentry and business generally, and who is willing to be otherwise useful in any employment where activity, sobriety, and general steadiness of character is required. Good references and security.—Address A. Z. Market-street, Newington Causeway.

TO ARCHITECTS.

WANTED, by a Young Gentleman wishing for increased practice, a SITUATION as DRAUGHTSMAN, in the office of an architect. Salary, one guinea per week. Address, Z. 7, Great College-street, Westminster.

WANTED, a SITUATION as SHOP or GENERAL FOREMAN, or CLERK of WORKS, by an experienced person.—Address, Z. S. care of Mr. Sturgess, 7, Brewer-street, Pimlico.

TO ARCHITECTS AND BUILDERS.

WANTED, by an experienced Man, a RE-ENGAGEMENT as CLERK of WORKS or MANAGING FOREMAN. Can be highly recommended, having just completed some extensive public works. No objection to the country.—Address, C. D. 22, Napier-street, Hoxton.

WANTED, by a respectable Young Man, of mechanical abilities and commercial experience, acquainted with the iron, timber, and building trades, EMPLOYMENT as superintendent, manager, clerk, cashier, or collector, in a factory, wharf, mills, office, outdoor or otherwise. Thoroughly competent in either capacity, and accustomed to workmen and paying wages. Undeniable references.—Address, A. Z. Post-office, King William-street, City.

TO BUILDERS, ENGINEERS, &c

WANTED, by an experienced practical Man, a SITUATION as BUILDER'S FOREMAN or General Superintendent of Works. Satisfactory references can be given.—Address, A. B 7, Macclesfield-street South, City-road.

TO BUILDERS AND OTHERS.

WANTED, by a Practical PLUMBER, in whom confidence may be placed, a SITUATION as FOREMAN.—Address, A. B. 45, Beresford-street, Walworth.

WANTED, by a CARPENTER, married, no encumbrance, a SITUATION as WORKING FOREMAN over buildings, or an estate, &c, or under steward; not particular as to what part of the country. Has first of references, character, &c.; capable of getting out all sorts of plans, and finishing works to plans and estimates.—Address, E. PALMER, Hill Hall, Essex.

TO ENGINEERS.

WANTED, to APPRENTICE a respectable, well-educated YOUTH, aged 15, in-doors. The country would be preferred. Also a member of the congregational body. Reference as to respectability required and given.—Address, W. F. No. 8, Quarry-street, Guildford.

TO ARCHITECTS, SURVEYORS, BUILDERS, &c.

WANTED, by the Advertiser, aged 26, a SITUATION as CLERK or ASSISTANT. Has been accustomed to surveying, levelling, drawing, taking out quantities, estimating, bookkeeping, or superintending the erection of buildings and the general routine of a builder's office. References unexceptionable.—Address, J. P. COLBRON, 73, Queen's-road, Brighton.

WANTED, by a Young Man, a SITUATION as GLASS-CUTTER, or CUTTER and GLAZIER, who thoroughly understands his business.—Address to C. R. No. 22, Windsor terrace, City road.

TO BUILDERS, HOUSE AGENTS, &c.

WANTED, by a Young Man, a CONSTANT SITUATION as PLUMBER, PAINTER, GLAZIER, and PAPERHANGER, and who understands general house repairs.—Address, A. B 96, Brunswick-place, City-road.

TO CARPENTERS, BUILDERS, &c.

WANTED, EMPLOYMENT, by a Young Man, a CARPENTER and JOINER; used to the management of repairs and building generally, in town and country.—Address, H. T. W. 9, Gilbert's-buildings, Westminster-road.

TO PLUMBERS AND BUILDERS.

WANTED, by the Advertiser, a permanent SITUATION as PLUMBER and GAS and HOT-WATER APPARATUS FITTER.—Direct to Y. Z. Robert's Advertising Office, Brompton.

TO BUILDERS AND CONTRACTORS.

WANTED, by an experienced Man, a RE-ENGAGEMENT as CLERK. First-class references. Salary moderate.—Address L. N. 28 King-square, Goswell-road.

TO BUILDERS AND CONTRACTORS.

WANTED, by a Young Man, aged 24, a RE-ENGAGEMENT as CLERK in a Builder's Office. He is thoroughly acquainted with the same.—Address by letter, prepaid, to W. G. 4, James-place, Bath-street, City-road.

TO IRONMONGERS, WHOLESALE OR RETAIL.

WANTED to APPRENTICE, Indoor, without premium, a respectable YOUTH, aged 16, who has a year's experience of the business. Country preferred.—Address, with needful particulars, W. care of Mr. Ireland, 3, Robert-terrace, Chelsea.

WANTED, by a thoroughly practical Man, aged 30, a SITUATION as SHOP or GENERAL FOREMAN; has been accustomed to both town and country work, and the general discipline amongst workmen. The most unexceptionable references can be given as to ability, sobriety, &c.—Direct, P. G. R. 9, Albert-terrace, Barnsbury-road, Islington.

TO ARCHITECTS.

THE Advertiser, who has both served his time, and been employed as paid assistant in some of the first London offices, and is competent to get up fair, working, and competition drawings and perspectives, exterior and interior, both in line and colour, and is master of all the other general routine of an architect's office, and can produce highly satisfactory testimonials from the above offices, is desirous of a RE-ENGAGEMENT in London, or to get up drawings at his own residence, at moderate terms.—For particulars, apply to R. S. Office of "The Builder."

THE Advertiser, who is a good Draughtsman, and accustomed to Working Drawings of all kinds, is desirous of an ENGAGEMENT in an Office, or to superintend Buildings as Clerk of Works, in which capacity he has had some experience.—Address, J. C. B. Mr. Beaver's Library, Nelson-street, Greenwich.

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A MECHANICAL and Naval Architectural Draughtsman, disengaged part of the day and evening, would make, copy, or trace drawings of every description.—Address, T. R. Y. 30, Paternoster-row.

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A YOUNG MAN is desirous of a RE-ENGAGEMENT in a BUILDER'S OFFICE, who has filled a similar situation with London builders for seven years. References unexceptionable.—Address B. B. 12, Albert-road, Sydenham.

TO BUILDERS, CARPENTERS, &c. IN TOWN OR COUNTRY.

A YOUNG MAN, of steady habits, who has just left a London Firm, wants a RE-ENGAGEMENT; wages not so much importance as constant employment. Address, G. Shoe Warehouse, 1, Queen's Head-row, Newington, Surrey.

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AN Artistic Colourist, Draughtsman, and Designer, offers his services in the preparation of Perspective Views, with landscape and figures, also in general drawing, on moderate terms.—Address, A. Z. 61, Denbigh-street, Belgravia.

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AN ARCHITECTURAL DRAUGHTSMAN, aged 32, desires a RE-ENGAGEMENT. He is well versed in mathematics, and conversant with surveying, levelling, plotting, mapping, and taking out quantities.—Address, A. C. Messrs. Hockham's Library, Old Bond-street.

A WORKING FOREMAN, or constant Mason, an experienced man. Can set out work, make working drawings, carve and cut letters, can undertake the management of a public job or general yard. Unexceptionable reference and testimonials. Town or country.—Address, C. O. P. Office of "The Builder."

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A YOUNG MAN, aged 28, wishes for a SITUATION as CLERK or TIMEKEEPER in a Counting-house. He has a knowledge of book-keeping and accounts, and has a good taste for drawing. He is a good joiner, and can set out work. He would not object to make himself useful to his employer.—Address, A. B. 31, Southampton-street, Pentonville.

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AN ARCHITECT'S ASSISTANT, of five years' professional experience, an accurate draughtsman and good colourist, accustomed to prepare finished, working, and perspective drawings, is open to a RE-ENGAGEMENT. Salary moderate.—Address, C. M. I. 3, Pierpoint-street, Worcester.

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A PRACTICAL and well-qualified Man wishes for a RE ENGAGEMENT as AGENT or GENERAL FOREMAN. Unexceptionable references can be given.—Address D. W. 19, Weston-place, Long-lane, Bermondsey.

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A YOUNG MAN, aged 17, wishes to ARTICLE himself for Two or Three Years in the above line as an IMPROVER.—Address G. L. 38, Penton-place, Pentonville.

TO BUILDERS.

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PARTNERSHIP.—The Advertiser, who has a powerful plant of machinery, about fifty miles from London, excellent premises, and ample room for conducting an extensive sawing and timber business, is desirous of meeting with a PARTNER. One acquainted with the timber trade or building would be preferred. Capital required about 400*l.* or 500*l.* Address, Mr. J. LEE, Engineer, Stonnall, near Walsall.

SOLID SWISS PARQUETS.—1,000 feet of the above SOLID FLOORS (just arrived) are now offered for SALE The attention of foreign and colonial contractors, decorators, commission agents, &c. is particularly called to the above floors, which will be sold for exportation at a small and very moderate prices The woods and workmanship employed in those panels not being adapted to the English climate, the sellers will not take the responsibility of laying them in England, nor will they be answerable for any faults or defects that may occur if used in English houses; but can confidently recommend them for any climate of equal temperature to that of their manufacture.—For particulars apply (by letter) to the Office of the London Parquetry, 6, Whitefriars-street.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 1*s.* per foot super. together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 3, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

ANY Person having a DUMPY, or one of Troughton's LEVELS in good working order, at a reasonable price, may hear of a customer, by addressing H. W. at Pannell's Newspaper-office, Upper Rosoman-street, Pentonville.

DESIGNS PREPARED for SHOP FRONTS, INTERIOR FITTINGS, and GENERAL ARCHITECTURAL ARRANGEMENTS, by Mr. JOHN DWYER, 11, Great Marlborough-street.

MATHEMATICAL DRAWING INSTRUMENTS. JOHN ARCHBUTT, 20, Westminster-Bridge-road, Lambeth (near Astley's Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship Rules, scales, tapes, &c. at equally low prices. A detailed price-list will be immediately forwarded, free, on application.

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instruments, and considerably cheaper. —Apply to Mr. S. BARLOW, 2, Thavies-Inn, Holborn (between 1 and 3 p.m.); or to Mr. H. B. BARLOW, Office for Patents, Ducie-place, Exchange, Manchester.

THE ARCHITECTS', BUILDERS', CIVIL ENGINEERS', and MACHINISTS' DRAWING ESTABLISHMENT, for giving practical instruction in architecture, civil engineering, measuring and valuing buildings, land, &c.; also, for teaching architectural, mechanical, and water-colour drawing of every description. Morning Classes, Ten till Four; Evening Six till Nine, or Seven till Ten. Saturdays excepted.—Detail Prospectuses to be had on application at the Offices of the Establishment, 15, Old-street, City-road.
T. J. HILL, Architect, Conductor of the Classes.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.
Diving-dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

CEMETERIES.—WILLIAM MASTERS and SON having completed extensive cemetery works, are prepared to undertake the LAYING OUT and PLANTING NEW GROUNDS, as well as the ornamenting such as are closed by the recent Act of Parliament, by contract or otherwise.—WILLIAM MASTERS and SON, Landscape Gardeners, Canterbury.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, or from the mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the evil may be realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO. and by the Company's Grinding Agents in London, Messrs CHARLES DEVAUX and CO., Wholesale Agents, 62, King William-street, City; JACK and BRABY, Wholesale and Retail Agents, 8, Tottenham-court, New-road, and 80, Upper Thames-street, City. In Manchester and Liverpool by Messrs. LAWFORD and CO. of 48, Norfolk-street, Liverpool, who are also sole wholesale Painters to the Company for Zinc Paints, and undertake painting shops, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agent in London, Mr. SCHMOLL, 13, Manchester-buildings, Westminster.

THE VIEILLE MONTAGNE ZINC MINING COMPANY beg to inform the public that they have appointed Messrs. T. and S. KNIGHT, of Great Suffolk-street, Southwark, as their Painters, who will be ready to execute any description of Painting and Decorating with the Pure Patent White Zinc Paint.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. CHARLES FRANCIS and SONS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes. Nine Elms, London.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, and Seel street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENT, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied for shipment, on advantageous terms.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Rugate, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Portolanno.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of this valuable Cement, that they have, by means of a recent discovery patented by Mr. ASPDIN, much improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour.

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper

A report of experiments made to prove the extraordinary strength of their Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster; at their Works, Gateshead-on-Tyne; at Messrs. Rosher's Wharf, Holland-street, Blackfriars, Ransland Bevin, and Manchouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall Potter, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for such works as all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the assertion put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are ineluable to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

WHITE OXIDE OF ZINC AND ZINC PAINT.
(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in Oil.

Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innoxious qualities, is peculiarly applicable to first-class Decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO

MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

PORTLAND CEMENT.—D. MOUNTAGUE begs most respectfully to inform the numerous Architects, Contractors, Builders, &c. who have for the last thirty years patronised his Roman Cement, Plaster, and other manufactures that he is now enabled to supply them with a very superior Portland Cement, warranted to with-stand the action of heat, frost, &c. and of uniform colour and quality. Orders received at Patent Cement Wharf 80, Bankside, Southwark, Harrow-bridge Wharf, Stratford, Essex; and at the Cement Manufactory, Orchard House, Blackwall.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster, who prepare one quality only of Portland Cement.

BLUE LIAS LIME.—NELSON and CO. beg most respectfully to call the attention of Engineers, Architects, Contractors, Builders, and others connected with the Building Trade, to the superior quality of their BLUE LIAS LIME, the natural hydraulic properties of which, and the great estimation in which this kind of Lime is held for building in wet and damp situations, such as wharf walls, docks &c and for concrete foundations, is a sufficient recommendation for the adoption of it in all works of the above description. It is also peculiarly adapted for stucco Orders received by—London Agents, BLYTH, BROTHERS, 16, South Wharf, Paddington; and at the Works, Stockton-fields, near Southam, Warwickshire.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS, STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

MAW'S ENCAUSTIC TILE PAVEMENTS—a highly durable and decorative substitute for ordinary flooring and their perishable oil cloth coverings; for entrance-halls, passages, conservatories, &c.

MAW and CO. send, free of expense, their pattern and price book, with designs, to any given spaces (and estimates), free of expense.

BENTHALL WORKS, BROSELEY, SALOP.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for the WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC" is the exclusive right of Mr. Peake, Potter; and, thirdly, that the "REPORT OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

GREAT REDUCTION.—Pantiles 60s. per thousand; plain 35s.; Cowley Stocks 35s. at WARD'S OLD-ESTABLISHED HONDURAS WHARF, BANKSIDE, London Builders, Engineers, Gas Companies, and others, supplied with every sort of country Brick and Tile goods. Fire Bricks, Lumps, Tiles and Clays. Patent Malting and Corrugating perforated Tiles, real Dutch Clinkers; River sand, Concrete Gravel, Founders' Loam, White and Red House Sand, &c. &c. at the cheapest rate. Chief Office, 27, Regent-street.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Malms of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS COWLEY, KENT, and ESSEX BRICKS. Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c. KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business is removed to Cowley Brickfields, Uxbridge-road, Newington butts, will, from MONDAY, the 31th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

BRICKS for OVEN-BUILDING, acknowledged the best for that purpose, delivered, 30s. to London-bridge or Newington; beyond that distance, moderate charge carriage. Bricks of all description; yellow and light pickings, equal to seconds. Red facings, at 30s. in field; red and glazed pigs, about half the price of stoneware; white sand, nearly silver, in field or by barge, founders' sand and loam; good coloured gravel.—Address, B. PARIS, Lewisham Brickfields.

BRICKS.—KENT GREY STOCKS on SALE. Also PATENT PERFORATED, and SOLID WHITE SUFFOLK FACINGS. Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

TO BUILDERS.

TO BE SOLD, cheap, the capital STOCK-BRICKS of a mansion, either in one lot, or at per thousand, as the ground must be cleared immediately. For particulars, inquire on the Premises, corner of Vernon-place and Bloomsbury square, Holborn.

GREAT NORTHERN WHARF, York-road, King's-cross. WHITE BRICK and TILE DEPOT. L. SPEARING and SON, Brick, Tile, Lime, and Cement Merchants, beg to inform builders, contractors, and the building trade generally, that they have now on sale at the above wharf, Cowley stocks, grizzles, and place; white cutters, seconds and paviors; oinkers, red cutters, and stocks; plain and pan tiles, 6 in. 9 in. and 12 in; white and red paving tiles; blue, red, and white ornamental tiles, blue and red ornamental ridges; Stourbridge, Welsh, and Yorkshire fire-bricks, lumps, tiles, and clay; ornamental and other wall copings; Bangor and other slates; stoneware sewer-pipes, bends, junctions, and syphons; closet-pans and traps, terra-cotta chimney-tops, trusses, brackets, vases, mouldings and patera of the most elegant designs, worked to with accuracy and despatch. Lump and ground grey stone lime, chalk lime for plastering, blue lias lump and ground lime, Roman, Portland, and lias cements, coarse and fine plaster, laths and hair.

N B —30,000 bundles of prime Gothenburg laths are now on sale at the above wharf, price 8s. per load.

GREAT NORTHERN RAILWAY.—L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross, beg to inform builders, contractors, and others who are engaged in works at or near any of the stations on the above line of railway, that from time to time be supplied upon the shortest notice with Bricks, Tiles, Lime, Cement, Sand, Plaster, Drain-pipes, Fire-goods, and all other building materials of the best quality at the lowest market prices.

N.B. Orders received overnight can be delivered by the early morning trains.

TO CONTRACTORS, BUILDERS, and OTHERS. TO BE SOLD, from 100 to 500 YARDS of SAND or BALLAST, lying at Hoxton, about one mile from the City, at a very moderate price. Likewise, some good Garden or Stable Sand.—For particulars apply to Mr. CASE, 32, Minterstreet, New North-road, Hoxton.

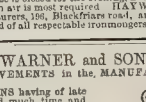
A. KING, WORKING UPHOLSTERER, 35, University-street, Gower-street.

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS by SUTER'S PATENT WIND GUARD. This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney and will not be found to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

SMOKE PREVENTION.—(OFFICE of REFERENCE for PATENTEES and the PUBLIC, 17 and 18, Cornhill.) SOURSE and CO. having several British and Foreign Patents for the above purpose, some of them being peculiarly simple and effective, are ready to undertake the prevention of smoke in furnaces, boilers, and coppers of all kinds and sizes. An experienced practical engineer will, if required, superintend the work. Licenses granted to engineers, furnace-builders, and others.

VENTILATION.—PURE AIR.



Sheringham's Ventilator for the admission of pure air through an EXTERNAL WALL

With single pulley, from 6s. each; with leading pulley, from 8s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required. HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars road, and 12, Union-street, Borough; and of all respectable ironmongers, builders &c.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the, MANUFACTURE of LARGE BELLS

J. W. & SONS having of late years devoted much time to study the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheels ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

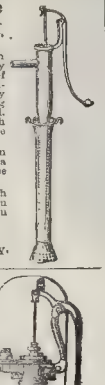
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closet and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

FOWLER'S IMPROVED

WROUGHT PUMPS for CONTRACTORS, BRICKMAKERS, EXCAVATORS, and OTHERS.



The attention of this house for more than fifty years past having been almost exclusively paid to the manufacture of every description of pump-work for every variety of purpose, attention is respectfully requested to their very superior Wrought Pumps, with plain or sliding telescope suction, galvanized and ungalvanized. A large stock of all sizes is kept ready to finish off to order, according to length required, at the shortest notice.

This description of Pump-work varying in almost every case, it is impossible to quote a general price, but the fullest particulars will be given on application.

A large stock of Wrought Pumps, from 3-inch single to double 15-inch barrel, is also kept on hire prepared for hand or steam power, on reasonable terms, at

BENJAMIN FOWLER'S

ENGINE-PUMP MANUFACTORY,

Whitefriars-street, Fleet-street, London.

TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to

JOHN WARNER & SONS'

PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and gudgeons are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 30 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,

8, Crescent, Jewin-street, London,

Manufacturers and Patentees.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, mines, forges, well sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

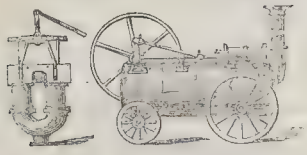
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 15 in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by Land, Horse, or engine power.

Iron Pails 38s per doz. painted.
Ditto .... 48s per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



PORTABLE STEAM-ENGINES and PUMPS

kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars Bridge (Surrey Side).

STEAM PUMPING ENGINES.—

PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water

JAMES BURTON & SONS,

Engineers and Contractors,

John's-place, Holland-street, Southwark, London.

TO CONTRACTORS.

PATENT PORTABLE PUMPING ENGINES,

mounted on strong waggon-wheels, iron chimney horse shafts complete. Strong, simple, for immediate use. Several are ready for delivery, from six-horse power to twenty-five-horse power and upwards, adapted to contractors' work generally. May be hired at a rental, or purchased, and can be seen at work at Messrs. MEDWIN and HALL'S, Engineers and Portable Engine Makers, 93, Blackfriars-road. These engines have been successfully employed for years.

TARPAULINS for COVERING ROOFS

during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

PAVING, 2s. 9d. per SQUARE YARD.—

Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT,

Trinidad Asphalte Works, Rotherhithe; established 1834

Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 30s. per ton

Importer of Trinidad Asphalte.

Shipping Depôt, Devon Haytor Wharf, Rotherhithe.

G H CLARK, Agent.

PATENT SANITARY GAS SHADES.—

These Shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the effluvia and smoke which have hitherto made the use of gas so objectionable in dwelling-houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had at the Works in a variety of forms adapted to the style of fitting, or the taste of purchasers; also at Mr. JOHN SHORTOR'S, Crispin-street, Spitalfields, London.

ROYAL POLYTECHNIC INSTITUTION.

Grand Juvenile Fetes and Gratuitous Distribution of the Ornaments of two splendid Christmas Trees

In consequence of the disappointment of those who could not obtain admission on the evening of Wednesday last, it is respectfully announced that two more opportunities will be afforded to our young visitors. The first on Wednesday, the 26th instant, from Twelve to Five; and the second on Thursday Evening, the 27th instant, from Seven to Ten

Splendid Optical Diorama of Sindbad the Sailor, Davis's Ingenious Marionettes, Parlour Magic, and Leger-de-main, by Mr. Burrman, and the interesting Views of the War, &c &c.

Admission, One Shilling; Children under Ten, Half-price. Open from Twelve to Five. Evenings, Seven to Ten.

COLOSSEUM, Regent's-Park.—Admission,

1s.—The original PANORAMA of LONDON by DAY, is exhibited daily, from Half-past Ten till Five. The extraordinary PANORAMA of LONDON by NIGHT, from Seven till Ten. Music from Two till Half past Four, and during the evening.

CYCLORAMA, Albany-street.—Now Open.

with a COLOSSAL MOVING DIORAMA of the CITY and BAY of NAPLES, MOUNT VESUVIUS, and POMPEII, exhibiting the Great Eruption of 79, and present state of the excavated City, painted by Mr. McNevin, from sketches taken by himself in 1852. Daily at Three and Eight o'clock, with appropriate music and description. Admission, 1s. Children and Schools half-price.

IMPORTANT TO BUILDERS.

REGISTERED CAST-IRON CHIMNEY-

HOPPER and CHIMNEY-BAR COMBINED, ensuring a perfect formation of the Flue, and rendering smoky chimneys impossible. One trial will cause their adoption in every building.

Price from 8s. 6d. each, according to size.

IRON GIRDERS and COLUMNS to MODEL or DRAWING.

IRON PIPES and connections for gas, water, and liquid manure.

RAIN-WATER PIPE and EAVE GUTTERS, at wholesale prices. Also, Oak Gutters, Sash-weights, STABLE FITTINGS, pumps, tomb railing, cattle and pig troughs, and COLUMNS with caps and bases, and every kind of builders' castings, in stock, at LYNCH WHITE'S Iron Wharf, Upper Ground-street, London near Blackfriars-bridge.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT,

has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor.

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

GENUINE SEYSSEL ASPHALTE.

ORSI AND ARMANI.

THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

DIRECT FROM THE MINES.

REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

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WORK GUARANTEED FOR THREE YEARS.

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

PATENT METALLIC LAVA.

A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER

THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALTE.

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ANCIENT HOUSE FURNITURE

In order to supply the deficiency which has hitherto existed in Furniture suitable for the many Mansions that have been erected or restored in the MEDIÆVAL STYLES, Messrs. CRACE have directed their particular attention to this subject, in addition to their other works, and have prepared appropriate specimens in the various branches of Furnishing.

STUFFS for HANGINGS, in simple Worsted Damask, in Silk; also in Tapestry of Bauderkin.

CARPETS, plain or in rich Velvet pile, with appropriate Borders.

PAPER-HANGINGS of various kinds.

OAK CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and approp riate Furniture

The whole of the above-mentioned Furniture, &c. is designed by the late Mr. A. W. PUGIN, Architect.

To render this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with it ancient character.

14, Wigmore-street, January, 1853

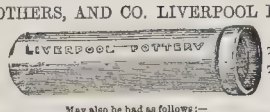
DOULTON AND WATTS,

LAMBETH POTTERY, LONDON.

REGISTERED CLOSET-PANS IN ENAMELLED STONE WARE.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

STONE WARE PIPES, BENDS JUNCTIONS TRAPS, &c.



TERRA COTTA VASES, CHIMNEY-TOPS, &c. FIRE-CLAY FLUE PIPES.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.	CARLISLE.....C. Armstrong, Lowther-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.	WHITEHAVEN...Hugh Todhunter.
CORK.....W. N. Brash, Dean-street.	COCKERMOUTH..John Bird.
WATERFORD....J. Sparrow and Co	GUERNSEY.....Guerin, Brothers.
CARNARVON....Jno. Jackson.	LONDONDERRY..W. and A. M'Elwee.
PRESTON.....J. Armstead, Hudson-street.	WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.	LIMERICK.....W. Burgess and Sons.
BLACKBURN....W. Hopwood, Clayton-street.	

The most economical and efficient system of drainage is formed with DOULTON'S STONE-WARE PIPES.

Testimonials as to their superiority have been received from the Borough Engineers of Liverpool, Glasgow, and other cities.

HENRY DOULTON AND CO.'S

PATENT SEWER JUNCTION BLOCKS AND INVERT BLOCKS,

IN GLAZED STONE WARE,

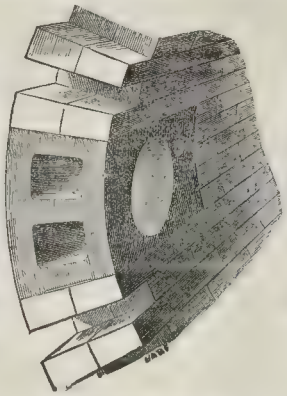
HIGH-STREET, LAMBETH, LONDON.

The connection between pipe drains and sewers, and brick sewers, is made perfect and secure by the use of DOULTON'S PATENT JUNCTION BLOCKS. Each block is made to correspond in thickness with the sides of the brick sewer, so as to build or bond in with the brickwork; the inner surface is made to correspond with the internal figure of the sewer. Each block has a socket, either within its thickness or just protruding beyond it, to receive the end of a pipe. They are made to receive pipes, entering either straight or obliquely. When fixed they form part of the sewer, they cannot be improperly placed, and a certain and proper fall is secured at the point where the junction is made.

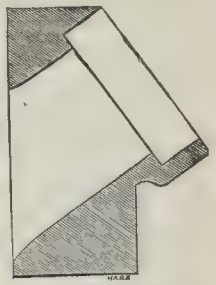
THE PATENT JUNCTION BLOCKS MAY BE FITTED WITH METAL FLAP-TRAPS IF REQUIRED.

Egg-shape Sewer, with
DOULTON'S PATENT JUNCTION AND INVERT BLOCKS.

Section of
STRAIGHT JUNCTION
BLOCK.



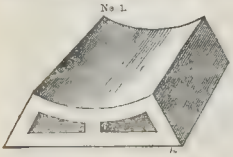
JUNCTION BLOCK as fixed in Sewer.



Section of
OBLIQUE JUNCTION BLOCK.

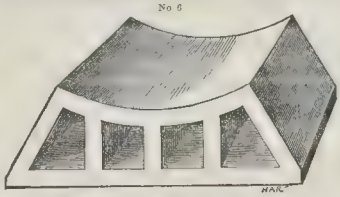
DOULTON'S INVERT BLOCKS, in stone ware, form a glazed, even, and imperishable surface for the bottoms of brick sewers, and also a sure foundation for the structure. They have been used extensively by the Metropolitan and City Commissioners of Sewers, and for the main sewers in many provincial towns, and in all cases have been highly approved by the engineers, both for the facilities they offer in the construction of sewers, and for their subsequent action in permitting an easy and uninterrupted flow of the sewage matter. They offer the means for carrying off all superfluous water while the sewer is in course of construction, and when required give a channel for land drainage independent of the sewage.

No. 1.



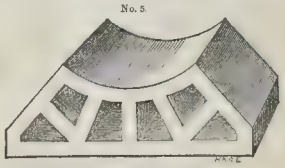
Radius of Invert 9" for 18" Circular Sewer, or 2 ft. 6 in. by 2 ft. 6 in. Egg-shape. 4½ in. work.

No. 6



Radius of Invert 15" for large Egg-shape Sewer. 9 in. work.

No. 5.



Radius of Invert 9" for 3ft. 9 in. by 2ft. 6 in. 6 in. work.

A full description, with sizes and kinds of both Junction and Invert Blocks, forwarded on application, per post.

TO SANITARY COMMISSIONERS, SURVEYORS, ARCHITECTS, BRASSFOUNDERS, PLUMBERS, BUILDERS, ENGINEERS, &c.

MAYER, BOULTON, AND CO.

CORNWALLIS POTTERY, STAPLETON-ROAD, BRISTOL.

This is the only Manufactory in the Kingdom for the exclusive production of Plug Closet, Sanitary, and Lavatory Basins of all descriptions.

M. B. and Co. having an intimate knowledge of, as well as a practical acquaintance with, this peculiar business, can manufacture cheaper than any other house. They invite especial attention to their

DRAB HOPPER BASIN AND TRAP, AT 7s. 6d. EACH,

Delivered in any part of the kingdom;

AND WHERE LARGE QUANTITIES ARE REQUIRED, A LIBERAL DISCOUNT IS ALLOWED.

Orders for White, Drab, Marbled, Blue Printed, Enamelled, and Gilt Goods attended to on the shortest notice.

LONDON DEPOT—18 WHARF, CITY-BASIN;
FLINT AND STONE MILLS, FRAMPTON COTTERELL;
AND THE SANITARY POTTERY NAILSEA (Late Counthupes and Co.)

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by KANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS which they can recommend as being made in the best manner, Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 8d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of this tubing, the Gutta Percha Company have pleasure in drawing attention to the following letter received from Mr. C. Hacker, surveyor to the Duke of Bedford:—"Office of Works, Woburn-park, Jan. 10, 1852. In answer to your inquiries respecting the gutta percha tubing for pumps, etc., I find that the water has not affected it in the least, although it will eat lead through in two years; we have adopted it largely, both on account of being cheaper than lead, much easier fixed and a more perfect job. Yours &c. C. Hacker." N.B. The Company's Illustrated Circulars containing instructions to plumbers for joining tubes, lining tanks, &c. will be forwarded on the receipt of three postage stamps.—The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster have just ISSUED a PAMPHLET, descriptive of various Patented Inventions for the Permanent Way of Railways which are adopted and are being applied to more than 3,000 miles of line. On application, a copy will be forwarded by post (gratis) to any parties who are interested in the construction of railways. WILLIAM HOWDEN, Sec.

TO ARCHITECTS, SURVEYORS, BUILDERS, CONTRACTORS, AND OTHERS.

MESSRS. CHANY beg to call attention to their Large Stock of Water-closets, spring valve and common, Glazed Hopper Basins, Traps, and all articles used in sanitary improvements.—N.B. Plumbers' Brass-work of every description.—34, Clifton-street, Finsbury-square.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

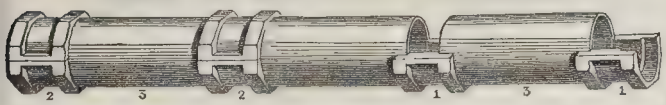
H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London. These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
	B B B B ditto ditto.

M medium.

Sold by all the principal Stationers in town or country.

JENNINGS'S PATENT DRAIN-PIPES
REMOVE THE OBJECTIONS TO PIPE-DRAINAGE.



At the Institute of Engineers, during the discussion on Pipe-drainage, Mr. Robert Stevenson, when speaking on the subject, said, "He looked upon the Pipe-drainage of a Town as one HUGE MACHINE, *that was neither capable of Examination nor Repair."*

THE OLD FASHIONED AND HALF-SOCKET PIPES CANNOT BE EXAMINED without taking up one or more Pipes, thus DESTROYING THE LINE OF DRAINAGE, and saturating the sub-soil.

Practical men will see, by comparing JENNINGS'S DRAIN PIPES with the Half socket Pipes, that the former can be examined, by simply excavating down to, and removing one of the saddle-pieces.

To remove a Half socket Pipe the excavation must be THREE TIMES AS LARGE, and the relaying of the Pipes, or making the Joints (OWING TO THE ESCAPE OF SEWAGE) a matter of much difficulty.

JENNINGS'S PIPES can be examined without checking the flow of sewage, or disturbing the invert or general drain, and junctions can be introduced at any joint, by removing a plain saddle, and exchanging it for a saddle having a junction formed in it of the required size.

By the use of JENNINGS'S PIPES, the work of supervision is lessened, and good work ensured, as any length of Pipes may be laid, which can be examined at the convenience of the superintendent before the saddle-pieces.

The favour with which these Pipes have been received, has induced the Patentee to commence the CONSTRUCTION OF THE LARGEST PIPE-WORKS IN THE WORLD; and, by the aid of screw-steamers and railway facilities, every Town in the United Kingdom will shortly be supplied with these Improved Pipes, SAME PRICE AS ORDINARY SOCKET-PIPES.

A List of Agents will then be published.

To meet the views of all interested in Sanitary Progress,
GEORGE JENNINGS PROPOSES TO MANUFACTURE THE OLD-FASHIONED SOCKET-PIPE GLAZED AND UNGLAZED.

AS ALSO
A VARIETY OF USEFUL ARTICLES IN EARTHENWARE, HITHERTO NOT ATTEMPTED.

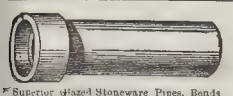
JENNINGS'S PATENT CLOSETS, TRAPS, SLUICE-VALVES, &c.
ARE FREE FROM ALL COMPLICATION.—NO WIRES OR CRANKS.

ANY NUMBER OF CLOSETS SUPPLIED FROM ONE SERVICE-PIPE, AND THEY ARE AS READILY FIXED AS A COCK TO A SINK, UNDER HIGH OR LOW PRESSURE.

Architects furnished with references of the highest order.

Particulars of JENNINGS'S DRAIN-PIPES, WATER-CLOSETS, URINALS, LAVATORIES, SLUICE-VALVES, FIRE-COCKS, GULLY-TRAPS, SHOP-SHUTTER SHOES, &c. &c. can be had free on application, or by post if two postage stamps are inclosed to

GEORGE JENNINGS, SANITARY ENGINEER,
29, Great Charlotte-street, Blackfriars-road.

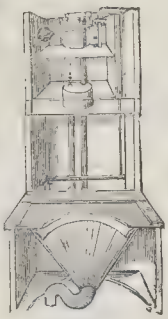


Superior Glazed Stoneware Pipes, Bends Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

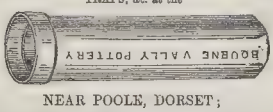
This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—7s. 6d. Pan and Trap.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS,
TRAPS, &c. at the



NEAR POOLE, DORSET;

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

MILL-WALL POTTERY (near Scott Russell's).
—Messrs. WILLCOX and CO invite the attention of Contractors, Builders, and Wholesale Dealers to their extensive assortment of articles in WHITE EARTHENWARE for sanitary purposes. The only manufactory of the kind in the neighbourhood of London.—Particulars forwarded on application.

TO LOCAL BOARDS OF HEALTH, WATER COMPANIES, &c

A DESIDERATUM in SLUICE-VALVES,
FREEMAN ROE'S Patent Sluice-valve can be repaired without being removed from the main. All sizes, from 3 inches to 36 inch. Patent Hydrants, self-closing Cocks, fire and other Pumps, Hot-water Apparatus, Baths, &c. Surveys made, and estimates given by FREEMAN ROE, Hydraulic, Sanitary, and Gas Engineer, 70, Strand, and Upper Marsh, Lambeth.

PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 2½s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish-street, near St. Paul's, London.

HENRY TURNER, 2, SOUTH WHARF,
PADDINGTON,

5s. Traps, 2s. 6d. 5s.

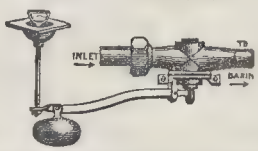
Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.

TO ARCHITECTS, SURVEYORS, PLUMBERS, BUILDERS, &c.

HAYWARD TYLER and CO. No. 85,
Upper Whitecross-street, St. Luke's, ENGINEERS, PLUMBERS' BRASSFOUNDERS, and Sole Manufacturers of "M'Connel's Registered Model Water-closet."—This water-closet is the most simple and efficient yet introduced for high services, and for fixing without the usual service-box, cistern-work, &c. From its construction all possibility of external leakage is prevented.—A diagram of the above may be had on application, or the closet inspected, at the Manufactory, as above.

MANUFACTURERS of GLAZED
STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c., &c. Agents,—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

LAMBERT'S SELF-CLOSING
LAVATORY AND CLOSET-VALVE



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

AGRICULTURAL LAND DRAIN-PIPES
of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

COLLIER'S TERRO-METALLIC and
RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

SALES BY AUCTION.

TO SHIP-BUILDERS, TIMBER-MERCHANTS, AND OTHERS.—Dunton green, near Sevenoaks, Kent.

MR. WILLIAM HODSOLL will SELL by AUCTION, at the RUSE and CROWN Inn, Duntongreen, on FRIDAY JANUARY 20, 1865, at THREE o'clock, by order of the proprietor, John Wickford, Esq. 158 superior OAK TIMBER TREES, large dimensions, standing in the Rose Button Estate in the parish of Otford. The timber is of excellent quality, and is conveniently situate for the high road from London to Sevenoaks. May be viewed on application to JESSE BROOKS, at Broughton House, Riverhead, and catalogues may be had at the principal Inns in the neighbourhood; at the Place of Sale; and of the Auctioneer, Farningham, Kent.

TO MANUFACTURING CHEMISTS, ENGINEERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on THURSDAY, JANUARY 11, 1865, at ELEVEN o'clock, on the PREMISES, Millwall, Poplar by direction of the proprietors, (who are retiring, in consequence of alterations), the CHEMICAL PLANT (eight large stone chambers, lead pans, range wrought iron stone units with return carbonate, 1,000 gals. 145, three vat mixing pots, three scarp boilers, four Roots 14 horse-power, waggon boiler, two cast iron grinding mills, with runners, 4ft. 6in. and 3ft. 6in. bed stones, 15in. face, by Bradley press, with 8-inch ram pumps and boxes, wrought iron sulphur stove, two iron-bound backs, and numerous other effects.—To be viewed on Wednesday previous to the Sale, when catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, Billiter-street, City.

OLD BARGE-HOUSE, BUILDING MATERIALS OF A LARGE SOAP FACTORY.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, JANUARY 9th, at TWELVE, lots, the valuable BUILDING MATERIALS of the extensive SOAP FACTORY, well known as Old Barge-house, Commercial-road, Limehouse, comprising 1,600 superficial yards of slating, large quantity of plain tiles and slates, prime oak and fir timber roofs, 300 squares of short boarded and timber floors from sashes and columns, doors, partitions, and useful fittings, several tons of lead in cistern and pipes, 4 patent sash lifts, the capital 8-unit brickwork of the extensive premises.—May be viewed the day previous and Catalogues had of Wm. Rogers, Esq. Architect, 13A, Cannon-row, Westminster, and of PULLEN and Son, 89, Fore-street, Cripplegate

TO WOOD CARVERS, CABINET MAKERS, AND OTHERS.—Valuable Plant of the Patent Wood Carving Company.

MR. MURRELL will SELL by AUCTION, upon the PREMISES, 3, Union-street East, Spa Fields, on THURSDAY, JANUARY 12, at EIGHTEEN for Nineteen o'clock, unreservedly (unless before the whole is previously made) the valuable PLANT and MACHINERY of the PATENT WOOD-CARVING COMPANY, including six powerful and expensive lever and other presses, six-cut twenty tons of iron deep furnaces, &c.; the whole in good working order. Also, a quantity of rich wood carvings, finished and without polish, and slabs ready, pattern, benches, and effects. The attention of cabinet-makers, carvers, founders, and others is particularly requested to this novel, cheap, and expeditious mode, by which the most perfect imitations of wood carving are effected by compression. May be viewed Catalogues had on the Premises; and of Mr. MURRELL, Auctioneer and Land Agent, 1, Walbrook, City.

NOTICE to CABINET-MAKERS, MACHINE-MAKERS, and other Buyers of Mahogany and Furniture Woods, &c. The Importer's next AUCTION SALES will take place on the Mornings of the 10th and 11th of JANUARY, 1865, in the BROKERS' SHEDS, Brunswick and Toxteth Docks, Liverpool; and they will be the most extensive and attractive held for many years, because composed of ten cargoes, presenting every variety and dimension which can interest buyers. A first book of particulars may be seen at the office of this paper, and a further one may be had by post. This first book sets forth also an unusual assortment of Australian and other woods, and an Appendix is now at the press

EDWARD CHALCNER, Broker, Queen's Dock. Liverpool, 2nd Jan. 1865.

INDISPUTABLE LIFE POLICY COMPANY.

72, Lombard street, and 23, Connaught-terrace.

TRUSTEES.

Richard Malins, esq. Q.C. M.P. | Richard Spooner, esq. M.P.
James Fuller Madox, esq. | John Campbell Renton, esq.
William Willcox, esq.

A reduction of 28 per cent. has been made on the premiums of all policies of five years' standing

ALEX. ROBERTSON, Manager.

INSTITUTED 1831

SCOTTISH EQUITABLE MUTUAL LIFE ASSURANCE SOCIETY.

Incorporated by Royal Charters and Special Act of Parliament.
Head Office—EDINBURGH, 28, St. Andrew-square.
Manager—ROBERT CHRISTIE, Esq.
LONDON—126, Bishopsgate-street, Cornhill

The SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY is an Institution peculiarly adapted to afford provision for Families. It was established in the year 1831, upon the principle of MUTUAL CONTRIBUTION, the Surplus or Profit being wholly divisible among the Members; and the Additions which have been made to Policies at the Periodical Investigations of the Society, afford satisfactory evidence of the prosperity of the Institution, and the present position of the Members. The following Examples exhibit the Additions already made:—

A Policy for £1,000 opened in 1832 is now increased to £2,242 8s
A Policy for 1,000 opened in 1836, is now increased to 1,421 16s 2d
A Policy for 1,000, opened in 1840, is now increased to £1216 13s 2d

The Profits are ascertained and divided triennially among Policies of more than five years' duration.

The Sum Assured is upwards of £10,000,000.

The Amount of Assurances in force is upwards of Four Millions and a Quarter Sterling.

The Amount paid to the Representatives of Deceased Members exceeds £600,000 sterling.

The Total Amount of Vested Additions allocated to Policies exceeds £1,200,000

The Accumulated Funds is upwards of £1,200,000

Loans granted to Members to the extent of the Office value of their Policies.

Copies of the Annual Report, Forms of Proposal, and all information may be had on application at any of the Society's Offices in town or country.

ROBERT CHRISTIE, Manager.
WILLIAM FINLAY, Secretary.
W. COOK, Agent.
126, Bishopsgate-street, London.

January, 1865.

LIST OF LOCAL AGENTS.

BARNES.—Whitbread, Edward, Stag-cott.
BATTERSEA.—Backmaster, J. C. New-road, St. John's-hill.
BRIXTON.—Price, J. M. 3, Loughborough-place.
CLAPHAM. Balls, Charles, Scientific and Literary Institution.
COMMERCIAL-ROAD EAST.—Newton, J. 6, Grosvenor-street.
DE BEAUVOIR TOWN.—Pettifer, E. H. 6, Southgate-road.
HACKNEY.—Stebb, Richard, Jun. 2, Denmark-place.
ISLINGTON.—Isaac, Robert, 35, Cloudesley-square.
KENTISH-TOWN.—Garton, Henry, 2, Commercial-place.
LAMBETH.—Roffey, Thomas D. Walcot Place East.
MILLBANK.—Sharp, George, 4, Ireland-row
PIMLICO.—Carrick, James, 46, Charlotte-street.
PUTNEY.—Stewart, John, High-street.
STRATFORD.—McCash, William, Baker.
SYDENHAM.—Daws, Thomas, House Agent.
WALWORTH.—Turner, W. 86 John, House Agent.
WANDSWORTH.—Brooks, Charles, Chemist.
WHITECHAPEL-ROAD.—Nicholson, James, 7, Mount-place.

THE ALBERT ASSURANCE COMPANY.

(Established in 1838.)

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security. EASTERN BRANCH 7, Finsbury-square. W. S. VARDY, Manager.

MITRE GENERAL LIFE ASSURANCE and ANNUITY ASSOCIATION. No. 33, Pall mall, London. Established 1845; with which is united the Business of the Mitre Assurance Office, late of 41, Moorgate street. Protective Capital, £100,000.

This Society offers the option of Mutual Assurance with Share of Profits; or of very moderate rates under the guarantee of a large protective capital.

The profits are either added to the policy, or paid in cash, or go to reduce the annual premium; while in the Metropolitan Branch, the low rates, as compared with those of pure mutual offices, are equal at birth to an annual bonus of from 30 to 40 per cent. of the amount assured. IN Premium for assuring £100 at age thirty-nine, £2 19s. 3d. Average premium of mutual offices, £3 5s. Annual saving, £5 5s. 9d. equivalent to a bonus of £131 5s. 7d.; or £10 to a policy of £252 5s. 7d.

Annuities granted by this Mitre increase per cent. on the mutual system. All expenses of the annuity office are defrayed by the Association.

More detailed information will be readily furnished on application, by letter or otherwise, to the Secretary, at the Mitre Life Office, No. 33, Pall-mall, London.

Active agencies are invited in such districts as are not already represented. Remuneration liberal.

January, 1865. WILLIAM BRIDGES, Secretary.

ESTABLISHED 1803.

GLOBE INSURANCE, Cornhill and Pall-mall, London.

James W. Freshfield, esq. M.P. F.R.S. Chairman.
Fowler Newman, esq. Deputy-Chairman.
Sir Francis Scott Glyn, esq. M.P. Treasurer
Henry Alexander, esq. | Robert Locke, esq.
William Chapman, esq. | Rob. I. Miller, esq.
Peter Cunliffe, esq. | Shedell Neave, esq.
Thomas M. Coombs, esq. | William Phillimore, esq.
William Dent, esq. | W. H. C. Plowden, esq.
Robert W. Grauson, esq. | Robert Saunders, esq.
Sir J. L. Goldsmid, bart. F.R.S. | Sir Walter Sterling, bart.
The Very Hon. the Lord Wm. Thynne, F.R.S.
John Hodgson, esq. | R. Westmacott, esq. F.R.S.
John Edward Johnson, esq. | Josiah Wilson, esq.
Richard Lambert Jones, esq. | Benjamin G. Windus, esq.

Full Security to Parties Assured by means of a Capital of ONE MILLION STERLING, for the last Fifty Years all Paid-up and Invested.

Premiums particularly favourable to the younger and middle periods of life.

Two Thirds of Profits as Bonus.

Life Tables used having to various plans, to suit the special circumstances of Insurers.

No charge for Stamps on Life Policies.

Free Insurance Perpetuals entertained to any amount.

Liberality and promptitude in the settlement of claims.

Prospectuses with full Tables and Details—and Forms may be had at the Company's offices, or of the Agents.

WILLIAM NEWMARCH, Secretary.

N.B. Life Insurance Premiums are allowed as deductions in Income Tax Returns.

PELICAN LIFE INSURANCE COMPANY, established in 1797.

70, Lombard-street, City, and 57, Charing Cross, Westminster.

DIRECTORS.

Robert Gurney Barclay, esq. | Thomas Hodgson, esq.
William Cotton, esq. F.R.S. | Henry Lancelot Holland, esq.
John Dasent, esq. | J. Petty Muspratt, esq.
Jos. Fletcher, M.D. F.R.S. | C. Hamilton Turner, esq. F.R.S
Henry Grace, esq. | Matthew Whiting, esq.
Benjamin D. Hodgson, esq. | M. Wyvill, jun. esq. M.P.

The Company offers

Complete Security—

Moderate Rates of Premium with Participation in Profits—

Low Rates without Profits.

LOANS in connexion with Life Assurance on approved security.

BONUS. Four-fifths or Eighty per Cent of the Profits are divided among the Policyholders

ANNUAL PREMIUM required for the Assurance of 100l. for the whole term of life:—

Age.	Without Profits.	With Profits.	Age.	Without Profits.	With Profits.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
15	1 11 0	1 15 6	40	2 18 10	3 4 6
30	2 1 10	2 6 4	50	3 9 3	4 10 7
39	2 4 6	2 10 4	60	6 1 0	6 7 4

For Prospectuses and Forms of Proposal, apply at the Offices as above, or to any of the Company's Agents.

PHŒNIX FIRE ASSURANCE COMPANY, LOMBARD-STREET & CHARING-CROSS, LONDON, established in 1782.

TRUSTEES AND DIRECTORS.

The Right Hon. Sir Robert Harry Inglis, Bart.
Decimus Burton, esq. | William Lancaster, esq.
Octavius Edward Coope, esq. | John Dorrin Magens, esq.
William Cotton, esq. | J. Masterman, esq. M.P.
John Dent, esq. | C. John Petty Muspratt, esq.
George Arthur Fuller, esq. | John Timothy Oxley, esq.
James Alexander Gordon, esq. | George Stanley Repton, esq.
Henry Grace, esq. | Benjamin Shaw, esq.
Thomas Hodgson, esq. | Charles Hampden Turner, esq.
Kirkman Daniel Hodgson, esq. | Matthew Whiting, esq.
James Horne, esq.

AUDITORS.

John Davis, esq. | William Hammond, esq.

SECRETARIES.

Wilmer Harris, esq. | George William Lovell, esq.

The Accounts are Published Annually. John Shaw, esq. Solicitor. Messrs. Drakes and Sons, Angel-court.

Insurances against loss by fire are effected by the PHŒNIX COMPANY upon every description of property, in every part of the world, in the most favourable terms.

Persons insuring with the Phœnix Company are not liable to any call beyond the losses of others, as is the case in some offices.

Insurances with this Company expiring at Christmas must be renewed within fifteen days thereafter, or they will become void

Receipts are now ready at the principal Offices, Lombard-street, and Charing Cross, and with the respective Agents throughout the United Kingdom.

EXTENSIVE PREMISES in the CITY of LONDON.—The Trustees of Parish Estates will meet in the Vestry-room of the Church, on FRIDAY, the 2nd of FEBRUARY next, at SIX o'clock in the evening, to receive TENDERS for taking, on a lease for twenty-one years, the spacious Premises situate on the west side of Aldergate street, at present used as a Workhouse by the Guardians of the East London Union. The buildings are well lighted, and three stories in height, with a dwelling-house and paved court-yard. From the close proximity of this property to the improvements now in contemplation by the extension of the Money Accommodation to the general public, it will be considerably enhanced in value.—For further particulars, and cards to view, apply to Mr. BLYTH, Surveyor, 114, Aldersgate-street.

TO BE LET or SOLD, several PLOTS of FREEHOLD BUILDING LAND, extending 800 feet frontage, eligibly situated at Peckham, Surrey, on the Hill adjoining the Rye, with a commanding view of the surrounding country, and within sight of the Crystal Palace; the same to be Let or Sold together, or separate, on most reasonable terms.—Plans of elevations, &c. may be seen, and further particulars obtained, on application to Mr. S. SPONG, 3, Grove-street, Camden-town.

BUILDING-GROUND, BRIGHTON.—

TO BE LET, a very eligible FRONTAGE for THREE or FOUR HOUSES in Broad street, immediately contiguous to the Marine Parade and Chain pier, where houses are much in request. Full particulars and terms may be obtained of Messrs. LUCKWOOD, Surveyors, No. 41, Upper Baker-street, London

LYDSTEP HAVEN, PEMBROKESHIRE.

TO CAPITALISTS, BUILDERS, and OTHERS.—A rare and first-rate BUILDING ESTATE TO BE LET, for a long term of years, or on lives from Michaelmas next, about SEVEN ACRES of LAND, replete with lime and building stone, and other advantages, rendering the erection of houses of comparatively trifling expense, and of a character quite in keeping with the regular merits of the times. Lydstep Haven is situate in a most romantic bay, within half an hour's drive of Tenby, which popular watering-place now overflows with visitors. This must a advantageous building investment is equal to freehold, and picturesquely slopes down to the beautiful bay, whose shore is admirably adapted for sea bathing. The rocks of Lydstep are bold and romantic. The heights of the island of Caldy present an unbroken and beautiful feature of interest from Lydstep Haven, whose climate is the same as that of Tenby. Greenhouse plants, without shelter, thrive and blossom almost out of doors. The water-supply between Bristol, Tenby, and Ireland, all cheap, swift, and pleasure in addition to and from the charming bay, whilst close to the Haven itself a regular Lydstep Haven boat calls. The road is safe, and easily reached from the far inland by the pain road to. For terms and every information, apply to WALTER AUGUSTUS HOLCOMBE, Esq. Solicitor, &c. Canterbury-place, London.

ST. MARGARET'S, near RICHMOND.—

A few most eligible SITES for VILLAS, with frontage to the Terrace, and other roads, suitable for villas of all classes, TO BE LET, on Building Lease. Money advanced to respectable builders.—Apply to GEORGE MORGAN, Esq. Architect, 3, Chancery-lane; or to Mr LONG, Richmond, Richmond

TO BUILDERS AND OTHERS.

TO BE LET, on lease, a capital DWELLING-HOUSE, with commodious Carpenters' Work-shops, Drying Sheds, &c. in the rear, situate in Upper Camden-place, Peckham. For particulars, apply to Messrs. F. and E. EDWARDS, Architects, No. 7, Harpsford, Bloomsbury. Mr. FIELD, No. 11, Upper Camden place, Rosemary Branch lane, Peckham; or on the Premises, which can be viewed on application.

TO BUILDERS, FREEHOLD LAND SOCIETIES, AND OTHERS.

TO BE LET, on building lease, for a term of ninety nine years, or SOLD, about THREE ACRES of FREEHOLD LAND, peculiarly adapted for the erection of third or four-rate houses, and situated about ¾ miles from Westminster-bridge, in a locality where dwelling-houses of the class contemplated are in demand. The property is most eligibly let from the freeholder. Also, a detached VILLA, adjoining the above, containing ten rooms, with stable and offices, and about half an acre of garden, at present let to a highly respectable tenant. To be sold either separately, or in connexion with the above. For particulars apply to Messrs. WEBNERT and ASHDOWN, Architects, 13, Charing cross.

TO BUILDERS, CABINETMAKERS, and OTHERS. TO BE LET, desirable PREMISES, in good repair, comprising dwelling-house, with workshops, and other buildings, and about 1 acre of land, in the neighbourhood of Bedford row. For further particulars apply to Mr LUKEW, Auctioneer and Valuer, 2, Carlington street, Hampstead-road.

EXTENSIVE MANUFACTURING PREMISES LAMBETH.—TO BE LET, those very commodious and valuable Premises known as the LAMBETH STARCH WORKS, situate in Princes-street, Lambeth, with all the requisite waterside wharves, or granaries attached. These premises are in every respect adapted for carrying on any manufacture, trade, or business of a large and extensive character, with facilities of railway and water conveyance.—Apply to Mr ROGERS, Surveyor, 13A, Cannon-row, Westminster, or Parker chambers, Old Lambeth; Mr J. R. PEARS, Solicitor, Old Jewry-chambers, Lambeth; or to Messrs. HODGSON and BURTON, 10, Salisbury street, Strand

WANTED, good light-work PREMISES, with Dwelling, within three miles of Holborn.—Address, by letter, stating full particulars, to BARK CHIDLEY, Concertina Manufacturer, 155, High Holborn.

TO BUILDERS, OF SMALL CAPITAL.

TO BE SOLD, for finishing, the CARCASES of several EIGHT ROOMED HOUSES, some with shops, in one of the most improving suburbs of London. Money advanced for finishing, and the whole of the purchase money need may remain on mortgage if required.—Apply, personally, to Mr. ROBERT GRAY, 1, Southampton street, Strand.

TO MASONS, BUILDERS, &c.—TO BE DISPOSED OF, the BUSINESS of a MASON and BUILDER lately occupied many years and carried on by the late owner; with commodious premises, situate in the vicinity of Edgware road; three rooms, 21, Mount-street, Grosvenor-square. The stock, &c. to be taken at a valuation.—For particulars, &c. apply at 21, Mount-street.

TO PLUMBERS, PAINTERS, AND GLAZIERS

TO BE DISPOSED OF, the LEASE and GOODWILL of an established BUSINESS, in the above lines. Lease 3½ years at £45 per annum, rates, and taxes. The whole of the stock, &c. at a valuation.—For further particulars, apply to Mr. READ, 2, Carrington-place, Piccadilly. Price, 170.

NOTICE.—MEMBERS of FREEHOLD LAND, BUILDING SOCIETIES, and OTHERS having LAND or HOUSES TO DISPOSE OF, can forward particulars which will be inserted on MONDAY NEXT, free of any additional commission, to Messrs. POOLE and COMBS, Auctioneers, Valuers, and House and Estate Agents, 79, Bishopsgate-street Within, London

TO ENGINEERS, MILL-OWNERS, CONTRACTORS, AND OTHERS.

AUGUSTUS SMITH, Auctioneer, Valuer, &c. 253, Blackfriars-road, two doors from Holland-street, having had seventeen years' practice in the selling and valuing of all kinds of engines, machinery, implements, and engineering tools, plants, &c. respectfully solicits a share of patronage in the above line. The most satisfactory references given if required, and all accounts settled the day after delivery; also a free registry kept of all engines, boilers, and machinery for sale by private contract

MR. ROBERT KENYON'S "NINTH" IMPROVED BUILDING SOCIETY.—NOTICE.—

Stood will be offered to the borrowers at the FIRST MEETING, which will be held at the OFFICE, on MONDAY, the 23rd JANUARY, 1865, at Burlington-hall, No. 21, Saville-row, Regent-street, from SEVEN to NINE o'clock. Interest payable by the borrowers from the period of the first term of ten years. Law charges fixed. The whole of the purchase-money advanced

ROBERT KENYON, Manager.
1, Copthall-chambers, Copthall court, near the Bank.

LONDON: Printed by CHARLES WAMAN, of 13, Hyde-street, Brunswick-square, in the Parish of St. George, Bloomsbury, and published by the Printer at the office of COX (late) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WAMAN, at the office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, January 6, 1865.

The Builder.

AN ILLUSTRATED JOURNAL FOR THE Architect, Engineer, Operative & Artist.

Vol. XIII.—No. 623. JANUARY 13, 1855. PRICE FOURPENCE Stamped 5d.

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ADVERTISEMENTS.

NOTICE is HEREBY GIVEN, that a GENERAL QUARTERLY MEETING of Members of the INSTITUTION of BUILDERS' FOREMEN and CLERKS of WORKS will take place on WEDNESDAY EVENING next, at the BAY-TREE TAVERN, St. Swithin's lane, for the purpose of transacting the usual quarterly business.

W. ALLARD, Secretary.

THE ARCHITECTURAL EXHIBITION, and Collection of Patents, Manufactures, &c. connected with Architecture, is NOW OPEN at the Galleries of the Society of British Artists, Suffolk street, Pall mall East. Admission, 1s.; Season Tickets, for students and others desiring to come frequently, 2s. 6d.; Catalogues, 6d.

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
JAS. EDMESTON, Jun. }

COMPETITIONS.

TO ARCHITECTS.

THE DIRECTORS of the BRIDGNORTH PUBLIC BUILDINGS and MARKETS COMPANY, are desirous of receiving DESIGNS and ESTIMATES for the ERECTION of PUBLIC BUILDINGS, to include accommodation for the butchers, fish, vegetable, poultry, butter, and other markets, a large room for lectures, and music, reading-room, and rooms for the sitting of the magistrates. A premium of £20 will be given for the most approved design, and £10 for the next best five £5 not to be paid for the most approved plan, if the person drawing that plan should be employed as architect in the execution of the buildings. The drawings and estimates must be delivered at the Office of Mr. GORDON, Solicitor, Bridgnorth, the Secretary, on or before TEN o'clock a.m. on SATURDAY, the 3rd day of FEBRUARY next, from whom a plan and section of the intended site may be obtained, together with any particulars that may be required upon payment of five shillings.

TAUNTON, SOMERSETSHIRE.—To ARCHITECTS.—NEW ASSIZE COURTS, HOUSE for the JUDGES, and RECORD ROOMS and OFFICE for the CLERK of the PEACE.—PLANS, ELEVATIONS, and SECTIONS for the above are required, with SPECIFICATIONS and ESTIMATES: the total cost thereof, including all fittings and fences, not to exceed 16,000*l.* A premium of 50*l.* and one of 25*l.* will be given for the best and second best plan respectively, if not finally adopted. The drawings to be of an uniform scale of 8 feet to an inch, and to be sent with a motto attached, and a sealed letter, with the name and address of the architect within, and the motto on the cover, to the Clerk of the Peace, Wells, Somerset, on or before MARCH 10. A plan and section of the site will be furnished, on application to Mr. CARVELL, County Surveyor, Taunton.

THE WATFORD CORN-EXCHANGE COMPANY are desirous of receiving DESIGNS for their intended EXCHANGE BUILDING and APPROACH thereto. The plans to be drawn to an uniform scale of one-tenth of an inch to the foot. The perspective must not be coloured. The cost of the outlay not to exceed 1,000*l.* The architect whose design shall be considered as the best will be employed to carry out the works at the usual commission of 5*l.* per cent. The author of the second best plan in the opinion of the provisional directors will be awarded the sum of Ten Guineas. The plans to become the property of the provisional directors. No allowance will be made whatever to any other competitor. The drawings to be sent in under a motto, and be delivered to the Secretary, Mr. J. SEDGWICK, Solicitor, Watford, on or before the 1st of FEBRUARY, 1855; from whom, or Mr. HUMBERT, Surveyor, Watford, all necessary information may be obtained, by personal application only.

CHESTERFIELD MARKET-HALL and PUBLIC BUILDINGS.—The Contributor of Designs for these buildings distinguished by a circle, intersected with three diagonals, is requested to communicate his name and address to the Secretary, no sealed letter having accompanied the designs thus marked.

GEO. WALLIS, Secretary.
Chesterfield, 8th January, 1855.

COMPETITIONS.

TO ARCHITECTS.

£5 PRIZE, ABERYSTWYTH.—The Commissioners of this Town are desirous of obtaining DESIGNS for a CLOCK-TOWER, which they purpose erecting on a suitable site; the base not to exceed an area of 14 feet square, and the outlay limited to 200*l.* The above prize will be given to the candidate whose design and specification shall be approved of and selected. Unsuccessful competitors will receive no remuneration, but their drawings will be returned to them.—Plans, &c. to be sent to me, the undersigned, before the 30th JANUARY, 1855.

W. H. THOMAS, Clerk to the Commissioners.
Laura-place, Aberystwyth.

ALL Persons desirous of furnishing Proposals for HEATING the "BRUEN TESTIMONIAL CHURCH," Carlow (will receive full particulars by applying by letter, prepaid, to J. M. DERICK, Esq. Architect, New Church, Carlow.

CONTRACTS.

EXTENSION of TIME for RECEIVING TENDERS.—Sunderland Dock Company. To ENGINE BUILDERS, MILLWRIGHTS, and OTHERS.—The Directors of the Sunderland Dock Company are prepared to receive Tenders for the CONSTRUCTION of a RAILWAY and CARRIAGE BRIDGE, to be placed across the sluice entrance to the Grand Dock. A plan and specification may be seen, and further information obtained, on application to the Engineer, or the Clerk of Works, at the Dock offices, Sunderland. Security will be required for the due performance of the contract. Tenders are requested to be delivered at the Dock Office, Sunderland, on THURSDAY, the 18th day of JANUARY next, not later than ELEVEN o'clock in the morning. The Directors do not bind themselves to accept the lowest Tender, and further reserve to themselves the power of rejecting all Tenders if not satisfactory.—By order,

M. COXON, Secretary.
Sunderland Dock Office, 3rd January, 1855.

CONTRACTS, 1855.—PARISH of SAINT GEORGE, HANOVER-SQUARE.—Such persons as are willing to CONTRACT with the Committee of Paving of the said Parish, for the MASONS' and PAVIORS' WORK, supply of Guernsey Granite Chippings and Yorkshire Paving, for one year, from the 25th of March next, may deliver in proposals, sealed up, at the Office of the Clerk of the Committee of Paving, at the Board room, Mount street, on or before MONDAY, the 26th day of FEBRUARY, 1855. Persons tendering are desired to take notice, that all proposals must be made upon, and strictly in accordance with, the printed Forms of Tender, to be obtained on application at the Clerk's Offices, as also further particulars, any day between the hours of TWELVE and ONE o'clock. The expense of the contract to be borne by the contractor, and the Committee will not be bound to accept the lowest Tender.—By order of the Committee of Paving,

T. B. CHAPPELL, Clerk.

CONTRACTS, 1855.—PARISH of SAINT GEORGE, HANOVER-SQUARE.—Such persons as are willing to CONTRACT with the Committee of Paving of the said Parish, for the SUPPLY of WORKMEN'S TOOLS and HAMMERS for STONE-BREAKING, and Repairs of the Same, as also for Iron Lamp-posts and Gas-fittings, for one year from the 25th of March next, are desired to deliver in proposals, sealed up at the Office of the Clerk of the Committee of Paving, at the Board-room, Mount street, on or before MONDAY, the 26th day of FEBRUARY, 1855. Persons tendering are desired to take notice that all proposals must be made upon, and strictly in accordance with, the printed forms of Tender, to be obtained on application at the Clerk's Offices, as also further particulars, any day between the hours of TWELVE and ONE o'clock. The expense of the contract to be borne by the contractor, and the Committee will not be bound to accept the lowest Tender.

By order of the Committee of Paving,
T. B. CHAPPELL, Clerk.

CONTRACTS, 1855.—PARISH of SAINT GEORGE, HANOVER-SQUARE.—Such persons as are willing to CONTRACT with the Committee of Paving of the said Parish, for the DISPOSING CARTS and HORSES for the WORK, Watering carts, and Carting away the Sludge and Sweepings from the Streets; also for the Purchase of the Cinders, Ashes, &c. &c. for one year, from the 25th of MARCH next, may deliver in proposals, sealed up, at the Office of the Clerk of the Committee of Paving, at the Board-room, Mount-street, on or before MONDAY, the 26th day of FEBRUARY, 1855. Persons tendering are desired to take notice that all proposals must be made upon, and strictly in accordance with, the printed forms of Tender, to be obtained on application at the Clerk's Offices, as also any further particulars, any day between the hours of TWELVE and ONE o'clock. The expense of the contract to be borne by the contractor, and the Committee will not be bound to accept the lowest Tender.—By order of the Committee of Paving,

T. B. CHAPPELL, Clerk.

TO BUILDERS.

TREGOTHNAN HOUSE, four miles from Truro, in the county of Cornwall.—The Drawings and Specification of work intended to be done on the ERECTION of LAUNDRY, STABLE, and COACH-HOUSE BUILDINGS, of considerable magnitude, near the above-named mansion, will be left for the inspection of the Contractors in the care of Mr. POOLE, the Clerk of the Works, on and after MONDAY, the 22nd instant. The quantities will be stated in the specification. Sealed Tenders must be delivered, free of cost or remuneration, before TWELVE o'clock on the 5th proximo, to the care of Mr. POOLE. The lowest Tender, or either of the Tenders, will not necessarily be accepted.—Tregothnan House, Jan. 4th, 1855.

TO BUILDERS.

TENDERS are required for ERECTING a semi-detached VILLA RESIDENCE, at Harrow, in the county of Middlesex. The drawings and specifications can be seen, and further information obtained, at the office of Mr. WM. JOHN PINCH, Architect, 31, Park-street, Westminster, on and after TUESDAY, the 16th of JANUARY. The lowest or any Tender will not necessarily be accepted.

CONTRACTS.

TO BUILDERS AND OTHERS.

SEALED TENDERS for the following SERVICES at Bull Point, viz.:—

1. Building Cottages for a Foreman and Sixteen Labourers;
2. Building a Cook-house and Wash-house for the Crews of the two Powder Vessels, with Pits, and Urinal;
3. Building an Office for the Ordnance Storekeeper;
4. Building a Civil Watch-house and a Shed for Waggons;
5. Building a Warder's Lodge and a Shoe-house;
6. Building an Engine-house;
7. Building a Boat-house;
8. Removing the present Wooden Filling and Examining-house at Kerbarn to Bull Point;

For SPECIFIC SUMS, will be received at the Ordnance Office, Pall mall, London, on or before the 25th of JANUARY, 1855. Detailed specifications of the above eight services, and every requisite information, may be obtained at the Royal Engineer Office, Bull Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from the 9th JANUARY next to the 25th JANUARY, both days inclusive.

Royal Engineer Office, Dev nport, 10th December, 1854.

ORDNANCE CONTRACTS. — Notice is hereby given, that the Honourable the BOARD of ORDNANCE will receive TENDERS, on or before SATURDAY, the 10th of FEBRUARY next, for the Performance of such Work as may be required (by them) of the undermentioned trades, at York, Hull, Leeds, Bradford, and Scarboro', for three years, commencing from the 1st of April next:—

Bricklayers'	Work
Masons' and Paviors'	do.
Carpenters'	do.
Slaters'	do.
Plasterers'	do.
Plumbers'	do.
Smiths'	do.
Painters', Glaziers', and Varnishers' ..	do.
Gas-fitters' (Work only) ..	do.

N.B. Parties are particularly required to observe, that it is desirable to Tender for the whole of the trades at one place than for a part only; but the per centages must be separately stated for each trade.

Printed schedules for the different trades, and Forms of Tender, can be obtained on application at the Royal Engineer's Office, 5, New-walk-terrace, York; the Barrack Office, Citadel, Hull; the Barrack Office, Leeds Barracks; and of the Master Gunner, Scarboro' Castle, any day (Sundays excepted), between Ten and Four o'clock, until FRIDAY, the 9th FEBRUARY next.

Royal Engineer's Office, York, Jan. 10, 1855.

Royal Engineer Office, Dover, South-east Railway, 2nd January 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Notice is hereby given, that sealed TENDERS will be received by Mr. Hugh Reid, Board of Ordnance, at their Office, Pall Mall, London, on THURSDAY, 18th JANUARY, 1855, to be delivered before 2PM of that day, and for the ERECTION of a BATTERY, with MAGAZINES, near Port Moody, Gosport, county of Hants. Drawings and specifications for the above may be seen any day Sundays excepted on and after the 10th inst. on application to Mr. FARIAN, Clerk of Works, Royal Engineer Office, Mulgrave Portsmouth. Tenders to be sealed, and endorsed "Tenders for the Erection of a Battery, Magazine, Shell, and Fuze Room, at Hulse Redoubt, Gosport," and addressed as above.

TO BUILDERS AND OTHERS.

TENDERS are required for the ERECTION of the CHURCH SCHOOLS, with Residences attached, at Hemel Hempstead, Herts. The drawings, specification, and local directions may be inspected, between the hours of TEN and FOUR, until the 25th JANUARY, at the Office of Mr. GEORGE LOW, Architect, 11, Church-court, Clements-lane, City; and on and after the 22nd of JANUARY, at Mr. HAWLEY'S, Watchmaker, Hemel Hempstead. The Tenders are to be delivered sealed, to the Committee, at the Town Hall, Hemel Hempstead, on FRIDAY, the 26th of JANUARY, by 10 o'clock precisely.

TO BUILDERS, IRONMONGERS, AND ROAD-CONTRACTORS.

PUTNEY EXTRAMURAL CEMETERY.—The BURIAL BOARD for the Parish of PUTNEY, in the county of Surrey, will meet on THURSDAY, the 1st day of FEBRUARY next, at SIX o'clock in the evening, to receive TENDERS for the ERECTION of TWO CHAPELS, Entrance Lodge, Boundary-Wall, Entrance Gates, Iron Railing, &c.; and proceed to the Board of Supervision, ESTIMATES for the purchase of the Burial Ground in Putney Lower Common.—Further particulars may be obtained on application, at the offices of the Architects, Messrs. BARNETT and BIRCH, 3, Graham Buildings, Gray's Inn, where plans, &c. can be seen, and after THURSDAY, the 18th instant. The Tenders to be delivered sealed at the Vestry of the Parish Church, on THURSDAY, the 1st day of FEBRUARY next, at SIX o'clock in the evening; and the parties tendering, or some person on their behalf, are to be in attendance at the opening of the Tenders. The Burial Board do not bind themselves to accept the lowest or any tender.

EVAN HARE, Clerk to the Burial Board, Putney.

ESTIMATES WANTED. — STIRLING POOR-HOUSE. The Parochial Board of the Parish of Stirling have resolved to erect a POOR-HOUSE, FEVER-HOUSE, and ASYLUM, according to plans and specifications thereof, prepared by J. W. and J. Hay, of Liverpool, Architects, and approved of by the Board of Supervision. ESTIMATES for the various departments of the proposed building are required. These may either be given in, in one offer for the whole, or by the different offerers for the respective departments of the work. If estimated for as a whole, then the prices for the different departments must be separately stated. Plans and specifications may be seen at the Council room, Stirling, or at the Offices of Messrs. J. W. and J. HAY, Liverpool, on and after MONDAY, the 22th current. A competent Surveyor has measured out the quantities, copies of which may be had at the Offices of Messrs. HAY, on payment of five shillings. Sealed offers, marked "Tender for Stirling Poor-house," and addressed P. G. MORISON, Esq. Chairman of the Parochial Board, Stirling, must be lodged on or before the 24th JANUARY, 1855. The Board do not bind themselves to accept the lowest estimate.

P. G. MORISON, Chairman.
Stirling, December 19, 1854.

For remainder of Contracts see next page.

CONTRACTS.

TO BUILDERS AND OTHERS

MORTUARY CHAPELS, &c. &c. ELY, CAMBRIDGESHIRE.—NOTICE is hereby given, that the Burial Board of the Parishes of Holy Trinity and St. Mary in Ely, appointed at the meeting to be held at the Grand Jury-room in the Shire hall Ely, on WEDNESDAY EVENING the 8th inst. at HALF-PAST SEVEN o'clock, to receive TENDERS for FENCING and LAYING OUT their new BURIAL GROUND, and for ERECTING TWO MORTUARY CHAPELS and LODGE thereon. The plans specifications, and quantities for the various contracts may be seen at the office of Messrs PRITCHETT and SONS Architects York, from the Morning of MONDAY the 17th, to the Evening of SATURDAY the 29th of JANUARY instant and after words at my office in Ely, from the Morning of MONDAY, the 22nd, to the Evening of WEDNESDAY the 31st instant, when the Tenders are to be delivered at Contractors have such security for the performance of their contracts as the Board may require, and the Board do not pledge themselves to accept the lowest or any of the Tenders. 4th January 13th, 1856.

By order of the Board.

WM MARSHALL Clerk

NOTICE.—The BURIAL BOARD for the PARISH of PORTSEA are prepared to receive TENDERS for DIGGING their new BURIAL GROUND, and for FORMING the ROADS and PATHS &c. The plans and specifications, may be seen at the office of Mr C B SMITH, Surveyor to the Board 20, Quarter Portsea, on and after FRIDAY the 25th instant, of whom further particulars may be obtained. Tenders, sealed and endorsed, "Burial-ground Tender," to be sent to the undersigned, not later than TUESDAY the 26th day of JANUARY next. The Board do not bind themselves to accept the lowest nor any TENDER By order of the Board,

W J HELLIER, Clerk.

19, St. George's square, Portsea, December 2., 1854

AMERSHAM GAS-LIGHT and COKE COMPANY.—Persons wishing to TINDLR for the following Works out of the Hands of the Directors, may obtain all particulars upon application to Mr JOHN HARDY, Surveyor and Engineer, Uxbridge on and after JANUARY 4th the 18th instant.

CONTRACT 1.—For erecting Gas-holder Tank, Tar Wells, and Retort Stack.

CONTRACT 2.—For the Erection of Retort house, Coke, Coal, and Purifying shed, Cottage for Workman, and Boundary Fence Wall

CONTRACT 3.—For the Supply and Erection of Gas-holder, Retorts, Condensers, Purifiers, and Inlet and Outlet Pipes

CONTRACT 4.—For the supply of about 2000 Yards of 9, 3, and 4 inch Main, with the requisite Connections, Syphons, &c.

The Tenders are to be sealed and delivered to me on or before the 3th of FEBRUARY. The Board will not be bound to accept the lowest Tender.

WILLIAM BROADWATER, Secretary.

Amersham, January 9th, 1855

REDUCED PRICES.—EDWARD SIMMS late William Cassel, of Wilton road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand at his Premises the first of the kind ever established, a very large Assortment of Dry and Well seasoned OAK and DEAL PREPARED FLOORINGS BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices Also, Timber Deals, Battens, Planks, Scantlings, Sash Bills, Moldings prepared by Machinery, Laths, &c.—Apply at E SIMMS'S (late W. Cleave's) Flooring Manufactory Wilton-road, Pimlico Basin.

IMPROVEMENT in WOOD MOULDINGS. J SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced in many years J S is now turning thanks to his friends and customers for the liberal support he has already received upon his goods, and will pay great attention to his stock of Mouldings now on hand, feeling assured that a continuance of their favours. Price List to be attained on personal application, or by letter, enclosing six postage stamps, the cost of postage — Steam Works, 26, North Wharf-road, Paddington.

N B Builders supplied with all kind of Marble and Stone Chimney Pieces, at prices lower than any house in London.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings. A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside

MOULDINGS by MACHINERY at REDUCED PRICES.—ARCHBUTT and ATKINSON beg to inform their customers that the 20 per cent. advance heretofore charged on the prices in their list is now removed. Second floorings at extremely low prices. St. Pancras Saw Mills, Cambridge-street, Old St Pancras-road.

A CORN TIMBER WHARF, Canal-bridge, Old Kent-road. RICHARD MAY respectfully thanks the building public for the patronage and support he has received during the past year, and solicits a continuance of those favours, and an inspection of the well-selected Stock of Timber, Deals, Planks, and Battens, which are now for Sale at the lowest remunerative prices for cash.

The extensive Saw-mills fitted with the improved machinery, and the Drying Warehouses, enable him to keep a large Stock of Dry prepared Floor-boards, Matchboardings, and Cut Deals and Planks, ready for immediate use.

4,000 Planks Deals, and Battens.
3,500 Pieces Fore-an Timber
5,000 Prepared Floor and other Boards.

All kinds of English Oak, Elm, and Ash Planks, Boards, and Scantlings, Planterers' Laths, Mouldings, and Dowels, on Sale.

A Monthly Price Current published, and forwarded on application.

N B. Timber Goods received for Sale on Commission, Landed Warehoused, Sawn, and Carted.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of manufacturers and others to the greatly reduced prices of PINE, SPRUCE, and YELLOW DEALS, MAHOGANY, &c. &c

Pine Planks, 12 ft. 3 in. by 11 in.	from	4s. 6d. each.
Spruce Deals, 12 ft. 3 in. by 9 in.	"	3s. 6d. "
Yellow ditto, 12 ft. 3 in. by 9 in.	"	3s. 9d. "
Honduras Mahogany	"	7½d. per foot.
Spanish ditto	"	8d. "
Wainscot ditto	"	8d. "
Seconds ditto	"	10s. 6d. per 100.
Venetian Board Laths	"	8s. per bundle.

Veneers and cut stuff of every description at equally low prices. Borough-road, Southwark, and Blue-street, Grays-inn-lane.

By Her Majesty's Royal Letters Patent.

VENEERS CUT for the TRADE (by Knife only), by the PATENT VENEER-CUTTING MACHINE by which process a hundred per cent. benefit is guaranteed upon the ordinary method of cutting veneers. For particulars of prices, and specimens of such cutting, by the machine, apply to J. CHACK, Sole Patentee, Veneer-cutting Works, 44, Robert-street, Chelsea, adjoining the Railway Saw-mills

STAINING DEAL to IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the sun, and the weather. Prices per gal. in Yarn Size for WAGGON purposes, per gal. at the Factory, 1s. James street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

STAINS for DEAL and OAK WOODWORK.—J. M. MARSHALL, Upper Parliament-street, Nottingham, having during the last ten years been extensively employed on every description of STAINING has been induced to commence manufacturing for sale the undermentioned STAINS at the following prices:

No. 1.—Imitation Oak Stain, 4s. per gallon
Nos. 2, 3 and 4.—Walnut, Mahogany, and Satin Wood, 7s. 6d. per gallon
No. 5.—A very strong rich Stain for renewing the appearance of old oak, 7s. per gallon

Ample directions with each that the most inexperienced may apply them. Agents wanted

TO CABINET-MAKERS and OTHERS.—TO BE DISPOSED OF (a few miles from London) a very large WHITE CEDAR TREE.—Apply to Mr. BROOKS, 14, Great Queen-street, Lincoln's-inn.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and is therefore valuable for conveying water, other fluids &c. It is genuinely unaffected by liquid manure, iron, and all pipes. Being a non-conductor, it is not affected by the frost of winter or drought of summer, likewise for its strength is extraordinary, the small half inch diameter tube bursting with a test pressure of 28 lbs. on the square inch, with all bursting. The smaller sizes may be had in lengths of 100 feet and upwards. The joints are easily made As a conductor of sound it is most valuable for conveying messages in long tubes ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA The GUTTA PERCHA COMPANY. Patentees 18, Wharf-road, City-road, London

GLASS PAPER and GLUE.—Important to CABINET MAKERS F J. DAY'S celebrated extra large Glass Pap r, 14s. per ream; Cox's finest Scotch Glue, 57s. per ton, 63s. per cwt; finest Imperial Glue, 53s. per ton, 60s. per cwt; Best Hard Glue, 52s. per ton, 58s. per cwt Russian, German, and Genuine Glues, in great variety. Wholesale and Retail, 6 and 7, New Inn yard, Curtain road, Shoreditch London Country orders executed on receipt of a post-office order, payable as above

CEMETERIES.—WILLIAM MASTERS and SON having completed extensive cemetery works, are prepared to undertake the LAYING OUT and PLANTING NEW GROUNDS, as well as the ornamenting such as are closed by the recent Act of Parliament, by contract or otherwise WILLIAM MASTERS and SON, Lands ape Gardeners, Canterbury

THE PERMANENT WAY COMPANY, 28, Great George-street, Westminster have just ISSUED a PAMPHLET, descriptive of various Patented Inventions for the Permanent Way of Railways which are already being applied to more than 3,500 miles of line. On application, a copy will be forwarded by post, gratis to any party who are interested in the construction of railways. WILLIAM HOWDEN, Sec.

IRONMONGER'S SHOP TO BE LET, pleasantly situated in the most improving part of Pimlico, rent low.—Apply to B PITT, 3, Wilton-terrace, Pimlico

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.

Engineers and Builders' Castings of all kind manufactured by JOHN WALKER.

Builder Cadogne-pier and Bonded-store, Mill wall, Poplar Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N B Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made for cash.

TO BUILDERS AND PROPRIETORS

To add to the comfort of our fellow creatures as we sing our WIGGINTON'S REGISTERED APPARATUS for COOKING, HEATING, and VENTILATING, will prevent the annoyance of smoke, impure air, and draughts in a house. It will also supersede the heavy chimney-shaft now in use, the saving of which in a four-roomed house will clear the expense. It will save 50 per cent. in fuel, and in many other ways be advantageous to proprietors and tenants. Will do admirably for factories, especially for silk and ribbon, and all trades where any heat is required. To be seen at Messrs. MARSHARD and PASMORE, Worcester Foundry, Worcester. May be had also at Mr CARTER'S, 140, Digbeth, Birmingham; and of ironmongers in all other towns in the kingdom.

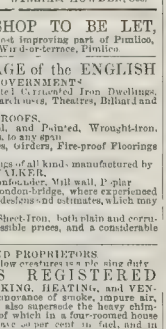
IRON-BUILT TRUCKS.—FOR SALE, TWENTY BROAD-GAUGE TEN-TON RAILWAY TRUCKS, in good working condition. Apply to DANIELL and SAUNDERS, Cosham, Wilts.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON —House and Coach Builders, Joiners, Cabinetmakers, and others. Among smaller work, are invited to call at the Patentees, POWIS, JAMES, and Co 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these separate kinds of work at one operating; and as it is self-acting, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

PRIZE MEDALS have been awarded to these celebrated Machines, both by the Great Exhibition in London, and many scientific institutions They are extensively used throughout the United Kingdom by joiners, contractors, coach and cabinet makers, railway carriage and waggon builders, machinists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and turning.



Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.

Sold only by WILLIAM FURNESS, Leather, No. 20, Lawn-street, Liverpool, from whom full particulars may be obtained

POWER MORTISING MACHINE

WANTED, THREE or FOUR TRAMWAY TRUCKS, for ballast. Also some RAILS and SLEEPERS. APPLY to MILL require.—Address W. and S. 15, Wheeler-street, Spitalfields.

RAIN-WATER PIPES.—O-G and Half-round Gutters, Sash Weights, Railway Bars, Air Bricks, &c J. JONES, Iron Merchant, Iron-bridge Wharf, No 6, Bankside, has the largest stock in London of the above and other castings, of the very best quality. Also cast-iron pipes for gas, water, or drainage; heads, bends, &c., flange and hole-water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig-troughs, &c. &c

J. JONES, IRON MERCHANT, IRON-BRIDGE WHARF, No. 6, BANKSIDE, LONDON, near the Southwark Iron Bridge.

THE LOCK CONTROVERSY SETTLED. Messrs. HOBBS, ASHLEY, and CO. are now Manufacturing their celebrated AMERICAN and ENGLISH PATENT LOCKS by their Patent Steam Machinery on the Premises, 97, CHEAPSIDE, and 33, LAWRENCE-LANE

Messrs H. and Co. by the introduction of their Steam Machinery are enabled to guarantee GREATER SECURITY, and SUPERIOR WORKMANSHIP, at prices more moderate than any Locks produced either in Town or Country; in addition to which, they are applicable to all purposes for which Locks are used

Every Lock being made and finished at the Manufactory bears their own stamp, and is warranted, with out which none are genuine. These Locks are kept constantly in order through any respectable Ironmonger in the United Kingdom.

WHOLESALE and RETAIL WAREHOUSE, 97, CHEAPSIDE Manufactory, 33, Lawrence-lane, London.

N.B. Depôt for Milner's Patent FIRE and BURGLAR-PROOF SAFES fitted with Hobbs's Patent Locks.

CHUBB'S LOCKS & FIREPROOF SAFES.

IRREPECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY, LIVERPOOL.

"London and North Western Railway Company,
"Liverpool, May 17, 1853

"Gentlemen,—I have much pleasure in hearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more fiendish fiends to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs. Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"5, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired. I am, gentlemen, your obedient servant. "C OTWAY.

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS was awarde to J. H BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, 2s. 6d. each

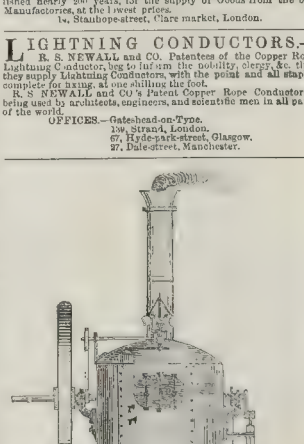
J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare market, London.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. S NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
339, Strand, London.
67, Hyde-street, Glasgow.
27, Dale-street, Manchester.



A SAVING of TIME and MATERIALS, with Safety of Building.

HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 36, Albert-street, Manchester.

TESTIMONIAL.

Stockport.

"Mr. Gough,

"Sir,—In answer to your letter, we beg to say that your engine of three horse power will take 36 barrows per hour, and 190 bricks in each barrow, six stories high, or about 75 feet, and that the engine consumes about 4 cwt. of coals in 10 hours.

"We remain, Sir, yours, &c.

"Mr. H. Gough." "JOHN LLOYD AND BROTHER.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, manufacturer of all kinds of STEAM-ENGINES (portable and stationary), Sawing Machinery, Pumps, Cranes, Grabs, &c.

N B. Several high-pressure Steam-engines for Sale.

TO ENGINEERS, ARCHITECTS, AND BUILDERS.

THE VIEILLE MONTAGNE ZINC MINING & MANUFACTURING COMPANY

ARE NOW PREPARED TO

UNDERTAKE CONTRACTS, THROUGH THEIR AGENTS, FOR ZINC ROOFING OF ALL DESCRIPTIONS;

TOGETHER WITH, WHEN REQUIRED,

ALL THE NECESSARY TIMBER OR IRON FRAMEWORK, IN WHICH A GREAT SAVING IS EFFECTED BY THE LIGHTNESS OF THE METAL.

It possesses all the Advantages of Galvanised Iron, and is far more Durable and Cheaper, especially for large Spans.

The long duration of these roofs without repair, their neat appearance, and the economy of materials employed, as well as of area covered, render them most advantageous for dwelling-houses.
Many roofs covered with zinc, especially on the continent, have remained since the first introduction of this metal till the present time without having required, or appearing likely to require, any repairs.
CERTIFICATES in proof of this from the FRENCH GOVERNMENT and other authentic sources CAN BE SEEN at the COMPANY'S OFFICES, where all information, Estimates Drawings, or Prices, together with every assistance in laying on or otherwise, may be obtained on application to the Company's Surveyor, at

No. 12, MANCHESTER-BUILDINGS, WESTMINSTER.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

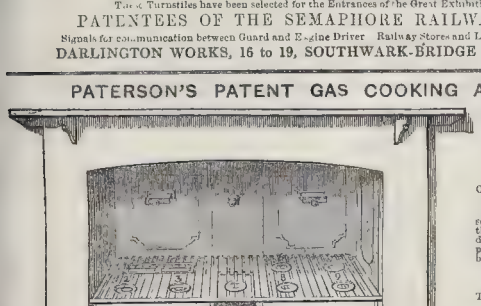
These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

PATERSON'S PATENT GAS COOKING APPARATUS.



May be seen by applying to the Patentee,

A. PATERSON,

53, VICTORIA-STREET,

WESTMINSTER,

Of whom LICENSES may be had for making them.

On reference to the plate, it will be seen that roasting can be carried on by the open fire, if required; thereby rendering this apparatus the most compact and efficient of any that has yet been brought out.

THEY ARE MANUFACTURED BY

T. WALLER and CO.

Ratcliff Ironworks, Rose-lane, Ratcliff near the Stepney Railway Station.

Where they may be seen in operation, and where prospectuses and every information concerning them may be obtained.

Also Manufacturers of every description of

GAS STOVES, BATHS, OPEN AND CLOSE KITCHEN RANGES, HOT WATER APPARATUS, METAL CONSERVATORIES, &c.

N.B. The Trade supplied with Iron Sash Bars, bent to any shape or design. See "The Builder" of Sept. 16.

HOT AIR, GAS, VESTA, JOYCE'S STOVES.—STOVES for the economical and safe heating of halls, shops, warehouses, passages, basements, and the like, being at this season demanded, WILLIAM S. BURTON invites attention to his unrivalled assortment, adapted (one or the other) to every conceivable requirement, at prices from 10s. each to 30 guineas. His variety of register and other stoves is the largest in existence.

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from all the various manufacturers all that is new and choice in Brackets Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designs expressly for him; these are now ON SHOW in one of his TEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Establishment the largest and most remarkable in the kingdom, viz. from 12s 6d. (two light to 16l.

WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY (including cutlery, nickel silver plated, and japanned wares, iron and brass bedsteads, so arranged and classified that purchasers may easily and at once make their selections.

Catalogues, with engravings, sent per post free. Them oney returned for every article not approved of.

39, OXFORD-STREET (corner of Newman-street); 1, 2, and 3, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 1000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford street

MAGNUS'S PATENT ENAMELLED SLATE CABINET-FORMED FIRE-PLACE.—This is decidedly the most novel, elegant, economic, and comfortable fire-place that has ever been introduced to the public. It moves on castors, and stands BEFORE the opening of the chimney, projecting into the room as a regular cabinet. It is composed of fire-stone and slate, and has hot-air chambers. It may also be fitted up for gas instead of coal. By the economical, who dislike to see half the heat from the coal wasted in the chimney, and by persons of taste, who object to the stiff unmeaning chimney-piece in ordinary use, the CABINET-FORMED FIRE-PLACE has only to be seen to ensure its adoption. Price from ten guineas upwards. Pimlico Slate Works, 39 and 40, Upper Belgrave place, Pimlico.

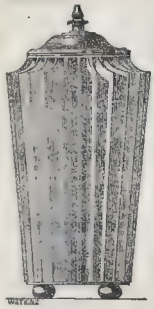
HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s 9d. This achievement in heating by hot water is unprecedented.

DR. ARNOTT'S new OPEN SMOKELESS FIRE-GRATE having been brought to full perfection, may now be seen in daily operation at F. EDWARDS and SON'S, 49, Poland-street, Oxford-street. By this grate a smoky chimney is prevented, no chimney sweeping is required, and a saving of at least thirty-five per cent. is effected in the consumption of coal. This principle is also now carried out with complete success in kitchen ranges, and hot air or metal stoves. Old grates are altered to this principle.—Prospectus sent on application.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 148, Regent-street, London.

THE SMOKE CONSUMING STOVE, invented by Dr ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 10, insures perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 452, Holborn

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is made in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO., opposite to the Monument, London-bridge. Established A.D. 1700.



SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Galleries, Stores, Warehouses, Hotels, &c. Hot Air, require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stoves may be heated from one Boiler, and may be used equally well with Steam or Hot Water

SYLVESTER'S IMPROVED AIR WARMER

is the most powerful salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO.

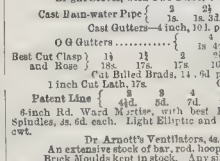
Engineers, and Manufacturers of Heating Apparatus, 96, Great Russel-street, Bloomsbury

SAW-MILL MANUFACTORY, Chelsea, London.—WORSAM and CO. invite the attention of all concerned in sawing, planing, and moulding wood to the simplicity and compactness of their machines over those now in use, which are both cumbersome and expensive. Drawings and prices sent on application. Estimates given for complete saw-mills for exportation or otherwise.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Sise-lane, London.

IRON ROOFS, Wrought-iron GIRDERS, Girder Bridges, Railway and Builders' Wrought-iron Work, Gasholders, Tanks, and Boilers.
CHARLES WALKER and SONS,
Midland Iron Works, Tipton, Staffordshire.
Office, Little Sutton street, London.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 169, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

20	22	24	26-inch,
28s.	30s.	32s.	34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch,
54s.	56s.	58s.	63s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d

Improved New Pattern Circular Check Register, with strong Bars and Frame, 6½ per inch.

Best Solar ditto, with Fine Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 10os. each.

Cast Basin-water Pipe	2	2½	3 inch.
	1s. 8d.	1s. 9d.	1s. 10d. per yard.

Cast Gutters—4 inch, 10½ per yard.

O G Gutters	4½ inch.
	1s 4d. 1s 6d. per yard

Best Cut Clasp	1¼	1½	2	2½	3 inch, and larger.
and Rose	18s.	17s.	17s.	16s.	14s per cwt.

Cut Bulled Brads, 14, 6d per cwt.

1 inch Cut Lath, 17s.					Cast Lath, 13s.
Patent Line	3	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron
Brick Moulds kept in stock. Any size made to order.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservatory and Hot-house Builders, either in wood or iron, respectfully call the attention of the nobility, gentry, and nurserymen to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

PATENT GALVANIZED IRON.
(IMPROVED PROCESS.)
JOHN SYMONDS and CO.
WORKS, GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process, THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c. Roofs fixed complete.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles. Pails, Coalscoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION HOUSE PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PFEIL and STEDALL'S,
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of Iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 19, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, consisting of churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

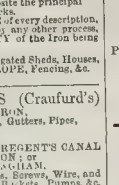
COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO., 64 and 65, Brydges-road, Lambeth, where a great variety are always on view for church, park, railroad, coach-use, and other gates and doors of large and small dimensions, a gate of a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, London." Plain and ornamental cast and wrought iron-work for building and other purposes. Engines, machinery, patent sale-trees, sugar-mills, &c.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Razers, Pinions, Engine and Lathe Castings, Force Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLANTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Copings, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Trap Doors, Area Gratings, Treads, Panelling, Lamp and other Brackets, Cantilevers, Newel Ends, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.
BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS,
68, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.
GLOVER, BROS.,
Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.
Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Latches, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.
A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.
Plain and Ornamental Vases 20 per cent. cheaper than Terra cotta.
Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Gardens, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.
GLOVERS' IRONWORKS,
168, DRURY-LANE, and CHARLES STREET.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5id. 6id. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4d. per doz.
Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per bgs.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

SKAIFE'S GALVANIZING WORKS,
COMMERCIAL-ROAD, LIMEHOUSE, LONDON.
SKAIFE'S process is the most effectual preventive against rust, and is extensively used for all purposes where Iron, not liable to rust, is required.
PATENT GALVANIZED IRON SUPPLIED IN EVERY FORM. SHEETS PLAIN AND CORRUGATED. ROOFS FIXED COMPLETE.
J. SKAIFE IS ALSO AGENT FOR MOREWOOD AND ROGERS'S PATENT GALVANIZED TINNED IRON, PLUMBIC ZINC, AND TILES.
AN ALLOWANCE TO THE TRADE.

DAVISON'S IMPROVED STABLE PAVING BRICKS.
The attention of ARCHITECTS, BUILDERS, and Others, is particularly directed to this PAVEMENT, so especially adapted to
STABLES, CATTLE, OR CARRIAGE SHEDS, COURT-YARDS, &c.
The peculiar nature of the clay of which these Bricks are made, and the intensity of the heat to which they are exposed, render them the most remarkable for durability ever produced, being found to endure much longer than Stone Flags, Dutch Clinkers, or any other kind of pavement hitherto used for those purposes.
The particular advantage of this Pavement over all others is, that it gives such a perfect security of footing to Horses and Cattle when passing over it.
These Bricks have been used by Mr. S. R Eyre, Architect, Liverpool; at Mr. Rea's Great Central Horse and Carriage Repository, near the "Elephant and Castle;" and by Mr. John Jay, at the Metropolitan Cattle-market, Copenhagen fields, where they may be seen laid down.
Prices, drawings, and particulars, sent post free, on application to the Sole Manufacturers,
CHARLES DAVISON & CO.
FIRE-BRICK AND TILE MANUFACTURERS, QUEEN'S FERRY, NEAR FLINT, NORTH WALES.

NORTH BRITISH CAST and WROUGHT IRON OFFICE, No. 18, King William-street, Charing-cross, just opened, through which Builders can be supplied with castings direct from the foundry in Scotland, and wrought-iron goods from the works near Birmingham, at the manufacturer's prices, as the following list will testify:—

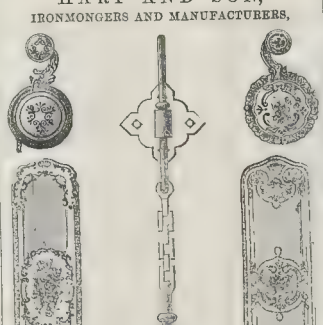
	2 in.	2½ in.	3 in.
Rain Pipes	3½d.	1s. 2d.	1s. 6d. per yard.
	3½ in	4 in.	4½ in.
Cast-Iron Gutters	8½d.	9½d.	1s. per yard.

The new U G SOCKET GUTTERS.—Instead of the clips being loose, they are cast on in the solid and form the Socket.

	3½ in.	4 in.	4½ in.	5 in
Plain		1s. 4d.	1s. 5d.	1s. 9d. per yard.
Lion head	1s. 2d	1s. 4d.	1s. 8d.	2s. "

All the larger sizes of pipes and gutters at equally low rates.
AIR BRICKS.—A new registered design at 4s. per dozen.
GALVANIZED CAST-IRON FURNACE-PANS, 6 to 25 gallons, at 3½d. per gallon.
Shell WEIGHTS, &c. per cwt.
Self-acting Cottage Ranges, with Boiler and Oven, from 32s. each.
Register and Elliptic Stoves, and all kinds of Builders' Castings at similar reduced quotations.
Orders taken for common Bar Iron, at 10s. 6d. per cwt. Cash on delivery. Manager, Mr. RUSSEL.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,



91, DRURY-LANE, and 83, 84, 85, WYCH-STREET, Strand, London.

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c.—The nobility, gentry, water-companies, towns, baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 10, Cumming-street, Pentonville. Pumps and machinery for raising water from deep wells, boring-tools, and well pipes for exportation. Men and tools supplied to bore for railroads, minerals, &c.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for tees-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Corpiece-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

TO IRONMONGERS AND THE TRADE GENERALLY
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—35 and 36, High Holborn.

WILLIAM BAKER, BRAD-AWL MANUFACTURER, Manufacturer of all kinds of Saddlers' Awls, Collar Needles, Packing Needles, Upholsterers' Needles, &c. &c. Manufactory, No 14, Allen-street, Clerkenwell, London. Established twenty-five years. Honourable mention, Great Exhibition, 1851. Prize Medal, New York Exhibition, 1853.

COTTAM'S NEW PATENT for STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH, as ONE FIXTURE; they are universally approved of, and received the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, coolness, safety, comfort to the horse which feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock. Descriptive catalogues and estimates on application to COTTAM and HALLEN, 3, Winsley-street, Oxford-street.

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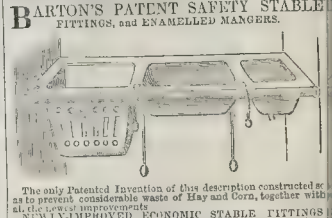

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RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, ENGINE SHEDS, MILLS, MARKET HALLS, AND PUBLIC BUILDINGS GENERALLY.

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Jan 4, 1851. GEORGE HADLEY, Purser.

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The Builder.

SATURDAY, JANUARY 13, 1855.

THE consideration of the construction of Indian domes was resumed at the Ordinary Meeting of the Royal Institute of British Architects on December 11th, with especial reference to the artistic and constructive merit of the great Dome of Sultan Muhammed's Tomb.

Mr. Fergusson said, speaking of the history of domes, the first great example which it is necessary to quote is the Pantheon, which is raised on a circular apartment or drum, as were all the earlier domical tombs of the Etruscans and Romans. The inconvenience of this form was however early felt, and an octagonal one was adopted, and then a square, the angles of which were cut off, so as to form an octagon internally, and then the triangular blocks in the angles were hollowed out into great niches, so that very little space was lost. In course of time the head of the niche became an arch, springing from wall to wall, and so formed what may be called the Roman pendentive. It was generally brought down to the ground by a vaulting shaft, but that was of little or no constructive use.

The Byzantines made an advance on this by filling up the angles of the building with a bold bracket springing from each angle, with a vaulting shaft in the corner, which gradually extended forward, till it formed the octagon at the springing of the dome.

The Saracenic architects used both these forms; though it may perhaps generally be asserted, that in the western world they preferred the Byzantine; in the eastern the Roman pendentive. In India there are some noble examples of both classes. In that country, after having produced the octagon, they generally cut off the angles again, so as to produce a polygon of sixteen sides, and in large examples repeated the operation, so as to have one of thirty-two, which is practically so near a circle that a dome can be placed on it without difficulty or apparent abruptness. But besides gaining this floor for the dome, several other points have to be attended to, and the first is, that externally the dome should spring from within the line of the walls: internally, the same line should be carried up, but externally such an arrangement would be weak in the extreme. In small buildings this is easily got over: a wall 6 feet thick allows a dome 3 feet thick to be placed 3 feet from its face; and by thickening the wall another foot or two, the required apparent stability is obtained. In larger buildings this is generally effected by an outer verandah, or range of apartments, which, added to the internal square, gives the requisite base to the dome.

At Beejapore, however, and in domes of such size, neither of these expedients was available. It would have required walls 15 to 20 feet thick had the first—and an enormous increase of height had the second—expedient been employed, or the building would have appeared squat and ill proportioned. The architects, therefore, adopted the plan exemplified in the drawings, which I will call, if you please, the Beejapore pendentive, which consists in carrying the Roman arch, not from one point of the octagon to the one nearest it, but to the next: by this means a much more extended floor is obtained for the dome; and though of the same thickness as the walls, it can be brought as far within their line as appearances require. A second advantage of this construction is, that the architect obtains a mass of masonry so much larger than the whole mass of the dome, that no motion or disturbance of its equilibrium can affect the support on which it stands; and, consequently, if there be not some most glaring inherent defect in the dome itself, it would stand for ever. A third advantage is, that the mass is so placed that its tendency is to fall inwards, or, in other words, to draw the building together. This is easily and surely counteracted by the arch form of the circle; but, at all events, outward motion is impossible, and that is the one thing to be avoided in the present instance. A fourth advantage gained by this construction is the great gallery which surrounds the base of the dome, nearly 13 feet in width, which is not only a noble feature in itself to a person walking upon it, but when seen from below, has all the effect of the boldest cornice in the world—which it is,—and conceals the springing of the dome from every point, so that it seems like a vast vault of unlimited extent spanning the whole space below with a simple grandeur, which, so far as I know, is unrivalled in any part of the world.

On the last occasion, continued the speaker, several parties objected to the construction of the dome as unscientific, and had the discussion taken place at the Institution of Civil Engineers, the issue should have been taken on that point. Here, we ought rather to ask, is it artistic? according to India notions, it certainly is; and so I think all will agree who see how exquisitely proportionate it is to the mass it covers,—how solid, and, if I may so express it, solemn its outline is, and consequently how appropriate for a tomb. That it is unscientific, according to our European notions, I willingly admit, as it is thinnest at the springing, where it is 9 feet 6 inches: a little above this it is 10 feet 6 inches, and carries a thickness of rather more than 10 feet to the apex, where it is 18 feet; a mode of construction exactly the reverse of ours, and perhaps of what it should be, if the question was only how the place could be roofed with the least possible number of bricks. That its science is sufficient is proved by the fact that it has stood two centuries uninjured: indeed, barring earthquakes and pepul trees,* it would, with moderate care, stand for ever.

The fact is, the Indians knew so well the capabilities of domes that they could play with them, and have no fear of their falling: we in Europe are afraid of them, and have never fairly tested their capabilities.

Sir Christopher Wren shirked the question entirely, by introducing a cone, constructively no doubt the best form for his purpose—artistically the worst, as he confessed by hiding it both internally and externally.

Brunelleschi halved the difference, adopting a form slightly curved externally. The octagonal form of his plan rendered this tolerable, though not beautiful: for a circular dome it would be unbearable.

Michelangelo did better, and produced a bolder construction and a far more artistic form; and, had he been able to secure his base constructively, without iron ties, his dome might have been eternal. Had either he or Wren known, for instance, of this Beejapore mode of placing a mass at the springing, sufficient by its inertia to resist any movement in the vault, and to convert all outward thrust into inward pressure, they might have constructed far larger domes far more solidly than they have done. I trust the subject may excite some interest, for I feel, so far at least as my own personal convictions are concerned, that the dome is by far the noblest feature which man has conquered from nature for building purposes. Externally, its grandeur far exceeds that of Gothic steeples or towers, or any other form we are acquainted with. Internally, it covers larger spaces than any other form of permanent roof, and in its simple sublimity far surpasses all the elaborate littlenesses of Gothic vaultings. It is also a true roof, which no Gothic vault is, the latter being merely a sham ceiling under a wooden roof, like the dome of St. Paul's; but when its construction is understood, a dome requires no such covering, but ornaments the building it surmounts, both externally and internally. It is also, I am convinced, the easiest constructed of all true roofs; and whether it is thin as the dome of earthen pots of San Vitale, or constructive as that of the Pantheon, or bold as that of the tomb of Muhammed, it stands with ease and lasts through ages, and, with our science, may be made as eternal as the pyramids.

Before concluding, said Mr. Fergusson, I may allude to one other dome, that of Sta. Sophia, at Constantinople, of which at last some authentic particulars have been obtained in the work of Salzenberg of Berlin, who, taking advantage of the scaffoldings erected by Fossati for the repair of the building, measured carefully every part of it, and has just published the result of his researches in one of the most beautiful works produced for a long time, from which the section on the wall is copied. From this it appears that the diameter of the drum of the dome is 100 Prussian feet, or 102 feet 11 inches English, but the dome itself is 4 feet more, or 107 feet in diameter. It is constructed of forty ribs, projecting each 2 feet, which die away towards the centre, leaving about one-third of the dome perfectly plain. The form is segmental, 45 feet 6 inches in height, and described consequently from a point about 8 feet below the springing. Round the base are forty windows, which throw in a flood of light; and altogether its appearance internally is as beautiful as any known of.

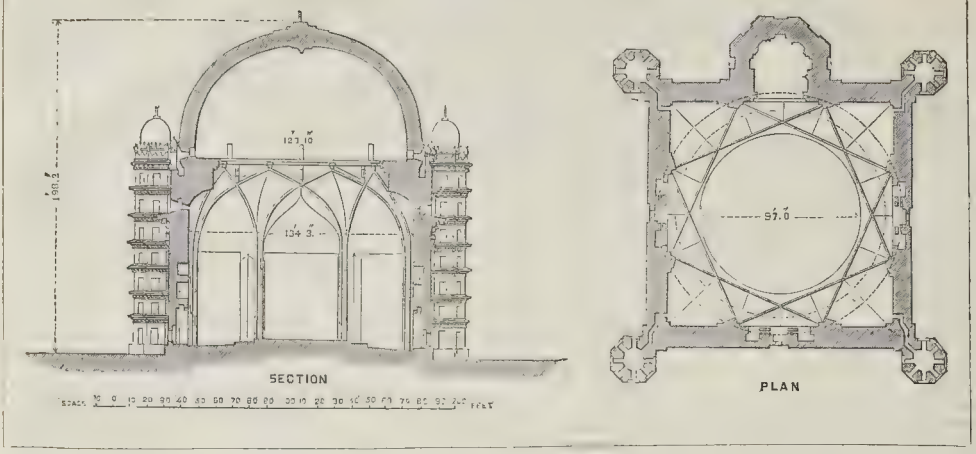
These correct details being added to our previous small stock of knowledge regarding Sta. Sophia, must be considered an immense gain to architectural science, and connected with what we know of the dome at Beejapore, will open a new era in the science of dome building.

In reply to questions, Mr. Fergusson again stated that the dome at Beejapore was constructed of brickwork without centering; that the courses of the pendentives were not horizontal, but radiating; and that the mortar was made of the common lime of the country, which was very good. In India such buildings as the tomb of Muhammed probably took twenty years in their construction, out of which not less than three or four years would have been occupied on the dome.

A communication from Mr. Penrose, to the following effect was read:—"It will be seen, in the section of Metz Cathedral, that the wall above the vault overhangs to some extent, and also (as in all the old vaultings which I have examined), that the courses are carried up horizontally to a considerable height, thus corbelling out to meet the thrust, and opposing to the outward pressure of the vault a tendency in the wall to fall inwards. 1st. Considering the wall by itself. The tendency of the overhanging mass is to fall forwards in a direction contrary to the thrust of the vault. 2nd. And considering the vault by itself. As practically there is seldom any chance of the voussoirs sliding upon one another, the horizontal pressure at the crown of the vault acts by means of a continuous lever about the fulcrum, at the lowest radiating joint. Had the radiating joints extended to the springing, this fulcrum would have been at the springing, and not only would the thrust of the vault been greater, but the

* Pepul trees (*ficus religiosa*) are the great enemies of buildings in India. They grow *par preference* on brickwork, and if once they get their roots into a crevice, they split the strongest wall in a very few years, and tear domes especially to pieces.

THE GOL GOOMUZ, BEEJAPORE.

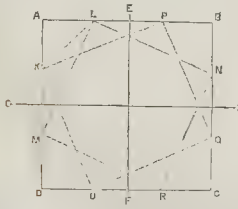


advantage of the counteracting pressure already referred to would have been lost.

The advantage obtained in the construction of the Indian vault is an interesting variety, but the same in principle. The fulcrum of the great dome is at its base inside, and the inward tendency of the great corbel, which is formed below the great arch, instead of above it, as in Metz cathedral, opposes itself to the outward thrust. I think that the curious arrangement of the arches which seem to support this great corbel, as I have called it, is meant to amuse the eye, and has very little to do with the question of equilibrium. It does not appear to me that the great dome itself is worthy of much commendation, except it be that a great thickness of material is useful to exclude the heat, but which a hollow construction, which such an architect as Brunelleschi would have advised, would have done much more efficiently. I think that while we admire the happy arrangement of the lower part, we cannot call the whole construction scientific, which would imply that thought had been well bestowed on every part."

Mr. Papworth stated, that as to the principles of the construction of the great mosque in question, he would preface his two chief points of consideration by saying, that he believed there was no one present capable of pointing out any published work on domes which had any authority whatever, and that, therefore, if his views were mistaken, they must be imputed to unintentional ignorance: at all events, he would make the assertions that a dome was not an arch, and that domes were not governed by the same laws as vaults: at least that was what he meant to lay before the meeting for its examination and investigation. He reserved the right of allowing certain exceptions, into which he should not then enter, but be satisfied with calling the attention of the meeting to the question of the scientific construction of the dome and its pendentives.

He would begin his own remarks with the pendentives. It seemed that A B C D being a



square (say of 100 feet), and E F G H the diameters, F G deducted from A D giving the point K, and the points L M N O P Q R being similarly found, then the common pendentives in K L, &c. were more scientific and practically useful than the pendentive of the Gol Goomuz formed on the intersecting lines P K, K M, O K, L, &c.; for the wall, if 7 feet thick, which was about the proportion to 100 feet adopted at the Gol Goomuz, would, in the case of K L, give a pier for thrust 49 square feet in area at K and L; but in the case of K P, 119 square feet at P, and 21 square feet at K. The lengths of K L would be 64 feet, and K P 86 feet; therefore half the arch on K L, equal in base to 32 feet, would thrust on a pier of 49 feet square in base, while half the arch on L N, equal in base to 43 feet, would thrust on a pier of 119 square feet in base, while the other half, or 43 feet, would thrust against a pier of 21 square feet in base; and he would assume as a rule in building that equal thrusts came best on equal piers, if economy in materials was to be considered a merit. He could not discern the peculiar merit supposed to be displayed by the principle of the pendentives which had been described as adopted in the Gol Goomuz.

Explanations were entered into, Mr. Fowler, Mr. Tarring, and others taking part, but these could not be understood without diagrams.

Mr. Papworth then entered into calculations on the causes of the stability of domes, showing that in domes of equal thickness the upper half of each gore was only one-third in weight of the lower half, and adduced the possibility of loading the crown to a certain extent; producing a series of drawings of domes, constructed upon principles which ought theoretically, if they were arches, to lead to their failure, but which had nevertheless proved perfectly sound; his views being fortified by Mr. Fergusson's concurrence as to the absence of examples of failure where the bases were stable. He then alluded, with his reasons for non-concurrence, to suggestions that the dome of the Pantheon at Rome had been built on the principle of a bridge, *i. e.* of an arch; that it was impossible to plan a large dome without great thickness of walls, *i. e.* greater than sufficient to bear the weight and its consequences; that it was necessary for the exterior of a dome to stand flush with the wall of the building to which it belonged; that it was desirable to append heavy corbelling to the inside of the wall to counteract the thrust of a dome, with special reference to some circular tambours of which he exhibited sketches; to the supposed unnecessarily great weight on the top of some examples; and to the supposed beauty of principle exhibited in the dome of Sta. Maria, at Florence, which he characterized as a piece of octagonal vaulting, and not a dome. He also explained that domes which had failed had not been supported on a stable foundation; that he saw great beauty in the idea of forming an eye in so large a dome as that of the Gol Goomuz, where the centre of the curve on each side of the section was in the edge of the eye; that the outer face of the springing of a dome might be within the inside of the square enclosing wall of the building; that if the principles of vaulting were applied, the waggon-headed section of the Gol Goomuz dome would not be expected, theoretically, to stand; and concluded by some observations in explanation of his illustrations, as to the requisite thickness of domes.

Mr. Hesketh thought the dome in question was constructed partly by a system of corbelling, as any tendency to thrust with concentric rings might have been got over by constructing a portion of the lower part by such a system. The dome was probably constructed so as to have no lateral thrust whatever. It required only a vertical support; and the support it derived from the arches was real, as Mr. Fergusson had explained. He thought the great external projecting cornice had been made use of in carrying the thrust of the arches from their haunches to the four angular towers, which, it appeared to him, were so placed in order to receive it, and could not be intended for any other purpose.

Mr. Jennings observed that the question now under discussion was, how the building had been so admirably constructed; but a preliminary question should be, whether it was really constructed on scientific principles or not. The thickness of the dome (10 feet) itself proved a want of scientific knowledge, and it did not appear to him that the form was the best that could have been chosen. The consideration of the pendentives was interesting, as affecting the question of the direction and resolution of forces. He could not see that the weight of the dome had increased the strength of the building, or that the thrust had been carried into the angular tower.

Mr. Fergusson said, that from its thickness the dome was certainly unscientific, and that, as an engineering point, it failed. It was an artistic and not an engineering dome. No contractor or engineer would propose now to construct a dome in the same way; but when a Mahomedan king was constructing his own tomb, he did not care for a million of bricks: the only point was to realize the artistic effect which was thought necessary. Whatever was the abstract power of the arches, it came across the great mass in the angles, which was immoveable, and could not be affected by any of the thrusts. In an artistic point of view it was one of the best domes ever constructed; but of course, if it had to be erected now, it could be done with half the materials.

Mr. Scoles referred to the section of a dome

built under his direction in the year 1841. The span was 30 feet, the supporting walls 3 bricks thick, the springing line 36 feet from the floor. For the height of 3 feet above the springing, the dome was formed by courses of bricks corbelled over: above that it was composed of four courses of plain tiles set in cement—in all 4½ inches in thickness. The construction had fully answered his expectations.

We append a section and plan of the Sultan's Tomb. Some particulars will be found in our last volume, p. 650.

CHRIST'S HOSPITAL.

YIELDING to irrepressible impulse, the City owns to a spirit of reform,—the torrent presses, and the *digues* of prejudice cannot resist it,—every new building denotes an improved taste, and all the new streets bear evidence that a population advancing in arts and commerce cannot be pent up in the closes and restrictions of ancestral habitude.

Smithfield, so long a terror, is, with its retainers, to be swept away: pens may be replaced by plantation or pavement, but it must be reserved as a purified lobe in the lungs of London. As in all improved quarters the quality of the houses will be enhanced by vicinal embellishment; so the public-houses may shift away,—their places will be occupied by factories, stores, and trades, ready to press in and fill the vacuum. A few lime-trees 40 feet high could be easily transplanted, and a fountain or two might animate the scene,—not perhaps much to better the atmosphere, for while 1,000,000 fire-hearths blaze from 300,000 houses, no great abatement of smoke can be made.

To the Christ's Hospital and the Charter House, divided by Smithfield and in close propinquity to it, the change will be of incalculable value; and the term "urban" may hereafter, under a new order of civic regulation, when drovers, knackers, and filth are besomed out, resume its obsolete significance. The removal of Smithfield necessarily involves amelioration in the causeways and the houses; for as the centre of the metropolis radiates from St. Martin's-le-Grand, this particular locality must become the nucleus of trade.

Supposing, however, all these anticipated modifications complete, what an inappropriate site is it for a seminary, to lodge, nurture, and educate 1,000 pupils! The centre of a city must be always prejudicial to the morals of a school; and as frequently recurring contagion has hitherto proved, equally noxious to bodily health.

When built, Christ's Hospital was extramuros and Smithfield-bars gave out into green fields. Since then the City grew around it, and now extends 5 miles thence on every side. We find the institution now not only sustained in its former condition, but pre-eminently advanced in public estimation. The income arising from early endowments and bequests, which may be set down as exceeding 40,000*l.* per annum, is largely augmented by the contributions of governors, of whom, on an average, twenty-five are elected annually; and as they give 500*l.* each on election, 12,500*l.* a year arises from this source. At present the governors exceed 400 in number, besides the lord mayor and aldermen, who, being governors *ex officiis*, contribute nothing, except in rare instances, and yet they claim the patronage in the ratio of three to one, as compared with the rest of the body! It is true that the corporation of early times, their predecessors in office, granted the hospital (the governors) a lease of the site, which will expire in A.D. 2061; but that site and large estates, together with 4,000 marks of revenue, were granted to them by Edward VI. to establish schools, hospitals, and charitable foundations.

As to the edifice, but a very small portion now stands of the original monastery,—the gateway and a portion of the brick building under which it opens, together with the cloistered passage in rear of the basement, being the only well-defined remnant. The brickwork of the superstructure, of about Elizabeth's reign, is most remarkable as a marvel of workmanship. The best portions, such as the schools and dining-hall, are modern. Like all other institutions erected at divers times in various ages, there is a want of unity, and a sad waste of space from incongruous plans.

The number of boys on the foundation has been increasing with the revenue: there are now 850 in Newgate-street and 350 children at Hertford. The latter building was erected A.D. 1683, and is found to be most admirably suited to its objects: having grounds for recreation, and air more congenial to the infantine constitution, it offers a strong contrast to the results at the hospital.

Besides the livings mentioned in a former article, the following are also dispensed by the governors, viz.,—Wormshill Rectory, Kent; Colne Engaine Rectory, Essex; Clavering-cum-Langley Rectory; Ugley Vicarage, and Berden Perpetual Curacy, in same county; Horley Vicarage, Surrey, and Endford Vicarage, Wilts. There are also alternate presentations to Albrighton, Salop; Britteswell Vicarage, Diseworth Vicarage, and Wigston Vicarage, Leicestershire; and to Leiston Church, Suffolk; together with three Exhibitions of 80*l.* to Cambridge, and one of 100*l.* a year to Oxford.

With all these advantages, and the celebrity which the school has always maintained for education and (standing *in loco parentis*) for the integrity of its charity, it is natural that there should be, as there is, a great desire amongst parents to share its benefits,—as well as that men of high station should be found emulous of the honour to be governors at the expense of 500*l.*

The numerous claims for patronage is perhaps one cause why the numbers of *élèves* have been kept full, and even on the increase. But the multiform government is perhaps the cause also wherefore the whole management has been delegated to the staff of almoners, and that the system of education has not kept pace with the requirements of the times: being eleemosynary, poor parents are too happy to partake of the benefit,—rich ones (*if any there be*) would be too prudent to raise a question which might forfeit the sustenance and education of a younger son. No underling dare whisper of a reform,—his stake and forfeit are but too evident. The governors are not all men of education—those who enjoy most of the patronage perhaps least of all,—they are too busy *nominating*.

There is but one individual who could with effect attempt any innovation on old chartered customs, and even he must essay that object with hazard to his position and prospects.

All honour to the man who, standing at the helm of instruction,—charged by his office, as head master, with the education of so important a seminary,—who, obligated also by his professional vows to elevate the moral progress of his pupils, has had the noble spirit to take in hand and urge forward a reform in the sleepy system of a yet monastic school—a system obsolete in other schools, and unsuited to our day.

Of the 850 at the hospital, but very few are entered in the Universities, or passed into the learned professions; the great majority being provided for in trades and pursuits wherein a knowledge of history in the English language, of arithmetic, and of "useful things," are most essential: and yet every blue has to labour through the same course of Greek and Latin classics, cumbering his mind, during his five or six years' sojourn at the school, with an useless lumber of words and their radices! To amend this, and to establish a system of biding and watchful governance over the youth during vacant hours (now wholly neglected), the master spake—but he spoke in vain!

It was Ridley's preaching that moved the heart of our princely Edward VI. to found this and other charities; and the writer (an old contributor to the *Builder*), vouches that he knew little of the governors, nothing of the preacher; but the master, not being able to teach as he would, preached as he should. It was his duty to preach before the governors on an anniversary, when he told them that their system was not only imperfect, but *wrong*. Now, let an extract from the published sermon speak for itself:—"When we mark the vast improvements which have taken place in the education of the lower classes, and are forced to acknowledge that a large mass of our boys would be unable to compete with the scholars of a well-conducted national school;—when we notice the *subjects* which are specially needed for a good modern education, and to fit youths to play their part well in the stir and struggle of commercial and industrial life, and find that these are the very things which a boy at Christ's Hospital has little or no opportunity of learning;—when we are informed that modern languages, various branches of practical or applied science, physical and historical geography, English composition, the history of the British Empire with its colonies and dependencies, elementary art, or drawing on correct principles, are subjects which practical and experienced men are demanding to have taught, in their rudiments at least, to the rising generation; and that the greater part of these subjects are all but absolutely interdicted here;—it *must be owned that there is ample room for something to be done.*"

The government is practically vested in a committee of fifty almoners (*that portion of them* who undertake the administration, and who attend to and watch it): these gentlemen have all the appointments, and have hitherto considered themselves sole arbiters, to *make* or *unmake*. It is incredible, to those unacquainted with boards, what *they* will do and dare! they would, perhaps, have prescribed to the pastor and master what he ought to say in addressing *them*: he looked to a master greater than they—the power to which he was amenable for the right performance of duties. Must a great teacher flatter, as did the nervous poet?—"Semper honos nomenque tuum laudesque manebunt."

It is needless to say more of the issue of this unseemly conflict, for, with the great body of governors, men of high rank, worth, and influence, the right must prevail, as it will on every appeal to the public.

Deferring other details, it may be germane to state that the expense of the establishment (which, although put on an improved and a more liberal footing is extremely moderate), in round numbers stands—

For 1,300 pupils, at 30*l.* each, (including nurture and clothing)	£39,000
For 19 masters, with servitors, &c. only	5,000

The accounts are more detailed in the reports of the Commissioners on Charities.

Very large sums have been from time to time expended on the buildings, which are of a superior order; within fifty years most certainly above 100,000*l.* These buildings are in the heart of the City, and are easily convertible (should the governors, decide to change the location of the Hospital to some of their own freehold lands) into offices for any public department.

At this moment a negociation is on foot to purchase from the Corporation the site of the City Compter, about half-an-acre, in juxtaposition with the school: the *almoners* have offered 15,000*l.* for it: if it is bought, and perhaps 20,000*l.* more be expended in new erections, then the location of the Hospital will be more firmly fixed!

There is yet time, for the almoners are not wholly the arbiters; but if delay be allowed, the Aldermen will assuredly "*nail the Hospital to the Compter!*" As stated before, the buildings, foundation, and grounds are peerless: they are worth 200,000*l.* and over.

The Post-office cost over that sum, and now the swollen body of that mighty engine has outgrown its shell,—there is no other place for it,—approaches on all sides—ample space, and if *utilitarian buildings* only were raised, in addition to the adaptation of those standing, the expense would be comparatively small: lastly, a merchant of the City would almost reimburse the lavish outlay on the (to be vacated) public work—the Post-office.

These hints may be thought intrusive, as they are gratuitous; but as they concern every citizen, they are given by their honorary official,

QUONDAM.

PROGRESS OF BIRMINGHAM.—The number of houses erected within the borough of Birmingham in 1853 was 2,784; in 1854, 2,219. The number of warehouses built in 1853 was 23; in 1854, 35. The number of workshops built in 1853 was 38; in 1854, 52. The number of manufactories erected in 1853 was 22; in 1854, 17. The number of new shop-fronts formed in 1853 was 37; in 1854, 62.

NOXIOUS TRADES AND CELLAR DWELLINGS IN THE METROPOLIS.

DUTIES OF THE DISTRICT SURVEYORS.

A FEW days ago the leading journal gave currency to a statement that, in the case of forty-two of the fifty-five districts under the Metropolitan Buildings Act, nothing has been done to make known or enforce the restrictions on noxious and offensive trades imposed by the Act. "With regard to cellar dwellings, it appears that the president of the Board of Health has received, from an unofficial but trustworthy source, a return, showing that the number of such dwellings in a part of the parish of St. Marylebone alone is 1,132; and, in his opinion, the irresistible inference to be drawn from that and from other circumstances is, that the district surveyors, acting under the Metropolitan Buildings Act, have, with some few exceptions in the case of noxious trades, wholly failed in performing the duty imposed on them by the Act, and that the same conclusion applies as regards noxious trades and cellar dwellings since 1846 to the official referees."

The statement was made originally, it appears, in a letter from the General Board of Health to Lord Palmerston, now first printed for the House of Commons, on the motion of Mr. Alcock; and it will surely be regretted by all who are conversant with the Buildings Act, or take the trouble to look to the particular clauses which refer to these matters, that so sweeping a charge should have been made against a body of public officers on what we think will be found to be very insufficient grounds. As to noxious trades, we do not see any evidence in the return published that the district surveyors, as a body, have permitted the erection of dwelling-houses within the stipulated distance from buildings already occupied for the purposes of the trades mentioned in the Act, or permitted such businesses to be newly established, except in conformity with the provisions of the Act.

Touching the occupation of underground rooms, not in accordance with schedule K, as separate dwellings, section 53, which prohibits the letting of such rooms after July, 1846, directs that on or before January 1st, 1845, the overseers of the poor shall—

"Report to the official referees the number and situation of the dwellings within their respective parishes of which any underground room or cellar shall be so occupied; and that thereupon it shall be the duty of the official referees, and they are hereby empowered, to direct such notice to be given to the owners and occupiers of such dwellings as shall appear to such official referees to be best calculated to give to such owners or occupiers full knowledge of the existence, nature, and consequences of this enactment; and that it shall be the duty of the district surveyors, and they are hereby required, to give full effect to the directions of such official referees in this behalf."

Beyond this, no instructions are given. The Board of Health point to the 68th section, which says it shall be the duty of every such surveyor "to see that all the rules and directions of the Act are well and truly observed" in his district; but the remainder of that clause, which points out what he is to do "for that purpose," shows that his duties refer to *structural* arrangements. There is nothing in the Act to lead to the belief that it was intended that the district surveyors should make periodical inspections of all the houses in their districts, to learn if underground rooms, not in accordance with the Act, have been let as separate dwellings. It is doubtful, indeed, if power be given to the surveyors by any part of the Act to obtain a reply to an inquiry to that effect. The referees, as the registrar states, in a letter to the Board of Health, dated 13th October, 1854, "have hitherto regarded the requirement contained in section 53, as intended to apply only to the notification of the law coming into operation on the 1st July, 1846, and have not considered it their duty, or within their power, to give further directions to the district-surveyors, or to require further returns from the overseers."

Doubtless, the district-surveyors, a body of able and conscientious men, will make a reply to the charge which has been brought against them: in the meanwhile what we have said will suffice to show that we find no evidence in the return made to Parliament to justify the assertion that the surveyors "have wholly failed in their duty."

THE PRESENT POSITION OF ARCHITECTURE.*

IN solving the architectural difficulty of the day, and healing the disgrace of copyism, a field is open for a master-mind, a second Michelangelo, a man of original and lofty conceptions. The architectural Bacon has yet to appear; the destroyer of the old scholasticism, the originator of a "new method." And would that some such luminary might arise, and, like a comet, fearlessly speed into paths never trod before, leaving a brilliant light behind to guide us out of the darkness in which we stand. And till this "consummation devoutly to be wished," takes place, the art can never command the profound and reverent admiration with which it was regarded, when Cheops raised his eternal sepulchre; when Pericles dedicated to Minerva a temple worthy of the goddess; and William of Wykeham, designed his models of Gothic art.

But how, it will next be demanded, is the proposed reform to be carried out? By whose means is such a revolution as the creation of a new style to be accomplished? On whom rests the blame of the present languid and stagnant condition of the art?

Does it not lie on the general public, whose apathy, whose want of taste and knowledge of the subject, and whose very requirements, naturally lead the architect still to tread in the old paths; and in them he will ever continue, till forced by the same public to form, by dint of sheer labour and severe study, a new and worthier course.

It is the community at large, the employers of architects, who dictate the style to be made use of, and who are the judges and approvers of designs; and what is to be expected so long as that community know as little as they really care about the art. They have that little knowledge which *is* a dangerous thing, and which is just sufficient to lead them entirely wrong on the subject. They are told by antiquaries, an invaluable race of men, whose failing is to go back instead of forwards, that the old styles are beautiful, and so the public, without consideration, demand their eternal repetition. Mr. Gally Knight has told us, and the sentiment deserves reiteration, "The arts only flourish where they are appreciated by the nation at large, and where the taste of the public is correct." Buried in the apathy of commercial speculation, all the finer feelings of humanity are neglected.† No progress can be anticipated until architecture is held in higher general estimation, and the public educate themselves into an understanding of it, and an ability to judge of its productions. They are the arbiters and dictators in the matter; the rightful directors of progress; the clients, whose wishes architects must obey. So long as they demand markets in a palatial Italian style, railway stations, the *fac-similes* of Grecian temples, arched Egyptian bridges, Christian churches exactly resembling Pagan fanes, and halls of science like Mahometan mosques, so long will the most absurd anachronisms and ridiculous contradictions be perpetuated by a profession who, to live, must and are condemned to obey the public call. And in demonstration of this our position, permit us to examine into the course of procedure adopted when a structure is required.

Either one architect is selected and commissioned at once to execute the task, or it is thrown open to the competition of several, he whose design is considered the best being rewarded with a premium; and, as a good designer is not always, as things now stand, considered competent to carry out an undertaking, it is oftentimes reserved for consideration whether he shall be permitted to do so. In most instances it is settled beforehand, according to what system the building is to be erected, or, at all events, it is an understood thing that it is to be in one or the other of the orthodox styles.

The architect, it will be perceived, is not at all required to exercise his own ingenuity, to make a call on his inventive powers, to advance upon what has been done, and to produce a result at once directly originated from the requirements set before him. Such a proceeding on his part, such a disregard of precedent, would be considered a heresy rather than a merit, and, if not burnt for his pains, he would be very much sneered at and ridiculed, lose all standing as a man of taste and a venerator of the past, and stand but a poor chance of future employment. What he is now called upon to do is simply this: if his memory is indifferent, and his mind not well stored with the forms he has seen, he looks over his books and the portfolios of sketches made abroad in his youth, and picks out one example as the model to be copied. Or, perhaps, three or four are selected, and parts of each are chosen and put together, with scarce one effort to generate new forms and produce a novel composition. As Mr Pugin has truly observed: "Styles are now *adopted* instead of *generated*, and ornament and design *adapted* to instead of *originated by* the edifices themselves."‡ The rough sketch produced in the manner we have described, is next handed to the pupil or assistant, and fair and detail drawings are made from it, in the most approved manner, after certain fixed rules and regulations deduced, by careful study, from the models themselves.

To such a mechanical routine position is this noble art reduced. No inducement is held out for real thought and composition. The designer, if designer he can be termed, is fettered beforehand; he is actually tempted and encouraged to remain stationary, and content himself with the system of transcription which prevails. If it be true, as Forsyth says, that "deep learning is generally the grave of taste," certainly the modern architect is compelled to bury under a knowledge of the details of other styles, whatever taste for original composition and appropriate indigenous ornamentation, the germs of which he may chance to possess. His reputation must be based, not on his own excellence, but on that of others. He is not called upon to think for himself; his merit lies wholly in the ability to select with care and taste the best features from approved ancient examples; not to look into his own mind for inspiration, but to endeavour to approach as near as possible to the feelings which dictated the ancient fabrics, without considering whether the spirit which prompted their peculiarities should prevail in our own days.

Sometimes, however, but very rarely, the opinion of a professional man is asked as to the style he would recommend. Knowing the unprofitable labour it will entail upon him, he, of course, never dreams of explaining to his clients the necessity of a new method, instead of an eternal repetition of the old ones. The chances are, that so doing would be the signal for his dismissal. But it is also the fact that architects have, generally, a strong predilection for a particular style, which many consider as not merely superior to any of the others, but as the only one which can be decently brought into general use. In this way some will recommend Gothic for all purposes under the sun, no matter how opposed to one another; and Mr. Pugin has gravely told us, that "true principles of architectural proportion are *only* found in Pointed edifices."† Some, again, are enthusiastic for Moorish or Egyptian, and others for Grecian, Roman, or Byzantine art, to the exclusion of every other mode of artistic thought. Thus the profession, compelled so to do by the public, help to continue the present anomalous state of things.

Instances there unquestionably are of men of ability, men who evidently think for themselves, and whose brilliant genius compels us to believe in the still present power and vitality of the art, and that it may be roused from its dormant position.

But we cannot in fairness look to the profession, whose living, whose very existence, is dependent on the favour of their clients, for a complete remedy for the evils stated. The general

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* See p 682. Vol XII.

† We doubt whether one modern nation can be named more completely absorbed in the pursuit of wealth, and with so little perception of high art as the English people; and certainly no government of ancient or modern times can be mentioned, which, with equal power and influence, has done so little to promote such a taste among its subjects. From the reign of George IV. however, a change for the better may be dated, and the future is full of promise.

‡ "An Apology for the Revival of Christian Architecture." By A. Welby Pugin.

† "The True Principles of Pointed or Christian Architecture." Compare, also, the "Contrasts," in which occurs the remark that—"The excellence of art was *only* to be found in [Roman] Catholicism."

public have it fully in their power to "reform it altogether." They are to blame, and from them must come the impetus which is to rescue the art from its present depressed position. Let them, with more enlarged and comprehensive views, determine no longer to be contented with counterfeits and imitations. Let them institute an experimental competition, and not be discouraged by the first result, but see whether repeated efforts do not tend towards the full and perfect development of a new and superior style of art. Let them, remembering that even the reptile does not endeavour to clothe itself again in its cast-off skin, resolve to reject all designs evidently and professedly copied from antique and other exemplars. Let them no longer encourage the erection of structures which shall be but as the shadows of past ages, aping ancient institutions, and serving only to remind us of this or of that nation's palmy greatness. Let them demand an indigenous style, which shall rise at once out of the peculiar circumstances of modern days. Let them demand edifices which shall *appear* the works of Britons of the nineteenth century, and not the compositions of Egyptians, of Greeks, of Middle Age architects, and of Moors, oftentimes in the last stage of their dotage. Let them do this, and they may confidently trust that architects will nobly respond to the call, will prove themselves equal to the crisis, and demonstrate that theirs is not the art which is fated for ever to stand still.

If what is here penned, in all humbleness of spirit, in the deepest earnestness of feeling, has but the effect of urging one mind to action, of stimulating the zeal of one professional man, and thus in the slightest degree advancing the cause of progress, it will not have been written entirely in vain. EDWARD L. TARBUCK.

PLANK ROADS.

PLANK roads are not known in this country, and it is only in some exceptional cases that they could be economically and usefully employed. With a view to these cases, however, we had jotted down a few weeks ago some gleanings from various authorities as to their history and construction. Since then, Sir Francis Head, in a letter which he has addressed to the Duke of Newcastle, touching the Balaclava Railway Corps, has referred to plank roads, and suggests that they might be occasionally useful in sieges.

The system of plank roads, which originated in Russia, has since been adopted in Canada, and in many of the northern states of America, superseding there the Macadam and Telford rock or gravel roads. The great success and value of the plank road consists in cheapness, ease of draft, speed, and comfort to passengers.

The most approved mode of construction there is as follows:—In a single track, the planks (of pine, hemlock, oak, red elm, black walnut, or sweet gum) should be 8 feet long, and from 3 to 4 inches thick: they should be laid across the road at right angles to its line. These planks are to rest on two longitudinal sills or sleepers, each 4 inches square, bedded in the earth to their full thickness. The earth should be fully kept up to the planks at every point, in order to prevent confined air resting in any vacant space beneath the planks. No pin or spike is needed to confine the planks to the sleepers, their weight being sufficient to keep them firm. There should be placed on the upper surface a coating of sand an inch thick. There should be provided for a single track turn-out places, and to effect this, an earthen road must be banked up, 10 or 12 feet wide on one side, and 2 or 3 on the other. Each embankment should be made flush with the ends of the plank, and thence sloping outwards, so as to carry off the water, as perfect drainage is the great secret in this kind of road. The plank should be laid even, with part of it projecting 2 or 3 inches beyond the general line of the road, in order to prevent ruts made by wheels at the junction of the plank and each turn-out, and if the bed on which the planks are to be laid is a new one, it would be better to be travelled on one season before they are laid down. One track, with the supplementary earth road thus formed, will be sufficient for all ordinary travel, and if the tonnage transported on the road be chiefly in one direction, the track should be laid on that side of the road which will enable the loaded teams to keep it, and thereby force the unloaded ones to do all the turning-out.

To make a double track, all that is needed will be to make two tracks, each 8 feet wide, or one 16 feet wide: the former is preferred. For the 16 feet track, three or five longitudinal sills are required, each to be 4 by 6 inches, laid edgewise, and embedded in trenches 6 inches deep. These trenches should be from 15 to 20 feet long. Great advantage is obtained in the construction of the double track with long plank, by giving the road bed a slight convexity of 2 or 3 inches in the centre, springing the plank down to the outside sleepers, and attaching them thereto by ½-inch spikes or nails 3 inches long.

The duration of plank roads is from eight to twelve years; this matter, however, depends entirely on decay from rot, and not the surface wear of the plank. The sand which is spread upon the track when finished protects the wood from the shoes of the horses, which cause most of the wear. The sand soon penetrates the grain of the plank, until with the woody fibres and the deposits on the road, a tough, elastic covering is formed, whereby the plank is saved from further wear. Experience teaches that one-half the wear and tear of seven years occurs in the first year. Therefore it is a matter of great importance on these roads to have small tollage, in order to invite such an amount of travel as will promote their wearing out instead of rotting.

The cost of the plank road depends greatly, of course, on its locality. But it will be found that the following estimate approximates to an average valuation.

One mile of road with a single track (made with plank 8 feet wide and 3 inches thick) will require 126,720 feet, board measure, of plank; and of sleepers 4 feet by 4 feet, 14,080, making in all of timber, 140,800 feet; which costing (in the United States), say five dollars per 1,000, would amount to the sum of 704 dollars. The laying and loading will cost from thirty cents to a dollar per rod, or from 96 dollars to 320 dollars per mile. The earthwork, sluices, bridges, and water-gullies, admit of no average estimate. Therefore, without them, and 100 dollars per mile engineering, superintendence, and 100 dollars for gate-houses, we have the total cost per mile from 1,000 to 1,224 dollars.

The state of New York was the first to introduce plank roads; and in the course of five years, up to 1852, had extended this species of improvement over a thousand miles, which were completed, and in daily use. The rapidity with which the system has developed itself is remarkable. Plank roads by the side of railroads are wrought in New York, paying 10 to 15 per cent. and carrying passengers at two cents per mile.

In hilly countries plank roads are more necessary and advantageous than in flat ones. One writer remarks, that it is not necessary to produce so low a gradient as one in fifty; one in sixteen is in very common use, and one in ten may be used to great advantage.

The extension of this system is urged with great keenness by some Transatlantic authorities, who contend that in such a country as theirs, the adoption of such roads is of infinitely more importance than railways. Those, on the contrary, who are in favour of the latter system, declare that it is difficult to find an instance in which the construction of a railroad has not benefited the agricultural interests of the country within waggoning distance of the line as well as the towns at its termini.

THE METROPOLITAN ASSOCIATION FOR IMPROVING THE DWELLINGS OF THE INDUSTRIOUS CLASSES.—The directors of this association have just purchased two freehold houses in Bartholomew-close, to contain twenty-four families, and they are about to lay on a better water supply, and introduce other conveniences for the comfort of the tenants. This is the fourth property that this association has adapted, in addition to the buildings erected from the foundation. A portion of the dwellings for sixty families, in Newstreet, Golden-square, is now ready for occupation, and the remainder will be in February next, and accommodation for 108 families in Nelson-street, Bermondsey, will be finished in the spring of next year.

BUILDING NEWS FROM IRELAND.

THE King's room, Mansion-house, Dublin, has lately undergone considerable renewal. Its diameter is 30 feet. The screen has been shortened and the gallery lowered. The interior has been painted, and the canvas roof decorated with panels and a cornice at foot. Pilasters rise from the gallery to the roof, and on the former an ornamental iron railing is fixed. Mr. Hugh Byrne was the architect, and the work was executed by Mr. Murphy, builder.

The spire of the church of Crossmolina was lately struck by lightning, and falling through the roof, demolished the organ and gallery. Several persons were more or less injured.

Messrs. Nagle and Hunt have been declared contractors for the stations at Patrick's Well and Adare, on the Limerick and Foynes line. Mr. Hargreave, architect.

Grants have been made during the past year for the erection of twenty-five new buildings by the Ecclesiastical Commissioners (showing an increase of fifteen over the previous year), for which a sum of 9,659*l.* was set apart, exclusive of 5,421*l.* granted for buildings partially provided for in previous years. Repairs have been ordered in 930 churches, at a cost of 31,261*l.* Several ancient structures have been rebuilt, and new ones erected in newly-formed parishes. The churches of Derryvollen, Lisnaskea, Donamon, Kilnemanagh, Lismallin, Skull, Kilfinane, and Castletown Arra have been completed.

BALMORAL, THE SEAT OF HER MAJESTY THE QUEEN.

THE mountain home of our gracious Queen and the Prince Consort being now considerably advanced towards completion, our readers will like to know something about it more precise than has yet appeared, and we are glad to be enabled to gratify the wish by giving (exclusively, as in the case of Osborne House), the plan of the principal floor, and a view of the building from the south-east.

Balmoral is in Aberdeenshire, and on the Dee: it is near Abergeldie and Braemar, and was formerly the seat of the Earl of Fife. It is in the heart of a most romantic and mountainous country:—

> "The circling hills all black and wild
> Are o'er its slumbers darkly piled."

It is backed to the south by the hills whereon the father of young Norval fed his flocks,—the granite Grampians, with their frightful precipices, yawning chasms, and rushing torrents; while to the west tower up some of the loftiest and most picturesque mountains in the kingdom,—Ben Muick Dhui, Cairntoul, and Cairngorm,—the mountain of crystals. Amongst these are to be found scenery of the grandest description, views varying in character, from the wild sublimity of utter barrenness to the mild beauty of smiling streams and richly-wooded heights, including,—

> "A stately progeny of pines,
> With all their floating foliage richly robed."

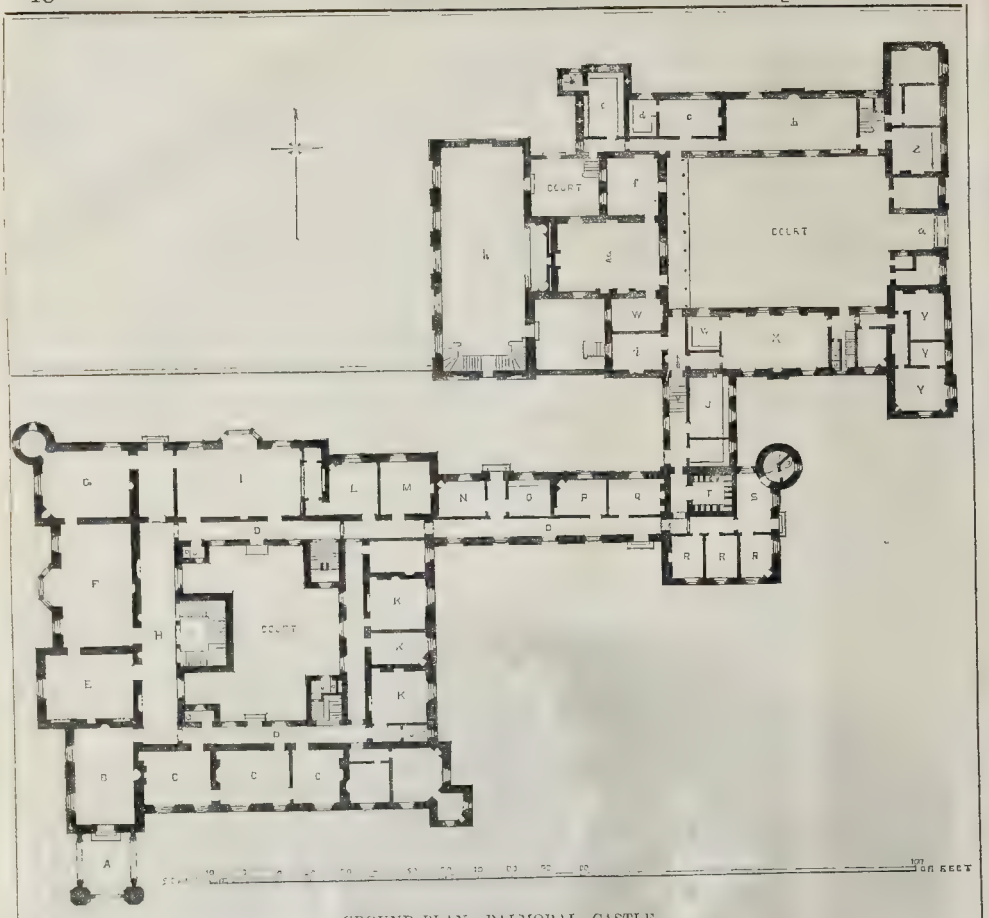
Abergeldie has an old castle: at Braemar a cairn points out the spot where clansmen were summoned to attend by "fell cross of blood and brand;" and in Lumphanan a mound marks where fell Macbeth, notwithstanding Holinshed and Shakspeare (because of Holinshed) give the "honour" to Dunsinane. Aberdeen, the city of "Bon accord,"* the birth-place of Scottish learning, and of Gibbs, the architect, by the way,—is about forty-five miles off to the north-east.

The estate itself includes a ruin and a loch,—loch Muick,—and stretches as far as "dark Loch-na-Garr," made famous by Byron, who spent some of the early part of his life near it, and afterwards sang,—

> "Years have roll'd on, Loch-na-Garr, since I left you:
> Years must elapse ere I tread you again:
> Nature of verdure and flowers has bereft you;
> Yet still are you dearer than Albion's plain.
> England! thy beauties are tame and domestic
> To one who has roved on the mountains afar:
> Oh! for the crags that are wild and majestic,
> The steep frowning glories of dark Loch na-Garr."

Our view will give an idea of the general appearance of the building, which is being erected under the direction of Mr. W. Smith, of Aberdeen. The Scotch Baronial is the style adopted, but in a *modified* form. The west and north sides have received more of the characteristic features of the style than the other two, as our readers will doubtless say may easily be

* The people drove the English out of Aberdeen with "*Bon accord*" for the watch-word, and Bruce gave the expression to the town as a motto.



GROUND-PLAN, BALMORAL CASTLE.

the case, and present carved corbellings, rope, ribbon, and other mouldings.

It will be seen, by the plan, that the design consists of two separate blocks of buildings, joined together by connecting wings, at the east angle of which stands a tower 35 feet square, with circular staircase turret rising about 100 feet. This tower and the connecting wing are now only about 12 or 14 feet above ground. The block forming the principal house is, with the exception of the carriage porch, completed *externally*. It is 120 feet one way, and 118 feet 4 inches the other, with a central court 33 feet by 52 feet. At the west angle of the south front are the carriage porch and the entrance-hall, 29 feet 6 inches by 18 feet, leading to the corridor, running behind the principal rooms, which are on the west and north sides; the drawing-room, 37 feet by 21 feet; library 26 feet by 20 feet, and billiard-room, looking towardsthe west; the dining-room, 37 feet (exclusive of recess) by 20 feet, is to the north, where the river is. These rooms are 15 feet high, and above these, on the west side, and extending the whole length of it, are the private apartments of the Queen and the Prince, 13 feet in height. The principal staircase is in the centre of the corridor, and there are two side stairs, one at each corner of the east side of court, all of stone. On the south and east sides of the building there are *three* floors, rising about the same height as the other *two*, and containing rooms for some of the suite, for visitors, for the royal children, bed-rooms, and servants' rooms.

In the square tower will be accommodation for some of the suite, three rooms on each of the first and second floors; and for servants on the lower and upper floors. The whole of the principal house, connecting wing, and square tower, are made fire-proof on Fox and Barrett's principle, with wrought-iron rolled joists. The kitchen offices, forming three sides of a square, and something more, are to be built on a lower level to suit the ground; and the ball-room, 68 feet by 25 feet, is placed also on a lower level, and so as to shut the offices as much as possible out of view from the dining-room windows, and from the terrace running along that side.

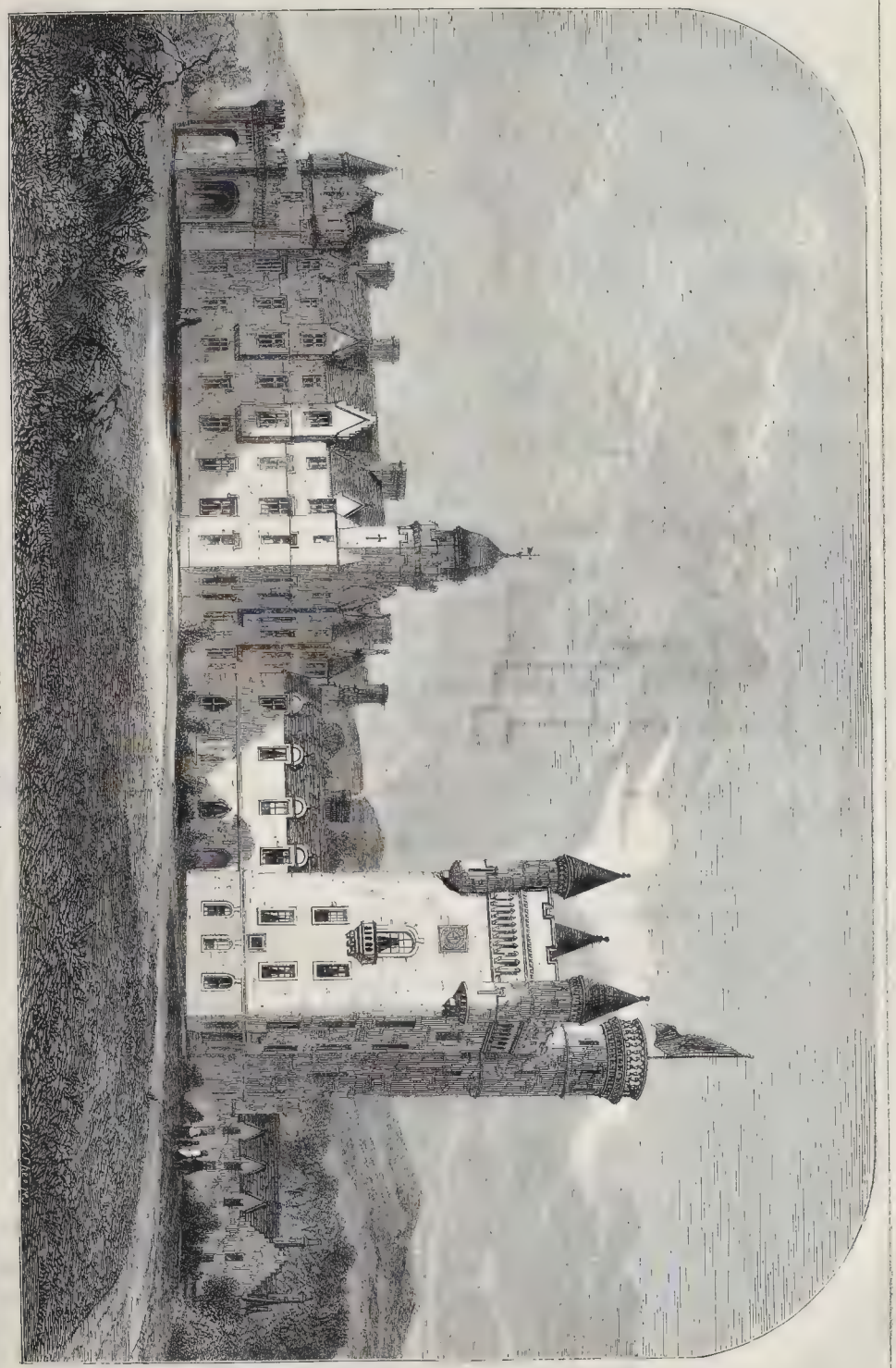
The building is entirely of granite: the principal house is of ashlar work, finely dressed, the mouldings being "axed," or "clean dressed." The stone is of very good and uniform colour: it is found in great abundance, and in large masses on the estate. The tower and connecting wing and ball-room are less finely dressed.

The whole of the works, with the exception of the mason's work, are being executed by contract, and are being carried out under Mr. Alexander Clark, the resident inspector, or clerk of works, with whom also, as regards the masonry department, is associated Mr. John Beaton, all of course being under the superintendence of the architect.

Who will blame us if, while speaking of this distant retreat from the glitter and constraint of a Court, where Nature in all her grandeur and vastness insists on being felt, we allude, in passing, to her Majesty's recent message to her soldiers now sick and wounded at Scutari? For the kindly spirit, careless of precedent, which prompted the womanly letter containing it, we venture to express our unfeigned and heartiest admiration. It is to be hoped that this document, so touching in its simplicity, and which is now part of history, will be lithographed in *facsimile*, and distributed throughout the army. It is not a small thing to find sympathy in the highest place.

References.

A. Carriage-porch.
B Entrance-hall.
CCC. Visitors' rooms.
D. Passage.
E. Library.
F. Drawing-room.
G. Billiard-room.
H. Corridor.
I. Dining-room.
J. W. C.s.
KKK. Ladies in waiting.
L. Serving-room.
M. Waiting-room.
N. Plate-room.
O. Pantry.
P. Jäger's room.
Q. Gun-room.
RRR. Pages.
S. Hall.
T. Wine-cellar.
U. Coffee-room.
V. Steps down.
W. Pantry.
X. Steward's room.
YYY. Housekeeper.
Z. Scullery.
a. Entrance gateway.
b. Servants' hall.
c. Clerk of kitchen.
d. Stores.
e. Larder.
f. Scullery.
g. Kitchen.
h. Ball-room.
i. Lamps.



BAMBURGH CASTLE.—Mr. William Smith, Architect.

A PRACTICAL VIEW OF THE SANITARY QUESTION.

Under this head, the Local Board for the parochial district of Regent-square Church, St. Pancras, have issued their final report, showing that, without any special powers, and at a comparatively small expenditure of money, they have effected a very large amount of good, including "200 cesspools abolished, or in course of removal; 206 foul house-drains renewed, cleansed, or about being so treated; 367 sinks trapped, or about to be; 200 glazed earthenware pans and syphons fixed; 125 closets repaired or rebuilt; 214 closets supplied with water; 198 houses, areas, and yards limewhited; and 34 houses supplied with water by the New River Company."

They have thus, as they say, got rid of 1,017 separate sources of infection. They have also obtained orders to close two large graveyards in the centre of the district.

During the late visitation there were but three cases of cholera reported to the Board, and it is instructive to know that in each of these cases second causes existed to favour the development of the disease, *and the sanitary regulations of this Board had not been enforced.*

In the prosecution of these works the Board have been mainly indebted to a member of the architectural profession; and they end their report with this, to him and them, honourable resolution:—

"That this Board cannot close its labours without recording, in the most emphatic manner, its sense of the valuable assistance rendered to it by Edward Cookworthy Robins, esq. whose unceasing exertions, for a period of twelve months, whilst they have lessened the labours of the other members, have contributed in a remarkable degree in bringing about the important results detailed in this report. For his gratuitous professional services as honorary architect, his zeal and efficiency as honorary secretary, and for his urbanity and gentlemanly deportment to all persons and at all times, this Board begs to tender to him its sincere and heartfelt thanks."

PROVINCIAL NEWS.

Wadhurst.—New schools, with master's house and separate play-grounds, have been built in this parish, according to the *Surrey Standard*, at a cost of upwards of 1,200*l.* The site, with stone for the foundations, was given by Mr. G. C. Courthope; and the whole cost, with the exception of grants of 280*l.* from the Committee of Council on Education, and 50*l.* from the Chichester Diocesan Association, has been raised by private subscription.

Bridgnorth.—At a recent public meeting in regard to the proposed new public buildings and market, it was announced that shares to the extent of about 3,000*l.* were then already taken, and that the theatre site and adjoining properties had been purchased. Resolutions were then carried that advertisements be drawn out for insertion in the public papers, for designs and estimates from parties desirous of contracting for the construction of the various buildings, &c. according to the proposed plans.

Taunton.—The Somerset county magistrates have rescinded a late resolution, adopting the plans of Mr. Carver, for the new shirehall and judges' lodgings. The object appears to be to institute a general competition, the want of which was deprecated. A sum of 16,000*l.* is to be devoted to the erection of the buildings, and the mover of the resolution (which was carried by a majority of 29 to 3), expressed a strong desire to avoid Greek or Roman architecture, and abide by some design of purely English style. He wanted no Foreign Enlistment Bill, he said.

Saltney.—The new church at Saltney, was to be consecrated on the 9th instant. The edifice is small, and of an unpretending character, holding about 230, but easily capable of enlargement hereafter to three times its present size at least, arches and pillars being built into the walls, for the addition of aisles, transepts, belfries, &c. as means and occasion are presented. The general style, chosen by Mr. James Harrison (the architect), appears to be of the thirteenth century. The east window consists of five narrow lights, slightly cusped and pointed, set within what will eventually be the chancel arch. There are in it small medallions of stained glass by Powell, containing emblems of the four Evangelists, and a half figure of the Saviour in the centre light.

Salford.—On Monday before last, a large new general goods warehouse, recently erected for the Lancashire and Yorkshire Railway Company, in Ordsal-lane, Salford, by Messrs. Farrell and Co. contractors, was the scene of festivities in celebration of its completion. The warehouse is 270 feet long, 87 feet wide, and five stories high. Nearly 2,000 persons, consisting of the workmen of the contractors, and the railway company's servants, of all classes, within the district of Manchester, with their wives, families, and friends, were treated by the contractors, in conjunction with the principal officers of the company, to a concert and ball on New Year's-day, in one of the large floors of the warehouse.

Belper.—An address has been issued in which the inhabitants of Belper are informed that steps are about to be taken to raise a commodious public building in that town for literary and scientific objects. An eligible site for the building has been obtained, and already, in answer to advertisements, fifty architects, it is said, from nearly all parts of the kingdom, have signified their intention of sending in plans for the building. Ten guineas will be given for the plan adopted by the committee! The provisional committee referred to in the address have decided that the building shall be raised by shares of 1*l.* each. The building may cost probably from 1,200*l.* to 1,600*l.*: that of course will depend on the plan adopted by the committee. It is not intended to expend a large sum in ornamentation of any kind, but to have a simple, solid, and commodious structure, fitted up with every convenience as a "People's Institute." The land for the site has been freely given by the Messrs. Strutt.

Ecclesfield (Rotherham).—A stained glass memorial window has been erected in the chancel of Ecclesfield church. The window is of three lights. In the middle one are depicted, under niches, two scenes in the history of Lazarus, the one, "Lord, if thou hadst been here my brother had not died;" the other, "Thy brother shall rise again." In the other lights on each side are the emblematic figures of the four evangelists. The artist, whose name is Hedgland, has introduced perspective.

Doncaster.—The new schools which the directors of the Great Northern Railway Company have recently had built for children of the operatives and servants of the company employed here, were formally opened on Thursday in week before last. The building, which is in the Gothic style, and was designed by Mr. Goddard, of Lincoln, the company's architect, consists of three principal compartments, a boy's room, a girls' room, and an infants' room. It is capable of accommodating 500 pupils, and is warmed and ventilated. It has been built by Messrs. Lister and Son, of Doncaster, whose contract amounted to 1,000*l.* The infant school-room will be used for divine service on Sundays until the new church, which has been sanctioned by the Great Northern proprietary, and only awaits the legislative fiat, is erected.

Ripon.—New varnish and colour works were opened here by a festival on 28th December. They are situate on the east side of the town, adjoining the North Eastern Railway. They occupy about two acres of ground, about one-half of which is covered. The offices form the right side of the parallelogram which constitutes the erection. The centre and left consist of a shed and warehouse, covering nearly one acre of ground, supported upon cast-iron beams and pillars, and lighted by windows in the roofs. There are lions couchant on the embattled walls of the buildings. At the inauguration, upwards of 200 persons partook of a repast in the warehouse, which was decorated with evergreens, illuminated with gas, and resonant with a brass band.

Ponteland (Newcastle-upon Tyne).—The parish church of Ponteland, after having been closed for some time (to undergo repairs and re-pewing), was re-opened for divine service on the 24th ult. The building was repaired and re-pewed from plans by Mr. Wardle, architect, at the expense of the parish.

COLOURISTS BY "INSTINCT."

A REPLY.

THE following analysis has been written to correct what I consider the pernicious tendency of the "one-sided" main doctrine of Mr. Ruskin's lecture on colour. It is an insult to address such a doctrine to the workmen of the nineteenth century. It might have sufficed the serf of the middle ages, but the artizan of to-day has been educated by more exact writing and philosophy.

The word "instinct" has always been used to mark a difference in the proceedings of animals from those of human beings. It signifies, therefore, something undeliberative and brutish in opposition to forethought and humanity. If "instinct" were the criterion of greatness, we should be obliged to admit, *à fortiori*, those beings possessing more sensitively developed organizations for seeing, hearing, &c. to be greater than man.

Irresponsibility is always associated with our notions regarding "instinct." Acting by instinct implies the very reverse of acting with the knowledge of good and evil, right and wrong. The irresistible uniformity of impulse termed instinct has not these two motives of rationality to determine its acts; therefore to say that instinct makes a great, good, or bad man, is a misuse of language and a confusion of ideas.

The lecturer might have obtained the true position had he consulted a philosopher or an artist. It is simple enough, viz.—that human excellence is a combination of organization and science. Neither science alone nor organization alone will make a man pre-eminent in any art. Connate organization without science is liable to degradation, when assailed by unfavourable conditions, such as visions, fashions, vicious theories, and quaint precedents; whilst science with imperfect sensibility, less liable to these sources of error, misses those delicate subtleties which can be measured only by organization, and is formal and positive in its combination. To inculcate an exclusive reliance on either organization or science is therefore mischievous; but of the two, the former is the more dangerous doctrine—inimical to improvement, an influence depressing the imperfectly organized, whilst it intoxicates healthy organization with all sufficiency. The ideal of humanity is perfect organization acting right both from feeling and knowledge; or, in other words, when true, sensuous, and scientific motives are identical in act.

Peculiar organization leads to a peculiar course of action,—visually to a peculiar choice of colours, &c. which would be agreeable to all so organized; and there could be no reason why these should not persist in such a "bent," if there were not some criterion of judgment by which to estimate right and wrong. Every instinct would pursue its own course blindly, if there were not a deliberative faculty in human beings to govern and modify erratic tendencies. It is this faculty which establishes science, and enables us to know whether our impulses be just. This is the great difference between a rational and instinctive being, which the lecturer seemed to ignore.

The lecture is inconsistent and self-condemnatory, when reviewed on its own ground. There would be many "good instincts," or the performances of the "instinctively good colourist" could not be appreciated. How is it that these "right instincts" do not become great painters, and Mr. Ruskin the greatest? Many painters who cannot colour well, feel good colour when they see it: many who colour well in oil cannot do so in water colours, and, *vice versâ*. There is then a science of using colours, a science of means: is this, too, an instinct? Why do savages, with exquisite visual organs, tatoo and bedaub themselves, or sculpture and paint hideous images? or how is it that great painters and sculptors are not so frequent in rude as polished ages? Is undeliberative, unerring, unsophisticated instinct, the product only of civilization? or why does Mr. Ruskin's all-sufficing, spontaneous "instinct," deliberate a day about "a single touch." Thousands have the fundamental susceptibility to joy and sorrow necessary to the poet, who are yet unable to write a poem. The lecturer said our soldiers in the Crimea fight from instinct. I

think the fights of Alma, Balaklava, and Inkerman, would have been attended with very different results had Lord Raglan commanded *raw* instinct instead of disciplined troops, unless the bayonet and sword exercise, movement and equestration, are all instincts. The general, and the soldier in the ranks, are equally endowed with the fundamental pugnacity, but the great commander is made by the science superadded.

I conclude, therefore, that the unqualified doctrine that "instinct makes the colourist great," is insufficient and incorrect in expression; and that the word "great," when meaning excellence, can be properly applied only to conscious, and not instinctive rectitude. To have right impulses is good; but to have right impulses, combined with perfect knowledge, is the condition necessary to be "great." The student, however, does not require to be told, that good eyesight is requisite for a painter: he asks for that which was not given in the lecture,—a classification of experience,—the laws of consistent and harmonious colouring, and other things. METER.

THE SCOTTISH EXHIBITION OF ARTS AND MANUFACTURES CONNECTED WITH ARCHITECTURE.

THE opening of this exhibition, it appears, has quite taken the citizens of Glasgow by surprise, from its attractions and its extent, even though still but imperfectly carried out as it is intended to be. The taste for architectural and art adornments was already on the increase at Glasgow, and it is likely to be still further promoted by the new movement. It is not intended that the present exhibition shall be a mere ephemeral display: it is hoped that the inhabitants will enable its promoters not only to secure most of it as the nucleus of a permanent museum of art, but to make other purchases to that end.

We have already given a few particulars as to the building itself, which was erected specially for the Exhibition. The attention of the visitor, on entering the hall, is attracted by a display of manufactures and decorations, arranged in sections, whilst the leading points in the rooms are marked by specimens of Fine Art, groups of statuary, and models of architecture. On the walls are mirrors of large size. One object which attracts attention, near the centre of the hall, is a marble chimney-piece, designed by Messrs. Baird and Thomson, architects, and executed under Mr. Thomson by Messrs Galbraith and Winton. Near this are casts of the statues of James VI. and Queen Anne, prepared for the Houses of Parliament by Mr. Thomas, of London. Over these is a Mediæval decoration, by Mr. Christie, A.R.S.A. of Edinburgh; near which is a large model of the triumphal arch erected at Dundee by Mr. Rohead. Close by is a large fountain of Aberdeen granite, the contribution of Mr. A. S. Dalglish. A cast of the Old Cross of Campbelton occupies a prominent position, and the ancient inscription on it may form a puzzle for the antiquary. Mr. Burnet, the architect, has prepared one of the ante-rooms or courts, and fitted it up as a library. Messrs. Clark and Bell have another of these rooms fitted up in the Italian style. The Grecian room is fitted up under the direction of Mr. Thomson, of Baird and Thomson; and all the windows are to be fitted with stained-glass decorations by Mr. Ballantine, of Edinburgh, and other artists. Glasgow decorators, as well as those of Edinburgh, have contributed largely to the exhibition. A room has been set apart for the collection of carvings in wood formerly in Stirling Castle, and contributed by the Marquis of Breadalbane; casts from the sculptures discovered at Nineveh; and a large collection of casts and drawings chronologically arranged, including the Assyrian, Egyptian, Greek, Roman, and Gothic styles. Among the drawings is a collection belonging to Dr. Pentrick of Berlin, the result of forty years' labour, numbering about 150, which are also arranged chronologically, illustrating mediæval art. A series of drawings, never before exhibited in public, are from the pencil of Mr. Bruce, the Abyssinian traveller, contributed by Mr. Bruce, of Kinnaird. The Duke of Hamilton contributes a design for the façade of the church of St. Mary at Florence, which bears the date of 1514. In the upper gallery, too, are a series of photographs from edifices in all the countries of Europe. There is a collection of about sixty original sketches by David Roberts, which are said to be worth at least 2,000*l*. The sketches by Bruce are valued at 3,000*l*. His Royal Highness Prince Albert has sent a model of York Minster, a design for a cathedral, and another of the palace of Saxe Coburg Gotha.

THE POLICY OF THE NEW METROPOLITAN COMMISSION OF SEWERS.

NOTICE of a motion for January 16th, was given on the 2nd by Mr. J. Thwaites, the object of which is to pledge the Court to what is known as the "Great London Drainage Scheme," which includes two tunnel sewers, extending from Chelsea and Vauxhall respectively, to the marshes east of the metropolis.

At a previous meeting, Mr. F. O. Ward addressed the Court at great length, pursuant to notice, "to call the attention of the Commission to the general policy of the Commission with respect to house drainage, district drainage, main intercepting drainage, and the utilisation of sewage for agriculture; also to submit to the consideration of the Court recent inventions calculated greatly to facilitate drainage operations."

With respect to private house drainage, he said, though there were above one thousand miles of main sewers in London, two-thirds at least (in many districts nine-tenths) of the houses, past which those sewers ran, had cesspools under them; the old policy having been to run sewers through districts, without at the same time abolishing the cesspools and extending branch drains to the houses on either side. The new policy, he said, should be forthwith to remove the excrement, now buried to the amount of a million tons at least, under the houses, within reach of existing sewers, to fill up those horrible pits of filth, and to replace the open privies by water-closets draining into the sewers. This should be done with money borrowed on the security of a private improvement rate, of such amount as to distribute the cost over a term of thirty years. Such a rate would be very light (about 2*d.* her house per week on the average), and as it could be fairly apportioned between occupier and owner, and would put an end moreover to existing charges for cesspool-cleansing, &c. of greater amount than the rate itself, it would be willingly paid for the great benefit secured.

In the case of Lambeth-square, a square of thirty-four small houses, situated near the Waterloo Railway Station, in a low, unhealthy neighbourhood, with imperfect main drainage by tide-locked sewers; a square inhabited by 560 persons of the artisan class, and which had been visited by cholera in 1849, and most fearfully ravaged by typhus in 1852, while cesspools and open privies were retained; but which, having in the autumn of 1852 been fitted with water-closets, draining to the sewer through 4-inch pipes, and the cesspools having been abolished, had not since produced a single case of typhus; whilst last summer's cholera, though it had ravaged the surrounding streets, had left Lambeth-square entirely untouched. Such improvements might be extended within twelve months to extensive districts of the metropolis, comprising probably from 100,000 to 150,000 houses. The expenditure of from half a million to a million sterling in this way, would do more direct and immediate good than any other measure he knew of. And they should do this at once, beginning with those houses, or groups of houses, which the late epidemic had marked out as *cholera-death-houses*, most urgently requiring fortification against future invasions of disease. From 10,000 to 20,000 death-houses should, at all events, be thus dealt with before the next hot season; and such an operation would effect a large reduction in the next year's mortality returns.

As to street or district drainage, it had been urged that it was the duty of each householder to see to the drainage of his own premises; but this, he thought, was an unreasonable requirement, and a system which the experience just cited showed to be practically insufficient to secure the great end in view, viz. the rapid extinction of cesspools. Householders were for the most part persons engaged in the active cares and anxieties of business, totally unacquainted with the principles of house drainage, uninformed as to its importance, and often therefore both unable and unwilling to take the initiative in these subterranean improvements, and to carry on, of their own accord, the campaign against cesspools. If the private house drainage were to be thus abandoned to the piecemeal operations of individual householders, acting each at his own time, and employing each his own bricklayer, another century might be expected to elapse before the work would be done; and when done it would in most cases prove defective, and would be found to have cost three or four times as much as similar works executed in combination, for groups of houses, by contractors responsible to a public body, and subject to the supervision of professional inspectors. It was therefore, in his judgment, an administrative fallacy to separate the private from the public portion of works which were as much parts of a connected whole as the main arteries and terminal capillaries of the human body. He had consulted contractors of large experience in works of this kind, and their opinion was, that if the commissioners provided the capital for private house drainage, and distributed the charge so as to bring the capital back with interest in thirty years, they would meet with no resistance, but on the contrary be welcomed by the householders, who were willing enough to pay for comfort, cleanliness, and improvement rate, generally *less* than their present cesspool-cleansing costs, which the improved arrangements would do away with.

Mr. Ward next adverted to the size of the sewers, which he said was usually excessive, regard being had to the flow of water having in each case to be conveyed away. The old policy, he said, had been based on the assumption that sewers must necessarily accumulate deposit, and that it was therefore indispensable to make them large enough for the entry of workmen to rake out and remove the filth. The new policy, based on an extensive and increasing experience, with perfectly successful results, assigned as the proper measure for a sewer, not the stature of man, but the quantity of water to be conveyed away. At Manchester, for example, where the new policy prevailed, they had sixty acres of house-covered surface draining with success through an oval pipe only 25 inches by 18; while here we had often a man-size sewer to drain a small street. On this point Mr. Ward dwelt at some length, reading portions of a letter he had received from the Manchester Sanitary Engineer, to show the success and economy of pipe-drainage in that town, where oval tubes had been employed as sewers for ten years past, with a saving of about 10,000*l*. in first cost to the inhabitants, and with the further advantage of complete relief, in the streets sewered with these pipes, from the noisome accumulations which abound in the districts drained by large brick sewers. Mr. Ward also instanced the pipe-drainage of Croydon in proof of the success of the new system. The Cholera-morbus, that unbiassed inspector-general, had visited Croydon this year, but which of the houses had he ravaged?—only those not yet connected with the tubular drainage. He had that day seen a letter from a surgeon at Croydon, stating that not a single cholera death had occurred in any one of the tubular-drained houses, and that these pipe-sewers had effected a striking improvement in the health of the population. He was no unreasoning partisan of pipes, but quite recognised the necessity of brick-sewers, and large ones too, to convey away the storm-waters of a vast surface like that of London. Pipe-sewers and brick-sewers, he said, should be employed in their proper places; and he held it absurd to spend many times the needful sum on drainage, by sewering each little street of a town with a culvert large enough to drain the whole; or even with a pipe such as the experience of Manchester showed to be sufficient for the effectual relief of sixty acres. He ventured, with much deference, to submit these two maxims—"Sewers without sediment," and "The concurrent extension of public and private drainage," as embodying two fixed and guiding principles of the new policy to be adopted in this branch of their operations. As to the subject of main intercepting drainage, speaking in a spirit of deference to the great men who had left the sanction of their approval to the scheme of intercepting tunnels now before them, he must declare his opinion, that that scheme, if executed in its present form, would turn out, with reference to the main objects in view, a costly failure. He should reserve, for the special debate on this subject, of which Sir J. Shelley had given notice, the detailed development of his reasons for taking this view; and in the mean time he would only say that these tunnels would not thoroughly accomplish the dispollution of the Thames, nor improve, as was supposed, the levels of the main sewers, nor put an end to the accumulation of deposits, nor effect that beneficial sanitary revolution which powerful organs of the press had led the public to expect. Neither the tunnels, nor the pumping power provided, were adequate to carry away the sewage when swollen by very ordinary showers. Rain coming down, as it very commonly did, at a greater rate than 1-100th of an inch per hour (heavy showers, they were aware, came down at the rate of an inch, and storms at the rate of two inches and upwards, per hour), all such rain, he said, would swell the sewage beyond the discharging power of the tunnels, and the excess would flow, as heretofore, through the existing outlets into the Thames. This circumstance involved the other evil he had mentioned—the non-improvement of the existing levels of the sewers.

The outfalls of the sewers would not, as the public imagined, be lowered, and brought into the deep tunnels. These outfalls would have to be kept at their present levels in order to discharge the excess of sewage, during rainy weather, into the Thames. He believed that no such partial measures would satisfy the public, who would, he thought, justly consider that if pollution of the Thames were wrong for seven days, it could not be right on the eighth; and that, if the retention of stagnant deposit under our houses and streets were a recognised source of disease and mortality, means should be devised for its continual and complete evacuation, at any cost in reason. So again, with respect to the marshy water-logged districts lying near the river, below high-water mark, those districts measured only about 4,600 acres, or very little more than one-tenth the area of the great Haarlem Lake—a lake which covered 45,230 acres, and had formerly an average depth of 14 feet,—which received, moreover, 36,000,000 tons of rainfall per month, besides upland flood, and which had been, nevertheless, dried, and was kept dry, by three steam-engines of 350 horse-power each, worked at an expense of only 4,500*l.* a year.

Sir W. Cubitt and Mr. Robert Stephenson have reported against Mr. Roe's schemes. The conclusions they have come to are,—

"1. That the design of interception proposed by your engineer, Mr. Bazalgette, and Mr. Haywood, the engineer of the City Commissioners of Sewers, is better calculated than any other to effect the object.

2. That the dimensions they have fixed upon for their sewers are not larger than are absolutely required to clear the Thames generally, throughout the year, of pollution.

3. That even with these dimensions, the Thames will, occasionally, during very heavy storms, still be liable to have discharged into it, for a short period, some portion of sewage, but in a highly diluted state.

4. That in the distribution of the areas of interception, your engineers have succeeded in equalizing the duties to be performed by each line of interception as far as practicable, and thereby, in reducing the quantity of the sewage that may, under extraordinary circumstances, be discharged into the river Thames.

5. That, with this view, they have judiciously extended the local district sewer called the Hackney-brook, through Kentish-town and Camden-town, to Kilburn, by which the flood-water, from an area of seven square miles, is entirely separated, and carried away to a point where it cannot, in the remotest degree, interfere with the low districts of the metropolis."

WAR APPLIANCES.

VIGOROUS efforts have of late been made to forward the corps of navvies, with their tools and other materials, huts, clothing, provision, &c. to the Crimea, and also to despatch the wooden huts, stoves, &c. for the use of the army itself. Even the French have been supplied by this country with wooden huts, and ships to transport them in. Mr. Hemming, late of Bristol, received orders recently from Government, at his establishment at Bow, for the immediate construction of sheet-iron stabling for 2,000 horses for the Crimea, to be delivered within three weeks. He has also been supplying the officers with comfortable quarters. Mr. Thomas Bowman, of Gateshead, builder, was lately commissioned by Mr. R. S. Newall, of the Teams Wire-rope Works, Gateshead, to construct for the Crimea, with all possible despatch, two portable telegraph huts, measuring 9½ feet in height, 18 feet in length, and 13 feet in breadth. In about a week, according to the *Gateshead Observer*, these wooden huts were to be completed, and ere now they must be on their way to the seat of war. An electric telegraph, we hear, is to be forthwith laid across the Euxine from Varna to Balaklava, and the Austrian line finished to Bucharest.——We have had various letters from correspondents, complaining of trifling, want of civility, &c. on the part of Government officials, and neglect on the part of Government itself, in reference to offers made to supply various requisites for the seat of war. One correspondent ("P. T."), says, that directly after the occurrence of the battle of Inkermann was known, he offered "to provide huts for the entire army, each to contain sixteen persons, at a cost of 2*l.* per head; to provide suitable barracks, each building to contain accommodation for 200 privates and forty non-commissioned officers, with ample mess-room, at a cost of 6*l.* per head; officers' quarters in barracks, at 10*l.* per head; with each regiment a dispensary and hospital for forty patients, at 10*l.* per head; places of worship for 2,000 sittings, at 30s. per sitting."

——A person at Thrapston, it is said, has invented a wonderful locomotive machine for warlike appliance. We should like to see it at work before founding even a glimpse of hope on promises such as those ascribed to it. That locomotive engines worked by some simple or manageable power, and capable of progression without rails, might be made of vast use in war, however, one cannot doubt; and, perhaps, inventive genius may be stimulated by the aspect of affairs to the realization of such means. It is a curious fact, that the Russians are said to dread some such result, on the part of England, as the invention of tremendous and overwhelming engines of war; and this fact corroborates our idea that the Czar himself is probably more alarmed at the news of our cannon-ball-defying iron floating batteries, now in course of construction, than at any one thing we have yet done, or shown our determination to do, against him. And since the greatest power of this country is its power of mechanism, why should not that tremendous and inexhaustible power be now called forth to the very uttermost for the re-establishment of lasting peace and international justice. Tokens *are* ever and anon turning up of the approach of such a final appeal to mechanical power. The most recent we have heard of is the application of machinery to the formation of offensive weapons, or parts of weapons, hitherto made by hand. Machines have also been quite recently invented for the formation of cartridge-cases, and the war has even stimulated the druggists to the invention of machines for preparing plaster for wounds, &c. We should not wonder even to hear of machines for multiplying machines, wherewith to meet some crying demand for warlike weapons, if peace be not soon re-established.——On reference to the influence of cannon-balls on the resistive strength of stone fortifications, there is one point we have in vain expected to see discussed, namely, the reason why all the combined efforts of the broadsides of at least several war-ships were not concentrated upon one circumscribed spot of some one fortification, such as Fort Constantine. The walls, we were told, of the several forts were peppered *all over* with cannon-balls; but we have seen nothing to indicate that anything like a combined effort was in any case made to batter in one definite and limited spot, say about the centre of the walled surface opposite the ships engaged. Had one decided gap been thus opened, would not a continuance of the same concentrated effort, especially if directed on the mass of wall surrounding the gap, have very soon enlarged its dimensions, and destroyed the whole as a defensible fortification?

THE FOUNDATION-STONE OF ST. GEORGE'S HALL, LIVERPOOL.

IT is recorded in the *Builder* of the 6th instant, that "The foundation-stone (of St. George's Hall, Liverpool) was laid on the 28th June, 1838." As regards the present building this is a mistake. A foundation-stone for an intended St. George's Hall was laid, but not on the site of the present structure; that is, not beneath any of the walls nor within any portion of the existing building. St. George's Hall, as it now stands, has no foundation-stone, the whole resting on brickwork; and, in company with Mr. Elmes, I set the first brick in the year 1841, there being no form nor ceremony of any kind, not even a notice of the event in any local paper. There is thus in Liverpool the anomaly of a "foundation-stone," with its engrossed scroll, engraved plate, coin of the realm, &c. having no building over it; and a building of the same name as the one intended to have been erected, but of greater magnificence, having no "foundation-stone" beneath it. To remove the existing stone will not put matters right, as all the dates and particulars will be incorrect. If the *Builder* notices these facts, the Architectural Society of Liverpool will probably take the question up and settle it one way or other.

R. R.

HINTS ON CHURCH BUILDING.

NOW-A-DAYS, when churches are generally built complete in all points at once, the funds available seldom permit of much or any enrichment.

In the middle ages the erection of a church commonly extended over a lengthened period, and consequently (perhaps) we find them very much more elaborate as to their details than those of modern date.

Might not the example of our ance-tors be beneficially followed in some measure, by all parts of an edifice which are susceptible of ornamentation being left in the "rough" until means can be procured for carrying on or completing the work? Visible progress would be made year after year, for there are few but would gladly increase the beauty of the Lord's House by causing a boss, a corbel, capital, spandrel, or even a single square of diaper-work, to be carved at their expense, and most persons would contribute a small sum yearly for the adornment of their church.

Most monumental tablets, whether inside or on the outside of a church, are a disfigurement, as customarily placed and designed at present, but they might become subservient to the decoration by occupying certain positions, or assuming certain forms: for instance, a simple inscription might be cut in a canopied niche, or on a panel of an arcade, on condition of the niche and part of the arcade being carved according to the design of the architect of the church. Thus an arcade might be carried round the church internally and externally, and each buttress might carry on its face a canopied niche with a modest inscription (not one, enumerating half a hundred virtues, not known to be possessed so long as the person commemorated was alive): indeed there would be no difficulty to a skilful architect, in making each stone of the building, while serving as a memorial, conduce to its adornment. Painted windows are happily taking the place of costly mausoleums. Let the public perceive that the erection of the tower, spire,—the gift of bells, font, pulpit, reading-desk, lectern, reredos, the wood-work or metal-work of the church, the roof, screen, altar-rails, organ, colouring of walls or roof, sedilia, &c. form an equally suitable medium for keeping a person in the remembrance of the living, as a ponderous monument with urns, torches, weeping angels, and other lugubrious accessories—and we should not have our churches, generally, so disfigured, nor so bare, and destitute of ornament.

The adoption of this suggestion, to leave the completion of a church for future years to effect, would, in course of time, give us more beautiful churches, and would be of much real benefit to architects, since it would permit them to give greater play to their fancy than the terms of their usual commission—to produce "the largest church at the least possible cost"—permit.

W. S. M.

Miscellanea.

RAILWAY STATISTICS.—From a return recently issued from the Board of Trade, it appears that the length of railway line open in England and Wales on 31st December, 1853, was 5,811 miles; and on 30th June, 1854, it was 5,965. The number of first-class passengers carried for the half-year ending 30th June, 1854, was 5,615,819; second-class, 15,512,133; third-class, 9,763,290, parliamentary class, 11,087,121; holders of periodical tickets, 9,605; making a total of passengers carried, 41,987,969. The receipt for passengers was, for first-class, 1,106,084*l.*; second-class, 1,304,547*l.*; third class, 385,083*l.*; parliamentary-class, 655,613*l.*; while for the holders of periodical tickets the receipt was 71,186*l.*; giving a total receipt (including 10,837*l.* excess fares, tolls, &c.) of 3,533,452*l.* The receipt from horses, carriages, passengers, luggage, parcels, and mails, was 413,225*l.*; from general merchandise, cattle, minerals, &c. 4,137,898*l.*; giving a grand total of 8,084,475*l.* The money expended by various railway companies in obtaining Acts of Parliament, &c. has been something quite extraordinary, and might itself have almost paid the cost of a line of railway from the Land's End to John O'Groat's House. Not to go so low as anything like a mere 50,000*l.* we find by this return that the Birmingham, Wolverhampton, and Stour Valley Company expended in obtaining Acts of Parliament, &c. 71,776*l.*; the Dublin and Drogheda, 63,569*l.*; Edinburgh, Perth, and Dundee, 135,044*l.*; Lancaster and Carlisle, 80,890*l.*; Liverpool, Manchester, Newcastle, and Carlisle, 94,000*l.*; Northern and Eastern, 73,676*l.*; Shropshire Union, 83,967*l.*! Waterford and Limerick, 80,756*l.*; West Cornwall, 68,594*l.*; and Cornwall, 129,147*l.*! Glasgow and South-Western, 175,804*l.*! Eastern Union, 224,385*l.*!! London and South-Western, 260,819*l.*!!! Great Northern, 683,052*l.*!!!!

ARTISTS' AND AMATEURS' CONVERSAZIONI.—These *conversazioni*—late "the artists,"—are to be held at Willis's Rooms, St. James's-street, on the evenings of the 18th inst. 15th proximo, 15th March, and 19th April. Various honorary members have of late been elected, and endeavours are being made to increase the attractiveness of the meetings and extend their usefulness.

THE WATT INSTITUTION CLUB, AT EDINBURGH.—The first meeting of this new club was lately held at Edinburgh. It has been got up in connection with the Watt Institution and School of Arts in that city. Its objects are,—to do honour to the memory of Watt, by a festive celebration of the anniversary of his birth, being the 19th day of January,—to promote the interests of the Edinburgh School of Arts, by members inducing other young men to avail themselves of the advantages of the institution.—and to provide a fund for the purchase of prizes, to be competed for by students of the school, at the close of the winter session. The club is intended to comprise all who are or have been students of the Edinburgh School of Arts. The only payment exigible under the rules and regulations appears to be an annual fee of one shilling, which we should fear will form too small a fund for prizes, or even for the mere sustenance of the club, itself, from that lapse to which inanition of this kind is but too apt to lead. The design is a laudable one, and it merits success.

Sheffield School of Design Competition.—The advertisement for plans and estimates for the building of the School of Design has been so well responded to (according to the *Sheffield Independent*), that more than 100 have been sent in. The examination of them occupies so fully the time of the council and the principal of the school, that it has been found necessary to defer for a fortnight the usual time of opening.

Art-Unions.—The subscribers to the Liverpool Art-Union assembled on Tuesday in last week, to ballot for the prizes of the year. The chair was taken by the mayor. From the report, it appeared that the amount subscribed during the present year was little more than half the amount of last year. The financial statement showed subscriptions amounting to 343*l*. 10s. 6d.; expenses, 19*l*. 14s. 2d.; leaving 323*l*. 16s. 4d. to be divided in twenty-six prizes, as follows, namely, one of 50*l*. one of 30*l*. one of 25*l*. two of 20*l*. three of 15*l*. eight of 10*l*. ten of 5*l*. and one of 3*l*.——The annual meeting of the subscribers to the Royal Birmingham and Midland Counties Art-Union was held on Thursday in last week, at Birmingham. Alderman Ratcliff occupied the chair. The report congratulated the subscribers upon the success of their operations since the last annual meeting. The sum distributed last year was 315*l*. This year the gross amount of subscriptions is 362*l*. 5s.; The committee recommended that the amount should be divided into twenty-three prizes, namely, one 50*l*. one 30*l*. two 25*l*. two 20*l*. three 15*l*. seven 10*l*. seven 5*l*.

The Electric Light at Westminster-bridge.—In consequence of our suggestion, Dr. Watson, of the Electric Power Light and Colour Company, has entered into arrangements with the Government authorities for applying this novel agency in aid of the operations now in progress for the erection of the new bridge at Westminster, and it is now nightly used in conjunction with Chappuis's reflector. We learn that the patentee has contracted to light Chelsea-bridge by the same means, and we understand that Mr. Whitmarsh, of Paris, has obtained the permission of the Emperor of the French to fix one of these illuminators at the Rond Point, to light up the grand avenue of the Champs Elysées during the forthcoming Exposition in that capital.

Manufacturers' Circulars.—It has often occurred to me that the profession and manufacturers would be much benefited, if the latter were, by mutual arrangement, to publish their illustrated trade lists on paper *of one uniform size*, so that the former could bind them as they accumulate, and so preserve them for reference; but now they are upon sheets of all imaginable dimensions, and their awkwardness causes their destruction. I think the full size octavo would suffice for all trades and wares.—R.

Improved Dwellings and Workmen's Home at Wolverhampton. Pending the establishment of a local association, not yet in action, Mr. G. Skey, one of its promoters, has had erected, on his own account, five dwelling-houses for working men, and also a workmen's home, the latter capable of accommodating twenty-four persons, besides a superintendent. The buildings, which have been erected from the designs of Mr. Banks, of that town, architect, are contiguous, and occupy the corner of a new street leading from Brick-kiln-street to St. Mark's-street. Their exterior, according to the local *Chronicle*, is rather of an ornamental character. The rent for each of the five houses is 3s. 6d a week, and at this rent, it is said, they will make a good return for the outlay. The "Workmen's Home" constitutes a portion of the same buildings.

Exportation of Cement. The Privy Council have revoked their order of the 30th of November last, to prohibit the exportation of Blue Lias, Portland Cement, and other articles commonly used in the manufacture of marine cement, to any place north of Dunkirk.

The Trough Tramway. We all have been reading of the difficulty with which the land-carriage in the Crimea is conducted. A railway is a permanent construction, not capable of being removed. Why could not the trough rail be introduced? it would be simply flat sheets of iron curved at the sides like a house-pipe, from 4 to 6 feet long, and rest on the mud without sinking, on which the wheels of heavy carriages could run with comparative facility; they could be taken up when required, and laid down elsewhere. A couple of dozen of these rails, and a fatigue party to take them up as soon as the wheels had gone over them, and placed in front, would easily remove the heaviest ordnance to any place it might be required: in comparatively hard ground, little stones might be put to keep them true in the balance. They might with advantage be used at home at a field-gate: where the traffic has made deep ruts or honey-pots, little holes could be punched in them to let the rain water through.

Army and Navy Club. Frederick Wilson.

Access to the new London Cattle-market.—The new cattle-market, at Islington, is drawing near completion. Convenient approaches to it for the thousands that will have to attend it on business should be the next serious consideration. There are but two roads from which there will be direct access to the market, viz. Maiden-lane on the west, and the Caledonian-road on the east. Now, if you draw a line from the market in Maiden-lane to Paddington, and from thence take a circle southwards to Brixton, and from thence draw a line to the New-road, at the corner of Penton-street, you will have an area containing the greatest population about London, and for the thousands that will have to attend the new market, the means of access to it are few and inconvenient. Any one acquainted with this neighbourhood will, I am sure, see the necessity (if accident is to be prevented), of diverting some of the additional traffic from this point, viz. King's-cross. Those coming to Penton-street can go along that street, and turning down any of the streets beyond Copenhagen-street, get into the Caledonian-road, nearly opposite the market. To relieve the crash of vehicles opposite the market. To relieve the crash of vehicles at King's-cross, there are three great openings towards the Caledonian-road, that can be made at a trifling expense, and at the same time be a great improvement and ornament to the neigabourhood: 1st, to connect Gray's-inn-lane with the Caledonian-road, by pulling down about six miserable tenements in Chad's-row and the New-road, at the bottom of Gray's-inn-lane. This would make a straight road, or nearly so, from Holborn to the new market; 2nd, to throw down the railings and wall at the end of Cumming-street, and thus connect the road on each side, which would give another access to the Caledonian-road, straight from Pentonville-hill, and, 3rd, to throw down the railings and wall at the end of Rodney street, and connect the road on each side, which would give another and still more direct access to the Caledonian-road from Pentonville-hill. These would be *three* great improvements, and are much wanted.—A Reader.

The Liverpool Timber Trade.—In his last monthly circular, Mr. Edward Chaloner says that the arrivals during the month from British America consisted of sixty vessels, 40,375 tons, against thirty-eight vessels, 29,724 tons, the corresponding month last year. The arrivals during the year consisted of 306,496 tons, against 305,119 tons in 1853. Red pine, from St. John, with cargo, has been sold at 10½d. per foot for small average. The better sizes of oak were sold by auction at 2s. 11d. per foot, and middling at 2s. 6d. to 2s. 7d. per foot. Small-sized elm, from Quebec, has been sold by auction, of 34-feet average, at 21½d. per foot. Ash, with cargo, has been sold at 13d. per foot, retail, 17d. to 18d. per foot. Quebec deals, owing to their scarcity, have been sold by auction, first quality at 15*l*. 15s. to 17*l*. 5s. per standard; second quality at 12*l*. 7s. 6d. to 13*l*. 5s. per standard; third quality at 9*l*. 2s. 6d. to 10*l*. 17s. 6d. per standard. The sales of mahogany end of last month exhausted the stock in Liverpool, excepting curls. There are abundant and very varied arrivals from City St. Domingo and Honduras. The arrivals of Baltic fir timber during the month consisted of four vessels, 857 tons, against twenty-nine vessels, 9,607 tons same month last year. The sales are in small quantities from the yard at 18d. per foot, for middling quality.

Mahogany and Rosewood Sales at Birkenhead.—Several cargoes of Honduras mahogany sold recently at prices averaging from 4d. to 1s. 2d. per foot; St. Domingo from 5½d. to 5s 11d. per foot; and Rio rosewood from 12*l*. to 13*l*. 5s. per ton. Some Bahia rosewood sold from 8*l*. to 11*l*. 5s. per ton, and Honduras at 6*l*. per ton.

Louis the Fourteenth's Building Expenses.—A curious document is reported to have been lately found amongst the papers of a rich Versailles tradesman, recently deceased. This document is an account of the building expenses incurred by Louis the Fourteenth, under Mansard. The account is drawn up by Marimer, a clerk in the architect's employ. The following items are adduced:—Versailles, Marly, and dependencies, 116,238,893 livres; Saint Germain, 6,155,551 livres; Fontainebleau, 2,775,746 livres; Chambord, 1,225,701 livres; Louvre and Tuileries, 10,008,969 livres; Observatory, 725,174 livres; Invalides, 1,718,382 livres; Place Vendome, 2,062,699 livres; Canal de Languedoc, 7,736,555 livres; Gobelins, &c. 3,615,943 livres; on account of manufactures, 1,979,990 livres: total 158,000,000 livres, or upwards of six millions sterling.

Value of Property about Lincoln.—The sale of 170 acres of land at Washingborough and Heighington took place lately at prices regarded as remarkably low, considering the prosperous state of agriculture. 9a. 1r. 29p. of land, with two cottages, were purchased for 480*l*. "A magnificent house" and nearly 31 acres of land went for 1,900*l*. The lowest price of land per acre was about 85*l*.

Improved Dwellings for the Working Classes in Scotland.—Mr. Dunlop, the member for Greenock, has given notice of a Bill to be introduced in the ensuing session, to facilitate the erection of dwelling-houses for the working-classes of Scotland.

Roman Remains at Ipswich.—A tesselated pavement and foundations of walls have been discovered in a field not far from the village of Whitton. The pavement is of varied pattern, and in fair preservation. Various concrete foundations have been discovered in the field, all of them, it is said, decidedly of Roman work, and some of them 7 feet wide. Vast quantities of Roman bricks have recently been dug out.

Weymouth Market-house.—With reference to the fall of a portion of the new market-house at Weymouth, we have received various long statements, and also MS. reports of proceedings of the Weymouth town-council. As, however, we do not see what precise point is made out by these documents, unless it be to hurt the feelings of individuals, we refrain from entering further into the subject for the present.

Consumption of Smoke.—There is an apparatus fixed in my neighbourhood which certainly does not meet the requirements of the Act; indeed, I should not have known there was such a contrivance had one of the men not told me, the street being filled with smoke in the old way. I suppose it depends a good deal on the stoker, in every case that I have to do with it depends more upon him than anything else; indeed, we make a rule, having so many of them, to give a premium to those who do most work with the least coal. The great secret of making the most of fuel is a thin fire and as many openings as possible for oxygen, and that heated to as high a degree as possible without robbing the fire. In the arrangement I have used in all our furnaces for upwards of six years, and never in one instance known them to fail, there is a fire bridge of cast-iron, with ribs on the back; the top part is full of small holes, which divides the air into a jet: there is a fire door, with a number of thin slits in it, with a sliding cover: inside of the door is a piece of sheet-iron, rivetted at top, so that the air in getting to the furnace is rendered hot, and keeps the stoke-hole perfectly cool.—J. W.

Comfort in Churches.—Allow me to call the attention of ecclesiastical architects to the following facts which have been brought under my knowledge:—A small church was built a few years since at a village in Buckinghamshire, and when completed was found to be totally unprovided with means for warming: a stove was therefore provided with a descending flue carried into a *brick* shaft built for the purpose on the outside of the church, with an elegant cowl at its summit. This was found insufficient for the purpose, and smoked to a fearful degree. It has therefore been lately superseded by another stove, with an ascending flue consisting of 13 yards of iron-piping, which is carried from the stove in the middle of the church through a "lancet" window, and rises several feet above the eaves of the roof on the outside. The effect on the architecture of the edifice may be easily conceived. Another church was erected about three years ago in the same county, and only a few miles from the above mentioned. This church, although built under the direction of one of the most eminent church architects, was unprovided with means of warming, and consequently a stove-pipe may now be seen projecting out of an elegant "decorated" window, destroying both the external and internal beauty of a well-designed edifice. Similar cases are of almost daily occurrence. Critics in general are too apt to throw the blame of all this disfigurement upon the parties immediately concerned in perpetrating it; but does not the blame really rest on the designer of the church, who omits what is essential to the comfort of the congregation throughout a large portion of the year, and thereby compels them to take refuge in Dissenting chapels, rather than risk being laid on a sick bed with colds, rheumatism, or other complaints incident upon sitting for hours in a room at a temperature only a few degrees above that of an ice-well? E. W. T.

TENDERS

For completing houses in Priory-grove, West Brompton. Mr. Godwin, architect.

Wilson, S. S.	£3,641 0 0
Locke and Nesham	3,470 0 0
Hayward and Nixon	3,420 0 0
Haynes, Brothers	3 396 0 0
Symonds, E. O.	2,449 0 0
Southgate and Potter	2,400 0 0
Delay, Charles	2,259 0 0

For a new stone front and alterations, at 24, Billiter street, City, for Mr. Clark. Mr D. A. Cobbett, architect. Quantities supplied by Mr. Curtis.

Freeman	£1,913 17 4
Banark	1,686 0 0
Nottey	1,469 10 0
Howard	1,450 0 0
Hill	1,294 0 0
Ashby and Horner (accepted)	1,198 0 0

For the erection of the Islington Infant poor establishment, including fittings, drainage, boundary-walls, and fences, separate buildings for infirmaries, and for receiving-wards. Mr. Fredk. Tyerman, architect. Quantities taken out by the architect and Mr. S. B. Wilson.

Cubitt and Co.	£10,695	0	0
Locke and Nesham	10,680	0	0
H. and R. Holland	9,957	0	0
Myers	9,767	0	0
Dove, Brothers	9,735	0	0
R. Lawrance	9,611	16	0
Patrick and Sons	9,168	0	0
Carter and Ellis	8,669	0	0

TO CORRESPONDENTS.

"*Weight and Measure of Stone.*"—One correspondent wishes to know "the quantity in cubic feet that constitutes a perch of stone, a common term in the Western Counties;" and a second to be informed "the weight and measure of a cord of hassock stone: such as is used in Maidstone Kent."

"J. T." "Government Works." "G. C." "R. R." "W. and A." "O. and A." "Z. Z. Engine-driver." "A. J." "Saml. R." "R. H." "A. B. Alnwick" (no danger, so long as pipe be open), "R. D. S." (declined with thanks), "W. L." "J. L. C." "W. B." "*Audi alteram partem.*"

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ARTICLED PUPIL WANTED.—An Engineer and Surveyor, established in the North Riding of Yorkshire, and having extensive practice in railway works, now preparing for construction, is wishful to take into his office ONE or TWO ARTICLED PUPILS.—Apply by letter to Messrs HAMMOND and MAWSON, Contractors, Northallerton.

TO PARENTS, &c.

AN Architect in good practice has a VACANCY for a well educated YOUTH as PUPIL.—Address to Mr. WIGINTON, Wolverhampton street, Dudley.

APPRENTICE WANTED to the PIANOFORTE making, where he will have an opportunity of thoroughly learning it a business under the immediate care of the principal. Apply to Messrs. COOKE and CO. 131, Long Acre.—A premium required.

TO PARENTS AND GUARDIANS

AN ARCHITECTURAL FIRM, in the west end of London, having several important public and private works in hand have a VACANCY for an ARTICLED PUPIL One of the firm being an artist, a peculiarly eligible opportunity presents itself for any youth having a taste for drawing, and who may be desirous of perfecting himself in that particular branch, combined with a thorough practical knowledge of architectural landscape gardening and ornamental arrangement of estates for building purposes Reference given to works in course of erection, and a liberal premium required.—Address to A. B. care of N. Webnett, Esq Solicitor, 4, Bernard street, Russell-square, London.

A SURVEYOR, having a vacant Office at the West end, is desirous of finding a Young Man in the Profession capable of uniting with him in Conducting Classes for Instruction in Drawing and Surveying. The above offers many advantages. Letters, stating full particulars, to be addressed DELTA, Office of "The Builder."

CEMENT TRADE. — C. J. HILTON, Roman and Portland Cement and Plaster Manufacturer, is open to ENGAGE with a TRAVELLER, who has a connection among buyers of the above articles. Services will be principally required for the country April, in the first instance, by letter, at the manufactory, Faversham, Kent.

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TWO ARCHITECTS, in partnership, holding appointments, and having several public buildings in course of erection, have a VACANCY for a PUPIL Apply by letter, to A. B. 16, Waterloo-place, Regent-street.

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GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also of Fine Stucco in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Firebricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Portolano.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO have much pleasure in informing consumers of this valuable Cement that they have, by means of a recent discovery, succeeded in greatly improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are many spurious imitations. The Portland Cements resemblize it only in colour.

ASPDIN, ORD, and CO beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.

A report of experiments made to prove the extraordinary strength of the Patent Portland Cement, may be had at their Office, New Wharf, Abingdon street, Westminster; at their Works, Gateshead-on-Tyne; at Messrs. Nesser. Rosher's Wharf, Holland-street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the great satisfaction in introducing this Cement to the notice of Builders, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities; resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, it remains hydraulic properties stamp it at once as the Cement of the day for work where all the above qualities are requisite. It is manufacture I on the only principle Portland Cement can be made, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

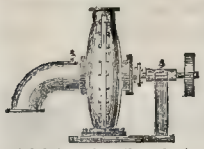
PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their friends and the Public that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the well known PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO will be happy to forward prices by post on applicat on, and can offer favourable terms to large purchasers on Jetty-piers.

Dated St. Mary-street, Bridgewater, July 20th, 1854.



BUILDERS, Contractors, Engineers, Brickmakers, Well-sinkers, Plumbers, Brewers, Chemists, Paper-makers, Manufacturers, Proprietors of Coffee, Cotton, Indigo, or Rice Estates, Occupiers or Proprietors of Low Lands, Fens, Marshes, &c, and all persons requiring water or other liquids (hot or cold) raised or forced will find it greatly to their advantage to use GWYNNE and CO'S PATENTED PUMPS, AS FOR ECONOMY, EFFICIENCY, DURABILITY, SIMPLICITY, AND POWER, THEY STAND UNEQUALLED. Water-wheels, Hydraulic Rams, and every description of Machinery for raising water, may be had by applying to GWYNNE and CO, Hydraulic and Mechanical Engineers, Essex Wharf, Temple-pier, Strand, London.

FARM AND COTTAGE PUMPS.

WARNER'S PATENT CAST IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying H. S. Forges, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS, 8, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.

FOWLER'S IMPROVED FARM and COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 17s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION bored perfectly true by improved machinery, in various plain and ornamental patterns, for square and market-places, roads, conservatories, liquid manure, ships, barges, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

PUMPS on HIRE! The largest stock in England of single and double pumps, from 4 in. to double 12in. barrels, prepared for hand or steam power, ready for use on reasonable terms, at

HENRY FOWLER'S, Hydraulic Engineer, Hot-water, Steam and Gas Apparatus Manufacturer, New Factory, Whitehart-street, Fleet-street.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored to machinery and fitted in the best possible manner, suitable for excavators, trade, breweries, farms, canals, docks, lead-mines, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

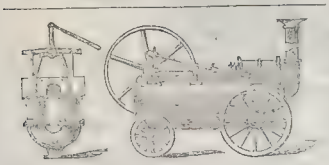
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

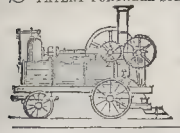
Iron Pails 36s per doz. painted.
Ditto .... 44s per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile driving, raising materials, &c. &c.



Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS, Engineers and Contractors, John's-place, Holland-street, Southwark, London.

TO CONTRACTORS.

PATENT PORTABLE PUMPING ENGINES, mounted on strong wagon-wheels, iron chimney horse shafts complete. Strong, simple, for immediate use. Several are ready for delivery, from six-horse power to twenty-five-horse power and upwards, adapted to contractors' work generally. May be hired at a rental, or purchased, and can be seen at work at Messrs. MEDWIN and HALLS, Engineers and Portable Engine Makers, 99, Blackfriars-road. These engines have been successfully employed for years.

WM. HARRIMAN and CO. FIRE-BRICK and SANITARY TUBE WORKS, Blaydon, Newcastle-upon-Tyne.

INDISPUTABLE LIFE POLICY COMPANY.
72, Lombard-street, and 35, Connaught-terrace.
TRUSTEES.
Richard Malins, esq. Q.C. M.P. | Richard Spooner, esq. M.P.
James Fuller Madox, esq. | John Campbell Renton, esq.
William Wilberforce, esq.

A reduction of 25 per cent has been made on the premiums of all policies of five years' standing.

ALEX. ROBERTSON, Manager.

THE ALBERT ASSURANCE COMPANY.
(Established in 1838.)

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square.

W. S. VARDY, Manager.

MUTUAL LIFE ASSURANCE.

SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY.

HEAD OFFICE 28, St. Andrew-square, Edinburgh.
LONDON 126, Bishopsgate-street.
Instituted, 1831.
Incorporated by Special Act of Parliament.

The Profits are divided every Three Years, and wholly belong to the Members of the Society. The next division takes place at 1st March, 1856

EXAMPLE OF ADDITIONS

On a Policy for 1 000*l.* dated 1st March, 1832.

1,223*l.* 8*s.* will be payable if it become a claim during the current year, after Payment of this year's Premium. This is an addition of more than Fifty per Cent on the Sum Assured, and averages 2*l.* 3*s.* 7*d.* per cent. per annum.

Supposing such a Policy to have been effected at the age of Thirty, the additions might now be surrendered for a present payment of 221*l.* 7*s.* 10*d.* or if applied in reduction of the future Premium, would reduce the Premium from 22*l.* 10*s.* 10*d.* to 6*l.* 3*s.*; and even this small payment must be reduced every Three Years during the subsistence of the Policy.

Amount of existing Assurances	£4,234,898
Annual Revenue	182,615
Amount of Accumulated Fund	839,364

Copies of the Annual Report, Forms of Proposals, and all information, may be had on application at any of the Society's Offices in town or country.

W. COOK, Agent.

126, Bishopsgate-street, London.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, superior tone, truer in form, and at less cost than has heretofore been compatible.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, suitably or in pairs.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Hall's and Pinsutti's supplied with the above and other Filters at trade prices. The Filter, at one, two, three, and four gallons a day, 10s. 6d., 15s., 21s., and 30s. each per dozen, will be found sufficient for ordinary domestic requirements; are self-acting, and reliable to keep in order. References to parties satisfactorily supplied with quantities up to 5000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 22.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON, Brass and Iron Founders, Short-street, New-cut, Lambeth.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established in 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 35s per ton. Importer of Trinidad Asphalte.

Shipping Depôt, Devon Haytor Wharf, Rotherhithe.

G. H. CLARK, Agent.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hose-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for metallic tables.

India-rubber of any or make, and improved Vulcanized Rubber Suppliers for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any length. Air-cushions, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mew, Goswell-road, London.

CHEAP AND DURABLE ROOFING.

By Her Majesty's Royal Letters Patent.

F. McNEILL and CO. of LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON, Manufacturers and ONLY Patentees of

THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronized by

HER MAJESTY'S WOODS AND FORESTS,
HER MAJESTY'S COMMISSION OF CUSTOMS,
HONOURABLE EAST-INDIA COMPANY,
HONOURABLE BOARD OF ORDNANCE,
HER MAJESTY'S ESTATE, ISLE OF WIGHT,
ROYAL BOTANICAL GARDENS, REGENT'S PARK,

And by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under slates at the Royal Agricultural Society's House, in Hanover-square. Its advantages are lightness, warmth, durability, and economy. It is impervious to rain, snow, and frost, and a non-conductor of heat and sound. The Felt can be cut to any length, 36 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its use and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen, and Gentlemen who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Boilers, &c. is also manufactured, by which a saving of about 25 per cent in fuel is effected. The TRADE are respectfully enjoined to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their roofs. They are likewise CAUTIONED AGAINST MISREPRESENTATION, as our Agents work in Great Britain who cover the above roofing is made are F. McNEILL and CO'S Manufactories, LAMB'S BUILDINGS, BUNHILL ROW. Roofs covered with the Felt to be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the New Houses of Parliament.—A Liberal Discount allowed to the Trade.

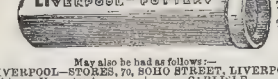
DOULTON AND WATTS,

LAMBETH POTTERY, LONDON.

REGISTERED CLOSET-PANS IN ENAMELLED STONE WARE.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

STONE WARE PIPES, BENDS JUNCTIONS TRAPS, &c.



TERRA COTTA VASES, CHIMNEY-TOPS, &c. FIRE-CLAY FLUE PIPES

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW ..... J. A. Mathieson, Hope street.	CARLISLE ..... C. Armstrong, Lowther-street
DUBLIN ..... Robt. Lovely, Poolbeg-street.	WHITEHAVEN ..... Hugh Todhunter.
CORK ..... W. D. Brash, Dean-street.	COCKERMOUTH ..... John Hird.
WATERFORD ..... J. Sparrow and Co	GUERNSEY ..... Guerin, Brothers.
CARNARVON ..... Jno. Jackson.	LONDONDERRY ..... W. and A. M'Elwee.
FIRESTON ..... J. Armstead, Hudson-street.	WIGAN ..... James Fairclough, King-street.
KENDAL ..... Robt. Thompson.	LIMERICK ..... W. Burgess and Sons.
BLACKBURN ..... W. Hopwood, Clayton-street.	

The most economical and efficient system of drainage is formed with DOULTON'S STONE-WARE PIPES.
Testimonials as to their superiority have been received from the Borough Engineers of Liverpool, Glasgow, and other cities.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 4s per foot super together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

TARPAULINS for COVERING ROOFS during Repairs, SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention. WILLIAM PIGGOTT, 213, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

CHIMNEYS.

MOON'S CHIMNEY CONTRACTOR, REGISTER, and CHIMNEY BAR COMBINED. The contractor assists draught; the register admits of being partially or wholly closed; it is cleanly, simple in construction, and cannot get out of order.

Manufactured by PARRY, of 105, Gilden-lane.

MOON'S DWARF-COVERED CHIMNEY-POTS, open on two sides, which affords an efficient outlet for the smoke, whilst the two enclosed sides and top form a guard from the wind. The pots being very distinct, prevent the flues affecting each other. The dwarf size nearly conceals them from view, and thus avoids any disfigurement to the chimney-shafts.

Made by DOULTON, of Lambeth.

Specimens of the above are to be seen at the Architectural Exhibition, Suffolk-street, Pall-mall.

HOLBORN-HILL,—a REMEDY for its ILLS.—MOON'S MODEL of an amended DESIGN for the proposed VIADUCT at this locality, may be seen at the Architectural Exhibition, Suffolk-street, Pall-mall.

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTER'S PATENT WIND GUARD.—This Guard allows free access to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

SMOKE PREVENTION.—(OFFICE of REFERENCE for PATENTEES and the PUBLIC, 17 and 18, Cornhill. NORRIE and CO having several British and Foreign Patents for the above purpose, some of them being peculiarly simple and effective, are ready to undertake the prevention of smoke in furnaces, boilers, and coppers of all kinds and sizes. An experienced practical engineer will, if required, superintend the work. Licenses granted to engineers, furnace-builders, and others.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d.

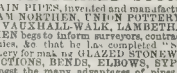
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required. HAYWARD, BROTHERS, sole Manufacturers, 158, Blackfriars-road, and 117, Union-street, Borough, and of all respectable ironmongers, builders, &c.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.



SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppages in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:

Rosser and Co.'s Wharfs: Kingsland, Blackfriars, and Millbank. Martin and Wood's Market Wharf, Regent's-park Basin. J. C. Bellhouse, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street. C. Richardson's South Wharf, Paddington. G. Errington, Cambridge Heath Wharf, Hackney.—Millwood and Co.'s Wharfs, Kensington Basin, and Canal Wharf, Hammersmith.—J. Corbett's Depôt, Britton-street, Chelsea; and at the Pottery.

JENNINGS'S PATENT DRAIN-PIPES

REMOVE THE OBJECTIONS TO PIPE-DRAINAGE.

At the Institute of Engineers, during the discussion on Pipe-drainage, Mr. Robert Stevenson, when speaking on the subject, said, "He looked upon the Pipe-drainage of a Town as one HUGE MACHINE, *that was neither capable of Examination nor Repair."*

THE OLD-FASHIONED AND HALF-SOCKET PIPES CANNOT BE EXAMINED without taking up one or more Pipes, thus DESTROYING THE LINE OF DRAINAGE, and saturating the sub soil.

Practical men will see, by comparing JENNINGS'S DRAIN PIPES with the Half-socket Pipes, that the former can be examined, by simply excavating down to, and removing one of the small junctions.

To remove a Half-socket Pipe the excavation must be THREE TIMES AS LARGE, and the relaying of the Pipes, or making the Joints (OWING TO THE ESCAPE OF SEWAGE a matter of much difficulty.

JENNINGS'S PIPES can be examined without checking the flow of sewage, or disturbing the invert or general drain, and junctions can be introduced at any joint, by removing a plain saddle, and exchanging it for a saddle having a junction formed in it of the required size.

By the use of JENNINGS'S PIPES, the work of supervision is lessened, and good work ensured, as any length of Pipes may be laid, which can be examined at the convenience of the superintendent before the trains of the saddle-pieces.

The favour with which these Pipes have been received, has induced the Patentee to commence the CONSTRUCTION OF THE LARGEST PIPE-WORKS IN THE WORLD; and, by the aid of screw-steamers and railway facilities every Town in the United Kingdom will shortly be supplied with these Improved Pipes, SAME PRICE AS ORDINARY SOCKET-PIPES.

A List of Agents will then be published.

To meet the views of all interested in Sanitary Progress,

GEORGE JENNINGS PROPOSES TO MANUFACTURE THE OLD-FASHIONED SOCKET-PIPE GLAZED AND UNGLAZED.

AS ALSO

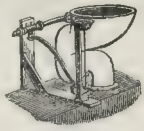
A VARIETY OF USEFUL ARTICLES IN EARTHENWARE, HITHERTO NOT ATTEMPTED.

JENNINGS'S PATENT CLOSETS, TRAPS, SLUICE-VALVES, &c.

ARE FREE FROM ALL COMPLICATION. NO WIRES OR CRANKS.

ANY NUMBER OF CLOSETS SUPPLIED FROM ONE SERVICE-PIPE, AND THEY ARE AS READILY FIXED AS A COCK TO A SINK, UNDER HIGH OR LOW PRESSURE.

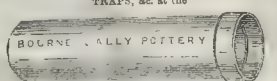
Architects furnished with references of the highest order.



Particulars of JENNINGS'S DRAIN-PIPES, WATER-CLOSETS, URINALS, LAVATORIES, SLUICE-VALVES, FIRE-COCKS, GULLY-TRAPS, SHOP-SHUTTER SHOES, &c. &c. can be had free on application, or by post if two postage stamps are inclosed to

GEORGE JENNINGS, SANITARY ENGINEER, 29, Great Charlotte-street, Blackfriars-road.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET;

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset: they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;

Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.

THE FARNLEY IRON COMPANY, WORTLEY, near LEEDS.

Manufacturers of FIRE BRICKS, TILES, QUARRIES, &c., White Building Bricks, Fire-clay CHIMNEY-TOPS, in Norman, Egyptian, Saxon, Tudor, Grecian, Gothic, and Elizabethan styles.

TERRA COTTA

Fountains, Vases, Pedestals, Capitals, Trusses, Brackets, &c., in great variety, which for beauty and elegance of design are unequalled. The designs of Architects modelled with the greatest exactness.

Also of PATENT GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, &c., well adapted for pressure, being made extra pressed under "Spencer's Patent." Superior White Glazed CLOSET PANS, TRAPS, &c.

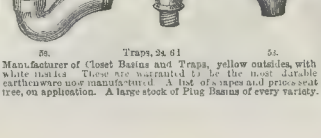
The Works of the Company are situated in the immediate vicinity of the well-known bed of WORTLEY FIRE-CLAY, and their manufacture of BRICKS, for the use of Forges, Gas Companies, Foundries, Potteries, and Glassworks, is confidently recommended for all purposes where extreme heat is required. Their GROUND CLAY is also particularly adapted for the manufacture of CRUCIBLES, MELTING POTS, &c.

OFFICES AND STORES:

LONDON .....No. 14 York-chambers, York-buildings, Adelphi; No. 16, Bath-place, New-road; St. Ann's-wharf, Limehouse.
BIRMINGHAM..No. 7, Eagle-row; also King Alfred-street, adjoining Bingley-hall, and Lawley-street.
BRISTOL .....No. 14, Nelson-street.
LIVERPOOL ....No. 9, Russell-street, 83, Renshaw-street, and Shipping-wharf, Leeds-street.
MANCHESTER..No. 46, Travis-street, and 23, 24, and 25, Birmingham street, London-road.
HULL.....No. 60, Queen-street, and Wellington-street.
BRADFORD ....Horton-road.
LEEDS .....Wellington-street, adjoining the Midland Station; and Shipping-wharf, Victoria-works, Hunslet;

Where Drawings, with Prices, &c. may be obtained; and at the Great Industrial Exhibition, Dublin.

HENRY TURNER, 2, SOUTH WHARF, PADDINGTON.



5s. Traps, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white inside. These are warranted to be the most durable earthenware now manufactured. A list of sizes and prices sent free on application. A large stock of Plug Basins of every variety.

MILL-WALL POTTERY (near Scott Russell's).—Messrs. WILLCOX and CO. Invite the attention of Contractors, Builders, and Wholesale Dealers to their extensive assortment of articles in WHITE EARTHENWARE for sanitary purposes. The only manufactory of the kind in the neighbourhood of London. Particulars forwarded on application.

TO LOCAL BOARDS OF HEALTH, WATER COMPANIES, &c.

A DESIDERATUM in SLUICE-VALVES FREEMAN ROE'S Patent Sluice-valve can be repaired without being removed from the main. All sizes, from 2 inch to 36 inch. Patent Hydrants, self-closing Cocks, fire and other Pumps, Hot-water Apparatus, Baths, &c. Surveys made, and estimates given by FREEMAN ROE, Hydraulic, Sanitary, and Gas Engineer, 70, Strand, and Upper Marsh, Lambeth.

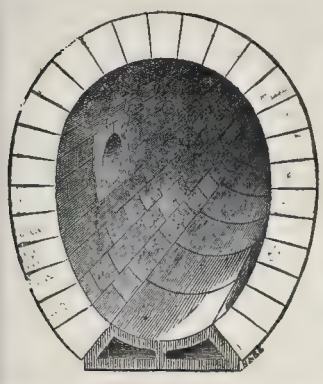
TO BUILDERS AND OTHERS.

DRAIN-PIPES, JUNCTIONS, PANS, TRAPS, &c. at very low prices.—E. & W. STURGE, Bridge Wharf, City-road. Paving, Sinks, &c. Duchess, countess, and ladies slates. A list of prices sent free on application.

HENRY DOULTON AND CO.'S
PATENT SEWER JUNCTION BLOCKS AND INVERT BLOCKS,
IN GLAZED STONE WARE,
HIGH-STREET, LAMBETH, LONDON.

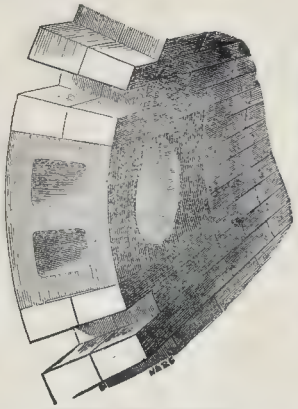
The connection between pipe drains and sewers, and brick sewers, is made perfect and secure by the use of DOULTON'S PATENT JUNCTION BLOCKS. Each block is made to correspond in thickness with the sides of the brick sewer, so as to build or bond in with the brickwork; the inner surface is made to correspond with the internal figure of the sewer. Each block has a socket, either within its thickness or just protruding beyond it, to receive the end of a pipe. They are made to receive pipes, entering either straight or obliquely. When fixed, they form part of the sewer, they cannot be improperly placed, and a certain and proper fall is secured at the point where the junction is made.

THE PATENT JUNCTION BLOCKS MAY BE FITTED WITH METAL FLAP-TRAPS IF REQUIRED.

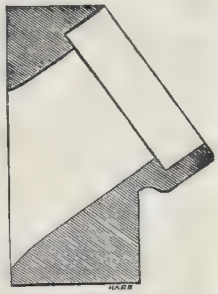


Egg-shape Sewer, with DOULTON'S PATENT JUNCTION AND INVERT BLOCKS

Section of STRAIGHT JUNCTION BLOCK.



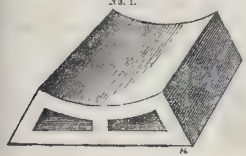
JUNCTION BLOCK as fixed in Sewer.



Section of OBLIQUE JUNCTION BLOCK.

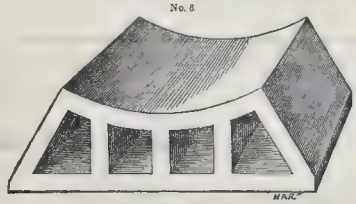
DOULTON'S INVERT BLOCKS, in stone ware, form a glazed, even, and imperishable surface for the bottoms of brick sewers, and also a sure foundation for the structure. They have been used extensively by the Metropolitan and City Commissioners of Sewers, and for the main sewers in many provincial towns, and in all cases have been highly approved by the engineers, both for the facilities they offer in the construction of sewers, and for their subsequent action in permitting an easy and uninterrupted flow of the sewage matter. They offer the means for carrying off all superfluous water while the sewer is in course of construction, and when required give a channel for land drainage independent of the sewage.

No. 1.



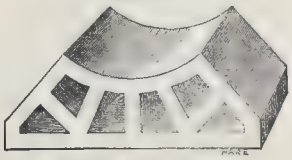
Radius of Invert 9" for 18" Circular Sewer, or 3 ft. 9in. by 2 ft. 6 in. Egg-shape. 4½ in. work.

No. 6



Radius of Invert 15" for large Egg-shape Sewer. 9 in. work.

No. 5



Radius of Invert 9" for 3ft. 9 in. by 2ft. 6 in. 6 in. work.

A full description, with sizes and kinds of both Junction and Invert Blocks, forwarded on application, per post.

DOULTON AND CO.'S CLOSET PANS AND TRAPS, IN ENAMELLED STONE WARE, WHITE INSIDE, 7s. 6d.

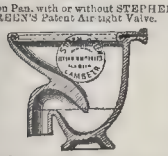
DOULTON'S HALF SOCKET DRAIN PIPES,

BY THE USE OF WHICH, PIPES MAY BE REMOVED, THE DRAIN EXAMINED, AND JUNCTIONS INSERTED WITHOUT INJURY TO THE TUBES, THE SAME PRICE AS ORDINARY SOCKET PIPES.

For List of Agents, see "Builder" of November 18. Drawings, with prices, forwarded on application.

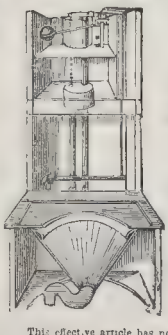
Superior Glazed Stoneware Pipes, Bends Junctions, Traps, &c., Ropeyand other Pans, with best White Glazed Inside.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin, the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Selfacting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

TO ARCHITECTS, SURVEYORS, PLUMBERS, BUILDERS, &c.

HAYWARD TYLER and CO. No. 85, Upper Whitecross-street, St. Luke's, ENGINEERS, PLUMBERS' BRASSFOUNDERS, and Sole Manufacturers of "M'Gonnel's Registered Model Water-closet." This water-closet is the most simple and efficient yet introduced for high services, and for fixing without the usual service-box, cistern-work, &c. From its construction all possibility of external leakage is prevented.—A sinkram of the above may be had on application, or the closet inspected, at the Manufactory, as above.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers. Sole Agents, L. B. PEARSE and Co., Great Northern-wharf, York road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from £3, and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

SALES BY AUCTION.

TO SHIP-BUILDERS, TIMBER-MERCHANTS, AND OTHERS.—Dunton-green, near Sevenoaks, Kent

MR. WILLIAM HODSOLL will SELL by AUCTION, at the ROSE and CROWN Inn, Dunton-green, on FRIDAY, JANUARY 19, 1855, at THREE o'clock, by order of the proprietor, John Wreford, Esq. 158 superior OAK TIMBER TREES, of large dimensions, standing on the Brighton Estate, in the parish of Otford. The timber is of excellent quality, and is approximate to the high road from London to Sevenoaks. May be viewed on application to JESSE BROOKS, at Broughton House, Riverhead; and catalogues may be had at the principal Inns in the neighbourhood, at the Place of Sale, and of the Auctioneer, Farningham, Kent.

MOST ELIGIBLE BUILDING INVESTMENTS.—Borough of Dorchester. TO BE SOLD BY AUCTION, in lots, by

MESSRS. BAKER and ENSOR, at the GUILDHALL, on WEDNESDAY, 31st JANUARY, 1855, at ELEVEN o'clock in the forenoon (subject to such conditions as will be then and there produced), all that PIECE or PARCEL of PASTURE LAND, known as, and being part of, Wollaston Field, within the said borough, containing about 4a. 2r. 23p. situate on a gentle slope, and admirably adapted for building purposes. This land is the property, in possession of the Corporation of Dorchester, and it is intended, with the approval of the Lords Commissioners of Her Majesty's Treasury, to offer the same for sale in lots, for absolute terms of nine [illegible] years, subject to certain fixed ground rents, and to the obligation on the part of the several purchasers, to build a dwelling-house, with offices and outbuildings thereon, according to certain plans, elevations, and specifications, which will be prepared by the Corporation. The houses and [illegible] proposed to be erected will be of several classes, so as to meet the growing requirements of the town, and from the well known fact of house property generally in Dorchester being far more valuable than that of any other provincial town, no reasonable doubt can be entertained that such a building speculation as that now offered to the public will be highly remunerative. The plans, elevations, and specifications above referred to, together with the conditions upon which the auction will be held, and a draft of the proposed leases may be seen on application to Mr. HENRY HALL, of No. 61, Thornhill-square, Islington, London, or to Mr. SYMONDS, Town Clerk of Dorchester, on and after the 2?th day of JANUARY, 1855.

Dorchester, 21st Dec. 1854.

TO BUILDERS, CONTRACTORS, AND OTHERS.—500,000 capital BRICKS, to be SOLD by AUCTION, by

MR. GEORGE DOUGAL (in conjunction with Mr. BOYCE, of the York-road), on THURSDAY next, JANUARY 18th, at TWELVE, in the FIELD Railway Siding, Railway Station, Wimbledon, Surrey, in lots suited for purchasers.—Catalogues forwarded free on application to the Auctioneer, 54, York-road, Lambeth, and of Mr. DOUGAL, Westminster-road.

Jordan's Patent Wood Carving Works, Belvidere-road, Lambeth, close to the Hungerford Suspension-bridge.—Immense Stock of valuable Carvings and Timber, including a quantity of Dry Oak and Wainscot.

MESSRS. OXENHAM and SONS will SELL by AUCTION, on the PREMISES, on MONDAY, JANUARY 29th, and following days, at ELEVEN for TWELVE punctually each day, the immense stock of CARVINGS, principally in oak, and consisting of a magnificent chancel screen, [illegible] for the Great Exhibition of 1851; altar chairs and tables, reading desks, Glastonbury chairs, stall ends, drapery tracery and figure panels, friezes, pilasters, mouldings, [illegible], quatrefoil tracery, [illegible] and [illegible] heads, Elizabethan and [illegible] chair frames, an immense quantity of [illegible], brackets, and cabinet carvings of every description, [illegible] tets, cheese dishes, [illegible], chimney-piece fittings, [illegible] arms, and a great variety of useful and ornamental specimens; also the stock of TIMBER, including about [illegible] feet of [illegible] dry oak in planks and board, also walnut, cedar, mahogany, lime, sycamore and pear tree, a quantity of deals, cabinet-makers' and joiners' benches, large quantity of [illegible], suitable for builders and [illegible], and numerous effects. May be viewed the Friday and Saturday antecedent and mornings of sale; and catalogues had also at Messrs. OXENHAM'S Offices, [illegible] Oxford-street, near the Pantheon.

N.B. Messrs. OXENHAM are authorised to dispose of, by private contract [illegible] stone carving and [illegible] machinery, either together or separately, also the lease of the very desirable premises, with [illegible] power steam engine, and right of landing goods from the Thames through the adjoining wharf.

RIVER WEY NAVIGATION.—TO BE SOLD BY AUCTION, in the month of FEBRUARY or MARCH next, under an order of the High Court of Chancery, in a cause of "Langton v. Langton," unless previously disposed of by Private Contract, of which Notice will be given, One Moiety of the Navigation known as the River Wey, running from the Thames at or near Weybridge, to the [illegible] at [illegible], in the county of Surrey; One Moiety of the Toll of 2½d. in every 4 received on the Gross Tonnage; One-fourth of the [illegible] or Toll of [illegible] and eleven 22nd Parts of the Toll of [illegible]. The [illegible] may [illegible] purchase [illegible] comprises the entire of one moiety of the navigation and the tolls and profits thereof, and produces on the average [illegible] about [illegible] a year. [illegible] apply to Messrs. [illegible] and GIBBONS, of No. [illegible], Great James-street, Bedford-row; Messrs. [illegible], and [illegible], of No. 1, Bedford-row; Messrs. [illegible] and SON, of No. 3, Verulam-buildings, Gray's-inn; and Messrs. H. and N. [illegible], of No. [illegible], New Inn, Strand, London.

NOTICE OF SALE.—To Contractors, Builders, Cabinetmakers, Coachmakers, [illegible], and Others.

MESSRS. WILSON and ASHTON beg most respectfully to inform the public [illegible] in general, that they intend selling by PUBLIC AUCTION, on MONDAY, the [illegible] of FEBRUARY, 1855, a [illegible] of FOREIGN TIMBER [illegible] and pine deals and battens, about [illegible] square [illegible], 18 logs of Baywood and a quantity of St. Domingo [illegible], 2 logs of Rosewood, 15 logs of birdseye maple, 10 logs of Havannah cedar, and about [illegible] wood spars. Also a large quantity of mahogany, rosewood and maple veneers. A quantity of wheelwrights' materials, consisting of shafts and felloes, axletrees, oak and ash planking, [illegible] boards. Also a quantity of [illegible] building materials, consisting of doors, windows, [illegible], and boilers, grates, chimney pieces, &c. The whole will be arranged in lots for the convenience of purchasers. Descriptive catalogues will be ready in a few days. The above timber having been purchased at a time when markets were ruling low, will be found to offer advantages to purchasers rarely to be met with.—The whole of the above timber is lying [illegible] to the Manchester, Sheffield, and Lincolnshire and Great Northern Railways, and the Chesterfield Canal.

*** Approved bills at two months will be taken for all purchases exceeding [illegible].

TO MARBLE MASONS, SCULPTORS, BUILDERS, AND OTHERS.

MR. MARSH has received instructions to SELL by AUCTION, on the PREMISES, No. 8, North Wharf, Paddington, on THURSDAY, JANUARY 25th, at TWELVE o'clock, the STOCK of MARBLE ... Slabs, consisting of Sicilian, Veined, Black, and Statuary, varying from ⅜ of an inch to 3 inches in thickness. Approved bills will be taken.—May be viewed the day prior and morning of sale; and catalogues obtained on the Premises, and at Mr. MARSH'S offices, 2, Charlotte-row, Mansion House.

TO BUILDERS, CARPENTERS, PIANOFORTE-MAKERS, TURNERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, Edward-street, Regent's-park, on TUESDAY, JANUARY 23rd, at ELEVEN for TWELVE o'clock, on account of the number of lots, a large quantity of Yellow, White, Pine and Spruce Planks, Deals and Battens, Veneers, Mahogany, Rosewood, Sycamore, Walnut, Beech, and Limetree, Scantling, Slating Battens, Laths, Builder's Cart, Fifty four-panel Doors, Prepared Yellow and White Flooring, Dry cut Stuff, &c. &c. May be viewed the day before the Sale, and Catalogues had at the Auction Offices, Cardington-street, Hampstead-road, near the Euston Station.

SALES BY AUCTION.

TO BUILDERS, CONTRACTORS, &c.—The valuable Stock of a Brickfield at Claygate, one mile and a half from the Esher Railway Station, and within three miles of Wharfage on the Thames.

MR. JOHN DAWSON will SELL by AUCTION, upon the PREMISES (Mr. Alderton's Brick and Tile Works, Claygate), on THURSDAY, 25th JANUARY, 1855, at ELEVEN o'clock, in usefully-apportioned lots, about [illegible] BRICKS of various kinds, viz.: grey and rough stocks, rough stocks and place, 80,000 radiated bricks for sewers, paving-bricks, 10 and 12 inch paving-tiles, plain and ridge tiles, drain-tiles and land drain-pipes, &c. To be viewed during a few days before the auction. Catalogues, on the premises; and at Mr. JOHN DAWSON'S Offices, Kingston-on-Thames, and Marlborough-chambers, 49, Pall-mall.

LAND in the FINCHLEY NEW-ROAD TO BE LET, on building lease. This beautiful plot of ground has a frontage of 400 feet, and a depth of 2?0 feet. It is situated in the most pleasant road in the environs of London, elevated so as to command one of the finest prospects in Middlesex, yet comfortably sheltered from the east by Hampstead-hill. [illegible] from the Swiss Cottage.—For particulars, apply to R. L. ROUMIEU, Esq. 10, Lancaster-place, Strand.

BUILDING-GROUND, BRIGHTON.—TO BE LET, a very eligible FRONTAGE for THREE or FOUR HOUSES in Broad-street, immediately contiguous to the Marine-parade and Chain-pier, where houses are much in request. Full particulars and terms may be obtained of Messrs. LOCKWOOD, Surveyors, No. 41, Upper Baker-street, London.

TO BUILDERS AND OTHERS.

TO BE LET, on lease, a capital DWELLING-HOUSE, with commodious Carpenters' Workshops, Drying Sheds, &c. in the rear, situate in Upper Camden-place, Peckham.—For particulars, apply to Messrs. F. and F. EDWARDS, Architects, No. 17, Hart-street, Bloomsbury; Mr. FIELD, No. 11, Upper Camden-place, Rosemary Branch-lane, Peckham; or on the Premises, which can be viewed on application.

TO BUILDERS, FREEHOLD LAND SOCIETIES, AND OTHERS.

TO BE LET, on building lease, for a term of ninety-nine years, or SOLD, about THREE ACRES of FREEHOLD LAND, peculiarly adapted for the erection of third and fourth rate houses, and situated about 1½ miles from Westminster-bridge, in a locality where dwelling-houses of the class contemplated are much in request. Leases granted direct from the freeholder. Also, a detached VILLA, adjoining the above, containing ten rooms, with stable and [illegible] and about half an acre of garden, at present let to a highly respectable tenant, [illegible] separately or in connection with the above.—For particulars apply to Messrs. WEHNERT and ASHDOWN, Architects, 12, Charing-cross.

FREEHOLD BUILDING GROUND TO BE LET or SOLD.—TEN ACRES, twenty-five miles from town, two and a half miles from the Horley and Three-bridges station (Brighton line); a loop line to East Grinstead, nearly completed, with a station at a convenient distance, which doubles its value; near two [illegible] of good class [illegible]; view and situation delightful; soil good. Brick earth is [illegible], bricks are making not far distant [illegible], [illegible] 6d. per foot, if let. Plans, &c. at the office of JOHN BURGES WATSON, Esq. Architect, 9, Nottingham-place, New-road, Regent's-park.

HARROW-ON-THE-HILL.—LAND TO BE LET for building, close to the school. Houses are in great [illegible], as residents have the privilege of the school. Free tickets, first class, by rail to London, for eleven years.—Address [illegible], Berners-street, Oxford-street.

ST. JAMES'S SQUARE, NOTTING-HILL. TO LET, a nine-roomed semi-detached HOUSE, No. 16, [illegible]. Apply to Mr. JAMES BARNETT, Surveyor, [illegible].

FREEHOLD BUILDING-GROUND, KILBURN.—TO BE SOLD, a plot of FREEHOLD BUILDING-GROUND, 80 feet frontage by [illegible] feet in depth, for five houses. Apply to JAMES BOUTELL, 8, George-court, Piccadilly.

WHARF and PREMISES TO BE LET, with immediate possession, about [illegible] feet frontage to the Thames, with [illegible], suitable for an engineer or founder or other manufacturer [illegible], with or without steam power. [illegible] can lie [illegible] alongside. Apply to WILLIAM BEECH, Globe Dock, Rotherhithe.

TO BE LET, 23, HOLDERNESS WHARF. Every convenience from the canal.—For particulars, inquire at the Premises, [illegible], [illegible] row road.

MESSRS. POOLE and COMBS, Auctioneers, Valuers, and Estate Agents, 79, Bishopsgate-street Within, London. The following property to be disposed of by PRIVATE CONTRACT:—A valuable Plot of FREEHOLD LAND at [illegible], Kent; a valuable Plot of FREEHOLD LAND at [illegible], Middlesex; [illegible] HOUSE and SHOP, and one private DWELLING-HOUSE [illegible] street, St. Pancras, an excellent Leasehold INVESTMENT, two Leasehold Private DWELLING-HOUSES [illegible], valued [illegible], and two [illegible] DWELLING-HOUSES, Leasehold, at Dalston.—For further particulars, apply as above. Office hours from Ten till Four o'clock.

MESSRS. POOLE and COMBS, Auctioneers, Valuers, and Estate Agents, 79, Bishopsgate-street Within, London. The following valuable property to be Sold by PRIVATE CONTRACT:—Three Leasehold HOUSES and SHOPS, and [illegible] private DWELLING-HOUSES at Deptford, Kent; an eligible Plot of FREEHOLD BUILDING LAND, at Hornsey Rise, Middlesex; an exceedingly valuable LEASEHOLD ESTATE, at Lewisham, Kent, consisting of three private Dwelling-Houses, one leasehold House and Shop, and two private Dwelling-Houses, Lower-road, Islington; an excellent Plot of FREEHOLD BUILDING LAND, at Kingston, Surrey, to be Let or Sold.—For further particulars apply as above.

Messrs. P. and C. have other property for Sale; the description of which can be had upon application.

Cash can be obtained upon good property to any amount. Persons having Land or Houses for Sale can forward particulars of the same; no charge made only when a sale is effected, and then very moderate.—Office hours from Ten till Four o'clock.

THE CONSERVATIVE LAND SOCIETY. The OLD FORD ESTATE, in the parish of ST. MARY, STRATFORD-LE-BOW, Middlesex, within the Borough of the Tower Hamlets.—This valuable Estate will be ALLOTTED at the Offices, No. 33, Norfolk-street, Strand, London, on WEDNESDAY, the [illegible] of JANUARY. The Old Ford Estate has a frontage on the Old Ford and Bethnal Green Roads, a frontage to a new road on one side, and a footpath called the Old Roman Road on the other. It is within [illegible] yards of Victoria Park, and not far from Sir George Duckett's Canal. It is about one quarter of a mile from the Station of the Eastern Counties Railroad, and three-quarters of a mile from Bow Church. Building operations have been going on for some time in the vicinity of the Estate, and as fast as the houses are built they are inhabited. The Chelsea and Bethnal Green Omnibuses run twelve times per day as far as the Estate, at 4d. fare to the Bank. The allotment of the land is divided into one plot of 1,000*l.*; four of 150*l.* each; one of 200*l.*; three of 1?0*l.* each; three of 9?*l.* each; fifteen at 75*l.* each; and one hundred and sixty plots of 3?*l.* each.—For information as to Rights of Choice on the Estate, apply to

CHARLES LEWIS GRUNEISEN, Secretary.

NEW METROPOLITAN CATTLE-MARKET.—PUBLIC-HOUSE to be LET.—The Markets Improvement Committee will meet at Guildhall, on FRIDAY, the 19th of JANUARY instant, at TWELVE o'clock precisely, to receive TENDERS for the BUTCHERS' ARMS PUBLIC-HOUSE. Tenders must be sealed and endorsed "Tender for Public-house." The Committee do not bind themselves to accept the highest Tender. Plans may be viewed, and particulars obtained, at the Architect's Office, Guildhall, any day (Sundays excepted), between the hours of TEN and FIVE.

MEREWETHER.

NEW METROPOLITAN CATTLE-MARKET.—OFFICES and SHOPS TO BE LET.—The Markets Improvement Committee will meet at Guildhall, on FRIDAY, the 19th of JANUARY instant, at TWELVE o'clock precisely, to receive TENDERS for the OFFICES, Nos. 3, 7, and 9, in the centre building, and for the SHOPS in the north side of the new market. Tenders must be sealed up and endorsed, "Tender for Offices" or "Shops," as the case may be. The Committee do not bind themselves to accept the highest or any Tender, and reserve the right of letting any of the premises for the purposes of such business as they may deem most suitable.—Plans may be viewed and particulars obtained at the Architect's Office, Guildhall, any day (Sundays excepted) between the hours of TEN and FIVE.

MEREWETHER.

IMPORTANT to LANDOWNERS, BUILDERS, &c. desirous of quickly Disposing of Estates, without the publicity or expenses of an auction.—Apply to Mr. WILLIAM TAYLER, 1, Adelaide-place, London-bridge, Offices for Effecting Sales, Purchases, Mortgages, or Leases of Landed and House Property, on a very moderate commission. A printed form for furnishing him with the requisite particulars, and containing his terms, will be forwarded as directed on receipt of two postage stamps. Life Assurances effected in nearly all the Offices by his agency without extra charge to the assured, to whom the peculiar features of each Office will be explained, and much trouble saved. Office hours, Nine to Eight.

TO ENGINEERS, MILL-OWNERS, CONTRACTORS, AND OTHERS.

AUGUSTUS SMITH, Auctioneer, Valuer, &c. 255, Blackfriars-road, two doors from Holland-street, having had seventeen years' practice in the selling and valuing of all kinds of engines, machinery, lathes, mechanical and engineering tools, plants, &c. respectfully solicits a share of patronage in the above line. The most satisfactory references given if required, and all accounts settled the day after delivery; also a free registry kept of all engines, boilers, and machinery for sale by private contract.

A BUILDER having the command of about [illegible] may enter an ESTABLISHED BUSINESS in the west of England, doing to the amount of 8,000*l.* a year, with every prospect of a large increase.—Further particulars may be obtained of Mr. BROWNE, Solicitor, Swindon, Wilts.

Dated January 8, 1855.

A LARGE BUSINESS, with a district Patent Right for working the same, may be purchased at a small outlay. The extensive fixed plant, with two first-rate steam engines, all in perfect working condition, may be taken on lease for a term of years. A practical enterprising man, with some ingenuity and a capital of 2,000*l.* or 3,000*l.* would find ample scope for extending the business and the [illegible] to most profitable uses. This opportunity arises from a desire on the part of the proprietor to retire from business, and is such a one as seldom offers. Apply to A. Z. John Bennett, esq. Solicitor, 5?, Ludgate-hill, London.

TO CARPENTERS, BUILDERS, &c.—TO BE DISPOSED OF, in consequence of the declining health of the proprietor, an excellent JOBBING BUSINESS, established above fifty years, in a central part of the metropolis, near the waterside, and in the city of London, employing upon an average about thirty men. The premises consist of workshops, counting-house, timber yard, saw mill, stabling, &c.; well adapted for a first-rate business requiring accommodation for a large staff of men.—Apply to Messrs. HAMMOND and ELLOART, Estate Agents, &c. 2?, Chancery-lane.

TO BREWERS and DISTILLERS.—An old-established and valuable TOWN BREWERY TO BE DISPOSED OF, on advantageous terms (well adapted for a distillery), situated in Green-walk, Holland-street, Blackfriars, with private residence and tap-house. The plant comprises a twelve-quarter mash tun, twenty seven-barrel copper, and corresponding utensils. The plant to be taken at a fair valuation.—Apply to J. B. 33, Bankside, Southwark.

COMPETITION and other DRAWINGS COLOURED by an experienced Architectural Colourist, on [illegible] terms. Specimens produced.—Address to B. C. Sta[illegible], 4?, Theobald's-road, Bedford-row.

MATHEMATICAL DRAWING INSTRU[MENTS].—JOHN ARCHBUTT, 2?, Westminster Bridge-road, Lambeth, near Astley's Theatre, begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than [illegible] for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. A detailed price-list will be immediately forwarded, free, on application.

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London made instruments, and considerably cheaper.—Apply to Mr. S. BARLOW, [illegible] Thavies-inn, Holborn (between 1 and 3½ p.m.); or to Mr. H. B. BARLOW, Office for Patents, Ducie-place, Exchange, Manchester.

CRYSTAL PALACE DECORATIVE ARTISTIC PAINTING.—Messrs. [illegible] and KUCKUCK, Artistic Decorators to his Majesty the King of Hanover, and executors of the Byzantine Court, &c. Crystal Palace, Sydenham, most respectfully beg to invite the nobility and gentry to their NEW ARRANGED SHOW-ROOMS, with various specimens of interior decorations for churches, private and public buildings.—Apply at 58, Pall-mall, from Nine till Five o'clock. Show Rooms, Ground-floor.

PARTNERSHIP WANTED.—WANTED, by an Architect of some experience, a PARTNERSHIP, either in London or the south of England.—Address, A. B. care of J. Pearson, esq. Old Jewry-chambers.

PARTNERSHIP.—WANTED, PARTNER in a BUILDING and CABINET TRADE. Capital required, 3,000*l.*—Apply to Messrs. RYLAND and MARTINEAU, Solicitors, Birmingham; or to Mr. R. [illegible] PARKER, Solicitor, [illegible], Moorgate-street, London.

TO PROPRIETORS OF SAW-MILLS AND TIMBER MERCHANTS.

PARTNERSHIP.—The Advertiser, who has a powerful plant of machinery, about fifty miles from London, excellent premises, and ample room for conducting an extensive sawing and timber business, is desirous of meeting with a PARTNER. One acquainted with the timber trade or building would be preferred. Capital required about 400*l.* or 500*l.*—Address Mr. J. LEE, Engineer, Stonnall, near Walsall.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing office of COX Bros. & WYMAN, 74 & 75 Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, January 13, 1855.

The Builder.

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ADVERTISEMENTS.

THE ARCHITECTURAL EXHIBITION, and Collection of Patents, Manufactures, &c connected with Architecture, is NOW OPEN at the Galleries of the Society of British Artists, Suffolk-street, Pall-mall East. Admission, 1s.; Season Tickets, for students and others desiring to come frequently, 2s. 6d.; Catalogues, 6d.

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
JAS. LEMESTON, Jun. }

THE BUILDERS' BALL, in AID of the FUNDS of the BUILDERS' BENEVOLENT INSTITUTION, will take place at WILLIS'S ROOMS, St. James's, 8th of FEBRUARY, 1855.

COMMITTEE OF MANAGEMENT.

G. Bird, esq.	J. Newson, jun. esq.
J. Clapman, esq.	W. Norris, esq.
T. Cubitt, esq.	F. G. Teale, esq.
W. Ellis, esq.	J. Thorn, esq.
W. Hutchons, esq.	W. Todd, esq.
F. Lambert, esq.	R. Watts, jun. esq.

STEWARDS.

The Right Hon. Sir B. Hall, Bart. M.P.; Wm. Lee, esq. M.P.

T. Abbott, esq.	J. Godfrey, esq.	J. Sapwell, esq.
Stephen Bird, esq.	J. N. Helling, esq.	G. E. Sewell, esq.
J. Bird, esq.	W. Herbert, esq.	J. Seward, jun. esq.
J. Bull, esq.	R. J. Hickman, esq.	J. Sloper, esq.
T. E. Bulling, esq.	Joshua Higgs, esq.	J. B. Simpson, esq.
F. Brown, esq.	E. Humphreys, esq.	S. J. Stephens, esq.
J. Bulmer, esq.	T. Jackson, esq.	R. Scott, esq.
W. S. Burton, esq.	W. H. Jackson, esq.	J. W. Stringfield, esq.
W. H. Collins, esq.	H. Johnson, esq.	A. H. Stanbury, esq.
H. W. Cooper, esq.	A. Moore, esq.	J. Tyllott, esq.
J. G. Cooper, esq.	J. Morris, esq.	G. Vigers, esq.
W. H. Cullingford, esq.	G. Myers, esq.	H. Watkins, esq.
Christ. Eales, esq.	D. Nicholson, esq.	J. Wanstall, esq.
R. Forest, esq.	T. Peters, esq.	W. Williams, esq.
G. W. Fry, esq.	W. W. Rawlins, esq.	

Of whom tickets may be obtained; also of the Honorary Secretary, Mr. JOSEPH BIRD, 10, Hanover-cottages, Regent's-park; or at the Office of the Institution, 19, Southampton-street, Bloomsbury.

COMPETITIONS.

SHEFFIELD NEW SCHOOL OF ART.—To ARCHITECTS. The COUNCIL having decided on the adoption of the PLANS for the NEW SCHOOL, have determined publicly to exhibit the whole of the Plans in the Council Hall, Sheffield, on WEDNESDAY, the 31st instant, and the two following days. Any competitors objecting to the exhibition of their Plans, may withdraw them by application to the Honorary Secretary, on or before the 30th instant.

By order of the Council,
B. WIGHTMAN, Hon. Secretary.

Sheffield, Jan. 17, 1855.

TO ARCHITECTS.

£5 PRIZE, ABERYSTWYTH.—The Commissioners of this Town are desirous of obtaining DESIGNS for a CLOCK-TOWER, which they purpose erecting on a suitable site; the base not to exceed an area of 14 feet square, and the outlay limited to £600. The above prize will be given to the architect whose design and specification shall be approved of and selected. Unsuccessful competitors will receive no remuneration, but their drawings will be returned to them. Plans, &c. to be sent to me, the undersigned, before the 30th JANUARY, 1855.

W. L. THOMAS, Clerk to the Commissioners.

Laura-place, Aberystwith.

TO ARCHITECTS.

THE DIRECTORS of the BRIDGNORTH PUBLIC BUILDINGS and MARKETS COMPANY, are desirous of receiving DESIGNS and ESTIMATES for the ERECTION of PUBLIC BUILDINGS, to include accommodation for the butchers, fish, vegetable, poultry, butter, and other markets, a large room for lectures, and music, reading-room, and rooms for the sitting of the magistrates. A premium of £20, will be given for the most approved design, and £10, for the next best (the first not to be paid for the most approved plan, if the person drawing that plan should be employed as architect in the erection of the building). The plans and estimates must be delivered at the Office of Mr. GORDON, Solicitor, Bridgnorth, the Secretary, on or before TEN o'clock a.m. on SATURDAY, the 3rd day of FEBRUARY next, from whom a plan and section of the intended site may be obtained, together with any particulars that may be required, upon payment of one shilling.

COMPETITIONS.

DESIGNS WANTED.—PUBLIC PARK for EDINBURGH.—The Commissioners of Police for the City of Edinburgh being now prepared to lay out the "MEADOWS" as a PUBLIC PARK, in terms of the conditions of their lease, have resolved to request COMPETITION DESIGNS, with specifications and estimates of probable cost. A premium of £50 will be awarded for the design which the Commissioners may select as the best, and a premium of £20 for the second. The designs to be lodged at their Office on or before 1st MARCH next, each marked with a distinctive motto, and accompanied by a sealed letter address'd to the Clerk, containing the name of the competitor, and having reference to the design and its motto. A plan of the ground, and copy of the conditions of lease, may be had on application to the Clerk, who will also furnish any further information necessary. The Commissioners are not to be bound to adopt any of the designs furnished, but those selected for the premiums are to remain the property of the Commissioners. The other designs, &c. will be returned on application to the Clerk.

GEORGE MILNE, Clerk to the Commissioners of Police.

Police-chambers, Edinburgh, January, 1855.

CONTRACTS.

TO BUILDERS

TREGOTHNAN HOUSE, four miles from Truro, in the county of Cornwall.—The Drawings and Specification of work intended to be done in the ERECTION of LAUNDRY, STABLE, and COACH-HOUSE BUILDINGS, of considerable magnitude, near the above-named mansion, will be left for the inspection of the Contractors in the care of Mr. POOLE, the Clerk of the Works, on and after MONDAY, the 22nd instant. The quantities will be stated in the specification. Sealed Tenders must be delivered, free of cost or remuneration, before TWELVE o'clock on the 30th instant, to the care of Mr. POOLE. The lowest Tender, or either of the Tenders, will not necessarily be accepted.—Tregothnan House, Jan. 4th, 1855.

CARLISLE LOCAL BOARD of HEALTH. SEWERAGE WORKS.—To CONTRACTORS, EXCAVATORS, EARTHENWARE-PIPE LAYERS, and OTHERS.—The Local Board hereby give Notice that they are prepared to receive TENDERS from parties willing to undertake the following CONTRACT:—

CONTRACT No. 6.—For EXCAVATIONS, LAYING and JOINTING EARTHENWARE SEWER and DRAIN PIPES; also for the CONSTRUCTION of MANHOLES and LAMPHOLES, FIXING GULLIES, and for OTHER WORKS

The specifications and drawings may be examined, and forms of Tender, schedule and bills of quantities may be obtained, together with any further information required, on application at the Office of the Resident Engineer, 13, Buttermarket, Carlisle; or at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street, Westminster. Sealed Tenders to be delivered at the Office of the Local Board of Health Carlisle, before TWELVE o'clock on WEDNESDAY, the 31st day of JANUARY instant, endorsed "Tender for Contract No. 6."

Signed, ISAAC CARTMELL, Committee Clerk to the Board.

Carlisle, 17th January, 1855.

TO CONTRACTORS

WAVERTREE LOCAL BOARD of HEALTH. The Wavertree Local Board of Health are prepared to receive TENDERS for the CONSTRUCTION of SEWERS in Mill-lane and Olive-lane, at Olivemount, within the district of the Wavertree Local Board of Health, near Liverpool, according to plans and specifications prepared for that purpose, which may be inspected at the Office of Mr. ISAAC ATHERTON, Prince's-buildings, North John-street, in Liverpool, from this date until MONDAY, the 26th of JANUARY, where forms of Tender may be obtained on application. The Tenders must be sent in, with a schedule of prices attached, before FOUR o'clock p.m. of the 29th of JANUARY instant, addressed to "The Chairman of the Wavertree Local Board of Health, Public-offices, Wavertree, near Liverpool." The Board do not pledge themselves to accept the lowest or any Tender.

ISAAC ATHERTON, Law Clerk.

Prince's-buildings, North John-street, Liverpool, 9th January, 1855.

TO ENGINE MAKERS

THE TOWN-COUNCIL of the BOROUGH of LEEDS are desirous to receive TENDERS for the MANUFACTURE, ERECTION, and COMPLETION of TWO double-powered expansive STEAM PUMPING ENGINES, each of 100 horses power, together with Four Boilers, Two Double Acting Pumps, and other apparatus, to be fixed and applied at the new water-works at Potternewton, reconstructed near the Arthington Station of the North-Eastern Railway. Drawings and specifications may be seen at the Office of the Town-clerk, in Leeds; and at the Office of Mr. HAWKSLEY, Civil Engineer, 30, Great George-street, Westminster, and after the 31st instant at Leeds. Plans and Tenders must be delivered as in the said specification is mentioned, on or before TUESDAY, the 20th day of JANUARY inst. The Town-council do not pledge themselves to accept the lowest or other Tender.—By order,

JOHN ARTHUR IKIN, Town-clerk.

Leeds, January 11th, 1855.

TO ROAD CONTRACTORS.

THE DIRECTORS of the LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY are desirous of receiving TENDERS for GRAVELLING and FINISHING a certain portion of Road, called Parchmore-lane, on the "Beulah Spa Estate." Plans, specifications, and quantities may be inspected at the Office of the Society, 31, Highstreet, Borough, up to WEDNESDAY EVENING, the 24th inst. Tenders to be sealed by the secretary, on or before FIVE o'clock p.m. on THURSDAY, the 25th inst. endorsed "Tenders for Finishing a Portion of Parchmore lane, Beulah Spa Estate." The Directors do not bind themselves to accept the lowest or any Tender.

WM. BANKS, Secretary.

January 19, 1855.

CONTRACTS.

TO BUILDERS AND OTHERS.

SEALED TENDERS for the following SERVICES at Bull Point, viz.:—

1. Building Cottages for a Foreman, and Sixteen Labourers;
2. Building a Cookhouse and Wash house for the Crews of the two Powder Vessels, with Privy and Urinal;
3. Building an Office for the Ordnance Storekeeper;
4. Building a Civil Watch-house and a Shed for Waggons;
5. Building a Warder's Lodge and a Shoe-house;
6. Building an Engine-house;
7. Building a Boat-house;
8. Removing the present Wooden Filling and Examining-house at Kevham to Bull Point;

For SPECIFIC SUMS, will be received at the Ordnance Office, Pall-mall, London, on or before the 27th of JANUARY, 1855. Printed specimens of the above eight services, and every requisite information, may be obtained at the Royal Engineer Office, Bull Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from the 9th JANUARY next to the 26th JANUARY, both days inclusive.

Royal Engineer Offices, Devonport, 19th December, 1854

ORDNANCE CONTRACTS.—Notice is hereby given, that the Honourable the BOARD of ORDNANCE will receive TENDERS, on or before SATURDAY, the 10th of FEBRUARY next, for the Performance of such Work as may be required (by them) of the undermentioned trades, at York, Hull, Leeds, Bradford, and Pontefract, for three years, to commence from the 1st of April next:—

Bricklayers'	.. ..	Work.
Masons' and Paviors'	.. ..	do.
Carpenters'	.. ..	do.
Slaters'	.. ..	do.
Plasterers'	.. ..	do.
Plumbers'	.. ..	do.
Smiths'	.. ..	do.
Painters', Glaziers', and Paperhangers'		do.
Gas fitters' York only)	.. ..	do.

N.B. Parties are particularly required to observe, that it is more desirable to Tender for the whole of the trades at one place than for a part only; but the per centages must be separately stated for each trade.

Printed Schedules for the different trades, and forms of Tender, can be obtained on application at the Royal Engineer's office, 5, New-walk-terrace, York, the Barrack Office, Ottarie, Hull; the Barrack Office, Leeds Barracks; and of the Master Gunner, Scarboro' Castle, any day Sundays excepted, between ten and Four o'clock, until FRIDAY, the 9th FEBRUARY next.

Royal Engineer's Office, York, Jan 10, 1855.

CONTRACTS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, PALL-MALL, London, on or before THURSDAY, the 8th day of FEBRUARY, 1855, for the Performance of such of the undermentioned branches of Artificers' Work, for the Ordnance Department, at the following Stations in the MEDWAY DISTRICT, for a period of three years, from the 1st of APRIL, 1855, determinable at the end of any one year, on either party giving to the other three months notice in writing, viz.:—

At Chatham and its environs; Gravesend, including Tilbury Fort, Shorne Mead, and Coal House Point Batteries.

Plumbers'	Work,
Painters', Glaziers', and Paperhangers'	do
Smiths'	Work, &c.

At Maidstone

Carpenters'	Work, &c.
Bricklayers'	Work
Plasterers'	do
Slaters'	do
Masons'	do.
Paviors'	do.
Plumbers'	do.
Painters', Glaziers', and Paperhangers'	do.
Smiths'	Work, &c.

Separate Tenders to be made for Chatham and its environs; Gravesend, with Tilbury Fort, Shorne Mead Battery, together with Coal House Point Battery; and at Maidstone; as well as for the different trades; nevertheless, Tenders may be submitted for all the trades together in one Contract in each Station; printed Forms and Schedules of Prices of the several trades may be had at the Royal Engineer's Office at Chatham, Gravesend, and Maidstone Barracks, until the 7th day of FEBRUARY next, Sundays excepted, and no Tender will be received after the hour of noon of the 8th day of FEBRUARY, 1855. The Board of Ordnance reserve to themselves the right of rejecting any or all Tenders that may be presented.

Royal Engineer's Office, Chatham, Jan. 18, 1855.

TO PIPE-FOUNDERS

THE TOWN-COUNCIL of the BOROUGH of LEEDS is desirous to receive TENDERS for about three miles of 24-inch CAST IRON SOCKET-PIPES, and other Castings. Drawings and specification may be seen at the Office of the Town Clerk, in Leeds, and at the office of Mr. HAWKSLEY, Civil Engineer, 30, Great George-street, Westminster, on and after the ELEVEN th day of JANUARY instant, and Tenders must be delivered in accordance with the specification, on TUESDAY, the THIRTIETH day of JANUARY instant. The Town Council do not pledge themselves to accept the lowest or other Tender.

By order,
JOHN ARTHUR IKIN, Town Clerk.

Leeds, January 11, 1855.

TO BUILDERS.

PERSONS willing to TENDER for the ERECTION of a HOUSE, in carcase, on the Mount Albion Estate, at Ramsgate, may see the drawings and specifications and conditions, at the Office of Mr. LEWIS CUBITT, Land Steward, square, London, on and after the 23rd inst. between the hours of TEN and THREE o'clock, and Later Copies of the five contract lots of the quantities. Tenders to be delivered by TWELVE o'clock on THURSDAY, the 1st FEBRUARY next. The lowest Tender may not necessarily be accepted.

[For remainder of Contracts see next page.

CONTRACTS.

PARISH of ST. PANCRAS (South-western District).—To PAVIORS, MASONS, SCAVENGERS, DUSTMEN CARMEN, &c.—SALE by WRITING, and SUPPLY of MATERIALS, &c.—The Commissioners for Paving, &c. this District, will receive TENDERS for the SALE of the FEBRUARY next, at their Board room, 3, Hobart-street, Regent-square, at SEVEN o'clock precisely, for TWO SEPARATE PROPOSALS for the above-named works. For further particulars and for all forms of Tender to be had, apply to Mr CUNNINGHAM, Surveyor at the Office as above, between NINE and TEN o'clock each day (except on the Commissioners not choosing themselves to accept, of the Lots of Tender. By order of the Commissioners, ROBT CUNNINGHAM

Jan 31st, 1855

TO BUILDERS AND OTHERS.

TENDERS are required for the ERECTION of the HOUSE at Bell-road, Rectory-grange, at Heard Hemel-stead, Herts. The drawings, specification, and conditions may be seen at the Office, No. 47, TEMPLE-STREET, until 2nd JANUARY, at the office of Mr GEORGE LOW, Architect, 1, Church-court, Clements-lane, City; and on and after the 2nd JANUARY, at Mr PRIOR'S, Rectory-grange, Heard Hemel-stead. The Tender must be addressed, sealed, to the Committee at the Rectory, Heard Hempstead, on FRIDAY, the 2nd JANUARY at TWO o'clock precisely.

TO BUILDERS AND OTHERS.

MORTUARY CHAPELS, &c. &c. ELY, CAMBRIDGESHIRE.—NOTICE is hereby given, that the Burial Board of the Parish of Ely, in the county aforesaid, will, on THURSDAY, the 29th day of JANUARY instant, and afterwards at my office in Ely, from the Morning of MONDAY, the 22nd, to the Evening of WEDNESDAY, the 31st of January, when the Tenders are to be opened, Contractors are to be present, or their representatives, if they desire to attend, and the Board may require, but the Board do not pledge themselves to accept the lowest or any of the Tenders. Ely, January 12th, 1855.

By order of the Board

WM MARSHALL, Clerk.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 23rd day of JANUARY inst. at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING the following works, viz.: 300 feet in length, or thereabouts, of BRICK SEWER, with other works in connection therewith, in Jermyn-street, Poultry-street, Foulbank, in one length, 127 feet in length, or thereabouts, of IRON PIPE, with other works in connection therewith, in extension of the Battle-bridge Sewer, Millbank-row, Great Peter-street, and for the maintenance of such works in complete repair for 12 calendar months. Plans, sections, and a specification of the above works, with the Scale of Tenders, may be inspected, and other particulars obtained, at the Principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE and FOUR, but not the days named. The Commissioners do not bind themselves to accept the lowest or any Tender, and no party whose Tender may be accepted will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No 1, Greek-street, Soho-square,
Date 1 this 18th day of January, 1855

ST. MARGARET'S MANSION, near Richmond, late in the possession of the EARL of KILMOREY. The Executive Committee of the Conservative Land Society are now open to OFFERS for the magnificent MANSION, with the whole or any portion of the land attached, including the river frontage. For plan and particulars of sale, apply to G. MORGAN, Esq. the Surveyor, at the Offices, 34, Norfolk-street, Strand. Cards to view the Mansion and grounds may be had on application to CHARLES LEWIS GRUNDISEN, Secretary.

A few of the elm-like 120 oak-trees fronting the ornamental gardens, to be open for selection on the best allotted portion of the St Margaret's estate, on which building operations have already commenced.

LONDON and NORTH-WESTERN RAILWAY.—CONTRACT for PERMANENT WAY MATERIALS.—The Directors are prepared to receive TENDERS for the supply of the undermentioned Materials:—

15,000 Fish Plates
250 Tie-stop-keys
100 Tons Bolts and Nuts.
100,000 Sleepers

Specifications, with particulars, may be obtained on application to Mr. WOODHOUSE, at the Permanent Way Office, Railway Station, Stafford.

Tenders addressed to the Secretary at this Office, to be sent in on or before WEDNESDAY, 7th FEBRUARY, 1855.

By order,
CHAS. I. STEWART, Secretary.

Secretary's Office, Euston Station,
31st January, 18.

TO BRICKMAKERS.

THE DIRECTORS of the LONDON DOCKS MEAN to CONTRACT to receive TENDERS for the SUPPLY of EIGHTEEN or TWENTY MILLIONS of SPANISH BRICKS, to be supplied from the following neighbourhoods:—Copley, Hertford Grays, or the River Medway. Copies of the specification and form of Tender may be had upon application to Mr A. T. ANDREWS, Resident Engineer, at the Office of Works, Lower-shad, Rotherhithe, where Tenders are to be left at Brick House, No. 9, Billiter-buildings, London, on or before the 2nd day of JANUARY, 18.

Lon. Dock House, 10th January, 1855.

THE CHARLTON BURIAL BOARD are prepared to receive TENDERS for the ERECTION of TWO CHAPELS and a LODGE on their New Burial Ground. The Estimates are to be delivered on the ground on the 31st inst. Architect, Mr SAMUEL HEWLETT, M. Inst. C.E., Southwark. Tenders to be sent to Mr. E. L. BURNETT, Clerk to the Board, Charlton, by which day or not later than MONDAY, the 5th day of FEBRUARY next, at FOUR o'clock. The Board do not pledge themselves to accept the lowest or any Tender.

January 16, 1855.

E. L. BURNETT, Clerk.

STOURBRIDGE WATERWORKS COMPANY.—To IRONFOUNDERS, ENGINEERS, and BUILDERS.—The Company are prepared to receive TENDERS from any parties who may be willing to undertake either or all of the following contracts:—

No. 1.—For about 500 TONS of CAST-IRON PIPES, from 9 to 2 in. diameter, Sluices and irregular Castings, and for laying the same.

No. 2.—For a 35-horse PUMPING ENGINE, with boiler and pumps complete.

No. 3.—For ENGINE and BOILER HOUSES, COTTAGE ROOFWORK, RESERVOIRS, and SHAFT and BRICKWORK.

The plans may be inspected, and specifications and bills of quantities obtained at the Office of Mr. HENRY MARTEN, C.E. Wolverhampton, on and after MONDAY, the 15th inst. Sealed Tenders to be sent in on or before THURSDAY, the 25th inst. addressed as below. The Directors do not pledge themselves to accept the lowest or any Tender.

By order,
JOHN H. RICHARDS, Secretary.

Waterworks Office, High-street, Stourbridge, Jan. 1, 1855.

CONTRACTS.

TO BUILDERS.

BURY ST. EDMUND'S CEMETERY.—The Burial Board are prepared to receive TENDERS (in one sum for the whole of the Works) for the ERECTION of the CHAPELS, PORCH, ENTRANCE-GATES, &c. IRON FENCING and other Works connected therewith. Plans, sections, and specifications may be seen at the Clerk's Office, No. 5, Hatter-street, Bury St. Edmunds; and duplicates of the same at the Offices of Messrs. COOPER and PECK, 1, Furnival's-inn, London, on and after the 22nd inst. Sealed Tenders to be sent to the Clerk (with Deposit) on or before 12th FEBRUARY next, at TWELVE o'clock at noon, indorsed "Tender for Cemetery Works." The Board will require ample security for the performance of the contract, but do not bind themselves to accept the lowest or any Tender, unless perfectly satisfactory.

JOHN WILSON, Clerk to the Board.

2, Hatter-street, Bury St. Edmunds, Jan. 16, 1855.

TO BUILDERS, ROAD CONTRACTORS, AND OTHERS.

PADDINGTON, MIDDLESEX.—The Burial Board of the Parish intend to enter into CONTRACTS for the SUPPLY of TWO CHAPELS, LODGES, BOUNDARY WALL, ENTRANCE-GATES, IRON RAILING, &c. for forming the Roads and Paths, and to drain the Ground which comprises Twenty-seven acres, or thereabouts, and are prepared to receive TENDERS for the EXECUTION of such WORKS. Tenders, specifications, and conditions of contract may be seen at the Vestry Hall, Harrow-road, on any day between the hours of TEN and FOUR o'clock. Sealed Tenders to be delivered at the Vestry Hall aforesaid, and left at the Vestry Hall aforesaid, on or before THURSDAY, the 15th day of FEBRUARY next, at which time Tenders will be opened, in the presence of such of the parties Tenderers as may attend. The Board do not bind themselves to accept the lowest or any Tender.

By order of the Board,
FRED. AVELING, Clerk to the Board.

Vestry-hall, 12th January, 1855.

TO BUILDERS.

TENDERS are required for the ERECTION of FARM BUILDINGS and COTTAGES at Harlow, in the county of Essex. The drawings and specifications of the works can be seen on application to CHAS. BARNARD, Esq. at Harlowbury, Farmhouse, near the Harlow Station; and any further information obtained at the Office of Mr J. F. CLARK, Architect, Newmarket. Tenders are to be delivered on SATURDAY, the 3rd of FEBRUARY next, and will be opened in the presence of parties tendering. The lowest or any Tender will not necessarily be accepted.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from 4 inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Deal Planks, Battens, Scantlings, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONDS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal support bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price-list and illustrations forwarded on receipt of 13 letter, enclosing six postage stamps, the cost of postage.—Steam Works, 29, South Wharf-rd, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings. A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

MOULDINGS by MACHINERY at REDUCED PRICES. ARCHBUTT and ATKINSON beg to inform their customers that the 30 per cent. advance hitherto charged upon the prices in their list is now removed. Seasoned flooring at extremely Low prices. St. Pancras Saw Mills, Cambridge-street, Old St. Pancras road.

ACORN TIMBER WHARF, Canal-bridge, Old Kent-road. RICHARD MAY respectfully thanks the building public for the patronage and support he has received during the past year, and solicits a continuance of those favours, and an inspection of the well-selected Stock of Timber, Deals, Planks, and Battens, which are now for Sale at the lowest remunerative prices for cash.

The above Wharf has Sawmills, fitted with the improved machinery, and the Drying Warehouses, enable him to keep a large Stock of Dry prepared Floor-boards, Matchboarding, and Cut Deals and Planks, ready for immediate use.

40,000 Planks, Deals, and Battens.
Prime Fir Deals, Battens, and Planks, Dry from the Pond.
Well-Prepared Flooring and other Boards.

All kinds of English Oak, Elm, and Ash Planks, Boards, and Scantlings, Plasterers' Laths, Mouldings, and Deal Laths, on Sale.

A Monthly Price-Current published, and will be forwarded on application.

N.B. Timber Goods received for Sale on Commission, Landed, Warehoused, Sawn, and Carted.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully begs the attention of builders, and others, to the following Reduction of PRICES, SPECIAL to LILLOW DEALS, MAHOGANY, &c. &c.

Deal Planks, 12 ft. 3 in. by 11 in.	from 4s.	each.
Spruce Deals, 12 ft. 3 in. by 9 in.	" 1s.	6d. "
Yellow ditto, 12 ft. 3 in. by 9 in.	" 4s.	3d. "
Selected Prussian	" 2s.	6d. "
Venetian Bed Planks	8s.	per bundle.
Seasoned Mahogany	8d.	per foot.
Honduras ditto	7d.	"
Wainscot Ditto	3d.	"

Veneers and all kinds of every description at equally low prices. Bar-road, South-wark, and Elm-street, Gray's-inn-lane.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned Timber, Deals, Mahogany, and MATCH BOARDING, of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine-out Stuff, Sawing, Battens, Pantile Laths, Oak Plank, 8s. h. Oak, &c. Lumber of all kinds, Planks, Deals and Battens, fitted from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

STAINS for DEAL and OAK WOODWORK.—J. M. MARSHALL, Upper Parliament-street, Nottingham, having during the last ten years been extensively employed in preparing the ORIENTAL and OAK BOARDING, is now enabled to commence manufacturing for sale his unrivalled STAINS at the following prices.

No. 1.—Imitation Oak Stain, 6s per gallon
Nos. 2, 3, and 4. Walnut, Mahogany, and Satin Wood, 7s 6d. per gallon.
No. 5. An extra reddening rich stain for renewing the appearance of polished work, 7s per gallon

Ample directions are given so that the most inexperienced may apply them. Agents wanted.

TO FANCY-WOOD MERCHANTS.

VENEER CUTTING-MACHINE (by knife only), by which process double the number of veneers can be produced to any thing by the ordinary machine.—For specimens of work and particulars of price, apply to J. CHACK, Sole Patentee, Veneer Cutting Works, 34, Robert-street, adjoining the King's-road Sawmills, Chelsea.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, 1a, Wardle Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS. Messrs. HOBBS, ASHLEY, and CO. are now Manufacturing from a Patent AMERICAN and ENGLISH PATENT LOCKS in their extensive Machinery on the Premises, CHESHUNT, Herts, and 16, WARDOUR-STREET, Soho. Messrs. H. and Co. are the introducers of their Steam Machinery to the Lock-making trade. A fine SECURITY, and SUPERIOR WORKMANSHIP, at price low enough to make their Locks reduced either in Town or Country, in addition to which, they are applicable to all purposes for which Locks are used.

Every Lock being made and finished at the Manufactory bears their own stamp, and is warranted, without which none are genuine. These Locks can be procured by order through any respectable Ironmonger in the Kingdom.

WHOLESALE and RETAIL WAREHOUSE, 57, CHEAPSIDE. Manufactory, 31, Lawrence-lane, London.

P.S. Depôt for Milner's safes. PUBLIC BURGLAR-PROOF SAFES, fitted with Hobbs's Patent Locks.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Iron, Steep, Brass, Fancy, Japan, Parliament, Door, Cupboard, and Box, Patent Locks of all the newest Forms, Glass, and Wood Furniture, of all Kinds, with Locks, including Studies, Dr. Arnott's Venetator, &c. and the new Registered Venetian Ventilator, so much admired, &c. &c. &c.

J. H. BOOBYER (late STURGE and BOOBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of useful inventions, at the present state of the art, perhaps it can scarcely be surpassed."—*Standard*.

Depôt: 181, FLEET-STREET: where also may be had PRICE'S FIRE-PROOF SAFES, &c.

COPYING PRESSES, CASH and DEED BOXES.

Lists and Prospectuses free.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,

63, 64, 65, WYCH-STREET, Strand
Illustrated Price Lists on application.

HANDSOME CAST-IRON VERTICAL STAIRCASE for SALE. To be seen by applying at FREDERICK BROWNE'S, 47, Fenchurch-street, City.

TO ENGINEERS and FOUNDERS, requiring quantities of Pig Metal, or Others seeking a respectable engagement.—A Gentleman, possessing extraordinary means of large supply, at low cost, is open to TREAT with parties willing to advance, or who possess, advantageous terms. He will suit a young person requiring a respectable situation in the country.—Address, by letter, Mr SIBLEY, 17, Ampton-place, Gray's-inn-road, London.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the public, clergy, &c. that they supply Lightning Conductors with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
148, Strand, London.
67, Hyde-park-street, Glasgow.
27, Palace-road, Manchester.

POWERFUL CRUSHING-MILLS, on Granite Edge-runners, FOR SALE; also three pairs of French and Glasgow millstones, a capital pair of 5-feet French stones, in frame, for hand power, to horse-in-shafts, or as a portable weighing machine; can be seen. Apply to C. T. CHRISTIE, Millwright and Engineer, 3, Broad-street, Lambeth, and 115, Vauxhall-walk.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for gas-fitting, in Brass and Iron. Fan, Compressed, Iron, and Brass Cocks, Furniture-pulley, Rings and Lacquered Case Tube for Picture Bells, Desk Bells, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Lone-ne, London.

STEAM-ENGINES of every description, fixed and portable.—Bray's Royal Agricultural Fire Engine may be seen at work, and list of prices may be obtained at WM. BRAY and CO'S Warehouses, Swan-lane, Upper Thames-street, near London-bridge.

FLAVEL' PRIZE KITCHENER.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

THE ONLY PRIZE MEDAL OF THE GREAT EXHIBITION

WAS AWARDED TO

PIERCE, 5, JERMYN-STREET, REGENT-STREET,

For IMPROVEMENTS in the construction of FIRE-LUMP GRATES and his ECONOMICAL RADIATING GRATES, constructed upon the same principle of using Fire-Lumps as the medium of transmitting heat, which may be seen in large assortment of these new and elegant Grates, suitable for the Drawing-room, Library, Dining-room, Study, and Bed-room, in the simple and most splendid designs, at his Galleries, 5, Jermyn-street, adapted to the Louis Quatorze, Elizabethan, Renaissance, or other styles of architecture.

PIERCE'S UNIVERSAL FIRE-LUMP GRATE,

Which requires no fixing, being made in one piece, having strong octagon bars and bottom, with capacious and safe hobs, complete Prices, 11s. 6d.; 19s. 6d., 28s. 6d., and 37s.

PIERCE'S IMPROVED COTTAGER'S GRATE,

For Warming Two Rooms with only One Fire Price 21s. and 35s.

PIERCE'S PYRO-PNEUMATIC STOVE-GRATE,

For the enjoyment of Health, Warmth, Ventilation, and Comfort, being the only pure Warm-air Stove-grate yet invented that is constructed entirely of Fire-Lumps, without any heating surface of iron; it is well adapted for Warming and Ventilating Churches, Chapels, Schools, Public Rooms, Hotels, Invalids' Apartments, &c.

The Fire-Lump Bodies of these Grates are now made with the external casings in elegant designs of Bronze, Ormolu, China, Glass, &c.; and a most splendid Grate upon this principle may be seen at the Silk Warerooms of Marshall and Snelgrove, Vere-street and Oxford-street; also at the Manufacturer's, 5, Jermyn-street.

SOLE LONDON AGENT FOR THE NEWARK PRIZE COTTAGE RANGE, AND OTHER COOKING STOVES.

DAVISON'S IMPROVED STABLE PAVING BRICKS.

The attention of ARCHITECTS, BUILDERS, and Others, is particularly directed to this PAVEMENT, so especially adapted to

STABLES, CATTLE, OR CARRIAGE SHEDS, COURT-YARDS, &c.

The peculiar nature of the clay of which these Bricks are made, and the intensity of the heat to which they are exposed, render them the most remarkable for durability ever produced, being found to endure much longer than Stone Flags, Dutch Clinkers, or any other kind of pavement hitherto used for those purposes.

The particular merit of this Pavement over all others is, that it gives such a perfect security of footing to Horses and Cattle when passing over it.

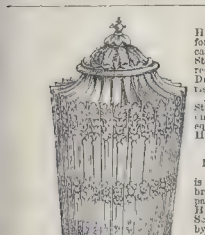
These Bricks have been used by Mr. S. H. Eyre, Architect, Liverpool; at Mr. Rea's Great Central Horse and Carriage Repository, near the "Elephant and Castle," and by Mr. John Jay, at the Metropolitan Cattle-market, Copenhagen fields, where they may be seen laid down.

Prices, drawings, and particulars, sent post free, on application to the Manufacturers,

CHARLES DAVISON & CO.

FIRE-BRICK AND TILE MANUFACTURERS, QUEEN'S FERRY, NEAR FLINT, NORTH WALES.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing houses, &c. can with confidence recommend them upon which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.



SYLVESTER'S HOT WATER STOVES for Warming Halls, Staircases, Galleries, Warehouses, Stores, Hotels, and Offices require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stoves may be heated from one Boiler, and may be used equally well with Steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO. Engineers, and Manufacturers of Heating Apparatus, 86, Great Russell-street, Bloomsbury.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post—DEANE, DRAY, and CO. (opening to the Monument), London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BARHOFFNER and DEFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accident from fire are effectually prevented by its use. While it presents all the comfort and appearance of an open coal fire, securing, at the same time, a great ventilation.—To be seen in action at DEFRIES'S Office, 69 Regent-street, London.

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of Architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one 4-inch pipe is seen daily in full operation, heating building measuring 1,000 feet in length, at the small expense per day in fuel and labour of 9s. 8d. This achievement is being much surpassed by improved

DR. ARNOTT'S new OPEN SMOKELESS FIRE-GRATE having been brought to full perfection, may now be seen in daily operation at F. EDWARDS and SON'S, 49, Poland-street, Oxford-street. By this grate a smoky chimney is prevented, no chimney sweeping is required, and a saving of at least thirty per cent. is effected in the consumption of coal. This principle is also now carried out with complete success in kitchen ranges, and hot air pedestal stoves. Old grates are altered to this principle.—Prospectus sent on application.

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 1, ensures perfect combustion, consumes fuel, requires much less attention than the register stoves in general use, and produces, by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 373, Holborn.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, the Mowlem valve, stop-cocks, flange and socketed rows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron-bridge.

HOT AIR, GAS, VESTA, JOYCE'S STOVES.—STOVES for the economical and safe heating of halls, shops, warehouses, passages, lobbies, and the like, being at this season [illegible], WILLIAM S. BURTON invites attention to his unrivalled assortment, adapted (one or the other) to every conceivable requirement, at prices from 30s. each to 30 guineas. His variety of register and other stoves is the largest in existence.

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to select from all the various manufacturers all that is new and elegant in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designs [illegible] for him. These are now ON SHOW in one of his TEN LARGE ROOMS and present, for novelty, variety, and purity of taste, an unparalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. (two light) to 16l.

WILLIAM S. BURTON has TEN LARGE SHOW ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY (including cutlery, nickel silver plated, and japanned wares, iron and brass bedsteads), so arranged and classified that purchasers may easily and at once make their selections.

Catalogues, with engravings, sent per post free. Theirs may be returned for any article not approved of.

39, OXFORD-STREET (corner of Newman-street); 1, 2, and 3, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

MAGNUS'S PATENT ENAMELLED SLATE CABINET FORMED FIRE-PLACE.—This is fixed in the most novel, elegant, economic and comfortable fire-place that has ever been introduced to the public. It moves on castors, and stands BEFORE the opening of the chimney, projecting into the room as a regular cabinet. It is composed of fire-stone and slate, and has hot-air chambers. It may also be fitted up for use in a flat of coal. By the economical, who dislike to see half the heat from the coal wasted in the chimney, and by persons of taste, who object to the stiff unmeaning chimney piece in ordinary use, the CABINET-FORMED FIRE-PLACE has only to be seen to ensure its adoption. Price from ten guineas upwards. Pimlico Slate Works, 64 and 65, Upper Belgrave-place, Pimlico.

NAILS and IRONMONGERY, from BIRMINGHAM direct

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES,

a complete LIST of which will be forwarded upon application

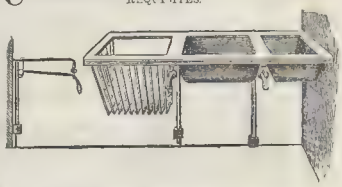
FREDERICK BEATH,

Nail Manufacturer and General Factor,

Regent Canal, BIRMINGHAM;

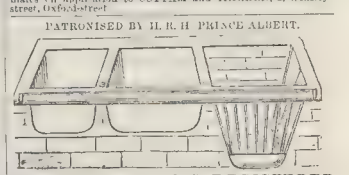
or at 16, Great Saint Thomas-street, LONDON.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH as ONE FIXTURE, they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent enables the purchaser, at small, if not no, additional expense, to have long, loose, or short mangers, as may best suit his stable, all to be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse, whilst feeding, and being rendered suspicious to infection, are some of the advantages of Cottam's Improved Principle. Made to any pattern, plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock. Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

PATRONISED BY H.R.H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse, 81, Upper Thames-street.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, & Bell-mouthed Pipes for Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other castings, ironwork for Bakers' Ovens of every description, fitted complete to be built in sets or parts. Price equal to any first-class house. Contracts taken to any extent. Goods landed. A powerful crane.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Bankers' Pass-books in one of CHUBB'S SAFES, after Seven hours' exposure to the Fire.—COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"21, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"Gentlemen,—We have great pleasure in communicating to you, that the large "Patent Fire-proof Safe" that we purchased from you 12 years ago, for our late address, New Bailey-street, has been the means of preserving for us the most valuable of the books and papers therein, on the evening of the 1st of March, when our premises were destroyed by fire. The safe, after being upwards of seven hours in the greatest heat, was unlocked in the presence of several of the principal officers of the Fire Brigade, and to their great surprise and the delight of the tenants present (none excepted) was found that only some of the backs were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Doors and Shutters; Iron Doors and Frames for Strong Rooms; Street-door Latches; Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and 4, Horsefields, Wolverhampton.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction is the most extensively adopted, and the approval is [illegible] for nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased cubic area, and many other important advantages.

The floors and roofs are formed by a combination of [illegible] of wrought or rolled iron with concrete, so constructed that the floor becomes in effect a beam of artificial stone, with the iron, the strongest part, occupying the centre. The roof forms a fire-proof foundation adapted to receive a finished [illegible] either of the ordinary flooring boards, or of cement, [illegible] tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are concerned in building, both as superseding the necessity for cast-iron girders and brick arches, and as being the great desideratum of fire-proof construction, even for ordinary dwelling-houses, domestic buildings, with in the reach of every one.

Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 12, Yorke-buildings, Adelphi.

WILLIAM BAKER, BRAD-AWL MANUFACTURER, Manufacturer of all kinds of Sadlers' Awls, Collar Needles, Pointing Needles, Dutch Steers' Needles, and Sail Making Needles, No. 14, Albion-street, Rotherhithe, London. Established twenty-five years. Honourable Mention, Great Exhibition, 1851. Prize Medal, New York Exhibition, 1853.

TO ENGINEERS, ARCHITECTS, AND BUILDERS.

THE VIEILLE MONTAGNE ZINC MINING & MANUFACTURING COMPANY

ARE NOW PREPARED TO

UNDERTAKE CONTRACTS, THROUGH THEIR AGENTS, FOR ZINC ROOFING OF ALL DESCRIPTIONS;

TOGETHER WITH, WHEN REQUIRED,

ALL THE NECESSARY TIMBER OR IRON FRAMEWORK, IN WHICH A GREAT SAVING IS EFFECTED BY THE LIGHTNESS OF THE METAL.

It possesses all the Advantages of Galvanised Iron, and is far more Durable and Cheaper, especially for large Spans.

The long duration of these roofs without repair, their neat appearance, and the economy of materials employed, as well as of area covered, render them most advantageous for dwelling-houses.

Many roofs covered with zinc, especially on the continent, have remained since the first introduction of this metal till the present time without having required, or appearing likely to require, any repairs.

CERTIFICATES in proof of this from the FRENCH GOVERNMENT and other authentic sources CAN BE SEEN at the COMPANY'S OFFICES, where all information, Estimates Drawings, or Prices, together with every assistance in laying on or otherwise, may be obtained on application to the Company's Surveyor, at

No. 12, MANCHESTER-BUILDINGS, WESTMINSTER.

STEVENS AND SON,

ENGINEERS,

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CONTRACTORS

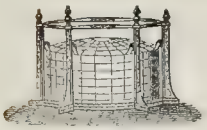
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

SKAIFE'S GALVANIZING WORKS,

COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

SKAIFE'S process is the most effectual preventive against rust, and is extensively used for all purposes where Iron, not liable to rust, is required.

PATENT GALVANIZED IRON SUPPLIED IN EVERY FORM. SHEETS PLAIN AND CORRUGATED. ROOFS FIXED COMPLETE.

J. SKAIFE IS ALSO AGENT FOR MOREWOOD AND ROGERS'S PATENT GALVANIZED TINNED IRON, PLUMBIC ZINC, AND TILES.

AN ALLOWANCE TO THE TRADE.

SAW-MILL MANUFACTORY, Chelsea, London.—WORSSAM and CO. invite the attention of all concerned in sawing, planing, and moulding wood to the simplicity and compactness of their machines over those now in use, which are both cumbersome and expensive. Drawings and prices sent on application. Estimates given for complete saw-mills for exportation or otherwise.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Bise-lane, London.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.
Wrought and Cast-iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor, and Ironfounder, Mill-wall, Poplar.
Offices Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZED IRON.
(IMPROVED PROCESS.)
JOHN RAYNOLDS and CO.
WORKS.—GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.
GALVANIZED SHEET IRON and WIRE of every description, superior in all respects to that produced by any other process, THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c. Roofs fixed complete.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 32, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station. A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on applicati n.
Experienced Workmen sent to all parts of the Country.
3, MANSION HOUSE PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELL and STEDALL'S,
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

IRON ROOFS, Wrought-iron GIRDERS, Girder Bridges, Railway and Builders' Wrought-iron Work, Gasholders, Tanks and Boilers.
CHARLES WALKER and SONS,
Midland Iron Works, Tipton, Staffordshire.
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NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
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IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Bed Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Dividing and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self acting Cottage Ranges, with Large Oven and Boiler,

20	32	44	56-inch.
28s.	30s.	32s.	34s.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

44	36	38	42-inch.
24s.	26s.	28s.	43s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 9½d.
Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivets, 8d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Bars, 40s. to 100s. each.

Cast Rain-water Pipe	2	2½	3 inch.
	1s.	1s. 3d.	1s. 6d. per yard.
Cast Gutters 4 inch, 10d. per yard.			
O G Gutters	3	4	4½ inch.
	1s. 4d.	1s. 6d.	1s. 6d. per yard.
Best Cut Clasp and Rose	1½	2	2½ 3 inch, and larger.
	15s.	17s.	17s. 16s. 13s. per cwt.

Cut Billed Brads, 14s. 6d. per cwt.

1 inch Cut Lath, 17s.			Cast Lath, 13s.	
Patent Line	3	3	4	5
	4½d.	5d.	7d.	9d.
	6	8	8	8
	1s. per knot.			

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

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D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures Patentees and manufacturers of the Mercurial Gas Regulator Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, manufacturer of all kinds of STEAM-ENGINES (portable and stationary), Sawing Machinery, Lamps, Cranes, Cranks, &c.
N.B. Several high-pressure Steam-engines for Sale.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER,

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved Ventilators.—HULETT and CO. 55, High Holborn.

AUSTIN'S IMPERIAL

PATENT SASH and BLIND LINE, can be obtained of all ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY.
Established 1774.

TO ARCHITECTS, BUILDERS, CONTRACTORS, &c.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th, or 4 lbs. to the foot, for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, ENGINE SHEDS, MILLS, MARKET HALLS, AND PUBLIC BUILDINGS GENERALLY.

eing universally admitted that Glass in Roofs of a permanent character should not be less than one-eighth of an inch thick, weighing two pounds to the foot, Messrs. JAMES HARTLE and CO. have directed their attention to the manufacture of a description of

ROUGH PLATE GLASS, THAT COMBINES SIZE AND STRENGTH WITH ECONOMY OF COST.

The PATENT ROUGH PLATE is manufactured in sizes expressly for Ridge and Furrow Roofs, giving a span of from 5 to 12 feet, at a price not exceeding weight for weight that of common Crown Glass. Not being transparent, blinds are unnecessary, and when used in Greenhouses no scorching occurs; its NON-TRANSPARENCY and strength render it eminently suitable for the Glazing of Conservatories and Roofs of all kinds; also Factories, Workshops, &c. for which purposes it is supplied in squares of all sizes, from 8 by 8 inches and upwards.

For farther information apply to Messrs. JAMES HARTLEY and CO. Wear Glass Works, Sunderland.

N.B.—The Patent Rough Plate is supplied at a much lower cost than the common Rough Plate.—May 1, 1851.

GLASS.—HARTLEY AND CO.'S GLASS TARIFF NEWSPAPER

Will be forwarded Gratis, on application, "post-paid," to

Messrs. JAMES HARTLEY and CO. Wear Glass-works, Sunderland; or Purfleet Wharf, Earl-street, Blackfriars, London.

THOMAS MILLINGTON

Begs to inform ARCHITECTS, BUILDERS, and the Trade, that he supplies the following articles of the best quality and at the same time upon the lowest terms:—

ENGLISH AND FOREIGN SHEET GLASS, PLATE, PATENT PLATE, PATENT ROUGH AND FLUTED PLATE, MILLED SHEET LEAD,

PATENT PIPE, LEAD, IRON, AND BRASS PUMPS, AND WATER-CLOSETS,

Genuine White Lead, Colours, Varnish, Brushes, and every article in the Trade.

FOR PRICE SEE ADVERTISEMENT FIRST SATURDAY IN EVERY MONTH, OR UPON APPLICATION AT THE WAREHOUSE.

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CHARLES WM. WATERLOW AND CO.

MANUFACTURING JOINERS,

121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

N.B.—ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

SANDS AND EMERY,

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MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

Lists of Prices and Estimates forwarded on application.

THE IMPROVED CHIMNEY-COWL

MANUFACTURED OF MOREWOOD AND ROGERS'S PATENT GALVANIZED TINNED IRON, JAPANNED STONE COLOUR.

Combines a perfect and ready action, with facility of sweeping and freedom from noise; and the working parts being wholly contained in the Dome Top, impervious to Smoke or Weather, it is not liable to become out of repair, and effectually prevents the annoyance experienced in gusty weather, or where the Chimney is subject to the Eddies produced by a higher building. A Lithographed Drawing and Description can be had of

A. WHYTOCK, Manufacturer, 494, NEW OXFORD-STREET,

Where Prices and Particulars may also be obtained on application.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT,

has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage. 3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 45 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'S PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration. All applications for estimates and lists of prices to be made at their warehouse, 315, OXFORD-STREET.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 293, Oxford street.

The Managers request Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE and SHEET COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot.

Crown or Sheet Squares, in 100 feet boxes, 2d. per foot.

Sashes Primed and Glazed, 2s. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

CRYSTAL WHITE GLASS, first, second,

and third quality particularly adapted for picture and the best description of glazing, being far superior in colour to patent plate. In cases of 200 feet each, at 4d. 6d. and 8d per foot; sizes varying from 24 by 15 to 40 by 28.—G. FARMILOE and SON, 24, St. John-street, West Smithfield.

STOUT SHEET-GLASS, suitable for Glazing

Conservatories and Skylights, in crates of 300 feet, at per foot, 2d.; crown glass, 18 tables, 30s. per crate; enamelled, of various patterns, per foot, 3d. Manufacturers' discount allowed on patent plate, rough ditto, and all other goods. A large stock always on hand at JOSEPH POULSON'S, 164, Edgware-road. Extra sizes kept in stock. Small squares from 6 by 4 to 9 by 7. One Penny per foot, taking ten boxes.

WHOLESALE BRITISH and FOREIGN WINDOW-GLASS WAREHOUSE,

established upwards of Sixty Years. ROBERT METTAM begs to call the attention of Builders and the Trade in general, to his present prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description now manufactured. Extra size Sheet Glass of all qualities and substances for Shop Fronts. Estimates and Price Lists forwarded post-free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

PATENT and BRITISH PLATE GLASS.—

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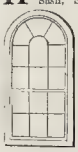

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The Builder.

SATURDAY, JANUARY 20, 1855.

A WINTER day at Sydenham, under the great glass roof, when the sun is shining, may be made as pleasant as a balmy one in June—with a difference. There is less lounging along the terraces, sauntering about the grounds, and no stretching on the grass. Walking outside is done with rapidity, such as is employed when taking a "constitutional;" and the antediluvians repose almost as peacefully as the fossil forms from which they have been built did in their far-down strata. This is fortunate, since they are not in a state to receive company: they are going through a course of paint, and are mighty grim. One, indeed, looks so ugly that we were not surprised to hear an old lady point it out as the *nasty*-don. The enthusiastic dreamer of the splendour of the coming fountains may venture into the "Slough of Despond," which ordinarily surrounds the lower part of what will yet be the goodliest terrace in England; but generally the bulk of visitors now find the building or its immediate vicinity the attraction. And unquestionably it presents the most delightful and instructive promenade, in which "Paterfamilias" can turn out his juveniles for a holiday, or wander himself to pick up stray bits of information. You may either pass behind the monster bed-tick, which cuts off the palm-tree end of the building, to admit of a higher temperature, and there listen to the solemn melody of Körner, the playful Charivari of Zullner, and the last new polka; or pass into a court which condenses into one little cell a summary of all that the cunning brain and the very skilful fingers of man has in the course of time achieved in some department of heaven-aspiring art; or, sauntering about all sorts of odd corners, with pleasant companions to induce and reciprocate remark, you may survey the cold lineaments of the "foremost men of all their time," and speculate on the connection between their heads and their deeds. Such was our occupation one day lately, when we picked out the "architects," and now purpose throwing together some memoranda about them, from the late Mr. Phillips's account of the Portrait Gallery and some other sources; for we are afraid that from the great mass of matter in the shape of catalogues, much of their interesting and valuable information is lying buried, readers being somewhat deterred by the extent. Mr. Phillips has truly remarked that "Man looks at his own image with a more feeling curiosity than he regards the architectural remains of a city, however ancient, or of any structure, however beautiful. The broad brow of the poet, whose works we have read; or the martial air of the soldier whose deeds we have heard of, excite an instant desire for more intimate acquaintance with the men." "A portrait gallery exhibits the men who have worked their way to eminence. Biography teaches how they have travelled the difficult and thorny road." In a word, as Dionysius, of Halicarnassus, expressed it, biography is philosophy teaching by examples.

Discarding the elements of race and country, and beginning simply at the earliest in the stream of time, we see Niccola Pisano, who was born somewhere about 1205, and died about 1290.* Niccola had no master: he was the reviver of sculpture in Italy, and built a spiral staircase in the campanile of St. Nicholas of the Augustines. He was the father of John of Pisa, the architect of the Campo Santo, in that city. John died in 1320: he executed a portrait of his father in the church of Santa Maria della Spina, where he was directing the works; and it may be from this that the bust of which we have a cast was made. Niccola may be called a Mediæval, and he is the only one here. The old Gothic architects left us no busts of themselves, scarcely their names. Next him stands Laboureur's bust of Andrea di Cione, better known by his surname, Orcagna. We do not know the precise date of his birth: somewhere about 1370 he died. In each of his three capacities as painter, sculptor, and architect, this good and great man executed several works. Some of them still exist in a shattered state, in the Campo Santo, at Pisa; in the Strozzi Chapel, and the Or-San-Michele, at Florence. The grandeur and grouping of the figures in his paintings were, at a later period, striven for, even by Michelangelo and Raffaelle. There is a mezzo-relievo portrait of Orcagna by his own hand, behind the altar of the Florentine church already named. He is there represented as an Apostle, shaven, and wearing a hood. Of the next Italian sculptor and architect, Filippo Brunelleschi, we know more. He was born at Florence in 1375, and died in 1444, according to Quatremere de Quincy, who gives an interesting account of him. The "Hand-book" gives 1377 and 1446 as the dates of his birth and death. He was the son of a notary, who at first placed him with a goldsmith, whence he was led to apply himself to sculpture. He was the friend of Donatello, the great sculptor of that age (you may see casts of many of his works at Sydenham), and together they went to Rome, where he was overcome with astonishment at the sight of the architectural remains. Awakened from this first impression, says De Quincy, "Brunelleschi knew no repose. He forgot the hours of repast and sleep. He felt no other necessity than that of making plans, measuring the ancient edifices, investigating the true character of the three orders, and discovering that system of reason, intelligence, and harmony which would re-establish and perpetuate the authority of its principles." His resources failed, but by taking to his former business he was able to procure the means of prolonging his studies in Rome. He is best known as the constructor of the Cupola of Santa Maria del Fiore, at Florence, and built churches, palaces, and fortifications. Michelangelo declared that it was difficult to imitate, and impossible to excel him. He was an amiable man: notice his large, persevering, and kindly-looking head.

Bramante's reflective and charming head is not far off. He was born in 1444, at Castel Durante, according to the "Handbook," but this is not certain; and he died at Rome, in 1514. He condemned himself to privations to study architecture. He built, amongst other things, the circular temple of St. Pietro, in Montorio, the vast palace of the Chancery, one of the most remarkable buildings in Rome, and was selected to rebuild St. Peter's. To him belongs the project of the dome, though Michelangelo carried it out. "No one can deny," writes the great man last named, "that Bramante was as proficient in architecture as any one since the ancients up to our own time." He is accused of having endeavoured to injure Michelangelo, and not without truth. Poor human nature!

Stand uncovered before the next, for it represents Michelangelo Buonarotti himself. This bust is from the marble by Alessandro d'Este, and one of those contributed to the Capitoline Museum, at the expense of Canova, when he was president of the Academy of St. Luke, at Rome. It conveys an idea of coarseness which would hardly seem to belong to Michelangelo's natural expression, marked as it is with power and energy. It will be remembered how his nose was broken by a blow from his fellow student, Torrigiano. He was buried in Sta. Croce, at Florence, his monument there being designed and executed under the superintendence of Vasari, the historian of the painters. There is, in the Capitoline Museum, a bust of Michelangelo, said to be by his own hand. He was born in 1474, and died on the 17th of February, 1564,—the "Handbook" says 1563. His father and uncle opposed his desire to prosecute the arts, but he strove on, feeling his power. "All learning," says Phillips truly, "and all knowledge came to Michelangelo, perhaps, even more than to Leonardo da Vinci, his mighty contemporary, as a rightful inheritance, to be magnificently accepted, and sumptuously enjoyed. Poet, musician, sculptor, architect, engineer, painter, anatomist, man of science—his titles to honour are inexhaustible. His genius was universal—his grasp boundless. All his works, of whatever kind, bear the broad, deep stamp of his haughty, masculine spirit, and constitute the immortal expression of strength, energy, and sublimest passion. The feeling of Michelangelo was strong, intense, grand, penetrating; his thought as clear as it was profound. His life is a series of conflicts in the world of intellect. Domenico Ghirlandaio has the honour of claiming Buonarotti as his pupil. By Ghirlandaio the stripling was introduced to Lorenzo de' Medici, who, as well as his successor, became the steady friend of the great artist." In 1503, he was commissioned to paint one end of the Great Hall of Council, Leonardo da Vinci being entrusted with the other. Never before had two such spirits met to contend for glory. His statue of Moses, and the ceiling of the Sistine Chapel, were produced under Pope Julius II. "Under Leo X. and Adrian, works of equal power issued from his brain. In 1546, he was commanded by the Pope to undertake the direction of the works at St. Peter's. He consented only upon the condition that he should receive no salary, and laboured "for the love of God alone." In seventeen years he prosecuted the pious service, and raised the sacred edifice as far as the base of the cupola. The undying memorials of his chisel and pencil speak the intellectural supremacy of the man beyond all words of praise. They will command wonder, delight, admiration, respect, fame, whilst the world lasts. There is nothing factitious, no studied allurement, no imposture in his work. It is all true, simple, sublime." His head shows great power, and a contemptuous expression which we should be glad to miss, but are forced to pardon. It was thus he looked, doubtless, when he said to the servants of Pope Julius II. who had refused him admittance on a particular occasion, after other marks of coolness,—"When his Holiness sends to seek me, you tell him that I am not here;" and then he departed for Florence, and left word with his servants to sell all his goods, and follow him. It was some time before the Pope could coax him back, but he did so ultimately. With all his irascibility, he was a stanch friend and an upright man. We may all remember with advantage his favourite maxim:—"*Chi va dietro ad altri mai non gli passa inanzi.*"

We must be briefer in our notes, or we shall not get through the list. Raffaelle was a gentleman, as well as a genius: you may see it in his face, though it has, to our eyes, a spice of coarseness. He was born at Urbino, in Italy, in 1483, and died at thirty-seven years of age! What he did in that brief life was marvellous. He was an architect and sculptor, as well as the prince of painters. He directed the works at St. Peter's in 1515, and built two palaces in Florence. De Quincy points justly to the architectural portion of Raffaelle's wonderful picture, —the School of Athens—as a noble invention. Envy attributed it to Bramante, but evidence is wanting and inference against it. Of his character it is almost enough to say, that all men

* These busts will be found behind the statue of Rubens in the Great Transept, on the east side of the nave.

loved him. He built the court of the Vatican, and it was there he painted those fifty-two subjects from the Old and New Testament, which have been called Raffaelle's Bible. The next bust represents Sanmicheli, who was first employed at the cathedral of Orvietto, and built the gateways of Verona, and some palaces. He was much employed in fortifying Italian cities. He died in 1559, when he was seventy-five years of age. Giulio Romano was an architect too; he assisted Raffaelle at the Vatican, and built palaces in Mantua; but we must pass him by, and go to Andrea Palladio, who was born at Vicenza, in Italy, in 1518, and died there in 1580. He largely studied the ancient monuments of architecture, and adapted it to modern purposes with great success. He created, indeed, a style of architecture, which bears his name, and has been over-praised and over-abused. Inigo Jones may be called his disciple. Vitruvius was his master. The circumstances of the time confined him chiefly to the execution of noble residences, of which he has left a number of elegant specimens in Vicenza and Venice, as well as some churches, and the well-known theatre. His treatise on architecture has been translated into all languages.

Inigo Jones* was born in 1573, and died on the 21st of June, 1652. The "Handbook" says erroneously 1572 and 1651. It is stated, but without much certainty, that he served his apprenticeship to a joiner, but his talent for landscape-drawing obtained for him the favour of the Earl of Pembroke, in whose company he visited France, Flanders, Germany, and Italy. At Venice he was inspired with a taste for architecture, and, following the art with ardour, obtained the office of first architect to the King of Denmark. He was in England, however, as early as 1604-5, where he assisted at various masques. The attachment of Inigo Jones, who was a Roman Catholic, to the cause of Charles I. caused him great loss and suffering during the civil wars; and he died, not long after the execution of the king, in great trouble. He made a second visit to Italy,—for his copy of Palladio, preserved at Worcester College, Oxford, contains an entry dated "Vicenza, Mundaie, the 23rd September, 1613." The Banqueting House at Whitehall, his most famous work, was finished in March 1622, at an expense of 14,940*l.* 4*s.* 1*d.* Of his quarrels with Ben Jonson, who ridiculed him as Vitruvius Hoop, and sneers at what he calls

"Thy twice conceived, thrice paid for imagery,"

we have before now spoken. Lincoln's-inn-fields and Covent-garden piazza had the assistance of Inigo Jones.

Naturally, the mind turns from the great man whom we have just noticed to the later and yet greater name of Christopher Wren, who was just twenty when Jones died. As a mathematician, Wren was in his day second only to Newton, and in general scientific knowledge he had no superior. At thirteen he had invented a new astronomical instrument. At fourteen he entered Wadham College, Oxford, and, young as he was, formed one of the original members of a club established for philosophical discoveries and experiments,—the club, indeed, out of which grew the Royal Society. When twenty-five he was Professor of Astronomy at Gresham College, London, then a very different institution from what it is now. At the Restoration he became Savilian Professor of Geometry at Oxford. His skill as an architect having been meanwhile shown in the Sheldonian theatre there. The popular fame of Wren rests on St. Paul's Cathedral, which he began to rebuild nine years after the Great Fire, taking thirty-five years to complete his magnificent labour. St. Paul's is one of the few great ecclesiastical edifices which was completed by those who commenced it. One architect and one master-mason finished the great task. Before and during its progress, Wren was engaged on other edifices, and applied his vigorous mind to the most abstruse branches of science. His mechanical discoveries are numerous. He invented an instrument for ascertaining the amount of rain falling in each year; he proposed means which rendered the taking of astronomical observations more easy and exact; he was the originator of the attempt to introduce fluids into the veins of animals; and there is every reason to believe that to him, and not to Prince Rupert, we owe the art of mezzotint engraving. Wren's energy in the pursuit of science appears to have been immense. Notwithstanding the enormous labour which devolved on him in the rebuilding of the burnt City, there is scarcely a meeting of the Royal Society recorded wherein he is not seen to take a prominent part in the supply of papers and contribution of information. Between 1666 and 1711 he designed and built fifty-three parish churches in London, and numerous other buildings. His genius, his industry, his integrity, and his noble spirit, could not protect him from the attacks of the envious, who contrived to embitter his latter years. As Pope wrote:—

"See under Ripley rise a new Whitehall,
While Jones' and Boyle's united labours fall;
While Wren with sorrow to the grave descends,
Gay dies unpensioned with a hundred friends"

"Clever but disagreeable," said one, looking up at a bust, in a tone which seemed to say, the speaker had a right to an opinion. Let us see whose head it is. Schinkel, of Berlin. Well, it certainly does convey that impression, but as there are yet several other architects in the collection, and we have given as much space to the subject as we can afford to-day, we will leave Karl Frederick Schinkel, to commence with him in our next ramble amongst the busts at Sydenham.

* Bust will be found behind the Farnese Hercules, at north-west angle of great transept and nave.

A CRITICAL REVIEW OF ST. GEORGE'S HALL AND THE ASSIZE COURTS, LIVERPOOL.*

BUILDINGS peripteral, or nearly so, unless the exterior surface presented by entablature and columns bears a greater proportion to the whole surface of the façades than the Corinthian order allows, a proportion found only in the Doric or Ionic, are apt to show too much action, too great an alternation of minute and uniform masses of light and shade; suggesting, I think, in reference to the edifice in question, that the adoption of a Corinthian ordonnance should have dictated the securing of a greater extent of mural space at the extremities of the eastern or principal façade; a remark, by the way, which applies equally to the front of the Fitzwilliam Museum at Cambridge, as well as to some other meritorious structures. Increased extent of plain wall at the extremities of the east façade of St. George's Hall, it would have been natural to repeat round the corners, and much to the advantage of the south portico and north pseudo portico, both of which would be benefited by wider backgrounds, from which to spring, and to balance their own masses in the nature of wings receiving a broader and quieter light. Breadth and repose would, I think, have been further promoted by having anta-caps, consisting of a series of plain mouldings and delicately carved necking, instead of the fully enriched Corinthian capitals, to the square pillars; as in a plain building, almost entirely surrounded by columns or pilasters, like St. George's Hall, such capitals to every column and pilaster forms to an eye at some small distance a dark dotted line, that intersects the composition, and is so far unfavourable to its unity. The means suggested would also have given greater effect, by contrast, to the centre colonnade, and greater variety of tone to the whole.

The building, under such treatment, I grant, would have been less rich upon the whole. But there are other parts that could have received the difference in sculptural expenditure, and, as I believe, with greater advantage as regards entire effect; the frieze, for instance, particularly that of the eastern portico, decoration of which by frieze embellishment, as well as by statues above, would be requisite to give it its due predominance in beauty and power over the south one.

But what may be deemed a positive fault betrays itself at the back in the several tiers of windows with which it is perforated. I do not include the hall windows, for they are but temporary, but those of the smaller apartments. Windows *may* be so treated as to be as innocent of any injury to the façade they pierce, however fully architectural or classically pure it may be, as a door or niche; and our noble sheets of polished plate glass render the task less difficult than formerly; but at the back of St. George's Hall no attempt of the kind is made, the window openings being filled in with vertically sliding sashes, the upper ones over-hanging the lower, as usual in dwelling-house windows, and divided in the ordinary manner. Such features in an edifice whose purpose is so far removed above the ordinary utilities of life, association alone would go far to render disagreeable, much as it would the occurrence of so many low metaphors in an epic poem. Although but a superficial blemish that could of course be easily removed, they are, nevertheless, really incongruous, and show positively as a blunder in the building,—a wrong word in its speech, a false note in the music, and, being somewhat numerous, give a dash of the vulgar and commonplace to what would otherwise be a poetic and unique façade.

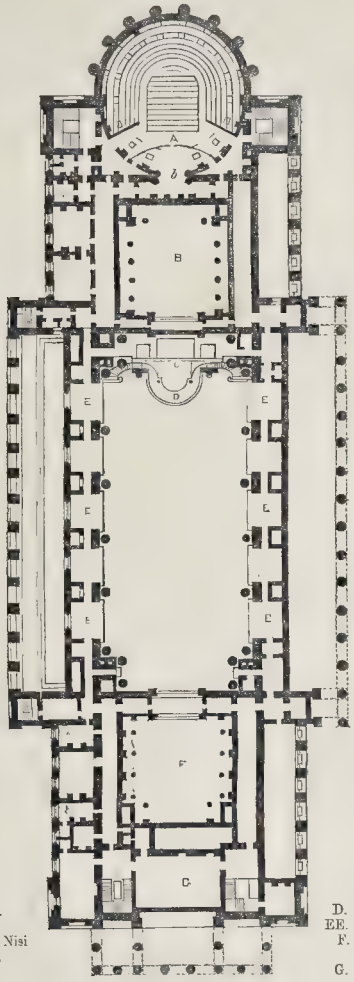
St. George's Hall bears promise here and there, by projecting blocks of masonry, of some future addition of decoration in the shape of sculpture in relief. This and more it much needs, for it is comparatively naked, and reminds us of the melancholy contrast, as to degree of embellishment, formed by works of the day with those of the celebrated periods of art both in ancient and modern times,—a contrast that is increasing rather than diminishing. Compare St. George's Hall with the Doric temples of Greece, of which high-class sculpture was an integral part,—with the cathedrals of mediæval Europe,—with the Renaissance and revived Roman churches of Italy,—with St. Peter's, at Rome, for example, or Milan Cathedral, which swarms with an ever-present and immortal congregation, in the shape of figure-sculpture; besides being without frieze decoration, either natural or geometrical, it has not in its principal façade, or elsewhere, except at one end, embraced that form of humanity, for the illustration of which the style is so well fitted; without which it strikes not the "full-voiced harmony of beauty," and lacks the high and entire being belonging to its nature.

Let it not be supposed that there is anything in the style of St. George's Hall, in its severity of line or chasteness of form, that renders it an exception to the rule alluded to,—that restricts it to abstract form of column and cornice alone, and forbids its being fully wedded to figure-sculpture or other natural ornamentation. Purity and nudity are not convertible terms, and, though our edifice proves that architecture in the possession of proportion and form alone is a great art,—it is capable of manifesting what, though well known to Egyptian and Greek, is not sufficiently recognised in the present day, that figure-decoration is an ingredient absolutely necessary to the full development of a conception in the grand style of architecture. I believe it may be employed either where the beauty and expression of the features can be seen and felt, or at such distance, as in a finial, for example, that only the majesty of the figure is appreciable; when, while distance will lend it a new enchantment, it will give a picturesque skyline to the exterior, without touching that character of grandeur, or impairing the nobleness and unity of composition, in which the classic architecture is unrivalled.

Indeed, one of the chief things we have to aim at in the development of the classic style is the reconsummation of that union of architecture with sculpture which existed among the Greeks,

* See p 3, *ante*.

ST. GEORGE'S HALL, LIVERPOOL: PLAN OF UPPER FLOOR.



A. Concert-room.
b. Orchestra.
B. Upper part of Nisi Prius Court.
C. Organ.
D. Organ gallery and stairs.
EE. Galleries in hall.
F. Upper part of Crown Court.
G. Grand Jury.

who so treated them, that one spirit informed, one life-blood flowed through both, and architecture and sculpture were one undivisible thing, the sculptural figure being but a higher material development of the architectural essence. And as among them, so among us, such union would produce a more exquisite and perfect creation than either art, unaided by the other, could call forth.

The point most loudly calling for sculptural embellishment in St. George's Hall is over and behind the great central colonnade, where it would find an excellent background in the nude attic of the building, and give it relief in return;* and, if conceived and executed in the broad and simple manner, with the grandeur of form and greatness of style that the architecture would dictate, it would diffuse a brighter glow, and kindle into a sublimer life, the entire body of the edifice.

To this should be added statues, as evidently intended by the architect, over the centre of each of the dwarf intercolumnar walls; and, if the east portico be, as I consider it is, the principal, then the west pseudo-portico has as much right to embellishment as the south one; indeed, it demands it, for due balance of the building, which should be equal, on each side of the centre.

The merit of St. George's Hall lies chiefly in the exterior, which is equalled by but little of the interior. Let us enter the building through the eastern portico, which, having twice the breadth and number of columns of the south one, and a commensurate array of steps, and being the most direct, and, indeed, the only convenient entrance to either the great hall or the Assize Courts, can be regarded in no other light than as the principal entrance to the edifice. The first thing that must strike the visitor is, that, for want of a vestibule, the great hall—which, by the way, should have been entered through the end instead of the side—is too ready of access—approached without the preparation and prelude its importance demands: and I think it must be regarded as a defect in the plan, that, instead of the hall having a vestibule, it should be itself but a vestibule to inferior apartments. The relationship between it and the latter is different to that between the aisle and nave of a cathedral, the nave being the approach to an apartment which, if inferior in size, is for a more sacred purpose, and generally of a more elaborate decoration.

Moreover, the south portico not only is not the entrance to the music-hall, which as a grand room requires a grand and simple mode of access,—it is not the entrance to the Crown Court, to which it is almost contiguous; for, instead of conducting you into a vestibule from which you can proceed straight onwards, and enter the court with the judges' bench before you, it lands you at the back of the said court, from whence you must thread a labyrinth of passages ere you can enter either the court or the great music-hall.

The north hall or vestibule, which is not only beautiful in itself, but in full keeping with the exterior, has the misfortune of being entered from without, in a manner that is quite unworthy of it,—through apertures in the basement, while it has the same defect as the other, in conducting you to the back instead of the front of the court.

The fact is, convenience and propriety of plan, as regards entrance to the courts, have been sacrificed to the very questionable advantage of having the three apartments seen together, and to form one architectural vista. I call it a questionable advantage, as there could be little occasion for any one standing in the Civil Court and looking through the hall to see a Criminal Court in the distance. Had the architect abandoned the idea, and made the great hall quite distinct from the courts—*i.e.* without any direct communication into them—there can be little doubt that each court would have been directly entered from its respective hall; in other words, that the position in reference to the building of each law-court with its judges' bench, retiring-room, &c. would have been the reverse of what it now is.

Again, in the planning of the building the purpose of the hall itself was not kept in view—a fundamental error, whether chargeable upon the architect or his employers I know not. St. George's Hall was intended, I believe, for musical festivals; at least, whatever other purposes it was designed for, as that of a great audience chamber, a banqueting-hall, or assembly-room, that is the purpose which, demanding the most critical care, should have governed its form, and which, if it answered, it is very probable it would not be far unfit for any other. But so little was this arranged for, that when the organ was to be erected, no one knew where to put it, there being no place where it would answer its purpose without interfering with an obvious intention of the architect. As might be expected, it now looks not exactly at its ease, and the room, as a room, would be better without it; for where it stands it mars its symmetry, and appears as an afterthought.

The sacrifice, however, has been made on the right side. Architecture has very properly given way to music and the truthful expression of a musical purpose, which requires that the organ should be placed where it can be seen as well as heard. The organ, being an essential feature, is to the hall what a bed is to a dormitory, or a bookcase to a library, and the eye as well as the ear seeks it.

Entering the hall, the visitor must feel that he has not only approached it too suddenly, but that he has experienced too great a change in scene. To form the interior of a building, many graces should be added to the style of the exterior, but it should be in the same spirit, which, in the present instance, is far from being the case; for stepping from the portico into the great hall is going at once from the frigid to the torrid zone of art, from the Parthenon to the Alhambra. In the first place, if the visitor has duly contemplated the almost peripteral exterior, and enjoyed the simplicity and grandeur arising from the combined array of columns and pilasters, he cannot but feel that a greater amount of columnar richness was due to its principal apartment, which being divided into centre and aisles, gives opportunity for its display as much as does any part of the exterior.

* The pedestals terminating the parapet wall at each end above this portico, are eminently fitted, and I doubt not were intended, for the reception of groups of sculpture. But besides these, a line of statues, connecting them, and corresponding to the number of columns beneath, is necessary to give relief to the attic behind, which without them is disagreeably bare.

The columns within the hall are too few to be much noticed, and too far asunder to have the effect of a colonnade. They appear besides scarcely sufficient for their office of bearing the ceiling, the supporters of which, even on the present arrangement of cross arches, might, I think, have been in couples instead of single columns, with great advantage to the character of the place. I grant that, with a pycnostyle screen, the gallery would be useless as a place for seats, but if it is not at present useless, it is of little value as a gallery. Though obstruction of the view is of less consequence in a place where the entertainment is for the ear rather than the eye, yet the desire to see as well as to hear is generally so great, that a gallery to contain seats should not have been placed behind columns at all. A ceiling could of course be supported, as it often is, by iron columns, of about the proportions of a walking-stick, and as far asunder as even a shopkeeper could wish. Such supports would be no material obstruction of the view from a gallery placed behind them; but this would be a sacrifice of architectural beauty to mere space and material,—the greater to the less; whereas architecture, as a fine art, whose range of action is between the graceful and the grand, the sublime and the beautiful, must have sacrifice made to it, not of fitness and convenience indeed, for want of these would be a defect, but of space and wrought material. Everything that is great and beautiful receives sacrifice. Without sacrifice we cannot have greatness; but we must in architecture as in everything else, take care to sacrifice the lesser to the greater, and lose no essential excellence. In the case under notice, the space occupied by the galleries would not have been altogether a sacrifice if cut off by a colonnade; for it could have been rendered useful as an upper lobby or aisle for occasional retirement from the heat and glare of the hall, when the thickest screen would be practically an advantage instead of an obstruction.

The fact that it would prevent any great quantity of light being brought from the west side, is of little consequence in St. George's Hall, where the architect was independent of the walls altogether for light, which could have been introduced in any quantity from the roof, and with the advantage over the adopted mode of lighting, not only of a simpler disposition and more concentrated flow, by having one great central light, but of leaving the west wall unbroken like the east, and rendering the symmetry of the room complete.

And while a greater array of columns would have rendered the interior more poetic and in better keeping with the outside, it would have increased the apparent size of the hall, which at present looks much smaller than it is—a result, however, arising not from the disposition or fewness of columns alone, but from the general treatment of the apartment, dictated, in a great measure, by the plan, the general conception of which, while it proves that the fancy of Elmes, like that of Wren, was too full of the "Templum Pacis," has left to the present architect, in its execution and carrying out, too little scope for grandeur, a quality which it is incumbent on an architect when the very expensive ingredient of magnitude is allowed him by no means to lose. I remember how, on entering the hall four or five years ago, before the ceiling or walls were plastered, or the columns erected, I was struck with the vastness and gloomy grandeur of the place, with its overspreading vault, itself a great triumph of constructive skill. I felt as if I were in an excavated mountain, or in some fabric reared by Cyclopean hands, and bequeathed to the service of the present. Other charms are there now—beauty has spread her enchantments—enchantments of no ordinary kind; but the majesty and grandeur springing from the original and unadorned form is lost, and architectural greatness has taken its flight.

Than the brass doors, on which symbolic animals, reeds, rushes, &c. most gracefully mingle, there could scarcely be anything more beautiful, either in design or execution; the shields and other devices, and artistic embellishments of the ceiling, are as gorgeously rich and elegant as could well be imagined, evincing great artistic resource on the part of the present architect; the galleries are tastefully and artistically supported; and the varied elements entering into the composition of the hall are combined into a harmonious and graceful whole, that is relieved by many really felicitous strokes of art, such as the Atlantes, for instance, which are fitly and beautifully applied to the support of the organ. But the whole is misplaced, for it is not in the spirit of the edifice of which it is the lining; I mean, of the exterior, of the grandeur of which too few and faint are the rays that have penetrated to the interior.

The rectilinear division and subdivision of the ceiling into distinct and similar compartments, are productive of much elegance; but they are fatal to the grandeur arising from its simple geometrical form. I do not object to the minuteness of the divisions into which the vault is broken: compartments of a ceiling may be as small as you like, but they must be wrought by grouping into *great* compartments, if they are to have any effect of grandeur. And even these must be arranged so as to avoid dividing it by straight lines either longitudinally or transversely. And while each is composed of a multitude of varied but related forms, they are all to have relation to each other; while the element of variety is still kept in veiw. Complete separation of the ceiling into parts is the great thing to be avoided; and I think some delicate decoration like diaper, covering the whole surface, analogous to texture in nature, would be preferable to many species of decoration in general use; as it could have no effect in disturbing the eye from the contemplation of the majesty and grandeur of general form. It could, of course, for preservation from monotony, be more or less relieved by detached ornaments, arranged on the principle above hinted at.

In conclusion, let me say that it is from no fault-seeking temper that I have dwelt thus long on the defects, or what I deem such, of this remarkable structure. While all its beauties may be justly placed to the credit of the architects, its blemishes are, for the most part, the result of untoward circumstances. The want of a vestibule, for instance, to the great hall, and other omissions of a plan in many respects ingenious, are attributable to the preclusion, by limitations and other difficulties of site, of that general outline of building which was alone capable of containing the right accommodation,* together with the discordant mixture of purposes to which the whole was dedicated. It is nevertheless important to the interest of architecture that the merits and demerits of an architectural achievement on which so many eyes are now fixed, should be clearly and impartially pointed out, in order to their being well and generally understood. So prone are we to imitate even the faults of what we admire, that knowingly to hide or suppress them in a review of the work, would be not only to degrade criticism, but to wound and betray the high cause of art.

SAMUEL HUGGINS.

We append a plan of the upper floor of St. George's Hall, showing the Concert-room; and shall give some other illustrations shortly.

OBSERVATIONS ON THE PLANS FOR THE MAIN DRAINAGE OF THE METROPOLIS.

Two schemes for the main drainage of the metropolis are now before the Metropolitan Commissioners of Sewers.

One by Mr. John Roe, surveyor to the separate Holborn and Finsbury Commission, and late general surveyor to the Metropolitan Commissioners for the northern section of the metropolis.†

One by Mr. Bazalgette, Messrs. Bazalgette and Haywood, engineers to the Metropolitan and City Commissioners respectively, and by Messrs. Stephenson and Cubitt, consulting engineers to the Metropolitan Commissioners.‡

There is also another scheme, proposed by the late Mr. Frank Forster, chief engineer to the Metropolitan Commissioners of Sewers, in conjunction with Mr. Robert Stephenson, but which appears to have been kept in the background,—a studious reserve certainly not compatible with the great cost of its preparation, or consistent with the fact of its advanced state, contract drawings having been prepared for large portions, and three large parts having been let to contractors upon public tender;—or with the preliminary fact of its warm approval by Mr. Stephenson, its part designer, by the Metropolitan Commissioners and by the C. S. Commissioners and their engineer, Mr. Haywood.*

Mr. Roe proposes two gravitating lines, the Hackney-brook, for the drainage of 7·12 square miles, and the middle level for the interception of the sewage from 27·8 square miles, and a low level line, taking 6·54 square miles, with a joint outlet at Barking-creek.

Messrs. Bazalgette and Stephenson, &c. have two gravitating lines, the Hackney-brock with an extension in a branch from Holloway to Kilburn, for the *complete* ordinary and flood drainage of 14 square miles; and the middle level from Acton to the Lea uniting with the high level by this river, for the drainage of 16 square miles; and a low level line of 11 square miles with the same joint outlet at Barking-creek. They have also a western section not included in Mr. Roe's scheme, for the collection of the drainage of 18 square miles by means of two (10 feet and 12 feet) sewers (with auxiliary flood outlets) into one sumpt near Chelsea, and its purification and subsequent discharge into the river at that point.

Mr. Forster has two gravitating lines in his northern scheme† (excluding the western district), the Hackney-brook and the middle level, and a main low level with branches; 25½ square miles drain by gravitation, the greater part through the middle level; and 16¼ square miles by pumping power terminating in one outlet at Barking-creek.

Messrs. Bazalgette, Stephenson, and Cubitt's south scheme comprises a main gravitating line, with branches, and a main low level, with *one* branch at its lower end. Each level is to *drain* respectively twelve square miles, or a total of twenty-four miles, one moiety of which is pumped. The whole of the drainage and sewage of the twenty-four square miles is discharged by the town of Greenwich into the river Ravensbourne, at Deptford Creek.

Mr. Forster's south scheme, prepared jointly with Mr. Stephenson, consists chiefly of a low level main, with several branches, with lifting power and a discharge into the Thames at Greenwich Marshes, full two miles lower in the river than in Mr. Bazalgette's scheme, clear of, and far below the town of Greenwich, and with an alternative extension to below Woolwich. Floods were expressly and amply provided for by existing outlets, and by comparatively inexpensive diversions, included in the estimate of cost.

The details of the several schemes, so far as they can be collected from accessible documents, are as follow:—

For the northern section of the metropolis (excluding the western), Mr. Roe proposes to effect the work by *three* main outfall sewers, two 7 feet 6 inches, and one 5 feet in diameter, at an estimated cost of 753,081*l*. Messrs. Bazalgette and Haywood accomplish it by three main outfall sewers, 12 feet 6 inches, 10 feet, and 9 feet 6 inches in diameter respectively, at an estimated cost of 1,255,190*l*. or as revised by Sir William Cubitt, 1,627,000*l*.

Mr. Forster's (aided by Mr. Stephenson and Mr. Haywood), at an estimated cost of 1,080,000*l*. (The sizes are not stated, but they are believed to approximate to Mr. Roe's, as, indeed, may be gathered from Mr. Stephenson's evidence.) Making provision for floods chiefly by existing channels, all propose the *same* object over the same area; yet they give results respectively of 753,081*l*. 1,080,000*l*. and 1,627,000*l*.

On the south, Mr. Forster proposed with provision for floods by existing outlets and practicable diver-

* A general disposition of edifice the block plan of which would form the letter T would give three main thoroughfares for the three principal approaches to the vestibule common to which would be also the interception of the two lines of building.

† Report, Oct. 25, 1854.

‡ Reports 1, 2, 6, 8, 17th Oct. 1853, Jan. 21, Feb. 25, May 15, Oct. 30, Dec. 11, 1854.

* Mr. Frank Forster's Reports, Surrey and Kent Drainage, Aug. 1, 1854. North. Drainage, July 29, 1851. Secretary's "Report upon the Works and general Proceedings of the Commission during the Year 1854, dated Feb. 19, 1851. Times, Aug. 1 and 14, 1850; Feb. 1, 1851." Messrs. Bazalgette and Haywood's Report upon the scheme of the Great London Drainage Company, May 7, 1853, pp. 11, 12. Evidence Great London Drainage Bill, 3114, 3157, 3184.

† Report, Jan. 30, 1851.

sions) one main circular 8 feet (or less) outfall sewer, with many *essential* branches, not included in Mr. Bazalgette's scheme, as a "complete and *perfect*" scheme, at an estimated cost of 241,297*l.**

For accomplishing precisely the same object on the same ground, Messrs. Bazalgette and Cubitt propose one 12-feet low level sewer, with one branch near its termination, and two 11-feet high level sewers, at an estimated cost of 1,250,000*l.*

Mr. Forster's southern scheme was the joint production of Mr. Stephenson and himself, aided, it is said, by the local engineering knowledge; and the northern scheme (that portion close to the Thames alone excepted), although not to the like extent, had a similar basis.

Both sections had the unanimous approval of the then commission, including some of the highest engineering talent in its ranks, and, as respects the north of London, of the City surveyor, and of the City Commissioners: extensive preparations were made for the actual execution of the works, contract drawings having been got out: three large portions on the south side (said to be some of the most difficult) were let to responsible contractors upon open tender, within, or near upon, it is said, the estimated cost; and, but for financial difficulties, these works, if not most of the others, would have been considerably advanced, if not completed to a large extent.

In the interval of the promulgation of Mr Forster's and Mr. Bazalgette's drainage schemes, 1850-1, and October, 1853, some very important facts and opinions were elicitated by the Committee of the House of Commons, in evidence on the Great London Drainage Bill (June, 1853), from Messrs. Bazalgette, Haywood, Stephenson, and Cubitt.

These gentlemen, without exception, at *this* period underrate the importance of the main drainage of the metropolis, and of freeing the Thames from its pollutions. Messrs. Bazalgette and Stephenson would send another 1,000 miles of sewers into the river, whilst Sir William Cubitt would "make the Thames as it ought to be, a proper receptacle and *sewer*, to take away the filth of the metropolis and the surrounding districts."

Mr. Haywood differs from the medical men who hold it to be essential to the health of the metropolis to purify the Thames, and thinks that the effects (of the flow of sewage into the Thames), "have been excessively exaggerated," although, in his report to his commissioners, six months previously (Dec. 24, 1852), he says, "The total interception of sewage from the Thames has been a result now long and earnestly desired."

Mr. Bazalgette says, it is much more important to drain localities now requiring drainage than to purify the river by main drainage works; that 1,000 miles of additional local sewers, costing 2,000,000*l.* are required; that their discharge into the Thames would be an important advantage to the present drainage; and (with Mr. Haywood) that the evil of this drainage into the Thames has been excessively exaggerated; that it is not to be compared to the benefit which will be conferred on the public by the drainage into the Thames; that 2,000,000*l.* should be expended in local drainage before any money is laid out in a low level sewer, as it is much more important to drain those localities now without drainage than to intercept the sewers from the Thames; and that he would not recommend the expenditure of the money upon the interception of the sewage at the present time, nor until a very large expenditure, 2,000,000*l.* has been incurred in another way. He doubts the *practicability* of constructing a sewer below the level of the river; he is afraid the low levels *must* be drained into the Thames, "on account of the enormous size that will be required if it is to be connected into one drain;" says the districts below the level of the Thames would be better drained by having a drain sunk at a lower level than the river, "and pumping the contents, if you could take off all that falls from that district." "The pumping power is an enormous cost." He thinks the connection of a number of low-level sewers in the low districts a dangerous operation, because of the floodings from the main sewer; he cannot see how the flood waters are to be kept out of the lower tunnel. He thinks the sewers in the low districts should act as reservoirs, that "they should be so calculated that they will just contain the greatest quantity of water during floods." His opinion is that the rain-fall *must* be provided for in the main intercepting sewers, "unless you construct a fresh set of sewers all over those districts." He cannot see how the sewage is to be diverted from the Thames, *unless* the rainfall is provided for.

He chiefly grounds his opposition to the Great London Drainage Scheme on the small capacity of their sewers when compared to the quantity "which is to be provided for," or "that comes down." On the north, he says, the company take only 1-180th part, and on the south only 1-900th part of that "which is to be provided for," or "that comes down."*

His basis of calculation appears to have been a rainfall of 2 inches in the hour, upon, and its discharge within that hour, from an area of about 47½ square miles on the north, and 61½ square miles on the south.†

He puts the quantity "which is to be provided for," or "that comes down," at 3,600,000 cubic feet on the north, and at 4,770,000 cubic feet per minute on the south, or its equivalent, 900 by 5,300.

In June, he says,‡ "I find there is not an unfrequent occurrence that two inches of rain should fall in the hour;" but in October, '53, when reporting on the Surrey and Kent drainage, a scheme expressly designed to take *all* the *drainage* and sewage, he says, as an argument for his standard, "But storms, amounting to 2½ inches in a day, *although of rare occurrence*, have been recorded;"§ *i. e.* that his maximum standard for one class of his sewers drops in four months from 2 inches to 1-200th part of 2 inches per hour; and his maximum standard (*vide* reports) for another class of his sewers, from 2 inches per hour to 1-200th part of 2 inches per hour.

He shows (p. 15) the insufficiency of the existing sewers for storm waters, and the consequent flooding of the lower districts; he justifies the sizes of his sewers, "larger than any heretofore recommended to the commissioners, by reasoning which directly leads to a capacity sufficient for, and which he says will answer every purpose;" he immediately proceeds to show that his sewers are sufficient to carry off the rainfall as well as the sewage; and yet he thereupon proposes that the existing main sewers in the low districts should act as reservoirs during extraordinary storms, after he has cut off all the upland drainage, constituting one-half of his entire area, reduced his standard of rainfall twentyfold, and applied this reduced standard to one-half, and a standard still further reduced to the other half of an area, less by 60 per cent. than that which he puts forth in evidence as the area for which provision requires to be made.

The following are Sir William Cubitt's opinions:—

Sir William thinks it unnecessary to prevent the sewage of the metropolis passing into the Thames, if proper means were taken to make "the Thames *as it ought to be, a proper receptacle and sewer*, to take away the filth of the metropolis and the surrounding districts."‖ Proposes to extend mouths of sewers by cast-iron pipes under low-water mark. "thinks no sewer should be made in a public street that a man could not walk into and clean out." Never knew a sewer too large yet. They cannot be less than 3 feet high (for entry of men to rake out and repair: 5 feet, or 5 feet 3 inches, and 3 feet 6 inches wide, is a very good sewer. "All you want of a sewer is to have a flat *bottom* of about 9 or 10 inches, made so that a man can step with his feet and work in comfort, which he cannot do in these circular sewers."

Whether we are to have a system of intercepting sewers or not, still that (extending the sewers to low-water mark) ought to be done?—Yes.

The intercepting sewers can be made at any time *if they are worth being made, but they ought not to be made at the cost and loss of time of the proper sewage.*

The great desire was to get rid of the impurities from the Thames? The public have talked a great deal, and have always done for the last thirty years, without knowing what they talked about; just as busy men set them about, and newspapers wrote to call the public attention to it. In his report on the report, plans, and estimate of Mr. Bazalgette for the drainage of the northern district of the metropolis, by means of the Hackney brook, or northern high level intercepting sewer (Oct. 13, 1853), he states that the scheme, although a portion only of the north of Thames drainage, is a perfect measure of itself, and, having most important objects to effect, *it cannot, in my opinion, be set about too soon.*

Page 8, strongly recommends the whole district "comprised in Mr. Bazalgette's report, extending from the Ranelagh sewer, in the Kilburn-road, on the west, to Old Ford, on the river Lea at the east, to be carried out at one time."

Entirely concurs in the principle and details of Mr. Bazalgette's report¶ on this (the Surrey and Kent) drainage (estimate excepted), which "is to *drain, take off, or intercept, all the rain water and sewage which now falls into the Thames from an area of at least 24½ square miles,—of one-half of which the rainfall can be intercepted and taken off by gravitation, but the other, the lowest half, would have to be pumped up.*"

Adverts to the pumping station at Deptford-creek as a most excellent situation for the manufacture of sewage manure, "*by* which means the sewage water would be deodorized, and delivered into the Thames divested of its most offensive and deleterious matters."

Page 24, "A circumstance which cannot, in our judgment, be too strongly impressed upon the *minds of those who are crying out* (and certainly *not without reason*) *for improved sewerage.*"

Page 24,—thinks the sooner the scheme is carried out the better.

Mr. Robert Stephenson (then a Commissioner, in conjunction with his eminent colleagues, Sir John Burgoyne, Capt. Vetch, Mr. Rendel, and Capt. Harness, a committee to whom the task was expressly confided) carefully studies 150 to 160 competitive plans for the drainage of the metropolis; and examines the greater part of London, with a view to its main drainage.* Thus prepared, he designs, in conjunction with Mr. Forster, the then chief engineer, and locally assisted, the southern drainage, mainly consisting of an 8-feet low-level sewer with branches, with express and ample provision for storm waters by existing sewers and practicable diversions, included in the estimate of 241,297*l.*

The *Times*, of 10th August, 1850, records his eulogy of this, as he expressed it, "complete and perfect scheme," in his place in the Commissioners' Court of the preceding day; his anxiety for its immediate execution, and the perfect unanimity of his eminent colleagues.

The plan of the southern drainage having received the sanction of the Court,† the nature of the ground having been tested by borings, and the detail plans, sections, drawings, and specifications prepared, advertisements for tenders of a portion of this work were inserted on the 22nd of November, and the tenders opened on the 3rd of December, 1850, and a tender for the completion of this work was conditionally approved; and shortly afterwards, two other large portions were similarly let. The works under these contracts would already (Feb. 10, 1851) have been commenced, and now be in active progress "but" for financial difficulties.

The northern drainage was approved by the Metropolitan and City Commissioners, by the City surveyor, Mr. Haywood, and with the exception before mentioned by Mr. Stephenson; but it was not carried into effect, because the Commissioners had no means of getting money.

Mr. Stephenson, in his evidence on the Great London Drainage Bill (June, 1853), whilst in one place he alludes to his recommendation to drain the low parts of the south side *first*, in another says, we ought to *begin* by intercepting the sewers above; that the lower parts of London would take care of themselves very well, that the lowest interception ought to be the last to be done.‡ Admitting the prolongation of the period of the pollution of the river, he thinks the best way is to look at what will be the best thing ultimately; and in the same breath he doubts the necessity for main drainage, and following Mr. Bazalgette, thinks the money would be better spent in improving the present system of drainage, leaving the main works to be carried out at some future time. But on 11th December, 1854, he says: "By almost universal consent, the time has now arrived when some remedy must be applied;" and he speaks of a river (when the stream is constant towards the sea) as "the most efficient sewer that man can avail himself of." Approving of Mr. Bazalgette's Hackney Brook scheme, he says, that it will be of scarcely appreciable effect unless followed up by designs of much greater magnitude; and at this period, he admits the urgent necessity for attending to the low parts of the south side.§ He subsequently approves with Sir Wm. Cubitt the "principle and details of Mr. Bazalgette's Surrey and Kent drainage scheme, which he says is to drain, take off, or intercept all the rain-water and sewage "from an area of at least 24½ square miles," of one-half of which the rainfalls can be intercepted, and taken off by gravitation; but the other, or lowest half, the greater part of which lies below high-water level, would have to be pumped up and delivered into the river at some point below London, say Deptford-creek, in the first instance, and subsequently at some point lower down the river, should such an extension be deemed advisable.

It would appear that at one time he had contemplated, or proposed an open intercepting sewer for this side.‖ In his report of 15th May, 1854, he thinks the North low-level sewer does not press for immediate attention, and that the construction of the upper and middle levels will render the low level comparatively less important, the middle level being now, in his opinion, one of the most important features of the scheme, no part being more effective—none can be so

* Evidence, June, 1853. 2582.

* Evidence, 2491—2868, 7, 8, 9, 70.
† Evidence, 2516, 7, 58, 71.
‡ Evidence, 2557.
§ Report, October 6, 1853, p. 20.
‖ Minutes of Evidence on the great London Drainage Bill, 1853.
¶ Report of the consulting engineers on the Surrey and Kent Drainage, Oct. 17, 1853.

* Return, Metropolitan Drainage, April 11, 1854.
† Secretary's Report, Feb 10, 1851.
‡ Evidence, 3184, 3120, 3134.
§ Report, October 8, 1853, pp. 10, 11.
Evidence, 3121, 2, 3.

ill spared or postponed. He recommends, because of the low levels, the collection of the west district drainage in one sumpt *within* the area, the purification of the drainage, and the discharge of the liquid residue into the river at this point; a system to which he saw "serious objections," when reporting on 8th March, 1850, in conjunction with Sir John Burgoyne, Capt. Vetch, Mr Rendel, and Capt. Harness, the results of the examination of the competitive plans for the drainage of the metropolis.* Mr. Stephenson strikes at the root of every tunnel scheme, when he expresses his apprehension of the tunnel sewers silting up when floods master the lift, and check the velocity of the current. The illustration to his hand is the great London drainage tunnels, falling 4 feet per mile; his own tunnels fall at a much less rate, and would of course be still more open to this objection.

Sir William Cubitt, in August, 1848,† and June, 1853, thinks such tunnels impracticable, "to say the least," whilst in October, 1853, he proposes them.‡

What are the opinions of eminent engineering contemporaries upon vital points? They have strongly varied.

Mr. Hawksley,§ instead of localizing the western district, would take it to Bar Creek. He would extend the southern sewer to Wandsworth He would deepen the low level lines on both sides very considerably (he says 15 feet on the south); he would have his sewer below the Victoria-street sewer.

Messrs. Bazalgette, Haywood, Stephenson, and Cubitt, in their reports on the main drainage, fix the maximum rainfall for their sewage intercepting lines to take at ¼-inch equally spread over the twenty-four hours, or the one-hundredth part of an inch per hour.

Mr. Brunel would provide for ½ an inch the twenty-four hours, or the one-fiftieth part of an inch per hour at the least.‖

Mr. Hawkesley would not provide for less than (1¼ inch in the twenty-four hours or) one-sixteenth part of an inch per hour.¶

Messrs. Brunel and Hawkesley, both eminent engineers, are, therefore, at issue with the Commissioners' engineers on this *vital* point; the one would double the capacities for rainfall, the other would treble these doubled capacities, increasing the originals sixfold.

Sir William Cubitt approves of dealing with the sewage at several points.

Messrs. Bazalgette and Haywood suggest grave doubts of the expediency of arriving at a decision on their own scheme of main drainage, which the manipulation of the sewage may, as they say, hereafter either entirely set aside or greatly modify.**

In this confliction of opinion the Commissioners are required to accept their *immediate* predecessors' schemes, involving eight main outfall sewers, varying in size from 9 feet 6 inches to 12 feet 6 inches; steam-engines of from 4,000 to 5,000 horse power (*vide* reports); and an *estimated* expenditure of 3,000,000*l.* as contrasted with a scheme proposed by a former eminently engineering commission, including their present chief consulting engineer, costing 1,321,297*l.*

The 3,000,000*l.* should be increased to 5,000,000*l.* so as to include the 2,000,000*l.* for the 1,000 additional miles of local sewers said to be required, or rather to 8,000,000*l.* at the least, if the estimate is framed upon the apparent cost of their local sewers, namely, 1*l.* per foot; or full forty years' purchase of the present (gross) sewers-rates. Be it observed, these are only the *estimated* costs; that a further very large expenditure is contemplated in the shape of enormous reservoirs in the uplands, with lifting steam establishments by the Thames, for the purpose of cleansing these main and local sewers; that there must be a large expenditure in apparatus to work the cleansing process; and that there must be large establishments to work the steam power at each reservoir station, and at each station where the sewage is lifted, an enormous consumption of coal; many constant repairs and continued depreciation, involving a very large additional immediate outlay to the above 5,000,000*l.* as they put it, or 8,000,000*l.* as it (more nearly) would be, and a very costly current expenditure.

After all this prodigious contemplated outlay, these enormous main sewers, as well as the local sewers, are acknowledged to be most imperfect works; for in his place in court, at one of the very latest of the late Commissioners' assemblies, Mr. Hawkshaw, a very eminent engineer, expressed his full conviction (a conviction apparently concurred in by his colleagues) that the sewers, especially the main and intercepting sewers, would not be kept in a proper state of cleanliness unless very large quantities of water were passed through them from large elevated reservoirs, supplied by steam power, lifting from the Thames; an admission of the evil of interception upon the lower parts of the sewers from which it ents off the flow, leaving the channels comparatively dry; but dry with noxious filth, rapidly causing accumulations of deposit, and ultimately, if not constantly seen to, choking up the sewers, and an admission of the reactionary effect of enormous sizes and small falls on an otherwise adequate intercepted flow. Evils to be inflicted, as on the south side, by a sixfold greater capacity, and a fivefold greater cost, as in Mr. Bazalgette's scheme, as contrasted with Mr. Forster's

A slight examination of that 2-inch in the hour rain fall and discharge theory (one of Messrs. Bazalgette and Stephenson's chief grounds of opposition to the Great London Drainage Scheme) is of some importance in the consideration of the main question. On their southern area, this fall and discharge produces, as they state it, about 4,770,000 cubic feet per minute. On their northern area, of 3,600,000 cubic feet per minute,—or in the whole 8,370,000 cubic feet per minute—220 of their 12-feet low level sewers would discharge 4,700,000 cubic feet per minute on the south. Imagine a 12-feet sewer of theirs ranged at about every 60 yards along the southern margin of the Thames, or between Vauxhall-bridge and Deptford-creek, and disgorging its contents, and this will give a literal idea of that 2-inch in the hour fall and discharge, producing on the 6¾ mile area on the southern side, 4,770,000 cubic feet per minute.

Take the 8,370,000 cubic feet per minute on both sides of the metropolis, and compare it with the standard of the (stated) Thames flow at Teddington lock in summer weather, of three million cubic yards per diem, or 56,250 cubic feet per minute,* and the equivalent of that 2-inch hourly fall and discharge, will be this Thames flow 148 times repeated. Double the standard, so as to avoid a chance of over statement, and the 2-inch fall and discharge are still seventy-four times in excess; and this is the proportion nearly of that fall upon the south, as compared with the capacity of the three sewers for that part, designed for taking twenty times less rate of rainfall on sixty per cent. less area than the promoters' respective standards of June, 1853. Followed out to its legitimate consequences on the whole area of the Thames basin, the reasonings of the Commissioners' engineers would lead to the most extraordinary results. For when applied to, probably, a fiftieth part of that basin, it repeats the Thames flow 148 times, or shows that you have had, and that you may expect to have occasionally on this fiftieth part of the Thames basin, on this section of the metropolitan area, falls of rain and like discharges within one hour, equal to 148 times such rivers as the Thames!†

The ultimate bearing of the hypothesis of the 2-inch hourly fall and discharge, is this:—

1. That over the whole area the fall is equal.
2. That all areas like in superficies discharge the fall at equal rates and in equal quantities, whether they may be composed of dense towns or of open country, whether they may be absorbent or non-absorbent, whether they are hills or flat marsh land; and that the sinuosity and length, and fall of the discharging channels, are indifferent.
3. That the discharge of the whole quantity is effected exactly as it falls, or instantaneously.

We desire that our observations may be taken in good part: we have but one desire, and that is to assist in determining on the best course. The statements we have contrasted, show how difficult it has been to arrive at correct opinions on these subjects. We may have something to say on Mr. Roe's scheme, and the report upon it, hereafter.

A NEW SYNAGOGUE IN LONDON.

THE Jews have built a new synagogue in Great Portland-street, Oxford-street. The interior has a large enriched dome, rising from four Corinthian columns, with groined and coved ceilings on each side. The ark has damson-wood doors and gilt mouldings, with scagliola columns, and is approached by marble steps. Mr. Clarke, of Fenchurch-street, was the architect; and Messrs. Clever and Stanger, the builders.

THE CEMETERIES AT HANWELL.—The chapels in the cemetery for St. George's parish, and the chapel in the Kensington cemetery, both at Hanwell, are approaching completion. Messrs. Higgs and Cullingford are the builders.

CHRIST CHURCH, CRAVEN-HILL, BAYSWATER.

THIS church, now in course of erection, is situated on the north side of the Bayswater-road, opposite Kensington-gardens, on land formerly occupied by Hopgood's Nursery, and which is intended to be laid out for building houses, of the same class as Hyde-park-gardens. The estate has been so planned as to place the church in the middle of a square, and the approach from the Bayswater-road will be by handsome entrance-gates and lodge through a road 100 feet wide. The style of the church is the Decorated. The building consists of nave, aisles, and transepts, with porch, chancel, and adjoining aisles, and lofty tower and spire at the south-west corner. The nave is 113 feet 3 inches long, divided into four bays, besides the large arches across the transepts, and 26 feet 8 inches wide in the clear between the shafts of the columns. The width of the aisles on each side of nave is 15 feet 10 inches, and the total width of the church is 63 feet. The length across the arms of transepts is 91 feet in the clear, and the width is 26 feet.

The chancel is 32 feet long by 24 feet wide: the aisles on each side are 18 feet 9 inches long by 15 feet 6 inches wide, one being used for a vestry, with the organ chamber over, the other arranged for sittings. These aisles will be separated from the chancel by rich wainscot panelling and stalls. The church is lofty and large, and promises well internally.

The tower and spire rise from a square base, about 25 feet 6 inches external dimensions: the tower is to be terminated by perforated battlements, and angle pinnacles, with enriched flying buttresses to spire.

The spire is crocketed, and has three tiers of dormers: the total height of it to summit of vane is to be 205 feet.

The church is faced externally with Kentish rag stone, laid in even courses: the dressings, windows, columns, arches, and other details are in Bath stone.

The roofs are of lofty pitch: that for the nave is equilateral with carved hammer-beams, and open tracery fillings-in: that for the chancel will be panelled, with moulded ribs, and carved bosses at the intersections. All the windows in the chancel, and probably the large window at the end of nave, will be filled with stained glass, by Wailes, of Newcastle. The chancel will be paved with Minton's tiles. The pulpit and reading-desk will be of wainscot.

There is no gallery at the end of nave, but the side galleries, which are unfortunately necessary to obtain adequate accommodation, are arranged to interfere as little as possible with the effect of the interior, by being kept clear of the nave columns. Those in the transepts reserved for children, are approached by separate staircases, and do not project beyond the aisle walls.

The fittings will be of deal, stained, the seats in the central passage having stall ends, terminating in carved finials.

The church will accommodate 1,600 persons, including children. Mr. Myers, who is the contractor, is bound to complete it ready for consecration by the first week in June next. The belfry stage of tower and the spire, are to be reserved for subsequent erection. The total cost of the church, exclusive of the works reserved, will be about 14,000*l.* The architects are Messrs. F. and H. Francis.

THE SCOTTISH NATIONAL ART GALLERIES AND THE ROYAL SCOTTISH ACADEMY.—A correspondence has been published in the Edinburgh papers relating to the purposes of the new art galleries on the Earthen Mound at Edinburgh, as to which some doubts are said to have of late existed. The correspondents were Sir John Watson Gordon, the president, and Mr. D. O. Hill, the secretary of the Scottish Academy, on the one hand; and Sir William Johnson, late Lord Provost of Edinburgh, on the other. One of the letters is addressed by Mr. Hill to the Hon. B. F. Primrose, secretary to the Board of Manufacturers, and requests the Board, on the part of the president and council of the Academy, to keep in view that one-half of the new buildings are required by the Academy.

* Metropolitan Drainage Return, p. 103.
† Report on City Sewers, 1848. Evidence, 3413 6.
‡ Report on Drainage north and south of Thames.
§ Evidence, 2779, 85, 6, 7, 8, 9, 91, 2846, 2855, 6, 7, 8.
‖ Evidence, 3319, 29, 30, 1, 2, 3, 4.
¶ Evidence, 2889.
** Report, Jan. 21, 1854, p 30.

* A short Description of Capt. Vetch's Plans for the Sewerage of the Metropolis. Wild, 1851, p. 15.
† At Teddington Lock in summer weather, as before.

CHRIST CHURCH, CRAVEN-HILL, BAYSWATER.—MESSRS. F. AND H. FRANCIS, ARCHITECTS.

ARCHITECTURE.

A POEM.

What great power doth waken feeling
In your columned hall, so high?
Is it the dim shadows stealing
Into deeper mystery?
Or the golden sun revealing
Forms of light and symmetry?
Is't the vernal hand of Time,
With his choicest tints adorning?
Or the vapours of our clime,
Crowning with the dews of morning?
Many a tale doth hang thereby;
Many a knightly battle-cry,
And deed of ancient chivalry,
Its echoing stones could tell.
Often has the passing bell,
From yon high, enriched tourelle,
Smote, with dismal, solemn swell,
On the 'nighted wanderer's ear,
Waking many a dreadful fear
Of the fiend's unholy yell;
Or sheeted ghost from off his bier,
Rising slow with intent fell.
O'er the time-worn battlement,
With green lichens thick besprent,
From the storied oriels,
That o'erlook the silent dells,
Where the peaceful herdsman dwells,
Many a joyous face has peered,
Many a witch has wrought her spells,—
Witchery unwrought by weird,
But often worked by fair damsels.

Now, no more the laughing tide,
Issues from the portal wide,
Fall'n, the grim portcullis,
Level is the deep abyss.
Whither are the waters fled?
Would'st thou know? go ask the dead!
Yon their effigies do lie,
Calmly gazing up on high,
Ever fixed upon the sky:
Midst the sunshine and the rain,
Evermore they rest the same.
Dost thou seek for peace of mind?
Still look up and thou shalt find:
If the golden crown thou'dst win
Spurn the gilded toy of tin.

Not in olden legends lie,
Nor in beauteous symmetry
The spirit-moving power;
But in thoughts that never die—
Thoughts that have their birth on high
In a holy hour.
'Tis the soul of him who wrought:
From his mind so richly fraught,
Sprang the noble tower.
Though we do not hear his name
In the trumpet blast of fame,
Resounding evermore;
Yet his might is still the same—
Still the ringing links remain,
As in days of yore.
Often does the clanging chain,
In the wanderer's rapt brain,
Its thrilling echoes pour.

Wist we not who raised on high
Egypta's spectral pyramid,
Where old Nilus rolleth by,
'Neath the flowing lotus hid,
Midst the flaming, orient sky,
And the simoon's onward skid?
Myriads of mighty phantoms,
In those Titan caverns lie,
Phantoms that with glassy eye,
Seem the keepers of the tombs.
Once they danced upon the spot,
Now their memories are forgot:
Nought the sceptre and the crown,
And the purple 'broidered gown;
Nought the king and nought the man,—
All is nought since earth began,—
Save the heaven-inspiring thought,
In the stones so nobly wrought.

So on Rome's imperial heights,
And at Athens, desolate,
Still the spirit's feeling lights
Temple's brow and triumph gate:
Still a history remains,
Free from history's foul stains.

So in each cathedral pile,
That sheds a radiance on our isle;
Where the cross uplifted high,
Teaches manhood how to die;
Where each stone with face so fair,
Wrought with workmanship as rare,
Murmurs soft to passers by,
Telling how religion's power,
Can transform the savage hour,
Unfire the wrathful eye;—
There! within those holy walls,
Seated in the carven stalls,
Listen to the choral sound,
Echoing in aught around;
Through the mighty, arching nave,
And the dim triforium,
Reverberating wave on wave,
List unto its pendulum.
Then look up, and unto thee,
The stones shall soothly speak,
In voices low and meek,
As murmurs of the sea:
Everlastingly and deep,
To thy inmost soul they creep,
Beguiling thee in tears to weep,
For thy sin and for thy sorrow,
Making holier the morrow,
And teaching thee in stones to find
Purity and peace of mind.
He who says that Art is dead,
That her vital light is fled,
Says not well.
Style is but a robe, in which
Necessity's cold forms t'enrich
As in a shell:—
Thus religion erst hath been
In olden times, a mother queen
At Egypt and at Rome,
And in our island home:—
Thus beneath her watchful eye,
Guided by necessity,
Art has ever grown:
Now escaped the leading string,
Nought doth check her soaring wing,
She may float in realms of light,
Spacious as the womb of night.

Art! a spirit! cannot die,
Though she pass from human eye,
Though within the sombre tomb,
Buried 'midst an age's gloom;
Yet again the soul shall rise,
And raise a temple to the skies,—
Not as they of old did build
In necessity's frail bound,
Nor by form to order drilled,
But from a foundation sound,
Built upon eternal mind:
Grandly shall her towers upspring,
And all peoples rest shall find
'Neath the shadow of her wing.

Once again the time is come,
From a darksome sleep has sprung
Our beauty-moving art:
Once again in might renewed,
Are the stones with life imbued,
By the master's heart:
Fashioned perfectly each part,
Science laid as in a chart,
From the threshold of earth's sod
Up to Heaven's gate,
Nearer still to Heaven's God,
Raise we our estate.

He who builds the surest now,
He who wears the purest brow,
Scattering flowers everywhere,
Will therein have joy, I trow,
To be crowned with honour there.
All are workers, none may idle,
All have power to wield the bridle,
And to guide the wayward steed
Through life's thorny, chequered mead.
All can build, but they do best,
Who build beyond earth's sombre crest;
Building not for shining gold,
That perishes when life is cold,
But building Wisdom, Truth, and Love,—
A Babel to the realms above.

Thus, O man! to build aright,
Build with poets', painters' might,
Build with love and calm delight.
Stamp each stone with earnest feeling;
In the rock thy soul revealing:
Cast aside all worldly dross:
Purify thee from its floss:
Nought is there of poor degree,
But thy mind and fancy free,
Can enrich its quantity;
Nought of baseness, nought of earth,
But thou mayst increase its worth.
Yon Sierra's snow-clad height
Is not gained at a single flight;
Nor with nerveless step and slow,
Wilt thou reach its alpine brow;
But with steadfast, earnest soul,
Thou mayst win high Heaven's goal.

W. G. BEAVAN.

DOINGS AT THE METROPOLITAN BUILDINGS OFFICE.

OUR London readers at all events are aware that for some time past differences have prevailed between the official referees and the registrar of metropolitan buildings, which have greatly impeded the proper execution of the law, have tended to bring it into disrepute, and have increased the difficulties of the district-surveyors. The operation of the differences of opinion is, that on considering the decisions come to by the referees, the registrar conceives in various cases that they have proceeded erroneously, and refuses to seal their awards. When sent to the Board of Works, the Board sometimes authorise the registrar to affix his seal of office to the intercepted documents thus overruling his objections, but more commonly confirm his refusal of the seal, and the whole of the litigation is thus suspended. The Board of Works have at times intimated to the referees, that it was their duty either to alter the already executed documents, or else to make others, but the referees felt they could not do so. The latter offered, however, to record any decree avowedly on the responsibility of the Board of Works acting as an appellate court, but this was declined.

In party wall cases, of great importance to individuals, a special difficulty was found. Unless there is error on the face of the certificate given by the district surveyor, or an appeal is brought by one of the parties, its confirmation by the official referees is a matter of course, and they consider there should clearly be no hearing of the parties on it. But the registrar thinks differently, and withholds the seal from certificates of confirmation on that ground, although if the parties did appear, and the official referees heard them, the decision of the official referees is made final by the 24th section.

Under these circumstances the referees thought it necessary to obtain the opinion of counsel, and a case was prepared and submitted to Sir Richard Bethell, Solicitor-General, Mr. Serjeant Byles, and Mr. Charles Winston. The question mainly was as to the nature of the control over the acts of the referees vested in the Registrar and the Board of Works; and we give so much of their reply as answers this. The remainder advises as to the mode in which the referees should take the opinion of a Court of Law upon it:—

"We are of opinion that the instruments required to be sealed under sec. 89, are of two classes.

First. Certificates, summonses, and consents granted by the official referees, and expressly *required to be sealed*, by secs. 15, 16, 85, and 117.

Secondly. An award when it is proposed to enforce it by process from the Court of Queen's Bench (sec. 83), and a copy of it when wanted for evidence (sec. 86).

Over the first class of documents, the Registrar and the Commissioners have a controlling power. The Registrar may refuse to affix his seal of office, where on the face of it the document appears to him contrary to law, or where it is informal, or manifestly *ultra vires*. The Commissioners may review the Registrar's decision, but must proceed on the same grounds.

But over the second class of documents, viz.—awards and copies of awards, we are of opinion that neither Registrar nor Commissioners have any controlling power, but that the duty of the Registrar to fix the seal is purely ministerial.

We are further of opinion, that upon a submission to the referees in their judicial character of a question between party and party, as soon as they have once made their award, they are *functi officio*. That they can neither make a second award, nor (which is really the same thing), alter their first award; and more than that, we think it would be very dangerous for them to attempt it, for in an action for damages for acts done under the authority and direction of an altered award, they might be unable to shelter themselves under the protection of the Act of Parliament."

Difficulties have increased instead of lessened, and render some immediate steps imperative. We do not desire here to judge between the

referees and the registrar, but we are bound by our duty to the public, which we have never knowingly shrunk from, whatever might be the personal risk, to declare that the present condition of the Office of Metropolitan Buildings is a discredit to the country, seriously inconveniences a large number of persons, and tends to bring the law and the administrative powers of the kingdom into disrepute. An inquiry ought immediately to be instituted with the view of either making clearer the duties of the two departments, or, if these duties be already clear, of superseding those who will not perform them in good faith, and work harmoniously with their coadjutors in the office.

PROVINCIAL NEWS.

Battles (Essex).—At the recent quarter sessions for Essex, a letter was read from Messrs. Low and Blount, who had prepared the plan for Battles bridge, stating that, in consequence of the rise in the price of labour and other matters, they had not been able to obtain a contractor at the sum stated, but Messrs. Cottam and Hallan would take it within 60*l.* of it: they had also in consequence prepared another plan on girders and iron columns at a cost of 1,200*l.* It was proposed to accept the tender for the erection of the bridge at 1,560*l.* the idea of the other, at 1,200*l.* apparently not being much entertained; but it was stated that there was nothing in the offer to make it binding. It was resolved, therefore, to refer the matter back to the committee, to consider it, obtain tenders for the erection of the bridge, and report.

Rochester and Chatham.—The opening of St. Margaret's new National Schools took place on Thursday in week before last. The buildings comprise a boys' and girls' school, the former 50 feet in length by 18 feet in width, the latter nearly the same length, with the addition of a class-room: the schools communicate by folding-doors. There is also an infant school-room, with residences for the master and mistresses. The cost of the erection of the premises is 1,400*l.* of which 500*l.* were obtained from the Committee of Council on Education, and 100*l.* from the National Society, 800*l.* having been raised by subscriptions. The site and a portion of the buildings were conveyed by the parish for educational purposes, which lessened the sum required (3,000*l.*) The building was erected by Mr. Spicer, of Strood, from plans furnished by Mr. M. Bulmer, architect.

Bristol.—It is said that a peremptory order has been received by the local authorities of this city from Lord Palmerston, requiring them to at once erect a new asylum for pauper lunatics, at a cost of 20,000*l.* at least.——At a preliminary meeting, held on Monday week, the mayor in the chair, it was resolved forthwith to take measures for the formation of an association for the improvement of the dwellings of the working-classes in this city. The bishop convened the meeting, and announced his intention of taking shares to the extent of 250*l.* Mr. Daniel Cave promised a like sum. The Mayor, Mr. R. P. King, Dr. Symonds, and others, entered their names as shareholders; and in all, shares to the amount of about 1,000*l.* were taken. It was remarked by the bishop, that he knew no point on which such complete unanimity of feeling prevails among all parties as that of the necessity of improvement in the dwellings of the poor.

Aberystwith.—The old town-hall has been pulled down, and plans and specifications are being prepared for a tower, to be built on the site, with a town-clock. The commissioners have fixed upon a spot near the meat-market for erecting a building for commissioners' meetings and other public purposes, but principally for having a fish-market beneath it.

Liverpool.—"Briscoe's New Hall," Oldhall street, is now "reared," and ready for the roof, and will be complete for occupation early in the spring. The buildings are situate about 200 yards from the Exchange, adjoining the Old Hall, and are intended for merchants' offices. The style is Italian. Mr. Culshaw is the architect. The proprietor of these buildings, according to the *Journal*, must have expended not less than 15,000*l.* on this property. The tradesmen celebrated the rearing by dining together at the White Bear Hotel, Dale-street.

Doncaster.—The local *Chronicle*, in speaking of the new streets and numbering of houses at Doncaster, says, "The new part of the town is, we observe, fond of aristocratic names; and, although new houses have recently sprung up without any principle, social, sanitary, or architectural,—just in the way that we have read of in the cases of San Francisco and Melbourne,—and even in some instances before proper measures were taken for a supply of water, road communication, or removal of refuse, there is a strong feeling to perpetuate the names of some of our leading noblemen. But our principal object is to call the attention of the Board (of Health) to the fact that an order was made some time ago, that the whole of the houses in the town should be numbered. This work seems to have been suspended."

Shields.—The *Sunderland Times*, in a paragraph, titled, "What will be done in Shields in 1855?" says, St. Hilda's Churchyard, South Shields, Christchurch-yard, North Shields, and the burial-place in Tynemouth, will be closed. A system of sewerage will be carried out in North Shields. The same in South Shields. The foundation-stone of the magnificent docks at Jarrow will be laid. The piers at the harbour mouth will begin to rear their heads above the German Ocean; and Jarrow, Howdon, North Shields, and South Shields, will be joined together by a bond of swift running steamers. The foundation-stone of the Sailors' Home will be laid at North Shields this spring, and the building will be covered in by the end of the year. South Shields will begin to build a new town-hall, and a much needed public room for herself; and the members of the North Shields Mechanics' Institution will abandon their disputes, and lay the foundation-stone of their public building.

Penrith.—It has been resolved here to appoint a provisional committee to obtain information as to a site for baths and wash-houses, and to draw out a prospectus, &c. to lay before the inhabitants. The project is to be carried out by shares not exceeding 1*l.* each.

Aberuthven.—Gasworks are spreading over the whole of Scotland. One has recently been opened in the village of Aberuthven. The mason-work was executed by Mr. James Stevenson, of Aberuthven, and the iron-work by Mr. John Douglas, of Cupar. The number of burners for which the work is erected is estimated at from 300 to 500.

CHURCH-BUILDING NEWS.

Skellingthorpe.—On Wednesday in last week, in celebration of the covering in of the new church of St. Lawrence, at the village of Skellingthorpe, near Lincoln, a supper was provided at the Stone's Arms Inn, to which the whole of the workmen engaged in the building were, by Mr. Wm. Huddlestone, the contractor of the works, invited. Supper was partaken of by upwards of sixty persons. The new church is in the Early English style, built of Lincoln stone, with Ancaster dressings, and covered with Staffordshire tiles, with crested ridge. The church consists of tower, nave with four arches built upon inverted arches, north aisle with four lights, south aisle with three lights, and south porch. The nave is 48 feet long by 15 feet 9 inches wide, and the aisles are about the same. The chancel is 32 feet by 16 feet, with vestry 10 feet square on north side of chancel, and heating vault underneath. The roof is of fir, the principals of which consist of an arched brace, supported by a stone corbel. The whole of the roof is boarded down, and is intended to be stained and varnished. The interior of the nave and aisles will be fitted with open benches, stained and varnished, and the floors will be laid with alternate black and red Staffordshire tiles. The pulpit, according to the *Lincolnshire Chronicle*, will be built of Caen stone. The chancel fittings will be of oak, and the floor will be paved with Minton's encaustic tiles. Messrs. Kendall and Pope, of London, are the architects, and Mr. Wm. Huddlestone, of Lincoln, is the builder. The foundation of the new structure was laid in September, and it is believed it will be ready for Divine service in April.

West Bromwich.—A large stained-glass window, in memory of the late Earl of Dartmouth, has recently been completed, and placed in the east end of the old church here. It occupies nearly the whole of the space over the communion-table. The window is in three compartments. In the first, or centre compartment, "the Ascension" is represented. The "Dove," emblematical of the Holy Ghost, is the most elevated figure: then follows that of the Redeemer, supported by angels on each side, while beneath are the two Marys and eleven of the Apostles, in varied attitudes. Beneath this representation the stork (as an emblem of the church) is depicted, feeding her young ones. The side windows are floriated. The one on the left exhibits a scroll, enveloped with flowers and geometrical figures, bearing the words,—"It is sown in corruption: it is raised in incorruption. It is sown in dishonour: it is raised in glory." Intermediately in this sentence is a shield bearing his lordship's family arms. The right-hand side window is of similar pattern. The scroll, on this side, displays the words,—"It is sown a natural body: it is raised a spiritual body. It is sown in weakness: it is raised in power." Beneath the whole, in Saxon capitals, appears the dedication. The window is the result of a public subscription. The work itself has been furnished by Mr. Wailes, of Newcastle-upon-Tyne.

Smethwick.—The design for the new Wesleyan Chapel here is intrusted to Mr. G. B Nichols, architect, who is preparing the necessary plans for its erection.

Stonehouse.—The parish church, which has been closed for a year and a half, for the purpose of undergoing complete repair and restoration, was opened for divine worship on Thursday week. The old tower remains, and is of a plain square Perpendicular style. The new part of the church is also of the Perpendicular style, consisting of a nave and two aisles, and a small chapel or organ-chamber at the east end of the north aisle. The exterior of the church is very plain, and though quite out of proportion with the old tower, this is said to have been unavoidable, as the funds would not permit the rebuilding or raising of the latter, and the church was required to be of its present size, viz. to accommodate 464 persons. The whole of the seats are open, and of Riga oak, simply carved. A large proportion of the seats in the nave are free. The east end of the chancel has a window, corresponding with the general style of the building, and of stained glass, representing the various passages in our Saviour's life. It was executed by Wailes, of Newcastle. This, together with the north and south window of chancel, and the western tower window, also of stained glass, are gifts of the Rev. Thomas Peters, the rector of Eastington. The original Norman doorway, which stood on the north side of the old church, has been retained, as a relic of the old edifice, and stands as nearly as possible in the same position as before, forming the northern entrance to the present church. The dimensions of the building inside are 62 feet by 45, exclusive of the chancel, which is 22 feet by 18. The roof is open timber work, and the height from floor to apex of nave or centre roof is about 40 feet. There is a western entrance under the tower, divided from the church by a carved oak screen of open woodwork, glazed with plate glass: this is under the tower arch. The whole cost, including all expenses, will be about 2,000*l.* raised by voluntary contributions, but still short by some 300*l.* or 400*l.* Mr. Henry Crisp, of Bristol, was the architect employed, and the contractors were Messrs. Wall and Hook, of Rodborough.

Halifax.—A large field has recently been set apart by Mr. E. Akroyd, of Bank Field, for the purpose of forming a burial-place, more especially intended for the accommodation of the residents in North-ward, Old-lane, and Newtown. The ground measures about 16,940 square yards. Nearly 3,500 yards will be appropriated to walks and shrubberies. The ground will be laid out according to plans proposed by Messrs. Mallinson and Healey, architects. A chapel will be built in the centre, and the place will, it is said, in point of finish, not be left behind the cemetery already at the other end of the town, in Lister-lane.

WAR APPLIANCES.

IT is to be hoped that the present vital struggle with despotic barbarism will once for all render war impossible, by maturing its deadly energies beyond all human endurance or resistance; and this can only be done by the more enlightened and inventive portion of the human race, and hence by those who ought to acquire the mastery. It may be, however, that the present pretence of suing for peace on the part of the Czar, is only so far sincere as to lead to the patching up of some sort of mutual understanding which may stave off the evil day; although it is but too likely to be another of those sinister devices by which cunning will only overreach itself, and undeceive others, in the end. Meantime inventive genius is aroused to martial projects, and every day almost reveals its mental workings towards one grand end, the rendering of warfare too deadly to withstand. One sanguine projector has devised an "electric rifle," to throw 100 bullets a minute, or 6,000 an hour, with a precision and force not yet attainable even with the aid of our good ally, the Minié. Another has invented a double cannon, which will simultaneously propel two chained balls in such a way as to radiate asunder, and stretch the chain to its utmost length, sweeping down whole columns or regiments at once. This gun has actually been tested in Battersea-park, it appears, to the "great satisfaction of all who witnessed its work." A chain of 60 feet in length, is spoken of as practicable with a gun and balls of proportionate calibre. A new sort of ball has been invented, named the belemnite, which is wedge shaped, and will, it is said, very speedily penetrate and overthrow stone walls instead of merely bruising them and dropping to the ground as the ordinary round ball does. Belemnite shells are also spoken of, which will add explosive force while so fixed in the fortification walls. The effective Minié principle applied to cannon, is said to be at present under consideration of the Board of Ordnance. Windage is thus to be got rid of, and the full force of the explosive power made effective by means of expanding leaden rings and conical plugs behind the conical pointed balls in the rifled cannon. Gunpowder itself is likely after all to be superseded by gun cotton, which the Austrians are said to be successfully substituting for it in the working of ordnance. A Mr. A. C. Smith has invented a new projectile power, which he calls the "lightning projectile," and which is based on the expansive force of the aqueous gases, brought into play, or fired, by electricity. Mr. Smith's inventions are actually said to be in course of adaptation to ordinary cannon at Woolwich. The power thus evoked is declared to be more than one and a half greater than that of gunpowder. The "lightning projectile," is likely to beat the steam-gun hollow, if all be true that is said of it. A new steam cannon, by the bye, is being founded in France, on an old invention, said to be described in a MS. by Leonardo da Vinci, and dated 1490, extant in the archives of the French Institute! Many other schemes are offered to, and some are under consideration of, the French Government. Besides those of our own countrymen already alluded to, we may add that a cannon of wrought-iron, or cast-steel, has been invented for field purposes, by Mr. Williams, the contractor for Government works at Milfordhaven, to be carried to the field in pieces, on men's shoulders, and put together in a few minutes, so as to be stronger than any gun cast or fabricated in one piece. In this way also, doubtless, any weight, as mere *vis inertia*, required for the recoil, could readily be applied.—— The electric telegraph cable to be laid in the Black Sea, between Varna and Balaklava, was made by Messrs. Newall, according to the *Gateshead Observer*, in a month's time, or 100 miles a month, and was to be dispatched on 14th inst. in a screw steamer built for the purpose, in about the same period of time!

INSTITUTION OF CIVIL ENGINEERS.

THE evenings of Dec. 12th and Jan. 9th, Mr. James Simpson, president, in the chair, were entirely devoted to the discussion of Mr. P. W. Barlow's paper, "On some peculiar Features of the Water-bearing Strata of the London Basin." It was contended, that the sands underlying the chalk would be found the most certain sources of water supply. The conditions of the strata at Grimsby were different from those of the London basin; and in the latter locality, some years ago, in any well of moderate depth, water was certainly met with, whereas at present it was only found at considerable depths, and was only obtainable by great pumping power. The water was now chiefly found in the fissures and flint beds, and but little in the solid chalk, beyond that held in suspension, and which it was difficult to extract. Water might be found in sufficient quantity, in the chalk, for the supply of two, or three, suburban parishes near the metropolis; but the conditions were very different from those of London itself; and it was strongly contended, that it was illusory to trust to any such source for a large supply by Artesian wells. It was admitted, that water was obtainable from chalk, chiefly, if not entirely, by infiltration through the fissures, and the layers of flints; and that although chalk was a rapid absorbent of moisture, it did not readily part with it again, nor in its normal condition would it afford a free passage for water, therefore it could not be correctly denominated a water-bearing stratum; whereas sand could be correctly so termed. The chalk was, however, in certain districts, so intersected by fissures, and had such numerous layers of flint, that practically the effect of a water-bearing stratum was obtained; and hence the excessive pumping from one well would affect all around, as also the sources of the streams. Sand was, on the contrary, essentially a water-bearing stratum; the facility of yielding moisture depending generally on the size, and therefore the collective compactness, or openness, of the grains. It was as susceptible of saturation as the chalk, but not as capable of retention of moisture. In some districts, the lower tertiary sands were mixed with clay, which interrupted the flow of water; whilst in others, they afforded a free passage. It was mentioned that the lower green sand stratum had been reached in the Hampstead well, at a depth of 1,150 feet from the surface, and a very short time would now demonstrate the correctness or the fallacy of the views, as to the quantity of water to be obtained from these strata. The wells under London did not now yield more than eight millions of gallons per day, and the water-level had been gradually sinking. In the year 1824 the water, when not affected by pumping, rose to within 10 feet of high-water mark, but now it did not reach to within 60 feet of the same level.

INSTITUTION OF CIVIL ENGINEERS OF IRELAND.

A GENERAL meeting of this institution was held in their rooms, Upper Sackville-street, on the 9th inst. Dr. Richard Griffith, in the chair, when Mr. Hemans, V.P. read a paper on the "River-walls and Flood-banks of the Upper Rhine."

He showed the means adopted by the Swiss engineers in controlling the course of that river, and preserving the country from the destructive effects of detritus suddenly brought down by the tributaries. Mr. Hemans exhibited plans of the embankments and other works designed by him for that portion of the line of railway under his superintendence between Lake Constance and Coire, and showed the reasons that induced him to adopt the form of embankment usual in railway practice in this country, in preference to that which had been adopted in river works in Switzerland. He also exhibited a spirit level section made by his assistants of the Lukmanir Pass over the Alps, with the proposed tunnel on the extension line from Coire to Milan and Genoa, and glanced at the geological nature of the range, and the expediency of working an incline with stationary engines in preference to tunnelling.

A discussion ensued, chiefly on the form and construction of embankments exposed to lateral currents, and the difficulty of constructing guiding-walls on shifting sands.

Miscellanea.

A PRIZE FOR ARCHITECTS.—I was once proud of my descent from "the proud Salopians," who formerly preferred their ancient abbacy to a new bishopric. Plentiful evidence still remains of their love of architecture: that evidence however, methinks, is in stone, and not in humanity, if the Bridgenorth authorities represent the latter. In your advertisements of last week, the directors of the Bridgenorth Public Buildings, &c appear desirous of receiving designs, &c. for public buildings, &c. &c. They offer 20*l.* and 10*l.* as baits; the first, however, to be disgorged if the (I was going to say) architect shall be hooked in for the erection. You would not credit such liberality if it were not rendered somewhat less profuse by the conclusion, that the particulars may be had for 5*s.* which, if there should be forty competitors, would eliminate the second premium. Your readers may be obtuse enough to imagine that because both the baits are to be furnished by the gudgeons themselves, therefore the small fry will not bite. Let us, however, watch these expert anglers.—F. R. I. B. A.

INCREASE OF BUILDINGS AT LIVERPOOL.—There were erected last year in Liverpool six warehouses and 829 houses. Of the houses 671 were under 25*l.* cent per annum.

HARWICH BURIAL-BOARD COMPETITION.—The burial-board of the parish of St. Nicholas, Harwich, met on Friday, the 5th instant, and after considering the designs sent in, determined upon those signed "Ad Rem cum Deo," which proved to be from Mr. C. H. Edwards, of London.

THE IRON TRADE.—We lately reported a nominal reduction of prices, agreed to—if we can say so—at the first of the quarterly meetings in Staffordshire,—bars to the extent of 30*s.* and other kinds, 20*s.* It has since been found that even these reductions will not tempt buyers, and at subsequent meetings of the ironmasters a nominal reduction of 40*s.* was resolved on by a large majority, while the remainder resolved not to abide by the *fiat* of the majority, but to insist on 20*s.* more. Nevertheless, it is reported that bars actually sold in the Hall on that occasion for 8*l.* 10*s.* It has heretofore been uniformly insisted that the urgent reducers of prices were "small" and "needy." In the present instance, the upholders of a mere 20*s.* reduction must be ultra-great and independent masters, for the small and needy now are the Thorneycrofts and many others of a similar class of manufacturers. The pig-makers have met, and have *resolved* that a reduction of 20 per cent.—some said 50 per cent.—in the make of pigs per week *should* be effected. It will be a new feature in the trade, however, if such a resolution be carried out into practice. In fact, the real meaning of each resolver no doubt is, that every *other* ought to reduce his make to the requisite extent. There is still no improvement in the American trade. On the contrary, our republican brethren talk of grand prospects of holding out the *iron* hand of fellowship to that *other* country of slaves and despots, Russia, which they are hoping to supply with iron themselves, and so to "cut us off" from all future ferruginous prospects in that quarter of the globe. Does it become those "Sons of Freedom," the Americans, to make common cause with the Russians in a struggle such as *this* is?

A WELL-SINKER BURIED ALIVE.—At St. Vigor-le-Grand, near Bayeaux, a well-sinker was lately buried in the midst of earth and woodwork, and although, after great and dangerous excavations, the poor fellow was reached, and even a rope put round his body, it was found impossible to draw him out without farther operations, which would incur the utmost hazard of not only burying him again, but those employed in extricating him. The Minister of the Interior had been communicated with, according to recent accounts in *Galignani*, and a priest had descended after four days, and given the man absolution in the midst of his fearful peril. We have since learnt that the poor fellow died in the well.

SCHOOL OF ART, TRURO.—A School of Art has been established at Truro, and it bids fair to be of service. The people seem anxious to gain a knowledge of drawing. Classes have been opened for the working classes in mechanical, perspective, geometrical, and free-hand drawing. Mr. G. R. Gill is the master of the school.

THE SCOTTISH AGRICULTURAL DWELLINGS IMPROVEMENT ASSOCIATION.—The first annual meeting of this association was held at No. 52, George-street, Edinburgh, last week, when many noblemen and gentlemen interested in agriculture were present and took part in the proceedings. The Duke of Buccleuch presided. The report, which congratulated the members on the progress made in the organization and objects of the association, was read and adopted. Lord Panmure moved a resolution, which was also passed, expressive of satisfaction with the progress already made, and a hope that still further success awaited their endeavours. The association have made arrangements for the collection and exhibition of cottage plans and specifications, some of which have been prepared by their architect, and some contributed towards the collection by other architects. Efforts are also being made to excite a general interest throughout Scotland in the improvement of hinds' dwellings.

SOMERSETSHIRE ARCHÆOLOGICAL SOCIETY.—The *conversazione* for January was held at the Museum, Taunton, on 8th instant, as appears from a report in the *Taunton Courier*. The chair was taken by Mr. W. E. Surtees, and Mr. E. Batten, of Lincoln's-inn, delivered a paper on the life of the monk Bacon, the enthusiastic and gentle scholar of the thirteenth century. After a tea interval, Mr. W. Metford, M.D. gave a paper on the "Luminosity of the Ocean." Drawings were exhibited by Dr. Kelly to illustrate the lecture. The Rev. Frank Warre read a paper prepared by the Rev. Mr. Scarth, of Bath, on stone and lead coffins, inscriptions, and other Roman remains, found at Bathwick, Combe Down, &c. Mr. C. E. Giles concluded, by submitting for inspection, three cartoons designed by Mr. Bell, of Bristol, for a triple light window, to be placed in the church at Aller, and representing, amongst two other subjects, the baptism of King Gudrum, after his defeat by the great Alfred. A drawing of the font, still extant, has been made by Mr. A. Clarke, to illustrate a paper to be read before the Society of Antiquaries, by the Rev. Thomas Hugo, of Taunton, M.A.

PROPOSED NEW DOCKS.—Amongst the works contemplated at the east end of the metropolis we hear is a scheme for constructing large docks at Dagenham, near Romford

GAS PROFITS: MANAGEMENT IN MANCHESTER.—According to a statement lately made by the chairman of the gas committee in the Manchester Town Council, the gas works first established at Manchester in 1817, have had to undergo alteration within the last ten years almost amounting to a total reconstruction. Up to 1824 the works were alleged to have cost about 40,000*l.* The cost to the present time exceeds 400,000*l.* The total length of mains is estimated at between 170 and 180 miles, and the number of meters fixed about 19,000. The increase of business last year over the previous one was about 10 per cent. and it goes on at an increasing ratio. The present production of gas in the works is, in round numbers, 600,000,000 feet, and the capacity of the ground now gradually filling with apparatus, will enable the corporation to produce 1,200,000,000 cubic feet per annum. The price of gas to consumers is on a graduated scale of 4s. to 5s. per thousand feet. Out of the profits of these works the committee are able to pay over for public purposes between 35,000*l.* and 40,000*l.* per annum; one-half of which sum goes to the making of public improvements in the city, and the other half to diminish the water-rate to the inhabitants. Nevertheless, attempts were some time since made, we remember, to deceive the Manchester gas consumers into the idea that it would be much better for them to be supplied by a self-seeking gas company. How the idea was worked out, it is not worth while to renote. In reference to gas profits, however, there is another point to which it may be more worth while to allude.

WANT OF EMPLOYMENT AT NEW YORK.—The *New York Herald* reports the existence of great distress among the working classes of New York. No less than 17,000 working people of all classes, it states, are out of employment, and without any actual prospect of work. Wages, too, are, of course, falling. Soup kitchens and provision depôts are being got up by the charitably disposed. The surplus labour in the city of New York, however, has the immense advantage of a wide and open country, through which it can soon be dispersed. Let them hive, like bees, under the leadership of some wealthy capitalist. In employing such a surplus for the clearance of backwoods and the foundation of towns, cutting out of railways, &c. both capitalist and operative might be speedily benefited. American workmen can "turn their hand" to anything, at a pinch. Had we backwoods in Britain, what a blessing they would sometimes be to starving multitudes!

IMPROVED MOTIVE POWER IN AMERICA.—For some months a series of scientific experiments have been made by Mr E. K. Collins, with what is known as Wethered's patent, the object being to increase the power of steam without any increased expenditure for fuel. The patentees claim as new "the combining steam and superheated or surcharged steam for actuating engines, when generated, the elasticity increased and operated as set forth." The patent intends not steam simply surcharged with heat, but the use of a mixture of saturated and surcharged steam. By these means it is said a greater power can be derived with a certain quantity of fuel than from the use of saturated steam alone.

THE ISLINGTON POOR ESTABLISHMENT COMPETITION.—Many months ago the committee advertised for designs for a building, stating distinctly that no design would be received, or at least chosen, which would cost more than 4,000*l.* The case of Mr. Birch was discussed fully in your columns at the time, and certainly the ultimate rejection of that gentleman's claims was highly honourable to the committee. They then chose the design of Messrs Jones and Parker, and advertised in your columns that unsuccessful designs would be returned on application. After some time the committee discovered, I think by means of public tender, that Messrs Jones and Parker's design could not be executed for the sum named. It was therefore rejected. This was also a highly honourable proceeding. After this the committee seemed puzzled. It clearly became their duty either to adopt the design of another competitor or to institute another competition. The former proceedings of this committee had been so extremely straightforward, that I waited in full expectation that one of these two courses would be pursued, when to my great astonishment I observed in your journal that tenders have been received for a design by Mr F Tyerman, the lowest tender being 8,669*l.* It is right to state that this includes fittings and drainage, neither of which were required originally by the committee. These two items would certainly not exceed 2,000*l.* There is therefore left 6,669*l.* for the cost of the building instead of 4,000*l.* Even supposing that Mr Tyerman's design could have been executed for the money, is it not a breach of faith towards all the competitors to appoint as their architect a perfect stranger, simply on account of their incapacity of judging of the cost of the other designs?

A. B.

DRAINAGE SCHEME.—A scheme for the drainage of towns by means of receptacles formed at intervals, in connection with the common sewers as they ordinarily exist, and into which the sewage matter was to be diverted, and where it was to be separated into dry, inodorous manure or British Guano, and clear liquid manure, both of them to be distributed where required, was, it may be recollected, published in our 9th volume, page 637, together with illustrative diagrams. A scheme, precisely the same, has recently been published, in the form of a pamphlet, by Mr. Weale, of High Holborn, but without the author's name. It is titled, "A Scheme for the effectual Drainage of Towns; with Projects of important national Measures which may be engrafted upon it." These measures are, the ventilation of sewers, as suggested long since by the *Builder*, the employment of convicts in the preparation of the manures, and, finally, the erection of extensive "model lodging-houses" around the ventilating shafts, and right above the manure depôts. Whether the pamphlet is by the author of the article in our pages, the Hon. and Rev. A. H. Gore, or has been plagiarised by some other writer, does not appear.

SURVEYORS' RESPONSIBILITIES: DILAPIDATIONS.—In the case of *Jenkins* v. *Beetham*, tried at Lincoln, when a verdict was given for the defendants, Mr. Macaulay, Q.C. moved, some time ago, in the Common Pleas, at Westminster, for a rule to set aside that verdict, and for a new trial, on the ground that the verdict was against evidence. The plaintiff was a clergyman recently appointed to a living in Lincolnshire, and the defendants were surveyors employed by him to estimate the value of the dilapidations to which he was entitled on entering on his parsonage-house. The defendants estimated the value of the dilapidations at 18*l.* as the amount requisite to make the house watertight. But they were bound to survey on the principle of the sum required to put the house in substantial repair, and it was proved that it would take 109*l.* to do this. The learned judge had directed the jury that, if the defendants brought to the performance of the duty they had undertaken the ordinary skill of country surveyors, they were not liable, as they were not to be assumed to be lawyers enough to know the principle on which the survey was to be made. They had, however, been recommended as the chief ecclesiastical surveyors in Lincoln, and accustomed to this kind of survey. Rule *nisi* was granted, but we are not aware of the result

BUILDINGS BY WHOLESALE.—I think that any one who reads the newspapers at the present time cannot have failed to notice the extraordinary celerity with which the wooden houses intended for our army in the Crimea have been prepared, packed up, and despatched for their destination. Now, for the future, might not the same plan be adopted for all wooden outhouses, barns, and sheds in our English farm-yards. Imagine the saving of time, trouble, and expense, if such sheds, instead of being sawn out by our village carpenters, were, on the measurements, &c. being given, at once sawn out and sent away with all the despatch that one of our great saw-mills is capable of. Again, for ordinary houses all the woodwork might be prepared in this way, the stone, bricks, and rough materials being furnished on the spot. Of course this plan would be applicable in especial to all emigrants, who, instead of setting out for a country where, on first landing, they would be houseless and homeless, would (I will not say like snails) carry their houses with them.—AGRICOLA.

WESTMINSTER ACT FOR IMPROVING THE DWELLINGS OF THE POOR. It having been represented that the Westminster Act offers the long desired facilities for the establishment of local societies for the improvement of dwellings with the utmost privileges, involving exemption from personal liability, beyond the amount subscribed, the *Labourer's Friend* has printed the first clauses of the Act for the information of its readers.

HOW TO SUCK BRAINS CHEAP.—Mr. Builder, —When I com'd for Surinam at efter I'd bin dun by brother Matty, I gat a lift to t'united States, but I nowt but bided there a bit, for I fun out they were ower cute for a chap like I, so I comed hoam agin, as I couldn't exactly fashion to tak to thear waays, and I bethowt me twor better to try and get on in towd way at walling, or clois yat hinging or owt els at wad pay. Well, tother day, I wor reading of yawr paper, and I seed an advertisment to artcheticts at baits owt for impudence at I iover seed i Kentucky. It wor an offer o' 20 pun fort best plans for a beeldin, and they as gees em is to do't work, but 20 pun is to go with it commission, so they has ony getten 10 pun to pay. As all they as tries for it mun pay 5 shillins, just reckonin the usual number as maks such fools of theirsels aboon 40, they gets prise for nowt, and as oftentimes there be more, they get what it pay for t'advertisements and all. This wad shame t'Americans, howsomever cute.

SAM SHARPSET.

WILL THE PUBLIC LEARN? — Your able correspondent, Mr. Tarbuck, in his articles on "The present Position of Architecture," has, in my humble judgment, borne a little too hard on the public, while pointing out the incontrovertible fact that "styles are now *adopted* instead of generated;" unless, indeed, he would wish to prove that professors and teachers are useless, and that all true genius issues from "the people," without direction—without teaching. And yet the articles are themselves a proof that we have teachers, both of art and architecture, and that they are required; that there are "men who evidently think for themselves;" and that there are men who give their free opinions on the exploded notion, that "true principles of architectural proportion, are *only* found in pointed edifices," or any other style. Let me entreat him, then, and all the other men of his noble calling, not to forget that to the professors of a science, *we* look for a sufficient amount of disinterestedness to teach us that which they believe to be true, even if their "very existence is dependent on the favour of their clients." The public will appreciate genius when it appears in the architectural form, for then it is sensibly brought before them.—ONE WHO ACKNOWLEDGES THE "BUILDER" TO BE A TEACHER.

REPAIRING METAL TOOLS.—A case is reported in the *Birmingham Journal* as lately occurring at the County Court there, in which plaintiff was a vice-maker, and defendant a lock-maker. The action was to recover 16s. Defendant, a Mr. Smith, required a shop-vice to be repaired, to be "steeled" on both its sides, and sent it to Mr. Massey, the plaintiff, for the purpose. Only one side had been steeled, and the article was sent to Hill's, in Digbeth, where it was properly done, and defendant had paid Mr Hill for it. Plaintiff laid the blame upon one of his men. Verdict for defendant.

BATH SCHOOL OF ART.—On 2nd inst. the general committee of this recently established school met and received a report from the executive committee, on the objects, position, and operations of the school. An exhibition of drawings from Gore House, including even a few from the Bath School itself, has been lately held in this city, for the promotion of an interest in art amongst its inhabitants.

EFFECT OF A LITTLE ORDER AT LONDON-BRIDGE.—The usual confusion and obstruction at London-bridge have been greatly lessened simply by regulating the traffic so that waggons and all slow-going vehicles are made to keep close to the side-walks, while the central roadway is appropriated to the fast traffic alone.

IRONWORKS IN SUSSEX.—In reply to an inquirer, we believe it will be found that up to as late as 1720 Sussex was the principal seat of the iron manufactory in England; but as the woods failed in providing fuel, the manufacture was removed to the coal districts. There was a furnace alight there, however, as late as 1827.

MEASURE OF STONE.—In reply to your correspondent's query as to "the quantity in cubic feet that constitutes a *perch* of stone, a common term in the western counties," I beg to inform him that a perch of walling is generally considered in this neighbourhood (Torquay) to be 16½ superficial feet, 20 inches thick, which is 27 feet 6 inches cube. Beyond 20 inches in thickness, unless by special agreement, it is calculated as a wall and a half or two walls, according to the extra thickness, and so on. It is not uncommon to *define* what shall *constitute* a perch of walling in the specification of work.

EDWARD APPLETON.

TENDERS

For pulling down and rebuilding the Museum Tavern, Russell street, Bloomsbury. Mr. Wm. Finch Hill, architect:—

Soward	£2,589	0	0
Patrick and Son	2,574	0	0
Holland	2,500	0	0
Johnson	2,437	0	0
Elston (accepted)	2,398	0	0

TO CORRESPONDENTS.

"*A Material Wanted.*"—Can you or any of your readers help me to a material for working the cornice and enriched mouldings of a shop-front, combining the following virtues. Shall be pronounced fire-proof by district-surveyor, easily worked, and very light; compo inadmissible; the entablature worked in slate, probably with a bearing of about 9 feet 6 inches?—S. G. O.

"*Red Bricks.*" Can any of your correspondents give any information as to where the red brick rubbers, used in the gauged arches and moulded work of the buildings in London, built in the time of Queen Anne and George I came from, and of what kind of clay they were made?—UBSHURST STOCK.

"A Clerk of Works," "J. W. B" "E. M." Bd. (some of the back numbers will be found at the office), "J. M." (answered, January 8th), "Palladio," "S. F." "W. E. M." (send us particulars), "H. F." "R. D. C" "Rev. J. G" "E. C. R." "C. B. N." "W. B. Salisbury." "F. W." "J. P." "T. O" "D. B." "A. S. G." will be made use of). "J. N." "J. R" "M. L" (we believe it was in the *Daily News*), "J. and J. H." "A Northern Subscriber." "Pro *Rata*." "Re Noxious Trades." "A Subscriber." "T. B." "W. G."

"*Books and Addresses*"—We are forced to decline pointing out books or finding addresses.

ADVERTISEMENTS.

ARCHITECTURAL and ENGINEERING PUPIL.—An Architect and Engineer, practising, and holding the appointment of Town Surveyor in a fashionable watering place, has a VACANCY for an articled PUPIL. Address, DELTA 12, Wellington-terrace, Bayswater-road, Kensington.

A BUILDING or MEASURING SURVEYOR requires a PUPIL, either IN-DOOR or OUT-DOOR.—Address A. B. Mr. Charles Poland's, 72, Margaret street, Cavendish-square.

AN ARCHITECT in London has a VACANCY for an additional ASSISTANT as an improver. Salary dependent upon present ability.—Address, X. Y. Z. care of Mr. Crocker, 26, Buckingham-street, Strand.

TO PARENTS AND GUARDIANS

AN ARCHITECTURAL FIRM, in the west end of London, having several important public and private works in hand have a VACANCY for an ARTICLED PUPIL. One of the firm being an artist, a peculiarly eligible opportunity presents itself for any youth having a taste for drawing, and who may be desirous of perfecting himself in that particular branch, combined with a thorough practical knowledge of architectural landscape gardening and ornamental arrangement of estates for building purposes. Reference given to works in course of erection, and a liberal premium required.—Address to A. B care of N. Webnert, Esq. Solicitor, 4, Bernard street, Russell-square, London

A CLERK REQUIRED in the OFFICE of a BUILDER in London. None need apply who have not been accustomed to take out quantities and make estimates; or who are not thoroughly conversant with builders' accounts, and the general duties of the office.—Address, C. Office of "The Builder."

MANAGER.—WANTED, an active Young Man, to take the management of a large saw-mill. None need apply but those who are accustomed to the control of men, and prepared to work with energy and perseverance. Address, O. H. D. care of W. H. Miller, Stationer, 6, Bridge-road, Lambeth.

QUANTITY CLERK WANTED, for a short measurement, to enter Engineering and Architectural quantities, and bring the same into bill. Must be able to produce satisfactory testimonials of accuracy and expedition.—Address, stating terms, to C. D Office of "The Builder."

THE SURVEYOR of a large and flourishing town in Lancashire desires to receive into his Office a Young Man who has had two or three years' experience in Surveying, Levelling, &c as an IMPROVER. There is constant practice in all the branches of an Engineer's and Surveyor's office, especially of sanitary and improvement works.—Address, with reference, stating experience, terms, &c. to B. B. Office of "The Builder."

TO ARCHITECTURAL STUDENTS AND OTHERS.

WANTED, an IMPROVING CLERK, at a progressive salary.—Specimens of drawing and terms to be sent to Mr FOWLER, 7 Garden court, Temple

TO ARCHITECTS' ASSISTANTS.

WANTED, by an Architect, in the course of a month from date hereof, an ASSISTANT, capable of designing and making finished and detail drawing with neatness and accuracy, also possessing a knowledge of construction, colour, perspective, and the general routine of an architect's office.—Address, stating age, terms, and qualifications, to A. Z Post-office, Birmingham. Good references indispensable.—Jan. 1, 1856.

TO FOREMEN OF CARPENTERS.

WANTED, a FIRST-CLASS, out-of-town FOREMAN, to Superintend Works from home. He must be thoroughly acquainted with Gothic work, and have previously filled a similar situation. A Wesleyan will be preferred.—Address F. H. Post office Leicester.

TO MARBLE MASONS.

WANTED, a good MARBLE MASON, one who is a good letter cutter. A Wesleyan will be preferred.—Address O P Post office, Leicester.

TO SHOP FOREMEN.

WANTED, in a London house, an experienced SHOP FOREMAN.—Address, by letter, to A. Z 19, Tokenhouse-yard, City, stating age, salary required, and where last employed

WANTED to APPRENTICE a LAD, 14 years of age, to a CARPENTER and JOINER, for seven years. A premium will be given.—Address, post paid, to Mr. HARDY, 57, Holland-street, Southwark, Surrey.

TO PLUMBERS AND BUILDERS.

WANTED, by a Three-branch Hand, constant EMPLOYMENT.—Address to T. S. 16, Cravenbuildings, City-road.

TO SCULPTORS

WANTED, EMPLOYMENT, by a respectable Young Man, who is a good hand at draped figures. Objects to carve in foliage.—Address, stating particulars, J. S. 1, Glebe street, Longsight, Manchester.

TO ARCHITECTS, BUILDERS, AND ENGINEERS.

WANTED, an ENGAGEMENT as BOOK-KEEPER and DRAUGHTSMAN, by a married man, 35 years of age, who can be well recommended from a similar engagement, and who is well acquainted with landscape, as well as mechanical and architectural drawing.—Address, A. Z care of Mr. H. Penney, Printer, &c. Darlington.

TO BUILDERS, CARPENTERS, &c.

WANTED to APPRENTICE a Youth, 15 years of age to the above, where he will have a good opportunity of learning his business. A small premium will be given. Address, with particulars, to H SPARROW, 34, Newington-causeway.

TO ARCHITECTS.

WANTED, an ENGAGEMENT in Town, by an experienced ASSISTANT, of business habits, and generally well qualified in the profession. Address A. M. care of Messrs. W. and C. PUGH, Blackman-street, Southwark.

TO ARCHITECTS, ENGINEERS, &c.

WANTED, by a Young Man, who is quite used to Mechanical and Architectural Drawing, an immediate RE-ENGAGEMENT.—Apply to Mr. EVERETT, Estate Agent, 31 Kingsstreet, Cheapside

WANTED, the MANAGEMENT or FOREMANSHIP of a CEMENT MANUFACTORY. The advertiser is temperate and of business habits, who has a thorough knowledge, with a practice of fourteen years in the manufacturing of patent Portland, Roman, Keen's, and Martin's cements; in the laying out of works, and in construction of machinery of a new and cheap description, invented by the advertiser, whereby 50 per cent will be saved in the manufacturing the Portland cement over the old system, with all defects at present in the material remedied.—Direct, freepaid, S. J. NICOL, 37, St. Anne-street, Liverpool.

TO BUILDERS

WANTED, a RE-ENGAGEMENT, by a steady, respectable Young Man; he is a good plain draughtsman, with some knowledge of taking out quantities; understands timekeeping, and the routine of a builder's office; is a Carpenter by trade, aged 26; country not objected to; can be well recommended by his last employer.—Address, G. P. 10, St. Andrew's-terrace, Rhodewell-road, Limehouse London.

TO BUILDERS, PLUMBERS, &c.

WANTED, by a Young Man, a SITUATION as PLUMBER or THREE-BRANCH HAND, who thoroughly understands his business. A good reference can be given.—Apply, prepaid, to T. R. 14, Alfred place, Bedford square, London.

TO CARPENTERS AND BUILDERS.

WANTED, by a Young Man, a Carpenter, IMPROVEMENT as a JOINER.—Apply, by letter, to A. Z. 13, Crosier-street, Palace-road, Lambeth.

WANTED, by a Practical Man, a SITUATION, as an outdoor FOREMAN, or Clerk of Works. The highest reference can be given.—Address, J. S. No 2, New Millman street, Guildford-street.

TO BUILDERS AND CONTRACTORS.

WANTED, by a Young Man, aged 24, a RE-ENGAGEMENT as CLERK in a Builder's Office. He is thoroughly acquainted with the same.—Address by letter, prepaid, to W. G. 4, James-place, Bath-street, City-road

TO MARINE ENGINEERS

WANTED, to APPRENTICE a respectable, well-located YOUTH, aged 15, in-doors. The country would be preferred. Also a member of the congregational body. Reference as to respectability required and given.—Address, W. F. No. 8, Quarry-street, Guildford.

TO BUILDERS AND PAINTERS.

WANTED, by a Young Man, who has served his time, constant WORK as PAINTER and GLAZIER; can hang paper, if required. Wages, 24s per week. Will agree for a term, if required.—Address, X. X. 1, Springstreet, Baker-street, Portman-square

TO BUILDERS, DECORATORS, PAINTERS, GLAZIERS, &c.

WANTED, by a Person who thoroughly understands his business (with measuring and bookkeeping), a SITUATION as FOREMAN, or to take the management of a business, having filled a similar situation for the last fifteen years. Satisfactory references can be given. No objection to the country.—Address, W. H Office of "The Builder."

TO CIVIL ENGINEERS, ARCHITECTS, SURVEYORS, &c

WANTED, by the Advertiser, an ENGAGEMENT as ASSISTANT to the above. He understands railway surveying and levelling, preparing plans, sections, &c measuring artificers' work, taking out quantities, &c. and has had several years' practical experience in the build ng department. No objection to going on the continent. Unexceptionable references and a testimonial can be given.—Address (stating salary offered) to F. H. C. Post-office, 7, Hemingford-road, Barnsbury, Islington.

TO BUILDERS AND HOUSE AGENTS.

WANTED, by a Young Man, a permanent SITUATION as PLUMBER, PAINTER, GLAZIER, and also understands paperhanging.—Address, C. D. 26, Brunsplace, City-road

THE Advertiser wishes for a RE-ENGAGEMENT as Clerk of Works or General Foreman.—Address A. Z. Mr. Braden's, Post-office, White Lion street, Islington, to be left till called for.

TO ARCHITECTS

THE Advertiser, who is in his 22nd year, wishes for an ENGAGEMENT. As the opportunity of improvement is the chief object, a small salary only would be required. —Address, A. W. 5, Conduit-street, Regent-street.

TO LIME, TILE, AND BRICK MERCHANTS, &c.

THE Advertiser, a Person of high respectability, having been established many years in the above trades, on his own account, and having a good connexion amongst builders, wishes for EMPLOYMENT. He is perfectly competent to conduct business, and to keep the accounts by double or single entry. Satisfactory references as to ability and integrity can be given.—Address, paid, to H. T. Loveland's Library, Essex-street, Islington.

TO BUILDERS AND CONTRACTORS.

THE Advertiser, an active Young Man, 20 years of age, Paviour and Mason by trade, is open for an ENGAGEMENT, by piece or otherwise. He is a thorough master of his business, both theoretically and practically, no matter how much or small the work, from the paving required on the embankments of water-works to fork and carriage way, brick and clinker, herring-bone, and encaustic tile paving.—Unexceptionable reference as to character and ability. No objection to the country. Address, T. C. No 3, Brunton's place, Commercial-road, Ratcliff

THE Advertiser, who is a good Draughtsman, and accustomed to Working Drawings of all kinds, is desirous of an ENGAGEMENT in an Office, or to superintend Buildings as Clerk of Works to which capacity he has had some experience.—Address, A. R. Z. 7, Upper-Park-street, Greenwich.

TO BUILDERS.

OCCASIONAL ASSISTANCE OFFERED. WANTED, an ENGAGEMENT for TWO or THREE DAYS a WEEK, in Estimating, Measuring, Bookkeeping, and Pricing and Making out Accounts, upon reasonable terms.—Address A B 2, Triangle, Upper Kennington lane, Lambeth.

CLERK.—WANTED, by a Young Man, age 23, a SITUATION in a Builder's Office. He has a knowledge of accounts, and is a good practical joiner. Salary secondary consideration.—Address, A. B. Office of "The Builder."

TO ARCHITECTS, CIVIL ENGINEERS, AND OTHERS.

AN Architectural Draughtsman, aged 22, desires a RE-ENGAGEMENT. He is well versed in mathematics, and is conversant with levelling, surveying, planning, mapping, and taking out quantities. Salary very moderate. Address, X Y. Mr. Lowe's, Law Stationer, Bell-yard, Temple-bar.

TO ARCHITECTS, CIVIL ENGINEERS, &c.

A CLERK of WORKS having just completed some extensive works in the country (under the directions of the architect, and where no builder was employed), is desirous of an ENGAGEMENT. The advertiser can make fair and working drawings, take out quantities, measure up works, &c. First-rate references.—Address, R. G. Office of "The Builder."

TO ARCHITECTS, SURVEYORS, AND LAND AGENTS.

A GENERAL ASSISTANT is open to an ENGAGEMENT.—Address, GAMMA, Office of "The Builder."

TO ARCHITECTS.

A YOUNG MAN, who has served five years to an architect of extensive practice, and who is just completing a twelvemonth's tour on the Continent, amongst the best specimens of the art, is open to an ENGAGEMENT.—Address, JAMES RADFORD, Solicitor, Newcastle-upon-Tyne.

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A YOUNG MAN, of business habits, will be shortly disengaged. He is a good draughtsman and Designer and has had considerable experience in superintending the erection of buildings, taking out quantities, measuring up work, keeping books, and looking after workmen. Practically acquainted with Carpentry and Bricklaying. References to present and previous employers.—Address to B. G. G Mr. F. W. Dunn's, Bookseller, 85, Pilgrim street, Newcastle on Tyne

A GOOD DRAUGHTSMAN, who is acquainted with perspective, and the usual duties of an architect's office, is desirous of an ENGAGEMENT. A moderate salary required.—Address, A. O. Z. Gresham Library, Cheapside.

TO ARCHITECTS, &c.

AN Artistic Colourist, Draughtsman, and Designer, offers his services in the preparation of Perspective Views, with landscape and figures, also in general drawing, on moderate terms.—Address, A. Z. 61, Denbigh-street, Belgravia.

TO BUILDERS AND CONTRACTORS.

A PRACTICAL and well-qualified Man wishes for a RE ENGAGEMENT as AGENT or GENERAL FOREMAN. Unexceptionable references can be given.—Address D. W 19, Weston-place, Long-lane, Bermondsey.

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A YOUTH, aged 17, who has assisted a Surveyor, wishes to enter an Office of either of the above. He has been accustomed to square dimensions, check abstracts, copy bills and drawings, &c. No premium will be paid. Address, S. B. M. Office of "The Builder."

TO ARCHITECTS AND OTHERS.

A GENTLEMAN, who has been in the above profession about sixteen years, and who is now thirty-nine years of age, is desirous of obtaining a SITUATION, either to conduct the Management of a Surveyor and Architect's Office, to Manage the Estate of a Nobleman or Gentleman, or to be Surveyor to any Institution or Corporation. The Advertiser has carried on his profession in the City of London, and can give first-rate references and testimonials as to sobriety and integrity, and to many large jobs and numerous estates upon which he is and has been professionally engaged.—Address Z. N. 73, Newgate-street, City.

A CLERK of WORKS, about finishing a large public job in the neighbourhood of Oxford, is open to an ENGAGEMENT, either in the Gothic or general building line.—Address, J. G. High-street, St. Clement's, Oxford.

A THOROUGHLY practical Man, of business habits, wants a SITUATION as FOREMAN of PLASTERERS in a builder's firm; is accustomed to the general discipline amongst workmen. References can be given. No objection to town or country.—Address, G. P. 29, Upper Seymour-street, Euston-square, London.

TO ARCHITECTS.

A YOUNG ARCHITECT is desirous of an ENGAGEMENT; a good draughtsman; understands surveying and levelling; no objection to the country.—Address, A. B. 38, Blackman-street, Borough.

TO ENGINEERS, IRONFOUNDERS, CONTRACTORS, AND OTHERS.

A RESPECTABLE MAN, aged 36 years, well versed in accounts, men's time, abstracting, prime cost, material, &c. wishes a RE-ENGAGEMENT, as Clerk, Collector, or Traveller, in either of the above capacities. References of the highest order.—Address, A. B. U. care of Mr. Seabrook, Office, No. 3, Camden-terrace, Peckham-road, Peckham.

LONDON NEW CATTLE-MARKET.—The AGRICULTURAL GAZETTE and GARDENERS' CHRONICLE of this day, January the 5th, will contain a full description of the NEW CATTLE-MARKET, together with an Engraving exhibiting in perspective the general arrangements of the parts. It may be ordered of all News agents, or a single copy will be sent by post on receipt of six postage stamps.—Office for Advertisements, 5, Upper Wellington-street, Covent-garden.

Office of Metropolitan Buildings, 6, Adelphi-terrace, Strand,
January 3, 1856.

METROPOLITAN BUILDINGS ACT.

NOTICE An EXAMINATION of PERSONS desirous to obtain a certificate of qualification for the office of DISTRICT SURVEYOR, will take place on MONDAY, the 28th day of JANUARY instant, at ONE o'clock p.m. Persons desirous to be examined, must apply on or before the 27th instant, and the application must be accompanied by a preliminary statement, according to the course of examination prescribed in the rules for that purpose, copies of which may be had at this Office

(Signed) ARTHUR SYMONDS, Registrar of Metropolitan Buildings.

THE CONSERVATIVE LAND SOCIETY.

The OLD FORD ESTATE, in the parish of St. Mary, STRATFORD LE-BOW, Middlesex, within the borough of the Tower Hamlets, will be ALLOTTED at the Office, No. 33, Norfolk-street, Strand, on WEDNESDAY next, the 24th of JANUARY.—The land is divided into one plot of 1000l.; four of 150l. each; one of 200l.; three of 100l. each; three of 90l. each; fifteen of 75l. each; and one hundred and sixty plots of 50l. each.

CHARLES LEWIS GRUNDISEN, Secretary.

BUILDING ACCOUNTS, Measurements, Dilapidation Surveys, Quantities, Land Surveys, &c. Architects, Builders, or Employers, in town or any part of the country, requiring a practical and experienced SURVEYOR, would find prompt and undeviating attention to any business of this nature, combined with a scale of moderate charges, on application to MR. A. ANDERSON, Offices, 69, St. Martin's-lane, and Acton hill.

IMPORTANT NOTICE to ARCHITECTS, BUILDERS, and OTHERS.—CHARLES NOSOTTI, Looking-glass Manufacturer, Interior Decorator, and General House Furnisher, begs most respectfully to inform the above, that, from the extent of his trade, he is enabled to offer pecuniary advantages both in quality and price. Designs made or carried out to any extent. An extensive assortment always on hand. Estimates free of charge.—Plate-glass for glazing purposes, at 338 and 399, Oxford-street.

TO SAW-MILL PROPRIETORS, BUILDERS, &c.

ON SALE, a first-rate PLANING-MACHINE, with 18-inch rollers and the latest improvements. This machine will plane, thicknes and groove (simultaneously) boards at the rate of 50 feet per minute, up to 4 inches thick and 12 inches wide.—Apply to JNO. H. WALKER, Sawing and Planing Mills, Huddersfield.

FOR SALE, in consequence of the brick-making being discontinued, IRON PLATES, PUG-MILLS, BARROWS, CHALK-MILL, &c. and the usual Brick-making Plant.—For particulars, enquire at the Office, Vorley's-villas, Junction-road, Holloway.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, have just ISSUED a PAMPHLET, descriptive of various Patented Inventions for the Permanent Way of Railway, which are adopted and are being applied to more than 3,000 miles of line. On application, a copy will be forwarded by post (gratis) to any parties who are interested in the construction of railways. WILLIAM HOWDEN, Sec.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge

PRIZE MEDAL, 1851.

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The public are invited to inspect the Stock of CHEAP Chimney Pieces, manufactured by improved machinery.

Mediæval and Elizabethan Chimney Pieces, in Marble, Alabaster, and Cen-stone.

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The works are in a fine situation, and about a quarter of a mile (west) from Buckingham Palace.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally their extensive assortment of vein, Sicilian, and statuary marble in slab and block, at prices never before offered JAMES SIMMONS, Manager.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer a partner.

Mr. J. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE CHIMNEY-PIECES manufactured by Machinery, improved by the proprietor's own invention, at far less cost than by any other process, and can be supplied with Mantel and Slab Chimney pieces Slabs, &c. at the Marble and Stone Sawing mills, Cambridge heath Hackney. WM HUSTLER, Proprietor. Two Marble Masons wanted.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Burzilla, dove, black, blue and gold, brocatelle, and statuary, serpentine, red antique &c. Portland, Bramhill, Park spring, and other stone, in blocks, slabs landings, and hearthstones Yorkshire paving, scantle, &c. All goods carefully packed and forwarded to any part of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London

CAEN and AUBIGNY STONE.—P. POUCARD, Stone Merchant and Quarryman, Carges shipped to order from Caen to any port. Contracts taken for any quantities. Depôt, Granite Wharf, East Commercial-road, Lord's Waterloo-bridge. Offices: 240, High street, Southwark, near the Townhall

BANGOR WHARF, King's-road-bridge, Camden-town. S. RINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, plaster, Portland, and Roman Cements, Lime, Tiles, Decking and chalk lime, plasterers' hair, Yorkshire plain, pan and ridge tiles, glazed sewer pipes, chimney pots, red and white fire bricks, gravel and shells for garden paths, ballast, sand, &c Materials landed, wharfed, and carted.

GATES and GEORGE, GENERAL STONE MERCHANTS, Caen Wharf, Rotherhithe, beg to inform Building Manufacturers and Workmen, and Wholesale Dealers in Hearth- and Paver Stone, that they can be supplied in quantities from three tons and upwards with the above delivered at the South Eastern Railway Goods Depôt, Bricklayers' Arms Station, Old Kent-road, at the current prices. Terms samples, and other information may be obtained at the Office of the Wharf above.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, & Co.), General Stone Merchants, Caen Wharf, Rotherhithe, are supplying the above Stone, Portland, Bramley Fall, and other Yorkshire stones from their depôt, at current prices by land and water carriage; also by vessel direct from the quarries, at moderate ship freight to any part of the United Kingdom.

N.B. Heavy goods landed, transhipped, or carted with despatch, and on moderate charges.

THE CASTLE SLATE QUARRY.—NOTICE to the SHAREHOLDERS and the PUBLIC.—The 2,000 shares hitherto kept as a reserve fund, in consequence of the great extension of the present workings, and the opening of the new quarry, will not be issued at 11 per share to the original shareholders, and at the present market price of 14 to the public. Applications may be made immediately to the Purser, G. HADLEY, Esq. at the Offices of the company, 8, Old Jewry, where every information respecting the present state of the quarry (dividends paid and shortly due, may be obtained. The shares now priced need will participate in the next half year's dividend after the payment of the one due, in December next.

By order of the Committee.

Jan. 4, 1855 GEORGE HADLEY, Purser

MARKET-WHARF, REGENT'S-PARK-BASIN, WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. WOODLAND ROBARTS beg to the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the Lowest Prices. Bills of Quantities, Estimates, Ledgers, Steps, Landings, &c. cut on the shortest notice Country orders promptly attended to

WILKINSON'S IMPROVED ARTIFICIAL STONE CHIMNEY PIECES. Nearly two of the above have been sold, although only recently brought to their present state of perfection, and offered to the public. The prices range from £7 to £14 10s. each; with jambs, moulded with large open fire-grate, set in plinths, Mantel moulded with wide mantel shelf, and slabs with hollow on edge, to suit sitting-room patterns of more elaborate character. A liberal discount for quantity.—Address W. B. WILKINSON, Newcastle-on-Tyne.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLATE WORK in London NOW READY, and can be had on application, inclosing a postage-stamp.

N.B. A liberal discount to the trade.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

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SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

UNDER HER MAJESTY'S ROYAL LETTERS PATENT. INDURATED STONE COMPANY, for INDURATING and RENDERING IMPERVIOUS STONE, BRICKS, TILES and other Building Materials Completely Registered, Dec. 23rd, 1854 This Company being now in a position either to execute orders or grant licenses, the Directors are desirous to call the attention of the public to the great importance of their valuable patent. Although any porous material can be hardened and rendered perfectly non-absorbent by the process adopted, it is especially applicable to the various sandstone and freestones which abound in this country. There are many localities where stone may be procured; but on account either to its very little texture or from its yielding rapidly to the action of the atmosphere, it is useless to incur the expense of quarrying. In such situations, the application of this patent process would be invaluable, as it would completely obviate the disadvantage above referred to, and render a material otherwise useless available for a variety of important uses in connection with building. In a national point of view, the process is also worthy of great consideration. The enormous outlay incurred in the cost and conveyance of granite and other hard stones for docks, sea-walls, bridges and similar works of magnitude might, in many instances be reduced 75 per cent. This is generally to be found, either on the sea-coast, or within a reasonable distance of it, which fronted under this patent, would be preferable to the costly stones above mentioned, as one of which will stand effectually between wind and water, owing either to their long course of exposure or from the presence of some mineral which becomes affected by the atmosphere, such as the felspar, in granite. For monumental purposes, the Indurated Stone has great advantages over the materials usually adopted. It is considerably cheaper even for the plainest kind of work; but for ornamental designs, it is pre-eminently so, and as it does not vegetate, and cannot decay, its importance in this particular is obvious. Its extraordinary induration for vaults and catacombs, such that is parallel to the beddings and adherence to the cross might be obviated as in such cases, it would act as a preservative, and not as in other instances, hasten decay. For all purposes where durability and impermeability are desirable, the Directors feel that this patent process must ultimately prevail With reference to the former, the Directors refer with satisfaction to the opinion of that eminent engineer, Mr. Stephenson, who has pronounced the Indurated Stone to be an indestructible rock, and as regards its impermeability, the simple test of allowing it to remain in water an length of time must convince of the most sceptical. The stone will bear a most brilliant polish thereby rendering it available for chimney pieces, and works of similar character. With a view to the development of the importance and usefulness of the Indurated Stone, the Directors are prepared to grant licences on very moderate terms. Applications to the Executive Offices, 14 and 15, St. Swithin's-lane, London, and at the Works, Tunbridge Wells. Applications for shares may be made to the 27th inst.

INDURATED STONE COMPANY.—Completely Registered. Dec 23rd, 1854 WANTED, as SECRETARY for the above Company, a gentleman of active habits and ability, thoroughly accustomed with book-keeping, and possessing a knowledge of architecture and matters connected with building generally Salary, £75 per annum Most satisfactory testimonials as to character and ability must be given, and security to the amount of £500, will be required. For further information, apply by letter (post-paid), to Mr N. E. STEVENS, Managing Director, High-street, Tunbridge Wells.

ESTABLISHED 1803.

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WILLIAM NEWMARCH, Secretary.

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INSTITUTED 1831

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The SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY is an Institution peculiarly adapted to afford provision for Families It was established in the year 1831, upon the principle of MUTUAL CONTRIBUTION, the Surplus or Profit being wholly divisible among the Members; and the Additions which have been made to Policies at the Periodical Investigations of the Society afford satisfactory evidence of the prosperity of the Institution, and the great advantages derived by its Members. The following Examples exhibit the Additions already made:

A Policy for 1,000l. opened in 1839, is now increased to 1,523l. 8s.

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The Profits are ascertained and divided triennially among Policies of more than five years' duration.

The Annual Revenue is upwards of 150,000l.

The Amount of Assurances in force is upwards of Four Millions and a Quarter Sterling.

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Loans granted to Members to the extent of the Office value of their Policies.

Copies of the Annual Report, Forms of Proposal, and all information may be had on application at any of the Society's Offices in town or country.

ROBERT CHRISTIE, Manager.
WILLIAM FINLAY, Secretary.
W. COOK, Agent.

January, 1855. 126, Bishopsgate-street, London.

LIST OF LOCAL AGENTS

BARNES—Whitbread, Edward, Sheener

BATTERSEA Buckmaster, J. T. Norwood, St. John's-hill

BRIXTON.—Pinhorn, J. M. Chemist, 3, Longhborough-place.

CLAPHAM.—Balls, Charles, Scientific and Literary Institution.

COMMERCIAL-ROAD EAST. — Newton, J. 6, Grosvenor-street.

DE BEAUVOIR TOWN.—Pettifer, E. H. Chemist, 6, Southgate-row I.

HACKNEY.—Stesh, Richard, Jun. 2 Denmark-place

ISLINGTON.—Innes, Robert, Commission Agent, 36, Gibson-square.

KENTISH-TOWN.—Garton, Henry, Chemist, 2, Commercial-place

LAMBETH Roffey, Thomas, Solicitor, 59, Walcot-place East.

MILE-END.—Sharp, George, 3, Ireland-row.

PIMLICO Carrick, James, 59, Church-street.

PUTNEY Stewart, John, High street.

STRATFORD. McCash, William, Baker

SYDENHAM Dawe, Thomas, House Agent.

WALWORTH Turner, W. St John, House Agent.

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PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price and their Asphalte Felt.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 11, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834 Every description of Flooring laid with the above durable material in the best manner Asphalte for Railway Arches, 38s per ton. Importer of Trinidad Asphalte

Shipping Depôt, Devon Haytor Wharf, Rotherhithe.

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HANCOCK'S PATENT VULCANIZED INDIA RUBBER TUBING, HOSE-PIPES, WASHERS, PACKING, Perforated Rubber Sheets, Solid Rubber Strips, Vulcanized Rubber Plates, and Solid Round Rubber Cord of all sizes or any length Rubber Cushions and Rubber Strips cut to any pattern for bagatelle tables.

Driving-bosses of superior make, and improved Vulcanized Rubber Snap Joints for ditto

A Vulcanized Rubber Sheet, from three to four feet wide and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order

N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

TARPAULINS for COVERING ROOFS during Repairs, SCAFFOLD CORD and every description of ROPE used by Builders on the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGOTT, 11, Crescent, City. Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c.—The nobility, gentry, water-companies, towns baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENFIELD, Civil Engineer and Patentee of Boring Tools, 10, Cumming-street, Pentonville Pumps and machinery for raising water from deep wells, boring-tools, and well pipes for exportation. Men and tools supplied to form for railroads, minerals, &c

CEMETERIES.—WILLIAM MASTERS and SON, having complete extensive cemetery works, are prepared to undertake the LAYING OUT and PLANTING NEW GROUNDS, as well as the ornamenting such as are closed by the recent Act of Parliament, by contract or otherwise WILLIAM MASTERS and SON, Landscape Gardeners, Canterbury.

COLOSSEUM, Regent's-Park.—Admission, 1s The original PANORAMA of LONDON by DAY, is exhibited daily, from Half-past Ten till Five. The extraordinary PANORAMA of LONDON by NIGHT, from Seven till Ten. Music from Two till Half-past Four, and during the evening

CYCLORAMA, Albany-street.—Now Open, with a COLOSSAL MOVING DIORAMA of the CITY and BAY of NAPLES, MOUNT VESUVIUS, and POMPEII, exhibiting the Great Eruption of 79, and present state of the excavated City, painted by Mr. McDevin, from sketches taken by himself in 1852-3-4 The Cyclorama is open from Ten o'clock with appropriate music and description. Admission, 1s Children and Schools half-price.

PATRON: H.R.H. PRINCE ALBERT.

ROYAL POLYTECHNIC INSTITUTION. Continued improvements, increased attractions, fresh decorations. Monday Evening, the 22nd inst. a Course of Lectures, illustrative of Electro-Magnetic Instruments, and the remarkable applications, by the Rev A. Bell Powell, M.P.C.S. & Principal of the Norwich Diocesan Normal School. The Lectures on Chemistry, Natural Philosophy, and Mechanics as usual, with the remarkable Scientific Novelty, lectured on by J. H. Pepper, Esq. of Professor Wheatstone's Experiments on the Transmission of Sound, illustrated by a Telephonic Concert. Entirely new and splendid Optical Diorama from the Arabian Nights, the Voyages of Sinbad the Sailor, with beautiful Phantasmagoria Effects. Views of the War. Perkins's Steam-gun, which now discharges 200 balls per minute.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material previously used, or from the use of a imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase l weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxide becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark in Half-by Messrs. BLUNDELL SPENCE, and Co.; when ground and dry by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 69, King William-street, City; JACK and BRADY, Wholesale and Retail Agents, 8, Tottenham-court, New road and 50, Upper Thames-street, City. In Manchester and Liverpool by Messrs. LAWFORD and CO. of 49, Norfolk-street, Liverpool, who are also acknowledged Painters to the Company for Zinc Paints, and undertake painting slates, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bonds. ZINC OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Dorchester, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars apply to the Company's General Agent in London, Mr. SCHMOLL, 13, Manchester-buildings, Westminster.

THE VIEILLE MONTAGNE ZINC MINING COMPANY beg to inform the public that they have appointed Messrs. T. and S. KNIGHT, of Great Suffolk-street, Boroughs rk, as their Painters, who will be ready to execute any description of Painting and Decorating with the Pure Patent White Zinc Paint.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PARIAN CEMENT, for Internal Use, to be painted in a few hours and papered within a couple of days. CHARLES FRANCIS and SONS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes. Nine Elms, London.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Peel street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lime, Lathe, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, Patte Vases, Rolling, &c. Paints, Stucco, &c. Marble Merchants and Importers of Portzolano.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of the reliable Cement, that they have, by means of a recent discovery (patented) by Mr. ASPDIN, much improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour.

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.

A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster; at their Works, Gateshead-on-Tyne; at Messrs. Rosher and Ward's, Hollis-street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement, does not vegetate, turn green, or crack; combined with which, its enormous hydraulic properties stamp it at once as the first Cement of the day for works where all the above qualities are requisite. It is manufactured on the only genuine Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Old Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

WHITE OXIDE OF ZINC AND ZINC PAINT.
(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in oil.

Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innocuous qualities, is peculiarly applicable to first-class Decorations and House Painting. For fresh it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO

MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

PORTLAND CEMENT.—D. MOUNTAGUE begs most respectfully to inform the numerous Architects, Contractors, Builders, &c. who have for the last thirty years patronised his Roman Cement, Plaster, and other manufactures that he is now enabled to supply them with a very superior Portland Cement, warranted to withstand the action of Lead Frost, &c. and of uniform colour and quality. Orders received at Foleon Cement Wharf, 80, Bankside, Southwark; Harrow-bridge Wharf, Stratford, Essex; and at the Cement Manufactory, Orchard House, Blackwall.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cement, with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime from this stone is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS, STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

MAW'S ENCAUSTIC TILE PAVEMENTS—a highly durable and decorative substitute for ordinary flooring and their perishable oil cloth coverings; for entrance-halls, passages, verandahs, conservatories, &c.

MAW and Co. send, free of expense, their pattern and price book, with designs, to any given spaces (and estimates), free of expense.

BENTHALL WORKS, BROSELEY, SALOP.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Maccles-field-street North, City road Basin. Second'd, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor, and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Teleries," Tunstall, Staffordshire, as the first of the kind in the world.

GREAT REDUCTION.—Pantiles 60s. per thousand; plain 33s.; Cowley Stocks 26s. at WARD'S OLD-ESTABLISHED HONDURAS WHARF, BANKSIDE, Lond n. Builders, Engineers, Gas Companies, and others, supplied with every sort of country Brick and Tile goods: Fire Bricks, Lumps, Tiles and Clays. Patent Maltings and Corn-drying perforated Tiles, real Dutch Clinkers, River sand, Concrete Gravel, Founders' Coke, White and Red Flue Sand, &c. &c. at the cheapest rate.—Chief Office, 27, Regent-street.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at R. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Pince, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; at a large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

BRICKS for OVEN-BUILDING, acknowledged the best for that purpose, delivered, 32s. to London-bridge or Newington; beyond that distance, moderate charge carriage. Bricks of all description; yellow and light stocks, equal to seconds. Red facings, at 30s.; grey field; red and glazed pipes, about half the price of stoneware; white sand, nearly silver, in field or by barge; founders' sand and loam; good coloured gravel.—Address, B. PARKS, Lewisham Brickfields.

GREAT NORTHERN WHARF, York-road, King's cross. WHITE BRICK and TILE DEPOT. L. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, beg to inform builders, contractors, and the building trade generally, that they have now on sale at the above wharf, Cowley stocks, grizzles, and place; white cutters, seconds and paviors; clinkers, red cutters, and stocks; plain and pan tiles, 6 in. 8 in. and 12 in.; white and red paving tiles; blue, red, and white ornamental tiles, blue and red ornamental ridges; Stourbridge, Welsh, and Yorkshire fire-bricks, lumps, tiles, and clay; ornamental and other wall copings; Bangor and other slates; stoneware sewer-pipes, bends, junctions, and syphons; closet-pans and traps, terra-cotta chimney tops, trusses, brackets, vases, mouldings, and patera of the most improved patterns. Architects' designs worked to with accuracy and despatch. Lump and ground grey stone lime, chalk lime for plastering, blue lias lump and ground lime, Roman, Portland, and lias cements, coarse and fine plaster, laths and hair.

N.B. 30,000 bundles of prime Gothenburg laths are now on sale at the above wharf, price 32s. per load.

GREAT NORTHERN RAILWAY.—L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross, beg to inform builders, contractors, and others who are engaged in works at or near any of the stations on the above line of railway, that they can be supplied upon the shortest notice with Bricks, Tiles, Lime, Cement, Sand, Plaster, Drain-pipes, Fire-goods, and all other building materials of the best quality at the lowest market prices.

N.B. Orders received overnight can be delivered by the early morning trains.

BRICKS.—KENT GREY STOCKS on SALE. Also PATENT PERFORATED and SOLID WHITE SUFFOLK FACINGS.—Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newland-street, Newington-butts, will, from MONDAY, the 10th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE. Dec. 8, 1854.

BRICK-MAKING EXTRAORDINARY!!
BY OATES AND INGRAM'S PATENT MACHINE.
TO CAPITALISTS AND BRICKMAKERS.

Messrs. OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen by order only in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

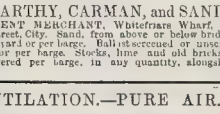
The great advantages possessed by this machine over all others are, no tempering is required.

The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be barked up in racks before leaving the machine, which is entirely self-acting, consequently requires only the labour of feeding and carrying off.

Applications, either to view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, T. WELLS INGRAM, Engineer, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

VENTILATION.—PURE AIR.



With single pulley, from 6s. each; with leading pulley, from 8s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants, and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, a most important supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders &c

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTCLIFF'S PATENT WIND-GUARD. This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

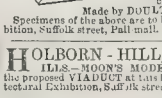
SMOKE PREVENTION.—(OFFICE of REFERENCE for PATENTEES and the PUBLIC, 17 and 18, Cornhill.) NOURSE and CO. having several British and Foreign Patents for the above purpose, some of them being peculiarly simple and effective, are ready to undertake the prevention of smoke in furnaces, boilers, and coppers of all kinds and sizes. An experienced practical engineer will, if required, superintend the work. Licenses granted to engineers, furnace-builders, and others.

CHIMNEY CONSTRUCTION.

MOON'S CHIMNEY CONTRACTOR, REGISTER, and CHIMNEY BAR COMBINED. The contractor assists draught; the register admits of being partially or wholly closed; it is cleanly, simple in construction, and cannot get out of order.

Manufactured by PARRY, of 105, Golden-lane.

MOON'S DWARF-COVERED CHIMNEY-POTS, open on two sides, which affords an efficient outlet for the smoke, whilst the two enclosed sides and top form a guard from the wind. The pots being very distinct, prevent the flues admitting each other. The dwarf cover nearly conceals them from view, and thus avoids any disfigurement to the chimney-shafts



Made by DOULTON, of Lambeth.

Specimens of the above are to be seen at the Architectural Exhibition, Suffolk street, Pall-mall.

HOLBORN-HILL,—a REMEDY for its ILLS.—MOON'S MODEL of an amended DESIGN for the proposed VIADUCT at this locality, may be seen at the Architectural Exhibition, Suffolk street, Pall-mall.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GOSS'S WHOLESALE WAREHOUSE, 29, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

PATENT SANITARY GAS SHADES.—These shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the offensive and smoke which have hitherto made the use of gas so objectionable in dwelling-houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had at the Works in a variety of forms adapted to the style of fitting, or the taste of purchasers; also at Mr. JOHN SHORTON'S, Crispin-street, Spitalfields, London.

FOWLER'S IMPROVED

WROUGHT PUMPS for CONTRACTORS, BRICKMAKERS, EXCAVATORS, and OTHERS.

The attention of this house for more than fifty years past having been almost exclusively paid to the manufacture of every description of pump-work for every variety of purpose, attention is respectfully requested to their very superior Wrought Pumps, with plain or sliding telescope section, galvanized and ungalvanized. A large stock of all sizes is kept ready to finish off to order, according to length required, at the shortest notice.

This description of Pump-work varying in almost every case, it is impossible to quote a general price, but the fullest particulars will be given on application.

A large stock of Wrought Pumps, from 3-inch single to double 15-inch barrel, is also kept on hire prepared for hand or steam power, on reasonable terms, at

BENJAMIN FOWLER'S
ENGINE-PUMP MANUFACTORY
Whitefriars-street, Fleet-street, London

TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to

JOHN WARNER & SONS'
PATENT VIBRATING
STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 36 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees

M. A. RICHARDS and SON PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

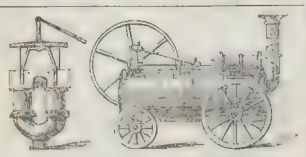
PUMPS ON HIRE

Pumps of any size, single or double barrel, up to double 12-in diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 9s. per doz. painted.
Ditto ..... 12s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side

STEAM PUMPING ENGINES.—

PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's place, Holland-street,
Southwark, London.

TO CONTRACTORS.

PATENT PORTABLE PUMPING ENGINES,

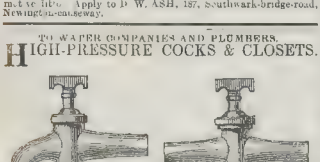
mounted on strong wagon-wheels, iron chimney horse shafts complete. Steam sample for immediate use. Several are ready for delivery, from six-horse power to twenty-five horse power and upwards, adapted to contractors' work generally. May be hired as a rental, or purchased, and can be seen at work at Messrs. MEDWIN and HALLS', Engineers and Portable Engine Makers, 92, Blackfriars road. These engines have been successfully employed for years.

PUMPS.—TO BE SOLD, a Set of Three

Inch GUN-METAL PUMPS, with 100 feet of rising main, complete, with all the connecting rods, cranks, carriages, &c. nearly new. Also, an 8-horse Waggon Boiler, and a 5-horse Locomotive ditto. Apply to D. W. ASH, 187, Southwark-bridge-road, Newington-causeway.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high pressure principle in all towns, WARNER'S HIGH PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

JENNINGS'S PATENT DRAIN-PIPES.

ENGINEERS AND ARCHITECTS SPECIFYING THESE PIPES TO BE USED, will have the GREAT SATISFACTION of knowing that their DRAINS can at all times be EASILY EXAMINED, or BRANCH DRAINS INTRODUCED, by simply removing one of the plain Sad Ues, and substituting a Saddle piece, having a junction in it of the required size.

See THE PATENTEE'S VIPES COMPARISON OF HIS PIPE, WITH AND OTHERS BEFORE THE PUBLIC.

A list of Public Works, drained by these improved Pipes, with testimonials, will shortly appear.

JENNINGS'S PATENT CLOSETS, TRAPS, SLUICE-VALVES, &c.

ARE FREE FROM ALL COMPLICATION.

ANY NUMBER OF CLOSETS SUPPLIED FROM ONE SERVICE-PIPE, AND THEY ARE AS READILY FIXED AS A COCK TO A SINK, UNDER HIGH OR LOW PRESSURE.

Architects furnished with references of the highest order.

A Book containing Illustrations and Particulars of JENNINGS'S DRAIN PIPES, WATER-CLOSETS, URINALS, LAVATORIES, SLUICE-VALVES, FIRE-COCKS, GULLY-TRAPS, SHOP-SHUTTERS, HORSES, &c. &c. can be had free on application, or by post if two postage stamps are enclosed to

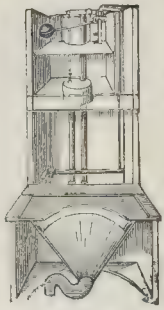
GEORGE JENNINGS, SANITARY ENGINEER,
29, Great Charlotte-street, Blackfriars-road.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

Superior Glazed Stoneware Pipes, Bends Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Syphon Pan, water without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin, the most effective Syphon-trap yet offered to the public.



This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS,

Oxford, November, 1849.

GENTLEMEN, Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1850.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

WATER POISONED BY LEADEN PIPES.

Section of a Piece of Lead Pipe taken up from a Well on the Grounds of Mr. Dick, of Bonchurch, Isle of Wight.

builders and other persons have lately examined it, and there is not the least apparent difference since the first laying down, now several years; and I am informed that it is to be adopted generally in the houses that are being erected here."

From C. HACKER, Esq. Surveyor to HIS GRACE THE DUKE OF BEDFORD, Woburn Park.

Second Testimonial;

"GENTLEMEN,—In answer to your inquiries respecting the Gutta-Percha Tubing for pump suctions, I find that the water has not affected it in the least although it will eat lead through in two years; we have adopted it largely, being cheaper than lead, much easier bored, and a more perfect job."

DURABILITY of GUTTA-PERCHA TUBING.

Many inquiries having been made as to the durability of Gutta Percha Tubing, the GUTTA PERCHA COMPANY have much pleasure in giving publicity to the following letters from parties who have had it in use for a considerable length of time:—

From Sir RAYMOND JARVIS, Bart. Ventnor, Isle of Wight.

Second Testimonial

"In reply to your letter received this morning, respecting the Gutta-Percha Tubing for pump service, I can state, with much satisfaction, it answers perfectly. Many

THE GUTTA-PERCHA COMPANY, PATENTEES,
18, WHARF-ROAD, CITY ROAD, LONDON.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior quality, truer in tune, and at less cost than has hereto been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turrets, Clocks, &c. cast to any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

WINDOW BLINDS.—TYLOR & PACE,

Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS which they can recommend as being made in the best manner. Venetian blinds, per square foot, best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 8d.; gauze wire blinds, in mahogany frames, 3s.; perforated zinc ditto, in ditto, 4s. 6d.; oriental blinds of striped cords, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Stamped Best-quality, Wholesale and Retail Pantry Builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1850.

TO LOCAL BOARDS OF HEALTH, WATER COMPANIES, &c.

A DESIDERATUM in SLUICE-VALVES.

FREEMAN ROE'S Patent Sluice-valves can be repaired without being removed from the main. All sizes, from 3 inch to 36 inch. Patent Hydrants, self-closing Cocks, Fire and other Pumps, Hot-water Apparatus, Baths, &c. Surveys made, and estimates given, by FREEMAN ROE, Hydraulic and Sanitary, and Gas Engineer, 70, Strand, and Upper Marsh, Lambeth.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,

BENDS, JUNCTIONS, and SYPHONS. They work well, be all to be the best manufacture, and are supplied of quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co. Great Northern wharf, York-road, King's-cross.

TO WATERWORKS COMPANIES AND OTHERS.

TO be SOLD by PRIVATE CONTRACT,

Forty-five 24-inch iron socket pipes, 9 feet long, and weighing 19 cwt. 3qrs. each; four 24-inch 3/8 bends, 13 cwt. 3 qrs. 23 lbs. each; fifteen 15-inch socket-pipes, 9 feet long, and weighing 9 cwt. 3 qrs. each.—For further particulars, apply to the Leicester Waterworks Company, or their Secretary, JOHN LOSEBY, Solicitor, Leicester.

DOULTON AND CO.'S
SINKS, URINALS, &c. IN PATENT GLAZED STONE WARE,
HIGH-STREET, LAMBETH, LONDON.

DOULTON and Co.'s Sinks and Urinals are manufactured in a new kind of Stone Ware, of high glaze, and uniform colour; they will withstand the action of the most powerful acids, and are made very strong to bear rough usage.

Fig. 1. Straight Sink, large size, 2 ft. 7 in. long, 2 ft. wide, 10 in. deep ..... 30s. each
Straight Sink, small size, 2 ft. 2 in. long ..... 20s. each

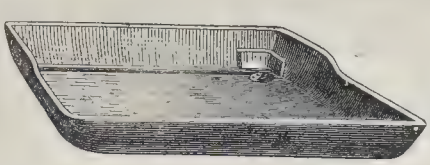


Fig. 2. Angular Sink, large size, 2 ft. 6 in. by 2 ft., 10 in. deep ..... 30s. each
Angular Sink, smaller size, 2 ft. by 1 ft. 6 in. ..... 20s. each

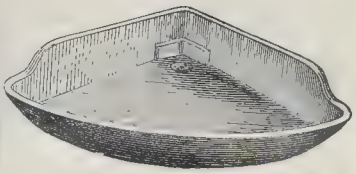


Fig. 3. URINAL WITH FLAT BACK. 1 ft. 2 in. long ..... 8s. 6d. each

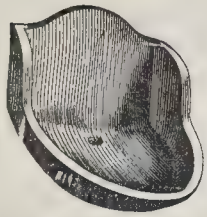


Fig. 4. ANGULAR URINALS. Large size, 1 ft. 10 in. by 1 ft. 2 in. ..... 15s. each
Small size, 1 ft. 4 in. long ..... 10s. 6d. each

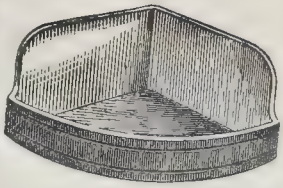
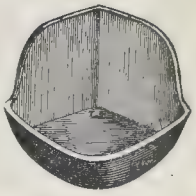


Fig. 5. ANGULAR URINAL. 11 in. by 11 in. ..... 4s. 6d. each



DOULTON AND CO.'S CLOSET PANS AND TRAPS, IN ENAMELLED STONE WARE, WHITE INSIDE, 7s. 6d.

DOULTON'S HALF SOCKET DRAIN PIPES,

BY THE USE OF WHICH, PIPES MAY BE REMOVED, THE DRAIN EXAMINED, AND JUNCTIONS INSERTED WITHOUT INJURY TO THE TUBES, THE SAME PRICE AS ORDINARY SOCKET PIPES.

For List of Agents, see "Builder" of November 18. Drawings, with prices, forwarded on application.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET;

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to THE AGENTS,

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

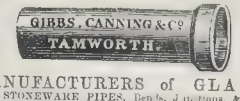
VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,
MANUFACTURER of Superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 81, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—7s. 6d. Pan and Trap.



MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Paving Bricks, &c., &c. Agents,—CHARLES RICHARDSON, No 6, South Wharf, Paddington, London.

TO ARCHITECTS, SURVEYORS, BUILDERS, CONTRACTORS, AND OTHERS.

MESSRS. CHANY beg to call attention to their large Stock of Water-closets spring valve and common), Gimlet Hopper Basins, Traps, and all articles used in sanitary improvements.—N.B. Plumbers' Brass-work of every description 34, Clifton street, Finsbury square.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, ware, lead trap, &c. Any number of Closets can be supplied from one main.

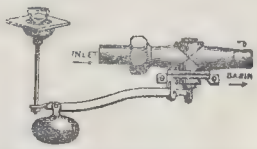
Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Fish-street, near St. Paul's, London

HENRY TURNER, 2, SOUTH WHARF PADDINGTON,

5s. Traps, 2s 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET-VALVE



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 140 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New-Cut, Lambeth.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PLARSE and CO. Great Northern Wharf, York-road, King's cross.

MILL-WALL POTTERY (near Scott Russell's).—Messrs. WILLCOX and CO. invite the attention of Contractors, Builders, and Wholesale Dealers to their extensive assortment of articles in WHITE EARTHENWARE for sanitary purposes. The only manufactory of the kind in the neighbourhood of London.—Particulars forwarded on application.

SALES BY AUCTION.

TO MARBLE MASONS, SCULPTORS, BUILDERS, AND OTHERS

MR. MARSH has received instructions to SELL by AUCTION on the PREMISES, No. 8, North Wharf, Paddington, on THURSDAY, JANUARY 26th, at TWELVE o'clock, the STOCK of MARBLE in the extensive Yard, Wood Bank, and Stables, forming from 2 of an inch to 4 inches in thickness. Approved bills will be taken—May be viewed the day prior and morning of sale; and catalogues may be had on the Premises, and at Mr. Marsh's Offices, 2, Clarence-row Mansion House.

RANELAGH Building Materials.

MR. GEO. HAINES will SELL by AUCTION, on the PREMISES Wilton-mews-row, Chelsea, on TUESDAY, JANUARY 24, at TWELVE o'clock, all the MATERIALS of LIGHT DWELLING HOUSES to be taken down for the 2nd Ranelagh-new building brickwork (old bricks, tiles of every kind, slates, lead, sash frames, &c.), fittings, Mantels and Stoves, at the Premises, and at Mr. Haines's offices, Great Marlborough-street West, Lisson-square, and 12, High-street Bow.

NOTICE TO THE GOVERNMENT CONTRACTORS AND TIMBER MERCHANTS.—Large Shipping Timber, with 1, 2, Top, and Back, standing on the Midgham Estate, Berkshire, 9½ miles from Newbury, and one from Woolhampton, Great Western Railway station.

MR. ALEXANDER DAVIS is instructed by James Thorpe Fooke, Esq. to SELL by AUCTION, at the LOWER ENGLEFIELD, Woolhampton, Berks, on FRIDAY, the 24th day of JANUARY, 1851, at Two for Three in the afternoon, 167 large Timber OAKS, standing Large ELM TREES, standing in the park and adjoining fields; also a few useful ASH, Cut Hunt, Abele, Alder, Spanish and Lime. The above oak and elm is of capital planking timber, being of good lengths, and very large meetings, beautifully headed with a thick coat of fine old bark. The Auctioneer can with confidence call the attention of all timber merchants to the above sale; such fine old noble trees are not often met with, merchantable station. Liberal credit will be allowed to the extent of the bidding. Further particulars may be had on application of Mr. WILLIAM BENHAM, the woodman, at the Garden, will show the lots, of whom particulars may be had; also of the Auctioneer, Valuer and Estate Agent, Market-place, Newbury, Berks.

COULSTONE, four miles from Westbury, Wilts. To Timber merchants, Shipwrights, and Others. Important Sale of Oak, Elm, and Ash Timber.

MR. LAVINGTON is instructed by James Taylor, Esq. to SELL by AUCTION, at the LAMB INN, Thatcham, on WEDNESDAY, the 29th of JANUARY, 1851, at TWELVE o'clock, all the useful Timber trees which he produced, the 1st 1,000 OAK and 1,000 ASH TREES, of very large dimensions, with their lops and bark, now standing on Sick's Common Farm, within 2 miles of the Westbury Railway Station, and three miles of the Kennet and Avon Canal. Mr. L. respectfully invites the attention of Timber merchants, Shipbuilders, &c. to the above sale. The trees are of an unusually fine growth and prime quality, even for this neighbourhood, which is so celebrated for its timber, the oaks ranging in the 1st 1,000 from 80 to 100, and the ashes from 70 to 120, and of extreme length; the ash from its fine fall. The usual terms of credit will be given, and every possible convenience extended to purchasers. Catalogues may be obtained of the Auctioneer, Poulshot Lodge Farm, Devizes; and of Mr. BEAVEN, the tenant, who will supply a person to show the different lots.

Jordan's Patent Wood Carving Works, Belvidere-road, Lambeth, close to the Hungerford Suspension-bridge.—Immense Sale of valuable Carving and Timber, including a quantity of Iron Oak and Wainscot.

MESSRS. OXENHAM and SONS will SELL by AUCTION, on the PREMISES, on MONDAY, JANUARY 27th, and three following days, at TWELVE for TWELVE punctually each day, without the least reserve, the immense stock of CARVINGS, principally in oak, and consisting of a magnificent chancel-screen, made for the Great Exhibition of the year 1851; altar chairs and tables, reading desks, chancel-seats, stalls and canopy in oak, and many other panels, friezes, pilasters, in oblongs, mouldings, quarter foliage, &c. &c. Also a quantity of Iron Bedsteads, Bath-tubs and other articles, and a large quantity of Ornamental Brackets, and cabinet carvings of every description, also birds, oriental figures, cherubs, &c. &c. Also, on specifications, brass and iron arms, and a great variety of old and other material. Furniture also the stock of TIMBER in oak and deal, seasoned and singly cut oak in plank and board, mahogany, mahogany, lime, sycamore, and pear-tree, a quantity of deals, cabinet-makers' and joiners' benches, large assembly of fittings, suitable for builders and joiners, and numerous effects. May be viewed Friday and Saturday next, and no lots sold at the sale, and catalogues had at Messrs. OXENHAM'S Offices, 54, Oxford-street, near Pantheon.

N.B. The desirable premises to be LET, with 12 horse power steam engine, and right of sending goods through the adjoining wharf.

JORDAN'S PATENT WOOD CARVING WORKS, BELVIDERE ROAD, Lambeth, close to the Hungerford Suspension-bridge.—The whole of the very valuable Machinery, 25 Patterns, Vices, &c.

MESSRS. OXENHAM and SONS will SELL by AUCTION, on the PREMISES, on MONDAY, FEBRUARY 3rd, at ELEVEN for TWELVE punctually, without the least reserve, the whole of the very valuable MACHINERY and STOCK, by the compulsory sale, Messrs. Whitworth and Co. Machinery, including 12 wood and 1 iron stone-sawing machines, some of which cost upwards of £100 each, carving machines, with the greatest speed, with extraordinary rapidity, and at an exceedingly small cost (the very latest description of this valuable machinery, which were principally executed by these machines); also applicable for the manufacture of gas stoves, and numerous other useful purposes, two moulding machines, three very superior moulding machines, a stone turning lathe, three very superior moulding machines, with chisels and irons complete, engineers' lathes, a French ditto, for circular turning, drilling and slotting machines, circular saw, planing machine, with numerous other valuable articles, &c. About 2,500 patterns of the most beautiful character, embracing every description of ornamental and useful carvings in the Gothic, Elizabethan, and other styles, principally in wood, plaster casts, and moulds, and numerous models, &c. &c. May be viewed on and after the 29th of JANUARY, and days preceding the sale, and catalogues had at Messrs. OXENHAM'S Offices, 393, Oxford-street, near the Pantheon.

MOST LIGIBLE BUILDING INVESTMENTS. Borough of Dorchester.—TO BE SOLD BY AUCTION, in One Lot, by

MESSRS. BAKER and ENSOR, at the GUILDHALL, in Dorchester, on WEDNESDAY, the JANUARY, 1851, at ELEVEN o'clock in the forenoon (subject to such conditions as will be then and there produced), all that PIECE or PARCEL of FREEHOLD LAND, forming the eastern part of Wollaston Field, within the said borough, containing about 4a. 2r. 29p. situate on a gentle slope, and admirably adapted for building purposes. This land is the property in possession of the Corporation of Dorchester, and it is intended, with the approval of the Lords Commissioners of Her Majesty's Treasury, to offer the same for sale in lots, for absolute terms of ninety-nine years, subject to the ancient rents, &c. and to the obligation on the part of the several purchasers, to build a dwelling-house, with offices and other conveniences, according to certain plans, elevations, and specifications, which will be prepared by the Corporation. The houses and premises to be erected will be of several classes, so as to secure the leasing rent of the town, and from every building part of house property generally in Dorchester being for many years higher than that of any other provincial town. The land can be examined by intending speculators as it is now offered to the public will be highly recommended. The plans, elevations, and specifications referred to, together with the conditions upon which the auction will be held, and a draft of the proposed leases may be seen in application to Mr. HENRY of No. 25, Tavistock-square, Islington, London; or to Mr. SYMONDS, Town Clerk of Dorchester, on and after the 1st day of JANUARY, 1851.

Dorchester, 21st Dec. 1850.

SALES BY AUCTION.

TO BUILDERS, CONTRACTORS, &c.—The valuable Stock of a Builder, at Chigwell, one mile and a half from the Eastern Railway Station, and within three miles of Wharfage on the Thames.

MR. JOHN DAWSON will SELL by AUCTION upon the PREMISES (Mr Alderton's Brick and Tile Works, Clygate, on THURSDAY, 25th JANUARY, 1851, at ELEVEN o'clock, in usefully apportioned lots, about 1,000 RICK of various kinds, viz.: grey and rough stocks, rough stocks and place, grates, radiated bricks for sewers, paving bricks, 10 and 12 inch paving tiles, plain and ridge tiles, drain pipes and land drainpipes &c. To be viewed during a few days before the auction. Catalogues, on the premises; and at Mr John Dawson's office, Kingston-on-Thames, and Marlborough-chambers, 40, Pall-mall.

ON THE GOLDSMITHS' ESTATE.—Building Materials.

MR. CHAS. FURBER will SELL by AUCTION, on the PREMISES, Nos. 1 and 2, Red Lion-passage, Red Lion-street, Clerkenwell, on MONDAY next, JANUARY 27, at TWELVE for ONE, in lots by order of the Worshipful Company of Goldsmiths, the BUILDING MATERIALS of TWO HOUSES, Nos. 1 and 2, Red Lion-passage, comprising a large stock of sound bricks, lead gutters, flashing and pipe, deal flooring boards, joists, rafters, principal timbers, panelled doors, sashes, doors, shutters, internal fittings and fixtures, stone coping, York paving, and the usual matters of building materials. May be viewed, and catalogues had on the Premises; of the Clerk of the Goldsmiths' Hall, of P. Hannen, Esq. 5, Cavendish-square; and at the Auctioneer's Offices, in Warwick-court, Gray's-inn.

TO TIMBER MERCHANTS AND OTHERS.—St. Pancras Sawing-Mills. Dissolution of Partnership

MR. WILLIAM DOUGLAS has received instructions to SELL by AUCTION, on the PREMISES, Pancras-street, off St. Pancras-road, on WEDNESDAY, JANUARY 29th, at ELEVEN precisely, the entire STOCK IN TRADE, consisting of a lot 50 logs, 200 battens, 1,000 feet boarding, useful 4-inch and 3-inch deals, 200 feet mahogany, 1,000 feet beadings, 5,000 feet mouldings, large assortment of unplaned wares, in toilet services, bath, &c., bronzed fenders, Queen's metal and plated wares, copper goods, in preserving pans, toasters, coal scuttles, moulds, & c., large quantity of table cutlery, plain & fancy wares, tin wares, kitchen utensils, in axes and adzes, chisels, planers, hand vices, 100 dozen files, braces and bits, carpenters' and cabinet makers' tools, gentlemen's toilet-ware, carpenters' benches, deal boards, beds and bedsteads, 1 dozen looking glasses, &c. &c. Also the valuable modern HOUSEHOLD FURNITURE, removed from suite of chairs, couch, centre table, & chimney glasses, Brussels carpets, mahogany four post bedsteads, beds and bedding, chest of drawers, chamber furniture, and kitchen requisites. To be viewed on SATURDAY previous to the sale, when catalogues may be had on the Premises; of Mr. SHEPHARD, Solicitor, Clifford's-inn, and of Messrs. FULLER and HORSEY, Billiter-street, City.

TO CONNOISEURS, HOUSE DECORATORS, BUILDERS, AND OTHERS

MR. LEREW will SELL by AUCTION, at No. 29, High Holborn, on WEDNESDAY, JAN. 24, at TWELVE for ONE o'clock precisely, a large quantity of PANELS in various patterns and sizes, sliding two machines for making bead work, fitter specimens, &c. May be viewed the day before the sale; and catalogues had on the premises, and of the Auctioneer, Cardington-street, Hampstead-road.

TO BUILDERS, CARPENTERS, PIANOFORTE MAKERS, VENEERERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, 8, Edward-street, Regent's-park, on TUESDAY, JAN. 28th, at ELEVEN for TWELVE in account of the maker (Lease, 3 years unexpired), which comprise a quantity of PLANKS, DEALS, and BATTENS, Veneers, Mahogany, Rosewood, Satin Wood, Beech, and Lime Tree, Seasoning, Seasoned Backs, Lathes, 5 Panel Doors; pressed veneers, and white Fiorentine, at Stall &c. May be viewed the day before and catalogues had at the Auction Offices, Cardington-street, Hampstead road, near the Euston Station.

RETFORD, NOTTS.—To Contractors, Builders, Cabinetmakers, Coachmakers, Farmers, and Others.

MR. PARLBY has received instructions from Messrs. Wilson and Ashford, of Retford, to SELL by AUCTION, on MONDAY, the 10th of FEBRUARY, 1851, a SPACIOUS RANGE of TIMBER, consisting of about 3,000 pieces of spruce and pine deals and battens; about 200 squares of seasoned yellow pine boards; 1,000 logs of Memel and Quebec timber, including 250 logs of fine rosewood, five logs of birdseye maple, 10 logs of Havannah cedar, and about 200 hingewood spars; also a large quantity of mahogany, rosewood, and maple veneers; a quantity of wheelwrights' materials, consisting of shafts and felloes, axletrees, oak and ash planking, lime-tree boards; also a quantity of seasoned oak building timber, consisting of doors, wind sashes, and boilers; grates, chimneypieces, &c. The whole will be arranged in lots for the convenience of purchasers. Descriptive catalogues will be printed a few days before the above sale; and such timber that cannot be sold at the above sale will be offered by private contract on the following day. Parties desirous of purchasing timber previous to the sale can view the same at any time by applying to Messrs. Wilson and Ashford, Retford, Notts; and further particulars may be had at the Auction Mart, Tokenhouse-yard, City. Approved bills at two months will be taken for all purchases exceeding 5*l*.

TO BUILDERS AND OTHERS

BUILDING FRONTAGES TO BE LET, for erection of seven detached VILLAS, in BLESSINGTON ROAD, Blackheath, adjoining the Blackheath Proprietary School, and within a few minutes' walk of the Blackheath Railway. Accommodation will be afforded to respectable men. For path plans apply at Messrs. Dowbiggin and Cobb's, Millman-street, Bloomsbury; or at their Office in Church-lane, Lee.

LAND TO BE LET for Building Purposes (about three acres), on East-hill, Wandsworth, within five minutes' walk of the Wandsworth Railway Station, and 4 from the Clapham Station. A portion of the necessary funds will be advanced to the party requiring it, if approved. Apply to Messrs. Farmiloe and Son, 148, Aldersgate-street, City.

TO BREWERS and DISTILLERS.—An old established and valuable TOWN BREWERY TO BE DISPOSED OF, on advantageous terms (or to let for a distillery), situated in Green-walk, Holland-street, Blackfriars, with private side and tap doors. The plant comprises a twelve quarter mash tun, coolers, liquor backs, and all corresponding utensils. The plant to be taken at a fair valuation.—Apply to J. D. 23, Bankside, Southwark.

VALUABLE BUILDING LAND TO BE SOLD, in plots, or LET on LEASES, at moderate groundrents; special advantages will be offered to builders or purchasers; the land is freehold, and the situation singularly eligible, near to a first-class railway station surrounded by a park and open meadows, the soil gravel, of which there is an unlimited supply, the neighbourhood highly respectable, and proverbially healthy, and the demand for villas far exceeds the supply.—Particulars may be obtained of Mr J. S. SCOTT, Surveyor, 13, Commercial-road, St. George's East, and of Mr ABRAHAMS, Auctioneer and Estate Agent, London-road, Twickenham.

EXTENSIVE MANUFACTURING

PREMISES, Lambeth.—TO BE LET, those very commodious MERCANTILE PREMISES, known as the Lambeth Starch Works, situate in Princes-street, Lambeth, with or without the waterside warehouses or granaries attached. Those premises are in every respect adapted for carrying on any manufacture, trade, or business requiring space and facilities of railway and water conveyance.—Apply to Mr. ROGERS, Surveyor, 110, Canon-row, Westminster, or Palace chambers, old Lambeth; Mr. J. B. CLARK, 3, Guildford-place, Upper Kennington-lane; or to Messrs. HODGSON and BURTON, 16, Salisbury-street, Strand.

TO BUILDERS, FREEHOLD LAND SOCIETIES, AND OTHERS

TO BE LET, on building lease, for a term of ninety-nine years, or SOLD, about THREE ACRES of FREEHOLD LAND, peculiarly adapted for the erection of third or fourth-rate houses, and situated about 1½ miles from Westminster-bridge, in a locality where dwelling-houses of the class contemplated are much in requisition. Lessee granted direct from the freeholder. A detached VILLA, adjoining the above, containing ten rooms, with stable and others, and about half an acre of garden, at present let to a highly respectable tenant. To be sold either separately, or in connection with the above. For particulars, apply to Messrs. WEHNERT and ASHDOWN, Architects, 42, Charing-cross.

WHARF and PREMISES TO BE LET, with immediate possession, about 60 feet frontage to the Thames, with large buildings, suitable for an engineer or founder, or other manufacturing business, with or without steam power. Vessels of burthen can discharge alongside.—Apply to WILLIAM BEECH, Globe Dock, Rotherhithe.

TO BE SOLD, FREEHOLD PROPERTY, with river frontage, wharf, and landing-place, known as the Three Crowns, Romford, Essex, with large garden, outhouses, and cottages adjoining, suitable for a manufactory of any description requiring to be carried on near to London.—For particulars inquire of Mr. JOHN GORE 12, North Wharf road, Paddington, within a short distance of the railway station.

January 24, 1851.

A LARGE BUSINESS, with a district Patent Right for working the same, may be purchased at a small outlay. The steam is fixed plant, with two first-rate steam-engines, all in perfect working condition, may be taken on lease for a term of years. A practical gentleman is only wanted, the capital consisting of 200*l*. or 300*l*., and will find ample scope for extending the business and the further expiration of the patent to most profitable uses. Full particulars may be had from a gentleman part of the proprietor to refute from business, and as such a one as seldom offers.—Apply to A. Z. John Bennett, esq. Solicitor, 33, Lincoln's-inn, London

TO ARCHITECTS and SURVEYORS.—TO BE DISPOSED OF, a small but increasing PRACTICE in a rising and beautiful watering-place; or an arrangement would be entered into for the exchange of a London practice of not less than equal extent.—Address, S. S. Office of "The Builder."

TO CABINET-MAKERS and OTHERS.—TO BE DISPOSED OF, by Private Treaty, the GOODWILL and STOCK IN TRADE of the well-established and respectable CABINET MAKERS and UPHOLSTERERS BUSINESS, for some time past carried on by the late Mr John Denson, in Cross-cheaping, in the city of Coventry. The shop and premises are eligibly situated in a good business, and arrangements may be made for a continuance of the present tenancy.—For further particulars, apply to Messrs. SPRIGG and PEACOCK, Lawen Prapers, Coventry.

TO CARPENTERS, BUILDERS, &c.—TO BE DISPOSED OF, in consequence of the declining health of the proprietor, an excellent JOBBING BUSINESS, established over fifty years, in the centre of the metropolis, near the waterside, and in the city of London, and upon an average about fifty men. The entire capacious workshops, counting-house, and yard, with a new hall building, &c. will be found adapted for a first-rate business requiring accommodation for a large staff of men. Apply to Messrs. HAMMOND and ELDARD, Estate Agents, &c. 28, Chancery-lane.

A GOOD JOBBING BRICKLAYER'S BUSINESS: the HOUSE TO BE LET and the BUSINESS to be PARTED WITH, at a low premium, owing to the death of the proprietor; the stock to be taken at a valuation.—Inquire on the Premises, next door to the Vine, Kentish-town.—Established twenty-six years.

TO PLUMBERS, GLAZIERS, and PAINTERS.—In consequence of the death of the late proprietor an excellent, old-established BUSINESS in the above line in a first-rate neighbourhood in the West end, together with the Lease of the Premises, TO BE DISPOSED OF immediately.—For further particulars, and to treat, apply to Mr DRAKEFORD, 27, College-place, Camden-town.

TOTTENHAM.—To be DISPOSED OF, in consequence of the death of Mr John Eaton, an old established WORKING BUSINESS, with Shop and Dwelling-house. The premises are eligibly situate near the High-cross, Tottenham, and well adapted for carrying on an extensive business in the above trades, and will be sold on very reasonable terms.—Apply to Mr. RICHARDS, Auctioneer, Tottenham. All persons indebted to or having claims against the above estate, are requested to send their accounts, and receive particulars of their claims to ELNER COVE, Tottenham.

TO BE DISPOSED OF, in consequence of the illness of the proprietor, a good BUSINESS, with convenient premises, in the Market Town of Llandilo Fawr, South Wales. Having the utmost extensive supplies of patent articles in good and increasing demand, a slight knowledge of ironmongery although the trade is unable to withdraw. For particulars, apply by letter, addressed to P. G. Post-office, Swansea.

TO ENGINEERS, MILL-OWNERS, CONTRACTORS, AND OTHERS.

AUGUSTUS SMITH, Auctioneer, Valuer, &c. 25, Blackfriars-road, two doors from Holland-street, having had seventeen years' practical experience in selling of all kinds of engines, machinery, fixtures, mechanical and engineering tools, plants, &c. respectfully solicits a share of patronage in the above line. Private sales effected every day. Sales by auction every week, at which all accounts settled the day after delivery; also a free registry kept of all engines, boilers, and machinery for sale by private contract.

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The Builder.

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The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 13, Wilton-street.

THE BUILDERS' BALL, in AID of the FUNDS of the BUILDERS' BENEVOLENT INSTITUTION, will take place at WILLIS'S ROOMS, St. James's, 8th of FEBRUARY, 1855.

COMMITTEE OF MANAGEMENT.

G. Bird, esq.	J. Newson, jun. esq.
J. Chapman, esq.	W. Nurse, esq.
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E. Forest, esq.	H. Peters, esq.	J. Wardall, esq.
G. W. Fry, esq.	W. W. Rawlins, esq	W. Williams, esq.

Of whom tickets may be obtained; also of the Honorary Secretary, Mr. JOSEPH HIRD, 10, Hanover-cottages, Regent's-park; or at the Office of the Institution, 19, Southampton-street, Bloomsbury

THE MASONS' PROVIDENT INSTITUTION.—The NINTH ANNUAL GENERAL MEETING of the above Institution will be held on THURSDAY EVENING, FEBRUARY 8th, 1855, at HAWKSTONE HALL, WATERLOO-ROAD, for the purpose of receiving the Report of the Committee and Auditors; the election of one widow on the Pension Fund; and other general business of the Institution. The general meetings of the Institution are not confined entirely to its subscribers, and the Committee, feeling desirous that the trade at large should avail themselves of the inestimable benefits to be derived from so excellent an Institution, earnestly invite their attendance, and pledge themselves as to the expediency of co-operating to carry out its benevolent objects. The chair taken at EIGHT o'clock precisely. Reserved seats will be arranged for those ladies who might honour the meeting with their presence.

By order,

WM DIX, secretary.

THE ARCHITECTURAL EXHIBITION, and Collection of Patents, Manufactures, &c. connected with Architecture, is NOW OPEN at the Galleries of the Society of British Artists, Suffolk-street, Pall mall East. Admission, 1s.; Season Tickets, for students and others desiring to come frequently, 2s. 6d.; Catalogues, 6d.

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
JAS. EDMESTON, Jun. }

THE ARCHITECTURAL EXHIBITION will be OPEN in the EVENING, on and after the 1st of FEBRUARY, from SEVEN till TEN. Admission, 6d. Will close on the 24th of FEBRUARY.

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
JAS. EDMESTON, Jun. }

BRECONSHIRE HIGHWAYS. — To ROAD SURVEYORS.—Notice is hereby given, that the ROADS BOARD of the County of BRECON will, in pursuance of the 14th and 15th Vict. c. 76 and 17th Vict. c. 7, at their meeting on the 14th day of FEBRUARY next, or at a meeting to be adjourned thereto, proceed to appoint SURVEYORS for the several districts under mentioned (the limits of which district were published in the *Hereford Times*, of the 14th instant). Each Surveyor will be required to devote his whole time to the superintendence of the roads in his district, and (except as regards the No. 8 district), to keep a horse. He will be allowed the necessary forms, stationery, and postages, but no other disbursements whatever. Candidates for such appointments must send applications, stating the district for which they apply, to the Office of the Clerk, at Brecon, on or before FRIDAY, the 9th day of FEBRUARY next, and each application, must be accompanied with testimonials, as to the diligence, intelligence, and trustworthiness of each candidate, and also as to his qualifications as a road surveyor and accountant, and also with written undertakings from the parties willing to become sureties; the several districts, and the number of miles of highways at present kept in repair in each, the annual salaries to be paid to the surveyors, and the amount of bail to be given, with two sureties in each case, is as follows:—

No.	District.	Miles.	Salary.	Amount of Bail.
2	Brecon ...	168	100	300
4	Builth ...	146	90	300
5	Crickhowel	118	90	300
6	Defynock..	214	100	300
7	Talgarth ..	136	100	300
8	Vayuor....	43	50	150

By order of the County Roads Board.
JOSEPH RICHARD COBB, Clerk.
Brecon, January 20, 1855.

TO ENGINEERS AND SURVEYORS.

SURVEYOR WANTED.—The Local Board of Health and the Council of the Borough of Lancaster are desirous of engaging a qualified person to perform the duties of SURVEYOR and Inspector of Nuisances to the Board of Health, and Surveyor to the Town Council, to be restricted from any other occupation or emoluments. Salary for the above offices £90 per annum. Applicat ons, stating age and qualifications, with testimonials, may be addressed to the Town Clerk not later than the 1st day of FEBRUARY next, at who e office a particular statement of the duties may be seen.

Lancaster, January 18, 1855.

CONTRACTS.

THE CHARLTON BURIAL BOARD are prepared to receive TENDERS for the ERECTION of TWO CHAPELS and a LODGE on their New Burial Ground. The Drawings and Specifications may be seen at the Office of the Architect, Mr. SAMUEL HEWITT, Montague-close, Southwark. Tenders to be sent to Mr. E. L. BURNETT, Clerk to the Board, Charlton, by Blackheath, Kent, on or before MONDAY, the 5th day of FEBRUARY next, at FOUR o'clock. The Board do not pledge themselves to accept the lowest or any Tender.

January 19, 1855. E. L. BURNETT, Clerk.

TO BUILDERS.

NOTICE is hereby given, that the Burial-board for the Parish of Portsea are prepared to receive TENDERS from persons willing to CONTRACT for the ERECTION of TWO MORTUARY CHAPELS, PORTER'S LODGE, and OFFICES, DEAD HOUSE, ENTRANCE GATEWAY, BOUNDARY WALLS, &c. at the New Parochial Cemetery for the Parish of Portsea. The plans and specifications for the same may be seen, and every information obtained at the Office of the Architect, Mr. GEORGE RAKE, Bonnetist, Portsea, on and after TUESDAY, the 30th instant, between the hours of TEN and FOUR.—Tenders to be sealed and endorsed, "Portsea Burial-ground Tenders," to be delivered at my Office, 19, St. George's-square, Portsea, on or before TWELVE o'clock at noon, on TUESDAY the 6th day of FEBRUARY next.

January 24, 1855. W. J. HELLYER, Clerk.

TO ENGINE MAKERS

THE TOWN-COUNCIL of the BOROUGH of LEEDS are desirous to receive TENDERS for the MANUFACTURE, ERECTION, and COMPLETION of TWO double-powered expansive STEAM PUMPING ENGINES, each of the low-level power, together with the Boilers, Two Double Acting Pumps and other apparatus, to be fixed and applied at the new waterworks also about to be constructed near the Arthington Station of the North-Eastern Railway, Pennypan Inspect, at one may be seen at the Office of the Town-clerk, in Leeds; and at the Office of Mr. HAWKSLEY, Civil Engineer, 30 Great George-street, Westminster, on and after the 11th day of JANUARY inst and Tenders must be delivered as in the said specification is mentioned, on or before TUESDAY, the 6th day of JANUARY inst. The Town-council do not pledge themselves to accept the lowest or other Tender. By order,

JOHN ARTHUR IKIN, Town clerk.

Leeds, January 11th, 1855.

TO BUILDERS.

Royal Engineer Office, Portsmouth, 22nd January, 1855.

TENDERS will be received by the Hon. Board of Ordnance, at their Office, Pall-mall, London, on WEDNESDAY, the 31st JANUARY, 1855, from such persons as may be willing to undertake the CONSTRUCTION and ERECTION of temporary WOODEN BUILDINGS, at Aldershot Heath, in the county of Hants, for the accommodation of 2,000 men, with the due proportion of officers, stores, &c. the whole to be completed by the 15th day of MARCH next. The plans, specifications, and conditions of contract may be seen, and every information obtained, on application at this office, between the hours of TEN and FOUR each day, Sundays excepted. Tenders to be endorsed "Tender for the Erection of Wooden Buildings on Aldershot Heath, County of Hants." The person whose Tender shall be approved, will be required to provide eligible securities and execute a bond for the due performance thereof, and to pay half the expense of the stamp on the bond.

CONTRACTS.

TO BUILDERS AND OTHERS.

SEALED TENDERS for the ENLARGEMENT of the WEST JETTY, at the ROYAL POWDER-WORKS, Kinterbury, for a specific sum, will be received at the ORDNANCE OFFICE, PALL-MALL, LONDON, on or before the 7th FEBRUARY, 1855, at noon. Detailed specifications of the above, and every requisite information, may be obtained at the Royal Engineer's Office, Hall Point, daily, Sundays excepted, between the hours of TEN and FOUR o'clock, from the 30th instant to 6th FEBRUARY both days inclusive.

Royal Engineer's Office, Devonport, 22nd January, 1855.

ORDNANCE CONTRACTS. — Notice is hereby given, that the Honourable the BOARD of ORDNANCE, will receive TENDERS, on or before SATURDAY the 10th of FEBRUARY next, for the Performance of such Work as may be required (by them) of the undermentioned trades, at York, Hull, Leeds, Bradford, and Scarbro', for three years, commencing from the 1st of April next:—

Bricklayers'	Work.
Masons' and Paviors'	do.
Carpenters'	do.
Slaters'	do
Plasterers'	do.
Plumbers'	do.
Smiths'	do.
Painters', Glaziers', and Paperhangers' ..	do.
(in the city of York only).	

N.B. Parties are particularly required to observe, that it is more desirable to Tender for the whole of the trades at one place than for a part only; but the per centages must be separately stated for each trade.

Printed Schedules for the different trades, and forms of Tender, can be obtained on application at the Royal Engineer's Office, 5, New wark-terrace, York; the Barrack Office, Citadel, Hull; the Barrack Office, Leeds Barracks; and of the Master Gunner, Scarbro' Castle, any Sunday excepted, between Ten and Four o'clock, until FRIDAY, the 9th FEBRUARY next.

Royal Engineer's Office, York, Jan. 10, 1855.

CONTRACTS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, PALL MALL, London, on or before THURSDAY, the 8th day of FEBRUARY, 1855, for the performance of the following branches of Artificers' Work, for the ordnance Department at the following Stations in the MEDWAY DISTRICT, for a period of three years from the 1st APRIL, 1855, determinable at any period after one year, on either party giving to the other three months' notice in writing, viz:—

At Chatham and its environs; Gravesend, including Tilbury Fort, Shorne Mead, and Coal House Point Batteries.

Plumbers'	Work.
Painters', Glaziers', and Paperhangers' do.	
Smiths'	Work, &c.

At Maidstone.

Carpenters'	Work, &c.
Bricklayers'	Work
Plasterers'	do.
Slaters'	do.
Mason's	do.
Paviors'	do.
Plumbers'	do.
Painters', Glaziers', and Paperhangers'	do.
Smiths'	Work, &c.

Separate Tenders to be made for Chatham and its environs; Gravesend, with Tilbury Fort, Shorne Mead Battery, together with Coal House Point Battery; and at Maidstone; as well as for the different trades; nevertheless, Tenders may be submitted for all the trades together in one Contract for each Station. Printed Forms and Schedules of Contract may be seen and specimens at the Royal Engineer's office at Chatham, Gravesend, and Maidstone Barracks, until the 7th day of FEBRUARY next. Sealed Tenders not on Tender can be admitted after the said 8th day of FEBRUARY, 1855. The Board of Ordnance reserve to themselves the right of rejecting any or all Tenders that may be presented.

Royal Engineer's Office, Chatham, Jan. 18, 1855.

Royal Engineer Office, Portsmouth, 23rd January, 1855.

TO BUILDERS.

NOTICE is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall-mall, London, on WEDNESDAY, the 7th day of FEBRUARY next, from such persons as may be willing to undertake the ERECTION of a BATTERY, with Magazine, &c. near Southsea Castle, in the county of Hants. The plans, specification, and conditions of contract may be seen, and every information obtained, on application to Mr. KILTON, Clerk of Works, at this Office, between the hours of TEN and FOUR each day, Sundays excepted. Tenders to be endorsed, "Tenders for the Erection of a Battery, &c. near Southsea Castle, in the County of Hants."

Royal Engineer's Office, Portsmouth, 22nd Jan. 1855.

TO BUILDERS.

NOTICE is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their office, Pall-mall, London, on MONDAY, the 5th day of FEBRUARY next, from such persons as may be willing to undertake the ERECTION of the undermentioned permanent BUILDINGS, at Aldershot-heath, in the county of Hants, viz:—

Officers' Quarters and Soldiers' Barracks for Artillery.	
Ditto ditto	for Cavalry.
Ditto ditto	for Infantry.
Hospital, Riding school, Guardhouses, and such other necessary Buildings as may be required.	

The plans may be seen, and the printed schedules of prices and conditions of the contract obtained, on application at this Office, between the hours of TEN and FOUR, each day, Sundays excepted. The person whose Tender shall be approved, will be required to provide eligible securities, and execute a bond, for the due performance thereof, and to pay half the amount of the stamp on the bond.

[For remainder of Contracts see next page.

CONTRACTS.

TO BUILDERS.

BURY ST. EDMUND'S CEMETERY.—The Burial Board are prepared to receive TENDERS (in one sum for the whole of the Works) for the ERECTION of the TWO CHAPELS, LODGE, ENTRANCE-GATES, and IRON FENCING, in accordance with the designs prepared under Cemetery The plans and specifications may be seen at the Clerk's Office, No. 2, Hatter street, Bury St. Edmund's, and duplicates thereof at the offices of Messrs COOPER and BECK, 1, Furnivall's-inn, London, on and after the 22nd instant. Sealed Tenders to be sent to the Clerk to the Board, on or before the end of FEBRUARY next, at TWELVE o'clock at noon, indorsed "Tender for Cemetery Works." The Board will require ample security for the due performance of the contract, but do not bind themselves to accept the lowest, or any Tender, unless perfectly satisfactory

JOHN W. ION, Clerk to the Board.

2, Hatter-street, Bury St. Edmund's, Jan 15, 1855.

TO BUILDERS

TENDERS are required for the ERECTION of FARM BUILDINGS and COTTAGES at Harlow, in the county of Essex. The drawings and specifications of the works can be seen on application to CHAS. BARNARD, Esq., at Harlowbury Farmhouse, near the Harlow Station; and any further information obtained at the Office of Mr. J. F. CLARK, Architect, Newmarket. Tenders are to be delivered on SATURDAY, the 3rd of FEBRUARY next, and will be opened in the presence of parties tendering. The lowest or any Tender will not necessarily be accepted.

TO PIPE-FOUNDERS

THE TOWN-COUNCIL of the BOROUGH of LEEDS is desirous to receive TENDERS for about three miles of the 24-INCH CAST-IRON SOCKET-PIPES, and other Castings. Drawings and specification may be seen at the office of the Town Clerk, in Leeds, and at the office of Mr. HAWKESLEY, Civil Engineer, 1, Great George-street, Westminster. Tenders to be left at either of the offices on or before the ELEVENTH day of JANUARY instant, and Tenders must be delivered in accordance with the specification, on TUESDAY, the THIRTIETH day of JANUARY instant. The Town Council do not pledge themselves to accept the lowest or other Tender.

By order,

JOHN ARTHUR IKIN, Town Clerk.

Leeds, January 11, 1855.

CARLISLE LOCAL BOARD of HEALTH.—SEWERAGE WORKS.—To CONTRACTORS, EXCAVATORS, EARTHENWARE-PIPE LAYERS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake the following CONTRACT:

CONTRACT No. 6.—For EXCAVATIONS, LAYING and JOINTING EARTHENWARE SEWER and DRAIN PIPES, also for the CONSTRUCTION of MAN HOLES and LAMP HOLES, FIXING GULLIES, and for OTHER WORKS.

The specifications and drawings may be examined, and forms of Tender, schedules, and bills of quantities may be obtained, free of charge, on application at the Office of the Resident Engineer, 161 Butcher-market, Carlisle; or at the Offices of ROBERT RAWLINSON, C.B., 34, Parliament-street, Westminster. Sealed Tenders to be delivered at the Office of the Local Board of Health, Carlisle, before TWELVE o'clock on WEDNESDAY, the 31st day of JANUARY instant, endorsed "Tender for Contract No. 6."

Dated, ISAAC CARTMELL, Committee Clerk to the Board

Carlisle, 17th January, 1855.

TO BUILDERS

PERSONS willing to TENDER for the ERECTION of a HOUSE, in carcase, on the Mount Albion Estate, at Ramsgate, may see the drawings and specifications, and conditions, at the Office of Mr. LEWIS CUBITT, 38, Bedford-square, London, between the hours of TEN and THREE o'clock, and there learn where they can purchase bills of the quantities. Tenders to be delivered at the said Office, by TWELVE o'clock precisely, on THURSDAY, the 1st day of FEBRUARY next. The lowest Tender may not necessarily be accepted.

THE LONDON DOCK COMPANY require for their Works, FIFTEEN EARTH-WAGGONS, TWENTY-TONS, that belong to CONTRACTORS, and 350 SLEEPERS, all to be in good order, second hand, and delivered in London. Any person having the above to dispose of, is requested to send the price to J. M. RENDEL, Esq., 8, Great George-street, Westminster. Further particulars may be had on application to the Resident Engineer, Mr. A. T. ANDREWS, Office of Works, Lower Shadwell.

SAINT LEONARD, Shoreditch, Middlesex.—The IRONFOUNDERS, BUILDERS, SLATERS, and OTHERS. The Trustees for Cleaning, Paving, &c. the Parish of Saint Leonard, Shoreditch, Middlesex, will meet in the VESTRY-ROOM, at Shoreditch Church, on THURSDAY, the 1st of FEBRUARY 1855 at SIX o'clock in the evening, to receive PROPOSALS for the ERECTION and COMPLETION of TWO PUBLIC URINALS, one to be erected in the High street, Hoxton, and one on the south side of Swan yard, Shoreditch, near the termination of the Eastern Counties Railway. The plans and specification for such buildings may be seen, and any other information obtained at the Office of the Architect, Mr. THOMAS E. KNIGHTLEY, 22, Cannon-street, City. The Proposals must be delivered at the Office of the Clerk to the Trustees, 37, Hoxton-square, before o'clock in the afternoon of the day of meeting, and it will be necessary that some person should attend the meeting of the Trustees, in case of any explanation being required. The Trustees do not bind themselves to accept the lowest or any Tender.

By order of the Trustees, W. G. DAVIS, Clerk to the Trustees.

37, Hoxton's-square, January 23, 1855.

CONTRACTS for ROADS and SEWERS.—LONDON ASSURANCE FREEHOLD LAND SOCIETY, 29, Moorgate-street. TENDERS are required for making the ROADS, SEWERS, EARTHWORKS, &c. of the SHEPHERD'S BUSH ESTATE.—Particulars may be had of the Society's Architect and Surveyor, J. E. SAUNDERS, jun. Esq., 9 Finsbury circus (to whom signed Tenders are to be sent by TWELVE o'clock, on 8th FEBRUARY, endorsed, "Tenders for Roads and Sewers, Shepherd's Bush Estate, London Assurance Land Society"—The Directors do not bind themselves to accept the lowest or any Tender.

Jan 25, 1855. THOMAS ALFRED BURR, Manager.

TO BUILDERS AND OTHERS.

MORTUARY CHAPELS, &c. &c. ELY, CAMBRIDGESHIRE.—NOTICE is hereby given, that the Burial Board for the Parishes of Holy Trinity and Saint Mary, in Ely, will be prepared at their meeting to be held at the Grand Jury-room, in the Shire-hall, Ely, on WEDNESDAY EVENING, the 31st instant, at EIGHT o'clock, to receive TENDERS for FENCING and LAYING OUT their new BURIAL GROUND, and for ERECTING TWO MORTUARY CHAPELS and LODGE thereon. The plans, specifications, and quantities of the various contracts may be seen at the Office of Messrs. PRITCHETT and NESS, Architects, York, from the Morning of MONDAY the 15th, to the Evening of SATURDAY, the 20th of JANUARY instant, and afterwards at my Office in Ely, from the Morning of MONDAY, the 22nd, to the Evening of WEDNESDAY, the 31st instant, when the Tenders are to be delivered. Contractors are to give such security for the performance of their contracts as the Board may require. Board not pledged to accept the lowest or any of the Tenders.

Ely, January 12th, 1855.

By order of the Board,

WM. MARSHALL, Clerk

TENDERS are required for the ERECTION of a RESIDENCE and FARM BUILDINGS in the parish of EXNING, for Mr. R. WESTLEY. The plans and specifications of the works can be seen on application at the Office of Mr. J. F. CLARK, Architect, NEWMARKET. Tenders are to be delivered on SATURDAY, the 24th of FEBRUARY next, and the lowest, or any tender will not necessarily be accepted.

CONTRACTS.

TO BUILDERS AND OTHERS.

NEW BANK in Corn street, Bristol, for the West of England and South Wales District Banking Company. Parties desirous of CONTRACTING for the whole or any portion of the ARTIFICERS' WORKS, to be performed in the ERECTION and COMPLETION of the above new BUILDING, from a plan, levels and sections prepared, or to be executed, may see the drawings, specifications, and conditions of contract, from TEN to FIVE every day, until THURSDAY, 8th of FEBRUARY next, on or before which day Tenders, sealed, endorsed, and addressed to the Directors, are to be delivered to me. The Directors will not be bound to accept the lowest or any Tender. The quantities will be taken by Mr. J. WILLIAMS, of London, and a copy will be sent to all parties signifying their *bona fide* intention to submit Tenders.

WM. BRUCE GINGELL, } Architects.
THOS. BRUCE LYSAGHT, }

Saint Werburgh's Chambers, 8 mall street, Bristol, 19th Jan 1855

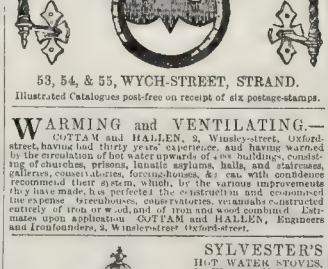
TO BUILDERS AND CONTRACTORS

TENDERS required for the ERECTION of THREE PORTABLE WOODEN HOUSES, conjointly.—To see plan, and for further information, apply to Mr. VALE, 95, Carlton road Villas, Carlton road, Kentish town.

SOMERSET ASSIZE COURTS, &c.—Letters having been received by the Clerk of the Peace and County Surveyor, containing an unavoidable error of information in the previous advertisement, this is therefore given, to say that the size of the Assize Courts, Crown and Civil, and of the Rooms and Offices connected with them, and of the Record Rooms and Clerk of the Peace's Office, and the amount of accommodation in the Judges' House, for themselves and suite, are to be such as are generally found requisite in other provincial towns. Architects may pace the Courts, Record Offices, &c. in one and the Judges' House in another building, or the whole in one block; but in either case the entire cost not to exceed 18,000 l.—Plans may be on a scale not less than 8 feet to an inch.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,



53, 54, & 55, WYCH-STREET, STRAND.

Illustrated Catalogues post-free on receipt of six postage-stamps.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot air upwards of 1000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood and iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Galleries, Conservatories, Stores, Hotels, and Offices, require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stoves may be heated from one Boiler, and may be used entirely well with Steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO. Engineers, and Manufacturers of Heating Apparatus, 96, Great Russel-street, Bloomsbury.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is most powerful in its effect, suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment, where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO. opening to the Monument) London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE.—BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office 145, Regent-street, London.

HEATING by HOT WATER.—JOHN WELKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. to their superior APPARATUS. At Messrs. Weeks's establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,800 feet in length, at an small expense per day as fuel and labour of as 3d. This achievement in heating by hot water is unprecedented.

DR. ARNOTT'S new OPEN SMOKELESS FIRE-GRATE having been brought to full perfection, may now be seen in daily operation at EDWARDS and SON'S, 49, Poland-street, Oxford-street. By this grate a smoky chimney is prevented, no chimney sweeping is required, and a saving of at least thirty five per cent is effected in the consumption of coal. This principle is also now carried out with complete success in kitchen ranges, and of hot air pedestal stoves. Old grates are altered to this principle.—Prospectus sent on application.

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 17, insures perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 372, Holborn

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for.—the prize of public approbation, having been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

CUNDY'S PATENT PURE WARM-AIR STOVES.—The only Pedestal Stove which gained a Prize Medal (Class 27B) at the Great Exhibition in 1851. Especially adapted for warming with great economy churches, chapels, schools, entrance-halls, and libraries. Can be purchased at the manufactory of CUTLER and SONS, Ironfounders, &c. 16, Great Queen-street, long-acre, where a large stock is always ready for immediate delivery; and of all Ironmongers.

Price 6l. 6s.; 9l. 9s.; and 12l. 12s.

HOT AIR, GAS, VESTA, JOYCE'S STOVES.—STOVES for the economical and safe heating of halls, shops, warehouses, passages, basements, and the like, being at this season fully demonstrated, WILLIAM S. BURTON invites attention to his unrivalled assortment, adapted (one or the other) to every conceivable requirement, at prices from 10s. each to 30 guineas. His variety of register and other stoves is the largest in existence

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from all the various manufactories all that is new and choice in Bronze, Or-molu, and Chandeliers, adapted to offices, passages, and dwelling rooms, as well as to have some designed expressly for him; these are now ON SHOW in one of his TEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Establishment the largest and most remarkable in the kingdom, viz. from 18s. 9d. (two light) to 16l.

WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY (including cutlery, Britannia ware, plated, and japanned wares, iron and brass bedsteads, so arranged and classified that purchasers may easily and at once make their selections.

Catalogues, with engravings, sent per post free. The money returned for every article not approved of.

39, OXFORD-STREET (corner of Newman-street); 1, 2, and 3, NEWMAN-STREET, and 4 and 5, PERRY'S-PLACE.

MAGNUS'S PATENT ENAMELLED SLATE CABINET FORMED FIRE-PLACE. This is decidedly the most novel, elegant, economic, and comfortable fire-place that has ever been introduced to the public. It moves on castors, and stands BEFORE the opening of the chimney, projecting into the room as a regular cabinet. It is composed of fire-stone and slate, and has hot-air chambers. It may also be fitted up for gas instead of coal. By the economical, who dislike to see half the heat from the coal wasted in the chimney, and by persons of taste, who object to the stiff unmeaning chimney-piece in ordinary use, the CABINET FORMED FIRE PLACE has only to be seen to ensure its adoption. Price from ten guineas upwards. Pimlico Slate Works, 39 and 40, Upper Belgrave-place, Pimlico.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, manufacturer of all kinds of STEAM-ENGINES (portable and stationary), Sawing Machinery, Pumps, Cranes, Crabs, &c.

N.B. Several high-pressure Steam-engines for Sale.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering

Which they beg to call the attention of Manufacturing Chemists to their Patent method of

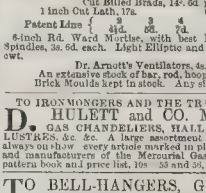
UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

24in.	30in.	36in.	42in.	48in.
28s.	30s.	32s.	34s.	36s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars

34in.	36	38	42-inch.	
54s.	56s.	58s.	63s.	

Strong Elliptic Stoves, with Fire Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 6d.

Improved New Pattern Circular Fire Register, with strong Bars and Trivits, 6d. per inch.

Best Solar ditto, with Fine Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe {	2	2½	3 inch.	
	1s.	1s. 3d.	1s. 6d. per yard.	
Cast Gutters—4 inch, 10d. per yard.				
O G Gutters		4	4½ inch.	
		1s. 4d.	1s. 6d. per yard.	
Best Cut Clasp }	1½	1¾	2	2½ inch, and larger.
and Rose }	13s.	17s.	19s.	21s. per cwt.

Cut Bulled Brads, 14s. 6d. per cwt.

1 inch Cut Lath, 17s. Cast Lath, 13s.

Patent Lips {	3	4	5	6	
	4½d.	6d.	7d.	9d.	1s. per knnt.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern book and price list, 10s. 35 and 36, High Holborn.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Gun-nice-pales, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouse, Nos. 10, 11, and 13, Charles-street, Long-acre, London!

TO ENGINEERS, ARCHITECTS, AND BUILDERS.

THE VIEILLE MONTAGNE ZINC MINING & MANUFACTURING COMPANY

ARE NOW PREPARED TO

UNDERTAKE CONTRACTS, THROUGH THEIR AGENTS, FOR ZINC ROOFING OF ALL DESCRIPTIONS;

TOGETHER WITH, WHEN REQUIRED,

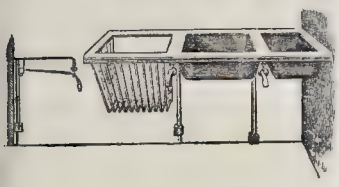
ALL THE NECESSARY TIMBER OR IRON FRAMEWORK, IN WHICH A GREAT SAVING IS EFFECTED BY THE LIGHTNESS OF THE METAL.

It possesses all the Advantages of Galvanised Iron, and is far more Durable and Cheaper, especially for large Spans.

The long duration of these roofs without repair, their neat appearance, and the economy of materials employed, as well as of area covered, render them most advantageous for dwelling-houses.
Many roofs covered with zinc, especially on the continent, have remained since the first introduction of this metal till the present time without having required, or appearing likely to require, any repairs.
CERTIFICATES in proof of this from the FRENCH GOVERNMENT and other authentic sources CAN BE SEEN at the COMPANY'S OFFICES, where all information, Estimates Drawings, or Prices, together with every assistance in laying on or otherwise, may be obtained on application to the Company's Surveyor, at

No. 12, MANCHESTER-BUILDINGS, WESTMINSTER.

COTTAM'S NEW PATENT FOR STABLE REQUISITES.



COTTAM AND HALLEN,

the original progetors of the above arrangement of MANGER RACK and WATER-TROUGH, AS ONE FIXTURE, which obtained the Great Exhibition Prize Medal, and universally approved of, have added all the latest improvements to their intention secured by patent, which includes an entirely new method of attaching the halter ball and rein, giving to the horse greater freedom, and being noiseless in operation, add much to its comfort while feeding and convenience when at rest.

COTTAM'S ENAMELLED MANGERS

are constructed in the best possible manner, both as to form and utility, are cleanly in appearance, durable, and impervious to infection; manufactured PLAIN, GALVANIZED, or ENAMELLED

Improved Stable Guttering, with Moveable Safety Covers.

Loose Box Fittings, Harness-room Appendages, and every Article in Stable Furniture kept on Show.

Descriptive Catalogues and Estimates on application to

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET, LONDON.

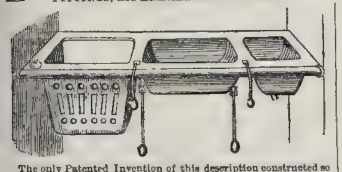
IMPROVED PUMPS,

Of the best Workmanship and warranted.

The VALVES and SUCKERS of these Pumps are constructed upon an entire new and SIMPLE principle; they are not likely to get out of order; should they do so, can easily be repaired, as the Pump is so contrived that the valves can readily be got at.

An Improved CAST IRON TRAP strongly recommended by the Sanitary Commissioners, and suitable for Sugar Bakers, Slaughter Houses &c &c. It is so formed that the iron plate will pass any matter the top grating will let through and therefore is not liable to stoppages, and well adapted to Stables and Stable-yards, for saving the best part of Liquid Manure.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.

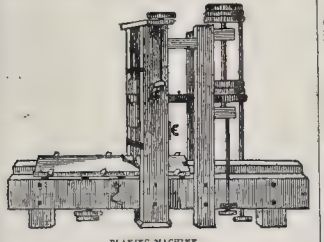


The only Patented Invention of this description constructed so as to prevent considerable waste of Hay and Corn, together with all the newest improvements.
STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.
Manufacturer of Kite's Patent Noiseless Cast-iron Smoke-curing Chimney Cans (300 on Buckingham Palace), price 35s. each.
JAMES BARTON, Ironfounder, &c. 370, Oxford-street, a few doors east of the Pantheon.

RAIN-WATER PIPES.—O-G and Half-round Gutters, Sash Weights, Railway Bars, Air Bricks, &c

J. JONES, Iron Merchant, Iron-bridge Wharf, No. 6, Bankside, has the largest stock in London of the above and other castings, of the very best quality. Also cast-iron pipes for gas, water, or drainage; bends, tees, &c.; flange and hot-water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig-troughs, &c. &c.
J. JONES, IRON MERCHANT, IRON-BRIDGE WHARF, No. 6, BANKSIDE, LONDON, near the Southwark Iron Bridge.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



PLANING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and waggon builders, machinists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, morising, grooving, rebating, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS. Patentee, 39, Lawton-street, Liverpool, from whom full particulars may be obtained.

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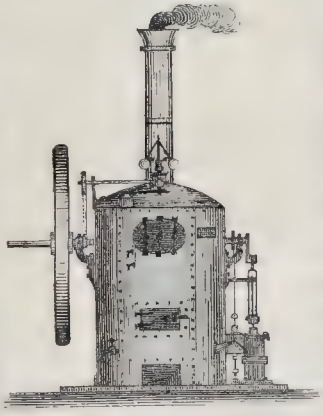

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"Sir,—The three-horse power steam-engine purchased from you in 1854, for the purpose of hoisting shot and other material for the building of the above battery, has answered the purpose for which it was required remarkably well, and from its portableness was found very convenient to remove from one part of the building to another. The consumption of coals was about 4 cwt. in 10 hours.
"I am, Sir, yours truly, for THOMAS JACKSON,
"THOMAS SWAIN."

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Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
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W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Paws, and other castings, to patterns or drawings.

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GLOVER, BROS.,

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Best Patent Sash Line.

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4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s per gross

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Girder Bridges, Railway and Builders' Wrought-iron Work, Gasholders, Tanks, and Boilers.
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Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for counting-house, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a gate of a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

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"London and North-Western Railway Company.

"Liverpool, May 17, 1853

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your safe, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

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Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.

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The Builder.

SATURDAY, JANUARY 27, 1855.

We have before us Mr. Muirhead's new book on Watt and his Mechanical Inventions.* James Watt, the developer of the powers of steam,—the magician, by the play of whose iron rod the unprecedented manufacturing and naval steam powers of this country may be said to have been evoked,—was born at Greenock—the Gravesend of Glasgow,—upwards of a century since; and even from his childhood, like not a few others destined to scientific greatness, appears to have been cut out, as it were, for the work he had to do; the main bent of his life, it may have been, having assumed form and consistency from one of the first efforts and gratifications of his peculiar mechanical talents, while yet a child; since it is recorded, and has been specially remarked by M. Arago and others, that one of his boyish speculations actually consisted in the *condensation of steam in a separate vessel*. His call to be a mechanical philosopher, too, as a living relative, Mr. Muirhead, also thinks, may have been all the more impressed on his mind by the presence, in his father's house, of somewhat notable portraits of Napier and Newton. True it is, at all events, that he early began to show that he was "no common child." Ill health and homely tuition, moreover, may have helped to induce habits of quiet and solitary meditation.

Watt's mind appears to have begun early to yearn after wider fields of experience than his own humble birthplace afforded; and he soon found his way from Greenock to Glasgow, and from Glasgow to London, where he was further prepared for his important destiny, by learning the art of mathematical instrument making; after which he returned to Scotland, and being (fortunately, doubtless, there as well as in the City of London) prevented from setting up in business on his own account, not being a freeman either in the City of Glasgow or in that of London, he was glad to embrace the opportunity which a very humble opening at first presented him of doing something for himself in the way of his business as a mathematical instrument maker, under the *quasi* sanctuary of the Glasgow University, whence no city corporation or its freemen could expel him. The little incident which occasioned his first introduction to this seat of learning is modestly described by himself in a letter to his father, dated 25th October, 1756, in which he says, "I would have come down [to Greenock] to-day, but that there are some instruments that are come from Jamaica that Dr. Dick desired that I would help to unpack, which are expected to-day." Now, it is a singular circumstance, we cannot but think, that Watt,—already a most original and inquisitive mechanical genius,—a "queer lad,"—a curious boy,—thus was placed, by apparently the most fortuitous and trifling circumstance, in a position where, shortly afterwards, the now celebrated, but in itself primitive and faulty, model of Newcomen was presented to him by the University authorities "for repair," and where he also, about the very same time, became intimately acquainted, and associated in scientific friendship, with the discoverer of latent heat, the celebrated Dr. Black, who, in that very year, was appointed professor of anatomy, and lecturer on chemistry, in that very college! And that there too, through Dr. Black himself, Watt was introduced to the practical originator of the manufacture of iron by means of coal in place of charcoal, namely, Dr. Roebuck, who, moreover, assisted pecuniarily in the development of Watt's grand idea, until he was handed over, as it were, by Roebuck, to Boulton, Birmingham, and universal fame. Who will say there was not a special disposal of events and circumstances here? Dr. Black's discovery was an essential element in Watt's calculations as to the capabilities of steam. Dr. Roebuck's was an essential preliminary to that vast multiplication of "Watt's Fire-engine," as it was called, and its multitudinous manufacturing and other purposes, which have since made this country the world's workshop and its centre of mechanical power.

Dr. Black, in a MS. narrative, never, it is believed, quoted or noticed by any biographer of Watt except Mr. Muirhead in his recent work, thus describes the germ, as it were, of the grand inspiration of Watt's life:—

"It was in the beginning of the year 1765, that the fortunate thought occurred to him of condensing the steam by cold in a separate vessel or apparatus, between which and the cylinder a communication was to be opened for that purpose every time the steam was to be condensed; while the cylinder itself might be preserved perpetually hot, no cold water or air being ever admitted into its cavity. This capital improvement flashed on his mind at once, and filled him with rapture."

Watt himself even indicates the very spot where this "rapture" so suddenly inspired him. On being asked, in 1817, if he recollected how the first idea of his great discovery came into his mind, the old man instantly replied,—

"Yes, perfectly. One Sunday afternoon I had gone to take a walk in the Green of Glasgow [where many a one besides Watt has meditated amongst its trees or beside its *pearl-yielding* Clyde waters, or by night in the strange glare of its neighbouring ironworks], and when about half way between the Herd's House and Arn's Well, my thoughts having been naturally turned to the experiments I had been engaged in *for saving heat* [*latent* in or constitutional to the state of steam, and absorbed from the fire, as Dr. Black had taught him to believe] in the cylinder, *at that part of the road* [and Sunday as it was, when the mind of young graceless, as his revered and kirk-going father might perhaps have said at the time, should have been not "naturally turned" or inspired, but spiritually], the idea occurred to me that as steam was an elastic vapour, it would expand and rush into a previously exhausted space; and that if I were to produce a vacuum in a separate vessel, and open the communication between the steam in the cylinder and the exhausted vessel, such would be the consequence."

This interesting little detail reminds us of Galileo's observation of the pendulum, while in the cathedral at Pisa, where, in place of being engaged in devotional exercises, he happened to be gazing vacantly upwards at a lamp which swung from the roof, and which instantly inspired his mind as it were with the idea of continued pendulations in equal times.

Poor as Watt then was, this was doubtless the very happiest moment throughout a long life, seared by what he bitterly, and but with too much truth, complained of in after years as the "villanies," the "rascalities," of his fellow men,—the Hornblowers, Bulls, and others who lived upon his laborious thoughts, and vexed his soul with law-suits and slanders. Watt, however, was a man of far too practical and matter-of-fact a kind not to "mind the main chance," as some of his countrymen would say. The turning of his various inventions to profit ever occupied his attention, co-ordinately with his more disinterested scientific thoughts. Even after he had been taken by the hand and into partnership by his staunch and far-seeing business friend, Boulton, it was not a few weary years ere fortune really smiled upon the co-partners. The introduction of the improved engine into Cornwall, its most promising field at that time, seems to have been a sickening business to Watt, who had to go personally to the district, and hammer his ideas into thick skulls—a poor exchange, in his opinion, for the intellectual pleasures of the "Lunar Society," with its Darwin, Priestley, *et hoc genus omne*, and the hospitable society of Soho and its vicinity. How little the real merits of machinery were appreciated by those among whom he had thus to labour, and how much indeed "Watt's fire-engine," in its maturer forms, was needed at that time, appears from an amusing description he has given even of one of the first of his own engines there erected. "The velocity, violence, magnitude, and horrible noise of the engine," he says, writing to his copartner, Mr. Boulton, "give universal satisfaction to all beholders [and auditors, he should have added], believers or not. I have once or twice trimmed the engine to end its stroke gently and make less noise, but Mr. —— cannot sleep unless it seems quite furious, so I have left it to the engine-man. And by the bye, the noise serves to convey great ideas of the power to the ignorant, who seem to be no more taken with modest merit in an engine than in a man." As for "the engine-man," Watt complains that "he actually ate the grease for the engine."

At this very time, or rather before it, an offer was made him, which might have immensely affected the destinies of this country, and might have even reversed our position with relation to Russia, and have rendered the probability of a Russian steam invasion, at this moment, of our own less well protected shores, by no means preposterous. Mr. Boulton, honest man, had been "sounding the praises" of his gifted coadjutor at the Russian Ambassador's, and the very speedy result, at that critical moment (the spring of 1775), was an offer of employment, with 1,000*l.* a year, under the Russian Government. Mr. Boulton was "staggered," "repented" his rashness, expatiated on the "dangers of so long a voyage or journey," and kindly reminded the bear-hugged philosopher of "the precariousness of your health." "Lord! how frightened I was," exclaimed Dr. Darwin, "when I heard a Russian bear had laid hold of you with his great paw, and was dragging you to Russia! Pray *don't* go, *if you can* help it. Russia is like the den of Cacus: you see the footsteps of many beasts going thither, but of few returning. I hope your fire-engines will keep you here." Well it was for his then thankless and almost unconscious country that his fire-engines did keep him here. Had the offer not been only just a little "*trop tard*," the empire of the Russ, and not of the Briton, might have been at this moment the great steam engineering centre of the world. Nor was this the only opportunity which Russia seized, as if to the full extent conscious of the immense importance of such an endeavour to get ahead of us. A previous attempt to engage Watt's services on behalf of Russia had been made in 1773—two years before—through his friend, Dr. Robson, late of Edinburgh, but then of Russia. Again, even so long afterwards as 1816, Nicholas himself, then Grand Duke, actually applied *in vain* at the Soho works for permission only to view the interior, his application backed by a letter from Lord Sidmouth, of which the great Nicholas was the humble bearer! *There were certain persons in his suite who had other objects than merely to "view the interior!"* Cunning and unscrupulous then as now! In 1775, Watt, it is verily believed, would have actually seized the opportunity of earning so handsome a salary as 1,000*l.* must have then been to him, had it not been that he was alarmed by the hint that Captain Perry, another engineer, whom the

* "The Origin and Progress of the Mechanical Inventions of James Watt; illustrated by his Correspondence with his Friends and the Specifications of his Patents." By J. P. Muirhead, M.A. In three volumes. London: Murray, Albemarle-street. 1854.

Czar Peter had engaged, had to fly for refuge to the British ambassador, and to return to England without receiving the pay due to him. Watt therefore decided to prefer to such "despotic predilections" the to him more secure, and to us more fortunate destiny of "a crust of bread and liberty."

James Watt, as is well known, was the author of many other inventions besides those connected with the steam-engine, in themselves a host.*

He had actually suggested the marine screw-propeller, one of the newest adjuncts to his own admirable engine. His friend, Dr. Small, having mentioned to him in 1770, the desire which Mr. Boulton (not then a partner of Watt) entertained of moving canal boats by help of the steam-engine,—"Have you," said Watt, in his reply, "ever considered a spiral oar for that purpose, or are you for two wheels?" The contradistinction between two wheels and one oar, plainly implies the idea of substituting the screw for the tapering oar at the stern of the boat. Mr. Muirhead, who first brings this fact before the public, instances it very justly as one of the many extraordinary proofs that Watt's genius and sagacity were far ahead of his age; but he is wrong in supposing, as he appears to do, that Watt was thus the first projector or originator of the screw as applied to ships; for it is known that in China, from time immemorial, the screw has been so applied, a fact, however, doubtless quite unknown to Watt.

Even in his early youth, so fertile, so varied, and so brilliant was the admitted mechanical and inventive genius of Watt, that, although he was well known, among his acquaintances, to have "by nature, an absolute deficiency of all musical ear," as well as a total want of all experience or education in organ building, some of these very acquaintances, who formed a Masons' Lodge at Glasgow, and wanted an organ, applied, with the utmost confidence, to Watt to make them one, as he was up to anything! And Watt did make the organ according to order, although, when he began, he did not know one musical note from another; and not only did he make a good job of it apparently, but in the course of his preliminary experience "a thousand things occurred to him which no organ builder had ever dreamed of,—nice indicators of the strength of the blast, regulators of it, &c. &c." and he mastered the theory of the beats of imperfect consonances, so as to tune the organ himself though devoid of ear, and to the delight and astonishment of the best performers; invented a real monochord of continued tone, and made an observation, while playing with this, which it is alleged would have terminated a dispute between the first mathematicians in Europe,—Euler and D'Alembert,—and which completely established the theory of Daniel Bernouilli, who differed from both about the mechanism of the vibration of musical chords, and as completely overturned the theories of Rameau and Tartini.

The perspective drawing machine was another invention of Watt's, of date about 1765. He invented the micrometer for measuring distances; and, indeed, he acted practically as a civil engineer, having made a chart of the Clyde, and surveys for the Forth and Clyde, Monkland, and other canals, and even produced the first survey for the great Caledonian Canal across a chain of lakes in the north of Scotland, and of which Telford, in his subsequent survey, acknowledged that he made good use. He invented the copying machine, for which and other improvements, he took out successive patents. He specified in his patent of 1784, improvements in the principles and construction of steam-engines for wheeled carriages, and a working model of a locomotive engine was actually made by one of his subordinates, Mr. Murdock. Watt's mission, however, was mainly to set the improved steam-engine agoing; and although he foresaw at least its possible utility in locomotion, both by land and sea, he had not the means or opportunity of doing more than merely bringing the engine itself into use, for fixed or local purposes. True, he was in the habit of expressing doubts about the probability of using locomotives at least on common roads, but a letter *to* Watt from one of his own friends, Mr. Edgeworth, may afford us a glimpse into his own private, innermost, and most speculative thoughts. "I have always thought," said Edgeworth, "that steam would become the universal lord, and that we should in time scorn post-horses. An iron railroad would be a cheaper thing than a road on the common construction." This, however, was not written till 1813, but it was even then a clear prophecy of times to come.

In 1785, Watt had turned "some of his idle thoughts to an arithmetical machine,"—a grand idea, but too much seemingly even for a mono-theorist, if we may judge by the void result of Mr. Babbage's life-time efforts. This was by no means a mere vague speculative idea of Watt: he did much to mature his idea to a certain extent, though not to realise it into an actual machine.

Watt's inventions began with rough power, they appropriately ended with refined art. One of his latest occupations in life, consisted in the gradual perfectment of a machine for making solid copies of statues or other sculptures, a most ingenious invention, the idea of which was suggested to him by an implement he had seen and admired at Paris, in 1802, where it was used for tracing and multiplying the dies of medals. This new machine was to do for solid masses, and in hard materials, wood, ivory, soft stone, and even marble, what his copying machine of 1782 had already done for drawings and writings on flat surfaces of paper. In 1808, its construction was considerably advanced, so that his glyptic machine, as he then called it, had become polyglyptic, or capable of cutting two or more copies at once, though "still far short" of his ideas; but in 1818 he had not only completed this favourite occupation of his old age, but was on the very eve of patenting the invention, when he felt the hand of death upon him, and in that very year he died, after having exhibited the machine to some favoured friends, and so prevented the appropriation of it by others to their own exclusive patented benefit, but leaving it, as it were, a legacy to society.

The work mentioned at the commencement of this notice, is a highly interesting one. The first volume of it is mainly devoted to a memoir of Watt; the remainder of that volume, and the whole of the next, to his correspondence; and the third volume to the specifications, &c. of his patents. The form of the whole work is more expensive than it ought to have been; but doubtless there will be other editions in course of time, which will bring it into more general distribution than the present may obtain.

The author of the memoir writes most affectionately of the subject of his notice, and calls him, as Plato did another sage, "The most virtuous, the most wise, and the most just." He does not forget to record the statue erected in Westminster Abbey by the nation, not merely, as Lord Brougham has said, "to perpetuate a name which must endure while the peaceful arts flourish; but to show that mankind have learned to honour those who best deserve their gratitude;" and he refers with satisfaction to the medal struck by the Art-Union of London in honour of Chantrey (*sculptor et artium fautor*), which bears on the reverse his monument to JAMES WATT.

* Though not to be classed among his *inventions*, albeit Dr Black's discovery of latent heat is by Watt himself called an invention, we must not fail to note his discovery of the composition of water, once attributed to Lavoisier and Cavendish, but by the verdict of such a scientific *jury* as Davy, Henry, Arago, Brougham, Dumas, Berzelius, Brewster, and Liebig, finally ascribed to Watt.

REVIEW OF THE PLANS FOR THE DRAINAGE OF THE METROPOLIS NOW UNDER CONSIDERATION.*

CONTINUING our remarks upon the salient points in the schemes and evidence now before the Commission, attention should be directed to the opposite treatment of two sections of the northern area, namely, drainage *out* of the areas to Barking-creek, and drainage within the area as by Chelsea. Eighteen square miles of drainage converge to a sumpt near Chelsea, by means of two enormous parallel sewers, because the level of the district is so low that it is impossible to obtain any other natural means of drainage than into the river as at present. At the same time it is proposed to send the drainage of sixty-five square miles (forty-one north and twenty-four south) from areas equally low in large tracts, from Chelsea near to the commencement of the sumpt system; and from points on the south side beyond the sumpt miles to the east to Barking and Deptford Creeks.

Sir William Cubitt would have all the sewage go into the Thames,† and would show the gentlemen who are so anxious to turn it into valuable manure, that "there is a means of doing it out of the fifty sewers at a little distance back far better, and, in his opinion, much cheaper than they could work this great thing (the tunnel sewers), which they talk about, but will never do." "All people who go in extremely large steps at one time must, he thinks, occasionally fail." He should recommend that at every one of the fifty main sewers an establishment should be erected, by means of which they would work more certainly and more economically, and would get rid of all the rainfalls easier than by this large thing which they talk about doing. "You quite mistake me," he says, "if you think I have come here against saving the manure and making it available."

It is proposed now to notice some points in Messrs. Bazalgette, Stephenson, and Cubitt's review of Mr. John Roe's scheme, or rather their confirmatory observations in favour of their own schemes, "approved of by us in our former reports," in contrast with it.

Messrs. Stephenson and Cubitt object to Mr. Roe's datum of 31,000 inhabitants per square mile:‡ they call it a serious error, affecting the capacity of his middle level line; for, say they, the population is from 80,000 to 100,000. In an important part of Mr. Roe's plan, "which proposes to deal with the interception from an area of 28 square miles, out of a total of 41, through the middle intercepting sewer alone," Messrs. Bazalgette and Haywood's tables, accompanying their Report of Jan. 21, 1854, will on this point (as Sir William Cubitt says, speaking in terms of general approval) "well repay the perusal."

In the three tables, the heading of the column governing their sizes (as to prospective population) is uniformly thus "prospective number estimated at 30,000 per square mile." So that the very proof of error is an emphatic condemnation by themselves of the accuracy of their own tables. The figures under this heading are certainly widely at variance with the heading in many cases, the three main lines giving the following results:—

	Present Number.	Prospective Number estimated at 30,000 per Square Mile.
	Per Square Mile.	True Number per Square Mile.
Table 1. Northern High Level, or Hackney-brook...	6,575	29,682
,, 2. Middle Level	48,388	57,157
,, 3. Main Low Level	58,636	61,550
		Prospective Number.
Summary of Table (including these lines only).....	37,055	49,102

But neither in the case of the present nor of the prospective population do these (averaged) tables bear out Messrs. Stephenson and Cubitt's implication of Mr. Roe's middle level "dealing with the interception from 28 square miles" being inadequate for its work, through its wrong basis of 31,000 instead of 30,000 to 100,000 per square mile. They seem to ground their deductions on isolated sections of the area dwelt with, giving *maximum* results; whilst they wholly suppress the important facts that one-fourth of Mr. Roe's middle level area has an average present population of only 6,575 per square mile (Table No. 1); and that the mean present population of the whole metropolitan area treated by Mr. Roe is only 37,055 per square mile. (Summary of Tables.)§

Assuming Mr. Roe to have erred by deduction

* See p. 28, *ante*.
† Evidence, 3414.
‡ Rep rt. Dec. 11, 1854, pp. 27, 28.
§ Report, Jan. 21, 1854.

from a minimum datum (Messrs. Bazalgette and Haywood's tabulated heading), the Commissioners' acting and consulting engineers may certainly take credit for being on the safe (?) side, when they increase the inhabitants of fields and bleak waste, from a rate of 366 per square mile, to a rate of 30,000 per square mile, or more than eightyfold,* propound a scheme for two or three main lines, for the suburban district of which it forms a part, which no amount of rate collectable from it, in its present condition, could ever repay.

The reporters say that "the above conclusions will afford sufficient explanation of the data upon which the sizes of our intercepting sewers are calculated. The *details are given in Appendix A.*" Appendix A. constitutes the tables.

Mr. Stephenson says, "With reference to the dimensions of the proposed sewers, I have not been able to go into the details of the calculations, but having examined the *tabular* statements attached to the engineers' report, and having received explanations from them respecting the directions of the flow in the various sewers intended to take place, I have every confidence in the correctness of their conclusions."†

Some doubt must be felt as to the value of these tables professing to be amplifications of the report, when we find these startling anomalies in three main lines;—a 12 feet 6 inch sewer falling 1 in 1,359, taking less than a 9 feet 6 inch sewer, falling 1 in 3,520; and taking one third less than a 10 feet sewer, falling 1 in 2,640, under precisely the same heading of "Rainfall per minute, and maximum sewage per minute added together."

Messrs. Stephenson and Cubitt‡ strongly object to the limitation of Mr. Roe's Hackney-brook scheme, because it does not relieve any other existing outlets into the Thames; because it is simply a district sewer for an area which has hitherto never drained into the Thames, through London; because it does not extend, as does Mr. Bazalgette's and their schemes, towards Kilburn. "The omission [they say] of the extension of the Hackney-brook sewers, towards Kilburn, we cannot help thinking *is a fundamental error*, for it throws the entire drainage of the northern district of the metropolis into the middle intercepting sewer, which ought to be kept down in dimensions as much as possible."

Mr. Stephenson, the consulting engineer of the Commissioners of Sewers of to-day, curiously enough, in this condemns Mr. Stephenson, the Commissioner of Sewers, 1850-1; for Mr. Forster's scheme approved, and in part designed by him, is certainly obnoxious to this "fundamental error."§ But after all, everything about this extension, shows its indefinite character. Its route is dotted on the plan. The tables, showing in all other cases these particulars with minute precision, fail to give the length, the rate of inclination, and the size of the sewer; and Mr. Stephenson's very argument in the sequel would point to its fixity as an afterthought.

With a view to add force to their objections to Mr. Roe's 4-feet lower outlet, they say, basing their arguments upon Mr. Forster's‖ experiments in 1851, in the tidal flow, "But in discussing this part of the question, we cannot feel justified in disregarding Greenwich and its populous neighbourhood." The force of this care for the verge of populated London; of this fear, lest the sewage of the north side of London, discharged, as they say, some 4 feet lower than they would go, and under high water for some short period, some six or seven miles below Greenwich, should chance to flow up the river and reach this devoted town, are somewhat impaired by contrast with their own scheme for the south side, in which they propose to send some 24 square miles of foulest drainage of more than half a million of people, and innumerable noxious factories, into the very heart of this very town of Greenwich.¶

Mr. Roe's syphon under the River Lea, is objected to, because, say they, it will probably be converted at times into an accumulator and receiver, and how do the reporters themselves propose to pass the Lea near this point?

With remarkable explicitness, they say, "Thence it (the Hackney Brook Sewer) crosses under the East and West India Dock Railway, along Albion-road, West-street, and through the Victoria-park, and under Sir George Duckett's Canal, up *to which point it is kept up to such a level that it may be carried over or under the river Lea navigation.*" And, again, "*This sewer is kept at such a level (for the purpose of being carried over or* UNDER *the river Lea,* and discharging at high water by gravitation) that a portion of the drainage of the Hackney marshes cannot be turned into it."*

Now this passage under the river surely involves a syphon? one seemingly as long, from the position which they have chosen, as that objected to. Mr. Roe gives the aqueduct alternative; and the *only* discoverable point of difference between Mr. Roe and Messrs. Bazalgette, Stephenson, and Cubitt, is that the reporters, in their previous reports, give the syphon alternative. In point of fact, it resolves itself into a mere transposition of words, with this distinction, that the reporters are indifferent upon the subject, while Mr. Roe attaches some value to the syphon alternative.

Mr. Stephenson looks upon tunnel sewers, under certain conditions, as syphons. Before the committee he started a most serious objection to their use, one with which, as he himself said, he did not know how to grapple. He thought that when floods gorged them, and overpowered the pumps, the velocity of current in them would be so much reduced as to cause their silting up, because at such times they would become reservoirs.† This argument was upon a tunnel falling 4 feet per mile: his own tunnel, on the north side, falls (for the last 3 miles) at the rate of 1½ foot per mile, with a mean velocity of current, *when fully charged*, of very little more than 1½ mile (1·65 mile) per hour. He seemed to think that a velocity of 2 miles per hour would be insufficient to prevent this silting up, a velocity nearly one-fourth more than the natural velocity in his own tunnels, with the discharge and lift in equilibrio. In proportion to the gorging of the tunnels by floods creating a disturbance of the balance, so must they assume all the characteristics of a syphon, varied only by the number of inferior orifices through which they pour or syphon their contents, many feet above their own level, into the Thames, either directly by special branches, or mediately, through suitable tributaries.

This syphonic action would take place upon every addition to the assigned ½-inch rainfall in the twenty-four hours.‡ This may be for thirty-three days or thirty-nine days in the year, as in 1853 and 1852; assuming with the reporters the equal distribution and discharge of the fall within *their* period. But as rains fall *generally* in much shorter times and at greater rates, the view taken of the action of the tunnels is by no means the least favourable one. Of course all tunnels having insufficient power to meet *storm* discharges are open to the same objection; but it should seem that those are least so, or at all events least fatal in their effects, which drain the smallest areas and have the greatest falls.

Whilst upon this subject it may be as well to consider how the designers of the main drainage, in their original reports and in their reviews of Mr. Roe's schemes, provide for the exigencies of storms. Would they always keep up sufficient steam to meet storms, always of uncertain advent, or would they wait for storms? Of course they must have a maximum *establishment* to meet these cases, so that they could save only in the coals, &c. and in the less depreciation of the spare engines.

Messrs. Stephenson and Cubitt say, "The high level (Hackney-brook sewer, as already explained) must act as a *drainage* sewer for 7 square miles, and remove the sewage and a portion of the storm waters from another 7 square miles."§

Mr. Bazalgette, on the contrary, in his report of 1st October, 1853 (approved by Messrs. Stephenson and Cubitt), expressly says, "that it will divert the *whole of the sewage and flood waters of* 14 *square miles* of the upper districts from the low districts, and from the river Thames." Again he says, this time reporting with Mr. Haywood,‖ "The northern high level gravitating sewer, reported upon lately by Mr. Bazalgette, being intended for an intercepting sewer, and at the same time as a main *drainage outfall*, capable of performing *all* the functions of such a *calculated to carry off all the sewage as well as the rains, including storm waters, likely to pass into it from the area drained by it.*" And again on 30th October, 1854, he says, "This sewer *would drain* 14 *square miles altogether*" (p. 18).

Messrs. Stephenson and Cubitt's reports of 1st and 8th October, 1853, will sufficiently show their approval of Mr. Bazalgette's views.

The sewer for the complete drainage of these 14 square miles is shown in the first table (No. 1) appended to Messrs. Bazalgette and Haywoods' report,* to be a 12 feet 6 in. circle, falling (for a length of 1 mile 2,470 feet) at the rate of 1 in 1,359. One inch of rain in the hour on this area (8,913 acres) is equal to 539,236 cubic feet per minute, and this 12 feet 6 in. sewer would discharge 1-16th part of this quantity, or 1-32nd part of that 2-inch rate of fall and yield, forming so prominent a feature in the evidence of the reporters.†

Messrs. Stephenson and Cubitt *now* say, "The lower portion of the sewer designed for this purpose would discharge 47,000 cubit feet per minute, being 12 feet 6 inches diameter, with a fall of 1 in 600."‡ Mr. Stephenson seems to have underrated the discharging power of this sewer. The approved formula gives about 49,000 cubic feet per minute.

It will be noticed that Messrs. Stephenson and Cubitt take the drainage and the whole of the flood waters from an area of only seven square miles; and the sewage, and a portion of the storm waters only, from the other seven mile area; thus reducing the *whole flood area* one-half, or by more than 4,400 acres, and more than doubling the rate of fall: they nevertheless provide the same sized sewer fixed by Mr. Bazalgette, and previously approved by themselves, for taking the *complete* ordinary and *flood* discharge of the whole 14-mile area, or reducing in some, probably large, proportion the flood discharge on one-half their area, they provide through their 12 feet 6 in. sewer, falling 1 in 600, a capacity one-half greater than Mr. Bazalgette had previously provided for the complete flood discharge on the whole area.

The fall in the 1 mile 2,470 feet, would be at $\frac{1}{1359}$ 5·7 feet, at $\frac{1}{600}$ 13·0 feet nearly, so that the mere error in level would be full 7 feet.

In their report there is a curious, but at first sight apparently unimportant, omission, seemingly, when followed up, giving the clue to the design of this great change in the Hackney-brook scheme. When speaking of the functions of this sewer, there is a remarkable abstention from all reference to previous reports or tables. This is evidenced by contrast with the explicit references, in the two following paragraphs of their report, to the tables "in your engineer's report," when speaking of the middle and low level sewers.§

The northern high-level table (No. 1)‖ would have shown the 12 feet 6 inch sewer falling 1 in 1,359, not 1 in 600, as they have it, a fall not to be found in this table, nor in any of the tables, and, as has been shown, a reference to the report would have disclosed the *fundamental* discrepancy.

Probably the following passage in Mr. Roe's Report (p. 7) may assist in the solution of this wide departure from the approved designs: "There was, therefore, no reason for incurring expense by bringing waters from the west side of Maiden-lane into the Hackney-brook line; necessitating the forming a large sewer along this line, and, *after all, one inadequate to its implied purpose.*"

Instances are given of the nice application of the formula which they approve to correct deficiency and excess of size where the *flood-marks* show the errors in their examples.¶ But there is sufficient internal evidence to show that they have suited their formula to *one* part of a hydraulic fact involving two essential conditions, and which part might as well have been collected from a tide-locked sewer as from an active sewer.

Messrs. Stephenson and Cubitt have no doubt of the value of Mr. Roe's table published in one of the general Board of Health's Reports,** showing the dimensions of sewers necessary to drain districts of a given area, "founded, as they believe it to be, upon an extensive series of careful observations," "but" they say, "it is satisfactory to find that it *signally confirms the accuracy of the calculations followed by engineers in considering such questions;*" and they allude to Mr. Hawksley's statement of the "close coincidence between the table formed by Mr. Roe and the formula used by him."

Mr. Jebb, the chairman to the Metropolitan Sewers Commission, [illegible] and lowed by engineers in considering such questions."††

In his letter to Viscount Palmerston, dated 8th March, 1854, he says,—"Of late, in laying down new sewers, hydraulic science has been rigorously applied, with a view to prevent either a defect or an excess in their size. And here, my Lord, I feel bound to observe that the Commissioners have not accepted the hydraulic tables which are understood to be adopted by the Board of Health; those tables being in a large measure at variance with the results both

* Table 2

† Report, May 15, 1854, p. 8.

‡ Report, December 11, 1854, pp. 30, 31.

§ Mr. Forster's Report and Plan, Northern Drainage, Jan. 30, 1851.

‖ Mr. Stephenson's associate in the main drainage of London in 1850-1, and former assistant.

¶ Reports and Plans, October 6 and 17, 1853.

** Report, December 11, 1854, pp. 35-6.

* Reports, October 1, 3, 8, 1853, pp. 5, 6.

† Evidence, 3288-9 90-1-2.

‡ Registrar General's Report. On 25th July, 1852, 2 inches 1 99 fell; but of this quantity it is recorded that half an inch fell in one quarter of an hour, being at the rate of 2 inches per hour: and that 1 inch fell in another quarter of an hour, being at the whole fall took place. rate of 4 inches per hour. So that in half an hour three-fourths of the

§ Report, Dec. 11, 1854, p. 42.

‖ Report, Jan. 21, 1854, p. 181.

* January 21, 1854.

† Messrs. Bazalgette and Stephenson's evidence, June, 1853.

‡ Report, December 11, 1854, p. 42.

§ Report, December 11, 1854, p. 42.

‖ Report, January 21, 1854.

¶ Report, December 11, 1854, pp. 39, 40.

** Report, December 11, 1854, p. 30.

†† Return, Metropolitan Drainage, April 11, 1854, pp. 179, 180.

of science and experience, English as well as continental, and being such as, if adopted for London, would entail the most serious consequences to the health and property of its inhabitants, by giving rise to the construction of sewers too small to answer the purposes intended."

Now let us see the result of Messrs. Bazalgette and Haywood's, Stephenson and Cubitt's, reasoning and admissions.

Mr. Roe's table shows a 9-feet sewer falling 1 in 480, conveying the water from 1 inch in the hour rainfall (with house-drainage) from 1,425 acres.

Mr. Bazalgette, on the contrary, asserts that a 9 feet 6 in. sewer falling at the same rate, will discharge only one-tenth of an inch in the hour rainfall (without house-drainage) from only 4,560 acres; for he says that Mr. Roe's 7 feet 6 in. sewer for the drainage of 7·12 square miles, or 4,560 acres, is altogether too small, and that it ought to be more than 9 feet 6 in. in diameter, as his, Mr. Bazalgette's datum of the discharge of 28,728 cubic feet per minute from $2\frac{1}{2}$ inches of rain equally distributed over twenty-four hours, *i.e.* equivalent to about one-tenth of an inch per hour.

Now, Messrs. Stephenson and Cubitt (who follow Mr. Bazalgette in their mode of calculation), assert that Mr. Roe's table signally confirms the accuracy of the calculations usually followed by engineers in considering such questions; but as Mr. Roe's table gives a result so much exceeding their own results, this would seem, on their own showing, to be impossible.

Hence the proof of the coincidence of Mr. Roe's table, and their formula involves the abandonment of their hypothesis of the fall and discharge in equal times.

But the engineers' hypothesis of the co-equal fall and *discharge*, contains an impossible condition; for *discharge* involves action through space and time, or motion, but this is inconsistent with the terms of the hypothesis.

Hence the discharge from any given fall is spread over a period proportioned to, and governed by, a vast variety of conditions, in the extent and character of areas, of discharging channels, of relative absorbencies of strata, of local peculiarities, &c.; and which, *à priori*, cannot be provided for.

Hence one error of the procrustean application of formulæ, howsoever generally correct as representatives of one unvarying condition.

Hence, if Mr. Roe's table and the formula be coincident, Mr. Roe's sewer is adapted to convey a flow not exceeding one-tenth of the inch per hour; and the discharge of his inch fall per hour, *must* be so distributed in *time*, as never to exceed this rate of flow; or it may be stated thus:—supposing an inch in the hour rainfall, and the rain then to cease, and assuming with the engineers it all finds its way into the sewers, then it would take ten hours at least to flow away: for by the engineers' formula, the sewer cannot take more than one-tenth of the fall, or the discharge, terms equivalent to their apprehension.

Hence, by parity of reasoning, standard with standard, it does appear that Messrs. Bazalgette and Haywood, Stephenson and Cubitt's capacities of sewers, for the main drainage of London, *must* be, on their own showing, extremely in excess, and consequently much more costly than the necessities of the case, as they show them, can require.

We want and must have complete drainage, but it is very desirable not to waste the rate-payers' money.*

ON THE SPIRE OF ALL SAINTS' CHURCH, CHESTERFIELD.

INSTITUTE OF BRITISH ARCHITECTS.

At an Ordinary Meeting of the Institute on the 8th inst. Mr. W. G. Coldwell read a paper on what often excites the curiosity of the traveller—namely, the spire of Chesterfield parish church. Its situation in the Midland Counties, near one of the [illegible] lines of railway, as well as its frequency by artists, renders it much more familiar than many structures of greater architectural worth. Whoever sees it, said the reader, cannot but be struck with its peculiar outline, and curiosity is increased when, on inquiring the cause, one fails to receive a satisfactory answer. A local rhymer says,—

> "Whichever way you turn your eye
> It always seems to be awry,
> Pray can you tell the reason why?
> The only reason known of weight,
> Is that the thing was never straight."

This is one account concerning this spire, that has in the neighbourhood numerous supporters. Many firmly believe it was built crooked, as we now see it. But there is another version far more singular, and which is, I think, more generally entertained,—that is, that the spire is not crooked, but is perfectly upright and perpendicular. When in Chesterfield last summer, in a position about the best for observing the inclination of this spire, I inquired why it was crooked from a gentleman whose age and intelligence I thought would assist me in this investigation. To my surprise, he, in the most positive manner, assured me it was "quite straight." He declined giving a reason why it appeared otherwise, and I could only regret that any one should make such bad use of his eye-sight. Within the last month I have had frequent proofs of the belief, out of Chesterfield, that this spire is straight; and strange to say, I find it even in print, with a reason assigned for its appearing otherwise.

In a work entitled "A Tour through Great Britain," published in 1753, there is the following concerning Chesterfield: "It has a fair church. The spire of its steeple being timber, covered with lead, is warped all awry." This gives us evidence of the existence of this inclination for upwards of 100 years.

Internally, this spire presents the strangest assemblage of timbers that can be conceived. The great deflexion from the perpendicular, amounting to about 7 feet, the twisting round of the upper part, which amounts at the apex to about 60°, the timbers which have been added when it was repaired,—all these combined with the want of light, produce such a constructive Babel, that I much question if its equal can elsewhere be found. On closely examining it, however, we are enabled to discriminate without much difficulty between what is old and what is of more recent date. The original construction is entirely of oak, while deal has been used in the repairs; and again, the old work is mortised together, and fastened with oak pins, and the new is secured with iron bolts and straps. With these particulars and guides, I have made out, from measurements taken in September before last, a section, which shows all the timbers that remain of the original construction. It may be described as follows: upon the tower walls, which are here 3 feet 6 inches in thickness, rest four tie-beams, each being of the scantling of 18 inches by 9: two of these rest on the north and south sides, and the other two are placed in the opposite direction, at right angles to the first, and notched on the top of them. At their intersection are four upright posts, 14 inches by 9 at the base, slightly converging inwards, which form as it were the posts of two queen trusses, and have struts, or principal rafters, 11 inches by 6, on all the eight sides. These posts are tenoned at the bottom into the upper tie-beams, and at the height of about 18 feet are tenoned into the under side of a second set of tie-beams. These second tie-beams, of the scantling of 15 inches by 9 inches, have others crossing them at right angles, notched on the top of them, similar to those first mentioned. Posts, 8 inches by 8, are tenoned into these, and these posts, at the height of about 17 feet, are again tenoned into the underside of a third set of tie-beams, which are of the scantling of 12 inches by 11. The same construction is repeated, and at an additional height of about 16 feet we have the inner upright timbers, or queen posts, tenoned into the under side of a fourth set of tie-beams, 9 inches by 7 [illegible] scantling, rise uninterruptedly as far as the construction can be seen, or to what is called the "crow hole." At the level of each of these tie-beams are struts, or principal rafters; also, between the posts are diagonal beams, all halved and pinned together; and also, a small scantling of timber placed horizontally, tenoned into the four sides of the upright posts. The ends of the tie-beams are secured to angle or hip rafters, which at the base are of the scantling of 8 inches by 6, and diminish to 5 inches by 5 at the top.

The Rev. George Hall, who, during his curacy of this church, wrote a history of it, says—"By measurement in January, 1818, the ball on which the weathercock is fixed was found to lean towards the south 6 feet from the perpendicular of its base, and 4 feet 4 inches out of its perpendicular towards the west, which gives a deflexion nearly south-west of 7 feet 5 inches."

The height of the spire itself, without the tower, is 111 feet: the tower is a square of 23 feet 10 inches inside, and the walls are 3 feet 6 inches thick. He believed the remarkable twist in the spire was caused by the decay of the timbers of one of the series of upright posts, by which the whole superincumbent weight had been brought down.*

THE DISTRICT SURVEYORS AND THE BOARD OF HEALTH.

On Wednesday, the 24th instant, a deputation of district surveyors under the Metropolitan Buildings Act, introduced by Thomas Alcock, Esq. M.P. and consisting of Professor Donaldson, Mr. Pownall, Mr. Gutch, Mr. Kendall, Mr. Godwin, and Mr. Hesketh, waited upon Sir Benjamin Hall, the president of the Board of Health, with reference to the allegation contained in a letter of the secretary of the Board to Lord Palmerston, already referred to by us, of their having omitted to take sufficiently stringent steps with regard to cellar-dwellings and noxious trades. They pointed out to him the imperfect nature of the data upon which the letter was founded, and the incorrect interpretation given to them. They proceeded to show that the requirements of the Act as to cellar-dwellings, did not give the district surveyors the powers attributed to them, and that there was no evidence of the illegal establishment of new noxious trades and businesses. The continuance of the old ones is permitted by the existing law till 1874. Sir Benjamin admitted that it was in truth a question of judgment, as to the powers really possessed by the district surveyors: he still considered, himself, that they ought to have interfered to prevent the occupation as separate dwellings of underground rooms not in accordance with the Act; but when he brought in his Bill for the better regulation of the metropolis, he would not fail to state the view as to their powers entertained by the district surveyors.

METROPOLITAN BUILDINGS OFFICE.

THE REGISTRAR'S SEAL.

We have seen a copy of an opinion of Mr. Lush, the barrister, upon the question referred to in our last number, as to whether the confirmation by the official referee of a district surveyor's certificate, in a party-wall case, required the registrar's official seal to give it completeness and validity, or not, and the following passages from that opinion seem clear and decided that it does not:—

Copy of Mr. Lush's Opinion, in the matter of Read.

"I am of opinion that the official referees have done all which is required of them in this case by the 'Metropolis Buildings Act,' that their confirmation of the surveyor's certificate is valid in law. It is not, I think, strictly formal, but there is nothing in it contrary to law."

"I am also of opinion that this is a document which does not require the seal of the registrar. I am unable to divine why some of the acts of the referees should be sealed, and others should not; but it is sufficient that the statute does expressly require the seal as necessary to the validity of some, and it does not require it for this or for several others."

"Although therefore I have felt considerable doubt during the [illegible] working of some of the clauses, and the difficulty I have mentioned of distinguishing between one class of documents and another, I have come to the conclusion that the Courts will adhere to the literal requisitions of the Act, and, according to these, Mr. —— [the building owner in the case] is now entitled to proceed, as if the consent of the adjoining owner had been obtained.

Temple. ROBT. LUSH."

It is right we should notice that this opinion is wholly irrespective of that of the Solicitor-General and others given in our last, and was

* In the first article on this subject, at p. 29, second column, for "one-two-hundredth," read "one-twentieth;" and for "maximum," read "minimum." At p. 30, second column, for "6½ mile area," read "6½ mile area."

* At this meeting, Mr. B. Ferrey, V.P. in the chair, the following gentlemen were duly elected as honorary and corresponding members: Mons. Gilbert, architect, member of the Institute, Paris, Mons. Alphonse de Gisors, architect, member of the Institute, Paris; Mons. Armand, Mons. Pelletchet, and Mons. Robault de Fleury, all of Paris, architects.

tained, not by the referees, but by the party erected in the proceedings. The registrar, 10 may have felt compelled conscientiously to struct proceedings, wherein his views differed rom those of the referees, will now doubtless feel exonerated in many cases from that necessity.

CHURCH-BUILDING NEWS.

Mansfield.—The Bishop of Lincoln lately laid the foundation-stone of a new church at Mansfield, Notts. In the cavity of the stone a bottle containing a number of coins was placed. The workmen, on going early, a few days afterwards, to labour, discovered that the smith's shop had been broken open, two crowbars taken, and used in forcing out the stone at the back of the one laid by the bishop and plundering the coin deposit.

Chatham.—The new church of St. Paul, Chatham, has been consecrated. The edifice stands on the north side of the New-road, at Union-street. It has been built from a design by Mr. Gough, architect. Messrs. Dove were the contractors. It is in the Norman style. The total cost has been somewhere about 5,000*l.* of which 500*l.* was for the site. The new church consists of a nave, transept, and chancel, its extreme length being 115 feet, and breadth 25 feet. The transept is 65 feet in length, and 25 feet in breadth. It is built of Kentish rag, faced internally with Caen stone, and externally with Bath stone facings. The circular pulpit and font are of Caen stone, both being decorated with a succession of Norman arches. There is a tower at the south-east end, rising to a height of 100 feet, the dressings of which are of Bath stone. The chancel is paved with encaustic tiles, and the rest of the church with Staffordshire tiling. There are galleries erected over the west end, and over the north and south transepts. The roof is open, and consists of deal, stained to imitate oak, as are also the whole of the pews and pulpit. The pews are low and without doors, and sittings are provided for 1,010 persons, free.

Devizes.—St. Mary's Church here, which has been closed for repairs and restoration during the past six or seven months, was reopened on Monday before last. The alterations effected have been,—the removal of the high, square pews, and the substitution of light and open oak benches; the removal of both galleries, the restoration of the windows, corbels, &c.; a cleansing of the walls and pillars of the interior; and erection of a vestry on north side of chancel. A new pulpit, reading-desk, and communion table have been supplied. Notwithstanding the removal of the galleries, the number of sittings in the church has been considerably increased, through the saving of space effected by the substitution of the present seats for the old pews. The total number of sittings is now upwards of 600, more than one-half, viz. 381, free. An organ has been placed in the opening in the lower part of the tower, over the west entrance. The cost of the alterations has been nearly 1,000*l.* The organ cost 250*l.*

The Lea.—According to the *Gloucester Chronicle*, the parish church of The Lea was reopened for Divine service on Wednesday week. The nave, chancel, and aisle have been almost entirely rebuilt: the tower and spire remain unaltered. The entrance porch has been removed from the south to the north side, an arrangement rendered necessary by the nature of the ground. The removal of a prodigious gallery, which overhung and darkened the church, has improved its appearance; while, by the substitution of open sittings for unsightly pews, much additional accommodation is provided for the poor. The pulpit is of white stone, relieved with a floreated cross. The carvings, with inscription, are the workmanship of Mr. H. Frith, of Gloucester. The whole of the windows appear to have been filled at one time with stained glass. The fragments are preserved, and will eventually be arranged in the east window of the Mortuary Chapel, said to have been the burial-place of the lords of Ecclesweld Castle. There is a deficiency of funds for the repair, of 200*l.* yet to be supplied. A parsonage has just been completed, in the mediæval style. Messrs. Medland and Maberly, of Gloucester, furnished the designs; and the builders employed were Messrs. Wingate and Sons, who executed most of the works.

Beoley.—A memorial window, in two compartments, representing the Virgin and St. John, has been recently placed in the south-eastern aisle of Beoley Church, by Mr. F. Mumford, of Bath. The window was supplied by Hardman, of Birmingham.

Nottingham.—The plans of Mr. Thos. Oliver, jun. have been selected for the new Congregational Chapel, at Nottingham, under the auspices of the English Congregational Chapel Building Society. The works are to be commenced forthwith.

Coventry.—Mr. Ruddle, of Peterborough, we learn, has the contract for reseating the Church of Holy Trinity, Coventry. The unsightly pews and galleries are being removed, and the new seats are to be in this summer. It is calculated, that after providing accommodation for all those who now have seats, there will be 500 free seats for the working classes, uniform as to make with the appropriated seats.

Mansfield.—The foundation-stone of a new church was laid here on Friday week. The edifice, which is dedicated to St. John, will be a rather light structure of the Decorated style of Gothic architecture of the fourteenth century, and will afford sitting accommodation for upwards of 1,000 persons. The extreme length of the building will be 172 feet, and the width 66 feet, and it will consist of a nave and two side aisles. A tower, in height 80 feet, will be placed at the west end, surmounted by a spire of 85 feet in length, access being had to the clock-works and belfry by means of a turreted spiral staircase at south-west angle of tower. The entrances are on the north side of the chancel vestry, through a porch on the south, and beneath the tower on the west side of the building: there is also a priest's entrance on south side of chancel. The walls of the edifice will be composed of Mansfield stone, with Ancaster stone facings. The body of the church will have plain sittings, and merely square bench-ends. The height of the nave, which will be supported by five arches, will be 57 feet, and that of the chancel 48 feet. The heating of the church, which is to be effected by means of hot water, has been placed in the hands of Messrs. Silvester and Co. of London, and the builders are Messrs. Lilley and Elliott, of Measham. The architect is Mr. Stevens, of Derby. The edifice will be finished, it is thought, by June, 1856. The original fund whence this church is being built (6,000*l.*) was provided by the late Mr. Galley Knight, M.P. for Notts. The builders' work has been contracted for at 5,900*l.* to which must be added 1,100*l.* for enclosure and drainage, heating, bell, architect's commission and expenses, and the furniture of the church, making a total cost of 7,000*l.* About 1,000*l.* more are required to complete the erection of the building, and subscriptions are solicited.

Sunderland.—Three stained-glass windows, by Powell and Sons, have been placed in the chancel of the church at North Sunderland, a gift of the Rev. W. N. Darnell.

PROVINCIAL NEWS.

Boston.—An influential public meeting was held here last week for the purpose of establishing a new gas company. It was resolved, by a nearly unanimous majority, "That a company for supplying pure gas at a maximum price of 4s. per thousand feet, to be called 'The Boston [illegible] New Gas Company,' be formed on a mutual principle, which shall constitute an identity of interests between the producers and consumers, in which the profits shall be returned to those who create them as consumers in reduction of price, after payment of a dividend not exceeding ten per cent. That the capital shall be 10,000*l.* to be divided into shares of 10*l.* each, with power to increase the capital to 15,000*l.*; and that each person applying for shares shall pay a deposit of 1s. per share." The present company are said to have not kept faith with the gas consumers, having charged 8s. 4d. after they had got fittings put up on the promise of gas for 7s. 6d.; and having charged 1s. 9d. per three months for use of meters, instead of 1s.

Hitchin.—The new national schools here were opened on Thursday in last week. They have been erected at a cost of nearly 4,000*l.* out of which sum the nobility, gentry, and tradesmen of Hitchin (a place of 7,000 inhabitants only) have contributed 2,013*l.* The schools are built of red brick, faced with stone, and are of Early English style. The roofs are high pitched, and open-timbered, with curved principals. The buildings consist of an infants' school, 50 feet by 25 feet; boys' and girls' schools, each of same dimensions—67 feet 6 inches by 20 feet; class-rooms, 21 feet 3 inches by 14 feet; and library, 14 feet square. There are separate entrance-halls to the schools, with water laid on for the use of the children, and all the rooms are warmed with hot air by Hudson's apparatus. For the master, and the mistresses of the girls' school and infants' school, there are detached residences, each of which contains three rooms on the ground-floor and three bedrooms above. Round the buildings there is a string-course in white brick, upon which various texts of Scripture appear. The schools face the south porch of the old church of Hitchin. The architect was Mr. J. H. Hakewill; and the contractors were Messrs. Butterfield, of Hitchin.

Margate.—The contractor, Mr. Bastow, is now pushing on the works of the new high-water landing-pier. There remain five columns to drive and a few girders to raise.

Chard.—Complaint is made that a clear stream which runs down each side of the Fore-street here is being withdrawn, so as to prevent the washing away of sewage by means of which the locality was benefited. Sickness has been simultaneously prevailing, possibly from this cause.

Milford.—The foundation-stone of a campanile to Castle-hall, the mansion attached to the Milford estate, was laid on Monday week. The architect is Mr. W. H. Lindsay, of London. The tower, or campanile, with tetrastyle portico, Ionic porch, and other intended additions, have been designed in the Italian style of architecture prevalent in the fifteenth and sixteenth centuries. The campanile, from base to summit, will be 93 feet in height; comprising an observatory, a clock tower, and a landmark. The apartments between the observatory and ground-floor are to hold the mathematical and astronomical instruments, &c. The works of the clock (which is to wear four faces) will be contained in the attic part of the building. The various floors will be approachable by a geometrical or circular cast-iron staircase of ninety-eight steps. The niches on the four sides will be occupied by four statues, emblematical of the four winds—draped and posed, to notify the climates and the costumes whence they blow.

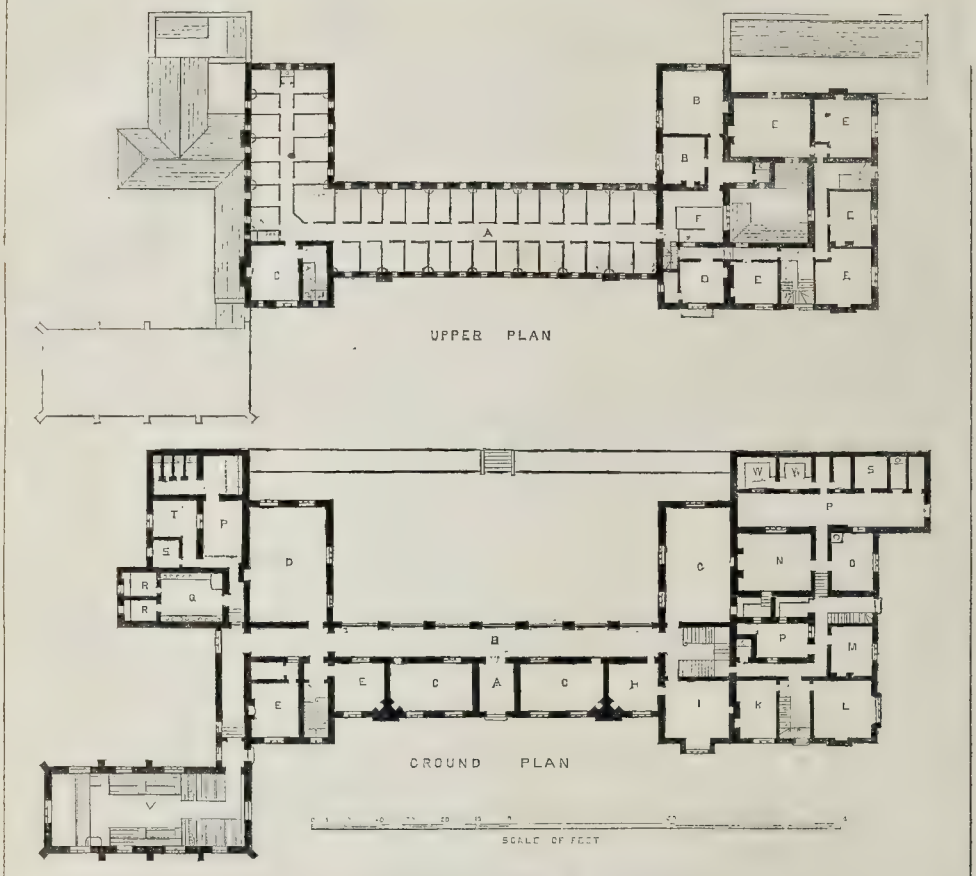
Seaham Harbour.—The Londonderry Literary Institute, Seaham Harbour, was formally opened on the 3rd inst. by Sir Archibald Alison, Bart. the historian. It is in the Doric style, and has a portico of four columns, with side wings, which form the library and news-room. The main body of the structure is appropriated to the purpose of a public hall, or lecture-room, capable of holding about 500 persons. It is built of stone, and cost about 1,500*l.* Mr. Oliver, jun. was the architect.

Chester-le-Street.—The Board of Guardians of the Chester-le-Street Union, having purchased a site, opposite Lumley Castle, for the erection of a new workhouse, have appointed Mr. M. Thomson, of Newcastle, as their architect.

Halifax.—It is said that a new gas company will probably be soon formed here, as the wants [illegible] and the wishes of the inhabitants have not of late either been attended to or cared for by the present company.

Grimsby.—Messrs. Sissons, of Hull, have contracted for the completion of the fishing-dock here. The works were undertaken by the dock company; but for some time past, and after a considerable amount of expenditure, they have been suspended.

BATH SOCIETY FOR PROMOTION OF THE FINE ARTS.—The Bath Graphic Society has merged into this new association, the first of whose conversazioni was held last week, when a large assemblage of pictures, &c. was exhibited, and the committee have been congratulated by the local press on the signal success of their exertions.



PLANS OF THE EXETER DIOCESAN TRAINING COLLEGE.

MR. WATSON'S RAILWAY TRAVERSER.

A PATENT has been recently granted to Mr. T. S. Watson, B.A. for an improved mechanical arrangement for transferring railway carriages across a railway from one line of rails to another. Mr. Watson says, "I do not claim the principle of transferring the carriages across the lines by placing them on pairs of detached rails, but I do claim as my invention the principle of transferring the carriages across the lines of railway by placing them upon pairs of detached rails, where such rails are supported upon chairs which run on wheels, and which chairs are attached to endless chains, whereby they are moved in such a manner as to pass with them in either [illegible] direction continuously across the railway."

The advantages proposed by the use of the "improved railway traverser" are, that, as compared with other traversers, it is always ready to receive and transfer a carriage in either direction, not requiring, after shifting one, to be brought back again for the next,—that it moves at one time as many carriages, less one, as there are lines of rail,—that it is worked with much less labour,—and, as the whole of it always either forms a part of the line of rails, or is out of the way beneath them, it does not encumber any part of the line when not in use.

As compared with turn-tables, it saves the time occupied in turning the carriage with the table before and after crossing the line; it avoids the shock which the carriage receives when the turn-table is suddenly stopped by the catches; it saves the labour incurred in turning the carriage and pushing it across the lines,—as its transfer is accomplished by one man at the winch-handle, leaving the other men free to bring up another carriage; and it removes the necessity for the clumsy and dangerous openings at the edge of the platform for the turn-tables to work in, which have been the cause of numerous accidents.

It appears to merit examination on the part of those who are concerned in the construction of railways.

EXETER DIOCESAN TRAINING COLLEGE.

THE premises occupied for some years by this college being found quite inadequate to its wants, it was resolved to raise, by subscription, a fund for the erection of new buildings, to accommodate forty students. The subscription list was headed by the Bishop, who contributed 500*l.* and a sufficient sum having been raised, which, together with grants made by the Committee of Council on Education, and the National Society, would justify the committee in commencing proceedings, three acres of land, a little more than a quarter of a mile from the cathedral, were purchased, and a contract made for the erection of the buildings, exclusive of the chapel. The foundation stone was laid by Sir John Kennaway, Bart. on the 19th of May, 1853, and the new buildings were opened by the Bishop on the 18th of October in the past year. The cost of the buildings, exclusive of the site, has been about 7,000*l.*

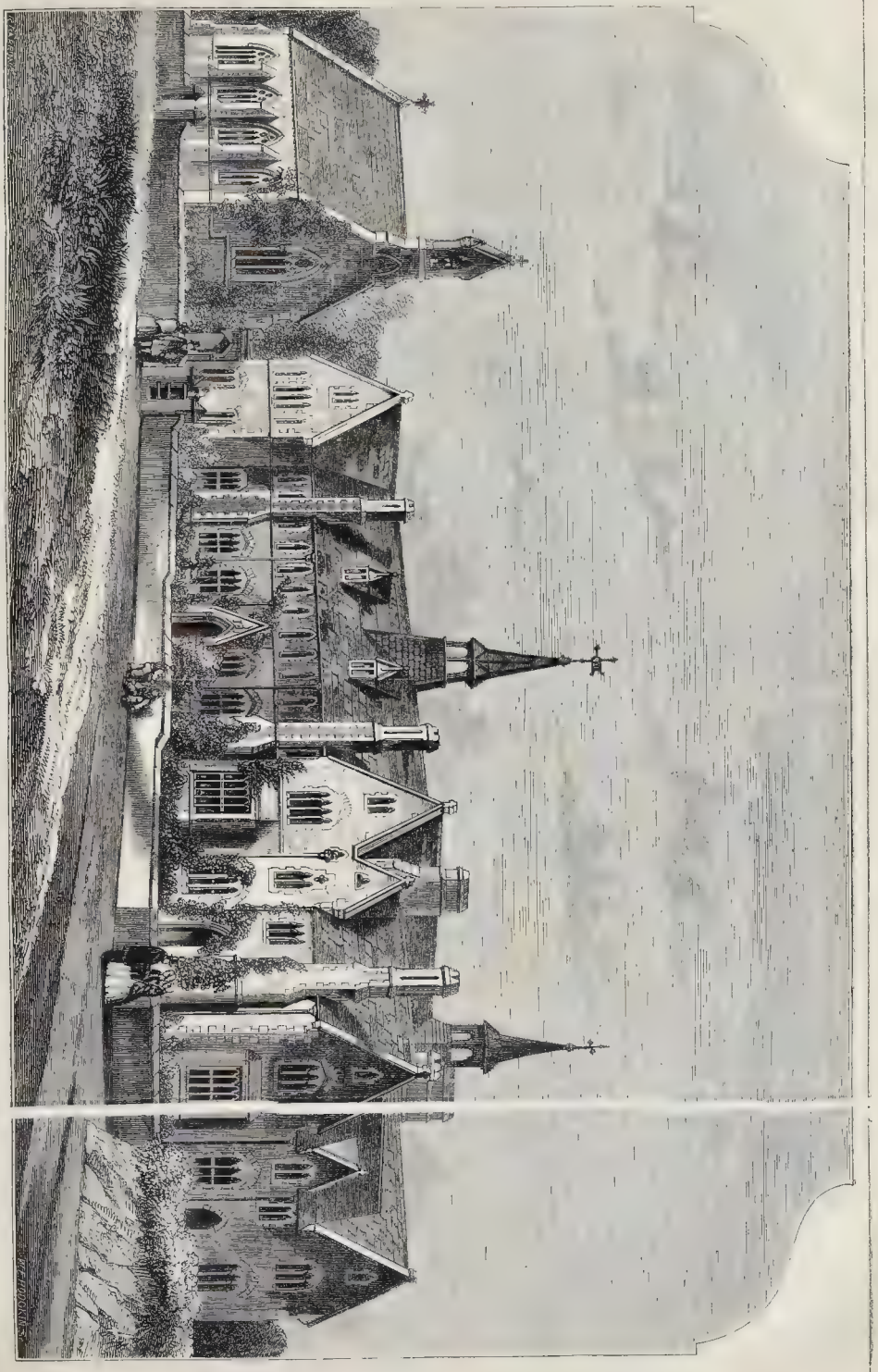
Subscriptions have since been entered into for purchasing two more acres of land, in order to promote industrial training, and likewise for the erection of the chapel, which, although shown in the view, is not yet erected.

Mr. Hayward, of Exeter, was the architect; Mr. Ware, the contractor.

REFERENCES.

Upper Plan.
A. Dormitory.
BB. Sick Room.
C. Vice-Principal's Bed-room.
D. Principal's Bed-room.
EEE. Bed-rooms.
F. Staircase.

Ground Plan.
A. Entrance.
B. Cloisters.
CC. Class-rooms.
D. Lecture-room.
E. Cloaks and Hats
F. Vice-Principal's Sitting-room.
G. Dining-hall.
H. Secretary's Room.
I. Committee-room.
K. Principal's Study.
L. Principal's Sitting-room.
M. Housekeeper's Room.
N. Kitchen.
O. Scullery.
PPP. Courts.
Q. Lavatory.
RR. Baths.
SS. Coats.
T. Cleaning-room.
V. Chapel.
WW. Larder.



EXETER DIOCESAN TRAINING COLLEGE.—Mr. Hayward, Architect.

PHOTOGRAPHIC EXHIBITION.

THE exhibition opened by the Photographic Society, at 5, Pall Mall East, should be visited by all who are interested in this wonderful art. Mr. Roger Fenton's landscapes stand pre-eminent amongst the specimens here gathered together. Nothing has been seen more beautiful than his Pool below the Strid, 626, Rivaulx and Tintern.

Mr. Hennah, of Brighton, still maintains his ascendancy, as it seems to us, in the production of small portraits. (49) "The Entrance Gateway, St. John's College, Cambridge," by Rev. Mr. Kingsley; (56) some views in Lincoln, by Mr. Sedgfield; some of M. Laroche's large portraits; (177 and 196) touched portraits by Mr. Mayall; "Clouds," by Mr. Sherlock (248); Mr. Robertson's views about Constantinople; (429) "The Keep of Richmond Castle," by Mr. Cundall; (630) "The Park Side," by Mr. White; and (633) "St. Anne's Well, Great Malvern," by Mr. Joseph Wilks (for the sake, too, of a personal recollection), have special marks against them in our catalogue.

An R.A. said, at the private view, he declined to call this the "*fye*-to-graphic art." The joke is not a new one (ask the witty author of "The Templar" if it be), but we quite agree in the objection.

THE ABUSE OF WORKS OF LIVING ARCHITECTS.

WITH regard to the criticism of works by living architects, to which your correspondent "M. A." again refers (p. 10), may I be permitted to ask in reply, if a bad building is not as legitimate a subject of condemnation as a bad picture? One hears no outcry against the latter: yet the injury done in the case of the bad building is far greater than in that of the bad picture: it is indeed irreparable as far as it goes! We can escape from the latter, but are haunted continually by the former whenever we are so unfortunate as to be in its neighbourhood. As, therefore, there is so much more at stake in the case of the bad building, it is but fair, for what we pay so dearly, that we should be allowed to avail ourselves of the only consolation remaining to us, viz. the permission to make free use of it as a conspicuous beacon always at hand for future architects to steer clear of,—for our critics constantly to point to,—and for the public at their leisure to examine for themselves. If we are denied this privilege, I do not see how we are to improve! Hence, I think a promulgator of incontrovertible principles will have, or ought at all events to *find*, "occasion to go on" a step farther than your correspondent seems to consider desirable, and if not to "settle for" the public, at least to point out to them, by way of illustration, how these principles can be best applied, or contrasted with opposite principles carried out in individual buildings,—not, as "M. A." says, with a view of "ministering to the indolence of those who like to have their thinking done for them, and enable them to say such a building is bad because Mr. So-and-so abused it," but just the reverse of this, viz. to bring wrong principles more clearly before their eyes than is possible in any other way,—to rouse indolence to use its own eyes, and to think for itself; for the usual and best method of instruction is acknowledged to be by illustration. Now, the position of your correspondent cannot, I think, be maintained when he says "Where incontrovertible principles are clearly put forth, hearers will be perfectly competent to decide for themselves on the merits of the buildings that are rising around them,"—without the need of detailed reference to individual examples. This is surely going rather too fast, and assuming a power of judgment, and a knowledge of the principles of architecture in the public mind, which I fancy few will give it the credit of possessing at present. I cannot see clearly the connexion between the two last sentences of "M. A.'s" remarks, but they appear to me to amount to this: "If the language of abuse be unnecessary (which I suppose no one ever doubted), it is natural to expect a liberal-minded critic will allow private feeling more or less to cloak the expression of his real sentiments, and induce him to say partly what he does not think!" But this again is scarcely consistent with his previous admission of my position, that "personal considerations should *not* be allowed to interfere with criticisms that have for their object the discovery of truth." After all, "honesty" is, in the long run, "the best policy," and "truth is not private property," as some one has well said. Now, although no doubt we should be careful always to avoid giving needless offence, may it not be said that very many are far too ready to *take* it, from a principle of love to themselves rather than of love for truth for truth's own sake? Upon the whole, I think it will be found there is especial danger, in the present day, of our damaging, by our courtesies and compliments (which, after all, are often nothing more than so many baits to serve self-interest) that which is of far more consequence than our own individual reputation and prospects, viz. the cause of universal truth, and the prospects and interests of society.

R. W.

PRESERVATION OF TIMBER.

MR. A. E. PASCHAL LE GROS, of Paris, and Castle-street, London, has patented improvements in preserving timber. The complete specification recently filed at the Patent Office, thus describes the invention:—The improvements consist in a new mode of effectually preserving timber and all kinds of wood by means of a cheap chemical compound, which does not destroy the fibrous structure of wood, or otherwise injure it. For this purpose there is employed a solution of muriate or hydrochlorate of manganese, resulting from the manufacture of chlorides of lime and of the bleaching liquid called lye, or water of gavelle, or chloride of potash, which residue is at present treated by manufacturers as waste. This salt containing a great proportion of acid, it is neutralized by the admixture of chalk (carbonate of lime) or of oxide of aluminum. The salt when thus reduced to a neutral state, gauges by the aërometer, used for concentrated acids, from 30 degrees to 35 degrees, and may, therefore, be easily carried to the place where it is to be applied as a solution, containing three parts weight water to one of acid. The acid in the residue may also be neutralised, and the ferruginous matter in it precipitated by means of oxide of zinc. There is thus obtained a double salt of manganese and of zinc, which is said to have the same or superior preserving qualities, as the double salt of manganese and of lime produced, as above described. This double salt of manganese and of zinc may be very efficiently applied to absorbing the effluvium of putrid or putrescent matter. For preserving wood the solution obtained in either of the two ways described is poured into a trough, and the immersion of the logs, or pieces of wood, is effected by placing them vertically in the trough, in such manner that they are steeped in the liquid to about three quarters of their length. The wood is thus subjected to the action of the solution, during a length of time varying from twelve to forty-eight hours. The solution rises in the fibres of the wood, and impregnates them by the capillary force alone, without requiring any mechanical action, whilst a horizontal immersion under the same circumstances has been found to produce no satisfactory effect. The timber which has been thus prepared, is said to acquire new properties,—to become incombustible; neither has change of temperature any influence upon it. It is hardened, and the preservation is more lasting than that effected by metallic sulphates, which weaken the ligneous fibre, and impart to wood brittleness, and a tendency to crack and warp under the action of heat. The patentee further remarks, that it will be easy, and in some cases convenient, to combine the good effects of creosote with those of either of the two solutions obtained as above described. For this purpose he dissolves in concentrated sulphuric acid a variable quantity of some tarry or resinous oil; then dilutes this solution with water, and mixes a suitable quantity of it with the solution of muriate of manganese when required. The claim of the patent is for "preserving all kinds of wood or timber, or organic matter by means of a double salt of manganese and of lime, or of a double salt of manganese and of zinc, used both (*sic*), either alone or with an admixture of creosote, and obtained in the manner described above."

RAILWAY PROGRESS IN THE UNITED STATES.

THIS is a subject on which a few memoranda we have gleaned, may not be uninteresting. The extraordinary progress of the United States in railway construction, strikes every one interested in the current history of passing events; and the success of that country in this element of national greatness, is at once an index of the energy and intelligence of the people and a matter of admiration to others. It was in 1825, as will be remembered, that Stephenson superseded the old tramway of the Stockton and Darlington line, upon which a year later he ran the first locomotive. On the other side of the Atlantic, the Trainoy Railway, in Massachusetts, was opened in 1827. It was only three miles in length, and was used only for the transit of granite from the ledges to tide-water. In 1829 there were constructed some twenty-five miles of railway in Pennsylvania for coal purposes. On December 28, 1829, thirteen miles of the Baltimore and Ohio Railway in Maryland, were opened. In 1831, there were six miles of railway in South Carolina. In 1832, seventeen miles of the Mohawk and Hudson Railway were opened. In 1832, Kentucky had six miles of railway constructed. In 1835, Virginia had twelve miles; New Jersey thirty-four miles; Delaware sixteen miles; Alabama forty-six miles; and Louisiana forty miles. The total number of miles of railway finished in the United States, in 1832, was one hundred and thirty-one; in 1833, five hundred and seventy-six miles. The following table, which reaches to 1852, will give an idea of the progress from year to year, from the earliest period mentioned above, throughout the United States:—

Year 1828...	3	Miles	Year 1841...	2,167	Miles
,, 1829...	28	,,	,, 1842...	3,319	,,
,, 1830...	41	,,	,, 1843...	3,877	,,
,, 1831...	54	,,	,, 1844...	4,174	,,
,, 1832...	131	,,	,, 1845...	4,311	,,
,, 1833...	576	,,	,, 1846...	4,511	,,
,, 1834...	762	,,	,, 1847...	4,870	,,
,, 1835...	918	,,	,, 1848...	5,336	,,
,, 1836...	1,102	,,	,, 1849...	6,350	,,
,, 1837...	1,421	,,	,, 1850...	7,355	,,
,, 1838...	1,843	,,	,, 1851...	9,090	,,
,, 1839...		,,	,, 1852...	11,565	,,
,, 1840...	1,920	,,			

THE AQUEDUCT OF ROQUE-FAVOUR.

INSTITUTION OF CIVIL ENGINEERS.

ON the 16th inst. the paper read was "A Sketch of the Canal of Marseilles, and a Description of the Aqueduct of Roque-favour," by Mr. Rennie. This canal was designed chiefly for the purposes of irrigation, but it was extended for supplying the city with water, by gravitation, for domestic use and public distribution, as also for affording water power to numerous mills and manufactories. The water was described as being taken from the River Durance, at Pertuis, a distance of only twenty-eight miles, in a straight line, from Marseilles, but from the mountainous nature of the country, the course was prolonged to nearly sixty miles; passing through forty-five tunnels, and over numerous aqueducts, the largest of which was that of Roque-favour. The source of the canal being 614 feet above the sea, there was a fall of 29 inches per mile in the canal, yet still preserving a height at Les Baumes St. Antoine, near Marseilles, of 490 feet above the sea. The section and the velocity were such as to permit the passage of one million and a quarter tons of water per day, or 198,000 gallons per minute. From St. Antoine four branch canals diverged in different directions for the purposes of irrigation, whilst the main trunk continued on to Marseilles, where it arrived at a height of 242 feet above the sea. The water was at times much discoloured by earthy matter held in suspension, and so much carbonate of lime was deposited, that any attempt to convey the unfiltered water in pipes would probably have ended in their being stopped up by incrustation. This, it was presumed, had in some degree influenced the construction of so great a work of masonry as the aqueduct of Roque-favour, which spanned a deep ravine,—the bed of the River Arc. The structure, which was described as the most important of modern times, and even exceeding in height the celebrated Roman work, Le Pont du Gard, con-

sists of three tiers of semi-circular arches of cut stone, with rustic facing and drawn joints: the lower tier is composed of thirteen arches, 112 feet high and 49½ feet span; the second tier of sixteen arches, 114½ feet high and 52½ feet span; and the third tier of fifty-one arches, 41½ feet high and 16½ feet span; the piers of the first and second tiers being over each other, and the dimensions diminishing upwards. The greatest height is 265½ feet; the mean height 174 feet, and the extreme length 1,289½ feet. The transverse thickness of the base of the lower piers is 16 feet, and the breadth on the face 18 feet, with projecting and battering counterforts, rising up to the top of the second pier; the transverse width of the upper piers being 14½ feet, without any counterforts. It contains about 51,000 cubic yards of masonry, and the pressure upon the foot of the tallest pier is equal to 210 pounds per square inch.

The channel for the water is lined with brick and cement, and exhibits some cracks, apparently arising from the subsidence of the second tier of arches.

This work, which was not commenced under favourable auspices, the excavations having been washed away, after the foundations had been partially laid, occupied about six years in construction. It was designed by and executed under the direction of Mons Montricher, at a cost of about 151,000*l.*: the expenditure for the canal was nearly 700,000*l.*; but the outlay for the whole of this great undertaking was expected to reach nearly 2,000,000*l.* A complete establishment of service reservoirs and filtering beds is being created at Marseilles, with the intention of distributing the water by pipes throughout the city, and, when completed, it might be anticipated, the writer thought, that it would form one of the most powerful and perfect waterworks in the world.

Notices of Books.

VARIORUM.

THE new number of the *Quarterly* contains an article on "Fires and Fire Assurance," and a second on the "Open Fire-place," with especial reference to Dr. Arnott's improvement on Cutler's stove. In the first, reference is made to the danger attendant on the erection of large warehouses, and the restrictive clause in the Metropolitan Buildings Act, that "no warehouse shall exceed 200,000 cubic feet in contents." "The Manchester-warehousemen nevertheless have managed to set that part of the Act at defiance. Let us take, as the latest and most flagrant example, Cook's warehouses. This structure, which within these last two years has raised its enormous bulk in St. Paul's-churchyard, and actually dwarfed the metropolitan cathedral by the propinquity of its mass, contains 1,100,000 cubic feet of space open from end to end, or 900,000 *feet more than it is entitled to possess.* If we were to take twenty-five ordinary-sized dwelling-houses and pull down their party-walls, we should have just the state of things which is here presented to us. But it will be asked, if it is against the law, why do not the proper officers interfere? Where are the City surveyors? The reason, good reader, is this: the Manchester-warehousemen of late years have adopted a new reading of the law—a reading which we believe no judge would allow, but which the surveyors have not yet ventured to dispute. 'We escape altogether,' say these gentlemen, 'the provisions of the Building Act relative to warehouses, as, by reason of our breaking bulk, our places of business are not mere storehouses.' That this reading is a violation of the spirit of the statute there can be no doubt: that it is also a violation of its letter we also believe: if not, it is high time that the law be amended upon this point, for we affirm, on the very best authority, that London has never, since the great fire, been in such danger of an overwhelming conflagration as it is now by the presence and rapid spreading of these huge warehouses, filled with the elements of destruction, and placed side by side, as though for the very purpose of producing the utmost mischief by contagion."——The Kilkenny Archæological Society have issued their volume of Transactions for the year 1854. It includes an elaborate article on the Ecclesiastical Antiquities of Youghal, by the Rev. Samuel Hayman; and an interesting communication from Mr. John Windele, on the Runic Crosses of the Isle of Man.——The third part of the *Journal of the Architectural and Archæological Society of Chester* contains much interesting and valuable matter on local antiquities. The illustrations are still coarse and inexact, but as the funds at command probably would not permit more expensive engravings, it is better to have even such records as these rather than none.——"The Art of Travel; or, Shifts and Contrivances available in Wild Countries," by F. Galton, is a volume full of experience and suggestion, yet capable, as the author himself points out, of being made still more replete with valuable matter, gleaned from the experience of other civilized "bush-rangers." Mr. Murray is the publisher.——"The Chemistry of Common Life," by Mr. J. F. W. Johnston, a series of admirable little treatises which appeared in separate sheets, has been collected into two goodly volumes, the second of which is now before us. The publishers are Messrs. Blackwood.——"The Edinburgh New Philosophical Journal," published by Messrs. Longman and Co. has entered on a "new series," and from its celebrity and its *old* and established standing, ought now, in place of being called a new journal, or rather, a new new one, to be simply named "The Edinburgh Philosophical Journal." It has acquired, however, a sort of new life by being placed in the editorial hands of three gentlemen of well-known ability, Prof. Anderson of Glasgow (Regius Professor of Chemistry,) Sir William Jardine, Bart. and Dr. Balfour, Professor of Medicine and Botany, at Edinburgh. Its former able editor, Dr. Jameson, if we mistake not, died some short time since. The quarterly part for January current, has just been issued. The opening article, amongst its varied contents, is one on the means of realizing the advantages of the air engine, by Mr. W. I. M. Rankine, C.E.——A small volume on "Indestructibility," published by Messrs. Groombridge, teaches that "one of the great truths proclaimed by nature and science, and traced throughout surrounding things, from a bit of coal up to the soul of man," is the indestructibility of all things, or rather of all "matter." There is much truth, but some fallacy in such teaching, and what is more, it is capable of being reversed, and the very contrary conclusions deduced from it. Carbon, a favourite exemplar with the author, is regarded as one of the elements of nature, and as such essentially indestructible; and it may be so, but it was Davy's opinion that probably *the only* substance in nature entitled to be truly regarded as an element, was hydrogen. All other "matter," therefore, he inclined to believe, was based on or derived from hydrogen, and hence might be resolvable into it again, so that such matter as carbon, for instance, may yet be found to be destructible into other proximate "elements;" so much so, that carbon would then no longer exist. To rank the soul of man, therefore, with carbon, as only equally indestructible, is to trench on ground which the author himself ought to regard as somewhat dangerous. Just as potash was not long ago regarded as an indestructible element one day, and the next was decomposed and destroyed into a totally new metal and oxygen gas, so that the potash so decomposed and destroyed no longer existed, carbon also may, to-morrow, be destroyed into some other new metal and hydrogen; or, it *may* be something else. We do not suppose that the author meant to insinuate that the soul of man can ever be converted by decomposition into something else—into two or more other "things" or principles, whatever they might be; but assuredly his doctrine implies as much. It is easy to talk about the indestructibility of "matter" which *is not* "all things;" but which is the name we give to *that* of which all things are supposed to be "made," although the probably more orthodox doctrine is that "all things" were made of "nothing." In truth, while we talk about "matter," we know nothing in the world about it. Many matter-of-fact philosophers do not believe in its existence at all. Even Professor Faraday seems inclined to think that "all things" are based and built up, as it were, on active energies, forces, or powers, existent in physical points, and that there is no such thing as the "matter" whose *essential* properties, on the contrary, are *passivity* and *inertia.*

Miscellanea.

WAR APPLIANCES.—One of the important floating fortress-batteries, in preparation at Cherbourg, is described in the *Courier du Havre.* It is called the *Devastation.* As no attempt has been made to gain beauty at the expense of solidity, in appearance it is very like the huge barges which ply on the Seine between Havre and Rouen. It is entirely flat-bottomed, so as to draw but little water, even after receiving heavy artillery. It is 51 yards long and 14 yards wide, and will be armed with sixteen guns of fifty. Its sides are nearly 13 inches, with sheets of iron nearly 4 inches thick besides, and capable of withstanding the most furious fire of 64 lb. shot at even 10 yards distance. The ribs are from 13½ to 15¾ inches thick, and are placed close together. The battery will be covered over, and will be supplied with a screw of 150-horse power. Its powers of destruction will be very formidable. The *Devastation* will, it is expected, be completed by the end of February. It ought, if still needed at Sebastopol, to be forthwith dispatched to the Black Sea instead of to its original destination, the Baltic: at least some of these batteries surely will be sent south as well as some north. The idea appears to be not very novel after all, although no such battery has ever yet been finished. Ever since 1842 there has been one on the way at New York, for the protection of its harbour. The dimensions of this one, however, are really unwieldy: it is 400 feet in length. The frame has been for some time complete, and the heavy iron plates about one-third fixed; but lately 140 men who had been at work on this leviathan were temporarily discharged on account of some straitness in the money market.——Mr. Liddell, the engineer of the new Leicester and Hitchin Railway in connection with the Midland, and who superintended the laying of previous submarine cables, has been sent by Government to Turkey to superintend the laying of the cable between Varna and Balaklava or Cape Chersonese. The length of this cable, by the way, as well as the distance, is variously described. There is said, however, to be 400 miles of cable, and it is to be presumed that full allowance for slack in laying has been made. The telegraph is said to be the self-registering one of Morse, with a French improvement whereby several messages can be dispatched from either end, through a single wire, at one and the same time.

THE BURIAL-BOARD AT ABERGAVENNY have decided on adopting the designs of Mr. Henry Ramur for their new cemetery. The chapels for the same were let on Thursday last to Messrs. J. and W. Price, masons, of Abergavenny, who are now engaged on the drainage, boundary-walls, &c.

THE SURREY ARCHÆOLOGICAL SOCIETY.—The council have made a report upon the termination of the first year of the society's existence, from which it appears that the progress has been satisfactory. One of the proposed objects of the society was the establishment of a library and museum; and it is satisfactory to state, that some progress has been made in this respect. Already upwards of fifty volumes have been contributed, with various manuscripts, drawings, pamphlets, and printed papers. A collection of nearly 500 topographical and other prints, relating to the county, has been formed. A number of rubbings from Surrey and other brasses have been obtained, also a series of eighty corporate abbatial and other seals, including those of the Earls of Surrey. On the 1st January, 1854, the total number of subscribing members was 300, while on the 1st January, 1855, it was 391, of whom 47 are life members.

THE EGINA MARBLES AT SYDENHAM.—Allow me to make a suggestion to the directors with reference to the casts of the magnificent group of statues, discovered, by Professor Cockerell, to belong to the western pediment of the Temple of Minerva, at Egina. Placed as they are at the end of the nave, and within a few feet of the glass windows, much of their intrinsic merit is lost to the beholder, from the want of a good background. The effect of the glare peering as it does with undue intensity through the group, is positively painful. Why not erect a model of the tympanum and cornice, as is done at the British Museum, casting the former with red plaster, after the manner of the original temple? I can myself bear evidence that such material and colour were used, and I doubt not there are many others who have also visited the temple, that can bear additional testimony to the fact. No one who has seen the original figures in the "Glyptothek," at Munich, and admired them as I have done, would believe that those in the Crystal Palace were correct copies, so much are they spoiled by a bad position. If my suggestion of a restoration of the pediment be objected to, on the score of presenting the inspection of the statues from behind, then the next best remedy would be to erect a red screen some three or four feet off. At all events let the glass lights be hidden, and the group resuscitated.

W. G.

THE STANLEY MEMORIAL WINDOW, NORWICH.—With reference to Mr. Harrod's criticism of the Norfolk Memorial Window, recently reported by us as part of the proceedings of the Norfolk and Norwich Archæological Society, a correspondent writes as follows:—"Mr. Harrod impugns a statement, which lately appeared in the Norwich papers, 'that a design of this kind is justified archæologically by the architecture of the window,' asserting, 'without fear of contradiction,' that 'no specimen of glass, at all resembling that now in the window, can be produced of an earlier date than 1500,' the date of the window itself being 1450. But I am unable to see the force of Mr. Harrod's remark. No one ever meant to assert that the style of the ornament was not as late as 1500, or even later; but only that the principle of carrying the design across the window, irrespective of the mullions, was justified archæologically by the architecture of the window, which is indisputable, the principle having been introduced long before 1450, dating, indeed, with the introduction of the mullioned window in the thirteenth century. Again, Mr. Harrod asserts, that in old glass the size of the human figure was never permitted to exceed that of an ordinary man, a statement utterly at variance with the fact. Mr. Harrod next declares, that the subjects chosen are a complete jumble, 'the window beginning with the Nativity, and ending with the Presentation of the Law by Moses;' and informs us that whether an old window 'had five pictures or fifty, they all had some relation to each other.' I believe it would sorely try the ingenuity of Mr. Harrod or any one else, to show the relative connection between the subjects in some old windows I could name; but passing this by, I cannot accede to Mr. Harrod's reading of the subjects in heraldic order, or to the notion that no Scriptural allusion is tolerable which is not directly taken from some Mediæval precedent. I do not presume to enter into an argument on the artistic part of the question, and will content myself with the remark that such of Mr. Harrod's objections on this score as are at all tangible, were anticipated and overruled by the committee, after much time spent in deliberation and personal examination of several old as well as modern windows of various designs. I, therefore, venture to express a belief that the citizens of Norwich, notwithstanding a criticism so oracularly enunciated, may remain satisfied with their window; which many judges, quite as competent as Mr. Harrod, have pronounced to be by far the best hitherto produced in England, and one which vindicates the claim of glass painting to be ranked amongst the fine arts."

JORDAN'S PATENT CARVING-MACHINES.—It may be useful to call the attention of our readers to an advertisement in this paper, announcing the sale, on the 29th instant, of the stock in trade and plant of Jordan's machine-carving works in the Belvidere-road. In the hands of an individual of business habits and acquainted with the trade, such a mode of cheapening the production of carved work of various kinds ought to succeed, the field embraced by the operations of the machine being numerous. To a person wanting premises and a business of this kind, or as an auxiliary to builders, ship-builders, manufacturing upholsterers, sail-block makers, &c. this sale affords an opportunity which seldom occurs.

ARCHITECT TO THE COMPANY OF DRAPERS.—An active canvas has been going on for some time past for the appointment of architect and surveyor to the Worshipful Company of Drapers of the City of London, rendered vacant by the retirement of Mr. W. J. Booth. At the last meeting of the court, held on the 4th instant, Mr. Herbert Williams was elected to the office. We hear that about twenty architects put themselves in nomination, out of which number rather more than half delivered in their testimonials, and proceeded to the poll.

SANITARY MEASURES.—Sir Benjamin Hall has brought in two Bills to the House of Commons, one to alter and amend the Public Health Act, and the other to alter and amend the Nuisances Removal Act. Sir Benjamin stated, that should these Bills pass the second reading, he should then move that they be referred to a select committee, in order that they might both be considered fully in detail by gentlemen practically acquainted with the operation of the law, from whom valuable suggestions might be expected. It is of the utmost importance that this should be the case.

THE OPERA-HOUSE AT BRUSSELS has been destroyed by fire, including all the decorations and costumes. The correspondent of the *Morning Advertiser* says, "The theatre was built in 1817, from designs of the architect, Dumesme, and recently rebuilt at great expense. Indeed, the new theatre was considered one of the richest and most tasteful in Europe. The *bas-relief*, by the Belgian sculptor, Simonis, adorning the pediment, which was finished but a few months ago, has been remarkably spared, and yet remains suspended upon the tottering walls."

MEXICAN ANTIQUITIES.—There is a curious collection of Mexican antiquities now exhibiting at 57, Pall-mall, consisting chiefly of specimens of pottery. It appears that during the invasion of Mexico by the United States, the government ordered the construction of trenches and fosses for the protection of the city; and it was during the excavations carried on for this purpose that the antiquities in question were obtained by Mr. Young. It is presumed that the waste ground now forming the suburbs of Mexico was originally covered with houses and streets, and that the vases, images, and symbolic sculptures, which have now been resuscitated, were buried by the inhabitants at the time of the Spanish conquest. Serpents appear in the collection throughout, sometimes in a coiled or quiescent state, and sometimes erect, or in conjunction with the effigies of the priests and kings, whose cunning and wisdom it was probably their function to symbolise. The vases are curious, and the variety of pattern is as copious as it is diverse. There is a rude monument of a Teocalli, or Temple, consisting of three stories above the basement, each story being a reversed truncated pyramid. No. 247 is one of the finest of the vases: it represents a large black snake coiled on the back of a tortoise, and holding the head of the tortoise in its mouth: its own coils form a vase. Some of the specimens show Egyptian influence.

THE NEW COMMISSION OF METROPOLITAN SEWERS.—A general court was held on 16th inst. Sir John Shelley brought into special notice a subject to which we have strenuously drawn attention, namely, the fact that the Commissioners of Sewers are virtually and actually not Drainage Commissioners. Mr. Thwaites added a new instance of what we have also pointed out,—that tenants will rather submit to be without drains, and to suffer from all the abominations of cesspools, than set what little *passive* power the commissioners may have to work for the amendment of these crying evils. Something *must* be done about it—that seems very clear. A discussion was then begun on the ventilation of sewers, which continued for five hours, and was then adjourned.——At an adjourned meeting, held on Monday, 22nd, the court agreed, *nem. con.* to adopt the plan of low level sewer and branches for the drainage south of the Thames, proposed by the late Mr. Frank Forster, and for parts of which tenders had previously been obtained. The unanimity which prevailed in a court of incongruous opinions, has been ascribed, to a great extent, to our article of last week.

THE PATENT ARCHITECTURAL POTTERY, HAMWORTHY (POOLE).—On 11th inst. were completed and opened, with ceremonial and feasting, the pile of buildings and machinery at Hamworthy, to be called the "Patent Architectural Pottery," and in which all articles of pottery made use of in facing (or flooring?) houses or other buildings, on improved principles, such as those exemplified by H.R.H. Prince Albert, in the model cottages at Hyde-park, are to be manufactured. The builder of the machinery was Mr. James Gregory, of Kingswood, engineer; and the whole of it was executed by Messrs. Kirk and Co. of Shelton, Staffordshire. The contractors for the erection of the premises were Messrs. W. Curtis, and G. Gollop, of Poole. The buildings, which cover about an acre of ground, were executed under the direction of Mr. R. Scrivener, of Shelton, architect. The engine-house and large chimneys are built of red bricks, ornamented with white. The clay stores and other principal parts of the building are of white bricks, ornamented with red.

EDMONTON CHURCH.—The interior of the 'Parish Church of Edmonton," is now undergoing a thorough repair. As the walls are now stripped of the white-wash, and some parts which have the marks of antiquity, in the material used and manner of building, are now exposed to view, an examination might be useful.

NEW MODE OF PROPELLING STEAMERS. Davies's patent railway-floats for propelling vessels consist of a series of float-boards inside a chamber or recess let up into the bottom of the vessel—a sort of double-keel one-third of the way along from the stern. These float-boards are carried on an endless railway, in two horizontal lines inside the chamber. When propelling they are vertical, and they return above horizontally to renew their action, and then offer but little resistance to the water. Thus, half the number are always propelling. The float-boards, in changing their position, "feather" without jerk or blow, the upper edge going first. As soon as a float-board descends, it acts upon all the water confined in the chamber, and, as it cannot escape by the sides, or above the float-boards, it must necessarily all be carried through the opening at the stern, against the heavy pressure of water from without, or carry the vessel rapidly onward. Competent engineers are said to have admitted that this "confining of the water will give to the action of the float-boards the same effectiveness as if they pressed against a dead-wall."

THE KILKENNY ARCHÆOLOGICAL SOCIETY.—The annual general meeting of the Kilkenny and South-east of Ireland Archæological Society was held in the society's apartments, Patrick-street, Kilkenny, on Wednesday in week before last, the Rev. Dr. Browne in the chair. No less than 35 new members were elected, many of them from Youghal, where a new secretaryship of the society was appointed. The Rev. J. Graves, the hon. secretary, then read the annual report for 1854, which stated that 126 new names, including that of the Earl of Rosse, had been added to the muster-roll since last report. The roll of the society's members now amounted to 536 names; but the objects of the society could not fully be carried out until it at least numbered 1,000. The transactions for 1852, extending to 176 pages, with numerous illustrations, had been issued. The Transactions for 1853, completing the second volume, were nearly ready; whilst the Proceedings and Transactions of the past year, forming the first portion of the third volume, and extending to 206 pages, and largely illustrated, had been completed and issued to the members. Steps had been taken to stamp the Transactions as a newspaper, in order to facilitate their transmission through the post. The report was unanimously adopted. Various articles of archæological interest were then exhibited, and papers were read, by Mr. Prim, on the Ancient Militias of the City of Kilkenny; and by Mr. E. Fitzgerald, the Society's new secretary at Youghal, on the newly-discovered Ogham in the Oratory of St. Declan, Ardmore; and on some Acoustic Vases and other Relics discovered in the Church of St. Mary, Youghal.

THE IRON TRADE.—Writing on 20th inst. the Birmingham trade correspondent of the *Times* says that "the abortive meeting of the makers of pig-iron, held at Wolverhampton on Wednesday (at which nothing was done), has created considerable dissatisfaction among a portion of the trade. It was hoped that the makers would unanimously agree to reduce their produce, but for various reasons dissensions prevailed, and each master, in the end, was left to 'do his best for his own particular connection.' Cold pigs have, it is stated, been sold as low as 5*l.* 5*s.* if not 2*s.* 6*d.* per ton lower, while hot-mine are at from 4*l.* 5*s.* to 4*l.* 15*s.* Stocks of pigs are represented to be low in consequence of many of the manufacturers keeping their forges at work while the mills are short of orders. The question of wages, now an important reduction of prices has taken place, has become a prominent subject of discussion; and unquestionably it seems scarcely reasonable that masters should pay for labour, when iron is at 9*l.* at the same rate as when it was 12*l.* per ton. If so, and iron at 9*l.* per ton, with a great increase in the price of raw materials, be remunerative, the profits of the ironmasters when receiving 12*l.* must have been very great." If "masters" *will* persist in pushing up prices beyond all available limits, why should not they be made to *pay for it* in a persistance of the wages which they themselves thus led their workmen to insist upon? "The proceedings at the late preliminary and subsequent quarterly meetings of the trade," continues the *Times* correspondent, "have, without doubt, so far as we can learn, tended most materially to shake public confidence in the decisions of these assemblages. The association is looked upon by a great portion of the trade in the light of a combination; and it is apparent, as upon the present occasion, that, like all other combinations, the resolves of its members, from internal discords, become comparatively inoperative and ineffective even among themselves. However it may have been formerly, the trade generally will not be guided by the prices announced at quarterly meetings, but, like other trades, regulate their rates according to existing exigencies and demand." Our self imposed task, then, of showing up the mischievous and deceitful as well as gambling nature of these meetings, which we have alone steadily done ever since they were in high and universal repute some years since, has at length been happily accomplished.

"A MATERIAL WANTED."—Your correspondent, "S G. O.," will find Ransome's patent stone such a material for his shop front as will answer his purpose.—T.

SUNDAY TRADING IN LONDON.—Messrs. Rivington, of Waterloo-place, have issued a shilling pamphlet, by "A Layman," in which the extent, evils, and needlessness of Sunday trading in London, as detailed in the Parliamentary evidences of 1832, 1847, and 1850, and other documents, are considered, together with the measures required for its gradual suppression. Besides this useful and readable abstract from tedious blue books, there is a prefatory letter to the Bishop of London, on the subject. The whole, we hope, may be of some service in putting an end to a great evil. The author himself is hopeful that a moderate bill for the suppression of Sunday trading may be passed by Parliament before the present year is at an end.

THE WATER-WORKS AT HAMPTON.—By an Act passed in 1852, the Metropolitan Water Companies are compelled to make certain changes in the service and mode of supply within a certain limited period. The West Middlesex, the Grand Junction, and the Southwark and Vauxhall, have their new works contiguous to each other, on the north bank of the Thames, immediately above the village of Hampton, 22 miles above Vauxhall-bridge. From this point the water is brought by the companies to their several works for deposit, filtration, and distribution by three great mains—two of 36 inches and one of 33 inches diameter. These mains are together capable of bringing 60,000,000 gallons in the twenty-four hours. The *Illustrated News* gives a view of the works, and the following particulars:—"As far as the village of Twickenham the mains lie side by side: there the Grand Junction main diverges through Isleworth and Brentford to the works of that company near Kew-bridge. The two other mains, after being taken under the bed of the Thames at Richmond, separate at Sheen. The West Middlesex main goes through Mortlake to their reservoirs of deposit and filtration at Barn Elms, on the Surrey bank, opposite to, and connected by a main under the Thames with, their works at Hammersmith. The Southwark and Vauxhall main continues through Putney and Wandsworth to the site of that company's works in the new park at Battersea. The length of the mains respectively is as follows:—The Southwark and Vauxhall, 13¼ miles, or 23,000 yards; the West Middlesex, 8¼ miles, or 15,000 yards; the Grand Junction, 7½ miles, or 13,500 yards. The aggregate area of the sites of the works of the three companies, at Kew-bridge, Hammersmith and Barn Elms, and Battersea, is 120 acres. The reservoirs and filter-beds at the works of all the companies are completed. The engine and boiler houses at Hampton are roofed in, and ready to receive the machinery, a considerable portion of which is on the ground, and now fixing. The length of mains laid on is as follows:—The Southwark and Vauxhall Company, 12,500 yards; the West Middlesex Company, 14,500 yards; the Grand Junction Company, 7,500 yards. In this statement of the mains laid is comprehended the portion of the two 36-inch mains laid under the bed of the Thames at Richmond." The daily delivery of water to London during the last few months, according to our authority, has fallen little short of 100,000,000 gallons.

LECTURE BY LORD CARLISLE, AT BRADFORD.—A long-expected lecture "On the Poetry of Gray," by the Right Hon. the Earl of Carlisle, was delivered in St. George's-hall, Bradford, on Thursday evening in last week, on behalf of the Early Closing Association there, and is fully reported in the local *Observer*. A large and respectable audience assembled. The stalls and area were well filled, and included the principal families of the neighbourhood. The attendance in the gallery was only scanty. There were more than 2,000 persons however present. His lordship, in introducing his subject, said,—when I delivered a lecture to your neighbours at Leeds, I chose for my subject the poetry of Pope. I have chosen for my subject to-night the writings of Gray. Why Gray? it may be asked. I have myself admitted, when I had to speak of Pope, that upon the British Parnassus were loftier names than even his. Why, then, do I seem to descend even lower, instead of mounting higher among the sacred band? In the first place, I may feel that to descant adequately upon Shakspere or Milton would seem to demand gifts and powers more nearly approaching to their own, just as to write worthily of Socrates it required no less than Plato. Next, the endeavour, with whatever success, has been much more frequently made; and besides, the strongest personal impulse I could feel led me first of all to Pope, next to Gray; and I am quite confident that he is worthy enough for you to hear, and more than worthy enough for me to speak about. If I was forced to compare his style and genius with those of any other great writer, I believe I should select Virgil,—the same unerring delicacy of taste,—the same appropriate but not exaggerated loftiness of diction, the same elaborate and exquisite workmanship. Sir James Mackintosh says that "Of all English poets he was the most finished artist."

WORKSOP ABBEY GATEWAY is one of the oldest examples of architecture, and forms one of the chief objects of interest in the neighbourhood. The building consists of one large room over the archway, and which is now used for the purposes of a Sunday and day school. The walls are composed of magnesian limestone, of which material the church adjoining was formerly built; and it is to be regretted that the repairs which took place some few years back, could not partake of the same character. As I have ineffectually endeavoured to ascertain who the architect was, and the precise date, I should be glad to obtain through your columns some particulars as to its origin. F. M. B.

AMERICAN PATENTS.—From the usual lists published in the *Journal of the Franklin Institute of Pennsylvania*, we glean the following recently announced.—For an Improvement in Machines for carving Marble, Stone, &c. William J. Casselman, Assignor to Elias A. Swan, Vernon, New York. Claim.—1st. Adjustable blocks on a revolving wheel for determining the position of the cutting-tool, either horizontally or vertically, in combination with a revolving or reciprocating bed. 2nd. Communicating motion from a pattern wheel or wheels, with adjustable patterns, both on the circumference and on the sides, to the sliding-tools, by means of levers so set and operating as to place the said tools in the required position as the parts move, as specified. 3rd. A cutting tool or tools with blades or tools attached to the bottom and side of the stock, which stock is so fitted as to receive a rotary motion, to operate as specified.——For an Improvement in Bridges. Samuel Champion and Thomas Champion, Washington, D.C. Claim.—The combination of tubular braces or struts, made smaller by gradation, or tapering as they extend from the pier or support, with suspension-rods also made smaller by gradations, or tapering as they extend from their pier or support. Also the arrangement of oblique struts between the centre post and horizontal strut, and of the suspension-rods placed in lines radiating from a common centre, in such manner that each suspension-rod shall extend from the top of the column or post over the pier or support, to the foot of one of the clamp-posts, while each oblique strut shall extend from the foot of the post over the pier to the head of each clamp-post. Also the construction of tapering tubular struts of bridges of not less than two concentric sheets or thicknesses of metal, the sheets of each layer abutting, and those of one layer breaking joints with the next. ——For an improved Mode of securing Staples to Walls. Jordon L. Mott, Mott Haven, New York. Claim.—Forming the anchor of a block cast on to the shank of a wrought-iron staple or eye, and provided with a thin wing having flanches or ribs all cast and forming one substance with the block, whereby the cast-iron part shall hold the shank firmly, and at the same time become an integral part of the masonwork, and be firmly held therein by the superincumbent weight.——For an Improvement in Windows. Mark A. Heath, Providence, Rhode Island. Claim.—Inserting, in either side of the sash, a flexible expanding strip, formed in lengths, jointed or otherwise pliantly secured together, so that the sash is made to slide smoothly in the frame, the several lengths of the strip expanding and contracting to accommodate themselves to inequalities in the grooves in which they slide, for the purpose of forming a close joint between the sash and the frame.

COLCHESTER CEMETERY COMPETITION.—At a meeting of the Burial Board, held at the Town-hall, on Monday, the 15th instant, after an examination of the plans (twenty-four in number), the designs of Messrs. Law and Edwards, of London, were finally decided upon.

LONDON AND BRIGHTON RAILWAY.—The progressive increase of traffic on this railway during the last few years, says the *Brighton Gazette*, has produced a corresponding increase in the extensive works at the Brighton terminus. Several new shops have been built, and there is still further call for an extension of the works, which will be carried out as soon as sufficient space can be procured. In 1847 the company were paying about 700*l.* per week for wages; now they are paying more than double that amount, the number of workmen exceeding 1,000. All the carriages and the locomotive engines are manufactured in Brighton. Some of the best workmen in England are employed there. During the past year ten new engines have been built, and it is expected that the number to be finished this year will far exceed that of last year. Latterly, there has been a great improvement in the second-class carriages, cushioned seats and backs being introduced, and they are also much more commodious than the old pent-up second-class carriages. Even in the first-class carriages a considerable improvement has been shown by the space between the seats. There is one interesting feature connected with these railway works, and that is the library, which is supplied with above 2,000 volumes. In this establishment the men and apprentices have an opportunity of learning writing, arithmetic, and drawing: each Saturday evening a concert takes place for their recreation; and, since the opening of this library, the entertainments afforded by the company, by means of an instrumental band and a stringed band, &c. have had the effect of weaning many a man from the low and more grovelling attractions of the beer-shop. The subscription is low, only 1s. 1d. per quarter. The Great Western Company, we believe, started the idea of forming a library for the workmen, and we understand that there are only a few stations where the example has been followed.

THE JERSEY GALLERY OF ART AND SCIENCE.—At a general meeting of the subscribers to this gallery, held on Friday week, under the presidency of Dr. Brohier, Mr. H. L. Manuel, the treasurer of the Institution, according to the *Jersey Times*, produced a report, which showed a considerable falling off in the number of subscribers, and a financial deficit of above 30*l.* It was resolved unanimously, to make an appeal to the good taste and intelligence of the community, in favour of the Institution; or failing that, to petition the States to vote an annual sum in aid, or take the Institution under their own absolute control—its antiquities, pictures, &c. &c. to be placed under their exclusive keeping; otherwise the property to be sold to pay the debts.

LECTURES AT MARYLEBONE LITERARY INSTITUTION.—Mr. Luke Burke, the editor of the *Ethnological Journal*, is delivering a course of lectures on interesting subjects at this Institution. The first related to Cyclopean monuments of Southern Europe and Asia Minor, which in his opinion prove Greece and Italy to be older than Egypt. The lecturer's views are curious and worth hearing. His next was to be on 25th inst. and the last on 1st proximo.

PROPOSED AMALGAMATION OF THE METROPOLITAN GAS COMPANIES.—A Parliamentary Bill, we hear, has been printed, whereby it is proposed to amalgamate the metropolitan gas companies, who, on its passing into law, will of course distribute the several districts of gas-consuming metropolitans amongst themselves respectively, so as to avoid mutual competition, and appropriate the whole, as if it were so much territory acquired by conquest, which they could tax as they pleased, for their article of manufacture, at least till the electric or some other new light "puts out the gas."

THE STANLEY LIBRARY AT LYNN.—This library was opened on Monday in last week, and, as anticipated, there was a considerable run on the stores of literature and science thus placed at the command of the public. The department of novels and "light reading" of course experienced the greatest pressure; but the supply was far more than sufficient to meet the demand of 250 applicants. On the Tuesday, only about fifty or sixty subscribers applied. The library and reading-room have both been fitted up comfortably. The walls are hung with a selection of Wyld's largest and best maps; and a pair of globes are proposed as an addition to the useful and ornamental furniture of the library.

TENDERS

For new Jubilee Schools, about to be erected at Walworth, for Rev. George Clayton; Messrs. Habershon, architects:—

Rowland and Evans	£1,640	0	0
Cooper	1,498	0	0
B. and C. Hayne	1,449	0	0
Clever and Stanger	1,420	0	0
Harmer	1,384	0	0
Wilson	1,365	0	0
Thompson	1,330	0	0
Tolley	1,277	0	0

For finishing a house at Reigate, for Mr. Samuel Jackson. Quantities supplied by Mr. Jarvis:—

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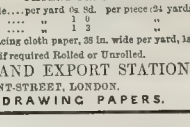
SMOKE NUISANCE ABOLITION.—TO BE SOLD, an INVENTION which will effect the CONSUMPTION of SMOKE in any open fire grate, at a cost of from three to ten shillings, without altering the external appearance of the stove.—Address, F. J. UTTING, C.E. Wisbech.

SMOKE CONSUMPTION.—FRANKHAM'S NEW PATENT, for consuming smoke and economising fuel, now in operation at the Foundling Hospital and Millbank Prison; it is very effective, cheap, and simple in construction, of great durability, and applicable to every description of furnace.—For license to use or for the erection of the same, apply to Mr. HERRING, Bed-purifying Factory, 377, High Holborn.

VENTILATION.—PURE AIR.



Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 6s. 6d.

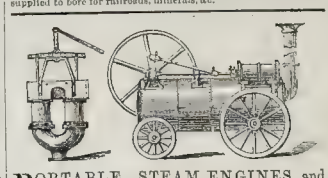
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and so they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required. HAYWARD, BROTHERS, sole Manufacturers, 106, Blackfriars road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c

SMOKY CHIMNEYS CURED EFFECUALLY for TEN SHILLINGS, by SUPER'S PATENT WIND-GUARD.—This Guard allows free access to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch street, London.

IMPORTANT NOTICE to ARCHITECTS, BUILDERS, and OTHERS.—CHARLES NOSOTTI, Looking-glass Manufacturer, Interior Decorator, and General House Furnisher, begs most respectfully to inform the above, that, from the extent of his trade, he is enabled to offer pecuniary advantages both in quality and price, to those made or exported out to any extent. An extensive assortment always on hand. Estimates free of charge.—Plate-glass for glazing purposes, at 39s and 39s. Oxford-street

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c.—The nobility, gentry, water-companies, towns, baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 19, Cumming street, Pentonville. Pumps and machinery for raising water from deep wells, boring-tools, and well-pipes for exploration. Men and tools supplied to bore for railroads, minerals, &c.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
J. Jubilee place, Holland-street,
Southwark, London

TO CONTRACTORS.

PATENT PORTABLE PUMPING ENGINES, mounted on strong waggon-wheels, iron chimney horse shafts complete, ready for immediate use. Several are ready for delivery, from six-horse power to twenty five-horse power and upwards, adapted to contractors' work generally. May be hired at a rental, or purchased, and can be seen at work at Messrs. MEDWIN and HALLS', Engineers and Portable Engine Makers, 92, Blackfriars-road. These engines have been successfully employed for years.

PUMPING ENGINES.—TO BE LET ON HIRE, TWO PORTABLE STEAM-ENGINES, of three and five horse power, with pumps, complete.—Apply to Mr. HENRY JOHNSON, 11, Bleeding Heart-yard, Hatton Garden, London; and 44, Bread-street, Birmingham.

A STEAM-ENGINE FOR SALE (high-pressure), about 8 horse power, in perfect working condition. Also, a 6-horse BOILER, nearly new.—Apply to Mr. GEORGE THOMPSON, C.E. Nantwich.

FARM AND COTTAGE PUMPS.

WARNER'S PATENT CAST IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS

Patent Pump	£1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing	2 12 0

Longer sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET,
LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade

FOWLER'S IMPROVED FARM and COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION bored perfectly true by improved machinery, in various plain and ornamental patterns, for squares and marketplaces, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

PUMPS on HIRE!—The largest stock in England of single and double pumps, from 4 in. to double 12 in. barrels, prepared for hand or steam power, ready for use on reasonable terms, at

BENJ. FOWLER'S, Hydraulic Engineer,
Hot-water, Steam and Gas Apparatus Manufactory, New Factory, Whitefriars-street, Fleet-street.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, road-makers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

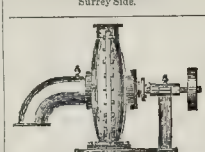
PUMPS ON HIRE

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s per doz. painted.
Ditto .... 48s. per doz galvanized.

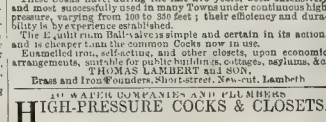
Upper Ground-street, Blackfriars Bridge, Surrey Side.



BUILDERS, Contractors, Engineers, Bricknakers, Well-sinkers, Plumbers, Brewers, Chemists, Paper-makers, Manufacturers, Proprietors of Coffee, Cotton, Indigo, or Rice Estates, Occupiers or Proprietors of Low Lands, Fens, Marshes, &c. and all persons requiring water or other liquids (hot or cold) raised or forced, will find it greatly to their advantage to use WYNNE and COS PATENTED PUMPS, AS FOR ECONOMY, EFFICIENCY, DURABILITY, SIMPLICITY, AND POWER, THEY STAND UNEQUALLED Water-wheels, Hydraulic Rams, and every description of Machinery for raising water, may be had by applying to WYNNE and CO Hydraulic and Mechanical Engineers, Essex Wharf, Temple-pier, Strand, London

PRIZE MEDAL, CLASS 28.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure of water, varying from 100 to 350 feet; their efficiency and durability is by experience established.

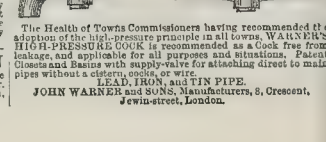
The Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth

THE WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

THE BUILDER.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a careful ly prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854 was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THOMAS MILLINGTON

Begs to inform ARCHITECTS, BUILDERS, and the Trade, that he supplies the following articles of the best quality and at the same time upon the lowest terms:—

ENGLISH AND FOREIGN SHEET GLASS, PLATE, PATENT PLATE, PATENT ROUGH AND FLUTED PLATE, MILLED SHEET LEAD,

PATENT PIPE, LEAD, IRON, AND BRASS PUMPS, AND WATER-CLOSETS,

Genuine White Lead, Colours, Varnish Brushes, and every article in the Trade.

FOR PRICE SEE ADVERTISEMENT FIRST SATURDAY IN EVERY MONTH, OR UPON APPLICATION AT THE WAREHOUSE,

87, BISHOPSGATE-STREET WITHOUT, LONDON.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot.

Crown or Sheet Squares, in 100 feet boxes, 2½. per foot.

Sashes Primed and Glazed, 3½. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 295, Oxford street.

The Managers annual Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot.

Crown or Sheet Squares, in 100 feet boxes, 2½. per foot.

Sashes Primed and Glazed, 3½. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 4d. 5d. and 6d. per foot; sizes varying from 24 by 16 to 40 by 28.—G. FARMILOE and SON, 118, St. John-street, West Smithfield.

WHOLESALE BRITISH and FOREIGN WINDOW-GLASS WAREHOUSE, established upwards of Sixty Years. ROBERT METTAM begs to call the attention of Builders and the Trade in general, to his present prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description now manufactured. Extra size Sheet Glass of all qualities and substances for Shop Fronts. Estimates and Price Lists forwarded post-free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

SOHO CROWN, SHEET, ORNAMENTAL, PATENT PLATE, AND PLATE-GLASS WAREHOUSE, 28, SOHO SQUARE.

ALFRED GOSLETT begs to inform Builders, &c. that he is prepared to Tender for the supply of EVERY DESCRIPTION of Glass, now manufactured at WHOLESALE PRICES.

SASH and DOOR MANUFACTORY, 59, GRANGE-ROAD, BERMONDSEY.—L. SUGDEN respectfully invites builders and the trade in general to an inspection of his stock of manufactured joiners' work, prepared from the best material, at the lowest possible price.

P.S. A full list of prices on application.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, sashes, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned.

JAMES RHODES, No. 6, Macclesfield-street North, City-road, London, Manufacturer of Sashes, and Frames, Doors, and every description of Joinery. Glazed goods securely packed for the country. Prices on application at the Counting-house, as above. N.B. This is the cheapest manufactory in London, and well deserving the attention of all engaged in building.

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence, Shop-front Builder and Manufacturing Joiner. 1¼ and 1½ four-panel doors from 6s. each; 1¼ sashes and frames from 7d. per foot; 2 inch ditto from 8½. Windows fitted with Grebling's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

DUNCANSON & MOULTRIE, JOINERS to the Trade, 74, UPPER CHARLTON-STREET, Fitzroy-square. Sashes, doors, shop fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. Wainscoting, &c. up in a superior manner, and all kinds of joiners' work estimated for according to design. By enclosing a postage-stamp, a full list of prices will be returned by post.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's Flooring Manufactory, Wilton-road, Pimlico Basin.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of manufacturers and others to the greatly reduced prices of PINE, SPRUCE, and YELLOW DEALS, MAHOGANY, &c. &c.:—

Pine Planks, 12 ft. 3 in. by 11 in.	from 4s.	0d.	each.
Spruce Deals, 12 ft. 3 in. by 9 in.	„ 3s.	3d.	„
Yellow ditto, 12 ft. 3 in. by 9 in.	„ 4s.	3d.	„
Six-feet Pipe-staves	„ 2s.	0d.	„
Venetian Blind Laths	„ 8s.		per bundle.
Spanish Mahogany	„	8d.	per foot.
Honduras ditto	„	7d.	„
Wainscot ditto	„	9d.	„

Veneers and cut stuff of every description at equally low prices. Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

IMPROVEMENT in WOOD MOULDINGS. C. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. is returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, by letter, enclosing six postage stamps, the cost of postage. Steam Works, 20, North Wharf road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings. A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

MOULDINGS by MACHINERY at REDUCED PRICES.—ARCHBUTT and ATKINSON beg to inform their customers that the 20 per cent. advance heretofore charged on the prices in their list is now removed. Seasoned flooring at extremely low prices.—St. Pancras Saw Mills, Cambridge-street, Old St. Pancras-road.

ACORN TIMBER WHARF, Canal-bridge, Old Kent-road.—RICHARD MAY respectfully thanks the building public for the patronage and support he has received during the past year, and solicits a continuance of those favours, and an inspection of the well-selected Stock of Timber, Deals, Planks, and Battens, which are now for Sale at the lowest remunerative prices for cash.

The extensive Saw-mills, fitted with the improved machinery, and the Drying Warehouses, enable him to keep a large Stock of Dry prepared Floor-boards, Matchboarding, and Cut Deals and Planks, ready for immediate use.

30,000 Planks, Deals, and Battens.
3,000 Pieces Foreign Fir Timber.
2,000 Prepared Floor and other Boards.

All kinds of English Oak, Elm, and Ash Planks, Boards, and Scantlings, Pipe-staves, Laths, Shingles, and Sash-sills, on Sale.

A Monthly Price Current published, and will be forwarded on application.

N.B. Timber Goods received for Sale on Commission, Landed, Warehoused, Sawn, and Carted.

STAINS for DEAL and OAK WOODWORK. J. M. MARSHALL, Upper Parliament-street, Nottingham, having during the last ten years been extensively employed in every description of STAINING, has been induced to commence manufacturing for sale his imitable STAINS at the following prices:—

No. 1.—Imitation Oak Stain, 6s. per gallon.
Nos. 2, 3, and 4.—Walnut, Mahogany, and Satin Wood, 7s. 6d. per gallon.
No. 5.—An exceedingly rich Stain for renewing the appearance of persaned Oak, 7s. per gallon.

Ample directions given so that the most inexperienced may apply them.—Agents wanted.

TO THE CLERGY, AND TO ARCHITECTS, BUILDERS, &c.

STEPHENS'S WOOD STAINS as a SUBSTITUTE for PAINT, and at less than half the cost, and without the disagreeable smell and deleterious consequences of paint, well adapted for Churches, Chapels, Schools, or other public buildings, as well as private dwellings, giving the effect of Oak, Mahogany, or Satin Wood. Those who noticed the Entrance Doors of the Crystal Palace of 1851, which were coloured with these stains, would be struck with their beautiful effect.—Prospectuses, giving full particulars, and specimens sent free to any part of the kingdom.

HENRY STEPHENS, 54, Stamford-street, London.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street, also Manufacturer of Improved Knotting and Decorative Varnishes.

By Her Majesty's Royal Letters Patent.

VENEERS CUT for the TRADE (by Knife only), by the PATENT VENEER-CUTTING MACHINE by which process a hundred per cent. benefit is guaranteed upon the ordinary method of cutting veneers.—For particulars of prices, and specimens of work done by the machine, apply to J. CHACK, Sole Patentee, Veneer-cutting Works, 44, Robert-street, Chelsea, adjoining the King's-road Saw-mills.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MUTUAL LIFE ASSURANCE.

SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY.

HEAD OFFICE 26, St. Andrew square, Edinburgh.
LONDON 126, Bishopsgate-street.
Instituted, 1831.
Incorporated by Special Act of Parliament.

The Profits are divided every Three Years, and wholly belong to the Members of the Society. The next division takes place at 1st March, 1856.

EXAMPLE OF ADDITIONS

On a Policy for 1,000*l.* dated 1st March, 1832, 1,232*l.* 8*s.* will be payable if it become a claim during the current year, after Payment of this year's Premium. This is an addition of more than Fifty per Cent. on the Sum Assured, and averages 2*l.* 3*s.* 7*d.* per cent. per annum.

Supposing such a Policy to have been effected at the age of Thirty, the additions might now be surrendered for a present payment of 221*l.* 7*s.* 10*d.* or if applied in reduction of the future Premium, would reduce the Premium from 25*l.* 10*s.* 10*d.* to 6*l.* 3*s.*; and even this small payment must be reduced every Three Years during the subsistence of the Policy.

Amount of existing Assurances	£4,234,598
Annual Revenue	152,615
Amount of Accumulated Fund	632,354

Copies of the Annual Report, Forms of Proposals, and all information, may be had on application at any of the Society's Offices in town or country.

W. COOK, Agent.

126, Bishopsgate-street, London.

MITRE GENERAL LIFE ASSURANCE and ANNUITY ASSOCIATION. No. 21, Pall mall, London. Established 1845; with which is united the Business of the Zoss Assurance Office, late of 41, Moorgate street. Protective Capital, 150,000*l.*

This Society offers the option of Mutual Assurance with Share of Profits; or of very moderate rates under the guarantee of a large protective capital.

The profits are either added to the policy, or paid in cash, or go to reduce the annual premium: while in the Non-profit Branch, the low rates, as compared with those of other offices, are equivalent to an immediate bonus of from 30 to 50 per cent. of the amount assured.

SPECIAL FEATURE.—The annuities granted by the Mitre increase periodically on the mutual system. All expenses of the annuity deed are defrayed by the Association.

WILLIAM BRIDGES, Secretary.

IMPERIAL LIFE INSURANCE COMPANY, 1, OLD BROAD-STREET, LONDON. Instituted in 1820.

WILLIAM R. ROBINSON, Esq. Chairman.
HENRY DAVIDSON, Esq. Deputy-Chairman.

The SCALE of PREMIUMS adopted by this Office will be found of a very moderate character, but at the same time quite adequate to the risk incurred.

FOUR-FIFTHS, or 80 per cent. of the profits, are assigned to policies every fifth year, and may be applied to increase the sum insured, to an immediate payment in cash, or to the reduction and ultimate extinction of future premiums.

ONE-THIRD of the premium on insurances of 50*l.* and upwards, for the whole term of life, may remain as a debt upon the policy, to be paid off at convenience; or the Directors will lend sums of 5*l.* and upwards, on the security of policies effected with this Company for the whole term of life, when they have acquired an adequate value.

SECURITY.—Those who effect insurances with this Company are protected by its subscribed capital of 750,000*l.* of which nearly 100,000*l.* are invested, from the risk incurred by members of Mutual Societies.

The satisfactory financial condition of the Company, exclusive of the subscribed and invested capital, will be seen by the following statement:—

At the close of the last financial year, the sums assured, including bonus added, amounted to	£8,800,000
The premium fund to more than	800,000
And the annual income from the same source, to	105,000

Insurances, without participation in profits, may be effected at reduced rates. SAMUEL INGALL, Actuary.

INDISPUTABLE LIFE POLICY COMPANY.

72, Lombard-street, and 20, Connaught-terrace.

TRUSTEES.

Richard Mallins, esq. Q.C. M.P. | Richard Spooner, esq. M.P.
James Fuller Maddy, esq. | John Campbell Renton, esq.

William Wilberforce, esq.

A reduction of 25 per cent. has been made on the premiums of all policies of five years' standing.

ALEX. ROBERTSON, Manager.

THE ALBERT ASSURANCE COMPANY. (Established in 1838.)

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square. W. S. VARDY, Manager.

THE PERMANENT WAY COMPANY, 26, Great George street, Westminster, have just ISSUED a PAMPHLET, descriptive of various Patented Inventions for the Permanent Way of Railways, which are adopted and are being applied to more than 3,000 miles of line. On application, a copy will be forwarded by post (gratis) to any parties who are interested in the construction of railways. WILLIAM HOWDEN, Sec.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronized by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish-street, near St Paul's, London.

TO LOCAL BOARDS OF HEALTH, WATER COMPANIES, &c.

A DESIDERATUM in SLUICE-VALVES. FREEMAN ROE'S Patent Sluice-valve can be repaired without being removed from the main. All sizes, from 2 inch to 36 inch. Patent Hydrants, self-closing Cocks, fire and other Pumps, Hot-water Apparatus, Baths, &c. Surveys made, and estimates given by FREEMAN ROE, Hydraulic, Sanitary, and Gas Engineer, 70, Strand, and Upper Marsh, Lambeth.

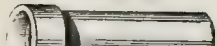
COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

TO WATERWORKS COMPANIES AND OTHERS.

TO be SOLD by PRIVATE CONTRACT, Forty-five 24-inch iron socket pipes, 9 feet long, and weighing 19 cwt. 2qrs. each; four 24-inch 5th bends, 13 cwt. 3 qrs. 26 lbs. each; fifteen 15-inch socket-pipes, 9 feet long, and weighing 9 cwt. 3 qrs. each. For further particulars, apply to the Leicester Waterworks Company, or their Secretary, JOHN LOSEBY, Solicitor, Leicester.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE, MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Hadleigh. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

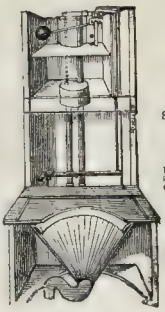


Superior Glazed Stoneware Pipes, Bends Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
B. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N. B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1853.

TO ARCHITECTS, SURVEYORS, BUILDERS, CONTRACTORS, AND OTHERS.

MESSRS. CHANY beg to call attention to their large Stock of Water-closets (spring valve and common), Glazed Hopper Basins, Traps, and all articles used in sanitary improvements.—N.B. Plumbers' Brass-work of every description.—34, Clifton-street, Finsbury square.

TARPAULINS for COVERING ROOFS during Repairs, SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 15, Fore-street, City. Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

YORK STONE supplied direct from the Quarries.—NOWELL and ROBSON respectfully invite the attention of Architects, Surveyors, Contractors, Builders, &c. to their excellent STOCK of STONE, combining good colour with durability. Samples may be seen at Kennington Basin and the Great Northern Railway Depôt, King's cross. Prices will be sent, and country orders promptly attended to, and delivered at all the Stations on the principal lines of railway, by addressing NOWELL and ROBSON, Quarries, Idle, near Leeds. Purchasers will find the stone of first-rate qualities, and the prices very reasonable.

HENRY DOULTON AND CO.'S

PATENT SEWER JUNCTION BLOCKS AND INVERT BLOCKS,

IN GLAZED STONE WARE,

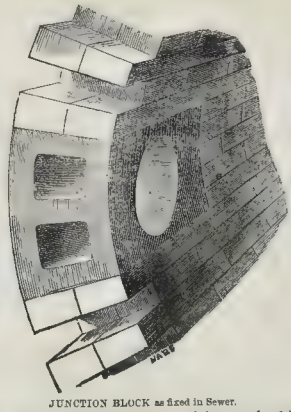
HIGH-STREET, LAMBETH, LONDON.

The connection between pipe drains and sewers, and brick sewers, is made perfect and secure by the use of DOULTON'S PATENT JUNCTION BLOCKS. Each block is made to correspond in thickness with the sides of the brick sewer, so as to build or bond in with the brickwork; the inner surface is made to correspond with the internal figure of the sewer. Each block has a socket, either within its thickness or just protruding beyond it, to receive the end of a pipe. They are made to receive pipes, entering either straight or obliquely. When fixed, they form part of the sewer, they cannot be improperly placed, and a certain and proper fall is secured at the point where the junction is made.

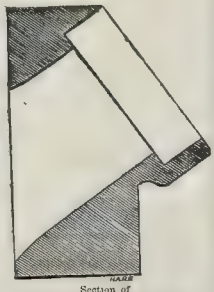
THE PATENT JUNCTION BLOCKS MAY BE FITTED WITH METAL FLAP-TRAPS IF REQUIRED.

Egg-shape Sewer, with DOULTON'S PATENT JUNCTION AND INVERT BLOCKS

Section of STRAIGHT JUNCTION BLOCK.



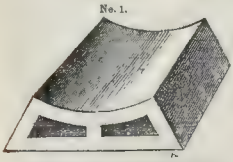
JUNCTION BLOCK as fixed in Sewer.



Section of OBLIQUE JUNCTION BLOCK.

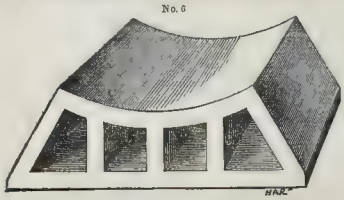
DOULTON'S INVERT BLOCKS, in stone ware, form a glazed, even, and imperishable surface for the bottoms of brick sewers, and also a sure foundation for the structure. They have been used extensively by the Metropolitan and City Commissioners of Sewers, and for the main sewers in many provincial towns, and in all cases have been highly approved by the engineers, both for the facilities they offer in the construction of sewers, and for their subsequent action in permitting an easy and uninterrupted flow of the sewage matter. They offer the means for carrying off all superfluous water while the sewer is in course of construction, and when required give a channel for land drainage independent of the sewage.

No. 1.



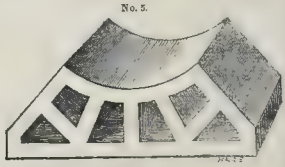
Radius of Invert 9" for 15" Circular Sewer, or 3 ft. 9in. by 2 ft. 6 in. Egg-shape. 4½ in. work.

No. 6



Radius of Invert 15" for large Egg-shape Sewer. 9 in. work.

No. 5.



Radius of Invert 9" for 3ft. 9 in. by 2ft. 6 in. 6 in. work.

A full description, with sizes and kinds of both Junction and Invert Blocks, forwarded on application, per post.

JENNINGS'S PATENT DRAIN-PIPES

ENGINEERS AND ARCHITECTS SPECIFYING THESE PIPES TO BE USED, will have the GREAT SATISFACTION of knowing that their DRAINS can at all times be EASILY EXAMINED, or BRANCH DRAINS INTRODUCED, by simply removing one of the plain Saddles, and substituting a Saddle-piece, having a junction in it of the required size.
THE PATENTEE INVITES COMPARISON OF HIS PIPES, WITH ALL OTHERS BEFORE THE PUBLIC.
A List of Public Works, drained by these improved Pipes, with testimonials, will shortly appear.

JENNINGS'S PATENT CLOSETS, TRAPS, SLUICE-VALVES, &c.

ARE FREE FROM ALL COMPLICATION.

ANY NUMBER OF CLOSETS SUPPLIED FROM ONE SERVICE-PIPE, AND THEY ARE AS READILY FIXED AS A COCK TO A SINK, UNDER HIGH OR LOW PRESSURE.

Architects furnished with references of the highest order.

A Book containing Illustrations and Particulars of JENNINGS'S DRAIN-PIPES, WATER-CLOSETS, URINALS, LAVATORIES, SLUICE-VALVES, FIRE-COCKS, GULLY-TRAPS, SHOP-SHUTTER SHOES, &c. &c. can be had free on application, or by post, if two postage stamps are inclosed to

GEORGE JENNINGS, SANITARY ENGINEER,
29, Great Charlotte-street, Blackfriars-road.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS,

TRAPS, &c. at the

NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

SUPERIOR GLAZED STONEWARE

DRAIN PIPES, invented and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use, and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and renders stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Rosher and Co.'s Wharfs: Kingsland, Blackfriars, and Millbank.—Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No 6, Upper Thames-street.—C. Richardson's, South Wharf, Paddington.—G. Erith's, Cambridge Heath Wharf, Hackney.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

MILL-WALL POTTERY (near Scott Russell's).

Messrs. WILLCOX and CO. invite the attention of Contractors, Builders, and Wholesale Dealers to their extensive assortment of articles in WHITE EARTHENWARE for sanitary purposes. The only manufactory of the kind in the neighbourhood of London.—Particulars forwarded on application.

HENRY TURNER, 2, SOUTH WHARF, PADDINGTON,

5s. Traps, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN-PIPES (WITH WHOLE OR HALF SOCKETS), WATER-CLOSET PANS, SINK-TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE PURPOSES.

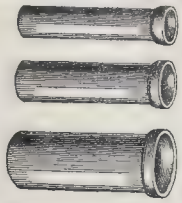
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

HALF-SOCKET PIPES.

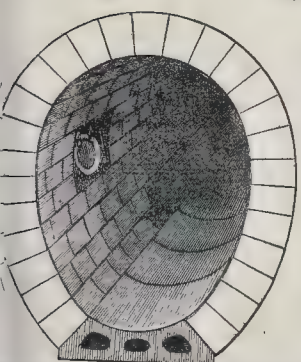
BY THE USE OF WHICH DRAINS MAY BE READILY EXAMINED, AND JUNCTIONS INSERTED, IN THE EVENT OF REQUIRING FURTHER CONNECTIONS.

STRAIGHT TUBES IN TWO FEET LENGTHS.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE, 7s. 6d. EACH.

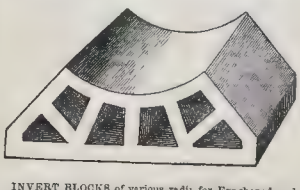


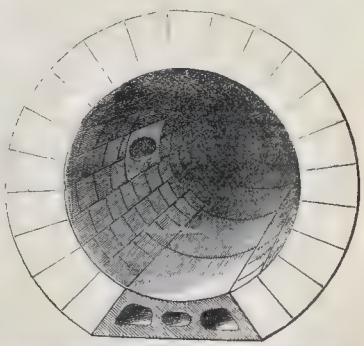
IMPROVED YARD SINK.



The great advantages attending the use of these articles are now so generally understood as to render any enumeration of them almost superfluous. Their cheapness, efficiency, and durability, are universally admitted; while the rapidly increasing demand for them proves their estimated superiority over every other kind hitherto before the public for similar purposes.

Inspection is invited to an assorted Stock of Drain Tubes, of every form and size, adapted to the various situations for which they may be required; as also to the WATER-CLOSET PANS OF IMPROVED CONSTRUCTION, and interior glass, far surpassing any other manufactured of Brown Stone Ware.





EG-SHAPED SEWER, WITH INVERT BLOCKS AND FLAP-TRAP.

INVERT BLOCKS of various radii, for Egg-shaped and Circular Sewers, extensively used by the Metropolitan and City Commission of Sewers, and are found to be well adapted to the purposes for which they are intended.

CIRCULAR SEWER WITH INVERT BLOCKS AND SPLAYED PIPE FOR HOUSE DRAINAGE.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Deck-head, Bermondsey; Panyer's Wharf, foot of Battersea-bridge, Battersea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 33, Bryden-street, Covent Garden; and at EDWARD SAUNDERS, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free, on application.

SALES BY AUCTION.

RANELAGH.—Building Materials.

MR. GEO. HAINES will SELL by AUCTION, on the PREMISES, Wilderness-row, Chelsea, on TUESDAY, JANUARY 30th, at TWELVE o'clock, all the MATERIALS of EIGHT DWELLING-HOUSES, to be taken down for the new Ranelagh sewer, including brickwork, tiled roofs, timbers of the usual description, lead work, fixtures, and fittings. May be viewed. Catalogues on the Premises; and at Mr. HAINES'S Offices, Grosvenor-street West, Eaton-square, and 12, High-street, Kensington.

Jordan's Patent Wood Carving Works, Belvidere-road, Lambeth, close to the Hungerford Suspension Bridge.—Immense Stock of valuable Carvings and Timber, including a quantity of Dry Oak and Wainscot.

MESSRS. OXENHAM and SONS will SELL by AUCTION, on the PREMISES, on MONDAY, JANUARY 29th, and three following days, at ELEVEN for TWELVE punctually each day, without the least reserve, the immense stock of CARVINGS, principally in oak, and consisting of a magnificent chapel screen, made for the Great Exhibition of the year 1851, altar chairs and tables, reading-desks, Glastonbury chairs, stall-end [illegible] tracery and figure panels, friezes, pilasters, mouldings, masks, quatre-foil tracery, Gothic bosses and poppy heads, Elizabethan and Glastonbury chair-frames, an immense quantity of fancy brackets, and cabinet carvings of every description, animals, birds, bread platters, cheese dishes, bowls, chimney-piece fittings, cornices, coats of arms, and a great variety of useful and ornamental specimens; also the stock of TIMBER, including about [illegible] feet of exceedingly dry oak in plank and board, also walnut, cedar, mahogany, lime, sycamore, and pear-tree, a quantity of deals, cabinet-makers' and joiners' benches, large quantity of mouldings, suitable for builders and gilders, and numerous effects.—May be viewed the Friday and Saturday antecedent, and mornings of sale; and catalogues had also at Messrs. OXENHAM'S Offices, 353, Oxford-street, near the Pantheon.

N.B. The desirable premises to be LET, with 12-horse power steam-engine, and right of landing goods through the adjoining wharf.

JORDAN'S PATENT WOOD-CARVING WORKS, BELVIDERE ROAD, Lambeth, close to the Hungerford Suspension-bridge. The whole of the very valuable Machinery, 2,500 Patterns, Models, &c.

MESSRS. OXENHAM and SONS will SELL by AUCTION, on the PREMISES, on MONDAY, FEBRUARY [illegible], at ELEVEN for TWELVE o'clock punctually, without the least reserve, the whole of the very valuable MACHINERY manufactured by the eminent engineers, Messrs. Whitworth and Co. of Manchester, including eight wood and one stone carving machines, by means of which every description of carving is executed with the greatest nicety, with extraordinary rapidity, and at an exceedingly small cost (the very elaborate carvings at the New Palace at Westminster were principally executed by these machines; also applicable for the manufacture of gun stocks, and numerous other useful purposes, a stone turning lathe, three very superior moulding machines, with chisels and tools complete, engineers' lathes, a French ditto, for engine turning, drilling and slotting machines, circular-saw benches, with saws, ploughing machines, tools, cutters, anvils, &c., about 2,500 patterns of the most beautiful character, embracing every description of ornamental and useful carvings, in the Gothic, Elizabethan, and other styles, principally in wood, plaster casts, and models, and numerous miscellaneous effects. May be viewed on and after the 25th of JANUARY (Sundays excepted), and catalogues had also at Messrs. OXENHAM'S Offices, 353, Oxford-street, near the Pantheon.

An immense Sale of the whole of the Stock in Trade, Plant, Machinery, and Tools at the Iron Building and Roofing Works at Spring-hill, near Birmingham, and also at the Works in Gas-street and Berkeley-street, in Birmingham, late in the occupation of Messrs. Porter, Brothers, [illegible].

MESSRS. LUDLOW and ROBINSON will SELL by AUCTION, by order of the Trustees to the Estate, on MONDAY, the 5th of FEBRUARY next, and seven following days (Saturday and Sunday excepted), and without the least reserve, the whole of the immense STOCK IN TRADE, PLANT, MACHINERY, TOOLS, and effects in the above extensive Works. The stock consists of about [illegible] tons of galvanized, corrugated, and [illegible] sheet iron, of nearly every size and gauge, nearly 100 tons of rod, bar, flat, angle, railway, and T iron; 72 tons of pig iron; a very large quantity of wrought and cast-iron scrap; an excellent stock of roofing and other stores, weighing nearly 14 tons, in bolts, rivets, screws, &c.; two tons of best cast steel; 10 tons of [illegible]; 21 sets of new railway carriage springs; two sets of railway carriage wheels; patent buffers; a large new wrought-iron tubular engine-boiler; three galvanized and corrugated iron four-roomed houses, [illegible] feet long and 16 feet wide; a large assortment of timber for building, in oak logs, deals, pine, and scantlings; 210 capital scaffold poles, &c.; also a lot of oils and paints. The plant, machinery, and tools comprise a valuable 14-feet self-acting screw-cutting lathe, with [illegible]-inch centre, by Collier and Company, of Salford), four very powerful punching and shearing presses, [illegible] drilling machines, [illegible] screw cutting [illegible] superior and nearly new planed iron table, [illegible] machine, 5 feet 6 inches long; three large corrugated presses, in iron frames, with full sets of dies, a capital mortising and tenoning machine, a useful pattern-maker's lathe, an exceedingly valuable 10-horse power high-pressure steam-engine and boiler, about 200 feet of expensive shafting, and [illegible] driving bands, two powerful foundry cranes, with racking-out gear; large pair of [illegible], five capital anvils, [illegible] immense stock of smiths' tools of every description, [illegible] a large establishment. The sale to commence each day at half-past TEN for ELEVEN o'clock to a minute. After a deposit of 10 per cent. in cash has been paid at the sale, approved bills of four months will be taken from purchasers of the stock in trade only when purchases shall exceed the sum of [illegible]. Catalogues, 6d. each, may be had at the *Manchester Guardian* Office, Manchester; at the Offices of Messrs. [illegible] and GALSWORTHY, Auctioneers, Regent-street, London; or of Messrs. LUDLOW and ROBINSON, Surveyors and Auctioneers, No. 18, New-street, Birmingham, and will be remitted upon the enclosure of ten postage-stamps.

MOST ELIGIBLE BUILDING INVESTMENTS. Borough of [illegible].—TO BE SOLD BY AUCTION, in Lots, by

MESSRS. BAKER and ENSOR, at the GUILDHALL, on WEDNESDAY, 31st JANUARY, 1855, at ELEVEN o'clock in the forenoon [illegible] PARCEL of PASTURE LAND, known as, and being part of, W[illegible] Field, within the said borough, containing about 4a. [illegible] 23p. situate on a gentle slope, and admirably adapted for building purposes. This land is the property in possession of the Corporation of Dorchester, and it is intended, with the approval of the Lords Commissioners of Her Majesty's Treasury, to offer the same for sale in lots, for absolute terms of ninety-nine years, subject to certain fixed ground-rents, and to the obligation on the part of the several purchasers, to build a dwelling-house, with offices at [illegible] thereon, according to certain plans, elevations, and specifications, which will be prepared by the Corporation. The houses and offices proposed to be erected will be of several classes, so as to meet the growing requirements of the town, and from the well-known fact of house property generally in Dorchester being far more valuable than that of any other provincial town, no doubt can be entertained that so [illegible] building speculation as that now offered to the public will be highly remunerative. The plans, elevations, and specifications above referred to, together with the conditions upon which the auction will be held, and a draft of the proposed leases may be seen on application to Mr. HENRY HALL, of No. [illegible], Thornhill-square, Islington, London; or to Mr. SYMONDS, Town Clerk of Dorchester, on and after the 20th day of JANUARY, 1855.

Dorchester, 21st Dec. 1854.

SALES BY AUCTION.

RETFORD, NOTTS.—To Contractors, Builders, Cabinetmakers, Coachmakers, Farmers, and Others.

MR. PARLBY has received instructions from Messrs. Wilson and Ashford, of Retford, to SELL by AUCTION, on MONDAY, the 12th of FEBRUARY, 1855, a large assortment of FOREIGN TIMBER, consisting of about 3,000 pieces of spruce and pine deals and battens; about 200 squares of flooring-boards, 150 logs of Baywood and City of St. Domingo mahogany, 20 logs of Rio rosewood, five logs of bird's-eye maple, 10 logs of Havannah cedar, and about [illegible] lancewood spars; also a large quantity of mahogany, rosewood and maple veneers, a quantity of wheelwrights' materials, consisting of shafts and felloes, axletrees, oak and ash planking, lime-tree boards, also a quantity of second-hand building materials, consisting of doors, windows, ovens, and boilers; grates, chimneypieces, &c. The whole will be arranged in lots for the convenience of purchasers. Descriptive catalogues will be ready in a few days. The above timber having been purchased at a time when markets were ruling low, will be found to offer advantages to purchasers rarely to be met with. The whole of the above timber is lying contiguous to the Manchester, Sheffield, and Lincolnshire and Great Northern Railways, and the Chesterfield Canal. Approved bills at two months will be taken for all purchases exceeding 10l.

TO IRONMONGERS, BUILDERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on MONDAY, FEBRUARY 12, and following days, at ELEVEN each day, on the PREMISES, No. 234, Strand, in lots, without reserve, by order of the assignees of Mr. G. Hart, a bankrupt, the STOCK of BLACK and FURNISHING IRONMONGERY, including 50 steel and fine cast register stoves, 100 steel, bronzed, and cast-iron fenders, 100 sets fire-irons, 50 elegant gas chandeliers and burners, hall lanterns, &c., 50 sets papier mâché and japanned trays, 5 [illegible] moderator lamps, a large assortment of japanned ware, in toilet services, baths, &c.; bronzed tea-urns of Queen's metal and plated ware; copper goods; a large quantity of table cutlery, black hollow ware, tin ware, &c.; Lancashire tools; 100 dozen files, carpenters' and cabinetmakers' tools, &c., cabinet brass work, 100 dozen locks, assorted, 100 dozen bolts, latches, &c., 50 bags wrought and cut nails, 500 gross screws, Porcelain door and shutter furniture, 10 dozen spades and shovels, &c. The Utensils in Trade and Tools, an excellent back-geared slide lathe, 4 foot lathes, smith's forges and tools, fly press, rod and bar-iron, house and shop fixtures, useful horse, cart, and harness. Also the modern Household Furniture, of the usual description. To be viewed on SATURDAY previous to the sale, when catalogues may be had on the Premises; of M. SHIRREVAN, Esq. Solicitor, Clifford's-inn; and of Messrs. FULLER and HORSEY, Billiter-street, City.

MARYLEBONE-LANE.—To Lead Merchants, Brassfounders, Builders, Plumbers, Sodawater Manufacturers, and Others.—Stock in trade of a Lead Merchant and Brassfounder, Pony, Cart, Harness, Sodawater Machine and Household Furniture.

MR. UNDERHAY will SELL by AUCTION, on the PREMISES, 51, Marylebone-lane, on TUESDAY, JANUARY 30th, at TEN punctually, the STOCK of a LEAD MERCHANT and BRASSFOUNDER; comprising several tons of sheet-lead and pipe, a great variety of cocks, valves, and other plumbers' brasswork, pan closets, traps and service boxes, lift, spirit, common, and jack pumps, closet and wash-hand basins and traps, a complete sodawater machine, casting trough, pump, cock valve, and other moulds, five excellent turning lathes, fall blocks, weigh bridge, pony, cart, and harness, a few lots of household furniture, and numerous other effects. May be viewed the day previous and morning of Sale, and catalogues obtained of Messrs. POSTIFEX, Shoe-lane; of Messrs. WALKER PARKER and Co. 27, Abchurch-lane; on the Premises; and at Mr. UNDERHAY'S Office, 9, Upper Baker-street, Regent's-park.

ROYAL HOSPITAL, GREENWICH.—Second Sale of the Furniture and Tavern Fittings.

MESSRS. EVERSFIELD and HORNE are instructed by the Commissioners of Greenwich Hospital to SELL by AUCTION on the PREMISES, on TUESDAY, JANUARY 30th, at TWELVE for ONE, the remainder of the FURNITURE and TAVERN FITTINGS removed from the Ship Tavern Hotel, comprising [illegible] strong Windsor chairs with cushions, several sets of [illegible] framed mahogany dining and coffee-room tables, dinner waggons, a 12-feet bagatelle board, copper moulds and utensils, fenders and fire-irons, four engines, [illegible] and bar fittings, gas chandeliers, blinds, a refrigerator, two eight-day dials, and numerous other effects. May be viewed one day previous; but the sale not being a public one, admittance will only be given to those having an order, or by catalogues, which may be obtained, 6d. each, at the Steward's Office, Greenwich Hospital, or of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

TO BUILDERS, MASONS, STATUARIES, PAVIORS, AND OTHERS.—Remaining portion of the STONE and MARBLE STOCK of an old established firm, dissolving partnership.

MESSRS. EVERSFIELD and HORNE have received instructions from the proprietors to SELL by AUCTION on the premises, Wharf-road, Maiden-lane, King's-cross, and at Southampton, New-road, on TUESDAY, FEBRUARY [illegible], and following days, in consequence of a dissolution of the partnership, the concluding portion of their valuable STOCK, comprising a large quantity of Yorkshire stone, in landings, paving, [illegible], sawn slabs, steps, sills, copings, sinks, and kerb, [illegible] feet of Portland stone, [illegible], several thousand feet of Sicilian and other marble slabs, statuary, vein, Sicilian, and other marble in blocks and scantling, a large variety of well manufactured chimney-pieces of every class, including some of the richest designs and elaborately sculptured; a collection of marble baths, monuments, monumental figures in marble and numerous other items remaining unsold from the previous sales. Approved bills will be taken in payment. May be viewed two days previous, and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

EASTBOURNE, SUSSEX.—Thirty-nine Building Agreements for [illegible] years, at separate reserved ground rents, with the capital and substantial carcasses of thirty-nine private residences and shops erected thereon.

MESSRS. FAREBROTHER, CLARK, and LYE will SELL, at the ANCHOR HOTEL, Eastbourne, on SATURDAY, FEBRUARY 17th, at ONE for TWO o'clock precisely, in thirty-nine lots, by direction of the Right Hon. the Earl of Burlington, THIRTY-NINE BUILDING AGREEMENTS for [illegible] years, at [illegible] reserved ground-rents, for [illegible] plots of land, desirably situated on the Grand Parade, Cavendish-street, and Victoria-place, in the most preferable part of that fashionable watering-place, Eastbourne, on the Sussex coast, with THIRTY-NINE substantial brick-built CARCASSES erected thereon, in a forward state of completion, and upon which advances have and will be made by the vendor. The purchasers will have the advantage of converting their lots into freehold within seven years after the completion of the houses, by the redemption of the ground-rents at twenty years' purchase. The property may be viewed, and particulars had, on application to Mr. [illegible], Surveyor, Eastbourne; particulars also at the Anchor Hotel; at the Ship, Brighton; Swan, Hastings; Sea House Hotel, Worthing; Kentish Hotel, Tunbridge Wells; of Messrs. SIMPSON, 39, Saville-row, Old Burlington-street; at Garraway's; and at the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster-place, Strand.

WHARF PREMISES.

WHARF and PREMISES TO BE LET, with immediate possession, about [illegible] feet frontage to the Thames, with large buildings, suitable for an engineer or founder, or other manufacturing business, with or without steam power. Vessels of [illegible] tons can discharge alongside.—Apply to WILLIAM BEECH, Globe Dock, Rotherhithe.

TO TIMBER MERCHANTS, large Builders, Stone Merchants, and Dealers in Building Materials. TO BE LET, a large piece of GROUND, in the centre of London, one-third in the City, the other two-thirds in the parish of St. Luke, Middlesex, surrounded with high walls. Cart or waggon entrance both front and back. For address, apply to Mr. HIND, Cheesemonger, corner of Golden-lane, Barbican.

TO BUILDERS AND OTHERS.

BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON ROAD, Belmont, Lee, Kent, close by the church. This is the most attractive, picturesque, and respectable locality on any side of London, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men.—For particulars apply to Messrs. J. and C. W. TODD, Milner-street, Brompton; or at their Office in Church-lane, Lee.

WATER-SIDE PREMISES.—TO BE SOLD, freehold and part leasehold, BRUNSWICK WHARF and DRAW DOCK, VAUXHALL, many years established in the brick, tile, stone, slate, and lime trade, &c. Excellent RESIDENCE, Offices, Stabling and Warehouses, the whole in substantial repair, adjoining the South-Western Railway Goods Station, and abutting on the road leading to Wandsworth, with 145 feet frontage to the river Thames.—Apply on the premises; or to Messrs. NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 38, Regent-circus, Piccadilly.

ST. MARGARET'S, near RICHMOND.— A few most eligible SITES for VILLAS, with a frontage to the Thames, and other plots, suitable for villas of all classes, TO BE LET, on Building Lease. Money advanced to respectable builders. Apply to GEORGE MORGAN, Esq. Architect, 5, Chancery-lane; or to Mr. LONG, Red Lion-street, Richmond.

TO SLATE MERCHANTS, SLATE and MARBLE MANUFACTURERS.—TO BE LET, and may be entered immediately, commodious YARD and BUILDINGS, situated on the sea shore, and in the vicinity of Bangor and Dinorwic slate quarries, within fifteen minutes' walk to a railway station. Any party wishing to meet with a suitable place to carry on slate and marble works will find the premises most desirable.—Apply by letter, addressed to Mr. EDWARD ELLIS, Ship-builder, &c. Bangor, North Wales.

ST. MICHAEL, CORNHILL.—TO LET, upon BUILDING LEASES for a term of sixty-one years, the SITES of the FREEHOLD HOUSES, Nos. 44, 45, 46, and 47, Cornhill. The Churchwardens and Committee of Overseers will meet in the Vestry-room of St. Michael's Church, Cornhill, on WEDNESDAY, the 28th day of FEBRUARY, at ELEVEN o'clock precisely, to receive TENDERS from parties desirous of taking any of the above sites, which are divided into three lots. The terms and conditions may be seen, or printed copies of the same obtained, on payment of 5s. upon application to Mr. ALFRED R. MASON, Architect and Surveyor, No. 5, Great St. Helen's, or to Mr. HENRY HOPPE, Vestry Clerk, 3, Sun-court, Cornhill. Parties tendering must send in Tenders to the Vestry Clerk on or before the 27th FEBRUARY, under cover, addressed to the Churchwardens, and endorsed "Tender for Ground in Cornhill," and must be personally in attendance at HALF-PAST ELEVEN o'clock on the said 28th FEBRUARY. The Churchwardens and Overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign the memorandum annexed to the conditions.

GUILDFORD, SURREY.—The BOX GROVE PARK FREEHOLD ESTATE is now allotted for the ERECTION of DETACHED VILLAS, with grounds of from two to five acres each. The above description of property is in immense demand in the neighbourhood, and this affords a splendid opportunity for parties building for occupation or investment. Respectable builders can have advances, if required. The estate is sheltered, beautifully wooded, and the scenery round about is very fine. Guildford is proverbially salubrious, and has the advantage of two lines of railway from London, and access by the same means to all parts of the kingdom.—Further particulars may be had of Mr. T. GOODCHILD, Architect and Surveyor, Guildford.

TO BRICKMAKERS, CONTRACTORS, AND OTHERS.—TO BE LET, an old-established BRICK-YARD, with dwelling-house and out-offices, and nine cottages and 26 acres (more or less) of excellent land adjoining, situate in Manea Fen, Cambridgeshire, as now in the occupation of Mr. Matthew Howard, who is retiring after a tenancy of eight years, during which time he has made on the average nearly 1,000,000 bricks per year. The yard adjoins a navigable river, communicating with the ports of Wisbech and Lynn, and the navigations of the Midland and Eastern Counties.—Apply to Messrs. WISE and DAWBAM, Solicitors, March; or to Mr. M. HOWARD, on the premises.

BRICKFIELD or POTTERY.—WANTED to RENT on Lease, or to PURCHASE, an established, good paying concern. Address, A. J. Mrs. Pallett's, Ebenezer Cottage, Ham-road, Kingston, Surrey.

BUILDING LAND.—WANTED to PURCHASE, about TEN ACRES of FREEHOLD BUILDING LAND immediately available, suitable for the erection of second-rate or best third-rate villas; near London or some convenient railway station, south-ward, westward, or in the neighbourhood; St. John's wood preferred.—Terms and particulars to be sent at earliest convenience to Mr. H. B. GARLING, Architect, No. [illegible], King's-road, Gray's-inn.

LAND in the FINCHLEY NEW-ROAD TO BE LET, on building lease. This beautiful plot of ground has a frontage of 400 feet, and a depth of 200 feet. It is situated in the most pleasant road in the environs of London, elevated so as to command one of the finest prospects in Middlesex, yet comfortably sheltered from the east by Hampstead-hill, [illegible] from the Swiss Cottage. For particulars, apply to R. L. [illegible] MILLS, Esq. [illegible], Lancaster-place, Strand.

TO MASONS, BRICKLAYERS, and OTHERS.—TO BE DISPOSED OF, the LEASE of a SIX-ROOMED HOUSE, with Show-room and Workshop, and good Yard [illegible] feet long and side entrance to same. Eighteen years unexpired. Rent [illegible] per year. Price, including the lease, fixtures, and fittings, [illegible]. Apply 31, John-street, Titchfield-terrace, Regent's-park, near Northgate.

OLD MATERIALS of a House on Tower-hill for SALE by TENDER, on 9th FEBRUARY, at TWELVE o'clock precisely.—For particulars apply on and after MONDAY, 29th JANUARY, at Mr. WALES'S Office, [illegible], Great St. Helen's.

TO BE SOLD, THREE HOUSES, at STRATFORD, held on lease for ninety-nine years, unexpired. Ground-rent, 5l. 10s. Rental, 61l. 4s. Price, 5[illegible] guineas.—Apply to WILLIAM ELLISON, Surveyor, Stainsby-road, Limehouse.

TO ENGINEERS, MILL-OWNERS, CONTRACTORS, AND OTHERS.

AUGUSTUS SMITH, Auctioneer, Valuer, &c. 255, Blackfriars-road, two doors from Holland-street, having had seventeen years' practice in the selling and valuing of all kinds of engines, machinery, lathes, mechanics' and engineering tools, plants, &c. respectfully solicits a share of patronage in the above line. The most satisfactory references given if required, and all accounts settled the day after delivery; also a free register kept of all engines, boilers, and machinery for sale by private contract.

LONDON: Printed by CHARLES WYMAN, of 14, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, January 27, 1855.

The Builder.

A JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

C. G. LAING & Co.

VOL. XIII.—No. 626. FEBRUARY 3, 1855. PRICE FOURPENCE *Stamped 5d.*

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ADVERTISEMENTS.

BUILDERS' BENEVOLENT INSTITUTION.—An ELECTION of PENSIONERS will take place MAY next. Candidates may obtain forms of application at the ices of the Institution, 19, Southampton-street, Bloomsbury. Pensions, 24l. per annum for Males, and 20l. for Females. eb. 2, 1855. A. G. HARRIS, Secretary.

THE BUILDERS' BALL, in AID of the FUNDS of the BUILDERS' BENEVOLENT INSTITUTION, will take place at WILLIS'S ROOMS, St. James's, 8th of EBRUARY, 1855

COMMITTEE OF MANAGEMENT.

G. Bird, esq.	J. Newson, jun. esq.
J. Chapman, esq.	W. Norris, esq.
D. Cozens, esq.	F. G. Teale, esq.
W. Ellis, esq.	J. Thorn, esq.
W. Hutchons, esq.	W. Todd, esq.
F. Lambert, esq.	R. Waite, jun. esq.

STEWARDS.

The Right Hon. Sir B. Hall, Bart. M.P. ; Wm. Lee, esq. M.P.
Abbott, esq. J. Gedney, esq. J. Sapwell, esq.
ephen Bird, esq. J. N. Helling, esq. G. E. Sewell, esq.
Bird, esq. W. Herbert, esq. J. Seward, jun. esq.
ell, esq. R. J. Hickman, esq. J. Sloper, esq.
E. Bolding, esq. Joshua Higgs, esq. J. B. Simpson, esq.
Brown, esq. E. Humphreys, esq. S. J. Stephens, esq.
Bulmer, esq. T. Jackson, esq. R. Scott, esq.
S. Britton, esq. W. H. Jackson, esq. J. W. Stringfield, esq.
H. Collins, esq. H. Johnson, esq.
W. Cooper, esq. A. Moore, esq. H. Stanbury, esq.
G. Cooper, esq. J. Morris, esq. J. Tillott, esq.
H. Cullingford, esq. G. Myers, esq. G. Vidon, esq.
D. Nicholson, esq. H. Watkins, esq.
arist. Eales, esq. T. Peters, esq. J. Wagstaff, esq.
Forest, esq. W. W. Rawlins, esq. W. Williams, esq.
W. Fry, esq.

f whom tickets may be obtained ; also of the Honorary Secretary, Mr. JOSEPH BIRD, 10, Hanover-cottages, Regent's-park ; nd the Office of the Institution, 19, Southampton-street, Bloomsbury.

CIVIL ENGINEERING and SURVEYING.—UNIVERSITY COLLEGE, LONDON.—Prof. HARMAN G. LEWIS, A.M. will COMMENCE his COURSES on MONDAY, FEBRUARY 5th, at 4 p.m. The subsequent lectures will be delivered during the months of February, March, April, and May, as follows :—

Civil Engineering on Mondays, Wednesdays, and Thursdays. irst division, from SIX to SEVEN, p.m. ; second division, from a QUARTER PAST SEVEN to a QUARTER PAST EIGHT, p.m.

Surveying, at times to be fixed at a Meeting of the Class, on TUESDAY, FEBRUARY 6th, at ELEVEN o'clock.

Fees : for the Class of Engineering, each division, 5l. ; for both visions, in one payment, 9l. Surveying : Students of the Class Engineering, 2l. ; others, 3l. ; College Fee for Students not ntered to other classes, 10s.

A. DE MORGAN, Dean of the Faculty of Arts and Laws.
CHAS. C. ATKINSON, Secretary to the Council.
January 25, 1855

THE ARCHITECTURAL EXHIBITION, and Collection of Manufactures, connected with Architecture, is NOW OPEN from NINE till DUSK at the Galleries of he Society of British Artists, Suffolk-street, Pall-mall East. dmission, 1s. ; Catalogues, 6d. ; and in the Evening (except on Saturday) from SEVEN till TEN ; admission, 6d.
Will CLOSE FEBRUARY 24th ; and all objects exhibited must e removed on the 26th.

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
JAS. EDMESTON, Jun.

CONTRACTS.

TO CONTRACTORS.

THE VISITING JUSTICES of the County Asylum, Chester, are prepared to receive ESTIMATES for extensive INTERNAL and other ALTERATIONS.—The stimates to be framed upon the Schedule of Contract for the ordinary works of Her Majesty's Woods, Forests, Land Revenues orks, and Buildings of the year 1851.—The Drawings, Specifications, and Schedules, may be seen at this Office ; and further nformation obtained, from FRIDAY, the 26th instant, to WEDNESDAY, the 7th FEBRUARY.—Sealed Tenders, addressed to he Visiting Justices, to be delivered at the County Asylum, not later than Noon on MONDAY, the 12th FEBRUARY.—By order of the Magistrates. ARTHUR HILL HOLME, Architect.
The Magistrates do not bind themselves to accept the lowest tender ; but separate Tenders will be received for each department of work.
Benson-street, Liverpool, January 25, 1855.

CONTRACTS.

TO BUILDERS AND OTHERS.

SEALED TENDERS for the ENLARGEMENT of the WEST JETTY, at the ROYAL POWDER WORKS, Kinterbury, for a separate sum, will be received at the ORDNANCE OFFICE, PALL-MALL, LONDON, on or before the 7th FEBRUARY, 1855, at noon. Detailed specifications of the above, and every requisite information, may be obtained at the Royal Engineer's Office, Bull Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from the 30th instant to 6th FEBRUARY, both days inclusive.
Royal Engineer's Office, Devonport, 22nd January, 1855

Royal Engineer Office, Portsmouth, 23rd January, 1855.

TO BUILDERS.

NOTICE is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall-mall, London, on WEDNESDAY, the 7th day of FEBRUARY, 1855, from such persons as may be willing to undertake the ERECTION of a BATTERY, with Magazine, &c. near Southsea Castle, in the county of Hants. The plans, specification, and conditions of contract may be seen, and every information obtained, on application to Mr. KIRTON, Clerk of Works, at this Office, between the hours of TEN and FOUR each day, Sundays excepted. Tenders to be endorsed, "Tenders for the Erection of a Battery, &c. near Southsea Castle, in the County of Hants."

Royal Engineer Office, Sheerness, Jan. 20, 1855.

CONTRACTS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, PALL MALL, London, on or before TUESDAY, the 20th day of FEBRUARY, 1855, for the performance of the following branches of Artificers' Work, for the Ordnance Department in the SHEERNESS DISTRICT, for a period of three years from the 1st APRIL, 1855, determinable at any period after one year, on either party giving to the other three months' notice in writing, viz. :—

Sheerness, including the Islands of Sheppy and Grain.

Carpenters'	Work.
Bricklayers'	do.
Plasterers'	do.
Slaters'	do.
Masons'	do.
Paviors'	do.
Plumbers'	do.
Painters', Glaziers', and Paperhangers'	do.
Smiths'	do.

Separate Tenders are to be made for the different trades. Printed Forms and Schedules of Contract may be obtained on application at the Royal Engineer Office at Sheerness, until the 20th day of FEBRUARY next, Sundays excepted, and no Tender can be admitted after the said 20th day of FEBRUARY, 1855. The Board of Ordnance reserve to themselves the right of rejecting any or all Tenders that may be presented.

TO BUILDERS.

TENDERS are required for the ERECTION of a RESIDENCE and FARM BUILDINGS in the parish of EXNING, for Mr. R. WESTLEY. The plans and specifications of the works can be seen on application at the Office of Mr. J. F. CLARK, Architect, NEWMARKET. Tenders are to be delivered on SATURDAY, the 10th of FEBRUARY next, and the lowest, or any tender will not necessarily be accepted.

ROTHERHAM and KIMBERWORTH LOCAL BOARD OF HEALTH WATERWORKS.—CONTRACT No. 11.—The Local Board of this district are prepared to receive TENDERS, accompanied by samples, for the supply of GALVANIZED WROUGHT-IRON TUBES, ELBOWS, BENDS, &c. of a strength able to bear a working pressure equal to 330 feet head of water, or 144 lbs. on the square inch, as follows :—Tubes of more than 6 feet in length, 1¼ inch, 1 inch, ¾ inch, ½ inch, ⅜ inch, ¼ inch, and ⅛ inch diameters, per foot. Tubes of 6 feet in length and under, of the same diameters, per foot. Elbows, Bends, T's, &c. per cwt. The Tenders must state the net price for the several articles, delivered upon the premises of the Local Board, in Rotherham, and such price must include the galvanzing. Further information may be obtained from the Engineers, Messrs. LEE and STEVENSON, 7, Duke-street, Westminster, and Tenders properly endorsed and sealed) must be sent in to me on or before MONDAY, the 12th day of FEBRUARY next ensuing.—By order of the Board,
JOHN BARRAS, Clerk.
Rotherham, 24th January, 1855.

ROTHERHAM and KIMBERWORTH LOCAL BOARD OF HEALTH WATERWORKS.—CONTRACT No. 12.—The Local Board for this district are prepared to receive TENDERS, accompanied by samples, for the supply of HIGH-PRESSURE BRASS COCKS, to screw upon iron service pipes, of the following diameters :—1½ inch, 1 inch, ¾ inch, ½ inch, ⅜ inch, ¼ inch, and ⅛ inch ; also, for the supply of ROUND, WATERWAY BRASS STOP-COCKS, of the following diameters :—1½ inch, 1¼ inch, 1 inch, ¾ inch, ½ inch, and ⅜ inch. The cocks must be able to bear a working pressure of 330 feet head of water, or 144 lbs. on the square inch. The Tenders must state the net prices for the several articles, delivered upon the premises of the Local Board, in Rotherham. Further information may be obtained from the Engineers, Messrs. LEE and STEVENSON, 7, Duke-street, Westminster, and Tenders (properly endorsed and sealed) must be sent in to me on or before MONDAY, the 12th day of FEBRUARY next ensuing.—By order of the Board,
JOHN BARRAS, Clerk.
Rotherham, 24th January, 1855.

TO BUILDERS.

NEW WAREHOUSES in MANCHESTER. Parties desirous of CONTRACTING for the ERECTION of a PILE of WAREHOUSES in Manchester, are requested to communicate with the Architects, from whom printed lists of the quantities may be procured. The Tenders are to be forwarded to the Architects on or before the 12th of FEBRUARY. It is to be understood that the proprietors do not pledge themselves to accept the lowest Tender. For the information of contractors at a distance, the following particulars are given :—The building will be seven stories, of 16 feet each in height ; it will have a frontage of 100 yards, and two returns, of 30 yards each, entirely faced with stone.
TRAVIS and MANGNALL, Architects.
3, Norfolk-street, Manchester, Jan. 22, 1855.

CONTRACTS.

TO BUILDERS AND OTHERS.

NEW BANK in Corn-street, Bristol, for the West of England and South Wales District Banking Company. Parties desirous of CONTRACTING for the whole or any portion of the ARCHITECTS' WORKS, to be performed in the ERECTION and COMPLETION of the above new BUILDING, from certain levels already executed, or to be executed, may see the drawings, specifications, and conditions of contract, from TEN to FIVE every day, until THURSDAY, 8th of FEBRUARY next, on or before which day Tenders, sealed, endorsed, and addressed to the Directors, are to be delivered to us. The Directors will not be bound to accept the lowest or any Tender. The quantities will be taken by Mr. J. WILLIAMS, of London, and a copy will be sent to all parties signifying their *bona fide* intention to submit Tenders.

WM. BRUCE GINGELL, } Architects.
THOS. ROYSE LYSAGHT, }
Saint Werburgh's Chambers, Small-street, Bristol, 19th Jan. 1855.

TO GASHOLDER-MAKERS AND IRONFOUNDERS.

THE DIRECTORS of the FAVERSHAM GASLIGHT and COKE COMPANY are desirous of receiving TENDERS for the ERECTION of NEW GASHOLDER, CAST-IRON TANK, GOVERNOR, &c. Plans and specification may be seen on and after the 6th day of FEBRUARY, at the Manager's office, Gasworks, Faversham, Kent.—Tenders to be sent on or before the 15th instant, to the Engineer, Mr. JABEZ CHURCH, Chelmsford.—Jan. 31, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Raincliffe.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
S. C. Cobbold, Esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the Retford Estate, East Retford, Notts. The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN, or duplicates of the drawings and specification may be seen on application to Mr. JOHN HUDSON, Carrolgate, East Retford, on and after MONDAY, FEBRUARY 12th, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent on or before TWELVE o'clock, on FRIDAY, 16th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Retford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.
CHARLES LEWIS GRUNEISEN.
33, Norfolk street, 1st Feb 1855

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Raincliffe.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c. The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the OLD FORD ESTATE, St. Mary, Stratford le-Bow.—The drawings and specifications may be seen at the offices of the Surveyor, Mr. GEORGE MORGAN, on and after MONDAY, FEBRUARY 12th, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent on or before TWELVE o'clock on FRIDAY, the 16th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Old Ford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender. CHARLES LEWIS GRUNEISEN.
33, Norfolk-street, Strand.

ARUNDEL SOCIETY.—FIFTH YEAR'S ISSUE to SUBSCRIBERS.—SIX LARGE WOOD-ENGRAVINGS, by Messrs. DALZIEL, from Mr. W. OLIVER WILLIAMS'S Series of Drawings, from the frescoes, by GIOTTO, in the Arena Chapel, Padua ; being the continuation of the Plight Engravings from the same Series issued for the fourth year ; together with a NOTICE of GIOTTO and his WORKS in PADUA, by JOHN RUSKIN, Part I.—Annual subscription to the Arundel Society, 1l. 1s.
24, Old Bond-street. JOHN NORTON, Secretary.

ARCHITECTURAL and CIVIL ENGINEERING CLASSES, OPENED, for the instruction of pupils, at one guinea per quarter, which includes drawing materials, instruments, colours, paper, drawing-boards, T squares, &c. Instruction in architectural and civil engineering, drawing and colouring, making finished and working drawings, preparing specifications, taking out quantities, estimating, & c. &c. For prospectuses, apply to Messrs. HYDE, SMITH, and LEWIS, Civil Engineers, Architects, Surveyors, &c. 24, Guildford-street, Russell square.

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instruments, and considerably cheaper. Apply to Mr. S. BARLOW, at Thavies-inn, Holborn (between 1 and 3 p.m.) ; or to Mr. H. B. BARLOW, Office for Patents, Dunse Place, Exchange, Manchester.

PHOTOGRAPHIC DELINEATIONS of the SCENERY, ARCHITECTURE, and ANTIQUITIES of GREAT BRITAIN and IRELAND.
By RUSSELL SEDGFIELD.
Part IV. price 21s.
London : SAM. HIGHLEY, 32, Fleet-street.

MATHEMATICAL DRAWING INSTRUMENTS.—JOHN ARCHBUTT, 20, Westminster Bridge-road, Lambeth (near Astley's Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. A detailed price-list will be immediately forwarded, free, on application.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT A large assortment of seasoned prepared FLOORING and MATCH BOARDING, of all descriptions. Also an extensive stock of dry White, Yellow, and Pine and Stuff, Slating, Battens, Planks Laths, Oak Plank, Sash Cills, &c. Timber of all kinds, Planks, Deals and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico London.

REDUCED PRICES.—EDWARD SIMMS late William Cleave), of Wilton-road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Plank, Sash Cills, Mouldings prepared by Machinery, Laths, &c. Apply at E. SIMMS late W. Cleave's Flooring Manufactory Wilton-road Pimlico Basin

FURTHER REDUCTION of PRICES.—SAMUEL PURNEY begs to call the attention of Builders and others to his large and well-seasoned STOCK of MAHOGANY, SPRUCE and YELLOW DEALS. MAHOGANY, &c. &c.:—

Pine Planks, 12 ft. 3 in. by 11 in.	from 4s.	6d each.
Spruce Deals, 12 ft. 3 in. by 9 in.	" 3s.	3d "
Yellow ditto, 12 ft. 3 in. by 9 in.	" 4s.	3d "
Six-feet Pipe-staves	" 2s.	6d. "
Spanish Mahogany		8d. per foot.
Honduras ditto	"	6d. "
Wainscot ditto	"	9d. "

Veneers and cut stuff: every description at equally low prices. Dor such-road, Southwark and Elm street, Gray's-inn-lane

TO CARPENTERS AND BUILDERS.

SPRUCE DEALS, 3s. 3d. to 4s.; Pine, 3s. 6d. to 5s.; Yellow, 4s. 6d. to 6d.—SHEFFIELD'S cheap Timber-yard, Colchester-street, Whitechapel.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all the first builders to be the best ever produced by any party. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling sure that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Wks, 2, North Wharf-road, Paddington

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southward-row Wharf, Rotherhithe

MOULDINGS by MACHINERY at REDUCED PRICES.—ARCHBUTT and ATKINSON beg to inform their customers that the 21 per cent advance hereto fore levied on the prices in their list is now removed. Season, 1844.—Regent-street Saw-mills, St. Pancras Saw Mills, Cambridge-street, Old St. Pancras-road

ACORN TIMBER WHARF, Canal-bridge, Old Kent-road. RICHARD MAY respectfully thanks the building public for the patronage and support he has received during the past year, and solicits a continuance of those favours, and an inspection of the splendid stock of Timber, Deals, Planks, and Battens, all of which are now for Sale at the lowest remunerative prices for cash.

The extensive Premises are fitted with the improved machinery, and the Drying Warehouses enable him to keep a large Stock of Dry prepared Deal Flooring, Matched and Bead, and Cut Deals and Planks, ready for immediate use.

10,000 Planks, Deals, and Battens.
7000 Pieces Foreign Fir Timber
30,000 Prepared Floor and other Boards

All kinds of English Oak Elm and Ash Planks, Boards, and Scantlings, Plasterers' Laths, Mouldings, and Sashalls, on Sale.

A Monthly Price Current published, and will be forwarded on application

N.B. Timber Goods received for Sale on Commission, Landed, Warehoused, Sawn, and Carted

TO JOINERS AND OTHERS.

VENEER CUTTING MACHINE (by knife power), by which process one of the number of veneers can be produced in one hour by any moderate power. For terms, Work and particulars of price apply to J. CHAPE, Sole Patentee, Veneer Cutting Works, 43, Robert-street, adjoining the King's-road Sawmills, Chelsea.

STAINS for DEAL and OAK WOOD-WORK.—J. M. MARSHALL, Upper Parliament-street, Nottingham, has given up the last few years here exclusively to the manufacturing of STAINING has been in use to promote a manufacturing for sale his unimitable STAINS at the following prices:

No. 1. Imitation Oak Stain, 6s per gallon
Nos. 2 and 3. Walnut, Mahogany, and Satin Wood, 7s 6d. per gallon.

No. 5. A very superb general Stain for renewing the appearance of the old Oak, 7s per gallon.

Ample directions given so that the most inexperienced may apply them. Agents wanted

STAINING WOOD, to imitate Oak and all other woods, twenty-two different shades.—A perfect substitute for paint in preference, varnish required for hall, shop, and pew fronts, WILKINSON'S Table cover, Grace-row, Great Queen-street, Lincoln's-inn-fields.—SMITH and SONS, No. 6, Strand. Sole manufacturers, and establishment for staining church furniture, &c.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS, Deals, Battens, &c. for SALE on COMMISSION, at very low prices for cash, by T. Deane & Co. reserved for sale on Commission. THOMPSON and HOLMES, Wood and Stone Brokers, the Manor Wharf, Thames-bank, Pimlico adjoining Vauxhall-bridge

TO BUILDERS, &c.

NOTICE is hereby given, that if the forty pairs of SASHES left at W. HICKSON'S Foreign Glass Warehouse, 46, Long-acre, are not FETCHED AWAY within fourteen days from the date hereof, they will be SOLD to pay the rent and expenses thereon. January 24th, 1844. Signed, W. HICKSON, 46, Long-acre. Witness, JOHN LINDSEY, 36, Wych-street.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 75, High Holborn

SAW-MILLS, DOWNHAM MARKET, NORFOLK. For SALE, cheap, for cash, a quantity of ASH, ELM, OAK, and other PLANKS and BOARDS of various lengths, breadths, and thickness; also ash and hazel rail sticks, gates, &c. delivered on the rail. For further particulars apply to Mr. G. HARPLEY, Saw Mills, Downham Market

IRON ROOFS, Wrought-iron GIRDERS, Girder Bridges, Railings and Gates for Wrought-iron Work, Gasholders, Tanks and Boilers.
CHARLES WALKER and SONS,
Midland Iron Works, Tipton, Staffordshire.
Office, Little Sutton-street, London.

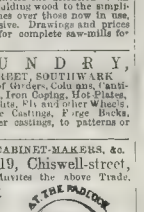
NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES.
A complete LIST of Prices will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Great-an-street, LONDON.

SAW-MILL MANUFACTORY, Chelsea, London. WORSSAM and CO. invite the attention of all concerned in sawing, planing, and moulding wood to the simplicity and compactness of their machines over those now in use, which are both cumbersome and expensive. Drawings and prices sent on application. Estimates given for complete saw-mills for excavation or otherwise

IRON FOUNDRY, HARROW STREET, LANT-STREET, SOUTHWARK
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot-Plates, Tank Plates Area Gratings, Sash Weights, Sash and other Wheels, Rig ers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of Ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs,
3d. per inch, and upwards.
Register Stoves, 3rd. 4th. 7d 8d and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3 feet Cottage Ranges, with ovens and back boilers, 2ls. each.
3-feet self-acting ditto, ditto, 36s. each
Air Bricks, 4s. per doz.
Best Town Glue, 5ds. Ditto, Scotch, 6ds per cwt.
Best Patent sash line.

1	2	3	4	5	6
4s. 6d.	5s.	6d.	7s 6d.	8s. 6d.	11s per gross.

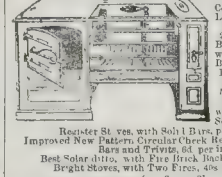
And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, manufacturer of all kinds of STEAM-ENGINES (portable and stationary), Sawing Machinery, Pumps, Cranes, Crabs &c.
N.B. several high pressure Steam-engines for Sale.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Hot Air Flue, for

20	22	24	30 inch.
28s.	30s.	32s	34s.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch.
54s.	56s.	58s.	63s.

Strong Elliptic Stoves, with Extra Back and Sound Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 3d.
Improved New Pattern Bright Check Register, with strong Bars and Trivets, 6d. per inch.
Best Solar ditto, with Fine Brick Back, per inch, 10d.
Bright Stoves, with Two Pipes, 40s to 10s. each.

Cast Bam-water Pipe	2	2½	3 inch.
	1s.	1s 3d	1s. 6d. per yard.
Cast Gutters	4 inch, 10d. per yard.		
O G Gutters	4	4½ inch.	
	1s. 4d.	1s. 6d. per yard	
Best Cut Clasp	1½	1¾	2 2¼ 3 inch, and larger
and Rose	18s.	17s.	17s. 16s. 15s per cwt.

Cut Bulled Brads, 14s. 6d. per cwt
1 inch Cut Lath, 17s. 1½ inch Cut Lath, 13s.

Patent Line	3	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot.

4-inch Rd. Ward Mortise, with best Furniture and patent spindles, 3s 6d. each. Light Elliptic and Register Metal per cwt.

Dr Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete patterns, sketches, and price lists sent to any trade. 75, High Holborn

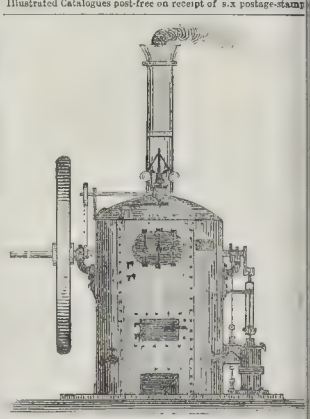
COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, bank, railroad, coachhouse, and other gates and doors of large and small dimensions, a gate of a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double acting spring hinges, and superior gate fastenings, at most-take prices. None get the unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Coke, rail, and Hot-house Boilers, either in wood or iron, respectfully call the attention of the nobility, gentry, and farmers to their simple but efficacious method of warming hot-houses, and all other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out for performing these three separate kinds of work by one machine and as it is self-feeding, it does not require any skill or care using like the older inventions introduced. It can either worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,

53, 54, & 55, WYCH-STREET, STRAND.
Illustrated Catalogues post-free on receipt of six postage-stamp



A SAVING of TIME and MATERIAL with Solidity of Building.
HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 48, Albert-street, Manchester

TESTIMONIAL.

"Thorn Island Battery Works, Milford Haven.
"Mr. Gough, "Jan. 19, 1853.
"Sir,—The three-horse power steam-engine purchased from you in 1852 for the purpose of hoisting stone and other material in the building of the above battery, has answered the purpose for which it was erected very well, and from its portable nature was found very convenient to remove from one part of the building to another. The consumption of coals was about 4 cwt in 10 hours.
"I am, Sir, yours truly, for THOMAS JACKSON,
"THOMAS SWAIN."

N.B. Wanted, an Apprentice to the Engineering Business, to reside on the premises. A premium will be required.—Apply as above.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES.

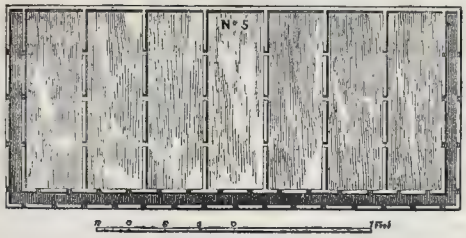
W. BISSELL, PATENTEE, WOLVERHAMPTON, Manufacturer of Iron and Mortise Locks and Builders' Ironmongery.

AA. A set screw and pin moving in slab C, to regulate for the thickness of joist, from 2 to 4 inches.
B. An eccentric notched lever, to be turned and pressed against the joist.
Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist, then fix the set screw. Turn the notched lever B against the joist, then, by turning the handle D, the lever will gradually fix itself and hold the cramp firm; the greater the strain, the more reliably, by its eccentric action, will the lever hold. The Patentee, in calling the attention of Builders and others, assures them that his cramp possesses great advantages. It is a new cramp of the best kind, and well suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be more quickly and safely used than any yet brought out, and, at the same time it is light and portable

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, Brass, and Iron; Tin, Composition, Iron and Brass Tubing, Gun-piece-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London

HAYWARD'S IMPROVED

COAL-HOLE PLATES. ILLUMINATING GRATINGS. PAVEMENT LIGHTS.



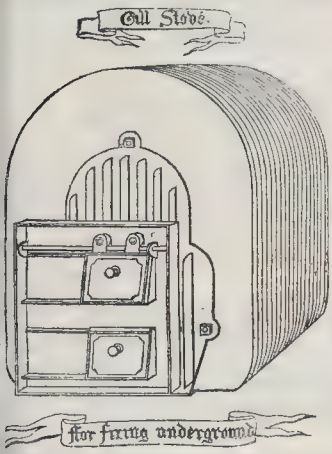
COAL-HOLE PLATES, with Wrought Eyes fitted; ILLUMINATING with Glass Lenses, 6s. each; Ditto, plain Iron, solid, 2s. 9d. each; Ventilating, 3s. each

N.B. The Flange A prevents them from shifting when trodden on or being forced up

ILLUMINATING AREA GRATINGS, thick Glass fitted, 5 or 10-inch openings of any length or number, at per foot super. 12s.

ILLUMINATING PAVEMENT LIGHTS, with Flange, as A, and Glass Lenses, 30s. each, 21 inches diameter.

HAYWARD (BROTHERS), MANUFACTURING IRONMONGERS, 196, BLACKFRIARS-ROAD.



STUART AND SMITH'S
PATENT GILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

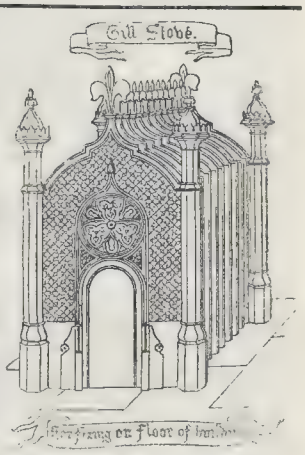
STUART AND SMITH,

ROSCOE-PLACE, SHEFFIELD,

confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

Prospectuses, and every information, sent on application.



FLAVEL'S PRIZE KITCHENER.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

THE PATENT GALVANIZED IRON.

TUPPER AND CARR'S PATENT GALVANIZED IRON IS THE ONLY ARTICLE THAT HAS STOOD THE TEST OF TIME.

Several Roofs in Woolwich and Deptford Dockyards, erected in 1843, are as perfect as on the day they were put up.

TUPPER and CARR'S process of Galvanizing is used very extensively in the Dockyards and by the Board of Ordnance; it can be applied to EVERY ARTICLE MADE OF IRON, and, when properly done is a SECURE and LASTING PREVENTIVE of RUST.

The PATENT GALVANIZED IRON is to be had ONLY of TUPPER and CARR, the Manufacturers and Patentees, at their Warehouses and Works:—

3, Mansion House-place, and Limehouse ..... LONDON.
Nos. 6 and 10, Berkley-street ..... BIRMINGHAM.

Where also are kept in Stock COMMON, BEST, and CHARCOAL Black SHEETS, GAS-TUBING, and TIN-PLATES.

IRON ROOFING FIXED IN TOWN OR COUNTRY.

Iron-plate working in all its branches; also Smith's Work and Castings.

Full particulars, Lists of Prices, Drawings, Estimates, &c. can be obtained at TUPPER and CARR'S LONDON OFFICE.

3, MANSION HOUSE-PLACE, CITY,

Where it is requested all Letters may be addressed.

N.B.—AN ALLOWANCE TO THE TRADE

SKAIFE'S GALVANIZING WORKS,

Commercial road, Limehouse, London

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form
Sheets plain and corrugated. Roof fixed complete

J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zink, and Tiles.

An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought iron, principal, Slate and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire proof Floorings Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER.

Builder, Contractor and Ironfounder, Millwall, Poplar.

Offices, Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be examined on application.

N.B. Galvanized and painted Sheet Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade

---

PATENT GALVANIZED IRON.

(IMPROVED PROCESS.)

JOHN SYMONDS and CO.

WORKS.—GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.

GALVANIZED SHEET IRON and WIRE of every description, superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c. Roofs fixed complete.

JACKSON and COOK, Ironfounders and

Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others requiring roofing to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire proof. Drawings and estimates furnished

Island Foundry and Ironworks, Millwall, London.

Offices, 12, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much

approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches chapels, shooting lodges, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TO ENGINEERS, ARCHITECTS, AND BUILDERS.

THE VIEILLE MONTAGNE ZINC MINING & MANUFACTURING COMPANY

ARE NOW PREPARED TO

UNDERTAKE CONTRACTS, THROUGH THEIR AGENTS, FOR ZINC ROOFING OF ALL DESCRIPTIONS;

TOGETHER WITH, WHEN REQUIRED,

ALL THE NECESSARY TIMBER OR IRON FRAMEWORK, IN WHICH A GREAT SAVING IS EFFECTED BY THE LIGHTNESS OF THE METAL.

It possesses all the Advantages of Galvanised Iron, and is far more Durable and Cheaper, especially for large Spans.

The long duration of these roofs without repair, their neat appearance, and the economy of materials employed, as well as of area covered, render them most advantageous for dwelling-houses.

Many roofs covered with zinc, especially on the continent, have remained since the first introduction of this metal till the present time without having required, or appearing likely to require, any repairs.

CERTIFICATES in proof of this from the FRENCH GOVERNMENT and other authentic sources CAN BE SEEN at the COMPANY'S OFFICES, where all information, Estimates Drawings, or Prices, together with every assistance in laying on or otherwise, may be obtained on application to the Company's Surveyor, at

No. 12, MANCHESTER-BUILDINGS, WESTMINSTER.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEILE and STEDALL'S,

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO., (opening to the Monument), London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 10, insures perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D and E BAILEY, 272, Holborn.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for,—the prize of public approbation,—has long been obtained by BROWN and GREEN'S Celebrated KITCHEN RANGES, which is preeminently the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. LENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

HOT AIR, GAS, VESTA, JOYCE'S STOVES.—STOVES for the economical and safe heating of halls, shops, warehouses, passages, basements, and the like, being at this season demanded, WILLIAM S. BURTON invites attention to his unrivalled assortment, adapted (one or the other) to every conceivable requirement, at prices from 10s. each to 30 guineas. His variety of register and other stoves is the largest in existence.

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from all the various manufacturers all that is new and choice in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designed expressly for him; these are now ON SHOW in one of his TEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Establishment the largest and most remarkable in the kingdom, viz. from 18s. 6d. (two light) to 16l.

WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY (including cutlery, nickel silver, plated, and japanned wares, iron and brass bedsteads), so arranged and classified that purchasers may easily and at once make their selections.

Catalogues, with engravings, sent (per post) free. The money returned for every article not approved of

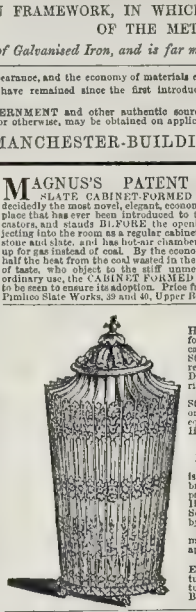
39, CLIFFORD-STREET (corner of Newman-street); 1, 2, and 3, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by P. EDWARDS, SON, and CO. 43, Pond-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

WARMING LARGE BUILDINGS.—CUTLER and SON respectfully state that they are prepared to contract for the Erection of their IMPROVED VENTILATING AIR STOVES, for effectually and economically warming chapels, &c. which they undertake in every instance to guarantee as well as their durability. A Stove may be seen in constant use at their Warehouse, 16, Great Queen-street, Longacre.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron-bridge.

MAGNUS'S PATENT ENAMELLED SLATE CABINET-FORMED FIRE-PLACE.—This is decidedly the most novel, elegant, economic, and comfortable fire-place that has ever been introduced to the public. It moves on castors, and stands BEFORE the opening of the chimney, projecting into the room as a regular cabinet. It is composed of fire-stone and slate, and has hot-air chambers. It may also be fitted up for gas instead of coal. By the economical, who dislike to see half the heat from the coal wasted in the chimney, and by persons of taste, who object to the stiff unmeaning chimney-piece in ordinary use, the CABINET FORMED FIRE-PLACE has only to be seen to ensure its adoption. Price from ten guineas upwards. Pimlico Slate Works, 39 and 40, Upper Belgrave-place, Pimlico.



SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Galleries, Warehouses, Stores, Hotels, and Offices, require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stores may be heated from one Boiler, and may be used equally well with Steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO. Engineers, and Manufacturers of Heating Apparatus, 96, Great Russell-street, Bloomsbury.

LARGE GALVANIZED IRON STOVE for SALE, ready for immediate shipment, and finished in a superior manner; well worth the attention of Australian Merchants, or any one requiring a temporary establishment in the Crimea.—For further particulars apply to Messrs. WM. BIRD & CO. 5, Martin's-lane, Cannon-street, London.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"Gentlemen,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 13 years ago, for our late office, in Cross-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Hornsey-fields, Wolverhampton.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 12, York-buildings, Adelphi.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply lightning conductors, with five pounds and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
134, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

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TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions; in the present state of the art, picking them would seem to be impracticable."—*Standard.*

Depôt, 131, FLEET-STREET, where also may be had, PRICE'S FIREPROOF SAFES, &c.

COPYING PRESSES, CASH and DEED BOXES.

Lists and Prospectuses free.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.—Messrs. HOBBS, ASHLEY, and CO. are now Manufacturing their celebrated AMERICAN and ENGLISH PATENT LOCKS, by their Patent Steam Machinery on the Premises, 97, CHEAPSIDE, and 3a, LAWRENCE-LANE.

Messrs. H. and Co. by the introduction of their Steam Machinery, are enabled to guarantee GREATER SECURITY, and SUPERIOR WORKMANSHIP, at prices more moderate than any Locks produced, either in Town or Country; in addition to which, they are applicable to all purposes for which Locks are used.

Every Lock being made and finished at the Manufactory bears their own stamp, and is warranted, without which none are genuine. These Locks can be procured by order through any respectable Ironmonger in the United Kingdom.

WHOLESALE and RETAIL WAREHOUSE, 97, CHEAPSIDE Manufactory, 33, Lawrence-lane, London.

P.S. Depôt for Milner's Patent FIRE and BURGLAR PROOF SAFES fitted with Hobbs's Patent Locks.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnishers of all kinds, with Patent Shifting Spindles, Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 3s. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 300 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

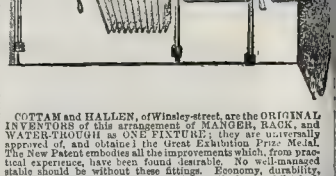
PARNELL and PUCKRIDGE'S DEFIANCE and NATIONAL LOCKS, "which cannot be picked," are made of all sizes, and for every purpose.

FIRE-PROOF SAFES, DOORS, and FRAMES; DEED and CASH BOXES, COPYING and LEVER PRESSES; STREET-DOOR LATCHES, warranted safe from picklocks.

Descriptions and lists of prices may be had, or sent, upon application to

PARNELL and PUCKRIDGE, 23, STRAND, London.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.

S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse, 31, Upper Thames-street.

DAVISON'S IMPROVED STABLE PAVING BRICKS.—The attention of Architects, Builders, and Others, is particularly directed to this most durable and efficient pavement, so especially adapted to stables, cattle and carriage sheds, &c.

These bricks may be seen laid down at the New Metropolitan Market, and at Mr. Rea's Great Central Horse and Carriage Repository, near the Elephant and Castle. Samples and estimates for laying down these bricks in London will be furnished by Messrs. WILLIAM LARKE and SON, 17, Little Moorfields; and prices and all particulars will be forwarded on application to the Manufacturers, CHARLES DAVISON and CO. Queen's Ferry, near Flint.

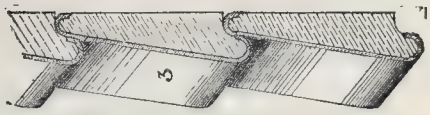
CLARK & CO.

15, GATE-STREET, LINCOLN'S-INN-FIELDS,

ENGINEERS AND MANUFACTURERS OF

PATENT REVOLVING SHUTTERS, IN IRON AND WOOD.

CLARK & CO.'S PATENT IRON SHUTTER.



PATENT COMBINED IRON AND WOOD SHUTTER.

DRAWN SASHS BAR, MOULDINGS, &c. FOR SHOP FRONTS, STALL-BOARD PLATES, &c. AND ALL METAL WORK CONNECTED WITH BUILDINGS.

GLASS.

THOMAS MILLINGTON requests attention to the present PRICES of SHEET GLASS, PACKED IN 100 FEET BOXES, THIRDS QUALITY, BOXES INCLUDED.

Inches.		Inches.	Per 100 feet.
6	by 4		
6½	" 4½		
7	" 5		
7½	" 5½		14s. 6d.
8	" 6		
8½	" 6½		
9	" 7		
9½	" 7½		
10	" 8		
10½	" 8½		
11	" 9		17s. 3d.
11½	" 9½		
12	" 9		
12½	" 9½		

Inches.		Inches.	Per 100 feet.
12	by 10		
12½	" 10½		
13	" 10		
13½	" 10½		
14	" 10		
14½	" 10½		
15	" 10		20s.
17	" 10		
17½	" 10½		
18	" 10		
18½	" 10½		
19	" 10		

Inches.		Inches.	Per 100 feet.
14	by 11		
14½	" 11½		
15	" 11		
15½	" 11½		
16	" 11		
16½	" 11½		
17	" 11		20s.
17½	" 11½		
18	" 12		
18½	" 12		
19	" 12		
19½	" 12½		

Inches.		Inches.	Per 100 feet.
16½	by 12½		
17	" 13		
17½	" 13½		
18	" 12		
18½	" 12½		
19	" 12		
19½	" 12½		20s.
20	" 12		
20½	" 13		
21	" 13		
21½	" 13½		
22	" 13		
22½	" 13		
23	" 13		
23½	" 13		

Inches.		Inches.	Per 100 feet.
18	by 13		
18½	" 13½		
19	" 13		
19½	" 13½		
20	" 13		
20½	" 13½		
21	" 13		20s.
21½	" 13½		
22	" 13		
22½	" 13		
23	" 13		
23½	" 13		
24	" 13		

Inches.		Inches.	Per 100 feet.
18	by 14		
18½	" 14½		
19	" 14		
19½	" 14½		
20	" 14		
20½	" 14½		
21	" 14		20s.
21½	" 14½		
22	" 14		
22½	" 14½		
23	" 14		
23½	" 14½		
24	" 14		

And in a variety of large cases.

IMPROVED PATENT ROUGH PLATE, PLAIN, FLUTED, AND IN QUARRY PATTERNS.

BRITISH PLATE, PATENT PLATE, SHEET, CROWN, AND COLOURED WINDOW GLASS. PURE WHITE SHADES FOR ORNAMENTS.

Pumps, Water-closets, and Plumbers' Brass Work. Genuine White Lead, Paint, Colours, Varnishes, Brushes, &c.

Tariffs of the above on application to

T. MILLINGTON, 87, Bishopsgate-street Without, London.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854 was manufactured HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes ove named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price 4 exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the eference given to the Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

CHARLES WM. WATERLOW AND CO.

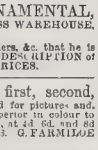
MANUFACTURING JOINERS,

121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

N.B. — ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

SANDS AND EMERY,

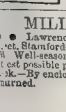
CURSITOR-STREET, CHANCERY-LANE.



MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

Lists of Prices and Estimates forwarded on application.

HENRY PASK, Baker-street, Clerkenwell, Sash, Shop Front and Door Maker to the Trade, begs to inform his customers and the public generally that he intends carrying on the business as usual, and solicits a continuance of their favours, which shall meet with his prompt attention.



N.B. By inclosing a postage stamp a full list of prices may be had by return of post.

MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-et, Stamford-street, Lambeth. Shop-fronts, fittings, staircases, Well-seasoned materials and superior workmanship, at the t possible prices. A quantity of doors and sashes always in ck.—By enclosing a post-age-stamp, a full list of prices will be turned.

SOHO CROWN, SHEET, ORNAMENTAL, PATENT PLATE, AND PLATE-GLASS WAREHOUSE, 29, SOHO SQUARE.

ALFRED GOSLETT begs to inform Builders, &c. that he is prepared to Tender for the supply of EVERY DESCRIPTION of Glass, now manufactured at WHOLESALE PRICES.

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 14 6d. and 16d per foot; sizes varying from 24 by 16 to 40 by 28. G. FARMILOE and SON, 118, St. John-street, West Smithfield.

WHOLESALE BRITISH and FOREIGN WINDOW-GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of Builders and the Trade in general, to his present prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description now manufactured. Extra size Sheet Glass of all qualities and substances for Shop Fronts. Estimates and Price Lists forwarded post-free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

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TURDAY, FEBRUARY 3, 1855.

THE connection between disease and defective structural and economic arrangements, often as we have considered it, continues to demand the most serious tion. The relationship of cholera and fever sspools, imperfect drainage, impure water, harged graveyards, and want of venti-n, is a great sanitary question, with h we feel ourselves all the more urgently d upon to deal, to the best of our y and experience, that it is one of which nedical faculty themselves, or their recog- exponents, such as the *Lancet*, admit almost total ignorance, notwithstand- he hosts of facts, whence an inductive correct scientific or theoretical knowledge ne subject ought to be derivable. Thus, editor of the *Lancet* himself, in a recent le, frankly says,—"We think it right to m the public that however satisfied some le may be upon the matter, the true ology of cholera has not yet been dis-red;" so that "all our methods of treat-, howsoever loudly some of them may be ted as rational, are in truth empirical [or kish], experimental and tentative . . ," he adds, "shall give light out of the e darkness? Alas! the efforts of those who most competent to the task, are almost owered by the ever-thickening cloud! Each enthusiast shouting 'Eureka!' thinks it was ved for him to disperse the gloom. Yet as but contributed a fresh volume of e." Some of his professional correspon- are even still more hopelessly despondent. , Mr. Borham says, — "At the mention of rord cholera in the true sense, decimating opulation and army, as it has been doing, the ical surgeon is struck with feelings of awe; f he possess a mind, it becomes enveloped onfusion of ideas which seem to get more unded as he proceeds to think!" This is rful state of matters amongst our medical ers, and shows the necessity for renewed and nued inquiries. There is little "smoke" ut some illuminative matter in it. Even gas with which it was of old intended to up London was regarded but as "smoke," he little match was put to it, which set it blaze of light. It is the duty of every one, e have heretofore said, in the present exity and utter paralysis of medical skill, subject of such universal and most vital est as this is, to contribute any little light may be in him towards the general illu-tion of so dark a question.

te thing appears beyond all doubt,—and it this we work resolutely, however feebly,— where human beings are crowded together arranged dwellings; where the drainage is nd the cesspool lurks; where refuse rots, air is vitiated, or the water impure and y,—there cholera, when evoked, reigns and : those still speak correctly who make King era sing,—

What is my court? These cellars piled
With filth of many a year—
These rooms with rotting damps defiled—
These alleys where the sun ne'er smiled,
Darkling and drear!

These streets along the river's bank,
Below the rise of tide;
These hovels, set in stifling rank,
Lapped by the earth-damps green and dank—
These cesspools wide.

These yards, whose heaps of dust and bone
Breathe poison all around;
These styes, whose swinish tenants grown
Half human, with their masters own
A common ground.

What are my perfumes? Stink and stench
From slaughter-house and sewer;
The oozing gas from opened trench,
The effluvia of the pools that drench
Courtyards impure."

Two points have been dwelt upon very strongly by the Registrar-General in his reports, as increasing the risk of cholera, namely, lowness of level and impure water. Thus, after pointing out in his report for December last, that the district in which the poorer classes abound suffered generally most from the epidemic, he said, "from an attentive consideration of all the facts, the rich, living on low ground, in houses supplied with impure water, are in great danger during a cholera epidemic; while the industrious hardworking population, living on simple food, in clean houses not much crowded, supplied with pure water, on high ground, or on well-drained ground that has not been a marsh, have little to fear from cholera in England."

Contrasting some of the districts, the Registrar said, "Rotherhithe and Chelsea differ little in rental; but the Chelsea district, supplied by the Chelsea Water Company, is on an elevation of 12 feet, and lost forty-seven inhabitants in 10,000 by cholera; while Rotherhithe, on lower ground (0 feet), supplied with impure water, lost 176 by cholera in 10,000 inhabitants. In Hackney, again, the people are apparently not in better circumstances than the people of Camberwell, yet in the two epidemics cholera was fivefold more fatal in Camberwell than it was in Hackney; Camberwell lying low, and receiving the impure water; Hackney lying high, and receiving, in 1854, a water of better quality."

Now, touching impure water, our present more immediate purpose is to direct attention to a book recently published by Dr. Snow, on the part which is played by the water supply in the spread of cholera and other diseases.*

Dr. Snow considers that the morbid material producing cholera must be introduced into the alimentary canal—must, in fact, be *swallowed*, and that it has the property of reproducing its own kind. Particulars of the *way* in which it is swallowed would scarcely suit our pages: suffice it to say, that the want of personal cleanliness, scarcity of water, deficiency of light, and over-crowding, are shown to concur in bringing this about; and his theory is made to explain why in thousands of instances a case of cholera in one member of the family was followed in hundreds of instances by other cases, whilst medical men and others who merely visited the patients, escaped. The chief means of extension, however, he considers to be the contamination of the water, used for drinking and culinary purposes, by matters, containing the morbid material, either permeating the ground, and getting into wells, or by running along channels and sewers into the rivers, from which entire towns are sometimes supplied with water. The cases where outbreaks of cholera have been traced to the contamination of water by adjoining cesspools, are not few. The peculiarity of Dr. Snow's theory is, that it is not produced by simple contamination, but that the actual matter of the cholera through the dejections of the patient is thus transmitted.

When the terrible outbreak of cholera in Broad-street, Golden-square, and adjacent streets, of which we have had occasion to speak several times, took place, Dr. Snow suspected some contamination of the much-used pump in Broad-street, near the end of Cambridge-street; and he has brought together a number of circumstances which seem to show some connection. Of the eighty-nine deaths from cholera registered during the week ending Sept. 2nd, in the sub-districts of Golden-square, Berwick-street, and St. Ann's, Soho, he found that nearly all had taken place within a short distance of the pump. There were only ten deaths in houses decidedly nearer to another street pump, and in five of these cases the families informed him that they always sent to the pump in Broad-street. "There are certain circumstances bearing on the subject of this outbreak of cholera which require to be mentioned. The workhouse in Poland-street is more than three-fourths surrounded by houses in which deaths from cholera occurred; yet out of 535 inmates only five died of cholera, the other deaths which took place being those of persons admitted after they were attacked. The workhouse has a pump-well on the premises, in addition to the supply from the Grand Junction Waterworks, and the inmates never sent to Broad-street for water. If the mortality in the workhouse had been equal to that in the streets immediately surrounding it on three sides, upwards of 100 persons would have died."

At a brewery in Broad-street, where there were seventy men, none suffered from cholera: few drank water at all, and the few who did, never obtained water from the pump, having a deep well on the premises.

At a percussion-cap manufactory in the same street, where 200 people were employed, two tubs supplied with water from the Broad-street pump, were kept on the premises for those to drink who wished, and eighteen of these people died of cholera at their own homes.

Dr. Snow gives a map of the locality, showing the deaths by a black line in the situation of the house where it occurred, and gives reasons for believing that the deaths either very much diminished, or ceased altogether at every point where it was decidedly nearer to send to another pump than to the one in Broad-street. Against one of the houses, immediately adjoining the pump, there are eighteen black lines! The total number of deaths ascertained was over 600! The pump-well was opened, but did not show any hole or crevice in the brickwork by which impurities might enter. It is stated that the well is from 28 to 30 feet in depth, going through the gravel to the surface of the clay beneath, and that a sewer passes within a few yards of the well 22 feet below the surface. "Whether the impurities of the water," says our author, "were derived from the sewers, the drains, or the cesspools, of which latter there are a number in the neighbourhood, I cannot tell. I have been informed by an eminent engineer, that whilst a cesspool in a clay soil requires to be emptied every six or eight months, one sunk in the gravel will often go for twenty years without being emptied, owing to the soluble matters passing away into the land-springs by percolation. As there had been deaths from cholera just before the great outbreak not far from this pump-well, and in a situation elevated a few feet above it, the evacuations from the patients might of course be amongst the impurities finding their way into the water; and judging the matter by the light derived from other facts and considerations previously detailed, we must conclude that such was the case. A very important point in respect to this pump-well is, that the water passed with almost everybody as being perfectly pure, and it did in fact contain a less quantity of impurity than the water of some other pumps in the same parish, which had no share in the propagation of cholera. We must conclude from this outbreak that the quantity of morbid matter which is sufficient to produce cholera is inconceivably small, and that the shallow pump-wells in a town cannot be looked on with too

* "On the Mode of Communication of Cholera." By John Snow, M.D. &c. London: Churchill, New Burlington-street. 1855.

much suspicion, whatever their local reputation may be."

Tables are given showing the influence which the drinking of water containing the sewage of a town exerts over the spread of cholera, when that disease is present; and some extraordinary facts are deduced from an examination of a part of London where some of the houses are supplied by the Southwark and Vauxhall Company, and others by the Lambeth Company who take their supply at Thames Ditton. The pipes of each company go down all the streets. "Each company supplies both rich and poor, both large houses and small: there is no difference either in the condition or occupation of the persons receiving the water of the different companies. Now it must be evident that, if the diminution of cholera, in the districts partly supplied with the improved water, depended on this supply, the houses receiving it would be the houses enjoying the whole benefit of the diminution of the malady, whilst the houses supplied with the water from Battersea-fields would suffer the same mortality as they would if the improved supply did not exist at all. As there is no difference whatever, either in the houses or in the people receiving the supply of the two water companies, or in any of the physical conditions with which they are surrounded, it is obvious that no experiment could have been devised which would more thoroughly test the effect of water supply on the progress of cholera than this, which circumstances placed ready-made before the observer."

The inquiry gave striking results. In the first seven weeks of the epidemics, the proportion of deaths to 10,000 houses, was, in those supplied by the Southwark and Vauxhall Company, 315; while in those supplied by the Lambeth Company, it was but thirty-seven. In the second seven weeks, when other means of communication came into operation, the difference was not quite so great; but even then the population supplied by the Southwark and Vauxhall, continued to suffer nearly five times the mortality of that supplied by the Lambeth!

Surely there is here matter for the most serious and rigid examination. Dr. Snow considers that typhoid fever is propagated in the same way as cholera, and gives instance upon instance of the production of the fever by the use of polluted water. He justly urges that the diminution of mortality ought not to stop with cholera, as the deaths registered under the name of typhus consist chiefly of this typhoid fever. "Its victims are composed chiefly of persons of adult age, who are taken away from their families and connections. In 1847 upwards of 20,000 deaths were registered in England from typhus, and in 1848 upwards of 30,000 deaths. It is probable that seven times as many deaths have taken place from typhus as from cholera, since the latter disease first visited England in 1831; and there is great reason to hope that this mortality may in future be prevented by proper precautions, resulting from a correct knowledge of the mode of communication of the malady."

We may certainly prepare for the establishment of our long-meditated "Society for Living to a Hundred."

Without adopting Dr. Snow's especial theory, we would ask for his book the most serious consideration of all who may be able to throw light on the subject whereof it treats. We know something of the labour of such inquiries as he has instituted, and can appreciate and admire his zeal and perseverance.

The Laws of Health.—In the Commons last week Mr. Pellatt gave notice that on 6th February he should move for a committee to inquire into the various sanitary Acts.

NEW PATENTS FOR IMPROVEMENTS IN BRICKMAKING.

M. Magloire A. Jullienne, of Paris, has patented "Improvements in Machinery or Apparatus for making Bricks or Tiles." The object of this invention is stated to be the production of bricks or tiles of any shape by compression, the clay being nearly dry when forced into the moulds. In the complete specification which has been filed, the patentee explains the nature of the process, and gives longitudinal and transverse sections of the machinery by which he purposes to conduct it. According to these, the machine for effecting the operation is composed of a strong frame of wood or iron, forming a species of table, having fitted into it a cast-iron frame which carries the various working parts. This frame consists of two longitudinal pieces fixed to the wooden framing by bolts, and united by cross-pieces, between which the moulds are situated. These latter are composed of a double frame of wood, forming two rectangular openings, of the size and shape required for the bricks or tiles. They are open at top and bottom, and lined inside with copper plates. Two vertical frames beneath the table carry two horizontal axes or shafts, which rest in suitable bearings. At the extremity of one of the shafts is a long lever, for the purpose of partially turning it. This same shaft carries also two levers, which are forged upon it: to these levers are attached two chains, the lower ends of which are fixed by bolts to a vertical slide, which forms two rectangular pistons of wood faced with copper, corresponding exactly to the openings of the two rectangular moulds. Each time that this shaft is turned, the short levers draw up the chains, elevate the pressing pistons, and cause them to enter the moulds. An adjustable stop is fitted to the pistons, to limit their descent. Above the machine is fitted a bent lever, which has at one end two flat pieces of wood, which cover the tops of the moulds. These flat covers are held over the moulds by a catch at the opposite end of the lever which carries them, and this catch, which works on a fixed centre, can be engaged or disengaged with the lever by a proper handle. When the catch is removed, the lever turns over on its centre, and removes the covers from the moulds, at the same time that the pistons enter below the moulds, which are then filled with clay. The covers are now brought down again, and the pistons elevated by means of their lever. The bricks are thus to be completed, by the compression which the clay receives between the covers of the boxes and the ascending pistons. In order to eject them from the moulds, the covers are raised, and the pistons elevated still further, to push out the bricks. This movement is effected either by the compressing-lever or another hand-lever on a smaller shaft, which in turn carries at its centre a short lever, attached either by a chain or link to the lower part of the slide which bears the pistons. For moulding bricks of a variety of shapes and sizes, the moulds, covers, and pistons are changed. In some features the machinery described and represented in the drawings appears not unlike the very ingenious printing-press invented by Mr. Ruthven. The patentee, without restricting himself to the exact arrangement as above, claims five things as novel and original, viz.—1. The general arrangement of the machinery. 2. The peculiar construction and arrangement of the moulds. 3. The application of the bent lever, in combination with the lids or covers of the moulds. 4. The peculiar construction and arrangement of compressing pistons, and the mode of working them. 5. The mode of removing the bricks or tiles from the moulds by a further movement of the pistons beyond that point required for compression.

Mr. William Hutton, builder, St. John's Wood, has received letters patent for an "improved machine for the manufacture of bricks." The complete specification declares this invention to consist of an adaptation to an ordinary pug-mill of a series of skeleton moulds, for moulding the clay into bricks, the said moulds being arranged about the lower part of the mill in a vertical direction, being also combined with certain pieces called "pads," employed for forming a vein in one side of each brick. The pug-mill is also furnished with knives for dividing the clay when the moulds are filled thus forming the opposite side of the brick; th pads and knives being operated upon by leve handles. The mode of operation is by placin the clay in the pug-mill, and operating upon i with knives in the usual way by horse or othe power. The effect of this is to force the cla into the several skeleton moulds. These resem ble boxes without bottoms. One side of thi box rests upon a projecting piece of metal, o rail, fixed wider than the bottom of the pug mill,—which piece is connected with a vibrator bell-crank lever, to one end of which is attache the bit of wood called the "pad." During th filling of the moulds, the lever-handles to whic the knives are connected are depressed, so a to hold the pads in forced contact with th moulds. When the clay has been sufficientl constrained, the workman raises the knif thereby dividing the clay and forming the othe side of the brick,—after which, by continuin to raise the lever-handle, the pad is disengage from the mould, and the moulded clay is read to be removed to the stack to be dried pr paratory to burning. In this manner th operator proceeds to discharge the clay fro the several moulds; each time replacing th filled mould by an empty one, and afterwar bringing down the knife to allow the empt mould to be filled. The patentee remarks, that th extent to which the clay is compressed in th mould will depend in a great measure upo the length of time the moulds are allowed remain during the time the pug-mill is in actio The specification gives plans and sections of th various parts of the machine. The claim is f the novel mode of combining certain mechanis so as to constitute a machine capable of man facturing bricks more perfectly than heretofor and more particularly making the bottom of th pug-mill with sloping channels and boxes, l which the clay is discharged from the pug-m with considerably less power than if it we not so.

Mr. Zechariah Round, plasterer, of Dudle Worcester, has received letters patent for "I provements in bricks to be used in certain par of buildings." These improvements are stat to relate to bricks to be used in the constructio of doorways and other parts of buildings whe an attachment for nails, screws, and other faste ings is required. For instance, the patent observes they may be used in substitution f the blocks of wood usually built in or inserte into doorways and other parts of buildings f attachment thereto by means of nails or screw Various pieces of wood or metal are let into t bricks after they are burned, being fixed by pi and in sundry ways set forth by the patentee his specification and drawings. Some of t forms are intended for the production of a pec liar sort of brick, which, when built into t wall, so as to form parallel courses, serve as co venient attachments to lathwork. The claim for the "introduction or attachment of piec of wood or metal, or both, into or on bricks, the purpose of affording a convenient means attaching to the walls into which the said bric are built such objects or matters as may requi to be attached thereto," as described and illu trated in the drawing accompanying the spec cation. Further, the patentee defines the wo 'brick' to mean "such masses of burnt cl cement, composition, stone, or other materi as are or may be used in the construction the walls of buildings."

Two other patents, which precede the abo by a few months, we quote, in order to show the ideas of any importance which have recen been suggested.

Mr. W. B. Johnson, engineer, Manchest has patented improvements in machinery making bricks from clay and other plastic ma rials. The invention, according to the spec cation, refers to a method of pressing clay, ar ficial fuel, or other plastic material, into bric This is effected by adapting two or more pist to each of a travelling set of moulds, in c junction with suitable apparatus for causing t pistons to advance gradually towards each oth so as to press the material on more than e side by a continuous action as the moulds tra onward. There are drawings given of the c struction of machinery adopted, parts of wh may be thus described. The side framing of t

machine is provided with flanges at top, to which is attached a table, carrying, by means of arched brackets, a central projecting part for a portion of its length. There are two sets of mould-boxes, each having an orifice at the bottom rather larger than the dimensions of the articles to be made. Within these orifices is situated the raised part of the table, which, therefore, constitutes a portion of the bottom of the moulds. They are each provided with the two pistons already mentioned. Upon the under sides are also toothed racks, in connection with other mechanism, by which the whole series may be caused to travel in one direction when power is applied,—this travelling motion being reversible according to the pulley which is thrown into gear. The mould-boxes are cast together in two sets, there being a division between them, and are capable, by means of wheel-work described in the drawings, of being brought alternately under a hopper, into which the clay or other material is placed. This hopper is provided with a shaft, upon which are placed spiral vanes, after the manner of an ordinary pug-mill, and to which rotary motion is communicated. Within the hopper are also mounted two rollers, adapted to the purpose of facilitating a supply of material to the mould-boxes. Beyond these rollers extend plates affixed to the hopper: these occupy a position over the moulds, and constitute their stops during the pressing of the material. At either end of the machine are standards, upon which are mounted levers, carrying, at their outward ends, by a series of joints, the "pistons." These are so placed as to occupy positions over the mould-boxes when they are run out to the extent of their traverse. When put in motion the machine acts thus: the moulds are caused to travel, and passing under the hopper are supplied with material by the revolution of the blades,—receiving a more perfect filling by travelling under the rollers. The pistons are then made to advance gradually towards each other, so as to compress the material from either side against the stationary plate and table. A further revolution causes various parts to operate so as to draw the pistons from each other, and thus liberate the moulded article from pressure. The travelling motion is continued until the moulds have been brought under a series of plungers, which are made to descend so as to force the moulded articles downwards, and fall on a travelling apron. During these operations the moulds at the other end of the machine are being made to travel under the hopper to receive their supply; and by appropriate mechanism for throwing in and out of gear, each set is alternately compressed and caused to travel back to be fed. As to the degree of compression to which the material may be subjected, the patentee remarks that it may be modified by forming small holes in the pistons, through which it may thus be allowed more or less to escape; and that it may not in escaping fill the space behind the pistons, other holes may be formed in the mould-boxes, through which it may be expelled. The patentee indicates that there may be much latitude or variation of detail in carrying out his invention, but he describes its spirit in the following claim:—"The adaptation of two or more moveable surfaces to a travelling set or sets of moulds, such surfaces being caused to advance towards each other from two or more sides of the moulds as they travel onward."

Mr. John Bird, manager of Chance's fire-clay and brick works, near Dudley, has secured a patent for improvement in kilns for burning bricks and other articles. This invention consists in constructing a kiln in the following manner:—A culvert or air-passage is built below the bottom, leading from the external air to the middle of the foundation of the kiln, where a central mass of masonry is built, with a space around open to the air-culvert or passage; and the surrounding foundation is built up to receive and support the bottom or floor of the kiln. But in place of such floor or bottom being built solid on the foundation, numerous radial passages are made on which the floor is laid. Such passages have their inner ends open into the central space, with which the air-culvert communicates, their outer ends opening into a hollow lining of the kiln. Consequently, says the patentee, when the kiln is in use there is a constant supply of air from the outer atmosphere into the central space, and through the passages below the bottom or floor into the hollow lining of the kiln, the air being in its passage highly heated and tending at the same time to keep the floor and the bricks or articles immediately above it from becoming too highly heated. The fire-places are made with inclined fire-bars, the lower one being horizontal, or nearly so. The fuel is supplied by hoppers above, thus keeping up a continual supply, whilst there is an opening kept above each of the fires to stoke them through. The ash-pit is better closed, and the fire is supplied with heated air from the hollow lining in the kiln, by openings above the fire-bars on either side of each fire-place.

JUBILEE BUILDING OF THE SUNDAY SCHOOL UNION.
TO BE ERECTED IN THE OLD-BAILEY, LONDON.

THE JUBILEE BUILDING OF THE SUNDAY-SCHOOL UNION.

THE Sunday-school Union are about to erect a building for their purposes on a plot of ground in the Old Bailey, London. A competition was instituted, and the annexed design, by Mr. Charles G. Searle (which we publish, mainly to show the operations of the Sunday-school Union), was selected. The building has a frontage of 38 feet in the Old Bailey, and a depth of 110 feet, with the advantage of a side entrance in Prujean-square. It is intended that the ground floor shall be occupied with a capacious shop, equal to the extended business of the Union, with large store-room adjoining. The secretaries' room will be placed near the centre, and adjoining the corridor entrance on the right. The committee-room, which will be in the rear, will be large enough to hold 100 persons, with entrances from the staircase, and from Prujean-square. The basement will be occupied as warehouse room, strong rooms, kitchen, porter's bedroom, warming apparatus, coals, &c.

The frontage on the first floor will be devoted to the library of the society, with librarian's office attached: there will also be separate reading-rooms on this floor.

The upper story will contain a lecture-hall, large enough to hold 400 persons, and high enough to erect a gallery at any future time to accommodate 100 more, with ante-room for the lecturers and speakers: there will also be two large class-rooms for the use of teachers, and the whole of this floor will be so arranged, as to be suitable for a *soirée*, when required.

In the centre of the building will be a large open area for windows communicating with each story, so as to secure light and ventilation.

It is proposed that the front shall be built of stone, if the funds subscribed are sufficient to enable the committee fully to carry out their wishes.

DOINGS IN THE OFFICE OF METROPOLITAN BUILDINGS.

THE registrar of Metropolitan Buildings presents his compliments to the editor of the *Builder*, and requests him to insert in his next number this note, in reference to the articles which appeared in the *Builder* of the 20th and 27th inst. relative to this office:—

The registrar acts under the authority and in obedience to the requirements of the statute by which his office is created; and also in accordance with the decisions and directions of the authority (that of the Commissioners of Works and Buildings) designated by the statute to regulate his proceedings, and confirm (or the reverse) his acts.

No opinion of counsel, however eminent, except an opinion of the law officers of the Crown, obtained by, or under the sanction of, his superior authority, would be a justification to him for acting contrary to his view of duty; and nothing short of the solemn decision of a competent court of justice, or statutory declaration of the Legislature, would be a complete justification for his so doing.

The opinions that have been obtained have been obtained without his concurrence or that of the commissioners, and upon cases stated without being previously submitted either to him or the commissioners.

The opinions of lawyers, however eminent, are only to be regarded as of value and authority according to the sort of case submitted.

As to one of the cases, the registrar knows that the case was not fully stated, and that considerations which ought to have been presented were not brought to view.

The registrar, in his peculiar position, cannot with propriety controvert these matters in the press; and has adverted to them now only because the articles which have appeared in the *Builder* are not only calculated to embarrass the conduct of the business of his office, but to raise, unintentionally no doubt, the impression that he is pursuing an unwarrantable course.

He looks to the express declaration in the statute of the purposes of his office,—to the nature of the institution of which it is a part,—to the various private and public interests which it is the express object of his responsible and highly-paid office to protect; and he feels that it is his duty to act without flinching in furtherance of these purposes, and in the direction of these objects, till a competent tribunal, or a competent authority, pronounces that he is in the wrong.

Many serious constitutional questions are involved in the matter, which are only to be disposed of by a dispassionate consideration of it *in relation to all the interests concerned*. It is a question to be determined, not by a single sentence of a very complicated Act of Parliament, or by a single and subordinate rule of interpretation, but by a view of the whole Act, in relation to the general principles of the law, and in relation to the express intention of the Legislature, and to the nature of the institution, specifically and appropriately framed in exact accordance with that intention.

Office of Metropolitan Buildings, Jan. 31, 1855.

PROVINCIAL NEWS.

Spalding.—The new plans for the Corn-Exchange have been received from Mr. Bellamy, the architect. They include a news-room, public-office, corridor and staircase, board and waiting-rooms, and exchange behind: the estimated cost is from 2,000*l.* to 2,500*l.*

Woolwich.—It having been proposed that the vestry should sanction the Burial Board's borrowing 5,000*l.* for the purchase of thirteen acres of land in Wickham-lane, at 150*l.* per acre, for a new burial-ground, the parish was polled, and a majority of 346 got in favour of the resolution.

Kidderminster.—The opening of that portion of the new public rooms in this town which is intended for a corn-exchange, took place on Thursday week, and was celebrated by a dinner attended by a large number of persons. The first stone of the edifice, which comprises the public-rooms and corn-exchange, was laid on the 7th November, 1853. The entire building will not be finished for another month or two, and it will be some time further before the organ is fixed in the large hall—an apartment destined for music, balls, lectures, and other social gatherings. The main building is so far advanced that the masons have been able to remove the scaffolding. The design of the architects has been carried out in brick and stone. The style is Italian. The front contains the smaller rooms, which are to be used as a library, &c.; and has a lower story in rusticated stone-work, and an upper in red brick, also stone Corinthian pilasters, cornice, &c. The front on the left recedes some yards to a square tower with campanile, and behind this stands the corn-exchange. The main entrance is in the centre of the projecting part, and goes to the music-hall behind: a second leads to the corn-exchange; and through the tower another leads to a hall and the gallery of the music-room, &c.: all three entrances are approached by fine flights of iron steps. The corn-exchange is placed with its end towards the tower. Its dimensions are 59 feet in length, 36 feet in breadth, and about 17 feet to the springing of the roof. The roof is open. The light is obtained from seven semi-circular-headed windows in the side-wall, and from a lantern-light 9 feet wide, which forms the ridge of the roof, and extends from one end to the other. The sides of the lantern are of perforated glass for ventilation, and the top is of rough plate to exclude the rays of the sun. Six wrought-iron girders cross the room and support the roof. The girders are filled up with cast-iron foliated ornaments. The roof boarding is stained and varnished, and the girders and their filling-up painted of a bright blue. An arcade constructed of pilasters and mouldings with semicircular arches is carried round the room. Folding-doors open between the corn-exchange and the music-hall. The corn-exchange and music-hall will be warmed by means of hot-water pipes on Perkins's system. The design of the building was furnished by Messrs. Bidlake and Lovett, Wolverhampton, architects. The builder was Mr. Thompson.

Bristol.—The County Court Judge who sits in the Guildhall of this city seems to have had a sad time of it between draughts and suffocation, from a want of proper arrangements for ventilation in the hall.

Tewkesbury.—The local Board of Health and the local gas company have a misunderstanding as to the supply of the streets with gas. The company contracted for 6s. 3d. a thousand cubic feet, but it was forgotten to specify a time for the continuance of the contract, and the board refused to contract, under the circumstances, for more than one year. The company have announced their price in future to private consumers to be 7s. 6d. A resort to naphtha for the public lamps is talked of. Might not the board try the electric light, one at each cross corner or meeting of streets?

King's Lynn.—About thirty sets of plans for the new workhouse have been sent in, and the committee appointed for the purpose of examining them have reduced the number to three. Which of these will be finally adopted has not yet been determined. Several of those rejected have been set aside simply on account of their costliness, some being estimated at double the sum which the guardians are empowered to expend in the erection of the new building.

Devonport.—A new Baptist Chapel was opened here on Tuesday week. It stands on the east side of the Temperance Hall, at the entrance to Devonport from the suburb of Stoke. The architect was Mr. Alfred Norman, of Devonport. The style is Italian in general character, though exhibiting some peculiarities (more especially in the interior). There is, at the south end, a window of large dimensions, filled with carved stone tracery, Italian in its details, but combined with Gothic. This and the other windows are filled with stained glass. The building, which has only one frontage in Fore-street, is 50 feet wide, and rises to the height of 58 feet. The extreme length, including vestries and library at south end, is 120 feet; and the chapel, which is 38 feet high to the ceiling, is calculated to seat about 900 persons. There are galleries on three sides. The contract for the erection of the chapel was taken by Mr. Jenkins, builder, at the sum of 3,029*l.* which, with amount paid for site, makes the cost about 3,700*l.* of which 1,800*l.* had been raised prior to the opening services.

Penzance.—The London and Penzance Serpentine Company gave the workmen in their employ a treat on Monday before last, to commemorate the opening of their new works, situate on Newlyn-green. The new works, according to the *Cornwall Gazette*, consist of a centre—the ground-floor devoted to a steam-engine and its appliances, and the second story to show-room purposes—with a wing on either side, one occupied by "marble-masons" the other by "turners." The first are engaged in cutting the Serpentine, and occasionally marble and slate, into slabs, afterwards working up this rough material into chimney-pieces: the second attend more particularly to work requiring the lathe.

Rhyl.—At a meeting of the Improvement Commissioners, held on the 12th ult. it was resolved to convey to Mr. Myatt, of Congleton, the entire satisfaction of the commissioners with the manner in which he had carried out the drainage works of the town under some difficulties.

Liverpool.—At a recent Health Committee meeting, Mr. Newlands gave an explanation, the gist of which was that a complete system of sewering for the town was drawn up by him in 1847-8, and approved of by the Council; and that, since, nothing had been done in sewering the borough that was not according to that system. There were tenders before the committee for sewering nearly three miles of streets that had risen up within the last three months. They were taking these streets first, because the work could be so much more cheaply done than when houses and buildings were erected on the streets, and the owners of the property contributed 12s. a yard for each side of the sewer towards the expenses of making it. There was no neglect of old streets: there were only six streets unsewered in the borough.——A correspondent of the local *Times* complains that while passing along the river wall, at the Hus-kisson Dock, he was surprised to observe that no coping stones had been placed on the top, and that the salt-water, which there rolls on to the quay with a high tide and westerly breeze, was making considerable ravages with the small pieces of granite composing the walls, washing out the mortar, and materially weakening the structure. This, he thinks, would not have been the case if pressure had not been applied for "cheap" work. A wide crack, he adds, may also be observed between the dock wall and the foundation of the new battery.——The Earl of Sefton is laying out a considerable sum in improving the approaches to his mansion of Croxteth-hall. The new church, which stands on the north side of the drive, at West Derby village, and for which his lordship gave the land, progresses slowly: it is now being roofed in.

Sheffield.—The Ball-street new foot-bridge has been opened, and a new street is to be formed to run from the north end of the bridge into Neepsend-lane. The cost of the bridge has been 1,024*l.* The cost of the Neepsend bridge has been provided for, like that of the Ball-street, by subscription, each to the extent of about 1,000*l.* Another new street is to run from the end of Borough-bridge into Harvest-lane, and forward into Mowbray-street. This new street will run along the north side of the river, from the Borough-bridge to the new Neepsend-bridge.

Doncaster.—On Monday before last, a meeting of the Cemetery Commissioners was held at the Town-hall, to meet the architect, to open tenders for laying out the ground, &c. The tenders were from Messrs. E. Price, J. Micklethwaite and Son, R. Brooks and M. Hawksworth, John Law, W. Bradley and W. Boddy, with S. Appleby; J. Patterson, Birmingham; and W. Knight. The highest was 554*l.* 12s. 8d. and the lowest 235*l.* The tender of Messrs. Appleby, Bradley, and Boddy, for the levelling, laying out the walks and drives, and the draining and planting of the ground, according to the plans and specifications, at the sum of 267*l.* 2s. 8d. was accepted, the contract to be forthwith prepared and executed. It was resolved that Mr. Appleby's additional tender for planting (100*l.*) be substituted for his former one of 38*l.* 10s. With Messrs. T. and C. Anelay's contract for building the chapels and lodge, this will bring the cost under the original estimate of 1,500*l.* The chapels, &c. are to be completed by the 22nd of October; but the ground will be ready for interment in three months.

Newcastle-upon-Tyne.—The inauguration of the Ragged and Industrial Schools for this town took place on Wednesday week. These schools have been built from a design by Mr. Dobson, architect, and were erected by Messrs. Wilson and Gibson, contractors, at a cost of 2,400*l.* There are two large school-rooms, and two working-rooms for boys and girls, master's residence, and dormitories for a certain number of children. At present they contain sixty boys and seventy girls, out of which forty-five of each sex are fed daily in the institution, but all the remaining boys receive one meal per day.—— All Saints' Church has been restored and re-opened.

Biographies.—The veteran author of the "Memoirs of E. J. Willson," which appeared in a form a number of this work—Mr. Britton—has written similar essays on the lives and writings of his pupil, W. Bartlett (whose numerous drawings have been so well and skilfully multiplied by several of our best landscape engravers), and of his old associate and friend E. W. Brayley. The first appeared in the *Art Journal*, and the second in our own paper and the *Gentleman's Magazine*. The author reprinted a small number of these memoirs as pamphlets for private distribution, and has inscribed each to his contemporary friends, S. Carter Hall, John B. Nichols, and the editor of this journal, in kindly terms expressive of his feelings.

AQUEDUCTS.

INSTITUTION OF CIVIL ENGINEERS.

At the meeting on the 23rd ult. (Mr. James Simpson, president, in the chair), the discussion was renewed on Mr. Rennie's "Description of the Aqueduct of Roquefavour, and the Canal of Marseilles." It was pointed out that the ancients were not ignorant of the use of pipes for conducting water, as tubes both of lead and of earthenware had been found, in the oldest remains; but as they had not any knowledge of the use of cast-iron, they could only use pipes of small dimensions and subject only to moderate pressure. It might, however, be conceived, that the use of channels and lofty aqueducts, preserving nearly a regular and very gradual fall, had been adopted, because it was found necessary to afford an opportunity for the water depositing the impurities held in mechanical or chemical suspension: accordingly, on the sides and in the bottom of the water channel of the Pont-du-Guard, there was a deposit of nearly a foot in thickness of carbonate of lime, and beneath the soffit of some of the upper arches there were suspended several large stalactites, formed by the percolation of the water through cracks in the masonry. The same reason had probably, in some degree, induced the adoption of so expensive a construction as the aqueduct of Roquefavour, in preference to using metal pipes, lest the deposit should become so considerable as to eventually stop them up. This had actually occurred in the lead pipes, originally 5 inches in diameter, found in connection with the aqueduct of Alcantara, near Lisbon, and through which, although only about a century old, scarcely any aperture remained.

It should be remembered that the great works of the ancients were national undertakings, executed without regard to expense; whereas, public works were now generally the result of the enterprise of associated individuals, and however an engineer of the present day might be inclined to exercise his taste and skill, in designing and executing monumental structures, he was restricted by the modern inventions of "estimate of cost," and "dividend," which were generally received as the standard of his genius and skill.

It was shown, that public works required to be designed in accordance with the country or district in which they were situated; for instance, in Norway, where, although the line of railway traversed a difficult country, the estimated total cost was limited to about 10,000*l.* per mile, including stations, plant, &c. There were several tunnels, and some high viaducts, and it would have been impossible, within the stipulated limit of expense, to have constructed the latter of masonry; therefore, red pine timber, the indigenous and cheap produce of the country, was adopted and used without squaring, and with only just that amount of preparation and of labour which enabled the timbers to be framed together. The cost was about one shilling per square foot of superficial area of elevation, as compared with twenty-five shillings, the stated cost of the Roquefavour aqueduct. The timber was not presumed to last beyond fifteen years, and a fund would be taken by the Company from revenue, to enable a more permanent structure to be erected, or an embankment to be formed.

It was contended, that the cracks observed in the upper arches of the Roquefavour aqueduct resulted rather from insufficient weighting of the haunches than from expansion.

In corroboration of a view previously expressed, it was mentioned, on the authority of the "Architectural Dictionary," published by the Architectural Publication Society, article "Aqueduct," that "To cross the Manhattan Valley, an aqueduct bridge, 105 feet high, and 4,180 feet long, would have been required: this would have preserved 3 feet of head-pressure for the conduit water, but at an expense of about 240,000*l.* while the passage by four pipes of 36 inches each, was calculated to cost one-fifth of that amount: the latter was therefore adopted."

It was contended, that the design of the aqueduct of Roquefavour conveyed the impression of unnecessary timidity on the part of the architect, as it was merely a copy of the ancient structures: the three tiers of arches were not at all necessary for strength, nor did they conduce to the beauty of the building: in fact, it was probable the ancients only adopted that system because it facilitated the construction, by affording a secure footing for the scaffolding. The modern viaducts constructed for supporting railway trains, weighing 300 or 400 tons, travelling at the rate of forty to fifty miles an hour, were all upon tiers, with one tier of arches; and when the building of isolated furnace chimneys, as much as 350 feet in height, was no unfrequent occurrence, there could not be any difficulty in raising a series of such shafts, and connecting them at the top by arches.

The water conducted from the springs near Bellas to Lisbon, passed by the aqueduct of Alcantara, 2,600 feet long, over a valley, at such an elevation that the soffit of the centre arch, of 98 feet 4 inches span, was 229 feet above the ground level. That structure consisted of one tier of pointed arches of a kind of grey marble: it was completed some time before the year 1752.

It was contended, that for merely conducting a large quantity of water, the bridge aqueduct of Roquefavour was unnecessarily substantial and expensive, and the example of the Bristol Waterworks was quoted as a case in point. The water was there derived from the Mendip Hills, sixteen miles distant: an ample channel conducted it along the comparatively level country: the hills were traversed by tunnels, one of them being 1¾ mile in length, through magnesian conglomerate rock: several deep ravines were crossed by aqueducts, and in the undulating, or, it might be called, hilly part of the line, pipes were laid with culminating points, crowned by obelisks concealing air-pipes, by means of which the ventilation of the entire line was achieved. Three of the aqueducts were each composed of an oval tube, 4 feet 8 inches by 3 feet 6 inches of wrought-iron plates, ⅜ths inch to $\frac{7}{16}$ths inch in thickness, rivetted together; two of them being 834 feet, and the other 400 feet in length: there was also another of cast-iron pipes. Each wrought-iron tube was supported in the centre on an equilibrium pier, and so placed on balls as that, whilst longitudinal motion was not entirely prohibited, it was not encouraged, but lateral action was provided for. Each end, worked in a length of 10 feet of clay puddle, to allow for expansion and contraction; and on the top of all the piers, which were 50 feet apart from centre to centre, the tube rested in cradles containing balls, acting as rollers for aiding the motion. The loftiest pier was about 60 feet high above the ground level, and the gradient over the aqueducts was about 5 feet per mile. The cost of these aqueducts was 16*l.* 10s. per lineal yard, including all expenses, and they were capable of discharging five millions of gallons of water per diem.

THE CHAPTER-HOUSE AT SALISBURY.

YOUR valuable paper contains some excellent observations on the restoration of the royal tombs in Westminster Abbey, which certainly deserve to be more generally known.

The question of restoration, I think, was fairly discussed at the Institute of British Architects, and I am of opinion that no restoration ought to be proceeded with until some such rules as those suggested and laid before that meeting are decided on.

But of all that has been written and said on the royal tombs, I have not yet seen one word written or said in the defence of an exquisite work of art of the Early English period; I mean the Chapter-house of Salisbury Cathedral, which is to be "restored" immediately, as a memorial to the late bishop; and what is more to be dreaded than all is the "scraping off" the surface of the exquisitely carved foliage and the "restoration" of the figures in the relievos.

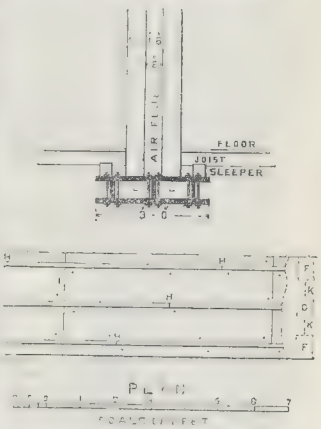
It is said that the workmen of the present day can imitate anything, as they are all copyists. As a specimen of this, look to the stained-glass window in this cathedral lately executed, containing a medallion copied from Raffaelle, of St. George, in armour of the sixteenth century, encircled by borders and patterns of the thirteenth century. Ask an artist of feeling to restore, he will tell you he would rather hand down any work, mutilated as it might be, to future students, than destroy their interest by any additions of his own. Canova, when asked to restore the Elgin marbles, replied—"It would be sacrilege in him or any man to presume to touch them with his chisel."

Restoration has done its fearful work of destruction already in this cathedral. Look in the choir: the original Early English oaken stalls have their "additions" in the shape of modern canopies constructed with deal, ornamented with castings in lead and plaster, daubed over with chocolate paint. Examine the restored Hungerford Chapel, which you are told is of iron; but you will find that if ever its ornamental parts were of iron, they are now of painted wood. Against the tower-piers, brackets, if once of stone, are now certainly of whitewashed deal.

SARISBURIENSIS.

SLATE FOOTING TO PREVENT DAMPNESS.

IT has often struck me, when passing by the shops in London and other cities, where the pavement is laid against the shop front, and almost excluding daylight, much more the pure air, that some plan might be adopted to prevent the damp and offensive smell. Annexed is a plan for a slate footing, whereby a bottom is obtained for the walls that greatly assists the foundation by its construction, and a current of fresh air, obtained from the highest part of the house, is kept constantly under the wall and floors, and the surplus water carried away.



The annexed diagram shows the slate top and bottom, 1¼ inch thick, and the partitions 1½ inch thick, tongued into the top and bottom, secured with iron rods.

F. Ventilators in top of drain.
G. Opening under air-flue.
H. Joints of partition; in no case to be opposite, but broken, as shown, for strength of footing.
I. Joint in bottom.
K. Ditto in top.
L. Air-flue and water-drain: it is proposed to cut weep-holes at joints in partition, or perforate them, for the purpose of carrying away any water that may accumulate in foundation, to drain, with a proper trap, &c.; the holes to be cut about 1½ inch from bottom.

R. MARRABLE.

THE ARCHITECT OF ST. GEORGE'S HALL.

M. DE VOLTAIRE, says,* "*Colbert, le Mécène de tous les arts, forma un académie d'architecture en* 1671. *C'est peu d'avoir des Vitruves, il faut que les Augustes les employent.*" And in another place,† "*Il n'est pas aussi facile à un génie né avec le grand goût de l'architecture de faire valoir ces talens, qu'à tout autre artiste. Il ne peut élever de grands monumens que quand des princes les ordonnent. Plus qu'un bon architecte a eu des talens inutiles.*"

When the incipient Vitruvius contended with a score and a half of other young and able aspirants, and carried away the prizes in three, if not four, competitions for public buildings in Liverpool, he was unknown to, unconnected with any one there, and the designs under

* "Essaie sur l'Histoire Générale," tom. VII. p. 24.
† Ibid. p. 308.

symbols; the names of the several competitors being unknown till the corresponding sealed letters of the victors were opened. Herein Vitruvius found an Augustus in the wealthy and liberal committee of management, which proposed and decided the rewards of merit; and I fear that many a good architect found that his talents were, as yet, useless, although I believe that many of them have since found liberal patrons. This, however, I do know, that in the whole trickish history of architectural competitions, few have surpassed those of Liverpool for purity and honesty.

It is said of St. George's Hall, that the style is not Classical, being a mixture of Greek and *Italian!* unfit for modern uses. The windows are modern and unsuited to the building. The attic is faulty and ought to be removed. The circular portico at the north entrance is faulty. The building wants vestibules and entrances.

The greater part of these assertions are given as opinions, without a case being stated whereon to found them; and men's opinions, or persuasions of the mind, without proof or certain knowledge, are free to be given at will, and may be as freely examined. A wise old builder, "Rare Ben Jonson," says of this persuasion of the mind, "Opinion is a light, vain, crude, and imperfect thing, settled in the imagination, but never arriving at the understanding, there to obtain the tincture of reason."

The design is not Classical: admitted, if by Classical they mean a servile copy of Greek or Roman originals; but the best European critics have admitted that it is better, being a tasteful adaptation of the beauties of the Greek and Roman styles,—such as Ictinus would have used had he flourished in the Augustan age of Rome, or as Vitruvius would have invented had he been associated with Phidias in building the Temple of Jupiter Olympus, in the golden age of Pericles:—*

> "Phidiaco si digno Jovi dare templa parabit,
> Has petat a nostro Pisa Tonante manus."

The "Italian" I cannot find in this unclassical mixture, but as I cannot prove a negative, I leave it to the plaintiffs.

The round portico I leave to those pure tastes which have raised the immortal Rotundo of Tivoli's cascades, and the gem of Athenian architecture, the choragic monument of Lysicrates, by poets and painters to the summit of beauty; and have been successfully imitated and adapted, *not copied*, by Wren, in his singularly-beautiful circular porticoes of the north and south transepts of St. Paul's; by Soane, to connect the north and west fronts of the Bank of England, and to conceal a frightful angle; which last has been commemorated by Wyon's fine medal, given by the architectural students of the Royal Academy of Arts to their tasteful professor; and in the present case as the entrance to the Civil Court of the architectural pride of the Royal Duchy of Lancaster.

I do not subscribe to the opinion that the outside of a building should not agree with its interior, and therefore cannot agree with the desire to remove the attic, which is part and parcel of the building, any more than to take away the upper story of St. Paul's, although it is a mere screen to conceal the Gothic construction of the nave and aisles, which the detestable Stuarts forced Wren to adopt in preference to his favourite design, preserved in his engraved works, and in the decaying model in the cathedral.

Of the want of entrance-halls, be it remembered that the north and south entrances supply them, and that the sides are corridors, when the building is used as the county tribunal of civil and criminal justice; and the two law courts, as principal entrance-halls, when used for musical or scientific assemblings. And every one admitted that when the doors of the Crown Court were thrown open on one of the grand concert nights, what a splendid vista and termination it formed, when viewed from the southern end, now blockaded and barricaded by the organ, which, magnificent and splendid as it is to be, has no right to intrude as Leviathan, hugest of *organic* things, and intercept the grand view from end to end, that its architect intended. The organ is a piece of furniture, and should have been placed on one of the sides; and has no more right to spoil the architecture of this noble, harmonious, and admirably-proportioned hall, than one of our most gracious Queen's grand pianofortes has to destroy the harmonic proportions of the finest saloon in the finest of her Majesty's royal palaces.

The late Mr. Thomas Hope, who wrote learnedly and tastefully on furniture and other architectural episodes and accessories, to the great wrath of the *Edinburgh Review*, would not suffer his organ-builder to damage his beautiful music-room in Duchess-street, and ordered his architect to design the case and place the instrument as an incident in the composition. So much for opinion, and I will now take leave to observe upon a few matters of fact.

Having thus far endeavoured to relieve the minds of the generous people of Liverpool from the fears that they have had imposed upon them by their trustworthy committee and council, which have now honourably delivered up their management, a building devoid of taste, originality, strength, and beauty, I request the favour of being permitted to reply to some misrepresentations of facts concerning the architect whom the magistrates and people of Liverpool have been pleased to honour.

On his lamented death, a gentleman, who could have known better, informed the public through the Liverpool newspapers, that he was the son of the *late* Mr. Elmes, which that person, as soon as he was told of it, repudiated, and added, that although he had been long buried, he was not yet dead.

In a long and laboriously-detailed history of the building, the competitions, the decisions, &c.* the author has appended a biographical sketch of the architect so wide of exact truth, that he can never expect such praise as the last number of the *Quarterly Review* bestows on Forster's "Life of Goldsmith," as a perfect model of biographical writing. On the contrary, Boileau d'Espreaux's reply to Louis XIV. when he showed the poet some of his own royal versification, would be more apposite. He said, "Nothing, sire, is impossible to your majesty; you wished to make bad verses, and you have succeeded." I do not say the biographer has wilfully perverted or invented facts, the truth or falsehood of which he could easily have ascertained; but if he had striven with all his might to write things that are not, he could scarcely have succeeded better.

He first informs us that his hero was born in London, whereas he was born at Oving, near Chichester, in Sussex, in the house wherein his father then resided, and which had been the residence of the celebrated landscape painter, "Smith, of Chichester." He was baptized by the Rev. T. Wooderoffe, M.A. his father's school-fellow at Merchant Tailors' School; and the dates of his birth and baptism, and his names and parentage, are recorded in the registry of that parish.

He admits that the young architect distinguished himself in *two* competitions, whereas the number of his works was so great at the time of his premature death, as to warrant the eulogium of Martial† upon a young conqueror in the athletic games of the Romans, and had won so many palms, that Death, when he enumerated the number of his victories, took him to be as old in years as he was abundant in honours.

The biographer goes on to state, that "he was the son of James Elmes, well known by his 'Memoir of Sir Christopher Wren,' and by his work on Dilapidations. *He* (?) was also associated with Haydon in a 'Dictionary of the Fine Arts.'" Who is meant or implied in this obscure sentence? If he means the son, he is wrong, for that dictionary was published in 1824, when he was a little boy of ten years old, and at school at Mortlake, in Surrey. If the father, he is equally wrong, for the twice-a-week meetings between Haydon and Elmes, at their respective houses, in Lisson-grove and Charlotte-street, Portland-place, had ceased by the termination of "Elmes's Quarterly Review," "The Annals of the Fine Arts," to which Haydon contributed many papers, to which he attached his name or initials; by Haydon's marriage; and by Elmes's removal to Hammersmith-terrace, where he wrote and published his Dictionary without any accord with Haydon, whom at that time he seldom met. These facts were known to the excellent printers of the work, Messrs. Whittingham, of Chiswick-mall, his neighbours. His only assistant in the work was, as acknowledged in the preface, his friend Mr. James Ollier, in the latter part of the work; the alphabet, and the greater part of the materials being finished by the author.

He admits that the son was in his father's office till he was twenty-one years of age, but says nothing of their subsequent partnership, when they designed and superintended the pile of buildings on the site of the far-famed Westminster Cock-pit, in Park-street, and the South Mall, St. James's Park, as the hundreds of drawings made and signed by them, and living witnesses in London, Liverpool, and our East-Indian and Australian colonies can testify.

I could continue my observations to a greater extent, but am willing, if Mr. Boult intends to publish his history of St. George's Hall, &c. to furnish him with any biographical facts of its architect that he may wish.

Two other statements, with which that gentleman has, I believe, nothing to do, I must observe upon. One is that he shared the design with Mr. John Stephens, who had an influential relation on the committee. This is pure invention,—that young gentleman was an articled pupil of mine; and whatever his qualifications as an attentive and industrious student may have been, taste in architecture had no place in him, as his fellow-pupils can prove. And for his relations, his father was a solicitor, with offices in Jermyn-street and residence at Twickenham, both accomplished disciples of Izak Walton, and his brother, a merchant in Ceylon.

As to the absurd pretensions of Mr. Bardwell being the parent of St. George's Hall, the fact is, that the first idea was formed by the young architect, when in his pupilage, and competing as a student in the Royal Academy of Arts, for a triune design, either for a royal palace, with the two Houses of Parliament, or for a building to contain the Royal Academy, the Royal Society, and the Society of Antiquaries, I forget which, but can find, if necessary. There was the germ of the united building at Liverpool, and I can produce living witnesses of the fact.

He was admitted to the freedom of one of the twelve chief companies of the City of London, by patrimony, when he put up for the office of City architect, and which he declined, when the corporation made it a *sine qua non*, that their architect should give up all private practice.

In his own address to the Lord Mayor, Aldermen and Common Council of the City of London, he says, "My earliest studies were directed by my father, and I trust it will not be considered that my time was unprofitably spent, when I state that it is more than twelve years (*i. e.* in 1831) since I was admitted a student in the Royal Academy, a position that indicates considerable previous knowledge of the art. From that period I have been constantly engaged in the practical pursuit of the profession, devoting all my leisure to the prosecution of its higher studies." There is his autobiography in a nutshell.

But whatever his biographer may think proper to say of me, one thing I shall be proud of to the day of my death. Like the aged warrior in Ossian, who boasted that his proudest glory was to be named as the father of the youthful conqueror, so do I subscribe myself,

THE FATHER OF HARVEY LONSDALE ELMES.

We add to our previous illustrations a view of one compartment of St. George's Hall, showing the gates.

HACKNEY BAPTIST CHAPEL COMPETITION.—A correspondent finds fault with the proceedings of the committee in this matter, especially that having selected the design of one architect, they have appointed another, who did not compete, to carry it out. On the face of it this seems unjust, but without knowing all the particulars, we might be *as* unjust, if we expressed an opinion. Architects go into these matters with their eyes open, and usually deserve the treatment they experience.

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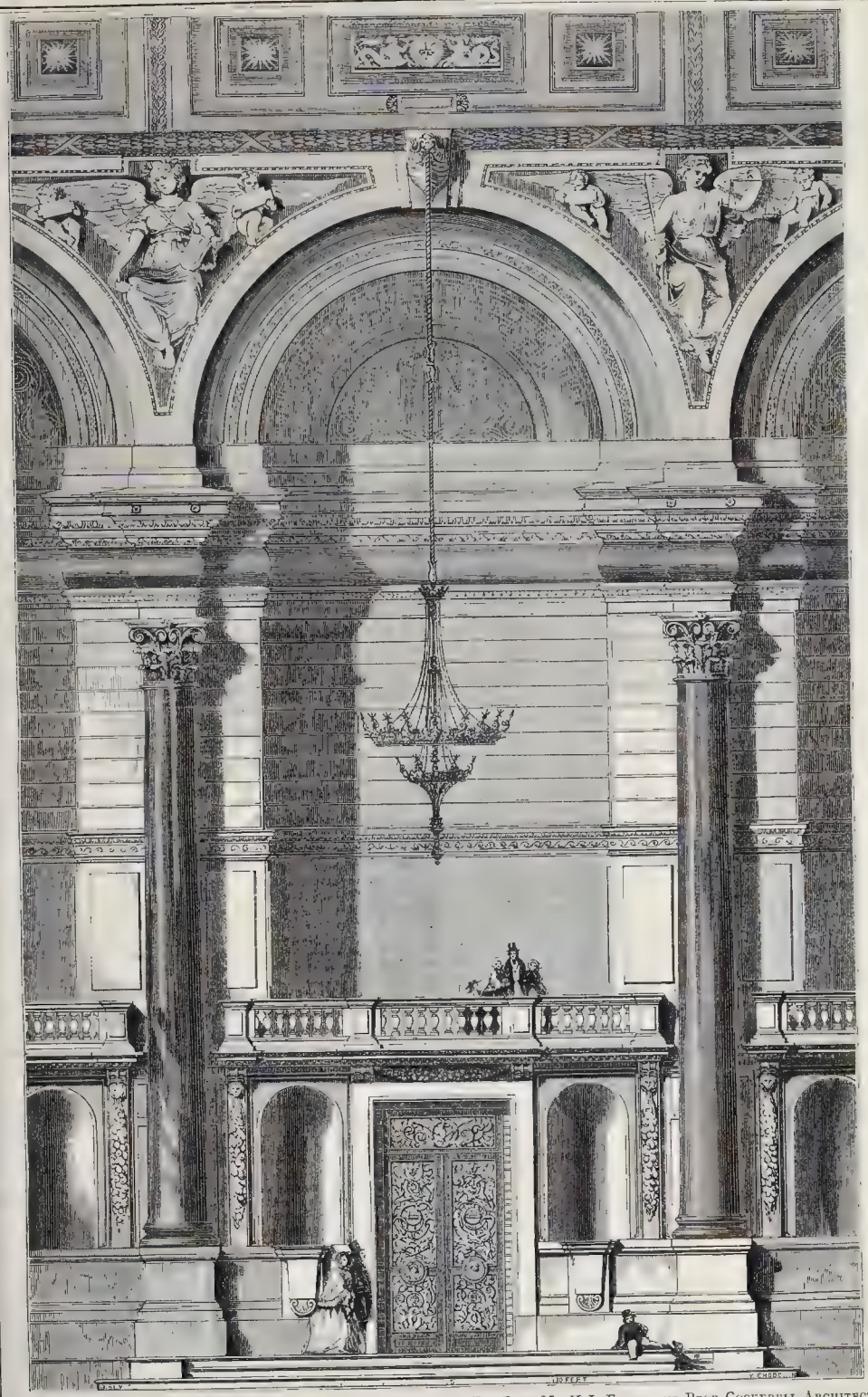
* Martial. Laus insignis Architectus.

* "St. George's Hall and its Architect," by Joseph Boult, esq Architect, Liverpool. September, 1854.

† "Dum numeral Palmas, credidit esse sentem."



A COMPARTMENT IN ST. GEORGE'S HALL, LIVERPOOL.—The Late Mr. H. L. Elmes, and Prof. Cockerell, Architects.

THE CASTLE AND THE CHURCH.

A DESCRIPTION.*

HIGH on a rock a lordly mansion stood,
Towering with pride above the ocean flood,
That, distant far beneath, with sullen roar,
Dashed foaming o'er the jagged and barren shore.
Beyond, across the waves, an island rose,
Oft robed in mists, and wreathed in tardy snows,
That lingered long upon this northern world,
Where winter's sparkling flag so late is furled.
Reluctantly the frost-bound scene would change,
The mists clear off, and give a wider range
To vision: and the island reared on high,
Its form fantastic 'gainst the western sky.
No human dwelling smiled upon its face:
To water-fowl alone a resting-place
It granted; but it gave to man a name,
That oft was blazoned on the roll of Fame.
The rock-reared castle was the dwelling-place,—
The noble home,—of this more noble race;
And all that wealth and genius could impart,
To glad the eye and captivate the heart
With beauty, had been dealt with lavish hand,
To form an Eden from the rocky strand.

Long rows of stately trees reared their proud heads,
Which centuries had aided to adorn;
And brilliant flow'rs in warmly-sheltered beds,
Strewed varied pictures o'er the sloping lawn.

Around its edge a babbling streamlet gay,
Added fresh beauty to the changing scene;
Now smiling in bright sunshine, then, in play,
Hiding its eyes beneath a veil of green.

* * * * *

From out the trees which girt the castle round,
Not far removed upon a sloping ground,
A grey old weather-beaten tower rose,—
One of those massive structures which disclose
Long by-gone histories to the practised eye,
And seem the lapse of ages to defy.
Joined to the tower, but in less rigid style,
Was built the church, an ornamented pile,
Whose high-pitched roofs such varied lines combined,
Rich pinnacles and gables,—that inclined
The eager eye to wander on, and trace
The thousand beauties scattered o'er its face,—
The fond supporting buttresses which press
Against the walls with tender lovingness,
Casting deep shadows into each recess,
Heightening by contrast their own airiness,—
The slender shafts on which the arches rest—
So slight, yet with sufficient strength imprest—
Wearing with grace rich crowns of forest leaves,
Which mocking stone lightly around them weaves,—
The portal, with its clustered columns grouped
In closer masses, and its mouldings scooped
Into deep lines that darker shadows gave,
And framed—as 'twere a picture—the broad nave,
That spread within the opened doors, and showed
Rich wealth of beauty lavishly bestowed,—
The polished shafts, that gracefully upreared
The pointed arches, which in turn appeared
With ease aloft the fretted roof to raise,
Whose vaults oft echoed with glad hymns of praise,—
The deep-pierced windows, with their slender threads
Of stone-wrought mullions, and their traceried heads
Filled in with tinted glass, that but obscured
Earth's turmoil, while the light from heav'n poured
In streams of glory through each coloured pane,
And soothed away the soul from thoughts profane.
But above all the eastern window shone
In carved and painted beauty all its own;
An humble emblem of the All-seeing eye,
Which sheds its glowing radiance far and nigh,
Beaming on those whom prayer has brought more near,
But willing still to lighten and to cheer
Those heedless ones who wander on afar,
Where cold Indifference has placed her bar.

The wond'rous art of skilful men, had wrought
The yielding stone to forms with beauty fraught;
And lace-like pinnacles and fretted heights
Shone out like jewels in the coloured lights.
The carved and time-stained oak contrasted well
With the gay beams that o'er its surface fell,
And flowing outlines of the paler stone,
While each gained beauty from the varied tone.
High on the left a noble organ stood,
Forth from its deep-voiced soul to pour a flood
Of richest harmony, when cunning hands
Should loose its chill and silence-woven bands.
These oft were Ina's, for it pleased her well
To wake the slumb'ring melodies, which fell
At first so softly on the ear, but soon,
With trial of their strength, more 'venturous grown,
Would each sweet cadence lovingly prolong,
And rouse the echoing fabric into song.
Up to the roof the winged voices sprang,
Along the vaulted nave vibrating rang,
Till carried out upon the winds afar,
They hushed their murmurs 'neath the ev'ning star.

* From "The Lady Ina," an unpublished poem by a lady.

NOXIOUS TRADES AND CELLAR DWELLINGS IN THE METROPOLIS.

AN attack has been made upon the district surveyors of the metropolis by the President of the Board of Health, in a letter to Lord Palmerston, under date of the 14th of November last, and printed, with some documents, upon which the allegations are said to be founded, in the Sessional Paper, No. 10, of the House of Commons. The district surveyors may fearlessly meet these allegations, though they certainly are made in stronger language than is usually adopted in public departments.

The refutation of the conclusion of the letter that the district surveyors had neglected their duties in respect of these important sanitary matters might be met by the assertion that many of the surveyors are known to have interested themselves philanthropically in the improvement of the position of the lower classes, and yet that these same surveyors have not availed themselves, in their exertions, of the power which the president supposes the Metropolitan Buildings Act to have placed in their hands. But, indeed, nothing is clearer to those who have studied the Act that they have no such powers given to them.

Now, first with reference to noxious trades and businesses. One case, and *one only*, has been adduced (p. 3 of the Return), to prove the *general* neglect of duty of the district surveyors in this particular. This case is a soap-factory, &c. in Old Gravel-lane. Dr. Glover, who inspected it, says that "The Building Act, 9th August, 1844, provides that after the passing of the Act, no such trade shall be commenced or carried on" (the Act says *newly* carried on, but the Doctor did not wish his only case spoilt). "On inquiry (he continues), I learnt that this factory commenced after the passing of the Act, and, therefore, comes under the provisions of the Act." Now, if the doctor will look to Robson's Directory for 1839 or 1845, he will find the soap-factory and tallow-melting business described under the name of the father of the present owners of the business. The Act, therefore, permits the continuance of the business till 1874. The inference drawn by the Secretary of the Board, from Dr. Glover's Report, is also quite unsupported by that document. The secretary says (p. 3), "Dr. Glover describes the good effect produced by threat of proceedings under the Act;" but the doctor's report, on the contrary, meekly says, "should legal proceedings fail," &c. It is these garblings which make it difficult to give a perfect reply. It is like a defence of one's self from a shower of mud.

Again, the district surveyors are charged with having, on their own admission, done nothing to "make known or enforce the restrictions" on these trades. Now, they were never asked the question, whether they had done anything to "*make known*" the restrictions, nor whether they *had enforced them where necessary*. Those who read the documents appended to the Parliamentary paper will see, by reading the registrar's circular to the district surveyors, the trap set for them by the Board of Health. It is a simple demand for a "*return of proceedings taken*," &c.; and in those numerous districts where no such businesses exist, no return could be made of proceedings taken against them; and in those where there are such businesses established at 1844, no proceedings *could* have been taken against them, but only against newly-established ones, which the returns show to have been taken. Also, it will appear that the district surveyors have "*made known*" the restrictions, but that was not one of the questions asked them.

As to the general policy which should be adopted with regard to these trades, it may be observed, that the sudden abolition of them would occasion great distress in those districts where the labouring population is engaged in them, and the depreciation of the property would be very great, to the ruin of many of the manufacturers; whereas the Act, by requiring the abolition in 1874, has already caused a movement in some of the most offensive of the trades, which will lead to their removal in a short time into the country. Perhaps, therefore, immediate mitigation will be better than immediate abolition.

With regard to Cellar Dwellings.—It may be remarked here, that not a single question has been asked of any district surveyor on this subject, but the language of condemnation has been applied in the strongest manner. Here, truly, a single case is not brought alone, but 1,132, in *part* of one parish, Marylebone. It was received from an anonymous and "*unofficial*, but trustworthy source." A subsequent return was obtained from the police, which, not justifying the former information, it was attempted to be brought up to it by taking in the *whole of Marylebone and Paddington*

Now let the policeman who took them, be asked whether he is acquainted with what the Act requires in this behalf, and particularly whether every such cellar, first, was a separate lodging; second, was the specified depth underground; third, was under 7 feet high; fourth, was without the required area, windows, and fireplace. But it is unnecessary to argue further upon these unfairly insinuated and shifting foundations of the letter.

Whether the facts are as alleged or not, the Act is entirely misapprehended in respect of the functions and powers of the district surveyors. The registrar in his letter to the secretary of the Board of Health (p. 14), clearly points out their powers with respect to the *use* of buildings under sec. 18. Section 68, which is insisted upon by the secretary, shows clearly the general methods in which the surveyor is to perform his duties. Sections 13, 14, 17, 18, and schedule M, show him his manner of proceeding, to carry out those duties as to all structural questions; as do section 23, and following ones, in respect of the difficult questions of party walls; section 40 and following ones, with regard to ruinous buildings; section 43, with regard to dangerous projections and chimneys; other sections and the schedules giving the minute rules which he is to cause to be observed.

But power is not given, and was not intended to be given, to district surveyors to enter upon premises, to inquire whether a cellar dwelling is let as a lodging separately from the rest of the house, and he cannot possibly ascertain it. Counsel's opinion has been taken to ascertain in this respect his powers and duties, and why did not the Board of Health first take this course instead of laying a groundless accusation against a whole body of officers? The overseers are the parties charged with these duties at present, or it is in the power of a common informer to sue for penalties for breach of these provisions; but the district surveyor, even if he be aware of the fact of an illegal occupation of a cellar, actually *cannot frame an information* to his superior officers, the official referees, against it.

The district surveyors must await with patience the result of these unfounded imputations, but they may the more readily do so, as all must feel convinced that the Legislature will afford them a fair hearing before adopting measures corresponding in strength with the language of the letter. A SURVEYOR.

OUT of doors there is but one opinion on the subject, and that is, that there is no ground whatever for the charge made against the district surveyors. In the last number of the *Justice of the Peace* (a well-known legal journal), there is a leading article on the subject, wherein that opinion is expressed strongly. The writer says in the course of it:—

"Charges so sweeping and condemnatory surely merited the most careful inquiry and consideration before they were committed to paper. We believe them to be not only unwarrantable according to the facts, but they are made under a total misapprehension of the legal powers of the official referees and surveyors.

It is certainly convenient, in order to fix a liability, to construe an Act of Parliament in such a manner as will meet the particular case; but happily, in England at least, such is not the method adopted by our courts of law. The 68th section, as quoted by the president of the Board of Health, certainly requires the surveyors 'to see that all the rules and directions of the Act are well and truly observed in and throughout' their respective districts, but the rules and directions referred to in this section have no more to do with the habitation of underground cellars in London, than they have to do with the underground dwellings occupied by the yet 'unhutted' British army before Sebastopol. 'For that purpose,' that is, for the purpose of seeing that all the rules, &c. are well and truly observed, the section proceeds to direct that the surveyors shall,—do what? proceed, not to enforce the provisions of the Act with respect to underground dwellings, but to do various acts which have relation *solely* to works of construction within their district!

Further, by the 53rd section it is made the duty of the district surveyors to give full effect to the directions of the official referees, with respect to serving notices upon the owners and occupiers of underground dwellings, of the existence and nature, and consequences of the enactment. The official referees again are to be put in motion by the receipt of notices from the overseers of the number and situation of the dwellings within their respective parishes, of which any underground room or cellar is occupied as a dwelling. And again, but first of all, the overseers, 'on or before the first day of January, 1845,' were required to make their reports to the official referees. In other words, the complicated machinery of the Act required the overseers to put the official referees in motion, who again were to put the surveyors in motion, not to prosecute the owners or occupiers, but to give them the official referees' notice of the requirements of the Act. Moreover, the Act dealt only with the state of things existing on the 1st January, 1845, for it is clear that

the overseers, after that date, could not, according to the terms of the Act, make reports to the official referees, upon which legal proceedings of a penal nature could be based.

So far, therefore, as the law is concerned, we consider that the district surveyors have been most unjustly censured by the Board of Health. Instead of its being a reflection upon them that 'they have manifested no apathy in the execution of those duties under the Act for which they are repaid by fees,' we consider that the unworthy imputation is the best testimony that could be borne of their zeal and efficiency in the discharge of their legitimate duties under the Act."

The *Justice of the Peace* is entitled to the thanks of the district surveyors, for thus independently taking up the subject.

ARCHITECTURE AND THE PUBLIC.

"One who acknowledges the *Builder* to be a Teacher," seems to think I have borne a little too hard on the public, and suggests I may possibly be of opinion "that professors and teachers are useless, and that all true genius issues from the people, without direction—without teaching." Had such been my sentiments, the articles would never have been written. And if the people "*will* learn," if they will cease to treat new schemes as visionary dreams, and to fondly cherish the olden as the sole feasible styles; if they will no longer shelter themselves under the excuse that architects have preserved a mysterious silence on present anomalies, and will agree with Cicero that "*usus uni rei deditus, et naturam et artem sæpe vincit*," then let them take that initiative which *power* gives, and indicate, as they have never yet done, their desire for "an indigenous style, which shall rise at once out of the peculiar circumstances of modern days." With Lord Bacon, we say, "It does not escape us how untrodden and solitary is the way of this experiment, and how hard it may be to win belief in its practicability;" but, with him, "we may also derive some reason for hope from the circumstance of several useful inventions being of such a nature, that scarcely any one could have formed a conception about them previously to their discovery, but would rather have ridiculed them as impossible." An appeal to architects for "disinterestedness," when one of their number complains that the public is not sufficiently interested in the art, is hardly the most appropriate mode of furthering the end proposed. Justly, indeed, may a profession, "whose very existence is dependant on the favour of its clients," hesitate and weigh well the consequences of attempting to originate another method. For we all know but too well the immediate fate of innovators, however brilliant their ultimate triumph. Bacon, Descartes, and Copernicus sneered at and ridiculed; Galileo, on bended knees, compelled to aver the globe was immoveable; Harvey, Newton, Locke, and Franklin, all misrepresented, are but a few of the splendid examples which may tend to deter the young architect, struggling for a living, from sacrificing his present interests for doubtful chances of future reputation and posthumous fame. E. L. T.

WAR APPLIANCES.

For the transport of cannon, as well as of other war necessaries, over mud,—suggested, doubtless, by the shocking want of foresight in respect to an available line of communication between Balaklava and the English camp above Sebastopol, a want which has mainly contributed to reduce our noble army to the shame of a comparison with the starved and perishing Turks, rather than with the provident and thriving French,—it appears that the authorities at Woolwich have of late had under trial a vehicle constructed to meet this great defect in war appliances, independently of the more elaborate formation of roads or railways such as must surely be now in progress. A cannon on this plan is slung under a pole resting between two *high wheels, which, as they revolve, lay down a block or paddle, surmounted by an iron rail*, and dovetailing at its extremity with a succeeding block, continuing the line. Thus *the carriage lays down its own railway* as it progresses, while the sleeper from which it recedes acts as a lever, and lifts up the wheels from the bed of mud. It is said to be found that this carriage will transport the heaviest guns through a perfect slough. There are doubts, however, whether it will answer so well on rocky ground; as, during the late frost, the resistance of the hardened earth drew out some of the bolts from the wheels; but it is thought some modification of the paddles will overcome this impediment. The idea is nearly identical with a suggestion of our own some years since, for the improvement of locomotives on common roads; only, in that case, it was suggested that an elliptical or parabolical arrangement of revolving (jointed) rail might be worked concentric with each wheel, so as ever to lay down, as the whole progressed, a small portion of rail for the wheels to run upon, lifting it up as it passed over. The idea was by no means worked out into practical detail, but it was suggestive of such detail, and the present modification of the same idea seems to show its practicability, to a certain extent at least.——Apropos of cannon, a Mr. D. C. Mitchell, of Edinburgh, proposes to fire them without a touchhole, by means of electricity, through wires introduced into the cannon during its manufacture: such a gun, of course, could not, at all events, be "spiked," or have its touchhole choked up with nails, &c.——Workmen, we learn, are employed at St. Chanans in making several hundred pieces of cannon on the principle of the Minié rifle. These guns will carry 2¾ English miles.——In order to aid in redeeming Balaklava from the lamentable chaos into which it appears to have fallen, fifty dock labourers, it seems, have been selected from the London-docks, to be employed in unlading transports, arranging and warehousing stores, &c. They are to have 4s. a day, with rations; foreman, 7s. with rations, besides a bounty of 11*l.* each for outfit, and a free passage out and home. A Customs landing waiter goes as superintendent.——The last of the 2,362 wooden houses for the Crimea, made by Mr. Essie, of Gloucester, for the French and English Governments, was despatched week before last. The whole have been completed within the time specified by contract, and were sent away latterly at the rate of 108 per day. The quantity of wood used seems to have been enormous: indeed, Lord Raglan complains that each house exceeds two tons in weight, and scarcely any of them seemed to have been yet forwarded from Balaklava to the camp by last accounts ——We have been asked (says *Herapath*) as the English are so fond of companies, if it would not be a good speculation to send to the Crimea to collect the balls and shells the allies [and the Russians too, it might have been added] have so uselessly fired away at Sebastopol. If brought home and recast, it might be a good speculation, and perhaps compel the refractory iron-masters to reduce their prices 3*l.* or 4*l.* a ton. If forged, we should like much to see it calculated how many miles of railway they would supply rails and chairs for. The Russian balls, we believe, could not be made use of by the allies on account of being too large for the cannon they have till recently used! Surely, however, the toil of transporting ammunition to the camp will now be lightened by using them up in the cannon of large calibre now being planted in the trenches.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

At the ordinary general meeting of the session, held on Monday, the 22nd ult. Mr. F. C. Penrose in the chair,—Professor Donaldson described some of the constructions now in course of erection between the Louvre and the Palais Royal at Paris. We shall give some details hereafter. Mr. Henry Baker was elected fellow, and Messrs. E. G. Bruton and E. W. Tarn, M.A. associates. At the next meeting, to be held on the 5th of February, Messrs. C. C. Nelson and M. D. Wyatt, will give some notice of an illustrated work, recently published at Berlin, entitled, "Early Christian Monuments of Constantinople, from the Fifth to the Twelfth Century," by W. Salzenberg. The programme for the new cathedral for Lille, to cost 120,000*l.* independently of fittings, may be seen at the Institute by members.

KENTISH RAG-STONE.

During a recent perambulation in the county of Surrey, I was pleased to find that Kentish Rag-stone may be procured from a locality, about twelve miles more westerly than any that had heretofore come under my notice; and as a new source of supply of a well-known building material may be advantageous to the profession, I am induced to offer these few remarks to your notice.

At about one mile and a half south of Godstone, the bottom beds of the lower green sand formation rise suddenly at an angle of nearly 45 degrees, presenting decisive evidence, either of a sinking towards the chalk, or of elevation in an opposite direction, to form the escarpment of Tilburstow-hill. This stone contains a superabundance of quartzose grains of sand, often angular, or slightly rounded, interspersed with very minute plates of mica, and scarcely any carbonate of lime. The strata vary in texture and composition, from the state of soft sand-rock to that of irregularly shaped nodular masses of great hardness, in most cases tinged with oxide of iron, of various shades, from whitish grey to a deep ferruginous brown. The transition is sometimes very sudden, from loose sand into compact stone of a dark grey colour, in which the original sandy structure is scarcely discernible; in other specimens the gradations are almost insensible. Between some of the beds, clay, having a smooth and saponaceous feel, is rather abundant: it is, in fact, a kind of "*fuller's earth*."

In their geological position, the rocks of Tilburstow-hill correspond with those from which the Kentish Rag-stone is procured in the neighbourhood of Maidstone, or through the central part of Kent, and in some of the minor features they are similar. The softest sand-rock of Tilburstow quarry may fairly be considered identical with the "Hassock" of the Kentish Rag district; and if the harder varieties were removed to London, or to a distance from the quarry, I doubt whether the most experienced mason, or learned mineralogist, could detect the difference between this mineral and its counterpart from the Rag-stone district of central Kent.

C. H. Smith.

Miscellanea.

Artistical.—The third part of "The Royal Gallery of Art" (Colnaghi and Co.) contains Mr. Uwins's charming little picture, "Cupid and Psyche," engraved by Mr. Lumb Stocks; the "Battle of Meanee," by Armytage (who has scarcely fulfilled his early promise), engraved by J. B. Allen; and Ruysdael's "Windmill," characteristically rendered by T. A. Prior. The letterpress accompanying the first gives a few particulars of Mr. Uwins, who, we are sorry to hear elsewhere, is very ill. Mr. Uwins was first placed with an engraver, but soon left the *burin* for the palette. In 1811 he was member of the Society of Painters in Water-colours; was elected an associate of the Royal Academy in 1833, and a member in 1839.——Messrs. Gambart have recently issued a pair of very clever coloured engravings, after admirable little pictures by Huggins, of domestic fowls, which were exhibited in the Royal Academy last year.

Cemetery for Crieff.—Lady Willoughby de Eresby has given to the town and parish of Crieff, in Perthshire, an acre of ground for a public cemetery. It lies on a slope towards the river Earn, and commands a most beautiful view of the surrounding Grampian Hills and the Vale of Strathearn. The cemetery is laid out with walks and shrubberies, from the designs of Mr. G. P. Kennedy, architect. The necessity for such a place of interment has been long felt by the town, the old churchyard lying, as usual, in the centre and thickly inhabited part, and completely filled up. The land is vested in the names of trustees, and their successors to be elected when necessary, and the management of the cemetery is left to a committee. The site is of a fine sandy gravel, and, after allowing for walks and plantations, it will admit of 1,000 layers or graves. It is inclosed on three sides by a wall in bricks, varying with the levels; the fourth side by mason-work and iron railings, with a central entrance. These works are to be paid for out of the produce of the sale of the layers or graves, by the persons claiming such right, at fixed rates, which vary from 2s. 6d. to 30s. each grave. No family is to be allowed to take more than six layers, and there are to be no fees on interment, except for grave-digging. We mention this considerate act on the part of Lady Willoughby more particularly with the hope that it may induce other proprietors in similar circumstances to do likewise.

Means of Communication in Railway Carriages.—A working carpenter, William Glazier, has invented a little arrangement of gutta-percha tubing and valves, which might, we think, be made to aid in giving to passengers the means of communicating with the guard, the guard with the engine-man, and *vice versâ*. The necessity for the means of communication between the passenger and guard we have again and again insisted upon.

Public Baths and Wash-houses.—The following return shows the number of bathers and washers, and the receipts at the establishments now open in London, for the year 1854:—

District and Name of the Establishment.	Number of Bathers	Number of Washers	Total Receipts. £. s. d.
Whitechapel, The Model	156,153	45,124	3,036 16 0
St. Martin-in-the-Fields	127,551	42,780	2,585 17 11
St. Marylebone	161,349	36,276	2,602 18 10
Westminster, St. Margaret and St. John	103,228	62,798	2,191 5 4
Greenwich	38,100	7,254	954 12 8
Westminster, St. James	111,471	41,116	2,147 8 11
Poplar, All Saints	53,186	10,078	1,027 2 8
St. Giles and Bloomsbury	185,364	42,796	3,587 12 1
Bermondsey (opened 19th June)	61,899	4,636	873 8 10
Lambeth (re-opened 2nd April)	124,250	...	1,957 17 6
St. Pancras, George-street	77,553	128,344	2,192 17 2
Totals for London during 12 months	1.220 739	421,101	23,157 17 9

MANUFACTURERS AND THEIR WORKMEN.—The following instance of providence and sobriety on the part of workmen, and of mutual good feeling between them and their masters, is extracted from the report of the commissioner on the mining districts. On the high piece of moor land which separates North Staffordshire from Cheshire, called Mow Cop, a population of nearly 1,800 has settled within the last ten years, attracted chiefly by the large collieries of Mr. Williamson in that neighbourhood. Within that period upwards of 400 houses have been built, nearly 300 of them by colliers, out of their savings. The houses are disposed irregularly over the hill, and each has attached to it from ¼ to ½ an acre of land. The building sites being limited in extent, and the population increasing, the price of land has risen to 2s. per square yard, or about 450*l.* per acre, some spots to nearly double that sum. The houses are substantially built of stone, the plots of ground well fenced and drained, and well cultivated, and the roads levelled and made by the men themselves. The earnings of these colliers are from 20s. to 30s. a week, and their sons 8s. Their provident and orderly habits are attributed in no slight degree to the comparative absence of beerhouses, Mr. Williamson refusing to employ any man who keeps one. The different habits of the men at their "Goldenhill" works, only a few miles off, are remarkable: at these works the men are employed in the ironstone mines, and are all under contractors, who keep beerhouses. Mr. Williamson stated, that "the wages spent by the men at the Goldenhill works in beer, are here spent in building. First one house is built out of savings, then another. Some men have built as many as four: they put by the rent, and add to it what they save from their wages. Some of them keep a cow, as their land is brought into cultivation."

THE PLANS FOR THE SHEFFIELD SCHOOL OF ART.—The council of the Sheffield School of Art have at length gone through the labour of examining 116 plans sent in by 105 architects, for the school, about to be erected in Arundel-street. The labour of examination and analysis was confided to a sub-committee, consisting of Dr. Branson, the Mayor of Sheffield; and Messrs. E. Bury, J. J. Smith, and E. S. Howard. These gentlemen report that they spent much time in a careful analysis of the plans. They admit that several of the rejected *elevations* are equal in merit to the two they recommend. After repeated and long-continued sittings, they reserved twelve designs for more special consideration; and after the closest investigation of their merits, they unanimously resolved to recommend the two designs marked respectively "Cavendo tutus" and "Speranza," as occupying, in their opinion, the first and second place. The plan marked "Cavendo tutus," with slight and inexpensive modifications, appears, they say, to fulfil all the conditions required, being at once simple and convenient in its interior arrangements, and displaying an elevation effective in its character, depending for its ornament on a judicious distribution of colour, arising from the employment of moulded and coloured bricks and tiles, rather than on the more costly workmanship of the stonemason. A difference of opinion, they remark, may exist as to whether one large single gallery for casts will be more effective in appearance than a longer and narrower gallery divided into compartments, as in the design marked "Speranza," but they have no doubt as to the greater convenience of the former for the purposes of the school. The committee, in conclusion, state that the plan marked "Speranza," which they recommend for the premium of 50*l.* is entitled to the highest praise for the excellency of its general arrangements and unexceptionable mode of lighting. The report of the sub-committee having been, on full examination, unanimously approved and adopted by the council, the letters of "Cavendo tutus" and "Speranza" were opened. The first was found to be that of Messrs. Manning and New, of London; and the latter, that of Messrs. Weightman, Hadfield, and Goldie, of Sheffield. Arrangements have been made to give the public an opportunity of inspecting all the plans.

REPAIR OF CRACKED CHURCH BELLS.—Mr. Ray, jun. a watchmaker, at Sainte-Austreberthe (Seine Inférieure), has discovered, it is said, a simple means of repairing the bells of churches, when cracked, without the tedious process of recasting them, hitherto considered indispensable.

PROPOSED NEW CATHEDRAL FOR THE ISLE OF MAN.—The *Manx Sun* states that the present diocesan (Dr. Powis) is busily interesting himself in the procuring of adequate funds for the erection of a suitable memorial, in honour of Bishop Wilson, who died in 1755; and that it is proposed to erect a cathedral, —the old Cathedral of St. Germans being a ruin beyond the possibility of repair. A committee is about to be formed, over which Mr. Wilson Patten, M.P. will preside as chairman. Several handsome sums in furtherance of these views, it is said, have been already offered.

NORTH OXFORD ARCHÆOLOGICAL ASSOCIATION.—The quarterly meeting of this Association was held on Saturday before last, at the Vicarage, Banbury, when various interesting objects were exhibited, including some ancient family papers belonging to Colonel North: and a paper on Foreign Cathedrals was read by the Rev. Mr. Miller, who said he simply meant to relate the impression which the first sight of those splendid monuments of former ages made upon himself, and endeavour in part to account for it. In the autumn of 1853, and the summer of last year, he visited a good many of the cathedrals of Belgium, and some in Germany, France, and Switzerland. Among them were some of the very first specimens which existed, for instance, Cologne, Antwerp, and Notre Dame, at Paris. Of course the exterior was the first thing one saw, and the first impression was produced by sight of it. He thought the first impression of foreign cathedrals was more grand than that produced by our own. That fact might be attributed in part to their great elevation. Their proportions, too, were perhaps fairer, and from atmospheric causes probably the stone was in better condition than in our own country. Altogether the first sight of these huge buildings was very fine. Nor was that effect altogether spoiled by the unfinished state in which almost all remain. He did not remember in all the Belgian cities having seen one cathedral in a thoroughly finished state. St. Gudule's, at Brussels, was the most perfect, but even there many details were wanting.

THE FUTURE OF BRITISH FARMING AS A BRANCH OF MANUFACTURE.—While noticing Lord Willoughby de Eresby's laudable efforts to mature the steam plough as an instrument in the evolution of industrial agriculture, we some years since suggested the probability of just such a vast extension of farming, as a branch of manufacturing industry, as steam power and machinery have already evolved in other branches of manufacture. Since that time there have been many indications that the idea has taken root in the public mind, not only of this but of other countries; and we now occasionally observe comparisons made between the possible future of British farming and the actual past of British manufacturing industry. Thus a M. de Lavergne has recently started a speculation on the possible "future" of English farming, in which he remarks that all these works of drainage, construction of buildings for stabulation, erection of steam-engines, &c. in aid of farming operations, of which we now hear, will cause the capital put into the land to produce at least one-third more of alimentary substances. The gross average production, which was equal before to 3*l.* per acre, will then, he calculates, be 4*l.* 10s.; while the average rent will probably rise to 30s. and the farmer's profit to 18s. per acre. The only question, he adds, is this—are proprietors and farmers in a condition to furnish the required capital? The question is one involving no less an amount than four or five hundred millions sterling. For any other country than the United Kingdom such an undertaking would be impossible: for her even, it is an arduous one, but only arduous. The nation which in the course of a quarter of a century has spent 240,000,000*l.* upon railways alone, may well employ twice that amount in renewing its agriculture.

NEW CHURCH AT ISLINGTON.—A meeting was lately held in the National Schools, Church-street, Islington, to concert measures for the erection of a new church in Arlington-square. Several liberal subscriptions were announced, and it was determined that the new church, which is to be dedicated to St. Philip, should be proceeded with as soon as possible.

GALWAY.—The Convent of Mercy, at Clifden, Galway (as formerly noticed in the *Builder*), is nearly finished, with exception of the schools, cells, and enclosure walls. Mr. J. S. Butler is (we believe) the architect. Similar buildings at Ballinasloe are in a very forward state, but we are told the funds for completion of each are deficient, and the progress delayed accordingly.

MEMORIAL OF SIR ROBERT PEEL.—A handsome monumental tablet has recently been erected by the sons of the late Sir Robert Peel, in the parish church of Drayton. It is of statuary marble and Roche Abbey stone, elaborately carved in the Tudor style, by Mr. White, of the Vauxhall-bridge-road, from the designs of Mr. Sydney Smirke, A.R.A. The following is the inscription:—

IN MEMORY OF
THE RIGHT HON. SIR ROBERT PEEL, BART.
TO WHOM THE PEOPLE
HAVE RAISED MONUMENTS
IN MANY PLACES.
HIS CHILDREN
ERECT THIS IN THE PLACE
WHERE HIS BODY
HAS BEEN BURIED.

HE WAS BORN, FEBRUARY, 1788,
AND DIED 2ND JULY, 1850.

THE THEATRE ROYAL AT BRUSSELS, recently destroyed by fire, was built in 1817 to 1819, under the direction of a French architect, M. Damesme, and cost, according to "*L'Europe Artiste*," 64,000*l.* Since then it has undergone three entire restorations, at a cost of at least 48,000*l.* in the whole. The new decorations during that period are set down at 4,400*l.* and the bas-relief of the portico cost 3,600*l.* making a total of 120,000*l.* Its re-edification is estimated by the same journal at 40,000*l.* It is to be hoped that our London managers are not lulled by apparent security into forgetfulness of the dangers which every night menace a theatre.

THE COMPETITION FOR ASSIZE COURTS, &c. TAUNTON.—We have received several communications on this subject, some of them commenting on the manner in which the county surveyor has been treated, and complaining of a member of the profession, who has permitted one of the magistrates to thrust him forward with a revision of the county surveyor's plan. The matter has since been thrown open to competition, and we shall be curious to see the result. If architects do not behave honourably towards each other, they can scarcely expect much consideration from the public.

PROGRESS AT BOSTON, U.S.—One of the most recent tokens of progress at Boston is the intimation that burials within the city are not to be continued after April of the present year, without special permission under peculiar circumstances, and then only temporarily.——The works of the enlargement of the State-house are now approaching completion. The library may not be finished until the 1st of June; but otherwise, the whole is so nearly completed, that all the apartments except the library are probably occupied by this time (end of January). The building, according to the *Evening Gazette*, "forms as tasteful and appropriate a public structure as can be found in the country. Its bold projections and fine masses of shadow will be yet much improved when they receive their final colours; but even standing as they do at present, they satisfy alike the eye and the judgment by their well balanced solidity." The valuable library, and records of the commonwealth, which have heretofore been exposed to so much danger, are henceforth, it is believed, assured of the most complete and perfect safety. The library-room, the most striking and important feature of the new building, is constructed wholly of fireproof materials in every part. The floors, staircases, bookcases, ceiling, and gutters throughout the whole structure are entirely composed of iron, and even the sashes, shutters, and frames are to be of the same material. The *Gazette*, in allusion to the cost of the whole of these works, notes that the cost of apparatus for merely ventilating our House of Commons, is four times the amount of the whole expenditure on the proper construction of the entire State-house addition. It extols the "noble patronage of art" displayed in the former instance. It would have been well, however, had the "apparatus" referred to been worthy of the expenditure and the patronage, instead of being most of it superseded as worse than useless.

MODEL LODGING-HOUSE ASSOCIATION AT BRISTOL.—A meeting, convened by circular, of gentlemen desirous of seeing improved dwellings for the industrious classes introduced into Bristol, was held in the Council-house, on Monday before last. The chair was taken by the Mayor, who was supported by the Bishop of Gloucester and Bristol, Mr. Commissioner Hill, and other gentlemen. There was a tolerably numerous attendance. The Chairman said he regretted very much that he had been unsuccessful in inducing the town council to take up this matter as a municipal duty, and to deal with it in an extended, comprehensive, and liberal manner for the benefit of the citizens at large.—The Bishop said this meeting gave him the cheering assurance that what he had been so long striving for would be accomplished, or that at least a good commencement would be made, which they all knew was half the battle. As they were to be united, he understood, with the Metropolitan Association for Improving the Dwellings of the Industrial Classes, he thought they had better take their name. They would thus obtain all the advantages resulting from their charter, the first of which would be restricted liability. It had been first intended that they should begin with a capital of 5,000*l.* It was now, however, recommended as expedient that they should increase it to 10,000*l.* which would entail upon them no difficulty or dilemma, as by the charter they could not contract debts for more money than had been received by shares. There was no desire to infringe upon the liberty of the industrial classes: on the contrary, it was a leading part of their system to encourage self-respect on their part. This was not to be considered as a charitable institution. They were to assist their fellow-citizens in making themselves independent. Appropriate resolutions were then passed, and the new association thus fairly set ngoing.

Important to the Timber Trade.—The case of M'Knight v. Clarke, which lately occurred at Liverpool, was an action brought in the Court of Exchequer, before Baron Platt, to recover the value of a quantity of mahogany purchased, as was alleged, by or on account of Mr. F. Clarke, of Jersey. The plaintiff is a Liverpool timber merchant. In March, last year, his firm received an order, through an agent of defendant's, named Melhuish, who afterwards informed plaintiff that defendant required a certain quantity of mahogany, and that his clerk had pointed out a lot lying on one of the quays for sale by a broker as the timber most likely to suit his principal, adding that he had seen a specification of the mahogany, setting out the different lengths, and that the price was 7d. per foot. The plaintiff eventually purchased the mahogany for 15*l.* per load, or 6d. per superficial foot. In consequence of there being only short room in the ship containing the previous order, short logs were selected and shipped. Defendant afterwards found fault with the length, and repudiated the whole transaction. Plaintiff said that he bought the mahogany by caliper measure, at 6d. per foot, which was equal to 9¼d. or 9½d. per foot by Liverpool measure. It was ultimately agreed that a verdict should be entered for plaintiff, and that the matter should be referred to some gentleman at the bar to say what sum ought to be paid.

The Builders' Ball.—The ball for behoof of the funds of the Builders' Benevolent Institution, let us once more remind our readers, comes off on 8th inst. (Thursday first), at Willis's-rooms, St. James's. The list of stewards is a good one, but there cannot be too many of the same kind, and it is very desirable that a decided effort be made at once to realise the almshouses, of which the Institution stands now much in need. There are now on the pension list, sixteen men receiving 24*l.* a year each, and eleven women receiving 20*l.* each; and all that is requisite to enable this builders' charity to rank fully with many others, which it ought to have preceded, is the possession of a series of comfortable almshouses in some select suburban neighbourhood; and that, we trust, the trade will now very speedily provide, as it ought to have done long ago.

Chester Architectural, Archæological, and Historic Society.—On 19th ult. two lectures were delivered before the members of this society by the Rev. J. G. Cumming, M.A. formerly Vice-Principal of King William's College, in the Isle of Man, but now Head Master of the Lichfield Grammar School, on "The History of the Northmen of the Isles," and "The Runic Monumental Remains in the Isle of Man." The lectures were profusely illustrated by drawings, casts, and rubbings, from remarkable examples of antiquity. The Rev. Canon Blomfield expressed to Mr. Cumming the thanks of the society for his addresses.

The Stanley Memorial Window.—I should have contented myself with asking your permission to state that the paper on the Stanley window, to which your correspondent (p. 47) refers, appeared *verbatim* in the December number of the *Gentleman's Magazine*, but there are circumstances attending the publication of this writer's statement which compel me to ask for space for a few remarks. The self-same observations, with a *tasteful* introduction—an unfair endeavour to deceive the public by assuming the editorial *we*—appeared in our county papers the week before Christmas. I will not occupy your space by going over each of his statements: your readers will find how he has exercised his ingenuity, if they will compare his letter with my paper. I will content myself with one instance. He cannot "accede to the notion that no Scriptural allusion is tolerable which is not directly taken from some Mediæval precedent." Your readers will conclude that I had evolved the "notion." Not a bit of it! From beginning to end of my paper no such "notion" is to be found. I objected to Holy Writ being "ransacked for parallels," not because there was no Mediæval precedent for it, but expressly on the ground of its being (as I thought) a violation of *good taste and Christian feeling*. One word more, and I have done. He states that all *tangible* objections made by me to the artistic part of the work were anticipated and overruled by the committee!! How was the public to know this, or how was I to know it? Your correspondent *now* asserts it; but how comes he to know it? and how is the public to judge of the value of his opinion? Supposing, however, we had it, on the *best* authority, that the committee had decided on all *tangible* objections to the best of their power, am I, or any one else, to be stopped from questioning their judgment, or from disapproving the result of their labours? As I have before stated, I may be wrong in my opinions, and would be glad, if I have fallen into error, to be put right; but I am not to be "put down" by misstatements and uncourteous remarks, however pertinaciously your correspondent may insist on obtruding them upon the public.—Henry Harrod, F.S.A.

The New Bill for the Removal of Nuisances and Prevention of Diseases.—The new Bill "to Consolidate and Amend the Nuisances Removal and Diseases Prevention Acts of 1848 and 1849," has been printed. It is endorsed with the names of Sir B. Hall, Bart. Lord Palmerston, and Sir W. Molesworth, Bart. The number of its clauses amounts to sixty-two. The first clause repeals the Acts 11th and 12th Vict. c. 123, and the 12th and 13th Vict. c. 111, saving proceedings in progress. The execution of the Act is to be intrusted to the local authorities, and the nuisances "abateable" include all filthy, unwholesome, or dilapidated houses, cellars, or premises (which the local authorities buildings, or premises (which the local authorities may declare untenantable, and shut up accordingly), all foul or offensive pools, gutters, ditches, cesspools, drains, ashpits, &c.; all animals "so kept as to be injurious to health," and all decaying or offensive accumulations or deposits. An inspector of nuisances, with a salary, is to be appointed by the local authorities. Clauses 14 to 20 provide for the removal of nuisances in the regular legal course—the penalties for contravention of orders to abate nuisances being 10s. per diem, and 20s. for "infringement" of such orders: local authorities to have power themselves to abate nuisances and recover cost. Clauses 21 to 33 provide for the cleansing of ditches by the surveyors of highways, the covering of open ditches, the prevention of the sale of tainted meat, poultry, and fish, under penalty of 10*l.* for each offence; and the abatement of nuisances from offensive trades or processes—such as candle-houses, melting-houses, slaughter-houses, and bone-houses, under a penalty of 5*l.* per diem. Clause 35 empowers the the General Board of Health to carry out orders of Privy Council for prevention of disease, by issuing regulations for the speedy burial of the dead, for house-to-house visitations, and for the dispensing of medicines, and the supply of medical aids to persons afflicted by or threatened with zymotic diseases. These provisions with respect to the prevention and mitigation of diseases will extend to Ireland. While such orders in Council are in force in any place, the local authorities will have the power of bringing overcrowded, and consequently unhealthy, houses under the provisions of the "Common Lodging-house Act" of 1851. Penalties may be levied on local authorities neglecting their duties under this Act. The expenses of the execution of this Act are to be defrayed out of borough rates, general district rates, "Local Improvement Act" rates, highway rates, or failing these, out of the poor rates. The constabulary and police force in their respective jurisdictions are required to aid in executing this Act. Clause 61 obviates the construction of anything in this Act, so as to impair any power of abating nuisances at common law.

The Leicestershire Architectural and Archæological Society.—A new society under this name has been formed in consequence of the meeting of the Lincolnshire and Northamptonshire Architectural and Archæological Societies at Leicester. The patrons are the Duke of Rutland and the Bishop of the Diocese; and the presidents are Lord Howe, Sir F. Fowke, and Mr. P. Herrick.

Increased Facilities at London-bridge.—A correspondent, Mr. M. T. O'Keeffe, C.E. suggests the formation of a superway for foot passengers across London-bridge, based on two rows of columns, 15 feet high and 30 feet apart, and so distributed as to divide the slow from the quick traffic below, while also supporting the transverse and longitudinal girders on which the superway would be laid, and which could be ascended to by some thirty easy steps The railway foot traffic, he further suggests, might be provided with a continued superway leading into or out of the railway terminus. The same suggestion might apply to Waterloo-bridge. So far from being unsightly, our correspondent remarks that it might be made, in the opinion of many, ornamental (as a Rialto), rather than otherwise.

Reseating of Trinity Church, Coventry.—Your notice of this is incomplete without the following, which we beg to hand you for publication:—Tenders for removing old galleries and pews in Trinity Church, Coventry, and reseating same in wainscot oak. Old materials to be the property of the contractor:—

Higham, Wolverhampton	£4,095	0	0!!
Rattee, Cambridge	2,850	0	0
Young and Co. Oxford	2,800	0	0
Broadbent, Leicester	2,485	0	0
Kingham, Ipswich	2,327	0	0
Pratt, Coventry	2,250	0	0
Taylor, ditto	2,247	0	0
Marriott, ditto	2,230	0	0
Robinson and Son, ditto	2,196	10	6½
Hall, Nottingham	1,950	0	0
Ruddle, Peterborough	1,767	0	0!! R.

Timber Sale at Abberley.—A Worcester paper reports a large sale of timber here on Wednesday week. The attendance was very large, consisting chiefly of small dealers, and the prices obtained far exceeded the valuation on nearly all the lots. Oak sold at from 2s. to 3s. 6d. a foot, and ash and elm from 1s. to 1s. 6d. There is generally a complaint that timber is not worth so much this season as last by from 10 to 20 per cent. and the large dealers are shy in making purchases, but all small lots have been readily sold at great prices to small purchasers, who are generally men new to the trade.

St. Stephen's at Vienna.—The *Athenæum* says, —The spire of St. Stephen's Cathedral, at Vienna, has just been repaired, at a cost of about 50,000 florins. More important restorations are spoken of, and the lively Viennese seem at last, in spite of their French bias, awaking to an appreciation of Gothic architecture.

Application of Liquid Manure to Subsoils and Roots.—Our readers may remember some details which appeared in our columns as to a new plan of applying liquid manure, adopted on some waste land at Wokingham, by way of experiment, by Mr. Wilkins. The result of a year's trial of this method has now been published. The liquid manure was applied through semi-cylindrical tiles laid convex side up on a water-tight floor of brick, edged round with bricks 4½ inches high, and covered with soil to a depth of 18 inches, in which the crops were planted in lines running coincidently with the tiles. The same sorts of seeds were planted in duplicate on the same sort of soil, but without either the tile or brick apparatus. To the former, liquid manure was applied about twice a week; to the latter, none was given. The results were quite extraordinary, especially with mangold-wurzel and carrots. The mangold-wurzel was produced, with manure, at the rate of about sixty-nine tons per acre, the average weight of the roots being twelve pounds each, whereas on the unprepared piece it was four pounds, and on a piece of ground prepared with a top dressing of liquid manure, six pounds. Italian rye-grass was cut five times on the prepared bed to one cut on the other; the fifth of the former being exceedingly tender and juicy, while the one of the latter was tough and dry. Potatoes were doubled in weight by the manure. Hemp and flax grew luxuriantly by its aid. In three months the hemp was six feet long, and a second crop was then planted, which grew to the same length. Mr. Wilkins says that even three crops, and for cattle, seven crops, annually, of the necessaries of life, might thus be produced. The cost of construction, however, is considerable. With bricks for floors he estimates it at 100*l.* an acre, but with gas tar, and sand, at 50*l.* There are other difficulties in the way of the application of this method on the large scale, but we think we can see how, by aid of steam power and a circulating system of valved and perforated manure pipes, such difficulties might be overcome, so far as inequalities of ground are concerned: whether to great profit remains as a further question. Mr. Wilkins lectured on the subject of his experiment lately at the London Tavern.

TENDERS

For Model Buildings, Lambeth:—

Lee and Son	£13,650	0	0
Kelk	12,900	0	0
Piper and Son	12,690	0	0
Lock and Nesham	12,545	0	0
Jackson	12,180	0	0
Hayward and Nixon	12,137	0	0
Cubitt and Co.	11,990	0	0
Lucas (Brothers)	11,938	0	0
Crosweller	11,897	0	0
Jay	11,866	0	0
Myers	11,560	0	0
Grimsdell	11,451	0	0

For alterations to a House, in Church-street, Camberwell, for Mr. J. Griffin. Mr. J. Harrell, architect:—

Piper and Son	£1,410	0	0
Nicholson and Son	1,220	0	0
Colls and Co.	1,145	0	0
Thompson	1,083	0	0

TO CORRESPONDENTS.

Islington Infant Poor Establishment. Messrs. Hill and Briand state that the architect ultimately selected had engaged in the competition, but they offer no excuse for the fact that the cost of the design selected, a tender all, far exceeded the stipulated amount.

"Bureau." "L. K." "E. H. L." "C. E." "C. G." "H. H." We shall be glad to see it). "J. R." "C. J. C." (apply to a proper party). "J. S." (under our mark). "B." (ditto). "F. D." "W. R. C." "G. L." "R. S." "R. S." "J. R." (answer would depend on terms of indenture: ordinarily, we should say, an articled pupil had no such right). "J. B." "J. E." "C. H." "H. S. C." "A Professional Brother." "F. S." "W. C." "T. L. D." "An Old Subscriber." "A. S." "W. D."

Notice to Subscribers.—A title page in colours for the last volume may be obtained *gratis* by those who prefer it to that which accompanied the index in the closing number, on personal application at the Office. Covers for the volume may be obtained at the Office, price 3s. 6d. or the publisher will bind it for 3s. 6d. The complete volume may be obtained, price 21s.

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WANTED, an active, intelligent Youth, as an IN-DOOR APPRENTICE to the CARPENTRY and JOINERY One from the country preferred. — Address. J. EMERY, Carpenter and Builder, Royal Oak-place, Eaton square, Pimlico.

WANTED, a YOUNG MAN, as ASSISTANT in a Surveyor's Office. Situation permanent and improving —Address, with particulars as to terms, experience, and reference, B. B. Office of "The Builder."

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TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.

Mr. J. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slats, &c Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. WOOD and ROBARTS invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

MARBLE CHIMNEY-PIECES manufactured by Machinery, improved by the proprietor's own invention that defy competition in price and quality. The trade supplied with Marble and Stone Chimney-pieces, Slabs, &c. at the Marble and Stone Sawing mills, Cambridge-heath, Hackney. WM. HUSTLER, Proprietor. Two Marble Masons wanted.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Harehill, Park spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS. BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Deptford. Offices: 346, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, & Co.), General Stone Merchants, Caen Wharf, Rotherhithe, are supplying the above and Bath, Portland, Yorkshire, Granite, and other stones from their depôt, at current prices by land and water carriage; also by vessel direct from the quarries, at moderate ship freight to any part of the United Kingdom.

N.B. Heavy goods delivered, shipped, or carted with despatch, and at moderate charges.

GODSTONE STONE.—GATES and GEORGE beg to solicit the attention of architects, engineers, and builders to the above Stone, as being suitable for all purposes of construction, either as a substitute for brickwork, or in connection therewith, the price in most respects being about the same as ordinary brickwork. It can be obtained in large quantities, and to specify sizes, in rubble or rough square blocks, direct from the quarries —Information and samples given at Caen Wharf, Rotherhithe, and Hiberuia-chambers, London-bridge, Borough.

ANCASTER STONE, from the celebrated quarries of Mr. John Wilson, Ancaster, who has appointed GATES and GEORGE, Stone Merchants, his sole consignees for the London district Ancaster Stone, so generally esteemed by the building profession, for its great durability, economy, and general utility, as to require but a trial to secure the approval of architects and others for its more extended use in building.—Samples and other information can be obtained at the Great Northern Depôt, King's-cross; Caen-wharf, Rotherhithe; and Hibernia-chambers, London Bridge, Borough; or forwarded to address, free of charge.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Government Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

WILKINSON'S IMPROVED ARTIFICIAL STONE CHIMNEY-PIECES. — Nearly 3,000 of the above have been Sold, although only recently brought to their present state of perfection, and offered to the public. The prices range from 6s. for a neat bedroom set: with jambs, moulded with large ogee on outer edge, set on plinths, Mantel, moulded with ovolo and fillet under shelf, and shelf with hollow on edge, to 50s. for sitting-room patterns of more elaborate character. A liberal discount for quantity.—Address W. B. WILKINSON, Newcastle-on Tyne.

BANGOR WHARF, King's-road-bridge, Camden-town.—STRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cement, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials lauded, wharfed, and carted.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLAB WORK for 1851 are NOW READY, and can be had on application, inclosing a postage-stamp.

N.B. A liberal discount to the trade.

UNDER HER MAJESTY'S ROYAL LETTERS PATENT.

INDURATED STONE COMPANY, for INDURATING and RENDERING IMPERVIOUS STONE, BRICKS, TILES, and other Building Materials. Completely Registered, Dec. 23rd, 1854. The Company are now in a position to execute orders and grant licenses for the use of their valuable patent. The great advantage to be derived from the use of a material not only durable but non-absorbent must be evident to all. The saving to the country were this stone adopted for public works, such as docks, bridges, &c. would be very considerable, as local materials could be used, and the enormous cost of granite and other hard stones be rendered unnecessary. The Indurated Stone is especially adapted for monumental purposes, vaults, catacombs, &c. and an average saving of from twenty-five to fifty per cent. will be effected by its adoption in lieu of the materials generally used. For sculpture and other works where considerable labour is expended, the advantage of this stone is pre-eminent, as the finest work can be executed in sandstone, and become subsequently indestructible except by violence. The stone will also bear a brilliant polish, thereby rendering it effectual for a variety of ornamental purposes.—Applications for Shares will be received to the 27th inst. at the Offices of the Company, 14 and 15, Saint Swithin's-lane, London, and Higher-street, Tunbridge Wells, where specimens may be seen and any information relative to the patent obtained; and by Messrs. PAGDEN and HODGKINSON, Solicitors, 71, Mark-lane, London.

COLOSSEUM, Regent's-Park.—Admission, 1s.—The original PANORAMA of LONDON by DAY, is exhibited daily, from Half-past Ten till Five. The extraordinary PANORAMA of LONDON by NIGHT, from Seven till Ten. Music from Two till Half-past Four, and during the evening.

CYCLORAMA, Albany-street.—Now Open, with a COLOSSAL MOVING DIORAMA of the CITY and BAY of NAPLES, MOUNT VESUVIUS, and POMPEII, exhibiting the Great Eruption of '79, and present state of the excavated City, painted by Mr. McNevin, from sketches taken by himself in 1852.—Daily at Three and Eight o'clock, with appropriate music and description. Admission, 1s. Children and Schools half-price.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely fungicious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase in weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs BLUNDELL SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents in London, Messrs CHARLES DEVAUX and CO. Wholesale Agents, 62, King William street City; FREDERICK BRABY, Wholesale and Retail Agent, 5, Tottenham-court, New-road. In Manchester and Liverpool by Messrs. LAWFORD and CO. of 40, Norfolk-street, Liverpool, who are also acknowledged Painters to the Company for Zinc Paints and undertake painting ships, warehouses dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush Dry OXIDES and PAINTS, in kegs of 14, 28, and 56 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole and the Isle of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agent in London, Mr. SCHMOLL, 13, Manchester-buildings, Westminster

THE VIEILLE MONTAGNE ZINC MINING COMPANY beg to inform the public that they have appointed Messrs. T. and S. KNIGHT, of Great Suffolk-street, Southwark, as their Painters, who will be ready to execute any description of Painting and Decorating with the Pure Patent White Zinc Paint.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER for internal uses These well-known hard Stuccos dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PARIAN CEMENT, for Internal Use, to be painted in a few hours and papered within a couple of days. CHARLES FRANCIS and SONS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that resumes no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantities, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent N.B. These Cements supplied for shipment, on advantageous terms.

GEO. & THOS. FARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lime, Lambs, Slates, and Silvr Slabs Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Parrs'ano.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of the valuable Cement that they have, by means of a recent discovery (patented by Mr. ASPDIN) much improved the quality of this Cement without any increase in the price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper

A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon street, Westminster, at their Works, Gateshead-on-Tyne; at Messrs. Rosher's Wharf, Holland-street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Fish-street Hill, Fresh-wharf, or Middle Wharf, Scotland-yard, Westminster Manufacturer of Roman, Lias, and Mastic Cements, and English and French Plaster, &c

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all these qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the state pants put forth by those who have hitherto had the monopoly Manufactured by R. GREES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement: and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Hill, at the Upper Halfway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

WHITE OXIDE OF ZINC AND ZINC PAINT.
(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in Oil.

Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innoxious qualities, is peculiarly applicable to fire-class decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO

MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

PORTLAND CEMENT.—D. MOUNTAGUE begs most respectfully to inform the numerous Architects, Contractors, Builders, &c who have for the last thirty years patronised his Roman Cement, Plaster, and other manufactures, that he is now enabled to supply them with a very superior Portland Cement, warranted to withstand the action of heat frost, &c and of uniform colour and quality. Orders received at Faleon Cement Wharf, 80, Bankside, Southwark; Harrow-bridge Wharf, Stratford, Essex; and at the Cement Manufactory, Orchard House, Blackwall.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS Millbank-street, Westminster, who prepare one quality only of Portland Cement.

SOUTHAM'S BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O and T can deliver by their own boats, or by rail to any part of the kingdom

Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in colour and quality.

Office, Warwick.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement The shell lime for mortar is burnt on an improved principle leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SEYSSELS, PAVIORS', STOCKS, and other BRICKS CHARLES RICHARDSON, 6, South Wharf, Paddington.

MAW'S ENCAUSTIC TILE PAVEMENTS—a highly durable and decorative substitute for ordinary flooring and their perishable oil cloth coverings; for entrance-halls, passages, verandahs, conservatories, &c.

MAW and CO send, free of expense, their pattern and price book, with designs, to any given spaces and estimates), free of expense.

BENTHALL WORKS, BROSELEY, SALOP.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Maccles-field street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Jurors" report, page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H D earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half washed Stocks, and Place Bricks, also on sale These bricks are sound, well burnt, and unusually free from defects a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Countine-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N B Light coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Red Seconds, Cutters, Paviors, Shippers, &c

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

BRICKS for OVEN-BUILDING, acknowledged the best for that purpose, delivered, 35s. to London-bridge or Newington; beyond that distance, moderate charges. Bricks of all description; yellow and light pickings, equal to seconds. Red facings, at 30s. in field; red and glazed pipes, about half the prices of stoneware; white sand, nearly silver, in field or by barge; Flanders' sand and loam; good coloured gravel. Address, B. PARKS, Lewisham Brickfields.

NINETY PER CENT. NET PROFITS.—A PATENT WHITE BRICK MANUFACTORY, with beds of Pottery clay and Stone and Cement, and Timber-sawing Machinery, &c.—TO BE LET the most compact and valuable Works in England, now in full operation; comprising all necessary machinery and plant and buildings for producing many millions annually of the most beautiful white facing bricks ever offered to the public. Required capital, from 3,000*l.* to 5,000*l.* The most unexceptional references required.—Apply to Mr. GEORGE SMITH, Land Agent, 3, Pulpot-lane, City, London.

BRICKS.—KENT GREY STOCKS on SALE. Also PATENT PERFORATED, and SOLID WHITE SUFFOLK FACINGS.—Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newington-cresent, Newington-butts, will, from MONDAY, the 11th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT. L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, beg to inform builders, contractors, and the building trade generally, that they have now on sale at the above wharf, Cowley stocks, grizzles, and place; white cutters, seconds and paviors; clinkers, red cutters, and stocks; plain and pan tiles, 6in. 9in. and 12 in.; white and red paving tiles; blue, red, and white ornamental tiles, blue and red ornamental ridges; Stourbridge, Welsh, and York-shire fire-bricks, lumps, tiles, and clay; ornamental and other wall copings; Bangor and other slates; stoneware sewer-pipes, bends, junctions, and syphons; closet-pans and traps, terra-cotta chimney-tops, trusses, brackets, vases, mouldings and paterns of the most improved patterns. Architects' designs worked to with accuracy and despatch. Lump and ground grey stone lime, chalk lime for plastering, blue lias lump and ground lime, Roman, Portland, and lias cements, coarse and fine plaster, laths and hair.

N.B.—Good Gothenburg laths are now on sale at the above wharf, price 32s. per load.

GREAT NORTHERN RAILWAY.—L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross beg to inform builders, contractors, and others who are engaged in works at or near any of the stations on the above line of railway, that they can be supplied upon the shortest notice with Bricks, Tiles, Lime, Cement, Sand, Plaster, Drain-pipes, Fire-goods, and all other building materials of the best quality at the lowest market prices.

N B Orders received overnight can be delivered by the early morning trains.

TO BRICKMAKERS, &c.

WANTED immediately, 100,000 deep red facing BRICKS, to be delivered in the Thames, alongside.—For particulars, apply to T. HARRISON, Esq. Cambridge-heath-wharf, Hackney.

BRICK-MAKING EXTRAORDINARY!! BY OATES AND INGRAM'S PATENT MACHINE. TO CAPITALISTS AND BRICKMAKERS.

Messrs OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen (by order only in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

The great advantages possessed by this machine over all others are, no tempering is required.

The bricks are produced at the rate of twenty five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be backed up in racks before leaving the machine, which is entirely self-acting, consequently requires only the labour of feeding and carrying off.

Applications, either to view the machine, or for the purchase of the patent right for counties, or for royalties, to be addressed, T. WELLS INGRAM, Engineer, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened. Wood by yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per large, in any quantity, alongside the Thames.

WANTED, TWO Strong-room DOORS. Address, with sizes, to Mr. GEORGE MORGAN, at his Offices, 5, Chancery lane.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.

These Pencils are prepared in various degrees of hardness and shades.

H H H H	for drawing on wood.	F F	light and shading.
H H H	for architectural use.	F	for general use.
H H	for engineering.	B	black for shading.
H	for sketching.	B B	ditto ditto.
H B	hard and black for drawing.	B B B	ditto ditto.
M	medium.	B B B B	ditto ditto.

Sold by all the principal Stationers in town or country.

LADDERS, BARROWS, &c. for SALE or HIRE.—GEORGE ELL, 3, Tottenham-court, New-road, opposite the Hampstead road, and corner of Praed-street, Paddington, has on hand at all times a large stock of LADDERS, EXCAVATORS, BRICKMAKERS', and other BARROWS, PAINTERS' TRESTLES, MACHINES, STEPS, &c. Price lists can be had on application, at 1, Tottenham-court.

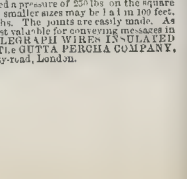
JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has hereto fore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.



MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers and hegged on a new system, which gives a superior tone and facility for ringing.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and it is therefore valuable for conveying water, chemicals, &c. It is peculiarly valuable for liquid manure, drain, and soil pipes. Being a non-conductor, it is not affected by the frost of winter or drought of summer, like metal or leather. Its strength is extraordinary; the small half-inch diameter tubing having resisted a pressure of 250 lbs on the square inch, with out bursting. The smaller sizes may be had in 100 feet, and the larger in 50 feet lengths. The joints are easily made. As a conductor of sound it is most valuable for conveying messages in lieu of bells. ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA. The GUTTA PERCHA COMPANY, Patentees, 18, Wharf-road, City-road, London.

BENJAMIN FOWLER, WHITEFRIARS-STREET, FLEET-STREET,

REMOVED FROM 63, DORSET-STREET, FLEET-STREET.

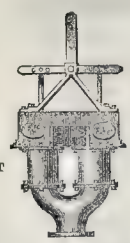
FOWLER'S IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11.15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION bored perfectly true by improved machinery, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S IMPROVED WROUGHT IRON PUMPS,

FOR CONTRACTORS, BUILDERS, EXCAVATORS, and OTHERS.

A LARGE STOCK, from 3-inch to 9-inch Barrels, with Plain or Sliding Telescope Suction, always on hand.

This description of Pump Work varying in almost every case, it is impossible to quote a general price, but the fullest particulars will be given on application.

B. FOWLER, WHITEFRIARS-STREET, **NOT DORSET-STREET,** as formerly.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor.

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'S PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

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THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

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REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

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WORK GUARANTEED FOR THREE YEARS.

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A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

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In order to supply the deficiency which has hitherto existed in Furniture suitable for the many Mansions that have been erected or restored in the MEDIÆVAL STYLES, Messrs. CRACE have directed their particular attention to this subject, in addition to their other works, and have prepared appropriate specimens in the various branches of Furnishing.

STUFFS for HANGINGS, in simple Worsted Damask, in Silk; also in Tapestry of Bauderkin.

CARPETS, plain or in rich Velvet pile, with appropriate Borders.

PAPER-HANGINGS of various kinds.

OAK CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and appropriate Furniture

The whole of the above-mentioned Furniture, &c. is designed by the late Mr. A. W. PUGIN, Architect.

To render this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with its ancient character.

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M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, slurry, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 36s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and excessive stirrings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising liquids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
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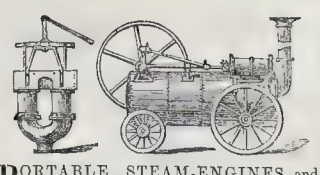

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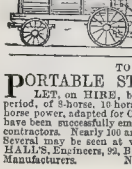
STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.



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PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors. Nearly 100 are ready for delivery at a day's notice. Several may be seen at work; also at Messrs. MEDWIN and HALL'S, Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Several for Sale.

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PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 35s. per ton. Importer of Trinidad Asphalte.

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LANDSCAPE OIL-PAINTING TAUGHT by a Gentleman, the pupil of an eminent artist. Terms, at the artist's residence, for three lessons, 21s.; for twelve lessons, 63s. If at your own residence, for three lessons, 42s.; for twelve lessons, 105s.—Address, S. E. Effingham House, Homerton.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country, an extensive assortment of specimens and patterns commencing at 4s. per foot super, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

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PATENT SANITARY GAS SHADES.—These Shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the effluvia and smoke which have hitherto made the use of gas so objectionable in dwelling-houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had at the Works in a variety of forms adapted to the style of fitting, or the taste of purchasers; also at Mr. JOHN SHORTON'S, Crispin-street, Spitalfields, London.

FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country. Used and approved at the Offices of the General Board of Health. Exclusively adopted by the Crystal Palace Company. Easily cleaned without trouble or expense.—To be seen in operation daily, at J. EVANS and SON'S, Ironmongers, 33, King William-street, London-bridge.

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FOR SALE, an excellent Town-made BUILDER'S CART, large size, 6-inch wheels, whole tires, patent arms, and side boards, complete.—For particulars, apply to Mr. KATTEE, Cambridge.

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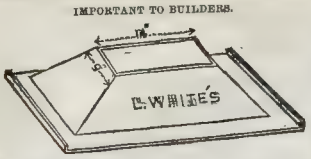
IMPORTANT TO BUILDERS.



REGISTERED CAST-IRON CHIMNEY-HOPPER and CHIMNEY-BAR COMBINED, ensuring a perfect formation of the Flue, and rendering smoky chimneys impossible. One trial will cause their adoption in every building.

Price from 8s. 6d. each, according to size.

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RAIN-WATER PIPE and EAVE GUTTERS, at wholesale prices. Also, O G Gutters, Sash-weights, STABLE FITTINGS, pumps, tomb railing, cattle and pig troughs, and COLUMNS with caps and bases, and every kind of builders' castings, in stock, at LYNCH WHITES Iron Wharf, Upper Ground-street, London, near Blackfriars-bridge.

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MOON'S CHIMNEY CONTRACTOR, REGISTER, and CHIMNEY BAR COMBINED The contractor assists draught; the register admits of being partially or wholly closed; it is cleanly, simple in construction, and cannot get out of order.

Manufactured by PARRY, of 105, Golden-lane.

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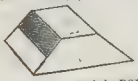

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SMOKE NUISANCE ABOLITION.—TO BE SOLD, an INVENTION which will effect the CONSUMPTION of SMOKE in any open fire grate, at a cost of from three to ten shillings, without altering the external appearance of the stove Address, F. J UTTING, C.E. Wisbech

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To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

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HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WAIGNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

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AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

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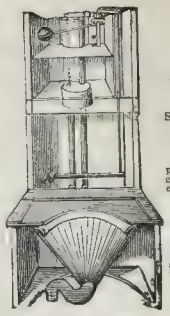
Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1848.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

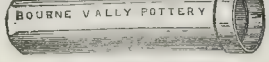
Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c at the



NEAR POOLE, DORSET

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Plants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

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Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;

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Where a large stock is always kept on hand.

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WHITE ENAMELLED STONEWARE,

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W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

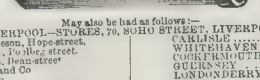
DOULTON AND WATTS,

LAMBETH POTTERY, LONDON.

REGISTERED CLOSET-PANS IN ENAMELLED STONE WARE.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

STONE WARE PIPES, BENDS JUNCTIONS TRAPS, &c.



TERRA COTTA VASES, CHIMNEY TOPS, &c. FIRE-CLAY FLUE PIPES

May also be had as follows:—

LIVERPOOL.—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lusch, Fowler street.
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COCKERMOUTH.....John Bird
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The most economical and efficient system of drainage is formed with DOULTON'S STONE-WARE PIPES.

Testimonials as to their superiority have been received from the Borough Engineers of Liverpool, Glasgow, and other cities.

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A DESIDERATUM in SLUICE-VALVES.—FREEMAN ROE'S Patent Sluice-valve can be repaired without being removed from the main. All sizes, from 3 inch to 36 inch. Patent Hydrants, self-closing Cocks, fire and other Pumps, Hot-water Apparatus, Baths, &c. Surveys made, and estimates given by FREEMAN ROE, Hydraulic, Sanitary, and Gas Engineer, 70, Strand, and Upper Marsh, Lambeth.

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MESSRS. CHANY beg to call attention to their large Stock of Water-closets, spring valve and common, Glazed Hopper Basins, Traps, and all articles used in sanitary improvements.—N.B. Plumbers' Brass-work of every description 34, Clifton street, Finsbury-square.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail Country builders and others supplied with all information, on application to E and W STURGE, Bridge-wharf, City road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1855.

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Improved Drain Pipes, Water Closets,

SLUICE VALVES, GULLY, STABLE, AND SINK TRAPS,

SHOP SHUTTER SHOES, &c. &c.

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OFFICES—HIGH-STREET, LAMBETH, LONDON, and GRANVILLE-STREET WHARF, BIRMINGHAM.
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May also be had as follows:—

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STRAIGHT TUBES WITH SOCKET JOINTS from 1 inch to 24 inches in diameter. BENDS, JUNCTIONS, TRAPS, &c. OF EVERY DESCRIPTION. Drawings, with prices, &c., will be forwarded free on application as above.

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5s. Traps, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.

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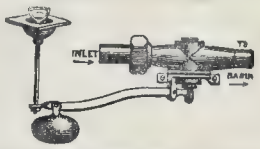

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 300 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

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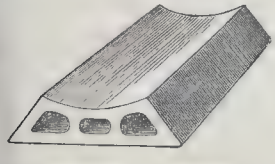

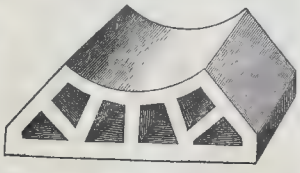

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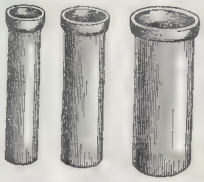

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In consequence of so many Closet Pans of an inferior quality having been introduced into the London market, I have thought it desirable to consider the propriety of lowering the Prices of those manufactured by me, not because they bear too much profit, but to supply an article in connection with Stoneware Drain Pipes of a durable character. It is found that Closet Pans not made of Stoneware are not durable, and in the space of a few months the glaze has peeled off the inside, and the Pan becomes rough, and absorbs a portion of what passes through it, thereby rendering it offensive to sight and smell.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge; City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 39, Bryanston-street, Covent Garden; and at EDWARD COCKS, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free, on application.

SALES BY AUCTION.

TO BUILDERS, MASONS, STATUARIES, PAVIORS, AND OTHERS.—Remaining portion of the STONE and MARBLE STOCK of an old established firm, dissolving partnership.

MESSRS. EVERSFIELD and HORNE have received instructions from the proprietors to SELL by AUCTION on the premises, Wharf road, Maiden lane, King's-cross, and at South row, New road, on TUESDAY, FEBRUARY 6th, and following day, in consequence of a dissolution in the partnership, the concluding portion of their valuable STOCK, comprising a large quantity of Yorkshire stone, in landings, pavings, hearths, sawn slabs, steps, sills, coping, sinks, and kerb; Portland stone, in block and scantling; several thousand feet of Sicilian and other marble slab, statuary, vein, Sicilian, and other marble in blocks and scantling; a large variety of well manufactured chimney-pieces of every class, including some of the richest designs and elaborately sculptured; a collection of marble baths monuments, monumental figures in marble, and numerous other items remaining unsold from the previous sales. Approved bills will be taken in payment. May be viewed two days previous, and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

SOUTH SEA HOUSE ESTATE, THREADNEEDLE-STREET.

MESSRS. BEADEL and SONS are favoured with instructions to SUBMIT to PUBLIC COMPETITION, on TUESDAY, FEBRUARY 27th, at TWELVE, the above valuable PROPERTY, having extensive frontage to Threadneedle-street, communicating thence with Old Broad-street, and covering a superficial area of nearly three-quarters of an acre. This very eligible property is, with a small exception, freehold, and is all land tax redeemed. It comprises the present South Sea House, a most substantially erected fabric, three valuable messuages, used as offices, the open areas surrounding the South Sea House, the whole of which will be offered in one lot; also a small building now occupied with the Flower Pot public-house, which will be sold separately. The property presents a rare opportunity for the acquisition of a compact freehold estate in the neighbourhood of the Bank of England, and, in its present state, will realize a handsome rental, but if judiciously re-arranged will probably realize an increased income in ground rents, and the materials will find a ready sale to the various lessees.—Particulars, with lithographic plans attached, are now ready, and may be had on application to Messrs. WORDSWORTH, GREATHEAD, and BLAKE, Solicitors, at the South Sea House, Threadneedle street; at the Mart, and of Messrs. BEADEL and SONS, 25, Gresham-street.

An immense Sale of the whole of the Stock in Trade, Plant Machinery, and Tools, at the Iron Building and Roofing Works at Spring-hill, near Birmingham; and also in Gas street and Berkley-street, in Birmingham; late in the occupation of Messrs. Porter, Brothers, and Stuart.

MESSRS. LUDLOW and ROBINSON will SELL by AUCTION (by order of the Trustees to the estate) on MONDAY next, the 5th day of FEBRUARY, and seven following days (Saturday and Sunday excepted), and without the least reserve, the whole of the immense STOCK in TRADE and EFFECTS in the above extensive works. Order of sale at Spring-hill:—

MONDAY, FEB. 5.—Roofing stores (about 14 tons).

TUESDAY, FEB 6.—The contents of the upper smiths' shop, fourteen anvils, portable hearths, 16 tons of new iron, files, &c.

WEDNESDAY, FEB 7.—The greater portion of the machinery, corrugating presses, lathes, punching and shearing machines, screw-cutting machines, drilling machines, shafting, circular sawing machines, dies, and about fifty tons of galvanized, corrugated, and black sheet iron.

THURSDAY, FEB. 8.—Large stock of iron (various), iron houses, engine boiler, 16 tons of ironwork for gun carriages, railway carriage springs, and other work, &c.

FRIDAY, FEB. 9.—The contents of the lower smiths' shop,—anvils, iron smiths' hearths, the contents of foundry, two cranes, 70 tons of pig iron, large stock of iron, various casting, bores, &c.

MONDAY, FEB. 12.—Office fixtures, Milner's safe, weighing-machines, paint-shop, all the patterns, cast steel, string, fall ropes, &c.

TUESDAY, FEB 13.—Stock of timber, scaffold poles, &c.

At the Works, Gas-street and Berkley street.

WEDNESDAY, FEB. 14. Fixtures, iron roof corrugating presses, steam-engine, boiler and shafting, galvanized tanks weighing-machines, about 70 tons of galvanized and corrugated iron, &c.

The sale to commence each day at half past TEN o'clock.—N.B. After a deposit of 10 per cent. in cash, has been paid, approved bills of four months will be taken from all purchasers of the stock only whose purchases shall exceed the sum of 100l. Catalogues, 6d. each, may be had at the *Manchester Guardian* Office, Manchester; at the Offices of Messrs. CHINNOCK and GALSWORTHY, Auctioneers, Regent-street, London; or of Messrs. LUDLOW and ROBINSON, Surveyors and Auctioneers, No. 18, New-street, Birmingham, and will be remitted upon the enclosure of ten postage-stamps.

THREADNEEDLE STREET, immediately contiguous to the Royal Exchange, Lloyd's Royal Exchange-buildings, the Bank of England and the Stock Exchange.

MESSRS. NORTON, HOGGART, and TRIST have received instructions from the proprietor, to offer for SALE, at the MART, on FRIDAY, FEBRUARY 16, at TWELVE, the very highly important and exceedingly valuable and substantial FREEHOLD PREMISES, situate at the corner of Threadneedle street, immediately opposite the Royal Exchange and Lloyd's, and contiguous to Royal Exchange buildings, the Bank of England, the Stock-Exchange, and several of the principal insurance offices, a site not to be surpassed, if equalled in value or importance, in the City of London. The building has been constructed under the superintendence of an eminent architect, and has been finished in the most substantial and perfect manner, having every possible reference to comfort and convenience. It is of seven stories, including the basement, and while it can be adapted to one entire establishment, is so arranged as to be let off in separate occupations, with a water-closet on each floor. The entrance is from Threadneedle-street, and that portion next the Royal Exchange buildings is enclosed by iron railings, with a space in front which can never be built upon, thus giving light and air scarcely to be met with in the City of London. It would be most difficult to estimate the annual value of a property of this description, but there can be no question that whether as for one entire establishment, or for separate chambers, its unrivalled position must always command enormously high rentals, and that it consequently presents an investment of the most important and of no ordinary character. May be viewed and particulars had of E. CHURCH, Esq. Solicitor, 37, Spital square; of J. SHAW, Esq. Architect, Christ's Hospital; at the Mart; and of Messrs. NORTON, HOGGART, and TRIST, 62, Old Broad-street, Royal Exchange.

Building Materials of a Mansion, adjoining the Clapham Common Station, South-Western Railway.

MR. F. HALL has been favoured with instructions to SELL by AUCTION, on the PREMISES, Spencer-road, Wandsworth-road, on WEDNESDAY, FEBRUARY 7, and following day, at TWELVE, the valuable MATERIALS of SPENCER LODGE, comprising 250,000 excellent stock bricks, 10,000 countess and other slates, pan and plain tiles, modern sashes and frames, handsome internal and external doors, French casements, handsome marble chimney-pieces, slate cisterns, Scagliola columns, large timbers, rafters, joists, flooring boards and battens, stoves, ranges, thirty square of paving stones, coping, landings and steps, verandahs and balconies, slating battens, laths, firewood, and various other useful effects. May be viewed, and catalogues had on the Premises; and at the Auctioneer's, Chester street, Kennington.

TO TIMBER-MERCHANTS, BUILDERS, CARPENTERS, PIANOFORTE AND CABINET MAKERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 42, Union-street, Somers-town, on MONDAY, FEBRUARY 12th, at ELEVEN for TWELVE, 2,500 Yellow, Pine, and Spruce PLANKS, DEALS, and BATTENS, 110 squares of prepared yellow and white flooring, 5,000 feet scantling, 3,000 feet wide pine board, thirty doors, dry cut stuff, fir joists, scaffold poles and boards, putlogs, ladders, barrows, brushes, ironmongery, slate slabs, stone cills, dressers, 3 tons of old iron, &c.—May be viewed the Saturday prior, and catalogues had.—Auction Offices, Cardington-street, Hampstead-road.

SALES BY AUCTION.

JORDAN'S PATENT WOOD-CARVING WORKS.—Sale of the valuable Machinery.

MESSRS. OXENHAM and SONS beg to announce that the SALE of the valuable MACHINERY advertised by them for MONDAY, FEBRUARY 5th, WILL NOT TAKE PLACE FOR THE PRESENT.

Auction-rooms, 353, Oxford-street.

EASTBOURNE, SUSSEX.—Thirty-nine Building Agreements for 90 years, at separate reserved ground-rents, with the capital and substantial carcases of thirty-nine private residences and shops erected thereon.

MESSRS. FAREBROTHER, CLARK, and LYE will SELL, at the ANCHOR HOTEL, Eastbourne, on SATURDAY, FEBRUARY 17th, at ONE for TWO o'clock precisely, in thirty nine lots, by direction of the Right Hon. the Earl of Burlington, THIRTY-NINE BUILDING AGREEMENTS for 90 years, at trifling reserved ground rents, for various plots of land, desirably situated on the Grand Parade, Cavendish-street, and Victoria-place, in the most preferable part of that fashionable watering-place, Eastbourne, on the Sussex coast, with THIRTY-NINE substantial brick-built CARCASES erected thereon, in a forward state of completion, and upon which advances have and will be made by the vendor. The purchasers will have the advantage of converting their lots into freehold within seven years after the completion of the houses, by the redemption of the ground-rents at twenty years' purchase. The property may be viewed, and particulars had, on application to Mr. BERRY, Surveyor, Eastbourne; particulars also at the Anchor Hotel; at the Ship, Brighton; Swan, Hastings; Sea House Hotel, Worthing; Kentish Hotel, Tunbridge Wells; of Messrs. SIMPSON, 39, Saville-row, Old Burlington-street; at Garraway's; and at the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster-place, Strand.

TO IRONMONGERS, BUILDERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on MONDAY, FEBRUARY 12, and following days, at ELEVEN each day, on the PREMISES, No. 254, Strand, in lots, without reserve, by order of the assignees of Mr G. Hart, a bankrupt, the STOCK of BLACK and FURNISHING IRONMONGERY, including 50 steel and fine-cast register stoves, 100 steel, bronzed, and cast-iron fenders, 100 sets fire-irons, 50 elegant gas chandeliers and burners, hall lanterns, &c. 50 sets papier maché and japanned trays, 50 French moderator lamps, a large assortment of japanned ware, in toilet services, baths, &c.; bronzed tea-urns; Queen's metal and plated ware; copper goods; a large quantity of table cutlery, black hollow ware, tin ware, &c.; Lancashire tools; 100 dozen files, carpenters' and cabinetmakers' tools, &c.; cabinet brass work, 100 dozen locks, assorted, 100 dozen bolts, latches, &c. 50 bags wrought and cut nails, 500 gross screws, Porcelain door and shutter furniture, 10 dozen spades and shovels, &c. The Utensils in Trade and Tools, an excellent back-geared slide lathe, 4 foot lathes, 3 smith's forges and tools, fly press, rod and bar iron, house and shop fixtures, useful horse, cart, and harness. Also the modern Household Furniture, of the usual description. To be viewed on SATURDAY previous to the sale, when catalogues may be had on the Premises; of M. SHEPHARD, Esq. Solicitor, Clifford's-inn, and of Messrs. FULLER and HORSEY, Billiter street, City.

BOROUGH OF SOUTHWARK.—To SMALL CAPITALISTS.—Important Sale of Ninety-three Freehold Houses, in single lots, each house entitling a vote.

MR. W. F. HAMMOND has been favoured with instructions to SELL by AUCTION, early in MARCH, at GARRAWAY'S COFFEE-HOUSE, in single lots, the above most important FREEHOLD PROPERTY, comprising ninety-three houses, all lying compact in three blocks, being situate, Nos. 3 to 47 inclusive, Henry-street, and Nos. 1 to 27 inclusive, Etham-street, and seven others adjoining, and fronting in Kent street, Borough. The description of this valuable property is of the fourth-rate, and substantially erected, and well drained. All respectably occupied by weekly tenants, and producing a gross rental of 1,321l. 14s. 4d. per annum.—Further particulars and plans of the estate, which will shortly be ready, to be had of Messrs. JANSON and COOPER, Solicitors, 4, Basinghall street, City; at Garraway's Coffee-house, Cornhill, and at the Auctioneer's Offices, 3, Carey-street, Lincoln's-inn.

TO RAILWAY CONTRACTORS, BUILDERS, AND OTHERS. In consequence of the completion of the Wycombe branch of the Great Western Railway.

W. VERNON is directed to SELL by PUBLIC AUCTION, at the RED LION HOTEL, High Wycombe, on FRIDAY, FEBRUARY 16th, 1855, at ONE for TWO o'clock, all the remaining RAILWAY PLANT and EFFECTS, the property of the company, now upon and about the said branch railway. It includes 120 earth waggons, bodies of waggons and frames, five trolleys, about thirty tons of iron, in heavy and light old T rails, new rails, saddles, ties, rivets, waggon castings and old iron, crossings, bridge centres, deal timber, and other effects. Catalogues, which will describe upon what part of the railway each lot may be found, may be had seven days before the sale, at the different stations on the said branch railway, of E. F. MURRAY, Esq. Slough; at the Offices of the Company, No. 3, Park-street, Westminster; and of Mr. VERNON, Land Agent and Auctioneer, High Wycombe, who will send them post free on application.

TO BUILDERS AND OTHERS.

TO BE LET, or the Lease to be SOLD, an excellent DWELLING-HOUSE, with extensive Carpenter's workshop, drying sheds, large yard, stabling, &c. complete, situate in Blackman-street, Southwark.—For particulars apply to Mr. JAMES COOPER, Surveyor and House Agent, 14, Trinity-square, Southwark.

WATER-SIDE PREMISES.—TO BE SOLD, freehold and part leasehold, BRUNSWICK WHARF and DRAW DOCK, VAUXHALL, many years established in the brick, tile, stone, slate, and lime trade, &c. Excellent RESIDENCE Offices, Stabling and Warehouses, the whole in substantial repair, adjoining the South Western Railway Goods Station, and abutting on the road leading to Wandsworth, with 155 feet frontage to the river Thames.—Apply on the premises; or to Messrs. NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 38, Regent-circus, Piccadilly.

ST. MICHAEL, CORNHILL.—TO LET, upon BUILDING LEASES for a term of sixty-one years, the SITES of the FREEHOLD HOUSES, Nos 44, 45, 46, and 47 Cornhill. The Churchwardens and Committee of Overseers will meet in the Vestry-room of St. Michael's Church, Cornhill, on WEDNESDAY, the 28th day of FEBRUARY, at ELEVEN o'clock precisely, to receive TENDERS from parties desirous of taking any of the above sites, which are divided into three lots. The terms and conditions may be seen, or printed copies of the same obtained, on payment of 5s. upon application to Mr. ALFRED R. MASON, Architect and Surveyor, No. 9, Great St. Helen's, or to Mr HENRY HOPPE, Vestry Clerk, 3, Sun-court, Cornhill. Parties Tendering must send in Tenders to the Vestry Clerk on or before the 27th FEBRUARY, under cover, addressed to the Churchwardens, and endorsed "Tender for Ground in Cornhill," and must be personally in attendance at HALF-PAST ELEVEN o'clock on the said 28th FEBRUARY. The Churchwardens and Overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign the memorandum annexed to the conditions.

BUILDERS and OTHERS.—TO BE SOLD, a SMALL PLOT of BUILDING GROUND, capable of containing thirteen fourth-class houses, with frontage to main road; most eligibly situate in an improving neighbourhood.—For particulars apply to Messrs. SCRIVEN and SON, Surveyors, &c. 21, Barbican, City.

TO BUILDERS, MANUFACTURERS, and OTHERS.—Spacious PREMISES TO BE LET, on lease, near to Oxford-street, with numerous conveniences. Part may be used as stabling.—Apply to Mr LAHEE, 65, New Bond-street; and, to view, to Mr. POOLE, Wells-mews, Wells-street, Oxford-street. (801 c).

ST. MARGARET'S, near RICHMOND.—A few most eligible SITES for VILLAS, with a frontage to the Thames, and other plots, suitable for villas of all classes, TO BE LET, on Building Lease. Money advanced to respectable builders. Apply to GEORGE MORGAN, Esq. Architect, 5, Chancery-lane; or to Mr. LONG, Red Lion-street, Richmond.

LAND in the FINCHLEY NEW-ROAD TO BE LET, on building lease. This beautiful plot of ground has a frontage of 400 feet, and a depth of 200 feet. It is situated in the most pleasant road in the environs of London, elevated so as to command one of the finest prospects in Middlesex, yet comfortably sheltered from the east by Hampstead-hill. 1½ miles from the Swiss Cottage.—For particulars, apply to R. L. ROUMIEU, Esq. 10, Lancaster-place, Strand.

BUILDING LAND TO BE LET, at ANERLEY, for the Erection of Houses and Shops, at very moderate ground-rents, for a term of 120 years. Lease direct from the freeholder. The roads and sewers are complete, and every facility will be given to respectable parties desirous of building on the remaining plots of this eligible estate. For terms, plans, and particulars, apply to Mr ARTHUR TAYLOR, Architect and Surveyor, 18A, Basinghall-street, or 11, Canonbury-square.

TO PIANO-FORTE and CABINET MAKERS.—TO BE LET, extensive WORKSHOPS, consisting of two shops, 52 feet by 24 feet; fitted with racks and stoves, good stowage for timber, veneer room and cellars, water and gas laid on in both shops.—Also, TO BE SOLD, twenty first-rate BENCHES, some Piano-Forte Backs, unfinished Cases, Cylinders, and various prepared work, well manufactured. A specimen of the tone can be heard.—The Advertiser giving up Manufacturing, would be glad to patronise any one taking the premises, and the stock or part; also, to turn over some clever Apprentices. This is an excellent opportunity for one or two persons wishing to begin business, as every instruction would be given to any one not acquainted with the various branches of the trade.—Apply at No. 1, Taunton-mews East, Dorset square.

TO BUILDERS AND OTHERS.

BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON-ROAD, Belmont, Lee, Kent, close by the church. This is the most attractive, picturesque, and respectable locality on any side of London, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men.—For particulars apply to Messrs. J. and C. W. TODD, Milner-street, Brompton; or at their Office in Church-lane, Lee.

WANTED to RENT, or PURCHASE, a superior FAMILY RESIDENCE, within one hour's drive of the City. The reception and principal bed-rooms must be spacious, the locality healthy, and the establishment in every way suitable for the occupation of a gentleman's family.—Address very full particulars to Z. M. P. care of Mr. Hammond, 27, Lombard-street, City.

ST. MARGARET'S MANSION, near Richmond, late in the possession of the EARL of KILMOREY. The Executive Committee of the Conservative Land Society are now open to OFFERS for the magnificent MANSION, with the whole or any portion of the unallotted Land, including the river frontage.—For plan and particulars of sale, apply to G. MORGAN, Esq. the Surveyor, at the Offices, 33, Norfolk-street, Strand. Cards to view the mansion and grounds may be had on application to CHARLES LEWIS GRUNEISEN, Secretary.

A few of the eligible 120l. pink lots, fronting the ornamental gardens, are open for selection on the first allotted portion of the St. Margaret's estate, on which building operations have already commenced.

IMPORTANT to Owners and Purchasers of Landed or House Property, and to Members of Freehold Land and Building Societies.—Costs of preparing Conveyances, Mortgages, Leases, &c. &c. on a fixed and very moderate scale. Apply to Mr. W. TAYLER, Solicitor, 1, Adelaide-place, London-bridge, City.—Office hours, Nine to Seven.

A PIECE of FREEHOLD LAND, about three roods or one acre, WANTED, for the Erection of a Detached Residence, in the neighbourhood of Forest-hill, Sydenham, Norwood, or Croydon. Frontage to a high road not requisite, only convenient access.—Price and situation to W. A. BOULNOIS, Esq. Architect, 6, Waterloo-place.

SALES, Mortgages, Purchases, Leases, and Charges of Annuities of Landed and House Property of every kind, privately and speedily effected, at a very moderate commission, through the Offices of Mr. W. TAYLER. Scale of terms, with two printed forms for furnishing the necessary particulars of property for sale, &c. will be sent as directed, on receipt of four postage-stamps. No charge for registering particulars.—1, Adelaide-place, London-bridge, City side.—Hours NINE to SEVEN.

MESSRS. POOLE and COMBS, Auctioneers, Valuers, and Estate Agents, 79, Bishopsgate-street Within, London.—Persons having freehold or leasehold property for private sale, can send particulars of the same, no charge being made only when sold. The Monthly printed List of Property for Sale can be had on application as above, or forwarded by post on receipt of one stamp.

TO BUILDERS and OTHERS.—For immediate DISPOSAL, on very easy terms, the WORKING STOCK and PLANT of a BUILDER, retiring from trade; with which will be included the Goodwill of the Business, which consists of a good jobbing and general trade in an improving neighbourhood, twelve miles from London, where it has been established and carried on for twenty years.—Particulars may be learnt at the Offices of Mr. E. J. KELLY, Architect and Surveyor, 23, Thavies' inn, Holborn, London.

A PROFITABLE BUILDING and TIMBER BUSINESS, with a good commission, in a flourishing town of the west of England, is TO BE DISPOSED OF, or a Partner to be received into it, having about 2,000l. to invest. This business will be found on examination to present the most satisfactory character. The advertiser solicits parties having capital to make an inspection of this business. First-rate references can be given. Apply, S. Bennett, Esq. Market-place, Bath.

N.B. Any person of business habits with sufficient capital may be received as partner.

TO PLUMBERS, PAINTERS, GLAZIERS, &c.—TO BE DISPOSED OF, an old-established BUSINESS, in the City.—Apply to Mr. JOHNSON, Messrs. Pitchford and Co.'s, Island Lead Works, Limehouse.

TO BE DISPOSED OF, in consequence of the illness of the proprietor, a good BUSINESS, with connection throughout the manufacturing and coal district of South Wales. Having the almost exclusive supplying of patent articles in good and increasing demand, a slight knowledge of engineering, although not indispensable, would be advantageous.—For particulars, apply by letter, addressed to P. G. Post-office, Swansea.

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The Builder.

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Architect, Engineer, Operative & Artist.

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THE ARCHITECTURAL EXHIBITION, and Collection of Manufactures, connected with Architecture, is NOW OPEN from NINE till FOUR at the Galleries of the Society of British Artists, Suffolk-street, Pall-mall East. Admission, 1s.; Catalogues, 6d.; and in the Evening (except on Saturday) from SEVEN till TEN; admission, 6d.

Will CLOSE FEBRUARY 24th; and all objects exhibited must be removed on the 26th.

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
JAS. EDMESTON, Jun. }

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, February 16, a Paper "On Colour" will be read by Mr. Waud.

The Class of Design will meet on February 23. Subject for sketch, "A Clock-case in Mahogany."

ARTHUR CATES, }
T. W. GOODMAN, } Hon. Secs.

TO ENGINEERS AND SURVEYORS.

TOWN SURVEYOR WANTED.—The West Hartlepool Improvement Commissioners are desirous to ENGAGE a qualified person to perform the joint duties of SURVEYOR and INSPECTOR of NUISANCES for the district of West Hartlepool, in the county of Durham. The person appointed will be required to give his entire services. Joint salary for the offices, 120*l.* per annum. Applications, stating age and qualifications, with testimonials to be sent to or delivered at my Office, not later than the 27th FEBRUARY instant, at noon.

By order,
WM. W. BRUNTON, Clerk to the Commissioners.
West Hartlepool, 7th February, 1855.

SOUTH WALES RAILWAY.—Notice is hereby given, that the next HALF-YEARLY ORDINARY MEETING of the Proprietors in this Company, will be held pursuant to the Act of Parliament, at the Great Western Royal Hotel, London, on TUESDAY, the 27th day of FEBRUARY instant, at ONE o'clock, for the election of FOUR DIRECTORS and ONE AUDITOR, in the place of the same number, who will retire by rotation, and for the general purposes of business.

And Notice is hereby also given, that it is intended at the same meeting to consider and determine the mode and conditions of raising the capital authorised to be created under the powers and provisions of the South Wales Railway (Amendment) Act, 1846, and the South Wales Railway (Pembroke &c.) Act, 1853.

And Notice is hereby also given, that the said meeting will be made special, for the purposes of taking into consideration, and, if thought fit, of approving a certain agreement proposed to be made between the South Wales Railway Company of the one part, and the Vale of Neath Railway Company of the other part, with reference to the passage of the traffic of the last-mentioned Company over the South Wales Railway between the Briton Ferry Dock and the South Wales Railway Company's station at Neath.

The Transfer Books will be closed on and after the 17th instant and will not be reopened until after the said Half-Yearly Ordinary Meeting, on the 27th instant.—The Chair will be taken at ONE o'clock precisely.—By order of the Board.

FRED. G. SAUNDERS, Secretary.
10, Eastbourne-terrace, Paddington, Feb. 5, 1855.

BURIAL CHAPELS, Lynn, Norfolk.—The Burial Board of St. Margaret, King's Lynn, have issued INSTRUCTIONS and CONDITIONS for the guidance of Architects desirous to furnish Plans and Drawings for Chapels and other Buildings, to be erected in the proposed New Burial Ground for that parish, which may be had on application to me, by letter prepaid. JOHN JAMES COULTON, Clerk to the Board.
Lynn, February 5, 1855.

COMPETITIONS.

TO SMITHS AND IRONMONGERS.

STAMFORD CEMETERY CHAPELS.—DESIGNS and ESTIMATES are required for WROUGHT-IRON ENTRANCE GATES to the above chapels, of mediæval design. The width between the stone piers being 12 feet, and the gates are to be 6 feet high. The weight to be specified, and the price to include carriage and fixing complete. Sealed Tenders to be sent to me on or before SATURDAY, the 17th inst.—By order of the Burial Board, JEREMIAH CLAPTON, Clerk.
Stamford, February 1, 1855.

CONTRACTS.

ORDNANCE CONTRACT.—To Builders.—Notice is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall-mall, London, on MONDAY, the 12th FEBRUARY, 1855, from such persons as may be willing to UNDERTAKE PROVIDING and LAYING IN, such quantity of CONCRETE FOUNDATIONS as may be required for the Casings, &c. of the TEMPORARY WOODEN BUILDINGS, at ALDERSHOT HEATH, in the county of Hants. Separate Tenders will also be received, at the time and place above specified, for such Brickwork as may be required in connection with the above buildings. The plans may be seen at the Portsmouth Office. The specification, printed schedules of prices, and the conditions of contract, obtained on application at this Office, or at the Office at the Row-barge Inn, Aldershot Heath, between the hours of TEN and FOUR each day (Sunday excepted). The person or persons whose Tender shall be approved, will be required to provide eligible securities, and execute a bond for the due performance thereof, and to pay half the amount of the stamp on the bond.

Royal Engineer Office, Portsmouth, February 7, 1855.

Royal Engineer Office, Sheerness, Jan. 30, 1855.

CONTRACTS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, PALL MALL, London, on or before TUESDAY, the 20th day of FEBRUARY, 1855, for the performance of the following branches of Artificers' Work, for the Ordnance Department in the SHEERNESS DISTRICT, for a period of three years from the 1st APRIL, 1855, determinable at any period after one year, on either party giving to the other three months' notice in writing, viz.:—

Sheerness, including the Islands of Sheppy and Grain.

Carpenters'	Work.
Bricklayers'	do.
Plasterers'	do.
Slaters'	do.
Masons'	do.
Paviors'	do.
Plumbers'	do.
Painters', Glaziers', and Paperhangers'	do.
Smiths'	do.

Separate Tenders are to be made for the different trades. Printed Forms and Schedules of Contract may be obtained on application at the Royal Engineer Office at Sheerness, until the 20th day of FEBRUARY next, Sundays excepted, and no Tender can be admitted after the said 20th day of FEBRUARY, 1855. The Board of Ordnance reserve to themselves the right of rejecting any or all Tenders that may be presented.

Royal Engineer Office, Portsmouth, 5th February, 1855.

TO BUILDERS.

NOTICE is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall mall, London, on WEDNESDAY, the 14th day of FEBRUARY, 1855, from such persons as may be willing to undertake the several branches of ARTIFICERS' WORK, CAST IRON and METAL WORK, that may be required in the CONSTRUCTION of a REDOUBT, at Freshwater Gate, in the Isle of Wight. The plans may be seen, and the printed schedules of prices and conditions of the contract obtained, on application at this Office, between the hours of TEN and FOUR each day, Sundays excepted. The person whose Tender shall be approved, will be required to provide eligible securities, and execute a bond for the due performance thereof, and to pay half the amount of the stamp on the bond.

TO BUILDERS

NEW WAREHOUSES in MANCHESTER.—Parties desirous of CONTRACTING for the ERECTION of a PAIR of WAREHOUSES in Manchester, are requested to communicate with the Architects, from whom printed lists of the quantities may be procured. The Tenders are to be forwarded to the Architects on or before the 13 h of FEBRUARY. It is to be understood that the proprietors do not pledge themselves to accept the lowest Tender. For the information of contractors at a distance, the following particulars are given: The building will be seven stories, of 16 feet each in height; it will have a frontage of 100 yards, and two returns, of 30 yards each, entirely faced with stone. TRAVIS and MANGNALL, Architects.
3, Norfolk-street, Manchester, Jan. 22, 1855.

TO GASHOLDER-MAKERS AND IRONFOUNDERS.

THE DIRECTORS of the FAVERSHAM GASLIGHT and COKE COMPANY are desirous of receiving TENDERS for the ERECTION of NEW GASHOLDER, CAST-IRON TANK, GOVERNOR, &c. Plans and specification may be seen on and after the 5th day of FEBRUARY, at the Manager's Office, Gasworks, Faversham, Kent.—Tenders to be sent on or before the 16th instant, to the Engineer, Mr. JABEZ CHURCH, Chelmsford.—Jan. 31, 1855.

TO MASONS, CARPENTERS, JOINERS, PLUMBERS, GLAZIERS, AND BUILDERS IN GENERAL.

PARTIES desirous of CONTRACTING with the Governors of the United Charities of Nathaniel Waterhouse for the various ARTIFICERS' WORK required in the ERECTION of BLUE-COAT SCHOOLS and ALMSHOUSES in Halifax, may inspect the plans and specifications at my Offices, on and after MONDAY, the 19th instant. All Tenders to be sealed, and sent free of expense to Mr. CHARLES NORRIS, St. John's-lane, Halifax, on or before TWELVE o'clock on FRIDAY, the 2nd day of MARCH. No allowance will be made for estimates, and the Governors do not pledge themselves to accept the lowest or any Tender. CHARLES CHILD, Architect.
King Cross-street, Halifax, Feb 9th, 1855.

TO BUILDERS AND OTHERS

PERSONS desirous of CONTRACTING for the ERECTION of FARM HOMESTEADS, on AMOR-HALL, COPDOCK, and COPDOCK-HALL FARMS, in the parishes of Copdock and Washbrooke, in the county of Suffolk, may see the plans and specifications, at Mr. HURWOODS, St. Peter's, Ipswich; and at the Offices of Messrs. DENTON and DRAKE, 62, Parliament-street, Westminster, on and after the 12th of FEBRUARY.—Tenders to be forwarded to Messrs. DENTON and DRAKE, on or before the 3rd of MARCH.

CONTRACTS.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, Esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the OLD FORD ESTATE, St. Mary, Stratford-le-Bow.—The drawings and specifications may be seen at the Offices of the Surveyor, Mr GEORGE MORGAN, on and after MONDAY, FEBRUARY 12th, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent on or before TWELVE o'clock on FRIDAY, the 16th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Old Ford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender. CHARLES LEWIS GRUNEISEN.
33, Norfolk-street, Strand.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, Esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the Retford Estate, East Retford, Notts. The drawings and specification may be seen at the Offices of the Surveyor, Mr GEORGE MORGAN, or duplicates of the drawings and specification may be seen on application to Mr. JOHNSON, Carr-gate, East Retford, on and after MONDAY, FEBRUARY 12th, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent on or before TWELVE o'clock on WEDNESDAY, 21st, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Retford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender. CHARLES LEWIS GRUNEISEN.
33 Norfolk-street, 1st Feb 1855.

TO BUILDERS AND CONTRACTORS.

PERSONS desirous of TENDERING for the REBUILDING the TOWER, and RESEATING and RESTORING ARKESDEN PARISH CHURCH, near Newport, Essex, may see the plans and specifications at the Office of Mr G. E. PRITCHETT, Architect, Bush Fair, Stortford, and Tradesmen at the Rectory-house, from FEBRUARY 10th to MARCH 3, on which day the Tenders are to be delivered to the Architect. The Committee do not pledge themselves necessarily to accept the lowest Tender.

SAINT LEONARD, Shoreditch, Middlesex.—To IRONFOUNDERS, BUILDERS, SLATERS, and OTHERS.—The Trustees for Cleansing, Paving, &c. the Parish of Saint Leonard, Shoreditch, Middlesex, will meet in the VESTRY-ROOM of the Church on THURSDAY, the 15th day of FEBRUARY, 1855, at SIX o'clock in the evening, to receive PROPOSALS for the ERECTION and COMPLETION of TWO PUBLIC URINALS, one to be erected in the Highstreet, Hoxton, and one on the south side of Swan yard, Shore itch, near the terminus of the Eastern Counties Railway. Separate Tenders must be made for each urinal. The plans and specifications for such buildings may be seen, and any other information obtained, at the Office of the Architect, Mr. THOMAS E. KNIGHTLEY, 23, Cannon street, City. The Proposals for each must be separate for each building, must be delivered at the Office of the Clerk to the Trustees, 37, Hoxton-square, by FOUR o'clock in the afternoon of the day of meeting; and it will be necessary that some person should attend the meeting of the Trustees, in case of any explanation being required.—The Trustees do not bind themselves to accept the lowest or any other Tender. W. G. DAVIS, Clerk to the Trustees.
37, Hoxton-square, February 2, 1855.

CLITHEROE WATER-WORKS COMPANY. The Directors hereby give Notice, that they are prepared to receive TENDERS from competent persons for the following WORKS:—

1st.—The making a Service Reservoir.
2nd.—The laying about 8,000 yards of Earthenware Pipes.
3rd.—The laying about 12,000 yards of Iron Pipes, fixing Stopcocks, Hydrants, Sluice Valves, &c.

The Drawings and Specifications may be seen at our Office on and after the 13th instant; also at the Office of Mr. JOHN M'LAREN BOUGHEY, Civil Engineer, 24, Great George Street, Bradford, from whom forms of Tender, and any further information, may be obtained. Tenders must be delivered to the undersigned, in close sealed cover, addressed to the Chairman of the "Clitheroe Water-works Company," and endorsed "Tender for Works," on or before TWO o'clock, on TUESDAY, the 27th instant. The Directors do not bind themselves to accept the lowest or any Tender.

TRAPPLES and EASTHAM, Solicitors.
Clitheroe, 6th Feb. 1855.

TO BUILDERS.

NEW CHURCH at Isleworth, Middlesex.—Persons desirous of CONTRACTING for the ERECTION of the above CHURCH may see the plans, specification, and conditions, at the Committee-room of the National School, Isleworth-square, Isleworth, on or after MONDAY, FEBRUARY 12. The Tenders to be sealed, and delivered to Mr. DEASON, Architect, 24, Keppel-street, Russell-square. The Committee do not pledge themselves to accept the lowest or any Tender.

TO BUILDERS AND OTHERS

TENDERS are required for COMPLETING and FINISHING sundry works to FOUR HOUSES, now erected, situate in The Drive, St. Germain's Park Estate. The drawings and specifications can be seen on the Premises, between the hours of ELEVEN and FOUR o'clock. The Tenders to be delivered to Mr WILLIAM FERDUE, Architect, 8, John-street, Adelphi, London, on or before the 17th day of FEBRUARY. The lowest or any Tender will not necessarily be accepted.

[For remainder of Contracts see next page.

CONTRACTS.

ORMSKIRK LOCAL BOARD of HEALTH.—WATERWORKS.—STEAM ENGINE MAKERS, BOILER MAKERS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from persons willing to undertake the following Contract for the SUPPLY and ERECTION for the purpose of a NEW STEAM ENGINE, BOILER PUMPS, and of APPARATUS, also, for certain Repairs to existing Machinery and Connexions therewith. Specifications and Forms of Tender may be obtained, together with any further information required on application at the Office of the Local Board, Ormskirk, or at the Offices of ROBERT RAWLINSON, C.E. 31 Parliament-street Westminster. Sealed Tenders to be delivered at the Office of the Local Board of Health aforesaid before SIX o'clock in the EVENING on TUESDAY, the 20th day of FEBRUARY next, endorsed "Tender for Contract for Engine, Boiler Pumps, &c."

WILLIAM WELSBY, Clerk to the Board.

Ormskirk, January 31, 1855

TO BUILDERS

THE MAGISTRATES of the COUNTY of WILTS are desirous to receive TENDERS for BUILDING NEW MILITIA STORES at Devizes, in accordance with plans and specifications prepared by Thomas Henry Wyatt, Esq., Architect, who is also to superintend the execution of the works; and application to WILLIAM WENTWORTH Ash stant to the Hanaperger at the Assize Courts, in Devizes. The Tenders to be delivered, free of all charge, before TWELVE o'clock on MONDAY, the 12th day of MARCH next, at the Architect's office, 7, Great Russell-street, London, and addressed thereon "Tender for Militia Stores." The Magistrates do not bind themselves to accept the lowest or any of the Tenders, if the amounts are deemed unreasonable.

London, February, 1855

TO CONTRACTORS, BUILDERS AND SMITHS

MORTUARY CHAPELS, LODGE, FENCE WALLS, &c. at Bunny Stretford, Herts.—Persons desirous of TENDERING for the ERECTION and COMPLETION of TWO CEMETERY CHAPELS, ENTRANCE LODGE, FENCE WALLS, and IRONWORK thereto, at Bunny Stretford, Herts, may see the Plans and Specifications at the Office of Mr. PERCHETT, Architect, Bunny's Stretford, on FEBRUARY 14th to the 22nd instant, on which day the Tenders are to be delivered to the Clerk of the Board. The said works are to be Tendered for in three divisions, as follow:—The two Chapels and Lodge to form one Tender; the Fence-walls, second; and the Ironwork, a third Tender. The quantities can be obtained on application to Mr. G. PERRY, Surveyor, Bishop Stortford. Contractors will be required to give such security for the due performance of the Contracts as the Board may require.—The Board do not pledge itself to accept any or the lowest Tender.—By order of the Board,

J. D. TAYLOR, Clerk.

CONTRACT for WAGGONS.—GREAT WESTERN RAILWAY. The three tons of the Great Western Railway Company will receive TENDERS on or before the 10th instant, for the SUPPLYING of ONE HUNDRED BALLAST WAGGONS. The drawings and specifications can be seen and all information had at Mr. M'NAY'S, the 5th instant, at the office of the Carriage Department. The Form of Tender is marked "Tender for Ballast Waggons." The Directors do not bind themselves to accept the lowest Tender.

Signed) CHARLES A. SAUNDERS, Secretary.

Paddington, February 3, 1855.

TO BUILDERS AND HOUSE DECORATORS

TENDERS are required for FINISHING and COMPLETING for OCCUPATION the HOUSE, No. 28, Sydenham, Belvedere road, Pimlico. A specification, with other particulars, may be seen at the office where the Tenders are to be sent in, not later than SATURDAY, 17th inst. The Lowest or no Tender will necessarily be accepted.

WILLIAM MUNT, 20, Moorgate-street, City.

TO BUILDERS AND OTHERS.

EXTENSION OF TIME FOR TENDERS.

NEW BANK in Corn-street, Bristol, for the West of England and South Wales District Banking Company. Parties desirous of CONTRACTING for the whole or any portion of the ARTIFICERS' WORKS, to be required in the ERECTION and COMPLETION of the above NEW BUILDINGS, from certain plans already executed, or to be executed, may see the drawings, specifications, and conditions of contract, from and after this day (Saturday), and THURSDAY, the 1st of MARCH next, on or before which day Tenders, sealed, addressed, and delivered to the undersigned, at his Office, in Bristol, as the Directors will be bound to accept the lowest or no Tender. The quantities will be taken by Mr. J. WILLIAMS, of London, and a copy will be sent to all parties signifying their bona fide intention to submit Tenders.

WM. BRUCE GINGELL, } Architects.
THOS. ROYSE LYSAGHT, }

Secret Wetherell's Chambers, Small street, Bristol, 16th Jan. 1855

BERWICK-UPON-TWEED LOCAL BOARD of HEALTH.—WATERWORKS.—To EXCAVATORS, CAST-IRON PIPE-LAYERS, and OTHERS.—The Local Board hereby give notice that they are prepared to receive TENDERS from parties willing to undertake the following contract.

CONTRACT F. For EXCAVATING the GROUND, and for LAYING and JOINTING CAST IRON WATER PIPES, SPECIAL CASTINGS, SLUICE VALVES HYDRANTS &c.

Specifications schedules, and forms of Tender, (stamps per set) may be obtained on application at the Office of the Local Board, Berwick, up to Tuesday, at the Offices of ROBERT RAWLINSON, C.E. No. 31, Parliament-street, Westminster; and Plans are to be seen in Lat the Office of the Local Board, Berwick upon-Tweed. Tenders TWELVE o'clock on MONDAY the 26th of FEBRUARY, in sets addressed "Tender for Contract F.—N.B. The Local Board do not bind themselves to accept the lowest or any Tender.

JAMES C. WEDDELL, Clerk to the Local Board.

Berwick upon-Tweed, 7th February, 1855

WIGAN GENERAL CEMETERY.—TO BUILDERS. Persons willing to CONTRACT with the Burial Board of the Borough of Wigan, for the ERECTION and COMPLETION of THREE CHAPELS, TWO LODGES, ENTRANCE GATES, RAILWAY-BRIDGE, and other works, may inspect the plans and specifications from the 7th to the 20th inst. inclusive, at the Offices of Mr. JOHN S. MARSHALL, Solicitor, Wigan; and also at the Offices of the Architect, Mr. THOMAS D. BARRY, C.E., Bedford-street North, Liverpool, where bills of quantities may be obtained on payment of one guinea. Persons may send in Tenders for the whole, or a portion only of the works. Parties making Tenders, or sureties, will be required to enter into a bond with two sureties for the proper performance of the works. The Board will not pledge itself to accept the lowest Tender. The Tenders to be delivered, sealed, at the Office undersigned, on or before TWELVE o'clock at noon of MONDAY, the 26th instant.

JOHN S. MARSHALL, Clerk to the Board.

Wigan, Feb. 8th, 1855.

TO GAS COMPANIES AND OTHERS.

FOR SALE, at the London Gas Company's Works, Vauxhall, a number of D-RETORT MOUTHPIECES, 12½ by 12½, with lids; 4 feet Ascension and Bridge Pipes to suit, all in good condition.—Apply to the Engineer at the Works, Vauxhall.

THE PERMANENT WAY COMPANY beg to call the attention of Civil Engineers, Contractors, and others interested in the construction of railways to the present low price of iron, by which a saving may be effected of 40l. per mile, single line, in the adoption of the Patent Wrought-iron Permanent Way over that of the ordinary road.—Every information can be obtained on application to

WILLIAM HOWDEN, Secretary.

THE LOCK CONTROVERSY SETTLED.

Messrs. HOBBS, ASHLEY, and CO. are now Manufacturing their celebrated AMERICAN and ENGLISH PATENT LOCKS by their Patent Steam Machinery on the Premises, 97, CHEAPSIDE, and at LAWRENCE LANE.

Messrs. H and C, by the introduction of their Steam Machinery, are enabled to guarantee GREATER SECURITY, and SUPERIOR WORKMANSHIP, at prices more moderate than any Locks produced, either in Town or Country, in addition to which, they are applicable to all purposes for which Locks are used.

Every Lock being made and finished at the Manufactory bears their own stamp, and is warranted, without which none are genuine. These Locks can be procured by order through any respectable Ironmonger in the United Kingdom.

WHOLESALE and RETAIL WAREHOUSE, 97, CHEAPSIDE Manufactory, 3d, Lawrence-lane, London.

P.S. Dendt for Milner's Patent FIRE and BURGLAR PROOF SAFES fitted with Hobbs's Patent Locks.

PARNELL and PUCKRIDGE'S DEFIANCE and NATIONAL LOCKS, "which cannot be picked," are made of all sizes, and for every purpose

FIRE-PROOF SAFES, DOORS, and FRAMES;

DEED and CASH BOXES, COPYING and LEVER PRESSES;

STREET-DOOR LATCHES, warranted safe from picklocks, with two small keys, 4s. 6d. each

Descriptions and lists of prices may be had, or sent, upon application to

PARNELL and PUCKRIDGE, 32, STRAND, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Furniture, Bronzes, Tin Cloth, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr Arnott's Ventilating Cocks, and the new registered Venetian Ventilator, which is light, and does not rattle.

J. H. BOOBYER (late STURCH and BOOBBYER), established nearly 60 years for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope street, Clare-market, London.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT ON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY, LIVERPOOL

"London and North Western Railway Company,

"Liverpool, May 17, 1853

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the two detector locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant,

"GEORGE PALMER.

"Messrs. Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"Gentlemen, I have the pleasure to inform you, that having no one I can look to on the street door of my house prevented my being robbed last night. The thief tried to open it, but to no purpose; he has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired. I am, gentlemen, your obedient servant, "C. OTWAY.

"Superintendent C Division of Police.

"Messrs Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements: Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock

Complete Illustrated Lists, with prices and sizes, will be sent on application

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord street, Liverpool; and Horsfield, Wyrhamstow.

TUPPER and CARR'S (Cranfurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or

BERKLEY-STREET, BIRMINGHAM

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c., always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE PLACE, CITY, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished in application

Experienced Workmen sent to all parts for the Country.

3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

SKAIFE'S GALVANIZING WORKS, Commercial road, Limehouse, London.

Skaife's process is the most effectual preservative against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form

Sheets plain and corrugated—Roofs fixed complete.

J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbers' Tools, Tiles, &c.

An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized Corrugated Iron Dwellings Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,

Patent Corrugated, Galvanized, and Painted, Wrought-iron principal, Glass and Slated Roofs, to any span,

Wrought-iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor and Ironfounder, Mill-wall, Poplar

Offices, Arthur street West, London-bridge, where experienced draughtsmen are apt to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZED IRON. (IMPROVED PROCESS)

JOHN SYMONDS and CO.

WORKS, GLASS HOUSE YARD, opposite the principal Entrance Docks

GALVANIZED MILLET-IRON and WIRE of every description, superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c.

Roofs fixed complete.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Chain-on Goods, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

Office, No. 7, Size-lane, London.

BY ROYAL LETTERS PATENT.

A NEW WRENCH.—TO ENGINEERS, GAS-FITTERS, AND ALL WHOM IT MAY CONCERN

WORMALD and POLLARD'S PATENT PIPE and NUT WRENCHES, &c. The increasing demand for these useful and invaluable instruments for the above trades, for facilitating labour and saving time, has induced the Patentees to make a reduction in the prices, trusting that public patronage will continue for the authentic they make.

No.	Pipe Wrenches.	No.	Nut Wrenches.
1	30s.	1.	24s.
2	16s.	2.	18s.
3.	10s. 6d.	3.	14s.
		4	10s. 6d

The Wrenches are now used in the London factories of the kingdom, one substituting the place of twelve pairs of common tongs, and when in rather human power is necessary, any leverage can be attempted to them.—Manufactory, Bridge-foot, Vauxhall. Depôt, 158 Southwark-bridge road.

AN IRON DOOR to be DISPOSED OF. Dimensions, 6 feet 10 inches by 6 feet 3 inches.—For particulars apply to Mr BURKETT, 44, Queen-road, Bayswater

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful means of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent-street London.

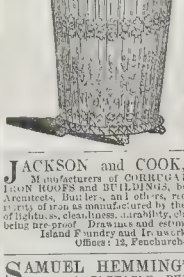
HEATING by HOT WATER.—JOHN WEEKS and CO. King's road, Chelsea, call the attention of architects, &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one coil can be seen daily in full operation, heating building in addition to 100 feet in length, at the small expense per day in fuel and labour of 4s. 8d. This achievement in heating by hot water is unprecedented.

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 26, insures perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 273, High-street, London. Manufactory, Luton, Beds.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for—the verdict of full approbation.—has just been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is recommended for best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

MAGNUS'S PATENT ENAMELLED SLATE CABINET FORMED FIRE-PLACE.—This is decidedly the most novel, elegant, economical, and comfortable fireplace that has ever been introduced. It is a perfect ornament to any room, and stands BEFORE the opening of the chimney, projecting into the room as a regular cabinet. It is composed of fire-stone and slate, and has fire-stone hearth and back. It may also be fitted up for gas instead of coal. By the economical, which also saves one half the heat from the coal was cast in the chimney, and by persons of taste who object to the stiff appearance of fancy-piece in ordinary use, the CABINET-FORMED FIRE-PLACE has only to be seen to ensure its adoption. Price from ten guineas upwards. Pimlico Slate Works, 21 and 49, Upper Belgrave-st., Pimlico

SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Hall Passages, Warehouses, Shops, Hotels, and Offices, require no Flue, create no Dust, and are safe from all risk of fire.



Any number of these Stoves may be heated from one Boiler, and may be used equally well with Steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER

is the most powerful, salubrious, and economical Apparatus as yet invented for Warming Churches, Chapels, Schools, and Public Rooms, by means of Hot Air

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JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, to the economy of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, ease of construction, and being fire-proof. Drawings and estimates furnished

Island Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, show-fronts, boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, &c. at SAMUEL HEMMING'S IRONMONGERY at PEEL and STEDALLS',

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 400 buildings, consisting of churches, private houses, hothouses, halls, and staircases, galleries, conservatories, forcing-houses &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford street.

POWERFUL CRUSHING-MILLS, or GRANITE and IRON EDGE RUNNERS, FOR SALE. Also THREE PAIRS of French and Colage HORIZONTAL STONES, a capital pair of 9-feet FRENCH STONES, in frame, a 14-horse STEAM-BOILER, one ton, and portable WEIGHING-MACHINE. Can be seen.—Apply to C. T. CHRISTIE, Millwright and Engineer, 19, Broad-street, Lambeth, and 113, Vauxhall walk.

TO ENGINEERS, ARCHITECTS, AND BUILDERS.

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UNDERTAKE CONTRACTS, THROUGH THEIR AGENTS, FOR ZINC ROOFING OF ALL DESCRIPTIONS;

TOGETHER WITH, WHEN REQUIRED,

ALL THE NECESSARY TIMBER OR IRON FRAMEWORK, IN WHICH A GREAT SAVING IS EFFECTED BY THE LIGHTNESS OF THE METAL.

It possesses all the Advantages of Galvanised Iron, and is far more Durable and Cheaper, especially for large Spans.

The long duration of these roofs without repair, their neat appearance, and the economy of materials employed, as well as of area covered, render them most advantageous for dwelling-houses. Many roofs covered with zinc, especially on the continent, have remained since the first introduction of this metal till the present time without having required, or appearing likely to require, any repairs.

CERTIFICATES in proof of this from the FRENCH GOVERNMENT and other authentic sources CAN BE SEEN at the COMPANY'S OFFICES, where all information, Estimates Drawings, or Prices, together with every assistance in laying on or otherwise, may be obtained on application to the Company's Surveyor, at

No. 12, MANCHESTER-BUILDINGS, WESTMINSTER.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 129, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self acting Cottage Ranges, with Large Oven and Boiler,
30 32 34 36-inch.
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars
34 36 38 42-inch,
54s. 56s. 58s. 63s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 6d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 6d per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.
Cast Rain-water Pipe { 2 | 2½ | 3 inch. / 1s. | 1s. 3d. | 1s. 6d. per yard.
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O G Gutters { 1s. 4d. | 1s. 6d. per yard
Best Cut Clasp and Rose { 1½ 1s. | 1¾ 1s. | 2 1s. | 2½ inch, and larger. 1s. 6d. | 1s. 9d. | 2s. | 2s. 6d.
Cut Bilied Brads, 14s. 6d. per cwt
1 inch Cut Lath, 17s. Cast Lath, 13s.
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4-inch Rd. Ward Mortice, with best Furniture and Patent Spindles, 3s. 6d. each Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron
Brick Moulds kept in stock. Any size made to order.

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D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern book and price list, 10s.—55 and 56, High Holborn

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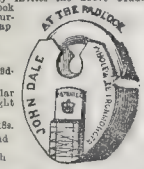
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs,
9d. per inch, and upwards.
Register Stoves, 5id. 6d. 7d. 8d. and 9d. per inch.
Self acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 13s.; 3 ft. 6 in., 3l. 8s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 36s. each.
3-feet self-acting ditto, ditto, 56s. each
Air Bricks, 4s. per doz.
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Best Patent Sash Line.
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4s. 6d. 5s. 6s. 7s 6d. 8s. 6d. 11s. per gross
And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, manufacturer of all kinds of STEAM ENGINES, portable and stationary; Sawing Machinery, Pumps, Cranes, Crabs &c.
N.B Several high pressure Steam-engines for Sale.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

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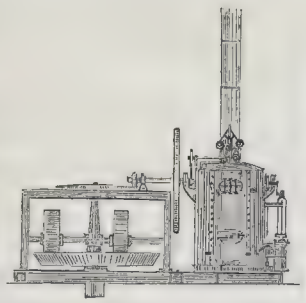
NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES.
a complete LIST of which
will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 1, Gresham-street, LONDON.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.



A SAVING of TIME and MATERIALS, with Solidity of Building
HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.
TESTIMONIAL.
"Thorn Island Battery Works, Milford Haven,
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"Sir,—The three-horse power steam-engine purchased from you in 1853, for the purpose of hoisting stone and other material for the building of the above battery, has answered the purpose for which it was required remarkably well, and from its performance was found very convenient to remove from one part of the building to another. The consumption of coals was about 4 cwt. in 10 hours.
"I am, Sir, yours truly, for THOMAS JACKSON
"THOMAS SWAIN"
N.B. Wanted, an Apprentice to the Engineering Business, to reside on the premises. A premium will be required.—Apply as above.

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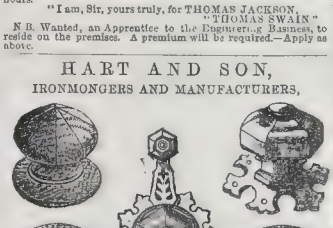

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Illustrated Catalogues post-free on receipt of six postage-stamps.

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Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
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R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
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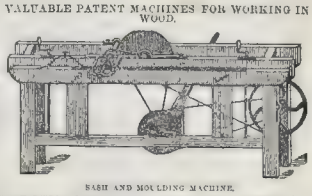
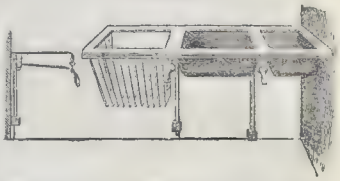
VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



SASH AND MOULDING MACHINE.

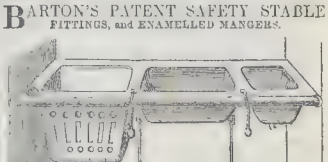
PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders: and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee for Lawton street, Liverpool, from whom full particulars may be obtained.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Wimpole-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE, they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety conduit to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's improved fixtures. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Wimpole-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.



The only Patented Invention of the description constructed so as to prevent considerable waste of Hay and Corn, together with all the newest improvements.
STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.
Manufacturer of Kite's Patent Noiseless Cast-iron Smoke-curing Cabinet Cats (Sworn Buckingham Palace), price 35s. each
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SAW-MILL MANUFACTORY, Chelsea, London.—WORSAM and CO. invite the attention of all concerned in sawing, planing, and moulding wood to the simplicity and compactness of their machines over those now in use, which are both cumbersome and expensive. Drawings and prices sent on application. Estimates given for complete saw-mills for exportation or otherwise

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RAIN-WATER PIPES.—O-G and Half-round Gutters, Sash Weights, Railway Bars, Air Bricks, &c J. JONES, Iron Merchant, Iron-bridge Wharf, No. 6, Bankside, has the largest stock in London of the above and other castings, of the very best quality. Also cast-iron pipes for gas, water, or drainage; bends, tees, &c.; flange and hob-water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig-troughs, &c &c
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PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

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BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c always in stock.

FOUNDRY AND IRON WORKS,
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GLOVER, BROS.,
Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.
Patterns of Girders, Columns, Balconies, Railings, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, a light for internal work.
A large stock of Rain-water Pipes, Plain and G G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.
Plain and Ornamental Vases 20 per cent cheaper than Terra-cotta.
Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book safes an Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.
GLOVERS' IRONWORKS,
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THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.
The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.
The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. S. MORLEY and CO.; and by the Company's Original Agents. In London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by Messrs. LAWFORD and CO., of 46, Norfolk street, Liverpool, who are also acknowledged Painters to the Company for Oxide Paints, and undertake painting, warehouse, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS in kegs of 14, 21, and 28 lbs. and upwards to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.
The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.
For further particulars, apply to the Company's General Agent in London, Mr. SCHMOLL, 12, Manchester-buildings, Westminster.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL. Light and dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Panels, Stucco, &c. Marble Merchants and Importers of Portsdown.

PORTLAND CEMENT.—ASPDIN'S PATENT.
Messrs. ASPDIN, ORD, and CO have much pleasure in informing consumers of this valuable Cement that they have, by means of a recent discovery patented by Mr ASPDIN, much improved the quality of this Cement without any increase in price.
Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour.
ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.
A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster; at their Works, Cutcheon-town-Tyne; at Messrs. Robson's Wharfs, Holland street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

6, South Wharf, Paddington.
PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not crack, vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are required. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq., at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cements, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, to 9 miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.
These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.
FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.
Dated St. Mary-street, Bridgewater, July 26th, 1854.

WHITE OXIDE OF ZINC AND ZINC PAINT.
(LANGSTON SCOTT'S PATENT.)
CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*
This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brandy, either in the dry state or ground in Oil.
Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innocuous qualities, is peculiarly applicable to Bridal-class Decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.
PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO
MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

DAMP WALLS.
STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,
Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.
Prepared only by W. J. STENT, Warminster.
London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.
O. and T. can deliver by their own boats, or by rail to any part of the kingdom.
Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in coil or and quality.
Office, Warwick.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not contain any adulterations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers; to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster, who prepare one quality only of Portland Cement.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. CHARLES FRANCIS and SONS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard success dry quickly, and can be painted upon within a few days. Made only by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. BILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shelly lime deposits is ground into an impalpable powder, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.
Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.
ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.
SCONSES, PAVIORS', STOCKS, and other BRICKS.
CHARLES RICHARDSON, 6, South Wharf, Paddington.

MAW'S ENCAUSTIC TILE PAVEMENTS—a highly durable and decorative substitute for ordinary flooring and their perishable oil-cloth coverings; for entrance-halls, passages, verandahs, conservatories, &c.
MAW and CO. send, free of expense, their pattern and price book, with designs, to any given spaces and estimates), free of expense.
BENTHALL WORKS, BROSELEY, SALOP.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Copings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c. Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin, from which the trade terms, viz. "Terro-Metallic," is the exclusive right of the Proprietor, and, thirdly, that the "Reports of the Jurors," page 591, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

GREAT NORTHERN WHARF, York-road, King's cross. WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BRICKMAKERS and OTHERS.—TO BE SOLD, about 12,000 chaldrons of ASHES and BREEZE, of first-rate quality; can either be delivered or put on board on the Regent's Canal. For price and particulars, inquire of Mr. GEORGE TILLEY, St. George's-wharf, Agar-town, St. Pancras.—Feb. 7, 1855.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at R. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.
Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.
Apply to HENRY DODD and CO. at the Countine-house, Hoxton Brickfields, Orange-walk, near the Rosemary Branch, Hoxton.
N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS for OVEN-BUILDING, acknowledged the best for that purpose, delivered, 22s. to London-bridge or Newington; beyond that distance, moderate charge carted. Bricks of all description; yellow and light pickings, equal to seconds. Red facings, at 30s. in field; red and glazed pipes, about half the price of stoneware; white sand, nearly silver, in field or by barge; founders' sand and loam; good coloured gravel.—Address, B. PARKS, Lewisham Brickfields.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newington-crescent, Newington-butts, will, from MONDAY, the 11th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

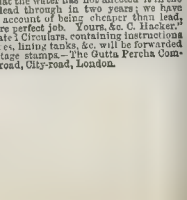
BRICK-MAKING EXTRAORDINARY!! BY OATES and INGRAM'S PATENT MACHINE.
TO CAPITALISTS AND BRICKMAKERS.
Messrs. OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen, by order only in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.
The great advantages possessed by this machine over all others are, no tempering is required.
The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be stacked up to leave before leaving the machine, which is entirely self-acting, consequently requires only the labour of feeding and carrying off.
An invitation is offer to view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, WELLS'S HOARD, Bromsgrove, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

WHITE SUFFOLK and RED FACING BRICKS.
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE OF THE FINEST QUALITY.
MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BRICKMAKERS and OTHERS, requiring Mills for Washing.—TO BE DISPOSED OF, by PRIVATE CONTRACT, THREE capital TWO-HORSE WASH MILLS; the owner having erected Machinery for Washing, &c. by Steam.—No. 1. A very powerful mill, partially iron, with large iron wheel newly cogged, shafts, pinion, pump, rods, rising main, &c. to lift water from a well of 60 feet deep, with iron arrows, brickwork, &c. having been erected only two years.—No. 2. A very large superior-built mill, with iron arrows, and brickwork, &c. having been erected only two years.—No. 3. A mill, with wooden cogged wheel, pinion, rods, rising main, and pump, to lift water from a well of 60 feet deep, with iron arrows, brickwork, &c.—To be seen, and prices obtained, at JOHN E. LEE'S Brickfields and Lime Works, Lamnit-hill, Lewisham, Kent.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, true in form, and at less expense than heretofore been accomplished.
Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.
TUNED BY MACHINERY.
Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and rigged on a new system, which gives a superior tone and facility for ringing.



GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of this tubing, the Gutta Percha Company have drawn our attention to the following letter received from Mr C Hacker, surveyor to the Duke of Bedford:—"Office of Works, Woburn-park, Jan. 10, 1853.—In answer to your inquiries respecting the gutta percha tubing for pump suctions, I find that the water has not affected it in the least, although it will eat lead through in two years; we have adopted it largely, both on account of being cheaper than lead, much easier fixed, and a more perfect job. Yours, &c. C. Hacker." N.B. The Company's Illustrated Circulars, containing instructions to plumbers for jointing tubes, lining tanks, &c. will be forwarded on the receipt of three postage stamps.—The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THOMAS MILLINGTON

Begs to inform ARCHITECTS, BUILDERS, and the Trade, that he supplies the following articles of the best quality and at the same time upon the lowest terms:—

ENGLISH AND FOREIGN SHEET GLASS, PLATE, PATENT PLATE, PATENT ROUGH AND FLUTED PLATE, MILLED SHEET LEAD,

PATENT PIPE, LEAD, IRON, AND BRASS PUMPS, AND WATER-CLOSETS,

Genuine White Lead, Colours, Varnish- Brushes, and every article in the Trade.

FOR PRICE SEE ADVERTISEMENT FIRST SATURDAY IN EVERY MONTH, OR UPON APPLICATION AT THE WAREHOUSE,

87, BISHOPSGATE-STREET WITHOUT, LONDON.

SASH and DOOR MANUFACTORY, 59, GRANGE-ROAD, BERMONDSEY.—I. SUGDEN respectfully invites builders and the trade in general to an inspection of his stock of manufactured joiners' work, prepared from the best material, at the lowest possible price.

P.S. A full list of prices on application.

JAMES RHODES, No. 6, Macclesfield-street North, City-road, London, Manufacturer of Sashes, and Frames, Doors, &c. and every description of House Joinery. Glazed goods securely packed for the country. Prices on application at the Counting-house, as above.—N.B. This is the cheapest manufactory in London, and well deserving the attention of all engaged in building.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, fittings staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned.

DUNCANSON & MOULTRIE, JOINERS to the Trade, 74, UPPER CHARLTON-STREET, Fitzroy-square. Sashes, doors, shop fronts fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. Wainscot and mahogany work, got up in a superior manner, and all kinds of joiners' work estimated for according to design. By enclosing a postage-stamp, a full list of prices will be returned by post.

TO BUILDERS, &c. — TO BE SOLD, a mahogany and plate-glass SHOP-FRONT, with Spanish mahogany doors. Can be seen at the Premises, No. 42, Poultry.—For further particulars, inquire at Messrs. AINSLIE and WILSON'S, 10, Old Jewry-chambers, City.

SOHO CROWN, SHEET, ORNAMENTAL, PATENT PLATE, AND PLATE-GLASS WAREHOUSE, 26, SOHO-SQUARE.

ALFRED GOSLETT begs to inform Builders, &c. that he is prepared to Tender for the supply of EVERY DESCRIPTION of Glass, now manufactured at WHOLESALE PRICES.

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and, the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 4d. 5d. and 6d per foot; sizes varying from 24 by 16 to 40 by 28.—G. FARMILOE and SON, 118, St. John-street, West Smithfield.

THE COSMOPOLITAN GLASS COMPANY, 284, Oxford-street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot. Crown or Sheet Squares, in 100 feet boxes, 2d. per foot.

Sashes Primed and Glazed, 2d. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for gilding, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 25, OXFORD-STREET.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 1, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

BUILDERS, &c. &c.—Take Notice of the extraordinary Reduction made in the price of marble work at the WESTMINSTER MARBLE FACTORY.—A Vein Marble Slab for Chimney-piece, only 20s. A good-sized Vein Marble Box Chimney-piece, with cane and bases on plinths fitted up in the best style, only 1l. 12s. Their patent machinery enables them to execute Marble Floor at 2s. 6d. per foot super. and every variety of Marble work at reduced prices. Their Show Rooms contain the largest Stock of Chimney-pieces in England.—Address, WESTMINSTER MARBLE COMPANY, EARL-STREET, BLACKFRIARS.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London

THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Barilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amiser Marble, for Boudoirs Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

MARBLE and STONE CHIMNEY-PIECES.—A SALE of the above will take place on TUESDAY, the 13th of MARCH, consisting of a great variety of statuary, Barilla, black, vein, and Sicilian marbles.—Catalogues, or any information, by post, one week previous to sale. A large portion of the stock is ready, and can be viewed at any time at HUSTLER'S Marble and Stone Sawing Mills, Cambridge-heath, Hackney.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents beg to inform the gentlemen connected with the Marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally their extensive assortment of vein, Sicilian, and statuary marble, in slab and block, at prices never before offered. JAMES SIMMONS, Manager.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.

Mr. J. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. WOOD and ROBARTS invite the attention of Builders, Masons, and Others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c cut on the shortest notice. Country orders promptly attended to.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

GRANITE, MONUMENTS, TOMBS, TABLETS, LEDGERS, LANDING STEPS, &c. polished or otherwise, as required. Granite blocks, ashlar, tramway, &c. Bramley Fall and other stone. Cargoes of the above stone supplied direct from the quarries. Goods landed and shipped.—Apply to Mr. G. H. CLARK, Stone Merchant and Granite Agent, Devon Haytor Wharf, Rotherhithe, London.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

BRAMLEY-FALL STONE and LARGE LANDINGS.—Mrs. ANN HUSLER can supply any quantity of BRAMLEY-FALL STONE, large landings, flags, steps, sills, copings, sinks &c. &c. at the lowest wholesale prices. Note. No charge made for supplying to dimensions.—Apply for price, &c. to S. TRICKETT, Stone Wharf, Isle of Dogs.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Nelt's Waterloo-bridge. Offices: 346, High-street, Southwark, near the Townhall

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, & Co.), General Stone Merchants, Caen Wharf, Rotherhithe, are supplying the above and Bath, Portland, Yorkshire, Granite, and other stones from their depôt, at current prices by land and water carriage; also by vessel direct from the quarries, at moderate ship freight to any part of the United Kingdom.

N.B. Heavy goods landed, transhipped, or carted with despatch, and at moderate charges.

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ATURDAY, FEBRUARY 10, 1855.

IN a recent article—one of the series on the History of Architecture, commenced in conjunction with notices of the Courts at the Crystal Palace—we traced down e succession of styles to the advent of a new anner of ornamentation, chiefly practised in rance, though derived from Italy. In speaking the degenerate style, which is mainly exemified in the buildings of Borromini, and which d to the other, we had cited a class of works ot generally referred to when the history of the riod had been under consideration. We also luded to the modified effects of Italian precet upon the architecture of different counies. Some further comparison of the state of t in England and France during the seventh century, may contribute to the better mprehension of the subject,—more especially regards the character and results of the period Louis XIII. of France, and the long reign of e more celebrated monarch, his successor. ie higher qualities of art do not necessarily swer to the bidding of *patronage*, nor are they ways to be found where there may be a colossal ale of expenditure.

"Something there is more needful than expense."

A corresponding regard by the best archiects of France and England, for particular odels, did not result in identity of general yle. Though the same Cinque-cento element ay pervade the chief monumental works in ch case, the other circumstances controlling e general character of architecture were different.

It is within the power of individuals possessg the requisite art-qualifications, to exert great fluence upon the architecture of their own me. In the present day, we may complain of e difficulty of putting forth this influence,—t, how much of the existing taste for Gothic chitecture can now be traced to one man? nough, we think, to greatly serve the argument those who are of opinion, that any style of architure may be attributed to one such source of aching and exemplification. In the case of e seventeenth century, at least, it is clear, not ly that to Inigo Jones we owe the introducon of a new style into England, but that his xample and authority had much to do with the haracter of the noble works that followed ter. The Elizabethan literature and art, ceiving an Italian impress—directly, as well as rough the ordinary overland passage of style—ad, indeed, prepared the soil for the kindly ceptance of the plant. But the vigour of the ce of English architects is not the less to be garded as one of the chief causes of the high ndition of Italian architecture amongst us. Whether it was by the architects of this school, at the excessive deference to precedent, lately tributed to those of the present day, was duced,—or whether the positive reproduction the buildings of Italy, occasionally resorted , was to be defended—as it cannot be by us—e questions which might fairly be put. et it be admitted that the use made of Italian lodels did not manifest those qualities of art, nown by the Cinque-cento artists in *their* use ancient models: it is our main business here relate the history of architecture as we find , not to supply excuses for any system supposed weigh down the energy of our own time. The isthetics of art are now being gathered toger—in the effort to give to the feeling of the rtist, the assistance of the principles of a ience: the architect of former time had individual feeling and precedent alone. We should estimate the works of the seventeenth century—as we are told we should estimate all works—with reference to the circumstances of their day; and doing this, our comparative position will not be found what it should have been. It may be even, that the artistic feeling is the thing which we have not.

The real great defect in many of the works of the Anglo-Italians, was the forgetfulness of English habits and climate. Even in the plans of Jones, convenience was sacrificed often to an idea of internal effect,—but in the works of some architects the mistake is constant. Pope said that Lord Burlington had shown that,—

"Pompous buildings once were things of use,"

and asks whether the "imitating fools" should

"——— call the winds through long arcades to roar,
Proud to catch cold at a Venetian door,
Conscious they act a true Palladian part,
And, if they starve, they starve by rules of art."

Yet Burlington was by no means free from errors of a similar kind, and was himself satirized accordingly. His house at Chiswick—a beautiful work of art though it be—was "too small to live in, and too large to hang to one's watch," whilst of the house in Cork-street, Lord Chesterfield said:—"as General Wade could not live in it, he had better take a house opposite and look at it."

We say that these are questions which we have no present need to pursue to a decision. For the main point before us, the historic interest and the value and merit of the school, we might instance the production of an artist like Vanbrugh, though no one may have been more lampooned than he was. But we could find others also, who did not subordinate the exercise of inventive power to the forms of the admired example.

Inigo Jones may have been injured as an artist, by the very extent of his admiration for the works of another. But it is impossible to avoid noticing how continually *his* merits grow upon us by the better knowledge of his works, now gradually being arrived at. Few artists have been so unfortunate as regards the completion of their designs, or the permanence of their executed buildings. The common habit of ascribing the authorship of many uncertified works to this architect, is rather a traditionary piece of testimony to the importance of his position in the history of art, than a practice to be defended. Still, enough is now before the world, in which we can admire the inventive power, and the varied treatment, which were not wanting in the works of the great originator of Italian architecture in England. It must be recollected that Jones was the *first* of an illustrious line, but that he had the good sense to reject the vicious practice of his contemporaries in Italy, noticed in the last article. Walpole thought him "the greatest in his profession" "in these kingdoms," and says that Inigo Jones, "if a table of fame, like that in the 'Tatler,' were to be formed for men of great and indisputable genius in every country, would save England from the disgrace of not having her representative among the arts."

But though there may be the opportunity for the right man to exercise a visible influence; as opportunities and individual powers usually are, the authority is seldom absolute; or rather, circumstances are not always controlled by the exercise of qualities in the architect,—perhaps not the less required, though supplementary to taste and learning. In Jones's case, the circumstances were as we have seen favourable, and the fame of "a great traveller," which we find recorded on the occasion of his visit to Oxford, may have supplied the rest.

In France, though the architects individually were men of equal merit, it cannot be said that ony one of them had corresponding influence, or that there is a similar character of progression in the grand monumental works. M. Quatremère de Quincy himself remarks, that each architect pursued his own studies, without aiding in the formation of any permanent school. The kindly interchanges of a professional brotherhood, our art requires now, but which we recognise a growing desire to foster, and give the advantage of. Constant communication had all along been maintained with Italy; and, as we have seen even in the period before that we are noticing, Italian architects of the first order had been resident in France. The elegant Renaissance of Philibert de Lorme, and that exemplified in the old Louvre, by Lescot (and to which the nearest approach in England is in Mr. Hope's house in Piccadilly), had had contemporary with them the pure Italian architecture of Jean Bullant. The last-named architect, practising during the period 1540 to 1573, or not less than thirty years before our James I. began to reign, we have means of forming a comparative estimate. Holland House and Hatfield had not been built: Jones had not paid even his first visit to Italy. But when the Banqueting House, Whitehall, had been completed, in 1622, the old manner here had been resolutely abandoned, and the style founded on Italian models began its extended and permanent course. During the same period, the architecture of France, which we lately found so difficult to characterize, had neither held to the Renaissance of one architect, nor to the Cinque-cento style of the other. The influence of the individual upon art does not always originate with the architect, and thus, unfortunately, it is often to be referred as much to caprice or "little knowledge," as to result of æsthetic reasoning. With Mary de Medicis, the humour was to have something wherein she might be reminded of her native city, and what is called the "intermediate style" of De Brosse, was the consequence. Between the preceding styles and the rustic work of the Florentine palaces, the contrast formed was very great. It has been said, that similar work is not adapted to buildings with less extended parts than those at Florence: on the other hand, De Brosse was an architect of some merit, and had all the skill in grouping, which, indeed, was general with the architects of that time. But that regular progression of style which is by no means inconsistent with the exercise of invention, is, on the whole, the most favourable condition for the progress of *art*. It requires some time before any style can gain the hold on the public mind, which is essential to general art-production. The demand for particular *style*, is the expression from the public of their idea of the nearest standard of excellence which was within their reach: the life of the professor himself does not suffice for pursuing from the outset, inquiries into those principles which each style has endeavoured, and gone some way to solve; but again and again, in the history of the art, are we reminded that anything opposed to the calm, philosophical eduction of principles, only retards the progress,—in the same manner that opposing demands upon architects have been allowed to do in our own day.

In the Luxembourg palace by De Brosse, the high-pitched roofs, and the grouping of masses at the angles of buildings surrounding a court, and some of the other features of the best-known form of French domestic architecture, are very remarkable. De Brosse died about the year 1625, but his works influenced the style of many later buildings. After the death of Inigo Jones, in 1651, we have ample means of judging of characteristics of the French style, from specimens of it which are found in England.

Montague-house, the Old British Museum, of which illustrations appeared in some of the early volumes of the *Builder*, and which was originally erected in 1674, afforded an example

of the ordinary character of the style contemporary in France. Though Sir Christopher Wren adopted the manner to some extent, as in Chelsea Hospital—and, however pleasing it is in many of its main features—it is clearly an exotic and concurrent style with us, and not that which anywhere, conveys adequately the idea of palatial grandeur,—that which is so strikingly exhibited in the work of the same architect at Greenwich. And here we come to the chief point to which we have been endeavouring to draw the attention of our readers,—the diverse circumstances under which the Italian influence was exerted in the two countries.

The domestic architecture of a country, as we have heretofore remarked, should by no means be disregarded in the attempt to define the style at a particular epoch. The chief forms do not readily undergo change. The Gothic and castellated elements in England and France, may be observed in general forms long after the style as marked by decorative details, had become modified. In the latter country, from political causes, these elements were to be observed to a greater extent at the same date, than in the later Elizabethan, or Jacobean architecture. Thus it came to pass, that the French architects had to adopt the high-pitched roofs and the dormer windows of a much earlier style, and that the conical capped turrets crowned the *pavilions* of the angle and central masses. To these, later, Mansart added the curb-roof, otherwise known by his name, and the result was a style, in our opinion having some merit and esthetic value, but which is not that which would have been chosen for the architecture of Versailles, by an English architect, having regard to the magnificence which was contemplated. The exterior of the great work of Le Vau and Mansart shows a mass of mean buildings, and conveys no idea of the riches that are within. In England, however, the transition from the Jacobean was not only more easy, but there was less opportunity for prejudice against new forms.

In the seventeenth century, therefore, we find in *both* countries, an Italian style and a modern French style of architecture; but the style which was the rule in one country, was rather the exception in the other. The architects of both countries studied at the same school, yet the result was hardly what might have been expected. Indeed, it was not till a late date comparatively, that France possessed an architect of merit so far corresponding with those of England, as to make fair use of his advantages of position. That rank may, perhaps, be claimed for Le Mercier, the architect of the Church of the Sorbonne. This building was commenced in 1629, or soon after the death of De Brosse. The portico, which, if treated in the usual way, would be tetrastyle, has the angles each formed by a group of four columns. The pediment projects from a high-pitched truncated roof, which forms a good base for the dome. There is a clerestory with buttresses. With the relative positions of the main features, and some resemblance in the roofs, in this building and the centre of Chelsea Hospital, it is impossible to avoid supposing a certain community of feeling between the architects of the earlier and later buildings. But there is nothing in France of similar date which can be compared with Jones's portico to Old St. Paul's, commenced in the year 1633, the date to which we owe the statue of Charles I. at Charing-cross. In regard to sculpture, on the contrary, little can be claimed as the work of English artists. With the exception of Nicholas Stone, who executed the monument of Sir George Villiers and his wife, and that of the Countess of Buckingham, both in Westminster Abbey, the art in the reign of Charles I. and for many years afterwards, was in the hands of foreigners. The change which had come over the architecture of Italy about this time—the middle of the seventeenth century—was equally marked in art generally. The extravagances of Borromini are referable in a singular manner to the individual character of one, whose conception of art was crushed into the mere outdoing of a rival, and whose own hand at last terminated the more fearful, internal contest. But the cause lay deeper. The *toleration* of such caprices is to be explained only by the fact of a general change in the tone of thought, which took place throughout Europe. The pursuit of "the ideal" was no longer followed, and ancient models lost their *prestige*. In sculpture, mere imitative carving, or fanciful attitudes, were the great objects. Sir William Chambers, who wrote his treatise many years later, especially instances the statues by Bernini, on the colonnades of St. Peter's, with their twisted attitudes, and draperies blown by the wind, as especially unsuited to combination with architecture. In painting, landscape art was developed,—the best result of the tendency we have referred to. In interior decoration, the rules of perspective were more than ever called into use for the treatment of ceilings, and other unsuitable spaces, with the representations of architectural details. Pozzo, the Jesuit, and author of the book on Perspective, was one of the chief practitioners in this branch of art; but the inner dome of St. Paul's Cathedral furnishes a familiar instance.

In the next chapter of our comparative view of the architecture of England and France, the works of Sir Christopher Wren, and of his contemporary the great architect of France, will need especial examination.

THE BRITISH INSTITUTION.

Little can be said congratulatory of the majority of the works here appertaining to the historical or subject class. *Mediocre* would be a polite term to apply to them. Even the few that assert a claim to be looked at and admired, excepting one or two instances, emanate from those from whom more might be expected. Not many years ago the opening day of the British Institution used to be anticipated with a pleasure and excitement only second to that which awaited, and still awaits, happily with growing cause, the annual gathering by the Royal Academy. Then it was customary with our first painters to contribute. Maclise, Landseer, Collins, Etty, Stanfield, Roberts, Poole, Danby, Finnell, Martin, and other names of equal celebrity, were naturally looked for and found in the catalogue. Who now are their substitutes? Is it not extraordinary that amongst the half score of rising men, who year after year complain of neglect on the part of Royal Academy jurors (because they, having barely space for six pictures, are expected to award good positions to twelve, and fail *sometimes* in pleasing all), some do not avail themselves of this gallery to be seen to advantage? Whether they may have been deterred from exhibiting by instances of injustice on the part of former hanging committees, or whatever may be the cause, certain it is, they do not come here, and the value of the exhibition is not maintained.

(1), "Cow and Sheep," T. S. Cooper, A.R.A. is a favourable specimen of this well-known artist. (2), "An English Cottage Home," T. Creswick, R.A. is as true to nature as anything produced by him, and so pure in colour, as well as effect, that it considerably lessens one's admiration of photography. In (243), "The Park," which Mr. Ansdell has stocked with some beautifully drawn "deer," the landscape, by Creswick, appears small and confined. Nevertheless, it is a valuable picture, as a conjoint performance. Mr. R. Buckner's life-sized study of a "Shepherd of the Campagna di Roma" (19), is executed with that facility and breadth which usually distinguish him. In (257), the same qualities are apparent; but the appearance of the model scarcely realizes the quotation. Like Messrs. Creswick and Ansdell, F. R. Lee, R.A. and T. S. Cooper, A.R.A. still work in partnership. (24), "A Watering Place," testifies how agreeably. We always look for the little pearl of "A Sea Nymph," so regularly contributed by W. E. Frost, A.R.A. and are not disappointed (25), although she is more quaintly disposed than usual. (28), "St. Agnes," by W. Gale, lacks delicacy and spirituality; its earnest intention, nevertheless, recommends it to notice; but why should loveliness be deemed incompatible with intense expression? (407), "An Incursion of the Danes; Saxon women watching the Conflict," by the same, forcibly exemplifies the repulsiveness of ugliness; and though by no means deficient in most requirements of historic composition, is ruined by mannerism. (42), "A Study." J. Partridge charms by the beauty of the subject, and is well painted. (63), "Hear thou in Heaven thy Dwelling-place," by J. Sant, a female invested with devotional expression, is inferior to many of his former productions in drawing and power. This artist is singularly unequal. (64), "The Road to the Homestead," J. S. Raven, would have been improved, perhaps, by more reflected light in the foreground, but is still a very clever landscape. If "Mariana, in the Moated Grange," was at all like what she is here represented to be (68), the gentleman whose absence she deplores had some excuse for staying at home, and making her "aweary." (69), "Church and Convent of the Madonna del Lasso," G. E. Hering, is an agreeable picture, and evinces a determination of successfully carrying out an undertaking of considerable difficulty. (50), "A Doubtful Recognition," T. F. Dicksee, is something more than a pretty domestic picture: it is a natural conception, well composed, and firmly painted. (57), "Windsor Castle, Morning," H. Dawson, strikes the spectator at once, as being closely and faithfully studied from nature, and exhibiting knowledge, as well as observation of temporary effect, is likely to teach as much as please. (85), "A Welsh River, Evening," J. Dearle, a repetition almost of an admirable original of last year. We question if this be judicious, even when acknowledging its worth. (93), "A Stackyard in Kent," W. P. Fergusson, is remarkable for vigorous execution, freshness and truth, and promises well for the future. (113), "Cottage Interior," F. Goodall, A.R.A.; careful, unpretentious, and rather low in tone, contrasted with (130), "Interior of a Cottage near Stratford-on-Avon," T. Earl. (138), "The Interview between Queen Elizabeth and the Countess of Nottingham," T. M. Joy, which might have been the most important work in the Gallery, so few are the historical subjects, is, we are compelled to say, disagreeable, and a failure. (153), "A Sibyl," L. W. Desanges, is a misnomer for the pretty lady of whom this may be a fancy portrait. (161), "The Trophies of Youth," is the title affixed by Mr. Danby to a truly beautiful landscape, introducing a youth of more than ordinary proportions, carrying across a stream a child in possession of a bulrush! (175), "A Winter Afternoon," C. Branwhite, one of those snow-clad landscapes in which this artist delights; but somewhat too monotonous to convey an impression of its positive truth; howbeit, none can deny the dexterity with which it is manipulated. (191), "The Barmouth Water," North Wales, Sidney R. Percy, shows that feeling for largeness and masterly treatment of effect, combined with facile cleanness of touch, which place this and similar preceding landscapes emanating from the same source, far above the ordinary level, though sometimes, it is to be feared, at the sacrifice of other qualities which are equally essential to the construction of a first-rate work of art. (228), "A Border Spear," J. W. Glass, looks a veritable transcript of the individual often described by Sir Walter Scott, somewhat too lightly armed, perhaps, to do all the mischief he intends. The effect is highly poetical. (252), "Birk Crag, near Harrogate, Yorkshire," G. C. Stanfield, is truthful and beautiful, showing steady advance on former works. (278), "Pet Calves," W. Underhill, is an agreeably composed sketch, but too loosely painted to be considered as a matured subject picture. (295), "The Angel's Whisper," D. W. Deane, has the charm of colour to recommend it, and although to be regarded rather as a promise of something better hereafter, it has much in it that betokens the artist. This also applies to (470), "The Mother," which is preferable for sentiment. (307), "The Bird-Trap," G. Smith, is appreciable by any spectator. The notion has been still more successfully realised in (327), "Expectation," W. Hemsley. The distinctive characteristics of the Dutch school have been emulated by J. D. Wingfield in (316) "The Painter's Study," an interesting as well as a clever representation. We are glad to see Mr. Inskipp again, liking him pretty well as (76) "An Old Acquaintance," and better for his sketch of (343) "A Girl's Head." (348), "Giving the Dogs a Lift," J. W. Bottomley.

his scene in the Highlands, painted with honest dherence to nature, is excellent in its way. 349), "The Hot Breakfast," T. Earl, is a bit f true canine expression. (368). "A Hedge-ank in May," W. J. Webbe, a wonderfully ıtricate copy; the objects are seen as in the amera. (381), "Roses," Miss A. F. Mutrie. he art of depicting the evanescent beauty of oral creation should belong to the fair sex; it ould appear impossible to carry it further than here done. (418), "The Swoon of Endymion," . G. Naish, is too like Mr. Frost's "Sabrina," esides being flat and forced in colour; and (425), Evening on the Tagus," Frank Dillon, might ave been ascribed to Mr. Danby a dozen years go, were it not so much more like him than ature. (472), "The Wood-yard, Evening," Iark Anthony, is eccentric, but extremely true: ore earth and less sky would, perhaps, have nproved it as a composition. (522), "The eath of St. Oswald, Archbishop of York, anno 92, J. P. Burchett—the most ambitious ffort here presented: if wanting in some f the essential constituents for such de-gns, it has at least claims to high considera-on as a commendable attempt at achieving some-ing extraordinary, and for the partial success esulting. It is somewhat surprising that por-ons should be so good whilst others are ıadequate to sustain them. Its chief faults re want of expression and a certain general eaviness that makes the composition appear rowded, but there is much to praise. Mr. Lance as a gorgeous "Fruit" piece (168), introducing dead peacock, which few could have painted. Iessrs. Holland, J. Danby, A. W. Williams, . Williams, A. Gilbert, Boddington, Copley ielding, N. Jutsum, Middleton, and Wilson, ıstain their reputation, and Mr. Lear has Windsor Castle" (317), on such a scale as to limit of squirrels the size of life.

THE SCIENCE OF STATISTICS.

The science of statistics is of recent origin. lazard gives some running notes of its his-ry. Archenball, who was born at Elbing, in russia, in 1719, and died in 1772, was the rst who gave the name and a scientific form this branch of knowledge. His compend, riginally published in 1749, went through ven editions. His most distinguished pupil, chlossa, carried out his views still further, in e excellent, yet incomplete "Theory of atistics," printed at Gottingen, in 1804. In 807 appeared Newman's "Outlines of Statis-cs." In the systematic and compendious eatment of this subject, Fore, Remer, Mensel, orengel, Mannert, Fischer, and particularly assell, have especially distinguished them-lves. The last-named is the eminent geogra-ıer. In Italy, there are the well-known ımes of Balbi, Ludri, and Gioja. The first uropean Government that paid any attention the collection of statistics in a systematic anner, though this was on a limited scale, was weden.

About the middle of the last century a ecial commission was employed, who made nown at intervals of five years many interest-g facts in relation to the population of the untry, &c. Schlosser having called attention the important results of the Swedish com-ission, several other states soon entered into similar arrangement. There is now a statisti-l department, or what is termed a "bureau," connection with the Governments of Prussia. ustria, Bavaria, Wurtemberg, Naples, and rdinia. At the head of the bureau in erlin is a gentleman of great intelligence, . J. G. Hoffmann. In 1832 Lord Auck-nd and Mr. Poulett Thompson, who then esided over the Board of Trade, established statistical office in that department, in onnection with which the late Mr. G. R. Porter signally distinguished himself. Its business to collect, arrange, and publish statements lating to the condition and interests of the ritish empire. The volumes annually printed id laid before Parliament by this office are well nown and highly esteemed. In the year 1831 statistical society was formed in the kingdom Saxony, which has prosecuted its objects with reat energy and success. The French Society f Universal Statistics was founded on the 22nd November, 1829, under the protection of the king. It proposes and decrees prizes, grants medals, publishes a monthly collection of its transactions, and maintains a correspondence with learned bodies in all countries. The society numbers more than 1,500 members, French and foreign, who are classed into literary, honorary, and corresponding members. The subjects about which the society is employed are arranged into three classes: first, physical and descriptive statistics, embracing topography, hydrography, meteorology, geology, mineralogy, population, man considered physically, hygiene, and the sanitary state; secondly, positive and applied statistics, embracing vegetable and animal productions, agriculture, industry, commerce, navigation, state of the sciences, general construction, literature, languages, and the fine arts; thirdly, moral and philosophical statistics, including the forms of religious worship, legislature, and judicial power, public administration, finance, the military, marine, and diplomacy.

At the international statistical conference, which was held at Brussels on September 19th, 1853, under the presidency of Professor Quetelet, no less than twenty-six different countries were represented.

THE CHARTER-HOUSE.

Enshrined in the heart of London, as in a figurative sense it ought to be, this institution stands unrivalled for the princely munificence of its founder, a deodand for the education of youth, and the solace of old age in indigence. The living intent, and testamentary directions, of its truly great and pious originator have been carried out through troublous times and persecutions, and subsist to our day.

Occupying an area of 15 acres, enclosed between Goswell-street on the east, and John-street on the west, Wilderness-row on the north, and Charterhouse-square on the south, its position is identical with the consecrated grounds of Ralph Stratford, Bishop of London, who first purchased three acres, called "No Man's Land," for the sepulture of 50,000 victims of the plague, which A.D. 1349, nearly desolated London, and carried off nine-tenths of its inhabitants. On this plot was afterwards built the Pardon Chapel, from which the now existing thoroughfare took its name. Subsequently, Michael de Northburgh, who succeeded Dr. Stratford as Bishop of London, bequeathed 2,000*l.* (equal to 30,000*l.* of our money) to found thereon a convent for monks of the Carthusian order: he also *gave his leases and profits for four years*, with all his reversions, plate, library, &c. to the same object; and afterwards, Sir Walter de Manny, Knt. obtained from King Edward I. in the forty-fifth year of his reign (6th February, 1371), a royal license to found the Carthusian monastery. The attesting signatures to this charter, being the most distinguished men of the time, are John Hastings, Earl of Pembroke; Humfry de Bohun, Earl of Harford; Edmund Mortymer, Earl of March; William de Monacute (now Montagu); John de Barnes, Maior of London; and William de Walworthe (afterwards maior), the same who struck down Wat Tyler.

It appears also by a deed in the British Museum, that Sir Walter de Manny, Knt. purchased another plot of ground, called "Harvey Croft," lying without the bars of West Smithfield, containing ten and a half acres and thirty-six perches, which he devoted to the same purposes as the three acres: thus the site of the monastery and the present establishment are integral and identical: they were outside the city walls, and near unto Aldersgate, and having been increased from time to time, embrace several streets as well as Charterhouse-square.

Numerous gifts and bequests were made to the hospital during two centuries by the pious amongst kings, nobles, and commoners, until the treasures and possessions of the friary excited the cupidity of that reforming monarch Henry VIII. He sent his commissioners to visit the Charterhouse in 1534, when John Howghton, the prior, and Humfry Midylmore, the procurator, refused to take the oaths: they were both imprisoned in the Tower, and after a month's endurance, they, with several of the brethren, gave a certificate of conformity, and ultimately the whole monastery signed an avowal of adhesion to the royal supremacy as early as the 6th of June ensuing.

The compliance of Prior Howghton, however, availed him little, for he and two other monks were convicted of having *spoken too freely* of the king, and of his proceedings, and they were hanged, drawn, and quartered at Tyburn, 4th May, 1535: their heads were exhibited on the gates of the city, and a quarter of the body of Howghton set on the priory itself!

Finally, on the 10th May, 1537, William Traffurd, the prior, and the majority of brothers, took the oaths of renunciation and supremacy, and conveyed the monastery to the king by deed executed 10th June, 1537; the prior having secured a pension of 20*l.* a year, and the others of 5*l.* each, the income, thus devolving to the Crown, having been then estimated at 700*l.* per annum, exclusive of immense wealth in plate, chattels, &c.

A veil must be thrown over other acts of violence, persecution, imprisonment, and executions (all probably acts of policy), perpetrated in the name of the Christian religion. Thomas Bedyll, archdeacon of Cornwall, one of the king's commissioners, a tool of Cromwell, in his letter, 14th June, 1537, told that minister and pliant tool of the king, that the martyrs of the old Church were "despatched by the hand of God!"

Soon after the dissolution and sacking of the monastery, the site of it, together with Pardon Croft, was granted to Sir Edward North (the son of a mercer in London), who became Attorney-General to Henry VIII. In the reign of Queen Mary, Sir E. North's possession was confirmed, and he was created a baron. His son and successor, Roger Lord North, sold the property in the year 1565, to the Duke of Norfolk for 2,500*l.*

The duke was executed in the Tower, 1571, when his estates vested in the Crown; and Queen Elizabeth, in the thirty-fourth year of her reign, devised them to Thomas Goodwin: afterwards, however, the queen restored to the Norfolk family the forfeited estates, when the Charter-house fell to Lord Thomas Howard, the duke's second son.

The mansion and buildings of the estate had, during the occupation of the Duke of Norfolk and of Lord Thomas Howard, been enlarged and embellished, so that princely retinues might find accommodation within the precincts; and we find that Queen Elizabeth paid a visit (or rather visitation) of six days, accompanied by a numerous and imposing court; and that afterwards, on his entry into London, 7th May, 1603, King James I. tarried there, and on that occasion knighted eighty gentlemen.

Finally, the Charterhouse and its possessions were bought by the truly philanthropic Thomas Sutton, who, persevering through a long series of years in his purpose of dedicating his vast estates to charity, at length succeeded in getting a Charter of Incorporation from James I. June 22nd, 1611. He died December 12th, 1611, having previously left the whole of his possessions, save a few thousands (in comparatively small legacies to friends and kinsfolk), in trust, to be for ever *wholly distributed*, converted, and employed for the *maintenance of the hospital and free school*.

These estates were as follow, viz.:—

The manor and estate of Balsham, with Littlebury and Hadstock, purchased for 7,000*l.*; and Castle Camps, in Cambridgeshire, 10,800*l.*; in Essex—Southminster, 5,500*l.*; Hallingbury Bouchers, 2,633*l.* 6s. 8d.; Cold Norton, 4,000*l.*; and Stambridge, 1,966*l.* 13s. 4d. In Wilts—Salthrop, Blackgrove, and Chilton, 13,500*l.*; and the manor and estates of Elcombe, Wattlescote, Uffcotte, and Little Wigborow, 17,383*l.* 8s. 10d. In Lincoln—Dunsby, 2,133*l.* 6s. 8d.; and Buslingthorpe, 3,500*l.*; and in Middlesex, a messuage at Hackney, exclusive of which latter, and of the Charterhouse precincts, the foregoing amounted to the sum of 68,216*l.* 15s. 6d. Originally intending to found the charity on his estate of Hallingbury, in Essex, Mr. Sutton changed his purpose, and on May 9th, 1611, he purchased the site of the late dissolved Charterhouse, near Smithfield, for 13,000*l.* This will bring the outlay for purchase, at first cost, to 81,216*l.* 15s. 6d.—an amount commensurate

with a million at this time; but if the enormous increase in value of land be considered, to at least double the sum.

In addition to these estates the advowsons of Balsham, Castle Camps, Horsehead, Little Hallingbury, Dunsby, and of Southminster, are delegated for disposal on vacancy by the governors to scholars brought up at the hospital.

The yearly rental returned by these estates, exclusive of the Livings, was, in 1806, no more than 20,000*l.*! Most probably to guard against depreciation by letting farms on long leases, the trustees and governors are restricted by original wise precaution from leasing beyond twenty-one years; yet it is understood that the annual proceeds as returned of late, but very little exceed that sum!!

Leases about to lapse within a few years, on the City estates, will largely increase the rental, as in this crowded and valuable locality there are above 300 houses. The county estates must be always renewing and progressively increasing, but these, like all estates of private individuals, depend for productiveness on *good management*.

All these estates were left provisionally to the management of trustees, and particularly to his executors, whom in his last will the testator enjoins "as they shall answer to God, at the last day of judgment, to perform the trust according to my *true meaning* and *charitable intent*." It was provided by letters patent of King James, on formation of the establishment, that any increase in value of the rents and revenues of the hospital should be applied to the augmentation of the numbers, and of the allowances made to the poor brothers and scholars upon the foundation; and that "they *shall not be employed to any private use*."

Well did the *first* trustees and executors of Mr. Sutton carry out his intentions, for in the year 1630, there were eighty poor brothers, and forty scholars, together with a master and other officers upon the foundation. The *master* had then a stipend of 53*l.*; the *preacher*, 43*l.*; the *schoolmaster*, 33*l.*; and the poor brothers, 6*l.* 6s. 8d. each. At that period (and indeed long after), there were no extern scholars nor pupils, except those on the foundation.

As the governors, however, were persons of the first distinction, generally including the Sovereign, the Lord Chancellor, Chief Judges, and high nobility, the management, in course of time, devolved upon the officials, kings and statesmen having little time to spare for charitable endowments, saving only perhaps the disposal of the nominations and patronage. It is certain that whatever changes may have been made, or whatever money expended, on the foundation, little or nothing has been done for the structure or structures of these still monastic-looking piles. A truly solid and luxurious house was erected for the governor, fronting Charterhouse-square, about twenty years back. A large square of buildings has also been raised, not very discordant with the ancient edifice, and pretty much on the *almshouse scale*, for eighty poor brothers,—one wing to the latter being of somewhat a more imposing character; and a rather utilitarian building, of no order nor pretensions, has been raised for an *enlarged school*, in a plot of 8 acres, next Aldersgate-street, but with these exceptions improvements are stagnant. Still the respectable relics of the Howards, if in a state of decadence, are preserved in part; and the yet more venerable traces of Carthusian times are discernible in many places.

The grand hall of the Duke of Norfolk is complete, the galleries, staircases, and adjacent apartments retaining their wainscots and tapestry; but these remains little deserve the eulogies expended in records, which describe the apartments of Queen Elizabeth's temporary sojourn.

The present kitchen is part of the old Priory, and was most probably the banqueting-hall. The cloisters and surmounting terrace are obviously of the earliest date. Their wide arches, and four-arched cells for recluses, speak, from the stones, of mortification, penances, and prayers: now deserted (in vacation time), there needs but the lay figure of a solitary monk to realize a vision of past times, and (it is to be hoped) of obsolete prejudices.

The porter's lodge, the principle's house, and adjacent buildings, appear to be an incorporation of Carthusian remains, with the additions made by the Howards.

As for all the rest, there is neither order nor arrangement perceptible; and the boundary walls are as accident or prescription determined them. On one side (the left at entrance) runs a high brick wall of great antiquity: this merges into house and stable backs, and of the latter there is a long range, for no ostensible purpose. The brick wall to the north, having a few funeral tablets, is original: it runs the length of Wilderness-row to Goswell-street, and returns at right angles, in a continuous line, backing curtilages in that street, and embodying in its structure many othar stones that might tell tales of Carthusians.

Thus the buildings have been preserved and economy (in that respect) studied, if not carried out.

In one respect this institution is most peculiar—it has no entrance, at least none that deserves the name, unless access be made through the master's house!

The possibility of supervision by the governors of the charity may be best divined by looking at the list of those now in the trust, viz.:—Her Majesty the Queen, Prince Albert, Prince of Wales, Archbishop of Canterbury, Archbishop of York, Bishop of London, Duke of Buccleuch, Marquess of Lansdowne, Earl of Derby, Earl of Ripon, Earl Howe, Lord Lyndhurst, Lord J. Russell, Earl of Devon, Lord Panmure, Earl of Aberdeen, Lord Truro, and *the master*, Archdeacon Hale.

It is hard to imagine how Royalty can look into details of management—bishops incessantly engaged in spiritual duties—statesmen overborne with national and parliamentary avocations—judges of the land immersed in suits, plaints, and other manifold occupations—nobles *involved* in politics, and often not less so in mind and estate—and last of all, the master himself, a dignitary of the cathedral, and an incumbent with the care and charge of *many churches!* How can such bestow due care and requisite scrutiny into the estates, revenue, and management of so large an establishment? No; the care must be delegated, and if the management devolves upon the executive staff, there is no check.

Unrivalled in munificence, standing forth in bold relief amongst god-like benevolences, as the gift and origination of *one great mind*, the present state of the structure, and of its *management*, merits the record of description; and a short detail of the simple, unostentatious, yet distinguished career of the founder, may be hereafter permitted. Quondam.

IRON ROOF OF THE JOINT RAILWAY STATION, BIRMINGHAM.

INSTITUTION OF CIVIL ENGINEERS.

The paper read on the 30th ult. was "A Description of the Iron Roof, in one span, over the Joint Railway Station, New-street, Birmingham," by Mr. J. Phillips. The inconvenience to the traffic, arising from the columns supporting a series of small roofs, had long been felt, and the first step was the substitution of two parallel roofs over the up and down lines, as in most of the continental stations: when, however, the traffic increased to such an extraordinary extent as it had done, especially in some great terminal stations, or where a number of lines converged, further facilities became imperative, and single roofs covering the station in one span were adopted; that over the Lime-street station, at Liverpool, of 153 feet span, constructed by Mr. Turner, of Dublin, being an early and fine specimen.

In the New-street station, at Birmingham, upon a comparatively limited extent of ground, situated between the extremities of two tunnels, there was concentrated the traffic of five lines of railway; therefore it was essential to avoid any impediment to free circulation, and it was decided to cover the space by one roof of 840 feet long by 212 feet at its widest part, which was at one end; and by judicious management the various parts of each truss were reduced in such proportion that the tapering of the whole structure could scarcely be perceived.

The roof consisted of thirty-six curved principals of wrought iron, placed at intervals of 24½ feet, and the height of the chord-line was fixed at 33 feet from the level of the rails to the springing of the principals, which were attached to the pilasters forming part of the front of the hotel, whilst the other ends rested on iron columns, 2 feet diameter, and varying from 30 feet to 35 feet in height: these latter weighed about 5½ tons each: they rested on concrete bases, but were not bolted down, and they carried on their upper extremities a frame of wrought-iron rollers, to facilitate the motion of the outer foot of each truss, the inner foot being firmly fixed on a stone bed in the wall.

The average weight of each principal was 25 tons: they were built of wrought-iron plates 15 inches deep by $\frac{11}{16}$ inch thick, with angle-irons rivetted on each side of the upper and lower edges, so as to form flanches $12\frac{1}{16}$ inches in width and $\frac{3}{4}$ inch in thickness.

Each tie bar, which, when in its place, had a versed sine of 20 feet, was composed of round iron 4 inches diameter, in twelve pieces, meeting in screwed boxes at the foot of each of the struts, which were made of four angle-irons, bowed out at the centre of their height, and kept apart by hollow cast-iron straining pieces, bolted between the angle irons. The diagonal ties met also at the ends of the struts.

The purlins were of timber 5 inches square, trussed by a tenison tie-rod and straining piece, bolted to cast-iron shoes at both ends. They rested on the back of the rafters, butting against each other endwise, at intervals of 8 feet; and there were numerous wind ties 1½ inch diameter, springing from the foot of every other arch, and running diagonally to the other side of the roof.

The centre was composed of an elevated lanthorn, of glass on the top, and iron louvres at the sides, extending the entire length of the roof; and parallel on each side, to the same extent, was a skylight 54 feet deep, giving 128,000 square feet of glass, or nearly one-half the superficial area of the roof, the remainder being covered with galvanized sheet-iron corrugated.

Each end was terminated by a gable screen of wood, glazed, and suspended from the end truss: the glass throughout was fluted plate, about $\frac{1}{16}$ inch in thickness, rolled in pieces of 6 feet long by 16 inches wide, and about 115 tons were used.

The important parts of the roof were proved, before leaving the works of the constructors; one principal being loaded with a weight equal to 40 lbs. per superficial foot, exclusive of its own weight: the total load was 90 tons, under which the deflection was $3\frac{7}{8}$ inches,—the extension of the foot upon rollers being 2½ inches, and of the other foot ⅛ inch, and after the trial no permanent set could be detected. Other and more stringent tests showed the roof to be amply strong and stiff.

Details were given of the moveable scaffolding, raised on a stage, extending the entire width of the station, in such a manner that the traffic of the line could be carried on whilst the roof was in course of construction. The stages were moved onward as required, and the whole of the principals and other parts were raised and fixed by sheer legs, without the occurrence of any casualty.

The finishing of the last principal was completed on the anniversary of fixing the first column; the total weight of iron raised being 1,050 tons: the number of squares, measured on plan, was 1,705: the cost, including 320 squares of ridge and furrow roofing, of spans from 45 feet to 188 feet, was 32,274*l.* or 16*l.* per square: this expense could not, however, be received as for the present price of iron, the roof having been executed when materials and labour were much less costly.

The greatest amount of expansion that had been recorded was shown to be ·546 inch for upwards of 31 degrees of variation of temperature. The roof was constructed by Messrs. Fox, Henderson, and Co. under the direction of Mr. W. Baker, the engineer for the railway company; the designs for the roof being made by Mr. E. A. Cowper, and the moveable scaffolding designed by Mr. J. Phillips, who had charge of the general construction and fixing.

CONVERSAZIONE AT THE ARCHITECTURAL EXHIBITION.

NOTWITHSTANDING the severity of the weather on the night of Wednesday, the 31st ult., a night which must have led many to reflect on the fortitude and enduring courage exhibited in the Crimea, there was a strong muster of visitors, including many ladies, at the bidding of the committee who are managing the Architectural Exhibition. In addition to the drawings, &c. which form the permanent exhibition there were tables filled with sketches, models, and other works of art, so that those who went there determined to see everything, must have remained late if they achieved their object. Mr. Mocatta exhibited a very nice portfolio of landscapes, and the Rev. Mr. Petit, a pile of his peculiar sketches. Mr. Fergusson contributed a model to illustrate the Birs-i-Nimrúd, as made out by Col. Rawlinson, and mentioned in another part of our journal. The varied colouring of the seven stages externally is a most noticeable incident (if placed beyond doubt): the face of the upper story, it seems, was vitrified, and this has probably aided very materially in the preservation of the wonderful monument. The use of Bellamy's Graining Instruments was explained by the patentee. Messrs. Hart had set up a tasty stall of iron-work and fastenings; Mr. Lavers, specimens of quarry glazing; and Messrs. Bowden, a frame filled with their peculiar decorative glass, which had a sparkling effect. The solid Swiss Parqueterre deserves attention.

We must again call upon our readers, and all who are interested in architecture and building, to give their aid to the exhibition, in order that it may be repeated.

CHURCHES AND SCHOOLS.

Sherborne.—The new, or rather renovated, buildings in connection with the King's School, have been completed, and are now being occupied. These buildings owe their foundation to Lord Digby, who gave a range of ancient premises and some three or four acres of land to the school governors. The buildings were apparently remains of the old Abbey of Sherborne, and they have been adapted to the purposes of a modern school by Mr. Carpenter, architect. The external form of much of the old erections has been retained, and the additions dove-tailed and adapted so as to render the whole apparently homogeneous. The buildings may be described as consisting of a school-room, chapel, and studies. A ruinous old apartment adjoining the west end of the church, and evidently the refectory, has been converted into a school-room, 68 feet long and 19 feet wide, having desks for three masters and for about 180 scholars. This room is reached by a flight of stone steps, and beneath it are three large class-rooms. An old oak roof of the Perpendicular period, which was found in a dilapidated state, has been restored by the builder, Mr. Davis, without removal. The walls of the building were considerably out of perpendicular, and it was considered that, to make a good job of it, it would be necessary to take off the roof. The roof, however, was trussed up, and the walls were brought together with longitudinal screw-bolts (without the application of heat), and were stayed with flying buttresses. The whole is said to have thus been made perfectly secure. At right angles with the school-room is the chapel,—a lofty building, 58 feet long by 20 feet 6 inches. It has been fitted up in college style for about 180 scholars. The sacrarium is covered with Minton's encaustic tiles, and the aisle with plain red tiles. Both chapel and school-room are lighted by Mediæval brass standards, and warmed by hot water apparatus. The floor of the chapel is supported by groined arches, which form the cloisters. Through these, access is obtained to the studies, of which there are thirty-eight, arranged on two floors. The buildings have been erected by Mr. James Davis, of Frome, within a twelvemonth, at the cost of 5,000*l.* of which some 800*l.* have been raised by subscription.

Stratford-on-Avon.—St. James's Chapel of Ease, in connection with the parish church, was consecrated week before last by the Bishop of Worcester. It affords accommodation for 515 persons. The cost, including warming and lighting, but exclusive of tower, was about 1,900*l.* The architect is Mr. James Murray, of Coventry. The style is Early Decorated. The interior dimensions are about 90 feet long and 45 wide. The plan comprises nave, south aisle, aisle, north and south transepts, chancel, and south chancel aisle. The chapel is fitted up with open benches and (in the chancel) with stalls. The roofs are of open timber framing, which, together with other woodwork, is stained and varnished. The walls are built of Wilmcote limestone, with dressings and window tracery of Bath stone. The roofs are covered with tiles. The tower and spire, through want of funds, yet remain to be built. The whole of the works have been executed by Mr. Joseph Mills, of Stratford-on-Avon, who is also the contractor for the church in course of erection at Warwick, under the same architect. The lighting is by Messrs. Skidmore, of Coventry.

Middlewich.—The opening of the National Schools here took place on Monday in week before last. They form a conspicuous feature in the old town of Middlewich. The buildings are situated on the east side of Lewin-street, near the church of St. Michael. They consist of boys' and infants' schools on the ground floor, with girls' school and class-room on the upper floor. The boys' school is 62 feet 3 inches long, 20 feet wide, and 14 feet high to the wall plate. The infants' school is 26 feet by 22, and 14 feet high to wall plate. The joists of the girls' school and class-room above are dressed, chamfered, stained, and varnished on the under side, with plaster between, giving to the boys' and infants' schools ornamental ceilings. Large yards or play-grounds are attached for each sex, with suitable offices, lavatories, &c. The girls' school is 62 feet 3 inches long by 20 feet wide, and 11 feet high to wall plate of roof, and 27 feet to centre of roof, which is open to the room. The whole of the timbers are chamfered, stained, and varnished. The class-room adjoining is 30 feet 6 inches by 22 feet, and open roof, furnished same as girls' room. These two rooms are connected by means of two arched doorways, with movable doors, making a kind of nave and transept room, capable of accommodating from 500 to 600 persons. The schools are built to accommodate about 170 boys, 170 girls, and 60 infants, or a total of 400 children. There is a master's residence adjoining. The design of the school and residence is of the Decorated period of Gothic architecture. The front facing Lewin-street is built of brick, and white Runcorn stone dressings. The windows are filled in with ornamental tracery. An oriel window is placed in the principal gable of the girls' school. The doors have moulded labels running round them, finished with carved bosses of foliage and animals. The gables are perforated with trefoil lights of carved stone work, filled in with ornamental stained glass, executed by Mr. Davies, of Macclesfield, the gable copings finished with carved finials. The stone carving was executed by Mr. T. R. Williams, of Manchester, under the directions of the architect, Mr. Stevens, of Macclesfield. Mr. John Evans, also of Macclesfield, was the builder, who contracted for the works for 1,577*l.* which sum included all fittings for schools, class-rooms, and residence, complete for occupation.

Oakengates.—On Thursday before last, the new church at Oakengates, dedicated to the Holy Trinity, was consecrated by the Bishop of Lichfield. The district is formed out of adjoining parishes, chiefly Wombridge. The building fund was raised by subscription, the Church Building Society giving 500*l.* The site for the church and burial-ground was presented by Mr. St. John Chiverton Charlton, of Apsley Castle, who also gave 40*l.* towards a parsonage-house, which has yet to be built, and for which further subscriptions are required. The new edifice was designed by Mr. Harrison, architect to the Church Building Commissioners; and the contract has been executed by Messrs. Nevett, of Ironbridge, under the superintendence of Mr. E. Christian, the diocesan architect. The church is in the pointed Gothic style, and consists of nave, side aisles, and chancel. The walls are built with red brick, intermixed with layers of dark brick, and the dressings are of polished Greenhill stone. The east window is Gothic, and at the west end is a stone wheel window of large dimensions. There is a tower resting on arches, and supplied with one bell: it is approached from the vestry, which is 10 feet by 8 feet, situate at the north-east corner, and communicating both with the chancel and north side. The aisles are divided from the nave by arches formed of stone and brick, supported by columns of dressed stone. The roof is closed, supported by ornamental ribs and covered with blue and brindled tiles, and ornamental ridge tiles. The floor is paved with blue and red tiles, laid diagonally. The building is capable of accommodating nearly 600 persons. Stall-seats have been adopted: 128 sittings have been appropriated, and the rest are free.

Melton.—The churchwardens are now attending to the fabric of Melton church, in which two new windows, with their surrounding stone-work, have just been completed (by Mr. R. W. Johnson), and placed in position at the south-east corner.

East Retford.—The restoration of the church here is progressing, the seats having been erected, and the heating apparatus fixed under the stone flooring in the aisles, where large grates are laid, to let out the warm air gradually. Mr. Lee is the contractor, and Mr. G. G. Place, of Nottingham, the architect employed. The committee, it is said, have entered into another contract with Mr. Lee to extend the chancel and restore it, at an additional cost to his former contracts of 800*l.* It is expected that the edifice will be finally restored and ready for divine service about the middle of June.

PROVINCIAL NEWS.

Uxbridge.—A piece of ground has been purchased for a cemetery at Kingston-lane, in the parish of Hillingdon, nearly a mile from Uxbridge. The amount required for the purchase of the land, erection of buildings, and other requisities, it is supposed, will exceed 3,000*l.* Lord Palmerston has allowed till 1st April for the closing of the Uxbridge burial-ground, inspection of the plans of the burial board's surveyor, &c.

Aldershot.—The Board of Ordnance have completed contracts for the erection of temporary wooden buildings, on Aldershot-heath, for an encampment of 20,000 men. They are to be ready in March.

Brighton.—Referring to the increase of the town on the north, the *Brighton Gazette* remarks, that those who frequent that part of Brighton cannot fail to have observed how rapidly, within a comparatively short time, this locality has increased in buildings, assuming the dimensions of a small town. Terraces, streets, and villas have risen as it were by magic—whole acres of bricks and mortar taking the place of what were once green and luxuriant fields. Not the least unimportant of these extensive undertakings, it is added, is that called the Wellington Estate, to the right of the Lewes-road, and leading up an avenue of trees to the Race-hill. As a mark of confidence in those more immediately connected with carrying out the practical part of this scheme, a dinner was given to the surveyor (Mr. J. Martin), and a few friends on Wednesday week, at the Race-hill Inn.

Dover.—It is said that extensive barracks will shortly be erected on the Western heights here, capable of accommodating not less than 1,000 men.

Portsmouth.—During the past week, according to the *Hampshire Advertiser*, several men have been engaged placing a glass roof over the entrance to the Victoria pier.

Isle of Wight.—Besides extensive fortifications now being constructed at Sconce-point, to protect the Needles passage, the Board of Ordnance have resolved to construct a redoubt on the Freshwater Cliff, to protect Freshwater Bay. The board have given the contract for the construction of the redoubt to a local builder; Mr. George Wheeler, the surveyor of the West Cowes' Local Board of Health, having been selected as the only competitor from the Island.

Bradford (Wilts.)—The designs for a new cemetery, by Mr. T. Fuller, of Bath, architect,

have been adopted by the Local Burial Board. There were fifteen designs sent in.

Birmingham.—The town-council having resolved, from "the low state of the public funds" of this thriving but by no means public-spirited town, not to decorate the town-hall for the ensuing musical festival, Mr. Ingram, decorator, has proposed to decorate the hall by his enamelling process for the mere cost of outlay. He also proposes to introduce the "sun light" system of lighting from the ceiling.

Manchester.—A sub-committee of the town-council has been organized for the purpose of selecting a suitable site on which to erect a new town-hall. The accommodation afforded by the present building, as remarked by the local *Courier*, is quite inadequate to the growing wants of the city, and as there is little of architectural beauty to boast of, in comparison with Liverpool and other places, it is to be hoped that the contemplated building, when erected, will not only be of a sufficiently commodious description, but will also be an ornament and a credit to this first commercial city in the world.——The opening of the Cheetham Town-hall took place on Thursday week. It is situated at the corner of Knowsley-street, having a frontage of 40 yards to York-street, and of 50 yards to Knowsley-street. The building is of Italian character, two stories high, and faced with brick, with stone quoins and dressings to the windows. The front consists of a centre and one receding wing (it is intended at some future time to add a second), a stone door-piece with panelled pilasters and Doric iron posts, supporting carved consols and entablature, with folding-doors and ornamental fan-light over. On each side the door is one window, and two others in each wing. The upper story is divided from the lower by moulded string course, and has seven windows, the centre one being more ornamented than the others. The whole is surmounted with an ornamental carved entablature of the Doric and Corinthian styles combined. From the entrance-hall there is a stone staircase, which leads to the second story, the principal apartment on which is the large room for public meetings, &c. This room is 52 feet long by 29 feet wide, and is 24 feet high. It has an ornamental cornice, with centre flowers, and is lighted with five plate-glass windows, and fitted up with chandeliers. The building has been erected from designs by Mr. J. Bird, architect. The builder was Mr. R. Neill.

Gateshead.—After long delay, the ruins occasioned by the late terrific explosion in Gateshead are being removed under the direction of Dr. Richardson, who, as the contractor, has sublet the work.

Edinburgh.—A washing-house is about to be erected in this city to accommodate 100 persons washing clothes in enclosed apartments, with an unlimited supply of hot and cold water, and the use of a bleaching-green. The charge for all these advantages will be, as usual in such establishments, very small,—one penny an hour, in fact, being the sole charge.

THE MOUNDS OF BABYLON.

AT a recent meeting of the Asiatic Society, a paper by Col. Rawlinson, on the great mound of Birs-i-Nimrúd, near Babylon, was read.

Every one has heard of the Birs-i-Nimrúd: it is an immense, shapeless mound, nearly 300 feet high, and, where it reaches the plain, from 200 to 400 feet in width,—apparently made up of crumbling rubbish, except the summit, which stands out like the fragment of a ruined tower.

The Colonel commences his memoir with a graphic account of the discovery of the purport of this vast mound,—a discovery sought for on a predetermined plan, without which it is probable that his attempt, like the many which have preceded it, would have been fruitless. After two months' excavation, the Colonel was summoned to the work by the information that a wall had been found, and laid bare to the length of nearly 190 feet; and that it turned off in right angles at each end, to be apparently carried all round the mound, forming a square of about 27 feet in height, surmounted by a platform. He immediately rode to the excavation, examined the spot, where he found the workmen quite discouraged and hopeless, having laboured long and found nothing. He was now, however, well aware of these facts, and at once pointed out the spot, near the corner, where the bricks should be removed. In half an hour a small hollow was found, from which he immediately directed the head workman to "bring out the commemorative cylinder,"—a command which, to the wonder and bewilderment of the people, was obeyed; and a cylinder, covered with inscriptions, was drawn out from its hiding-place of twenty-four centuries, as fresh as when deposited there by the hands, probably, of Nebuchadnezzar himself! The building was composed of a series of several rectangular platforms, one over the other, diminishing in size as they rose from the ground, each dedicated to one of the planets, and coloured externally with the colours attributed to the seven planets in the works of the Sabæan astrologers, and traditionally handed down from the Chaldeans. The translation of the inscriptions on the cylinders was read. It begins with the name and usual titles of Nebuchadnezzar, and proceeds with a summary of the buildings of Babylon which the king had repaired or erected. It then says that the "Temple of the Planets of the Seven Spheres," which had been built by an early king, 504 years previously (about 1100 B.C.), having become ruinous, owing to a neglect of the drainage, which allowed the rain to penetrate, and the sun-dried bricks causing the outer covering to bulge out, and fall down, the God Merodach had put it into his heart to restore it; that he did not, however, rebuild the platform, which was unimpaired, but that all the rest was restored by his commands.

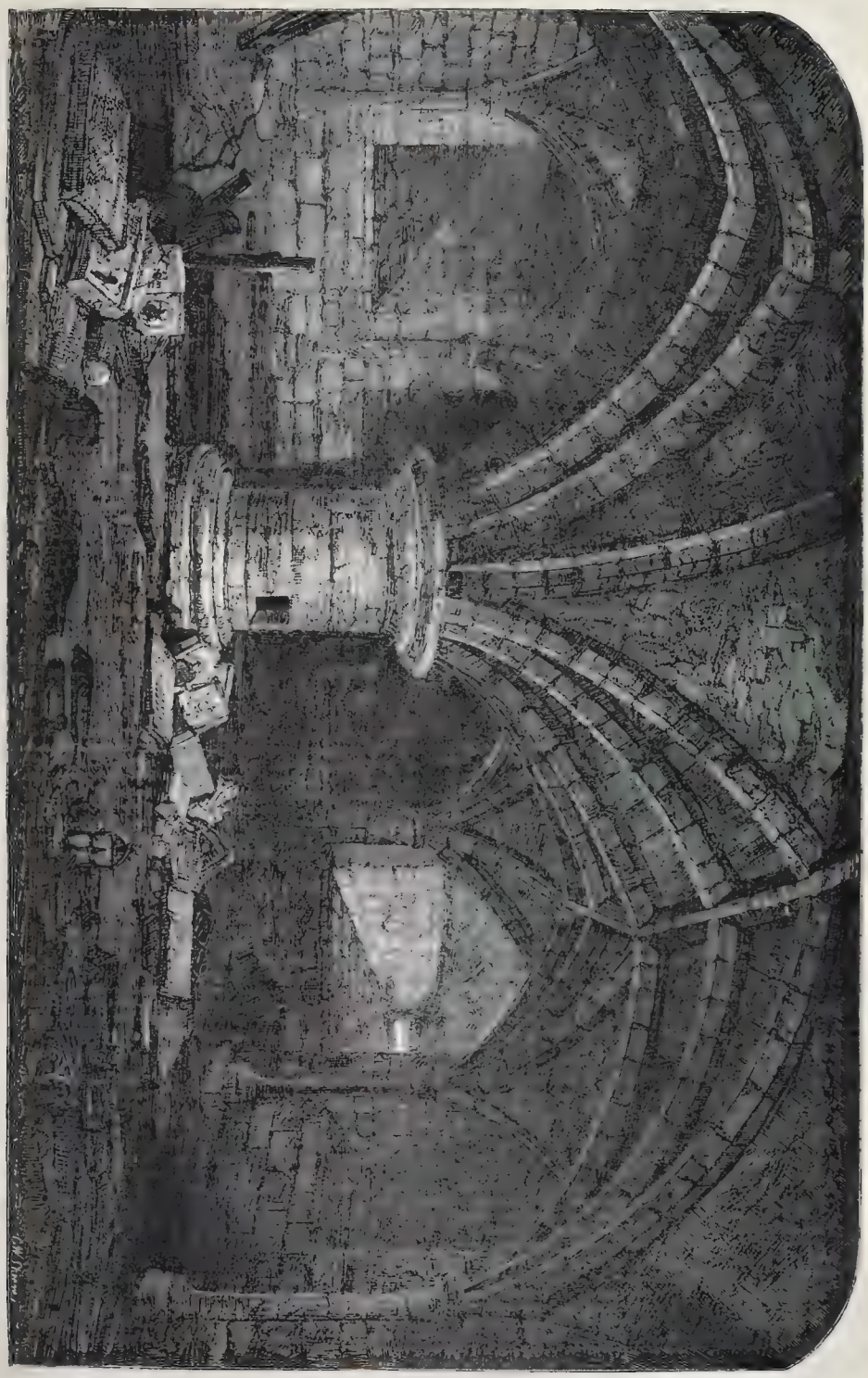
CRYPT BELOW THE CHAPTER-HOUSE, WESTMINSTER-ABBEY.

ON former occasions we have given, in the *Builder*, engravings of several places of much architectural beauty and interest in London, which are hidden by gloom and other difficulties from the sight of the general wayfarer. Amongst these subterranean antiquities, but few contain remains of masonry as old as the Norman period. In the crypt of Bow Church there are some; also in that below Lamb's Chapel, near Cripplegate Church: there are also some Norman details in the now dark cloister of Bartholomew's the Great. Searching, however, the whole of London, both above and below ground, there is but little left to remind us of our Norman ancestors. It is desirable, therefore, that the greater care should be taken of what remains. The beautiful and perfect Norman chapel at the Tower has for long been comparatively inaccessible, and even when admission is with difficulty obtained to visit it, the fair proportions are so marred by the introduction of shelf above shelf, something similar to the arrangement for drying skins in a glue manufactory, that most persons at the sight feel pain and disappointment instead of pleasure. No doubt, however, before long, the valuable national records which crowd this chapel, will be removed to their appointed place, and then there will be nothing to prevent this famous antiquity from being open to all who may take the trouble to call.

There is, however, another example of Norman work which for many years has been not only closed to the public at large, but also to antiquaries and artists. We allude to that part of Westminster Abbey, called the Chapel of the Confessor by some of the historians of the Abbey, but which is part of the original Norman church, the circular groined roof of which is supported by massive columns, with capitals ornamented in various ways. The whole place is most picturesque. We have long wished to obtain access to this chapel. We believe, however, that the "*Pix*," or box, containing samples, &c. which are used at stated times to test the purity of the current coinage, is here hidden away, and preserved in safety. No one will deny that it is necessary to keep these matters in all their integrity, but it always has been urged as an excuse for refusing permission for any one to see this fine chapel, "that the 'Pix' was kept there." It seems a pity to use so beautiful a place only for the reception of matters which can be put into a small compass. Surely there are cellars and vaults at the disposal of the authorities equally safe, and yet not at all of general interest. A short time ago, the writer made a fresh attempt to obtain access to this carefully guarded and mysterious place, and inadvertently, in asking permission, spoke of the chapel as a crypt of Westminster Abbey: after some little trouble, a notice was received that the matter was possible, but that there was a difficulty in consequence of the Government not wishing the use of lights in the crypt, as it was so closely adjoining to the records with which the Chapter-house of the Abbey is filled. While greatly commending this precaution, it cannot but be recollected that close to the records contained in the White Tower, there is, or was not long ago, a magazine of gunpowder sufficiently large to blow not only the records of the nation but the tower itself to atoms; and we thought this infinitely more dangerous than the lantern of a painstaking antiquary. However, to let that pass, under the guidance of a gentleman connected with the Abbey, the writer progressed, full of curiosity, to inspect the long-hidden antiquity, our guide stopping at a low-arched door, close to the entrance to the Abbey, at Poet's Corner; and after trying some large and venerable-looking keys, succeeded in obtaining access to a dark, narrow passage. Into this we dived down sundry steps, groping along, and in parts knocking our heads against the top of the arches. The darkness soon became blacker than a "wolf's mouth" or the inmost depths of any coal-pit, or the centre of the Pyramids. Here another door intercepted further progress. Long did we grope in this substantial gloom before a key could be fitted: this being at length done, the door opened with a rusty, heavy, and grating sound; and after moving slowly down more steps and along twisted passages, a faint glimmering met the eye, and soon after we found ourselves not in the chapel desired, but in the ancient crypt shown in the engraving. Although at first somewhat disappointed, we could not fail being pleased to have penetrated, as it were by accident, into this little known and curious spot. So far as could be seen by the dim light, which only came in at one little window, the place seemed thickly strewed with withered leaves and fragments of olden architecture. However pleasing the effect might have been to Rembrandt had he visited this ancient crypt, he would have found it impossible to avail himself of his sketch-book. It was thereupon determined to allow us the privilege of a lantern; on returning with which, and once more opening the door, presenting at the same time a picture not without resemblance to the discovery of Guy Fawkes in former days at a place adjoining,—we, after descending as before, had better convenience for examining the interior. The crypt is octagonal, a massive pillar in the centre throwing groins of great strength to each compartment; the whole forming the support to the Chapter-house, which is immediately above. The centre column is very curious, being composed of four stones, two of which are solid and two carefully hollowed, like a piece of plane-tree, with the circular pith removed. On referring to the engraving it will be seen, that if a piece of stone were carefully fitted into the hole in the pillar, and also into that at the other side, few persons would imagine that this solid-looking column contained two recesses, or cupboards, which might have been found useful for the concealment of treasure and other important matters in troubled times. The crypt contains an altar, a piscina, and aumbry. The outer walls are of great thickness, and solid masonry. There were no indications, as is the case in many crypts, of iron rings for the suspension of lamps. It is a curious fragment of old London. Closing the door of the crypt, we looked, on reaching the outer air, with pity at the shattered exterior of the Chapter-house. To this, however, as well as its curious contents, we shall shortly have an opportunity of referring.

NOXIOUS TRADES.—The attention of the public in general, and of the Board of Health in particular, may well be directed to section 61 of Buildings Act, providing, as this section does, for the total *suppression* of an existing noxious trade. It sets forth that two-thirds of the inhabitants of any parish may at any time procure the removal of any noxious trade by *purchase* and compensation for same,—expense of so doing being levied as a rate on such parish or part of parish, or borne by the memorialists. — SALUS POPULI SUPREMA LEX.

OLD LONDON WALL.—A correspondent mentions that, in making the alterations for the Milton Club, in the City, they have come upon a part of the old London wall, which seems to have been also a part of a building.



THE CRYPT OF THE CHAPTER-HOUSE, WESTMINSTER.

THE ACHIEVEMENTS OF LABOUR AND THOUGHT.

In the course of a lecture delivered by the Rev. Newman Hall, in Exeter-hall, on Tuesday, January 30, to the Young Men's Association, on the dignity of labour, the following was one of the arguments adduced :—The Dignity of Labour—consider its achievements! Dismayed by no difficulty, shrinking from no exertion, exhausted by no struggle, ever eager for renewed efforts in its persevering promotion of human happiness,—"clamorous labour knocks, with its hundred hands, at the golden gate of the morning," obtaining each day, through succeeding centuries, fresh benefactions for the world. Labour clears the forest and drains the morass, and makes the wilderness rejoice and blossom as the rose. Labour drives the plough, and scatters the seed, and reaps the harvest, and grinds the corn, and converts it into bread, the staff of life. Labour, tending the pastures, and sweeping the waters as well as cultivating the soil, provides with daily sustenance the 900 millions of the family of man. Labour gathers the gossamer web of the caterpillar, the cotton from the field, and the fleece from the flock, and weaves it into raiment soft, and warm, and beautiful; the purple robe of the prince, and the grey gown of the peasant, being alike its handy work. Labour moulds the brick, and splits the slate, and quarries the stone, and shapes the column, and rears not only the humble cottage, but the gorgeous palace, and the tapering spire and the stately dome. Labour, diving deep into the solid earth, brings up its long-hidden stores of coal, to feed ten thousand furnaces, and in millions of habitations to defy the winter's cold. Labour explores the rich veins of deeply-buried rocks, extracting the gold, the silver, the copper, and the tin. Labour smelts the iron, and moulds it into a thousand shapes for use and ornament, from the massive pillar to the tiniest needle, from the ponderous anchor to the wire-gauze, from the mighty fly-wheel of the steam-engine to the polished purse-ring or the glittering bead. Labour hews down the gnarled oak, and shapes the timber and builds the ship, and guides it over the deep, plunging through the billows and wrestling with the tempest, to bear to our shores the produce of every clime. Labour brings us Indian rice and American cotton, African ivory, and Greenland oil; fruits from the sunny South, and furs from the frozen North; tea from the East, and sugar from the West; carrying in exchange to every land the products of British industry and British skill. Labour, by the universally spread ramifications of trade, distributes its own treasures from country to country, from city to city, from house to house, conveying to the doors of all the necessaries and luxuries of life, and by the steady pulsation of an untrammelled commerce, maintaining healthy life in the great social system. Labour, fusing the opaque particles of rock, produces transparent glass, which it moulds and polishes, and combines so wondrously that sight is restored to the blind, while worlds, before invisible from distance, are brought so near as to be weighed and measured with an unerring exactness; and atoms, which had escaped all detection from minuteness, reveal a world of wonder and beauty in themselves. Labour, possessing a secret far more important than the philosopher's stone, transmutes the most worthless substances into the most precious, and placing in the crucible of its potent alchemistry, the putrid refuse of the sea and land, extracts fragrant essences and healing medicines, and materials of priceless importance in the arts. Labour, laughing at difficulties, spans majestic rivers, carries viaducts over marshy swamps, suspends aërial bridges above deep ravines, pierces the solid mountain with its dark, undeviating tunnel, blasting rocks, and filling hollows, and while linking together with its iron but loving grasp all nations of the earth, verifying in a literal sense the ancient prophecy, "Every valley shall be exalted, and every mountain and hill shall be brought low." Labour draws forth its delicate iron thread, and stretching it from city to city, from province to province, through mountains, and beneath the sea, realises more than fancy ever fabled, while it constructs a chariot on which speech may outstrip the wind, compete with the lightning, and fly as rapidly as thought itself. Labour seizes the thoughts of genius—the discoveries of science—the counsels of experience—the admonitions of piety; and with its magic types impressing the vacant page, renders it pregnant with life and power, perpetuating truth to distant ages, and diffusing it to all mankind. Labour sits enthroned in palaces of crystal, whose high arched roofs proudly sparkle in the sunshine which delighteth to honour it, and whose ample courts are crowded with the trophies of its victories, in every country and in every age. Labour, a mighty magician, walks forth into a region uninhabited and waste: he looks earnestly on the scene, so quiet in its desolation; then waving his wonder-working wand, those dreary valleys smile with golden harvests,—those barren mountain slopes are clothed with foliage,—the furnace blazes—the anvil rings—the busy wheels whirl round—the town appears, the mart of commerce, the hall of science, the temple of religion, rear high their lofty fronts,—a forest of masts, gay with varied pennons, rises from the harbour,—the quays are crowded with commercial spoils, the peaceful spoils which enrich both him who receives and him who yields,—representatives of far-off regions make it their resort,—science enlists the elements of earth and heaven in its service,—art, awaking, clothes its strength with beauty,—literature new born, redoubles and perpetuates its praise,—civilization smiles—liberty is glad—humanity rejoices—piety exults, for the voice of industry and gladness is heard on every hand; and who, contemplating such results, will deny that there is Dignity in Labour?

SCENERY AND MUSIC.

The Adelphi Theatre.—Two of the scenes in the new drama here, called "Janet Pride," are particularly good, and do credit to Messrs. Pitt and Turner. One represents the Foundling Hospital at Paris on a winter night, the ground and every projecting ledge covered with snow; the other, a wild part of Australia—the Bush—wherein the stage is thrown into inequalities, covered with grass and foliage, that are carried on as far as the eye can reach by the scene behind. The weight of the drama, which is very effective—almost too exciting indeed—is most efficiently borne by Mr. Webster and Madame Celeste, Mr. Keeley lending a hand now and then to lighten the load. The Temperance Society could not desire a more forcible and frightful example of the abasement, crime, and misery produced by drink than is afforded by *Richard Pride*, as depicted by Mr. Webster: it is a masterly impersonation.

Popularization of Music.—The Amateur Musical Society commenced their ninth season on the 5th instant, at the Hanover-square Rooms very successfully. The overture to *Der Freischütz*, in particular, was remarkably well played. Some part-songs by the London *Deutscher Männer-chor* materially aided the success. They gave Lachner's *Standchen* admirably. Carrying out the principle of amateurship further than on previous occasions, Mr. Henry Leslie now acts as conductor. The expenses of the last season, we observe, met wholly by the subscriptions, amounted to the sum of 765*l.* 19*s.* 6*d.*

ILLUSTRATIONS AND PRINTS.

"THE Ladies of the Reformation," a book recently published by Messrs. Blackie, is remarkable for the profusion and excellence with which it is illustrated, containing, as it does, no fewer than 112 engravings on wood. The principal subjects are by Mr. James Godwin, and display, as it seems to us, great power of invention, skill in composition, and facility with the pencil. Some may see a reason why the praise of the *Builder* in this case may be somewhat partial: we will content ourselves, therefore, with the above brief commendation, and refer our readers to the work itself for our justification. We would especially point out the title-page; "The Burning of Anne Askew" (engraved by Dalziel), a picture in little; "Chaplain discoursing to Katharine Parr," very well cut by W. L. Thomas; "Lady Jane at the Place of Execution," and "Sir Anthony Cooke instructing his Daughters," both by the last-named engraver. Mr. J. W. Archer contributes a number of clever architectural illustrations, engraved by Bolton.

"The Seat of War in the East."—Under this title Messrs. Colnaghi and Co. have commenced the publication of a series of drawings made on the spot by Mr. William Simpson, who was commissioned by them to proceed to Sebastopol for the purpose of making sketches of the places and occurrences of interest arising from the war in the Crimea and the adjacent countries. The sketches are lithographed by Messrs. Day and Son, and include,—"The Cavalry Affair of the Heights of Bulganak, 19th Sept. 1854," "Balaklava, looking towards the Sea," "The Gale off the Port of Balaklava, showing Loss of the *Prince*," "The Light Cavalry Charge, 25th Oct. 1854," &c. It is evident from Mr. Simpson's letters, extracts from which have been circulated, that he is taking the best means for rendering the series truthful and important.

THE ILLUSTRATIONS OF "THE BUILDER" REVIEWED.

THE architectural writer in the *Critic* continues to give his monthly review of the buildings illustrated in our pages. We extract a portion of his latest remarks :—

"We give cordial welcome to every additional move indicating the advance of Anglo-Italian architecture; and the *Builder* (Vol. XII. p 571 presents us with a pleasing subject for remark in a woodcut representing the Offices of Messrs. Capel and Co. Throgmorton-street, from designs by Mr. J. J. Cole, architect. Mr. Cole will not understand us as finding any fault with his elevation, because we take it that he has done the best that was to be done with the arrangement that was required of him, and with his limits for operation. He has presented Throgmorton-street with, to say the least of it, a very pleasing elevation, in which the Barry influence is successfully submitted to, and in the basement of which there is a propriety of management, not deficient in originality. The corresponding squares of the two larger openings (the one a large entrance-way, and the other a window), and the uniform outline of the three oblong openings (the central a doorway, and the others windows), illustrate that regard for regularity which should ever, as much as possible, be considered. Had there been more frontage-space, the architect would, doubtless, have given more space between the end windows and the quoins of the building; but within his present limits this could not be done, since the fenestration could not with propriety have been in the least more close than it is. It occurs to us, however, that the mouldings of the rail of the balusters to the balconies of the second-floor windows might with advantage have been carried across the piers between them, as it would have corrected the somewhat vertical excess of the union formed by these windows and those of the first floor beneath. Let our readers just pencil the addition we suggest, and we think they will admit that a very trifling provision may greatly add to the value of an important whole. The editor of the *Builder* justly eulogises the 'little piece of design' apparent in a contrivance to light two rooms and form a back entrance, of which a separate illustration is given.

An elevation and plan of the New Houses and Schools at Fulham, by Messrs. F. and H. Francis, architects, are engraved in the same volume of the *Builder*, p. 583; and, looking at the mere geometrical presentment of the façade, in ignorance of what may be the effect of its return portions in perspective, we must admit it to evince taste and feeling. The pinnacles, however, at the angles of the tower are too meagre for their altitude, and especially for the broad bulk of the feature from which they rise; and the gables in the centre of the two return fronts, shown in profile as rising above the ridge of the main roof, are certainly injurious to the general composition. With the diamond cross line work on the surface of the walls we have no sympathy. It seems merely to argue a restless aversion to simplicity and repose. But there is much pleasing form and proportion in the front, *per se;* and buttresses are judiciously placed against the backs of the chimneys, where there is a superior height of masonry over walls weakened by flues.

In the *Builder*, Vol. XII. pp. 607 and 602, we have specimens of Old English, and of New French Gothic. The first is an engraving of the York Chapter House. If it were a new design, we should presume to say that the pinnacles want elevation, that the windows finish too close to the cornice, and that the omission of the circumscribing dripstones over their arches is to be lamented. Neither do we like the form and surface decoration of the masonry on the flying buttresses, the little monkey riders on the saddles of which should be assailed by pebbles, if pea-shooters should prove inefficient for their destruction. The French specimen is a mere bit; but it is a *morceau* of much beauty; only we wish the raking mouldings of the canopy had been carried lower. It

is one of the doorways of the new Church of St. Clotilde at Paris. The moulded work and decorations seem to exhibit true feeling; and the transome-piece and cinque-foil light above admirably employ the space which were otherwise unnecessary to the doorway, and would leave it with a too great proportional height.

The *Builder*, Vol. XII. p. 643, gives us a perspective representation of Mr. Tarring's *Design for the Government Offices*, in and near Downing-street, and which contemplates the removal of the buildings between the Horse Guards and Great George-street, Westminster, as far as Charles-street, and the block of houses between King and Parliament streets: the site of Dover House to form a public entrance into St. James's-park. The existing building, first erected by Soane, and since altered by Sir C. Barry, would form one wing of the façade towards Whitehall. To this would be added a large and loftier centre; and a corresponding wing would stretch northward, making frontages towards Whitehall and the park of about 700 feet; the return fronts being 400 feet long, and of exactly correspondent character with the others, though something subservient. The entire structure would comprise three courts, the leading new features of the design being the grand and lofty archways which would appear in the centres of the various ranges, viz. the two main longitudinal ones, and the four minor transverse ranges, east and west.

With the exception of the six grand archways, there is little invention as regards the architectural advancement of the design, nor do we say that much invention can be brought into play, or that it is required. The extension of Barry's existing portion is of course imperative; and the addition of the lofty centre blocks, in character precisely accordant, is all that is essential. But we think these crowning cubes might be rendered a little corrective of the excess of horizontality, by making six out of the eight engaged columns break a little forward, so as to warrant the upward termination of each block with a *pediment*, the roof-ridge being of course shown as extending from the outer front apex to that over the inner front. We shall be disappointed if Mr. Tarring do not acknowledge that this would be, not only practicable, but improving.

To the amount of sameness which would still remain, we see no objection. It would exhibit nothing more or less than a befitting unity in a vast pile of assimilating offices, admitting of no very peculiar or supreme compartment. The entire structure would look its use and purpose, as a great compound of board-rooms and offices for managers and clerks,—a multitudinous assemblage of units in uniform, regimentally continuous and compact, forming one vast quadrangular presentment, including three hollow squares, and exhibiting that abstract beauty of ornate regularity which is the charm of military parade."

GAS.

The first annual report of "the Crystal Palace District Gas Company" has been issued in a printed form. The directors give rather a curious account of the circumstances connected with the origin and establishment of this now seemingly thriving company. Its original "promoters," as many original promoters do, seem to have calculated on the lion's share of the loaves and fishes, but in this instance they appear to have miscalculated their ability to "work" the directors to their own ends so completely as they had desired. One of these promoters "became a director; was appointed engineer; and came forward as contractor for the proposed works." He did not seem much inclined, however, without considerable pressure and as much delay, to "come forward" with his "plans and specification, with the tender for the proposed works;" but at length he was obliged to do so. Even then, however, "the specification and drawings were found to be very incomplete." The amount of the tender had been "left blank," while the acceptance of the contract had been pressed upon the directors, who, however, "refused to accept" until the blank was "filled in," excusing themselves, doubtless, for what they hesitatingly feared was "a degree of caution amounting to distrust." The proposed works were estimated, at the instance of the directors, by respectable engineers, one of whom, Mr. Christie, declared 15,600*l.* to be their true value or cost, and another, Mr. Low, appears to have given a margin of a few odd thousands more; but what think our readers was the amount of the director-engineer-contractor's own estimate? Only 31,000*l.*! The proposed contract "forming part of the preliminary agreement of the company was immediately annulled;" and it was determined that tenders should be obtained from several sources for the building of gasworks suitable to the purposes of the company. Afterwards the two promoters, one of whom, as we have said, was a contracting-engineering director, while the other was the secretary-solicitor, made an application for 400 paid-up shares in the company, as compensation or remuneration for being the promoters of the company; and the directors appear to have been glad to get rid of both, which they ultimately did, by compounding with them for 300; the 200 devoted to the first promoter, however, being thereafter commuted by a money payment of 750*l.* for "promotion," and 640*l.* for personal services of self and son. The directors of this company already announce a dividend, for the second half-year of its existence, of 5 per cent. on the paid-up calls on their capital.——The Boston Gas Company, under threat of competition, have reduced their price from 5s. to 4s. with promise of "pure" gas and plenty of it.——The Lincoln company have also promised to reduce their price, from 5s. to 4s. "so soon as they have cleared off the debt created by improvements and extensions" for which they have entered into contracts. These promises are exciting desires and hopes of similar reductions at Brigg, where the present price is 7s. 6d. besides meter rent, and at Stamford, where a reduction *to* 5s. appears to be the acme of felicity.——The gas-works at Harwich have been completed, and the town lit up.——At Cradley, a gas-work has also been built, and the shops, &c. are being lighted with the gas.——The Stockport gas consumers complain that their gas company is supplying them with "wretched" gas at 5s. in consequence of allowing a Lancashire firm to withdraw from a contract entered into for the supply of cannel coal for the Stockport gas.——While we have our gas-pen in hand, we have ourselves a subject of complaint to urge with the Imperial Gas Company. Why is it that with the best local appliances in our small study here at Brompton, we can scarcely ever get a good light from them, except of a Sunday evening, when all the shops and public works are closed? We shall not attempt to reply to our own question, but we trust the company will look to it, and provide a remedy as the best response.

WAR APPLIANCES.

Mr. Nasmyth is engaged at Patricroft in manufacturing a monster wrought-iron gun, to send a huge shot four or five miles; and Mr. Whitworth is employed in constructing improved rifles, to make them more efficacious and more certain instruments of destruction. The French Government are preparing crews and marines for four of the bomb-proof iron floating batteries, but there is a strange silence on this side the Channel, as to our own progress with these hopeful engines of war. Where are they? or what progress has been made with them? Why should France be a-head of us with such peace-compellers as these? A dreadful incubus appears to have been squatted on the vitals of the nation, paralyzing or neutralizing its truly gigantic, but most unavailing efforts. May we now be assured that the nation is at length awake,—that it will rise like a giant, from a horrid dreaming palsy, to the realization and the effectual exercise of the power it has already so well struggled to exert? Can we confide in the energy and the goodwill of its new executive head, whoever he be? May we rest assured that he will sweep away those cobweb threads of a pitiful Lilliputian routine, presided over by those who, at all events, would not break through them, and by the mere multiplication of which this powerful nation has been bound hand and foot, and left to exhaust itself in unavailing efforts? Let us hope for the best. If the energy of a Palmerston be exerted with a will, the way will be found to a speedy remedy for all our grievances. Meantime, we may remark, that although the Baltic is still spoken of as the sole destination of the powerful batteries of which we were speaking, their utility in the Euxine is so obvious that we cannot believe this fact has been overlooked, or that there is no intention of assisting the allied armies with them at Sebastopol. We have confidence in the sincerity and the right-goodwill of the emperor who is preparing them; and knowing too how he keeps his own counsel, we are confident of his intention to astonish Prince Menschikoff shortly, by sea as well as by land. Indeed, until the north fortifications, no less than the south, be effectually destroyed, how are the allied armies to occupy Sebastopol even when they take it, as probably they could, any day, even as it is? Are they not quietly awaiting the construction and the advent of these very batteries, loaded with Nasmyth's monster guns?——There is no lack of other "new and destructive war engines;" and, doubtless, amongst a host of humbugs, there are a few fearful instruments in preparation. The last new invention we have heard of, is one (or rather two) alluded to by the *Northampton Chronicle*, a correspondent of which "expresses his wish to call the serious attention of his countrymen to two most destructive engines of war, which he has invented and has submitted to the Honourable Board of Ordnance. He describes one as capable of throwing, with the aid of from 80 to 100 men, one ton of 84-pounders, at one discharge, and of being discharged once every minute, striking with precision any spot desired. [Here would be something like the concentration we complained of the want of.] He also states that by another invention of his, requiring sixty-four men to work it, sixteen bombshells, at one discharge, may be fired off every minute, with equal effect; his battery being itself bomb-proof. He intends, if the foregoing are adopted, also bringing out two other plans, one to throw from thirty to sixty tons of red-hot shot per hour; the other to throw from 1,000 to 100,000 grape-shot per minute in the field, for protection and defence of foot and horse soldiers." He who really can and will bring some such engines first into the field of war will be the world's peacemaker. ——Satisfactory experiments with Roberts's mortar and with mortar vessels adapted to its use, have, it appears, been made at Sheerness. A large flotilla of these vessels, both English and French, is said to be in process of construction; and Mr. Nasmyth has applied, it seems, to the Government for permission to mount his huge malleable guns on the same principle. It has recently come to the knowledge of the Admiralty that during Captain Roberts's former fitting of this mortar at Portsmouth, a certain Russian admiral (who has since died within the harbour of Sebastopol) was at Portsmouth, and, shortly after his return home, the Russian line-of-battle ship, the *Twelve Apostles*, was fitted by him, and our trenches have felt the weight of their 13-inch shell. Even without any such hints the Russians are at least as active as ourselves, however much less inventive. Indeed, the most exaggerated-looking statements as to the activity of their doings are now being made. Thus, the *Austrian Military Gazette* states, as intelligence from Tula, that that whole town is converted into a manufactory of fire-arms, and that in December last 600,000 stand of arms were forwarded thence to the grand arsenal at Kieff, while still the Government orders more. The director of the Tula manufactory is said to be of Scottish origin. There are, or were, 4,000 workmen under his orders. Now, even though twelve months were allowed for the formation of 600,000 stand of arms, the daily average must have been about 1,650! The Tula manufactory, it is said, never used to turn out more than 300 a day, including the mere conversion of flint into percussion-locked guns. That immense exertions, and numerous working recruits, from Germany and elsewhere, have been made during the past year, however, there is no doubt. The powder-mills at Ochta are reported to have provided the Russian army with upwards of 1,000,000 cwt. of powder within the year.

KENTISH RAG-STONE.

Your correspondent, Mr. C. H. Smith, in his notice (published in a previous number, p. 58) on rag-stone, is in error in terming the strata of lower green sand at Tilberstow-hill, as the "bottom beds" of that formation,—they being the *upper* ferruginous concretionary beds of the lower sand.

The true Kentish-rag only occurs in the lower series, and rests on the Atherfield clay, which clay lies immediately upon the Wealden.

A familiar example of the distinction in position between these beds are the cliffs from Folkstone to Hythe. Tilberstow is identical with the concretionary beds of Folkstone,—the rock at Hythe, to the Kentish-rag beds in Mid-Kent, and which are largely developed at Maidstone. The rag here contains nearly 92 per cent. of carbonate of lime, is highly crystalline, and contains no "quartzose grains of sand." These beds thin out westward from Maidstone, and are not I believe) developed in the neighbourhood of Tilberstow.

At Maidstone, the thickness of the rag-stone beds is upwards of 80 feet, alternating with hassock, and a few layers of chert, or silex. An equivalent to the Tilberstow beds is found about three miles from Maidstone, on the road to Chatham, where the ferruginous beds rise from beneath the galt, at an angle of about 45 degrees; the constituent parts being very nearly similar to your correspondent's description of the strata at Tilberstow-hill.

W. H. Benstead.

Glazed Bricks.—The remarkable frost of Saturday morning succeeding a shower of rain presented a very beautiful appearance on the fronts of the houses, and gave them a brilliancy rarely witnessed. I think it suggests the idea for a mode of decoration, by glazing the surface of bricks, which has been but little attempted. The polished appearance given to common brickwork by the glossy surface would not be the only advantage, as it would also be more easily cleaned: the manufacture is not difficult, and the additional cost would be very trifling.—A. J. B.

BUILDERS' CHARGE FOR PREPARATION OF TENDERS.

Ritchie v. *Meadows*.—This was an action in the Bloomsbury County Court, wherein the plaintiff was foreman to Mr. Matthews, a builder. A few months ago the defendant wished to make alterations in his house, and instructed the plaintiff, amongst others, to prepare an estimate of the cost. The plaintiff, accordingly, in his leisure hours prepared the estimate. Among the estimates forwarded to the defendant for perusal was the plaintiff's, and one from Mr. Matthews, his (plaintiff's) employer, and this latter was accepted by the defendant. Mr. Matthews performed his contract, and received the amount, 240*l*. While the work was progressing, the plaintiff, as Mr. Matthews's foreman, superintended the work in the ordinary way. After the work had been completed, he sent his charges for preparing *his* estimate, amounting to three guineas; and, failing to obtain payment, brought this action. The plaintiff admitted that he had also prepared the estimate sent in by his master.

For the defendant it was sought to be shown that the agreement to pay for the preparation of the estimate was only in the event of the estimate not being accepted by the defendant; and he always looked upon the estimate of the plaintiff and Mr. Matthews as identical.

His Honour (Heath) said the agreement to pay for the estimate was with the plaintiff personally, and not as the foreman of Mr. Matthews. He should therefore make an order for payment of 2*l*. as he thought the amount charged (3*l*. 3s.) excessive. Verdict accordingly.

Notices of Books.

VARIORUM.

A PAPER on "Land Drainage and Drainage Systems," read by Mr. J. Bailey Denton before the London Central Farmers' Club, has been published in a separate form (by Ridgway, Piccadilly). The points mainly considered are, Depth of drains—Distance between drains—Arrangement of system—and Direction of drains. He considers the superiority of deep drains (say 4 feet) incontestably proved; but that extra depth will not compensate for too great distance between the drains. The mixed system of deep and shallow drains he considers simply one of expediency, and that it cannot be recognised as worthy to supersede an adequately and uniformly deep one. Mr. Denton gives 5*l*. per acre as the price at which he is now getting 4 feet drainage (25 feet intervals) done in some few places, and at which, in 1851, it was done pretty generally throughout the country.——The new number of the *Art-Journal* opens with an article on Design as applied to Ladies' Work, which may have the effect of making some of our fair friends *think*—over their wool. The writer gives some account of the new-old accomplishment *Potichomanie* with which *beaux* as well as *belles* are "stickying" their hands. Flowers, scrolls, and figures cut out of paper or linen are gummed on the face, and placed on the inside of thin glass vases. When the figures are dry, a coat of varnish is applied; then a coat of oil paint; and ultimately another coat of varnish. "The effect, *where the pattern is well arranged*, is good, and the glazed surface of the vase with the opaque colour within forms a good imitation of china." Unluckily, however, the pattern is *not* always well arranged, nor are the colours well chosen: in fact, more than half the specimens we have seen are simply abominable: and if there were public inspectors for the prevention of outrages on the *taste* of her Majesty's subjects (which ought to be protected as well as the person), would certainly be broken. The same journal contains some pertinent remarks on "Architectural Criticism in connection with the Architectural Exhibition."——The *Civil Engineers' Journal* contains the plans of the Trinity College Museums, Dublin; the exterior of which are illustrated some time ago, at the cost of a certain amount of angry correspondence.——The *British Workman*, a new penny illustrated periodical, is commenced "with an earnest desire to promote the health, wealth, and happiness of the working classes," and has the good word of Lord Shaftesbury. The first number is mainly directed against the dram-shop and the beer-house. "About 1,100,000*l*. sterling are *weekly* squandered in intoxicating drink and tobacco by the working classes of the United Kingdom!" This is a frightful fact; but how much *more* frightful would it be if the sum of all the poverty, ignorance, illness, misery, and crime caused by this profligate expenditure were added! The new periodical, if it wish to obtain the ear of those it seeks to benefit, must be less a lecturer.

Miscellanea.

CLIFFE NATIONAL SCHOOLS.—These schools (which were noticed in the *Builder* some time since) have been lately opened. They are built entirely on the plan at present approved by the Committee of Council on Education, which has contributed largely towards its building fund. The area of the principal room is 50 feet by 16 feet, with open timber-roof 23 feet from floor to ridge. There is besides a class-room, and two porches. The school-room is fitted with five groups of desks, and the class-room with a gallery. The exterior of the building is of Kentish rag-stone, slated. The builder is Mr. John Osmer, jun. of Cliffe, and the whole undertaking reflects credit on him. The plans were furnished by the committee of council, but Mr. Osmer drew them out in detail, &c.; and in many other ways his gratuitous services were useful to the promoters of the school. The principal contributors to the school, which cost nearly 500*l*. were—Committee of Council on Education, 200*l*.; National Society, 30*l*.; Gravesend Church Union, 10*l*.; and the remaining 260*l*. from private sources,—Lord Darnley and Archdeacon Croft, being the principal contributors. The farmers, besides their donations, carted the materials. The site, which is close to the church and village-green, was given by Mr. Peale, of Maidstone.

ASSOCIATION TO PREVENT BOILER EXPLOSIONS.—A meeting was held some time ago in the Town-hall, Manchester, to consider the necessity of adopting measures for the inspection of steam boilers (a suggestion which we had long urged in the *Builder*). At the meeting alluded to, the labours of the committee appointed have resulted in the formation of a series of rules and regulations; and as about 270 gentlemen or firms have become members of the association, a meeting was held on Tuesday week, in the same place, for the purpose of approving, or otherwise, of the rules which had been prepared. The mayor of Manchester presided, and there were present about 60 gentlemen employing steam-power. Mr. W. Fairbairn read the report, from which it appeared that the total number of persons canvassed amounted to 635. Of these 271 signed, twenty-seven refused, and the remainder, for various reasons, deferred giving their names until the association was permanently established.

ROYAL SCOTTISH ACADEMY.—The twenty-eighth annual report of the Council of this Academy has just been issued in a printed form. The appropriation of the new Art Galleries to the uses provided by the Act, is looked forward to as an important epoch in the history of the Academy, on the progress of which during the past year the members are congratulated. The Council report that the opening of the evening exhibitions, at reduced rates of admission, and the introduction of a cheap evening season ticket, have been found to meet some of the necessities of the recent Early Closing Movement—as these measures afford one cheap, rational, and instructive mode of aiding to fill up the hours of relaxation from business. A large increase took place in the number issued of these season tickets; and every evening of six weeks, during which the exhibition was open, the galleries were crowded with visitors. There seemed no reason to surmise that the amount of attendance had yet reached its maximum; but, on the contrary, that a much wider sphere of usefulness in this direction remained to be occupied and improved by the Academy. The first impressions in bronze of the president's medal, executed by Mr. B. Wyon, from designs by Mr. Noel Paton, were placed on the table at the meeting at which the report was read.

ARCHÆOLOGICAL PROFESSORSHIP.—The Royal Society of Literature have just established a Professorship of British History on Archæology, and have appointed the Rev. H. Christmas, F.R.S., &c. to the chair.

STRIKE AT BLACKBURN.—From 200 to 300 mechanics, machine joiners, and smiths, are at present out of employment at Blackburn, in consequence of a recent reduction of rates by their employers, although, according to the *Preston Guardian*, the wages now proposed by the masters of Blackburn are several shillings a week higher than the same class of hands receive in Preston, Burnley, Heywood, or Bolton. The moulders, grinders, and glaziers, are now working at the reduced rates. Notwithstanding this subject of difference between the employers and employed, the tone of feeling between them is said to be satisfactory.

THE IRON, COAL, AND COPPER TRADES.—No sooner does the iron trade show an inclination to return to reasonable and moderate demands in regard to prices, than "symptoms of reaction towards a better state of things are already visible." Such symptoms, however, are now as ever accompanied by others partaking of the nature of those smashing failures to which the crises of speculative fevers so inevitably lead. There have already, accordingly, been several extensive failures in different quarters, and our only hope is that the mischief has been confined to those who merit it. Reduction of wages is now the talk; but for reasons already stated, that is a movement which meets with but little of our sympathy at least. Many poor fellows, instead of being benefited by the high prices, have latterly been reduced to half time, on that very account, their stupid masters having injured both their workmen's interests and their own, in their undue efforts to realize impracticable prices. In south Durham, however, the returning glimpse of prosperity has already led to the blowing in of idle furnaces, and actually to the construction of new. Thus it may be that, as heretofore, high prices will only give place to excessive production and glutted markets. The iron trade appears to be constitutionally subject to a perpetual succession of such heats and colds of intermittent fever. Among the lowest prices quoted since quarter-day, have been 8*l*. 10s. for bars in South Staffordshire, and 3*l*. 6s. to 3*l*. 8s. for pigs at Glasgow.——The extraordinary scarcity and rise in the price of coal last winter, in the metropolis and elsewhere, has not been lost upon the railway companies, who have used the utmost exertions to secure an enormous traffic in that useful article; and they still continue to build waggons, and to spare no effort or outlay of capital in order to develope the trade. One consequence is, that while coals sold in London last winter at 42s. to 52s. per ton, they can this winter still be had for less than one-half these prices, and doubtless will continue to be so.——Copper has not sympathised in the fall of iron, and for some time past purchases are said to have been made with more confidence than they were a few months ago.

LIVERPOOL ARCHITECTURAL SOCIETY.—At a meeting of this society held last week, Mr. John Hay in the chair, Mr. Picton read the second part of his "Notes on Architecture in Flanders and Brabant." Commencing where he left off in the first part, at Antwerp, he exhibited to his hearers the most interesting buildings of Antwerp, Brussels, Liége, and Mechlin, or Malines. Mr. Picton concluded his paper by showing the advantage of travelling with some definite object. A brief conversation ensued, which turned chiefly on the proper meaning of the term *renaissance*.

THE ALHAMBRA AT THE CRYSTAL PALACE.—It may be well to mention that the "Hall of the Abencerrages" of the Alhambra Court is now exposed to view. Some of our readers may like to see it before the painting is commenced. As a piece of construction it well deserves study.

INSTITUTION OF MECHANICAL ENGINEERS.—The eighth annual meeting of the members of this institution was held on 24th ult. at Birmingham; the president, Mr. Fairbairn, in the chair. The secretary read the annual report of the council and statement of accounts, which showed a satisfactory and prosperous position of the institution, with considerable increase in number of members and amount of funds. The annual election of council and officers then took place by ballot; Mr. Fairbairn being re-elected president for a second year. A paper was then read by Mr. Robert Morrison, of Newcastle-on-Tyne, on an "Improved Steam-hammer." The next paper read was on a new manufacture of "Compound Metallic Rods and Bars," by Mr. Edward J. Payne, of Birmingham. The next was a description of an "Improved Safety-valve," for steam-engine boilers, by Mr. James Fenton, of Low Moor. The last was a description, by Mr. John Ross, of Birmingham, of an "Improved Tuyere for Smiths' Hearths." A new "Steam-pressure Gauge" was exhibited by Mr. Shanks, of London.

THE ARCHITECTURAL INSTITUTE OF SCOTLAND.—The first meeting of this body, held in Glasgow, this season, took place on Thursday before last, in the hall of the Scottish Exhibition, Bath-street. Mr. C. H. Wilson, of the Government Local School of Art, read a paper on the "Formation of Provincial Museums and Collections of Works of Art." Mr. Wilson's views excited some discussion; after which, the chairman (Mr. Rochead, *vice* the Lord Provost) intimated that, in consequence of the lateness of the hour, he would not bring before them, till next meeting, a communication received from the Greenock Town Council on the subject of the Watt Testimonial. The Greenock Town Council, it appears, have been consulting various associations of architects as to the shape which the proposed testimonial should assume, and had written to the Architectural Institute among others.

ECCLESIOLOGICAL SOCIETY.—A committee meeting was held at Arklow House, on Wednesday, January 17; Mr. Beresford Hope in the chair. The chairman laid before the meeting the correspondence with the promoters of the competition for the proposed cathedral at Lille. A resolution was passed to assure the Lille commission of the sympathy and willing co-operation of the Ecclesiological Society, and to prepare a notice of the conditions of the competition, for insertion in the next number of the *Ecclesiologist*. Mr. Slater met the committee, and exhibited some designs for a cathedral at Adelaide. This was a large cruciform structure, in late Middle-Pointed style, with a lofty central tower and spire. The design was discussed in detail, and the committee agreed that in cases where a part only of a church is to be built, it is ordinarily better to begin with the nave; inasmuch as there is more likelihood of a permanent choir being afterwards substituted for a merely temporary one, than of a nave being built or used when the congregation has once become accustomed to worship in the choir. Mr. Slater was recommended to give more importance to the western façade of his design, and was reminded that a colonial cathedral required accommodation for the meeting of a synod, and for other diocesan purposes. Various designs submitted by other architects were also considered.

A PERIPATETIC MUSEUM. — The Department of Science and Art of the Board of Trade have formed a small museum of ornamental art, which is intended to be sent in succession to the different local schools in connection with that department; in fact, to circulate all over the country, and thus render the London central institution useful in the provinces. The collection is composed of a selection from the objects contained in the museum at Marlborough House.

THE PANAMA RAILWAY.—This road, connecting the Atlantic and Pacific oceans, which has hitherto, strange to say, attracted but little notice in England, is now actually completed, and at this date the trains are probably running through from sea to sea! It extends from Navy Bay, on the Atlantic, to the Bay of Panama, on the Pacific, its entire length being less than 49 miles. Its gauge is 5 feet; its grades easy,—the highest for a short distance near the summit, being 60 feet to the mile on the Pacific, and 53 feet to the mile on the Atlantic slope, the summit being only 250 feet above the level of the sea. Some of the bridges are of iron, and it is intended to replace all the wooden structures with that material. The neutrality of the isthmus it traverses is guaranteed by the Government of the United States, by special treaty with New Granada; and also by Great Britain and the United States, by the Bulwer treaty. It thus becomes the highway of nations. The amount expended on the road to this date is about six millions of dollars (1,200,000*l.*). It is estimated that one million of dollars more will replace the wooden bridges with iron, and finish and fully equip the road for expected increase of traffic, making the entire cost 1,400,000*l.* sterling, or seven millions of dollars. This has been accomplished by the enterprise of our Transatlantic brethren, at an inconsiderable cost in view of its importance, a work which many pronounced an impracticability, and all deemed a hazardous undertaking.

EXPENSE OF THE METROPOLITAN PARKS.—A return recently published shows that the gross total expenditure for keeping up St. James's, the Green, and Hyde parks for the year ending the 31st March, 1854, amounted to 13,711*l.*, Kensington-gardens, to 2,111*l.*; Regent's-park to 6,551*l.*; Victoria-park to 2,042*l.*; and Greenwich-park to 1,110*l.* These sums are exclusive of the rangers' departments. Among the items of expenditure of the three parks first mentioned, may be mentioned 95*l.* for watering; 4,259*l.* for repair of roads, including tools and materials; 54*l.* for food of aquatic birds; 1,192*l.* for lighting; 650*l.* for the supply of water to Serpentine, St. James's-park, &c. There is also a special charge of 876*l.* for draining Rotten-row and footpath on south of enclosure in St. James's-park. The receipts of these parks, arising from grazing rents, subscriptions for keys, and sale of timber, amounted to 549*l.* In Kensington-gardens, among other items, 23*l.* were said to be expended on the water-fowl, and 219*l.* on facing and paving the banks of the Serpentine. The receipts from the gardens were 87*l.* The receipts from Regent, Victoria, and Greenwich parks amounted respectively to 972*l.* 672*l.* and 74*l.*

SOCIETY OF ARTS.—The annual exhibition of inventions of this society is announced to open on the 2nd of April next.

J. J. GRIFFITHS, SCULPTOR.—The *Sussex Express* mentions the untimely death, at the age of twenty-four, of Mr. J. J. Griffiths, a sculptor, in the employment of Mr. Hutchison, patentee of the indurated stone, for whom he had executed the font in Staines Church, and other works.

THE NEW PUBLIC HEALTH BILL.—The Bill introduced to the House of Commons by Sir Benjamin Hall, and read a first time, has been printed. It consists of four parts; the first relating to the General Board and its powers; the second to the application of the Act and the constitution of local authorities, the third to the powers and duties of these authorities; resolving itself, in fact, into a sort of Buildings Act in many essential particulars; and the fourth relates to the repeal of former Acts. If it be proposed to place a town under the protection of the Act, on a requisition signed by not less than ten inhabitants, a public meeting is to be convened, and there must be a clear majority of the meeting, or of the poll of the district, if demanded, before the General Board of Health (which is continued) can send down an inspector to inquire. The power taken by the General Board may be confined by the inhabitants to a particular emergency. Provision is made against the inspectors directly or indirectly becoming contractors for work in any district. Local boards are to appoint their own surveyor; but the General Board must inspect and approve plans before giving their sanction for raising money for any purpose; and they also inspect the works in progress to see that they are effectually carried out. The total amount that may be raised is extended from one year to two years' rateable value of property, as assessed to the poor-rate; repayment distributable over a period of thirty years. Annual reports are to be made by each local board, and presented to each ratepayer, and an annual report to Parliament by the General Board. Corporate authorities, where there are such, are to constitute the local Health Act administrators. Every local Health Board, under the third part of the Bill, will have power to construct reservoirs and divert sewage for sale, &c. besides other powers over new and other sewers and drains, as well as houses to be built as respects conveniences and drainage, which conveniences, &c. must be provided, under certain limits, to the satisfaction of the local board, under a penalty not exceeding 20*l.* and the board to provide such if necessary at the cost of the owner. Factories also come under such powers and regulations. Cellars newly built are not to be let as dwellings and, except with certain observances, not to be so let at all. Plans and particulars as to new houses, or rebuildings, to be submitted to local boards, and their surveyor to inspect the premises as they proceed, the whole to be done consistent with the powers of the Act under a penalty not exceeding 50*l.* for each infringement or offence. Streets to be under control of local boards as to cleaning, levelling, flagging, repairing, &c. There are also powers given to local boards of health as to water supply and lighting. The provisions of the Towns Improvement Clauses Act of 1847 to be incorporated with this Act as regards streets, sewers, houses, smoke prevention, fire-proof construction, supply of fresh air to buildings, &c. Slaughter-houses to be licensed by local health boards, and markets and fairs regulated, recreation or pleasure-grounds provided, &c. The Act will also contain powers to defray expenses by general district rate. We do not observe any special allusion to the metropolis or its districts throughout the Bill.

THEATRE BURNT DOWN.—Our warning, while alluding to the recent theatre burning at Brussels, to look to our own, had scarcely been given, when the Grimsby Theatre Royal, took fire, and was entirely destroyed. The property it appears was insured to the extent of 250*l.* The fire occurred on Monday before last.

WORKHOUSE COMPETITION: KING'S LYNN.—The guardians of the poor, after examination of twenty-six sets of plans for a new workhouse, have selected those bearing the motto of "East Anglia," the production of Messrs. Medland and Maberly, of Gloucester. The guardians, in their "Instructions to Architects," stipulated that designs should not be coloured otherwise than by Indian ink. According to our informant, the estimates given varied from 6,000*l.* to 16,000*l.* The estimate of the selected plans is about half way between the two sums.

WEYMOUTH CEMETERY COMPETITION. — The designs of Mr. William John Pinch, of London, have been selected from many others. The second premium was awarded to Mr. Talbot Bury.

TO PRESERVE WOODWORK OF FARM BUILDINGS. Take two parts gas-tar, one part pitch, one part half caustic lime and half common resin; mix and boil these well together, and put them on the wood quite hot. Apply two or three coats, and when the last coat is still warm, dash on it a quantity of well-washed sharp sand, previously prepared by being surged through a sieve. The surface of the wood will then have a complete stone appearance, and may be very durable. It is necessary that the wood be perfectly dry, and one coat should be well hardened before the next is put on. It is necessary, by the use of lime and long boiling, to get quit of the ammonia of the tar, or it will injure the wood.

ST. MARYLEBONE BANK FOR SAVINGS.—It was shown at the last annual general meeting of this institution, that the sum belonging to the bank in the hands of the Government on the 20th Nov. 1854, was 351,260*l.* 12s. 4d. and in the hands of the treasurer, 2,031*l.* 19s. 6d. making a total of 353,292*l.* 11s. 10d. The balance due to depositors at that date was 352,652*l.* 11s. 5d.

THE ARCHITECTURAL JURY FOR THE PARIS EXHIBITION.—The following are appointed for the examination and admission of works in the architectural section:—Messrs. Caristie, De Caumont, Duban, De Gisors, Hittorff, Labrouste, Lassus, Le Bas, Lefuel, Lenoir, Lenormant, and Violett-Leduc,—all well known and eminent men.

TENDERS

For a new house, or villa, at May-bank, Newcastle-under-Lyme, for Mr. James Edwards. Messrs. Ward and Son, architects. Quantities taken out by the architects:—

Suton and Baker, Newcastle	£2,320 0 0
Wolstanton	2,280 2 7
Reece, Longport	2,183 0 0
Farham, Crewe	2,119 12 0
Watkinson, Burslem	2,112 0 0
Broadgate, Abby Ulton	2,100 0 0
Chapman, Newcastle	1,990 0 0
Bryan, Stoke (accepted)	1,875 0 0

For two chapels and lodge for the Charlton Burial-board. Mr. S. Hewitt, architect:—

S. B. Hocken	£2,230 0 0
Norris	2,148 8 9
Bland	2,040 0 0
Colls and Co.	1,986 0 0
Case	1,967 0 0
Rolfe	1,742 0 0

For building four fourth-rate houses, in Fuller-street, Bethnal-green. Mr. Josiah Houle, architect:—

Fowler	£1,189 0 0
Livermore	1,025 0 0
Ennor	986 0 0
Nash	965 0 0
Murduck	942 18 0
Pope	928 0 0

For Putney Cemetery, chapels, lodge, boundary walls, roads, drainage, and ironwork. Messrs. Barnett and Birch, architects:—

	Estimate without Turret. £. s. d	Inclusive of Turret. £. s. d
George Stredder	3,184 0 0	3,347 6 1½
William Harrison	3,090 0 0	3,286 0 0
Higgs and Cullingford	3,038 0 0	3,237 0 0
Culverhouse and Nicholson	2,960 0 0	3,145 0 0
W. Wreatmore	—	3,115 0 0
William Higgs	2,717 0 0	2,877 0 0
J. D. Cowland	2,703 0 0	2,854 0 0
J. and S. Williams	2,616 0 0	2,762 0 0
Clever and Stagier	2,654 0 0	2,756 0 0
Richard Case	2,607 0 0	2,734 0 0
Alex. Honeyman	2,540 0 0	2,720 0 0
John Ashton	2,440 0 0	2,600 0 0
Adamson and Sons	2,387 0 0	2,562 0 0
A. Campbell	2,289 8 7	2,409 8 7
Wm. & Robert Aviss (accepted)	2,154 0 0	2,314 8 0

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"D. F."—"W. W."—"M. and M."—"W. A." "N. H."—"Mr. B."—"J E" "R. M. P."—"X" may obtain information at Marlborough House)—"A Pupil" (one volume, such as he suggests, was printed, and will be found at No. 1, York-street, under the title of "Buildings and Monuments, Modern and Mediæval")—"H. S."—"W. F." (we are unable to assist.)—"J. D."—"T. J. P."—"J. M. M'C" "T. G." "W. W." (removal of the parts affected with dry rot, the admittance of air, and the application of a solution of corrosive sublimate have been recommended by us on previous occasions.) "J. B." "R. C. and C." "J. N." "Sir P. A."—"Eccleston-square."—"A. H."—"B. S."—"Australia."—"W. H. B."—"M. L. C."—"J. M."—"C. and W."—"R. W." (There is no building 600 feet in height.)—"J. J. L."—"*Pro Rata*" (is in type).

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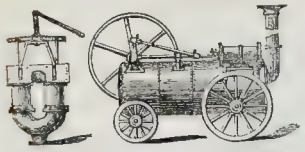

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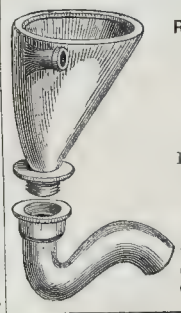

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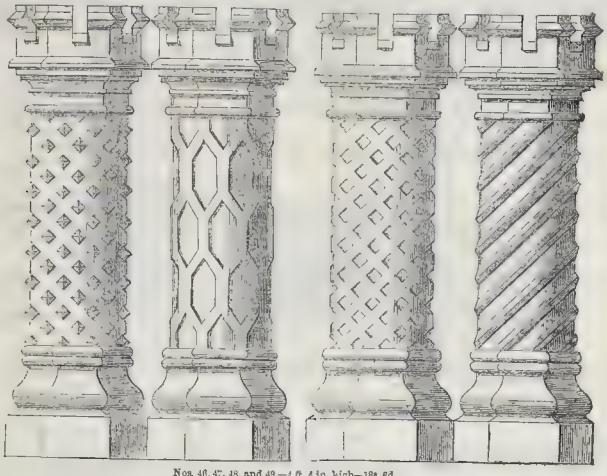

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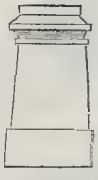

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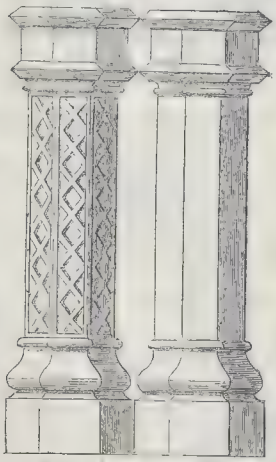

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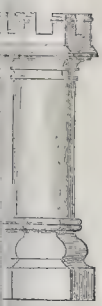

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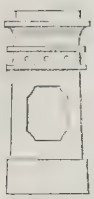

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...STOL	No. 14, Nelson-street.	BRADFORD.....	Horton-road.
...ERPOOL	No. 9, Russell-street, 33, Kenshaw-street, and Shipping Wharf, Leeds-street.	LEEDS	Wellington-street, adjoining the Midland Station, and Shipping Wharf, Victoria Works, Hunslet.

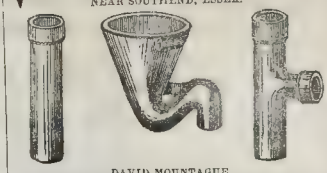
WHERE DRAWINGS, WITH PRICES, &c, MAY BE OBTAINED.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, Kings-cross.

TO ARCHITECTS, SURVEYORS, BUILDERS, CONTRACTORS, AND OTHERS.

MESSRS. CHANY beg to call attention to their large Stock of Water-closets (spring valve and common), Glazed Hopper Basins, Traps, and all articles used in sanitary improvements. N.B. Plumbers' Brass-work of every description. 34, Clifton street, Finsbury-square.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Bradwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

STEPHEN GREEN, IMPERIAL POTTERIES,
LAMBETH.

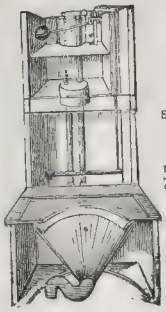
Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin, the most effective Syphon-trap yet offered to the public.



This effective Article has not any Crank or Wire to get out of order, and is all composed of Earthenware, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN, I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

HENRY TURNER, 2, SOUTH WHARF,
PADDINGTON,

5s. Trap, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white inside. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN-PIPES (WITH WHOLE OR HALF SOCKETS), WATER-CLOSET PANS, SINK-TRAPS, DOULTON'S INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE PURPOSES.
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

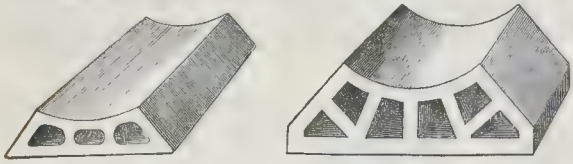
IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE, 5s. 6d. EACH

HALF-SOCKET PIPES
AT USUAL PRICES.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE, 7s. 6d. EACH

BY THE USE OF WHICH DRAINS MAY BE READILY EXAMINED, AND JUNCTIONS INSERTED, IN THE EVENT OF REQUIRING FURTHER CONNECTIONS.

INVERT BLOCKS of various radii, for Egg-shaped and Circular Sewers, extensively used by the Metropolitan and City Commissioners of Sewers, and are found to be well adapted to the purposes for which they are intended



STRAIGHT TUBES IN TWO FEET LENGTHS

IMPROVED YARD SINK.

In consequence of so many Closet Pans of an inferior quality having been introduced into the London market, I have thought it desirable to consider the propriety of lowering the Prices of those manufactured by me, not because they bear too much profit, but to supply an article in connection with Stoneware Drain Pipes of a durable character. It is found that Closet Pans not made of Stoneware are not durable, and in the space of a few months the glaze has peeled off the inside, and the Pan becomes rough, and absorbs a portion of what passes through it, thereby rendering it offensive to sight and smell.
WATER-CLOSET PANS and TRAPS of an improved construction, as approved by the Tottenham, Southampton, and other Local Boards of Health, can be had at 5s. 6d. each.
May be had also at Messrs. GLADDING'S Lime Wharves, Regina-road, Westminster-bridge, City-road Wharf, City Basin; Beckhead, Bermondsey; Danvers Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kings-road, Camden New Town; J. TURNER, 2 South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Brydges-street, Covent Garden; and at EDWARD COCKS', 34, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

TO SANITARY COMMISSIONERS, SURVEYORS, ARCHITECTS, BRASSFOUNDERS, PLUMBERS, BUILDERS, ENGINEERS, &c.

61,000 of the Deaths in England during the Year 1854 are referable to the imperfect operation of the sanitary organisation of our towns. *Globe*, 1st February, 1855.

MAYER, BOULTON, AND CO.
CORNWALLIS POTTERY, STAPLETON-ROAD, BRISTOL.

This is the only Manufactory in the Kingdom for the exclusive production of Plug Closet, Sanitary, and Lavatory Basins of all descriptions.

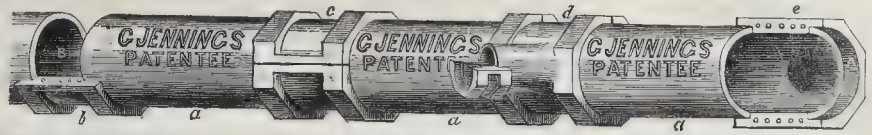
M. B. and Co. having an intimate knowledge of, as well as a practical acquaintance with, this peculiar business, can manufacture cheaper than any other House. They invite especial attention to their

DRAB HOPPER BASIN AND TRAP, AT 7s. 6d. EACH,
Delivered in any part of the kingdom;
AND WHERE LARGE QUANTITIES ARE REQUIRED, A LIBERAL DISCOUNT IS ALLOWED.

Orders for White, Drab, Marbled, Blue Printed, Enamelled, and Gilt Goods attended to on the shortest notice.

LONDON DEPOT—18 WHARF, CITY-BASIN,
FLINT AND STONE MILLS, FRAMPTON COTTERELL;
AND THE SANITARY POTTERY NAILSEA (Late Couthupes and Co.)

JENNINGS'S PATENT DRAIN-PIPES.

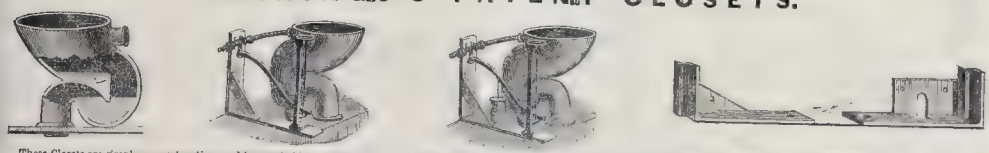


JENNINGS'S IMPROVEMENTS REMOVE ALL OBJECTIONS TO PIPE DRAINAGE. ENGINEERS AND ARCHITECTS specifying these Pipes to be used, will have the GREAT SATISFACTION of knowing that their drainage can at any time BE EXAMINED, OR BRANCH DRAINS INTRODUCED, without in any way disturbing the invert or general drain.

The great favour with which these Pipes have been received is a proof that some alteration in Drain Pipes was needed.

Many PUBLIC AND PRIVATE WORKS are now being drained with these Pipes, among them the COLNEY-HATCH ASYLUM; the NEW PRISON, CHATHAM; MODEL PRISON, PENTONVILLE; the ESTABLISHMENT of MESSRS. BERRENS and BLOOMBERG; the ESTATES of the DUCHY of CORNWALL; the PADDINGTON UNIONS; the CRYSTAL PALACE; the TOWNS of HALSTEAD and CARDIFF &c. &c.

JENNINGS'S PATENT CLOSETS.



These Closets are simple in construction, and imperishable in their material. ANY NUMBER may be supplied from one main pipe, without valves, cranks, or complication.

In their different qualities of ware, they are fit for the mansion or cottage.

References permitted to the following Unions:—STRAND, CAMBERWELL, HOLBORN, ST. SAVIOURS, and ST MARGARET'S and ST. JOHN'S, WESTMINSTER; to GUY'S, ST. THOMAS'S, CITY OF LONDON, ST LUKE'S, and LONDON FEVER HOSPITALS; and to upwards of 100 Villas in the Suburbs of London.

A Book containing Illustrations and Particulars of JENNINGS'S DRAIN-PIPES, WATER-CLOSETS, URINALS, LAVATORIES, SLUICE-VALVES, FIRE-COCKS, GULLY-TRAPS, SHOP-SHUTTER SHOES, &c. &c. can be had free on application, or by post if two postage stamps are inclosed to

GEORGE JENNINGS, SANITARY ENGINEER, 29, GREAT CHARLOTTE-STREET, BLACKFRIARS-ROAD.

YORK STONE supplied direct from the Quarries.—NOWELL and ROBSON respectfully invite the attention of Architects, Surveyors, Contractors, Builders, &c., to their excellent STOCK of STONE, combining good colour with durability. Samples may be seen at Keusington Basin and the Great Northern Railway Depôt, King's-cross.—Prices will be sent, and country orders promptly attended to, and delivered at all the Stations on the principal lines of railway, by addressing NOWELL and ROBSON, Quarries, Idle, near Leeds. Purchasers will find the stone of first-rate qualities, and the prices very reasonable.

TO BUILDERS AND OTHERS.

FOR SALE, an excellent Town-made BUILDER'S CART, large size, 6-inch wheels, whole tires, patent arms, and side boards, complete. For particulars, apply to Mr. RATTEE, Cambridge.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead traps, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Trap complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish-street, near St Paul's, London.

SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Upparatus" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the sockets being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Rosher and Co.'s Wharfs: Kingsland, Blackfriars, and Millbank. Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 8, Upper Thames-street.—C. Richardson's, South Wharf, Paddington.—G. Erith's, Cambridge Heath Wharf, Hackney.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbett's Depôt, Britton-street, Chelsea; and at the Pottery.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c; also, to their Paving, Sinks, &c.; Slabs of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1853.

HENRY DOULTON AND CO.

HIGH-STREET, LAMBETH, LONDON.

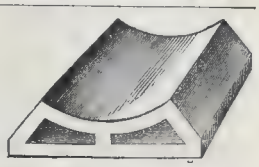
MANUFACTORIES—HIGH-STREET, LAMBETH; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

PIPES laid with ordinary care do not need examination. Not ONE in a THOUSAND of all the Pipe-drains laid throughout the Kingdom during the last Six or Seven Years has required to be looked at.

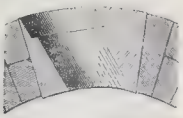
DOULTON'S HALF-SOCKET PIPES may be used with advantage where the Pipes may have to be removed, or in cases where it is necessary to introduce Junctions after the Drain has been completed.

DOULTON'S PATENT INVERT BLOCKS FORM A GLAZED, EVEN, AND IMPERISHABLE SURFACE FOR THE BOTTOMS OF SEWERS.

They have been used extensively by the Metropolitan and City Commissioners of Sewers, and for the Main Sewers in many Provincial Towns.



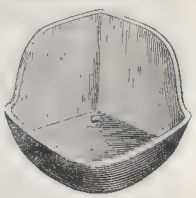
DOULTON'S PATENT JUNCTION BLOCKS, BY WHICH THE CONNECTION BETWEEN PIPE-DRAINS AND SEWERS AND BRICK SEWERS, Is made perfect and secure.



DOULTON'S SINKS AND URINALS

Are manufactured in a NEW KIND OF STONEWARE, of High Glaze and Uniform Colour.

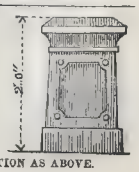
They will withstand the action of the most powerful Acids, and are made very strong to bear rough usage.



DOULTON'S TERRA-COTTA CHIMNEY-TOPS,

Will withstand the action of Frost or Sea Breezes, and are absolutely imperishable.

From 2s. 3d. each.



FULL PARTICULARS, WITH DRAWINGS AND PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

SALES BY AUCTION.

SOUTH SEA HOUSE ESTATE, THREADNEEDLE-STREET.

MESSRS. BEADEL and SONS are favoured with instructions to SUBMIT to PUBLIC COMPETITION, on TUESDAY, FEBRUARY 27th, at TWELVE, the above valuable PROPERTY, having extensive frontage to Threadneedle-street, communicating thence with Old Broad-street, and covering a superficial area of nearly three-quarters of an acre. This very eligible property is, with a small exception, freehold, and is all land tax redeemed. It comprises the present South Sea House, a most substantially erected fabric, three valuable messuages, used as offices, the open areas surrounding the South Sea House, the whole of which will be offered in one lot; also a small building now occupied with the Flower Pot public-house, which will be sold separately. The property presents a rare opportunity for the acquisition of a compact freehold estate in the neighbourhood of the Bank of England, and, in its present state, will realize a handsome rental; but if judiciously re-arranged will probably yield a very increased income in ground rents, and the materials will find a ready sale to the various lessees.—Particulars, with lithographic plans attached, are now ready, and may be had on application to Messrs. WORDSWORTH, [illegible], and BLAKE, Solicitors, at the South Sea House, Threadneedle-street; at the Mart; and of Messrs. BEADEL and SONS, 25, Gresham-street.

THREADNEEDLE-STREET, immediately contiguous to the Royal Exchange, Lloyd's Royal Exchange-buildings, the Bank of England, and the Stock Exchange.

MESSRS. NORTON, HOGGART, and TRIST have received instructions from the proprietor, to offer for SALE, at the MART, on FRIDAY, FEBRUARY 16, at TWELVE, the very highly important and exceedingly valuable and substantial FREEHOLD PREMISES, situate at the corner of Threadneedle-street, immediately opposite the Royal Exchange and Lloyd's, and contiguous to Royal Exchange-buildings, the Bank of England, the Stock-Exchange, and several of the principal insurance offices, a site not to be surpassed, if equalled in value or importance, in the City of London. The building has been constructed under the superintendence of an eminent architect, and has been finished in the most substantial and perfect manner, having every possible reference to comfort and convenience. It is of seven stories, including the basement, and while it can be adapted to one entire establishment, is so arranged as to be let off in separate occupations, with a water-closet on each floor. The entrance is from Threadneedle-street, and that portion next the Royal Exchange-buildings is enclosed by iron railings, with a space in front which can never be built upon, thus giving light and air scarcely to be met with in the City of London. It would be most difficult to estimate the annual value of a property of this description, but there can be no question that whether as for one entire establishment, or for separate chambers, its unrivalled position must always command enormously high rentals, and that it consequently presents an investment of the most important and of no ordinary character.—May be viewed, and particulars had of E. CHURCH, Esq. Solicitor, 37, Spital square; of J. SHAW, Esq. Architect, Christ's Hospital; at the Mart; and of Messrs. NORTON, HOGGART, and TRIST, 62, Old Broad street, Royal Exchange.

EASTBOURNE, SUSSEX.—Thirty-nine Building Agreements for 99 years, at separate reserved ground rents, with the capital and substantial carcases of thirty-nine private residences and shops erected thereon.

MESSRS. FAREBROTHER, CLARK, and LYE will SELL, at the ANCHOR HOTEL, Eastbourne, on SATURDAY, FEBRUARY 17th, at ONE for TWO o'clock precisely, in thirty-nine lots, by direction of the Right Hon. the Earl of Burlington, THIRTY-NINE BUILDING AGREEMENTS for 99 years, at trifling reserved ground rents, for various plots of land, desirably situated on the Grand Parade, Cavendish-street, and Victoria-place, in the most preferable part of that fashionable watering place, Eastbourne, on the Sussex coast, with THIRTY-NINE substantial brick-built CARCASES erected thereon in a forward state of completion, and upon which advances have and will be made by the vendor. The purchasers will have the advantage of converting their lots into freehold within seven years after the completion of the houses, by the redemption of the ground-rents at twenty years' purchase. The property may be viewed, and particulars had, on application to Mr. BERRY, Surveyor, Eastbourne; particulars also at the Anchor Hotel; at the Ship, Brighton; Swan, Hastings; Sea House Hotel, Worthing; Kentish Hotel, Tunbridge Wells; of Messrs. SIMPSON, 29, Saville-row, Old Burlington street; at Garraway's; and at the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster-place, Strand.

ON WEDNESDAY, the 11th instant, at TWELVE o'clock at noon precisely, in the MAHOGANY SHEDS, Brunswick and Toxteth Docks, Liverpool:—

224 Logs and Curls, City St. Domingo Mahogany.
1,318 Pieces Lignum Vitæ, 15? tons, 4 cwt. 3 qrs. 1 lb.
Being the cargo, just landed, ex Brilliant, from the city direct.
Apply to Messrs. IMRIE and TOMLINSON, Merchants.

243 Logs and Curls, City St. Domingo Mahogany.
589 Pieces Lignum Vitæ, 160 tons, 11 cwt. 3 qrs. 24 lbs.
Being the cargo, just landed, ex James Hunt, from the city direct.
Apply to Messrs. FROMMEL and BESSI, Merchants.

130 Logs and Curls, City St. Domingo Mahogany.
5,134 Pieces Lignum Vitæ, 287 tons, 0 cwt. 1 qr. 12 lbs.
Being the cargo, now landing, ex Vienna, from the city direct, on account of the importers.

To which will be added, the usual Assortment of Fancy and Furniture Woods, full particulars of which may be obtained from EDWARD CHALONER, Broker, 6, East Side Queen's Dock, Liverpool.

FARRINGDON-STREET EXTENSION. Building Materials of Twenty Houses.

PULLEN and SON have the honour to announce, that they will SELL by AUCTION, on the PREMISES, on WEDNESDAY, FEBRUARY 21, and following day, at TWELVE, by order of the Improvements Committee of the Corporation of the City of London, all the valuable BUILDING MATERIALS of about twenty houses, shops, factories, stabling, and premises, in Crawford passage, Vale-place, and Coppice-row, Clerkenwell, comprising about 600,000 good sound bricks, several tons of lead, large quantity of plain and pan tiles, York and Portland paving, oak and fir timber, in roofs and floors, sashes, doors, floor-boards, shop-fronts, entrance gates and stable fittings, 2 large japanning stoves, mahogany counters and various trade fixtures, gas-fittings, stoves, cisterns, and numerous fittings up.—May be viewed two days previous.—Catalogues had at the Architect's Office, Guildhall; and of PULLEN and SON, 80, Fore-street, Cripplegate.

ABSOLUTE SALE of the remaining Stock of Bricks and Lease of Brickfield of six acres, Romford, Essex.

MESSRS. BROMLEY and SON will SELL by AUCTION, on WEDNESDAY, FEBRUARY 28th, 1855, at TWELVE o'clock, at the BRICKFIELD, back of the church, Romford, Essex, by order of Mr. Farmer, the proprietor, relinquishing the trade, the remaining STOCK-IN-TRADE, consisting of about 500,000 sound stock bricks, all the implements and utensils for carrying on the business, horse and cart, breeze, and numerous effects. At the same time will be offered for sale the valuable Lease and Goodwill of the Business; term, fourteen years, at a very low rent. May be viewed two days prior to sale, and the brickfield one week previous.—Catalogues had on the Premises; of W. H. CLIFTON, Esq. Solicitor, Romford; at the King's Head Inn, Romford; Red Lion, Ilford; Swan, Stratford; Place of Sale; and of the Auctioneers, 17, Commercial-road, St. George's East.

LONDON DOCK ENLARGEMENT.—Important Sale of some excellent Building Materials.

MESSRS. BROMLEY and SON will SELL by AUCTION on THURSDAY, FEBRUARY 15th, 1855, at ELEVEN for TWELVE o'clock, by order of the Directors of the London Dock Company, on the several PREMISES, Turner's extensive Cooperage, Storehouses, Sheds, Warehouses, and Workshops, in Griffin-street, several HOUSES adjoining, also forty houses in New Gravel-lane, Taverner's-place, Cow-lane, Farmer-street, Spring-street, Upper-turning, Ellen's-place, and Shakspeare's-walk. The whole to be taken down and cleared away by purchasers. May be viewed two days prior to sale. Catalogues had on the Premises, and of the Auctioneers, 17, Commercial-road, St. George's East.

SALES BY AUCTION.

TO IRONMONGERS, BUILDERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on MONDAY, FEBRUARY 12, and following days, at ELEVEN each day, on the PREMISES, No. 253, Strand, in lots, without reserve, by order of the assignees of Mr. G. Hart, a bankrupt, the STOCK of BLACK and FURNISHING IRONMONGERY, including 50 steel and fine cast register stoves, 100 steel, bronzed, and [illegible] fenders, [illegible] sets fire-irons, 50 elegant gas chandeliers and burners, hall lanterns, &c. 50 sets papier maché and japanned trays, 50 French moderator lamps, a large assortment of japanned ware, and toilet services, baths, &c.; bronzed tea-urns, Queen's metal and plated ware, copper goods, a large quantity of table cutlery, black hollow ware, tin ware, &c., Lancashire tools; 100 dozen files, carpenters' and cabinet makers' tools, &c.; cabinet brass work, 100 dozen locks, assorted, 100 dozen bolts, latches, &c. 50 bags wrought and cut nails, 500 gross screws, Porcelain door and shutter furniture, [illegible] dozen spades and shovels, &c. The Utensils in Trade and Tools, an excellent back-geared slide lathe, 4 foot lathes, smith's forges and tools, fly press, rolls and large machine, and shop fixtures, useful horse, cart, and harness. Also the modern Household Furniture, of the usual description. To be viewed on SATURDAY prior to the sale, when catalogues may be had on the Premises; of M. SHEPHARD, Esq. Solicitor, Clifford's-inn; and of Messrs. FULLER and HORSEY, Billiter-street, City.

BOROUGH of SOUTHWARK.—Ninety-three Freehold Houses, in single lots, each House entitling to a Vote,—particularly worthy the attention of small Capitalists.

MR. W. F. HAMMOND has been favoured with instructions from the proprietor to SELL by AUCTION, on FRIDAY, the 30th of MARCH, 1855, at TWELVE for ONE o'clock, at GARRAWAY'S COFFEE HOUSE, in single lots, the above valuable FREEHOLD ESTATE, comprising ninety-three houses, all lying compact in four blocks and known as Henry-street and Etham-street, with a frontage in Kent-street, Borough. The description of the property is of the third and fourth rates, and well built, having been erected about thirty years, consisting of shops and dwelling-houses, which are well occupied, and produce rentals from 13l. to 30l. each, making a total sum of 1,323l. 13s. 4d. per annum, each house entitling to a vote. This forms an important investment to small capitalists, being sold in separate lots, with a special condition granting to every purchaser the option of leaving one half of the purchase-money on mortgage.—Further particulars, with conditions of sale and plans of the estate, to be had of Messrs. JASSON and COOPER, Solicitors, No. 4, Basinghall-street, City; at Garraway's Coffee-house, Cornhill; of Mr. SEAGER, the Collector on the Estate, No. 47, Henry-street; and at the Auctioneer's Office, No. 3, Carey-street, Lincoln's-inn.

TO TIMBER MERCHANTS, BUILDERS, CARPENTERS, PIANOFORTE AND CABINET MAKERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 9, Union street, Somers-town, on MONDAY, FEBRUARY 12th, at ELEVEN for TWELVE o'clock, 9,500 yellow, pine and spruce planks; deals and battens; 150 squares of prepared yellow and white flooring; 3,000 feet of scantling; 3,000 feet of wide pine board; 12 doors, dry cut stuff for joists; scaffold poles and boards; putlogs, builders barrows, brushes, ironmongery, slate slabs, stone cills, dressers, &c. May be viewed the SATURDAY prior, and Catalogues had at the Auction Offices, 2, Cardington-street, Hampstead-road, near the Euston Station.

TO RAILWAY CONTRACTORS, BUILDERS, AND OTHERS.—In consequence of the completion of the Wycombe branch of the Great Western Railway.

W. VERNON is directed to SELL by PUBLIC AUCTION, at the RED LION HOTEL, High Wycombe, on FRIDAY, FEBRUARY 16th, 1855, at ONE for TWO o'clock, all the remaining RAILWAY PLANT and EFFECTS, the property of the company, now upon and about the said branch railway. It includes 12 earth waggons, bodies of waggons and frames, five trolleys, about thirty tons of iron, in heavy and light old T rails, new rails, saddles, ties, rivets, waggon castings and old iron, crossings, bridge centres, deal timber, and other effects. Catalogues (which will describe upon what part of the railway each lot may be found) may be had seven days before the sale, at the different stations on the said branch railway; of E. F. MURRAY, Esq. Slough; at the Offices of the Company, No. 3, Park-street, Westminster; and of Mr. VERNON, Land Agent and Auctioneer, High Wycombe, who will send them post free on application.

ST. MICHAEL, CORNHILL.—TO LET, upon BUILDING LEASES, for a term of sixty-one years, the SITES of the FREEHOLD HOUSES, Nos. 44, 45, 46, and 47, Cornhill.—The Churchwardens and Committee of Overseers will meet in the Vestry-room of St. Michael's Church, Cornhill, on WEDNESDAY, the 28th day of FEBRUARY, at ELEVEN o'clock precisely, to receive TENDERS from parties desirous of taking any of the above sites, which are divided into three lots. The terms and conditions may be seen, or printed copies of the same obtained, on payment of 5s. upon application to Mr. ALFRED R. MASON, Architect and Surveyor, No. 9, Great St. Helen's, or to Mr. HENRY HOPPE, Vestry Clerk, 3, Sun-court, Cornhill. Parties Tendering must send in Tenders to the Vestry Clerk on or before the 27th FEBRUARY, under cover, addressed to the Churchwardens, and endorsed "Tender for Ground in Cornhill," and must be personally in attendance at HALF-PAST ELEVEN o'clock on the said 28th FEBRUARY. The Churchwardens and Overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign the memorandum annexed to the conditions.

TO BUILDERS AND OTHERS.

BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON ROAD, Belmont, Lee, Kent, close by the church. This is the most attractive, picturesque, and respectable locality on any side of London, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men.—For particulars apply to Messrs. J. and C. W. TODD, Milner-street, Brompton; or at their Office in Church-lane, Lee.

TO BUILDERS and OTHERS.—For immediate DISPOSAL, on very easy terms, the WORKING STOCK and PLANT of a BUILDER, retiring from trade; with which will be included the Goodwill of the Business, which consists of a good jobbing and general trade in an improving neighbourhood, twelve miles from London, where it has been established and carried on for twenty years.—Particulars may be learnt at the Offices of Mr. E. J. KELLY, Architect and Surveyor, 23, Thavies' inn, Holborn, London.

ST. MARGARET'S, near RICHMOND.—A few most eligible SITES for VILLAS, with a frontage to the Thames, and other plots, suitable for villas of all classes, TO BE LET, on Building Lease. Money advanced to respectable builders.—Apply to GEORGE MORGAN, Esq. Architect, 5, Chancery-lane; or to Mr. LANG, Red Lion street, Richmond.

HAMPTON COURT.—BUILDING LAND TO BE LET, for ninety-nine years, with option of purchase, near the above station, and close to East Moulsey Church. A portion of the estate has been laid out for villa residences, with gardens running down to the River Mole. The plots vary in depth, from about 180 to 400 feet, and in price from about 2s. 6d. to 5s. per foot frontage. Another portion has been devoted to cottages (which are much required in the locality), at extraordinary low rates. The residue of the estate is admirably adapted for shops, or small houses.—Apply to Mr. F. LETT, Architect, 36, Essex street, Strand.

STREATHAM.—PLOT of valuable BUILDING LAND TO BE LET, with frontage to the high-road, and adjoining some residences of the first-class rate of description, with space to erect six villas.—For cards to view, apply to Mr. W. F. HAMMOND, Auctioneer and Surveyor, No. 3, Carey-street, Lincoln's-inn.

TO SHIP-BUILDERS, MILLERS, WHARFINGERS, MANUFACTURERS, and OTHERS. TO BE LET, with an extensive FRONTAGE for building and commercial purposes, the Creek Shores and Reed Grounds, called Westham, Fleetsmouth, and Eastham Creek, situate on the north side of the river Thames, in the parishes of Eastham, Westham, and Woolwich, near the Woolwich Ferry, and adjoining north on the North Woolwich Railway, and south on the Thames, and containing, including the Creek (which is about one acre, and is now partly used as a reed bed), 6 acres, or thereabouts. Mr. THOMAS MATHEWS, of Eastham, will show the premises, and for further particulars, apply to Messrs. H. M. and N. COULTHURST, New Inn, Strand, London, Solicitors.

WHARF PREMISES.

WHARF and PREMISES TO BE LET, with immediate possession, about 60 feet frontage to the Thames, with large buildings, suitable for an engineer or founder, or other manufacturing business, with or without steam power. Vessels of 300 tons can discharge alongside.—Apply to WILLIAM BEECH, Globe Dock, Rotherhithe.

LAND TO BE LET on Building Leases, at Dappas hill, Croydon, where houses let directly erected, at large rents. Builders and others can obtain money on sufficient security.—Applications to be made to W. J. HOLT, Esq. Solicitor, Chatham-place, Blackfriars.

WATER-SIDE PREMISES.—TO BE SOLD, freehold and part leasehold, BRUNSWICK WHARF and DRAW DOCK, VAUXHALL, many years established in the brick, tile, stone, slate, and lime trade, &c. Excellent RESIDENCE, Offices, Stabling and Warehouses, the whole in substantial repair, adjoining the South-Western Railway Goods Station, and abutting on the road leading to Wandsworth, with 135 feet frontage to the river Thames.—Apply on the premises; or to Messrs. NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 38, Regent-circus, Piccadilly.

WANTED, a SMALL BUILDER'S PREMISES, within two miles of Charing-cross.—Letters to be sent to H. R. 58, Lincoln's-inn-fields.

TO BOILER-MAKERS, MANUFACTURING CHEMISTS, and PARTIES REQUIRING WATER-SIDE PREMISES.—TO BE LET, with immediate possession, an excellent WHARF and DRAWING DOCK, with a frontage from 50 to 60 feet on the Thames, by a depth of 180 feet, with about twenty-five squares of brick buildings as workshops.—Inquire on the Premises, Morden Wharf, East Greenwich; or at the Sea Witch Tavern, adjoining.

TO PLUMBERS, PAINTERS, and GLAZIERS.—TO BE LET, on Lease, extensive WAREHOUSE PREMISES, near Regent street and Oxford street, with an excellent business attached of fifty years' standing, the proprietor retiring. No premium.—Apply on the Premises, 38, Great Castle-street, Regent-street.

TO PLUMBERS, PAINTERS, &c.—In consequence of the death of the late proprietor, a BUSINESS in the above line TO BE DISPOSED OF, with lease of premises, &c.; situate near the Great Western Railway terminus.—For particulars apply to Mr. W. DRAKEFORD, 22, College-place, Camden town.

BUILDING PREMISES.—TO BE DISPOSED OF, in the City of London, an old-established BUILDING BUSINESS, with a very extensive Jobbing connection. The premises are most complete, and adjacent to the river. It is to be disposed of only in consequence of the illness of the proprietor, in whose family it has been for upwards of half a century.—Principals only treated with on application to Mr. LUSH, 47, Hanover street, Portsea.

TO GAS COMPANIES, GASHOLDER MAKERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, by the Commercial Gas Company, London, SURPLUS GAS MACHINERY, consisting of Iron Gasholder Tanks, Gasholders (Single and Telescopic), Condensers of various powers, Station Meter, Governor, Hydraulic Mains, Ascension and Hydraulic Pipes, with various connections. Particulars of the above may be obtained on application to Mr. ROBERT JONES, the Company's Engineer, at the Company's Offices, Stepney, between the hours of TEN and FOUR. Tenders for the above, or any portion thereof, will be received not later than THURSDAY, the 1st MARCH next. The Company is not bound to accept any Tender. Tenders to be addressed to the Secretary, and endorsed "Tender for Gas Machinery."

GEORGE JAQUES, Secretary.

Stepney, 6th February, 1855.

NOTICE of REMOVAL.—WILLIAM HILL, Builder and Engineer (Manufacturer of Hot water Apparatus), late of Greenwich, to STREATHAM-HILL, where communications are respectfully requested to be addressed.
Streatham hill, London, January 6, 1855.

TO ARCHITECTS AND OTHERS.

MR. EDWARD L. PARAIRE is desirous of Meeting Gentlemen who require COLOURED ARCHITECTURAL DRAWINGS. External, Internal, Isometrical. Perspectives got up; outlines of same neatly coloured, with background, on terms that will insure approval. Temporary assistance given in getting up Plans, Elevations, Sections, Detail, and Working Drawings.—Mr. E. L. P. makes a consideration in his charge where competition drawings prove unsuccessful.

Address, 8, Rathbone-place.

WILL SHORTLY CLOSE.

COLOSSEUM, Regent's-Park.—Admission, 1s. The original PANORAMA of LONDON by DAY, is exhibited daily, from Half past Ten till Five. The extraordinary PANORAMA of LONDON by NIGHT, from Seven till Ten. Music from Two till Half-past Four, and during the evening.

CYCLORAMA, Albany-street.—Last week of the COLOSSAL MOVING DIORAMA of the CITY and BAY of NAPLES, MOUNT VESUVIUS, and POMPEII, exhibiting the Great Eruption of '79, and present state of the excavated City, painted by Mr. McNevin, from sketches taken by himself in 1853.—Daily at Three and Eight o'clock, with appropriate music and description. Admission, 1s. Children and Schools half-price.

PATRON: H. R. H. PRINCE ALBERT.

ROYAL POLYTECHNIC INSTITUTION.—Monday Evening, the 12th inst. Dramatic Readings by Miss Glyn—Macbeth. Important Lectures. On the New Bank-note, by Dr. Bachhoffner. On the Telephonic Concert, by Invisible Performers on four of Erard's Harps, by J. H. Pepper, Esq. Splendid Optical Diorama of the Voyages of Sindbad the Sailor. Views of the War. Perkins's Steam-gun, which now discharges 200 balls per minute. Saturday Evenings.—The Bards of Caledonia, by Mr. and Miss Crawford, Mr. Van Noorden, Mr. Waud, and the Royal Polytechnic Band—Dissolving Views of America.

LONDON: Printed by CHARLES WYMAN, of 11, Hunter street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing office of COX Bros. & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, February 10, 1855.

The Builder.

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THE ARCHITECTURAL EXHIBITION, and Collection of Manufactures, connected with Archi tecture, is NOW OPEN from NINE till DUSK, in the Gallery of the Society of British Artists, Suffolk-street, Pall-mall East Admission, 1s. ; Catalogues, 6d. ; and in the Evening (except on Saturday) from SEVEN till TEN ; admission, 6d.

Will CLOSE FEBRUARY 24th ; and all objects exhibited must be removed on the 26th.

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
JAS. EDMESTON, Jun. }

TO ENGINEERS AND SURVEYORS

TOWN SURVEYOR WANTED. — The West Hartlepool Improvement Commissioners are desirous to ENGAGE a qualified person to perform the joint duties of SURVEYOR and INSPECTOR of NUISANCES for the district of West Hartlepool, in the county of Durham. The person appointed will be required to give his entire services. Joint salary for the offices, £90 per annum. Applications, stating age and qualifications, with testimonials to be sent to or delivered at my Office, not later than the 27th FEBRUARY instant, at noon.

By order,
WM. W. BRUNTON, Clerk to the Commissioners.
West Hartlepool, 7th February, 1855.

BURIAL CHAPELS, Lynn, Norfolk.—The Burial Board of St. Margaret, King's Lynn, have issued INSTRUCTIONS and CONDITIONS f r the guidance of Architects desirous to furnish Plans and Drawings for Chapels and other Buildings, to be erected in the proposed New Burial Ground for that parish, which may be had on application to me, by letter pre-paid JOHN JAMES COULTON, Clerk to the Board.
Lynn, February 5, 1855.

COMPETITIONS.

TO ENGINEERS.

THE DRAINAGE COMMITTEE of the Town Council and Police Commissioners of the Burgh of Dunfermline, are desirous to receive OFFERS from qualified Engineers for the PREPARATION of PLANS and SPECIFICATIONS of the SEWERAGE of the TOWN and SUBURBS. Existing plans will be seen, and all other information as to conditions will be obtained, on application to ALEXANDER KILGOUR, Town Clerk, with whom offers must be lodged on or before 1st MARCH next. The Committee do not bind themselves to accept the lowest of the offers, or any of them.
Bridge-street, Dunfermline, 6th February, 1855.

CONTRACTS.

TO MASONS, CARPENTERS, JOINERS, PLUMBERS, GLAZIERS, AND BUILDERS IN GENERAL.

PARTIES desirous of CONTRACTING with the Governors of the United Charities of Nathaniel Waterhouse for the various ARTIFICERS' WORK required in the ERECTION of BLUE-COAT SCHOOLS and ALMSHOUSES in Halifax, may inspect the plans and specification s at my office, on and after MONDAY, the 19th instant. All Tenders to be sealed, and sent free of expense to Mr. CHARLES NORRIS, St. John's-lane, Halifax, on or before TWELVE o'clock on FRIDAY, the 2nd day of MARCH. No allowance will be made for estimates and the Governors do not pledge themselves to accept the lowest or any Tender. CHARLES CHILD, Architect.
King Cross-street, Halifax, Feb. 6th, 1855.

TO BUILDERS AND CONTRACTORS.

PERSONS desirous of TENDERING for the REBUILDING the TOWER, and RESEATING and RESTORING ARKESDEN PARISH CHURCH, near Newport, Essex, may see the plans and specifications at the office of Mr. G. E. PRITCHETT, Architect, Bishops Stortford, and Tracings at the Rector's house, from FEBRUARY 9th to MARCH 3, on which day the Tenders are to be delivered to the Architect. The Committee do not pledge themselves necessarily to accept the lowest Tender.

CONTRACTS.

Naval Engineer Office, Sheerness, Jan. 30, 1855.

CONTRACTS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, PALL MALL, London, on or before TUESDAY, the 20th day of FEBRUARY, 1855, for the performance of the following branches of Artificers' Work for the Ordnance Department in the SHEERNESS DISTRICT, for a period of three years from the 1st APRIL, 1855, determinable at any per d after one year, on either party giving to the other three months' notice in writing, viz.:—

Sheerness, including the Islands of Sheppy and Grain.

Carpenters'	Work.
Bricklayers'	do.
Plasterers'	do.
Slaters'	do.
Masons'	do.
Pain ers'	do.
Plumbers'	do.
Painters', Glaziers', and Paperhangers'	do.
Smiths'	do.

Separate Tenders are to be made for the d ffer nt trades.—Printed Forms and Schedules of Contract may be obtained on application at the Royal Engineer Office at Sheerness, until the 20th day of FEBRUARY next, Sundays excepted, and no Tender can be admitted after the said 20th day of FEBRUARY, 1855. The Board of Ordnance reserve to them s lves the right of rejecting any or all Tenders that may be presented.

ORMSKIRK LOCAL BOARD of HEALTH, WATERWORKS.—To STEAM ENGINE MAKERS, BOILER MAKERS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake the following Contract:—For the SUPPLY and ERECTION (at Ormskirk) of a NEW STEAM ENGINE, BOILER PUMPS, and other APPARATUS; also, for certain Repairs to existing Machinery and Connections therewith. The Specification may be seen, and forms of Tender may be obtained, together with any further information required, on application at the Office of the Local Board, Ormskirk, or at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street Westminster. Sealed Tenders to be delivered at the Office of the Local Board of Health, Ormskirk before SIX o'clock, on TUESDAY, the 20th day of FEBRUARY next, endorsed "Tender for Contract for Engine, Boiler Pumps, &c."

WILLIAM WELSBY, Clerk to the Board.
Ormskirk, January 31, 1855.

TO BUILDERS AND OTHERS.

TENDERS are required for COMPLETING and FINISHING sundry WORKS to FOUR HOUSES, now erected, situate in The Drive, St. German's Park Estate, Forest-hill. The drawings and specifications can be seen on the premises at Forest-hill, between the hours of ELEVEN and FOUR o'clock. The Tenders t be delivered to Mr. WILLIAM PURDIE, Architect, 6, John-street, Adelphi, London, on or before the 26th day of FEBRUARY next. The lowest or any Tender will not necessarily be accepted.

TO CONTRACTORS FOR PUBLIC WORKS.

CARMARTHEN SEWERS.—THE CARMARTHEN LOCAL BOARD of HEALTH are desirous of receiving TENDERS for the CONSTRUCTION of BRICK SEWERS for a portion of the town of Carmarthen, with Junctions, Manholes, &c. Parties desirous of Tendering can inspect the plans and specification at my Office, on and after MONDAY, the 19th of February, at which Tenders must be delivered on MONDAY, the 26th MARCH next, to the Committee, who will meet for that purpose at the Council Chamber, in the Town-hall, at ELEVEN o'clock precisely.—By order of the Board,
GEO. THOMAS, Clerk.
Carmarthen, Feb. 13, 1855.

TO BUILDERS AND CONTRACTORS.

THE WELLS BURIAL BOARD have resolved to ERECT TWO CHAPELS and a PORTER'S LODGE on the Burial Ground.—Plans and specifications are deposited, and may be seen at the Office of Mr. HIPPISLEY, Surveyor, New-street, Wells.—Persons desirous of CONTRACTING for the performance of the Works are requested to send sealed TENDERS, addressed to the Clerk, on or before SATURDAY, the 3rd day of MARCH next, of whom all further particulars may be known.—By order of the Board,
Wells, Feb. 6, 1855. W. J. S. FOSTER, Clerk.

TO BUILDERS, CONTRACTORS, &c.

HULL CORN-EXCHANGE.—The Committee for Building the New Corn-Exchange, at Hull, is ready to receive TENDERS for the EXECUTION of the whole Work, according to the plans and specification, which may be seen at the Office of the Corporation's Surveyor, Town-hall, Hull, between the hours of TEN and FIVE, on any day after the 14th day of FEBRUARY instant, and where parties can have copies of the specification, at 3s. each ; or from Messrs. BELLAMY and HARDY, Architects, Lincoln. Tenders (which must be in the form to be had from the said Surveyor) must be sent, addressed "To the Town Clerk, Town-hall, Hull," and marked outside "Tender for Corn-Exchange," on or before NOON of the 14th day of MARCH next, and must be accompanied by a letter from two responsible persons agreeing to become bound in the sum of £600 for the due performance of the contract, if accepted. The Committee do not bind themselves to take the lowest Tender.

By order, THO THOMPSON, Town Clerk.
Town Hall, Hull, 12th February, 1855.

GLOUCESTER and BERKELEY CANAL NAVIGATION. To CONTRACTORS and BUILDERS. Persons willing to CONTRACT for the EXECUTION of the BRICKWORK, MASONRY, and other Work, required in the erection of a large Pumping Engine at Gloucester, are requested to send in sealed Tenders for this purpose to the Committee of Management, on or before TEN o'clock in the morning of WEDNESDAY, the 28th FEBRUARY instant. Plans and specifications of the work may be seen at this office, on and after MONDAY, the 19th inst By order of the Committee,
W. B. CLEGRAM, Clerk to the Company.
Canal Office, Gloucester, 7th February, 1855.

CONTRACTS.

BERWICK-UPON-TWEED LOCAL BOARD of HEALTH.—WATERWORKS.—To EXCAVATORS, CAST-IRON PIPE-LAYERS, and OTHERS. The Local Board hereby give notice that they are prepared to receive TENDERS from parties willing to undertake the following contract, viz.:—

CONTRACT F.—For EXCAVATING the GROUND, and for LAYING and JOINTING CAST IRON WATER-PIPES; FIXING SLUICE-VALVES, HYDRANTS, &c.

Specifications, schedules, and forms of Tender (five shillings per set), may be obtained, together with any further information required, on application at the Office of the Local Board, Berwick-upon-Tweed ; or at the Offices of ROBERT RAWLINSON, C.E. No. 34, Parliament-street, Westminster. Sealed Tenders to be delivered at the Offices of the Local Board, Berwick-upon-Tweed, before TWELVE o'clock on MONDAY, the 26th of FEBRUARY instant, endorsed "Tender for Contract F."—N.B. The Local Board do not bind themselves to accept the lowest or any Tender.

JAMES T. WEDDELL, Clerk to the Local Board.
Berwick-upon-Tweed, 7th February, 1855.

TO BUILDERS AND OTHERS.
EXTENSION OF TIME FOR TENDERS.

NEW BANK in Corn-street, Bristol, for the West of England and South Wales District Banking Company. Parties desirous of CONTRACTING for the whole or any portion of the ARTIFICERS' WORKS, to be performed in the ERECTION and COMPLETION of the above new BUILDING, from certain Plans and Specifications, and conditions to be seen, from TEN to FIVE every day, until THURSDAY, the 1st of MARCH, at the Office of Mr. Gingell, before which day Tenders, sealed, endorsed and addressed to the Directors are to be delivered to me. The Directors will not be bound to accept of the lowest or any Tender. The quantities will be taken by Mr. J. WILLIAMS, of London, and a copy will be sent to all parties signifying their *bona fide* intention to submit Tenders.

WM. BRUCE GINGELL,
THOS. ROWSE KNIGHT, } Architects.
Saint Werburgh's Chambers, Small-street, Bristol, 19th Jan. 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col Lowther, M.P.
J. C. Cobbold, Esq., M.P.

TO TIMBER MERCHANTS, BUILDERS, and OTHERS.—The Executive Committee are prepared to receive TENDERS for the standing TIMBER on the St. Margaret's estate, Isleworth, consisting of red cedar, white cedar, oak, elm, beech and pine, chestnut, horse chestnut walnut, &c. &c. The specification may be seen, and copies had, on application at the Office of the Surveyor, Mr. GEORGE MORGAN, on and after WEDNESDAY, 21st FEBRUARY next. Tenders are to be sent in on or before TWELVE o'clock on FRIDAY, MARCH 2nd, and addressed to the Surveyor, and endorsed "Tender for Timber, St. Margaret's Estate." The Executive Committee do not bind themselves to accept the highest or any Tender. CHARLES LEWIS GRUNEISEN.
33, Norfolk-street, Strand, 14th February, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col Lowther, M.P.
J. C. Cobbold, Esq. M.P.

TO LANDSCAPE GARDENERS and OTHERS.—The Executive Committee are prepared to receive TENDERS for LAYING OUT and PLANTING the ORNAMENTAL GARDEN, with the walks, &c. on the St. Margaret's Estate Isleworth, Middlesex. The drawings and specification may be seen at the offices of the Surveyor, Mr. GEORGE MORGAN, on and after WEDNESDAY, FEBRUARY 21st, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock, on FRIDAY, MARCH 2nd, addressed to the Surveyor, and endorsed "Tenders for Ornamental Garden, St. Margaret's Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.
33, Norfolk-street, Strand, Feb. 14, 1855.

NEWMARKET LOCAL BOARD of HEALTH.—To CONTRACTORS for SEWERS and PIPE DRAINAGE.—Persons willing to CONTRACT for the DRAINAGE of the TOWN of NEWMARKET are to inspect the plans and specification of the work, forms of Tender, &c at the Office of Mr. J. F. CLARK, Architect, Newmarket. The district will be divided into three parts, for which separate Tenders are required. The Tenders are to be delivered to the Clerk of the Board, on or before SATURDAY, the 3rd of MARCH next. The lowest or any Tender will not necessarily be accepted.

JAMES BUTTON, Clerk to the Local Board.
February 12, 1855.

BEDFORD ESTATE.—Parish of St. Pancras. To CONTRACTORS. Persons willing to CONTRACT for CLEANSING and WATERING the STREETS and REMOVING the DUST from 600 houses on the above estate, for one year, from the 25th of March next, are requested to send Tenders for the same on or before the 28th inst. as below, where every information and forms of Tender may be obtained, between the hours of ELEVEN and FOUR o'clock.

By order of the Commissioners,
JOHN WOOD, Clerk and Surveyor.
20, Gordon-street, Gordon-square, February 8, 1855.

TENDER for OLD MATERIALS.—Four Houses on Tower hill. Tenders to be open d on WEDNESDAY, the 21st, at TWELVE o'clock, at Mr WALLIS'S Office, 8, Great St. Helens.

[For remainder of Contracts see next page.

CONTRACTS.

CONTRACT for FENCING.—The Directors of the Lambeth Improved Freehold Land Society are desirous of having the LONDON RAILWAY FENCING contracted on an estate situate at or near Herne Hill, Lewisham, and specifications may be seen on the premises, or at the Society's Office, 221, High-street, Borough. Tenders may be delivered on or before FOUR o'clock p.m. on TUESDAY, the 28th FEBRUARY, 1854. The Directors do not bind themselves to accept the lowest or any Tender.

WM. BANKS, secretary.

February 14, 1854.

TO BUILDERS.

PARTIES desirous of CONTRACTING for the ERECTION of a new CHURCH, about to be built at Glanrhyd, near Bridgend, South Wales, from the designs of Thomas H. Wyatt, Esq., are informed that the plans, specification, and quantities may be seen on application to Mr. JOHN HUGHES, Angola Arms, Bethesda, on and after MONDAY, the 19th FEBRUARY. The Tenders to be lodged with the Rev. EVAN LEWIS, Glanrhyd, before TWELVE o'clock at noon, on SATURDAY, the 25th of MARCH next, sealed and endorsed, "Tender for Glanrhyd Church." He Committee do not bind themselves to accept the lowest Tender. Further particulars may be obtained by application to THOMAS H. WYATT, Esq., 77, Great Russell-street, London.

WIGAN GENERAL CEMETERY.—To CONTRACTORS.—Proposals will be CONTRACTED with the Burial Board for the Borough of Wigan, for the ERECTION of BOUNDARY WALLS, RAILINGS, and EXCAVATIONS required for above cemetery, now in course of formation, and the necessary Gates and Piers, as per plans and specifications from the 9th to the 25th inst. inclusive, at the Office of Mr. JOHN S. MARSHALL, Solicitor, Wigan, and also at the Office of the Architect, Mr. CHARLES D. BARRY, 47, Bedford-street North, Liverpool, where Books of quantities may be obtained on and after the 9th inst. Persons may send in Tenders for the whole, or a portion only of the works. Parties who Tenders are invited will be required to enter into a bond with two sureties for the proper performance of the work. The Board will not pledge itself to accept the lowest Tender. Tenders must be delivered, sealed, to the undersigned, on or before TWELVE o'clock at noon of MONDAY, the 20th inst.

JOHN S. MARSHALL, Clerk to the Board.

Wigan, Feb. 8th, 1854.

TO BUILDERS.

NEW CHURCH at Isleworth, Middlesex.—Persons desirous of CONTRACTING for the ERECTION of the above CHURCH, may see the plans, specification, and conditions, at the committee room of the National School, Isleworth-square, Isleworth, on and after MONDAY, the 20th of FEBRUARY. The Tenders to be sent in, under before FRIDAY, the 10th of MARCH, to Mr. DEANE, Architect, 24, Keppel-street, Russell-square, London. The Committee do not pledge themselves to accept the lowest or any Tender.

CONTRACTS for the SUPPLY of BUILDING MATERIALS for CONVICT PRISONS.—Persons desirous of TENDERING for the Supply of Timber, Deals, Slates, Lime, Sand, Bricks, Lead, Glass, Wrought and Cast Iron, Ironmongery, Gas and Water Pipes, White Lead, Oils, &c. during Twelve Months, from the 1st of April next to the 31st of March, 1855, for Pentonville, Millbank, Brixton, Portland, Portsmouth, Dartmoor, and Parkhurst Prisons, are requested to forward the same, addressed, "Directors of Convict Prisons, 45, Parliament-street, London," on or before NOON on MONDAY, the 20th of MARCH, 1854. Forms of Tenders may be had on application at the several prisons, or at the Office of the Directors, 45, Parliament-street, London.

45, Parliament-street, 10th of February, 1854.

NOTICE to BUILDERS and OTHERS.—The BURIAL BOARD for the Parish of Trowbridge, in the county of Wilts, intend to enter into a CONTRACT for the ERECTION of TWO MORTUARY CHAPELS, ENTRANCE LODGE, and other BUILDINGS in connection therewith, on their new Burial Ground for the said parish of Trowbridge. Builders desirous of sending in Tenders for the execution of such works, can see the plans and specifications for the same, with the quantities of the several works, at my Office on and after THURSDAY, MARCH 1st. Tenders to be sent in to Mr. ROWLAND ROBWAY, Clerk to the Burial Board, indorsed "Tenders for Buildings, Trowbridge Cemetery," on or before MARCH 13th. The lowest Tender will not necessarily be accepted.

CHARLES E. DAVIS, F.S.A.

Westgate-buildings, Bath, Feb. 14, 1853.

BATTLES BRIDGE, near RAYLEIGH, ESSEX.—Persons willing to CONTRACT for the ERECTION of an IRON BRIDGE, agreeably to plans, working drawings and specifications, which may be inspected and copied at the Office in Clement's-lane, Lombard-street, London, may deliver TENDERS for the same at such Office on or before SATURDAY, the 11th of MARCH next. The contractor will be required to enter into a bond, with a sufficient surety for the due completion of the works under the direction and to the satisfaction of the County Surveyor, at a time to be named in his Tender, and a penalty for each day they shall continue incomplete. The county will not be bound to accept the lowest or any Tender.

GIBSON, Clerk of the Peace.

TO IRONFOUNDERS, BUILDERS &c.

THE Surveyor to the Common Highways of the Parish of St. Leonard, Shoreditch, Middlesex, is prepared to receive TENDERS for the CONSTRUCTION of an URINAL at the top of the Curtain Road. Plan and specification may be seen at the Offices of Mr. KNIGHTLEY, Surveyor, 23, Cannon-street. Tenders to be delivered at Mr. Knightley's Office, on or before THURSDAY, the 22nd instant.—The Surveyor does not bind himself to accept the lowest or any Tender.

CHARLES FYSON, Surveyor.

THE DRAUGHT and DUST EXCLUDER, the cheapest and most efficient preventive for the purpose, being merely glued round the frames in which doors and windows are embedded, so that they press against it. Price from 9s. to 30s. according to size and colour, per gross yard.

Sold at H. HELBRONNER'S, Sole Patentee, 265, Regent-street, London.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.

W. R. BARTLETT, manufacturer of Girders, Columns, Railings, Newel and Railing Bars, Panels, Bars Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Diggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE,

Manufacturers of the Iron Railway Bars, Forge and Engine Work, Cast-iron Pipes, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

Offices, No. 7, Bise-lane, London.

SYLVESTER'S HOT WATER STOVES for Warming Halls, Staircases Galleries, Warehouses, Shops, Hospitals, Offices, &c. require no Flue, create no Dust, and are safe from all risk of Fire.

Any number of these Stoves can be heated from the Boiler in one best, equally well, with steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER is the most powerful safe Furnace and economical Apparatus yet invented for Heating Churches, Chapels, Schools, Public Rooms, &c. &c.

Descriptive Lists and Estimates may be obtained on application to

SYLVESTER and CO. Engineers, and Manufacturers of Heating Apparatus, 96, Great Russell-street, Bloomsbury.

PUBLIC INVITATION.—HEATING by HOT WATER with ONE BOILER JOHN WEEKS and CO. Kings-road, Chelsea, Horticultural Builder and Hot-water Apparatus Manufacturers, most respectfully invite the Nobility, Gentry, Architects, and others, to visit their nursery establishment, where they may see, in full operation, the different modes of heating by hot water, the efficient working of which they guarantee. Also a large assortment of Hot-water Apparatus, Pipes, Stoves, &c. and a number of specimens of wrought-iron tubular boilers, suitable for heating conservatories, forcing-houses, &c. and a variety of other articles, which they have on hand, ready for immediate delivery, at the lowest possible prices. Their Illustrated Catalogue, containing numerous different arrangements for heating by hot water, may be had on application, or will be forwarded to any part of the kingdom on receipt of a stamp. Boilers of every description, to burn coal, coke, or wood, fixed complete with all connections, and delivered to any railway station in London, at the following prices:—

	£	s.	d.
No. 1 Boiler, 2 feet 6 inches long, 1 foot 6 inches wide, 1 foot 6 inches deep	3	10	0
No. 2 Boiler, 3 feet long, 2 feet wide, 2 feet deep	5	5	0
No. 3 Boiler, 4 feet long, 2 feet wide, 2 feet deep	7	7	0
No. 4 Boiler, 5 feet long, 2 feet wide, 2 feet deep	9	9	0
No. 5 Boiler, 6 feet long, 2 feet wide, 2 feet deep	12	12	0

Also a splendid collection of Horticultural Establishment, to be seen at Chelsea.

RANGES.—The Cheapest House in London for RANGES is at MEEK'S CHEAP IRONMONGERY WAREHOUSE, 3, Cambridge-place, Hackney-road. A 3 feet Set (Cutting) and Boiler Cottage Range for 1l. 12s. net cash on delivery; all others equally low.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, public buildings, &c. Smoke flues, ash-pits, and ugly grates are entirely dispensed with, and a fire is seen daily in full operation heating the large meeting room, 130 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 10, insures perfect combustion, economy of fuel, and a more healthful atmosphere than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 272, Holborn.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for—the prize of public approbation,—has long been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which consistently the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, H. W. RICHARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4 000 buildings, consisting of churches, prisons, lunatic asylums, halls, and chapels, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley street, Oxford street.

MAGNUS'S PATENT ENAMELLED SLATE CABINET-FORMED FIRE-PLACE.—This is decidedly the most novel, elegant, and comfortable fireplace that has ever been introduced to the public. It moves on castors, and stands B FORE the opening of the chimney, projecting into the room as a regular cabinet. It is composed of fire-stone and slate and has inner chambers. It may also be fitted up for gas instead of coal. By the economical, who dislike to see half the heat from a coal wasted in the chimney, and by persons of taste, who object to the stiff unmeaning chimney-piece in ordinary use, the CABIN T FORMED FIRE-PLACE has only to be seen to receive its approbation. Prices from ten guineas upwards. Pimlico Slate Works, 48 and 40, Upper Belgrave-place, Pimlico.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Cameral and Hot House Boilers, either in wood or iron, respectfully call the attention of the nobility, gentry, and purveyors to the simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and Co. 42, Ludgate-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK, also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, three-way stop-cocks, flange nuts, elbow cheeks, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark iron bridge.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the whole are passed a long way into the walls, and form of a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as being the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further particulars, and a guarantee of the Proprietor of the patent, Mr. BARRETT, 12, York buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Ryland and Sons' Books, Papers, and Bank notes preserved in one of CHUBB'S SAFES, after four out hours exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"21 High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating to you, that the large Fire-proof Safe that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes &c., enclosed therein, from destruction by fire, on the 30th ult., when our entire premises were burnt to the ground, after which event, fourteen days elapsed before we could obtain the door open, and the contents of the Safe were perfectly uninjured on the 14th of March; the locks all answered to their respective keys, and all the papers therein were found in a perfect state; it was that only some of the books were slightly singed at the edges.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Patent Locks. Complete Illustrated Lists, with prices and sizes, will be sent on application to

CHUBB and SON, 57, St. Paul's Church-yard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coach-house, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double acting spring hinges for centre hinging, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron work, for building and other purposes. Engines, machinery, patent axletrees, sun mills, &c.

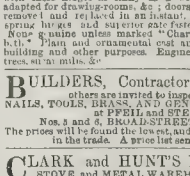
BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEILL and STEDALL'S,

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

32	34	36 inch.
30s.	30s.	34s.

Best self-acting Ranges with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	40 inch.
54s.	56s.	58s.	62s.

Strong Elliptic Stoves with Oven, Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved Set Patent Circular Chest Register, with strong Bars and Trivits, 6d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Fire Brick, 40s. to 100s. each.

Cast Rain-water Pipe	2	3½	3 inch.
	1s.	1s. 3d.	1s. 6d. per yard.
Cast Gutters	3	4	4½ inch.
	1s. 4d.		1s. 6d. per yard.
O G Gutters	4		4½ inch.
	1s. 4d.		1s. 6d. per yard.
Best Cut Clasp	1½	2	3 inch, and larger
and Rose	18s.	17s.	16s. 12s per cwt.

Cut Billed Spade, 14s. 6d. per set

1 inch Cut Lath, 17s. Cast Lath, 13s.

Patent Line	2	3	4	5	6
	4d.	5d.	7d.	9d.	1s. per knot

6 inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr Arnott's Ventilators, 4s. 6d. each

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and all descriptions of Gas fitting. Brass and Iron; Tin, Composition, Iron and Brass Tubing. Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.

Superior Bolted Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, by appointment to the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staple complete for fixing, at one shilling the foot.

R. S. NEWALL and Co.'s Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.

139, Strand, London.
67, Hyde-park street, Glasgow.
27, Dale-street, Manchester.

NAILS and IRONMONGERY from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES

a complete LIST of which will be forwarded upon application.

FREDERICK BLAND,

Nail Manufacturer and General Factor,

Regent-parade, BIRMINGHAM;

or at 16, Gresham-street, LONDON.

TO ENGINEERS, ARCHITECTS, AND CONTRACTORS.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER

Roofs constructed under his superintendence guaranteed to require no repairs for at least ten years.

THE OLD METAL BEING ALWAYS RETAINED AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

FLAVEL'S PRIZE KITCHENER.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucas, and carriages made to any plan on the shortest notice.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of
IRON ROOFING
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country
3, MANSION HOUSE PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated—Roofs fixed complete.
J. Skaife is also agent for Morewood and Rogers's Patent Galvanised Tinned Iron, Plumbic Zink, and Tiles.
An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-iron, Principal, Glass and Slated Roofs, to any span.
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by
JOHN WALKER,
Builder, Contractor and Ironfounder, Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZED IRON.
(IMPROVED PROCESS.)
JOHN SYMONDS and CO.
WORKS.—GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c.
Roofs fixed complete.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

PARNELL and PUCKRIDGE'S DEFIANCE and NATIONAL LOCKS, which cannot be picked, are made of all sizes and for every purpose
FIRE PROOF SAFES, DOORS, and FRAMES
DEED and CASH BOXES, COPYING and LEVER PRESSES;
STREET-DOOR LATCHES, warranted safe from picklocks, with two small keys &c. 15s each
Descriptions and lists of prices may be had, or sent, upon application to
PARNELL and PUCKRIDGE, 52, STRAND, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.
J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.
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HOBBS'S PATENT AMERICAN and ENGLISH LOCKS—Messrs. HOBBS, ASHLEY, and CO. are now Manufacturing their celebrated AMERICAN and ENGLISH PATENT LOCKS by their Patent Steam Machinery on the Premises, 97, CHEAPSIDE, and 33, LAWRENCE-LANE.
Messrs. H. and Co. by the introduction of their Steam Machinery, are enabled to guarantee GREATER SECURITY, and SUPERIOR WORKMANSHIP, at prices more moderate than any Locks produced, either in Town or Country; in addition to which, they are applicable to all purposes for which Locks are used.
Every Lock being made and finished at the Manufactory bears their own stamp, and is warranted, without which none are genuine. These Locks can be procured by order through any respectable Ironmonger in the United Kingdom.
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P.S. Depôt for Miner's Patent FIRE and BURGLAR PROOF SAFES fitted with Hobbs's Patent Locks.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.
"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions; in the present state of the art, picking them would seem to be impracticable." *Standard.*
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N.B. Several high-pressure Steam-engines for Sale.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.
RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriar-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O G Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other cast-iron work for Bakers' Ovens of every description, latter complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

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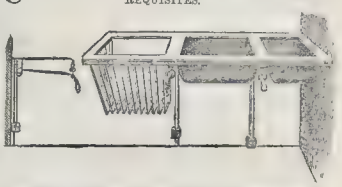

COTTAM and HALLEN, of Wigley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH in ONE PIECE; it is now extensively approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which long practical experience, have been found to make. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, are being rendered impervious to infection, are some of the advantages of Cottam's Improved Fittings. May be had either plain, galvanized, or enamelled. Every article for the Harness-room and Stable kept in stock. Designs, price lists, and estimates on application to COTTAM and HALLEN, 7, Wigley-street, Oxford-street.

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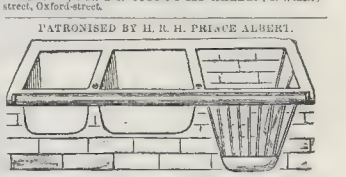

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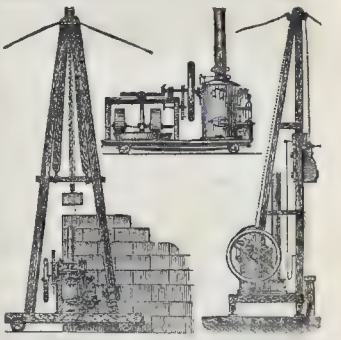

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TESTIMONIAL
"Thorn Island Battery Works, Milford Haven,
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"Sir.—The three-horse power steam-engine purchased from you in 1852 for the purpose of hoisting stone and other material for the building of the above battery, has answered the purpose for which it was required remarkably well, and from its portableness was found very convenient to remove from one part of the building to another. The consumption of coals was about 4 cwt. in 10 hours.
"I am, Sir, yours truly, for THOMAS JACKSON,
"THOMAS SWAIN."

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co.'s Wholesale Builders and Cabinet Makers, Ironmongers Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

SAW-MILL MANUFACTORY, Chelsea, London.—WORSSAM and CO invite the attention of all concerned in sawing, planing, and moulding wood to the simplicity and compactness of their machines over those now in use, which are both cumbersome and expensive. Drawings and prices sent on application. Estimates given for complete saw-mills for exportation or otherwise

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JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5d. 6d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 2l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

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Air Bricks, 4s. per doz.

Best Town Glue, 5½d. Ditto, Scotch, 6½d. per lb.

Best Patent Bash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

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THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Anne's, statuary, serpentine, verd antique, &c. Portland, Harehill, Park Spring, and other stone, in blocks, slabs, landings, and head-stones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England.—THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

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TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No 8, Crescent-terrace, Millbank, to offices on the own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE and STONE CHIMNEY-PIECES.—A SALE of the above will take place on TUESDAY, the 13th of MARCH, consisting of a great variety of statuary, Bardilla, black, vein, and Sicilian marbles—Catalogues, or any information, by post, one week previous to sale. A large portion of the stock is ready, and can be viewed at any time at HUNTLEE'S Marble and Stone Sawing Mills, Cambridge-heath, Hackney.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can supply orders entrusted to the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building generally, their extensive assortment of vein, Sicilian, and statuary marble, in slab and block, at prices never before offered. JAMES SIMMONS, Manager.

MARBLE CHIMNEY-PIECES WANTED. Three sets, second-hand, to be handsome, and lowest price, with description, and address to be sent to A. B. 16, Marklane.

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CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôt—Granite Wharf, East Greenwich; and St. Paul's Waterloo-bridge. Offices: 946, High-street, Southwark, near the Townhall

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, & Co.), General Stone Merchants. Caen Wharf, Rotherhithe, are supplying the above and Bath, Portland, Yorkshire, Granite, and other stones from their depôt, at current prices by land and water carriage; also by vessel direct from the quarries, at moderate ship freight to any part of the United Kingdom.

N.B. Heavy goods landed, transhipped, or carted with despatch, and at moderate charges.

ANCASTER STONE, from the celebrated quarries of Mr. John Wilson, Ancaster, who has appointed GATES and GEORGE, Stone Merchants, his sole consignees for the London district, Ancaster Stone, so generally esteemed by the building profession, for its great durability, economy, and general utility, as to require but a trial to secure the approval of architects and others for its more extended use in building. Samples, and other information can be obtained at the Great Northern Depôt, King's-cross; Caen-wharf, Rotherhithe; and Hibernia-chambers, London Bridge, Borough; or forwarded to address, free of charge.

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ACORN TIMBER WHARF, Canal-bridge, Old Kent-road.—RICHARD MAY respectfully thanks the building public for the patronage and support he has received during the past year, and solicits a continuance of those favours, and an inspection of the well-selected Stock of Timber, Deals, Planks, and Battens, which are now for Sale at the lowest remunerative prices for cash.

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3,000 Pieces Foreign Fir Timber.
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All kinds of English Oak, Elm, and Ash Planks, Boards, and Scantlings, Plasterers' Laths, Mouldings, and Sash-sills, on Sale.

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VENEER CUTTING-MACHINE (by knight only), by which process double the number of veneers can be produced more than by the ordinary method. For specimens of work and particulars of price, apply to J. CHACK, Sole Patentee. Veneer Cutting Works, 44, Robert-street, adjoining the King's-road Saw-mills), Chelsea.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry) DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission. THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

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Secretary, Mr. T. E. KNIGHTLEY.

February 15th, 1855.

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January 1, 1855.

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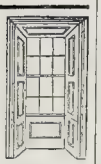

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The Builder.

SATURDAY, FEBRUARY 17, 1855.

THE "Curiosities of London!" such is the title of Mr. Timbs's closely printed book of 800 pages about the great metropolis, the result of long researches, joined with nearly fifty years' personal recollection.* He wrote the title so long ago as 1828, and since then has never lost sight of the subject. It is not *exactly* the right title, because by "curiosities" we understand rare and exceptional matters, whereas this book has a wider scope, and treats of every-day London,—wonderful enough, it is true,—its streets, squares, churches, clubs, parks, houses, and people. It is, in fact, a second "Handbook," supplementing Mr. Cunningham's excellent volume. So vast and wonderful is London, with its two millions and a half of people thronging its miles of houses,—its 27,000 shoemakers, 20,000 tailors, 21,000 carpenters, 34,000 professional men, and 120,000 female servants,—that let what may be said about it, the subject is never exhausted.

"With what proud and exciting feelings," says a great novelist, "an Englishman ought to enter London after a prolonged absence in other countries! The public buildings are few, and for the most part, mean,—the monuments of antiquity, not comparable to those which the pettiest town in Italy can boast,—the palaces are sad rubbish!—the houses of our peers and princes are shabby and shapeless heaps of brick. But what of all this? The spirit of London is in her thoroughfares,—her population! What wealth—what cleanliness—what order—what animation! How majestic, yet how vivid is the life that runs through her myriad veins! How as the lamps blaze upon you at night, and street after street glides by your wheels, each so regular in its symmetry, so equal in its civilization,—how impressively do you feel, that you are in the metropolis of a *free people*, with healthful institutions, and exulting still in the undecayed energies of national youth and vigour."†

There is much that needs alteration, but we let that pass. The extent of London and its fulness of life are even oppressive, and in the case of foreigners and others visiting it for the first time, prevent examination. Scoff at it as they may on a superficial view, and in too many cases with justice,—as a whole, it gradually excites wonder, and commands their admiration. Fenimore Cooper writes,—"Were London to fall into ruins, there would probably be fewer of its remains left in a century than are now found in Rome. All the stuccoed palaces and Grecian façades of Regent-street and Regent's-park, would dissolve under a few changes of the season. The noble bridges, St. Paul's, the Abbey, and a few other edifices, would remain for the curious; but I think few European capitals would relatively leave so little behind them of a physical nature, for the admiration of posterity. Not so, however, in matters less material. The direct and familiar moral influence of London, is probably less than that of Paris, but in all the higher points of character, I should think it unequalled by that of Rome itself."‡

The alterations and improvements effected in London within the last fifty years are perfectly amazing, and will be even greater in the next. A hundred years ago (1752), a highwayman frequented the road between *Knightsbridge and Kensington*, and used to stop the "chaise to Devizes," every now and then, near the "Half-way House," which we all remember. Look at our docks, all formed within the last fifty years, at the cost of many millions of pounds;* the piles of houses in the suburbs, and our railway termini, erected within the last ten years.

Hurrying from these, a countless throng of life fills the pavements; while vehicles of all descriptions block up the roadways. It is difficult to give a clear notion of the extent of this traffic. It may aid, however, to say, that in 1850, when the City surveyor instituted some inquiries on the subject, it was found that in twelve hours 7,741 vehicles passed through Temple-bar, or nearly eleven in a minute; while, on London-bridge, in the same space of time, 13,099 vehicles passed, or eighteen per minute; and the number now must be very much greater.

Take a night a few weeks ago, and look at the people. There was a full meeting of the Royal Society and the Society of Antiquaries; Exeter-Hall was filled to the ceiling with listeners to an oratorio; and Covent Garden with the friends of Jullien. Drury-Lane was full, and so was the Lyceum,—we saw them: the other theatres doubtless had their share. Passing over Waterloo-bridge, we found the "New-cut" literally full of people; and inside the "Vic" rows of grimy faces, tier above tier, filled pit, boxes, and gallery,—while the papers, next morning, told of dinners and meetings, at each of which "all the world were present." London by day, London by night; London before the world, London in its inner life, has ever been to us a source of inexhaustible pleasure and thrilling interest. Those who know nothing of London out of Belgravia and St. James's have a large museum of curiosities yet to explore. Dismantled houses, with each a hundred people in them,—a room occupied by six families,—rookeries ill-drained and fetid,—must not be overlooked by those who would know London. There is life everywhere, with a substratum of good feelings ready to thank those who would raise it out of the dirt.

And how is all this mighty host supplied with food? the demand and supply equalized? This is in truth a curiosity. It gives no very definite idea to say that they eat up every year more than half a million of oxen, and two millions of sheep; that they squeeze sixty millions of oranges, and open 500 millions of oysters. But when we find, according to a calculation in the "Quarterly" (CXC. p. 305), that the barrels of beer annually consumed in London, piled up in Hyde-park, would form a thousand columns not far short of a mile in height; that if looking from the top of one of these we could see the oxen who are to be eaten up in the twelve months, placed ten abreast, on the Great Northern-road, they would occupy it for seventy-two miles out; and that if the sheep, also ten abreast, were placed on the other side, the dog worrying the last of them would be in Bristol, or 121 miles from our pillar of butts; that were the game, poultry, and wild fowl to rise simultaneously in judgment against their destroyers, they would form a black pall equal in area to the whole enclosed portion of St. James's-park, or fifty-one acres; that the half-quartern loaves consumed in the metropolis, with the foregoing mass of flesh of fowl,—say on calculation, 420 millions of them,—if piled up, would form a pyramid 200 feet square at its base, and three times the height of St. Paul's,—something to out-top old Cheops;—we begin to realise the magnitude and enormousness of the demand.

London is best seen from the bridges, Blackfriars and Waterloo. From the latter you get the campanile thus sonnetized by Maginn:—

"In London, queen of cities, you may see
Facing the lordly house of Somerset,
A goodly, tall round tower. Its base is wet
With Thames' fair water: rolling quietly.
Who was it built this tower? what may it be?
Say was it piled by Druid hands of old?
Or reared by Eastern magi, there to hold
The sacred flame, type of their deity?
Was it a hermit's calm retreat? or pile
Where hung sonorous the resounding bell?
Or is it such as in green Erin's isle
We see, whose uses nobody can tell?—
'Twas answered:—Who 'twas built it, know I not,
But 'tis, I know, the tower for Patent Shot."

The Thames—the fishful river, as it was anciently called—like other parts of London, has changed its character. Though Time writes no wrinkles on its brow, he leaves his mark on its banks and frequenters: where the boatman plied, the steamer rushes, and the river's own poet, John Taylor, could scarcely sing now with certainty, as he did while the first Charles reigned,—

"But noble Thames, whilst I can hold a pen,
I will divulge thy glory unto men;
Thou in the morning, when my *coin* is scant,
[Not 'corn,' Mr. Timbs.]
Before the evening doth supply my want."

And this reminds us that we have scarcely given our readers a fair taste of the book which led us to these observations. Let us remedy the omission, and, as an example of the style, extract a portion of our author's account of Gray's Inn, on the north side of Holborn:—

"Lord Burghley entered at Gray's Inn in 1541, and made genealogy his special study. Sir Nicholas Bacon kept his terms here, was called to the bar in the Society, and was elected treasurer 1552; and his son Francis, Lord Verulam, was admitted here, and made an antient in 1576: here he sketched his great work the 'Organon,' though law was his principal study. In 1582, he was called to the bar; in 1586, made a bencher; in 1588, appointed Reader to the Inn; and in 1600, the Lent double Reader: in the interval he wrote his 'Essays,' dedicated 'from my chamber at Graie's Inn, this 30 of Januarie, 1597.' In 1583, he stood among the barristers at Temple-bar to welcome Queen Elizabeth into the City. Bacon had chambers in Gray's Inn when Lord Chancellor; and here he received the suitors' bribes, by which his name became tarnished with infamy. After his downfall and distress, when he had parted with York House, he resided, during his visits to London, at his old chambers in Gray's Inn; whence, in 1626, on a severe day, he went in his coach to Highgate, took cold in stuffing a fowl with snow as an anti-putrescent, became too ill to return to Gray's Inn, and was carried to the Earl of Arundel's house at Highgate, where he died within a week. Lord Bacon is traditionally said to have lived in the large house facing Gray's Inn garden-gates, where Fulke Greville, Lord Brooke, frequently sent him home-brewed beer from his house in Holborn. Basil Montagu, however, fixes Bacon's chambers on the site of No. 1, Gray's-inn-square, first floor: the house was burnt Feb. 17, 1679, with sixty other chambers. ('Historian's Guide,' 3rd edit. 1688.) Lord Campbell speculatively states that Bacon's chambers 'remain in the same state as when he occupied them, and are still visited by those who worship his memory.' ('Lives of the Lord Chancellors,' vol. ii. p. 274.) The association with Bacon is recorded in 'Verulam-buildings:'—

'Whene'er through Gray's Inn porch I stray,
I meet a spirit by the way;
* * * * *
He tells me truly what I am—
I walk with mighty Verulam.'

Town Lyrics, by C. Mackay, 1848.

David Jones, the patriotic Welsh judge, *temp.* Charles I. was of Gray's Inn; Romilly was also a member; and Southey was entered here on leaving Oxford. The students were formerly often refractory. Pepys writes in May 1667: 'Great talk of how the barristers and students of Gray's Inn rose in rebellion against the benchers the other day, who outlawed them, and a great deal to do: now they are at peace again.'

* Curiosities of London: exhibiting the most rare and remarkable objects of interest in the metropolis. By John Timbs, F.S.A. London: David Bogue. 1855.

† Ernest Maltravers.

‡ England. 1837.

* The London Docks alone cost more than four millions.

Within Gray's-inn-gate, next Gray's-inn-lane, lived Jacob Tonson, who published here Dryden's 'Spanish Friar,' 1681, said to be the first work published by the Tonsons: Jacob was the second son of a barber-chirurgeon in Holborn. At Gray's-inn-gate, also lived Thomas Osborne, the bookseller, who gave 13,000*l.* for the *books* from the Harleian Library, for the binding of a portion of which Lord Oxford is stated by Dibdin to have paid 18,000*l.*

The *Gray's Inn Journal*, in the style of the *Spectator*, was started by Arthur Murphy in 1752, and continued weekly two years. Murphy studied the law, was refused admission to the societies of the Temple and of Gray's Inn because he had been an actor, but was admitted of Lincoln's Inn."

The book contains a large amount of interesting information pleasantly put together, and will doubtless command a continuous sale. Mr. Timbs has been an industrious labourer in the field of literature for many years, and the list of subscribers to his book shows the consideration in which he is held by many well-known to the public.

COUNTY AND PAROCHIAL ASSESSMENT.

The re-assessment of the county of Middlesex, as will be seen from a document which has recently emanated from Hicks's Hall, or rather from the magistrates in conclave assembled, has occasioned much consternation among the parochial functionaries of various districts of the metropolis. This subject is now rendered of greater importance from the fact that Sir Benjamin Hall, M.P. for Marylebone, proposes to bring in a Bill to regulate local legislation, as well as to secure the due administration of those immense funds now annually collected, and better known as *rates*, in contradistinction to *taxes*, the latter being a Government impost; whereas the former is exclusively of a parochial nature. Meetings have already been held in Marylebone, Shoreditch, St. Pancras, Paddington, &c. which have proclaimed loudly the evils resulting from the present system of parochial jurisprudence generally; but more particularly as regards *parochial assessment*. Each successive meeting the more glaringly exhibits the striking defects in all existing arrangements; but none suggests a remedy for them. All appear to be fearful of approaching the task of correcting the *wrong*, as they seem unable or unwilling to direct the course which is actually *right*, and which ought now and for the future to be followed. One party advocates a national rating; another the *union* rating; while the more moderate party, who are for letting matters rest more as they are at present, contend that the adoption of the *Parochial Assessment Act* is best. Still the actual question is left untouched, for until that first principle is determined, viz., what is the correct datum or standard of assessment? or rather, what should constitute the basis upon which every rate ought universally to be founded?—whether *union*, *parochial*, or *national*, the actual question must necessarily remain open, and the correct decision of the *vexata questio* will continue as far off as ever.

The Parochial Assessment Act, 6 and 7 Wm. IV. cap. 96 (Mr. Poulett Scrope's Act), was originally designed to set the matter at rest; but instead, and most unfortunately in its present state, this enactment renders confusion more confounded, from the various anomalies which directly present themselves even in the very enactment itself. To wit, this statute enacts that "No rate for the relief of the poor in England and Wales" (and this rate is adopted as the basis of every other rate, whether paving, police, highway, Board of Health, or any other rate) "shall be valid or shall be allowed by any justices, or be of any force, which shall not be made upon an estimate of the *net annual value* of the several hereditaments, &c. rated thereunto." Now, associated with parochial or county assessment, more especially with the increase recently imposed by the justices themselves, of upwards of one million annual rateable value, and distributed throughout the country, and upon which all contributions will in future be levied, is this glaring fact, that these very justices, from time to time allow parochial rates to continue, although known to be wrong, and to be made and collected upon assessments which they, themselves, by this very addition, proclaim are not made upon the real "net *annual value;*" and which otherwise made, the Act itself declares shall be void and of none effect: in short, such rates are made in contravention of the very Act itself, which directly conveys to justices the power of legally *allowing* the rate itself to be made. This fault (if any)—and every "*inequality, unfairness*, or *incorrectness*" is a fault—must therefore rest with the justices themselves, who allow the rate, since they have the power delegated to them of amending any rate, or of disallowing it altogether; and every rate not made in accordance with the *Parochial Assessment Act* must necessarily be defective. In such a case the justices have the power of adding a nominal sum (which they have recently done to the assessment of most of our metropolitan parishes), say 20,000*l.* per annum, to any parish in its assessment to the county rate, as some years since they did to St. Clement Danes, whereby the total rateable value of that parish was proclaimed to be 80,000*l.* per annum, and then left the parishioners to decide the difference among themselves in the best way they could; and which they did by ordering a re-survey of the parish by a competent professional party, who made the result so produced 84,000*l.*; thus showing that the magistrates were not much out. But this course, how fair soever at the first glance the method may appear to be as regards the parish itself, is fraught with the greatest injustice towards parishioners, when it is remembered that the justices have, by another public document, declared that the adjoining parish of St. Mary-le-Strand is assessed in no less a sum than 53 per cent. below its own actual "net annual value," or rather below that sum at which, when fairly assessed, the parish ought to be rated; and the parish of St. Ann, Soho, in the same union, is almost as much, whereby St. Clement Danes, St. Paul's Covent-garden, &c. are made to contribute so much more than their fair quota to all the police, county, and other rates; while the former parishes pass off comparatively scot free, to the extent of nearly 50 per cent. per annum, and yet the defective rate and rate-books of these parishes are from time to time allowed by the very justices themselves, who are cognizant of the fact in special and quarter sessions. So it is with the City of London, the wealthy parish St. George's Hanover-square, St. Margaret's Westminster, &c. and many others.

The parish of St. Marylebone, recently, by a large majority, in vestry determined that the property-tax returns should form the data of their assessment, after deducting therefrom in each case 10 per cent.

Now, no principle of assessment individually can be more unfair and unjust than this, however, in its collective capacity, in the gross result it may approach towards general accuracy, since one house may be let on lease, the next at a tenancy from year to year, and the next may, by premium, have liquidated a portion of its rental. These houses may all be precisely the same, and in each case the return of rental may widely differ, even by a per centage quite as great as that which exists between the rentals of St. Mary-le-Strand and St. Martin, or any other parish which may have placed itself within the pale or under the jurisdiction of the *Parochial Assessment Act*. Hence the house-tax, based on property-tax returns, of themselves alone can present no authentic data of assessment. The actual remedy for the existing evil will only be obtained by a *boná fide* professional and impartial survey and valuation. Those interested in parochial jurisprudence will immediately cry out and declaim against the mode of proceeding, on account of its cost. But they would not do this were they better acquainted with the actual facts of the case, better illustrated in the survey of Bethnal-green, or in the more recent survey of St. Luke's, Chelsea, and many others, wherein the extra contribution drawn from and occasioned by the correct assessment of the water and gas companies, railway companies, and other public bodies (all of whom can afford to pay), more than paid the entire cost of such survey within the first twelve months, as the vestry clerks of these parishes have publicly and frequently declared in their respective vestries. On these grounds, no parish can plead cost and expense as its excuse for non-compliance with the statutable enactment. From these observations, it will be apparent that while other parishes, such as St. Pancras, Paddington, St. George's, St. Margaret's, &c. remain upon their present assessments, the vestry of Marylebone, in ignorance, and trying to do right, will have to contemplate the infliction of a wilful injury upon themselves as ratepayers, to the great prejudice of their own pockets, which will have to sustain the full charge of all county, police, and other rates, while the contribution of many other parishes pay little more than half the sum at the low rate after which they are now so unfairly charged. Facts such as these, when once generally known, must, sooner or later, address themselves to the Legislature, and thus suggest their own remedy; and publicity to statements such as these, when fully obtained, must necessarily tend to hasten the consummation so devoutly to be sought after.

One item further, I beg to state, for the satisfaction of all, which is, that the justices have deemed it expedient to make no alteration in the total annual assessments of ratings from those parishes which have undergone a professional survey, which fact at least exhibits, by direct inference, that such parishes as these are assessed upon their "net *annual* value," and are so assessed to their own prejudice, as far as the police and county rates are concerned, so long as others continue to adopt an arbitrary or voluntary principle of partial assessment, or rather no principle at all, but utterly at variance with the principle of the Parochial Assessment Act, as it is with all that is "*fair, just, and equal.*" Now, as regards parishes in this respect, they should be advised to look more to one another than they do at present, and then they would, in the result, reap all these advantages collectively, which individually, as parishioners, they now seek for in vain, and the search would call forth much less vituperation and personality than now, and all invidious comparison of one assessment with another would thereby be effectually avoided.

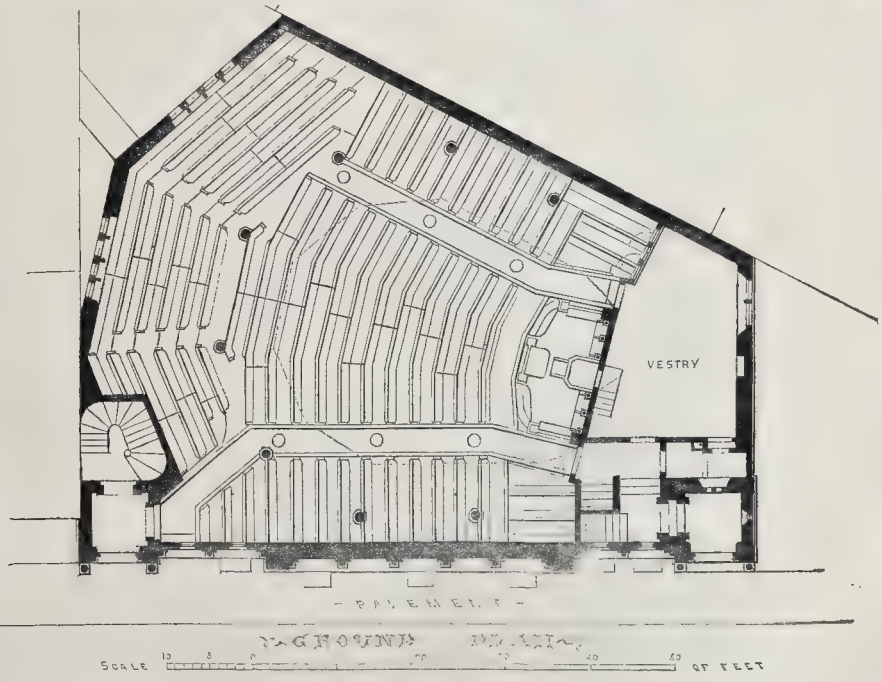
"Pro Rata."

PERCY CHAPEL, BATH.

This chapel, which is designed in the Lombard style of architecture, has just been erected for the Congregationalists. The peculiarity of the site chosen determined the mode of treatment, and the effect inside is said to be successful. The decagonal lantern is supported on ten semicircular stone arches, 30 feet high, springing from ten polished Purbeck columns, only 1 foot in diameter. The capitals are carved, and vary in foliage. The height to the summit of the roof of lantern is 54 feet. There are three wheel windows similar to the one in the front, one corresponding on the opposite side and the other facing the pulpit. The whole is built of Bath stone, and the walls inside are lined with ashlar. The windows throughout are filled with stained glass in mosaic patterns. All the roofs are open and made ornamental. The roof of the centre lantern is constructed independent of the walls, and has only a vertical pressure,—there being no horizontal tie. The pulpit is of stone, and the enclosure of communion of polished Purbeck marble. The centre turret is arranged for ventilation. The church seats 1,000 persons, with the galleries, which are very capacious and form a principal feature in the interior arrangement. The seats are all open, without doors, and all the woodwork is varnished. The front of communion-table is laid with Maw's encaustic tiles, and there are border tiles in the aisles. It is heated by hot air. The organ is placed over the vestry, behind the pulpit. The cost was about 4,000*l.*

Architects' Benevolent Society.—We think it right to state that the annual meeting of the Architects' Benevolent Society will be held on the 7th of March. The architects throughout the country have all a special interest in this society, and should feel it a duty to make common cause with their professional brethren of the metropolis. Let us help one another.

THE PERCY CHAPEL, BATH.



ON THE CONSTRUCTIONS NOW IN COURSE OF EXECUTION BETWEEN THE LOUVRE AND THE PALAIS ROYAL AT PARIS.*

The works now carried on at Paris under the direction of the Emperor constitute one of the most remarkable features of modern times: indeed, I cannot recall to mind any period since the time of the Roman emperors when works of such magnitude, magnificence, and essential utility were executed at once. It is not mere flattery to say, that, in all these public improvements he is the great ruling genius: everything originates with him, and the opinions of all the other authorities are subordinate to his decision, which is carried out, because it is supported by a well understood and very firm will. Many present have of course seen the continuation of the Rue de Rivoli, lately opened in connection with the buildings at the Louvre, which I described to a meeting of the Institute at the beginning of last year. Having visited these works recently, I have thought it might be interesting to the members if I were to communicate briefly some of the observations which I made on the occasion.

Our honorary and corresponding member, M. Hittorff, was so kind as to show me the lithographed contract drawings for the works, prepared by himself and his colleagues, and he has, with their sanction, very kindly contributed a copy for the Institute. As they are drawn to the scale of $\frac{1}{96}$th, or very nearly $\frac{1}{8}$-inch to the foot, they are sufficiently large to enable us to understand and appreciate all the details. On the general plan of the locality are indicated the portion of the Louvre erected by Napoleon I. and Louis XVIII. and the new continuation, together with the garden beyond it, next the Colonnade of Perrault. The Rue de Rivoli has been greatly widened by the removal of a number of misshapen houses, narrow streets, and inconvenient thoroughfares. It has been supposed in this country that such alterations and improvements are effected at a much cheaper rate in Paris than in London; but the truth is, that on the contrary they are, if possible, more expensive in that city, and for this reason, that if an amicable arrangement for the purchase of the property required cannot be made, the promoters have not only to go before a jury, and buy up the ground-rents, the intermediate interests, and all the good-wills, as with us, but also to buy out the occupants of all the floors up to the very top; consequently there are numerous interests to combat, and compensation must be given to all the various parties carrying on their separate trades in the different stories. It is seldom in London that we have to treat with lodgers who have such specific trade interests. Therefore, although the value of ground in Paris is not to be estimated at such a rate as 400,000*l.* an acre, as it is for some plots in the City of London, the price to be paid is still very high, and ground is more valuable, generally speaking, than here. However, the property in question in Paris was bought up, all the persons interested were remunerated, and many retired with very good fortunes. The space gained has been used to widen the Rue de Rivoli, and carry it on beyond the Hôtel de Ville, and also to widen the Rue St. Honoré which runs parallel with it. The new Rue de Rivoli is only 72 feet 6 inches wide, exclusive of the arcade, under which there is a broad footway. This width is hardly sufficient for a grand leading thoroughfare, but it has been restricted by unavoidable circumstances, and by the old part serving as a guide. The Rue St. Honoré has been widened from 46 feet to 65 feet 6 inches, and it thus relieves the Rue de Rivoli of a portion of the heavier traffic, which would otherwise pass through it.

In consequence of the immense space occupied by the Louvre, it is necessary for the convenience of the public, to permit the passage of carriages through the building; and to facilitate this line of communication the Emperor has determined that the Rue Richelieu shall be extended to intersect the Rue St. Honoré and the Rue de Rivoli, and widened, so that there shall be a direct and easy access, adapted for an immense thoroughfare, from the Boulevard to the Louvre. The traffic of Paris has so much increased of late years, that it is difficult for vehicles to traverse the city, and the great principle adopted has been to provide wide thoroughfares from the stations of the railways, instead of those formerly required from the Barrières. The Louvre may be considered a focus in which these communications concentrate, consequently the thoroughfares in its vicinity are left spacious enough to enable the traffic to be carried on with all requisite facility. Thus it will be seen on the plan, that opposite the Palais Royal an open space is left, called the Place du Palais Royal. The large block of building, which adjoins it on the right of the spectator, is to be called the Hôtel des Chemins de Fer, or the Hôtel du Louvre.

The total frontage of the ground opposite the Louvre is 2,030 feet; 620 being occupied by streets, and the Place du Palais Royal; and 1,410 by houses; and of this length 1,285 feet are devoted to the Hotel and other erections, under the direction of M. Hittorff and his colleagues.

It has been said that the French are not an enterprising people, and that they are deficient in mutual commercial confidence. We know, however, that great sums of money were formerly hoarded by individuals, who have discovered of late, that they can apply them to realise a good interest; and a society called *La Société Immobilière*, or Freehold Building Society, has been formed expressly to cover this ground with buildings, at a cost of about 500,000*l.* In order to accomplish this object within six months, they thought it necessary to appoint four architects, and they selected MM. Armand, Hittorff, Rohault de Fleury, and Pelechet. A committee of directors meet twice a week. The contracts are made for all the works together, and consequently the full benefit of the magnitude of the operations is gained in the price. Their intention is that the whole mass shall be built, and the hotel finished and furnished when the Great Exhibition opens in May.

I propose to direct your attention chiefly to this hotel, as a work of very great importance, the length being 501 feet, and the depth varying from 184 feet to 124 feet.

There are several entrances, so that the hotel may be divided into two parts. No part of the ground floor, or of the entresol, except those occupied by the entrances, is to be appropriated to hotel purposes, but these portions of the plan are to be appropriated to shops, and the accommodation of the shopkeepers; therefore it is *au premier* that the hotel begins. Part of the first floor is appropriated to princes and ambassadors, and other distinguished persons; and it comprises numerous suites of apartments, with separate staircases. Here is one grand staircase of stone (the flight of steps 9 feet wide), with two other principal staircases to the right and left; and there is a place for taking in luggage, and a carriage entrance to a court about 66 feet square, which is to be covered with glass. The under part is for carriages in waiting—the stables being in another part; and there are other carriage exits into the Rue St. Honoré, and the Rue de Rivoli.

The first floor contains a grand saloon for the general ity of visitors, 133 feet long by 21 feet 6 inches wide; two reception rooms, 37 feet by 24 feet, and 33 feet by 24 feet; a coffee-room and dining-hall, 125 feet by 45 feet; twenty-nine large rooms, about 30 feet by 20 feet, and ninety-six smaller rooms, making a total of 125 rooms, besides the gallery and the dining hall for the *table d'hôte*; six principal and eight secondary staircases; and above twenty water-closets: the passages are 7 feet 6 inches and 8 feet wide.

There is an arcade with shops under it on the sides next the Rue de Rivoli and the Place du Palais Royal, but on the other two sides there are no arcades. There is a great deal of merit in the arrangement of the private apartments, especially as to the facility of access and egress.

On the second floor, the general arrangements are similar to those below, and there are 168 rooms of various sizes, from 13 feet or 14 feet to 10 feet wide, and from 11 feet to 20 feet long; these rooms are of handsome proportions, and larger than in our own ordinary hotels.

There is another story above this, which is arranged in the same way; and there are two stories in the roof. In the lower of these the walls are upright and the rooms are good, and those above are for servants. There is no division of the servants' apartments into groups, but they all communicate with one common passage.

The total height of the building, from the pavement of the street to the ridge of the roof, is 90 feet. From the level of the street to the top of the cornice, the height is 66 feet, leaving 24 feet for the roof. The heights of the different apartments are as follow:—Entrance floor, 12 feet 2 inches; entresol, or mezzanine, 9 feet 2 inches; first floor, 14 feet 6 inches; second floor, 11 feet 5 inches; third floor, 9 feet 6 inches; two stories in the roof, each 8 feet 6 inches: these dimensions, with about 7 feet for the thickness of the floors, make the total height of 90 feet.

The roof plays an important part in the design, and I certainly think that a great deal of the majesty of French buildings is derived from these lofty roofs. If the roof were to be taken off the Tuileries, it would reduce the building to the humble proportions of an English Palace; and if the Palace of Versailles had such a roof, it would not look, from the gardens and terraces, so mean and poor as it now does. Moreover, we must bear in mind that the French do not object as we do to an extra flight or two of stairs.

With reference to the construction of this building, it may be mentioned that the basement is vaulted with arches of brick or stone, and the builder has excavated to a great depth (in some part 25 feet below the surface) to remove the old foundations. Part of it is appropriated to kitchens, and part to stores for goods. The walls in the basement are built of wrought stone at the angles and openings, to give strength and solidity, with moellon, or rubble work, in the intermediate spaces. The outer walls above the basement are all of good free-stone, left rough, but to be dressed and carved hereafter. In the floors, the fire-proof construction, which is very popular in Paris, and which the Emperor wishes to be used, is adopted. It consists of I-shaped rolled iron-girders from 6 to 8 inches deep, and 2 feet apart, kept together by saddle-bars. Boards are placed beneath the girders, and the space is filled in with pieces of stone, and the excellent plaster of Paris. This concrete sets in a very few hours, and the boards are removed, the mortar being sufficiently tenacious to hold the mass together. There are long diagonal iron tie bars at the angles of the walls, to keep the whole construction compactly together.

In the upper floors, the staircases are mostly circular. In this country we generally consider such staircases as dangerous to descend, but they are not objected to in France, and they certainly economize space. The roof is of wrought iron, very light, and put together with great skill; and there are outside galleries along the upper cornice, which serve for the exercise and convenience of the occupants.

Mr. Donaldson proceeded to describe some other private houses, part of the new buildings shown on the general plan, but distinct from the great hotel. In illustration of these he referred, in detail, to the plans, elevations, and sections; and remarked particularly on the comparatively small number of bed-rooms connected with the principal suites of apartments.

He further called the attention of the meeting to the improvement of the Bois de Boulogne, another work of the Emperor, now almost completed; and to a project for the erection of first-rate houses around the Arc de l'Etoile, in accordance with a design by M. Hittorff. He referred, in conclusion, to the works recently executed at the Luxembourg, and particularly to the Salle de Reception, formed out of the old Salle des Conferences and two other apartments belonging to the former Chamber of Peers, which had been thrown into one magnificent hall, 200 feet long, resplendent with marble, paintings, and gilding, in perfectly refined taste. For all this magni-

* The following is the substance of the paper read by Mr. T. L. Donaldson, at the Institute of British Architects, January 22, already referred to.

ficence the French people were indebted to the Emperor, who was a great friend to architecture, and had judiciously given much profitable employment to the working classes, at the same time that he rendered Paris the first city in the world for the magnificence of its monuments, the ample and commodious lines of its thoroughfares and public streets, the improvement of its salubrity, and a centre of attraction to the people of every other country, in fact, of European arts and civilization; thus by the judicious and not parsimonious outlay of a few millions, contributing to the prosperity of the people, and the promotion of their commerce and manufactures.

In the course of the discusion which followed Mr. G. R. Burnell stated that, in his opinion, nothing had yet been erected to equal, in magnitude and completeness, some of the great hotels of the United States; in which the arrangements for carrying up goods, washing, and cooking, were carried out by the aid of steam, in a very successful manner. The great length of the galleries in the French Hotel was an objection which would perhaps be felt more by English than by French visitors; and the same remark would apply to the appropriation of the ground floor and mezzanine to shops, obliging visitors to ascend a greater number of stairs. Very good rooms were shown upon the plans at a height of 80 feet from the ground, requiring 160 steps to arrive at them. The laws which regulated building in France rendered it necessary that the cornice should not be more than 66 feet from the pavement;—above that height it was allowed to build in the roof, but the roof itself must be bounded within a portion of a circle of a certain radius. This law was enacted in the time of Louis XIV. and the Mansard Roof was invented for the purpose of evading its provisions. These roofs did not add to the grandeur of the buildings, but on the contrary, they had a clumsy and heavy effect, especially when seen continuously in the long streets of the Continent; and the rooms in them were necessarily uncomfortable. It was a very grave question in his mind, how all these expensive improvements were to be paid for. Many large houses in and near London, originally occupied by the nobility and gentry, were now let as offices; and that, if this appropriation of them should increase, it would be much better at once to adopt the French system of living in separate floors, and to build accordingly.

Mr. Ashton confessed that he was not much struck with any great advance which had been made by the French over the English in the new works in question, so far as Mr. Donaldson had explained and illustrated them. He concurred with Mr. Burnell in thinking the effect of the French roofs, surmounting stone walls with a heavy black mass, was very little short of ugly. The limit of 66 feet for the height of the cornice from the ground was very objectionable, and might prevent any grand architectural effect. He had himself lately built houses in Victoria-street, which were 80 feet in height from the pavement to the top of the cornice. The height, indeed, was a question of ground-rent; it being necessary to build such houses as would pay the expense of making new streets, and substituting large thoroughfares for narrow and crowded streets; and this argument applied as forcibly to Paris as to London.

DINNER-TABLE OBSTRUCTIVES.

WHILE all your daily and weekly contemporaries are fighting the country's battles at home and abroad, we should have the arts of peace and domesticity entirely overlooked were it not for such publications as the *Builder*. I write, therefore, to you, as the only publication that does not raise our blood to fever heat, to join in the general fashion, and get up a row or revolution on—the dinner-table. The dining season is beginning; and, as internal decoration is a subject kindred to your pursuits, I earnestly request you to use your powerful influence to smash the prevailing mode of dinner-table decoration. Perhaps you will better understand what I desire, if I narrate an actual fact. Being "somebody," I was invited, with my wife, by the Lord Mayor, to the dinner on the 6th inst. and a very elegant affair it was; but that need not be said by any one who knows the present chief magistrate. The arrangements, with one exception, were perfect: an elegant and well-dressed company partook of a most liberal hospitality—good cookery, choice wines, and all that sort of thing; but above all, there were the principal guests,—a live lord from the Crimea! and a dead lion from the Baltic!! Now, do you not think that it was at least an excusable curiosity to desire to see these and other of the illustrious guests, while sitting at table; to say nothing of the cheerful face of the Lord Mayor himself? The table was, however, so overloaded with artificial flowers, vases, and pink ivory cakes turned up with white, that it was impossible to see more than two or three couples opposite, your next neighbours, and the usual line of noses to the right and left. Mark me! I do not object to flowers, ornaments, and cakes, in the abstract: I only object to their being placed obstinately in the line of sight. The principal part of the conversation near me was, "Now look, between that cake and the camelia, you can just see his moustache: no, he is gone again." "Now, now, the full-faced man, just through that opening." "Where?" "There! four this side the Lord Mayor." "But where is the Lord Mayor?" and so on. It cannot be denied, that notwithstanding the evident pains that had been taken, the early part of the affair was cold and too quiet, all owing, in my opinion, to the impossibility of seeing and being seen. Surely the ornaments can be placed on the table so as to decorate without obstructing the view,—so low or so high as to leave a clear space for recognition and conversation. I take the liberty of specifying the case, which was very glaring, at the Mansion-house, because the well-known taste of Lord Mayor Moon will, in addition to his official duties, acquit him of having anything directly to do with the arrangements; but in many private houses the grievance is deserving of censure. You will recollect, sir, on a recent occasion (one of us having entered the drawing-room late), we sat three hours at dinner-table entirely ignorant that each other was present, till we joined the rest re-entering the drawing-room, and yet one at least of us was invited to talk,—yes, to talk to jardinières, massive silver obstructions, and a centre-piece with half a dozen sprawling arms holding up, just on a level with the eyes, preserved ginger, and other confiture—sweet indeed to the tooth, but gall and wormwood to the tongue and eyes. These floral and metallic obstructions are also unjust in hiding the eyes, jewels, and dresses of the ladies, than which nothing can be more ornamental at the dinner-table. Let it be reformed altogether: let no ornament whatever rise higher than 10 inches from the table, and let none be suspended lower than 26 inches above it.

CHATTERBOX.

ADVICE FROM MELBOURNE.

THE journals I receive from England, including the *Builder* which is specially welcomed, contain so many articles and communications in reference to Australia in general, and Melbourne in particular, that I am induced to offer a few remarks on the present aspect of colonial affairs.

In addressing you on this subject, I do not seek to captivate your readers with a romantic history of this extraordinary place: my wish is simply to state a few plain facts for the guidance of the working classes.

On the present occasion, I shall restrict my remarks to the question of emigration, so far as the interests of the artizan are concerned. The professional experience I have had in this colony tempts me to intrude my opinions upon your attention, in the hope that some of your readers may be benefited thereby. The mail which brings this, will carry a great mass of letters and newspapers to the friends of those who have recently arrived here, and who have been attracted by the glowing accounts of prosperity and success that have been forwarded to England, both by the press and residents in the colony generally.

I am quite prepared to hear that three-fourths of the letters that have been sent home during the last four months are of a very gloomy and cheerless kind, and that the recent arrivals in Victoria find themselves in a state of isolation and despondency, if not actual distress.

The truth is, that hundreds of mechanics are now out of employment, although wages have fallen within the space of three months from an average of 30s. down to 15s. per day.

Public meetings of the working classes have lately been held, and resolutions passed with a view to ameliorate their condition. Much talk has been expended, and loud complaints have been made against our leading journal, the *Argus*, for misleading emigrants by holding out temptations which they have failed to realise. The Government has also been assailed for not throwing the Crown land more freely into the market, to enable persons with small means to obtain leases with a right to purchase. The latter proposition should be carried out without delay, as it would afford profitable occupation to the unskilled workman at present idle.

But I presume the majority of those who are inclined to emigrate have no ambition to travel 16,000 miles to commence an agitation on the rights of labour: they have been taught to believe that here there was a scarcity of that commodity which in England was not over-well remunerated, and that a qualified artizan could readily obtain employment as soon as he landed. A man who has served an apprenticeship to a respectable trade, and who has laboured year after year to acquire a proficiency therein, may feel no particular wish to commence a new line of business, or to throw away all his previous knowledge, to turn digger or ploughman.

The principal safety-valve for the unemployed mechanic is breaking stones for the various new roads. The stone chiefly used belongs to the basaltic formation, and is very similar in colour and texture to the Carline-nose stone from Scotland. A "crack hand" can break from two to three yards per day; but an amateur would find it difficult to accomplish more than one yard. Hundreds of good masons are now at this convict-like occupation, and hundreds cannot even get employment at this ignoble work.

This colony has not grown at the ordinary rate of progress. The discovery of its great mineral resources suddenly constituted it the richest and most envied place in the world: its wants immediately increased, and the stocks of necessaries and luxuries in the adjoining colonies were soon consumed. The inhabitants neglected their ordinary avocations: gold-digging and speculating superseded everything; and at one time it was feared we should fall short of provisions before supplies could arrive. A cry for goods and labour soon arose: behold, it is now satisfied! all the stores in Melbourne are full to repletion, and much of their contents is rotting away. Goods are almost a drug. Labour has declined one-half within four months, and a strange anomaly is that as it becomes cheaper, the demand seems to diminish.

It would appear that the machinery which should regulate the supply of goods is sadly unmanageable, for I am certain that the remittances that have been made during the last six months cannot entice the continued stream of articles that still continue to pour into our already glutted market. The case is somewhat different in regard to labour, for the difficulty of obtaining employment has only been experienced by recent arrivals.

I am not so desponding as to suppose that we shall not recover from the present depression, nor do I in any way seek to prevent hardy, persevering, and industrious persons trying their fortunes in Victoria. I only wish to inform them, through you, that they must expect to "rough it" for a time. I would say to the skilled workman, "Should you land in Melbourne, three months after you read this, wages will probably be about 10s. per day, the necessities of life a little, and the comforts a great deal dearer than in England. You will find a vastly increasing city, but you may discover that there are plenty of hands already waiting to carry out its extension. You may have to do as you have done before, tramp to the next township, and, may be, from thence to the next, before you can obtain employment. All this is nothing more than you have probably undergone in England, but, perhaps, you don't expect such hardships in a gold country. Think well, I would advise you, before you give up anything like good, steady, remunerative employment; but should you determine on a trial, come with a stout heart: don't grumble if at the outset you have to endure similar trials to those you suffered in England. Remember that Victoria comprises a vast extent of country, and that little has yet been done to develope its various resources. England *is*—Victoria *has to*

be—built up. To accomplish this, capital is required as well as labour; and there should be some attraction in the fact that money can be safely invested at 15 to 20 per cent."

I have written the above with the object of correcting the extreme statements, both *pro* and *con.* which I have known to be made in regard to this colony.

Having been three years in the midst of the building operations in and about Melbourne, I feel in a measure qualified to offer the above remarks to your notice. And in order that those for whose benefit I am now writing may know that I am in a position to give disinterested advice, and that I am not a disappointed adventurer, I beg to state that I am of the firm of Knight and Kemp, architects, whose designs for Government House, Legislative Council Chambers, Royal Exchange, &c have been approved and selected by the Government; and that, in conjunction with Mr. Robert Adams, C.E. (late of the West-India Docks), I have gained the first premium for a design for the proposed Melbourne Ship Canal and Docks.

John George Knight.

PROVINCIAL NEWS.

Brighton.—We are requested by Mr. Harmer to state, that the intimation in the *Brighton Gazette*, which we quoted last week, to the effect that the dinner given at the Race Hill Inn was as a mark of confidence in parties connected with the undertaking is not exactly correct: the writer says it was "from quite a different motive."

Toddington.—Wesleyan day-schools have been opened here, with sermons and subscriptions in aid of the building fund.——For a similar object, on behalf of the new national schools, a performance of sacred music was held last week in the parish church. These latter schools are nearly completed.

Stansted Mountfitchett.—A central hall for lectures and other meetings, and for the purposes of the local literary institution, has been erected by a building company, who raised 550*l.* for the purpose, in 5*l.* shares. Mr. Glasscock, of Bishop's Stortford, was the builder. The hall was opened on Thursday before last, with a *soirée*, in connection with the literary institution. It is situated on the Chapel-hill (an elevated site, midway between what is called Stansted Chapel and the town, called the Street). The front elevation has four Ionic columns, forming a portico, and supporting a pediment, perforated in the centre for a clock. Right and left of the entrance-hall are two small rooms, the former 13 feet 6 inches by 12 feet 6 inches, let as the post-office, and the latter 13 feet 6 inches by 10 feet, let as a library and reading-room to the literary institution. The assembly or lecture-room is 44 feet in length by 25 feet wide, and 17 feet 9 inches high. Corresponding in form and size with the small rooms in front of the building, and over them, are two chambers occupied by the postmaster, who is also librarian of the institution. There are a kitchen and offices below the ground-floor.

Headley.—The new parish church here was opened on Friday in last week by license of the Bishop of Winchester, after which a collection was made for the fittings and stalls in the chancel, designed and executed by Mr. William Shearburn, of Dorking, architect. Mr. Howard, of Ashtead Bank, provided the funds with which the church was built.

Portland.—The breakwater works now extend to a distance of three-quarters of a mile from the shore. The stageing erected for the purpose of depositing the stone has a frontage of 150 feet: the piles composing it are 80 feet in length, and the iron shoes affixed to the end, for the purpose of screwing them into their places, weigh upwards of half a ton each. The piles are required of this length owing to the depth of water (60 feet) at the part now reached. The stone is being deposited at the rate of 1,500 tons a day. No less than seventy vessels were, a short time ago, anchored in Portland roadstead, under cover of the breakwater.

Birmingham.—It appears from the report of the town council meeting that Mr. Ingram's proposal to decorate the hall has been accepted.

Chesterfield.—The design selected for the market hall is by Mr. J. Davies, of Halifax.

Elvaston.—A new church is to be erected in this village, on the site of the old one, which is being taken down. The contractor for the new building is Mr. G. Thompson, of Derby, and the amount of the contract is said to be a little more than 1,400*l.*

Rochdale.—A meeting of the parishioners was held on Thursday before last, at the vestry of the parish church, "to consider plans for the further improvement and restoration of the church, including the removal of the present galleries, the erection of a new west gallery, the rebuilding of the north aisle, and the reseating of the remainder of the nave and aisles," when a resolution was passed, all but unanimously, to the effect that the vestry approved of the proposed works, and consented to the vicar and churchwardens executing them, on condition that the cost be defrayed entirely by voluntary gifts, and the parishioners not subjected to any rate or charge in respect thereof. The subscription list is already in progress, and additional exertions are now to be made to increase the funds thus to be realized. Mr. Clarke, the architect, has reported on the unsound, if not unsafe, condition of the piers and arches on the south side of the church, which shows itself now that they are uncovered. He considers that the south gallery ought at once to be removed, and that a thorough repair and reinstatement should take place of the piers, &c. one or more of them requiring to be taken out and replaced. Although this, he remarks, is not a matter of imminent importance, as affecting the future stability of the building, yet he feels he has no power to order the work necessary to be done, as it will involve additional cost. In the mean time he regards it as his duty to make this report to save himself from any responsibility. The work of restoration, both internal and external, has been commenced, as reported to the vestry meeting referred to.

Liverpool.—The dock committee have accepted the tender of Messrs. Jones and Jump to take down the shed on the south quay of the Bramley-Moore Dock and re-erect it on the quay of the Huskisson Dock, for 300*l.* The offer of the Messrs. Thorneycroft to supply Staffordshire iron plates, and of Mr. G. W. Armstrong to fix up the steam and hydraulic machinery in the new Wapping warehouses, for 11,745*l.* has also been accepted.

Shields.—Under the heading "Who stops the way?" the Gateshead *Observer* quotes a paragraph from the Shields *Advocate*, to the following effect: "It has been our duty previously to point out the slow progress of the piers, and to urge more energy in their construction. It was elicited in evidence on Tuesday, before the Royal Commission, that the River Tyne Commission has been most urgent in its duties on this subject of life and death, and that the delays of the works since December, 1853, have been owing entirely to the Admiralty; that the railway, it appears, over which the Admiralty has no control, is already about completed, and ready to commence the south pier; that thirty-six acres of rocks have been bought for their construction; that plans and specifications have been lying for some time at the Admiralty, for their sanction, which the Pier Act insists on, before the piers can be made, and which sanction the Admiralty refuses, absolutely refuses, without Mr. Walker, their engineer, is employed, who demands a remuneration of 2½ per cent. upon the cost of the works, which, if they amount, as they are likely to do, to half a million sterling, will put in the said Mr. Walker's pocket 12,000*l.* When it is known that this engineer had been already appointed by the Tyne Commissioners their consulting engineer for the piers, at a salary of 200*l.* a year, we think the public will agree with us in repudiating this conduct of the Admiralty, and sustaining the determination of the commissioners to resist this venal dictation of the Admiralty." The Gateshead *Observer* remarks on this paragraph that, "The commissioners and their clerk were accused of obstructing the appointment of a resident superintendent of the works;" and asks, "Has no other obstructive stood in the way?"——The Methodist Free Church about to be erected at South Shields, from the designs of Mr. T. Oliver, jun. is in the Norman style of architecture. The front gable is filled by a recessed arch, and terminated by a belfry. The columns are carried above the galleries, and the roof is divided into three compartments. Accommodation is provided for 800 persons, with schools for children below.

Wigan.—The burial board were last week preparing to receive tenders for the erection of three chapels, two lodges, entrance gates, bridges to cross the railway, and other works. The land is situated about 1¼ mile from the market-place. It will consist of eighteen acres, which have been thus apportioned,—eight for the Church of England, six for Roman Catholics, and four for Dissenters. Three chapels are to be erected, similar in size and cost, as well as in general style of architecture, which is Geometric Decorated. Two lodges are to be provided, for superintendent and sexton, containing suitable accommodations, with office and waiting-room for cemetery business. The cemetery is to be ready on 1st July next.

THE BANK OF AUSTRALASIA, THREADNEEDLE-STREET, LONDON.

The west end of Threadneedle-street has been widened and greatly improved by the removal of a block of old houses on the south side of it, and the erection of three structures, partly on the site of the former, and partly behind it, extending from the Royal Exchange-buildings to Finch-lane. The easternmost building, at the corner of Finch-lane, is for the Bank of Australasia, and has been erected from the designs of Mr. P. C. Hardwick, on ground the property of St. Thomas's Hospital. The contractors are Messrs. Lucas, of the Belvedere-road. The amount of this contract is 13,436*l.* inclusive of a portion of the building in Finch-lane, which is to be let as offices.

The Bank of Australasia is one of the most important corporations connected with the colonies, and its transactions are very extensive: the present offices are in Austin-friars. The fronts are wholly of Portland stone, and are remarkable for the boldness of the projections, and a considerable amount of carving effectively executed. It is to be regretted that this new range of buildings has unfortunately repeated a too frequent fault in London, and are erected without any attempt at unity of style, or even an effort at picturesque relative arrangement. This is to be attributed to the hurry in which all our buildings are built, preventing the study required for combination of design, rather than to any want of appreciation of the desirableness of endeavouring to make adjoining buildings assist each other, and, whether of the same style or not, produce one fine combination of architectural forms. In this same street are the Sun Fire-office, designed by Mr. Cockerell, the Hall of Commerce, and some other large buildings. Had the money here expended been laid out with a view to a whole, what a magnificent effect might have been produced. We shall give views of the buildings adjoining the Bank of Australasia in an early number.

Other great changes in this street are in prospect, for the site of the celebrated South Sea House, on the other side of the way, at the end where it enters Bishopsgate-street, is to be brought to the hammer on the 27th. The stately colonnade and grave court, which Charles Lamb so graphically describes,—"The long passages hung with buckets appended in idle rows to walls whose substance might defy any, short of the last, conflagration;—with vast ranges of cellarage under all, where dollars and pieces of eight once lay, an "unsunned heap," for mammon to have solaced his solitary heart withal,—long since dissipated or scattered into air at the blast of the breaking of that famous Bubble,"—will now doubtless soon give place to modern residences and new speculations.

Threadneedle-street was originally called Three Needle-street, from the charge on the shield of the Needle-makers' Company's arms; or, according to Pennant, from the halls of the Merchant Tailors, Tailors, and Linen Armourers in the street.

THE BANK OF AUSTRALASIA, THREADNEEDLE-STREET, LONDON.—MR. P. C. HARDWICK, ARCHITECT.

ARCHITECTURAL DRAWINGS FOR THE PARIS EXHIBITION.

WE think it right to remind architects that all drawings intended for the Paris Exhibition must be delivered at Gore House by this Saturday, the 17th.

We have already given the regulations under which the selection of works will be made. We would repeat, however, that artists can contribute to the Universal Exhibition works which have been previously exhibited; but there cannot be admitted,—

1st. Copies, excepting such as may reproduce a work in a different manner on enamel, by drawing, &c.

2nd. Pictures, and other objects, without frames.

3rd Sculptures in unbaked clay.

THE FLOW OF WATER THROUGH PIPES AND ORIFICES.

INSTITUTION OF CIVIL ENGINEERS.

ON the 6th inst. the paper read was "On the Flow of Water through Pipes and Orifices," by Mr. J. Leslie. The author having been professionally called upon to report on a small scheme of water-supply, in which it was proposed to lay down a pipe with an unusually small declivity, was induced to have a set of experiments made on the discharge of a new lead pipe of $2\frac{1}{2}$ inches diameter, and 1,086 feet in length, with heads varying from $\frac{1}{16}$ths of an inch to 10 feet. This pipe was laid in a coil of about 70 feet in diameter, and was afterwards successively shortened into lengths of 540 feet, 270 feet, 100 feet, 25 feet, and 10 feet. Other experiments were also made with pipes of $1\frac{1}{4}$ inch, and $1\frac{3}{4}$ inch diameter.

As much care as possible was taken to ensure the escape of air, but the results were in some cases so anomalous as to induce the belief that complete success had not, in this respect, been always obtained.

The object of the author having been to institute a comparison between the deductions of hydraulicians and the results of direct experiment, he had adopted, as a standard of comparison, a formula which he believed to be due to Du Buat, and from that had calculated "the ratio of actual discharge to Du Buat's formula."

The formula employed was thus expressed:—

$$v = \frac{3000\sqrt{d}}{\sqrt{\frac{l}{h}}}$$

in which v was the velocity per minute, l the length of the pipe, increased by fifty diameters, and d the diameter of the pipe, all in feet.

For the discharge (D), in cubic feet per minute, this formula became

$$D = \frac{2356{\cdot}2\ d^{\frac{5}{2}}}{\sqrt{\frac{l}{h}}}$$

Adopting this formula, the results differed very considerably from those of the observed discharge.

[It was shown in the discussion, which was only commenced, that the formula relied upon by the author was not that of Du Buat, which when applied gave results more closely approximating to those of the experiments, than were obtained by the formula employed in the construction of this table.]

Numerous experiments were also made on simple orifices,—on short tubes placed sometimes vertically, and sometimes horizontally,—and on vertical pipes, from which coefficients of discharge, greatly at variance with accepted data, had been deduced; but it was afterwards discovered, that the apparent anomaly disappeared, if the active head were measured by the difference of level between the surface of the water in the cistern and the point of exit from the pipe, or the difference of level of the water in the upper and the lower cisterns.

The "Colinton pipe" was 16 inches diameter, 29,580 feet long, with a differential head of 420 feet. The mean of fifteen observations gave an actual discharge of 571 cubic feet per minute, whereas the formula required that the discharge should have been 575 cubic feet per minute. This pipe was only eight or nine years old.

A new iron pipe of $2\frac{5}{8}$ inches diameter, and 1,150 feet long, with about 11 feet of fall, yielded about what was due by formula to a pipe of $2\frac{1}{2}$ inches diameter.

Observations were also made on the Dundee conduit, which was 2 feet broad, with rectangular sides and a bottom of smooth stone slabs, with the following results:—

Fall 1 *in* 1,000.

Depth.	Calculated Discharge.	Actual Discharge.	Actual Average ascertained Velocity.	Velocity by Floats at Surface.
Inches	Cubic Feet.	Cubic Feet.	Cubic Feet.	Cubic Feet.
6	109	110 09	110 09	128·5
7	134·	134 83	116	129·7
8	160·	162·16	121 6	133 1
9	186·	184·61	123·	136 7
10	213·	214 28	128 6	138·1
11	240 3	240·	131·	140·
12	268·	266 6	133 3	146 7

The formula used in this instance might be thus expressed:—

$1\frac{1}{2} \surd$ hyd. mean depth × fall in feet per mile = velocity in miles per hour.

The author's conclusions were, that while "Du Buat's" formula gave very accurate results at moderate rates of inclination, it gave a great deal more than the actual discharge with very low gradients, and very considerably less with steep gradients.

METROPOLITAN CEMETERIES.

WHEN professionally employed in the neighbourhood of Highgate, it frequently occurs that I hear the opinion of residents in that hitherto favourite district, as to the great cemetery there, now nearly replete with defunct mortality.

Already the depreciation of property there, occasioned by the obtrusion of a Campo Santo upon an extended scale, surpasses the calculation of those not interested therein. So far as the precincts extend, and that is to the whole southern slope of the hill, a great loss has been sustained by proprietors and old residents, who, finding the position elevated, picturesque, and healthful (as well as the most proximate and convenient), rural retirement from the City, still hold on, despite the funereal aspect of the vicinage. Bad, however, as the effect has been of the first enclosed burying-ground, worse is still menaced, if it is not already put in actual operation. The Cemetery Company has purchased fourteen acres more, adjacent to their present preserves, extending lower down the hill, and approximating to the numerous newly-erected detached mansions, and to that noble public institution the Small-pox Hospital! If this be carried out, and the whole cityward side of this really beautiful suburb be converted into a necropolis for the million, what is to become of the old inhabitants and their property? That it will be further depreciated, none can doubt. Some avoid such neighbourhoods, perhaps apprehending a vitiated atmosphere; others, on account of funereal processions and the evidences of monumental (although sometimes florid and ornate) sarcophagi. This feeling extends even to the northern side of the hill, which is only approachable by the same causeways.

Local opposition has essayed in vain to resist the fixture of a cemetery in this truly beautiful and commanding suburb—once the resort of holiday folks, and equally with Hampstead, the solace of those who, restricted to one day's relaxation, sought for rural and sylvan scenery within a six-mile scope.

To resist the threatened invasion, there is now no hope, unless the editor of the *Builder* lend the aid of his pen and the assistance of his universal columns to sustain the right, and to repel the wrong.

The discontinuance of intramural sepulture, under the new sanitary movement, is doubtless a great boon to the neighbourhoods so benefited; but the enclosure of our suburbs, and the restriction of improvement in the very best, and otherwise most favoured positions, is a suicidal oversight. In legislation, this evil has yet to be provided against, for it will be some time before Woking Cemetery can be made to accord with popular predilections, so as to come into general use. The more distant those extended cemeteries are from the metropolis, the better. This age cannot approve the Mezentian judgments which decreed that the living should be tied to the dead.

There is now a movement throughout all the Cemeteries.—Kensall Green Company has purchased eight acres, also to be inclosed. This stands certainly at a respectful distance; but Brompton Cemetery is much too near. There can be no doubt as to the imprudence and impolicy of establishing that of Abney-park, in a low and densely populated neighbourhood, and it is certainly most desirable that an authoritative check be given to companies speculating in mortuaries and sepulchral rests within the bills of mortality; if they are allowed to increase with the growth of population, an oppidan desirous of a day's refreshment on a holiday excursion, will soon have no other alternative than to be hilarious amongst the tombs.

ARCHITECT.

COMPETITIONS.

ASSIZE COURTS, TAUNTON.

WITH reference to a paragraph on this subject in our journal of the 3rd, we have received a letter from Sir Peregrine Acland, denying that any blame can attach to an architect whom he had directed to prepare a plan showing certain modifications of the county surveyor's design, and which plan led to the open competition now pending. We expressed no opinion on the complaints forwarded to us. Our remark (and we take leave to repeat it) that, "*If* architects do not behave honourably towards each other, they can scarcely expect much consideration from the public," was a general one. We shall wait the result of the competition to see the necessity for its application.

THE SHEFFIELD SCHOOL OF ART COMPETITION.

Several correspondents comment in strong terms on the deceptions practised by competitors in the preparation of their designs,—wrong scale, showy colours, and palpably incorrect estimates.

IPSWICH.

The council have been discussing the payment of a bill amounting to 148*l.* for *repairs* to Queen Elizabeth's Grammar School, built not long ago. The competition and the selection of the architect were discussed at some length in our pages, as our readers will doubtless remember. The building gave way during its erection, but was set right, and has since required what the council called "strengthening plasters!"

BRIDGNORTH.

We are informed, with reference to the designs for New Public Buildings and Markets, Bridgnorth, the directors have awarded the first premium to Mr. Barry, of Liverpool.

LYNN.

The plan of Mr. Maberly, of Lynn, has been accepted for the new workhouse. There were twenty-six competitors.

ARCHITECTURAL AND ART-LITERATURE IN GERMANY.

WHATEVER the King of Prussia may be in a political point of view, he is a patron of literature, however distracted the "fatherland" may be as to what shall be its course in the present great struggle, in order that its trampled nationality may arise and vindicate a right to a foremost place among the powers which govern the world, —Germany, true to her philosophical and æsthetic fame, never for one moment ceases to maintain it by fresh efforts in literature and science. Two great works demand our special notice at the present moment; one of which the first instalment has been given, another which is about to appear. We gather the information from the letter of the able and well-informed German correspondent of *Norton's New York Literary Gazette*.

The first part of a new work upon the history of architecture (*Geschichte der Baukunst*), by the well-known Dr. Kügler, of Berlin, has just been published in that city. The previous criticisms of that writer upon all matters pertaining to the fine arts are already well known among English readers, especially the "Handbooks of Painting," which were translated under the direction of Sir Charles Eastlake and Sir Edmund Head. Kügler's "General History of Art" is no less worthy of general circulation. The work

which we now notice has a different scope from any which have preceded it, being intended to do thoroughly and completely for architecture what had been previously done by the author in a general way for all branches of the fine arts. The first part just issued goes back accordingly to the commencement of historical knowledge, examining with all the light which the recent investigations of Lepsius, Brugsch, Layard, Botta, and others have furnished, the earliest monuments of antiquity, and presenting, in a clear, connected manner, a view of the architectural attainments of all ancient nations of whom we have any knowledge. Succeeding volumes will bring the work down to modern times, and the whole is to be amply illustrated with new engravings. As the publication of this work may be regarded of high importance both in its theoretical and practical bearings, the following extracts from the prospectus will not be devoid of interest —

"Written historical records will form one principal source of the work, but another more important source is that which is drawn from the monuments themselves. The former in most cases can only give a general knowledge upon which the monumental forms depended,—can only furnish the connecting points for fixing, chronologically, particular monuments; the latter give an exhibition of the meaning of each monument, and of its artistic results. The work will be divided according to national and historical groups, into principal and subordinate parts. Each historical group of nations will be treated as a connected whole, from the commencement to the termination of its career: the succession of the groups will be in accordance with the origin of their earliest development.

Each part commences with a general view of the characteristics of the group to which it relates. After this comes a verification by reference to particular monuments according to their importance, and according to the peculiar historical circumstances which are thereby set forth. A full citation will be given of the authorities upon which the work is based. The work is intended to be supplementary to the 'Monuments of Art' (*Denkmäler der Kunst*), and to the 'Handbook of the History of Art' (*Handbuch der Kuntsgeschichte*), by the same author; and accordingly illustrations which were given in the former of these works will not be repeated in the new volumes that are now announced under the above-mentioned title of the 'History of Architecture' (*Geschichte der Baukunst*)."

The next publication deserving of attention belongs to that class which are the result of those scientific expeditions that do so much credit to foreign governments and so little to our own, from their utter neglect of such means as originating from within, and the scanty and grudging aid they receive when proposed from without. The work announced for publication in Berlin is one of great value upon the subject of Egyptian antiquities. It will contain the studies and investigations of Dr. Henri Brugsch, a private-docent in the University of Berlin. This learned scholar, although still a young man, was sent by the King of Prussia, upon the special recommendation of Baron Von Humboldt, two years ago, to visit Egypt and explore its ancient monuments. Although the funds which were placed at the disposal of Dr. Brugsch were far less than those appropriated to the first Prussian expedition to the Nile, which achieved, under the direction of Dr. Lepsius, so high a reputation, yet the facts which it has brought to light are of the greatest importance in the study of those interesting antiquities.

The work now about to be published will bear the following title: "*Monumens de l'Egypte, décrit, commentés, et reproduits, par le Dr. Henri Brugsch, pendant le séjour qu'il a fait dans ce Pays en* 1853 *et* 1854, *par ordre de sa Majesté le Roi de Prusse.*" We cannot give a better idea of its scope than by the following translation from the announcement of the publisher:—"The monuments of Egypt, that history written upon granite, and which extends back to the farthest antiquity, have been successively described and even explored in Egypt by learned *savans*, amongst the foremost of whom, Champollion, Rosellini, and Lepsius, should be mentioned; but the works of these celebrated men are far from having satisfied the different interests of study which so vast a subject demands, or from having exhausted that soil, so fertile in the monuments of archæology, invaluable treasures for the artist, the scholar, and the historian."

Thousands of the most interesting inscriptions are undoubtedly still buried in the rubbish formed by the dust of ages: and as each year the inundations of the Nile, the blind and venal cupidity of the Arabs, who prostitute these venerable remains to serve their most common wants, and also the deplorable mania of innumerable tourists for mutilating previous inscriptions, for the puerile gratification of taking back to Europe some miserable relic from these ruins, all unite in threatening the speedy destruction of this monumental history,—science seems to impose upon scholars who are especially devoted to the study of antiquities, the difficult task of arresting from eternal oblivion and irreparable loss the inscriptions which still remain in the land of Egypt.

Although not in strict conformity to the title we have affixed to these observations, we add a paragraph from the same source upon a correlative subject which may be useful to some of our readers:—

"An excellent opportunity of procuring casts of many of the finest statues of both ancient and modern times, is now offered at the Royal Museum of Berlin. What is known as the Old Museum in Berlin, contains among its collections many valuable original antiques in marble. For the collections of the new museum, on the other hand, casts have been taken from such works of the sculptor's art as are found in other galleries. The duplicates of several hundred different casts, of which the originals are sometimes in Berlin, and sometimes in other cities, are now offered for sale. Among the most important of these are the 'Horse Subducrs' (each more than 17 feet high), attributed to Phidias and Praxitcles, of which the originals are in Rome: and the group which is so celebrated in Naples,—the 'Farnesian Bull.' Catalogues have been prepared, containing a full description of each statue, with the place where the original may be found, and the size and price of the cast.

METROPOLITAN BUILDINGS ACT.

Messrs. Pownall, Donaldson, and Hesketh, as a deputation from the district surveyors, had an interview with Sir William Molesworth, in Whitehall-place, on Saturday, the 10th inst. They explained the incorrectness of the statements contained in the letter of the Secretary of the Board of Health to Lord Palmerston, and that no neglect on the part of the district surveyors had occurred in regard to noxious trades and businesses. In respect of cellar dwellings, they are, in fact, more a matter of police inspection and regulation, like the lodging-houses, which have been remedied so beneficially, and to so great an extent, by the vigilance and prompt proceedings of the force, and for which purpose the powers of that body are so efficient.

FALL OF A HOUSE AT ISLINGTON.

On the night of Sunday last, the 11th, part of a house, No. 2, in the Lower-road, Islington (a few doors from the Green), fell to the ground, and caused the death of no fewer than seven persons, including a policeman, Francis Stoker, who courageously attempted to aid the inmates. Although recently pointed and repaired externally so as to have a decent appearance, it was a very old house, and had been much cut about and altered internally, without the knowledge of probable results. The northern flank wall adjoined an old wall belonging to the next house, and on it a considerable weight had been thrown by the formation of a cartway through the house a few years ago. It is thought that this wall, originally too slight, had been weakened by alterations, and ultimately yielded.

An inquest was held on Wednesday, the 14th, and was adjourned to the 21st to obtain the evidence of a surveyor. It appeared in evidence that the house, consisting of eleven rooms, was occupied by thirty-six persons.

There are several other houses in the neighbourhood in a very bad state, and this disastrous occurrence will probably lessen the objection, which a conscientious district-surveyor must always feel, against interfering with the property of individuals on any but the most unequivocal evidence of danger.

BALL FOR BUILDERS' BENEVOLENT INSTITUTION.

In accordance with the notices we had previously given, the ball in aid of the funds of this important and excellent charity, took place at Willis's Rooms, St. James's, on Thursday, the 8th of February, and was attended by a large number of visitors, who made good use of the exciting strains of Adams's band. We must nevertheless say, that the leading builders and others connected with the trade, did not show in the numbers the committee had a right to expect, when we consider the object they have at heart. Still it was very well attended. The arrangements were all excellent and did great credit to the Honorary Secretary and those members of the Committee who assisted him. On another occasion we hope the above hint will not be lost on those who, from their position and circumstances, are able to give a higher character to the meeting.

Electro-telegraphic Progress.—Rome, it appears, will this month be placed in telegraphic communication with the principal cities of Europe, by the completion of the line from Rome to Bologna.

THE PROVINCIAL TOWNS.

THE PUBLIC HEALTH BILL.

I observe by your Parliamentary intelligence that Sir B. Hall, Bart. M.P. has introduced a new Public Health Bill, and also an amended Nuisance Removal Act. I had hoped that before the introduction of an amended Public Health Bill, a Parliamentary inquiry would have been instituted into the operations of the Act of 1848 in those towns where it has been adopted, also into the reasons for which those towns have not adopted it where a preliminary inquiry had been made by the inspectors of the Board of Health; in fact, into the general working of that measure and the Nuisance Removal Act. * * I think a Public Health Act should be of a more comprehensive character than that of 1848. It should not only include power for sanitary works, such as sewerage, paving, water and gas supply, abattoirs, &c. but should have general powers for the improvement of towns, the regulation of buildings, and the more effectual removal of nuisances of every kind.

It is of little use to apply the remedies casually alluded to above for the sanitary improvement of towns, unless stringent measures are adopted to improve the "Homes of the Poor." Many of these in our towns are in unhealthy situations, badly constructed, in a very dilapidated state; in fact, unfit for human habitations. These are the origin of our heavy bills of mortality, the seats of sickness, squalor, and death, and the roots at which legislation and philanthropy should strike to lessen their destructive and demoralising effect.

The state of the "Homes of the Poor" in London must be as familiar to the masses as household words, since the publication of those able papers, forming the "London Shadows." The startling facts and stern realities of human misery, drawn by so vigorous a hand, true to the life, and brought home to the heart, where a spark of feeling exists, must, I am sure, have had their due weight and import with our legislators and the high and noble of the land, and the residents of the largest and most opulent city in the world, by some called modern Babylon; but I must inform you, if you extend your researches, your useful sanitary mission, and your graphic pen, to the provinces, you will find in many localities shadows as murky and dark as those you have so faithfully and eloquently portrayed; habitations as wretched, human beings as squalid and miserable, sickness as proverbial, and deaths as premature and horrible as in your overgrown city; and the rising generation of Britons are gradually degenerating from the fine, manly frame, and stalwart proportions of our forefathers, from causes within the reach of human aid, human forethought, and high-born philanthropy. The working classes, although the bone and sinew of the country, are, unhappily, not sufficiently considered; and woe to Great Britain if she neglects her sons of toil: as the poet most feelingly and beautifully expresses it,—

> "Ill fares the land, to hastening ills a prey,
> When wealth accumulates, and men decay.
> Princes and lords may flourish or may fade,
> A breath can make them, as a breath has made;
> But a bold peasantry their country's pride,
> When once destroyed, can never be supplied."

One of the first measures in the sanitary improvement of towns is to see that your streets are laid out as spacious as possible, which has heretofore been so grievously neglected; that there are no *cul de sacs*, or where they exist I would throw them open, and compensate the owners out of the rates. This I should call municipal or parochial economy. I would also see that the homes of the poor are made healthy, that they are properly and substantially built, properly drained and supplied with water, and in open, airy situations. Cellar dwellings should be totally and irrevocably abolished. As to the improvement and widening of streets, &c. I think general powers are necessary, so that when houses are taken down for re-erection, they should be set back to improve the line of street, or removed entirely to improve any line of thoroughfare, by compensating the owners, as private interests ought in every instance to give way for the public benefit.

The arrangement, amount of compensation, &c. might be settled by a commission,—the Board of Health, for instance,—as in the case

of the Highland roads, Holyhead road commissions, &c. As to nuisances, I would take powers to remove with a vigorous hand all manufactories, of whatever character, that affected the public health. I think it will be admitted that no man has a right to plant his works in a town, for his private benefit, and poison the inhabitants, even if he be prepared to compensate them pecuniarily for the losses and misery he occasions. I would also remove slaughter-houses, piggeries, manure heaps, &c.; in fact, any matters or thing that would have an injurious tendency or effect on public health. B. B.

Notices of Books.

Views of the Crystal Palace and Park, from Drawings by eminent Artists: with literary Notices by M. D. WYATT. London: Day and Son.

WE have here twenty-four views, including a title-page, lithographed in tints, from drawings and photographs, and accompanied by brief descriptions from the graceful pen of Mr. Digby Wyatt. Two of the views, namely those of the Pompeian Court and the Italian Court, attempt to convey some idea of the polychromatic decorations employed: the remainder are in simple tints, and, without pretence to great excellence, serve as pleasant *souvenirs* for those who have visited Sydenham, and incitements for those who have not.

"The great end and aim of the Crystal Palace," says Mr. Wyatt, "are to cultivate the imaginative faculty in the workman himself,—to cause its value to be appreciated by the class of employers,—and to make a recognition of it indispensable on the part of purchasers, and of all who by their position and influence may be able to direct the current of popular feeling." By its means we may thus hope that a clearer recognition of beauty will gradually extend throughout the country, and elevate our manufactures to at least an equality, in point of design, with those of any other nation. We have laboured strenuously to make the real purpose of the Sydenham Palace apparent. Its value is not at present recognised by the general public, but it will gradually be felt, and will lead to important results.

VARIORUM.

Messrs. A. and C. Black, of Edinburgh, have published, as a separate treatise, the article by Mr. F. Dent, chronometer-maker to the Queen, in the "Encyclopædia Britannica," on clock and watch work. There is an appendix on the Dipleidoscope. The great clock for the Houses of Parliament, as Mr. Dent states in this treatise, had been going in his factory for some time when he was writing. It was, by the contract, to have been fixed by February last, but the tower was not ready for it. The dials are to be 22 feet in diameter, and will be the largest in the world with the minute hand. Every half minute the point of the minute-hand will move nearly seven inches. The clock will go eight and a half days, and strike only for seven and a half, so as to indicate by its silence any neglect in winding it up. The mere winding of each of the striking parts will probably take two hours. The pendulum is 15 feet long. The wheels are of cast-iron. The hour bell is 8 feet high, and above 9 feet in diameter, weighing 14 to 15 tons. The weight of the hammer is 4 cwt. The largest of the mere quarter bells is about the size of the great bell of St. Paul's, which weighs 5½ tons. The clock as a whole is said to be at least eight times as large as a full-sized cathedral clock. The main works will be on the top of the great frame, which is a trussed girder frame 19 inches deep (like the girders of the Crystal Palace), resting on two walls 11 feet apart, which come right up from the bottom of the tower.——An interesting sketch of "Cornwall; its Mines, Miners, and Scenery," in two parts, of Longmans' "Travellers' Library," by the author of "Our Coal-fields and our Coal-pits," has been recently issued; as also a part on "Voyages and Discoveries in the Arctic Regions," edited by Mr. F. Mayne.——"The Post Magazine Almanac and Insurance Directory," for 1855, published by Pateman, of Wine-office-court, Fleet-street, is useful to all interested in life and fire insurance,—and who are not? Assurance associations are vastly on the increase, and yet there is doubtless room for all, and for more, perhaps, than those even yet projected. During the last year no less than seventy-one of such associations have been set agoing. The almanac under notice contains a list of these, beginning with "The Alma," and ending with "The World." It also, of course, contains a list of those already established.——Part VI. of the "Micrographic Dictionary" has recently been published by Van Voorst, of Paternoster-row. As we have said before, this is a valuable publication, well illustrated with plates and woodcuts of curious microscopic objects.——Messrs. Longman have published a small volume on arithmetic, by Mr. A. J. Ellis, B.A. the purpose of which we must allow the title itself to describe. It is titled "Self-proving Examples in the four first Rules of Arithmetic, simple and compound, especially adapted for self-practice as well as school or family use, allowing the teacher to set innumerable examples simultaneously, and to verify the results at sight, without permitting the pupils to foresee, and, therefore, 'force the answer;' to which are added examples in contracted division, square and cube root as self-practice for advanced computors, with an explanation of Guy's and Horner's rules."——As results of the endeavour to obtain cheap reading for the multitude, no unimportant matter, Messrs. Routledge have sent us "The Curse of Gold," and "The Family Feud," both very readable tales, the commencement of a series of original novels; while from Houlston and Stoneman, we have Fanny Fern's "Ruth Hall," which, although wanting in refinement, and said to be unjust, is interesting as picturing the experiences of one struggling to maintain herself by her genius and her pen. It may not be known to all our readers, that the lady who has obtained herself a reputation under the name of Fanny Fern, is the sister of Mr. N. P. Willis.——"Mother and Son," the first of a series of tales, with a purpose, intended for children (J. H. Parker), is very well intended, but is so unpleasant that we should scarcely like to give it to a child.——Routledge's cheap issues of Sir E. Bulwer Lytton's novels and tales, is a boon to the reading multitude.——And we may note here, by the way, that the current "Blackwood" contains a very eloquent eulogy of Bulwer,—the first novelist of our time.——The handsome little volume titled "The Pocket Peerage of Great Britain and Ireland," by Mr. H. R. Forster, of the *Morning Post*, has just been issued by Bogue, of Fleet-street. This is its fifth anniversary. The whole work is virtually revised by the nobility themselves, and one painfully interesting portion of the present year's volume, and peculiar to this year's volume alone it is to be hoped, is the list of the many deaths of those gallant scions of our aristocracy who have fallen in a glorious cause in the Crimea and elsewhere in the East: this list is brought down to the latest possible date. The book contains, of course, a list of titles of courtesy, as well as of the ecclesiastical dignitaries, the Privy Council, the Baronetage of the United Kingdom, &c.——Mr. Tate, of Kneller Training College, is still engaged in his public labours as a teacher of the young: he has just had issued, by Messrs. Longman and Co. "An Elementary Course of Natural and Experimental Philosophy," in two volumes, with numerous illustrations. The selection of these, and of experimental detail's connected with them, appears to be, in many instances at least, particularly well calculated to attract the interest of those "beginners," for whose use the work is intended.——"Timbs's Year-Book of Facts" (Bogue, publisher), is now itself a well-established fact. It always forms one of the most interesting of the many volumes which pass through our hands in the course of the year, and hence we ever look forward with interest to its perennial recurrence, as a sort of focal or bird's-eye view of the progress made throughout the twelvemonth in all the various arts and sciences.

Miscellanea.

METROPOLITAN SEWERS COMMISSION.—On 6th inst. a special court was held to consider various motions, of which notice had been given. Deputy Harrison and Mr. Taylor were present as representatives of the City. Sir John Shelly moved, "That the whole question of the main drainage north of the Thames be not taken into consideration until the various plans recently proposed, or which may be, before the first Tuesday in April next, laid before the commission, for such drainage, be brought before the court, and due time for consideration on such plans be given." While speaking on the resolution, Sir John remarked that as a portion of the works of northern drainage—the Hackney-brook sewer—had been contracted for and executed, so far as that part was concerned it appeared that the court would be bound to follow out the plan of the preceding commission, or to sacrifice a portion of the works that had been executed; but certainly the impression left on his mind was not one of confidence in the late commission; and when he was appointed he was not prepared to pledge himself to anything that had been done by the former commission, and therefore it was that he had introduced this motion. Mr. Thwaites seconded the resolution, which was also supported by Mr. Offer, Mr. Ward, &c.; and opposed by Mr. Johnson, Deputy Harrison, and Mr. Taylor. Upon a division it was carried by eight to four. Propositions of Sir John Shelley were then agreed on, to the effect, that without the power of taking land beyond the limits of the commission, works essential to the main drainage of London cannot be completed by the commission eastwards.

TOWN SEWAGE.—At a recent meeting of the Central Farmers' Club, Mr. Mechi read a paper on the extent to which town sewage can be profitably applied to the purposes of agriculture. Considerable discussion was elicited, in which Mr. Edwin Chadwick and other gentlemen bore a part. In the end a resolution was agreed to,—"That the application of sewage manure might be rendered of great advantage to agriculture if it could be supplied at a cost sufficiently moderate to warrant its use." The adoption of this resolution, reports the *Morning Herald*, was followed by much laughter.

RAILWAY RETURNS.—The number of persons employed on railways open in England and Wales at the end of June, 1853, was 66,267; and in 1854, 74,562. The length of line open in 1853 was 5,747 miles; and in 1854, 5,965 miles. The number of persons employed upon the Scottish railways at the end of June, 1853, was 8,979, and the length of line open 977 miles; and in June, 1854, the number employed was 10,002, and the length of line open 994 miles. Upon the Irish railways the number of persons employed at the end of June, 1853, was 5,163, and the length of line open 786 miles; and in 1854 the number of persons employed was 5,845, and the mileage 843 miles. On railways not open, the persons employed for those of England and Wales at the end of June, 1853, numbered 24,883; and in June, 1854, 28,170: the total length of line authorised, but not open, was 2,969 miles in June, 1853; and in 1854, 3,235 miles. In Scotland there were 3,114 persons employed in June, 1853, and 5,685 in June, 1854: the total length of line authorised, but not open at end of June, 1853, was 662 miles, and 731 in 1854. In Ireland there were 9,767 persons employed in June, 1853, and 11,546 in June, 1854: the length of line authorised, but not open, at end of June, 1853, was 741 miles, and in June, 1854, 912 miles.

MOTIVE POWER BY ELECTRICITY.—Mr. G. E. Dering, of Lockley, Herts, has taken out a patent for obtaining motive power from electricity. The arrangement consists of a flat surface, composed of a series of electro magnets, on which is made to rock or roll, by their galvanic action, a cylinder which either itself constitutes a keeper or armature for all the magnets, or carries, or has suspended to it, a number of armatures corresponding with the electro-magnets. The object of this arrangement is, that by a succession of small pulls one long stroke may be obtained, and thus the full power of every magnet secured without the loss hitherto sustained in most arrangements for producing electro-motive power.

MACHINE FOR QUARRYING SLATE.—Mr. H. J. Brenner, of Nazareth, Pennsylvania (U.S.), has introduced a machine to supersede the process of cutting grooves in slate rock to a certain depth by the common pick, and then taking off the several layers of stratification to form roofing rectangular slates. The machine is worked by hand, and is so constructed that the cutters having worked a channel forward, it turns at right angles, and cuts a transverse groove: this operation being continued, cuts out the four perforations with great rapidity, and perfectly true. It is stated that one man can cut as much slate in a day by this means, as twelve men by the old pick system.

STATUES AT FLORENCE.—A number of gentlemen some years since formed the project of placing statues of the most celebrated men of Florence and Tuscany in the niches of the double portico of the Palace Uffizi, in accordance with the original plan of Giorgio Visari, approved of by the Grand Duke Cosmo de Medici. That project has now been carried into execution. After being vacant for about two centuries, all the niches, with the exception of two, have been provided with statues, and these two will soon be filled. Amongst the statues are those of Dante, Petrarch, Boccacio, Machiavelli, Guicciardini, Galileo, Leonardo da Vinci, Michaelangelo Buonarotti, Benvenuto Cellini, Amerigo Vespucci the navigator, Cosmo and Laurent de Medici, and Ferruccio the last general of the republic. The statues have been executed by the most eminent sculptors of Tuscany.

LIMITED LIABILITY IN PARTNERSHIP.—A meeting of the Amendment of the Law Society was held on Monday evening before last at their rooms, 21, Regent-street; Lord Brougham in the chair. Mr. D. Power opened the proceedings by discussing at some length the question of limited liability in partnership. He concluded by moving a series of resolutions for carrying out that object, as recommended by the committee. Mr. Hill seconded the resolutions. He considered that such an alteration as would admit of the formation of partnerships upon the *commandite* principle would be a great improvement. Mr. Elliot objected to any alteration in the existing law on the subject of liability, as endangering the security of mercantile operations, and increasing to a very great extent the amount of fraud in commercial affairs. The Chairman, Mr. Commissioner Fane, Mr. Field, Mr. Serjeant Manning, Mr Webster, and other gentlemen took part in the discussion, which was adjourned until next meeting. In reference to this important subject we may add that, in reply to a question put in the House of Commons last week by Mr. Collier, Mr. Cardwell stated, on the part of the Board of Trade, that it was his intention to bring in a Bill on the law of partnership, on the principle of limited liability, but that he could not say to a certainty when.

MODEL LODGING-HOUSES AT CAMBRIDGE:—"VICAR'S BUILDINGS."—A ricketty and filthy mass of building, called Sharpe's Rookery, at the Falcon-yard, leading from Petty-cury, under three archways, into the Black-ditch, in the parish of St. Andrew the Great, has been razed by the Rev. John Cooper, the vicar of the parish, who has made a public carriage-way in lieu of a narrow, low, covered passage, and erected a model lodging-house for sixteen families, under the title of "Vicar's-buildings," from designs by Mr. R. R. Rowe, architect. Messrs. Gray and Sons were the builders. The exterior is brick, but moulded in various forms of divers colours: no particular style of architecture has been adopted: it is a brick construction, the chief feature being a combination of semicircular arches and vertical lines, which the *Cambridge Chronicle* compares to the old houses in Bruges. Two open arches lead into the entrance-halls, whence two stone staircases rise to the upper floors: one staircase leads to four suites of apartments, the other to twelve. Each door upon the landings is the front door of a distinct dwelling, consisting of a sitting-room, two bed-rooms, scullery, water-closet, sink, coal-place, cupboard, and a dust-shoot.

MASONS' PROVIDENT INSTITUTION.—The ninth annual meeting was held at Hawkstone Hall, on Thursday, February 1, for the purpose of receiving the report of the managing committee and auditors; and for the election of a widow pensioner upon the funds; and other business connected with the institution. Mr. C. H. Smith took the chair, and a satisfactory statement was made.

RED BRICKS OF QUEEN ANNE'S REIGN.—In reply to the inquiry of "Unburnt Stock," in your journal of the 20th ult. as to where the red-brick rubbers of the buildings in London in the time of Queen Anne and George I. came from, I beg to say that I expect some of them came from Nonesuch, near Ewell, Surrey, and from Hedgerly, near Windsor. At these places (previously, at least, to the introduction of the Welsh and Stourbridge fire-bricks) there used to be made kiln-burnt red bricks called Windsor fire-bricks and Nonesuch fire-bricks, of a uniform quality, easily ground or rubbed to any required shape; and although the same brick, which might well stand the fire as these did, might not so well bear exposure to the weather as good red rubbers evidently did, yet the similarity of appearance between the two was so great, that I incline to think the same clay produced and was used in both. A reply to the second question, "of what kind of clay they were made, I am not able to answer, except that I expect it was a marly loam with sand, and *not* containing any chalk or carbonate of lime.—RED RUBBER.

THE LIVERPOOL, HULL, AND STOCKTON TIMBER TRADES.—Mr. Chaloner, of Liverpool, in his usual annual circular, issued at the end of January of each year, says that though a more general and more vigorous prosecution of the war would likely tend temporarily to advance prices in the natural course of business, timber can hardly be expected to recover the high value at which it lately ruled. Within a few days past, he adds, the subject of a new duty on wood has been spoken of; which measure would, if carried out, certainly affect the prices of wood goods. The following table, given in this circular, contrasts the tonnage employed in the trade this year with the previous one:—

	From 1854 to 1855.		From 1853 to 1854.	
	Vessels.	Tons.	Vessels.	Tons.
Quebec	163	131,300	156	125,874
St. John, &c.	258	181,676	342	211,760
Baltic	71	20,103	129	40,545
	492	333,079	629	378,179

A report is prevalent in Hull also that an increase of timber duties is contemplated. Acting upon this idea, whether well-founded or not, a pretty considerable liberation of timber from bond it appears is just now taking place in Hull. This town is largely interested in the matter, and the activity just now prevalent is taken to be indicative that, somehow or other, an inkling of the intentions of the Government has been obtained. In 1854, 142 timber ships, of nearly 24,000 tons register, brought upwards of 30,000 loads of timber into the port of Stockton-upon-Tees.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.—The wise and profound advice emblazoned on the gates of ancient heathen temples, "Know yourself,"—make yourself acquainted with the true temple, of which those built with hands are but the types or similitudes,—is being practically followed out by this very useful and active association, at least in all that regards the sanitary welfare of the human body. The nature of the proceedings of the association may be gathered from the following few particulars as to what has been done within the last week or two. The lectures given are adapted to the audiences attracted by them. On Thursday evening week Mr. J. S. Fletcher, M.R.C.S. gave a lecture in St. Jude's school-room, Canal-street, Ancoats, on "Long life and how to attain it." The room was quite filled, the attendance at this, as well as at two preceding lectures of the present course, having very considerably exceeded the general attendance of last season. The lecture was frequently interrupted by applause from the audience. In the Deansgate district a lecture was delivered in St. Ann's school, Queen-street, on the Friday evening, by Mr. W. Smith, M.R.C.S. on "What is health? and how to keep it." The Rev. lecturer pointed out, in unmistakeable language, how health may be preserved,—viz. by a proper attention to the character and use of food, clothing, exercise, and cleanliness. The lecturer was listened to with the most marked attention, and at the close the audience evinced their gratification in the warmest manner. In the Ardwick and London-road district, on the following Tuesday night, a lecture was delivered in St. Thomas's church school, to a numerous and respectable audience of both sexes, by Mr. T. Turner, F.R.C.S., "On the instinct of the love of life." The lecturer was very frequently applauded, and was listened to with marked attention. On the Thursday night following a lecture, under the auspices of the same association, was delivered by Mr. H. Browne, M.D. in the room of the Young Men's Christian Association, John Dalton-street, "On preventible diseases." The attendance on the occasion was large, the room being very nearly filled by a most attentive audience.

YOU ARE A BRICK.—A certain college Professor in America had assembled his class at the commencement of the term, and was reading over the list of names to see that all were present. It chanced that one of the number was unknown to the Professor, having just entered the class. "What is your name, sir?" asked the Professor, looking through his spectacles. "You are a Brick," was the startling reply. "Sir," said the Professor, half starting out of his chair at the supposed impertinence, but not quite sure that he had understood him correctly, "Sir, I did not exactly understand your answer." "You are a Brick," was again the composed reply. "This is intolerable!" said the Professor, his face reddening. "Beware, young man, how you attempt to insult me." "Insult you!" said the student, in turn astonished: "how have I done it?" "Did you not say I was a brick?" returned the Professor, with stifled indignation. "No, sir: you asked my name, and I answered your question. My name is U. R. A. Brick—Uriah Reynolds Anderson Brick." "Ah, indeed!" murmured the Professor, sinking back into his seat in confusion. "It was a misconception on my part. Will you commence the lesson, Mr.—ahem!—Mr. Brick?" Mr U. R. A. Brick is surely brother to the celebrated I. M. A. Brick.

SOFTLY! WALK SOFTLY!—Among the new inventions of the day are air soles for shoes and boots, which are said to render walking on rough roads as easy as if on moss. They are doubtless made on the air-cushion principle, by help of india-rubber, and as the substance of the sole itself may consist of vulcanized rubber, they may even be made at least as lasting, or as capable of withstanding the tear and wear of rough roads, as the india-rubber golloshes are. The utility of such a happy little invention in the sick chamber is still more obvious. As no good is unmixed with evil, however, just as no evil is unmixed with good, it is to be feared it will add the stealthy noiselessness of the cat to the cunning dodges of the burglar and the thief. The use of "air soles," one would expect, will give a fine elastic spring to the gait, which, in walking, will remind the old, rather pleasantly one would think, of the jaunty *airs* of their youth. To walk upon air is indeed a new thing under the sun.

INVALID'S BED, &c.—A philanthropic gentleman, Mr. H. Lawson, of Bath, has invented and presented to the hospitals there and elsewhere a very ingenious and useful iron framework, with lifting apparatus and other conveniences, suitable to the easy attendance on patients with paralysis or fractured limbs. Another of his inventions connected with this is a surgical "transferrer," whereby the most severely wounded person, or other pained or endangered patient can be transferred from one bed to another, or one place to another, with the least possible risk of injury or increase of pain. The girths are separately drawn through beneath the patient by hooking with a flat needle, and the whole are threaded on poles and fixed without moving the patient in the least, till he is actually laid, as it were, comfortably, on the "transferrer," which is removable from below him in a similar way. Mr. Lawson is desirous of giving publicity to these inventions for the sake of suffering humanity alone, as he has presented them to the public, and supplied them to various hospitals.

MIASMA.—A writer in the *Scientific American* of the 13th of last month states that when the hair used in mixing mortar is not properly cleansed of the animal matter that adheres to it, a fetid miasma is generated, and a house built with such mortar is consequently unhealthy. I have experienced that a room freshly papered, and for some time after, had a most disagreeable and sickly smell, from the size or animal matter used in paperhanging. I have also observed that old worsted carpets emit a mouldy effluvium, as also the decaying boards under them,—thus producing a mixed miasma of decaying animal and vegetable matter. The rooms *below* the level of the earth, where servants sleep, are damp and mouldy; consequently, the servants first catch colds and fevers, and, from them, their masters and all the household. It is very desirable to construct houses so that the servants' apartments are not *under* the level of the earth.—J. N.

TENDERS

Tenders for finishing the Wesleyan Schools, New North-road, Hoxton. Messrs. Bridger and Collins, architects:—

Hocken	1,165
Reider	1,140
Crossby	1,090
Scarborough	1,050
Case	1,045

Tenders for St. Stephen's Parsonage-House, Westbourne-park, Paddington. Messrs. E. and H. Francis, architects:—

	Estimate with Malm Facing.			With Kentish rag and Bath-stone quoins.		
	£.	s.	d.	£.	s.	d.
Messrs. J. & C. Thanson	1,600	0	0	1,640	0	0
„ W. Higgs	1,567	0	0	1,600	0	0
„ G. Myers.....	1,565	0	0	1,595	0	0
„ Hopkins & Roberts ...	1,550	0	0	1,600	0	0
„ Rowland & Evans	1,550	0	0	1,590	0	0
„ R. W. Cooper	1,459	0	0	1,520	0	0

TO CORRESPONDENTS.

"*Pro Rata.*"—"Eccleston-square" (in the case of smoky chimneys, each instance requires to be judged of separately—general advice would be useless. A supply of air at the bottom often remedies a down-draught)—"H. W." (when a builder is individually *invited* to tender, without reservation, it is always understood, that if lowest his tender will be accepted. As to power of recovery we are not in position to advise)—"T. L."—"R. A."—"G. and T."—"P. N."—"T. R."—"R. S. M."—"T. M." (we cannot interfere in private disputes)—"J. A. P."—"F. W."—"Constant Subscriber" (we do not supply prices)—"A Subscriber from the first."—"A. R."—"J. L."—"J. L. P."—"J. G."—"J. G. K." (we shall be glad to hear)—"N. O." (take up a pocket compass)—"W. G."—"J. H."—"J. C."—"A. S."—"W. J. F."—"E. J. L."—"Constant Reader" (apply to a proper person, who will arrange the ventilation to suit the particular circumstances)—"J. H."—"Mr. C." (take up the floor, and introduce sound-boarding and pugging.—"Marlborough-house student" (shall appear).—"A. P. H."

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

BRINDLEY'S STEAM SLATE-WORKS, Bermondsey-wall, Deckhead.—WANTED, at the above works, a PERSON proficient in MARBLING on SLATE; one who can also ornament and inlay would be preferred. Apply on WEDNESDAY, 21st inst. between ELEVEN and ONE o'clock. The advertiser would be glad to see specimens, which the candidates will please bring with them, together with any testimonials they may have.

CLERK of WORKS.—WANTED, by the Burial Board for the Borough of Wigan, a thoroughly experienced and practical Man, to superintend the erection of the several buildings, boundary walls, drainings, excavations, roadmaking, &c., for the Way in Cemetery. Full particulars, with testimonials, stating salary and where last engaged, to be sent to the undersigned, on or before WEDNESDAY, the 21st day of FEBRUARY instant.
JOHN S. MARSHALL, Clerk to the said Burial Board.
Wigan, February 13th, 1855.

ORDNANCE WORKS.—To DRAUGHTSMEN REQUIRED, an experienced ARCHITECTURAL DRAUGHTSMAN, for three months; salary, 5s. per week.—Apply to Captain COLLINS, R.E., Royal Arsenal, Woolwich. Royal Engineer Office, Woolwich, Feb. 2, 1855.

TO PARENTS AND GUARDIANS.

WANTED, by a celebrated Historical Engraver, an industrious, per-evening youth, as OUT-DOOR PUPIL, who has a decided taste for drawing, and is desirous of accomplishing the art of engraving, will find this an excellent opportunity. Apply to F. B. 52, St. John's-wood-road. The usual premium required.

TO ARCHITECTURAL ASSISTANTS.

WANTED, for a short time, and immediately, ASSISTANCE. None need apply who is not thoroughly able to make and tint perspective drawings.—Apply, stating terms, &c. to Mr S. HEMMING, Architect, Birmingham.

WANTED, in a Builder's Office, a Person thoroughly competent to the general routine. He must have considerable experience in measuring, estimating, and superintending works, with some knowledge of drawing. Address, by letter only, to A. Z. stating age, last employment, and salary required, at Messrs. Farmiloe's, 12, Rochester-row, Westminster.

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WANTED, by an Architect and Surveyor, of good practice in the City, a well-educated Youth as PUPIL, who has a taste for drawing, and is desirous of entering the profession.—Address by letter, post paid, to M. A. W. at Mr. Greenaway's, Hatter, 38, Bishopsgate-street, City.

TO SURVEYORS AND DRAUGHTSMEN.

WANTED, one who has a good knowledge of surveying and levelling, and is a neat hand at planning. None need apply but those who can furnish good references, which are required to be inclosed with communications addressed to A. M. Post-office, Leeds, stating age, salary, qualifications, &c. Parties who are thought eligible, will be communicated with.

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WANTED, an ENGAGEMENT as SUPERINTENDENT or MANAGER by a gentleman, who is thoroughly conversant with the management of gas or water works, is a practical engineer, and has had considerable experience in the construction of both gas and water works. Aged 34. No objection to go abroad. Address, J. C. J. Water Works' Office, Norwich.

WANTED, an ENGAGEMENT, as CLERK in a BUILDER'S OFFICE, by a Young Man, who is thoroughly acquainted with the trade; is a good draughtsman and quick at accounts.—Direct, A. B 10, Manchester Cottages, Isle of Dogs.

TO BUILDERS.

WANTED, by an experienced BUILDERS' CLERK, a RE-ENGAGEMENT. Is competent to fill the situation in all its branches, having a thorough knowledge of the trade, and being a good accountant and book-keeper. Salary moderate. Address, ZETA, Office of "The Builder."

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WANTED, a SITUATION as FOREMAN, by an experienced Man, having filled similar situations for the last fifteen years. Can have good references as to ability, &c. Direct, prepaid, to X. Y. Z. No. 4, Shaddy-place, Bell-alley, London-wall, City.

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WANTED, as FOREMAN, a STONEWARE POTTER, who has been accustomed to the manufacture of tiles and drain pipes and to kiln-work. Apply personally, between Five and Seven in the Evening, or by letter, to Mr. JOHN HUNTSMAN, 378, Oxford street, London.

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Royal	0	4	0	0	3	9
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A PERSON in the locality of Islington wishes to arrange with a Builder for occasionally taking out Quantities, preparing Estimates, measuring up Work, &c. on commission or otherwise. Strict privacy as to prime costs, &c. may be relied upon.—Address, A. B. Mr. Chapell's, 19, Trinidad-place, Liverpool-road, Islington.

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OCCASIONAL ASSISTANCE.—A qualified ASSISTANT, of eleven years' experience, is desirous of affording temporary assistance to the Profession, at their offices or his own residence. Address, A. B. Kettle's Newspaper Office, Little Queen-street, Holborn.

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EMPLOYMENT WANTED, by a steady, active person (aged 50), either as Foreman, Clerk of Works, or in any position where confidence and experience are required.—Apply, 59, Stanhope-street, Hampstead-road.

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TIMEKEEPER, CLERK of WORKS, &c.—WANTED, by a Young Man who has been articled to an architect, and since been engaged as Timekeeper, Clerk of Works, and Draughtsman to a builder, a SITUATION in either of the above capacities, or in an Architect's office. Satisfactory references can be given.—Address, F. G. H. care of Mr. Hall, Auctioneer, 36, Chester-street, Kennington.

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GEORGE JAQUES, Secretary.
Stepney, 6th February, 1855.

A PLUMBING, PAINTING, and GLAZING BUSINESS to BE DISPOSED OF, in a densely-populated seaport town, well adapted for a young man wishing to commence business, and possessing limited capital. Full particulars can be had by applying to W. PATTEN, Lead Merchant, Old Fish-street, London.

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HUBBUCK'S PATENT WHITE ZINC PAINT,
The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours in towns. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap prices as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily in use, or to produce it, an imperfect production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the result entailed by the purchaser of such articles becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and Co.; when ground and dry, by Messrs. T. B. MORLEY and Co. sole Consignees and Grinding Agents, in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 63, King William-street City. FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham court, New road. In Manchester and Liverpool by Messrs. LAWFORD and Co. of 49, Norfolk-street, Liverpool, who are also acknowledged Painters to the Company for Zinc Paints, and undertake painting shire, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isle of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agent in London, Mr. SCHMOLL, 13, Manchester-buildings, Westminster.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of this valuable Cement, that they have, by means of a recent discovery (patented by Mr. ASPDIN), much improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour.

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.

A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster; at their Works, Gateshead-on-Tyne; at their Wharfs, Rotherhithe-street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality, a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of fresh and salt water, and is more durable than any other Cement; does not vegetate, burn green, or crack combined with white, possessing hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the purchasers in—Manufactured by R. GRAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the Quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works situate on the Bristol and Exeter Railway, five miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD, THOMPSON, and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT. Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for *their* Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PARIAN CEMENT, for Internal Use, to be painted in a few hours and papered within a couple of days. CHARLES FRANCIS and SONS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER for internal uses These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O. and T. can deliver by their own boats, or by rail to any part of the kingdom

Office, Warwick

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in colour and quality.

Office, Warwick

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made Manufacturers also, and Dealers in Plaster, Parian White Mastic, Hair Lias Lime, Laths, Slates and Slate Slabs Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not materially vary in its constituents. An account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street Westminster, who prepare one quality only of Portland Cement

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale or retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied for shipment, on advantageous terms.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle leaving it nearly pure core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS, of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf Paddington.

MAW'S ENCAUSTIC TILE PAVEMENTS—A highly durable and decorative substitute for ordinary flooring and their perishable oil cloth, coverings; for entrance halls, passages, verandahs, conservatories, &c.

MAW and CO send, free of expense, their pattern and price book, with designs, to any given spaces (and estimates), free of expense.

BENTHALL WORKS, BROSELEY, SALOP.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REMARKS ON THE TILES," page 381, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brick fields, which are only a quarter of an hour's walk from the Rly. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

BRICKS for OVEN-BUILDING, acknowledged the best for that purpose, delivered, 22s. to Londonbridge or Newington; beyond that distance, moderate charge carriage. Bricks of all description; yellow and light pickings, equal to seconds. Red facings, at 30s. in Bell; red and glazed pipes, about half the price of stoneware; white sand, nearly silver, in field or by barge; founders' sand and loam; good coloured gravel.—Address, S. PARKS, Lewisham Brickfields.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newington crescent, Newington-butts, will from MONDAY, the 11th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

BRICK-MAKING EXTRAORDINARY!! BY OATES AND INGRAM'S PATENT MACHINE.

TO CAPITALISTS AND BRICKMAKERS.

Messrs. OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen by order only, in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

The great advantages possessed by this machine over all others are, no tempering is required.

The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be hacked up in ranks before leaving the machine, which is entirely self acting, consequently requires only the labour of feeding and carrying off.

Applications either to view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, T. WELLS INGRAM, Engineer, Birmingham; or to J. F. OATES, Inventor and Patentee, Lichfield.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

WANTED, from 250,000 to 300,000 good STOCK BRICKS. Letters, stating price for cash on delivery, on the Surrey side, between Blackfriars and London bridges, address to A. B. Post-office New Park-street Southwark.

BRICKS and DRAIN-PIPES for SALE.—1,000,000 Stocks and Red Bricks, and between 300,000 and 500,000 Drain-pipes, from 3½ inch to 6 inches diameter to be sold together or separately.—Apply to the Foreman, OLD HALL, at the Brick-yard, near the Colney-hatch Station; or at the Office of R. T. CARLISLE and CO. Contractors, Dermondsey New-road, London.

BRICKFIELD.—TO BE LET, for a term of years, at a royalty rent, a BRICKFIELD, near Milton, near Sittingbourne, Kent, containing a large quantity of the finest brick earth, with suitable dwelling house, sheds, and stable. Also, with the same, a Baker's Shop and Dwelling house, and Five excellent Cottages, bounded nicely adjoining the field. There is an abundant supply of water.—For particulars apply to Mr. T. CLARK, Solicitor, 3, Dean's-court, St. Paul's Churchyard, London.

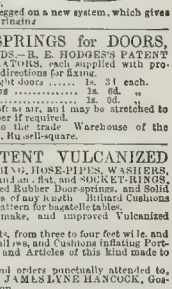
TO BRICKMAKERS, CONTRACTORS, BUILDERS, AND OTHERS

TO BE LET, a BRICKFIELD in full working order, with the entire Plant and Machinery necessary for working five Stools, in the centre of a neighbourhood where immense building operations are in progress, and adjoining one of the contemplated metropolitan railways which have passed the standing orders of Parliament, a short distance from the Regent's-park, the station of the North Western Railway, and the principal public wharfs of the Regent's-canal. Dirt for two millions of bricks is already turned, and sales for three births. This presents an admirable opportunity for any one desirous of entering into this lucrative business, as he would not be required to purchase the plant. A good practical FOREMAN is open to Engagement, fully competent to conduct the same.—Particulars with Mr. NUTTER, Auctioneer, 1, York-place, Kentish-town.—Five horses, and 2 one thousand brick-carts for sale

TO CAPITALISTS, BUILDERS, and BRICKMAKERS.—TO BE LET, a valuable BRICKFIELD, containing fine brick earth. The steam-engine and machinery for making bricks to be taken at a valuation, and the ground at a rent and royalty. It is situate about five miles from London-bridge, and near to extensive estates, on which buildings are being rapidly erected. For further particulars apply to Messrs. WIRE and CHILD, Solicitors, 9, St. Swithin's-lane, City.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Lime and paving bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.



J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has hereto fore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals

TUNED BY MACHINERY

Stocked and wheeled ready for hanging. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, arranged on a new system, which gives a superior tone and facility for ringing

INDIA-RUBBER SPRINGS for DOORS, and for WINDOW BLINDS.—R. E. HODGE'S PATENT INDIA-RUBBER ACCUMULATORS, each supplied with proper metal fittings, and printed directions for fixing.

Size A for hall doors and large doors ..... 31 each.
" B for strong house doors ..... 1s. 6d. "
For window blinds ..... 1s. 0d. "

They are ready fixed, out of sight, and may be stretched to six times the length of the rubber if required.

N.B. A liberal allowance to the trade Warehouse of the Patentee, 44, Southampton-row, Russell-square.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.

Diving dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-street, Gosswell-road, London

TO BUILDERS AND HOUSE DECORATORS.

THE LARGEST STOCK of Upholsterers' Cloths, Baizes, and Druggets, in every width, colour, and quality, is kept at HILL and SONS, 82 and 83, St. Martin's lane, Charing cross Patterns forwarded upon application

FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country. Used and approved at the Offices of the General Board of Health Exclusively adopted by the Crystal Palace Company. Easily cleaned without trouble or expense. To be seen in operation daily, at J. EVANS and SON'S, Ironmongers, 93, King William-street, London-bridge.

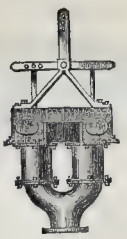
FOWLER'S IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION bored perfectly true by improved machinery, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S IMPROVED WROUGHT IRON PUMPS,

FOR CONTRACTORS, BUILDERS, EXCAVATORS and OTHERS.

A LARGE STOCK, from 3-inch to 9-inch Barrels, with Plain or Sliding Telescope Suction, always on hand.

This description of Pump Work varying in almost every case, it is impossible to quote a general price, but the fullest particulars will be given on application.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c, adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to

JOHN WARNER & SONS'

PATENT VIBRATING STANDARD PUMP,

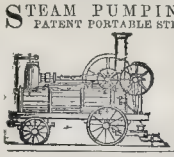
which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile driving, raising materials, &c. &c.



Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street,
Southwark, London.

STEAM-ENGINE.—WANTED, to purchase a (second-hand) STATIONARY HIGH-PRESSURE STEAM-ENGINE, 8, 9, 24, or 3-horse power.—Full particulars and price to be forwarded to Mr. WILKINSON, Foundry, Ely.

PUMPING ENGINES.—TO BE LET ON HIRE, TWO PORTABLE STEAM-ENGINES, of three and five horse power, with pumps, complete.—Apply to Mr. HENRY JOHNSON, 11, Bleeding Hart-yard, Hatton Garden, London; and 44, Broad-street, Birmingham.

HOUSEHOLDERS and GENERAL LIFE ASSURANCE COMPANY, 15 and 16, Adam-street, Adelphi.

Money received at interest at 5 per cent. per annum, payable in April and October.

Agents (with references) may apply.
R. HODSON, Secretary.

THE ALBERT ASSURANCE COMPANY. (Established in 1838.)

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square.
W. S. VARDY, Manager.

ESTABLISHED 1803.

GLOBE INSURANCE, Cornhill and Pall-mall, London.

James W. Freshfield, esq. M.P. F.R.S. Chairman.
Fowler Newsam, esq. Deputy-Chairman.
George Carr Glyn, esq. M.P. Treasurer.

Henry Alexander, esq.	Robert Locke, esq.
William Chapman, esq.	Boyd Miller, esq.
Boyce Combe, esq.	Sheffield Neave, esq.
Thomas M. Coombe, esq.	William Phillimore, esq.
William Dent, esq.	W. H. C. Plowden, esq.
Robert W. Gaussen, esq.	Robert Saunders, esq.
Sir I. L. Goldsmid, bart. F.R.S.	Sir Walter Sterling, bart.
Robert Hawthorn, esq.	William Tite, esq. F.R.S.
John Hodgson, esq.	R. Westmacott, esq. F.R.S.
John Edward Johnson, esq.	Josiah Wilson, esq.
Richard Lambert Jones, esq.	Benjamin G. Windus, esq.

Full Security to Parties Assured by means of a Capital of ONE MILLION STERLING, for the last Fifty Years all Paid-up and Invested.

Premiums particularly favourable to the younger and middle periods of Life.

Two-thirds of Profits as Bonus.

Life Tables according to various plans, to suit the special circumstances of Insurers.

No charge for Stamps on Life Policies.

Fire Insurance Proposals entertained to any amount.

Liberality and promptitude in the settlement of claims.

Prospectuses—with full Tables and Details and Forms—may be had at the Company's Offices, or of the Agents.

WILLIAM NEWMARCH, Secretary.

N.B. Life Insurance Premiums are allowed as deductions in Income Tax Returns.

SPECIAL NOTICE.

TO SECURE THE ADVANTAGE OF THIS YEAR'S ENTRY, PROPOSALS MUST BE LODGED AT THE HEAD OFFICE, OR AT ANY OF THE SOCIETY'S AGENCIES, ON OR BEFORE 1st MARCH.

INSTITUTED 1831.

SCOTTISH EQUITABLE MUTUAL LIFE ASSURANCE SOCIETY.

Incorporated by Royal Charters, and Special Act of Parliament.
Head Office—EDINBURGH, 26, St. Andrew-square.
LONDON—126, Bishopsgate-street, Cornhill.

The SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY is an Institution peculiarly adapted to afford provision for Families. It was established in the year 1831, upon the principle of MUTUAL CONTRIBUTION, the Surplus or Profit being wholly divisible among the Members; and the Additions which have been made to Policies at the Periodical Investigations of the Society afford satisfactory evidence of the prosperity of the Institution, and the great advantages derived by its Members. The following Examples exhibit the Additions already made:—

A Policy for 1,000*l.* opened in 1832, is now increased to 1,523*l.* 8*s.*
A Policy for 1,000*l.* opened in 1836, is now increased to 1,491*l.* 16*s.* 10*d.*
A Policy for 1,000*l.* opened in 1840, is now increased to 1,310*l.* 19*s.* 7*d.*

The Profits are ascertained and divided triennially among Policies of more than five years' duration.
The Annual Revenue is upwards of 150,000*l.*
The Amount of Assurances in force is upwards of Four Millions and a Quarter Sterling
The Amount paid to the Representatives of Deceased Members exceeds 600,000*l.* sterling.
The Total Amount of Vested Additions allocated to Policies exceeds 600,000*l.*
The Accumulated Fund is upwards of 830,000*l.*
Loans granted to Members to the extent of the Office value of their Policies.

Copies of the Annual Report, Forms of Proposal, and all information may be had on application at any of the Society's Offices in town or country.

ROBERT CHRISTIE, Manager.
WILLIAM FINLAY, Secretary.
W. COOK, Agent.
January, 1855. 126, Bishopsgate-street, London.

LIST OF LOCAL AGENTS.

BARNES Whitbread, Edward, Stationer
BATTERSEA.—Buckmaster, J. C. New-road, St. John's-hill.
BRIXTON.—Price, J. M. Chemist, 3, Loughborough-place.
CLAPHAM.—Balls, Charles, Scientific and Literary Institution.
COMMERCIAL-ROAD EAST — Newton, J. 6, Grosvenor-street.
DE BEAUVOIR TOWN.—Pettifer, E. H. Chemist, 6, Southgate-road.
HACKNEY.—Steib, Richard, Jun. 9, Denmark-place.
ISLINGTON.—Innes, Robert, Commission Agent, 36, Gibson-square.
KENTISH-TOWN.—Garton, Henry, Chemist, 2, Commercial-place.
LAMBETH.—Roffey, Thomas, Solicitor, 59, Walcot-place East.
MILE-END.—Sharp, George, 3, Ireland-row.
PIMLICO.—Carrick, James, 46, Churton-street.
PUTNEY.—Stewart, John, High-street.
STRATFORD.—McCash, William, Baker.
SYDENHAM Daws, Thomas, House Agent.
WALWORTH.—Turner, W. 85 John, House Agent.
WANDSWORTH.—Brooks, Charles, Chemist.
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Sheringham's Ventilator for the admission of pure air through an

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With single pulley, from 6*s.* each; with leading pulley, from 6*s.* 6*d.*

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HATWARD, BROTHERS, sole Manufacturers, 196, Blackfriars road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

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MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
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HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3*s.* 6*d.*

Trap, 2*s.*

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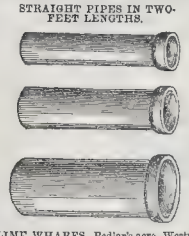

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Pan, 3*s.* 6*d.*

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JENNINGS'S PATENT DRAIN-PIPES.

The following remarks are made, and illustrations given, to enable persons (by COMPARISON) to decide if Jennings's alteration in Drain-pipes is an IMPROVEMENT or OTHERWISE

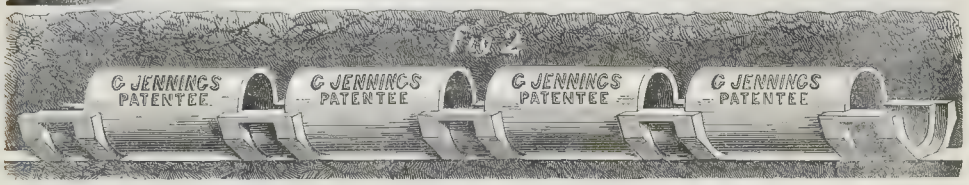
ORDINARY PIPES, or HALF-SOCKET PIPES, even if laid with EXTRAORDINARY CARE, may or may not be perfect at the joint.

When pipes are placed in the sockets, they may be a little above or below the pipe adjoining (EXAMINATION is IMPOSSIBLE); and a series of these obstructions must be detrimental to the flow of sewage.

Then, in making the Joints to SOCKET or HALF-SOCKET PIPES, the ground must be removed under every joint, to enable the workmen to work in the stopping material. *Query*, Is this done? And if done, what prevents the stopping matter, be it CEMENT, MORTAR, or CLAY, from passing into the pipe, and adding to the obstructions caused by irregular joints?

It is most important that the joints of sewage pipes should be AS PERFECT AS JOINTS OF WATER-PIPES, as any escape of liquid is a LOSS OF CLEANSING POWER within the pipe, and such escapes must be prejudicial to HEALTH, and DESTRUCTIVE to PIPE DRAINAGE.

The illustration (fig. 1) shows a series of Jennings's Patent Chairs, laid at certain distances, to the required fall, each chair being so bedded, that the pipe will rest on the excavation as well as the chairs; this done, the rebates of the chairs have only to be filled with cement or other material, and the pipes bedded down to the line of chair, as shown in fig. 2.



The space between each pipe (see fig. 2) enables the workman to see that every pipe is level with the chairs previously laid. He can strike up the joints of the invert without trouble, and the superintendent or foreman CAN SEE that the drainage is PERFECT, before allowing the saddles to be fixed. It will also be seen that the bedding of the pipe in the chair makes the joint at once, without any disturbance of the ground.

Fig. 3.

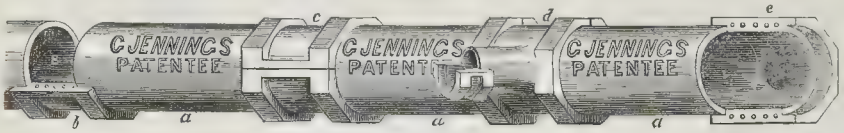


Fig. 3 shows a line of pipes finished, with a junction on one of the saddle pieces. Engineers and Architects describing these pipes to be used, will effect a great saving in the Labour of Laying, will ensure better Work, more perfect Joints, and they will have the GREAT SATISFACTION of knowing that the drainage can at all times be examined, or junctions introduced, without TEARING UP THE INVERT OR GENERAL DRAIN.

Pipes may never need examination, and junctions to finished drains may never require to be made; but it must be advantageous to be able to do either, or both, IN CASE it should be necessary.

The introduction of JENNINGS'S PATENT PIPES will PROBABLY cause a great reduction to be made in the price of ORDINARY and HALF-SOCKET PIPES. THIS THE PATENTEE IS PREPARED FOR.

And in return for the support he is receiving, the public shall have the improved pipes at the lowest remunerating prices.

A Book containing Illustrations and Particulars of JENNINGS'S DRAIN-PIPES, WATER-CLOSETS, URINALS, LAVATORIES, SLUICE-VALVES, FIRE-COCKS, GULLY-TRAPS, SHOP-SHUTTER SHOES, &c. &c. can be had free on application, or by post, if two postage stamps are inclosed to

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The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

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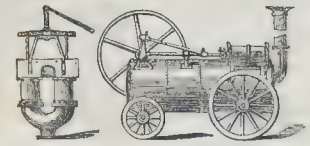
LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10 horse, 12 horse, 16-horse 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors. Nearly 100 are ready for delivery at a day's notice Several may be seen at work; Also at Messrs MEDWIN and HALL'S, Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Several for Sale.



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Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

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Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective syphon-trap yet offered to the public.

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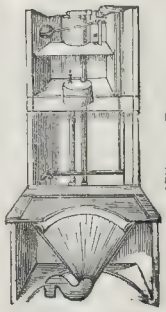

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory Lambeth

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1839.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

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PIPES laid with ordinary care do not need examination. Not ONE in a THOUSAND of all the Pipe-drains laid throughout the Kingdom during the last Six or Seven Years has required to be looked at.

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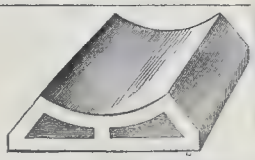
FORM A GLAZED, EVEN, AND IMPERISHABLE SURFACE FOR THE BOTTOMS OF SEWERS.

They have been used extensively by the Metropolitan and City Commissioners of Sewers, and for the Main Sewers in many Provincial Towns.



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PATENT JUNCTION BLOCKS,

BY WHICH THE CONNECTION BETWEEN

PIPE-DRAINS AND SEWERS AND BRICK SEWERS,

Is made perfect and secure.

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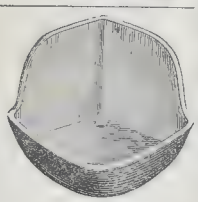
Are manufactured in a NEW KIND OF STONEWARE, of High Glaze and Uniform Colour.

They will withstand the action of the most powerful Acids, and are made very strong to bear rough usage.



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Will withstand the action of Frost or Sea Breezes, and are absolutely imperishable.

From 2s. 3d. each.

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Have reduced the price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

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These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

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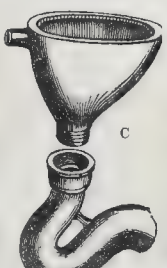

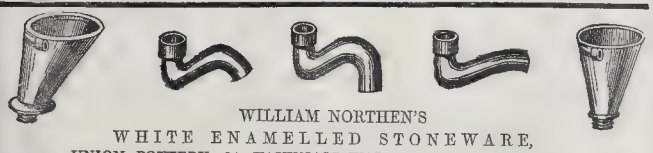

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W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Works, Paving Bricks, &c., &c. Agents for CHARLES RICHARDSON, No. 5, South Wharf, Paddington, London.

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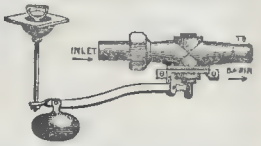

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

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5s. Traps, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Pipe Basins of every variety.

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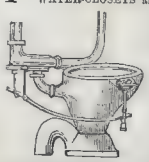

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MESSRS. BEADEL and SONS are favoured with instructions to SUBMIT to PUBLIC COMPETITION, on TUESDAY, FEBRUARY 27th at TWELVE, the above valuable PROPERTY, having each a frontage to Threadneedle-street, comprising the new wall, Old Broad-street, and covering a superficial area of nearly three-quarters of an acre. This very eligible property is, with a small exception, freehold, and is all but tax-free. It comprises the present South Sea House, a most substantially erected fabric, three valuable messuages used as offices the open areas surrounding the South Sea House, the whole of which will be offered in one lot; also a small but fine new occupying with the Flower Pot public house, which will be sold separately. The property presents a rare opportunity for the acquisition of a compact freehold estate in the neighbourhood of the Bank of England, and, as its present steward will prove a handsome rental; but if judiciously re-arranged will probably realize an increased income in ground rents as the materials will find a ready sale to the various buyers.—Particulars, with lithographic plans attached, are now ready, and may be had on application, to Messrs. Wontner and Son, Gresham, and Beadel, Solicitors, at the South Sea House, Threadneedle-street; at the Mart; and of Messrs Beadel and Sons, 25, Gresham-street.

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MESSRS. COBB, at the SOUTH SAXON HOTEL, at Saint Leonards-on-Sea, on THURSDAY, FEBRUARY 22nd, 1855, at Six o'clock precisely, in Four Lots, FOUR valuable SEMI-DETACHED MARINE VILLAS, of handsome elevation, substantial build, and in the corner one in the arrangement of rooms, and most desirable situation in the central and best part of the favourite watering place of St. Leonards. No. 1, West Vale, facing the sea, near the Marine, the Assembly Rooms, and Royal Victoria Hotel; and Nos. 2, 3, and 4, Orchard View, Maize-hill, a fine open situation, surrounded by ornamentally-planted grounds, and commanding a view by sea and inland to Hastings. Held for terms of 500 years, at low ground rents, and let on lease to freehold.—Printed particulars may be had at the place of sale; the Auction Mart, London; of Messrs. Smith and Ayres, Solicitors, Hastings; of Messrs. Mc ars. Sykes, Towson and Mounsey, Solicitors, Mercgate-street Chambers; and of Messrs Cann, Surveyors and Land Agents, 12, Lincoln's-Inn-fields, London.

8,000 Pieces of Paperhangings, an Marble and Enamelled Slate Chimney-Pieces.

MR. BRAY, Jun. will SELL at his ROOM, 29, High Holborn on WEDNESDAY, FEBRUARY 21, at ONE for TWO, some Hundreds of PAPERHANGINGS suitable for the drawing and dining rooms, parlours and secondary apartments, halls, and staircases.—May be viewed and catalogues had.

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PULLEN and SON have the honour to announce, that they will SELL by AUCTION, on the PREMISES, on WEDNESDAY, FEBRUARY 21, and following day, at TWELVE, by order of the Improvements Committee of the Corporation, of the City of London, all the valuable BUILDING MATERIALS of about twenty-five houses, shops, factories, stabling, and premises in Bull-court, Bull's-head-passage, Cock-court, and passage Falcon place and Copperfield, Clerkenwell, comprising about 600,000 good sound bricks, several tons of lead, large quantity of plain and wrought deal, York and other paving stone, fir timber, roofing, floors, sashes, doors, shutters, shop fronts, entrance gates and stable fittings, two large lavatories, grates, mahogany counters, and various useful fixtures, gas pipes, valves, cisterns, and numerous fittings up. May be viewed two days previous. Catalogues had at the Auction Offices, Guildhall; and of Pullen and Son, 7, Pore-street, Cripplegate.

BOROUGH of SOUTHWARK.—Nine Rare Freehold Houses, in single lots, each of which confers entitled a Vote,—particularly worthy the attention of small Capitalists

MR. W. F. HAMMOND has been favoured with instructions from the proprietor to SELL by AUCTION, at GARRAWAY'S, on FRIDAY, MARCH 9, at TWELVE for TWELVE, in single lots, the above valuable FREEHOLD ESTATE, comprising ninety-three houses, all lying compact in four blocks, each let on lease for twenty-one years, with a frontage to King-street, Borough. The description of the property is of the useful and profitable well built character described about thirty years, each house, of six and seven rooms, now producing rentals from 32*l.* to 50*l.* each, making a total sum of 1,334*l.* 4*s.* per annum, and lower rentals as a whole. This forms an important investment to small capitalists, being sold in separate lots, with a special condition granting to every purchaser the option of purchasing one half of the purchase money upon mortgage.—Further particulars, with conditions of sale and plans (the estate to be let at Messrs Jacobs and Hopps, Solicitors, No. 2, Gresham-buildings, Basinghall-street), at the house, Cornhill; of Mr Seagle, the Collector on the Estate, No. 47, Henry street; and at the Auctioneer's office, No. 3, Carey-street, Lincoln's-inn.

THE COLOSSEUM.

MESSRS. WINSTANLEY are directed to SELL BY AUCTION, at the MART, Bartlett's-buildings, on WEDNESDAY, MARCH 14, pursuant to a Decree in the High Court of Chancery, and the orders of the Master, in the Causes of "Phillipson and another v. Turner and others." THE COLOSSEUM IN THE REGENTS-PARK; an Exhibition of recent Art, which has justly received the support of the patrons of Fine Arts, the public, and universal approbation. Every person having a claim for advances, or any other establishment THE MAGNIFICENT EDIFICE, with its models, pictures, and PREMISES and HOME wholly occupied by Mr. Declimus Burton; the interior of the building was rearranged and decorated, at an enormous cost, under the superintendence of the late Mr W. Bradwell; works of extraordinary merit, by talented artists, have from time to time been produced, and the present Exhibition now possesses the following leading features. THE GLYPTOTHECA, or MUSEUM OF SCULPTURE. The far famed Panorama of "LONDON BY DAY," and the two splendid motions "Panorama of LONDON BY NIGHT," and "PARIS BY MOONLIGHT;" the Stalactite Caverns, Swiss Cottage, Cascade, Lake, Rustic Arcades, Italian Rooms and Walks of celebrated Greek and Roman Temples in the exterior promenade; the extensive and beautiful ranges of Conservatories, Gothic Aviary, splendid Saloon, or Refreshment-room, &c. In addition to the foregoing is the GRAND CYCLORAMA IN ALBANY-STREET, a building 300 feet long, constructed especially for exhibiting Dioramic on an unparalled scale of magnificence, which is the ELEGANT AND CHASELY-DECORATED THEATRE with beautiful drop scene and other paintings by Haydon. "THE DIORAMA OF NAPLES," by Morton, now exhibiting, showing the great ERUPTION OF VESUVIUS and DISINTERMENT OF POMPEII, A.D. 79, and which is a most striking one of Nelson, by Danson, is a masterly production. This portion of the property might be let out as an independent undertaking, and would readily produce a very considerable rental. The powerful gas machinery, steam engine, gas, and water fittings, fixtures and sundry effects, will be included in the Sale. The property occupies a FRONTAGE OF ABOUT THREE HUNDRED FEET, both to the Park and Albany-street, and is held by one lease under the Crown, for about sixty-nine years, at the very low ground rent of TWO HUNDRED AND SIXTY TWO POUNDS EIGHTEEN SHILLINGS PER ANNUM. Printed particulars may be had, three weeks prior to the day of Sale, at the Colosseum; of Messrs Gregory and Hodgson, Solicitors, 5, Gresham-square, of Messrs Hall and Rawle, Solicitors, Chancery-square, of Mr. Angell, Surveyor, 5, Lothbury, E.C. and Regent-square; at the place of Sale; and of Messrs. Winstanley, 10, Paternoster-row, of whom may be had orders to view the whole, at 1*s.* each person, at stated times.]

SALES BY AUCTION.

BARK.—To Tanners and Oak Bark Merchants.—Thirteen Stacks of superior Oak Coppice Bark (estimated Contents, 300 Tons), TO BE SOLD BY AUCTION

MESSRS. RICHARDSON, on THURSDAY, the 22nd day of FEBRUARY, 1855, at the GEORGE INN, Stamford. Stacks of bark now standing in the loll wing places.

No. 1.—Stack in Morton Wood, near Bourn, about eleven miles northeast of Stamford

No. 2—Stack in Bourn Wood, about ten miles north-east of Stamford

To view the same apply to Mr James Featherstone, of Bourn

No. 3 –Stack in Ayworth Great Wood, about seven miles north of Stamford.

No. 4. Stack in Mr. Fox's Spinney, in the parish of Great Casterton, about five miles north of Stamford.

No. 5. Stack in Mr Savill's Spinney, in the parish of Great Casterton, about four miles north of Stamford.

Apply to Mr. John Fox, of Great Casterton

Nos 6 & 7 – Stacks in Wittering Spinney, about three miles south of Stamford

Nos. 8 & 9.—Stacks in Eastern Hornstocks Wood, about four miles south of Stamford

Apply to Mr. James or Mr. Henry Sharp, at Burghley-park.

No 10. Stack in Cliff's Close in Great Wood, about four miles east-west of Stamford

No 11 Stack in West Hall Wood, near King's Cliffe, about seven miles south-west of Stamford.

Apply to Mr Spencer Sharp, West Hay Cottage, near King's Cliffe.

No 12—Stack in Wakerley Spinney, in the county of Northampton, about eight miles south-west of Stamford.

No. 13 —Stack in Wakerley Wood on the Island.

Apply to Mr William Peirson of Wakerley

N B The above stacks of superior oak bark were well harvested, as their present excellent preservation will fully testify, and, consequently, are deserving of attention from all parties interested in the tanning and leather trades Sale to commence at SIX o'clock in the Evening The Agent will be in attendance, and may be consulted on business one hour prior to the sale.

Burghley Park, February 9, 1855.

PADDINGTON.—Stock-in-Trade of a Mason.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, 46, Bridge-place Harrow-road, Paddington, by order of the proprietor, who is declining business, in consequence of ill-health, on TUESDAY, FEBRUARY 20th, at TWELVE, the STOCK of a MASON, comprising a quantity of Portland and Yorkshire Stone, in steps, landings, coping, cills, sinks, &c. marble and other chimney-pieces, trade implements, cart, truck, and other effects.—May be viewed the day previous to, and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, or C at-Exchange.

IMPORTANT SALE OF RAILWAY PLANT, HORSES, ENGINES, MACHINERY, &c. &c.

TO IRONMASTERS, COLLIERY PROPRIETORS, RAILWAY CONTRACTORS, ENGINEERS, AND OTHERS.

MR. THOMAS GLOVER has been authorised by MR. JOSEPH PICKERING, Contractor for the Sunken Railway, to offer for SALE, upon the DOCK WORKS at SWANSEA, on the 22nd, 23rd, and 24th instant, in consequence of the works of his contract being nearly completed, the very powerful HORSES and GEARS as well as all the notice of any parties requiring horses of this class, as they have been selected among the best of years' less expensive.

THREE HUNDRED FOUR YARDS EARTH WAGGONS, in excellent order.

THIRTY-THREE TONS OF CONTRACTORS' RAILS

THREE LOCOMOTIVE ENGINES, 9-horse power each. These engines have been used for pumping and pulling the excavation out of the dock, and are in first-rate order, and well calculated for work of this description, or for colliery works, railway tunnelling, saw-mills, or for driving machinery of any description having either crank or fly wheels. They are fitted with 6-inch cylinders, 2 feet stroke, and are capable of working from 40 to 50 horse power each, and are all now at work.

TWO SETS of DOUBLE DRUMS for working inclines. They are fixed 3 inches in diameter, 3 feet 6 inches long, with 6¼ inches wrought iron shaft, cast in rings, coupled with sliding bolts, spur-wheels, clutches, &c. complete, and are now at work.

SET OF DOUBLE DRUMS, 2 feet diameter, 4 feet long, width, 14 inches, weight 1¼ ton, and all complete, same as last.

THREE PORTABLE VERTICAL BOILERS, for raising mortar, with iron cone, engine beds, to forced pan, wheels, set complete with crank axle. The pans are 6 feet diameter, 15 inches deep, with wood bottoms, which can be replaced at small cost. WROUGHT-IRON, HORIZONTAL, and UPRIGHT SHAFT, 5 inches diameter with three sets of main gear, pinion, and spur-wheel, for driving the same The above gears are well worth the notice of any contractor for tunnels or lock works, as they have all the latest improvements for mills of this description, and are unequalled to the present time.

TWO SETS of 5-inch PUMPS, from 35 feet to 40 feet in length each, two working barrels, two bucket door-pipes, buckets, spear rods and bell crank. Also a long length of horizontal spear rods, joints and rockers, pinion, spur-wheel, shaft carriages, &c. &c. The spears are in first-rate working order, and can be seen at work at Hafod-ucha engine-pit, Swansea.

ONE SET of 12 inch PUMPS, with two working barrels, two feet long, spear rods, under-lever spear rod to bell crank pinion, spur-wheel, horizontal spear rods, with joints, rockers, &c attached to Gooch's engine

TWO SETS of 11 inch PUMPS, about 30 feet long, each complete in all respects same as last

TWO SETS of 10-inch PUMPS, similar in every way to the last. The above pumps are all fixed, and can be seen at work. They are all fixed so as they can be worked double or single. THREE SETS of FRICTION GEAR, for winding out of tunnels, &c all complete and in use.

FOUR FLAT ROPES for the above gear, several wrought-iron skips, rails wheels for flat and round ropes, pit trailies, and several lots of materials for tunnel work.

ONE SCREWING-MACHINE by Shaws, Rogers, and Co. Manchester, very powerful. ONE SMALLER SCREWING MACHINE

ONE LARGE IRON CIRCULAR-SAW TABLE, two excellent lathes complete, with conical pulleys for driving the same

TWO IRON MILLS, very good TWO CHAFF CUTTERS, ditto ONE OAT CRUSHER Several WROUGHT IRON SHAFTS DRUMS, &c. for driving machinery.

FIVE QUARRY CRANES, self-slinging lift heavy weights.

ONE PORTABLE CRANE, very good.

TWELVE Double-Barrel Gas CRABS

SIX SETS of FRAMES for goliahs or travelling cranes, with moving gear, &c. &c.

ONE large INCLINE WHEEL, 9 feet diameter.

FIVE SETS of BLACKSMITHS' BELLOWS, ANVILS, &c. complete

TWO SETS of HARNESS of different kinds

TWENTY CARTS, FOUR STONE DRUGS, TWO TIMBER CARRIAGES.

ONE 6-inch CARRIAGE for REMOVING LOCOMOTIVE ENGINES, will carry twenty tons.

ONE 10 T. WEIGHING-MACHINE.

ONE small MACHINE for weighing coal, by People.

ONE SACK MAKING-MACHINE to weigh cwt. &c.

Together with other Plant, and a very large quantity of Building Materials, Tools, and Timber of all kinds, too numerous to enumerate in the space I can advertisement.

The Manager is at all times to draw the attention of Engineers, Contractors, and others having works abroad, that this large and well-selected Stock of Plant is now all lying within 2 yards of the Docks, and is ready for shipment at a very trifling expense

Catalogues may be had by applying to the Auctioneer, Swansea; the *Birmingham Journal* Office, Birmingham; or at Mr. Pickering's Office, Llandaff, Brandingham, or Swansea.

ST. MICHAEL, CORNHILL.—TO LET, upon BUILDING LEASES, for a term of sixty-one years, the SITES of the FREEHOLD HOUSES, Nos 44, 45, 46, and 47, Cornhill The Churchwardens and Committee of Overseers will meet in the Vestry-room of St. Michael's Church, Cornhill, on WEDNESDAY, the 28th day of FEBRUARY, at ELEVEN o'clock precisely, to receive TENDERS from parties desirous of taking each of the premises, which are divided into three lots. The terms and conditions may be seen, or printed copies of the same obtained, on payment of 5*s.* upon application to Mr. ALFRED H. MASON, Architect and Surveyor, No 9, Great St. Helen's, or to Mr. HENRY HOPPE, Vestry Clerk, 3, Sun-court, Cornhill Parties Tendering must send in Tenders to the Vestry Clerk on or before the 27th FEBRUARY, under cover, addressed to the Churchwardens, and endorsed "Tender for Ground in Cornhill," and must be personally in attendance at HALF PAST ELEVEN o'clock on the said 28th FEBRUARY. The Churchwardens and Overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign the memorandum annexed to the conditions.

TO BUILDERS AND OTHERS.

BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON ROAD Blackheath Park, Kent, close to the church This is the most attractive, picturesque, and respectable locality on a rise of London, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath station of the South-Eastern Railway Are immediate, will be allowed to respectable men For particulars apply to Messrs J. and C. W. Todd, Milner street, Brompton; or at their Office in Churchlane, Tooting

WATER-SIDE PREMISES. — TO BE SOLD, for about and part leasehold, BRUNSWICK WHARF and DRAW DOCK, VAUXHALL, many years established in the brick, tile, stone, slate, and lime trade, &c. Excellent RESIDENCE with Counting-house and Warehouses, the whole in substantial repair, adjoining, the South-Western Railway Goods Station, and abutting on the road leading to Wandsworth, with 165 feet frontage to the river Thames Apply on the premises; or to Messrs NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 38, Regent circus, Piccadilly

BUILDING PREMISES.—TO BE DISPOSED OF, in the City of London, an old-established BUILDING BUSINESS, with a very extensive Jobbing connection. The premises are most complete, and adjacent to the river. It is to be disposed of only in consequence of the illness of the proprietor, in whose family it has been for upwards of half a century Privately only treated with on application to Mr. LUSH, 47, Hanover-street, Portsea.

TO BUILDERS and OTHERS. — Eligible PLOTS of BUILDING LAND TO BE LET, at WICKHAM-PARK, Lewisham-road, Kent. Term 99 years For particulars, and to see plans, apply to Messrs. WIRE and CHILD, Solicitors, 9, St. Swithin's-lane, City; or to Messrs YOUNG and SON, Architects and Surveyors, 35, King street, Cheapside

LAND WANTED.—THE SUBURBAN VILLA and VILLAGE ASSOCIATION.—Enrolled pursuant to 6 and 7 Wm. 4, cap 32. Shares, 25*l.* Offices, 33, Moorgate-street, City; open daily from Ten to Five, and from Seven to Eight in the Evening. Plans with full particulars, to be sent in, directed to N. THORPE, Hon. Sec.

FREEHOLD BUILDING LAND for SALE, land-tax redeemed.—TO BE SOLD, about 11 Acres of very eligible FREEHOLD LAND, close to a station on the Eastern Counties Railway, and about four miles from London, where houses are at present rented, the railway fare for a day ticket being only sixpence — For particulars, apply to Mr. C. R. RANDALL, Solicitor, 14, Tokenhouse-yard, London.

FREEHOLDS or LEASEHOLDS. — WANTED to PURCHASE, from Ten to Twenty Freehold or long Leasehold HOUSES, with rentals from 20*l.* to 40*l.*—All letters, with particulars, to Mr. RICHARD BRETT, 4, Wellington chambers, London-bridge, Southwark.

TO RAILWAY CARRIERS; INN KEEPERS, and OTHERS.—Important and extensive PREMISES, known as the "George Inn, High-street, Borough," TO BE LET The Governors of Guy's Hospital will meet at the Hospital, on WEDNESDAY, the 28th FEBRUARY, next, to receive TENDERS for TAKING on a REPAIRING LEASE, the PREMISES called the "George Inn, High-street, Borough." A plan of the premises may be seen, and printed forms obtained at the Counting-house of Guy's Hospital, St. Thomas's-street, Southwark; or at the Office of Mr. HENRY CURRY, Architect, No. 4, Lancaster-court, Strand, between the hours of Ten and Four o'clock The Tenders are to be delivered at the Hospital, on WEDNESDAY, the 28th MARCH, at or before Twelve o'clock, and the parties are requested to attend at the Counting-house at that hour The Governors do not bind themselves to accept the highest or any Tender.

TO PLUMBERS, PAINTERS, and GLAZIERS.—TO BE LET, on Lease, extensive WAREHOUSE PREMISES, near Regent-street and Oxford-street, with an excellent lease to assignee of fifty years' standing. No premium Apply on the Premises, 38, Great Castle-street, Regent-street.

WANTED to PURCHASE, FREEHOLD or LEASE of a good FAMILY MANSION, somewhere in or near either Grosvenor, Berkeley, or St. James's square, with laundry, and stabling, and each to contain not less than five horses on two carriages Address, stating particulars and situation, to A B Athenæum Club

TO OWNERS OF PROPERTY, HOUSE AGENTS, AND OTHERS.

WANTED to PURCHASE, a PAIR of SEMI-DETACHED VILLAS, in the neighbourhood of Bayswater or St. John's-wood; to have (each) five good bedrooms, drawing and dining rooms, and the usual offices &c. Apply, post paid, with full particulars, to WILLIAM CROSLEY, Esq. 4, Parliament street, Westminster.

PARTNERSHIP.—An Architect, in extensive and lucrative practice in Scotland, wishes to associate a PARTNER with him, and with regard to which the strictest secresy will be observed, to be addressed to S. A. Office of "The Builder."

PARTNERSHIP.—WANTED, a Gentleman to join the advertiser as Partner, with 500*l.* in a Wholesale Business in the City (in the manufacturing timber trade). The business is extensive, and capable of being greatly increased, having very commanding and extensive premises for a large and lucrative trade—Address, X Y. Z care of Mr. A S Petter, 58, Fleet-street.

ENGINEERING BUSINESS.

A PARTNER in a long-established and well-connected business in London, more particularly employed in Warming and Ventilating, is desirous to RETIRE, and find a gentleman to fill his place. An active man will be required—Address, S, care of Messrs. Waterlow and Son, 49, Parliament-street, Westminster.

London: Printed by Charles Wyman, of 74, Hunter-street, Brunswick-square, in the Parish of St George, Bloomsbury, Printer, at the Printing-office of COX (Brom) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St Giles-in-the-Fields; and published by the said Charles Wyman, at No 14, Office of "The Builder," 1, York-street, in the Parish of St Paul, Covent Garden, all in the County of Middlesex.—Saturday, February 17, 1855.

The Builder,

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Architect, Engineer, Operative & Artist.

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The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, March 2, a Paper will be read by Mr. M'Gachen, "On Building Materials, Decorative and Constructive."

The Class of Design will meet on March 3. Subject for sketch, "A Spire."

ARTHUR CATES, } Hon. Secs.
T. W. GOODMAN, }

TO ENGINEERS AND SURVEYORS.

TOWN SURVEYOR WANTED. — The West Hartlepool Improvement Commissioners are desirous to ENGAGE a qualified person to perform the joint duties of SURVEYOR and INSPECTOR of NUISANCES for the district of West Hartlepool, in the county of Durham. The person appointed will be required to give his entire services. Joint salary for the offices, 120*l.* per annum—Applications, stating age and qualifications, with testimonials, to be sent to or delivered at my office, not later than the 27th FEBRUARY instant, at noon.

By order,
WM. W. BRUNTON, Clerk to the Commissioners.

West Hartlepool, 7th February, 1855.

COMPETITIONS.

WANTED, a SET of PLANS for a WESLEYAN CHAPEL, intended to be built in Pimlico. A Premium of 5*l.* will be given for the set selected.—For particulars apply to Messrs. CUTHBERTSON, 49, Lower Belgrave-place, Pimlico.

THE GILBERT MONUMENT.—DESIGNS and ESTIMATES for the ERECTION of the proposed Monument to the memory of the late Lieutenant-general SIR WALTER RALEIGH GILBERT, Bart. G.C.B. will be received on or before MONDAY, the 26th of MARCH next, accompanied by sealed letters, addressed to "The Secretary of the Gilbert Monument at 78, New Bond-street, London," and endorsed, "Design for the Gilbert Monument."—Full particulars may be had by written application to the Secretary at the above address, where plans, and a description of the site of the Monument, may be seen, on and after TUESDAY, the 27th instant.

78, New Bond-street, London, Feb 22, 1855.

TO ARCHITECTS.

THE IPSWICH BURIAL BOARD are desirous of receiving PLANS for the ERECTION of CHAPELS and other suitable buildings. Further information, with a plan of the ground, may be obtained by applying at the Town Clerk's Office, Ipswich. The Plans, with estimates, must be sent in on or before the 16th of MARCH next, addressed to the Town Clerk. A premium of twenty guineas will be paid for the Plan selected, and such plan will be the property of the Board. In the event of the author of the Plan selected being employed to superintend the work, the premium will not be payable, but he will be paid the usual commission. Each design must be marked with a distinctive motto, and accompanied by a sealed envelope, addressed to the Town Clerk, containing the name of the competitor, with a reference to the design and its motto.

Ipswich, Feb 15, 1855.

TO LANDLORDS AND OTHERS.

HARDY & CO. Estate Agents, &c. undertake the entire MANAGEMENT of HOUSE PROPERTY, in town and country; the Collection of Rents, Superintendence of Repairs, and surety of good Tenants, at a great saving of expense. —Offices, 32, Castle-street, Holborn-bars.—Established 16 years.

CONTRACTS.

TO BUILDERS AND CONTRACTORS.

THE WELLS BURIAL BOARD have resolved to ERECT TWO CHAPELS and a PORTER'S LODGE on the Burial Ground.—Plans and specifications are deposited, and may be seen at the Office of Mr. HIPPISLEY, Surveyor, New street, Wells. Persons desirous of CONTRACTING for the performance of the Works are requested to send Sealed TENDERS, under cover, addressed to the Clerk, on or before SATURDAY, the 3rd day of MARCH next, of whom all further particulars may be known. By order of the Board,

Wells, Feb 6, 1855 W. J. S. FOSTER, Clerk.

TO BUILDERS, CONTRACTORS, &c.

HULL CORN-EXCHANGE.—The Committee for Building the New Corn-Exchange, at Hull, is ready to receive TENDERS for the EXECUTION of the whole Work, according to the plans and specification, which may be seen at the Office of the Corporation's Surveyor, Town hall, Hull, between the hours of TEN and FIVE, on any day after the 14th day of FEBRUARY instant, and where parties can have copies of the specification, at 5*s.* each; or from Messrs. BELLAMY and HARDY, Architects, Lincoln. Tenders (which must be in the form to be had from the said Surveyor) must be sent, addressed "To the Town Clerk, Town-hall, Hull," and marked outside "Tender for Corn-Exchange," on or before NOON of the 12th day of MARCH next, and must be accompanied by a letter from two responsible persons agreeing to become bound in the sum of 1 000*l.* for the due performance of the contract, if accepted. The Committee do not bind themselves to take the lowest Tender.

By order,
THO THOMPSON, Town Clerk.

Town Hall, Hull, 12th February, 1855.

NEWMARKET LOCAL BOARD of HEALTH.—To CONTRACTORS for SEWERS and PIPE DRAINAGE. Persons willing to CONTRACT for the DRAINAGE of the TOWN of NEWMARKET may inspect the plans and specification of the work, forms of Tender, &c. at the Office of Mr. J. F. CLARK, Architect, Newmarket. The district will be divided into three parts, for which separate Tenders are required. The Tenders are to be delivered to the Clerk of the Board, on or before SATURDAY, the 3rd of MARCH next. The lowest or any Tender will not necessarily be accepted.

JAMES BUTTON, Clerk to the Local Board.

February 19, 1855.

CONTRACTS for the SUPPLY of BUILDING MATERIALS for CONVICT PRISONS.—Persons desirous of TENDERING for the Supply of Timber, Deals, Slates, Lime, Sand, Bricks, Lead, Glass, Wrought and Cast Iron, Ironmongery, Gas and Water Pipes, White Lead, Oils, &c. for Twelve Months, from the 1st of April next to the 31st of March, 1856, for Pentonville, Millbank, Brixton, Portland, Portsmouth, Dartmoor, and Parkhurst Prisons, are requested to forward the same, addressed, "Directors of Convict Prisons, 45, Parliament-street, London," on or before SIX o'clock, p.m. on MONDAY, the 5th of MARCH, 1855.—Forms of Tenders may be had on application at the several prisons, or at the Office of the Directors, 45, Parliament-street, London.

45, Parliament-street, 19th of February, 1855.

BURSLEM LOCAL BOARD of HEALTH.

CONTRACT, No. 1.—The Burslem Local Board of Health are prepared to receive TENDERS for the supply of certain SALT GLAZED EARTHENARE PIPES and other articles, to be used in the drainage of Sneyd's Croft, Middleport, for the "Burslem and Tunstall Freehold Land Society."

CONTRACT, No. 2. TENDERS are also required for the LAYING of the above PIPES and other articles.

The drawings and specifications may be seen, and further particulars obtained, on application to Mr. RALPH HALES, Cobridge, Surveyor to the Local Board. Sealed Tenders must be sent to me on or before the 6th day of MARCH next.

By order,
JOSEPH LOWNDES, Clerk.

Public Offices, Burslem, February 16, 1855.

EXTENSION OF TIME FOR DELIVERING TENDERS TO 6TH MARCH NEXT.

ORMSKIRK LOCAL BOARD of HEALTH WATERWORKS.—To STEAM-ENGINE MAKERS, BOILER MAKERS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake the following Contract:—For the SUPPLY and ERECTION (at Ormskirk) of a NEW STEAM-ENGINE, BOILER, PUMPS, and other APPARATUS; also, for certain Repairs to existing Machinery and Connections therewith. The Specification may be seen, and forms of Tender may be obtained, together with any further information required, on application at the Office of the Local Board, Ormskirk, or at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street Westminster. Sealed Tenders to be delivered at the Office of the Local Board of Health, Ormskirk, before SIX o'clock, on TUESDAY, the 6th day of MARCH, endorsed, "Tender for Contract for Engine, Boiler Pumps, &c."

WILLIAM WELSBY, Clerk to the Board.

Ormskirk, January 31, 1855.

DOVOR HARBOUR.—A Committee of the Lord Warden and Assistants of Dovor harbour will be held at the COUNCIL-HOUSE, Dovor, on TUESDAY, the 6th day of MARCH, at TWELVE o'clock at noon, to receive TENDERS, in writing, from such person or persons as may be willing to take, on Lease, for Building and other purposes, the following PARCELS of GROUND, or some part thereof, viz. all that PLOT near the New-bridge, in Dovor, now occupied by Mr. Sterliker Finnis; all those several PLOTS at the rear of Waterloo-crescent, in Dovor, occupied by Messrs. Duke, Messrs. Cullin and Prescott, Mr. James Crundall, and others; and all those several PLOTS, being part of the ground recovered from the pent situate at the back of Snargate street, and near the slipway, in Dovor, and now unoccupied.—Plans of the said ground may be seen, and particulars ascertained, at Mr. G. T. THOMPSON'S Office, Dovor; or at Mr. HARDWICK'S Office, Henrietta-street, Cavendish-square, London. The Tenders, which are to be sealed up and endorsed "Tender for Ground," may be left at Mr. THOMPSON'S office, up to TEN o'clock in the forenoon of the said 6th day of MARCH next. G. T. THOMPSON, Registrar.

Dovor, 16th February, 1855.

CONTRACTS.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO TIMBER MERCHANTS, BUILDERS, and OTHERS.—The Executive Committee are prepared to receive TENDERS for the standing TIMBER on the Ste. Margaret's estate, Isleworth, consisting of red cedar, white cedar, oak, elm, beech, ash, lime, chestnut, horse chestnut, walnut, &c. &c. The specification may be seen, and copies had, on application at the Office of the Surveyor, Mr. GEORGE MORGAN, on and after WEDNESDAY, 21st FEBRUARY. Tenders are to be sent on or before TWELVE o'clock on FRIDAY, MARCH 9th, addressed to the Surveyor, and endorsed "Tender for Timber, St. Margaret's Estate." The Executive Committee do not bind themselves to accept the highest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, 14th February, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO LANDSCAPE GARDENERS and OTHERS.—The Executive Committee are prepared to receive TENDERS for LAYING OUT and PLANTING the ORNAMENTAL GARDEN, with the walks, &c. on the St. Margaret's Estate, Isleworth, Middlesex. The drawings and specification may be seen at the offices of the Surveyor, Mr. GEORGE MORGAN, on and after WEDNESDAY, FEBRUARY 21st, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent on or before TWELVE o'clock, on FRIDAY, MARCH 9th, addressed to the Surveyor, and endorsed "Tenders for Ornamental Garden, St. Margaret's Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, Feb. 14, 1855.

NATIONAL FREEHOLD LAND SOCIETY.

TRUSTEES.

Richard Cobden, Esq. M.P. Samuel Morley, Esq.
Charles Gilpin, Esq. W. A. Wilkinson, Esq. M.P.

SURVEYOR—James Wilson, Esq.
SECRETARY—W. E. Whittingham, Esq.

TO BUILDERS.—The Directors are prepared to receive TENDERS for the ERECTION of a PAIR of SEMI DETACHED VILLAS on the MILL HILL Estate, WEST COWES, Isle of Wight. The drawings and specification may be seen at the Office of JOSEPH CLARK, High-street, Southampton, to whom the Tenders are to be sent, on or before the 7th of MARCH, endorsed "Tenders for Houses at West Cowes." Copies of the Drawings and Specification may also be seen at the Offices of the Surveyor here. The Directors do not bind themselves to accept the lowest or any Tender.

14, Moorgate-street, City, Feb 22, 1855.

BURSLEM LOCAL BOARD of HEALTH.—NEW TOWN HALL.—CONTRACT for GAS FITTINGS.—The Local Board of Health are prepared to receive TENDERS for the supply and fixing of the CHANDELIERS, PENDANTS, BRACKETS, and the necessary GAS FITTINGS required for the lighting of the New Town-hall. Drawings and specifications may be seen, and further particulars obtained, on application to G. T. ROBINSON, Esq. Architect, 23, Upper-parade, Leamington; or to Mr. RALPH HALES, Cobridge, Surveyor to the Local Board. Sealed Tenders must be sent to me on or before the 8th day of MARCH next.—By order,

JOSEPH LOWNDES, Clerk.

Public Offices, Burslem, February 19, 1855.

TO BUILDERS.—TENDERS are required for the ERECTION of FOUR FOURTH-RATE DWELLING-HOUSES at HOLLOWAY. The drawings, specification, and draft contract, may be inspected after 27th FEBRUARY, between the hours of TEN and FIVE, at the Offices of Mr. GEORGE LOW, Architect, 1, Church-court, Clement's-lane, City.—Tenders to be delivered on the 9th MARCH.

TO STONE MERCHANTS.

CHELSEA IMPROVEMENT ACT.—The Commissioners for Paving, Lighting, Cleansing, Regulating, and Improving the Parish of St. Luke, Chelsea (exclusive of the district of Hans Town), will meet in the Board room, at the Manor House, King's-road, Chelsea, on TUESDAY, the 27th instant, at ELEVEN o'clock in the forenoon, to receive TENDERS from such persons who may be willing to CONTRACT with the said Commissioners, for supplying them with such quantities of the following materials as may be required by them, for such period as stated in the printed form of Tender, viz:—

ABERDEEN GRANITE PITCHING STONES, MOUNT SORRIL GRANITE PITCHING STONES, ABERDEEN and DARTMOOR GRANITE CURB, DRESSED DEVON CUBES, and YORKSHIRE PAVING, to be delivered at their depôt, or in the several streets within the jurisdiction of the Commissioners, at such times and in such quantities as shall be ordered by the Commissioners, or their Surveyor, pursuant to Statute, and the form of Tender, may be had upon application at the Clerk's Office, Manor House. All Tenders to be upon the printed form (sealed up), and signed by the party making the same, together with the names and description of two sufficient sureties, for the due performance of the contract, and to be delivered at the Office of the Clerk to the Commissioners, Manor House, on or before the 28th instant, and the parties tendering must appear personally, on the day the Tenders are opened, but the Commissioners do not bind themselves to accept the lowest or any Tender. The expenses of the contract and stamps to be paid by the contractor.

Dated this 20th day of February, 1855.

By order of the Board,
JOSEPH PATTISSON, Surveyor,
5, Beaufort-terrace, King's-road, Chelsea.

[For remainder of Contracts see next page.

CONTRACTS.

CHORLEY IMPROVEMENT.—SEWERAGE TO EARTHENWARE SEWER AND DRAIN PIPE MAKERS AND OTHERS

THE CHORLEY IMPROVEMENT COMMISSIONERS hereby give notice that they are prepared to receive TENDERS from parties willing to undertake the following Contracts:

Contract No 1. For the Supply of EARTHENWARE SEWER and DRAIN PIPES, &c.

Specifications, schedules, bills of quantities, and forms of Tender (5s. the set) may be obtained, together with any further information required on application at the Commissioner's Office, High-street, Chorley, or at the Offices of ROBERT RAWLINSON, C.E., 1a, Parliament-street, Westminster. Sealed Tenders, to be delivered at the Commissioners' Office, Chorley, before TWELVE o'clock on SATURDAY, the 16th day of MARCH, 1855, endorsed, "Tender for Contract No 1."

RICHARD JACKSON, Clerk to the Commissioners.

Chorley, February 19th, 1855

SOUTHPORT WATERWORKS.—CONTRACT for STEAM-ENGINES, BOILERS, PUMPWORK, &c. The Directors of the Southport Waterworks Company are ready to receive TENDERS for the CONSTRUCTION and ERECTION of TWO WATERWORKS STEAM-ENGINES, Three Boilers, and Pump work and other Apparatus, complete. Plans and specifications may be seen and forms of Tender obtained on application to THOMAS HAWKSLEY, Esq of No 30, Great George-street, Westminster, London (the Engineer to the Company); or at the office of Mr. WILLIAM HARPER, Silver-street, Bury Lancashire on and after THURSDAY, the 22nd day of FEBRUARY inst. The lowest Tender will not necessarily be accepted. Sealed Tenders to be delivered to Mr. WILLIAM HARPER, No. 17, Silver-street, Bury, Lancashire, on or before WEDNESDAY, the 7th day of MARCH next.—By order,

WM HARPER, Clerk to the Company.

Bury, Lancashire, February 15, 1855.

TO BUILDERS AND CONTRACTORS.

MILITARY DEPOT for the County of DENBIGH, at Wrexham.—Any person willing to CONTRACT for BUILDING the new MILITARY DEPOT, for the custody of the stores, arms, and accoutrements of the Militia of Denbighshire Rifles and for ERECTING a HOSPITAL, with QUARTERS for the Sergeant-Major and Six Sergeants of the Permanent Staff, together with all necessary Outbuildings and for forming the PARADE GROUND, may see the plans and specifications after the 7th of MARCH next, upon application to Mr WHITTAKER, at the Turf Tavern, near the Railway Station at Wrexham, or at my office in Oswestry. Sealed Tenders to be sent, addressed to me, at Gwernyclill-hall, on or before the 19th day of MARCH endorsed "Tenders for the Military Depôt at Wrexham." The Contractor will be required to enter into security, with sufficient sureties, for the due completion of the works. The lowest Tender may not be accepted, or should have due regard to the eligibility of the parties.—Any further information may be obtained at my Offices at Oswestry, and Gwernyclill, near Wrexham. THOMAS PENSON, Architect.

Oswestry, February 21, 1855.

SHIPLEY LOCAL BOARD of HEALTH.—WATERWORKS CONTRACT, No 2.—The Local Board hereby give Notice that they are prepared to receive TENDERS for the CONSTRUCTION of a COMPENSATING RESERVOIR at ELDWICK, near Bingley, with the Culverts, Waste Pit, Gauge Basin, Resolvent Lodge, and other Works therewith connected, and for Furnishing all the stores of Cast Iron upon, or within 1 mile near Bailiff on Plan, sections, detail drawings, and specimens as may be inspected, and at after the 23rd FEB. at the Offices of Mr. J. MCLANDSBOROUGH, Civil Engineer, 23, Queen-square, Bradford, from whom Forms of Tender and further information may be obtained. Sealed Tenders to be delivered in time, at my Offices in Bradford, Yorkshire, on or before MONDAY, the 12th day of MARCH next, endorsed "Shipley Waterworks Tender for Contract, No. 2." The Local Board do not bind themselves to accept the lowest or any Tender.

JO THOMPSON, Clerk to the Local Board.

Bradford, Feb. 16th 1855.

HER MAJESTY'S CROWN ESTATE, SUNK ISLAND, COUNTY of YORK.—Persons desirous of CONTRACTING for the ERECTION of sundry HOUSES, COTTAGES, and other BUILDINGS upon this estate, are requested to communicate their intention to the Architect, Mr TEULON, Lansdowne place, Brunswick-square, London. The plans and specifications are lodged with Mr SUTTON, the Clerk of Works, at Mr CUDDAY'S Sunk Island, and the Tenders are to be delivered, free of expense, on or before the 5th MARCH, to the office of Messrs. Dand Preece, 1, Whitehall-place, London, addressed to the Hon. CHARLES FORE, H.M.'s Service, and endorsed "Tender for Works at Sunk Island."

TOWNSHIP of MANCHESTER.—ERECTION of NEW WORK HOUSE.—The Guardians of the Poor of the Township of Manchester are desirous of receiving TENDERS for the whole or any branch of the Works required in the ERECTION of a NEW WORK HOUSE, intended to be built at Crumpsall, near Manchester. The drawings and specifications may be seen at the offices of Messrs MILLS and MURGATROYD, Architects, Exchange-chambers, Bank-street, Manchester, where all parties who may be desirous to tender in respect thereof. The Guardians do not pledge themselves to accept the lowest Tender

By order &c. JOHN HARROP, Clerk to the Guardians.

Poor Law Offices, New Bridge-street, Manchester,

February 21st, 1855

TO BUILDERS

NEW MARKET at GLOUCESTER.—The Corporation of Gloucester are desirous to receive TENDERS for the ERECTION of the above Market, in accordance with the plans, specifications, and conditions, prepared by Messrs. MEDLAND and MABERLY, Architects, Gloucester, which may be seen on application to them on and after 8th MARCH next. The Tenders to be delivered, free of all charge, before TWELVE o'clock, on MONDAY, 19th MARCH next, at the Architects' office, sealed and endorsed, "Tenders for New Market, Gloucester."—The Corporation will not be bound to accept the lowest or any Tender if the amount be unreasonable. The works will be divided into two Contracts, viz. No. 1. The excavators, bricklayers, masons, carpenters, joiners, slaters, plumbers, painters, and glaziers' works.—No. 2. The smiths and ironfounders' works.

A. H. JENKINS, Town Clerk.

Gloucester. February 21st, 1855

TO IRONFOUNDERS AND OTHERS.

THE COMMISSIONERS of SEWERS of the City of London hereby give Notice that they will meet in the Guildhall of the said city, on FRIDAY, the 23rd of MARCH, 1855, at TWELVE o'clock at noon precisely, to receive TENDERS for the supply of CAST-IRON WORK, for a period of three years from Lady-day, 1855, to Lady-day, 1858. A specification of articles commonly used by the Commission may be seen daily at their office, Bridewell-hall, the hours of TEN and FOUR. Security will be required for the due performance of the contract, and no Tender will be received after TWELVE o'clock on the day of treaty. The Contractors do not pledge themselves to accept the lowest Tender. JOSEPH DAW, Principal Clerk.

Sewers' Office, Guildhall, 22nd February, 1855.

TO CONTRACTORS FOR PUBLIC WORKS.

CARMARTHEN SEWERS.—THE CARMARTHEN LOCAL BOARD of HEALTH are desirous of receiving TENDERS for the CONSTRUCTION of BRICK SEWERS for a portion of the town of Carmarthen, with Junctions, Manholes, &c. Parties desirous of Tendering can inspect the plans and specification at my Office, on and after MONDAY, the 19th of February inst. Tenders must be delivered on MONDAY, the 5th MARCH next, to the Committee, who will meet for that purpose at the Council Chamber, in the Town hall, at ELEVEN o'clock precisely.—By order of the Board. GEO. THOMAS, Clerk.

Carmarthen, Feb. 13, 1855.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished

Island Foundry and Ironworks, Millwall, London.

Offices: 13, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings adapted for every class, churches, chapels, shooting lodges, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON.

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal scoops, Buckets, Pumps, &c always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION HOUSE PLACE, and BIRMINGHAM.

LONDON; BERKLEY-STREET, BIRMINGHAM

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated.—Roofs fixed complete.

J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Sink, and Tiles.

An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor and Ironfounder, Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, when may be obtained on application

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

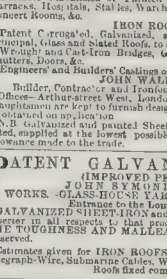
PATENT GALVANIZED IRON. (IMPROVED PROCESS)

JOHN SYMONDS and CO.

WORKS, GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c. Roofs fixed complete.



SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Galleries, Warehouses, Stores, Hot-houses, and Offices, require no Flue, create no Dust, and are safe from all risk of Fire.

Any number of these Stoves may be heated from one Boiler, and may be used equally well with Steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER

is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO. Engineers, and Manufacturers of Heating Apparatus, 98, Great Russell-street, Bloomsbury.

PUBLIC INVITATION.—HEATING by HOT WATER with ONE BOILER.—JOHN WEEKS and CO. King's-road, Chelsea, Horticultural Builder and Hot-water Apparatus Manufacturer, most respectfully invite the Nobility, Gentry, and Horticulturists, to visit their nursery establishment during this severe weather, and witness the efficient working of their hot-water apparatus. The establishment consists of forcing houses, conservatories, &c. &c. many of which are of wide and lofty dimensions, and together measuring upwards of 1,000 feet in length; the whole effectually heated by one boiler, at the small cost of 3s. 8d. per day for fuel and labour. The various houses are divided into above forty different compartments, either of which can be heated separately, and the whole regulated at pleasure with a greater command of heat than is required. Boilers of all sizes, and apparatuses, both plain and ornamental, adapted for warming churches, schools, warehouses, and buildings of every description; also a great variety of horticultural buildings, to be seen in full operation, so that a lady or gentleman can select the description of house best adapted for every required purpose. Also a splendid collection of plants.

JOHN WEEKS and CO. Horticultural Establishment, King's-road, Chelsea.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Wimsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Wimsley-street, Oxford-street.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses or store, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 45, Regent-street London.

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their supreme APPARATUS. As Messrs Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small average cost per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

THE SMOKE-CONSUMING STOVE, invented by Dr ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 16, insures perfect combustion, economises fuel, requires much less attention than the register stove for general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 372, Holborn.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for the prize of public approbation—has long been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect, economical, and convenient stove for all domestic cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds

THE LOCK CONTROVERSY SETTLED. Messrs. HOBBS, ASHLEY, and CO. are now Manufacturers of their celebrated AMERICAN and ENGLISH PATENT LOCKS by their Patent Steam Machinery on the Premises, 97, CHEAPSIDE, and 31, LAWRENCE LANE.

Messrs. H. and Co. by the introduction of their Steam Machinery, are enabled to guarantee GREATER SECURITY, and SUPERIOR WORKMANSHIP, at prices more moderate than any Locks produced, either in Town or Country; in addition to which, they are applicable to all purposes for which Locks are used.

Every Lock being made and finished at the Manufactory bears their own stamp, and is warranted, without which none are genuine. These Locks can be procured by order through any respectable Ironmonger in the United Kingdom.

WHOLESALE and RETAIL WAREHOUSE, 97, CHEAPSIDE Manufactory, 31, Lawrence-lane, London

P.S. Depôt for Milner's Patent FIRE and BURGLAR PROOF SAFES fitted with Hobbs's Patent Locks.

PARNELL and PUCKRIDGE'S DEFIANCE and NATIONAL LOCKS, "which cannot be picked," are made of a large and fine variety for every purpose

FIRE-PROOF SAFES, DOORS, and FRAMES;

DEED and CASH BOXES, COPYING and LEVER PRESSES;

STREET DOOR LATCHES, of every kind for sale from pocklocks, with two small neat keys, 15s. each.

Descriptions and lists of prices may be had, or sent, upon application to

PARNELL and PUCKRIDGE, 52, STRAND, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc Goods, Cabinet Ironmongery, Chains, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, somewhat improved, &c. &c. 61, Aldersgate-street.

J. H. BOOBYER (late STURCH and BOOBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare market, London.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY, LIVERPOOL.

"London and North Western Railway Company,

"Liverpool, May 7, 1853

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron doors and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION

"S, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired. I am, gentlemen, your obedient servant, "J. OTWAY.

"Superintendent C Division of Police.

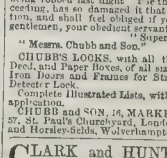
"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes; Iron Doors; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms, all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch. A great variety of Register, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self acting Cottage Ranges, with Large Oven and Boiler,

20s.	29	34	36-inch,
28s.	32s	34s	

Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch,
54s.	56s.	58s.	63s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 3½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Cheek Register, with strong Bars and Tyres, 6d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe {	3 inch.	4 inch.	
	1s.	1s. 3d.	1s. 6d. per yard.
Cast Gutters—4 inch, 10d. per yard.			
O G Gutters {	4 inch.	
	1s. 4d.	1s 6d. per yard.
Best Cut Clasp }	1½	2	2½	3 inch, and larger
and Rose }	18s.	17s.	16s.	15s. per cwt.
Cut Billed Brads, 14s 6d. per cwt.				
1 inch Cut Lath, 17s.			Cast Lath, 13s.	

Patent Line {	3	4	5	6	
	5d.	7d.	9d.	1s.	per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 2s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

TO ENGINEERS, ARCHITECTS, AND CONTRACTORS.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

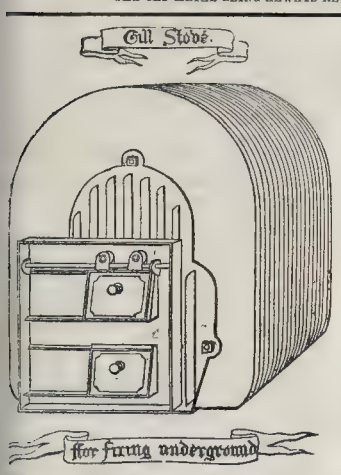
CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER

Roofs constructed under his superintendence guaranteed to require no repairs for at least ten years.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.



STUART AND SMITH'S
PATENT GILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

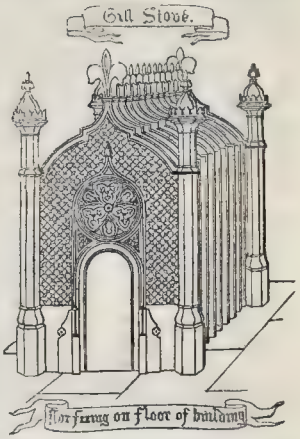
STUART AND SMITH,

ROSCOE-PLACE, SHEFFIELD,

confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

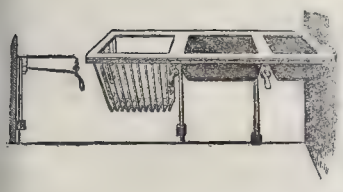
It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

Prospectuses, and every information, sent on application.



COTTAM'S NEW PATENT FOR STABLE REQUISITES.

COTTAM AND HALLEN,



the original projectors of the above arrangement of MANGER RACK and WATER-TROUGH, AS ONE FIXTURE, which obtained the Great Exhibition Prize Medal, and universally approved of, have added all the latest improvements to their invention (secured by patent), which includes an entirely new method of attaching the hatter bail and ring, giving to the horse greater freedom, and being noiseless in operation, add much to its comfort whilst feeding and convenience when at rest.

COTTAM'S ENAMELLED MANGERS

are constructed in the best possible manner, both as to form and utility, are cleanly in appearance, durable, and impervious to infection; manufactured PLAIN, GALVANIZED, or ENAMELLED.

Improved Stable Guttering, with Moveable Safety Covers.

Loose Box Fittings, Harness-room Appendages, and every Article in Stable Furniture kept on Show.

Descriptive Catalogues and Estimates on application to

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET, LONDON.

IMPROVED PUMPS,

Of the best Workmanship and warranted.

The VALVES and SUCKERS of these Pumps are constructed upon an entire new and SIMPLE principle; they are not likely to get out of order; should they do so, can easily be repaired, as the Pump is so contrived that the valves can readily be got at.

An Improved CAST IRON TRAP strongly recommended by the Sanitary Commissioners, and suitable for Sugar Bakers, Slaughter Houses, &c. &c. It is so formed that the trap plate will pass any matter the top grating will let through and therefore is not liable to stoppages and well adapted to Stables and Stable-yards, for saving the best part of Liquid Manure.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges, on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELL and STEDALL'S,

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 61 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices.

None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

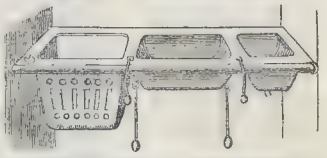
NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, FOWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 86, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.



The only Patented Invention of this description constructed so as to prevent considerable waste of Hay and Corn, together with all the newest improvements.

STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.

Manufacturer of Kirk's Patent Noiseless Cast-Iron Smoke-curing Chimney Cans (200 on Buckingham Palace), price 35s. each. Price-lists and Illustrated Catalogues forwarded on receipt of two postage-stamps.

JAMES BARTON, Ironfounder, &c. 370, Oxford-street, a few doors east of the Pantheon.

RAIN-WATER PIPES.—O-G and Half-round Gutters, Sash Weights, Railway Bars, Air Bricks, &c. J. JONES, Iron Merchant, Iron-bridge Wharf, No. 6, Bankside, has the largest stock in London of the above and other castings, of the very best quality. Also cast-iron pipes for gas, water, or drainage; bends, tees, &c., flange and hot water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig-troughs, &c. &c.

J. JONES, IRON MERCHANT, IRON-BRIDGE WHARF, No. 6, BANKSIDE, LONDON, near the Southwark Iron Bridge.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's, JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Fayre Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

FOUNDRY AND IRON WORKS,
63, DRURY-LANE, and CHARLES-STREET, DRURY-LANE
GLOVER, BROS.,
Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.
Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal An improved Boot Door, adapted for internal work.
A large stock of Rain-water Pipes, Plain and O G Gutters, Air bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.
Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.
Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.
GLOVERS' IRONWORKS,
163, DRURY-LANE, and CHARLES-STREET.

IRON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Copings, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rigrers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

LOSH, WILSON, and BELL,
NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Site-lane, London.

TO BELL-HANGERS, GAS-FITTERS,
IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Lone-acre, London.

LIGHTNING CONDUCTORS.—
R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
134, Strand, London.
67, Hyde-park-street, Glasgow.
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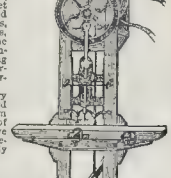
NAILS and IRONMONGERY,
from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES.
A complete LIST of which will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON

THE DRAUGHT and DUST EXCLUDER, the cheapest and most effectual preventive for the purpose, being merely glued round the frames in which doors and windows are embedded, so that they press against it. Price from 9s. to 30s. according to size and colour, per gross yard.
Sold at R. HELBRONNER'S, Sole Patentee, 265, Regent-street, London.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.
PRIZE MEDALS have been awarded to these celebrated Machines both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom by joiners, contors, coach and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring.
Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.

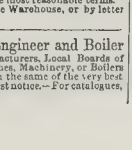

POWER MORTISING MACHINE.

Sold only by
WILLIAM FURNESS,
Atentee, No 20, Lawton-street, Liverpool, from whom full particulars may be obtained.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.
Elliptic Stoves, double backs,
3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 2l. 8s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 38s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 65s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

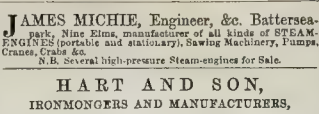
And every material required in the building, bell-hanging, upholstery, and brass-founary trade on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.



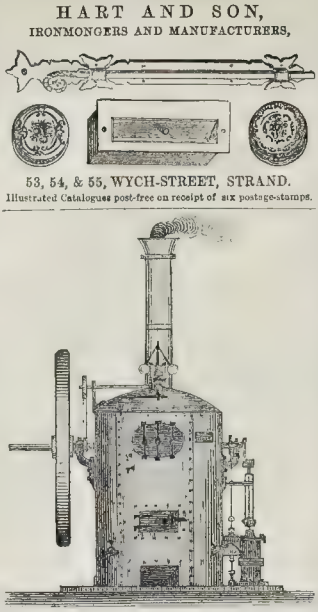
WILLIAM BATLEY, Engineer and Boiler Maker, Northampton.—Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts apply as above.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, manufacturer of all kinds of STEAM-ENGINES (portable and stationary); Sawing Machinery, Pumps, Cranes, Crabs &c.
N.B. Several high-pressure Steam-engines for Sale.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,



53, 54, & 55, WYCH-STREET, STRAND.
Illustrated Catalogues post-free on receipt of six postage-stamps.



A SAVING of TIME and MATERIALS, with Solidity of Building.
HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular saws, pumps, &c. 46, Albert-street, Manchester.
TESTIMONIAL.
"Thorn Island Battery Works, Milford Haven,
"Mr Gough, "Jan. 19, 1855.
"Sir.—The three-horse power steam-engine purchased from you in 1852, for the purpose of hoisting stone and other material for the building of the above battery, has answered the purpose for which it was required remarkably well, and from its portable ness was found very convenient to remove from one part of the building to another. The consumption of coals was about 4 cwt. in 10 hours.
"I am, Sir, yours truly, for THOMAS JACKSON,
"THOMAS SWAIN."

TO IRONMONGERS, BUILDERS, AND OTHERS.
TO BE SOLD by TENDER, a large quantity of NAILS for building purposes. Samples to be seen on application to Mr. RUDHALL, at Mr. Fowler's, 4, Garden-court, Temple Tenders to be delivered there on the 1st of MARCH.

MACHINERY. — SAWING, PLANING, MOULDING, and WOOD CUTTING MACHINES
To Timber Merchants, Contractors, and others. SAMUEL WORSAM and CO. of Hortulan-place, King's-road, Chelsea, invite the attention of Timber Merchants and others to their new inventions and improvements in all kinds of machinery used in Sawing, Planing, Moulding, and Wood Cutting S. WORSAM and CO. are able to execute orders with cheapness and despatch; they solicit an inspection of their machines constantly on hand and in progress; and they can refer to parties of the highest position and respectability, as to the goodness and efficiency of their machines.—Estimates made for Exportation, or otherwise. Drawings and prices on application.
February 16th, 1855.

GASLIGHT and FROST.—THOMAS GLOVER, Gas-meter Manufacturer, Suffolk-street, Clerkenwell-green, London.—The present very severe frost suggests to him the propriety of reminding gas companies and gas consumers of the advantages of his PATENT DRY GAS METER, and the disadvantages of wet gas-meters, as stated below.
ADVANTAGES OF HIS PATENT DRY GAS-METER.
1st. Cannot become fixed by frost, however severe, thus saving gas companies and gas consumers much trouble, expense, and annoyance in business.
2nd. Steady lights are secured, there being no evaporation from the meter, and, consequently, no condensation in the fittings, all expense of inspectors attendance and gasfitters' charges are saved, which is a matter worthy of consideration.
3rd. The Advertiser's Patent Dry Gas-meter is a fixed measurer, cannot vary in its measurement, and does not vary in measurement. Thomas Glover has manufactured upwards of 74,000 of these Patent Dry Gas-meters, and would have great pleasure in exhibiting to any one the numerous testimonials he has received in their favour, too numerous for an advertisement, therefore will content himself by giving an extract from a letter he received last mail:—
"Dated Charlotte-town, January 19, 1855,
Prince Edward's Island.
"I have had great pleasure with your meters, so much so, that * Up to this date I have had no trouble with them whatever; not so with the few wet meters, all of which I have had to replace with your Patent Dry Meters; and, although your Dry Gas-meters are placed in exposed stores and shops, not one has got out of order, notwithstanding the rigour of our climate.
(Signed) "ALEX. M'AUSLAND, Manager."

FOR SALE.—To MANUFACTURER and OTHERS.—A CORRUGATED GALVANISED TINNED IRON ROOF, with skylight and gutters, about 72 ft square, with the wood frame, and supports of stout timber painted inside and out, quite new within the last six months Also a large TANK, of yellow deal plank, never used, 3 feet 5 feet 7 inches and 5 feet.—To be seen at LETT'S Wharf, Commercial-road, Lambeth, near Waterloo-bridge.

SALE of OLD RAILS.—LONDON BRIGHTON, and SOUTH COAST RAILWAY COMPANY The Directors of this Company are prepared to SELL and hereby invite TENDERS, for 3,000 TONS of OLD RAILS Forms of Tender may be had, and other particulars obtained on application being made, by letter or otherwise, at the Storekeeper's Office, Brighton. Sealed Tenders, endorsed "Tender for Old Rails," to be delivered to the undersigned not later than TWELVE o'clock on THURSDAY morning, the 1st of MARCH next. FREDERICK SLIGHT, Secretary.
London Terminus, Feb 16, 1855.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired this process, making them complete, without the introduction any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, or EXCHANGED for OLD LEAD, on the LOWEST TERMS.

MARBLE and STONE CHIMNEY PIECES.—A SALE of the above will take place TUESDAY, the 13th of MARCH, consisting of a great variety statuary, Barolla, black, vein, and Sicilian marbles.—Catalogue or any information, by post, one week previous to sale. A large portion of the stock is ready, and can be viewed at any time, HUSTLER'S Marble and Stone Sawing Mills, Cambridge-heath Hackney.

MARBLE.—THOMPSON and HOLMES Marble, Stone, and Timber Brokers, Contractors, Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry owners in Italy and Belgium, for SALE COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slabs, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall bridge.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer masons and the building public generally, their extensive assortment of vein, Sicilian, and statuary marble, in slab and block, prices never before offered. JAMES SIMMONS, Manager.

MARBLE.—Mr. B. FABBRICOTTI, Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by Mr. Thompson no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble so celebrated throughout all Italy, England, and America.

BUILDERS, &c. &c.—Take Notice of the extraordinary Reduction made in the price of marble worked at the WESTMINSTER MARBLE FACTORY. Vein Marble Box Chimney-piece, only 25s. A good-sized Vein Marble Box Chimney-piece, with cane and bases on plinths fitted up in the best style, only 1l. 12s. Every description of marble work can be executed Moor Floor at 2s. 6d. per foot super. and every variety of Marble work at reduced prices. Their Show Rooms contain the largest Stock of Chimney-pieces in England. Address, WESTMINSTER MARBLE COMPANY, EARL-STREET, MILBANK.

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The Builder.

SATURDAY, FEBRUARY 24, 1855.

IN the last article of our series on the history of architecture, in connection with the courts at Sydenham, we inquired into characteristics of the development of Italian influence in England and France. Whilst isolated examples of the Cinque-cento style had been coëval with the Renaissance, we found that the settled adoption of the pure Italian architecture was first consummated in England. It was left to be inferred that the diversity of manner in the architecture of Louis XIV. continued during his reign; and allusion was made to the fact that the peculiar style of French domestic architecture obtained a footing in England. After the time of Jones in one country, and Le Mercier in the other, the parallel acquires independent features of interest. Both in England and France, though in different ways, there was a grand opportunity for architectural skill, and a man of science competent to adapt himself to the emergency.

With the mere reflection of good Italian art, and the works of Jones to guide him, it is not surprising that many of the prevalent vices of art in Europe, should have entered into the works of Wren. If we are of those who think that everything from this master's hand has matter of interest attached to it, we are not of those who see everywhere beauties to be admired. We should rather hold, that parts of even his best works are valuable for lessons of faults to be avoided. Great ability in the management of outline, and power of giving constant variety of parts, are no more to be denied, than are the architect's constructive science and practical skill. Some of the greatest men that have ever lived, have suffered in fame, only because they have done so much. Called into practice at the time when no general profession of architects had been formed in England or in France, Wren had suddenly thrust upon him an amount of responsibility that would have turned the heads of the best of his detractors. There would seem to have been no one else available. The name of Webb, the son-in-law of Jones, who completed some of that artist's works, is not even given in the best list of architects which is before us. The only other competitor was, like Wren, a mathematician. He, Robert Hooke, designed Montague House, referred to in our last article, and the Old Bethlem Hospital, Moorfields. He was associated with Wren in some works, and himself gave a plan for rebuilding London after the great fire. Fortunately, it is at great emergencies, that unlooked-for sources of ability are discovered. May the truth of this be proved by events, to which just now, architectural history would rank subordinate in public interest. Still, even Wren's career testifies to us, that there is no real substitute for professional training, and for such advantages as our modern architects have, whether used by them or not. Without a visit to Italy, an architect's opportunities for acquiring a knowledge of the best works must have been very limited, although Palladio was at hand, and Vitruvius had been translated.

It is scarcely possible that everything bearing the name of Wren, could then have come from one unaided hand; yet there was no school of architects to supply the means of aid; and the necessary delay in forming such a school as that which produced Hawksmoor, must be taken into account. It may be doubted whether Wren himself had much ability as a draughtsman. The very tools for drawing, in which the modern architect has some advantages, we might say, did not exist.

Architecture owes much to men like Wren in England, and Perrault in France, who were not originally destined for the profession. Still we are inclined to argue, that professional training would be one item to be attended to in any scheme for the production of a great architect, —not, as of late it seems to have been assumed by some, that all that the professional architect learns is of the nature of an encumbrance.

It is due to the fame of Wren, to call to mind, that the present plan of St. Paul's was not that suggested by the architect. It may be argued, that such a circumstance forms no excuse for many improprieties, apparently unconnected with the plan,—as, for example, the use of the upper screen order. The architect might have followed the arrangement of the Church of the Sorbonne, and converted buttresses similar to those which appear in the one case, and are concealed in the other, into objects of beauty. The truth, however, is, that the common interference with an architect, so unsettles the logical order of the process of design, as to unfit the individual who would otherwise work out a problem thoroughly, for the solution of even subordinate details. We are not merely alluding to the trials of temper, to which Wren was subjected.

When we also look back to the condition of the people and the character of the court, at that time, we cannot but wonder at the important position which our art maintained, if we do not also see, that under circumstances which should be more favourable now, there is still much to be effected in the way of its public recognition.

Wren has been fittingly praised for the steeples of his churches, which have great variety in plan. But it has, perhaps, not been sufficiently noticed, that some of them mark an important epoch in the history of art. In the effective treatment of the bell-tower, and its combination with the building, the Gothic style stood pre-eminent. Wren not only adopted the belfry-tower in his Gothic works, but he perceived the beauty of the spiral form of termination. Therefore, we have one of the main features of Gothic architecture revived in a different style, and it must be admitted often with the best effect. In certain cases, however, such a result was not obtained. In St. Bride's Church, where there is great beauty of *outline*, the horizontal lines of features unconnected with each other, are discordant. In other cases, the tasteless method of terminating the spire, reminds us only of the more appropriate finial and cross. Discordance of lines might be got over by a course the very opposite of that taken with a view to prevent discordance of style,—in other words, by a more complete abandonment, in the spire at least, of the horizontal line. The problem, *How to design a steeple in the Italian style, crowned with a spire accordant with it, and of the Gothic form*, might be tried for what it is worth,—as not unlike the question discussed some time since in our pages, as to a *Gothic dome*.

The influence of Wren was much felt in the direction given by his buildings, to the practice of the natural style of ornament. The carving about St. Paul's Cathedral had his sanction, yet the Gibbons' school of carving is affected with the same vices of manner which prevailed throughout Europe. These presented the very antithesis to the characteristics of either Greek or Roman ornament. The recent revival of the style has been hastily made, and is not consistent with sound views of art.

The history of the Louvre in Paris, would be an epitome of the progress of French architecture, and interesting would be the examples here illustrating it, had addition and not demolition solely, been at work. What was done by Louis XIV. presents, however, great contrast to the rest of the work of his reign, and is of the utmost importance to the right comprehension of the history of this century. The period whereof we are treating, is marked by an effort scarcely second to any in the history of art, to effect great results in architecture by Government patronage. What might have been done by one of the most art-loving of *our* kings, was stopped by the troubles of his reign; and the fragment of a great work, which would have covered more ground than the palace of Diocletian, served only for the scaffold of him who was to have inhabited it. Justified as the republic now is, as a bright page in the history of England, it effected nothing in architecture. Of the succeeding reign we have already spoken. In France, the royal demand for architecture went out: there also, the professional aid was not readily forthcoming. That the mere name of *architect* is said not to have been assumed before the time of Mansart, is, perhaps, not of much importance. In 1660, Louis XIV. had decided to complete the Louvre. Le Vau and d'Orbay were called to undertake the work. As usual in the case of this building, the architects pursued their plan without much reference to the work of their predecessors.

A façade towards St. Germain l'Auxerrois had been commenced, when Colbert was named minister and superintendent of the royal buildings in 1664. The work of Le Vau appeared to him unworthy of the palace of a king of France; and the mandate went forth for destruction. A competition of designs for another façade took place, and the drawings were sent to Rome, for the opinion of the French painter, Poussin, and the Roman architects. The great Bernini then occupied the sphere of art in Italy. Much the same thing was done, as in recent competitions, and Bernini himself was entreated to undertake the work. This trial at the old source of European developement, Italy, however, failed in the present case. The work of Le Vau was, indeed, demolished, and the new design was commenced; but Bernini left the work incomplete,—disgusted, as it was said, with the workmen of Paris. The right man had still to be chosen.

In France as in England, the conduct of the greatest work of the time, fell to the lot of one who was no professional architect. The result was, in each case, an important contribution to art,—though a result from concurrence of high individual talent with the absence of adequate professional competition, which is only to be regarded as a fortunate accident. To those who would say,—here is a proof how necessary it is, from time to time, to "ventilate" ideas by new contributions—such as they assume it is in the nature of associations to require from without—we answer that we admit part of the grounds of the opinion, though not the conclusion which we have said is often come to. Provided that substantial claim be put in—like to that preferred by Wren, Perrault, Burlington, Aldrich, and others—we shall not be found amongst those who will refuse to discuss precept, and it may be receive example, at non-professional hands. But, it is not by men such as those named, that opinions are now uttered. On the other hand, the profession in France and England, though hardly yet holding a definite position, has its thousands in place of units: education, though still greatly in arrear of professional wants, is in advance of what it was out of Italy in the seventeenth century. If there are men out of the ranks of the profession, qualified to shed a lustre upon our *art*, let them come forth. They have not yet done so. Vitruvius is often quoted for the opinion, that it is the combination of theory and practice that makes the qualified architect; and there be some things whereabout *we* still think as did the much-abused Roman.

It was not the fashion to carp at his doctrine in the time of Louis the Great. On the con-

trary, one of the first steps taken to invigorate the practice of architecture, was the translation of Vitruvius, at the instance of the enlightened minister of the king.

There seems to be an universality in the range of members of the medical profession in the higher ranks, not unworthy to be referred to in treating of an art which requires the most extended, and yet apparently the most opposite qualifications. The translator of Vitruvius was a physician. In the competition we have spoken of, he had proved himself something more. But, it is not merit that carries the day in competitions—as some of our readers know to their cost—and the design of the physician and accomplished man of science had been praised by the king and Colbert, only to be put aside for a far inferior design of a better known artist. On the departure of Bernini, necessity as well as good taste, fortunately pointed in the right direction. The result was a work far exceeding in importance any other of the time of Louis XIV. It had great influence in fixing the general adoption of the Cinque-cento architecture, as regarded exteriors, in the time of the next king, and it is of importance to us in our view of the architecture of our own country.

Claude Perrault—the man above referred to—commenced his portion of the Louvre in the year before the Great Fire of London; and it was in that same year—1665—that Sir Christopher Wren visited Paris. St. Paul's Cathedral was not commenced till 1675. In both buildings the chief feature is that of the coupled columns, which, though used by the modern Italians—if not during the time of the Roman empire—have always been questioned by some authorities as appropriate architectural appliances. A better example than that mentioned—of their use by Wren is in the colonnades of Greenwich Hospital, commenced in 1698; and with this work before us, it would grate against our conscience were we to join issue with the architect. Mr. Gwilt, in his "Elements of Architectural Criticism," says: "The beauties of the façade of the Louvre so completely overpower its defects, that I can hardly bring myself to the mention of its coupled columns, and the arch of the central door rising into the story of the colonnade."

The scheme of Perrault was that of a magnificent colonnade, and he was so far carried away by his design, that had it all been executed, nothing would have remained of the older parts, and the beautiful architecture of Lescot. All that had been built by Bernini, at great cost, was of course cleared away. In the subsequent history of the Louvre, the same "fatality," as the Comte de Clarac* calls it, continued to attach itself to the building,—so far as regards the non-completion of many designs which were undertaken. The chief French architects continued to be engaged, but though much was undertaken at the beginning of the present century by Percier and Fontaine, it remained for the present Emperor to make what appears likely to prove the completion of the building, as well as the required junction with the Tuileries. This part of the history our readers will recollect, has been treated of by Professor Donaldson.

It must, we think, be admitted that as regards the steady pursuance of great works, and their speedy completion, this country has every reason to prefer a claim for praise. Our cathedrals are perfect, compared with those of the continent,—great in their designs but abortive in their execution. Whilst the Louvre was left unfinished, the contemporary work in England was brought to a termination by one architect. There is a good result in art by the economy of the one course: there is an element of failure in the other system, no matter what the profusion of the expenditure.

Although the Louvre, as we have remarked, had some influence on the architecture of England, its effect on the architecture of France, though considered great, does not appear to have been immediate. The munificent encouragement of Louis XIV. confessedly produced no commensurate result; and the reason given is that which we have assumed—the lack of able architects. The one chief architect of a period received an amount of patronage which allowed him to mark the character of an epoch, without having the opportunity for developing the inventive powers which he might have unfolded. The works of Jules Hardouin Mansart begin in the year 1675, the date of the commencement of St. Paul's Cathedral. He was principally employed on the works at Versailles. With the exception of the chapel, it cannot be said that they are worthy of one who was an artist of undoubted ability. The dome of the church of the Invalides would alone justify the last opinion. It has great beauty, and in originality of conception is perhaps superior to any other example.

It is due rather to accident, and to misdirection given to the architect's genius by his great patron, that more did not result—that Mansart's concern with the colossal undertakings of the king—did not allow him to complete the development of the grand monumental style, and of a better and purer taste. This work was left to his relative and pupil, Jacques Ange Gabriel, and to others in the reign of Louis XV. It must be noticed that we continue to speak only of exteriors. No general inference should be made as to interiors, which it will be necessary for us to treat of hereafter. Let us, however, remark, that whilst art, as applied to interior decoration, was tending towards final degradation—except perhaps as to novel application of materials, and executive skill—the advance referred to otherwise, took place. Gabriel's chief work is the colonnade to the Garde-Meuble in the Place Louis XV.

Mansart died in the year 1708, and Wren in 1723. During the eighteenth century, the architecture of Italy shows improvement,—if only by the removal of the chief upholders of the caprices into which the art had degenerated. There were indeed two fine works, namely,—the front of the church of St. John in the Lateran, by Alessandro Galilei, and the church at Turin, by Filippo Ivara. Painting, however, rapidly declined—at the time in which it rose to importance in England.

During the reign of George I., from 1714 to 1727, the names of some of our chief architects are met with. Wanstead House—considered by the foreign artists, as one of the best of the English works—was built by Colin Campbell, in 1715. It was destroyed in 1815. The eccentric but able artist, Nicholas Hawksmoor, completed the church of St. Mary Woolnoth, in 1719; about which time also flourished John James, the architect, of St. George's Church, Hanover-square; of St. Luke's, Middlesex; and the church at Greenwich. In the same reign the works of James Gibbs commence—the church of St. Martin's-in-the-Fields having been completed in 1726; and Sir Christopher Wren was living, as we said, till 1723, and Sir John Vanbrugh till 1726. The school of the period is in great part, marked by a tendency towards the more Roman elements of the Cinque-cento, the portico being often a very important feature.

In France, the tendency was of even more defined character, and of this, the church of Ste. Geneviève, or the Pantheon, by Soufflot, is the principal example. Goudouin, however, followed the pure Palladian school; whilst Antoine, who died as late as 1801, used the Grecian Doric order, with which the French had been made acquainted through the work of Le Roy. Le Mercier long before, had conceived an order, having a column without base. The rage for Grecian architecture at length prevailed in France, as in England, the Doric order being employed indiscriminately in such a manner as eventually to create a dislike for it. In consequence, the use of the order soon ceased with the French, as, indeed, it has now done with us.

The doctrines of antiquity which began to be put into circulation towards the middle of the eighteenth century in France,—in great measure through the labours of Winckelmann,—did not prevail to so great an extent in England. During the reign of George II., 1727 to 1760, the Palladian manner of architecture received new contributions from Italy. Kent returned in 1729; and he, Lord Burlington, Gibbs, and Wood of Bath, are the most important men of this reign. Kent is said to have been the introducer of the modern picturesque system of gardening.—In the Mansion-House, London, by the elder Dance, and in some of the City halls, the defective arrangement of plans already noticed, is to be remarked. Passages of communication seem to have been considered unnecessary; and the open court, suited to the Italian climate, was the substitute. The reader may picture to himself the elegant company of the other evening, passing through the snow from one reception-room to another,—as in plain seriousness, would have been necessary, according to the original plan of the Mansion-House.

In France, the classical columnar character of design, which in the Pantheon is united with that of the dome of St. Paul's Cathedral, was varied by the practice of Servandoni, originally a scene-painter. His façade of the church of St. Sulpice, commenced about 1732, is generally ranked high in the works of the eighteenth century; but the towers, designed with story upon story, piled somewhat disconnectedly, seem to us in that manner of scene-painter's architecture, which is more valuable in its suggestiveness, than in regard to applicability to permanent works.

Sir William Chambers's "Treatise on Civil Architecture," published in 1759, was remarkable for its writer's opposition to the view then being advanced, as to the merit of the Greek orders. Two or three years afterwards, the first publication of Stuart and Revett's "Athens" took place. It was not, however, for some years, that the Greek style prevailed extensively in England. Meanwhile (in 1776) Somerset House was commenced, and Sir Robert Taylor, one of the best of the Anglo-Italian architects, practised. The chief work of Stuart—the interior of the chapel at Greenwich—has little attempt at the character of Grecian architecture. During the early part of the reign of George III. also practised the younger Dance, whose Newgate Prison (as first built) and St. Luke's Hospital, are marked by that painter-like composition which was once justly recognised in the different style of Vanbrugh. Servandoni died in 1766, Soufflot in 1781, "Athenian Stuart" and Sir Robert Taylor both in 1788, and Sir William Chambers in 1796. During this same latter period of the eighteenth century, the singular exotic style of the Adams was in full bloom. Robert Adam died in 1792.

We are, however, getting beyond the limits we had prescribed to ourselves. Great events were in progress in France—events of the utmost importance to all the nations of Europe—and which did not less, leave their impress upon the domain of art. But, the aberrations of taste peculiar to the close of the last century, and the beginning of the present, may form a proper subject for further remarks. It is not easy—we have heretofore said—rightly to apprehend the circumstances of our own time, and we have thought some examination of the seventeenth and eighteenth centuries, a fitting preparation for the effort we propose to make. Before doing so, however, we must supply the dropped passages in the history, by some notice of those styles of architecture of the periods of Louis XIV. and Louis XV. which, though of most familiar acquaintance in the interiors of houses, are not in their origin and relation to other styles, always rightly understood. This supplementary matter, then, we shall offer in an intermediate paper.

* "Description du Musée royal des Antiques du Louvre"

ERRORS IN FURNISHING AND DECORATION.

The establishment, at Marlborough House, of a museum containing the most tasteful and beautiful, as well as the most trashy and vulgar examples of articles required in the decoration of houses, has called forth from many quarters condemnation of the principles which the Government are by this means endeavouring to bring before the public. The existence of such an institution must of necessity act, to a certain extent, as a guide, in matters connected with those important branches of manufactures which it strives to direct in a channel conformable to convenience, common sense, and comfort. For however desirous manufacturers may be to keep in the background principles which will result in the discarding of the monstrous medley of trash now forced upon the public by them, they

will find—nay, they have already found—that there is an undercurrent of popular feeling which condemns their productions as unsuited to the wants and requirements of the present day;—I say an undercurrent, because the public generally, however contrary to their conviction, find it necessary or convenient to side with the manufacturers in their rejection of the proposed reform. And for this two reasons may be assigned;—first, because Englishmen, as a rule, think everything new must be false; and, secondly, because they find that to conform to the true principles of decoration would necessitate a total revolution, in both general character and detail, of the ornamentation of houses they have either lived in from their childhood or fitted up at great personal expense and inconvenience. If the first of these reasons were not a potent argument with John Bull, the second most assuredly would be; and thus a chain of circumstances perpetuates a system, the evil of which, upon calm unprejudiced consideration, no ordinarily well-educated person is at a loss to see.

What, then, *is* the evil complained of in modern English house decoration? and what is the proposed reform? will be asked by many who have not had an opportunity to examine for themselves the effect of the two principles, as exemplified in the museum at Marlborough House. The evil, in a few words, is this:—Our decorative designers are no longer artists, but being chosen from ordinary workmen by a chance display of talent, are more easily controlled by the manufacturers, whose incessant cry is,—"Make something that will sell—something attractive; never mind what." The designer who receives these instructions is in many cases an ignorant man, who has neither read "Redgrave's Report on the Exhibition of 1851," nor has studied any system or examples to lead him on in his task, except brilliant "hits" of the same character as that he is expected to design. What is the result? He has a feeling for nature, and an appreciation of her beautiful colour, and so he concocts an elaborate interweaving of stem and leaves, bud and blossoms, correctly copied from nature; colours it with the tints of the rainbow, scrupulously shades it into roundness from his model, and by some brilliant distinguishing characteristic makes it, perforce, "attractive," and his object is attained.

This principle is applied to all objects alike, and the effect in a room furnished with such articles is, that one object has no more importance than another—they are all alike, grossly impertinent. But even out of these productions of modern designers, their colours being sometimes crippled by the cheapness of the required paper or carpet, a moderately humble design is produced, which, if judiciously contrasted with others of a like character, might be tolerated; and a house really might be furnished in which a member of a refined community could live, without being in danger of falling through the landscape of his drawing-room carpet, or of being torn to pieces by the lion crouching on his hearth-rug. But that is pre-supposing that he has taste enough to make such a selection. Most likely he never sees the effect of his furniture until it has been arranged by other hands than his.

It is unnecessary to describe the chance way in which a house is actually tortured into a residence now-a-days. After each individual object running the gauntlet of the "selling" manufacturer, the whole has to come under another test. Every one knows that when young people marry, they leave the furnishing of their houses in the hands of an upholsterer, whose interest is bound up with their wish to make everything as gaudy and expensive as possible. If they are too independent to do this, they do what is perhaps worse; they select the papers of the house one day, and the carpets another; choose the curtains because they are of the newest pattern, and the hearth-rug, because it is the most fashionable; winding up all by selecting the heavier furniture totally irrespective of the character, colour, and design of that already chosen, and bearing no sort of relation to any other portion of the decoration of the room. The consequence is, that the carpet and paperhanging and hearth-rug and curtain are all in a tremendous competition lest one should be seen before the others; and they each, by some brilliant characteristic, attract the eye of the spectator, and threaten him, if he scorns the perusal of their charms, to scorch his eyes by their glare, or overturn him by their inequalities. We see the effect also in the cold and comfortless dwellings of those who have spared no expense in their material, and in the glaring puppet-shows of others, who suppose they have everything as perfect as possible. Now, as the primary reason for papering walls, or carpeting floors, is to make the room more attractive, and to give it a greater air of comfort and repose, it follows that these things, by coming into competition with each other, not only fall short of the use for which they were intended, but create a sensation of uneasiness—"jarring" against the feelings, as well as fatiguing the eye. Moreover, as a paperhanging or a carpet is to be a background to other objects, they ought, of course, to be subordinate to those objects having a tendency to improve them by comparison. But a highly-shaded bunch of flowers, coloured from nature, will not tend to improve a severe line engraving, even though half of it be hidden by the frame of the picture; and the brilliant spots of colour in the modern exhibition carpets surely depreciate rather than heighten the value of the soberer colouring of the more important furniture. A room, to be furnished agreeably, must have some parts of its furniture subordinate to others; for, if each of the objects in it be equally attractive, the result is an uproar. The admirers of this gaudy style of decoration contend that as it is as easy to print copies from nature as conventional representations of flowers, why should not this natural imitation be preferred to (what they please to call) the innocent deformity of them. Our reply to this is, that a line must be drawn *somewhere*. Either you must be quite content with block printing, and call it "high art," or you must sacrifice your wall paper to that which you place upon it. If you particularly wish the reproduction of the beautiful objects of nature, then we can inform you that the most elaborate block printing that can possibly be conceived, will not correctly reproduce the infinite variety of tints in nature. At the best, they are but clumsy caricatures, and the enormous expense of getting them up, even as well as they are produced, is one more testimony against them; for you might obtain works of high artists for the surplus that you squander in covering your walls with caricatures, and when you had a truthful copy of nature, your love for it would surely prevent you from immovably blending it with the construction of your house; but in most cases, the patterns, setting aside the impropriety of the design, are so outrageously badly drawn, that to any one who has examined the subject, the wonder is, how they have been tolerated so long. Nothing but the most profound ignorance of form and fitness can have blinded the British people to their want of merit. However, as long as we continue to give children a square bit of wood with four pegs in it, and call it a horse, and an isosceles triangle, with a stick in its base, and teach them to call it a tree,—as long as we paper our nursery walls with gross and ill-drawn representations of fruit and flowers, we must expect that the British people *will* be profoundly ignorant of form and fitness. An influence which is commenced in the nursery, and continues through the whole of after life, may be supposed to exercise some control over the foundation and formation of every man's taste.

It would be ridiculous to expect an ear for music in a child who had been brought up without any musical education except the jingle of the triangle, and as impossible is it to find an appreciation of beautiful form in those who have been accustomed all their lives to, and whose eyes are familiar with, the monstrosities of modern English decorative art. It may at first sight appear a trivial way of explaining a great national defect, but I fully believe, that in this may be found the explanation of this fact, that the English nation, which claims to be one of the greatest, ancient or modern, in the arts of civilization, should be so painfully behind hand in the highest walks of art, that she must allow precedence to every little European kingdom or petty German state.

Another essential defect in common and even in the most expensive (for the evil increases the more ambitious the attempt of the) paper-hangings and carpets of the present time, is the laboured efforts to destroy all appearance of flatness. Thus an elaborate framework of geometrical forms is often festooned with outlandish wreaths of flowers, part of which is thrown into shade behind the *iron* framework.

Again, carpets are sometimes bordered by highly-shaded copies of Gothic groining, which acts as a picture-frame to a landscape in the centre, attempting to express many miles' distance. This radical error can be productive of nothing but uneasiness, as we certainly cannot appreciate living in a bird-cage, even though it be wreathed with beauties, or of having the floor we walk upon perforated, because it may occasion some danger to our equilibrium.

All these inconsistencies plainly bespeak an erroneous style of decoration, which, however it may pander to the tastes of the vulgar, should not be encouraged or recognized by those who have any pretensions to taste. For the argument that shaded groining in a carpet does *not* give one the idea of walking upon mullions, infers that the *attempt has been* made, and failed; and if it is a failure, this alone should warrant our rejection of it. The failure is another proof of the weakness of the system, and these failures must take place to make them even bearable. Why should we bow so humbly to the French school of design?—painting flies and insects of all kinds in our teacups, and carving dogs' heads, and any other head that will make it inconvenient, on even such a disagreeable necessity as an umbrella? when the only feeling such things can produce is disgust at having drunk fly-broth, or curses on the fine-art handle, which has been doing its best to lacerate our hands during the time we used it. Is it not evident that the chief object of the producers of these things is appearance of the ornament only? that construction is lost sight of in ornamentation—workmanship takes the precedence of truth? And let those who doubt the principles we are studying to inculcate ask themselves which is most necessary, construction or ornamentation,—whether the ornamentation of construction, or the construction of ornament, be the truer principle? All that we ask the public to do is to examine this subject with unprejudiced minds, and then we feel confident the point will be gained.

A Marlborough House Student.

YOUNG MORTALITY AMONGST THE LONDON GRAVES.

After years of persevering agitation by the intelligent and well disposed, the *occupation* of the London grave-digger is almost past, and Old St. Pancras' and other great receptacles of the dead have become, both on Sundays and week-days, quiet and little-frequented spots. We still, however, pay them an occasional visit, and look with a certain amount of satisfaction at the share we have had in forcing forward this most desirable consummation. In walking amongst these masses of the dead, several other feelings intrude themselves upon the mind. How can it be otherwise, when wandering amid the dust of nearly all that has, for some centuries, constituted the strength, energy, ability, and also the vices of this great metropolis? In these grave-yards, the memorial of many a name still cherished and revered, has, from neglect, passed away; and many a grave which, at the time it received its tenant, was but little noted, has often since been sought for by numbers in vain. The grave in which the great and glorious Milton rests, in Cripplegate Church, was left without a mark, and it is now uncertain where he lies. Massinger, the poet, rests in the church-yard of St. Saviour's, in the Borough, with no notice save in the parish-register to say so.

There are three books which have become more than any other familiar to the multitudes, not only in England, but also in those immense districts and populations which speak our language, and are inspired to a considerable extent with our feelings. These books are, the

"Vicar of Wakefield," by Goldsmith; "Robinson Crusoe," by Daniel de Foe; and "The Pilgrim's Progress," by John Bunyan. These household words are treasured by rich and poor; are read without weariness in youth; and equally, if not more admired, in maturer years. The ashes of two of these great and popular authors, De Foe and Bunyan, rest in the Dissenters' cemetery in Bunhill-fields. The former has no monument—not even a line over his grave; that of Bunyan is covered by an altar-tomb, which is so much beaten by the weather that the original inscription is in many parts entirely illegible, and few could read whose grave it was, save that the sexton of the place, greatly to his credit, had one of the panels re-cut at his own expense. The wealthy and influential body of Nonconformists should not let the remains of these eminent champions of their cause be left in comparative dishonour and neglect. Surely the countless thousands of all creeds who are readers of "The Pilgrim's Progress" and "Robinson Crusoe," while still the graves of the two authors are in the memory of man, will make an effort to raise the means of showing future generations that we have a proper appreciation and a due feeling of gratitude to those who have mixed so much pleasure with instruction. We believe that some time since a subscription was opened, and a considerable amount raised, for the purpose of placing a monument to De Foe and Bunyan in Bunhill-fields. The London graveyards are full of interest, and deserve a chronicler, in order that in after years, when they shall have become pleasant little parks, well decked with plants and flowers, the visitors, both old and young, may experience the additional pleasure of literary and historical association. What has become of the gravestone of "Honest Joe Miller," formerly in Portugal-street, Lincoln's-inn-fields?

As to the ancient grave-yard of St. Pancras,—a spot already familiar to our readers,—it is fearful to contemplate the numbers which have been brought here, in some instances not to rest. For the last twenty years there has been an average number of interments of nearly fifty a week: this gives us a number of about 52,000: how many more have been placed here it is difficult to form an idea of. In other respects Old St. Pancras's burial-place and the church have considerable interest, for although the old church has been almost entirely rebuilt, the monuments have been carefully preserved, and in some instances restored. In the church is a small marble tablet, surmounted by a painter's palette and brushes, to the memory of Samuel Cooper, the portrait-painter, who painted the famous miniature of Oliver Cromwell. He died in 1672. There is also a canopied tomb, in which have formerly been brasses, to the memory of one of the Grays of Gray's-inn-lane; and memorials of some other families of rank, all in good preservation. At the time of the alteration of the church, several Norman fragments of architecture, brickwork of the fourteenth century, a stone with five crosses upon it, and some other matters were discovered. We were told by a very old and intelligent inhabitant, that the body of Earl Ferrers was brought here after his execution, privately, in the night, and buried at a great depth below the old tower of the church. In consequence of peculiar sanctity being considered, by Roman Catholics, to attach to Old St. Pancras, numbers of Italian and other foreign refugees have been buried here, amongst them the celebrated Marco Polo. The crowd of monuments is extraordinary. Not far from the east door of the church a plain, upright stone, marks the grave of William Woollett, the engraver. It is curious, when standing at the resting-place of this, the greatest of landscape engravers, to think of the changes which have been made since he was brought here, a period of not much more than half a century. Then, as far as the eye could reach, the ivy-mantled tower of the old church was surrounded by green and pleasant fields; and the question suggests itself, are the London parish authorities doing right to make the new cemeteries so close to London?

A few years since the tombstone of Woollett was almost as illegible as that of John Bunyan: this being mentioned to a society of young artists at that time formed in Camden-town, they at once subscribed a few shillings each to prevent this relic of one eminent in art being taken to mend the ways. We hope that this good example may be in other instances followed. In another part, a stone is placed to the memory of John Walker, the author of the "Pronouncing Dictionary," and not far off were buried William Godwin, the author of "Caleb Williams," and Mary Woolstoncroft, his wife: her body has, however, been removed, by leave of the Bishop of London, to some other place. Dr. Johnson, in passing, a few days before his death, remarked the number of graves; and three days before poor Chatterton so painfully terminated his brief and troubled career, while walking in Old St. Pancras with a friend, he fell into a newly-made grave, and was sadly impressed by the circumstance.

In the yard of St. Giles's-in-the-Fields, adjoining Old St. Pancras, lie the remains of Flaxman. Here, too, under a drooping willow, is the tomb of Sir John Soane, and in that of St. Martin's-in-the-Fields, in Pratt-street, also under a willow, is the tomb of Dibdin, so well known for his national songs.

In the burial-ground at Pentonville-hill, a stone marks the grave of Joey Grimaldi, who now rests quietly enough here,—his sports and gambols all past. We made some inquiries in the street adjoining, where he lived for several years, but could gain little tidings about him, except that for some time before his death he was in the habit of being carried on a friend's back to a tavern close by, where he had the opportunity of enjoying the conversation of a few friends. At Sadler's Wells Theatre is a box-full of models and tricks used in pantomimes by Joey himself, very neatly constructed and painted.

Not far from Grimaldi, Bonnington, the painter, who died at too early an age for English art, is buried. His resting-place is unmarked.

THE FLOW OF WATER THROUGH PIPES AND ORIFICES.

INSTITUTION OF CIVIL ENGINEERS.

The evening of the 13th was entirely devoted to the consideration of Mr. Leslie's paper "On the Flow of Water through Pipes and Orifices."

In the discussion, when moving a vote of thanks to the author for his paper, it was stated to be only due to his position in the profession, to direct his attention to certain points which appear to require revision, before the paper was printed. The paper might be divided into two heads,—1st, as to the accuracy of the experiments themselves; and 2nd, as to the extent to which they might be considered as a test of the accuracy of the formula of Du Buat. With regard to the experiments,—in the cases of low velocities and flat gradients, due precautions did not appear to have been taken for guarding against obstructions, especially from the effect of the accumulation of air. For instance, in the second series of experiments, with a pipe 500 feet long, it was obvious that the results could not be relied upon:—In experiment 1, with a gradient of 1 in 2,000, the flow of water was stated as ·3243, whereas in the preceding series of experiments the flow was stated to be ·7407, with a flatter gradient of 1 in 2,391.

In Experiment 5, of the second series, the flow was stated to be 2·18, with a gradient of 1 in 220; whereas in the preceding series, in Experiment 8, the flow was stated to be 3·, with a gradient of 1 in 230. These were examples of the discrepancies, more or less, pervading the whole of the experiments of the class.

While on that subject, as there appeared to be, at present, a strong tendency on the part of public boards, to invalidate established formulæ, and to introduce others affording larger results, the attention of all who desired to investigate the subject was directed to the article "Theory of Rivers," in Dr. Robison's "Mechanical Philosophy," vol. 2, page 388. By an attentive perusal of the article, they would not only be confirmed in their faith in the experiments and formulæ of Du Buat, but they would be satisfied how little practical result depended upon whether, in point of fact, the flow of water was understated, even to the extent of 20 per cent.: for instance, in a culvert of 100 inches diameter, such a discrepancy would not influence its dimensions to the extent of 7½ per cent. nor the cost of construction probably to the half of that per centage.

It was urged that if several miles of huge sewers, in the metropolis, were constructed of too large dimensions, there might be an extra expenditure of 5 or 10 per cent.; but if by the adoption of empirical and incorrect formulæ their dimensions were unduly restricted, the whole system might be a failure, and the expenses induced would be enormous.

On this point it was remarked, that the formulæ published by authority, and insisted on by the Board of Health, gave results differing very considerably from those of accepted practised experimenters, and men of admitted scientific attainments and mathematical knowledge; and it was asserted, according to the authorised report of the proceedings, "that the experiments referred to, although generally stated to have been made for the Metropolitan Commissioners of Sewers, and actually undertaken by a committee composed of gentlemen, at that time forming part of the commission, and the expense, amounting to upwards of 7,000*l.* being paid from that office, yet that no complete records of the proceedings could be found in the archives of the commission, nor had any official report been presented relative to the experiments, which had been chiefly made by a person who was not an engineer by profession, nor a man of scientific attainments, but who was a foreman, or clerk of works, on some small contracts for sewers. A careful examination of the details of the experiments showed, conclusively, that they had been instituted and prosecuted by persons entirely ignorant of the science of hydraulics, and as a natural consequence, that the results were utterly worthless for all practical purposes; and moreover, that, such as they were, they had evidently been tampered with and perverted, apparently with the object of fitting them to preconceived theories; thus the extensive circulation of deductions from these fallacious experiments had diffused error, and would, if persevered in, obstruct the progress of sound engineering in all matters connected with the drainage and supply of water to towns in this country."

In the course of the discussion it was further elicited, that the formula which the author had employed was not the formula of Du Buat, nor was it applicable to the case of very low velocities, in which the adhesion of the water to the sides of the pipe would produce a very sensible retardative effect. The formula used was, in point of fact, a special modification of Eytelwein's formula, and did not comprehend in its terms this cause of resistance. Du Buat's formula, on the contrary, did include the resistance by adhesion, and also that of viscidity, and was of the following form, when reduced to English inches:—

$$v = \frac{307\ (\sqrt{d} - 0{\cdot}1)}{\sqrt{s} - L\sqrt{s + 1{\cdot}6}} - 0{\cdot}3\ (\sqrt{d} - 0{\cdot}1)$$

d being the hydraulic mean depth, s the denominator of the fraction expressing the slope, or gradient, and L the hyperbolic logarithm of the quantity to which it was prefixed.

This formula gave values much more nearly approaching the results of the author's experiments, with minute heads and low velocities, than the formula employed by him; but it was less exact than the still more elaborate formula of Dr. Thomas Young, published in the Philosophical Transactions for 1808, which afforded correct results on pipes, even so small as the $\frac{1}{10\text{th}}$ part of an inch in diameter, and with velocities of only one-fourth of an inch per second. This formula was of the form—

$$v = a\,\frac{l}{d}\,i^2 + 2\,c\,\frac{l}{d}\,v$$

in which a and c were exceedingly complicated functions of the diameter, each involving four or five terms. For all practical purposes, however, the formula of Eytelwein, Prony, Poncelet or Hawksley, might be used almost with indifference. The last-mentioned was the result of an independent investigation, had been frequently verified on a large scale, and in addition was better adapted for mental calculation in

the practical operations of engineers. This formula was:—

$$V = \tfrac{3}{4}\sqrt{\frac{h\,d}{L + 1\tfrac{1}{2}\,d}}$$

or more exactly $= \cdot 77\sqrt{\frac{h\,d}{L + 1\tfrac{1}{2}\,d}}$

V being the velocity in yards per second, L the length in yards, h the active head in inches, d the diameter in inches, and the co-efficient $1\frac{1}{2}$ the divisor when L vanished into a tubulated orifice.

Particular attention was drawn to the evil consequences which had resulted, and still continued to result, from the suspension of the drainage of the metropolis, while successive boards of commissioners, appointed by Government, were debating among themselves trivial questions, as to whether this or that formula should be used in the calculations of their engineer, or whether water would run faster through a cylinder made of one kind of material, or of another kind of material.

PROVINCIAL NEWS.

Lynn.—The cost of the new corn exchange, exclusive of the land, appears, from a statement by Messrs. Medland and Maberley (of Gloucester), the architects, to the corporation, to have been as follows:—Amount of contract, 2,450*l.*; extras, of various descriptions, 94*l.* 13s.; value of old materials taken by the contractor, 300*l.*; architect's commission, 142*l.*; total, 2,986*l.* 13s. To this has to be added cost of stands, attendance, &c.

Chelmsford.—There is now, says the local *Chronicle*, an abundant supply of water rising in the town artesian well. For a few days last week the accumulation of sand in and around the pipe was so great as to stop the flow of water altogether. The contractor, however, succeeded in obtaining a free passage for the water, and the pumps have since been at work day and night in emptying the well. There was at first, as is usual in wells of the artesian character, a large admixture of sand with the water, but it now flows in a pure state, and it is hoped, if nothing unforeseen occur, that in a short time it will be available for laying on to those houses which are supplied with pipes.

Bridgewater.—There is some probability, it appears, of the erection of a suite of buildings here for the general purposes of the County Courts, comprising a court for the monthly sittings, a judge's room, a clerk's offices, &c. Some difficulty, according to a local paper, has arisen in negotiating with the corporation for the appropriation of the assize hall, although Mr. Reeves, of London, has surveyed the building, and designed plans for their reconstruction. It is suggested that a reconstruction of the market-house entirely would give ample space not only for suitable offices and a county court, but likewise for an institution, library, and news-room, there being over the present building an amount of valuable space in the very centre of the town entirely thrown away.

Wells.—The directors of the Somerset Central Railway are promoting a Bill in the present session of Parliament for powers to raise new capital to extend their line to this city and to Burnham. It is proposed to construct a pier at Burnham in connection with the railway, to afford a more direct and speedy communication, by means of steamers, with Cardiff, and other ports in Wales, than at present. The additional capital required for these purposes is 70,000*l.* which they propose to raise in 3,500 shares of 20*l.* each. It appears the directors of the Bristol and Exeter have agreed to work the proposed extension during the existing lease of the line in operation at a rent equal to 4 per cent. per annum on the proposed new capital.

Derby.—At Codnor-park, Ironville, Butterley, &c. a committee has been formed by ladies to raise a bazaar, the proceeds of which are to be employed in laying out the grounds at Codnor-park, given by the Butterley Company for the purposes of recreation, &c. The bazaar is to be held at Whitsuntide.

Chesterfield.—The second premium offered for the design for market-hall, &c. was awarded to Mr. Christopher Eales. We mentioned as to the first last week.

Headley.—The architect of the new church here, referred to last week, is Mr. Salvin. The funds were provided by the Hon. Mary (not Mr.) Howard.

Bury.—The suite of rooms at the Bury Townhall have recently been decorated at the expense of their owner, the Earl of Derby. The walls of the principal room, in which public balls, concerts, &c. take place, are painted a giraffe colour, and at intervals there are large imitation pilasters in inlaid marble, painted so as to have the appearance of supporting the arches of the roof, and at the point of junction between the pilasters and the arches are trusses, consisting of solid figures, scroll work, and fruit. The flats of the arches are formed into imitation panels and styles, the panels being decorated with patterns, picked in with blue and red, the styles being grey. The ceiling, which is arched, is formed into panels, with enriched mouldings. The panels are painted a light grey, and the styles a giraffe, to blend with the walls. There are numerous other decorations throughout the room walls. The ante-room is painted to correspond with the large room, with the exception that four large pillars are in imitation of Bissificaria marble. The card-room walls are painted an apple green. The staircase leading to these rooms has been painted in imitation of granite. The whole of the decorations have been executed by Messrs. John Crowther and Son, of Manchester.

Liverpool.—The building trades here, as well as at Manchester, are very dull at present, and there are many of the working-classes connected with these and other trades out of employment. A rather serious bread riot, we observe from the *Times*, has just occurred at Liverpool. It is said to have been a strange circumstance that while no Russian port in the Black Sea was blockaded throughout the last autumn and the present winter, the Danube and its corn countries were actually prevented by our own ships from providing us with a plentiful supply of corn, whereby such sufferings as those of the poor people of Liverpool might have been obviated.

Manchester.—The once celebrated free-trade hall here is now being razed, to make way for the new free-trade hall, on plans by Mr. Walters, architect, and at a cost of about 30,000*l.* Mr. G. Harrup is the contractor.

Doncaster.—The contractors for the new cemetery, Messrs. Anelay, are about to commence operations. The mayor is to lay the foundation stones of the cemetery chapels. The building of the wall is being proceeded with by Mr. John Elsworth.

Dundee.—The new infirmary here has been inaugurated. At the opening it was stated, that while in course of erection some of the stones selected were found, in the severe winter of 1852, to have crumbled to pieces, and that Professor Donaldson had been consulted on the subject, and had gratuitously given the building committee valuable information, on which they had proceeded, as to the proper method of using the stones. They had also consulted Dr. Guy on the subject of heating and of ventilation, and had adopted his advice in favour of what might be called the natural system of ventilation by doors, windows, and open fire-places, thus dispensing with a costly apparatus of pipes, flues, stoves, &c. which had in many cases been found to be worse than useless. The plans on which this new building has been erected, it may be remembered, were selected from twenty-nine lodged in competition, Messrs. Coe and Goodwin being the architects employed.

THE PUBLIC HEALTH BILL OF 1855.

INSTEAD of the country, by its legislature, applying itself by vigorous means to remedy the sanitary evils which exist around us, it is being led on by exaggerations to act the part of a hypochondriac. Look at the Public Health Bill! What is the legislature doing? It appears actually about to hand over the country to one of the most unconstitutional systems which a Briton can well imagine. It is going to put extraordinary powers into the hands of a dictator, at his own request. The present Act (1848) makes many advances towards such a position. Now, however, the system is to be extended.

In the present Act the surveyor of the local board (a person for whose qualification for his office no provision is made), or the board itself, has the power to determine *arbitrarily* what drains are sufficient for a house within the district, and other matters of that class; also as to streets being laid out in a satisfactory manner. There are no rules whatever to guide them; but they may make the law *ad libitum*.

But in the present Bill a further march is attempted to be stolen on the public. Sec. 91 gives the board and its officer new and arbitrary powers as to the *whole construction of houses* in their districts, not one rule being laid down as to the thicknesses of walls or as to any other particular. I say *arbitrary*, though an appeal is given to Quarter Sessions, for what individual will incur the cost and delay of appealing to a court not acquainted (more than the local board) with building matters, and having no enacted rules to guide it. This pretended limitation to *arbitrary* power is a mockery.

I say "arbitrary power," but it must be further observed, not in the local board, though at first it appears so. They will generally hesitate to use the legislative functions put upon them, and will consult the general board, and then we come to the real dictator, who, from his central seat, is preparing to inform all his subordinates throughout the country; and this, forsooth, under pretence of the principle of *local administration*.

Is our legislature come to this, that it cannot frame the details of its laws, but must delegate the functions entrusted to it by the nation?

The Institute of Architects, and the Institution of Civil Engineers, are about to take up this subject, if time be given them, and it is to be hoped that the energy of these professions will be directed to the staying or moderating so great an evil, both to them and the public.

ARCHITECT.

THE MAIRIE OF THE THIRD ARRONDISSEMENT, IN PARIS.

ON THE DEVELOPMENT OF A NEW STYLE.

IN continuation of those illustrations of the buildings in the French capital which have appeared from time to time in our pages, we have engraved, from the *Revue Générale de l'Architecture*, a view of the "Mairie," or municipal offices, of the third arrondissement of Paris, which was commenced at the end of the year 1848, from the designs of M. A. Gerard. A "Mairie," in Paris, has four principal purposes to fulfil,—those of the mayor, the justice of the peace, the national guard, and the office for charitable purposes,—and demands, therefore, careful arrangement and plenty of space. The three great facts of life, namely,—birth, marriage, and death, are dealt with here, and it includes in itself provision not simply for the objects of the mediæval Hôtel de Ville, but for many of the offices which formerly were discharged wholly by the church.

The building in question is situated in the Rue de la Banque, and forms three sides of a square, backing on the ancient Church des Petits Pères. The façade has a frontage of 39m. 20.

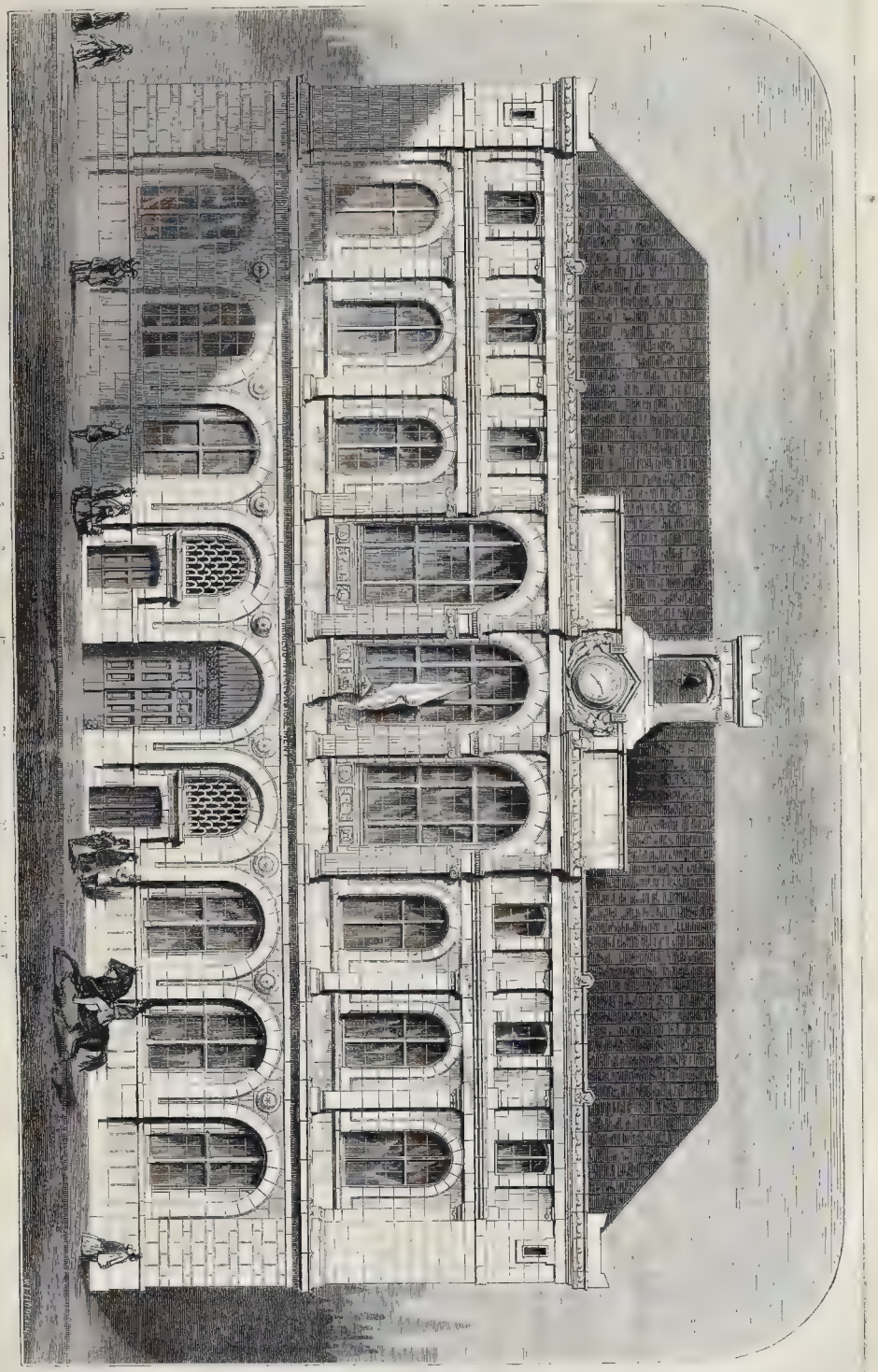
It is wholly of stone, as are the returns, and the roof is covered with plates of zinc. The total cost, including 740*l.*, architect's commission, was 15,574*l.*

The style, it will be seen, is a free adaptation of Classic forms, and is made to convey with distinctness the purpose of the building. M. Cæsar Daly, the able editor of the *Revue de l'Architecture*, in his account of this edifice, makes some observations on the present position of architecture so fully in accordance with views which have been again and again expressed in this journal, that we are induced to quote the substance of them. There is not, says the writer, at least to our knowledge, a single building erected in Europe within the last fifty years, which is not to some extent a work of archæology. And the reason is simple: it is because the complete creation of a new style of architecture cannot be brought about either by a single man or in a single day. The result is, that the

DOORWAY: THE MAIRIE OF THE THIRD ARRONDISSEMENT, IN PARIS.

purist and the architect, forced to produce, become exclusively archæologists, and accept as perfect the elements of a past art; whilst the true artist,—that is to say, he who desires to create, who feels the necessity of being always himself, and manifesting it in his works, can simply realize productions more or less heterogeneous, because he is without a settled principle, and is a member of a society which has not itself a principle yet, acknowledged by all; and because society and he, on account of the complexity and contradiction of ideas, of the recollections, tendencies, and passions of the day, can only progress towards the future burdened with a medley of elements gathered from all anterior states of society. It is either imitation or the confusion of different degrees:—we have had nothing else for the last fifty years. Nevertheless, we do not hesitate to say, this disagreeable confusion, which results from the amalgamation of styles, and which is the fundamental character of the most considerable monuments of our time, the efforts which the most able architects have made to give cohesion to this medley, this confusion,—in itself vicious,—is nevertheless one of the preliminary conditions of the progress of our art at this moment; the more so, too, as divers elements essentially modern get mixed up, willingly or unwillingly, in the heart of this imitation of old things, and there, exercise and influence which becomes every day less and less hidden. This sort of confusion is bad, it is true, for each particular edifice; but it is good, so far as relates to the experience required, and the progressive developments which will terminate in a new art. A new style is the same as a new language:—we stutter and often make mistakes before we speak glibly. But if an imperfect word is the first condition, or first step, to speak well hereafter, would it be wise, on account of aversion for inevitable errors, to give up altogether the attempt to speak any other language but our own? By this argument we should be led to condemn all language to avoid hearing the incomplete sounds of infancy.

We would add to the foregoing observations, that the simple juxta-position of varying elements will never constitute a style homogeneous and living. If we confine ourselves to bringing together the most beautiful portions of previous styles, and even improving them, this mere mixture will never become a new art. Eclecticism in matters of art has been vigorously attacked by able minds, and they are probably right in denying its value as an end; but those who would do so, considering it simply as an instrument of transition, would be wrong. Eclecticism, or the amalgamation of styles, will not suffice to form a new style of art, but it will be of the utmost use as affording a road to it, and providing materials.



THE MAIRIE OF THE THIRD ARRONDISSEMENT, IN PARIS.—M. A. Gerard, Architect.

METROPOLITAN TURNPIKES.

Restrictive of commerce, obstructive of structural improvement and the natural progression of dwelling-houses, these barriers remain with us as relics of the Middle Ages. A movement is, however, begun, having for its object the abatement of the grievance, and the removal of all such restrictions beyond the bills of mortality, and, at least, beyond the limits of the metropolis, wherein a levy of paving and lighting is made upon the inhabitants, at present subjected to the double mulct of a turnpike-toll, professedly imposed for the same purpose of keeping the roads in repair.

If the objection were solely confined to the fact, that this particular imposition is collected through the obsolete practice of *farming out the revenue*,—that one-half of the sums so raised necessarily goes into the pockets of the contractors and farmers,—that ought to be a sufficient reason wherefore the Government should either abate the impost altogether (in the cases where highway-rates are levied), or substitute for the imposition some other more just and equable mode of fixing the charge of keeping the highways in repair.

The operation of toll-charges is, in all metropolitan instances, most unjust and unequal. It falls heaviest on the trader of the vicinage, who, having to fetch his commodities from market, first pays toll in the morning for his stock in the mass, and, at innumerable times throughout the day, repeats the same (to him) costly ceremonial in infinitesimal distribution to his customers; but the pressure is most seriously felt by proprietors of vacant lands and houses near the gates, since, as example on all sides proves, *the value of lands and houses* is most seriously depreciated in such localities. Witness the green (though smoke and soot covered) pastures in proximity to Camden-town;—witness the unoccupied and low-rented houses near to all the most vicinal of the London tolls: and for the reverse of the picture, witness the rapidly enhanced value of all the property adjacent to the lately removed barriers of Marsh-gate, Tyburn-gate, King's-cross, &c.

It may be argued that tradesmen in the oppressed localities may lay on a profit to repay the undue charges levied upon them; but such is not the fact, for these are notoriously the poorest districts; and even though it were otherwise, competition in trade would forbid reimbursement in such a manner by an increase on the market price.

In barbarous or semi-civilized states, the revenues are still farmed, but with what effect is patent to the world,—dwindled exchequers, and corrupt and rascally douaniers and contractors! It has been abolished in England save in this particular; and perhaps, of all imposts, not one is so un-English, not one so distasteful to John Bull, as to be stopped on the highway for the levy of black-mail, by a (not always over civil) man who, in our days of enlightenment and liberty, can legally arrest his progress, with the antiquated and startling summons of *stand and deliver*.

One penny in the pound levied in the parochial assessment, if it were necessary, which it is not, wherever highway rates are levied, would be sufficient to keep up all the metropolitan roads and causeways, in a thorough state of repair: but the paving and lighting assessment is, or if it is not, it ought to be, made sufficient for the purpose, without the retention of an odious and most unpopular, and iniquitous tax.

Two meetings recently held at the Adelaide, Camden-town, and at the Assembly-rooms, Kentish-town, would, if the proceedings were published, clearly announce to the Government the iniquity of the tolls, and the detestation in which they were held. Mr. William Morley was the promovent in the question, and the discussion held on these occasions clearly announced the impolicy and oppression of the system. It was shown that omnibus proprietors, who paid as much as 100*l.* a-year, were forced to lay the charge on their passengers in increased fares, and that these being chiefly of the middle and lower classes, the onus must of course rest on their shoulders.

One by one the nearest toll-bars have been removed; and, to enforce the argument of expediency for such enfranchisement, it is only requisite to say that the city has abolished the levy of dues upon carts and wains not belonging to freemen. Like men of business, they clearly saw that the profit was small—that the loss was great—for the restrictions placed upon commerce and upon free traffic must have far outweighed in amount any very doubtful gain derived from a toll collected only from stray commercialists and their waggons.

The tolls on the bridges, though only one halfpenny, are grievances of the same class. They are unsuited to our times; and every bar which imposes the smallest dole upon the wayfarer is a restraint upon commerce, a check upon free intercourse, and a tourniquet upon the main artery of civic intercommunication. In point of fact, a great city should have its roads, bridges, causeways, and traverses, *wholly and completely unobstructed*; and the expense, however large, attendant upon all the intercourse and all the aisances of a great community, ought to be distributed equally over the nation; for the service of the State, as well as the Church, should in every sense be "perfect freedom." Q.

WAR APPLIANCES.

It is satisfactory to know from Lord John Russell, that the New War Minister, Lord Panmure, "will not hesitate to take advantage of additions and improvements made by the progress of arts and science to the armies of other countries, which have enabled them to gain their present reputation." This is a pretty clear admission of our own deficiency in modern war appliances; but why we should merely be followers of others in such appliances, it is hard to say; nor is the assurance very promising that "he will not be disposed to introduce innovations that may be destructive to the army." None but a friend of the Czar would do that; but we cannot overlook the fact that from want of "innovations," our noble army has already been all but "destroyed."——The invention of innovations destructive to the enemy's army, meanwhile, is by no means exhausted. The last new deadly missile we have heard of, is a bullet of brass, which opens or "expands," in firing, from 24 to 30 inches, and "acts as a sword, cutting horizontally throughout the whole of its course:" it is adapted to ordinary fire-arms, and was invented by Mr. N. G. Staunton, C.E. The Board of Ordnance have had their attention drawn to a newly-invented revolving rifle, with barrels as large as the Minié rifle now in use, and chambers similar to the repeating pistol. This weapon, it is said, will discharge five shots in four seconds, and can be loaded with extraordinary facility. An improved cannon to be loaded at the breech has been invented by Messrs. W. Church and S. A. Goddard. It is mainly by means of a compound wedge worked by a lever in a depressed chamber at the breech, and covered by an annular and shiftable collar, that this purpose is effected. India-rubber blocks to act as recoil springs attached to mortars or guns in mortar-boats or ships have been successfully experimented with, it is said, at Woolwich. Each recoil spring is calculated to resist a concussion of from 20 to 25 tons at an average compression of from 1 to 1½ inch.——An extensive arm factory is now in course of erection for Government at Enfield Lock, Middlesex. Mr. J. Haywood, of Derby, the contractor, is bound to complete the whole in six months.——Mr. John Downie, of Glasgow, has patented a new description of cannon, constructed of wrought and cast iron combined. The firm to which he belongs has contracted with Government to supply 2,000 tons of war stores, including cannon and mortars, shot, shells, &c. They began with a huge mortar to throw 13-inch shells, and requiring 9 tons of fluid metal in the casting, though not to exceed three tons in actual weight.——The Admiralty have taken up two ships to convey 1,000 tons of wooden huts to Heligoland for a British encampment to be there formed.——The railway companies of France have subscribed 100,000*l.* to the fund now raising for the sick and wounded in the army in the Crimea.——The navvies, it appears, were landed at Balaklava in good health and spirits, and the railway works were commenced at once, and considerable progress had already been made, by last accounts. No difficulties were presented by the nature of the ground. The first mile and a half from Balaklava is nearly level, the incline being only 1 foot in 60: there are then two miles of steep incline, rising 1 foot in 15 for the first half-mile, and then 1 foot in 25; but from about the end of this distance to Lord Raglan's quarters the ground is nearly level. The Field-Marshal and Sir John Burgoyne are said to think favourably of the project.——The *Spitfire* was about to leave Kamiesh on 15th ult. for Constantinople, to fetch the submarine electric telegraph-wire, and the persons to be employed in its laying down between Cape Chersonese and Varna. A wire is also to run from head-quarters to Balaklava.——A mercantile firm, according to the *Times*, has offered to do the whole duty of the Commissariat, and feed the army, not with raw pork and green coffee, but with three wholesome cooked warm and regular meals, at 3*s.* 3*d.* a day for each soldier.——Two picked firemen from the Metropolitan fire brigade have been sent to the hospital at Scutari, at the request of Government.——A levy of thirty-four ship carpenters, according to *Galignani*, has been ordered in the maritime arrondissement of Havre, to work on the gun-boats now building by M. Normand for the French Government. A levy of seamen has also just been made in the arrondissement of Calais.

ROCHESTER.

Some time since I read a letter in the *Builder*, calling attention to some of the dirty localities of this town, and signed "C. E." Allow me to point out a few places worth the trouble of an inspection as contra thereto. First I would mention the Town-hall, the façade of which is one of the best specimens of brickwork I know of, and was erected in 1687. The work is rubbed brick, set in putty, five courses to the foot, and highly ornamented. The Corn-exchange is also of the same kind of work and period. The castle and parts of the cathedral, as all know, are well worthy of a visit, as well as the quaint old timber houses in Eastgate, with their overhanging floors and curious gables, which, although they are inconvenient as dwellings, are notwithstanding very handsome relics of that style of architecture. I shall pass several objects worthy of observation, till we come to the entrance gates lately put up to the Hare and Hounds Tea-gardens, on St. Margaret's-bank, which formerly stood at the entrance to the Chatham brewery, and also to another pair still standing at the brewery, opposite the Sun Inn, Chatham, and the baluster in front of the offices of that establishment: these are very good specimens of old iron work. Unfortunately the last two specimens are now in rather a bad state of repair for want of proper attention and a little paint. The front of these offices is in the Italian style, and well worthy of inspection. The next and last that I will now call your attention to, is the entrance doorway to the Parsonage-house, a little lower down the High-street, on the same side of the street. It is composed of two pilasters, one on each side of the doorway, panelled, and ornamented with fruit and flowers, carved in high relief: from these spring brackets or trusses, also beautifully carved, and the whole of the inside wood being cut away so that they are quite open. The pediment over the door is quite in keeping, and the whole gives evidence of great skill in the execution. In conclusion, if any of my brother professionals should think it worth while, should they be near here, to take only a passing glance at the different places I have named, and have afterwards any spare time, I would recommend a visit to the Model-room of the Royal Engineer establishment, in Brompton barracks, only a short distance from the last building I have called attention to, and they will find it repay them for their walk; and they will also have the opportunity of seeing another piece of good brickwork erected about the same period as the Town-hall, Rochester, *i.e.* the principal entrance to her Majesty's Dock-yard. T. J. R.

THE FALL OF HOUSE IN ISLINGTON.

The adjourned inquiry respecting the deaths unhappily caused by the fall of an old house in the Lower-road, Islington, was resumed on the 21st, before Mr. Wakley, the coroner. In the course of the evidence given,—

Joseph Wright, of 10, Old Paradise-row, said that he was a journeyman bricklayer by trade. He did some work at the premises during six weeks at the beginning of the last summer. Mr. Fownes paid him 4*s.* a day. He examined the premises, and reported to Mr. Fownes what was necessary to be done. He did not offer to do the work for any particular sum. He did not tell him that the house was in a dangerous state. Witness had put some stonework and bricks in the cracks under the gateway. He repaired the fracture with cement, according to Mr. Fownes' instructions. He was inclined to think that he removed about 3 or 4 feet of the wall which he repaired. The wall was in some places 9 inches thick. He put about forty new bricks into the wall. To the best of his knowledge, no surveyor was employed there. The bricks that he removed were not under the girder. The bricks were all loose, but there was mortar attached to them. The wall was in what may be termed "a middling condition." He reported to

Mr. Fownes that the other part of the wall was in a dangerous condition. Mr. Fownes said, "Then you had better get it down and repair it at once, in case of danger." He saw that the house was in a bad state, but he did not tell Mr. Fownes of it. The roof of the house was also in a dangerous state. It is still standing.

Geo. Ebsworth, next door, said: There was a zig-zag crack in the wall, which suddenly appeared at the side of the wall of his own house. It extended from the ceiling to the floor. He spoke to Wright about the state of the wall, and he said that it would be all right when it was repaired. Several yards of the wall were taken down. On the Saturday preceding the accident a man removed some of the brickwork, when the crack widened. He went and fetched a man who was removing some of the brickwork, and he said, "I do not know whether you are doing right or wrong." At the same time he informed him that the aperture in the wall was getting larger, but a man named Elgar, in reply, said, "Oh, it is all right." This took place about the time the man had removed six bricks. A thick wall had been removed: a thinner one was substituted. He had lived in the house three years. The wall had been taken away right along the passage, and also under the gateway. The wall was certainly not so thick as it was formerly.

Richard Elgar, of No. 49, White Lion-street, a bricklayer, said that he was employed on Saturday week, by Mr. Fownes, to look to the state of the house in Lower-street. Mr Fownes was with him at the time. He removed three "bats," which he prized out with a chisel. He did not knock them in again, or by any means replace them. He took the "bats" from the further end of the wall, nearest the back yard. Mr. Fownes asked him if there was any danger, and he replied that there was no immediate fear that he saw at that time. Fownes then told him to take the brick-work out on the Monday morning, and to raise a pier with cement and mortar, in order to support the beam that went across. He saw no crack in the main wall, but there was a crack in the angle of the wall over the shop. Before he took the bats out he thought the wall was 14 inches thick. His object in taking the bats out was to ascertain the thickness of the wall. The wall was bulging where he took the bricks out.

Mr. George Godwin, District Surveyor, deposed that he had not received any notice of the state of the premises; nor of the works recently done. The Act directed that on receiving information of a ruinous building, the district surveyor was to take certain steps, and these he detailed. If the dangerous condition of a house came within his knowledge, he should, without notice, take the steps pointed out to protect the public. In reply to the coroner, he did not consider the Act afforded full protection to the public; and yet he would not have the responsibility of discovering ruinous buildings thrown wholly on the surveyor, as that would relieve owners from the responsibility which they ought to feel. The Act of Parliament was not working well, and the difficulties were increased by an unfortunate difference of opinion between the referees and the registrar. He took occasion to urge on builders the necessity of giving notice to the district surveyor before commencing any works. If notice had been given in this case, the condition of the building would doubtless have been apparent. He concurred in the opinion that many new houses were in a very improper condition. At the request of the coroner, the witness then pointed out some alterations desirable in the Act, urging especially the formation of an open court, with one or more official referees (architects), with a legal assessor, to give summary decisions, as at a police court. He attributed the accident to the failure of the wall on the right hand side of the gateway, either through being weakened or from gradual decay.

Mr. T. M. Nelson, architect, appointed to examine into the cause of the accident, said that he had made an examination of the house and premises in the Lower-road, part of which had fallen down. He considered that the house was built 150 years ago: it was in a very dilapidated state, and unfit for habitation, and was not in a condition to bear any superincumbent weight, and the only wonder was, that the accident did not happen before. The house was in such a state of decay, that a slight concussion or vibration, arising from any cause within or without the building, would have produced the catastrophe that occurred. In reply to the coroner, Mr. Nelson said that he considered the law upon this subject to be in a most unsatisfactory state; and he then set forth at very considerable length what he considered some of its deferts. He believed there were as many as 300 awards unsealed. He might mention as one incongruity in the Act, that while a district surveyor might get a fee for the placing of a chimney-pot, he received no fee at all for surveying a building assumed to be ruinous. The Act was equally faulty in other respects; it particularly favoured the erection of small incommodious dwellings for the poor. He, and several of his profession, conjointly with the metropolitan parishes, had urged upon the Government the great necessity for its interference with respect to the Metropolitan Buildings Act. There was a simple Act in operation in Paris which might be modified to suit this country.

The coroner, in summing up, dwelt very forcibly on the evils of the Buildings Act, and said he thought no Act at all would be better than a deceptive one, and pronounced its present administration a disgrace to the country. For the one judge to sit in open court and act summarily, he decidedly agreed with Mr. Godwin in recommending that it should be an architect. He then pointed out very clearly and ably the law as regards the criminality attaching to owners, and read over the more important parts of the evidence.

After some deliberation, the following verdict was returned,—"That the jury are of opinion that the deceased persons lost their lives by the falling of a house, situate at No. 2, Lower-street, in the parish of Islington, on the night of Sunday, the 11th of February, 1855, from misadventure; and there was great and culpable neglect on the part of Mr. Henry Fownes, the owner of the house, in employing incompetent persons to repair the premises, without previously giving notice to the district surveyor; and the court cannot separate without expressing their approbation of the conduct of the late Francis Stoker, police-constable No. 262 of the N division, who lost his life in endeavouring to save the lives of several others at the said period. They (the jury) also wished to express their admiration of the conduct of Mr. William Calvert in saving the lives of eight persons; and they regretted the injuries sustained by the witnesses Jauncey and the police-constable Best."

DINNER-TABLE DECORATIONS.

Having ventured to suggest the decoration of our City Guildhall with frescoes, under the patronage of our present worthy Lord Mayor, I would now, in reference to a letter which recently appeared in your columns on "Dinner Decorations," merely observe, that the most cheerful, refreshing, and effective decorations that I have seen, were at a great public dinner at Leipzig, during one of the great fairs, which railways have now made almost a matter of history. A large number of standard orange and oleander trees were ranged along the tables, through which the stems of the trees were brought; thus nothing intervened to obstruct the view of any of the guests, and the branches which spread *overhead* tended only to add beauty and fragrance to the whole scene. "Non Nobis."

ROYAL INSTITUTE OF ARCHITECTS IN IRELAND.

The usual monthly meeting of this body took place at Dublin, on Saturday evening, the 17th inst. Mr. Jacob Owen, V.P. in the chair. Donations having been acknowledged, some carved caps belonging to an altar screen, in the Early English style of architecture, were exhibited by Mr. Kirk; and Mr. J. H. Owen afterwards read the first portion of a paper on "The Curiosities of Architecture."

THE GREAT BELL OF ST. PAUL'S.

Under the head of "Variorum," in your number for February 17th, p. 83, reference is made to a treatise in the "Encyclopædia Britannica," by Mr. Dent, the eminent chronometer maker; and various interesting particulars are given therefrom, respecting the great clock and bells for the new palace at Westminster. Among these it is stated that "the hour-bell is 8 feet high, and about 9 feet in diameter, weighing fourteen to fifteen tons. * * * The largest of the mere quarter-bells is about the size of the great bell of St. Paul's, which weighs 5½ tons."

I think there is probably a mistake respecting the weight of the great bell of St. Paul's. Its diameter is stated in Charles Knight's "Pictorial Half-hours of London Topography" as being 9 feet; and its weight 11,474 lbs. being 5 tons, 2 cwt. 1 qr. 22 lbs. or a little over 5½ tons. I do not remember any other work in which its dimensions are referred to; but I have repeatedly met with this statement of the weight; and I am led to doubt its correctness, judging by the weight of the hour-bell above-mentioned, and that of "Big Peter of York," which, with a height of 7 feet 7 inches, and diameter 8 feet 4 inches, exceeds twelve tons. My belief is, that the above figures originally stood as 11·474 tons; and that some succeeding book compiler, not understanding decimal notation, thought *tons* a mistake, and put *lbs.* instead; and the misstatement, once going forth, got repeatedly copied.

Any one familiar with the deep, sonorous *boom!* of the great bell of St. Paul's (which has been heard twenty miles off), will question the suitableness of such a bell for striking the quarters upon, or the expediency of having two bells of 9 feet in diameter in one campanile.

Of course, my hypothesis may be, after all, erroneous: and I do not question the practicability of casting two bells similar in form, size, and external appearance, the one so much thinner than the other as to turn out little more than a third of its weight; but St. Paul's does not sound as if it were at all deficient in metal.

The following, I believe, are modern English proportions of bells: the thickness of the brim, the height, and the top and bottom diameters, relatively, as 1, 12, 7½, and 15; and the brim, the foundation of all the dimensions.

The Messrs. Mears, of the old Bell-foundry at Whitechapel, whence have issued most of our great "Toms," could probably state, from their records, the weight of the great bell of St. Paul's, which I should not be surprised to hear was cast by their ancestors.

James Wylson.

THE ROD IN THE IPSWICH GRAMMAR SCHOOL.

In addition to the brief notice which appeared last week, of that delectable specimen of fair architectural competition, the Ipswich Grammar School, perhaps you can find a corner for the following, scribbled one day, in a fit of inspiration, on the cover of my copy-book.

Timotheus Ticklebackius,
Alumnus Scholæ Elizabethæ Gippovicensis.

ON VIEWING THE IPSWICH GRAMMAR SCHOOL TIED UP WITH IRON RODS.

Tityrø tu patulæ recubans sub tegmine *virgæ*.
Dr. Burch's Variorum Virgil.

In Busby's time, under his birchen sway,
The rod was used to make bad boys obey;
But now that birch the mawkish mind appals,
When rods are used, it is to mend bad walls.
If the rod's ancient office were restored,
There are some backs* deserve to be well scored.

Notices of Books.

The Electric Telegraph Popularized. By D. Lardner, D.C.L. Walton and Maberly, Upper Gower-street, London: 1855.

The purpose of Dr. Lardner in preparing this little volume for his "Museum of Science and Art," from which it is here, however, separated, is to render intelligible, to all persons who can read, the various forms of telegraph in actual operation, and the way of their working. In this purpose we think the author will have fair success; but the word "intelligent" should be placed before the word "persons."

The electro-magnetic and magneto-electric telegraphs are the inventions of many minds, no single individual, as in many other instances, being entitled to be named as the inventor. In England, however, Professor Wheatstone; in the United States, Professor Morse; in Bavaria, M. Steinheil; in Prussia, Dr. Siemens; and in France, MM. Breguet and Froment, may be named as having severally stood in the leading ranks of its invention; and besides these eminent persons may be named Mr. Bain, the inventor of the electro-chemical telegraph; Mr. Henley and the Messrs. Bright, who have improved the magnetic or magneto-electric telegraph; Messrs. Brett, to whom the world is indebted for submarine telegraphs; Messrs. Newall and Co. who have constructed so many submarine cables; Mr. Walker, of the South-Eastern Telegraph Company; and Mr. House, of the United States, the inventor of a printing telegraph in extensive operation.

The *beau ideal* of the telegraph appears to us to be the autographic telegraph, by means of

* No allusion to our school committee.—T. T.

which the wires, though they were a thousand miles long, become as it were the pen by which a writer at one extremity can produce a letter or other document "in his own handwriting," at the other; and although this *beau ideal* is not yet in practical use, it has actually been worked with, in a hopeful, though still an imperfect manner. It is by a modification of the electro-chemical telegraph, that this wonder of the day has been rendered possible. Mr. Bain is the inventor of the electro-chemical telegraph itself, which, in Dr. Lardner's opinion, is likely to be of more use than it yet is, when the demands of the public on the telegraphic system shall be greatly multiplied and extended by lowering the tariff. In this view, as the Doctor remarks, "the system of Bain is to the common telegraph what the steam-engine is to the horse, the power to the hand-loom, the lace-frame to the cushion, the self-acting mule to the distaff, or the stocking-frame to the knitting-needle." Is there no far-seeing Boulton who will take this poor Watt by the hand, and enable him, perhaps, to so improve his processes as to accelerate the lowering of the tariff itself, and so to hasten the time when the present hand-loom telegraph shall be cast aside, and the power-loom multiplier and the electro-chemical pen of Bain shall be brought into universal action?

Miscellanea.

HORSES FOR WAGGON TRAINS: NATIONAL FAIRS.—Mr. B. Almack suggests the institution of national or patriotic fairs, to be held in various localities, where the spare horses of the district might be sold to Government at fair prices by the farmers, who, he is sure, if confident their horses, which are the best in the world, would not be "used up" without credit to their country, would willingly part with some of them on reasonable terms, even though at some present inconvenience to themselves. Thus a better class of waggon horses could be obtained than are usually on sale, and they would be already trained and in good condition for work. The best waggons now in use, too, he observes, might be had at once, or improved ones made by our agricultural implement makers, according to Government order, and suitable for army purposes. All depends, Mr. Almack observes, on confidence in the Ministry, and on system in carrying out the suggestion. The finest waggon train in the world, he believes, might thus be had in one month's time, with light, under-sized, active men for drivers, who, with a pair of revolvers each, would give a good account of their charge, as well as of the enemy who might attack them.

PROGRESS AT MELBOURNE.—In a leading article on the social condition of the colony of Victoria, and the town of Melbourne, the *Age*, a Melbourne paper, says that in spite of recent reverses, population has continued to pour in, and building has been carried forward in the city with great spirit. A Public Free Library is in course of erection. The University building is going forward. The Exhibition has been "most splendidly successful." The existing literary institutions are flourishing, and new ones rising. Booksellers' shops are multiplying. Melbourne is no longer a mere collection of scattered stores, rudely built of battens and bricks without any pretension to style or arrangement. In Collins-street there is scarcely a wooden building remaining, and a great portion of the shops might, without suffering by comparison, be placed side by side with those of Cheapside or the Strand. Many of the streets are susceptible of great improvement, but they are in general in a very creditable Macadamized state: the footpaths are being flagged with Yorkshire stone. There are numbers of capacious stores, long piles of massive buildings, in certain localities, looking more like prisons than places of business. There is rather more than a sufficiency of comfortable residences. A well-built brick house, which at the highest times was worth 8*l.* per week, now lets for 4*l.* or 5*l.*; and houses which then let at 5*l.* per week are now offered at from 2*l.* to 3*l.* per week. In the neighbourhood of North Melbourne and Collingwood, there are many comfortable-looking houses without occupants, and which have been so for some time.

THE BERNAL COLLECTION.—The Council of the Society of Arts have presented a petition to the House of Commons, calling attention to the fine collection of works of art, extending from the Byzantine period to that of Louis Seize, made by the late Mr. Ralph Bernal, which are advertised to be sold by auction on the 5th of March; and they pray the House to vote the necessary funds for its purchase, about 50,000*l.*

FIRES IN THE FROST.—In order to avoid the delay in getting water to extinguish fires when the frost is severe, it would, I think, be well if, in the gas main nearest to any "fire-plug," there were inserted a gas-plug (as it would be called), and if every engine were provided with a short length of gutta percha pipe, with union and nozzle, so that a powerful jet of flame, as from a blow-pipe, might be directed on the frozen water plug. If the turncock were also provided with a piece of tubing, water would be ready before the engines arrived. There could be no objection on the part of the gas companies; a few pence would be the value of the gas; and the cost to the assurance offices would be soon repaid in the time, and therefore property saved. One winter such as this, one fire such as that recently would do it.——Pray, continue to complain of the gas. I have a 15-light meter, but till after eight o'clock cannot get gas enough for three hours. There is nothing amiss with my pipes, for the company (Equitable) have seen to them. It is not so much supply that is wanted as *density*. The companies are retracting so many valuable "products" from the gas manufacture (as I happen to know), that the illuminating power and, consequently, density, are seriously lessened. Does not every one notice the darkness of the streets, compared with what they were?—J. J. C.

CAMBRIDGE ARCHITECTURAL SOCIETY.—The first meeting of this society for the Lent Term was held on the 7th inst. at the society's rooms. After some other business was done, including the resignation of one of the secretaries and the appointment of another, Mr. R. R. Rowe read some remarks upon the original contract for the building of Trinity-hall, between Bishop Bateman and John de Mildenhall His remarks had reference to several technical words connected with carpenters' work, introduced into the Latin contract. The meeting adjourned to the 22nd inst. the 21st being Ash Wednesday.

LEEDS SCHOOL OF PRACTICAL ART.—A *conversazione* was held in the rooms of the Leeds School of Practical Art on Tuesday evening before last, the object being to direct more general attention to the institution, with a view of obtaining increased subscriptions. The withdrawal of the government grants to the school, under the late regulations of the Board of Trade Department of Science and Art, placed the managers in a somewhat critical position, and the institution has been struggling for some time. The amount required to support the school, in addition to the pupils' fees and a few petty subscriptions, is about 100*l.* per annum. At the *conversazione* on Tuesday there was a highly-respectable assembly of visitors, though not very numerous. It appeared, from statements made at the meeting, that the number of pupils in the school, and those in commercial and other schools in the town who receive instruction in drawing by the master of the school of practical art, Mr. J. C. Swallow, amounted to 865. A series of resolutions were adopted recognizing the advantages which accrued from such schools, and urging that a canvas should be entered upon to obtain the necessary subscriptions in order to carry on the school.

LECTURE ON WOOD ENGRAVING.—At the Literary and Scientific Institution, East Grinstead, according to the *Sussex Express*, on January 31st, a lecture on engraving was delivered by Mr. J. J. Jenkins. After some general remarks on engraving, the lecturer stated that he should not attempt to treat of the history of the art, and then proceeded to give practical information as to the various processes employed in the production of an engraving. In conclusion, Mr. Jenkins made some observations on the importance of the engraver's art, not only to the world by diffusing a knowledge of art amongst those who could not hope to become the possessors of original paintings, but also to the artist, by giving to his creations a comparative immortality, as by the lines of the graver alone we are enabled to form any available idea of many celebrated works which have long since perished by fire or other destructive accidents, or by the natural process of decay. For though the unique original may be thus early destroyed, or partially injured, it is surely possible that the *whole* of the impressions from any one plate should entirely perish. The lecture was illustrated by a number of engravings, and of copper and steel plates in various styles of progress, the different tools and instruments used by the engraver, &c. &c.

BATH SOCIETY FOR THE PROMOTION OF THE FINE ARTS.—The second *réunion* of this society, took place on Tuesday night, in the week last past, and the apartments, crowded to overflowing, notwithstanding the unusual severity of the weather, bore gratifying testimony, says the *Bath Chronicle*, that the inhabitants of Bath justly appreciated the exertions of the committee at its opening meeting. There were not less than 600 persons present, and the works of art exhibited, it adds, were of the same high quality as on the former occasion.

VIEWS OF THE PARIS PALACE OF INDUSTRY.—The announcement by the company of the Palace of Industry, that law gives them the exclusive right of publishing representations of the new building, and that they will proceed against any who may attempt to do so, either wholly or in part, has excited great displeasure, as might be expected. Their power to prevent such publication seems doubtful, but even apart from this the desire is most unwise and short-sighted.

PROCEEDINGS UNDER THE METROPOLITAN SMOKE NUISANCE ACT.—The Government are still actively at work in suppressing the smoke nuisance in Lambeth, Westminster, and elsewhere throughout the metropolis. On 12th inst. Mr. T. Maudslay, of the firm of Maudslay and Field, in the Westminster-road, Lambeth, appeared before Mr. Elliot to answer an information under the Act for neglecting to adopt the necessary apparatus for the prevention of smoke from their furnaces. The full penalty of 5*l.* was imposed. The railway companies are about to be called to account.

DOWN DRAUGHTS.—We have recently received some letters seeking to learn how to overcome the evils of a down draught. One says the inhabitant of nearly every house in Belgravia, Eaton-square, and the neighbourhood are thus troubled, particularly in those houses which are most lofty:—"When my neighbour lights his breakfast-room fire, my dining-room is filled with the smoke that he is better entitled to: my dining-room discharges its black superfluities in his nursery; whilst in both our houses there is a capital draught up every chimney, when we want it, and when we do not, a down current of stifling quality from some other chimney. Very recently a child was all but suffocated in bed: congestion of the lungs was coming on when the infant was fortunately discovered in its predicament, in time to be saved from serious consequences. The builders are conscious of this defect, but are unable to remedy it; and we hereabouts are of opinion that if these remarks be published *in extenso*, through your kindness, some experienced practical builder may perchance hit upon a remedy against the great evil of down draughts."

ELECTRO-TELEGRAPHIC PROGRESS.—The electric telegraph between Varna and Bucharest is progressing rapidly. The wire goes by way of Giurgevo, and is completed as far as Kalugreni, which is but two post stations from Bucharest.——The communication by electric telegraph is now completed between the three presidencies, the north-west provinces of India, and Lahore. The lines between Bombay and Madras were joined by moonlight near Belgaum, on the night of the 31st of December, and the communication between the presidencies completed on the first day of the year.——The submarine Atlantic telegraph is said to be now fully under way, and the last doubt removed about its final completion. Six hundred men have been employed for a year in its construction from New York City to St. John's, Newfoundland, to which point (1,200 miles) it is nearly completed. Before two years have gone by, it is said intelligence will be flashed regularly every hour from London to New York.

THE LONDON 'CHANGE.—Can you do anything to help the attenders at 'Change in their sufferings from the unprotected condition of their place of meeting? It is really very hard that the merchants of the first city in the world cannot have,—I will not say a comfortable place to meet in,—but one that affords the merest shelter from wind and rain: the area, as you are aware, is open to the sky, and if you take shelter in the "cloisters," there is an attack of bronchitis behind every pillar. It is a fact, that some of our leading men absent themselves from 'Change on this account; but for some of us, who must either look out for business, or perish in the attempt, it is a serious business. Surely, a glass roof is not beyond the wealth and enterprise of the merchants of London.—A STARVED BROKER.

ISLINGTON.—Alterations are to be made at Islington Workhouse, and tenders have been received, ranging from Bradley, 788*l.* to Nash, 590*l.*

THE WEATHER.—In order that the public may be made acquainted with the severity of the present season, I send you an account of my thermometrical register of the past week. Mine is a self-registering thermometer, and hangs on the north side of a wall bounding my premises and an open field. I have kept an account, similar to that which I now send, for more than twenty years. I merely observe that my figures denote the coldest point to which the thermometer was reduced, viz.:—

Feb.	13. Tuesday	12 deg.
	14. Wednesday	29
	15. Thursday	14
	16. Friday	14
	17. Saturday	16
	18. Sunday	27
	19. Monday	29

E. N.

ARCHITECTURAL SOCIETY OF THE ARCHDEACONRY OF NORTHAMPTON.—At a committee meeting, held February 12th, the Rev. P. H. Lee, B.D. in the chair; on the recommendation of Lord A. Compton, it was agreed that the secretary should propose to the committee of the Northamptonshire Educational Society that a joint committee be formed, for the purpose of procuring the best plans for schools and school fittings, suited to the wants of the archdeaconry. It was also determined to repeat the proposition to the Agricultural Society, relative to the obtaining of good and cheap plans for labourers' cottages. It was definitely fixed to hold the spring meeting at Peterborough, on Wednesday and Thursday, the 23rd and 24th of May, the Dean of Peterborough having kindly offered every facility and accommodation in his power to the society.

THE CRYSTAL PALACE OF WIELICZKA.—When Russia, Austria, and Prussia were dividing Poland among them, there was one "gem" that fell to Austria's share. This was the Crystal Palace, the gem-salt mines of Wieliczka, at the foot of the Carpathian Mountains. Poland had thus her Crystal Palace hundreds of years before London dreamt of hers, and these dwindle into utter insignificance when compared with the extent of the Crystal Palace of Wieliczka, with its suites of vast and lofty halls, its vaulted chapels, its long range of spacious galleries, and the quiet lakes spread like mirrors within its walls. To make the descent easy, broad flights of steps have been cut, through the superincumbent strata of marl, clay, and sand, into this wonderful labyrinth of crystal halls, 100 of which measure from 100 to 150 feet each in height, and from 80 to 100 feet in length and breadth, each having its peculiar name. The largest of the salt chapels is dedicated to St. Anthony. In this Gothic chapel, as well as in the smaller ones, not only the walls, the doors, the niches, are hewn out in salt, but so likewise are the altar and the crucifix in front of it, the statues of the saints, as large as life, that grace the niches and kneel around the altar, and even the little lamps, of antique form, that burn before their shrines. The grandest of these crystal halls is, however, the ball-room, adorned with slender columns, with ornamental capitals, with friezes of sculptured foliage, and with a chandelier formed of salt-crystals, 60 feet in circumference. In this hall are given *fêtes* on occasion of the presence of emperor or king. The effect produced when the hundreds of lights in the chandeliers are reflected from the myriads of saline gems which form the walls, ceiling, and floor of these halls, is said to be wondrously beautiful. Among the sculptured works that adorn the various chambers, a trophy formed of all the tools and instruments used in the mine, is particularly interesting; and a statue of King John Sigismund, of Poland, cut out of a single block of crystal. The works at present extend over an area of 35,000 square fathoms, the length of the galleries and passages making together 7¼ German miles (about 37 English miles). They consist of three divisions or "fields." These "fields" consist of five stories, or "contignations," as they are called in Galicia, the one below the other, and each comprising vast ranges of chambers, communicating with each other by numerous horizontal galleries or "levels;" while the various contignations communicate by means of perpendicular and oblique shafts, besides the staircases already mentioned. The lowest level of the mine is 300 feet below that of the sea, and 580 feet below the bed of the Vistula.

A SNOW MELTER.—The model of a cart for the removal of snow has been submitted to us by the inventor, a practical man, Mr. West, which he thinks might be employed with good effect at this moment. The cart is intended to be of cast iron, containing a furnace; the heated air from which would pass through chambers in the side of the cart, and on to these the snow would be shovelled and so melted. The clear water is then allowed to run off through a trap in the side of the cart down the nearest gully-hole. Through another trap in the bottom the muddy sediment may be removed. Snow is longer melting than some think.

NUMBERS AT NIGHT.—A friend of mine was complaining to me of the difficulty the cabmen found at night in discovering the number on a street door. It occurred to me that if the number of the house opposite the lamp-post was painted on the *upper* part of the lamp glass that looks across the road, it would remedy the difficulty, and would but slightly interfere with the rays of light in the unimportant upward direction.—F. W.

THE COMPETITION FOR THE WATFORD CORN-EXCHANGE has been decided in favour of Mr. Jas. Murray. The second premium was awarded to Mr. E. W. Tarn, M.A. The building is to be immediately proceeded with.

PERCY CHAPEL, BATH.—In our notice of this building, illustrated last week, we omitted to mention that Messrs. Goodridge, of Bath, were the architects.

CLARKE'S PATENT FOR SOFTENING HARD WATER.—Professor Clarke, of Aberdeen, has had an extension granted him for seven years of his ingenious patent for softening water obtained from chalk or lime formations, by means of quicklime itself, which precipitates the soluble carbonate by converting it into an insoluble,—into whiting, in fact,—and so deprives the water of its hardness, saves much soap in washing, and yields a marketable precipitate besides.

LECTURE ON NINEVEH AT CALCUTTA.—In the Town-hall of Calcutta a lecture, or rather exhibition, which had been preparing for some months, and which was arranged to come off the moment Lord Dalhousie's daughter arrived, took place on 19th December last. This was a lecture on Nineveh and its Antiquities, given by the Rev. J. M. Bellew, the chaplain at St. John's Cathedral. The Calcutta correspondent of the *Morning Herald* says it was a superb work of art. A complete stage had been built, the proscenium being one of the water-gates of the Palace of Sennacherib, drawn from one of Mr. Fergusson's sketches. All the appliances of scenery and machinery were brought to bear on the subject, and every one here, he adds, declares that even in London, anything more perfect was never witnessed.

CORROSION OF IRON PIPES.—Some iron water-pipes, laid through ground at Bath, formerly used by contractors as a receptacle for ashes, and thence conducted to the Public Baths and Wash-houses of that city, in Milk-street, were lately found to be much corroded, while the same line of pipes was quite entire beyond the limits of the site of the ash heap. It ought to be known that caustic potashes will corrode iron: there may also have been other corrosive agencies such as ammonia saturating the soil of a contractors' dung-heap.

SAW-MILLS AND TIMBER DESTROYED BY FIRE NEAR BLACKFRIARS-BRIDGE.—On the night of Friday last, a fire, by which, unfortunately, Mr. Thomas Jackson, a son-in-law of Mr. Braidwood, the superintendent of the London Fire-engine Establishment, lost his life,—occurred in the extensive premises belonging to Messrs. Routledge, the steam saw-mill proprietors, Holland-street, Blackfriars-road. Adjoining these premises were others, considerably larger, belonging to Sir John Reunie and others. When first discovered, the flames had obtained complete possession not only of the saw-mill, but also of many lofty piles of timber, which covered a large area of ground, and property valued at several thousand pounds was thus destroyed.

STATUE OF THE LATE KING OF HANOVER.—A subscription has been commenced at Hanover for the erection of a statue in commemoration of the late King Ernest.

A NEW MATERIAL FOR SHIP-BUILDING has been exhibited at Liverpool. It consists of a combination of cork and wood, which is said to possess many advantages over wood and iron, being lighter, stronger, and more elastic.

THE GAS COMPANIES OF PARIS.—The municipal corporation of Paris not having consented to accept, on account of their insufficiency, the offers made by the united gas companies of that city to lower their prices on having their contract prolonged till 1863, the emperor has ordered experiments to be made at Sevres, at works established for that purpose on ground belonging to the civil list, in order to ascertain the exact cost at which gas can be supplied. The experiments are carried on under the direction of an eminent member of the Institute.

IMPROVED MACHINE FOR DRILLING STONE.—Mr. F. Davidson, of Petersburg, United States, has patented a new combination of parts for catching hold of the drill-bar and letting it go, either to form the hole, by its own gravity, or by the aid of springs to increase the momentum. There is a trigger connected with a dog and chain, and a stop at top and bottom of the guide-frame, by the action of which the drill is made to turn horizontally at every blow, and to be raised and lowered rapidly, solely by the action of the working shaft.

BRADFORD UNION WORKHOUSE COMPETITION.—We are informed that the competition for the enlargement of the Bradford Union Workhouse, for the accommodation of 370 additional inmates, has been decided in favour of Messrs. Lockwood and Mawson. The style of the present building will be adhered to.

EVENING EXHIBITIONS.—You would be doing an excellent service to the art-loving public by urging on the British Institution, the Royal Academy, and other similar exhibitions to follow the example of the Royal Scottish Academy, in opening their rooms of an evening at a reduced charge, which, whenever it has occurred, has been attended with the best results. The two crowded dress evenings at the Institution, and the one at the Academy, might still be retained for those who like white cravats, dress pumps, and hot rooms. Besides conferring a great boon upon the middle and lower classes, I believe in almost every case it would be found remunerative. SPERO.

THE ROYAL FORESTS.—The commissioners appointed to report on the condition of the royal forests, observe that the rapid conversion of woodlands into arable land throughout the country leads to the belief that at the end of another century the navy will be mainly, if not altogether, dependent upon these forests for its supply of timber.

INSTITUTION OF CIVIL ENGINEERS OF IRELAND.—A general meeting of this institution was held on Tuesday evening, 13th inst. Mr. M. B. Mullins in the chair, when Mr. Bower read a description of a wooden bridge designed by him, a model of which he presented to the institution. A lengthened conversation followed, in the course of which several members expressed their opinion that the construction was suitable to temporary bridges, and to roofs of large span. The ballot having been closed, the scrutineers announced that Mr. Charles Hazlitt Swiney, and Mr. John Fitzgerald were duly elected as associates of the institute.

THE LATE MR. WILLIAM HENRY BARTLETT.—In order to provide for the education of the three younger children of the late Mr. Bartlett, whose numerous works, we regret to say, seemed to have failed to enable him to leave sufficient funds for this object, it is proposed to publish a memoir, with a portrait, by subscription (price 1*l.* 1s.), the entire proceeds to be devoted to the object in view. The author of the memoir is Dr. William Beattie. Mr. John Davies, the architect, will receive names of subscribers.

MODEL HOUSES FOR SCOTLAND.—Mr. Dunlop has obtained leave from the Commons to introduce a Bill to facilitate the erection of improved dwellings for the working classes in Scotland, and the conversion of old and bad houses into better ones.

THE THAMES TUNNEL.—30,886 persons passed through in the week ending 17th February, and paid in tolls 128*l.* 13s. 10d.

THE WELLS CEMETERY.—The designs and specifications for two chapels and a lodge to be erected in the Cemetery row in formation near Wells, and prepared by Mr. Hippisley, surveyor to the Wells Burial Board, have been adopted, and advertisements have been issued for contracts for the construction of the works.

SINCLAIR'S WATER-ENGINE.—The *Dundee Advertiser* speaks in high terms of a water-engine put up for them by Mr. Sinclair, of Stirling, and which, at an outlay of only one-half of what would be required for a steam-engine of equal power, gives twenty impressions in the minute, or 1,200 in the hour. Notwithstanding the high speed which this water-engine gives—as high as the press can be safely worked—the engine itself is in size little more than a toy, weighing less than a hundredth part of the machine it works, and standing on no more space than would be required for a small box, and on one-fourth of that required for the working of the ordinary fly-wheel. The size of the sole-plate on which the engine stands is only 18 inches by 22 inches: the cylinders are only 2½ inches in diameter, with 5 inches length of stroke, and the top of the driving-pulley is under 36 inches from the floor. The economy of space and power which it accomplishes, depends upon the valves of the cylinder working on the pivots of oscillation, and on the fact that each cylinder is double, and gives twice the power of cylinders of the same size in the ordinary water-engines. They think that while this engine answers so well for the purposes wherever pressure of water can be had at moderate rates, it will be equally available for numerous purposes in which a moderate or even a high speed without great power may be necessary. With a reservoir at an elevation of 400 feet, a pipe discharging only eight gallons per minute will give one-horse power.

ROAD-MAKING.—The following are the Tenders sent in for roads, sewers, &c. on the Shepherd's Bush estate of the London Assurance Freehold Land Society. Mr. James Ebenezer Saunders, jun. architect:—

Hayes	£7,337	4	8
Ellis	5,037	0	0
Murray	2,986	0	0
Culverhouse and Nicholson	2,868	0	0
Campbell and Livock	2,578	0	0
Clayton	2,532	2	0
Rentmore	2,339	0	0
Campbell	2,141	0	0
Wheeler and Croft	2,003	0	0
Strickson	1,974	8	0
Henderson	1,900	0	0
Royce	1,899	3	0
Brown	1,725	0	0
O'Brien	1,656	12	6
Williams, J. and S.	1,650	0	0
Coker	1,580	0	0
Smith	1,559	17	6
Fraser	1,499	9	0
Maynard	1,439	0	0
Cowland	1,337	0	0
Brown and Radley	1,299	11	0

TENDERS

For rebuilding Mr. Pursell's house in the Poultry. Mr. Mullins, architect. The quantities furnished by Mr. Eppy.

Lawrence and Sons	£1,498	0	0
Ashby and Horner	1,445	0	0
Lucas, Brothers	1,360	0	0

For alterations at Messrs. Corss's, Shoreditch. Mr. Shoppe, architect.

Carter	£1,917	0	0
Mansfield	1,875	0	0
Wm. Rayner, jun.	1,795	0	0
Tongue	1,775	0	0
Young	1,739	0	0
Tarrett	1,700	0	0

For the "Quints," near Chirk, Shropshire, for Thomas Barnes, Esq. M.P. Mr. Raffles Brown, architect. Quantities supplied by Mr. Charles Poland and Mr. T. D. Barry.

	With Fittings in Fir.	With Fittings in Oak. Additional.
Brammell (Manchester)	£10,055	£2,219
Wood (Derby)	9,980	3,690
Wm. and J. Morris (Oswestry)	9,480	1,100
Buxton (Manchester)	8,917	...
Hughes (Liverpool)	8,250	2,000
Bellhouse (Manchester)	7,951	1,717
Myers (London)	7,651	1,800
Yates (Liverpool)	7,253	1,500

WESLEYAN SCHOOLS, HOYTON.—We are asked to say that Mr. James Wilson is the architect of this intended building.

TO CORRESPONDENTS.

"C. F. D." (Thanks. Hail! Columbia.)—"J. D."—"R. B."—"J. W. B."—"S. L. S."—"G. G."—"C. N."—"Rev. A. W. B." (We are forced uniformly to decline. See last number of "The Quarterly").—"R. W. M."—"J. R. G."—"O. C. A."—"J. B. G." (Surveyors of highways are engaged under varying condition, according to locality.)—"A subscriber from the first, Manchester." (Should send us his name.)—"J. W."—"H. D. G."—"C. H. L. W." (Folding is the act of the newsvendor.)—"C. R. S."—"T. N."—"J. B."—"J. E."—"W. W."—"W. A."—"C. E."—"T. H."—"F. T."—"A. S."—"J. L. P." (Is in type.)

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE TO SUBSCRIBERS.—A title-page in colours for the last volume may be obtained *gratis*, on personal application at the Office, by those who prefer it to that which accompanied the index in the closing number. Covers for the volume may be obtained at the Office, price 2s. 6d. or the publisher will bind it for 3s. 6d. The complete volume may be obtained, price 31s.

ADVERTISEMENTS.

WAREHAM, DORSET.—WAREHAM COAL GAS COMPANY.—WANTED, a MANAGER, of steady and active habits, who thoroughly understands the management of a small gas-work, fittings, and meters, and will be required also to keep and collect the accounts.—Applications, in own handwriting, with testimonials and references, also stating salary expected, to be sent to me on or before the 3rd MARCH next.

By order of the Committee,
FREELAND FILLITER, Secretary.
North-street, Wareham, Feb. 19, 1855.

TO JOINERS.

WANTED, as WORKING FOREMAN, about 35 years of age, a good JOINER, used to taking dimensions and setting out work. Must be sober and steady.—Apply by letter, stating wages required, to TAYLOR and BUCKLEY, 4, Rodney-buildings, New Kent-road.

TO CARPENTERS AND BLACKSMITHS.

WANTED, for Foreign Service, a few good HANDS, conversant with railway work. The carpenters to have had experience in pile-driving.—Apply, with testimonials, between the hours of TEN and TWELVE, on MONDAY next, the 26th INST. at the YORK and ALBANY, Albany-street, Regent's-park.

TO RAILWAY GAUGERS.

WANTED, for Foreign Service, a few Men who have been accustomed to SUPERINTEND EARTHWORKS.—Apply, with testimonials, between the hours of TEN and TWELVE, on MONDAY next, the 26th INST. at the YORK and ALBANY, Albany-street, Regent's-park.

TO ARCHITECTURAL DRAUGHTSMEN.

WANTED, an ASSISTANT, competent to make drawings for artistic metal work.—Terms, 40s. per week.—Address, F. SKIDMORE and SON, Coventry.

TO ARCHITECTS AND BUILDERS.

WANTED, by a Practical Man, a RE-ENGAGEMENT as CLERK of WORKS or GENERAL FOREMAN; is thoroughly experienced, having just completed some extensive public works; is a good draughtsman; can take out quantities, and can be highly recommended from his present employers. No objection to the country.—Address, A. M. P. Office of "The Builder."

TO CARPENTERS AND BUILDERS.

WANTED, by the Advertiser, EMPLOYMENT as CARPENTER and JOINER. He has been used to the Jobbing trade. Would be glad to make himself useful to his employers. Wages not so much an object as constant employment.—Address, A. B. at the Office of "The Builder."

WANTED, by a respectable professional Man, of many years' practice, a SITUATION as STEWARD on a gentleman's estate, where a practical knowledge of the building business, in all its branches, might be required.—Address to T. H. Post-office, Huntingdon.

TO ARCHITECTS AND SURVEYORS.

WANTED, to place a Youth as IN-DOOR PUPIL to the above profession. The youth has been for a short time in the Office of a Surveyor, and has exhibited some taste for Architectural Drawing, &c. The premium required must be very moderate. To be treated as one of the family, and his morals strictly regarded. Country not objected to.—Address, A. B. C. (care of Mr. Garland, Chemist,) Keen's-row, Walworth-road.

WHATMAN'S DRAWING PAPERS.

Name of Paper.	Price per Single Quire. £	s.	d.	Price per Quire for Five Quires. £	s.	d.
Antiquarian	3	0	0	2	15	6
Antiquarian, 2nd quality	1	8	0	1	2	6
Double Elephant	0	13	6	0	12	9
Atlas or Colombier	0	10	6	0	9	8
Imperial or Elephant	0	7	0	0	6	3
Super Royal	0	5	0	0	4	6
Royal	0	4	0	0	3	9
Medium	0	3	3	0	3	0

WHATMAN'S DRAWING CARTRIDGE.

Double Elephant	0	11	6	0	10	6
Ditto 2nd quality	0	9	0	0	8	0
Imperial	0	6	6	0	6	0
Ditto 2nd quality	0	5	0	0	4	6

STRONG CARTRIDGE FOR BUILDERS' WORKING DRAWINGS.

Double Elephant	0	6	0	0	5	6
Imperial	0	3	9	0	3	6
26 by 21	0	3	0	0	2	9
26 by 21 second, 40 lbs.	0	2	0	0	1	10
Ditto ditto 40 lbs.	0	1	8	0	1	6
Ditto ditto 30 lbs.	0	1	4	0	1	2

CONTINUOUS DRAWING CARTRIDGE.

54 inches wide ..... per yard run, 1s.
Ditto, second quality ..... per yard run, 9d.

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Inches.	s.	d.	Inches.	s.	d.
20 by 20 Thin.... per quire	3	0	30 by 40 Thick.. per quire	8	0
20 by 20 Ditto	6	0	30 by 40 Ditto	17	0
60 by 40 Ditto	13	0	30 by 40 Double Thick ..	13	0
30 by 30 Glazed, thin	4	6	30 by 30 Vellum Tracing	10	6
30 by 40 Ditto ditto.....	6	0	Transparent Drawing Paper	12	0
30 by 20 Thick	4	0			

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in continuous lengths of 21½ yards, 43 inches wide, at 20s. per piece, or 1s. per yard run, or in sheets of 30 inches by 40 inches, yellow wove, 11s. per quire.

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18 inches wide.... per yard	0s. 8d.	per piece (24 yards)	£0	14s. 0d
26 " ..... "	1 0	"	1	3 0
36 " ..... "	1 3	"	1	6 0

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*** In ordering Drawing Papers, it is advisable to state if required Rolled or Unrolled.

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MILL AGENTS FOR WHATMAN'S DRAWING PAPERS.

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WANTED, by a Man of Business, acquainted with Office duty generally, an ENGAGEMENT as Accountant and Bookkeeper, experienced in prime cost and pricing the trade's charges. Town or country. No objection to a temporary engagement.—Address Y. Z. Messrs. Gardiner and Son's, Ironmongers, Wandsworth-road, Surrey.

WANTED, by a thoroughly competent Builders' Foreman, a SITUATION, either shop or general, or as Clerk of Works.—Address, H. J. care of Mr. Tindall, 20, Ranelagh-street, Pimlico.

ENGINEERING DRAUGHTSMAN.

WANTED, by a Gentleman in business during the day, an ENGAGEMENT for two or three evenings in the week. Practice being the principal object, a small remuneration will be taken; highly respectable references will be given.—Address, Z. Y. E. 17, Fenchurch-street, City.

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WANTED, a SITUATION as SAW-SHARPENER or FRAME WORKER, or BENCH-WORK, with four years' good character. In town or country.—Direct, to C. L. 28, Union-row, New Kent-road, London.

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Fine Planks, 12 ft. 3 in. by 11 in.	from 4s.	6d.	cash.
Spruce Deals	"	3d.	per foot.
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Prepared Flooring, Veneers, &c. at equally low prices.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

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PLANKS, DEALS, BATTENS,
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STAINING WOOD, to imitate Oak and all other woods, twenty-two different shades.—A perfect substitute for paint, 6s. per gallon; varnish prepared for ditto, 10s. per gallon; Parvilion WISHERE'S, 3, Tindal-court, Gracechurch-street. Agents: WILSHERE, Edinburgh; SMITH and SONS, Northampton. Specimens sent, and estimates given for staining churches, chapels, &c.

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Money received at interest at 5 per cent. per annum, payable in April and October
Agents (with references) may apply.
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MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square. W. S. VARDY, Manager.

INDISPUTABLE LIFE POLICY COMPANY.
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TRUSTEES.
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A reduction of 25 per cent. has been made on the premiums of all policies of five years' standing
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The SCALE of PREMIUMS adopted by this Office will be found of a very moderate character, but at the same time quite adequate to the risk incurred.
FOUR-FIFTHS, or 80 per cent. of the profits, are assigned to policies every fifth year, and may be applied to increase the sum insured, to an immediate payment in cash, or to the reduction and ultimate extinction of future premiums.
ONE-THIRD of the premium on insurances of 50l. and upwards, for the whole term of life, may remain as a debt upon the policy, to be paid off at convenience; or the Directors will lend sums of 50l. and upwards, on the security of policies effected with this Company for the whole term of life, when they have acquired an adequate value.
SECURITY. Those who effect insurances with this Company are protected by its subscribed capital of 750,000l. of which 140,000l. is invested from the risk incurred by members of Mutual Societies.
The satisfactory financial condition of the Company, exclusive of the subscribed and invested capital, will be seen by the following statement:

At the close of the last financial year, the sums assured, including bonus additions, amounted to	£2,500,000
The premium fund to more than	800,000
And the annual income from the same source, to	109,000
Assurances, without participation in profits, may be effected at reduced rates.	

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John Davis, esq.	J. Petty Muspratt, esq.
Jos. A. Gordon, M.D. F.R.S.	C. Hampden Turner, esq. F.R.S.
Henry Grace, esq.	Matthew Whiting, esq.
[illegible] Hodgson, esq.	M. Wyvill, jun. esq. M.P.

The Company offers—
Complete Security—
Moderate Rates of Premium with Participation in Profits—
Low Rates without Profits.
BONUS.—Four-fifths or Eighty per Cent. of the Profits are divided amongst the Policy-holders.
LOANS in connection with Life Assurance on approved security.
ANNUAL PREMIUM required for the Assurance of 100l. for the whole term of life:

Age	Without Profits	With Profits.	Age	Without Profits.	With Profits.
15	£1 11 0	£1 15 0	40	£2 18 10	£3 0 5
20	1 13 10	1 19 3	55	4 0 9	4 10 7
30	2 4 0	2 9 4	60	5 7 7	6 7 4

For Prospectuses and Forms of Proposal, apply at the Offices as above, or to any of the Company's Agents.

SPECIAL NOTICE.
TO SECURE THE ADVANTAGE OF THIS YEAR'S ENTRY PROPOSALS MUST BE LODGED AT THE HEAD OFFICE, OR AT ANY OF THE SOCIETY'S AGENCIES, ON OR BEFORE 1st MARCH.
MUTUAL LIFE ASSURANCE
SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY.
HEAD OFFICE, 26, St. Andrew square, Edinburgh.
LONDON OFFICE, 26, Poultry-street.
Instituted, 1831.
Incorporated by Special Act of Parliament.
The Profits are divided every Three Years, and wholly belong to the Members of the Society. The next division takes place at 1st March, 1856.
EXAMPLE OF ADDITIONS
On a Policy for 1,000l. dated 1st March, 1832.
1,522l. 8s. will be payable at or become a claim during the current year, after Payment of this year's Premium. This is an addition of more than Fifty per Cent. on the Sum Assured, and averages 2l. 3s. 7d. per cent. per Annum.
Supposing such a Policy to have been effected at the age of Thirty, the additions might now be surrendered for a present payment of 321.7s. 10d. or if applied in reduction of the future Premium, would reduce the Premium from 23l. 10s. 10d. to 6l. 3s.; and even the small payment must be reduced every Three Years during the subsistence of the Policy.

Amount of existing Assurances	£4,234,598
Annual Revenue	152,615
Amount of Accumulated Fund	839,354

Copies of the Annual Statement, Forms of Proposals, and all information, may be had on application at any of the Society's Offices in town or country. W. COOK, Agent.
126, Bishopsgate-street, London.

ONE THOUSAND BEDSTEADS to CHOOSE FROM.—HEAL & SON have just erected extensive Premises, which enable them to keep upwards of One Thousand Bedsteads in stock. One Hundred and Fifty of which are fixed for inspection, comprising every variety of Brass, Wood, and Iron with Chintz and Damask Furnitures, complete. Their new warerooms also contain an assortment of BED-ROOM FURNITURE, which comprises every requisite, from the plainest Japanned Deal for Servants' Rooms to the most rich and most tasteful designs in Mahogany and other Woods. The whole warranted of the soundest and best manufacture. HEAL & SON'S ILLUSTRATED CATALOGUE of BEDSTEADS and PRICED LIST of BEDDING sent free by post.—HEAL & SON, 196, Tottenham Court-road

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"In answer to your inquiries respecting the gutta percha tubing for pump suctions, I find that the water has not affected it in the least although it will eat lead through in two years; we have adopted it largely, both on account of being cheaper than lead, much easier fixed and a more perfect job. Yours, &c. C. Hacker."
N.B. The Company's Illustrated Circulars containing instructions to plumbers for using tube, lining tanks, &c. will be forwarded on the receipt of three postage stamps. The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

WILLIAM HARRIMAN and CO. FIRE-BRICK and SANITARY TUBE WORKS, BLAYDON, NEWCASTLE-UPON-TYNE.

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BARROWS, BARROWS, LADDERS, &c. J. BARNES, Wheelwright, Manufacturer of every description of Brickmakers' and other Barrows, Railway-trucks, &c. A good country Wheelwright wanted—2, York-place, Pentonville-hill.

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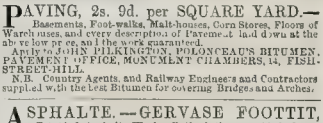
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.
Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.
TUNED BY MACHINERY.
Stocked and wheels ready for fixing. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

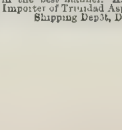
FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country. Used and approved at the Offices of the General Board of Health. Exclusive adopted by the Crystal Palace Company. Easily cleaned without trouble or expense.—To be seen in operation daily, at EVANS and SON'S, Ironmongers, 31, King William-street, London-bridge

TO GAS COMPANIES, GASHOLDER MAKERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, by the Commercial Gas Company, London, SURPLUS GAS MACHINERY, consisting of Iron Gasholder Tanks, Gasholders (Single and Telescopic), Condensers of various sizes, Station Meters, Governor, Hydraulic Main, Ascension and H Pipes, with various connections. Particulars of the above may be obtained on application to Mr. ROBERT JONES, the Company's Engineer, at the Company's Offices, Stepney, between the hours of TEN and FOUR. Tenders for the above, or any portion thereof, will be received not later than THURSDAY, the 1st MARCH next. The Company is not bound to accept any Tender. Tenders to be addressed to the Secretary, and endorsed "Tender for Gas Machinery."—By order of the Board,
GEORGE JAQUES, Secretary.
Stepney, 6th February, 1855.

VENTILATION.—PURE AIR.



With single pulley, from 6s. each; with leading pulley, from 6s. 6d.
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, by which time a constant supply of fresh air is most required. HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.



SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTERS' PATENT WIND-GUARD. This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.
To be had of Ironmongers and Builders; and of the Patentee, at his Office, 69, Fenchurch-street, London.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN ELLINGTON, 19, SUTERS' PATENT ASPHALTE OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, A Trinidad Asphalte Works, Rotherhithe; established 1824. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 30s. per ton. Importer of Trinidad Asphalte.
Shipping Depôt, Devon Harbor Wharf, Rotherhithe.
G. H. CLARK, Agent.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped "HUBBUCK—LONDON—PATENT." And if not to be had in the quality he may be requested. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

WHITE OXIDE OF ZINC AND ZINC PAINT.

(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brandi, either in the dry state or ground in Oil.

Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innoxious qualities, is peculiarly applicable to first-class Decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, when employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO

MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 3s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase of weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark in Hull by Messrs. BUNNELL, SPENCE, and Co.; when ground and dry, by Messrs. T. B MORLEY and CO and by the Company's Grinding Agents, in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by Messrs. LAWFORD and Co. of 49, Norfolk-street, Liverpool, who are also acknowledged Painters to the Company for Zinc Paints, and undertake painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting in Zinc Paint by contract.

For further particulars, apply to the Company's General Agent in London, Mr. SCHMOLL, 12, Manchester-buildings, Westminster.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of this valuable Cement, that they have, by means of a recent discovery (patented by Mr. ASPDIN) greatly improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour.

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.

A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster, at their Works, Gateshead-on-Tyne; at Messrs. Rosher's Wharfs, Holland-street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum not obtained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by H. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insoluble to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland yard, and at the Works.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. CHARLES FRANCIS and SONS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O and T can deliver by their own boats, or by rail to any part of the kingdom.

Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in colour and quality.

Office, Warwick.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs. Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements, read at the Institute of Civil Engineers; to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS, STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

MAW'S ENCAUSTIC TILE PAVEMENTS—A highly durable and decorative substitute for ordinary flooring and their peri-hable oil cloth coverings; for entrance-halls, passages, verandahs, conservatories, &c.

MAW and CO. send, free of expense, their pattern and price book, with designs, to any given spaces (and estimates), free of expense.

BENTHALL WORKS, BROSELEY, SALOP

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability. Slabs and Tiles for Fireplaces and Hearths, Cornice for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 351, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS for OVEN-BUILDING, acknowledged the best for that purpose, delivered, 32s. to London-bridge or Newington; beyond that distance, moderate charge carfare. Bricks of all description; yellow and light pickings, equal to seconds. Red facings, at 30s. in field; red and glazed pipes, about half the price of stoneware; white sand, nearly silver, in field or by barge; founders' sand and loam; good coloured gravel.—Address, B. PARKS, Lewisham Brickfields.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newington-crescent, Newington-butts, will, from MONDAY, the 11th inst. be carried on at 6, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

BRICK-MAKING EXTRAORDINARY!! BY OATES AND INGRAM'S PATENT MACHINE.

TO CAPITALISTS AND BRICKMAKERS.

Messrs. OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen (by order only) in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

The great advantages possessed by this machine over all others are, no tempering is required.

The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be backed up in ranks before leaving the machine, which is entirely self-acting, consequently requires only the labour of feeding and carrying off.

Applications, either to view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, T. WELLS INGRAM, Engineer, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

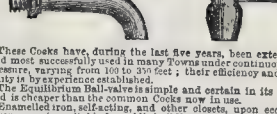
TO BRICKMAKERS, CONTRACTORS, BUILDERS, AND OTHERS.

TO BE LET, a BRICKFIELD in full working order, with the entire Plant and Machinery necessary for working the Stocks, in the centre of a neighbourhood where immense building operations are in progress, and adjoining one of the contemplated metropolitan railways which have passed the standing orders of Parliament, a short distance from the Regent's-park, the station of the Great Northern Railway, and the principal public wharfs of the Regent's-canal. Dirt for two millions of bricks is already turned, and ashes for three berths. This presents an admirable opportunity for any one desirous of entering into this lucrative business, as he would not be required to purchase the plant.—A good practical FOREMAN is open to Engagement, fully competent to conduct the same.—Particulars with Mr. NUTTER, Auctioneer, 3, York-place, Kentish-town—Five horses, and 3-one thousand brick-carts for sale.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

PRIZE MEDAL, CLASS 22.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, ranging from 40 to 300 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is of far less than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c

THOMAS LAMBERT and SON

Brass and Iron Founders, Short-street, New-cut, Lambeth.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

BRICKS, &c.—500,000 good well-burnt CLAMP BRICKS for SALE.—For particulars, inquire of Mr. HENRY MULETT, West-street Brewery, Horsham, Sussex. Also some PLOTS of GROUND, well adapted for building purposes, either TO BE SOLD or LET, situated within 300 yards of the Three bridges Station on the Brighton Railway.—Apply as above.

VALUABLE BRICKFIELD, near Harrow, FOR SALE; extensive building operations are being carried on in the immediate vicinity. A large quantity can be made, and bricks fetch a good price. Price required, 350l.—For further particulars apply to Mr. CLARKSON, Surveyor, 48, Penton-street, Pentonville.

FARM AND COTTAGE PUMPS.

WARNER'S PATENT

CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump..... £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing..... 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
6, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.

FOWLER'S IMPROVED

WROUGHT PUMPS for CONTRACTORS, BRICKMAKERS, EXCAVATORS, and OTHERS

The attention of this house for more than fifty years past having been almost exclusively paid to the manufacture of every description of pump-work for every variety of purpose, attention is respectfully requested to their very superior Wrought Pumps, with plain or sliding telescope suction, galvanized and ungalvanized. A large stock of all sizes kept ready to finish off to order, according to length required, at the shortest notice.

This description of Pump work varying in almost every case, it is impossible to quote a general price, but the fullest particulars will be given on application.

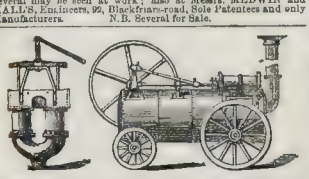
A large stock of Wrought Pumps, from 3 inch single to double 15 inch barrel, is also kept on hire prepared for hand or steam power, on reasonable terms, at

BENJAMIN FOWLER'S
ENGINE-PUMP MANUFACTORY,
Whitefriars-street, Fleet-street, London.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE

LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12 horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors. Nearly 100 are ready for delivery at a day's notice. Several may be seen at work; also at Messrs. MEDWIN and HALLS, Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Several for Sale.



PORTABLE STEAM-ENGINES and

PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars bridge (Surrey Side).

PUMPING ENGINES.—TO BE LET ON

HIRE, TWO PORTABLE STEAM-ENGINES, of three and five horse power, with pumps, complete. Apply to Mr. HENRY JOHNSON, 11, Bleeding Heart-yard, Hatton Garden, London; and 44, Broad-street, Birmingham.

M. A. RICHARDS and

SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

STEAM PUMPING ENGINES.—

PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street, Southwark, London.

PURE WATER, for manufacturing purposes,

may be obtained at very moderate cost by KANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the secession and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

ARTESIAN WELLS, Boring for Water,

Sinking Shafts, &c.—The nobility, gentry, water-companies, towns, baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 10, Cumming-street, Pentonville. Pumps and machinery for raising water from deep wells, boring-tools, and well-pipes for exportation. Men and tools supplied to bore for railroads, minerals, &c.

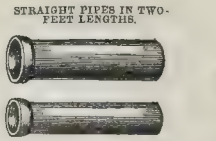
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES, LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's acre, Westminster-bridge, City-road Wharf, City Basin; Donk-head, Bermondsey; Danvers' Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 9, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Brydges-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE WARE DRAIN-PIPES.

DOULTON'S HALF-SOCKET PIPES.

DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.

DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—
LIVERPOOL STORES, 70, SOHO STREET, LIVERPOOL.

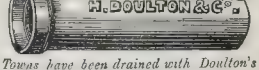
GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lovely, Peolbeg-street.
CORK.....J. and J. Harley
WATERFORD.....J. Sparrow and Co
CARNARVON.....Jno. Jackson.
PRESTON.....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN.....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.
CARLISLE.....C. Armstrong, Lowther-street
WHITEHAVEN.....Hugh Todhunter.
COCKERMOUTH.....John Hird.
GUERNSEY.....Guerin, Brothers.
LONDONDERRY.....W and A. M'Elwee.
LIMERICK.....W. Burgess and Sons.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE

DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON, & GRANVILLE-WHARF, BROAD-STREET, BIRMINGHAM.



Twenty-one large and important Towns have been drained with Doulton's Glazed Stone-ware Pipes, and in no case has the slightest failure occurred, or any necessity arisen for examination.

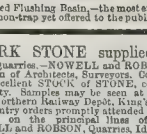
Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

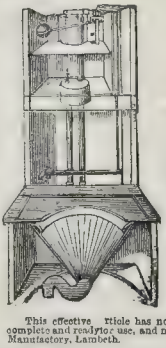
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and superiority.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1850.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

YORK STONE supplied direct from the

Quarries.—NOWELL and ROBSON respectfully invite the attention of Architects, Surveyors, Contractors, Builders, &c. to their excellent STOCK of STONE, containing good colour with durability. Samples may be seen at Kensington Basin and the Great Northern Railway Depôt, King's-cross.—Prices will be sent, and country orders promptly attended to, and delivered at all the Stations on the principal lines of railway, by addressing NOWELL and ROBSON, Quarries, Idle, near Leeds. Purchasers will find the stone of first-rate qualities, and the prices very reasonable.

COLLIER'S TERRO-METALLIC and

RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

ISAAC PARRY'S

GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT
PLANT FACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

AGRICULTURAL LAND DRAIN-PIPES

of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE

WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronized by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

TO ENGINEERS AND ARCHITECTS.

"The Builder" of last week contains three illustrations of

JENNINGS'S PATENT DRAIN-PIPES,

AND A FEW REMARKS ON PIPES IN GENERAL.

Further particulars and a BOOK containing ILLUSTRATIONS, PRICES, and DESCRIPTIONS of all JENNINGS'S SANITARY INVENTIONS, can be had free, on application, or by post if two stamps are enclosed to

GEORGE JENNINGS, SANITARY ENGINEER, 29, GREAT CHARLOTTE-STREET, BLACKFRIARS-ROAD.

TO SANITARY COMMISSIONERS, SURVEYORS, ARCHITECTS, BRASSFOUNDERS, PLUMBERS, BUILDERS, ENGINEERS, &c.

61,000 of the Deaths in England during the Year 1854 are referable to the imperfect operation of the sanitary organisation of our towns.—*Globe*, 1st February, 1855.

MAYER, BOULTON, AND CO.

CORNWALLIS POTTERY, STAPLETON-ROAD, BRISTOL.

This is the only Manufactory in the Kingdom for the exclusive production of Plug Closet, Sanitary, and Lavatory Basins of all descriptions.

M. B. and Co. having an intimate knowledge of, as well as a practical acquaintance with, this peculiar business, can manufacture cheaper than any other house. They invite especial attention to their

DRAB HOPPER BASIN AND TRAP, AT 7s. 6d. EACH,

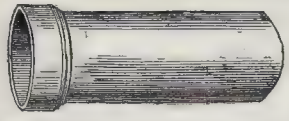
Delivered in any part of the kingdom;

AND WHERE LARGE QUANTITIES ARE REQUIRED, A LIBERAL DISCOUNT IS ALLOWED.

Orders for White, Drab, Marbled, Blue Printed, Enamelled, and Gilt Goods attended to on the shortest notice.

LONDON DEPOT—18 WHARF, CITY-BASIN;
FLINT AND STONE MILLS, FRAMPTON COTTERELL;
AND THE SANITARY POTTERY NAILSEA (Late Couthupes and Co.)

THE FARNLEY IRON COMPANY, WORTLEY, near LEEDS.



Manufacturers of FIRE BRICKS, TILES, QUARRIES, &c., White Building Bricks, Fire-clay CHIMNEY-TOPS, in Norman, Egyptian, Saxon, Tudor, Grecian, Gothic, and Elizabethan styles.

TERRA COTTA

Fountains, Vases, Pedestals, Capitals, Trusses, Brackets, &c., in great variety, which for beauty and elegance of design are unequalled The designs of Architects modelled with the greatest exactness.

Also of PATENT GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, &c., well adapted for pressure, being made extra pressed under "Spencer's Patent." Superior White Glazed CLOSET PANS, TRAPS, &c.

The Works of the Company are situated in the immediate vicinity of the well-known bed of WORTLEY FIRE-CLAY, and their manufacture of BRICKS, for the use of Forges, Gas Companies, Foundries, Potteries, and Glassworks, is confidently recommended for all purposes where extreme heat is required. Their GROUND CLAY is also particularly adapted for the manufacture of CRUCIBLES, MELTING POTS, &c.

OFFICES AND STORES:

LONDON .....No. 14 York-chambers, York-buildings, Adelphi; No 16, Bath-place, New-road; St. Ann's-wharf, Limehouse.
BIRMINGHAM..No. 7, Easy-row; also King Alfred-street, adjoining Bingley-hall, and Lawley-street.
BRISTOL .....No. 14, Nelson-street.
LIVERPOOL ....No. 9, Russell-street, 83, Renshaw-street, and Shipping wharf, Leeds-street.
MANCHESTER..No. 46, Travis-street, and 23, 24, and 25, Bir mingham-street, London-road.
HULL.....No. 60, Queen-street, and Wellington-street.
BRADFORD ....Horton-road.
LEEDS .....Wellington-street, adjoining the Midland Station; and Shipping-wharf, Victoria-works, Hunslet;

Where Drawings, with Prices, &c. may be obtained; and at the Great Industrial Exhibition Dublin.

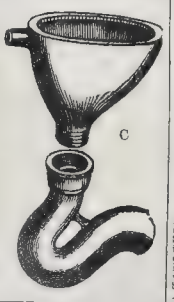
REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY,
HIGH-STREET, LAMBETH,

Have reduced the price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.



SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the first quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N invites particular attention to the superior quality of he glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Rosher and Co.'s Wharfs: Kingsland, Blackfriars, and Millbank. Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street. C. Richardsen's, South Wharf, Paddington. G. Erith's, Cambridge Heath Wharf, Hackney. Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

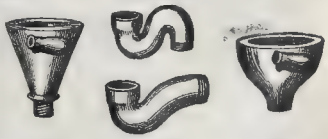
N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1855.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

HENRY TURNER, 2, SOUTH WHARF, PADDINGTON,



5s. Trape, 3s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.

THE BUILDER.

SALES BY AUCTION.

9 and 10, QUIET-STREET, BATH.
MOST EXTENSIVE and IMPORTANT SALE of MARBLE CHIMNEY-PIECES, REGISTER-STOVES, FENDERS and SETS of FIRE-IRONS, BRASS and IRON BEDSTEADS, GAS CHANDELIERS, KITCHEN-RANGES, and FANCY IRON-WORK

MESSRS. HULBERT and HANCOCK most respectfully announce that they have been honoured with instructions from Mr. H. Clement, the proprietor of the above Establishment,

TO SELL BY PUBLIC AUCTION,
the whole of the very valuable STOCK-IN-TRADE contained in the above Show-rooms, being Nos. 9 and 10, QUIET-STREET (without any reservation whatsoever), on
WEDNESDAY, FEBRUARY 28, 1855 and following Days,
commencing each day at TWELVE o'clock precisely,
it being his determination to confine his attention in future to the parent establishment in Burton-street, where the entire business will be again concentrated and carried on in its several branches as originally, as he finds the above Show-rooms, in Quiet-street, are of too extensive a character for a provincial city.

This magnificent STOCK consists of about ONE HUNDRED CHIMNEY PIECES, in Statuary, Berdilla, Italian Vein, Sienna, and Black Marbles: many of them richly sculptured

Several HUNDREDS of REGISTER and other GRATES, in every possible variety, if the newest designs and best manufacture, adapted for drawing-rooms, libraries, and bed chambers, many of them in bright steel, enriched with highly-finished ormolu mountings.

Several ELIZABETHAN and GOTHIC PILLAR STOVES, a great variety of gas-stoves, for heating warehouses and public buildings; also some very efficient cooking ditto, open and close fire kitchen ranges, fitted up on the most scientific principles; also M. Soyer's cooking and ventilating stoves; many 4-bar ditto, of various descriptions, &c &c.

An immense assemblage of IRON and STEEL FENDERS, and SETS of FIRE-IRONS, embracing every description, the designs of many being of a most *recherché* character

The STOCK of CHANDELIERS is varied, and very superior, and is principally of bronze and ormolu, enriched with B-hemian glass, and adapted for gas and candles; gas fittings, in brackets and Gothic pillars, &c. &c., some very choice foreign bronzes, in figures, vases, on pedestals, &c.

The IRON BEDSTEAD DEPARTMENT contains an endless variety of four-post, half-tester, French, stump, folding, and other bedsteads, many of them ornamented with brass mountings: also children's cribs, swing cots, American rocking chairs, with leather cushions, 4 long ditto, &c.

Among the MISCELLANEOUS ARTICLES will be found a large stock of shower-baths; plunging ditto, capable of being heated by gas or spirit-lamp stoves, japanned tea-trays, iron tables, flower-stands, garden seats, wire-trainers, wheelbarrows, hat and umbrella stands, a great quantity of wire netting, cheese presses, manules, door scrapers, chimney funnels, garden engines, powerful fire ditto, circular and other pig-troughs, cast-iron pumps, &c &c.

The whole of the above will be on view three days previous to the sale, between the hours of TEN and FIVE, when catalogues may be had on the Premises; of the Auctioneers, Quiet-street, and 1 Old Bond-street, Bath; and at Mr JAMES HULBERT'S, 101, Strand, London.

The Auctioneers, in calling the attention of the public to the present Sale, cannot speak in too high terms of commendation of this most beautiful and useful collection of goods, such, perhaps, as few private traders in the kingdom can produce; and if a proprietor has come to the determination of thus disposing it at with very great reluctance, and would not have done so, had he not found for some time past that these extensive Show-rooms do not produce an adequate return.

MR. GEORGE BERRY will SELL by AUCTION, pursuant to a decree of the High Court of Chancery, made in a cause of Archbutt v. Clarkson, at the AUCTION MART, near the Bank of England, on TUESDAY, the 27th day of MARCH, 1855, at ONE o'clock precisely, in one lot, a valuable LEASEHOLD ESTATE, comprising a timber-yard, engine-house, workshop, counting-house, sheds, and other buildings, situate on the north side of the King's road, Chelsea, in the county of Middlesex and also a Cottage, situate on the east side of Robert-street, Chelsea. The premises are held direct from the freeholder for about 43½ years unexpired, and is in mortgage for 1,000l. for a period of five years from 5th of May, 1854, and is sold subject to such incumbrance. The whole of the premises are free of ground-rent, and are let to Mr Thomas Wither for an unexpired term from Midsummer, 1853, of a clear annual rental of 130l. The property may be viewed by leave of the tenant, and particulars and conditions of sale had of Mr J. H. Kaye, 2, New-inn, Strand; Messrs. Jackson and Co. 29, Lombard-street; and Mr. J. Wintermore, 44, Lime-in-son fields; and of the Auctioneer, at his Office, Motcomb-street, Belgrave-square.

SOUTH SEA HOUSE ESTATE, THREADNEEDLE-STREET.

MESSRS. READE and SONS are favoured with instructions to SUBMIT to PUBLIC COMPETITION, on TUESDAY, FEBRUARY 27th, at TWELVE, the above valuable PROPERTY, having extensive frontage to Threadneedle-street, fronting thereto with Old Broad-street, and covering a superficial area of nearly three quarters of an acre, being a piece well stabled and in a central position, freehold, and all held under a lease. It comprises the present South Sea House, a most substantially erected fabric, three valuable messuages, used as offices, the open areas surrounding the South Sea House, the whole of which will be offered in one lot; also a small building now occupied with the Flower Pot public-house, which will be sold separately. The property presents a rare opportunity for the acquisition of a compact freehold estate in the neighbourhood of the Bank of England, and, in its present state, will realise a handsome rental; but if judiciously arranged will probably realize an increased income in gross rents, and the materials will find a ready sale to the various lessees.—Particulars, with lithographic plans may be had on the Premises; and may be had on application to Messrs Wontsworth, Greatbead, and Blake, Solicitors, at the South Sea House Threadneedle-street, at the Mart; and of Messrs Reade and Sons, 26, Gresham-street.

Superior Chimney-pieces of Statuary Marble, some richly sculptured; and of Dove and Vein Marble in great variety.

MESSRS. ROBINS will SELL by AUCTION, at their ROOMS, Great Piazza, Covent-garden, on TUESDAY MARCH 6th, at TWELVE, superior STATUARY MARBLE CHIMNEY-PIECES, some richly sculptured suitable for first-class drawing-rooms, others of a less expensive character, with enrichments; black and Italian marble for dining rooms and libraries, several of dove and Sienna marble, and a great variety of vein marble of smaller size. Now on view in Covent-garden.

HIGHGATE.—400,000 capital Stock and other Bricks

MR. LEREW will SELL by AUCTION, on the PREMISES, the BRICKFIELD, on the west side of the Archway-road, Upper Holloway, on THURSDAY, MARCH 1, at TWO o'clock precisely, about 400,000 BRICKS, comprising stock, place, and grovels under & stand for reduc- May be viewed the day prior and morning of sale, and catalogues had on the Premises; and the Auctioneer, 2, Carlington-street, Hampstead-road.

TO IRONMONGERS, WHEELWRIGHTS, SMITHS, ENGINEERS, BUILDERS, CARPENTERS, and OTHERS.—No. 25, Bethnal-green road.—The valuable and well-assorted Stock of Black and Furnishing Ironmongery

MR. ARBER has received instructions to SELL by AUCTION, by order of the Trustees, on the PREMISES, 25, Bethnal-green-road, on WEDNESDAY, FEB. 28, and following days, commencing punctually at TWELVE each day, the whole of the valuable STOCK, comprising about thirty tons of Staffordshire iron, in bars, hoops, plates, and sheets; three tons of slit rods, five tons of nails, viz. rose, clout, and sprigs; seven tons of cut and wrought nails, one ton of rivets, chain; thirty-nine dozen spades, ten dozen files, carpenters' edge tools, twenty dozen scythes, chaff knives, mortise and other locks, screws, bolts, ranges, stoves, copper furnace pans, wire, rain water and gutter pipes, copper stew-pans and saucepans, fenders, fire-irons, and the general effects of a furnishing ironmonger; two spring carts, harness, household furniture, shop fixtures and fittings, and numerous effects.—May be viewed the day previous and mornings of sale, when catalogues may be had on the Premises; of Messrs. Hill and Matthews, Solicitors, Bury-court, St. Mary-axe; and at the Auctioneer's Offices, 1, Mount-street, Berkeley-square.

SALES BY AUCTION.

By order of the Trustees, removed: a Sale not allowed on the Premises. To PAPERHANGERS and OTHERS.—2200 pieces of superfine Paperhangings

MR. IZOD will SELL by AUCTION, at his OFFICES, No. 3, Bell yard, Doctors' Commons, on WEDNESDAY, FEBRUARY 28, at ONE o'clock, in lots, to suit the trade as well as private purchasers, a choice assortment of bedroom, parlour, hall, and staircase papers, rich flocks and satins, drawing and dining room papers, a few French ditto and linens.—May be viewed on TUESDAY previous and morning of sale, and catalogues had at Mr. IZOD'S Offices, 3, Bell yard, Doctors' Commons.

TO BUILDERS, PLASTERERS, CONTRACTORS, and OTHERS

BENNETT and CO. will include in their SALE, at the NEW CORN-EXCHANGE COFFEE-HOUSE, Mark-lane, on WEDNESDAY, FEBRUARY 28th, at TWELVE for ONE o'clock, 400 CASKS of PORTLAND CEMENT, warehoused at Millwall and at Moline and Chandler's Warehouses, Bilston street, City. Samples and catalogues may be had at the Auctioneers' Offices, 65, Fenchurch-street, City.

ST. MICHAEL, CORNHILL.—TO LET, upon BUILDING LEASES for a term of sixty-one years, the SITES of the FREEHOLD HOUSES, Nos. 44, 45, 46, and 47, Cornhill. The Churchwardens and Committee of Overseers will meet in the Vestry-room of St. Michael's Church, Cornhill, on WEDNESDAY, the 28th day of FEBRUARY, at ELEVEN o'clock precisely, to receive TENDERS from parties desirous of taking any of the above sites, which are divided into three lots. The terms and conditions may be seen, or printed copies of the same obtained, on payment of 2s. upon application to Mr. ALFRED B. MASON, Architect and surveyor, No. 9, Great St. Helen's, or to Mr. HENRY HOPPE, Vestry Clerk, 3, Sun-court, Cornhill. Parties Tendering must send in Tenders to the Vestry Clerk on or before the 27th FEBRUARY, under cover, addressed to the Churchwardens, and endorsed "Tender for Ground in Cornhill," and must be personally or by endorsee at HALF PAST ELEVEN o'clock on the said 28th FEBRUARY. The Churchwardens and Overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign the memorandum annexed to the conditions.

TO BUILDERS AND OTHERS.

BUILDING FRONTAGES TO BE LET, for detached and semi-detached VILLAS, in BLESSINGTON-ROAD, Belmont, Lee, Kent, close by the church. This is the most attractive, picturesque, and respectable locality on any side of Lee-on, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men For particulars apply to Messrs. J. and C. W. TODD, Miller-street, Brompton; or at their Office in Churchlane, Lee.

ST. MARGARET'S, near RICHMOND.—A few most eligible SITES for VILLAS, with a frontage to the Thames, and other plots, suitable for villas of all classes, TO BE LET, on Building Leases, which are allowed to respective builders.—Apply to GEORGE MORGAN, Esq. Architect, 5, Chancery-lane; or to Mr. LONG, Red Lion-street, Richmond.

BUILDING LAND TO BE LET, close to a station, twenty minutes' walk from London bridge; 40 feet frontage, 120 feet deep. Moderate ground-rent—Apply to G. PERCEY, House and Estate Agent, 10, New-street, Bishopsgate-street.

TO RAILWAY CARRIERS, INN KEEPERS, and OTHERS.—Important and extensive PREMISES, known as the "George Inn, High-street, Borough," TO BE LET. The Governors of Guy's Hospital will meet at the Hospital, on WEDNESDAY, the 7th MARCH next, to receive TENDERS for TAKING on a REPAIRING LEASE, the PREMISES called the "George Inn, High-street, Borough." A plan of the premises may be seen forthwith at the Counting-house of Guy's Hospital, St. Thomas's-street, Southwark; or at the Office of Mr HENRY LUNY, Architect, No. 4, Bedford-row. Tenders to be delivered at the Hospital, on WEDNESDAY, the 7th MARCH, at or before TWO o'clock, and the parties are requested to attend at the Counting-house at that hour. The Governors do not bind themselves to accept the highest or any Tender.

TO TIMBER MERCHANTS, WHARFINGERS, MANUFACTURERS, &c.

TO BE LET, on Lease, extensive WATERSIDE SITES for erecting steam sawing and planing mills, situate in the Commercial road, between Waterloo and Blackfriars Bridges. The land will be let in one or more lots. An excellent and large wharf stabled and let to hold. Apply to Mr ROGERS, Architect, 13a, Cannon-row, Westminster; Mr. J. B. CLARK, 9, Guildford-place, Kennington-lane; or to Messrs. HODGSON and BURTON, 10, Salisbury-street, Strand.

BUSINESS PREMISES.—TO BE LET, extensive PREMISES, adapted for manufacturing or business purposes requiring space, with a residence and stabling, and also a wharf attached. If required, situate in Princes-street, Lambeth. Apply to Mr ROGERS, Architect, Palace-chambers, Lambeth, or 13a, Cannon-row, Westminster; Mr. J. B. CLARK, 9, Guildford-place, Kennington-lane; or to Messrs. HODGSON and BURTON, 10, Salisbury-street, Strand.

DORSETSHIRE.—CLAY LANDS.—TO BE LET, on long leases, several valuable parcels of LAND, in a good clay district, with water and rail communication. Also, a large BRICKYARD in full working order, with kilns and plant complete Apply to THOMAS KINGDON, Esq Solicitor, Wimborne, Dorset.

FREEHOLD BUILDING GROUND for SALE, about 2½ acres, near the Edgeware-road, and within 3¼ miles of Oxford street, eligibly adapted for building villa residences. Price 500l per acre. There is excellent drainage and a large quantity of brick-earth.—For further particulars apply to Mr. GEO. CLARKSON, Surveyor, 18, Penton-street, Pentonville

TO BE SOLD, within a few minutes' walk of the Kilburn station on the North Western Railway, and immediately adjacent to the Edgware-road, Kilburn Junction Railway, about EIGHTEEN ACRES of copyhold LAND, having a frontage next West-end-lane, of more than 800 feet. The estate, which is beautifully situated, is at present let to a yearly tenant, and immediate possession may be had. The soil is capable of being made into bricks, and a specimen of the earth may be seen at the Office of Mr. POWNALL, 3, Bloomsbury-square, where lithographed plans and further particulars may be obtained; or of R. B. ARMSTRONG, Esq. 8, Staple inn.

WATER-SIDE PREMISES. — TO BE SOLD, freehold and part leasehold, BRUNSWICK WHARF and DRAW DOCK, VAUXHALL, many years established in the brick, tile, stone, slate, and timber trade, &c. Excellent RESIDENCE, offices, Stabling and Warehouses, the whole in substantial repair, adjoining, the South-Western Railway Goods Station, and abutting on the River Thames. Apply on the premises; or to Messrs. NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 38, Regent-circus, Piccadilly.

SCULPTOR'S STUDIO and adjoining House WANTED, within a mile of Buckingham Palace, and with immediate possession. The latter to consist of a light hall, four bed-rooms, dining-room, &c.—Address (post-paid), to E. G. P. Mr. Day's, Artist's Colourman, 83, Newman-street, Oxford-street.

TO BUILDERS, MANUFACTURERS, and OTHERS.—Spacious PREMISES TO BE LET, on lease, near to Oxford-street, with numerous conveniences. Part may be used as stabling.—Apply to Mr. LAHEE, 63, New Bond-street; and to view, to Mr. POOLE, Wells-mews, Wells-street, Oxford street. 1861 c.

TO PUBLIC COMPANIES and OTHERS. The corner of Hanover-square and Hanover-street (between Regent-street and Bond-street, two of the greatest thoroughfares at the West End. FREEHOLD PREMISES, with a frontage of nearly 30 feet, and a depth of 140 feet, opening to a mews. TO BE LET on lease, or otherwise disposed of.—Apply to Mr. LAHEE, at his only) Offices, No. 63, New Bond-street.

BUILDING PREMISES.—TO BE DISPOSED OF, in the City of London, an old-established BUILDING BUSINESS, with a very extensive Jobbing connection. The premises are most complete, and adjacent to the river. It is to be disposed of only in consequence of the illness of the proprietor, in whose family it has been for upwards of half a century.—Principals only treated with on application to Mr. LUSH, 47, Hanover-street, W.

TO BUILDERS AND OTHERS

GROUND-RENTS.—WANTED to PURCHASE, FREEHOLD or LEASEHOLD GROUND-RENTS, to pay a moderate interest, in large or small amounts.—Apply, with full particulars, to Mr. GEO CLARKSON, 18, Penton-street, Pentonville.

TO BUILDERS AND HOUSE DECORATORS.

HOUSE and PREMISES to be REPAIRED (for the landlord), No. 62, Guildford street, Russell square, according to specification, to be seen on the premises, up to THURSDAY next. G. G. STANHAM, Architect, St. Alban's Cottage, North-end, Hammersmith-gate.—N.B. Wanted to purchase, some good register stoves and marble chimney-pieces.

MONUMENTAL WORK.—WANTED, to PURCHASE, a good-established BUSINESS in the country, or would not object to a partnership. The advertiser is a good sculptor, carver, and draughtsman, of active and energetic habits, and can give most satisfactory references as to character and ability.—Apply to ALPHA, care of Mr. Batsford, 53, High-Holborn, London.

TO MASONS, BRICKLAYERS, and OTHERS.—TO BE DISPOSED OF, the BUSINESS PREMISES of a MASON, with lease of a six-roomed house, shop room, workshop, and yard 60 feet long, and side entrance to same. Seventeen years unexpired Rent, 9l. per year Terms very low. Apply, 34, John-street, Regent's-park, near North-gate.

TO PLUMBERS, WINDOW GLASS CUTTERS, and OTHERS.—TO BE DISPOSED OF, an old-established BUSINESS in the above line, situated in one of the leading thoroughfares of the metropolis, having both a trade and private connection.—For particulars apply by letter to B. A. 33, Fleet-street, London.

LEASEHOLD PROPERTY, Camden on Kentish Town.—WANTED to INVEST, about 1,200l. in the purchase of LEASEHOLD PROPERTY, in one or more sums. The neighbourhoods of Camden-town, Kentish town, and Haverstock hill, Hampstead, preferred.—Address particulars to Mr NUTTER, Surveyor 1, York place, Kentish town

WANTED, to HIRE or PURCHASE, on the South-Western Railway, a FAMILY RESIDENCE with land, or land upon which a house may be built. The vicinity must be within about twenty miles of London would be preferred. Apply to Messrs S F MILLER and SON, Solicitors, Sussex Chambers, Duke-street, St. James's.

EVENING LECTURES.—Government School of Mines and of Science applied to the Arts. Mr. T. H. HUXLEY, F.R.S. will commence a COURSE of TWELVE LECTURES on the NATURAL HISTORY of MAN, on TUESDAY, the 27th inst. at EIGHT o'clock P.M. They will be continued on each succeeding Friday and Tuesday evenings, at the same hour. Tickets, 5s. each, for the whole course, may be obtained at the Museum of Economic Geology, Jermyn-street. Special tickets for schoolmasters of public schools, at 2s. 6d. each, may be had there and at the Department of Science and Art, Marlborough House.
TUENTAN REEKS, Registrar.

CRYSTAL PALACE.—INDIAN COURT. The Direct is intend to have an EXHIBITION of INDIAN WARES, manufactures and of the manners and customs of India, in a Court to be set apart for the purpose; and with this view, they hope to be favoured with the loan of such articles for exhibition during such period as the possessors may be willing to lend them. Further particulars may be obtained from the Secretary, to whom communications are to be addressed. By order,
G. GROVE, Secretary.
Crystal Palace, Feb. 17, 1855

DRAWING, CARTRIDGE, TRACING and MOUNTED PAPERS, TRACING LINEN, CLOTH, STRETCHERS, &c. &c. for the use of Architects, Engineers, Surveyors, Builders, &c. are sold by EDWARD STANFORD, Mapseller and Stationer, 6, Charing-cross.—Specimens of samples and prices may be obtained on application, or per post for six stamps.

SWISS DRAWING INSTRUMENTS equal in quality to the very best London made instruments and considerably cheaper.—Apply to Mr. S. BARLOW, 2, Thavies inn, Holborn (between 1 and 3 p.m.); or to Mr. H. B. BARLOW, Office for Patents, Dacie-place, Exchange, Manchester.

MATHEMATICAL DRAWING INSTRUMENTS.—JOHN ARCHBUTT, 20, Westminster Bridge road, Lambeth (near Astley's Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. A detailed price-list will be immediately forwarded, free, on application.

TO CAPITALISTS.—Required, from 10,000l. to 15,000l. to finish some superior first-class houses in one of the principal, widest, and most healthy and valuable terraces at the west-end of London. Nearly all the houses in the neighbourhood let, and the investment would be found particularly desirable, and attended with considerable profit. Address W. H. 16, Westbourne-terrace North, Hyde-park.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments extending over any period not exceeding fifty months, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE ASSOCIATION. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules for each copy. 2s. per post.
CHARLES JAMES THICKE, Resident Secretary.

LONDON Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing office of COX Bros. & WYMAN, 74 & 75, Great Queen street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the office of "THE BUILDER," 4, York-street, in the Parish of St. Paul, Covent-garden, and in the County of Middlesex.—Saturday, February 24, 1855.

The Builder.

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ARCHITECTS' BENEVOLENT SOCIETY.

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NOTICE. The ANNUAL GENERAL MEETING of the SOCIETY will be held at the ROOMS of the ROYAL INSTITUTE of BRITISH ARCHITECTS, 16, Lower Grosvenor-street, on WEDNESDAY, MARCH 7th. The Chair will be taken at HALF-PAST THREE o'clock precisely.

Information relative to the Society may be obtained of the Honorary Secretary; or of Mr. GOULDS, the Collector, 8, Craik's-court, Charing-cross. JOHN TURNER, Hon. Sec.

23rd Feb. 1855. 15, Wilton-street, Grosvenor-place.

BUILDERS' BENEVOLENT INSTITUTION.—An ELECTION of PENSIONERS will take place in MAY next. Candidates may obtain forms of application, to be returned on or before the 19th instant, at the Offices of the Institution, 19, Southampton-street, Bloomsbury.

Pensions, 24*l.* per annum for Males, and 2*l.* for Females.

March 3, 1855. A. G. HARRIS, Secretary.

INSTRUCTION in ART, General and Special, as afforded at the Central School of the Department of Science and Art, Marlborough House, Pall-mall; the School for Female Students, No. 37, Gower-street; and the District Schools in connection with the Department. The Spring Session will commence on the 1st March.—For information and prospectuses apply at Marlborough House, Pall-mall.

THE LOCAL BOARD of HEALTH for the CASTLEFORD DISTRICT, in the West Riding of the County of York, are in want of a competent Person to undertake the united duties of SURVEYOR, INSPECTOR of NUISANCES, and COLLECTOR of RATES within their district. The candidate must be capable to conduct surveys, take levels, and prepare plans, sections, &c. and must possess a thorough knowledge of the repairs of highways. The person elected will be required to devote the whole of his time to, and to give security in the sum of 250*l.* for the due performance of all the duties assigned by the Public Health Acts to such offices respectively.—A copy of the particulars of which, in detail, may be inspected, on application to the Clerk of the Board, or will be forwarded to any candidate, on receipt of eight postage-stamps. Applications, with testimonials, stating the age of the candidate, previous occupation, and the salary he would expect to receive, marked "Application for Appointment of Surveyor, &c." are to be forwarded to me on or before the 16th of MARCH, 1855.—By order,

THOS. SYKES, Solicitor, Clerk of the Board.

Castleford, February 28, 1855.

BOROUGH of MIDDLESBROUGH.—SURVEYOR WANTED.—The Town Council of Middlesborough are desirous to ENGAGE an active and competent person as BOROUGH SURVEYOR. He must be sufficiently acquainted with engineering to be able to survey, plan, and level, and carry out sewerage and drainage works. Population about 11,000. Salary, 150*l.* per annum. The person appointed will be required to devote his whole time to the office. Further particulars, with respect to the duties to be performed, may be had on application to the undersigned, and applications in the handwriting of the party, and with testimonials of his character and ability, and a statement of his age, and previous and present occupation, must be sent to my Office not later than TWELVE o'clock at noon, on TUESDAY, the 20th MARCH next.—By order,

JOHN S. PEACOCK, Town Clerk.

Middlesbrough, February 23rd, 1855.

COMPETITIONS.

THE GILBERT MONUMENT.—DESIGNS and ESTIMATES for the ERECTION of the proposed Monument to the memory of the late Lieutenant-general SIR WALTER RALEIGH GILBERT, Bart. G.C.B. will be received on or before MONDAY, the 26th of MARCH next, accompanied by sealed letters, addressed to "The Secretary of the Gilbert Monument, at 7, New Bond street, Lond n," and endorsed, "Design for the Gilbert Monument."—Full particulars may be had by written application to the Secretary at the above address, where plans, and a description of the site of the Monument, may be seen, on and after TUESDAY, the 27th instant.

78, New Bond-street, London, Feb. 22, 1855.

STROUD BURIAL BOARD.—TO ARCHITECTS.—PLANS and GENERAL SPECIFICATION are required for CHAPELS, and other requisite Buildings, to be erected on land near Stroud. In making their selection, the Board do not pledge themselves to be guided in their choice by the amount of the estimated cost, nor do they bind themselves to accept any one of the plans offered The architect producing the best plan in the estimation of the Board will be allowed the sum of fifteen guineas, and the architect producing the second best plan in the estimation of the Board, will be paid the sum of seven guineas (which shall include all costs and charges whatsoever relating to and in preparing the same), as soon as the works have been contracted for, at a sum not exceeding the maximum sum to be expended. The plans, &c. so approved, shall become the property of the Board, who shall not be bound to employ the person producing the same as their architect. All the plans are to be drawn to a uniform scale of eight feet to an inch, and all the drawings, with the exception of the ground plans and sections, must be drawn in plain lines, without colouring, shading, or embellishments.—A plan of the ground, with particulars of the required buildings, &c and the limit of the cost of the same, may be had upon application to Mr. PRESTON, Rowcroft-house, Stroud, to whom the plans and specifications are to be sent (free of expense) on or before the 24th day of MARCH next

TO ARCHITECTS.

LEAMINGTON PARISH CHURCH.—The sum of TWENTY GUINEAS will be paid for the best PLANS for COMPLETING and FINISHING the Parish Church at Leamington. The plans will be required to entirely complete the Church on the area of the present edifice now used for Public Worship, and also to include a proportionate Tower capable of holding Six Bells; the plan to include in the designs all the present interior arrangements and buildings now in existence, as far as the same can be with propriety practically included and continued in a design for consistently and advantageously finishing and completing the edifice as a PARISH CHURCH. A guaranteed ESTIMATE, stating the nature of the different materials proposed to be used, to accompany the plan, such Estimate specifying the separate sum for the completion of the Church; also the separate sum for the tower. The plans to be sent in, sealed and directed to the "Committee of a Fund in Aid of the Completion of Leamington Church," on or before TUESDAY in the Easter week, under cover, to Mr. GLOVER, at his Library, Victoria-terrace, Leamington, who will be responsible to pay the above premium on the decision of the said Committee, within one month from the delivery of the said plans and estimate, and to return any plans not obtaining the above said premium.

TO ARCHITECTS AND OTHERS.

THE BURIAL-BOARD for the PARISH of BRIDPORT, in the county of Dorset, is desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising Ground Plans, Sections, and Elevations, for LAYING OUT a NEW BURIAL GROUND of FOUR ACRES the plan of which may be seen at my house, in East-street), INCLOSING the GROUND, BUILDING a LODGE with ENTRANCE-GATES, and BUILDING TWO DETACHED CHAPELS The party whose plans, &c. may be approved, will, at the discretion of the Board, either have the superintendence of the works, or be paid 31 15*s.* for the plans, designs, estimates, &c The person who prepares, in the judgment of the Board, the second best plan, will be paid 21 *s.* which must be delivered at my house, free of all expense, without the author's name, but with a motto, on or before the 17th of MARCH. A sealed letter, containing real names and address, should accompany each design, which will be opened after selection made, and those not approved will be returned.

W. K. BROWN, Clerk of the Board.

Bridport, February 20, 1855.

CONTRACTS.

TO BUILDERS

NEW MARKET at GLOUCESTER.—The Corporation of Gloucester is desirous to receive TENDERS for the ERECTION of the above Market, in accordance with the plans, specifications, and conditions, prepared by Messrs. MEDLAND and MABERLY, Architects, Gloucester, which may be seen on application to them on and after 5th MARCH next. The Tenders to be delivered, free of all charge, before TWELVE o'clock, on MONDAY, 19th MARCH next, at the Architects' Office, sealed and endorsed, "Tenders for New Market, Gloucester." The Corporation will not be bound to accept the lowest or any Tender if the amount be unreasonable. The works will be divided into two Contracts, viz No 1. The excavators, bricklayers, masons, carpenters, joiners, slaters, plumbers, painters, and glaziers' works.—No. 2. The smiths and ironfounders' works.

A. H. JENKINS, Town Clerk.

Gloucester, February 21st, 1855

TO CONTRACTORS.

THE DIRECTORS of the SUNDERLAND CORPORATION GAS COMPANY are prepared to receive TENDERS for the immediate EXCAVATION and BUILDING of a TANK 41 feet diameter, near the Ayre's Quay Works of the Company, Wellington-lane. Plans and specifications may be seen at the Offices of the Company, 61, Fawcett-street, Sunderland, on and after THURSDAY, the 1st day of MARCH inst. Sealed Tenders, endorsed "Tender for Tank," to be sent in on or before TUESDAY, the 13th MARCH, by TWELVE o'clock at noon. The Directors do not bind themselves to accept the lowest or any Tender. JOHN HENRY COX, Secretary.

Sunderland, Feb. 22, 1855.

CONTRACTS.

Royal Engineer Office, Eastbourne, Feb. 16th, 1855.

TO BUILDERS.

SUCH Persons as are desirous of undertaking the several branches of ARTIFICERS' WORK, IRONMONGERY, CAST-IRON, and METAL WORK, required in the Ordnance Department at the places undermentioned, including REPAIRS to the several BARRACKS, upon a CONTRACT for THREE YEARS from the 1st of APRIL next, determinable at any period after the expiration of one year, on either party giving three months' notice in writing, may be furnished with printed schedules of prices, and the conditions of the contract, with every necessary information respecting the same, by application at this Office.

Stations for which separate Tenders will be received:

From SHOREHAM to the WEST SIDE of CUCKMERE HAVEN;

From the WEST SIDE of CUCKMERE HAVEN to FAIRLIGHT.

The Tenders will be required to be delivered bef re TWELVE o'clock at noon, on TUESDAY, the 13th day of MARCH next, at the Ordnance Office, Pall-mall, addressed to "The Secretary to the Board of Ordnance." The persons whose Tenders shall be approved, will be required to provide eligible securities, and execute a bond for the due performance thereof, and to pay half the amount of the stamp on the bond.

TO BUILDERS AND OTHERS.

SEALED TENDERS, in one specific sum, will be received at the Ordnance Office, Pall mall, London, on or before the 20th MARCH, 1855, for the following SERVICES at Bull Point, in the parish of Saint Budeaux, near Devonport, viz.:—

1.—Building Cottages for a Foreman and sixteen Labourers.
2.—Building a Cook-house and Wash-house for the Crews of the Two Powder Vessels, with Privy and Urinal
3.—Building an Office for the Ordnance Storekeeper.
4.—Building a Civil Watch-house and a Shed for Waggons.
5.—Building a Warder's Lodge and a Shoe-house.
6.—Building an Engine-house.
7.—Building a Boat-house.
8.—Removing the present wooden Filling and Examining-house at Keyham to Bull Point.

Detailed specifications of the above eight services, with addenda thereto, and every requisite information, may be obtained at the Royal Engineer Office, Bull Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from THURSDAY, the 1st, to FRIDAY, 16th of MARCH, 1855, both days inclusive.

Royal Engineer Office, Devonport, 23rd February, 1855.

CHORLEY IMPROVEMENT.—SEWERAGE—TO EARTHENWARE SEWER AND DRAIN PIPE MAKERS AND OTHERS.

The CHORLEY IMPROVEMENT COMMISSIONERS hereby give notice that they are prepared to receive Tenders from parties willing to undertake the following Contract:—

Contract No. 1.—For the Supply of EARTHENWARE SEWER and DRAIN PIPES, &c.

Specifications, schedules, bills of quantities, and form of Tender (6*d.* the set), may be obtained, together with any further information required, on application at the Commissioners' Office, High-street, Chorley; or at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street, Westminster.—Sealed Tenders to be delivered at the Commissioners' Office, Chorley, before TWELVE o'clock, on SATURDAY, the 10th day of MARCH, 1855, endorsed, "Tender for Contract, No 1."

RICHARD JACKSON, Clerk to the Commissioners.

Chorley, February 16th, 1855

TO BUILDERS AND CONTRACTORS.

MILITARY DEPOT for the County of DENBIGH, at Wrexham.—Any person willing to CONTRACT for BUILDING the new MILITARY DEPOT, for the custody of the stores, arms, and accoutrements of the Royal Denbighshire Rifles and for RETAINING a HOSPITAL with QUARTERS for the Sergeant-Major and Six Sergeants of the Permanent Staff, together with all necessary Outbuildings, and for forming the PARADE GROUND, may see the plans and specifications, after the 9th of MARCH next, upon application to Mr. WHITTAKER, at the Turf Tavern, near the Railway Station at Wrexham, or at my Office in Oswestry Sealed Tenders to be sent, addressed to me, at Gwersyllt-hill, on or before the 19th day of MARCH, endorsed "Tenders for the Military Depôt at Wrexham." The Contractor will be required to enter into security, with sufficient sureties, for the due completion of the works. The lowest Tender not necessarily accepted, without having due regard to the eligibility of the parties. Any further information may be obtained at my Offices at Oswestry, and Gwersyllt-hill, near Wrexham. THOMAS PENSON, Architect.

Oswestry, February 21, 1855.

STREET WATERING.—Notice is hereby given, that the Commissioners of Pavements of the Manor of Southwark, or Clink Liberty, in the Parish of Saint Saviour, Southwark, in the County of Surrey, are desirous of receiving TENDERS for WATERING the several ROADS, STREETS, LANES, PUBLIC PASSAGES, and places within the said manor or liberty, twice in every day of the week (except on Sunday, and then once only), for one, two, or three seasons, from Lady-day to Michaelmas-day, inclusive. The contractor will be required to enter into a contract, and he and two sureties will have to execute a bond conditioned for the performance of such contract. Tenders, containing the names and addresses of the proposed sureties, sealed up and addressed to the Commissioners, and endorsed, "Tender for Watering," must be delivered at the Clerk's Office, to the Clerk, as under, by FIVE o'clock in the afternoon of WEDNESDAY, the 14th inst. The Commissioners do not pledge themselves to accept the lowest or any Tender. Each party tendering must be in attendance at the Committee-room, Emerson-street, Southwark, at HALF-PAST SIX on WEDNESDAY, the 14th inst aforesaid, when and where the said Commissioners will meet to open and consider such Tenders. The contractor will have to pay for the stamps of the contract and bond. The draft contract and bond can be inspected, and forms of Tender obtained, at the Clerk's Office.—Dated this 1st day of March, 1855.—By order of the Commissioners,

GEORGE HOLMES, Clerk.

36, Bridge-street, Southwark.

[*For remainder of Contracts see next page.*

CONTRACTS.

SHIPLEY LOCAL BOARD of HEALTH.—WATERWORKS CONTRACT, No. 2. The Local Board hereby give Notice that they are prepared to receive TENDERS for the CONSTRUCTION of a COMPENSATION RESERVOIR at ELDWICK, near Bingley, with the Culverts, Waste Pit, Gauge Basin, Residuum Lodge, and other Works therewith connected, and for Forming about 400 yards of Conduit thereto, to Westlane, near Baildon. Plans, sections, detail drawings and specifications may be inspected on and after the 23rd FEB at the Offices of Mr. J. MILANDSBOROUGH, Civil Engineer, 24, Queensgate, Bradford, from whom Forms of Tender and any further information may be obtained. Sealed Tenders to be delivered to me, at my Offices in Bradford, Yorkshire, on or before MONDAY the 12th day of MARCH next, endorsed "Shipley Waterworks Tender for Contract, No. 2." The Local Board do not bind themselves to accept the lowest or any Tender.
JO. THOMPSON, Clerk to the Local Board.
Bradford, Feb. 16th 1855.

TOWNSHIP of MANCHESTER.—ERECTION of NEW WORKHOUSE. The Guardians of the Poor of the Township of Manchester are desirous of receiving TENDERS for the whole or any branch of the Works required for the ERECTION of a NEW WORKHOUSE, intended to be built at Crumpsall, near Manchester. The drawings and specifications may be seen at the offices of Messrs. MILLS and MURGATROYD, Architects, Exchange-chambers, Bank-street, Manchester, where all particulars may be obtained in respect thereof. The Guardians do not pledge themselves to accept the lowest Tender.
By order, &c. JOHN HARROP, Clerk to the Guardians.
Poor Law Offices, New Bridge street, Manchester, February 21st, 1855.

BURSLEM LOCAL BOARD of HEALTH.—NEW TOWN HALL.—CONTRACT for GAS FITTINGS.—The Local Board of Health are prepared to receive TENDERS for the supply and fixing of the CHANDELIERS, PENDANTS, BRACKETS and the necessary GAS FITTINGS required for the lighting of the New Town-hall. Drawings and specifications may be seen, and further particulars obtained, on application to C. T. ROBINSON, Esq., Architect, 25, Upper-parade, Leamington; or to Mr. RALPH HALES, Cobridge, Surveyor to the Local Board. Sealed Tenders must be sent to me on or before the 8th day of MARCH next. By order,
JOSEPH LOWNDES, Clerk.
Public Offices, Burslem, February 10 1855.

BURSLEM LOCAL BOARD of HEALTH.
CONTRACT, No. 1.—The Burslem Local Board of Health are prepared to receive TENDERS for the supply of certain SALT GLAZED EARTHENWARE PIPES and other articles, to be used in the drainage of Sneyd's Croft, Mid lleport, for the "Burslem and Tunstall Freehold Land Society."
CONTRACT, No. 2.—TENDERS are also required for the LAYING of the above PIPES and other articles.
The drawings and specifications may be seen, and further particulars obtained, on application to Mr. RALPH HALES, Cobridge, Surveyor to the Local Board. Sealed Tenders must be sent to me on or before the 8th day of MARCH next.
By order, JOSEPH LOWNDES, Clerk.
Public Offices, Burslem, February 10, 1855.

RUNCORN UNION.—To BUILDERS and OTHERS. Parties desirous of CONTRACTING for the whole of the works required in the ERECTION of a new WORK-HOUSE, intended to be built at Dutton, in the county of Chester (about one mile from the Preston-brook Station on the London and North Western Railway), may see the plans and specification at the Office of Mr. CULSHAW, Architect, Rumford-place, Liverpool, until the 14th day of MARCH next, and after that date at my Office, Frodsham, until the 28th day of MARCH. Sealed and endorsed Tenders to be delivered at my Office on or before the 28th day of MARCH next, addressed to me. The Guardians do not pledge themselves to accept the lowest or any other Tender. Security will be required for the due performance of the contract when entered into.
DANIEL ASHLEY, Clerk to the Runcorn Union.
Frodsham, Feb. 22, 1855.

TO BUILDERS.

TENDERS are required, either in divisions or entire, for the ERECTION of BUSINESS and DOMESTIC PREMISES at Northampton. The drawings, specification, and terms of contract may be inspected at the Office of Mr. GEORGE LOW, Architect, 1, Church-court, Clement's-lane, Lombard-street, between the hours of TEN and FIVE from the 7th to the 14th of MARCH inclusive. The Tenders to be delivered on the 23rd of MARCH.

WEST COWES LOCAL BOARD of HEALTH.—SEWERAGE WORKS.—To CONTRACTORS, EXCAVATORS, EARTHEN and IRON PIPE LAYERS, BRICKLAYERS, and OTHERS. The Local Board are ready to receive Tenders from parties willing to undertake the following Contract:—
CONTRACT No. 2.—For EXCAVATIONS, LAYING and JOINTING EARTHENWARE and IRON SEWER and DRAIN PIPES; for FORMING GULLIES, FIXING DRAIN TRAPS, for CONSTRUCTING about 400 YARDS of BRICK EGG-SHAPED SEWERS, 24 in. by 12 in. and other Works.
The drawings and specification may be seen, and forms of Tender obtained, together with any other information that may be required, on application to Mr. OWEN, Civil Engineer, Southsea. Sealed Tenders to be delivered at my Office before TWELVE o'clock, on WEDNESDAY, the 14th day of MARCH, endorsed "Tender for Contract No. 2."
HENRY JAMES DAMANT, Clerk to the Board.
Cowes, Feb. 26, 1855.

TO IRONFOUNDERS AND OTHERS.

THE COMMISSIONERS of SEWERS of the City of London hereby give Notice that they will meet in the Guildhall of the said city, on TUESDAY, the 13th of MARCH, 1855, at TWELVE o'clock at noon precisely, to receive TENDERS for the supply of CAST-IRON WORK, for a period of three years from Lady-day, 1855, to Lady-day, 1858. A specification of articles commonly used by the Commission may be seen daily at this Office, between the hours of TEN and FOUR. Security will be required for the due performance of the contract, and no Tender will be received after TWELVE o'clock on the day of treaty. The Commissioners do not pledge themselves to accept the lowest Tender. JOSEPH DAW, Principal Clerk.
Sewers' Office, Guildhall, 22nd February, 1855.

February 20th, 1855.

ST. MARYLEBONE.—CONTRACTS for GUERNSEY, GROBY or WHITBY CHIPPINGS, or other hard materials, calculated for the repairs of roads macadamised, for Granite Carriageway Paving Stones, for Yorkshire Footway Paving, and for Granite Footway Kirb. Notice is hereby given, that the Vestrymen of the parish of St. Marylebone, in the county of Middlesex, will meet in the Board room of the Courthouse of the said parish, on SATURDAY, the 17th day of MARCH, 1855, at ELEVEN o'clock in the forenoon, to receive TENDERS from persons willing to CONTRACT with the said Vestrymen for one year, from the 25th day of MARCH, 1855, for the supply of any of the above materials. The quantity of chippings required is about ... tons. The materials are to be delivered in the parish stone-yard, or on the streets, as may be required.—Further particulars may be known, and forms of Tender procured, from the Surveyor, Mr. ROBERT STACE, at his daily attendance at the Court-house, from TWELVE till ONE o'clock. All Tenders to be on the printed forms, and to be directed sealed up, before ELEVEN o'clock on the said 17th day of MARCH, and no Tender will be received after the specified time. Security of the persons will be required with the Tenders. The Vestry do not pledge themselves to accept the lowest Tender. The contractors to provide two sureties of 50l. each, and to pay their own costs as the expense of the contract. The Vestry consider it desirable that the parties Tendering, or some person on their behalf, should be in attendance at the time of opening the Tenders.
By order, W. E. GREENWELL, Vestry Clerk.

CONTRACTS.

BUILDERS wishing to give TENDERS for a GROUP of NATIONAL SCHOOLS for the District of St. John's, Deptford may see the plans, &c. with bills of quantities and conditions, at Mr. PEARSON's Office, 15, Bloomsbury-square, on MONDAY and TUESDAY, 12th and 13th MARCH. Tenders to be delivered on FRIDAY, the 16th.—The Committee do not pledge themselves to accept the lowest Tender.

WOOLWICH LOCAL BOARD of HEALTH.—To DUST CONTRACTORS and OTHERS. The Local Board of Health for the District of Woolwich, in the County of Kent, do hereby give Notice, that they will meet at the TOWN HALL on TUESDAY Evening, the 13th of MARCH instant, at SEVEN o'clock, to receive TENDERS in writing (in accordance with the regulations prescribed by the bye-laws), to CONTRACT for the daily collection and removal of all DUST, ASHES, RUBBISH, FILTH, DUNG, SOIL, MANURE (except Stable produce), and all Animal and Vegetable Matters that may accrue on the premises of the inhabitants of the parish, for a period of Twelve Months from the 4th day of April next. The Dust, Ashes &c. to be collected at the expense of the Contractor, and conveyed beyond the parish boundaries. Persons tendering, to state the sum they will pay, or require to be paid, per annum, and the party whose offer is accepted, to enter into a bond for the due performance of the contract. The Contractor to pay one moiety thereof on signing the bond, and the other moiety within six months from that date. The Local Board do not bind themselves to accept either the highest or lowest Tender. Further particulars may be known on application at the Office of the Surveyor to the Local Board, William-street, daily, between the hours of TEN and THREE o'clock.—By order of the said Local Board.
Woolwich, March 1, 1855. EDWARD SARGENT, Clerk.

BETHESDA GASWORKS.—The Commissioners under the Bethesda Improvement Act, 1854, are desirous of receiving TENDERS, by the 14th MARCH, 1855 (such Tenders to stand good for six weeks from that date), for the following work to be done and matter als to be delivered at Bethesda. Any party who would like to contract for the whole is at liberty to Tender for the same, according to plans and specification lying at the Douglas Arms Hotel, Bethesda. The Commissioners will not undertake to accept the lowest or any Tender.

TENDER 1st.—To comprise the Buildings, Tanks, and Excavation complete.

TENDER 2nd.—The Heavy Castings and Cast-iron Pipes, 2, 3, and 5 inches.

TENDER 3rd.—The Gasholder, 37 feet diameter by 12 feet deep, erected at Bethesda.

TENDER 4th.—Supplying the remaining parts, Fitting up Gas Apparatus complete, and Laying and Jointing Main Pipes.

By order,
H. WILLIAMS, Clerk to the Commissioners.
Glanadda, Bangor, February 25, 1855.

DOVER HARBOUR.—A Committee of the Lord Warden and Assistants of Dover Harbour will be held at the COUNCIL HOUSE, Dover, on TUESDAY, the 6th day of MARCH, at TWELVE o'clock at noon, to receive TENDERS, in writing, from such person or persons as may be willing to take, on Lease, for Building and other purposes, the following PARCELS of GROUND, or some part thereof, viz. all that PLOT near the New bridge, in Dover, now occupied by Mr. Stryker Finnis; all those several PLOTS at the rear of Waterloo-crescent, in Dover, occupied by Messrs. Duke, Messrs. Collin and Prescott, Mr. James Crundall, and others; and all those several PLOTS being part of the ground recovered from the pent situate at the back of Snargate-street, and near the slipway, in Dover, and now unoccupied. Plans of the said ground may be seen, and particulars ascertained, at Mr. G. T. THOMPSON'S Office, Dover; or at Mr. HARDWICK'S Office, Henrietta-street, Cavendish-square, London. The Tenders, which are to be sealed up and endorsed "Tender for Ground," may be left at Mr. THOMPSON'S Office, up to TEN o'clock in the forenoon of the said 6th day of MARCH next. G. T. THOMPSON, Registrar.
Dover, 15th February, 1855.

MANCHESTER, SHEFFIELD, and LINCOLNSHIRE RAILWAY COMPANY. Contract for Maintenance of Permanent Way.—The Directors of this Company are prepared to receive TENDERS for the MAINTENANCE of the entire LINE, WORKS, and STATIONS of the Company. Specifications may be obtained on application to the Secretary, at the Company's Head offices at Manchester, on payment of one guinea for the same. Sealed Tenders, addressed to the Secretary, must be sent in on or before the 15th APRIL next.—By order,
EDWD. ROSS, Secretary.
London-road Station, Manchester, Feb. 23, 1855.

THE NEW WESLEYAN CHAPEL, SMETHWICK.—Parties desirous of TENDERING for the ERECTION of the above CHAPEL, are informed that the plans and specifications may be seen at the Offices of the Architect. The Tenders to be sent in by the 19th of MARCH. The Committee do not bind themselves to accept the lowest Tender.—GEORGE BENJ. NICHOLS, Architect, West Bromwich.

TO MASONS AND PAVIORS.

THE Kensington Improvement Commissioners will meet at the Vestry Hall, Kensington, on WEDNESDAY, the 14th inst., at SEVEN o'clock in the evening, to receive TENDERS and to CONTRACT for new YORKSHIRE PAVING, GRANITE CURB, and CHANNELS, and DRESSED GRANITE and other CURVINGS, &c.; also, RELAYING OLD CURB PAVING and CHANNELS, for One Year from Lady-day next. The Commissioners have divided the parish into two districts, which may be tendered for jointly or separately. Form of Tender and further particulars may be obtained at the Commissioners' Offices, Vestry Hall. Tenders to be sealed, and endorsed "Tender for Masons' and Paviors' Work," and to be delivered at my Office on or before FOUR o'clock in the afternoon of the above-named day. The contractor or contractors will be required to enter into a written contract at his or their own cost and expense. REUBEN GREEN, Clerk to the Commissioners.
Vestry Hall, Kensington, March 1st, 1855.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ⅝ inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S., in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage. Steam Works, 2, North Wharf, road, Paddington.
N.B. Builders supplied with all sorts of Marble and Stone Chimney-pieces, at prices lower than any house in London.

ACORN TIMBER WHARF, Canal-bridge, Old Kent-road.—RICHARD MAY'S extensive Drying Warehouses and Water-side Premises, with the improved immunity from staining, enable him to keep one of the largest stocks in London, of
PLANKS, DEALS, BATTENS,
DRY PREPARED FLOOR BOARDS, AND MATCH BOARDING.
FOREIGN FIR TIMBER OF ALL KINDS.
English Oak, Elm, Ash, Laths, Mouldings, Sash Sills, always on sale at the lowest prices for cash.—A monthly Price Current forwarded on application.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of manufacturers and others to the greatly reduced prices of PINE SPRUCE and YELLOW DEALS, MAHOGANY, &c. &c.:

Pine Planks, 12 ft. 3 in. by 11 in.	from	4s. 6d. each.
Spruce Deals	"	3d. per foot.
Yellow ditto	"	4½d. "
Six feet Pipe-staves	"	2s. 6d. each.
Spanish Mahogany	"	8d. per foot.
Honduras ditto	"	6d. "
Wainscot	"	8d. "

Prepared Flooring, Veneers, &c. at equally low prices. Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Cills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the Docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

TO FANCY-WOOD MERCHANTS.

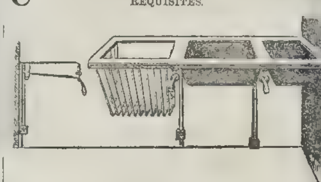
VENEER CUTTING-MACHINE (by knife only), by which process double the number of veneers can be produced more than by the ordinary method. For specimens of work and particulars of price, apply to J. CHACK, Sole Patentee. Veneer Cutting Works, 44, Robert-street, adjoining the King's-road Saw-mills, Chelsea.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

MOULDINGS by MACHINERY at REDUCED PRICES.—ARCHBUTT and ATKINSON beg to inform their customers that the 25 per cent. advance heretofore charged on the prices in their list is now removed. Seasoned flooring at extremely low prices.—St. Pancras Saw Mills, Cambridge-street, Old St. Pancras road.

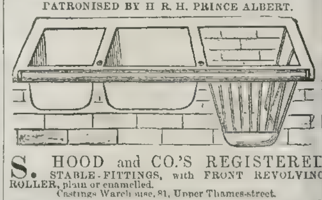
TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber, Deals, &c. received for Sale on Commission. THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness room and stable kept in stock. Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.
Castings Warehouse, 81, Upper Thames-street.

COLLINGE'S PATENT HINGES.—Sold by the Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates, and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and screw or gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongers, Establishment, 28, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out for performing these separate kinds of work by the machine, and as it is self-feeding, it does not require any skill or care in using, like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of new designs always on show. Every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-books and price lists, 55, High Holborn.

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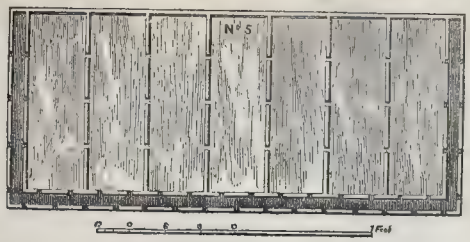
PATENT WROUGHT-IRON WELDED TUBE for GAS, galvanized ditto for water; brass-pieces, iron cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

HAYWARD'S IMPROVED

COAL-HOLE PLATES.

ILLUMINATING GRATINGS.



PAVEMENT LIGHTS.

COAL-HOLE PLATES, with Wrought Eyes fitted; ILLUMINATING with Glass Lenses, 6s. each; Ditto, plain Iron, solid, 2s. 9d. each; Ventilating, 3s. each

N.B. The Flange A prevents them from shifting when trodden on or being forced up.

ILLUMINATING AREA GRATINGS, thick Glass fitted, 5 or 10-inch openings of any length or number, at per foot super. 12s.

ILLUMINATING PAVEMENT LIGHTS, with Flange, as A, and Glass Lenses, 30s. each, 21 inches diameter.

HAYWARD (BROTHERS), MANUFACTURING IRONMONGERS, 196, BLACKFRIARS-ROAD.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AS HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

THE PATENT GALVANIZED IRON.

TUPPER AND CARR'S PATENT GALVANIZED IRON IS THE ONLY ARTICLE THAT HAS STOOD THE TEST OF TIME.

Several Roofs in Woolwich and Deptford Dockyards, erected in 1843, *are as perfect as on the day they were put up.*

TUPPER and CARR'S process of Galvanizing is used very extensively in the Dockyards and by the Board of Ordnance: it can be applied to EVERY ARTICLE MADE OF IRON, and, when properly done, is a SECURE and LASTING PREVENTIVE of RUST.

The PATENT GALVANIZED IRON is to be had ONLY of TUPPER and CARR, the Manufacturers and Patentees, at their Warehouses and Works,

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Where also are kept in Stock COMMON, BEST, and CHARCOAL (Black) SHEETS, GAS-TUBING, and TIN-PLATES.

☞ IRON ROOFING FIXED IN TOWN OR COUNTRY.

Iron-plate working in all its branches; also Smith's Work and Castings.

Full particulars, Lists of Prices, Drawings, Estimates, &c. can be obtained at TUPPER and CARR'S OFFICE, LONDON.

3, MANSION HOUSE-PLACE, CITY,

Where it is requested all Letters may be addressed.

N.B.—AN ALLOWANCE TO THE TRADE.

FLAVEL'S PRIZE KITCHENER.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

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SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated.—Roofs fixed complete.

J. Skaife is also agent for Norwood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zink, and Tiles.

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UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZED IRON.
(IMPROVED PROCESS.)
JOHN SYMONDS and CO.
WORKS, GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c. Roofs fixed complete

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LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-Iron Roofs, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Size-lane, London.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of bungalows always on view, churches, chapels, schools, boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire proof stores. Also, railway stations, trusses, and carriages made to any plan on the shortest notice.

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FIRE-PROOF SAFES, DOORS, and FRAMES;

DEED and CASH BOXES, COPYING and LEVER PRESSES;

STREET-DOOR LATCHES, warranted safe from picklocks, with two small neat keys, 15s. each

Descriptions and lists of prices may be had, or sent, upon application to

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J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

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TUCKER and REEVE'S LOCKS afford absolute security at a moderate price

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions, in the present state of the art, picking them would seem to be impracticable." *Standard*

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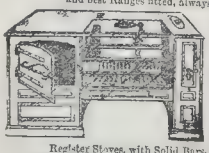
Lists and Prospectuses free.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,
20 22 24 26-inch.
28s. 30s. 32s. 34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 56s. 58s. 63s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 6d. per inch.

Best Solar ditto, with Five Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 7s. to 10s. each.

Cast Rain-water Pipe { 2 2½ 3 inch.
1s. 1s. 3d. 1s. 6d. per yard.

Cast Gutters 4-inch, 10d. per yard.

O G Gutters ..... { 4 4½ inch.
1s. 4d. 1s. 6d. per yard

Best Cut Clasp } 1½ 1¾ 2 2½ 3-inch, and larger.
and Rose } 17s. 16s 16s. 15s. 14s per cwt.

Cut Billed Brads, 13. 6d. per cwt.

1 inch Cut Lath, 16s. Cast Lath, 12s.

Patent Line { 3 3 4 5 6
4d. 5d. 7d. 9d. 1s. per knot.

6-inch Rd Ward Mortise, with best Furniture and Patent Spindles, 3s 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

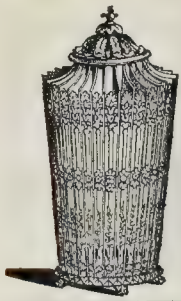
Dr Arnott's Ventilators, 4s 6d each

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.

W R BARTLETT, manufacturer of Girders, Columns, Cantilevers, Wheel and Rail-way Bars, Pumps, Iron Pipes, Bed Plates, Tank Plates, Area Gratings, Sash Weights, Pit and other Wheels, Rheers, Pinions, Engine and Lathe Castings, Fire Backs, Furnace Bars, Kilns, Pans, and other castings to patterns or drawings.



SYLVESTER'S
HOT WATER STOVES,
for Warming Halls, Staircases Galleries, Warehouses, Stores, Hotels, and Offices, require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stoves may be heated from one Boiler, and may be used equally well with Steam or Hot Water.

SYLVESTER'S
IMPROVED AIR WARMER
is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO.
Engineers, and Manufacturers of Heating Apparatus, 96, Great Russell-street, Bloomsbury.

PUBLIC INVITATION.—HEATING by HOT WATER with ONE BOILER JOHN WEEKS and CO. King's-road, Chelsea, Horticultural Builder and Hot-water Apparatus Manufacturer, most respectfully invite the Nobility, Gentry, and Horticulturists, to visit their nursery establishment during this severe weather, and witness the efficient working of their hot-water apparatus. The establishment consists of forcing houses, conservatories, &c. &c. many of which are of wide and lofty dimensions, and together measuring upwards of 1,000 feet in length; the whole effectually heated by one boiler, at the small cost of 1s 8d. per day for fuel and labour. The various houses are divided into above forty different compartments, either of which can be heated separately, and the whole regulated at pleasure with a greater command of heat than is required Boilers of all sizes, and apparatuses, both plain and ornamental, adapted for warming churches, schools, warehouses, and buildings of every description; also a great variety of horticultural buildings, to be seen in full operation, so that a lady or gentleman can select the description of house best adapted for every required purpose. Also a splendid collection of plants.

JOHN WEEKS and CO. Horticultural Establishment, King's-road, Chelsea.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, presons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, part of iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIESS PATENT—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIESS office 145, Regent-street, London.

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 2s 8d. This achievement in heating by hot water is unprecedented

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 16, insures perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 272, Holborn.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for, the prize of public approbation,—has long been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, as proved annually by the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, B. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

UNIVERSAL SMOKE-CONSUMING COMPANY; Offices, 4, Furnival's-inn, London.—No Smoke, more Steam, and less Fuel. References—Messrs Thurston and Co. Billiard-table Makers, 14, Catherine-street, Strand; Mr. J. T. Hunt, Bone-mills, Lambeth-wharf; Messrs. Fields, Wax-candle Manufacturers, Lambeth; and Messrs Ross and Co. Great Guildford-street, Southwark, where Witty's patent apparatus is at work.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42 Poland street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

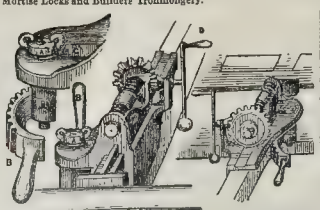
THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having the kitchener, and it effectually cures smoky chimneys, and is the best cooking range extant

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER'S CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservators and Hot-house Builders, either in wood or iron, respectfully call the attention of the nobility, gentry, and nurserymen to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-gratings, drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron bridge.

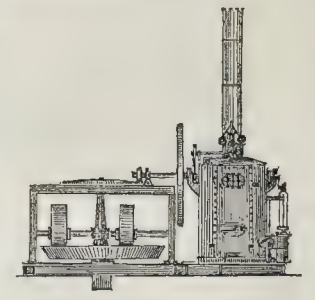
TO ARCHITECTS, BUILDERS, AND OTHERS.
FOR SALE, a 36-inch (No. 3) CUNDY'S PATENT HOT-AIR STOVE, with descending flue, blower, fender, soot and trap doors and frames; a 8-feet length of large cast iron socket-pipe, and one cast bend, with soot door for the above. The stove is in good condition, and it will all be sold for £5. For further particulars inquire of FREDERICK BLAKER, Ironmonger, Worthing.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES.
W. BISSELL, PATENTEE, WOLVERHAMPTON, Manufacturer of Rein and Mortise Locks and Builders' Ironmongery.



AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 9 to 4 inches.
B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joust close up to the board, move the set screw in the slab up to the side of the joist, then fix the set screw FIRM. Turn the notched lever B against the joist, then, by turning the handle D, the lever will gradually fix itself and hold the cramp firm: the greater the strain, the more tightly, by its eccentric action, will the lever bind. The Patentee, in asking the attention of Builders and others, assures them that his cramp possesses great advantages. It is a BENCH cramp of the best kind, and as well suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be more quickly and safely used than any yet brought out, and at the same time it is light and portable.



A SAVING of TIME and MATERIALS, with Solidity of Building.
HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

"New Borough Gaol, Walton, near Liverpool,
"December 19th, 1853.

"Dear Sir,—I have great pleasure in bearing testimony of the efficiency and economy of the three and six horse portable steam-engines, which were purchased from your firm about three years ago. We have used them for pumping water, hoisting stone and bricks, sawing timber, and in various other ways, and have found that, as they do not require any permanent fixing, we have been enabled to remove them from one part of the building to another at a very trifling expense, and with little inconvenience.
"I am, dear Sir, yours truly,
"THOMAS PATRICK,
"Contractor.

"Mr. Henry Gough"

MACHINERY.—SAWING, PLANING, MOULDING, and WOOD CUTTING MACHINES.—To Timber Merchants, Contractors, and Others.—SAMUEL WORSSAM and CO. of Hortulan-place, King's-road, Chelsea, invite the attention of Timber Merchants and others to their new inventions and improvements in all kinds of machinery used in sawing, Planing, Moulding, and Wood Cutting. S. WORSSAM and CO. are able to execute orders with cheapness and despatch; they solicit an inspection of their machines constantly on hand and in progress, and they can refer to parties of the highest position and respectability, as to the goodness and efficiency of their machines.—Estimates made for Exportation, or otherwise.—Drawings and prices on application.
February 16th, 1855.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,

53, 54, & 55, WYCH-STREET, STRAND.
Illustrated Catalogues post-free on receipt of six postage-stamps.

THE DRAUGHT and DUST EXCLUDER, the cheapest and most effectual preventive for the purpose, being merely glued round the frames in which doors and windows are embedded, so that they press against it. Price from 3s. to 3s. according to size and colour, per gross yard.
Sold at H. HELBRONNER'S, Sole Patentee, 265, Regent-street, London.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.
This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.
The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.
The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary deal-boards, or of cement, asphalte, tiles, slate, or other material.
Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.
Further information may be obtained of the Proprietor of the patent.—Mr BARRETT, 12, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.
COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"Gentlemen,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the contents (the contents receipted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,
"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.
CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

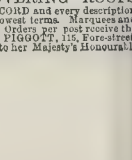
BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELL and SIDDALL'S,
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Bell Pulls, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.
RICHARD KEYSER'S Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor for the public, military, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at on, shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
139, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

NAILS and IRONMONGERY, from BIRMINGHAM direct.—Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES.
a complete LIST of which will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6¾d. 7d. 8d. and 9½ per inch.
Self-acting Ranges, with circular ovens and hot boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and hot boilers, 25s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 5½d. Ditto, Scotch, 6½d. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	9s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Debarnock's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TARPAULINS for COVERING ROOFS during Repairs, SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention. WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

WHITE OXIDE OF ZINC AND ZINC PAINT.
(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in Oil.

Zinc white, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innoxious qualities, is peculiarly applicable to first-class Decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It no longer requires to be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO

MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

HUBBUCK'S PATENT WHITE ZINC PAINT,
The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. These direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or injurious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil: also for Plaster Decorations, and where it is used with Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped "HUBBUCK—LONDON—PATENT." And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase t weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents, in London, Messrs CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool, by Messrs. LAWFORD and CO. of 49, Norfolk-street, Liverpool, who are also acknowledged Painters to the Company for Zinc Paints, and undertake painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 28, and 56 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agent in London, Mr. SCHMOLL, 12, Manchester-buildings, Westminster.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of this valuable Cement, that they have, by means of a recent discovery patented by Mr. ASPDIN made improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are various imitations sold as Portland Cements resembling it only in colour.

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.

A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster; at their Works, Gateshead-on-Tyne; at Messrs. Rosher's Wharf, Holland's-buildings, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary crystalline qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq. at the Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Bristol Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and Co. will be happy to forward prices by post on application, and can offer favorable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O and T. can deliver by their own boats, or by rail to any part of the kingdom.

Office, Warwick.

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GENTLEMEN,—I request you will allot me ..... Shares of 100*l.* each in the Bank of London, and I hereby undertake to accept the same, or any smaller number which you may allot to me, and to pay the Deposit of 10*l.* per Share thereon, and execute the Deed of Settlement of the Company in respect thereof, at such times and in such manner as you may appoint.

I am, Gentlemen, your obedient servant.

Name .....
Address .....
Profession or Business .....
Date .....

N.B. Every application for Shares must (in the case of persons not known to the Directors or Officers of the Bank) be accompanied by a good banking, commercial, or professional reference.

BANK of LONDON.—Temporary Offices, 41, Moorgate-street, City. March 1, 1853.

The public are requested to take notice, that APPLICATIONS for SHARES in this undertaking must be made on or before MONDAY next, the 5th instant, by order.

BENJAMIN SCOTT, Secretary and Provisional Manager.

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The Builder.

SATURDAY, MARCH 3, 1855.

TO complete the illustration of the block of buildings recently erected in Threadneedle-street, London, between Finch-lane and the Royal Exchange, we give in our present number (p. 103) a view of the houses built respectively for Mr. Banister and Mr. Lemann. A view of the Australasian Bank, the other portion of the block, has already appeared. The first, which is built on land belonging to St. Thomas's Hospital, under the able direction of Mr. Henry Currey, architect, has been designed for the purposes of Mr. Banister's business, on the ground story, with a distinct entrance from Spread Eagle-court, leading to the upper floors, which are to be let as offices. This house has a frontage of 24 feet to Threadneedle-street, reduced in the rear to 13 feet 9 inches, and the average depth is 38 feet. The front is of Portland stone. The mouldings are nicely profiled, and there is a certain amount of originality about the elevation. The contract for the building was 3,020*l.* The builders were Messrs. Lucas, Brothers, of Belvedere-road, who have done their work exceedingly well.

Mr. John Shaw, of Christ's Hospital, was the architect of the adjoining premises, to which, faithful to the style he most affects, he has given, shall we call it, a Jacobean character; the roof being made a special feature.

The plan, which is very irregular in form, is strictly confined to the foundations of the old vestry of the extinct church of St. Benet Fink, and those of the line of old houses on the west side of Spread Eagle-court. The open piece of ground, westward, enclosed within the projecting sides of the building and a high iron railing, is the consecrated ground of the ancient churchyard.

The site for the new building, having a frontage of 50 feet towards Threadneedle-street, was a compensatory conveyance to Mr. Lemann in lieu of his freehold property upon the same site, as well as the portion now thrown into the public way.

The foundations for the new works having to support a very considerable weight, from the height of the superstructure, the architect decided upon going through the *débris* of all former erections, and placing the concrete on the maiden soil. The excavation in its progress passed through a mass of remains having a very miscellaneous character, and three distinct surfaces were found before the depth of 12 feet was attained. The first was formed of a close hard concrete of broken tiles and lime; the second was a rough pavement of flints, upon a concrete bed not so well formed as the last, and from the charred embers of various kinds that lay on this surface, it seemed highly probable that fire had destroyed the building whatever it might have been that formerly stood over it. The third surface was formed of rough tesseræ of broken tile, placed on a concrete bed of six inches thick. This concrete was formed of pounded tiles and lime, with but little sand, and no gravel in it, which gave the concrete a very bright appearance, and it was very hard. There were no walls of any kind lower down than the level of the old foundations of the church, or vestry-room; part of which, running in the line of the present front wall, was so bound with grouted lime, that wedges and sledge-hammers were requisite for its removal. Imbedded within this mass of rubble, cut stones, part of the tracery of a Gothic window of the perpendicular period, were found, which had, no doubt, formed part of the church that stood here before the Great Fire.

From the nature of the soil removed, the site must have been frequently applied to that purpose best conveyed to our modern sense by the notice, "Rubbish may be shot here." In evidence, the first notable things turned up were numbers of those short-headed stout clay pipes, that the painters of the Flemish school make play so prominent a part in their boors' carousals. Lower down, about 9 feet from the surface, was found part of the cover of a stone coffin or tomb, marked by an Early English cross; and near the same spot another fragment of a monumental tablet of an earlier period; but of these no other portions could be found, though search was made. Below the depth of 10 feet it was evident that the Roman surface had been reached, and portions of vases, urns, and other earthenware of their workmanship began to turn up in succession to the fragments of German pottery of a more recent date: many of the former articles were nearly perfect, though all were more or less broken. These were found at various depths from 12 to 15 feet below the present surface, the whole being very irregular. The lowest portion excavated was at the north-east corner, where a pit was cleaned out to nearly 16 feet in depth: this pit gave evidence that oysters were in demand in those early days even as at present; the shells of that relished bivalve forming the lowest foreign material found, and whether they had been the refuse of an ancient British festival or that of a *fête* of some disciple of Lucullus, might have formed a nice question for archæologists. The maiden soil, when found, proved to be a mild, loamy clay.

The new building, which has been substantially erected by Messrs. Locke and Nesham, is partly devoted to the business of Mr. Lemann, whose biscuits have long been noted, and the other portion, with an entrance from Threadneedle-street, is intended for business chambers, having a stone staircase, with closet and water supply to every floor. The facing is of rubbed paviors, with dressings of red bricks and Portland cement; the light iron castings of the balconies, pilasters of shop-front, &c. have been well executed by Handyside, of Derby.

The view from the north-west windows of the upper floors, or from that portion of the roof is, under a favourable atmosphere, very picturesque, from the grouping of the architectural features there brought before the eye. Mr. Tite's "Exchange," Mr. Cockerell's "Sun," the many-authored "Bank," form a foreground; while for the distance there is the noble dome of St. Paul's, with Sir Christopher's gem, the spire of Bow Church, relieved against it.

In this same number of our journal, wherein is depicted a portion of new London, we illustrate a morsel of old London,—a portion of the ancient city wall behind the premises on Ludgate-hill now being altered for the Milton Club,—a vestige which takes us back to the earliest period in the history of "opulent, enlarged, and still increasing London." We are reminded of the time when 380 acres constituted London, and Ald Gate, and Bishop's Gate, and Cripple Gate, and Alder's Gate, and New Gate, and Lud Gate, gave the citizens egress to the pleasant country outside. If,—

> "The more than mortall man, that did this Towne begin,
> Whose knowledge found the plot so fit to set it in;"

as Drayton sings, in his "Poly-Olbion" (1612), could have seen it when the lines were written, he would not have had more reason to be astonished than Drayton would find now. Amongst all the changes observable, nothing could be pointed out more extraordinary than the increase which has taken place in the value of land, and the enormous price it now commands. To make this apparent, we have gathered together, with some pains, a few particulars in connection with the houses we have illustrated and their immediate neighbourhood. We need not go back to that time when a house "in *Gracious*-street, in the tenure of William Gurley," was worth 7*l.* 6s. 8d. per annum; another, in the parish of St. Botolph Without, 1*l.* 6s. 8d. and four tenements in the churchyard of St. Michael's, Cornhill, produced a total of 1*l.* 9s. 4d. per annum. So far as relates to the value of land in this locality in early times, we may content ourselves with saying that when Sir Thomas Gresham was about to build the Royal Exchange, in 1566, the City of London, according to Malcolm, advanced something more than 4,000*l.* for the purchase of *eighty houses and the land they stood on*,* which, when the houses were taken down, formed the site for the Exchange. When the building was finished, Gresham let the shops arranged round the area in the first instance at *40s. a year each, and soon afterwards at 4l.* 10*s.* To come, however, to modern times: the site now occupied by the Australasian Bank and Mr. Banister's house comprehended Nos. 16, 17, 18, and 19, Threadneedle-street, Nos. 14, 15, 16, 17, and 18, Finch-lane, and a small house in Spread Eagle-court, and the *rack rent* payable for these houses before their demolition was 1,036*l.* per annum. The area covered by these buildings was 5,750 feet superficial. The area now covered is 4,550 feet superficial, about one-fifth less, the remainder having been thrown into the street to widen it; and the *ground-rent* now payable is 1,568*l.* per annum. This sum is made up of two amounts.

The Australasian Bank, at the corner of Finch-lane, pays a ground-rent of 1,300*l.* a year for a superficial area of 3,774 feet; which ground-rent, taken at thirty years' purchase (being rather under the usual rate in the City) produces the sum of 448,000*l.* per acre.

The site of the house adjoining, built, as we have said, for Mr. Banister, is held at a ground-rent of 268*l.* per annum, and has a superficial area of 775 feet. This rent is equal to 11*l.* per foot frontage for a depth of 38 feet!—valued as above, it produces 450,000*l.* per acre. Take another plot in the same street: the site of the Imperial Insurance Office, immediately opposite, has a superficial area of about 3,000 feet, and cost 40,000*l.*—equal to 600,000*l.* an acre.

Some land in Finch-lane, opposite the Australasian Bank, recently let on a building lease by the Merchant Tailors' Company, produced about 15*l.* a foot as ground-rent, the depth being about 70 feet.†

The new buildings on the south side of Cornhill, recently erected by Messrs. Savory and the County Fire Office, are subject to a ground-rent of 1,200*l.* per annum. The frontage is about 54 feet, and the depth about 80 feet, and calculating as in former cases the cost per acre, amounts to 470,000*l.* Again,—the block of buildings called "Royal Exchange-buildings," occupying an area of from 4,000 to 5,000 feet, produces a gross rental of 10,000*l.* a year.

Travelling westward to New Cannon-street, a piece of land opposite the triangular plot adjoining St. Paul's, containing 4,500 feet superficial, has been let at a ground-rent of 1,550*l.* a year, which, at thirty years' purchase, produces about 460,000*l.* an acre. To cap them all, however, we must go back to the plot of ground at the north-east corner of Threadneedle-street and Finch-lane, belonging to Mr. Alderman Moon, the present Lord Mayor, which, report says, has been recently let at a ground-rent of 1,000*l.* per annum. The superficial area of this piece is about 1,600 feet, and calculating the

* "Londinium Redivivum."

† The South Sea House estate, at the other end of Threadneedle-street, was sold by auction on the 27th, for the sum of 55,750*l.* exclusive of the top-room of the Flower Pot Tavern. The buildings occupy about half an acre of ground.

ground-rent at thirty years' purchase, we find its value is at the rate of 840,000*l.* per acre!

Much has been written about the value of the triangular plot of land between New Cannon-street and St. Paul's, already referred to, and those who, following the value we assumed for it when we commenced the agitation, to prevent it from being covered with buildings to block out the view of the Cathedral, an object not yet attained—namely, 60,000*l.* have been subjected to some abuse. Events, however, have fully justified the opinion. The area of this plot is 6,270 feet, and we understand a positive offer has been made to take it at a ground-rent of 2,000*l.* a year, which would produce, at thirty years' purchase, the sum named (60,000*l.*) being at the rate of 420,000*l.* an acre.

We need scarcely give any additional examples to prove the enormous value to which land in the City of London has arrived.

REMAINS OF THE LONDON WALL, NEAR THE SITE OF THE BLACK FRIARS' MONASTERY.

IN a recent number of the *Builder*, we mentioned the discovery, while altering for the Milton Club-house on Ludgate-hill, of a fragment of Old London, of which we this week give an engraving, and which consists of the basement of a tower of solid masonry, about 20 feet wide and 13 feet deep, situated a little to the west of a part of the city wall, still remaining in St. Martin's-court, which has evidently been a part of the wall a little to the south-west of *Lud gate*.

Under the date May 1st, 1792, Smith, in his "Antiquities of London and Westminster," mentions that, after a fire which happened on the premises of Messrs. Kay, Ludgate-hill, fragments of a barbican, or watch-tower, were exposed.

"This tower," he says, "projected 14 feet north of the wall into the city ditch, and measured 22 feet from the upper stone of its ruins to the top." An engraving of this tower is given by Smith.

In Chamberlain's "History of London," he mentions that "Edward the First ordered the citizens to erect a new wall, to run from Ludgate westward, behind the houses in Fleet-ditch, and then south as far as the Thames, at the head of which was to be built a tower for the reception of his majestie." "Edward the Second, upon information that parts of the new London wall, near Ludgate and the tower, were not finished, issued his royal mandate to the mayor and citizens of London, enjoining them to use the utmost despatch in completing the same." The subject of our engraving is evidently the wall referred to both by Chamberlain and Smith.

Through the thickness of the basement of the tower a circular-headed passage has been cut, at a comparatively recent date. During the progress of the works were discovered a quantity of bones—skulls, horns, and teeth of animals—pottery of about the time of Edward the Fourth, a few coins, and, in the immediate neighbourhood of the bones, a portion of a Roman vessel (these latter were discovered a few yards north of the wall).

Lud gate, which it closely adjoined, was situated 797 feet south of Newgate. According to Geoffrey of Monmouth, it took its denomination from King Lud, who, according to this author, built it about the year 66 before Christ. This, however, is a very questionable authority.

This gate was in the year 1373 constituted a *free* prison for debtors—freemen of the City—and was greatly enlarged (according to some authorities) by Sir Stephen Forster, some time Mayor of London, who having himself been a prisoner in this place, when begging at the *grate*, was by a certain rich widow interrogated what sum would discharge him. He replied, 20*l.* which she generously disbursed; and taking him into her service, he, by application to business, gained the affections of his mistress, who made him her husband; and having greatly enriched himself by commerce, amidst his affluence bethought himself of the place of his confinement; and having acquainted his lady with his design, she readily concurred therein; whereupon they heartily set about putting the same into execution, which was to enlarge the prison; and in order thereunto, caused divers of their houses contiguous to the gate to be pulled down, and on the sites thereof erected a strong square stone building, containing the following rooms, viz. the porch, the paper-house, watch-hall, upper and lower *lumberies*, cellar, long ward, and the chapel, in the last of which, on the wall, on a copper plate, was the following inscription:—

> "Devout soules, that passe this way,
> For Stephen Forster, late Maior, heartily pray,
> And Dame Agnes, his spouse, to God consecrate,
> That of pitie this house made for Londoners in Ludgate.
> So that for lodging and water prisoners here nought pay,
> Ax their keepers shall all answer at dreadful doomes day."

Others ascribe the works wholly to his widow.

The worthy founder not only settled a salary on the chaplain, but likewise appointed that the use of all the rooms should be free of the usual rent-charge, which at that time was made in other prisons, and for the non-payment of which many unfortunate persons—until John Howard exposed the vile system—ended their days in the pestilent and corrupt prisons of London.

One Johnson (formerly a prisoner here), in his description of Ludgate, regrets that the good intentions of Stephen Forster were not in his time carried into effect, and that an original inscription on the *street-door* of the prison had been removed, and only the words engraved, "This is the Prison of Ludgate." The same author says, "The present gate was erected anno Domini 1586, with the statue of Queen Elizabeth on the west front, and those of King Lud and his two sons, Androgeus and Theomantius, or Jemanticus, on the east." The statue of Queen Elizabeth alluded to is now in a niche in the front of St. Dunstan's Church, near Temple-bar. Lud and his sons lay for some time in the bone-house, and were eventually removed to the grounds of a gentleman in the Regent's-park.

The duties of the officers of the prison have been described, and throw light on the former condition of London.

The running post's business was to fetch in a basket "the broken meat from the Lord Mayor, clerk of the market, private families, and charities given in the street, which are often so inconsiderable as not to admit of a dividend, wherefore it is disposed of by sale in public market.

The criers are six in number, two whereof beg at the grates: he at the grate within is allowed one-fourth of what is given; and he on Blackfriars side, one moiety of what is given there."

"Ludgate-hill," says Stow, "was formerly called Bowyer-row," of bowyers dwelling there, now worn out by mercers and others.

In Maitland's "History of London," from which the plan is copied, no vestige of the wall is seen running along the side of the Fleet Ditch: in the old view of London, of about the year 1560, the wall is distinctly visible at the side of the Fleet from the bottom of Ludgate-hill to the Thames.

In a Plan of London after the Great Fire of 1666, the portion of the wall along the Fleet is quite visible.

References to the Ground Plan.

A. Ludgate-hill.
B. Former site of Lud gate.
C. City wall leading to Newgate.
D. Fragment of wall in St. Martin's-court.
E. Basement lately discovered.
F. The new Canal (*Fleet Ditch*).
G. The River Thames.

THE IRON TRADE.—The iron forges and mills in South Staffordshire and East Worcestershire, have nearly all been brought to a stand-still, and some of the furnaces blown out for want of materials. The rivers and water-courses were all frozen up, and hundreds of hands thrown out of employment. On Saturday before last, pursuant to a resolution passed at a meeting of ironmasters previously held at Wolverhampton, notice was given to the puddlers of a reduction in their wages of 1s. per ton, and other workmen in equal proportions.

AN ARCHITECTURAL SCAMPER IN FLANDERS AND BRABANT.*

BRUGES.

FEW countries in Europe are more visited by Englishmen than the provinces forming the modern kingdom of Belgium, and yet there are few, of the architecture of which we have less definite and precise accounts. One reason for this may probably be the very nearness of the objects to be described. Once across the Channel, travellers in search of the picturesque usually hurry off on the wings of steam to the more romantic beauties of the Rhine and Switzerland; and if a hasty glance be bestowed in passing, it is the pictures at Antwerp and the gaieties of Brussels which attract the lion's share of notice. Architecture and archæology are yet an unknown tongue to the majority of tourists. Were their language more generally understood there are not many occupations which would afford a larger return of pleasure and improvement than a few weeks' ramble amongst the nooks and byways of Bruges, Ghent, Antwerp, Brussels, Mechlin, Louvain, Liége, &c. It is usual to speak of the architecture of these cities in terms of praise as picturesque, quaint, and artistic; but if more precise information should be required, it would be difficult to know where to find it.† The guidebooks could hardly be expected to be very learned in the discrimination of styles and the principles of architectural design. Murray—confessedly the best, necessarily brief—omits many of the most interesting specimens; and of those which are described, it is the pictures rather than the buildings to which attention is called. Occasionally the most ludicrous blunders are perpetrated. Thus we are told of the steeple of Antwerp Cathedral that "it is not to be regarded as a structure solely of stone, but rather as a framework of iron bars, with bits of stone strung on them like beads, held together by copper bolts, the gaps and interstices being filled up with plaster, and the joints partly covered with lead."

This would be a singular mode of construction truly, if practicable; and if practicable, it would contain within itself the elements of speedy destruction. The writer, evidently unacquainted with the subject, has totally misunderstood the mode of application and the purpose of the iron ties, with which no doubt the building abounds. In another book we are gravely informed, that "the Church of St. Jacques (at Liége) is remarkable for a similarity existing between the style of its architecture and that of the Bourse at Antwerp: both are distinguished by the *piazzas, or pillars of Gothic Moorish art!* each of different pattern, and each characterised by the same beautiful elegance of design and finish!" A really architectural and archæological description of the principal Belgian buildings, or even a descriptive tour by a person possessing the necessary qualifications in this respect, does not, I believe, exist,—at least none such has fallen under the writer's notice.

The following notes consist of memoranda made on the spot, during a short tour in Belgium last summer. They have no claim to special originality, nor do they pretend to any systematic description of the objects visited. They simply convey the impressions made at the time on the mind of one not altogether unaccustomed to survey and report on architectural subjects. We will begin with a few notes on the city of Bruges. Bruges, or Brugge, as all the world knows, is eminently a city of brick. There are a few stone buildings, principally, but not entirely, of modern date; but the structures characteristic of Bruges in its palmy state, its cathedral, its churches, and towers, its halls, its warehouses, its hospitals, its mansions, are of this common material which we are accustomed to consider somewhat beneath the dignity of architecture as a fine art. It may be so; but if buildings constructed in brick must relinquish all claims to high art, it may at least be conceded that they are capable of fine and picturesque effects. One reason of the low estima-

* The substance of this article was read by Mr. J. A. Picton before the Liverpool Architectural Association.

† The old works on the topography of the Low Countries, such as those of Le Roy, Guicciardin, and others, are vague and unsatisfactory. The only work on the subject at all clear in its descriptions, consists of the papers by M. Schayes, included in the first and second volumes of "Weale's Quarterly Papers," which may be consulted with advantage.

OLD LONDON WALL, BEHIND LUDGATE HILL.

GROUND PLAN.

tion of brick as the external facing for buildings in modern times is, that its capabilities and peculiar mode of treatment are not sufficiently studied. Heavy cornices, bold projections, and classical colonnades, are clearly out of the question in this material; but panelling, sinkings, flowing lines, and arcades in endless variety, are elements at the architect's command, which he who knows how to use them, may combine with wonderful effect. Another reason, and probably the principal one, for the low state of brickwork as a building art, is the indiscriminate and pestiferous use of compo at the present day, to vamp up rottenness and decay, and to give a meretricious air of vulgar pretence to meanness and poverty. When the face of the work has to be covered, and made to look as unlike as possible to what it really is, all pride in the construction is gone. The rougher and more worthless the material and workmanship, the better, provided they be cheap. Such was not the case in the Middle Age architecture. There is no doubt much of it is in bad taste, and not a little of inferior workmanship; but it is evident, in every line, that the builders studied the nature of the materials with which they worked, and made the best use of them which their skill allowed. This gives to their work an aspect of truthfulness and honesty, which imparts a charm of its own, irrespective of the design, and which was of material service in bringing out the best style of architecture of which the materials were capable.

The cathedral of St. Sauveur is a large building, complete in all its arrangements, with nave and aisles, transepts, apsidal east end, and western tower. When it is stated that with the exception of the piers of the nave and choir, the whole is constructed with brick, something rather paltry will naturally be expected. This inference would be unfair. The building externally is not a fine example of mediæval architecture, but so simple and characteristic is the brickwork in its adaptation to Gothic forms, that not one person in twenty, unless he were told, would ever perceive that the building was brick. Some parts of the exterior are good. The south transept is very fine, with a noble window of flowing tracery. The tracery is stone, but the tabling, the blank tracery, cornice, &c. are brick. The tower is Romanesque in character, having several tiers of semicircular arcades. It is stated to have been built in the sixteenth century: if so it is probably a copy of one previously existing. The interior is lofty and noble in aspect. Its general character is what we should call Geometrical Decorated, of the date probably of the middle to the end of the thirteenth century. The piers are cylindrical. The plain parts of the walls, internally, are covered with a thin coat of plaster. The choir screen is a fine Renaissance composition in black and white marble, surmounted by the organ,—rather an unusual arrangement in continental churches, though very common in our English cathedrals.

There are certain distinctive features in the Flemish churches, on which it may be well here to say a few words. They prevail more or less throughout the structures, to whatever age they may belong. Some of them arise from the fact that during the mediæval period, along with many striking resemblances, and even considerable identity in the pointed architecture of England, France, Flanders, and Germany, there were separate schools or centres, having peculiarities of their own which modified to some extent the practice of particular localities. Some of the features alluded to are of later origin, and are, owing to circumstances, of a social, commercial, or artistic character.

The first circumstance worthy of notice is the extensive prevalence of cylindrical piers between the nave and choir and their aisles. In England, the round pier went out with the Norman style, and with the exception of a few instances in the Early Pointed, principally where Continental architects were employed, it does not again make its appearance, though in village churches, in the Perpendicular or third Pointed style, octagonal and round piers are occasionally met with. In the Flemish churches, the round pier is met with in buildings of every period, and seems to have formed the rule; the shafted pier, of which there are some fine specimens, forming the exception. Another feature of difference is the subordinate and somewhat meagre character of the triforia in the Belgian churches. There are not many instances in which the triforium assumes the distinctive and prominent position of a separate tier of arcades, as in the English cathedrals. In some cases the clerestory windows are very large, and the panelling is continued down to the string above the pier arches: in others, an arcade of small arches, resembling a balustrade, supplies the place; and in some there is nothing beyond a set-off in the thickness of the wall at the level of the string above the pier arches. Another feature is the absence of the close screen-work, by which most of the English cathedrals are shut off from the nave and aisles. The screens are for the most part light, and pierced with gates of brass, bronze, or iron work, frequently of rich and beautiful design.

The eastern ends of the Belgian churches are, with very few exceptions, apsidal, with the aisles in most cases continued round, and in general without eastern chapels, usually called in England lady chapels. In England, the buttresses of the side aisles usually project considerably beyond the face of the wall, leaving the windows in a deep recess, casting a bold shadow. In Belgium and France, the wall is usually brought out nearly to the outer edge of the buttress, leaving the projection within, thus forming an inner recess, generally converted into a side chapel. This gives a flatness to the exterior architecture, which is reimbursed by the additional effect within.

Amongst the peculiarities of more modern date may be mentioned the beauty and variety of the pulpits in the Belgian churches. The extraordinary richness and beauty of these embellishments is one of the first things which strike a stranger. They usually consist of a group of statuary below, sometimes in marble, but more generally in wood, illustrating an incident from Scripture history, or from the life of some saint. The pulpit, richly carved, rises from the midst, forming some connection with the group. The staircases are in a similar way combined with the story, whilst a canopy towers aloft, usually supported by angels on the wing.

The profusion of carving generally is one of the most prominent features in the Flemish churches. For the most part it is of a very high class in beauty of execution, especially in the wood carving. The richness of this class of decoration has always been a characteristic of the architecture of the Low Countries, which has more or less continued to the present time.

The number, the size, and the magnificence of the parochial churches of Flanders, even in the smallest towns, are to a stranger very striking and remarkable, and are powerful reminiscences of the former wealth of the communities which could raise such structures for religious purposes. This, however, is the case in the towns only. In the country places the churches are for the most part exceedingly plain and unostentatious.

From this short digression on general topics, we will now return to the special examples brought under our notice.

The church of Notre Dame is not very remarkable for architectural beauty. It is a cross church, with apsidal east end. The tower is on the north side: the spire has recently been taken down, and is now being rebuilt: the interior is rather low and poor: the clerestory and triforium have been restored, and badly done: the pulpit is a fine piece of carving. The choir-screen contains some beautiful specimens

of wrought-iron work of the Renaissance period, in several pairs of gates, varied in design, but all possessing peculiar elegance, and of exquisite workmanship.

A side chapel in the south transept contains a rich marble balustrade, with the Last Supper introduced in the centre. A statue of the Virgin and child in this chapel is attributed to Michelangelo: whether it be the work of the great Italian master or not it is a work of much merit, possessing a simple grandeur of effect which is not often attained by the Flemish sculptors.

The Church of St. Jacques is a brick building. The exterior is in a somewhat dilapidated condition, the tracery having disappeared from the windows, a portion of which have been modernized. Many of them, however, still retain their original brick-moulded jambs and arches, which are of good design and admirably worked. The tower, which is large and lofty, is placed on the north side of the choir. Its date is ascribed to the year 1469, with which its architectural character corresponds. The plan of the church is a parallelogram, divided into three aisles, with apsidal east ends to each. The piers and vaulting are of thirteenth century character. The main ribs in the vaulting of the choir are elliptical, and are probably of later date. The choir and organ screens are Renaissance in style, executed in black and white marble. The high altar is a huge composition of the same character, with twisted columns. The stalls of the choir are divided by twisted columns, carrying a carved frieze, with bunches of fruit between the capitals. A side chapel on the north side of the nave contains some interesting brasses, which are somewhat rare on the continent.

The church attached to the Carmelite Convent has a western front of florid Renaissance character, executed in stone. The interior is a Latin cross, without aisles, vaulted in one span, having a low dome at the intersection, carried on pendentives. The walls are lined with wainscot, having confessionals at intervals, and offering a rich display of wood carving. A marble balustrade is carried across the church at the intersection of the nave with the transepts. The die of the balustrade is composed of a flowing pierced pattern of foliage and fruit, in high relief, with animals and human figures interspersed, having piers at intervals, with a detached figure in front of each. The centre has a bas-relief of the last supper.

St. Donatus, or St. Walburge (for the church is called by both names), has a western front of stone, a very respectable modern Italian composition, bearing the date 1643 on the lower frieze. The interior is divided into three aisles, without transepts, having somewhat of the basilica style. The floor is paved with black and white marble. A rich marble balustrade extending across the church separates the nave from the choir. The style of this is not unlike that of the Carmelite church, though the design is altogether different. It consists of scrolls of foliage, with grapes, fruit, and figures intermixed, and medallions at intervals, having bas-reliefs of Scripture subjects and portraits.

This profusion of rich carving is the most extraordinary characteristic of the Flemish churches. Everywhere it abounds to an almost fatiguing extent. Its lavish abundance is only equalled by the boldness and delicacy of its execution. The pulpit of St. Donatus, sculptured by Vervoort, is scarcely surpassed by any existing specimen of the kind, and is one mass of rich and varied carving.

St. Anne's Church is rather a mean looking building externally, with a western square tower and slated spire. Internally it is a plain parallelogram, with semi-circular barrel vault, in one span, held together by iron ties. The choir is separated by a screen, having a double row of columns and pilasters, forming an arcade supporting the organ, executed in marbles of different colours, the effect of which is bold and striking. The style is Renaissance. A carved oak balustrade, of fine design and execution, extends across the church. Both sides of the nave are lined with wainscot, with twisted columns and carvings. There are three confessionals, of rich design, each having two detached figures of winged angels in front, with scroll-work and cherubs over. Opposite is the pulpit, having its sound-board richly carved.

Many of the secular buildings are worthy of notice. The building called "Les Halles" is a fine specimen of brick construction of late fourteenth century date. Its lofty tower, which contains the celebrated chimes or carillons, for which the city is so famed, is more remarkable for excellence of workmanship than for elegance of design. Its projecting turrets and galleries, gathered out on corbels, the absence of buttresses and want of vertical lines, give it a clumsy, top-heavy effect, which is anything but pleasing.

The Hôtel de Ville, though small, has a handsome façade of late fourteenth or early fifteenth century date, with corbelled angle turrets, surmounted by spirets.

The hospital of St. John is interesting, not only from its valuable collection of Hemling's paintings, but from the preservation of its original mediæval arrangements, from the period of its erection in the fourteenth century down to the present time. It is built of brick with stone dressings.

The street architecture of Bruges, though not equal in scenic effect to the finest parts of Ghent or Antwerp, is yet well worthy of antiquarian and artistic study. Picturesque gables and quaint-looking dormers, abound on every hand. Intersected as the town is with watercourses, shaded in many parts with trees, many fine perspective glimpses are obtained, combining the prominent features of tower and spire, with long lines of building partly hidden by masses of foliage, and heightened by the glancing of the water below,—worthy of being transferred to canvas. One or two views from the Quai des Marbriers, looking on the back of the Palais de Justice, with the Tour des Halles and the cathedral tower in the distance, are particularly worthy of remembrance.

The common type of house front consists of large windows set as close as possible covered with arches: the space between the square lintel of the window and the arch is frequently filled in with sculpture, or with blank tracery in brick. The gables are either crow steps, or worked in fantastic scrolls. Where the gables do not face the street, dormers in every variety of form are applied to the attics. The doorways of the earlier houses are not usually prominent features. In houses of the sixteenth and seventeenth centuries, Porte-cochères of elaborate design are frequent.

Some of the warehouses for merchandise erected during the palmy state of Bruges, are still remaining,—fine specimens of the mercantile taste of the period. It is customary to speak and write of Bruges as in a state of utter decay and poverty, deserted by commerce and manufactures, and nearly half pauperised. It may possibly be so, but appearances do not present such an aspect. The streets are kept clean and well paved: there seem to be few empty houses, and much less squalor and filth than in the back slums of Paris or London.

It is true beggary somewhat abounds, but it seems to be taken up as an adjunct to some other way of getting a livelihood, and not as a distinct profession. For instance, a man not very raggedly dressed, is wheeling a barrow along the street: seeing "Messieurs les Anglais" pass, he quits his barrow, and follows with a most professional whine, perhaps for a hundred yards, until he is either rewarded for his perseverance or is driven away, when he goes back to his barrow and trudges along as before. This and similar cases have occurred to us again and again.*

* Vol. cxii. p. 3.

ROYAL INSTITUTE OF BRITISH ARCHITECTS

AWARD OF MEDALS.

At a special general meeting held on Monday evening, February 26, Mr. B. Ferrey, V.P. in the chair, the recommendation of the council, with respect to the award of the medals and prizes of the Institute, was read and agreed to; and it was resolved unanimously to submit for her Majesty's gracious consideration, that the royal gold medal for 1854 should be conferred on M. Hittorff, of Paris, member of the Institute of France, as entitled, by his important buildings at Paris, and by his numerous published works, to this distinction.

The Institute medal was adjudged to Mr. W. P. Griffith, Fellow, for his essay on "Mediæval Decorations and Ornaments," bearing the motto,—"*Artis est celare artem.*"

The Soane medallion was not awarded to the set of drawings sent in.

Mr. Beazley, student, received the annual prize in books for his design for parochial schools, and another prize for his Monthly Sketches. Mr. Willey also received a prize in books for his Monthly Sketches.

The recommendation of the council respecting the subjects for medals and prizes for the current year, was read and agreed to.

The silver medals of the Institute are to be awarded to the authors of the best essays on any subjects tending to promote or facilitate the knowledge of architecture, or the various branches of science connected therewith.

The Soane medallion is to be awarded for the best design in not less than five drawings, for any of the following subjects:—

A town mansion, on a plot 200 feet deep by 100 feet front, with stable offices complete—two fronts.

Plans sections and details of the present remains of the church and conventual buildings of the priory of St. Bartholomew the Great, Smithfield, London, with a plan, founded on the existing indications, showing the whole of the monastic buildings as they may be supposed to have stood at the time of the suppression of religious houses, temp. Henry VIII.

A building to contain six courts of law, with a large central hall of communication, and the necessary accommodation for judges, counsel, officers of the court, and the public; or any other like subject of equal importance, at the option of the candidate.

The successful competitor, if he go abroad within three years after receiving the medallion, will be entitled to the sum of 50*l.* at the end of one year's absence, on sending satisfactory evidence of his progress and his studies.

In consequence of the lateness of the hour, the consideration of the "Public Health Bill, 1855," was adjourned to Wednesday, the 28th ult. when it was specially considered, particularly the clauses immediately relating to Buildings and Building Property.

ROMAN ANTIQUITIES IN SURREY AND ADJOINING COUNTIES.

We are continually having brought to our view the very advanced state of the Romans, as to the arts, when they were in this country, 1600 (or more) years ago. On their retirement, about the year 435, they appear to have covered up with earth all their rare and unique works of art, which they did not like to destroy, and yet could not carry away with them. Such was the case with the tesselated pavements that adorned the residences of the generalissimo or legate of the legions. These places are generally found out by accident, for, in many instances, they have been grazed or ploughed over for many hundred years, and then some fortuitous circumstance brings them to light.

A few years ago, a shepherd, in making a hole for the purpose of folding his sheep, at Bramdean Alresford, found his bar drop into a hole or cave: on excavating the spot, it was found to be a room, ornamentally paved, with hollow space under it, having square piers and brick flues to warm the room (a Roman hypocaust). On seeking farther, two other and larger rooms were discovered, paved with small tiles and ornamented with coloured borders and figure-heads in the corners: these pavings have been preserved and roofed over, and may be seen by permission of the owner, Colonel Greenwood, of Brookwood.

A single paved room was discovered, about thirty-five years ago, near Crondal, under similar circumstances, which was covered over by 2 feet of earth. Two rooms have been lately discovered, about 16 feet square, with a circular ornamental tesselated centre-piece, 6 feet in diameter, in the middle of each, being in form hearts within hearts, circles, and points, composed of three different colours, each piece not more than half an inch square, the other parts of the rooms being paved with 2-inch squares of red brick: the villa to which these rooms be-

longed, appeared occupy, within walls, seven or more acres ground, situated at Abbot's Ann, near A lover. The excavations were made by or t of the Hon. and Rev. S. Best, the rector of the parish, in May last; but as the tenar of the land demanded it again for his agricultural purposes, the pavements have been removed to London by workmen sent down for the purpose, and the site is now occupied by a cre of turnips, none the worse for having had the ground removed. The site of this villa was within view of three entrenched camps, being on the most conspicuous natural hills to be found on the chalk of the neighbourhood: they were distant two or three miles from the villa.

The Roman road from Salisbury passing near Andover to Silchester, was contiguous to this villa. Another road branched from Silchester (*Vindonum*) to Speen and Bath on the west, and to London on the east: this road had the passage of the Thames near Staines (*Pontes* of the Romans). On this road to *Pontes* there is another Roman double-entrenched camp, as if for a legion of men (the villa of the generalissimo of this legion has not yet been discovered). This camp is situated near the Royal Military College of Sandhurst, and will be near the Wellington College now proposed to be built. There is also an entrenched camp of the Romans adjoining the ground purchased by Government for the formation of a permanent camp at *Farnham* and *Aldershot*. The roads connecting these Roman camps were various, and all well made, giving us evidence up to the present day. On the site of their route to London, there was discovered a few years ago a full-sized figure of a Roman gladiator, or one of a legion, in the act of striking: it is carved in limestone, with the philabeg dress and sandals. This figure may now be seen in the far-famed American nursery of Mr. John Waterer, of Bagshot, where, in the spring of the year, may be seen this antique figure surrounded with all the gay flowers of the western world. The lover and devotee to the shrine of Flora may here contemplate her beauties, and reflect on human ambition, the rise and fall of nations, the antique remains of a great people, who were, in their time, the conquerors of the then known world, and before the American flowers or its continent were known to Europe.

When the camp is formed at and under the bold escarpment of the Bagshot sands, on the south of Surrey, and on the borders of Hants, these sites of the Romans, and their antique remains, may become more known to the British public, if there should be as much excitement in the community as occurred on the occasion of the camp at Chobham. EDWARD J. LANCE.

RAILWAYS IN THE UNITED STATES.

HAVING, in a recent short article on this subject, said rather more on the beginnings of the railway system in the United States than on its subsequent development and present enormous expansion, we now note a few particulars forwarded to us by an American friend, and from which some idea may be formed of the relative as well as absolute extent, at present, of the American railway system.

The number of miles of railway in operation upon the surface of the globe is 40,070; of which 16,964 miles are in the eastern, and 23,106 in the western hemisphere; and which are distributed as follows:—In Great Britain, 7,774 miles; in Germany, 5,340 miles; in France, 2,569 miles; in Belgium, 873 miles; in Russia, 422 miles; in Sweden, 75 miles; in Norway, 42 miles; in Italy, 170 miles; in Spain, 60 miles; in Africa, 25 miles; in India, 100 miles; in the United States, 21,310 miles; in the British Provinces, 1,327 miles; in the Island of Cuba, 359 miles; in Panama, 50 miles; and South America, 60 miles.

The longest railway in the world is the Illinois Central, which, with its branches, is 731 miles in length, and was constructed at a cost of 15,000,000 dollars.

The number of miles of railway in the United States exceeds that in the rest of the world altogether by 2,550 miles. The number of railways completed in the United States is 274; the number partially completed 63; and the number in course of construction 107: the number of miles now in operation is 21,310, which have been completed at a cost of 621,316,103 dollars. The number of miles in course of construction is 16,975. The State of Massachusetts has one mile of railway to each seven square miles of its geographical surface: Essex county, in this State, with a geographical surface of 400 square miles, has 159 miles of railway facility, which is a ratio of one mile of railway to each three square miles of its geographical surface. The permanent way of the American railways, however, is said to be of a very flimsy character compared with that of England.

MILITARY TOMBS AND INSCRIPTIONS.

THOSE who have distinguished themselves in fighting for their country, in defending their own nation, their religion, and laws, have not seen their deeds pass unrecorded, nor have they been suffered to go down to the dust

"Unwept, unhonoured, and unsung."

The living have always felt the inviolable obligation under which they were held to give fit rites of burial to the departed brave. And this is as it should be. War confessedly developes many noble qualities in the good soldier. For war, which seems to spring from and be continued by confusion and disorder, what a variety of rules does it comprehend! what a long time to discipline the soldier, to form the officer! and what a genius and experience are necessary to superintend its operations, and destroy with method!* We should only be surprised, therefore, if the art of peace had not been employed to do justice and homage to those who had gained victories; who had secured the success of military operations, which increased the stability and renown of a government and country. But we find that in peace there is reward for the conqueror, and promotion for the valiant: medals are distributed and names registered: the ornaments for victory are produced from the *atelier*, and paintings from the *studio*: hospitals of noble architecture (for example, *Les Invalides*, at Paris, and the College at Greenwich) are erected: and everywhere signs and emblems of the warlike genius of a people permit not the memory and glory of her hard-earned and well-fought battles to perish. Such homage, such honours, the present age is ever prompt and delighted to pay to past ages. In Greece, this sympathy and devotion to her warriors was carried to a great extent: privileges were accorded them of a most gratifying kind; among which it was not unusually decreed to give them (as characteristic of those times) "both maintenance in the Prytaneum, and a front seat at all the games celebrated by the state."

Conspicuously did they place before the citizens the spoils and mementoes of war. Was a temple or a grotto dedicated to a Leonidas or a Miltiades, a Simonides was solicited to write the inscription for it. Was a military pillar or *stéle* to be put up to commemorate a march or a campaign, talent bestowed some graceful ornament upon it, and it was rendered in some way remarkable.† There were ample means and opportunity afforded them to indulge their love of hero-worship. The Pœcile, which stood in the most splendid quarter of Athens (on the walls of which Micon painted his frescoes) was chosen as the spot in which the Spartan shields taken at Pylos should be suspended as trophies. It need be scarcely remarked, that this custom afterwards led to the representation in sculpture of arms and armour, of the helmet and breastplates, the buckler and spear, as ornaments of their temples.‡

The celebrated plain of Marathon (which the Greeks revered as a temple to Miltiades)§ had a striking effect of its own, and made a grand impression, though not studded with the numerous tombs, monuments, cenotaphs, and inscriptions which are found in many battle-fields. "In this level solitary place (says Dr. Wordsworth: *Athens and Attica*) the eye is naturally arrested by one object, which raises itself above the surface of the plain more conspicuously than anything else. That object is the tumulus which covers the ashes of those Athenians who fell in the battle of Marathon. It produces a sensation of awe to find oneself alone with such an object as this. It was a wise design which buried the Athenians together under such a tomb in the place on which they fell."

The epitaph on the famous Count Merci, "Siste viator! heroam calcas!" is well-known, and admired for its simplicity. The plain *Orate pro anima*, or the *Priez pour l'ame*, appeal powerfully to the passer-by. Often a great name is enough. General Hoche's monument, near Andernach, has this simple and expressive inscription, "The Army of the Sambre and Meuse to its Commander-in-chief, Hoche." F. L.

* La Bruyère.

† See British Museum.

‡ "And let me hang a Thracian target high,
Upon the pensile pole of dread Minerva's fane."
Choeprei in Ancient Drama

§ "Miltiades! from thy sword the East did flee;
And Marathon a temple is to thee."
Greek Anthology

FROM AMERICA.

Boston.—From the annual report of the superintendent of streets, Mr. A. T. Turner, it appears that the iron pavement in Court-street has stood the test of one of the severest winters ever known,—that of 1853-54. The great drawback to this pavement being extensively laid down, says Mr. Turner, is its high cost. This experiment cost 10 dols. 25 cents per square yard. It is now thought that by some change in the form of the iron blocks used, this pavement could be afforded at 6 dols. a square yard. An effort is to be made for laying down the iron pavement of the new pattern on Washington-street, between State-street and Winter-street, the main thoroughfare of the city. The continual opening of the paved streets for water, gas, and sewer purposes, by incompetent persons, so far as the replacement of the pavement is concerned, is complained of at Boston quite as much as it is with ourselves.——A spacious store has been opened in Winter-street, by a bookselling firm. The interior has been newly fitted up in what the *Transcript* describes as "a very handsome and convenient style; the architectural embellishments, cornices, book-shelves, &c. being all in excellent taste, and well adapted to the character of the business." The first-floor is devoted to the retail department: this room is 100 feet by 40 feet in size, and through the centre, nearly two-thirds of its length, runs a line of ornamental book-cases, while the walls on either side are liberally supplied with well-filled shelves, protected by glass doors. In the upper part of this capacious floor are four offices for the members of the firm, clerks, &c.

New York.—A new art-journal, named *The Crayon*, proposes to criticise the New York architecture.—"Free, impartial criticism, minute and severe if need be, but always truthful, of the buildings which are constantly rising about us," it observes, "cannot fail to be of good service to our advancement in the art of architecture, as well as of much interest to the readers of *The Crayon*. Surely, very many of what are by courtesy, or in ignorance, called the 'ornaments' of our city, deserve to be reviewed sharply and fearlessly; while yet there are others, unfortunately few, but, we believe, increasing in number, which are in many points worthy of high praise. In the architectural criticisms which may from time to time appear in our columns, we shall point out whatever seems to us right, and true, and beautiful, or wrong and ugly, sparing nothing. At the same time we shall avoid judging the architect—our issues will be not with him, but with his works." After criticizing pretty fully, but, on the whole, favourably, the details of Trinity Chapel, in Twenty-fifth-street, near Broadway, an Early English structure, which is spoken of "as being in this day of shams and deceptions especially deserving of notice for its simplicity in plan, solidity and durability of construction, and chaste richness of interior detail," the critic goes on to say,—"We have been thus minute in detailing the features of Trinity Chapel, because we deem it worthy of being carefully studied. The leaf-work in particular is deserving of notice, being much superior in spirit and freedom to what we generally meet with. We would suggest that the building now

needs, to make it complete, that the interior walls be diapered, or otherwise decorated in colour, and the colouring of the roof retouched, and made more in accordance with the spirit of Early English. The panel in the tympanum of the front door needs sculpture, and the niches of the arcade in south wall, should be filled with statues. We hope to live to see these things accomplished."

THE REFEREES OF METROPOLITAN BUILDINGS AND THE REGISTRAR.

HAVING published other opinions on the subject of the respective functions and jurisdictions of the Registrar of Metropolitan Buildings, and of the official referees, we now insert the gist of the opinion of the law officers of the Crown, to whom the matter was subsequently referred by the Commissioners of Works and Buildings.

"We are of opinion that the practice hitherto pursued with reference to the awards of the official referees, and the control of the registrar over those documents in refusing to seal such as are contrary to law, or not complete in any of the requisite forms, or beyond the competence of the official referees, either with regard to the provisions of the Act, or any rules or regulations prescribed for their guidance by the Board of Works, should be continued.

We are of opinion that the awards of the official referees fall within the provision of the 89th section, and that it is the duty of the registrar to exercise a control over them in the particulars above mentioned.

In cases where the award does not appear upon the face of it to be contrary to law, or defective in any of the requisite forms, or beyond the competence of the official referees, it is the duty of the registrar to affix the seal, and it is not competent for that officer to refer to extrinsic facts for the purpose of exercising a jurisdiction by way of appeal from the official referees. His duty is to deal with the award, and to ascertain that no objection appears upon the face of it. If none so appears, he is to express his assent by affixing the seal. The award then becomes a complete and operative instrument.

On the other hand, where the award appears upon the face of it to be contrary to law, or not complete in any of the requisite forms, or beyond the competence of the official referees, either with regard to the provisions of the Act, or the rules and regulations prescribed for the guidance of the official referees by the Board of Works, it becomes the duty of the registrar to refuse to affix the seal, subject in this latter case to the appeal given to the Board of Works by section 89.

Where the document purporting to be an award is defective, and has been rejected as such, under section 89, it is, in fact, no award at all under the Act; and if the matter be within the competence of the official referees, they ought to proceed to correct their proceedings in the particulars in which it has been defective, so as to make an award with the statutory requisites.

As regards the opinion of counsel laid before us, it is probable that the principal question discussed before the learned counsel was, whether an award *good on the face of it*, could be called in question by the registrar. This appears very distinctly, from their answer to the fourth question, and it is the omission of that qualification as to awards '*good on the face of them*,' in the early part of that opinion, which makes it impossible for us, upon consideration, to agree to what is there laid down in the terms in which it is expressed."

The opinion is signed—

A. E. COCKBURN.
RICHARD BETHELL.
JAMES S. WILLES.

Sir Richard Bethell's name, it will be remembered, is attached to the opinion previously published (p. 33, *ante*). With a complete appreciation of the extent to which the wording of the "case" submitted affects the opinion, it would seem to require an immense amount of special pleading to reconcile these two.

CHURCHES AND SCHOOLS.

Windsor.—The Queen has given 100*l.* towards the erection of a girls' school for the children of mechanics, artizans, and upper class of labourers in and near Windsor.

Over Tabley.—The new church of Over Tabley, in the parish of Rostherne, county of Chester, is to be consecrated in the third week in March.

Liverpool.—A stained glass memorial window has just been erected in St. Nicholas's Church here, by the widow of the late Mr. R. B. B. H. Blundell.

Collyhurst (Manchester).—In the new church just completed here, a meeting was lately held, at which the chairman, alluding to the funds for the erection of the church, said that 3,573*l.* had been collected or promised, and that of that sum only 417*l.* had been subscribed in the district, 3,156*l.* being contributed by persons not connected with it. The reason why the church was not completed long ago was, that some of the contracts had been broken, and in other cases it had been found difficult to obtain labour. Many things were even still required for the church, which it was to be hoped the congregation would provide. He trusted to see a parsonage-house erected for the rector, and money subscribed for the construction of schools.

Preston.—The new parish church approaches towards completion. It is in the Decorated English style. The continuance of the spire has of late been prevented by the frost. The principals supporting the roof, says the local *Guardian*, "have been found fault with as appearing small and mean: it has been surmised by some that this has been done to save expense; but we imagine that it arises from a less selfish and a wiser motive—viz. to aid the sound in so large a building." Besides the three stained glass windows already placed in the altar-end, as donations of wealthy families, two more have just been added; thus completing the chancel aisle. That at the east end represents James and John following our Lord at his request, leaving their father Zebedee in the ship with the hired servants, while they join Simon and Andrew, who had already become his disciples. The composition fills the three principal divisions. The higher traceries contain seraphim, surrounded by scroll decorations. The window at the west end of the aisle represents the Transfiguration of our Saviour: Jesus takes Peter, James, and John, and is transfigured before them, on which appeared Moses and Elias. The principal compartment contains our Saviour in the centre, the sides Moses and Elias, under whom are seen the three disciples in fear and admiration. The upper portion, like the first window, is occupied by five seraphim, surrounded with foliage. Two more windows were to be placed on the opposite side this week: these have been entrusted to a London artist. All the present windows are the work of Mr. Wailes, of Newcastle-on-Tyne. It is said that the church will probably be opened in May, with the oratorio of the "Messiah," by the Preston Choral Society.

Doncaster.—The Great Northern Railway Company have applied to Parliament for power to erect and endow a church and schools at Doncaster. They state that there are in Doncaster a thousand workmen employed by the company at weekly wages, whose families consist of more than 1,500 persons, and of these more than 1,000 are children; and that there is not now in Doncaster sufficient church accommodation for them. They propose to devote to it 6,000*l.* and bind themselves to pay, "annually and for ever," 350*l.* as a stipend, and to maintain and repair the church. The company also propose to contribute 230*l.* for elementary instruction for the children.

PROVINCIAL NEWS.

Lynn.—The public bath scheme, remarks the *Norfolk Chronicle*, seems to have been sleeping for a length of time. The corporation have granted a site, in Ferry-lane, which is at present covered by some old buildings pronounced by the grand jury of the borough to be in a dangerous state. These buildings, it is to be hoped, will be removed, and the baths at once commenced.

Shoreham.—A preliminary opening of the new canal at Shoreham Harbour took place on 18th ult. The new canal commences at Southwick with the entrance lock, and extends for a distance of nearly 2 miles, to the further extremity of the basin near the Wish Barn. The basin will hold ten or twelve vessels, each of 500 or 600 tons burden: these will ultimately be able to discharge their cargoes, afloat, and at all times of tide, alongside the quays. The canal is so constructed that it can be much enlarged. At present it is only used as a tidal harbour, until the works are complete, as they will be in about six weeks. The construction, it is said, involved many difficulties. The contractors for the canal are Messrs. Jackson and Bean; for the lock, Messrs Locke and Nesham. The advantages to a town like Brighton, in bringing the harbour to its very door, as a local paper remarks, cannot be over-estimated. To ensure completeness of arrangement, a patent slip has been erected, adjoining the lock, where vessels of large tonnage can, at any state of tide, be taken completely out of the water in a very short time to have repairs done. The whole work has involved an outlay of something like 30,000*l.*

Bristol.—The proposed building for the Bristol Academy for the Promotion of the Fine Arts, for which Mrs. Sharples bequeathed a sum of money nine years since, will be commenced without further delay. The site selected is near the Queen's Hotel. The designs of Messrs. Underwood and Hirst have, we hear, been approved of for the intended building.—At a recent meeting of the committee of the School of Practical Art here, the committee of management reported their recent proceedings. The school continues to progress satisfactorily, with an average monthly attendance of 118 pupils during the last nine months. At the autumnal exhibition in London four medals were awarded to pupils for their drawings; and the Department of Science and Art has allotted to the school one prize scholarship and two pupil teacherships for the present year. The exhibition of prize drawings held here last month was visited by 2,510 persons. On the subject of uniting with the Academy of Fine Arts, in their intended new building in the Park, it was stated that sufficient accommodation for the use of upwards of 200 pupils could be had in the building for about 1,350*l.* towards which 600*l.* are already subscribed. It was resolved to make a public appeal to supply the deficient funds. The Rev. James Heyworth was elected honorary secretary.

Altrincham.—Mr. M. Pierson, mayor of this town during 1852 and 1853, has purchased and caused to be erected in the Market-place, a lamp, comprising a centre and two branches, containing nine lights. The pillar has been executed at the Coalbrookdale Ironworks, in Shropshire (from a design shown in the Great Exhibition), at a cost, according to the *Manchester Courier*, of 50*l.* exclusive of the lamp frames, &c. The entire cost will be about 60*l.* towards which the Earl of Stamford and Warrington offered to make a donation of 15*l.* Mr. Pierson, during his mayoralty, gave to the Literary Institution of the town 20*l.* and also the "Encyclopædia Britannica," in twenty volumes, 4to. besides other small donations to various objects.

Birmingham.—The severe frost which continued till Saturday last from the 15th of January, completely paralyzed the building trade of this town and the midland district around it. Such a depression has not been known to exist for years, while the bricklayers, labourers, &c. have been crowding the poor-houses, &c. for relief. Owing to the general improvidence of this class, their sufferings have been intense. "I have visited," says a correspondent, "the homes of many that have no vestige of a fire; and scarcely bread enough for one meal has to be eked out for two and three days. When will the mass of our own workmen profit by the sad experience of the school of adversity? When will they renounce the baneful influence of the pothouse, and learn *self-respect?* When will they think of the responsibility resting on them as fathers of families, and strive to put by a few pence towards a rainy day, or when the ice-bound earth forbids man to toil as usual? The sufferings of the present time should give energy to the afflicted, and lead them to say, 'Never again shall a month's idleness plunge me into such misery, while strength is left me to gather up honey while it is yet day.' May they be induced to look to the time when 'night cometh and no man *can* work.'"

Dewsbury.—The Dewsbury workhouse, industrial schools, and infirmary buildings, containing accommodation for 600 inmates, have just been completed. Messrs. Lockwood and Mawson were the architects.

Preston.—A week or two since, as a cart laden with coals was passing through Lord-street, a portion of the road sank, and the cart was embedded up to the axles, the coals having to be taken out before it could be extricated. It was at first supposed that the accident was caused by the bursting of a water-pipe, but it is now thought that the earth sank in consequence of the falling in of an old sewer.

THE NEW GREAT WESTERN HOTEL AT PADDINGTON has turned out a good speculation, we are told. The risk was taken by a few of the directors personally. The first half-year has just terminated, and 5 per cent. for that half-year, that is, at the rate of 10 per cent. per annum, with a bonus, is about being divided amongst the proprietors.

NEW HOUSES, THREADNEEDLE-STREET, LONDON.

MR. HENRY CURREY, ARCHITECT. MR. JOHN SHAW, ARCHITECT. [See p. 97, in present number.

IRISH BUILDING MEMS.

THE city of Limerick district Model National School is nearly completed, and occupies a site on the road between Limerick and Adare, on the opposite side to the new convent of Mount St. Vincent, built for the Sisters of Mercy, and previously noticed in the *Builder*. It contains on the ground-floor a central hall; boys' school, 42 feet by 28 feet, with class and hat rooms off same; religious instruction-room, 20 feet by 22 feet; girls' school, 40 feet by 28 feet, with two class-rooms, 24 feet by 18 feet, in connection therewith. An infant school, 30 feet by 28 feet, occupies the right wing, and a maritime school, 30 feet by 20 feet, one story high, is placed at the left hand of main building, with separate entrances to each. The front elevation (two stories high) is in the Tudor Gothic style, with projecting wings of 23 feet and 32 feet respectively at the ends of the main building, having three light bay windows 7 feet wide in each, and terminated by gables finished with finials. In the centre stands an octagonal belfry louvred, and rising about 21 feet above ridge. The walls are of hammer-dressed limestone, with chiseled dressings. The cost was between 4,000*l.* and 5,000*l.* Mr. F. Darley, architect; Messrs. Ryan and Son, builders.

New buildings are to be erected in connection with the Mountjoy Prison, in North Circular-road, Dublin, and, we believe, much additional accommodation is to be provided.

We understand that plans are being submitted by local architects to the committee of the Catholic Deaf and Dumb Institution for new buildings.

A new church is to be built at Armaghmore, county Armagh, according to drawings by the architect to the Ecclesiastical Commissioners.

The City of Waterford District Model National School presents a frontage of 203 feet, and comprehends chiefly a maritime school, 30 feet by 26 feet; boys' ditto, 40 feet by 26 feet, with porch and hat-room; religious instruction room, 24 feet by 18 feet; infant school, 35 feet by 26 feet; girls' ditto, 40 feet by 26 feet, with class-room, mistress', and washing room, &c. approached by a main corridor 8 feet wide. At the right side are masters', dining, and store-room, kitchen, culinary offices, &c. The style of architecture is similar to that described for Limerick. The external walls are of hammer-dressed stone, with horizontal beds and vertical joints, and dressings, &c. of chiseled stone. Mr. F. Darley is the architect, and Mr. P. O'Toole, contractor. The expenditure will be about 6,000*l.*

A new church is to be built at Milford, county Donegal. Mr. Welland, architect.

DOWN-DRAUGHTS AND BACK-SMOKE.

REFERRING to the paragraph on this subject in your last, p. 95, I would remark that, so far as I have observed, a down-draught in one chimney is caused by the upward current in another in the same house. If there is smoke issuing from any chimney in the immediate neighbourhood of the former, the chance is that the downward current will have a considerable mixture of it: if there is no such smoke, the downward current will only consist of atmospheric air, with a taint derived from the channel it passes through. Suppose two rooms, *en suite*, with folding-doors between, and standing open: if the doors from the lobby are shut, and there are mats close against them, outside, and you get up a good fire in one of the rooms, while there is none in the other, you are almost certain of a down-draught, for the fire demands air, and will have it, and the other flue forms the freest channel. I have seen the smoke, under such circumstances, curling round out of the one fire-place into the other, the moment the door in use was shut. I have also seen, on a large floor containing a number of apartments, and when only one fire, a good one, at an extreme end, was lit, the "back-smoke" drawn down the chimney at the other extreme, until the window of the first-mentioned apartment was opened. The stronger the fire in the one flue, the greater the down-draught in the other.

These down-draughts, which it may be best to regard as reciprocal among chimneys on the same floor, are, I think, only to be prevented by adopting means for ensuring an ample supply of air at all times to each chimney; and as draughts of cold air through a room, whether from an open door, or the chinks and crannies about the edges of the doors and windows, are not very desirable—concentrating, as they do, at the chimney-opening, and making people's heels cold while their toes are comfortable, the mode of securing the supply without creating a draft, must obviously consist in forming, in each case, from the exterior of the building, or of the room, an air-channel terminating *within* the fire-place. I have formed an air-chamber underneath the fire-place, with a small opening recessed in the jamb at either end of the back-hearth, and the space between two joists constituting the ventiduct, which opened to the exterior with a cast-iron air-brick. I have also had occasion to employ 2-inch agricultural draining-tubes for conducting the supply, drawing the latter *through* a strong-room that would otherwise have become musty.

The open fire-place, it is well known, plays an important part as a ventilator; and, where there is no other means of changing the air of an apartment than by it, the course I have above indicated is hardly advisable to be pursued; but with the exterior opening and chimney-valves, coming so commonly into use, there is now no necessity for submitting to the cold draughts which usually sweep across the lower part of rooms: indeed, the ventilation obtained by means of them must be much more efficient than that by the fire opening, seeing that where there are no valves, the space above the mantel is but an inverted cistern, full of heated and impure air, emptying itself only at the mantel.

I think that each room should have an exterior or fresh-air valve, and a chimney-valve in its upper part, and that the fire-place should be supplied with air otherwise than by the chimney opening. JAMES WYLSON.

NEW HOTEL DE VILLE AND SENATE HOUSE, HAMBURG.

THE commission for the erection of the above-named building, who, it will be remembered, early in the last year, invited architects, as well foreign as national, to send designs for the same, have awarded the premiums offered as follows:—

The first premium (350 Fred. d'ors) to Mr. George Gilbert Scott, London. The two secondary premiums (250 Fred. d'ors each) to Mr. A. Meuron, of Hamburg, and Mr. Ludwig Franz Carl Bohnstedt, member of the Academy of Art, St. Petersburg.

No determination has, as yet, been come to as to the actual design to be carried into execution.

The designs of Mr. Scott and Mr. Bohnstedt are Gothic; that of Mr. Meuron, Renaissance.

MANUFACTURERS UNDER THE NEW HEALTH BILL.

WILL you kindly draw public attention as fully as possible to Sir Benjamin Hall's Sanitary Bill, now before the House of Commons?

Some of its provisions greatly interest your subscribers, and may cause great annoyance to builders, also to the proprietors of saw-mills, potteries, cement works, foundries, and similar establishments. As he does not define what are "*noxious*" trades, such places may be placed on the same level with slaughterers, bone-boilers, tallow-melters, and the usual category of trades that are enumerated as exceptional in drawing leases. The Bill is not confined to the metropolis, and does not define the limits where such trades may not be carried on. There is no clause for compensation upon the shutting up by this law any factory deemed "noxious"

A few years ago a Buildings Act was passed, which gave to manufacturers security for a given number of years, and this has induced the writer and many others to expend thousands of pounds upon their works, feeling assured they were safe for that time. But the new law will upset the old, and the owners of such property at the caprice of a few individuals may be ruined. The machinery for enforcing the law proposed is arbitrary and unjust in the extreme.

Great numbers of those who advertise in your columns, and who have factories like the writer, out of London, and even consume the smoke of their furnaces, may be annoyed or stopped altogether by the Bill. A fastidious and influential neighbour may even, in the outskirts of London, stop the burning of lime, on the ground that the carbonic acid driven off in the operation is offensive. As to potters, brick-makers, and Portland cement-makers, whose trades are carried on near any village or town, all feeling of security will be gone; and, without a compensation clause, or the introduction of a clause of security for a given number of years, they may be ruined.

The present Smoke Bill is an arbitrary law, and gives great power to the police authorities, who can now enter premises for the purposes of examination as easily as the excise man could, under the old law of excise, a glass-house; but Sir Benjamin Hall's law will be, if carried out, oppressive in the extreme. All connected with the building trades should bestir themselves, or they will rue their apathy, for the public at large have their attention so much engrossed by the war that the measure may pass hurriedly, and without much opposition. The tendency of all the recent sanitary measures is to drive manufacturers from London, but the proposed law does not specify any limit of safety to the manufacturer.

All the trades commonly admitted as nuisances are useful and important to the community at large, and it would be more just to grant special license for the carrying on of these in certain localities than to drive them about as at present.

The public are indirectly paying for this state of things at present by the enhanced value of such commodities, especially in the price of crushed bones for agricultural purposes, which, from increased demand, and the difficulty of crushing and burning in England have risen the last five years 50 per cent. and the bulk is now imported from abroad. Some branches of manufacturing chemistry are also taking up their abode in France. No chemical factory will be safe, unless greater security is given for the investment of capital. I earnestly entreat your aid and advice in this matter. A MANUFACTURER.

*** Private interests must not be overlooked, and vague legislation, such as is exhibited in parts of the new Health Bill, should be opposed: but we must not be considered, by the admission of this and a previous letter, as amongst those who oppose interference on the part of the Government.

ON MISSIONARY CHURCHES.

AS I perceive you have noticed some designs for missionary churches, sent by Mr. Hill and myself to the Architectural Exhibition, and as the same have also attracted the attention of the *Ecclesiologist*, perhaps you will allow me to insert some remarks upon them in your paper.

I had not turned my attention to the subject, when I was requested by a friend to suggest some plans and designs for churches to be built at missionary stations in the East. The gentleman in whose behalf the request was made, called upon me, and explained what kind of building would best suit the climate, and might be most readily constructed by native workmen; he also assured me that there was no prejudice either in favour of, or against, any particular style. I, therefore, sketched out one or two designs, which on a subsequent interview he told me might possibly answer his purpose. On this I thought it might be worth while to prepare some drawings in a more workmanlike fashion, and accordingly requested my friend Mr. Hill, to make plans and elevations, &c. from my rough sketches, and also to add any others that might occur to himself. The result was a number of designs, geometrically drawn, from which was selected the group that appeared in the exhibition. As among others, the heart-shaped plan is his own, without any suggestion from myself, I may be allowed to express my opinion of its merit, as exhibiting great ingenuity, and combining convenience of arrangement, with a striking outline, and good architectural effect.

I can assure you I was far from pretending to design a model church for a country, with the general aspect and character of which I am totally unacquainted. Neither did I wish that the schools of art already existing in the country should be superseded. I perfectly agree with the *Ecclesiologist*, in his remark that such churches as I have designed, "instead of being anything better than what either Brahmin or Mahommedan India has already to offer, will, in beauty of every sort, be inferior to both these antecedent schools of art." Had I been better acquainted with these schools, I should have attempted to make my drawings more in accordance with one or the other of them. As it was, I preferred leaving this to native genius, and studiously avoided such features as might denote any particular style, giving also much scope for architectural combinations, as well as for surface ornament. At the same time I wished the building, however plainly carried out or roughly executed, to present something of a church-like appearance, and not to appear as if it were put together without care and consideration. I may not have succeeded, but such was my intention and

attempt. One of the designs was an oblong area, surrounded on three sides by an open arcade, instead of a wall, supporting a timber roof. This, I was told, might be advantageously adopted, both on account of the free current of air, and the ready entrance given to strangers who might be passing by. A belfry, and a vestry, or chamber, where the minister might lodge, was attached to one of the sides, or the west end. Another was much such a church as we see in the Isle of Man, perfectly simple, with round-headed windows. Another was domical, the dome being a favourite construction in the East. By the way, the double dome, one within another, might be useful as a guard against heat.

If I am at all right in my idea of a Mahomedan mosque, I should say it is the best model that could be taken. I was reminded the other day by a friend that the normal type of a Christian church is not the Basilica, which was a mere adaptation of a Pagan form, but the Byzantine domical church, which was borrowed from nothing preceding it, and expressly designed for the purposes of Christian worship. And this seems to be the form of a great number of ancient eastern churches, and is, I suppose, of most mosques. If the forms to which the natives are accustomed are not rendered inexpedient by prejudice or likelihood of misconstruction, they are assuredly the best that can be adopted.

I cannot quarrel with the terms in which the Ecclesiologist expresses himself on our proposed ritual arrangements, as that is a point on which we have always been at issue. But I must say I do not see why we should saddle our missionary churches with usages which are certainly in no way necessary either to the decency and solemnity of public worship or to the right understanding of our Liturgy; and which must often involve some inconvenience. There is a very good reason why we should not suddenly abandon them in our own country, because experience has taught us that anything which appears like an arbitrary introduction of novelties, tends rather to stir up dissension than to promote the cause of religion. But there is no reason why such usages should be continued in the establishment of a new church, if there is an obvious advantage to be gained by abolishing them. Now, the necessity imposed upon the minister of performing different portions of the service in different parts of the church, imposes also upon the architect the necessity of providing several places in the church, instead of only one, in which the minister may officiate, so as to be well seen and heard; and this at an evident sacrifice of valuable room. I am at a loss to conceive how the arrangement of a church having a desk behind the communion-table, the same desk serving also for a pulpit, and a font at no great distance from either, can endanger the orthodoxy, or impede the spiritual improvement of a congregation, who are to learn the doctrines of Christianity from a course of straight-forward teaching and the reading of the Scriptures, and not from a system of incomprehensible symbolisms. JOHN LOUIS PETIT.

ISLINGTON INFANT POOR ESTABLISHMENT.

As some misapprehension still appears to exist with reference to the above competition, I have been induced to trouble you with the following particulars, in order, if possible, to satisfy the competitors generally that the *whole* matter has been throughout conducted in a fair and straightforward manner. Your correspondent, "A. B." is evidently in the dark. He states that "*after* the rejection of Mr. Birch's design, Messrs. Jones and Parker's was accepted, and the plans of the other competitors *then* returned to them;" but the fact is that the designs were returned *after* Mr. Birch's had been selected; and the trustees then finding that Mr. B.'s plans could not be adopted, on account of his connection with one of their members, the competitors were invited to *return* their designs, for the purpose of again having the prize awarded. Messrs. Jones and Parker's was *then* chosen, subject to the works being executed for the stipulated sum. Tenders were obtained, but the result not proving satisfactory, their designs were rejected. Mine were then selected; and the trustees, after having been satisfied, by a tender from a competent builder, that the work could be executed for the required sum, ultimately adopted them. It will be seen by this that the committee (as suggested by your correspondent, "A. B.") were never in a fix, and *did* "what clearly became their duty," viz. adopted the designs of one of the other competitors. A few words will explain the cause of increase in cost: on submitting the designs to the Poor-law Board, numerous additional matters were required beyond those mentioned in the instructions furnished to architects by the trustees. Firstly. A *separate* infirmary to contain four wards, nurses' rooms, store-rooms, kitchen, larder, bath rooms, w.-c. airing-grounds, &c., in fact, a complete building, *entirely distinct* from the main building, with all the necessary offices attached. Secondly. Receiving wards for either sex, with baths, w.-c.'s, &c. complete. Thirdly. In the main building,—infants' mistress's rooms, additional room for infants, and three work-rooms for boys and girls. Fourthly. Drainage around the entire ground, the ditches being used as a common sewer. Lastly. Several little matters,—the detail of which it is not necessary to trouble you with. The trustees themselves made one or two previously contemplated additions, which, together with the fittings and fences, make up the additional sum beyond the stipulated amount of 4,000*l*. I trust after this explanation the various other competitors (of whom I understand there were about forty) will feel satisfied that this competition has been *throughout* conducted in an impartial manner, and that the "highly honourable conduct" of the committee, mentioned in "A. B.'s" communication did *not* cease at the time the design of Messrs. Jones and Parker was rejected.

FRED. TYERMAN.

NEW SWISS PROTESTANT CHURCH, ST. GILES'S.

FOR nearly a century the Swiss Protestants have met to worship in Moor-street, St. Giles's. By subscription amongst themselves, they have now erected a new church in Endell-street. On the left, in the entrance-lobby, is, the vestry, lighted from the street: on the right is the clergyman's room, also lighted from the street, with washing-closet, &c. and stairs to gallery, which is immediately over these rooms, and will contain sixty-five people—all free seats. There is a new organ, by Walker, in the gallery. The church itself contains on the ground-floor accommodation for 262 persons, all in open pews, free sittings. It is lighted entirely from the ceiling; is 67 feet long from end to end without the apse, and 35 feet broad between the walls; the same height from floor-line to ceiling, which is semicircular, ornamented with enriched mouldings, and a guiloche band subdividing it into compartments terminating on corbels in the walls. The style is Italian: the cost of erection, including pews and fittings, 3,300*l*. Messrs. Haward and Nixon were the builders; Mr. George Vulliamy, the secretary of the Archæological Institute, was the architect. The service, we may add, commences every Sunday at half-past eleven o'clock.

OXFORD ARCHITECTURAL SOCIETY.

THE first meeting in this term was held in the Society's rooms, in Holywell-street, on Wednesday, the 14th inst. the Rev. the Rector of Exeter College, president, in the chair. The report of the committee expressed satisfaction at the selection of the successful design for the new museum. The president, in introducing the subject proposed for the evening's discussion, "The principles on which stained glass should be designed for use in churches," said that there was much need of some agreement on the very first principles which should guide those who design and erect windows. The Rev. T. Chamberlain, according to the Oxford papers, thought the great end of stained glass in churches was to excite feelings of devotion, and for this reason would exclude everything which did not tend to this end, or was calculated to suggest any other ideas to the mind. On this principle he would exclude mere mosaic pattern windows, and those in which symbols were the main subject, and simple diapers, allowing quarries surrounded by coloured borders. As in architecture, he would employ the best of its kind, namely, Second Pointed; so in glass, he would use the style of the fourteenth century. As to the subject of nationalism and conventionalism, he was opposed to the grotesque as such, but would studiously avoid in the representation of natural objects anything which might seem sensuous. He condemned mere antiquarianism in glass. The Rev. J. E. Millard maintained that a design for stained glass ought to be entirely subservient to that of the window tracery, and to the general requirements of the fabric. Consequently he considered a regard to colour more essential than even correct drawing, though he was opposed to outlines intentionally grotesque. Mosaic patterns, and groups of small figures in medallions were, he thought, preferable to large independent figures, as they distribute rich and gem-like colours harmoniously, instead of exhibiting broad masses in violent contrast. Such colours should be relieved by a liberal use of white glass. He considered these principles applicable to any style or period. Mr. Parker thought no style of glass was to be absolutely condemned. He admired fourteenth century glass above all other, but also considered windows in the style recommended by Mr. Winston, and those now made in Bavaria, as beautiful works of art, and ornaments of churches; and if he had to fit in a Norman window, he should certainly employ glass after the manner of that, for instance, at Canterbury. Mr. Bruton protested, as also did Mr. Chamberlayne, against the use of canopies: he thought mediæval artists would have inserted stone, if they were needed. Mr. Parker did not agree with Mr. Bruton in that opinion. In fact, in mediæval churches, the windows were part of the same series of decoration, with the niches and statues, coloured, which ornamented the walls. The Rev. H. B. Walton thought that colour should be as much employed on the walls as on windows, and feared that the strong prevailing taste for stained glass windows would prevent the acknowledgment of that truth. In regard to memorial windows, as in all others, he would rigidly exclude everything which was not of a sacred character; as, for instance, armorial bearings.

DANGER TO LIFE FROM RUINOUS CONDITION OF BUILDINGS.

WARNINGS as to the dangerous state of premises in London continue to be given. On Thursday morning (1st inst.) about eleven o'clock, the roof of a two-story shed, in the occupation of Mr. Jacobs, a rag and old iron merchant, near St. Chad's Well, in the Gray's-inn-road, gave way, severely injuring a number of women engaged in sorting the rags, and a workman employed. A fire had destroyed an adjoining shed, at right angles with the other, a short time since, and workmen were engaged in the rebuilding at the time of the occurrence. In the shed where the accident happened, piles of bags and materials had been accumulated, and these appear to have helped to press out the wall, which the transverse building may have previously kept up. Other portions of these premises, and of those in other occupation hereabouts, require examination. One person, whose own front wall was being gradually forced outwards, pointed to the danger he was in from Mr. Jacobs's premises, knew who was surveyor of the district, but "did not like" to let him know. Really, if calamities happen through mere childishness of this sort, we can have no pity, unless it be for the poor workpeople subjected to the results of such carelessness, or such ignorance of structural matters, as must be held, itself, criminal.

ARCHITECTS' BILLS.

H. KENDALL, JUN. AND OTHERS *v.* KING.

THE plaintiffs in this case, tried at the Court of Common Pleas, on the 16th ult. are architects, and the defendant is clerk to the Committee of Visitors of the Cambridgeshire Pauper Lunatic Asylum. In the year 1850 the visitors were desirous of building a new lunatic asylum, and they advertised for plans, and offered a premium of 150 guineas. The plaintiffs, and about fifty other persons, sent in plans, but the plaintiffs were the successful candidates, and they were informed that their plans would be adopted. The plans were also approved by the Commissioners of Lunacy and by the Secretary of State for the Home Department. A long delay occurred; but the plaintiffs' case was that they had been already appointed architects to superintend the building. It happened, however, that the visitors changed their minds, and instead of carrying out the plaintiffs' plans, thought that a plan proposed by Dr. Hill, a physician, was superior, and ought to be adopted. The plaintiffs thereupon demanded compensation for having prepared the plans, and also for the loss they had sustained by not having been allowed to superintend the erection of the asylum. The visitors offered 150 guineas for the plans, and declined to pay anything further; but this offer was not accepted, and so the present action was brought.

The Attorney-General, Mr. Bovill, and Mr. Phipson, appeared for the plaintiffs; and Mr. Serjt. Byles and Mr. Lush were for the defendants.

In the course of the case it was stated that there were a great many legal difficulties in the case, and after some discussion it was agreed that the plaintiffs should receive the 150 guineas at all events, and that all other questions in the cause should be referred to a gentleman at the bar.

A verdict was accordingly taken for the plaintiffs, subject to the reference.

Miscellanea.

THE LIVERPOOL TIMBER DOCKS.—A statement with regard to the timber trade at the south docks during the past year as compared with 1853, was laid before the Dock Committee on Thursday week. It showed that the number of vessels employed in the trade, in 1854, was 620, with a registered tonnage of 377,410 tons, and an import of 503,205 tons; while, in 1853, the number of vessels was 656, the tonnage 365,143 register, and the import 487,123; showing, during the past year, a decrease of 36 vessels, and an increase of 12,267 tons register, and 16,082 tons in the quantity of import.

THE DRAINAGE SOUTH OF THE THAMES, AND WASTE LANDS.—It is a well-known fact, that the county of Surrey contains more poor waste land than any county in England for its size, and as a considerable part of the district south of the Thames lies below that river, and there seems to be great difficulty in thoroughly draining it, I venture to propose that the whole of the sewage shall be diverted from its present imperfect and wasteful course, and be conducted direct on to the before-mentioned waste lands, to be used as manure, thus enhancing their value some 400 or 500 fold. The wilds of Chobham, Woking, Banstead, Aldershott, and other places, might thus be made the most productive market-gardens, meadows, and corn-fields. The advantage of their being so near London cannot be estimated. There should be about three lines of new connecting sewers, one of which should be run by the side of the South-Western Railway, and the others by the shortest and most economical routes to their destinations. At the mouth of each should be a pumping-station, and reservoirs and lines of pipeage throughout the district to be manured, and the use of which should be included in the price per acre at which it would be let to farmers and others.—T. GOODCHILD.

GREAT ENGINE CRANK.—At the Mersey Steel and Ironworks at Liverpool, a crank was last week made for the new line-of-battle ship *Marlborough*, the largest screw line-of-battle ship ever built, being for 131 guns, and a larger and more powerful ship than even the *Duke of Wellington*. She is to have engines of 1,000 horse-power, with a direct action upon the screw. The engines were contracted for by Messrs. Maudslay, Son, and Field, and the crank has been ordered by them. It is the largest double-throw (or locomotive) crank ever forged, and when complete it will weigh about 17 tons. It consists of masses of wrought-iron welded together, and condensed by a steam hammer of nine tons weight. The forging of the crank is in detail, each end of it being subject to operation separately. The masses of iron were suspended by a crane, and the portion to be wrought was inserted in an immense furnace and completely surrounded by its intense fires, from which it was brought out at white heat. The glowing metal was then moved by a crane, and guided by thirty-five men to the anvil beneath the steam hammer, the ponderous strokes of which brought it by degrees to the required solidity and structure.

JOINERS' STRIKE AT GLASGOW.—Upwards of 200 joiners struck work last week. The cause is a difference about time. It seems that last summer the men were paid 24s. a week of fifty-seven working hours, that is, ten hours a day, except Saturday, seven hours. When the days shortened the masters reduced the working time to nine hours a day, paying a proportionately reduced rate of wages. To obtain the summer rate, the workmen resolved to ask a return to this rate, or to strike work. The greater proportion of the masters conceded, and in cases in which they did not the men struck. Fifty-two shops are working at the terms asked by the men, and others that were working last week—about twenty in number—were doing so on the terms they worked at all winter, while nineteen shops were at a stand-still from the strike.

THE DARLINGTON BOARD OF HEALTH.—Mr. Piper, surgeon, says the *Gateshead Observer*, has presented another of his short and sensible reports to the Local Board of Health in Darlington—a model board, which promises to make the town a complete contrast to the "Darnton in the Dirt" of James I.'s day and generation. He mentions that since the application of the Lodging House Act to Darlington, he has not known one case of typhus in any of the twenty-one lodging-houses of the town! whereas, under the former system, he had attended fifteen cases of typhus, at the same period, in one house! Sewage works are making rapid progress under a scheme comprising a regular system of flushing; and before the close of 1855 Darlington will, in all probability, be thoroughly drained; the surcharged burial-ground will be closed; and water will be supplied to all the inhabitants.

RUINOUS BUILDINGS.—Nothing appears to me more illusive and delusive, than ascribing casualties resulting from ruinous buildings to the defects of the Buildings Act. No amount of legislative enactment can remedy this, or offer an effectual guarantee to the public against such casualties. One pregnant cause of evil is that of old buildings being cut into and altered by ignorant and inexperienced persons, without a surveyor's advice or opinion; and another, the unwillingness of landlords to perform necessary works. Many houses may be and are in a very bad state: there may be little apparent external defect or indication, and yet the whole be little better than a ruin. A proper board should exist, armed with powers to act summarily, when a house is ascertained to be in a dangerous condition,—armed, too, with money to take steps where the owner cannot.—S.

THE LIVERPOOL ARCHITECTURAL SOCIETY.—SIR—Will you allow me a dozen lines in your well-conducted journal, to warn my brother members of the Liverpool Architectural Society against the course which they are being led into? There are two of them at any rate, who seem to regard the society simply as a means of making their names public, and rather than say nothing they will say worse. At the last meeting a foolish person, named Boult, took upon himself to make some observations on a number of your journal with a disregard for truth which was the more remarkable as most of the respectable gentlemen who were present must have perceived it. He had the ungrateful temerity to bring prominently forward, amongst his objections, the omission of the architect's name on the useful illustration of Percy Chapel, Bath; although, as far as I know, and I have been a careful reader for seven years, such an omission never occurred before; and even this was supplied in your next number. At previous meetings the members have been led into condemnation of this, and abuse of that, to gratify the spleen or vanity of individuals, and I assert that such a course cannot be pursued without damage to the society and injury to a good cause.—A MEMBER.

LIBRARY FOR THE POOR OF EAST RETFORD.—The Rev. Alfred Brook, vicar of East Retford, has succeeded in establishing a library and news room for the use of the poor. For the small fee of one penny per week, or threepence per month, the members can read the *Times* on the evening of publication, the *Illustrated London News*, *Daily News*, histories, biographies, travels, magazines, &c. as well as many other works. The news room is in Sutton's-row.

CHRIST CHURCH, KENNINGTON.—This church, better known as Holland Chapel, was re-opened last Sunday, having undergone extensive alterations, previously to its conversion into a district church, accommodating 1,500 persons, one-third of the number being free. The alterations consist in the extension of the building longitudinally 14 feet terminating in a semicircular apse, pulpit, reading-desk, and font, with a re-arrangement of the sittings. The entire cost, little less than 3,000*l.* devolves upon the Rev. J. McConnel Hussey, the incumbent. This sum includes three stained glass windows, by Messrs. Gibbs and Son. The contractors were Messrs. Haward and Nixon, and the warming of the building was entrusted to Mr. William Jeakes. Mr. Vernon Arnold was the architect employed.

NORWICH SCHOOL OF ART AND FINE ART SOCIETY.—A *soirée* of the students of the Norwich School of Art, and their friends, was held on Wednesday week in the Institution apartments in St. Andrew's, and attended by upwards of 250 persons. The students were addressed by various gentlemen, including Sir S. Bignold, Member of Parliament for the city of Norwich. In the gallery a small collection of works of art was exhibited, including students' drawings, and an oil-painting by Mr. Nursey, the master of the school. The pupils, we understand, now number in the central school 135, and in the public schools, under the central guidance, 520; in all 655 who receive instruction in drawing. Until the present master came recently from Belfast, we are told there were at no period more than from seventy to eighty pupils. Mr. Nursey is endeavouring to revive the "Fine Art Society" in Norwich, and has already nearly obtained the required number of subscribers. An exhibition of works of art, including a large collection of paintings from London, is to be promoted by the subscribers, so soon as fifty, at 1*l.* 1s. shall have become associated for the purpose.

STATUE OF THE LATE PROFESSOR WILSON.—It has been resolved, it seems, that the monument to the late Professor Wilson should be a colossal statue of bronze, to be placed on a pedestal in the open air, in some public situation in Edinburgh. The work is to be entrusted to Mr. Steele. The subscriptions already received exceed 1,100*l.* and the sum required would be about 1,500*l.*

THE LATE BREAD RIOTS AT LIVERPOOL.—Yesterday, says last Saturday's Liverpool *Times*, a bricklayer, John Stevenson, who is in the employ of Messrs. J. and R. Duckworth, Prince Edwin-street, called at our office, at the request of the committee representing that trade, to state that the bricklayers disowned all participation in the riots, and viewed them with surprise and indignation.

MAGNETIC TELEGRAPH COMPANY.—The second ordinary half-yearly meeting of the shareholders of the Magnetic Telegraph Company was held on Thursday before last. From the general statement of accounts, it appeared that there was expended on the the works, &c. and on capital account, 259,504*l.* 7s. 3d.; capital bearing dividend for first half-year, 192,280*l.*; and for last half-year, 212,280*l.* The traffic account showed a total of 26,677*l.* 14s. 6d. After payment of five per cent. dividend for 1854, there remained a balance of 1,545*l.* 9s. 4d. The various resolutions were adopted.

THE BALL OF BUILDERS' BENEVOLENT INSTITUTION, AND "GENTILITY."—After quoting our notice of the ball recently given at Willis's Rooms in aid of the Builders' Benevolent Institution, the *Bridgwater Times* makes the following remarks:—"We notice the above extract from the *Builder* for the purpose of pointing out how universal is that false pride (*vulgo, snobbism*) throughout all classes of society. "*The leading builders*" did not show in the numbers the committee had a right to expect. Of course not; the leading builders' families would have been ashamed of their company. Anything but a builders' ball they would have patronised, but the association of a trade connection was too much for their nerves! The editor of the *Builder* is quite right to notice this weakness of the "leading builders." It is not, however, only with them, such weakness prevails; but every class is infected with the same unhealthy stuck up tone, until every attribute of honest, manly, independence of feeling is frittered away for the tinsel of gentility and "our set!" The claims of "an important and excellent charity" cannot even break down the bar; and we are compelled to the conclusion that "gentility" in modern parlance, holds the opposite meaning to "respectability." Respectability can visit anywhere without danger, but gentility is shocked at a poor relation or a humble fellow craftsman. Gentility is the lath and stucco erections of an ephemeral character,—respectability, the solid buildings which endure for all ages, and reflect credit on all connected with them."

GLAZED BRICKS.—A correspondent, in a recent number of your journal, suggests the using of "glazed bricks" as a good and useful means of decoration. If your correspondent is ever on the South Staffordshire Railway, he will see (at Whichnor) glazed bricks used in strings, &c. to some cottages built by Mr. Pigott, railway contractor, for that company. I have also adopted them for the front of a new spirit-store I have just erected in the market-place, Dudley, where the window-dressings, cornices, &c. are of Hollington stone, and the effect is very good. The bricks in this case were from Rufford's, at Stourbridge, and cost but little more than the best pressed and dressed red bricks from the Birmingham yards. The joints in this case were raked, and filled in with oil putty. The whole front can be soon cleaned, and made to look as "good as new,"—a desideratum in the "black country."—W. W.

EFFECT OF GLAZED WINDOWS ON ARCHITECTURE.—Amongst the subjects for prize competition (for medals valued at 24*l.* each), proposed by the Fine Art department of the Belgian Academy, for the current year, is the following:—"To elucidate the modifications and changes which architecture has passed through by the introduction and employment of glazed windows both in public and private buildings,—specify the time of said introduction, and mark the successive transformations and improvements this new element has brought about?"

NORFOLK ARCHÆOLOGICAL SOCIETY.—The annual meeting of the members of the Norfolk and Norwich Archæological Society was held on Thursday, the 15th ult. at the Guildhall. Owing to the extreme inclemency of the weather, there was but a very thin attendance of members, and Mr. R. Ward was called to the chair, but, by general consent, the meeting was adjourned for the transaction of the usual business of electing officers, &c. till the 8th of March. Two papers had, however, been prepared for the present occasion, and Mr. Harrod read them. One was by Mr. Greville Chester, on some Celtic Tumuli in East Norfolk: the other was by Mr. Harrod himself, on the application of photography to the purposes of archæology.

IMPROVEMENT OF DWELLINGS IN TUSCANY.—The *Labourer's Friend* quotes a decree of the Grand Duke of Tuscany, on the dwelling-houses of his subjects, as containing an example deserving the consideration at least, and as far as practicable the imitation, of other Governments. This decree gives power to the local authorities to institute cleansing and repairing committees to consist of five to seven persons, including a medical man, and an architect or engineer, the others to be members of the municipality. These commissions are to visit dwellings complained of, and order repairs, &c. necessary to render the buildings wholesome, and to report on same to the authorities and the proprietors, who are to be ordered by the magistrates to execute the required works, failing which, a fine of 20 to 50 lira is to be imposed, and a new order issued, neglect of which is to be punished by a fine equivalent to the cost of the works, and not less than 100 lira, all fines to go to the benefit of the municipal funds. Whether the necessary works, however, must still be carried out by the proprietor, or whether the second fine is to be applied to that purpose by the municipality, does not appear: it would rather seem that the dwelling is to remain in its unwholesome state while the municipality is to reap the pecuniary benefit.

THE ARCHITECTURAL EXHIBITION AT GLASGOW.—On Saturday evening before last this Museum of Art was thrown open to the working classes at the charge of sixpence, and many of them have taken advantage of the treat. Upwards of ninety tickets were sold to the employed of one house-painter that evening, according to a local paper. The spectators appear to have been delighted. The Teetotal band, adds our authority, discoursed most stirring music, and had it not been for the various floor projections and attractions, a dance would have been the *finale*.

THE MUSEUM OF LONDON ANTIQUITIES COLLECTED BY MR. ROACH SMITH.—Mr. Corner and others, it appears, have offered this valuable collection to the City, through the Lord Mayor, "at a price below what it cost." The printed and illustrated catalogue, although giving only an approximate notion of the extent of the collection and of the peculiar character of it, is itself an interesting production. The materials of this museum, as is well known, have been carefully and laboriously, and indeed at no little cost, collected from the Roman as well as from both the earlier and the later surfaces, now the subsoil, of the London site. Wherever the City authorities had men employed in digging through this subsoil, there was Mr. Smith too, as it were, employed in reaping this curious harvest; and one little anecdote may show with what results. On one occasion he happened to get hold of a nondescript bronzed article, raked up from the Thames, and something like a fan in form. This of course he carefully placed in his valuable museum. About a twelvemonth afterwards, being *in a dredging barge*, he picked up another curious-looking article of bronze from amongst the sludge or gravel. He immediately identified it as the body of the very peacock of which the fan-like article was the broken-off tail! Of such materials is the Museum of London Antiquities. It is a collection which ought to have been made by the City itself, and which at all events ought undoubtedly now to be purchased by the City.

PURIFICATION OF GAS.—In the course of last year a patent was taken out by a rev. gentleman resident at Wakefield, in association with the manager of the gasworks there, for the better purification of gas by means of a combination of lime *and clay*. About a month afterwards, or rather more, a resident of Holloway took out a patent for the better purification of gas by means of a combination of lime *and magnesia*, or of lime *and ochre*. In noticing the latter patent at the end of last year, we expressed an opinion as to the probability that it was indebted to the former for its suggestion. We have since had a note from the Holloway patentee, in which he denies that his patent was suggested by the Wakefield one, and alleges that the latter was designed for the purpose of purifying gas from ammonia; whereas, his was meant to purify it from sulphur, in the form of sulphuretted hydrogen. Moreover, he remarks that although the Rev. Mr. Bowditch's patent was dated 10th January, 1854, and his 20th February following, the former was not *published* till 10th July. We think it but justice to state thus much; remarking, however, that it is a mistake to limit the design of the Wakefield patent to the removal of ammonia, one of its chief purposes having been declared to be the purification of gas from sulphur, especially in the form of sulphuretted carbon.

THE WATER SUPPLY OF THE METROPOLIS. On Friday evening in last week a lecture was delivered in the theatre of the Royal Institution, Albemarle-street, by Mr. Dickinson, on the supply of water to the metropolis. In the course of it Mr. Dickinson developed his own plan, which is partly based, it would seem, on a proposal, made in 1641, to convey water from Richmansworth, and another, by Mr. White, in the year 1788, to construct an aqueduct for the conveyance of water from Harefield, in Middlesex, to the north side of Portland-place. Mr. Dickinson proposes to take his supply from the river Colne, which has hitherto (he observed) been unaccountably neglected. This river is much higher than the level of the Lea, and its chemical constituents, which are pretty nearly similar to those of that river, may be pronounced innocuous. It is the opinion of the lecturer that a large supply of very—if not perfectly pure water, may be supplied from the Colne, by the principle of gravitation, to the inhabitants of Kensington, Fulham, Knightsbridge, Brompton, Belgravia, and a great part of London. It is proposed to convey the water by means of an aqueduct to a large reservoir at Kilburn, at 180 feet above the Ordnance *datum*, where it will be filtered, and whence it may be delivered, by a pressure of 10 feet, to houses on the low level of Westminster, Belgravia, &c. at a high service of 40 feet above the pavement, so that water may be supplied at all times at high service. The aqueduct is to be a reservoir of moving water, well guarded by gratings, and carefully secluded from trees and the possible infusion of vegetable matter.

RAILWAY MATTERS.—Appended to the lately published report of the directors of the Great Northern Railway, is a plan of the contemplated Metropolitan Railway. It is to commence at Paddington and terminate at the Post-office. At the outset it will connect itself with the Great Western, besides having a branch terminating in a station at no great distance from the Marble-arch, Hyde-park. The first on the line will be convenient to passengers from the Edgware-road, Oxford-street, Park-lane, &c. The second and third will be open to passengers from the various localities adjacent to the west and east ends of Regent's-park. The fourth will be situated a short distance beyond the Tottenham-court and Hampstead roads; and the fifth will communicate by a branch with the North-Western at its terminus at Euston-square, and thereby with the North London. The sixth will be near the King's-cross terminus of the Great Northern. The seventh will be in Clerkenwell, parallel with about the centre of Gray's-inn-lane. The eighth in the vicinity of Smithfield, adjacent to the lower part of Holborn. The next and final station will be the Post-office. Once completed, this line will put a stop to a good deal of omnibus tyranny, caprice, and extortion.——The railway between Alexandria and Cairo, a distance of 130 miles, is now complete, with the exception of the three bridges on the two branches of the Nile and the Delta Canal, and these will be completed five or six months hence. ——A lecture on the prevention of railway accidents was delivered on Wednesday week, at the Panopticon, by Mr. Eidmans, patent agent, in which he chiefly dwelt on Mr. Ingall's inventions. That for communicating between passenger and guard and guard and driver we have already noticed. Another referred to was the train indicator, to show at any time where a train was, and how many miles it had travelled, thereby obviating collision. At each station, Mr. Ingall suggests there should be an apparatus for signals, to be used more especially in foggy weather: it consists of a pair of force-pumps, which will work a couple of whistles. By another invention, the engine-driver has power to turn himself off from one line of rails to another. Mr. Ingall has further invented a self-acting signal-post, whereby a train will register the time it has passed, whether five, ten, or fifteen minutes. The idea of the inventor is to have on a railway everything, as much as possible, self-acting, so that too great power shall not be placed in one man's hand. The self-acting apparatus ought not to be regarded, however, as a substitute for any of the signal-men now employed, but as additional security where no signal-men are employed: otherwise, inventors may depend upon it that railway directors will reject every such invention, on the very pretence of regard for the public safety itself, which inventors, they are ever ready to allege, would thus endanger by the substitution of mere mechanism in the place of watchful servants.

ELY CATHEDRAL.—Portions of two of the eight stained glass windows, the munificent gift of the late Bishop Sparke, have been temporarily placed in this magnificent building. If approved, the others are to be immediately put in hand. They will represent the principal occurrences in the life of our Saviour; and Mr. Wailes will be entrusted with their execution. The carving of the new reredos is nearly complete, and the groined canopies, which are to be supported by twisted shafts, inlaid with coloured stones, are ready for fixing. Five subjects will be illustrated in the recesses, the figures averaging about 20 inches in height: 1st, the Entry of our Lord into Jerusalem; 2nd, the Washing the Disciples' Feet; 3rd, the Lord's Supper, 4th, the Agony in the Garden of Gethsemane; 5th, the Bearing the Cross. Upon the twisted shafts, which will mark the principal divisions, six angels will stand; and a representation of the Transfiguration will surmount the canopy of the centre bay. This portion of the work will be in alabaster, the sculpture being executed by Mr. Phillips, of London.

THE ASSOCIATION FOR IMPROVEMENT OF FARM-DWELLINGS IN SCOTLAND.—The first annual report of this association has been published in form of a pamphlet. It contains also practical hints on cottage building, with engraved plans and a general specification, from the pen and pencil of Mr. Fowler, the architect to the association. Judging by our English ideas, we should fear that the plans show rather confined limits, even for cottage accommodation, but no doubt the architect is restricted by what is practicable in a pecuniary sense to many small proprietors and others in Scotland, for whose guidance they are intended. This is an association much needed in Scotland, and which will probably do great good. The architect, it appears, is open to hints or suggestions from any quarter for the improvement of the country dwellings, and no doubt he will receive many such from the canny Scottish country folks. One of the oddest *novelties* of this order we happen to have lately heard of, as to Scottish cottage *architecture*, if we may so call it, is the adoption of the Irish hovel principle for the common sitting-room fire-place, namely, in the middle of the floor, but not with merely "a hole in the roof." If we rightly understand the verbal description given us, a suitable open fire-grate, with circular hearth and fender, is placed below, in the middle of the clay or stone floor, while the smoke is received by a conical vent gradually narrowing above till it issues out by a proper chimney. The vent was described as supported on four thin iron rods or pillars below, connected with the grate. The advantages intended to be provided for by such arrangement were, the possibility of a large family sitting *all round* the fire-place, while the apartment was conceived to be thus also much better warmed, and with a smaller quantity of fuel. As this is believed to have been an invention, *con amore*, of inhabitants of such cottages themselves, the hint is suggestive.

THE CHAPTER-HOUSE, SALISBURY.—Most of your readers must be acquainted, if not familiar, with the building above named. It has been fully illustrated and noticed in Britton's and Dodsworth's Histories of the Cathedral. It has been wofully dilapidated and neglected since the time Mr. Wyatt trespassed and inflicted much injury on that sacred edifice. I learn that the late prelate employed Mr. Thomas Wyatt to examine and report on the state of the said chapter-rooms; but nothing was done beyond a report. Since the bishop's decease a new architect has been employed; and from what appeared at the late meeting of the Wiltshire Archæological Society at Salisbury in October, it seems that certain funds have been promised to repair, restore, and *redecorate* this insular building. The architect exhibited some showy drawings, and professed to give a lecture on the subject to the assembled members of the society above named. Not being able to see the said drawings, or hear the discourse, I am induced to call the attention of your readers to both, in the hope that some persons who feel interested in the fate and integrity of the building referred to, may favour the writer of this note, and the readers of the *Builder*, with some account of what has been done, is doing, and *intended to be done*, on the justly admired Chapter-house of Salisbury.—THE KEY.

TENDERS

For the Bishop Stortford Cemetery. Mr. Pritchett, architect.

	Chapels and Lodge.	Boundary Wall.	Iron Cresting to Wall.
	£ s. d	£ s. d.	£ s. d.
Erswell	1,322 0 0	491 10 0	
Bell and Sons	1,307 0 0	427 0 0	553 0 0
J. L. Glasscock	1,297 0 0	476 0 0	445 0 0
Case	1,057 0 0	417 0 0	
John Stephens	987 0 0	487 0 0	
Jackson and Cook	.....	.....	753 0 0
Summers and Co.	.....	.....	558 5 0
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Gerish	.....	.....	399 16 0

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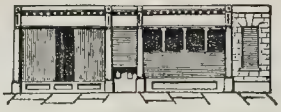

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6	by	4		12	by	10		14	by	11		16½	by	12½		18	by	13		18	by	14	
6½	"	4½		12½	"	10½		14½	"	11½		17	"	13		18½	"	13½		19	"	14½	
7	"	5		13	"	10		15	"	11		17½	"	13½		19	"	13		19	"	14	
7½	"	5½	14s. 6d.	13½	"	10½		15½	"	11½		18	"	12		19½	"	13½		19½	"	14½	
8	"	6		14	"	10		16	"	11		18½	"	13½		20	"	13		20	"	14	
8½	"	6½		14½	"	10½		16½	"	11½		19	"	13		20½	"	13½		20½	"	14½	
9	"	7		15	"	10	20s.	17	"	11	30s.	19½	"	12½	30s.	21	"	13	30s.	21	"	14	40s.
9½	"	7½		15½	"	10½		17½	"	11½		20	"	12		21½	"	13½		21½	"	14½	
10	"	8		16	"	10		14	"	12		20½	"	12½		22	"	13		22	"	14	
10½	"	8½	17s. 3d.	16½	"	10½		14½	"	12½		16	"	13		19	"	14		22½	"	14½	
11	"	9		17	"	10		15	"	12		16½	"	13½		16½	"	14½		23	"	14	
11½	"	9½		17½	"	10½		15½	"	12½		17	"	13		17	"	14		23½	"	14½	
12	"	9		12	"	11		16	"	12		17½	"	13½		17½	"	14½		24	"	14	
12½	"	9½		13½	"	11½																	

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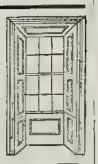

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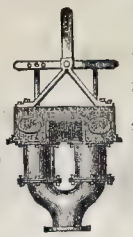

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A LARGE STOCK, from 3-inch to 9-inch Barrels, with Plain or Sliding Telescope Suction, always on hand.

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Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

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PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8 horse, 10-horse, 12 horse, 16-horse 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work, at Messrs MEDWIN and HALLS, Bricklayers, 92, Blackfriars-road, Sole Patentees and only Manufacturers

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PUMPING ENGINES.—TO BE LET ON HIRE, TWO PORTABLE STEAM-ENGINES, of three and five horse power, with pumps, complete.—Apply to Mr. HENRY JOHNSON, 11, Bleeding Hart-yard, Hatton Garden, London; and 44, Broad-street, Birmingham.

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These Pencils are prepared in various degrees of hardness and shades.

HHHH for drawing on wood.	FF light and shading.
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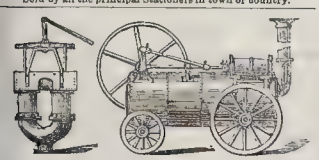
M medium.	BBBB ditto ditto.

Sold by all the principal Stationers in town or country.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side.

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which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 30 feet; also, Garden Engines constructed on the same principle.

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Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

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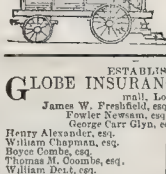

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PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

ARUNDEL SOCIETY.—FIFTH YEAR'S ISSUE to SUBSCRIBERS.—SIX LARGE WOOD-ENGRAVINGS, by Messrs. LINTON and WILLIAMS, from MR. WILLIAMS'S Series of Drawings, from the frescoes, by GIOTTO, in the Arena Chapel, Padua (being the continuation of the Eight Engravings from the same Series published for the first year); together with a NOTICE of GIOTTO and his WORKS in PADUA, by JOHN RUSKIN, Part I.—Annual subscription to the Arundel Society, 1l. 1s.

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CLASSES for the study of CONSTRUCTION, ARCHITECTURAL, MECHANICAL, and ORNAMENTAL DRAWING, are held at the LONDON MECHANICS' INSTITUTION, every Monday and Friday Evening throughout the year. Charge to Members of the Institute, 4s. per quarter. To Non-Members, 8s. per quarter.

Master, Mr. T. E. KNIGHTLEY.

February 18th, 1855.

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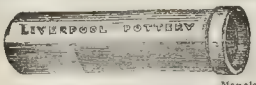
JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF



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W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

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STUFFS for HANGINGS, in simple Worsted Damask, in Silk, also in Tapestry of Bauderkin.
CARPETS, plain or in rich Velvet pile, with appropriate Borders.
PAPER-HANGINGS of various kinds.
OAK CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and appropriate Furniture
The whole of the above-mentioned Furniture, &c. is designed by the late Mr. A. W. PUGIN, Architect.
To render this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with it ancient character.
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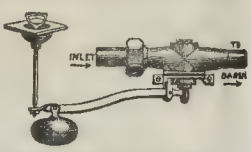
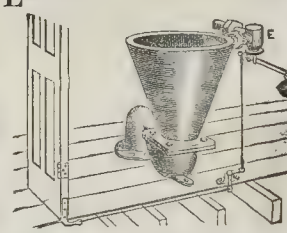
BURSTING of PIPES by FROST.



This accident is prevented by the use of LAMBERT'S PATENT LEVER VALVE-COCKS, which act as safety valves.
The lever is weighted, to resist the pressure of the column of water upon the valve, but it is not weighted sufficiently to resist the powerful expansion of water caused by the frost, which lifts the lever, and thereby prevents injury both to valve and pipe. When reaction takes place, the lever and weight resume their original position
Many thousands of these Valve-cocks are now in use under pressures of from 3 to 300 feet, with uniform success.
Price of ½ inch bore, with sunkplate and handle, 10s. 6d. each.
Patentees and Sole Manufacturers, Short-street, New-cut, Lambeth.

LAMBERT'S DOOR-ACTION CLOSET.



100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, Wilts County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve cock, lever, weights, &c. £1 18s. Cottage Closet complete, with white wedgwood basin and trap with ½ inch patent valve-cock, lever, and handle to pull up 17s 6d.
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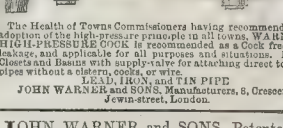
TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with new valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE
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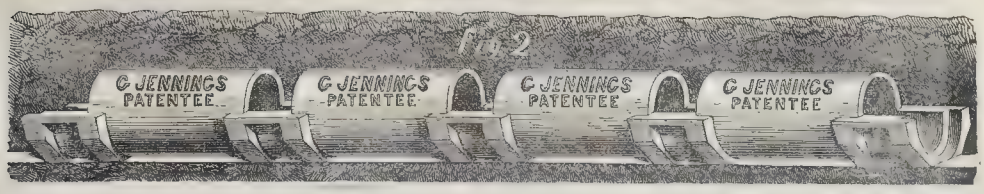
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.
Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.
TUNED BY MACHINERY.
Stocked and wheeled ready for fixing. Old Bells re-cast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing

FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country. Used and approved at the Offices of the General Board of Health. Exclusively adopted by the Crystal Palace Company. Easily cleaned without trouble or expense. To be seen in operation daily, at J. EVANS and SON'S, Iron-mongers, &c, being William-street, London-bridge.

TO SAW-MILL PROPRIETORS BUILDERS, &c.—On SALE, a first-class PLANING MACHINE, with 12 inch rollers and the latest improvements. This machine will plane thicknesses and tongue boards at the rate of 3 feet per minute up to 4 inches thick and 12 inches wide. It will require about 4 horse power. May be seen at Mr. JNO. HALL WALKER'S Sawing and Planing Mills, Hildersham

WINDOW BLINDS.—TYLOR & PACE Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner.—Venetian blinds, per square foot, 8d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 8d.; gauze wire blinds, in mahogany frames, 3s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 1s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

JENNINGS'S PATENT DRAIN-PIPES.



The above Illustration shows a series of JENNINGS'S PATENT PIPES laid, and READY FOR EXAMINATION (by Clerk of Works or other Superintendent), prior to the Saddle-pieces being fixed. ENGINEERS and ARCHITECTS describing these Pipes to be used will effect a GREAT SAVING IN THE LABOUR OF LAYING, will ensure BETTER WORK, more PERFECT JOINTS, and they will have the satisfaction of knowing the Drainage can be at any time examined, and Junctions introduced, WITHOUT TEARING UP THE INVERT OR GENERAL DRAIN. Pipes may never need examination, and Junctions to finished Drains may never require to be made, but it must be an advantage to be able to do either, or both, in case it should be necessary. Oxford and many other Towns are now being drained with these Pipes, and many Public and Private Works, to which references are permitted.

JENNINGS'S CLOSETS ARE FREE FROM ALL COMPLICATION, imperishable in their material, and can be had highly glazed for TWELVE SHILLINGS EACH.

These are WATER-CLOSETS having a LARGE WATER SURFACE, and NO BACKS TO SOIL,—NOT INVERTED EXTINGUISHERS.

A Book containing Illustrations and Particulars of JENNINGS'S DRAIN-PIPES, WATER-CLOSETS, URINALS, LAVATORIES, SLUICE-VALVES, FIRE-COCKS, GULLY-TRAPS, SHOP-SHUTTER SHOES, &c. &c. can be had free on application, or by post, if two postage stamps are inclosed to

GEORGE JENNINGS, SANITARY ENGINEER, 29, GREAT CHARLOTTE-STREET, BLACKFRIARS-ROAD.

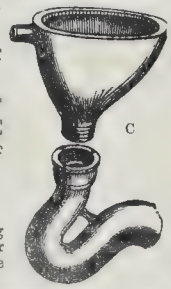
REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY,
HIGH-STREET, LAMBETH,

Have reduced the price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.



JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES, LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

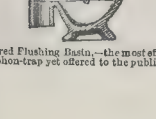
May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 39, Brydges-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street Drawings and List of Prices will be forwarded free on application

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

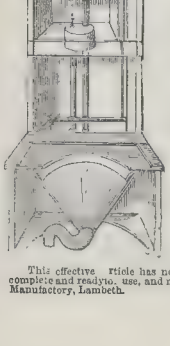
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1850

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which I have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, discharging with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road

N B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1850.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY.
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

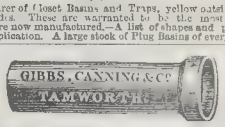
VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on a vantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

HENRY TURNER, 2, SOUTH WHARF,
PADDINGTON,

5s. Traps, 2s 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.



MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c. &c. Agents,—CHARLES RICHARDSON, No 6, South Wharf, Paddington, London.

SALES BY AUCTION.

THE COLOSSEUM.

MESSRS. WINSTANLEY are directed to SELL BY AUCTION at the MART, Bartholomew-lane, on WEDNESDAY, MARCH 14, pursuant to a Decree of the High Court of Chancery, with the approbation of the Master, in the Causes of "Phillipson and another v. Turner and others" THE COLOSSEUM IN THE REGENT'S-PARK; an Establishment of Science and Art, which has justly merited and received the patronage of Royalty, the support of the public, and universal approbation, 150,000 persons having paid for admission, and as much as 20,000 received in the course of one year. THIS VALUABLE AND IMPORTANT PROPERTY, viewed merely as an investment, would produce a very large return for capital, but as a place of public amusement, in the hands of another spirited proprietor (who would add to the numerous great objects of attraction now exhibited the original Diorama, in addition to other remunerative advantages, and possesses capabilities unequalled by any other establishment. THE MAGNIFICENT EDIFICE, with its finely-proportioned PORTICO and DOME, was originally designed by Mr. Decimus Burton; the interior of the building was rearranged and decorated, at an enormous cost, under the superintendence of the late Mr. W. Bradwell; works of extraordinary merit, by talented artists, have from time to time been produced, and the present Exhibition now presents the following leading features, viz.:—THE GLYPTOTHECA, or MUSEUM OF SCULPTURE (the far famed Panoramas of "LONDON BY DAY" and the no less splendid moreable Panoramas of "LONDON BY NIGHT," and "PARIS BY MOONLIGHT;" the fantastic Caverns, Swiss Cottage, Cascade and Lake, Rustic Arbours, the Classic Remains and Models of celebrated Greek and Roman Temples in the exterior promenade; the extensive and beautiful ranges of Conservatories, Gothic Aviary, splendid Saloon, or Refreshment-room, &c. In addition to the foregoing is the

GRAND CYCLORAMA IN ALBANY-STREET,

a building 300 feet long, constructed especially for exhibiting Dioramas, on an unprecedented scale. In connection with it is the ELEGANT AND CHASTELY-DECORATED THEATRE with beautiful draw-scenes and other paintings by Danson, of "THE DIORAMA OF NAPLES," by M'Neyin, is now exhibiting, showing the great ERUPTION of VESUVIUS and DESTRUCTION of POMPEII, and which, like the preceding one of Lisbon, by Danson, is a masterly production. This portion of the Property might be let off as an independent undertaking and would readily produce a very considerable rental. The working machinery, steam engine, gas, and other fittings, fixtures and sundry effects, will be included in the purchase. The property comprises a FRONTAGE OF ABOUT THREE HUNDRED FEET, both to the Park and Albany-street, and is held by one lease under the Crown, for an unexpired term of sixty-one years, at the GROUND-RENT of TWO HUNDRED AND SIXTY-TWO POUNDS EIGHTEEN SHILLINGS PER ANNUM. Printed particulars may be had, three weeks prior to the day of Sale, at the Colosseum, of Messrs. Chatfin and Hurland, Solicitors, 3, Gray's-inn-square; of Messrs Hine and Robson, Solicitors, Charterhouse-square; of Mr. Ancell, Surveyor, 19, Gower-street, Bedford-square; at the place of Sale; and of Messrs. Winstanley, 10, Paternoster-row; of whom may be had orders to view the whole, at the each person, at stated times.

PRELIMINARY ANNOUNCEMENT

MR. W. BUTCHER has received instructions to submit for SALE by AUCTION, some time in the month of MAY next, unless an acceptable offer is made by private contract, about TWENTY-FIVE ACRES of valuable FREEHOLD LAND, a small part of the Estate of the late Mr. Wilde, divided into four lots. It is a pleasing the turnpike road from Ewell to Kingston, in the parish of Ewell, where the parochial rates are extremely moderate.

Epsom, February 26th, 1855.

PRELIMINARY ANNOUNCEMENT.

MR. W. BUTCHER has been directed to SELL by AUCTION, at the end of the ensuing month, TWO PAIRS of SEMI DETACHED VILLAS, only partly finished, in Raphael-park, Kingston-on-Thames; also Three unfinished Houses next the Cullum Hotel and other property, the particulars of which will speedily be published.

Epsom, February 26th, 1855.

BOROUGH of SOUTHWARK. Ninety-three Freehold Houses in single lots, each House entitling to a Vote.—Particularly worthy the attention of small Capitalists.

MR. W. F. HAMMOND has been favoured with instructions from the proprietor to SELL by AUCTION, at GARRAWAY'S, on FRIDAY, MARCH 16, at TWELVE for TWELVE, in single lots, the above valuable FREEHOLD ESTATE, comprising Ninety-three Houses, all lying compact, in four blocks, and known as Rotary-street and Eldham-street, with a frontage in Kent street, Borough. The description of the property is of the third and fourth rates, well built, having been erected about thirty years, consisting of shops and small two-pair, which are well occupied, and producing rentals from £7 to £27 each, making a total sum of £1,351, 6s. 8d. per annum, each house entitling to a vote. This forms an important investment to small capitalists, being sold in separate lots, with a special condition granting to every purchaser the option of leaving one half of the purchase money upon mortgage. Further particulars, with conditions of sale, at 3 plans of the estate, to be had of Messrs Jaxon, Cook, and Pearson, Solicitors, Bucklersbury-street; at Garraway's Coffee-house, Cornhill; of Mr. Seager, the Collector on the Estate, 6, Henry street; and at the Auctioneer's Offices, 3, Carey street, Lincoln's-inn.

Superior Chimney-pieces of Statuary Marble, some richly sculptured, and of Sienna and Veil Marble in great variety.

MESSRS. ROBINS will SELL by AUCTION, at their ROOMS, Great Piazza, Covent-garden, on TUESDAY, MARCH 6th, at TWELVE, superior STATUARY MARBLE CHIMNEY-PIECES, principally of one truck, suitable for first-class drawing-rooms, others of a less expensive character, with trusses; black and Sicilian marble for dining-room and libraries, several of Sienna marble, and a great variety of vein marble of smaller size. Now on view in Covent garden

IN BANKRUPTCY.—To Stone Merchants, Wharfingers, and Builders.—Lesehed Wharf, with Residence, Travelling Crane, Plant, Stock in Trade, &c.

MESSRS. TOPPIN and CLARK (successors to Mr. W. W. Simpson) are directed by the assignees of Mr. W. Foster to SELL by AUCTION, on the PREMISES, Bridge-wharf, Millbank, Westminster, on THURSDAY, MARCH 15th, 1855, at TWELVE o'clock, about 1,000 feet run of Granite, Bath, Aubigny, Portland, and other BLOCK STONE; a few feet of Portland and York landings; 200 squares of paving; Purbeck and York stairs; York steps, curbs, sills, and copings; granite posts and paving, marble, tiles, &c.; two four-wheel stone trucks, wading chains, harness, to-ls, &c.—May be viewed the day preceding, and catalogues had of the Assignees of Messrs. Foster and Goods, Solicitors, Bateman-chambers, London bridge; and of the Auctioneers, 7, Coleman-street, City.

Important Sale of upwards of 200 Marble and Stone Chimney-Pieces.

MR. BRAY, Jun. will SELL on the PREMISES, Hustler's Marble Saw Mills, Cambridge-heath, Hackney, on TUESDAY, MARCH 6, at TWELVE PRECISELY, upwards of 200 CHIMNEY-PIECES in Statuary, Black, Bardilla, Vein, and Sicilian Marbles, many with carved trusses and other ornaments. The whole are complete for fixing.—May be viewed, and Catalogues had on the Premises, and at the Auctioneer's Office, 239, High Holborn.

THREADNEEDLE STREET and FINCH-LANE. Building Materials of Three Houses.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, MARCH 13, at TWELVE all the valuable BUILDING MATERIALS of THREE HOUSES, situate at the corner of Threadneedle-street and Finch-lane, comprising sound brickwork, plain and tile and slates, stout timber in roofs and floors, glazed sashes, doors, floor-boards, shop-fronts, iron columns, lead flats, gutters, and pipes, stoves, and useful fittings up.—May be viewed the day previous. Catalogues had of Edwards Ransom, Esq. Architect, 9, Lawrence Pountney-lane; and of Pullen and Son, 8, Pore-street, Cripplegate.

SALES BY AUCTION.

KING'S-ROAD, CHELSEA.—Valuable Timber-yard, producing 130£ per annum, free of ground-rent.

MR. GEORGE BERRY will SELL by AUCTION, pursuant to a decree of the High Court of Chancery, made in a cause of Archbutt v. Clarkson, at the AUCTION MART, near the Bank of England, on TUESDAY, the 20th day of MARCH, 1855, at ONE o'clock precisely, in one lot, a valuable LEASEHOLD ESTATE, comprising a timber-yard, erected sawing workshop, counting house, sheds, and other buildings, situate on the north side of the King's road, Chelsea, in the county of Middlesex, and also a Cottage, situate on the east side of Robert-street, Chelsea. The property is held direct from the freeholder for about 44 years unexpired, and is in mortgage for 1,000£ for a period of five years from 5th of May, 1854, and is sold subject to such mortgage. The whole of the premises are free of ground-rent, and are let to Mr. Thomas Witford for 43l years from Midsummer, 1853, at a clear annual rental of 130£. The property may be viewed by leave of the tenant and particulars and conditions of sale had of Mr. J. H. Kaye, 9, New-inn, Strand; Messrs. Jenkinson and Co. 29, Lombard-street; and Mr. J. Weathrone, 43, Chancery-lane; and of the Auctioneer, at his office, Motcomb-street, Belgrave-square.

VALUABLE BUILDING LAND TO BE LET, adjoining the New Metropolitan Cattle-market, Islington, with eligible Sites for warehouses, builders' or other premises requiring space.—For plans and particulars, inquire of Mr. THOMAS BURTON, Surveyor, No. 1, Charlotte-row, Mansion-house

TO BE LET, with immediate possession, seventeen acres of FREEHOLD ARABLE LAND, tithe free, in the county of Surrey, ½ mile from stations on the South-Western Railway, adjoining the Guildford and Basingstoke canal, well situate for a gentleman's seat or a building society. Particulars of Mr. CLARK, Grosier's-hall, Basinghall street, City.

TO TIMBER MERCHANTS, WHARFINGERS, MANUFACTURERS, &c.

TO BE LET, on Lease, extensive WATER-SIDE SITES for wharfs or manufacturing buildings, situate in the Commercial-road, between Waterloo and Blackfriars bridges. The land will be let in one or more plots. An exc-llent residence and offices are attached. Apply to Mr. HIGGINS, Architect, 13A, Cannon-row, Westminster; Mr. J. B. CLARK, 9, Guildford-place, Kennington-lane; or to Messrs. HODGSON and BURTON, 3, Salisbury street, Strand.

TO BUSINESS PREMISES.—TO BE LET, extensive PREMISES, adapted for manufacturing or business purposes requiring space, with a residence and stabling, and also a wharf attached, if required, situate in Princes-street, Lambeth.—Apply to Mr ROBINS, Architect, Palace-chambers, Lambeth, or 13A, Cannon-row, Westminster; or Mr J. B. CLARK, 9, Guildford-place, Kennington-lane; or to Messrs. HODGSON and BURTON, 3, Salisbury street, Strand

TO BUILDERS and MEMBERS of BUILDING SOCIETIES.—TO BE LET, a valuable PLOT of LAND, situate at Peckham rye hill, Surrey, facing the Common, 100 feet by 200 feet deep.—Apply to J. S. 3, Sutherland-terrace, Lorrimore-road, Walworth.

TO BUILDERS and OTHERS.—Compact and commodious PREMISES, with house, yard, workshops, and garden, conveniently situated in the best part of Camden town, TO BE LET, cheap.—Apply to Mr. ROBERTS, No. 1, Bayham street, Camden town.

TO RAILWAY CARRIERS, INN KEEPERS, and OTHERS.—Important and extensive PREMISES known as the George Inn, High-street, Borough, TO BE LET. The Governors of Guy's Hospital will meet at the Hospital, on WEDNESDAY, the 7th MARCH next, to receive TENDERS for LETTING on a RENEWING LEASE, the PREMISES called the George Inn, High street, Borough. A plan of the premises and form of Tender, may be obtained at the Counting house of Guy's Hospital, St. Thomas's-street, Southwark; or at the Office of Mr. HENRY CURRY, Architect, No. 4, Lancaster-place, Strand, any day between TEN and FOUR o'clock. The Tenders are to be delivered at the Hospital, on WEDNESDAY, the 7th MARCH, at or before TWO o'clock, and the parties or their agents, invited to attend at the Counting house at that hour to receive the Tenders, or do not bind themselves to accept the highest or any Tender.

DORSETSHIRE.—CLAY LANDS.—TO BE LET, on long leases, several valuable parcels of LAND, in a good clay district, with water and rail communication. Also, a large BRICKYARD, in working order, with kilns and plant.—Apply to THOMAS KINGDON, Lot 3 Station, Wimborne, Dorset.

TO CAPITALISTS.—WESTON-SUPER-MARE.—TO BE SOLD by PRIVATE CONTRACT, nearly FOUR ACRES of BUILDING LAND abutting upon the sea beach, and entirely overlooking the sea, adapted for the erection of eighty houses, forming a new town, called Hutchinsburysquare, where lithographed plans and further particulars may be had. These possess the parish church, and most valuable restrictive non building covenants over the surrounding lands. The purchase money may remain on mortgage, if wished. Immediate possession may be had.—Plans and all particulars obtained of B. GUY PHILLIPS, Esq. Weston-super-Mare

TO BE SOLD, within a few minutes' walk of the Kilburn station on the North Western Railway, and immediately adjacent to the intended line of the Hampstead Junction Railway, about EIGHTEEN ACRES of copyhold LAND, having a frontage next West end lane, of more than 900 feet. The estate, which is beautifully situated, is at present let to a yearly tenant, and immediate possession may be had. The soil is capable of being made into bricks, and a specimen of the earth may be seen on the premises. Apply to Mr. BRUNSBURY-square, where lithographed plans and further particulars may be obtained; or of R. B. ARMSTRONG, Esq. 8, Staple inn

BUILDING PREMISES.—TO BE DISPOSED OF, in the City of London, an old established BUILDING BUSINESS, with a very extensive Jobbing connection. The premises are most conveniently adapted for the trade. It is to be disposed of only in consequence of the illness of the proprietor, in whose family it has been for upwards of half a century. Principals only dealt with on application to Mr. LUSH, 47, Hanover street, Portsea.

WATER-SIDE PREMISES.—TO BE SOLD, freehold and part leasehold, BRUNSWICK WHARF and DRAW DOCK, BLACKWALL, many years established in the brick, tile, stone, slate, and lime trade, &c. Excellent RESIDENCE, offices, stabling and Wareh uses, the whole in substantial repair, adjoining, the South-Western Railway Goods Station, and abutting on the navigable river Wandsworth, with 150 feet frontage to the river Thames. Apply on the premises; or to Messrs. NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 48, Regent-street, Piccadilly

LEASEHOLD or FREEHOLD.—Wanted to PURCHASE, TEN to TWENTY good Freehold or Long Leasehold HOUSES, in or near Town, rentals from 20£ to 40£.—Address full particulars to Mr. BRETT, 4, Wellington-chambers, London-bridge, Southwark

FREEHOLD LAND.—Wanted to PURCHASE, FIVE to TWENTY ACRES of FREEHOLD LAND, near a railway station, within twenty miles of London.—Address full particulars to Mr. BRETT, 4, Wellington-chambers, London-bridge, Southwark.

TO PUBLIC COMPANIES and OTHERS. The corner of Hanover-square and Hanover-street (between Regent-street and Bond-street, two of the greatest thoroughfares at the West End). FREEHOLD PREMISES, with a frontage of nearly 30 feet, and a depth of 140 feet, opening to a mews. TO BE LET on lease, or otherwise disposed of. Apply to Mr LARKE, at his usual Offices, No 45, New Bond street.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—

Forest-hill, Croydon Railway.
St. Margaret's, near Richmond, South Western Railway.
Oaklands Grange, Weybridge, Surrey, ditto.
Tottenham green, Eastern Counties Railway.
Putney, South Western Railway.
Rectory Estate, Ealing, Great Western Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
Wood-green, Green lanes, Hornsey, Great Northern Railway.
Old Fort, Stratford, Eastern Counties Railway.

Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of One acre, can be obtained. On the two first estates, large pleasure-gar leas are allotted to the freeholders or tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase money may remain at an annual charge (for about ten years) equal to the interest and principal of the same under the usual system. In addition, therefore, to the amount to be raised on the building mortgage, they can sell the ground-rent created by the land as a large sum. Several plots to be let on building lease. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

BUILDER'S YARD WANTED, for stacking Timber, with or without Workshops, West or North-west side of London, on lease or to purchase. Particulars to be addressed, A. B. Mr. Blackwell's, Charles-street, Middlesex Hospital

TO TIMBER MERCHANTS, BUILDERS, and OTHERS.—To be DISPOSED OF, the STOCK and TRADE of the late Mr Joseph Wardale, deceased, at Newport, Isle of Wight. Any gentleman desirous of being partially engaged in business, and of residing in the Island, would find this a favourable opening. The timber and deal yard may be rented with or without a convenient residence adjoining the yard.—Address to Mrs. WARDALE, Castle View, Newport, Isle of Wight, or to Messrs DRIVER and SHEPPARD, Timber Merchants, Southampton.

TO CARPENTERS and CABINETMAKERS.

THE Proprietor of an old-established BUSINESS, in the neighbourhood of Hanover-square, wishes to DISPOSE OF the MANUFACTURING PART. He will give his time and assistance to secure the connexion.—For particulars apply, by letter, T. K. Mr Whitbread's, 142, Oxford-street.

TO ARCHITECTS, ENGINEERS, BUILDERS, &c.—TO BE DISPOSED OF, in consequence of death, a powerful LIFT, quite new, with chair, guide-rods, balance-weights, chains, and every requisite, suitable for a prison, hospital, club-house, or any large establishment.—For particulars, apply to J. MILLS, Ironmonger, 40, Great Russell-street, Bloomsbury.

TO STOVE-GRATE MANUFACTURERS, Founders, Engineers, Builders, Smiths, and Others.—TO BE DISPOSED OF, spacious MANUFACTURING PREMISES, most favourably situate in a central part of London, and in a leading thoroughfare. The freehold may be purchased if desired. The tools and stock may be relieved to a fair extent.—For further particulars apply to Messrs. FULLER and HORSEY, Billiter-street, City.

THE FREE-TRADE FREEHOLD LAND Society, Offices, 86, St. James's-street, Pall-mall.—Notice is hereby given, that the ANNUAL MEETING of the FREE-TRADE SOCIETY, INCLUDING BOOTHIANS, will be held at FREEMASONS' HALL, Great Queen-street, Lincoln's-inn-fields, in the county of Middlesex, on TUESDAY, the 9th day of MARCH next, at TWELVE o'clock. Being precisely, for the purpose of receiving the Annual Report to ELECT Members of the Executive Committee, and Auditors, and for such other business as may properly come before such meetings.

Feb 24, 1855. THOS SHERWOOD SMITH, Secretary.

N.B. On and after MARCH 25th, the Offices of the Society will be removed to No 17, Adam-street, Adelphi

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.

Enrolled as the "Borough of Lambeth Benefit Building Society," pursuant to the Act 6 & 7 Will. IV. c. 32.

The Hon. John Locke King, M.P. President.

George Singer, Esq. James Sinee, Esq. S. Etches, Esq. Offices, 211, High-street, Borough. Open from Ten a.m. till Seven p.m.

Shares, 30£.

Entrance fee, 1s. Payments, 1s. monthly.

Allotments distributed by rotation, ballot, and to completed Shares in the order of their completion.

No Fines on unadvanced Shares. No back payments.

This Society within four years has divided five estates, satisfying 1,814 Shares out of 5,536. The value, as divided amongst members, being 67,57£.

A Bonus of 5 per cent. in addition to 5 per cent. interest, in all to per cent. was declared upon all unadvanced Shares at the annual meeting of 30th January last.

WM. BANKS, Secretary

211, High-street, March 1, 1855.

SECURITY for MEMBERS of BUILDING and FREEHOLD LAND SOCIETIES. The LAW PROPERTY and LIFE ASSURANCE SOCIETY will ASSURE, for a very moderate annual premium, the payment of all future subscriptions, in the event of the death of a member before his property is redeemed. Every information forwarded on application.

EDWARD S. BARNES, Secretary.

30, Essex street, Strand.

LECTURES to WORKING MEN, being the second of these courses for the present session, at the Museum of Practical Geology, Jermyn-street. Six Lectures on MECHANICS, by Professor WILLIS, M.A. F.R.S. to be commenced on MONDAY, MARCH 12th, at EIGHT o'clock, p.m. Tickets may be obtained at the Museum by Working Men only, on MONDAY, MARCH 5th, and following days, from TEN to FIVE o'clock, upon payment of a registration fee of 6d. for the whole course. TRENHAM REEKS, Registrar.

ARCHITECTURE, CIVIL ENGINEERING, and Surveying CLASSES. Established by Messrs. HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Drawing, and Colouring. Modelling Carved and Working Drawings, Preparing Specifications, Taking out Quantities, Estimating, &c. &c. Terms One Guinea per Quarter, which includes Drawing Materials, Instruments, Colours, Paper, Drawing-boards, Squares, &c. Prospectuses and full particulars may be had at the Office, 24, Guildford street, Russell-square.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St George, Bloomsbury, Printer, at the Printing office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," in York street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, March 3, 1855.

The Builder.

A JOURNAL FOR THE

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square.—NOTICE to ARTISTS.—All works of Painting, Sculpture, Architecture, or Engraving, intended for the ensuing EXHIBITION at the ROYAL ACADEMY, must be sent in on MONDAY, the 9th, or TUESDAY, the 10th of APRIL next, after which time no work can possibly be received, nor can any works be received which have already been publicly exhibited.

FRAMES.—All pictures and drawings must be in gilt frames. Oil paintings under glass, and drawings with wide margins are inadmissible. Excessive breadth in frames as well as projecting mouldings may prevent pictures obtaining the situation they otherwise merit. The other regulations necessary to be observed may be obtained at the Royal Academy.

JOHN PRESCOTT KNIGHT, R.A. Sec.

Every possible care will be taken of works sent for exhibition, but the Royal Academy will not hold itself accountable in any case of injury or loss, nor can it undertake to pay the carriage of any package. The prices of works to be disposed of may be communicated to the Secretary.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, MARCH 16, a Paper will be read by Mr ROSSER, on the subject of "Warming by Hot Water."

The Class of Design will meet on MARCH 23. Subject for sketch, a Three-light Window.

The Register of architects requiring assistance, and of draughtsmen wanting employment, may be consulted daily, free of any charge, between the hours of TEN and FIVE, at the office of Mr. ARTHUR BILLING, 10, Buckingham-street, Strand.

ARTHUR CATES, } Hon. Secs.
Lyon's-inn Hall, Strand. T. W. GOODMAN, }

THE ARCHITECTURAL MUSEUM, CANNON-ROW, WESTMINSTER.

The next COURSE of LECTURES will commence on the first MONDAY in MAY, and will be continued on each alternate MONDAY till the completion of the course.—Further particulars will be advertised.

An unavoidable delay having occurred in the issue of the catalogue of the collection, the subscribers are informed that it will be ready in the course of the following month.

March 8, 1855. HENRY CLUTTON, Hon. Sec.

INSTITUTION of BUILDERS' FOREMEN and CLERKS of WORKS.—NOTICE to MEMBERS.—In consequence of WEDNESDAY, the 31st day of MARCH being appointed for a general fast, the ordinary Meeting of this Institution is postponed until the FIRST WEDNESDAY in APRIL next.

W. ALLARD, Secretary.

BOROUGH of MIDDLESBROUGH.—SURVEYOR WANTED.—The Town Council of Middlesbrough are desirous to ENGAGE an active and competent person as BOROUGH SURVEYOR. He must be sufficiently acquainted with engineering to be able to survey, plan, and level, and carry out sewerage and drainage works. Population about 11,000. Salary, 150l. per annum. The person appointed will be required to devote his whole time to the office. Further particulars, with respect to the duties to be performed, may be had on application to the undersigned, and applications in the handwriting of the party, and with testimonials of his character and ability, and a statement of his age, and previous and present occupation, must be at my Office not later than TWELVE o'clock at noon, on TUESDAY, the 20th MARCH next.—By order,

JOHN S. PEACOCK, Town Clerk.

Middlesbrough, February 23rd, 1855.

COMPETITIONS.

PREMIUMS for DESIGNS.—The Woolwich Burial Board offers a PREMIUM of TWENTY GUINEAS for DESIGNS and ESTIMATES for the necessary CHAPELS, LODGE, &c. and the laying out, draining, and planting the intended burial-ground at Woolwich; which sum will be increased to THIRTY GUINEAS if the approved designs be accompanied by detailed working drawings and specifications sufficiently comprehensive to enable the Board at once to enter into contracts for the execution of the works. Designs to be sent into Mr. HENRY BLAND, Clerk to the Woolwich Burial Board, on or before THURSDAY, the 29th day of MARCH next. Any person desirous of competing for the above will be furnished with a plan of the ground and other particulars upon application to the Clerk to the Burial Board, at the above address, on and after MONDAY, the 12th inst.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE BURIAL-BOARD for the PARISH of BRIDPORT, in the county of Dorset, is desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising Ground Plans, Sections, and Elevations, for LAYING OUT a NEW BURIAL GROUND of FOUR ACRES the plan of which may be seen at my house, in East-street, INCLOSING the GROUND, BUILDING a LODGE with ENTRANCE-GATES, and BUILDING TWO DETACHED CHAPELS. The party whose plans may be approved, will, at the discretion of the Board, either have the superintendence of the works, or be paid 1311 15s for the plans, designs, estimates, &c. The person who prepares, in the judgment of the Board, the second best plan, will be paid 52l. 5s. which must be delivered at my house, free of all expense, without the author's name, but with a motto, on or before the 17th of MARCH. A sealed letter, containing real names and address, should accompany each design, which will be opened after selection made, and those not approved will be returned.

W. K. BROWN, Clerk of the Board.

Bridport, February 26, 1855.

PROPOSED CORN-EXCHANGE for LEICESTER.—To ARCHITECTS.—The Committee intend ERECTING a CORN-EXCHANGE over the present Market-House, and hereby invite architects to send in plans, elevations, and sections complete. All designs are required to be on the same scale, one-eighth of an inch to a foot; the plans to be sent in on or before the 6th day of APRIL next, addressed to the Honorary Secretary, T. CHAPMAN BROWNE, Bible and Crown, Market-place, Leicester. Competitors are requested to put a distinguishing mark or motto on their designs, but not to attach their names. The architect who shall produce the most suitable plan will receive a Premium of 50l. which will merge into the commission in the event of the scheme being carried out; and the second best design will receive a Premium of 10l. No plans will be received into competition which cannot be carried out for a sum not exceeding 1,400l. For a view of the present building, and particulars of requirements, apply to the Honorary Secretary, Leicester. By order of the Committee.

CONTRACTS.

TO BUILDERS.

NEW MARKET at GLOUCESTER.—The Corporation of Gloucester is desirous to receive TENDERS for the ERECTION of the above Market, in accordance with the plans, specifications, and conditions, prepared by Messrs. MEDLAND and MABERLY, Architects, Gloucester, which may be seen on application to them on and after 5th MARCH next. The Tenders to be delivered, free of all charge, before TWELVE o'clock, on MONDAY, 19th MARCH next, at the Architects' Office, sealed and endorsed, "Tenders for New Market, Gloucester."—The Corporation will not be bound to accept the lowest or any Tender if the amount be unreasonable. The works will be divided into two Contracts, viz.—No. 1. The excavators, bricklayers, masons, carpenters, joiners, slaters, plumbers, painters, and glaziers' works. No. 2. The smiths and ironfounders' works.

A. H. JENKINS, Town Clerk.

Gloucester, February 21st, 1855.

RYDE, ISLE of WIGHT.—To BUILDERS and CONTRACTORS.—ESPLANADE.—The Commissioners for Improving the town of Ryde are ready to receive TENDERS for BUILDING a SEA WALL and forming an ESPLANADE and CARRIAGE DRIVE from the Pier Gate to the Castle, at the bottom of Dover-street. Plans and specifications of the works to be performed, and the conditions to be observed, can be inspected at the Office of the Town Surveyor, 16, George-street, between the hours of TEN a.m. and FOUR p.m. until the 19th day of MARCH next, on or before which day and hour, sealed Tenders marked on the outside, "Tender for Esplanade," are to be sent to me at my Office, at the Town-hall.—The Commissioners do not bind themselves to accept the lowest Tender.

By order,

WILLIAM HENRY PULLEN, Clerk.

Town-hall, Ryde, March 2, 1855.

TO BUILDERS AND CONTRACTORS.

MILITARY DEPOT for the County of DENBIGH, at Wrexham.—Any person willing to CONTRACT for BUILDING the new MILITARY DEPOT, for the custody of the stores, arms, and accoutrements of the Royal Denbighshire Rifles, and for ERECTING a HOSPITAL, with QUARTERS for the Sergeant-Major and SIX Sergeants of the Permanent Staff, together with all necessary Outbuildings, and for forming the PARADE GROUND, may see the plans and specifications, after the 9th of MARCH next, upon application to Mr. WHITTAKER, at the Turf Tavern, near the Railway Station at Wrexham, or at my Office in Oswestry. Sealed Tenders to be sent, addressed to me, at Gwesyllt-hall, on or before the 26th day of MARCH, endorsed "Tenders for the Military Depôt at Wrexham." The Contractor will be required to enter into security, with sufficient sureties, for the due completion of the works. The lowest Tender may not be accepted, without having due regard to the eligibility of the parties.—Any further information may be obtained at my Offices at Oswestry, and Gwesyllt-hall, near Wrexham.

THOMAS PENSON, Architect.

Oswestry, February 21, 1855.

RUNCORN UNION.—To BUILDERS and OTHERS.—Parties desirous of CONTRACTING for the whole of the works required in the ERECTION of a new WORKHOUSE, intended to be built at Dutton, in the county of Chester (about one mile from the Preston-brook station on the London and North Western Railway), may see the plans and specification at the Office of Mr. CULSHAW, Architect, Runford-place, Liverpool, until the 14th day of MARCH next, and after that date at my Office, Frodsham, until the 28th day of MARCH. Sealed and endorsed Tenders to be delivered at my Office, on or before the 28th day of MARCH next, addressed to me. The Guardians do not pledge themselves to accept the lowest or any other Tender. Security will be required for the due performance of the contract when entered into.

DANIEL ASHLEY, Clerk to the Runcorn Union.

Frodsham, Feb. 22, 1855.

CONTRACTS.

Royal Engineer Office, Eastbourne, Feb. 16th, 1855.

TO BUILDERS.

SUCH Persons as are desirous of undertaking the several branches of ARTIFICERS' WORK, IRONMONGERY, CAST-IRON, and METAL WORK, required in the Ordnance Department at the places undermentioned, including REPAIRS to the several BARRACKS, upon a CONTRACT for THREE YEARS from the 1st of APRIL next, determinable at any period after the expiration of one year, on either party giving three months' notice in writing, may be furnished with printed schedules of prices, and the conditions of the contract, with every necessary information respecting the same, by application at this office.

Stations for which separate Tenders will be received:

From SHOREHAM to the WEST SIDE of CUCKMERE HAVEN;

From the WEST SIDE of CUCKMERE HAVEN to FAIRLIGHT.

The Tenders will be required to be delivered before TWELVE o'clock at noon, on TUESDAY, the 13th day of MARCH next, at the Ordnance Office, Pall-mall, addressed to "The Secretary to the Board of Ordnance." The persons whose Tenders shall be approved, will be required to provide eligible securities, and execute a bond for the due performance thereof, and to pay half the amount of the stamp on the bond.

TO BUILDERS AND OTHERS.

SEALED TENDERS, in one specific sum, will be received at the Ordnance Office, Pall-mall, London, on or before the 20th MARCH, 1855, for the following SERVICES at Bull Point, in the parish of Saint Budeaux, near Devonport, viz.:—

1.—Building Cottages for a Foreman and sixteen Labourers.
2.—Building a Cook-house and Wash-house for the Crews of the two Powder Vessels, with Privy and Urinal.
3.—Building an Office for the Ordnance Storekeeper.
4.—Building a Civil Watch-house and a Shed for Waggons.
5.—Building a Warder's Lodge and a Shot-house.
6 Building an Engine house.
7.—Building a Boat-house.
8.—Removing the present wooden Filling and Examining-house at Keyham to Bull Point.

Detailed specifications of the above eight services, with addenda thereto, and every requisite information may be obtained at the Royal Engineer Office, Bull Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from THURSDAY, the 1st, to FRIDAY, the 16th of MARCH, 1855, both days inclusive.

Royal Engineer Office, Devonport, 23rd February, 1855.

Commanding Royal Engineer's Office, Dublin, 26th February, 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive PROPOSALS for the following CONTRACT, viz.:—

For the CONSTRUCTION and ERECTION of 430 WOODEN BUILDINGS to accommodate Soldiers; Ten for Staff purposes, and Four for Officers' Stables, at the Curragh of Kildare, in the Dublin District.

Persons desirous of Tendering for the same, will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin; and may obtain specifications, with the terms of contract, upon making a deposit of 1l. for the same, which deposit will be repaid when the specification is are returned uninjured. The whole of the Buildings to be completed within sixty days after the acceptance of the Tender, but the Tenders to state the period less than sixty days within which the Contractor will undertake to perform the work, on which point a preference will be given in the consideration of the offers. The letters of Tender to be sealed, and transmitted, under cover, to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before the 12th day of MARCH, 1855; and to be marked on the outside, "Tender for Work at the Curragh of Kildare." The build ngs are to accommodate ten battalions of infantry, viz. forty-five huts for each battalion; and it is to be understood that parties have the option of Tendering for one or more battalions, or for the whole.

BETHESDA GAS WORKS.—TENDERS for BUILDING, and IRON WORKS. The Commissioners under the "Bethesda Improvement Act, 1854," are desirous of receiving TENDERS by the 14th MARCH, 1855 (such TENDERS to stand good for six weeks from that date), for the following Works to be done, and materials to be delivered at Bethesda, near Bangor. Any party who would like to contract for the whole is at liberty to Tender for the same according to plans and specifications, lying at the Douglas Arms Hotel, Bethesda. First, Tender to comprise the BUILDINGS, TANKS, and EXCAVATIONS, complete. The second Tender, the heavy CASTINGS, and CAST-IRON PIPES.—8, 3, and 2 inches. Third Tender, the GAS-HOLDER, 35 feet diameter by 13 feet deep, erected at Bethesda. Fourth Tender, supplying the remaining parts: FITTING UP the GAS APPARATUS, complete; LAYING and JOINING MAIN PIPES.—The Commissioners do not bind themselves to accept the lowest or any Tenders.

By order, H. WILLIAMS,
Clerk to the Bethesda Improvement Commissioners.

Glanadda, Bangor, March 1, 1855.

BRIDGNORTH PUBLIC BUILDINGS and MARKET.—To BUILDERS.—Persons willing to CONTRACT for the ERECTION and COMPLETION of a COVERED MARKET, PUBLIC HALL, and OTHER WORKS, at Bridgnorth, Salop, may inspect the plans and specifications from SATURDAY, the 10th, to SATURDAY, the 17th MARCH inst. (both days inclusive), at the Offices of Mr. GORDON, Solicitor, Bridgnorth, and also at the Offices of the Architect, Mr. THOMAS D. BARRY, 47, Bedford-street North, Liverpool, and 15, Lincoln's-inn-fields, London, where detailed bills of quantities may be obtained free of charge on application. The Directors will not pledge themselves to accept the lowest or any Tenders unless perfectly satisfactory. The Tenders must be delivered, sealed, to the undersigned, at or before TWELVE o'clock at noon on the 24th day of MARCH instant.

WILLIAM PENSON GORDON, Secretary to the Company.

[For remainder of Contracts see next page.

CONTRACTS.

TO BUILDERS

ESTIMATES are required for the ERECTION of a VILLA, STABLING and COACH-HOUSE, at Woodford, Essex. The drawings, specifications, and conditions of contract may be inspected between the hours of NINE and SIX, at the offices of Mr. J. SHEPPARD SCOTT, Architect and Surveyor, 18, Commercial-road, St. Giles's, East. Sealed Tenders to be delivered on or before the 16th inst. at the aforesaid address. The lowest Tender not necessarily accepted.

SHIPLEY LOCAL BOARD of HEALTH.—WATERWORKS CONTRACT, No. 2.—The Local Board hereby give Notice that they are ready to receive TENDERS for the CONSTRUCTION of a COMPENSATION RESERVOIR at ELDWICK, near Bingley, with the Culverts, Waste Pit, Gauge Boxes, Headstones Locks, and other Works thereto connected and for 2 miles 1,320 lineal yards of the mains from that reservoir, to West Lane, near Baildon. Plans, sections, detail drawings and specifications may be inspected by Tenderers at the Surveyor's Office, at the Offices of Mr. J. MELLANSON, Solicitor, Clerk to the Local Board, 23, Queer-gate, Bradford, from whom Forms of Tender and any further and random may be obtained, and Tenders are to be delivered to me, at my Offices in Bridge-st, Yorkshire, on or before NOON, DAY, the 12th day of MARCH next, endorsed "Shipley Water-works Tender for Contract No. 2." The Local Board do not bind themselves to accept the lowest or any Tender

JOHN THOMPSON, Clerk to the Local Board.

Bradford, Feb. 16th, 1855

TO BUILDERS and HOUSE DECORATORS.—HOUSE and PREMISES, No. 49, Upper Gower-street, to be RE-PAINTED and PAPERED throughout. Application to be made on the premises up to 11 o'CLOCK on TUESDAY next inclusive.—Tenders to be sent to G. GORDON ST. MHAM, Architect, 31, Alfred-street, Bedford-square, E., Hammersmith-gate, on or before SATURDAY, 17th March

THE MALVERN IMPROVEMENT ACT, 1853.—To IRONFOUNDERS, GAS APPARATUS MANUFACTURERS, and BUILDERS.—The Malvern Improvement Commissioners are prepared to receive TENDERS from persons willing to CONTRACT for the complete LIGHTING WORKS for the MANUFACTURE and DISTRIBUTION of GAS. Also Tenders for the DWELLING HOUSE, BUILDINGS, and BOUNDARY WALLS connected with the same. The Tenders may be made either together or separately. The plans and specification may be seen on application at the office of the Commissioners in Great Malvern, at the office of their Engineer, Mr J. HODGSON JONES, Poet's Corner, Westminster; between the hours of TEN and FOUR on and after the 24th inst. of MARCH next. Sealed Tenders, endorsed "Tenders for Gas works," are to be delivered at the Commissioners' office, Great Malvern, on or before the 27th day of MARCH next, by SEVEN o'clock in the forenoon. The Commissioners do not pledge themselves to accept the lowest or any Tender By order of the Board,

JOHN SKEY, Clerk.

Malvern, 6th March, 1855

TOWNSHIP of MANCHESTER.—DIRECTION of NEW WORKHOUSE.—The Guardians of the Poor of the Township of Manchester are desirous of receiving TENDERS for the whole or any branch of the Works required in the ERECTION of a NEW WORKHOUSE, to be built at Crumpsall near Manchester. The Plannings and specifications may be seen at the offices of Messrs. MILLS and MORGAN HOYD, Architects, Exchange-chambers, Piccadilly, Manchester, where all particulars may be obtained in respect thereof. The Guardians do not pledge themselves to accept the lowest Tender

By order &c. JOHN HARROP, Clerk to the Guardians

Poor Law Offices, New Bridge-street, Manchester,

February 21st, 1855

TO BUILDERS

THE PLANS and SPECIFICATIONS for a new CATHOLIC CHURCH and PRESBYTERY to be built at Selby, in the county of York, may be seen on application to the Rev J. RIBBY, Selby, or to Messrs J. and C. HANSOM, Architects, 4, Park-place, Clifton, Bristol, from MONDAY, the 19th, to SATURDAY, the 24th of this month inclusive. The Tenders to be sent to Messrs J. and C. HANSOM, as above, on or before the said 24th of MARCH, endorsed "Tender for Church, &c. &c." No pledge is given to accept the lowest or any other Tender

MANCHESTER, SHEFFIELD, and LINCOLNSHIRE RAILWAY COMPANY.—Contract for Maintenance of Permanent Way.—The Directors of this Company are prepared to receive TENDERS for the MAINTENANCE of the entire LINE, WORKS, and STATIONS of the Company. Specifications may be obtained on application to the Secretary, at the Company's head office, Manchester, on payment of one guinea for the same. Sealed Tenders, addressed to the Secretary, must be sent in on or before the 15th APRIL next.—By order,

EDWD ROSS, Secretary.

London-road Station, Manchester, Feb. 23, 1855.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of TWO VILLA RESIDENCES, may inspect the plans and specification at the Office of Mr CHARLES HAMBRIDGE, Architect, 21 Coleman-st.-buildings, between the hours of TEN and FIVE o'clock, where the Tenders are to be delivered on or before the 2nd instant, at TWELVE o'clock. The proprietor does not pledge himself to accept the Lowest or any of the Tenders.

TO BUILDERS AND CONTRACTORS

PERSONS desirous of CONTRACTING for the ERECTION of a CHURCH at Cinder-hill, near Nottingham, may see the drawings and specification at the Offices of Mr. HINE, from MONDAY, the 26th instant to WEDNESDAY, the MARCH 14th, inclusive. N B The lowest Tender not necessarily accepted. THOMAS C HINE, Architect, Nottingham.

February 22, 1855

EXTENSION OF TIME

BURSLEM LOCAL BOARD of HEALTH.—NEW TOWN HALL.—CONTRACT for GAS FITTINGS.—The Local Board of Health are prepared to receive TENDERS for the supply and fixing of the CHANDELIERS, PENDENTS, BRACKETS, and the necessary GAS FITTINGS required for the lighting of the New Town-hall. Drawings and specifications may be seen, and further particulars obtained, on application to Mr. JOHNSON, Gas Engineer, 20, Upper-parade, Leamington; or to Mr. RALPH HALES, Cobridge, Surveyor to the Local Board. Sealed Tenders must be sent to me on or before TUESDAY, the 3rd day of APRIL next.—By order,

JOSEPH LOWNDES, Clerk.

Public Offices, Burslem, February 10, 1855.

PARTIES willing to ESTIMATE to Supply STOVES and RAILINGS for SIX HOUSES, may apply personally, or by letter, for particulars, to the Office, 14 Princes-terrace, Maldon-road, Haverstock-hill, Camden-town

SOUTH STAFFORDSHIRE WATERWORKS COMPANY.—To CONTRACTORS and IRONFOUNDERS.—The Directors are prepared to receive TENDERS for the CONSTRUCTION of the following WORKS

CONTRACT, No. 1.—For a RESERVOIR, HEADINGS, and WELLS, at LICHFIELD

CONTRACT, No. 2.—For a RESERVOIR, at the MOAT HILL, near Mavesyn

CONTRACT, No. 3.—For PROVIDING and LAYING DOWN about 6,000 tons of cast iron MAIN PIPE.

Plans, specifications and quantities, may be seen at the Offices of Mr HENRY MARTEN, Market-street, Wolverhampton, on and after the 19th instant, and at the Offices of Messrs M'CLEAN and STIELMAN, Great George-street, Westminster, on and after the 24th instant. Tenders, addressed to the Secretary as below, must be sent in on or before the 1st day of MARCH.

By order, JOSIAH CHURCHILL, Secretary.

Darlington-street, Wolverhampton, March 6, 1855.

CONTRACTS.

LYDGATE CHURCH, near Todmorden.—To MASONS, BUILDERS, and OTHERS.—Persons desirous of CONTRACTING for the ERECTION of the respective WORKS required in the ERECTION of a proposed new CHURCH at Lydgate near Todmorden, may see the drawings and specifications from the same from WEDNESDAY, the 7th to SATURDAY, the 17th instant, on application to Mr J. GREEN, Architect, Portsmouth, near Todmorden, to whom sealed Tenders endorsed "Tender for Lydgate Church," must be delivered on or before MONDAY, the 19th instant. There will be no pledge to accept the lowest Tender.

March 4th, 1855

TO BUILDERS AND OTHERS.

NOTICE is hereby given, that PLANS and SPECIFICATIONS of BUILDING a DOUBLE RESIDENCE, in the parish of Caterham, near Croydon, in the county of Surrey, will lie at the Office of Mr. G. H. DREW, No. 28, Parliament-street, Westminster, from MONDAY, the 19th day of MARCH instant till THURSDAY, the 29th day of MARCH instant. All persons willing to CONTRACT for Building the said Houses, and executing the works connected therewith, are invited to send in sealed Tenders, directed to Mr. G. H. DREW, 28, Parliament-street, on or before THURSDAY, the 12th day of APRIL next; the Tenders to be sent in for the whole of the works to be given separately. The advertisers do not bind themselves to accept the lowest or any Tender

TO BUILDERS

WEDNESFIELD SCHOOLS and MASTER'S HOUSE.—Parties desirous of sending in TENDERS for the ERECTION of BRICK SCHOOLS and HOUSE may see the drawings and specifications thereof at the Office of Mr. E. BANKS, Architect, Wolverhampton, on and after MARCH 8th. Tenders, properly endorsed, to be sent to Rev. W. STEPHENS, Wednesfield, Wolverhampton, not later than MARCH 16th. The lowest Tender not necessarily accepted

CONTRACT for SEWERS.—The DORVILLE ESTATE, HAMMERSMITH.—TENDERS are required for about 1,000 FEET of BRICK SEWERS, and other WORKS connected therewith. The drawings and specification may be seen at Mr. BEAN'S office, Bridge-road, Hammersmith, from MONDAY, MARCH 12th, to THURSDAY, the 15th. Tenders, addressed to Mr. FOREMAN, Bond's-road, Hammersmith, to be delivered as above, on MONDAY, the 19th instant, at or before TWELVE o'clock in the forenoon, endorsed "Tender for Sewers." The lowest Tender will not necessarily be accepted.

TO PAVIORS AND MASONS.

THE COMMISSIONERS for PAVING, &c. ST. JAMES'S, Clerkenwell, will meet on THURSDAY, the 15th inst. at SEVEN in the Evening precisely, at their Board-room, Upper-Rooms, next the Vestry-hall, to receive PROPOSALS for PAVING and REPAIRING all such STREETS and WAYS as they may require to be paved or repaired during the term of one Year, to be computed from the 25th inst. with new Yorkshire stone, 24 inches thick, and dittos, 9 inches thick, properly squared, and laid in cross courses with mortar, at per foot superficial; new Aberdeen or Guernsey granite curb, flat and edge, 12 inches by 7, and ditto, 12 inches by 5, at per foot run; new caleostone less than 3 inches deep, grouted with Portland lime and sharp Thames sand, ditto dressed for crossings, and ditto for gutters, at per foot superficial yard superficial. Also for re-paving and relaying old Yorkshire flags at per foot superficial; repairing granite and pebble carriage-ways and channels and Purbeck squares with stone, at per yard superficial; and for other works as specified in the Form of Tender [The Commissioners do not pledge themselves to accept the lowest Tender. The contractor to give a bond with two sureties in the sum of £300, for the performance of his contract and must send in his proposals sealed, under cover, marked outside "Paving Tender," before FOUR o'clock on the day of contracting, as none will be received after that hour. He or an agent must be present at the Board at the time for making the contract. Further particulars may be learned at the Commissioners' Office Upper Rosoman-street, Clerkenwell, where printed forms of Tender may be obtained.—By order,

March 7, 1855. THOMAS CROMWELL, Clerk.

TO GROUND WORKMEN AND WELL-DIGGERS

TENDERS will be received on the 28th instant at the Offices of Mr. W. E. WILLIAMS, Architect, No. 76, Bedford-street, for MAKING a ROAD, DIGGING FOUR WELLS, and other works at Walthamstow. The plan and specification may be seen on and after the 22nd instant, between the hours of TEN and FOUR.

TO BUILDERS, who may be desirous of TENDERING for the ERECTION of a Pair of VILLAS, on the land of the Governors of Guy's Hospital, Herne-hill, Surrey, for S. SALFORD, Esq. may view the plans at my office, from MONDAY next, until the 30th instant when the Tenders are to be delivered. Copies of the quantities and specification, with conditions, will be furnished on payment of two guineas, by R. H. MOORE, Architect, 4, Queen's-terrace, Albert-road, Regent's-park.

CHUBB'S LOCKS & FIREPROOF SAFES.

INFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY COMPANY.

"London and North Western Railway Company.

"Liverpool, May 17, 1853

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to force open the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"8, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the private door of my house, prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant, "C. OTWAY.

"Superintendent C Division of Police.

"Messrs Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements: Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application to

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A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass, Fenders, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c.

J. H. BOOBYER late STURCH and BOOBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

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Messrs. HOBBS and HILLEY, and CO. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 73, Lawrence-lane, London; where, by the introduction of their patent steam machinery they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES MAKERS PATENT, fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the strongest Safeguards against Fire and Robbery, they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, HILLEY, and CO. Wholesale and Retail Warehouse, 97, Cheapside, and 73, Lawrence-lane, London.

PUBLIC INVITATION.—HEATING by HOT WATER with ONE BOILER. JOHN WEEKS and CO. King's-road, Chelsea, Horticultural Builder and Hot-water Apparatus Manufacturer, most respectfully invite the nobility, gentry, and Horticulturists, to visit their nursery establishment during this severe weather, and witness the efficient working of their hot water apparatus. The establishment consists of forcing houses, conservatories, &c. &c. many of which are of wide and lofty dimensions, and to get at measuring upwards of 1,000 feet in length; the whole effectually heated by one boiler, on the small cost of 5s. 3d. per day for fuel and labour. The various houses are divided into about forty different compartments, either of which can be heated separately, and the whole regulated at pleasure with a greater command of heat than is required. Boilers of all sizes, and apparatuses, both plain and ornamental, adapted for warming churches, schools, warehouses, and buildings of every description; also a great variety of horticultural buildings, to be seen in full operation, so that a lady or gentleman can select the design required for their own particular purpose. Also a splendid collection of plants.

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SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Galleries, Warehouses, Stores, Hotels, and Offices, require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stoves may be heated from one Boiler, and may be used equally well with Steam or Hot Water.

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Is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools, and Public Rooms, by means of Hot Air

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO. Engineers, and Manufacturers of Heating Apparatus, 39, Great Russell-street, Bloomsbury.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 1,000 buildings, consisting of churches, private houses, mansions, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and heated as combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ROYAL POLYTECHNIC GAS FIRE, BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, burning, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. to their improved APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small cost of 5s. 3d. per day for fuel and labour. This achievement in heating by hot water is unprecedented.

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 10, 1843, requires perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Chimney Valve, a much greater degree of Ventilation. Manufactured by D. and E. BAILEY, 272, Holborn.

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UNIVERSAL SMOKE-CONSUMING COMPANY; Offices, 4, Furnival's-inn, London.—No Smoke, more Steam, and less Fuel. References—Messrs Thurston and Co. Billiard-table Makers, 14, Cathenine-street, Strand; Mr. J. T. Hunt, Bone-mills, Lambeth-wharf; Messrs. Fields, Wax-candle Manufacturers, Lambeth; and Messrs. Ross and Co. Great Guildford street, Southwark, where Witty's patent apparatus is at work.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured with all its recent improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having these kitchener, and it effectually cures smoky chimneys, and is the best cooking range extant.

COOKING APPARATUS for SALE, cheap, in excellent condition, suitable for a club or hotel. May be seen at SYLVESTER and CO'S Factory, 39, Marlborough-mews, Bleinheim-street, Oxford-street.

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ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AS HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

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PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experience I Workmen sent to all parts of the Country.
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TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
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Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
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SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated. Roofs fixed complete.
J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zink, and Tiles.
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UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor and Ironfounder, Mill-wall, Poplar.
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N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZED IRON.
(IMPROVED PROCESS.)
JOHN SYMONDS and CO.
WORKS.—GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process, THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c.
Roofs fixed complete.

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J. JONES, Iron Merchant, Iron-bridge Wharf, No. 6, Bankside, has the largest stock in London of the above and other castings, of the very best quality Ass cast-iron pipes for gas, water, or drainage; bends, tees, &c.; flange and hot-water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig-troughs, &c. &c.
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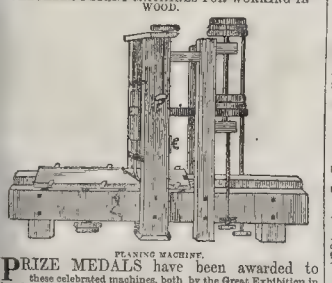

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PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and waggon builders, machinists, agricultural implement makers, shipbuilders; and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a great reduced cost.—Sold only by WILLIAM FURNESS, Patentee, 20, Lawton-street, Liverpool from whom full particulars may be obtained.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongers Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine, and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

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To Timber Merchants, Contractors, and others SAMPL. WORKSAM and CO. of Hortulan-place, King's-road, Chelsea, invite the attention of Timber Merchants and others to their new inventions and improvements in all kinds of machinery used in Sawing, Planing, Moulding, and Wood Cutting. SAMPLE-SAM and CO. are able to execute orders with cheapness and despatch; they solicit an inspection of their machines constantly on hand and in progress; and they can refer to parties of the highest position and respectability, as to the goodness and efficiency of their machines. Estimates made for Exportation, or otherwise.—Drawings and prices on application.
February 16th, 1852

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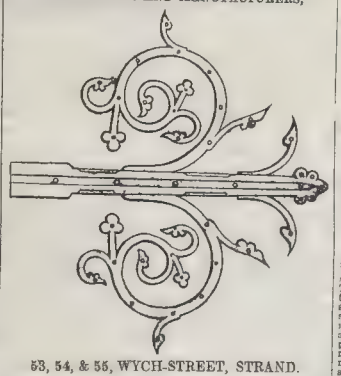

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Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
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Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5id. 6id. 7d 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Coupe Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 55s. Ditto, Scotch, 60s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	9s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
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COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, conchhouse, and other gate and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Range fitted, always in Stock

Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

2ft.	2ft. 3in.	2ft. 6in.	2ft. 9in.	3ft.	3ft. 6in.
28s.	30s.	32s.	34s.	36s.	42s. each.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars

24	26	28	30	42-inch.
54s.	56s.	58s.	63s.	

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 3½d.
Register Stoves, with Solid Bars, per inch, 6d.
Improved New Pattern Circular Check Register, with strong Bars and Rivets, 6d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.
Cast Plain-water Pipe { 2 | 2½ | 3 inch. / 1s. | 1s. 3d. | 1s. 6d per yard.
Cast Gutters—4 inch, 10d. per yard.

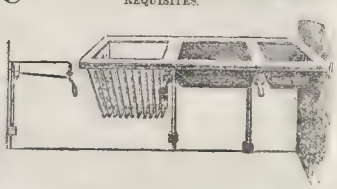
O G Gutters	4	4½ inch.
	1s. 4d.	1s. 6d. per yard

Best Cut Clasp { 1½ | 1¾ | 2 | 2½ | 3 inch, and larger. / and Rose { 12s. | 16s. | 16d. | 18s. | 1s. per cwt.
Cast Billed Brads, 1d. to 6d. per cwt.
1 inch Cut Lath, 16s. Cast Lath, 13s.

Patent Line	3	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

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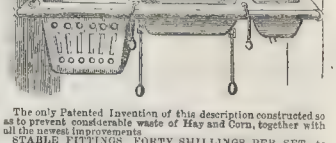

The only Patented Invention of this description constructed so as to prevent considerable waste of Hay and Corn, together with all the newest improvements
STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.
Manufacturer of Kite's Patent Noiseless Cast-iron Smoke-curing Chimney Cans (300 on Buckingham Palace), price 35s each Price-lists and Illustrated Catalogues forwarded on receipt of two postage-stamps.
JAMES BARTON, Ironfounder, &c. 370, Oxford-street, a few doors east of the Pantheon.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELL and STEDALL'S,
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The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c &c. The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing Corcreepoles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

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HARROW-ROAD, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

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BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock

FOUNDRY AND IRON WORKS,
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GLOVER, BROS.,
Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.
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Plain and Ornamental Vases 30 per cent. cheaper than Terra-cotta.
Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.
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R. S. NEWALL and CO's Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
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TRAVELLING CRANES WANTED, to lift from seven to ten tons.—Apply by letter, stating price and particulars, to R. P. Office of "The Builder."

FOR SALE.—R. TROW'S Double-purchased improved Builder's CRABS, on a superior principle, combining power and lightness, being not little more than half the weight of the ponderous single-purchased crabs now in general use, and at a less cost.—To be obtained at 14, Huntley-street, Frances-street, Tottenham-court road
N.B. Tackle kept on hand for hire.

LOSH, WILSON, and BELL,
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Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Chaldrons (do 14, and
STEWART'S PATENT CASTIRON GAS and WATER PIPES.
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WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY (including cutlery, nickel silver, plated and japanned wares, iron and brass bedsteads), so arranged and classified that purchasers may easily and at once make their selections.
Catalogues, with engravings, sent (per post free. The money returned for every article not approved of.
39, OXFORD-STREET (corner of Newman-street); 1 and 2, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the Trade licensed to select Italian Marble for the use of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sculptur, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at a better advantage and quality than any one else.
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MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally, their extensive assortment of vein, Sicilian, and statuary marble, in slab and block, at prices never before offered. JAMES SIMMONS, Manager.

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The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.
THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Anne's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

BUILDERS, &c. &c.—Take Notice of the extraordinary Reduction made in the price of marble work at the WESTMINSTER MARBLE WORKS.—Address, WEST-MINSTER MARBLE COMPANY, EARL-STREET, MILLBANK.

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N.B. Heavy goods landed, transhipped, or carted with despatch, and at moderate charges.

ANCASTER STONE, from the celebrated quarries of Mr. John Wilson, Ancaster, who has appointed GATES and GEORGE, Stone Merchants, his sole consignees for London and district. Ancaster Stone, generally esteemed by the building profession, for its great durability, economy, and general utility, as to require but a trial to secure the approval of architects and others for it near at hand. Specimens on building.—Samples and other information can be obtained at the Great Northern Depôt, King's-cross; Caen-wharf, Rotherhithe; and Hibernia-chambers, London Bridge. Borough; or forwarded to address, free of charge.

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This Granite is selected for the New Westminster-bridge.

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By Her Majesty's Royal Letters Patent.
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This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
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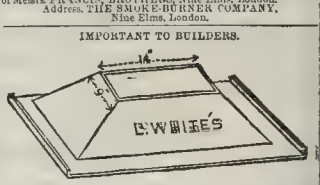

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IRON GIRDERS and COLUMNS to MODEL or DRAWING.
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RAIN WATER PIPE and EAVE GUTTERS, at wholesale prices. Also, STABLE FITTINGS: pumps, tomb railing, cattle and pig troughs, and COLUMNS with caps and bases, and every kind of builders' castings, in stock at 34, CONSTANCE'S Iron Wharf, Upper Ground-street, London, near Blackfriars-bridge.

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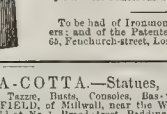

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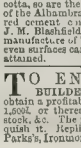

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HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. These dreadful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Zinc Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK LONDON—PATENT. And in case so marked the quality is not permitted. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

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Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innoxious qualities, is peculiarly applicable to first-class Decorations and Shop Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

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THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

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COLOSSEUM, Regent's-Park.—Admission, 1s.—The original PANORAMA of LONDON by DAY, is exhibited daily, from Half-past Ten till Five. The extraordinary PANORAMA of LONDON by NIGHT, from Seven till Ten. Music from Two till Half-past Four, and during the evening.

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Important Lecture on Siege Operations in connexion with Sebastopol. E. Jekyll, Esq. late Captain, Grenadier Guards, having kindly consented to repeat his Lecture on Tuesday Evening next the 13th inst. at half-past Eight o'clock, notice is hereby given, that the Tidal and Diving Bell will be admitted on that evening, as on Monday evening, at half-price. Monday Evening, the 19th inst. Lecture by J. H. Webber, Esq. on Australia and Kindred Topics, being the result of his personal experience. Dramatic Reading by Mr. Hugh Reinagle, on the 19th inst. Oxhydric Lecture on Astronomy, by Dr. Bachhoffner, illustrated by a splendid Equipment of Gas Apparatus, on Wednesday, with music from the Creation, by a Band and Chorus of Fifty Performers, under the direction of Mr. W. W. Waud, of the Royal Italian Opera. Principal performers—Miss Julia Bleaden, Mr. Montem Smith, and Mr. Henry Buckland. The celebrated Tyrolese Minstrels will sing a selection of their National Melodies on Monday Evening, Tuesday Evening, Thursday Evening, The Seven Gun, Dissolving Views of the War. Drama of Sindbad the Sailor, Cosmoramas, the Concert by Invisible Performers, and all the Lectures on the New Bank Notes, &c. as usual.

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TO ARCHITECTS.

COMPETITION and other DRAWINGS.—Mr THOMAS S. BOYS, Member of the New Society of Painters in Water Colours, and author of "The Picturesque Architecture of Paris, Ghent, Rouen," &c. and of "London as it is," offers his services in Tinting Backgrounds, Landscapes, Perspective Views, Interiors, &c. From the long experience he has had in such subjects, he is fully aware of the points essentially necessary to be attended to. Drawings and designs lithographed in a superior manner.—Address, Mr. BOYS, 33, Albany-street, Regent's-park.

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The Builder.

SATURDAY, MARCH 10, 1855.

THE practical process of decorative painting, the character of *design* frequently entering into the embellishment of important public and private edifices, and the opportunities for professional influence—alike towards the general use of decoration, and the recognition of a higher standard of art,—none of these are, yet, quite what they should be, even with regard to the general state of architecture and professional practice. It may have been imputed to architects, lately, and with some degree of truth, that little attention, comparatively, is given by them to branches of art referred to. Their mistake, such as it is, has been of some standing; and at length, a distinct class of "decorators" has grown up,—some of the number possessing qualifications of higher order than would have been met with a few years back. Indeed, we could name one or two individuals entirely deserving to be ranked as artists, and whose works might, therefore, be examined by any of us with advantage. Still there are points of view in which this modern distinction of professions and objects deserves attention, more than it has received. A principle of action may be right or wrong, but it should be accurately designated, and either fully received or actively combatted.

The object of the present article being mainly to place before our readers, some particulars which we think may become useful in practical house-painting, we would now merely get rid of some of those points of discussion which strike us at the threshold of any subject connected with decoration. Everything relative to interiors of houses, as regards design, forms really one chief department of our art, and should be made to take part with the development of art, now progressing through the ordinary practice of architects. What, then, are the anomalies which exist, and the changes in practice which otherwise need consideration?

If the particular nature of the profession of architect, as understood, be a thing to be adhered to, as asserted, it would certainly call for *observation*, that in the ordinary practice of decorative works, the vocations of the designer and executor are sought to be united. Either the principle acted upon by the Institute is wrong, or will not work in certain cases, or it might be expected to be capable of general application. At all events, the public regularly demand, in regard to decoration, from individuals, what compels the union of offices which architects hold to be distinct; and even more regularly as a set practice than they demand in similar manner from the builder. The question then presented seems to be,—Are the public necessarily to supply their wants referred to, without the assistance of architects? Is it for their pecuniary interest, and for the interests of art, that they should do so, or can the same hand which usefully governs the structural disposition, direct the decoration and furnishing, with advantage as to higher character of art, to ultimate durability, and immediate saving? Plainly, is the architect to continue to resign half his work? or is it for the public advantage that those who maintain now a professional *status*, should use their abilities only by becoming contractors?

It should, when inquired into, be obvious that it is an erroneous position for one to be in, to have the design of the plan and of the outside of a building, and to be generally warned off from the interior; for, even where the architect is disposed to attempt that for which we say he would be best qualified, but for which some say he is unfitted—the fancy which people have, that the paying for a thing gives the right to indulge "a taste," counteracts all his aims and undertakings. A trading class of decorators is naturally more subservient, and *art* suffers.

Interior decoration is neglected as a study, simply because in the present state of taste, the knowledge would seldom do much for the architect, either in reputation or in another way. The position of the department of architecture referred to, however, is, that whatever it may *not* lose by supposed inability of individuals, the general art loses much, and the subordinate branch the very elements of all good art, which the training of one whose ideas are ever grounded on structure could best supply.

To maintain his position, the architect must be not only familiar with the nature of all the practical processes of decorative art, but he must have the insight into their scientific principles which the workman does not possess. He will then be able, from time to time, to suggest better as well as cheaper means of attaining results, than many of those which prejudice or ignorance now employs.

One reason why it seems to us the required attention from the designers of buildings, to their decoration, can hardly yet be anticipated, is that the decorative processes do not allow to be realized, durability and monumental character.

Till there is some more decided change in the atmosphere of towns, than even the new Smoke Act affords, and till some modification is effected in decorators' work, either by a radical change in the practice of house-painting, or by the introduction of some durable substitute, we can hardly expect architects to take much trouble about what—in ten, or even two years—may be completely concealed from view, and "renovated," or replaced with other work by any incompetent tradesman.

We know of no invention of a material, or coating to walls, whereon the ever-present carbon of a London atmosphere will light harmlessly, unless it be glass; and we are surprised that we have heard of no soluble glass varnish that has had a general trial. For soluble glass, indeed, there have been several inventions; but what is required for the protection of mural decorations and woodwork, as also we may say for paintings and sculpture, is something free from the disagreeable oily or shiny appearance of paint and varnish,—the effect which is got in distemper work, and in that finished in turpentine, but in both cases by a sacrifice of durability. A ceiling ornamented in distemper colour is an entirely different thing in effect, from one painted in oil; and one finished with "flatted" colour, undergoes a complete change if it receive the "dead varnish," which some painters make up, with a view to preservation. We think, however, more use might be made of plates of glass in architectural framework,—either simply protective of the work on the walls, or painted at the back, as used in some cases recently. Where the exact configuration of pattern is not concerned in effect—as in marbles—we ought to say, that polish is a recommendation.

But, under existing disadvantages, it is desirable that more should be generally known of the ordinary processes. There are some things regarded as "common" and simple, of which the first principles are the last got to; and we go on using the methods which may or may not be best, without pausing to consider whether we thoroughly understand them. We ourselves do not see that a matter of such ordinary character, as common house-painters' work, is to be exempted from this comprehensive statement. Even the simple question of,—How long will particular coats of paint take to dry? like that of,—How soon is the surface ready for them? may have a great deal to do with the comfort of the proprietor of a house—and his pocket. For, painters' work, which under the present system has to be renewed constantly, is always, in such cases, carried on with much personal inconvenience to the occupier of the house.

To Mr. F. Crace Calvert, who has given much attention to the chemistry of pigments, and to the views of Chevreul on the science of colour—subjects on which he lectured recently at Marlborough-House—we are indebted for having first drawn our attention to the elaborate researches on painting in oil, which it is our more immediate object to notice, as helping towards that intimate theoretical and practical knowledge for which we have contended.

These researches are given in a paper which was read before the Academy of Sciences of the French Institute, by M. Chevreul, an extract from the proceedings of which academy is now before us.* It is not necessary to lay before our readers, the minute particulars which the author has properly embodied in a work of authority and reference. But we thereby deprive ourselves of the opportunity to show,—as it would have been a pleasure to us to do,—the extraordinary devotion of labour and attention given by one of the most eminent men of science in France—and which he properly considered necessary—towards placing on a sound basis, what might seem a very ordinary subject. We are not about to supply our qualified readers with a horn-book on the practice of decorators' work,—though our author begins his *Mémoire* by avowing some embarrassment, and an entire ignorance of what might constitute the system of painting in oil. He had been charged to report upon painting in white of zinc, a material which, we need hardly say, has been put forward as free from some of the disadvantages of white of lead. On this further subject, therefore, we may hope some day to have researches by M. Chevreul, to lay before our readers, beyond what may be contained in this present notice. The long series of experiments now before us were merely preliminary, and to ascertain the nature of painting in oil, generally. At present, eighty pages, with six folding sheets of tables, besides those in the text of the paper, comprise only the experiments which would appear to supply the foundation of the practice of house-painting; whilst to a second memoir, are deferred general considerations which appear to the author consequent upon the facts. Many conclusions are, however, arrived at now. At first sight of the particulars given—of examinations, carried on daily for months, of common coats of paint,—it might appear that the nicety of observation had gone far beyond the requirements. But, if observations of that character are not made at the outset of the use of practical processes, there is really nothing else to be done, but to pursue them from the beginning,—that simple elements may be somewhere recorded as the basis of science. This is what M. Chevreul has done with a degree of minuteness, most extraordinary, and which leads us to even a higher opinion than we had, of the habits of systematic analysis, common with our scientific friends on the Continent. Let us also remark, that the frequent "commissions" of the French Institute, for the examination of particular inventions and subjects of research, are worthy of imitation in our country. In our own particular field, there is ample ground for the exercise of a little more energy on the part of the Institute of British Architects,—in which body, the standing committees for research remain only talked about, and by which some of the few professional questions that have been broached, have not

* Institut National de France: Recherches Expérimentales sur la Peinture à l'Huile, par M. E. Chevreul. Premier Mémoire, lu à l'Académie des Sciences dans la Séance du 8 Juin, 1850. [Extrait du tome xxii des Mémoires de l'Académie des Sciences]. Paris, 1850.

been very conclusively treated. The heads of M. Chevreul's researches may be here stated. After setting down the chief materials used in the composition of a pigment, and the object sought by their introduction,—he first inquires, of what that which is called the drying of the work consists. In a second chapter, he inquires whether substances have an influence upon the duration of the "drying" of the paint which covers them. He next examines whether turpentine augments the *siccative* or drying property of linseed oil, and that of the same oil mixed with white of zinc. The fourth chapter contains researches on the influence of litharge, of peroxyde of manganese, and of heat, in rendering linseed oil "*siccative*." He then finds what influence substances mixed with the white of lead, or white of zinc, may have upon the drying of the painting; and the sixth chapter is an examination of different compounds of substances, and oils with reference to the theory and practice of painting in oil. The work winds up with general conclusions. We shall not follow the exact order of the experiments, but shall give certain facts, along with a few of our own suggestions, which may lead to comparison with the results of our readers' observations, and perhaps to improvement in methods now practised,—if not to the invention of substitutes, free from the objections which we have believed to exist.

As M. Chevreul states the objects of painting, they are,—to gain different colour from that of the material painted upon, and to render the surface less susceptible to the weather, or to dirt. For these, there are three essential conditions of the process:—the first, that the paint should have sufficient liquidity to extend itself with the brush, and sufficient of viscidity to adhere to surfaces, so as not to run when they are placed inclined, or vertically, and to preserve the equality of thickness with which it has been laid on; the second condition, that after the application the paint should become solid; and the third, that after becoming so, it should adhere strongly to the surface. We might name other requirements as to be *desired*, such as that to which we have referred—the drying without the ordinary shining surface. Without considering colours, he finds that three ingredients usually go to the composition of paint. First, white, whether the substance be the white of lead (*céruse*), or the oxide of zinc prepared by heat; secondly, an oily liquid—whether that be linseed oil solely, or oil of poppies (employed at Paris especially)—to reduce the white to a paste,—to which paste are added afterwards, variable proportions of linseed oil and of essence of turpentine; and thirdly, of a "dryer" (*siccatif*)—whether the linseed oil prepared with litharge, or the same oil prepared with manganese, or the litharge in powder for the first coats and the deep tones. Sometimes, and for the clear tones only, the acetate of lead ground in oil is employed. The "dryer" is added, it would appear, merely to gain time, and he says, is occasionally to be dispensed with. It can, however, hardly be omitted in this country, and it is judged indispensable in France, wherever the coat of paint would not otherwise be completely dry in forty-eight hours, or in seventy-eight at the most, after the application. This limit appears to be chosen mainly with reference to the time which it is usually convenient to give to the operations, and in practice the first coat is seldom thoroughly dry, unless at the mere surface, before the next is applied; indeed, we believe the absolute dryness is not preferred by most painters. M. Chevreul, in his experiments, treated the coat as ready for another, when it did not receive a mark from the finger, but he admits that the entire drying might not have taken place. Any existing practice must, it is true, be viewed cautiously, especially where it may be of a labour-saving nature. M. Chevreul does not appear to have had much opportunity for considering the element of durability; but it appears to us that this might turn out to be affected by the properties of "dryers," if not also by the hastening of the drying. Theoretically, it would seem that the first coat should be as much as possible absorbed by the pores of the wood. This might, perhaps, occupy some time. The "dryer," however, on the other hand, acts mechanically as well as chemically, and therefore might to a certain extent be like the coat of size, which is introduced by ignorant or unprincipled workmen, and which saves material by interposing an obstacle to the absorption, but at the expense of durability. We notice this, in order that we may suggest that the ordinary *litharge* priming, at least, may be more to the saving of time and material than to durability. It may be said that the ordinary process, when fairly executed, answers the purpose; but when we consider the inconvenience in painting, even at longer intervals than seven years, and the necessity which we have urged there is, for getting at some process by which decorations may be rendered permanent, it will, we think, not be held unimportant to inquire into even the practice as observed by the best hands. To invite opinions is our chief reason for broaching the present subject. The painting of a street door even once in three years, is comparatively trifling in expense and inconvenience; but when we find the elaborate and costly decorations of a public room under the necessity of renewal in three years, or less (as in a case within our knowledge), it may be supposed that there is room for economy somewhere, as to preparation of paint or final coating, if there be not also reason for researches such as those of M. Chevreul, out of regard for the interests of *art*.

Coming first to the question of the *drying*, it must be stated that although the term is used for want of a better, it is really a misnomer. Our experimentalist finds that paint "dries"—not by the evaporation of something, but by absorption, and that of oxygen. Work would dry quicker in oxygen than in the ordinary compound—atmospheric air—and it was found that it would not dry at all in carbonic acid. The entire advantage of using a charcoal stove, even where evaporation doubtless is required, as in the setting of plaster, may therefore be worth considering. Paint is indeed found to dry quicker in summer than in winter, in fact, so much so as to allow the ordinary "drier" (*siccatif*) to be sometimes even dispensed with, as we said, in France. The well-known property of bodies to oxidise under favourable circumstances at high temperatures seems to be concerned in this.

Oil possesses the property of absorption of oxygen and the consequent solidification. But the process does not go on rapidly in the original condition of the liquid. The delay is lessened by previous boiling, or by exposure to the air; but would still interfere with the object, unless the boiling, or storage, could be conducted on such a scale as to answer commercially, having regard to variations in price, and the large quantities required by house-painters, as compared with artists. The oils and substances used in painting possess in varying degrees, the power of absorbing oxygen, and, using the French terms, may be called *siccative*, or *anti-siccative*, relatively to one another. It is by supplying the deficiency in one case by the advantages in another that the desired quickness of drying is obtained; but care must, of course, be taken that other conditions of a disadvantageous character do not arise. Both white of lead and white of zinc will manifest the *siccative* or "drying" property; and the same property may exist in materials to which paint is applied. The surfaces of metals seem to act rather in a negative way than in a positively *siccative*; but the drying influence is strikingly exhibited by a surface of lead; whilst in wood, as might be expected from the porous nature of the material, the *siccative* property is small. It is curious that a great proportion of the experiments were tried on oak, which is so seldom painted with us. There is reason for this, the acid of the wood having a powerful action on lead. In the old churches, lead was often laid on oak boarding, and we have known very thick lead converted into a salt, by the action. M. Chevreul found the coating to dry with exceeding slowness. A coat of pure linseed oil took to dry, on the *surface*, thirty-two days, in the spring; whilst on poplar, three coats of the same occupied twenty-seven days, and on fir twenty-three days.

The ordinary mode of increasing the drying property of linseed oil is by boiling with it a certain quantity of oxide of lead, called litharge. The peroxide of manganese can, however, be used with great effect. Care must be taken as to the introduction of a yellow tinge, which would, of course, be injurious to white and some tints.

It must not be supposed that all the substances lately recommended as substitutes for white-lead are *siccative*, rather than *anti-siccative* to oil,—for it was found that the oil with antimony took half as long again to dry as the pure oil, in a first coat on glass. It is, however, impossible to say, without experiment, what may be the behaviour of particular siccatives in different circumstances. The resultant action of bodies entering into the composition of a particular pigment, as in the case of two siccatives, is by no means the sum of the separate qualities. M. Chevreul found, that if to a portion of pure linseed oil was added about a third of manganesed oil, the three parts of pure oil, which would have gained alone a quantity of oxygen which may be represented by the figures 1·985, and the one part of manganesed oil, which would have received as much as is represented by 4·719—the numbers together making 6·704—in combination actually absorbed a quantity represented by 30·826.

We therefore see that the siccative properties of the manganesed oil, are far greater than those of the pure oil;—but we discover further, that an enormous increase of these properties may be made by mixture. Thus, it is well remarked, that had such a fact been known earlier, time would not have been occupied in attempts to improve the siccative properties of the pure oil: but the manganesed oil would have been made the subject of such efforts. Boiled linseed oil with manganese, in place of the same oil with litharge, is, we believe, almost unknown in England, though we are aware it has been recommended for general use in combination with the white of zinc—where that base is required—as carrying out the principle of avoiding in the work all injurious ingredients.

As we said, pure linseed oil, having the capacity of absorbing oxygen, is to be regarded as siccative. The property is nearly always augmented by a mixture with white of lead, or white of zinc. If this mixture is not sufficiently siccative, it may be made so, as in accordance with the usual practice, by the addition of a "drier,"—say either the litharged oil, or the manganesed oil. But the white of zinc would have been found much less siccative than the white of lead. The white of antimony is still less siccative. In the spring of 1845, M. Chevreul compared the drying properties of the three substances as below. Equal quantities of oil were mixed with as much of each as was judged requisite in the opinion of an experienced hand: coats were laid upon a prepared canvas, and this was the result:—

	Grammes Linseed oil, pure ... 10 White of lead ("de Lille") ... ... 18·5	Grammes Linseed oil, pure ... 10 White of zinc, prepared by M. Mathieu de Vitry-le-Brûlé ... 7·4	Grammes Linseed oil, pure ... 10 White of antimony, prepared by M. Rousseau 40
The first coats respectively dried in	4 days.	13 days.	50 days.
The second ditto.	3½ "	16 "	28 "
The third ditto. ...	3 "	6 "	27 "
	10½ "	38 "	105 "

Thus it appears that unless we had the means of adding to the siccative properties of the white of zinc, it would be hardly possible to apply it in house painting.

The white of antimony we will defer speaking of. But it will be seen that the zinc has some advantage over the lead in regard to the quickness of drying which characterizes the later coats. It also appears to take up a greater proportion of oil, which corresponds with what is stated to us in London. On the other hand, M. Chevreul says, it "covers" less than the

white of lead, though better than the antimony. We shall find that this is not borne out by English experience. Experiments in the summer and autumn of the same year gave similar results, excepting that the difference of the temperature was felt, thus:—

	Days.	Days.
First coat of white of antimony only took	14 instead of	50
Ditto white of zinc ditto	7 ditto	18

The arseniate of the protoxide of tin, which had been proposed as a material, was found to be absolutely unfit for use, as it would not set at all. As to the properties of the oxide of antimony, tried on glass, it is found to be anti-siccative, that is, relatively to the glass. Litharged oil neutralizes this property, as shown below:—

	Linseed oil, pure.	Grammes Oil, pure..... 9·11 Oxide of antimony ..... 14·50	Grammes. Oil, pure..... 8·35 Oil, litharged..... 2·00 Oxide of antimony ..... 14·50
First coats respectively dried in	17 days.	26 days.	21 days.
Second ditto.....	17 ,,	8 ,,	9 ,,
Third ditto	9 ,,	9 ,,	2 ,,
	43 ,,	43 ,,	32 ,,

It should be remarked that the increased rapidity of drying in the later coats, was not due entirely to the influence of the preceding coats. The increased age of the mixture prepared for the first coat, has to be taken into account.

The proportion of the drier as an ingredient in winter, varies from 3 to 10 parts per 100 of linseed oil; whilst in summer, 2 parts down to the smallest possible quantity may be enough, the white appearing to be sufficient in the latter case. The drying, or rather setting, by the absorption of oxygen, explains why paint can be preserved under water without its drying, provided that the pellicle which forms upon the surface of the paint be not broken.

In case of adding the "drier," consideration must be given to the surface,—as, whether we are using a first, second, or third coat, and as to the temperature of the air. Thus the "drier," ordinarily so called, loses much of its importance in certain cases. On the other hand, a proper knowledge of the combinations which may be made, and which are inquired into in these researches, may allow of some substitute for the litharged or manganesed oil; where, as in the case of clear colours, a yellow or brown tinge would be injurious. Thus, linseed oil exposed to the light and air, losing its colour, and becoming siccative—it could then be employed with either the white of lead or the white of zinc, without altering the whiteness.

The researches, however, contain many more important particulars, bearing not only upon the questions with which we started, but upon the use of white of zinc, and these may be further drawn upon with advantage, if they do not also call for some other remarks of our own.

ORIGINALITY *v.* COPYISM.

Is originality inconsistent with the modern practice of architecture?

Time was, and not very long ago, when the answer to the question would have been,—What do you want with originality, or what has it to do with the subject? Is not the Gothic architecture you may now see for yourself, if you will, good enough for you, that you wish to alter it? Here are the choicest possible examples before you, prepared, drawn, and engraved with the greatest minuteness and accuracy. Copy them, and you will attain to a like perfection.

This is, however, happily, the reasoning of a bygone age; and with the new developments of the present generation, there has arisen a different and a more enlightened estimate of the objects, aims, and perfection of architecture as a fine art.

I am induced to discuss the question I have proposed, for the purpose of eliciting, as far as possible, without prejudice, the true meaning of originality; and in what manner the practice of it in the architecture of the present time, will lead to the formation of a broad, comprehensive unity of style, consistent with the true conceptions and dignity of the most useful, important, and beneficial of the fine arts.

Assuming, then, that the system of copyism is dying out, and a new and wider field opening to the future tillage of intelligent and earnest hands, it may be well to consider what its influence has been, both good and bad.

It was beneficial in this respect, that it put a stop to the wildness of eccentricity and almost universal bad taste of the preceding age, and induced men to examine and explore the relics and remaining works of a long-despised but fertilely-artistic generation. It detected beauties whose existence apathy and indifference had long ignored, discovered principles which might otherwise have been lost to us for ever.

But on the other hand, it has led into deplorable errors and misconceptions, falsified the intent, as it has corrupted the purity of truth in art, and if persisted in, will change its whole fabric into a shapeless lump of clay, with no living feature on its surface to tell of any vital essence within.

We must, however, on no account, deny the real claims of Gothic (as indeed of all true art) to our admiration and emulation. Is it not the expression of the very life of the age which produced it? and which it adorned and ennobled. Are not its principles as true, as perfect, as those of any development of art in any period of any nation? Does it not point out to us clearly and authoritatively the path we must trace, the road we must follow, to attain to corresponding results?

If, then, such are its lessons, let us accept them in the right spirit, nor longer hanker after that most fruitless source of design—precedent. Our movement is forward, not backward: we have the wants of the nineteenth, not the fourteenth century to contend with, beautify, and adorn.

The main consideration with regard to the revival of Gothic architecture may be thus stated:—Are the manners, customs, and wants of the inhabitants of this country in the present century to be suitably expressed, conveniently rendered, and consistently treated by an application of Gothic architecture? or is it possible so to graft a new shoot upon the stem of Mediæval art as to obtain the necessary requirements with the same fitness and beauty, and a like expression of architectural character?

This opens out a wide field of inquiry and investigation, and one attended with no small difficulties, by the way; but the importance of the question will well repay the most minute, careful, and elaborate analysis and consideration.

With reference to Domestic and *Street* Architecture, and the adaptability of Gothic to the requirements of every-day life, there are several matters to be duly considered, such as convenience or fitness, cost (by no means the least), adornment, beauty of general effect, and consistency of treatment, unitedly producing a truly artistic expression of the useful.

In this case it may be said that much depends upon this,—whether the plan be made subservient to the design, or the reverse. Granted: but as one of the main beauties of the style is a certain irregularity of plan, producing picturesque effect in design, so is the style more adapted to buildings where the site is not limited within three square walls and a street; as, for instance, in villas and country residences, where there is plenty of ground attached to take advantage of, as you choose, and as most adapted to the character of your design.

If this be admitted, the conclusion is, that for town architecture, the Gothic style is not so well adapted, because the squareness of plan and uninterrupted lines of a regular street façade do not afford advantageous grounds to work upon with success; though I do not for a moment assert that it might not be made infinitely superior to the no-style at all of prevailing no-taste.

Still, it will, I think, be generally admitted that the attempts at *regular* design in Gothic street architecture have been failures, and most of them such as no one desires to see repeated. This is, of itself, no argument at all against the possibility of its successful adaptation; but the question is this,—Is there not a violation of principle in the confinement and regularity of plan, with the aspiring form, the distributive support, and thrust principle of Gothic architecture?

There is not in it the same means of breaking up a blank wall, of getting light and shade on vertical surface or background, as in Classic art. There are no pediments to windows, projecting columns, pilasters, and massive cornices; not the same opportunity of gaining effect by slight breaks, by introducing quoins at angles, &c.; and its principal means of obtaining picturesque effect, and contrast of light and shade, are by breaking up the lines of the façade by projecting turrets, detached roofs, pointed arches, high gables, pyramidal towers, and pierced tracery. Even buttresses are to a great extent inadmissible, for they would not be allowed, by district surveyors, or public approbation, to project into streets and crowded thoroughfares; and excepting in the out-districts of large towns, ground is much too valuable to waste the space they would occupy in front of a long range of buildings; besides which, a long unbroken line of front, a large flat extent of surface, is not suited to the development of Gothic design; there is nothing of the Gothic character about it—no scope for its consistent treatment.

For villa and cottage architecture the case is somewhat different, on account of the advantages in the disposition of parts before alluded to, and such buildings may have both the Gothic spirit and character infused into them. It sits more naturally upon them, and is ductile, capable of becoming a valuable means of expression both of fitness, constructional treatment, and beauty of design; but this only in most able and skilful hands. But here comes the consideration of cost.

Now, whatever may be *said* of the cheapness of Gothic applied to domestic purposes and simple uses, it is generally found very different in practice; and the really consistent handling of the style is anything but economical.

As the majority of persons *will* consider this question of cost in the matter of building, in spite of all the fine writing and æsthetic principles elaborately prepared and levelled at them, it may become questionable whether true art would recognise a style in which the wants of the majority are sacrificed to those of the minority,—would allow of one building of merit to be erected, to a hundred—nay, a thousand—with none at all, not even the ghost of one; for, of all the wretched abominations in the world of architecture or building, Starvation-Gothic is, without a doubt, the worst; and all attempts to make a building *look Gothic*, when from the very circumstances of the case it cannot by any possibility, are of the most futile and beggarly description.

In hotels and large public buildings—as, for instance, town-halls, courts of law, hospitals, exchanges, and the like—the circumstances of the individual cases will materially decide whether an adaptation of Gothic is admissible. Hotels and town-halls, or what serve for such, are to be found on the continent of Gothic character, with great beauty of design and picturesque effect, without a sacrifice of utility or convenience; and I believe it quite possible to produce a like good effect in modern times by as skilful a treatment, but at the same time not on a limited scale or economical principles. The interior fittings and finishings, to be consistent, will necessarily prove expensive; and as such buildings are frequently erected with an eye to a certain per-centage, they would not be very agreeable speculations to the parties interested.

The revived Italian style would prove much more suitable, and admit of much more scope in treatment and design, as indeed it may be said to have already done, in the club houses of Pall-mall, and similar instances.

The foreign "Hotels de Ville" are perhaps, of all others, the most interesting specimens of civil Gothic architecture, unique as they are, and eminently picturesque; but we do not, in

these days, require a copy of them for the mere sake of having something like them in our own country.

In the case of public hospitals, I think it may be said, that when in a town Gothic is inadmissible. Compactness and economy of space, room, and materials, become essentially requisite. In the country the case is different, and such buildings may be carried out with more advantage in a style which admits of producing the most effect by means of irregularities of site, or other circumstances, and which, in able hands, are the very foundations of its beauties.

But here again, dispensing with the classic Italian of the Renaissance, the more ductile and picturesque *rural Italian* will be found admirably adapted to such purposes, admitting of as much variety in plan and design as the Gothic, having, in fact, the same, or rather *similar* means of expression of architectural character, viz. projections, overhanging roof, towers, turrets, and gables; the chief and really distinguishing feature being the form of the arch. Here, then, we have a choice of styles, both proper and expressive. Which are we to follow, having no style of our own? That which is the more universal in its application, which, so far, we have found to be "modern Italian."

Law courts and public halls, on a large scale, do not seem fitted for the minute detail of the Gothic, or for its solemn character. If we may judge from modern instances, it is inferior in capacity to the classic in almost all respects. We need go no further than St. George's Hall, Liverpool, for an example of what effect can be produced; and I do not hesitate to assert that there has, as yet, been no Gothic design to be at all compared with it for merit of originality, adaptation, or design.

The fact is, that Gothic is rather the expression of the religion of an age, than of its civil uses, an age when piety, or the assumption of it, was illustrated in every action; when the belief was universal, that no greater offering of sacrifice could be presented to the God of all, and the saints, than to build churches, chapels, oratories, shrines, abbeys, and colleges; and a natural belief, too, where there were no public, and but few private duties to attend to. But as the duties of a citizen and a Christian are not thought *now* to be incompatible, that those of the former, if honestly performed, are in reality those of the latter, is it not also natural and possible that architecture, which is but the expression of the wants and customs of an age, may have changed also, and what can possibly be the object, what the utility of persisting in the reasoning and practice of by-gone times, as if we were now living in, or preparing for, the fourteenth or fifteenth centuries.

But we will now turn to the consideration of schools and churches, and their treatment in design, and in these lies the chief difficulty, I mean with respect to determining whether they can be carried out in the Gothic style, without sacrificing utility and fitness to an imaginary standard of architectural perfection. I have already remarked that I consider the Gothic to be peculiarly a religious style, as it undoubtedly was in its time. Is it so also now? Whether or no, these subjects really afford most scope for successful adaptation and treatment in the modern practice of Gothic architecture, and to the great variety, both in plan and external arrangements, that schools and churches both afford, is owing this beneficial development of ways and means to produce a really good Gothic design.

The church of the Middle Ages is the *beau idéal* of Gothic, as the heathen temple is of Egyptian, Greek, or Roman, or the mosque, of Moorish; and, for my own part, I believe the cathedral of the fourteenth century to be as much the perfection of its style as the Parthenon of Greek, or the Pantheon or Coliseum of Roman.

But herein lies the solecism in modern attempts after Gothic design,—that it was in the first instance contended, on the revival of the style, that all that was necessary to produce a like consistent (!) effect, and one of as much beauty of design and conception, was to set about making an exact copy of what had been before executed; to re-erect a building as nearly as possible a *facsimile* of something or other still in existence, and persuade yourself and others into the belief that you had done something equally clever, beautiful, and original! Yes, copy all you can, jumble it up together, work it in somehow or other, and, so long as you have the authority of precedent to back you, what criticism need you fear? But of this we have had enough and to spare.

The style itself, carried out in as nearly the same spirit as it is possible to attain to that which guided the old masters, does afford, however, abundant scope both for new conceptions and true artistic design in buildings for religious purposes, or for school-houses; and I, for one, am still so much prejudiced in its favour, that I should regret to see it abolished in modern practice, if only for the reason that it would disallow all future attempts to render it applicable to such purposes.

But unless we look upon the style as a tractable one, and one also in which originality is to be introduced at discretion, one in which we are not to be compelled to produce authority for all that we think, and all that we execute, we had better give it up at once and for ever, and try no more to infuse life into a style by dressing it out in the winding-sheets of five centuries ago, dug up from the accumulated heaps of neglect, prejudice, and bigotry in which it had been buried, and its everlasting features of truth, consistency, and genius, obscured from the eye of man.

In these latter days we have been called upon to abjure all our old notions of right and wrong in matters of art and architectural taste, to condemn all that is not Mediæval; and, still later, we have been commanded, in a voice of thunder, to abhor all Classic art as vile, unnatural, and all but devilish, and to bow down before the altar of "Venetian Gothic" (neither one thing nor the other), with all the devotion, affected or real, of the most complete system of slavery ever forced upon ignorant and superstitious men by the cunning dexterity of very considerably self-interested priests.

It may, and must require a peculiar constitution of mind to detect the immensely superior beauties of such a style as this mixed Gothic of Venice over that of the really majestic cathedrals and churches of our own land, or the softly beautiful façades of "*La belle Italie*;" but it must require something more than such a constitution to declare all such to be "pestilent rubbish,"—positively contaminating to sight, sense, and touch; and it is as certain that no amount of such invective, however foully it may be uttered, or declamatorily hurled, will ever, in any wise, prove such to be as poor in effect, as false in principle as the models set up for the exclusive admiration of the present and all-succeeding generations.

It would appear, then, that in by far the majority of cases supplied by the requirements of the present time, the Gothic style does not prove itself adapted to them, inasmuch as it may be, and frequently is, from the circumstances of site, position, &c. deprived of its principal attributes and characteristics, the further objection of expense may be also added to the number of its detractions.

For hotels, hospitals, and public buildings generally, it is found to be inconvenient, and there is a difficulty of obtaining that most essentially requisite of all things,—an abundance of light,—without marring the effect of the design, and destroying its character.

For schools and churches, and all ecclesiastical buildings, it has a peculiar beauty of its own, which is certainly not surpassed, if equalled, by any style of any other period.

But, on the other hand, we find that the Italian style is a more extended basis of adaptation for modern requirements, and these, when summed up, will be found to be more in accordance with its principles and capabilities, than the Gothic; that the former is all but universally applicable in modern practice, the latter only very partially so.

But it must not be inferred from this, or any such conclusion, that the *copying* of anything Italian will ensure a satisfactory result (such a practice only brings it down to the modern level of Gothic architecture, which hitherto has been almost all sopyism), or that by tacking a Palladian window to this front, and a door to the other,—a portico here, and rustic work there,—any originality of composition or design, or any consistency of treatment, can be obtained.

The days of copying Italian in the same slavish style as we have been doing Gothic, or as we did with the style in question before the Gothic revival, we will hope are past and gone.

It will be well for us if it should prove that we have not copied altogether in vain, but now that we have been surfeited with it, we set to work in earnest to act upon the *principles* it was thought more easy to ignore.

It is almost impossible that a universality of style can be obtained in the present generation, if it ever will be done again. It must necessarily be a work of progression and education. The main object now is to give such a bias to the artistic portion of the rising generation, as shall tend to a beneficial and satisfactory ultimate result; that by acting upon such principles as we are able to discover in those perfect styles of past ages,—principles alike founded on consistency, utility, and true artistic beauty,—that in due time we may attain to a like perfection, by starting from the same point along the road of the art-history of the world; and pursuing the straight and narrow path, we may be led onwards through many discoveries and new developments to a like grand climax of all that is beautiful, glorious, and true. E.

THE IRON INDUSTRY OF THE UNITED STATES.

ON 28th ult. a highly interesting discussion took place at the Society of Arts, opening with a paper on the Iron Industry of the United States, by Professor John Wilson, F.R.S.E. the commissioner who reported to our Government on this subject, at the American Exhibition.

Iron, said Professor Wilson, appears to have been first made in Virginia about the year 1715, previous to which the colony was supplied from the mother country; and, shortly after, the manufacture was established in Maryland and Pennsylvania. The manufacture progressed but slowly, though the quantity exported exhibits a regular increase, averaging during the ten years from 1740 to 1750, about 2,360 tons per annum, which was gradually increased for the next twenty years, until in 1770 it reached 7,525 tons, being rather more than one-sixth of the entire quantity of all kinds of iron imported into England at that time. As the country settled down after successfully asserting its independence, and the works of industry were resumed, we find a great advance was made in iron-making. In 1810, the whole number of furnaces in the United States was 153, giving a production of 54,000 tons per annum;—equal to about 16lbs. per head of the population. In 1830, it was 165,000 tons. In 1840, the census returns give the gross production at 286,903 tons. In 1847, it is supposed to have reached its maximum amount, not less than 800,000 tons being the furnace returns for that year.

The iron-making resources of the United States are very great: the distribution of ores, many of the richest description, is general throughout the Atlantic and Western States; while the enormous area occupied by the coal measures testifies to the abundance of fuel for the development of industrial applications. The ores comprise every variety found in Europe: those principally used for smelting are the magnetic oxides, the hæmatites, and the clay carbonates of the coal veins. Besides these, the "spathic or sparry carbonate," and the "oligist or specular ore," are used in some of the New England States, but only to a limited extent. Quite recently a discovery has been made of rich seams of black band, in connection with the bituminous deposits of the great Eastern Coal field, which will probably hasten the development of this industry in that favoured region. The following divisional arrangement will show the chief seats of the industry, with their respective advantages and capabilities, their production in the last year (1853-4), and the estimated cost of manufacture:—

1. The Housatonic district—Production, 10,000 tons; cost per ton, 20 dols. to 25 dols.

2. The Hudson River district — Production, 80,000 tons; cost per ton, 18 dols. to 20 dols.

3. The Delaware and Lehigh Rivers district — Production, 120,000 tons; cost per ton, 16 dols. to 18 dols

4. The Schuylkill River district — Production, 100,000 tons; cost per ton, 20 dols.

5. The Susquehanna River district—Production, 120,000 tons; cost per ton, 15 dols. to 18 dols.

6. The Potomac River district — Production, 125,000 tons; cost per ton, 20 dols.

7. The Ohio, Cumberland, and Tennessee Rivers district—Production, 150,000 tons; cost per ton, 20 dols.

Besides these well-defined districts we must allow about 100,000 tons as the production of the numerous isolated works scattered throughout the upper portions, especially of the Atlantic States, where charcoal as fuel is universally used. In these iron of the best quality is made, but at a cost of nearly double that of the coal furnaces.

The present consumption of iron in the United States may be taken at 1,200,000 tons. To meet this the home production is not at present equal. About half the present make is consumed for castings, and the remaining portion is converted into wrought iron, at a loss in waste, &c. of about one-third. This practically reduces the total or available production to 700,000, leaving a deficiency of 500,000 tons to be supplied by other countries.

This large importation to meet the home consumption is obtained entirely from this country, and forms a very important item in the commercial intercourse of the two countries.

To retain this good customer of course is very desirable, and Mr. Wilson is strongly of opinion that this may be done for many years to come; but the time and the quantity will depend materially upon our "economy of production."

The iron industry of the United States (continued the reader) is at present only in its infancy, an offspring quite of the present century. Its growth has been somewhat irregular, it is true, but when we find that it has already reached the gross amount made in this country only twenty years ago, and when we recollect the vast mineral resources of the United States, the rapid increase of population, with its increasing demands, and its unquestionable energies and power of application, it forces upon our minds the conviction that the time is not far distant when it will not only furnish sufficient for its own consumption, but be in a position to compete with us in the other importing markets of the world.

The discussion was opened by Mr. T. M. Gladstone, who defended the English ironmasters as improvers of processes, to their backwardness in which Mr. Wilson had referred. He also differed with him as to the more immediate future prospects of the States, either as regarded their home supply or their capability of supplying neutral markets. Our present generation of ironmasters, he appeared to think, were perfectly safe on these points. Mr. Macgregor followed. He also felt convinced that those interested in iron property in this country had no reason to apprehend injurious competition on the part of America. Mr. Bird spoke at some length. He alluded to the fact that the production of iron in this country had reached the enormous amount of 3,000,000 tons of pig-iron, which three years since had been produced at 36s. a ton. He agreed with Mr. Macgregor that they would not lose America as a customer. Indeed, various of the speakers dwelt much more on the iron industry of this country than on that of America. To this, after Dr. Percy, Mr. May, and Mr. R. F. Davis had taken part in the discussion, Mr. Bevan alluded. He himself, however, was mainly anxious that our ironmasters should discover why the Americans were unable, even now, to compete with us who had to contend with heavy charges of freights and duties, 80 per cent. on the English shipping price. On this point, after Professor Wilson had reviewed his notes of what the various speakers had said, Mr. Campbell, of New York, shed some light. In reference to the manufacture of iron generally in the United States, he remarked that the prominent difficulty, in the minds of several gentlemen, appeared to be the transportation of the article from its insulated position to a market at the seaboard. At present, and probably for years to come, the western states would require the largest proportion of iron consumed in that country; and the fact was overlooked that iron manufactured in the interior was, in most cases, adjacent to the channels of navigation, and already half the distance from the seaboard to its destination and place of consumption in the west, while English rails landed at New York had to pass through the same channels, double the distance, and at a corresponding increase in cost of transportation. American rails were generally very much superior in quality to English, and were invariably preferred for curves, and all places requiring the best iron; and such was the desire for these rails that the manufacturer found a ready market at his own furnace for all he could produce. In reference to the inability of Americans to compete with the English in this department of industry, Professor Wilson had very properly remarked that they had not the necessary capital; and he would add, that America was comparatively a young country, with a rapidly increasing population, and a large portion of her capital was as yet employed in opening up channels of navigation and communication for developing the vast resources of the great west.

The chairman, Lord Granville, closed the discussion by some well-placed remarks in harmony with much that had been said, to the effect that in every assembly of liberal men in this country it was now an acknowledged thing, that the time was passed when to depreciate, intellectually or physically, their cousins on the other side of the Atlantic was considered a mark of their own superiority. As an ironmaster himself, he had felt some twinges at the prospect of American competition; and it was, therefore, very satisfactory to him to hear of the power possessed by England for such a competition; but his greatest comfort was derived from what fell from Professor Wilson himself, and it was strengthened by the last observations of Mr. May,—namely, that in proportion as the American iron trade increased, the import of iron from this country had increased in a still greater ratio.

PROVINCIAL NEWS.

Stamford.—The new cemetery here was consecrated by the Bishop of Lincoln on Wednesday before last.

Landbeach.—The little church of Landbeach is under repair. The whitewash that has been plastered on the pillars, arches, and windows has been scraped off. Under the whitewash on the walls have been discovered several ancient paintings and texts of Scripture, much defaced.

Isle of Wight.—Ground has been broken at Freshwater-gate, Isle of Wight, preparatory to the construction of a strong redoubt there.

Oxford.—The site intended for the new museum has been opened, to ascertain the nature of the soil, which, it appears, has turned out to be a bed of gravel of great depth. This material being thus found on the spot will, it is thought, make a difference of some few hundreds in the contract.

Wexford.—The church here has just had two stained glass windows added to it: they are of Early English design. The one represents the Nativity and Baptism and the Last Supper of Our Lord, in panels upon a scrollwork of vine, on a ruby ground, and is surrounded by crocketed borderings, with inscription at the base. The second window represents Christ's Agony in the Garden, the bearing of the Cross, and the Ascension, surrounded by angels bearing inscribed labels. These subjects are arranged on a similar ground-work to the other window, with borderings, &c. There is an inscription underneath. The windows have been designed and executed by Mr. George Rogers, of Worcester, who was commissioned by the committee to erect the memorial window to the late Queen Dowager in Worcester Cathedral.

Wolverhampton.—The gas company of this town have just held their half-yearly meeting. The report by their engineer showed that for the half-year ending 31st of December, 1854, the profits of the company were 2,853*l.* 10s. 10d. which enabled the directors to recommend a dividend of 4½ per cent. for the half-year, amounting to 2,502*l.* upon the paid up capital, a balance of 351*l.* 10s. 10d. to be transferred to the reserve fund, which would then amount to 2,673*l.* 18s. 3d.: balance remaining in hand, 451*l.* The chairman stated that, notwithstanding these fair results, during the past half-year coals had cost 1,000*l.* more than in the corresponding portion of last year, and other expenses had showed an excess of a further sum of 200*l.*

Ashton-under Lyne.—The committee of the district Odd Fellows have decided upon the erection of a hall for the use of their order, according to a design by Mr. Lindley, of this town, architect. The cost will be between 2,000*l.* and 3,000*l.*

Liverpool.—While the chapel connected with the workhouse here was undergoing alteration, on Tuesday in last week, the wall very suddenly fell, and caused the death of one man and the serious wounding of two others.——Here, too, as elsewhere, the severe weather, as we have already noted, threw thousands idle. In Birkenhead not less than 10,000 masons, navvies, and other artizans have been out of employment, and walking the streets in a state of almost absolute starvation.——It is stated to be more than probable that an arrangement will be agreed upon by which the Liverpool people will become the owners of the entire Dock estate on the Cheshire side of the Mersey. The terms have not been finally settled; but it is understood that the Birkenhead people have offered to sell their interest for something over ten shillings in the pound upon the amount expended. The purchase of these works by Liverpool is recommended as much preferable to extending the Liverpool docks northward.——The Conservator of the Mersey, in his annual report, just published, states, in regard to the progress of the Birkenhead Dock-works during 1854, that for the stone coffer-dam partly overturned by the water impounded within it on 14th March, 1854, a clay dam has been substituted and completed. 100 lineal feet of the south reserve river wall has been completed, and joined to that portion of the stone dam left uninjured at the south side. About 300 lineal feet of the north reserve river wall has been added, and about 500 lineal feet of it, built in 1847, raised 3 feet higher. The sea embankment at Leasowe has again been injured by the late heavy gales.——The Liverpool Improvement Bill, under conditions, specified in the Parliamentary proceedings, was read a second time, on Tuesday before last, in the House of Commons. It is brief, and contains twenty-two clauses. It gives power to the corporation to purchase the land, premises, &c. required for making the proposed streets along the docks, for cutting away part of the Old Churchyard—rights of dead and living respected,—and for widening Shaw's-brow. In the event of unoccupied land being caused by the making of streets, the corporation is to have the privilege of selling it to the Dock Trust or to private individuals.——The half-yearly meeting of the Liverpool United Gas-light Company was held on Tuesday in week before last. The directors recommended a dividend of 5*l.* per cent. for the last half-year, on the consolidated stock, and 2s. 6d. per share on each 25*l.* A share, on which a call of 2*l.* 10s. per share had been made, previous to 1st July, 1854. The chairman said the affairs of the company were never in a better position than at present. The report was adopted.

Manchester.—Two new warehouses are being erected in this town, one for a wholesale house, which forms a block of masonry occupying the entire area between two streets, and is 300 feet long by 75 feet wide. The cost of erection has been about 11,000*l.* The other is just commencing: the estimates for it were 45,000*l.* It will be 300 feet long by 90 feet wide, and 95 feet extreme height. It is to have four floors besides the basement, so that it will have a total available area for goods of nearly 135,000 square feet. It is estimated to require from 60,000 to 70,000 cubic feet of timber to supply the internal fittings of woodwork alone.

Blackburn.—At the twentieth half-yearly meeting of the local waterworks company, held on Saturday week, it appeared from the chairman's statement that the directors had determined to increase the capacity of their reservoirs. The embankment of the Guide Reservoir was to be raised 3 feet, which would increase the capacity of the reservoir to the extent of 12,000,000

SEDILIA AND PISCINA, HYTHE CHURCH.

gallons, at a cost of 800*l*. It was also intended, to create an additional service reservoir, to hold ten days' supply, the present only containing about one. The estimated cost would be 3,500*l*. A dividend of seven per cent. per annum was then agreed to.

Gateshead.—The mayor of this town has invited all who are desirous of seeing a proper music-hall erected to unite with him in carrying out the project.

Edinburgh.—A part of the ancient city wall has been removed, in order to improve the appearance of the south front of the Royal Infirmary. In lieu of the rampart or wall, a low wall of hewn stone has been constructed, which is topped with a railing. The privacy of the ground is secured by the masonry, and the rails admit a freer circulation of air than the old ponderous screen masonry. The local *Post*, in alluding to this alteration, remarks that "the south front of the infirmary is heavy, dull, and gloomy, while that of the Surgical Hospital is not so handsome and pleasing as might be desired."——The paling has been removed from the north part of the new National Gallery, revealing the whole masonry of that part of the building.——Among other new buildings recently raised in this city, the paper just quoted refers to an addition made to house and shop accommodation on the George IV. bridge. The loftiness of the pile, the beauty of the stone, and the elegance of the arrangements, it remarks, render this block of buildings one of the finest additions to the city architecture.

Glasgow.—The Loch-Katrine water supply scheme is to be carried. At all events, the two engineers employed by the corporation have reported in favour of it. The report, by Mr. Robert Stephenson and Mr. I. K. Brunel, was received by the council on Tuesday in week before last. It approves, according to the local *Gazette*, of Mr. Bateman's plans, and recommends that Loch Katrine should be taken as the source of supply for the city.

Dunfermline.—The Dunfermline passenger-station of the Edinburgh, Perth, and Dundee Railway Company has been totally destroyed by fire; neither books nor money could be saved, and the appliances of the electric telegraph were also destroyed.

Kirkwall (Orkney Isles).—"In rescating the ancient cathedral of St. Magnus," says a northern contemporary, "the chief difficulty is to supply the requisite accommodation without destroying the appearance of the interior. A plan has been adopted in the case of the Glasgow cathedral, which may not be unworthy the notice of those having before them the various plans for refitting St. Magnus as a place of public worship. At a meeting of the Town Council of that city, on Thursday last, the Lord Provost said that he had the gratification of announcing that it was now resolved that the only screen to be placed at the entrance of the portion of the nave used as a church was one of cloth, which could be dropped during the hours of divine service, and raised till out of sight when not required. The magnificent vista of the nave might thus be seen from end to end at one view."

Jersey.—The monument to the memory of the late Mr. Le Sueur, according to the *Jersey Times*, is at length to be commenced. The committee of subscribers met on Tuesday week, when a letter was read from those who had undertaken the construction of a monument, after what is known as the design of "the lions." In this letter it was stated that they could not now undertake the work at the price agreed upon, the cost of materials and workmanship being of late so much enhanced. The committee then adopted another design submitted to them; after which design the monument is to be erected, by Messrs. Thomas Le Gros and John Le Cras, for 425*l*. sterling. The new contractors were to begin their work in a week or ten days, and are to complete it by the end of the year.

THE CHANCEL OF HYTHE CHURCH.

In our last volume we gave a view of the Chancel of Westwell Church, one of the most curious examples in the county of Kent. That which we now give, although of equal merit, is of quite a different character. The work at Westwell is of extreme simplicity, while here it is of a more elaborate description.

The church at Hythe stands on a commanding eminence to the north of the town. The work, principally in the style of the 13th century, is externally very plain. The chancel is by far the best portion, the boldly projecting buttresses and lofty narrow windows being its principal features. Internally the church has suffered greatly by modern and tasteless alterations. It would be impossible to say too much as to the ugliness of the ceilings, both in nave and chancel. As will be seen to some extent by our illustration, the chancel is raised some feet above the nave, and under the eastern end there is a fine crypt. The entrance to this is by what has once been a splendid doorway, but it was the pleasure of a late churchwarden to chop off the whole of the arch-mouldings: it is satisfactory

THE CHANCEL OF HYTHE CHURCH.

to know that the archdeacon, on his next visit after the perpetration of the enormity, expressed his great disapprobation of such a proceeding. This crypt is well kept, and its recesses are entirely filled with bones, said to be those of Danes slain in a battle which took place in the neighbourhood. All the detail in the chancel is worth the most attentive examination: it would be difficult to find a greater variety in so small a space, and the whole is in good preservation.

Our minor illustration is of the sedilia and piscina on the south side of the chancel. Their principal peculiarity is in the form of the arch, and in the ornamental band above.

The station at Westenhanger offers no great temptation to the traveller, but if he can make up his mind to leave the train there, he will be repaid by a pleasant walk through a picturesque country, and at the end of it an opportunity of examining one of the best specimens of ecclesiastical architecture in the country.

ECLECTICISM IN ARCHITECTURE.

WILL you allow me to offer a few observations on some remarks in a late number of the *Builder*, especially as these latter bear on a subject on which I have been recently permitted to occupy a few of your columns?

"Eclecticism in matters of art has been vigorously attacked by able minds, and they are probably right in denying its value as an end; but those who would do so, considering it simply as an instrument of transition, would be wrong. Eclecticism, or the amalgamation of styles, will not suffice to form a new style of art, but it will be of the utmost use as affording a road to it, and providing materials."

Now it seems to me there are two different translations of this same word eclecticism. The first is the mere abstract eclecticism, which has for its basis the study of the *expression* of edifices, quite separated from the adoption of their various parts. Sublimity, purity, impressiveness, the several ideal characteristics of Egyptian, Greek, and Gothic architecture, are certainly independent of their respective materialism; or rather, they may be made so—may certainly be tangibly conveyed to the mind by combinations of other and totally dissimilar shapes. Thus we illustrate this: "Let nature be your model, not an artist,"* being set down as a generic axiom; then let one not learned in technicalities, glance at the ancient structures, and, while the impressions of their peculiarities are full upon him, shut his eyes, and shadow forth inwardly how he would subjectively reproduce the dreamy imagery. Such a one, not knowing the stipulated outlines and profiles, the objective peculiarities, but with skill in creation, would be most likely to vivify the vision, and vaguely sketch at first, and afterwards definitely clothe the original fabric he aims to erect.

The second is a more practical eclecticism: it has little to do with abstract sentiments, and is what is generally understood when the term is applied to architecture. You phrase it, "the bringing together the most beautiful portions of previous styles, and even improving them." And it is the more feasible of the two; the other requiring a masterly ability, and a more independent genius; for creation, irrespective of what definitely exists, is, in my opinion, the very highest range of the intellect of human kind. Many would find it facile to blend without any great discord Grecian, Gothic, Saracenic, and Italian details. And this is the great benefit of such attempts, which all must observe who have practically sought to combine the parts of different designs, viz. that it is hardly possible to do so without greatly modifying those parts; and there is no limit to such modifications. They *must* lead to it; and thus the architect, making such efforts, with all the varied expressions, the tangible thoughts of different styles contending the one with the other for the mastery, is forced, in his perplexity to dash at *something*,—like the painter Protogenes, who, in his despair, not having before himan example, and ignorant how materially to express the foam at a dog's mouth, dashed his sponge at the canvas, and lo! the foam was there. These *somethings*, first floating, "airy nothings," in the imagination, will, after all, probably come, as the fabrics of visions, from the accidents by which so many great inventions have been produced. E. L. TARBUCK.

* Pliny, xxxiv. 19.

THE CHARTER-HOUSE.†

OF Thomas Sutton, the benevolent founder's, birth and lineage little is known, beyond the fact that he was educated at Eton, and that on the 27th of November, 1551, he matriculated, or entered, at St. John's College, Cambridge. During the reign of Mary, he travelled on the Continent, probably on account of the troubles and discord of the times; and having acquired the knowledge of languages, with great experience, and the accomplishments which were then not attainable in England, he returned, in 1562, to pursue a career in commerce the most successful even in the annals of this city of merchant princes. So early as 1569 he was appointed Master-General of the Ordnance for life. This office naturally withdrew him from mercantile affairs; and while on service in Scotland during the Rebellion, a "*liaison*" formed "*more patriæ*" produced a son, Roger Sutton, to whom he was greatly attached, but whose premature death before his father, caused a revulsion of feeling that seems to have cast a shadow over his life. In 1582 he married Mrs. Elizabeth Dudley, widow of John Dudley, of Stoke Newington, but had no issue. His City residence was at Broken-wharf, between Trig-stairs and Queenhithe; but whenever his affairs permitted, he retired to the Manor-house, Stoke Newington, where, from narratives detailed in his wife's letters (now preserved in the Charter-house), he indulged the natural bent of his mind and heart, in boundless liberality and charities, his house there being literally an open hospital. At the same time he devoted himself to commercial affairs, and became the most distinguished merchant of the age, employing factors in all countries trading with England; and it was said of him that "freights of wealth were borne in to him by every tide." He also became chief contractor for victualling the navy, and actually served in that fleet which destroyed the wreck of the Spanish Armada. Having fitted out the barque *Sutton*, of seventy tons and thirty men, he commanded her in person, and captured a Spanish vessel with cargo valued at 20,000*l*.

After the death of his wife, which occurred at Balsham, in 1602, his noble spirit stood isolated on earth; and about this time he matured the plan which appears to have been the leading object of his existence, to found the noble charity of the Charter-house, and "to give all that he had to feed the poor." His pious intentions were not, however, altogether unknown to his contemporaries, for many and frequent were the attempts made to divert him from his purpose. Sir John Harrington, then high in authority, was most sedulous to procure a succession to his large estates for the Duke of York (afterwards Charles I.). One sentence extracted from a letter in reply to Sir John, will reveal better than lengthened eulogies the true simplicity of heart of the founder. A peerage had been offered as a lure to the proposition. Thomas Sutton writes:—"My minde in my younger times hath ever been free from ambition; and now I am going to my grave, to gape for honours might be accounted mere dotage in me, so unworthie a person." Not of the aristocracy, nor noble by birth, but by nature, he identified himself with the people, to whom he bequeathed his vast wealth, and he framed the ordinances by which, under his will, the institution should be governed. That will and those ordinances constitute the foundation, therefore, as a great public trust, and not a private association (as some assume it to be) to be governed and dispensed by the governors or master *pro tem.* with his actuaries; it is, in the fullest sense, amenable to public scrutiny; and neither its income, nor its management, nor any of its operations, ought to be concealed, but, on the contrary, every account should be as overt as the army or navy estimates, or those of any other national establishment.

There is at present a commission in authority to inquire into the Charter-house, as has been done also with respect to Christ's Hospital, and much and general anxiety is felt and expressed as to the issue of both. There are, however, but too many evidences of errors, faults, and delinquencies, detected by inquisitors appointed after the same fashion in other establishments, which having only met with censure, and mayhap, reproof, have been suffered to rest in the silent record of a blue-book, and still slumber and smoulder on.

As many attempts were made to seize upon the oblation of these estates to charity, so one in particular by the great Sir Francis Bacon, in favour of James I. cannot be omitted—that distinguished, but more than suspect judge, suggested that they should be sequestered to the Crown! And as a last struggle, Mr. Simon Baxter, a near kinsman of the testator, instituted a suit in Chancery to obtain the inheritance. This suit was most signally defeated by a decree of the twelve judges, who adjudicated that the estate should pass by testament. A sacrifice was, however, somehow combined with the decision, for a sum of 10,000*l*. was applied out of the estates towards rebuilding the bridge of Berwick! and to raise that sum, the manors of Littlebury and Hadstock (Cambridgeshire), were sold to Lord Thomas Howard, earl of Suffolk, for that (even at that time) very inadequate price.

In the year 1614, the Charter-house was first opened, and on the 3rd December of that year, there were eighty pensioners and forty scholars, together with officers, servants, &c. on the foundation. The ordinances of the founder were (*in the text*), that *the whole of the funds and income* of the estates should be devoted to the objects of charity; and on the 26th April, 1642, a meeting of the governors fixed the regulations as follows:—

"That there should be admitted as pensioners, only such persons as had been servants to the king, decrepit or old; captains, either by sea or land; men fallen into decay through shipwreck, casualty of fire, or such evil incident, &c.

That no children should be placed there whose parents had any estates in land to leave them, *but only the children of poor men that wanted means to bring them up.*"

Such was the animus and intent of the founder, and so conveyed in trust, with an *obseeration to fidelity* of succeeding governors express as unmistakeable.

For the establishment of a school for forty boys, the sum of 5,000*l*. was bequeathed expressly; and a sum of 40*l*. was limited to be paid with every boy, either to advance him in college, or as an apprentice fee in trade. It is rather significant of the inadequacy of that sum for the purpose, and of the greatly reduced value of money, that we find the exhibitions to college enlarged by the governors, to more than 40*l*. a year for four years; and also that the amount of 40*l*. as an apprentice premium, was wholly useless and insufficient; so much so, that those premiums have been discontinued, no youth having been apprenticed from the school since John P. Kemble was bound apprentice to his uncle, the comedian, to learn the histrionic art! In truth, the 40*l*. in 1611, as compared to the same nominal amount of our currency, may be estimated at 400*l*. or ten times the sum. This calculation ought to be borne out in all the details, for most assuredly the value of the estates has increased tenfold; and yet the gross rental, which was in the year 1691 5,391*l*. averaged for the last six years less than 21,000*l*. representing an increase little exceeding *three times* that amount!

This falling back (for it is nothing less) of the property, arises from some error in the principle of management, is too palpable to require proof: to arrive at correct data without a terrier of the farms and acreage of the lands is impossible. It may, nevertheless, be urged that the mode of leasing for twenty-one years, a custom long disused by the landed proprietors of England, is, of all others, the most likely to lead to depreciation: the term is not long enough to give a biding interest to the tenant, so that he should keep tenements, barns, hovels, gates, &c. of a farm in repair, and it is too long for a cultivating lease on fair reciprocal terms, as the value of land is ever fluctuating: in fact, were fines paid *to the Hospital* (which are not so), the advance could never compensate for losses sure to accrue on surrender of farms in a state of exhaustion, a result certain to arrive, unless renewals should be granted *on the lessee's terms;* but the system is vicious, and the possibility should be avoided (however remote the probability) of *favouritism*, or of *corruption*, in conceding renewals.

Complaints and remonstrances have long been put forward by the pensioners of the pitifulness of their allowance, but little increased since the days of the founder, and invidious comparison made with the splendid provision for the master (1,000*l*. a year salary and allowances, together with a noble mansion and luxurious table). These perturbations were followed by an increase of their dole from 16*l*. to 20*l*.; but whether "post or propter hoc" doth not appear. A pamphlet alluding to this, as lately published by the master, goes to show that the increase

† See p. 83, *ante*. In first article, for Humfry de Bohun, "Earl of Hanford," read, "Earl of Hereford."

of the estate, however large, involves no right on their part to an increase; but on the contrary, asserts that the governors have the whole discretion and regulation, under the charter of James I. He deplores the spirit of discontent and insubordination, and especially that some bad characters should have intruded there! winding up the whole with the truly Christian resolve that he himself would persevere in teaching and preaching forgiveness and charity, as it was his wont to do.

Forbearance towards calcitrants and recusants, is certainly most commendable; but especially so in cases like this, wherein the master and his colleagues had absolute power to expel.

Important as is the branch of the charity devoted to the Brothers Pensioners, that of the school, limited though it be, is of far greater moment to society: the one with angel beneficence softens the rigours of adversity, by sustaining and cheering the latter years of men descending to the grave; the other imbues the youthful mind with literature, science, and those arts which, advancing and growing in the national family, fructify a hundredfold, and increase and multiply in the ratio of acquirement.

The school is a large building, occupying a large plot of ground (eight acres): it has salaried masters and attendants, and yet it embraces only forty-four boys on the foundation: these boys are not of the class prescribed by the ordinance of 1642 "the children of poor men that wanted means to bring them up:" much less are they such as the founder prescribed, for the sons of the wealthy, the independent, and the distinguished, are of them! Perhaps there are no poor in mighty London.

But there is a greater departure from the testamentary injunction, in the fact that whilst there are only forty-four boys on Thomas Sutton's foundation, there are 130 boys, externs, boarders with the identical masters who are paid on the institution for the education of the 40! The masters, the buildings, the servants, are employed thus for a purpose alien to the founder's objects: either the teachers are too many for the forty, or too few for the 170; but in any case, the school and benefits of the establishment ought not to be surrendered as an object of commerce for the advantage of one or more masters: the funds are ample, even now, reduced though they be, for the sustentation and liberal education of the number limited by will.

Like Christ's Hospital, the Charter-house is now under the supervision of a parliamentary commission; and it is expected and earnestly desired that a searching scrutiny shall be instituted into all the details of control, but above all, into the sources and management of the large estates and incomes hitherto collected and dispensed without question.

The position as well as the nature of both institutions is similar: both are in the very worst possible situation for the education of youth, or for the solace of old age. Smithfield market intervenes between them, about 150 paces only distant from either. The market may be deemed defunct, but it is in contemplation to fix the great central railway terminus on the site. This very fact, while it unfits the more each institution for its purpose, increases exceedingly the value of both as great building centres. The Charter-house occupies 15 acres, which, if sold, would realise 300,000*l.* (and this is not one-fourth part of the value set by the corporation on building sites in the vicinity). Christ's Hospital has 5 acres, besides convertible buildings of great value; and these are worth also little short of 300,000*l.* Both hospitals have extensive and widely-spread freehold estates, lands producing (if one may judge from the acerage rental) little beyond 10s. an acre! Some of the farms are let at less than even that rent: both have most eligible lands near the metropolis. Surely then, seeing the advantages of a large scope of land for educational purposes; seeing that for one-half the amount to be realised by the sale and dedication to commercial purposes of the City sites, buildings of a magnificent character, with glorious grounds, in every way suited to such hospitals, might be erected; no man of common sense or common prudence would hesitate to sell out, and to remove from the worse to the better situation. The brothers might then adopt the motto, "Deus nobis hæc otia fecit."

No argument is necessary to prove the baneful influence of a metropolis or even of a great town upon a college or school. The same holds with regard to a refuge and retirement for the aged; and when the concentric railways pour their torrents in upon Smithfield-bars, those regions will not be better adapted for seats of learning, nor for academic groves.

Respecting the accounts and income of the hospital, so far as they have erred into light, little need be said beyond the fact, that no balance at Bank, no reserve or sinking-fund (at least of any consideration) has been made, either to meet contingent demands or the requirements so sure to arise for renewed or restored buildings! A small per centage (say 3 or 5 per cent.) would soon have made an immense sum. No, the income is said to have been expended, the trust being to apply it in totality and trust to the charity. Private estates so managed would soon dwindle. Farms out of heart, premises out of repair, and landlords out at the elbows! The adage of charity is true—that it covereth.

Quondam.

THE GREAT BELL OF ST. PAUL'S, LONDON.

We have much pleasure in giving the information desired by your correspondent Mr. Wylson, relative to the weight and size of St. Paul's great bell, which was made at this foundry by our predecessor, Richard Phelps, in 1709. Its dimensions are: diameter, 6 feet 9½ inches; height to top of crown, 6 feet 4½ inches; thickness at sound bow, 5½ inches; weight, 5 tons 4 cwt. We have a portion of the agreement made between the dean and chapter of St. Paul's and Mr. Phelps, dated July 8th, 1709, in which it is stipulated that the hour-bell and quarters should be delivered at the cathedral by the 1st of October in the same year.

As it may perhaps be interesting to some of your readers, we send you the dimensions and weights of the other large bells made by us, viz. Lincoln,—cast, 1834; diameter, 6 feet 10½ inches; height, 6 feet 5 inches to the top of crown; thickness at sound bow, 6 inches; weight, 5 tons 8 cwt. York, St. Peter's—diameter, 8 feet 4 inches; height, 7 feet 10 inches; thickness, 8 inches; weight, 10 tons 15 cwt. One for the Cathedral of Notre Dame, at Montreal,—diameter, 7 feet 3 inches; height, 6 feet 8½ inches; thickness, 6¾ inches; weight, 7 tons. Another for the same place, diameter, 8 feet 7 inches; height, 8 feet 1 inch; thickness, 8½ inches; weight, 12 tons 15 cwt. This last is the largest that has been made in England up to the present time, we believe.

Chas. and Geo. Mears.

ARCHITECTS' BENEVOLENT SOCIETY.

The general meeting of the subscribers took place on Wednesday, the 7th inst. in the rooms of the Royal Institute of British Architects. Mr. Sydney Smirke, A.R.A. the President, was chairman on the occasion, and read the report of the council, which contained the following passages:—

"It has long been a project, which they have much at heart, to suggest the appointment, at all the largest provincial towns, of local committees to advise and assist in the administration of the funds at their disposal; but this course can only with propriety be adopted when a willingness has been shown to co-operate with us.

With all sincerity and earnestness therefore, the council call upon their country friends to consider our claims, and no longer to withhold their assistance. We might urge upon their notice that no distinction has ever been made by the council in selecting objects for the Society's aid: at least one-fifth of those who have received assistance, have been professional men resident in the country, or their families.

The council is happy to perceive no backwardness in this respect on the part of professional gentlemen in London. The list of the Society's members now embraces nearly every distinguished name, and the continued favour of the Royal Institute of British Architects, in permitting us to use their rooms for our meetings, may well be regarded as satisfactory evidence of the approval of the whole profession.

The Council cannot omit to state here, that since the closing of the balance-sheet our eminent member and trustee, Sir C. Barry, has forwarded a donation of 10*l.* as an earnest of his goodwill. A donation of 10*l.* 10s. has also been just received from Mr. Reeks; also donations have been received of 5*l.* 5s. from Mr. Booth, 5*l.* 5s. from Mr. Mocatta, 5*l.* 5s. from Mr. Mair, and 3*l.* 3s. from Mr. M. D. Wyatt, which are all sums in addition to their former liberal contributions.

The members of the society, however, are still entreated to recollect its infant condition, and not to relax in their endeavours to promote its welfare by giving a wider extension to the knowledge of its objects and of its results. The enormous demands of a great war have a depressing influence, which falls with peculiar severity on those whose professional success is founded on the cultivation of arts which need to be nurtured by Peace, and which derive their supplies from the exuberance of domestic prosperity; and already the council have had painful evidence of its effects upon our own art.

The Council have reason to fear that an impression still remains in the minds of some, that there is something derogatory to our profession in the existence of this society. Surely a most erroneous impression! Is *our* art less exposed to the vicissitudes of fortune than the sister arts? Is a *literary*, or a *legal*, or a *medical* career more subject to reverses than our own?

Yet all these classes, to their honour be it said, have their peculiar institutions not distinguishable from our own, either in their object, or in the means of attaining it."

The sum of 187*l.* 10s. has been distributed to applicants during the year. The balance at banker's is 107*l.* 1s. and the sum invested is 535*l.* 6s. 5d.

Mr. Mocatta, Mr. Hakewill, Mr. Scoles, Mr. Poynter, Mr. Edwin Nash, Mr. Baker, Mr. C. C. Nelson, Mr. Malliphant, Mr. Brandon, Mr. Dobson, Mr. Leicester, Mr. Ferrey, Mr. Sancton Wood, Mr. Hodson, and others, took part in the proceedings and business of the society, and manifested the most kindly interest in its well doing.

Mr. John Turner, the honorary secretary, was duly thanked for his exertions.

THE INSTITUTE OF BRITISH ARCHITECTS AND THE HEALTH BILL.

At a special meeting of the Institute, convened for the purpose of considering this Bill, resolutions were come to,—1st. That a Health Bill was desirable for the protection of her Majesty's subjects. 2ndly. That a committee should be formed to draw up a petition to both Houses of Parliament against the one now proposed becoming a law in its present state. It was stated that Sir Benjamin Hall had removed many of the objectionable clauses, leaving with local boards the power of making bye-laws, but this, it was thought, would simply tend to place the matter in a worse position, and was open to the most serious opposition.

WAR APPLIANCES.

The two newly-appointed sanitary commissioners, Dr. John Sutherland for Balaklava, and Dr. Gavin for Scutari Hospital, are now on their way to the East, together with Mr. R. Rawlinson, C.E. as the general organizer of the sanitary labour required by his colleagues. Mr. Newlands, the Liverpool borough engineer, together with Messrs. Ainsley, Freeney, and Wilson, of the staff of Messrs. Fresh, of Liverpool, have also left as a sanitary staff along with their chiefs, so that a sanitary brigade will at once be formed wherever our army or its sick and wounded may require their services.——At Paisley, a number of unemployed weavers have offered their services to Government, as militiamen, for five years, or to the close of the war, on condition of each receiving fifty acres of land, in Canada, Australia, or New Zealand. This is suggestive, so far as regards a want of men. As we have before said, however, the virtual strength of our army might be multiplied at least fourfold by available war appliances alone, without additional men beyond a certain moderate number. We recollect of more than one instance in the present war, where possession of a revolver or two, for example, enabled an officer to dispose of four or five Russians in rapid succession, or in other words, to do the work of four or five additional men. Would it not be cheaper then, and in every respect better, to send to the Crimea one revolving rifle, or pistol, rather than two, or even three men? or, to sum up the result, 10,000 revolvers in place of 25,000 or 30,000 men? Of course, revolvers are of no use without men; but we mean that beyond the available number of men (and sanitary rules and common sense being observed), our army might thus and in various other ways be, at the very least, tripled or quadrupled. Thus, as we before suggested, why should not the life of *every individual soldier* in our army be protected at all events from rifle, musket, or pistol bullets, or even from bayonet, sword, or lance thrusts, by some light proof armour over the vital organs in front while facing the enemy? We have much gratification in observing it stated by the Paris correspondent of the *Morning Herald*, that the French Emperor has ordered 12,000 cuirasses, and as many helmets, for the division of his army, which is to storm the city of Sebastopol. The

armour is said to be on a new principle, and extremely light in construction.——A trial of a newly-invented self-breech-loading and priming carbine has been made at the School of Musketry at Hythe. *Sixty* shots, it is positively declared, can be fired from this weapon in seven minutes: out of that number, at a range of 100 yards, forty-seven are said to have struck the bull's-eye.——The *four* old contractors in Birmingham for military small arms supplied 10,000 Minié rifles from 1st December last to 17th ult. Other thousands were then also on the way to completion. A new rifle, too, the Pritchett, said to be superior to the Minié, is on trial.——Our foes, meanwhile, are not idle. In consequence of the departure from Russia of foreign engineers and workmen, several manufacturing establishments in that country have lately sent agents, it appears, to Konigsberg to procure workmen by offering very high rates of wages.——Improvements in the weightier implements of war, too, are ever turning up among the nunberless new inventions of engines of destruction to which the war has given birth. One much talked of at present in the scientific world of Paris is a shell invented by M. Chaslin, which he asserts will not only double the force of the powder used, but, being without a match, will have the inestimable advantage of falling on the spot desired without giving notice to the enemy by that stream of light in the air which accompanies the present shell.——Mr. Murdoch, of the *Sanspareil*, has performed the operation of "bouching" (or fitting new vents into guns) on several large pieces of ordnance in the trenches. Thus instead of a piece of useless metal, in a few hours there is a gun as good as new, and ready for instant use. It unfortunately happened that a Russian spy was actually allowed quietly to look on while Mr Murdoch was instructing some of our own military engineers in this useful art, and then to saunter off in the direction of Sebastopol, towards which he bolted, and which he safely reached, in the midst of a shower of shot! Here was one most useful invention and advantage virtually lost to us almost in a single instant!——The Mersey Steel and Iron Company lately completed a contract for 160 tons of iron plates for Government, to be used in the construction of the gun-boats for the Baltic. These plates are 12 feet long, 4¼ inches thick, and 2 feet 10½ inches wide. Each plate weighs 2 tons 13 cwt. and they are all finished and planed on the edges. The plates were made at the rate of 40 tons a week. Several of these gun-boats, or iron batteries, are ready, it appears, or at least upon the list of "a hundred pennants" destined for the Baltic, but not a whisper is uttered yet as to the destination of any of them being the Black Sea. We now hear, however, that Mr. Nasmyth's wrought iron ordnance *was* destined, partly, at least, for these floating batteries; but can it be possible, as alleged, that "General Routine" has interfered with Mr. Nasmyth's progress, and that his labours have been suspended? It appears that some years since Lieut.-colonel Simmons of the Royal Engineers, strongly recommended the formation of wrought iron guns; that a Woolwich committee reported to the Ordnance Board that this was an old invention; and that wrought iron was too soft. Col. Simmons is said to have then placed before the committee two specimens of wrought iron, one as soft almost as timber, and another hard enough to cut a diamond, and he very naturally asked which of these materials they meant, when they reported that wrought iron was too soft. Nevertheless, nothing appears to have come of this endeavour till Mr. Nasmyth was called in, and now again we appear to be as far off as ever from the attainment of what seems so desirable.——The metal ordinarily employed in the casting of cannon not having been found suitable for the Lancaster guns, Messrs. Krupp, of the ironworks of Essen, in Rhenish Prussia, are reported to have made a Lancaster gun of *cast-steel*, and sent it to Woolwich to have it experimented on. Before being bored, it weighed about 7,000 lbs.——Mr. W. Austin has, it appears, submitted to the French Emperor, and also to our own Government, a new kind of land battery and revolving floating batteries, capable of resisting shot, shell, and red-hot shot. These inventions are believed to be now under consideration. The same gentleman proposes a thin metallic covering for tents, and for ground beds, &c.; but the Ordnance, while admitting its suitability in other respects, object to the weight (½ lb. per foot), as more than army regulations would allow. Waterproof materials, however, could be readily made of the very lightest weight that could be desired; and why canvas or linen tents should ever be made without being waterproofed, it is difficult to imagine. Similar material might be laid on damp ground within the tents.——Another of our correspondents, Mr. John Elliot, of Southampton, architect, has forwarded to Lord Panmure the details of a rough-and-ready railway, or tram-road rather, which might be of great use and easy formation for temporary or other purposes in war, and although our navvies are pushing on with admirable efforts the formation of the "Balaclava and Sebastopol Direct," and are even contemplating, or at least talking of another "little surprise" for the new Czar, in the shape of what he will doubtless regard as rather an impudent scheme for a "Crimean Central" line,—still we hope that due consideration will be given to Mr. Elliot's plan, which simply consists of a cargo of 12 feet ordinary deals, some of which are to be cut into three pieces, and bolted together, the middle piece being shorter than the others, so as to form a chair, into which, when sunk in the ground, the ends of the 12-feet deals are to be slipped, when a tramway may thus be made, of say six or seven miles, by a sufficient number of soldiers, in twenty-four hours. Trucks on similar simple principles, with deals planed and put together so as to form small rollers, to cross over the tramway, in place of wheels, with simple triangular iron plates bolted on the track sides for axle plates, complete the whole apparatus, the precise details, measurements, and plans of which Mr. Elliot has given, as well as the cost of the whole line, which he estimates at some 2,550*l*.

COMPETITIONS.

OXFORD MUSEUM.

BEING at a loss to understand the hesitation of the delegacy in announcing their decision as to the prizes, I thought it right to apply to the secretary for an explanation. This has been immediately and courteously given, and is to the effect that the delegacy have determined to wait until the contract for the selected design be accepted (or otherwise) by convocation. As this intelligence will interest many of your readers, I forward it to you for insertion if you think fit. A MEMBER OF THE FIRST SIX.

TOXTETH-PARK CEMETERY.

The burial board has decided on the plans of Mr. Barry, of Liverpool, for the chapels and lodges for the Toxteth-park cemetery, and on those of Mr. Gay, of Bradford, for laying out the ground, drainage, &c.

BRECHIN.

The designs of Messrs. Hay, of Liverpool, architects, have been selected for the erection of a new free church here.

BELPER.

The premium for the People's Institute, Belper, has been awarded to Messrs. Mason and Layland, architects, Liverpool. The style adopted is Elizabethan.

OXFORD ARCHITECTURAL SOCIETY.

THE second terminal meeting of this society was held February 28th. The president introduced the subject of "The Application of Colour to Mediæval Sculpture" to the meeting, and called on Mr. Lygon (secretary) to commence the discussion.

Mr. Lygon, according to the local journals, said he was not disposed to call in question a judicious application of polychrome, but objected to an indiscriminate profusion of colour. Quoting from Mr. Ruskin's "Seven Lamps," that "sculpture is the representation of an idea, while architecture itself is a real thing: the idea may be left colourless, but a reality ought to have reality in all its attributes, its colour as fixed as its form,"—he would substitute *must* for *may*, and accept this as a sound principle.

Mr. Street said that he could not agree as to the objection to colour on sculpture. In old examples it was universal in its application, and generally under two rules,—the first that of giving distinctness at a distance; the second, that of producing more exact resemblance to designs represented. Of the first rule the ordinary mode of painting foliage with gold on a red ground was an example, and of the same rule some fragments of ancient colour in alabaster, which he was able to exhibit to the meeting, were remarkable examples: here colour or gold was only used for the hair, the edges of draperies, and the linings of vestments and their drapers, giving marvellous distinctness to the forms of the sculpture.

Mr. Parker said that beyond all doubt every thing inside a mediæval building was coloured, in a complete system: there was no doubt, therefore, that sculpture was treated as a part of the whole. So far were the mediæval artists from fearing to lose the fineness of chiselling, that they covered the figure with a paste before colouring it; as in the tomb of Lady de Montsente at Christ Church. Whether colour was used outside buildings was still a question: he did not himself see proof of it.

Mr. Freeman could not conceive how you were to paint an idea on the representation of an idea. Mr. Lygon had said that all precedent was drawn from debased examples, and though it had been proved that colour was used in the earliest sculptures, he must protest even in Mr. Lygon's absence against the abuse heaped on Perpendicular architecture. He demanded tolerance in matters of taste where no moral obliquity was exhibited, and objected to such terms as "unspiritual bombast" to Perpendicular art. He thought it absurd to exclude colour from representations of animate objects, when applied to everything else; and thought a complete system of colour enhanced the beauty of every building.

Mr. Meyrick agreed in the main with Mr. Freeman. He did not think that pure form could be used in conjunction with united form and colour without a disagreeable result. He wished to ask what objection there was to papering interiors of churches? He thought it reasonable, where paint would be too expensive, to use the best means of producing the required effect.

CAMBRIDGE ARCHITECTURAL SOCIETY.

THE second meeting for the Lent Term was held on Feb. 23rd, when Mr. W. Lloyd Jones, of Emmanuel College, read a paper on the Ecclesiology of the Isle of Man, containing much information on the Runic Crosses which abound in the island. Mr. S. Baring Gould, the junior secretary, read a paper on Mediæval Symbolism, especially with reference to King's College Chapel. The Rev. W. M Campion made some remarks on the subject of Mediæval Symbolism; after which it turned upon the rose and Virgin's head at the west end of King's College Chapel, and it was suggested that it might have been the badge of Catherine Parr and Henry VIII. the stone having been left in the rough till after the roof was completed, which would allow for the lateness of date attributed to it.

LONDON-WALL, LUDGATE-HILL.

IN the course of further excavations for the works of the Milton Club, part of an ancient arch (about 9 feet 10 in. to the soffit), has been exposed since our notice appeared. The wall, we should have said, is formed mainly of chalk. The works for the new Club are being performed under the direction of Mr. W. Wright, architect, by Messrs. Ashby and Sons, and have been of a difficult character. The walls have been taken down and reinstated, without removing the floors and roof.

SHOREHAM HARBOUR WORKS.

A CORRESPONDENT enables us to add some particulars to our notice of the preliminary opening of the new ship canal at Shoreham Harbour.

The chief difficulty arose from the treacherous nature of the substratum upon which the entrance lock is built, and the great influx of water through the bottom of the lock pit. The water was kept down by one of Appold's pumps, which, making 600 revolutions, threw 1,300 gallons per minute to a maximum height of 27 feet, and the faulty substratum was rendered secure by sheet piling and concrete.

The engineer to whom the construction of the excavation and embankment of the canal was entrusted was Mr. J. Sewell, late of Brighton. The subsequent works, comprising the entrance lock, the basin, and the quays, were placed under the charge of Mr. E. Leader Williams, Jun. C.E. his father, Mr. E. L. Williams, of Worcester, acting as consulting engineer.

NEW PUBLIC BUILDINGS AT DUNDEE.

WITHIN the last two years this town has taken a stride in the acquisition of public buildings; three of the largest and most ornate of which Dundee can boast having been undertaken within that time. We refer to the New Infirmary, the Royal Exchange, and St. Paul's Episcopal Church on the Castle-hill, the first now all but completed, and the others more or less advanced. The following remarks on these are given on the authority of the *Northern Warder*:—The style of the infirmary is Tudor. The plan takes the form of the letter ⊔. The household apartments, &c. are placed in the central wing, while the wards, stairs, &c. are extended into the wings on either side of the centre. The stairs, which should be unusually easy of access, are said to have been constructed as if for the purpose of breaking people's legs, and the kitchen is described as so poorly lighted by four "boles" up at the ceiling, that for half the year gaslight will be indispensable. The want of special provision for warming and ventilating, beyond what ordinary fireplaces and open windows furnish, is objected to, as quite inadequate to provide an equal diffusion of temperature throughout the wards. The architectural character of the building is said to be still more unsatisfactory. Apart from its extravagant size, and consequent cost, a heavy outlay, it is said, has been put upon portions not having even architectural propriety to justify them, while sound and durable construction has been elsewhere neglected.

The battlements all round the roof are held to be utterly indefensible on this ground; giving to the building an opposite character from that it should possess; necessitating lead gutters behind them, an endless source of trouble in winter; and swallowing up a deal of money, which would have been better spent in procuring corner-stones something larger in size and better in quality than those used—in providing a few more fireplaces—or making sightly doors internally. These, however, are regarded as minor points, which must not be held to interfere with the critic's good opinion of the edifice, as a well-arranged and commodious structure.——Of the Royal Exchange, says the writer, we are hardly in a position to speak, until it be farther advanced: the unfortunate settlement of its foundations, the effects of which seem to be still spreading higher up the building, entitle the promoters of this elaborate building to the most favourable consideration for their work, and half-finished productions cannot of course be justly criticised.——St. Paul's Episcopal Church is regarded as decidedly the most promising addition to the public buildings of Dundee. Had it occupied a proper site, this church would have been a model of the revived Gothic architecture of the day; and as it is, it will be in many respects an edifice to boast of. The spire, completed the other week, rises to a height of about 220 feet, surmounting a tower of large dimensions, and excellent design,—almost wholly inappreciable, however, from its awkward site. The spire will appear to many as too broad at the base for its altitude; but this is not the case. In plan, the Episcopal Church consists of a nave, with side aisles, transept, and choir, with side chapels, terminating in a semi-octagonal apse at the *south* end, as we have been accustomed to call it, or the *east*, as it is wished to be called. This apse is to be groined in stone, and the windows are to be filled with stained glass. The other roofs are open to the ridge, the timbers stained and plastered between, with scrolls illuminated upon the plaster. The lofty piers and arches, the tall traceried windows, and the whole proportions of the interior admirably realise the upward, vertical spirit of Gothic architecture, and cannot fail to be strikingly effective. The style adopted is Decorated Gothic, early in the period. The Chapter-house at York has furnished much of the details. The architect is Mr. Scott, of London. The contractor is Mr. W. Cooper, of this place. It is expected the church will be consecrated early in autumn.

Notices of Books.

The Best Site for Trinity College Church (Edinburgh), &c. Printed for the Author by W. Burness: Edinburgh, 1855.

This is a folio volume of 140 pages, on "The Best Site for Trinity College Church; with Ten Years' Discussion on the Subject; and Seven Lithographs, illustrative of the Science of City Building," by Mr. R. F. Gourlay, a veteran promoter of "city building," or rather, of city improvement or rebuilding, especially with reference to Edinburgh, but on principles, he urges, applicable to cities or towns in general. The work is "respectfully submitted to his Royal Highness Prince Albert." It advocates the re-erection of the much talked of church alluded to, in connection with other and collateral improvements, in a district certainly much needing improvement, both municipal and moral, as well as sanitary, namely, amongst the wretched class of buildings lying between the North-bridge and Leith Wynd, that is eastward of the bridge, and in a space long known as "Ireland's Woodyard." The very reasons why others object to such a site, namely, its sunk and wretched condition, are adduced in favour of its selection by the present author, who appears also to keep in view what others have lost sight of altogether,—that there was a parish attached to the old church where it formerly stood, not far from the site now indicated; and the proposed site for its re-erection is within the limits of its own parish, while other and more favourite sites suggested are actually out of that parish altogether. Mr. Gourlay suggests in this work the formation of a Joint Stock Association, in connection with his scheme for the improvement of the locality in question, as well as for that of the city at large, and he specially keeps in view the erection of improved dwellings for the poorer classes, to which end he himself proposes, on certain conditions, to contribute 500*l.* as part of the joint stock.

The Bank of Scotland directors, we understand, have of late been consulting Mr. Bryce, architect, regarding a plan for opening up the whole of the ground between their bank and the High-street, including a site for this church. The East Princes-street Garden, is said to be the favourite site for it with the public.

Miscellanea.

Inkermann was called Theodorus up to 1475, when the Turks gave it its present designation, from *In*, cavern, and *Kerman*, fortress. An article in *Bentley's Miscellany* gives some interesting particulars of its antiquities. The cliffs below the fortress of Eupatorium, afterwards Theodorus, and those on the opposite side of the valley where the hill is tunnelled, are completely dotted over with excavated grottoes of various shapes and sizes, and which have been applied to different uses by different possessors. The observations and researches of De Montpereux fully establish the fact that these mountain caves, from whence Inkerman derives its name, were the work of the Tauro-Scythians, and existed before the Heraclean colonists of Khersonesus called on Mithridates for assistance against the aborigines, who are called Tauri by many writers. We find many remains of early Christian times in these caves of Inkerman. Among these remains are those of two churches and a monastery, one on the Inkerman, the other on the Sebastopol side of the ravine. There is nothing remarkable in their construction as works of art. The Rev. Mr. Elliott described scraps of fresco painting and the remains of sarcophagi as yet discernible in several of these caverns in his time. Strange it is to think that these fortresses, rock monasteries, and subterranean churches, these caverned dwellings, and sepulchral grottoes, and this valley, with its dark fishy stream below, once the scene of struggle between Hellenic Greeks and Tauro-Scythians; between Byzantine Greeks and Goths; between Goths and Alains, and Huns, and Khazars, and Komans, and other Asiatic hordes, and the place of refuge of early Christians of various denominations, Gothic, Alain, and Greek, should be now the frontier line of battle between Great Britain, France, and Turkey, and Russia!

The closed Graveyards.—Your article, "Young Mortality amongst the London Graves," will draw the attention of your readers who reside in their neighbourhoods to their neglected state, and to the moral obligation due to these consecrated spots, where the mortal remains of their relations and old friends are deposited. I live in the neighbourhood of one of these burial-grounds, and from the back of the house I have a full view of it, and I have observed that since it was closed for burial purposes it is partly used as a receiving place for mourning coaches, workhouse vans, and other vehicles, without any regard to its original purpose; and this appropriation has been placed on a permanent footing by the erection of a timber building extending some yards into the ground, which was cleared for the occasion by the levelling of graves and rooting up of trees. These acts are much talked of and censured in the neighbourhood, and your assistance in exposing the desecration will lead to the correction of such abuses, and the protection and due veneration of the London graves.—A Tyburnian.

Zinc Flues, Tubes, and Chimney-pots.—Schedule F, page 145, Metropolitan Buildings Act, shows the regulations and restrictions to be observed, and directs how, and the peculiar mode in which, zinc flues, exceeding "*four feet*" in height, shall be fixed, that is, two feet into solid brickwork of flue, and is clearly an operation under the Act. The Act, in addition, section XIII. makes either the cutting into, or altering of any flue, without notice, an offence under the Act, making the whole liable to be pulled down and abated as a nuisance, and directing for the recovery of a treble fee, and a 20*l.* penalty for such default. If these restrictions and regulations are not put in force, it must be obvious that the public safety will be endangered, which with every half-gale of wind will be the case, as these flues are being put up in the most insecure way, and, in a great many cases, without the requirements of the Act being met.—Lex.

Forged Names to Subscription Lists.—We have received a letter from the Rev. H. T. Ellacombe, complaining of grievous annoyance which he has experienced, in consequence of some person forging his name to a printed order for a subscription copy of a certain work. So deliberately would the forgery appear to have been committed, that even Mr. Ellacombe's personal friends saw a resemblance in it to his autograph. It would also appear that a gentleman in Exeter has been annoyed in a similar way in connection with the same book. Mr. Ellacombe's denial of its authenticity is sufficient evidence to our minds, and to all who know him, that the signature in question must be a forgery. The circumstance should be investigated by the author of the book.

Chelmsford Water Works: Well and Engine.—This undertaking has now been completed, after eighteen months' incessant labour to procure water by Artesian boring, and to erect the machinery necessary to supply the town. The Artesian well is now 270 feet deep. Mr. Fenton was the engineer, and Mr. Baker the well-sinker. Difficulties arose from the bursts of sand into the well, and above seventy cart-loads have been thrown up by the pumps and engine, and carted away. The supply has now reached 100 gallons per minute, with every prospect, we hear, of an increase. The well has been sunk 80 feet more than was originally contemplated. The main is connected with the pump, so as to raise the water to the reservoir when it is clear; and a 12-inch iron pipe will be placed so that the pump will take the water as it rises from the mouth of the pipe. The engines are Gilbert's Patent Double Cylinder, and have several peculiarities with a view to save room, fuel, and cost. A pair of these engines were procured from London, each of twenty-horse power, and each capable of delivering 200 gallons per minute. The total cost is estimated at 700*l.* for the well, 200*l.* for the iron cylinders, 200*l.* for the engine-turn, &c.; and 1,700*l.* for two engines, set of three pumps, and two boilers, besides the pipes round the town.

Mr. C. R. Smith's Collection.—The *Literary Gazette* of last week contains letters from Mr. Thomas Wright, the Rev. Henry Christmas, Mr. Collingwood Bruce, and others, urging the trustees of the British Museum to purchase Mr. Roach Smith's collection of London Antiquities, at the price which has been named for it, namely, 3,000*l.* The desirability of preventing its distribution cannot be questioned. If the Museum will not buy it, the City should.

The Ordnance Estimates.—These estimates for the ensuing financial year amount to 7,801,042*l.* being an increase of 1,821,380*l.* on the past year. The principal increase is of course for stores for land and sea service, 1,033,000*l.* but thereare heavy sums for building works. These include an item of 30,000*l.* for the defences of Dover and the coast of Kent; 60,000*l.* for a new barrack at the western heights of Dover; 48,170*l.* for improving the fortifications of the Channel Islands; 24,163*l.* for new barracks at Devonport; 39,047*l.* for additional barracks at Cambridge; 61,000*l.* for barracks at Gosport; 10,000*l.* for the defences of the coast of Sussex; 48,597*l.* for the defence of commercial harbours; and 250,000*l.* for new barracks at Aldershot. These sums are only those required for the year, and by no means represent the gross total expense, which will have to be provided for hereafter. There are numerous items of sums required for the erection of forts and batteries. The amount required for works and buildings at home is thus divided, viz.—295,215*l.* for fortifications, 109,999*l.* for civil buildings, and 623,624*l.* for barracks. The charge for the scientific branch includes 12,000*l.* for surveys in the United Kingdom, and 6,109*l.* for the establishment at Chatham for instructing engineers, &c.

Australian Railways.—It is said to be the intention of Mr. Stephenson to pay a visit to Melbourne, immediately after his return from Canada. This visit, it is stated, has been prompted by several of the largest English railway contractors, who are prepared, if Mr. Stephenson's report should prove favourable, to undertake the enterprise of providing railways for Victoria.

Starting of a New Blooming Machine.—A new "patent squeezer" has been erected at the Ebbw Vale Ironworks. It is the invention of a Mr. Jeremiah Brown, a Welshman, and is declared to be the best machine yet invented for blooming iron. The workmen call it "Jerry Brown." It is very ponderous, but moves, it is said, apparently with the ease of a lady's crimping machine. It bolts red-hot balls with as much ease as the workmen are said to do "Old Parr's Pills," and speedily converts them into bars 17 inches long and 7 inches thick.

Value of Land in the City.—Sir: Finding in your publication of March 3rd, p. 97, a statement respecting "the plot of ground at the north-east corner of Threadneedle-street and Finch-lane, belonging to Mr. Alderman Moon, the present Lord Mayor, which, report says, has been recently let at a ground-rent of 1,000*l.* per annum," I beg to assure you that such report is incorrect, as the ground has not been, up to the present moment, let to any party whatever.

Yours faithfully,

Mansion House. Fras. Graham Moon.

Mr. Barber Beaumont, on the part of Messrs. Savory, requests us to say, with regard to their land in Cornhill, partly sold to the County Fire Office, that they do not hold it at a ground-rent, but have purchased the freehold. This, however, does not interfere with our statement as to value, but serves to confirm it; for the land has been purchased by Messrs. Savory, at the rate of 470,000*l.* per acre,—*exactly* the sum we named.

DOWN DRAUGHTS.—I have generally found the cause to arise from the flues at the apertures being all on one level, the usual consequence of which is, on the smoke ascending a flue, the down draught or "suction" from the adjoining flues causes the smoke to descend, which is partly owing to the door or window being often open, causing, as it were, a syphon to draw in the smoke. The following is a remedy I have often used with success:—A good well-fitted register-flap to the fire-places or grates of the rooms not in use, or where no fire is made (for it is in those rooms it usually occurs), with an Arnott's ventilator in the flue, communicating as nearly as possible on a level with the ceiling of the room. Also place pots of an irregular height on the stacks, or where these are objected to on account of the appearance, I have used a cylinder of sheet-iron or terra-metallic about 2 feet in length, with a flange in the centre to rest on the top of chimney-stack, so that about 1 foot is fixed above the stack, and the other part in the flue. The smoke is thus carried sufficiently high above the adjoining flues to permit of a current of air between them and the smoke, which will prevent any down draughts.—W. S.

LIVERPOOL ARCHITECTURAL SOCIETY.—Touching a letter from "A Member," in our last, commenting, amongst other things, on the ungenerous observations on a number of this journal made by another member of the Liverpool Society, and accusing the latter of a "disregard for truth," we have received from the gentleman commented on, a report in a local paper, of what he said, with a request that we should publish it to confute the charge. We do not intend to do so, and it would surely not serve his purpose if we did, seeing that while professing to give an account of the contents of a number, in order to show that these were of too general a character, not sufficiently professional, he actually omitted mention of the principal articles in it, such as "County and Parochial Assessment," Professor Donaldson's "Account of the New Works in Paris," "Flow of Water through Pipes," "Architectural Literature in Germany," &c. &c. We are not about to enter into any explanation of the course pursued in the management of this paper. It has obtained for architecture and architects, buildings and builders, a larger public than they had theretofore enjoyed, and has given us, in return for earnest and honest effort, a strong answer to those whose views may differ from us on the subject, namely, success. We have received statements from some of the principal members of the society repudiating participation in the remarks made, but it is unnecessary to insert them.

THE LATE MR. MACKENZIE'S WORKS.—We are asked to mention that the sale of the collection of the late Mr. Frederick Mackenzie, an artist well known to the admirers of architectural design, will shortly take place. It consists of a large number of Mr. Mackenzie's sketches, distinguished by his peculiar accuracy and material faithfulness, rendering them alike useful as studies to the young architect, and interesting to the admirer of fine art. It includes likewise an assortment of books, etchings, and fine impressions of choice engravings. The professional labours of Mr. Mackenzie not having proved sufficiently remunerative to provide satisfactorily for his surviving family, a subscription has been promoted by a few friends; and, in addition to this, several members of the Society of Painters in Water-Colours, and others of his professional brethren, are kindly contributing drawings and sketches intended to be disposed of by art-union, for the benefit of the family. Cordially sympathising in these kind exertions, we shall feel gratified if this notice should prove a further recommendation to the cause in which they are exerted.

WINE CELLARS.—"A Wine Merchant of Forty Years' Experience," writing to the *Times*, says, "Most houses that were built before the present century have much better cellars for the keeping and improvement of wines than those erected within the last fifty years. There would be a great improvement in the enjoyment of wine if our eminent architects and builders were to direct more attention to building wine cellars.

POWER OVER TOMBSTONES.—May I ask, through your valuable journal, whether a layman, who claims and holds the freehold of the parish churchyard of Waterfall, Staffordshire, can prevent any person from placing a fitting tombstone in the churchyard, to mark the should-be resting-place of a dear father or a friend, paying the usual, or any reasonable fee, for tombstones are (at the present time) rearing up in fields, and stables, disgusting a civilized community? If in the dark ages men had such tyrannical powers given to them, surely they do not retain them in the nineteenth century. If they do, I hope you will use your powerful pen to bring about a better state of things, before the hangers-on of the Church *hang the Church*, as most assuredly they will do, if they are allowed much longer plenty of rope.—T. R.

WEST'S SNOW CART.—Not discouraged by the doubt we hinted, in our notice of the cart invented by Mr. West, for the removal of snow from the streets, the inventor put himself to work, and has made an entirely fresh arrangement, wherein the melting surface occupies a much greater portion of the cart. Whether or not the right thing is even yet quite achieved we cannot say, but our readers may see the model at the Polytechnic Institution, and judge for themselves. The inventor deserves credit for the idea.

ROYAL COMMISSION ON THE MANAGEMENT OF THE RIVER TYNE.—At the inquiry before the Royal Commissioners at Westminster, four eminent engineers were lately examined: all of them, though differing in opinion respecting the piers, agreed as to the general improvement of the river. Those examined were Messrs. Stephenson, Rendel, Walker, and Murray, the last being the late engineer of Sunderland harbour. Mr. Stephenson said he approved of the entire system pursued, commencing with jetties, and then making parallel walls to guide the ebb and flood tides; and considered the full tide training-wall much superior to the half tide wall in scouring power. The river has been greatly improved in every respect; and he approved of Mr. Walker's piers. Mr Murray produced plans of the piers at the sea entrance to the south dock at Sunderland, which resemble those proposed for the Tyne. Would himself, however, propose, for the Tyne, piers differing from those recommended by Mr. Walker.

THE FRIEZE OF THE PARTHENON.—At the Royal Society of Literature on the 14th ult. Mr. Watkiss Lloyd read a paper "On the Central Group of the Panatheniac Frieze of the Parthenon." The intention of this paper was an attempt to identify the twelve seated principal figures of this group, which are marked by superior proportions, as of a superior nature, heroic or divine, to those that take part in the procession. After an exposition of the proofs by which he had satisfied himself of the correctness and significance of the names he assigned, Mr W. Lloyd said, the more the frieze is studied the greater will be the admiration of the genius displayed upon it in plan, invention, drawing, and execution: whatever inequalities there are, appear to be due to differences in execution alone, not, as in the case of some of the metopes, to the original defect of inferior design. Some of the excellences find most room for display in the more complicated groups on the flanks of the cella,—as in the marvellous breadth, simplicity, and distinctness of forms most unsparingly combined, accomplished by the aid of resources limited to an extreme projection of relief not exceeding two inches. The succession of broad and close or narrow spaces and surfaces is so managed, that they aid and express each other as harmoniously as the quick and the tardy metrical feet in a Doric rhythm of Pindar; while the broad masses blend into the broad, and the crowded into the crowded, with a repose and sweetness, a refinement and a vigour, not surpassed in the art with which Correggio blends lights into lights and shadows into shadows. The copy of the frieze, which is placed round the exterior of the Athenæum Club in Pall-mall, affords in some respects the best opportunity of studying the art of its design, though of course the position is still too high, and has other disadvantages, as every position other than the original always must have. It was from observation of the Pall-mall copies that I first pointed out the order of the cavalcade, as following on in ranks of six or eight horsemen abreast. The broad smooth surface of each outside horse gives rest to the eye, and marks or accentuates the sequence.

CATERHAM RAILWAY.—The works of this undertaking were commenced on Monday, the 5th inst. on land belonging to Sir William Clayton, Bart. about six miles from Croydon, on the Godstone-road, the Hon. Sydney Roper Curzon performing the office of turner of the first sod, in the presence of a large concourse of visitors. This line of railway starts from the Godstone-road station of the Brighton Railway, running into the South-Eastern district along the Caterham valley. It is anticipated that by this line there will be brought to London, under the superintendence of Messrs. Jackson, of Pimlico, a good description of lime, made from the grey limestone of the district, particularly adapted, it is said, to hydraulic purposes; also building stone, well adapted, it is said, for building in London, at or about the same cost as brick. As a passenger line it is very important, not only to the immediate vicinity, but to the surrounding towns and villages, now sending their traffic by way of Edenbridge and Godstone, on the South-Eastern line. There is another circumstance connected with this company, also worth notice, viz.—the landowners on the line (so anxious are they for its construction), have conveyed to the shareholders a sufficient quantity of freehold land, for one acre to be allotted to every twenty shares. This land is in close proximity to one of the principal stations on the line, and well adapted for building purposes. It is reported that Mr. Thomas Jackson, of Pimlico, is likely to become the lessee of the line, and intends to develop the mineral riches of this district in the manner before alluded to. Large fire-stones for Scotland, and the North of England, will be attainable also.

PARGETTING.—In the article on "Clerical Economics," in the last number of the *Quarterly*, in which several hints are given for the arrangement of parsonage-houses, it is said, "Where old walls require external plastering, let it be the old-fashioned pargetting instead of rough-cast, or modern scored stucco. The recovery of old parget patterns and the invention of new is a field of architectural study hitherto most undeservedly neglected." This is worth the attention of students.

PAPER FROM WOOD SHAVINGS.—A number of an American paper called *The Albany Journal* was lately printed on paper made from basswood shavings of a peculiar form thrown off by a machine called Beardslee's planing machine. The quality is said to have been good, and even fit for the tranfer of line engravings. The pulp is said to be cheaply manufactured by a simple but secret process, applicable to different kinds of wood shavings, and the expectation is, that rags will be ultimately driven out of the market altogether by this new process.

PETERBOROUGH.—A meeting of the Northampton and Lincoln Architectural Societies is announced for the 23rd and 24th of May, at Peterborough, under the patronage of the Bishop and the Dean: the second day will be devoted to an excursion to Croyland and Thorney Abbeys The Leicestershire, Cambridge, and Bedfordshire Societies, are also expected to join.

TENDERS

For the erection of offices for the General Annuity Endowment Association, King-street, Cheapside. Mr. T. S. Cundy, architect. Quantities supplied by Mr. E. Roberts.

	In Ancaster stone.	If in Bath.
W. Cubitt and Co.	£6,850	£178
Locke and Nesham	6,745	175
Kelk	6,700	200
Haward and Nixon	6,647	124
Winsland and Holland	6,600	250
P. Anson	6,495	290
Haynes and Byrne	5,188	300
Myers	5,729	
Lawrence (accepted)	5,499	157

For two chapels, porter's lodge, dead-house, entrance gateway, boundary walls, &c. for the Portsea Parish Cemetery. Mr. G. Rake, architect.

Bramble, Portsea	£4,516	0	0
Gover (Brothers), Winchester	4,300	0	0
Backhurst and White, Landport	4,200	0	0
J. Aylen, Portsea	3,984	10	0
T. and G. Wells, Landport	3,989	0	0
G. Absalom, Portsea	3,907	0	0
L. Carwell, Portsmouth	3,720	0	0
J. Hodges, Landport	3,720	0	0
J. King, Portsea	3,710	0	0
B. Callaway, Southsea	3,605	12	0

For Newmarket drainage, delivered to the Local Board of Health. Quantities furnished, and sold at 3*l.* per copy. Forty-five items.

The highest (Some intervening not known).	£3,700	0	0
J. Read, Cambridge	3,000	0	0
S. Clark, Newmarket	2,345	0	0
R. Oakes, Swaffham	2,298	15	0
A. Campbell, Hackney	1,915	5	0

(We have received some curious particulars of previous proceedings)

For Arkesden Church, Essex. Mr. G. E. Pritchett, architect.

	Contract, exclusive of carpenters' work.	Ditto, but with Westmoreland slates to nave roof.	Contract for carpenters' work.	Ditto, with oak sittings, add.	Contract for porch.
	£. s.	£. s.	£. s.	£. s.	£. s.
Brown	1,150 0	1,225 0	698 0	138 0	60 0
Stephens	998 0	1,038 0	280 0	25 0	25 0
Case	977 17	1,017 0	270 0	27 0	27 0
Padbury	959 0	989 0	310 0	34 0	30 0
Bell	930 0	968 0	470 0	95 0	..
Glasscock	902 0	934 0	518 10	22 10	42 13
Erewell (accepted)	853 0	878 0	481 0	18 0	33 0

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"P. and N."—"H. D."—"Mr. P."—"G E. P."—"H. F. H."—"Mr. O."—"W. F."—"Manchester" (write to Honorary Secretary of Institute, Lower Grosvenor street, for printed particulars)—"C G."—"W. S."—"J. S."—"J. W. P."—"L. and F."—"Mr H." (thanks; we are unable to send)—"G. S."—"E. A."—"S. H." (thanks)—"D."—"E. L. W."—"J. B. B."—"J. D."—"W. M."—"T. and T."—"J. W."—"H. T." (we cannot advise: it must depend on position and means)—"H."—"P."—"J. G. J."—"C. S."—"R. B. H."—"C. C."—"E. P." (apply to a competent architect)—"Δ."

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REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road Pimlico Basin.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 29, North Wharf road, Paddington.
N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

ACORN TIMBER WHARF, Canal-bridge, Old Kent-road. RICHARD MAY'S extensive Drying Warehouses and Waterside Premises, with the improved machinery for sawing all kinds of wood, enable him to keep one of the largest stocks in London, of
PLANKS, DEALS, BATTENS,
DRY PREPARED FLOOR-BOARDS, AND MATCH-BOARDING.
FOREIGN FIR TIMBER OF ALL KINDS.
English Oak, Elm, Ash, Laths, Mouldings, Sash Sills, always on sale at the lowest prices for cash.—A monthly Price Current forwarded on application

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of manufacturers and others to the greatly reduced prices of PINE, SPRUCE, and YELLOW DEALS, MAHOGANY, &c. &c.—

Pine Planks, 12 ft. 3 in. by 11 in.	from 4s. 9d.	each
Spruce Deals	"	3d.	per foot.
Yellow ditto	"	4½d.	"
Six-feet Pipe-staves	"	2s. 6d.	each.
Spanish Mahogany	"	8d.	per foot.
Honduras ditto	"	6d.	"
Wainscot	"	8d.	"

Prepared Flooring, Veneers, &c. at equally low prices.
Borough-road, Southwark, and Elm street, Gray's-inn-lane.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his flat prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside

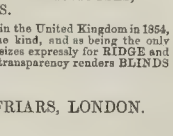
TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for sale on Commission. THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

By Her Majesty's Royal Letters Patent.

VENEERS CUT for the TRADE (by Knife only), by the PATENT VENEER-CUTTING MACHINE by which process a hundred per cent. benefit is guaranteed upon the ordinary method of cutting veneers. For particulars of prices, and specimens of work done by the machine, apply to J. CHACK, Sole Patentee, Veneer-cutting Works, 44, Robert-street, Chelsea, adjoining the King's-road Saw-mills.

STAINING WOOD, to imitate Oak and all other woods, twenty-two different shades.—A perfect substitute for paint 6s. per gallon; varnish prepared for ditto, 10s and 12s per gallon. WILSHERE'S, 3, Talbot court, Gracechurch-street. Agents: WILSHERE, Edinburgh; SMITH and SONS, Northampton. Specimens sent, and estimates given for staining churches, chapels, &c.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.
Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.
TUNED BY MACHINERY.
Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing



FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country. Used and approved at the Offices of the Admiralty, Board of Health. Exclusively adopted by the Crystal Palace Company. Easily cleaned without trouble or expense.—To be seen in operation daily, at J. EVANS and SON'S, Ironmongers, 33, King William-street, London-bridge.

TO SAW-MILL PROPRIETORS, BUILDERS, &c.—ON SALE, a first-class PLANING-MACHINE, with 12-inch rollers and the latest improvements. This machine will plane thickness and groove boards at the rate of 30 feet per minute up to 4 inches thick and 12 inches wide. It will require about 1-horse power. May be seen at Mr. JNO. H. WALKER'S Sawing and Planing Mills, Huddersfield.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

YORK STONE supplied direct from the Quarries.—NOWELL and ROBSON respectfully invite the attention of Architects, Surveyors, Contractors, Builders, &c. to the re excellent STOCK of STONE, combining good colour with durability. Samples may be seen at Kensington Basin and the Great Northern Railway Depôt, King's-cross.—Prices will be sent, and country orders promptly attended to, and delivered at all the Stations on the principal lines of railway, by addressing NOWELL and ROBSON, Quarries, Idle, near Leeds. Purchasers will find the stone of first-rate qualities, and the prices very reasonable.

BUILDING MATERIALS.
BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Dimension pieces, &c. Slate and Roofing Slates from the Llanfrynn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 113, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

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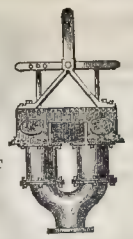
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION and perfect in true by improved machinery, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, coal-hoppers, brewers, chemical works, and in wrought and cast iron copper and brass, for hot or cold liquors &c. &c. Long barrel and Double lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

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FOR CONTRACTORS, BUILDERS, EXCAVATORS, and OTHERS.

A LARGE STOCK, from 3-inch to 9-inch Barrels, with Plain or Sliding Telescope Suction, always on hand.

This description of Pump Work varying in almost every case, it is impossible to quote a general price, but the fullest particulars will be given on application.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

TO BE LET, a PIECE of GROUND for a FOURTH RATE HOUSE, near Sloane-street, at a ground-rent of 4l. per annum, and being the only house to complete the street. Houses in the street always let before they are finished. Apply to Mr. WATTS, Builder, 2, South-street, Grosvenor-square.

FREEHOLD LAND.—To BUILDERS or Part's wishing to build Suburban Road-nes.

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—

Forest-hill, Croydon Railway.
St. Margaret's, near Richmond, South Western Railway.
Oatlands Grange, Weybridge, Surrey, ditto.
Tottenham green, Eastern Counties Railway.
Putney, South Western Railway.
Rectory Estate, Ealing, Great Western Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
Wood-green, Green-lanes, Hornsey, Great Northern Railway.
Old Ford, Stratford, Eastern Counties Railway.

Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of One acre, can be obtained. On the two first estates, large pleasure-gardens are allotted to the freeholders or tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge (for about ten years) less in amount than the ground rent of the same under the usual system. In addition, therefore, to the amount to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building lease. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 6, Chancery-lane.

TO BUILDERS. — Mr. J. SHEPPARD SCOTT, Architect and Surveyor, has some eligible FREEHOLD PROPERTY at Stratford, TO LET on lease for 99 years, at a ground-rent of 3l per house, 65l. will be advanced per house as the works proceed, and there is space for twenty four small houses, to contain four rooms and kitchen, with small room over. Apply for particulars at No. 19, Commercial-road, St. George's East.

TO MANUFACTURERS. — TO BE LET, with immediate possession, with or without the machinery, CHEMICAL WORKS and COPPERAS MANUFACTORY. The copperas manufactured will, in addition to the rent, leave a clear profit of 100l. per annum. The premises are in a populous and within one tide's sail of London; suitable for carrying on manure or other noxious manufacture.—Application to RICH. COTTON, Esq. 31, Lime-in's-inn fields, by letter only.

NEW METROPOLITAN CATTLE MARKET.—HAY STORES TO BE LET.—The Markets Improvement Committee of the Corporation of London will meet at Guildhall, on THURSDAY, the 15th day of MARCH, at ONE o'clock precisely, to receive TENDERS for the HAY STORES at the New Market. Tenders must be sealed up and endorsed "Tender for Hay Store, No.—" The Committee do not bind themselves to accept the lowest or any Tender. Plans may be seen and particulars obtained at the City Architect's Office, Guildhall.

MEREWETHER.

NEW METROPOLITAN CATTLE MARKET.—SLAUGHTER-HOUSES TO BE LET.—The Markets Improvement Committee of the Corporation of London will meet at Guildhall, on THURSDAY, the 15th day of MARCH, at SEVEN o'clock precisely, to receive TENDERS for the SLAUGHTER-HOUSES, public and private, at the New Market. Tenders must be sealed up, and endorsed "Tender for Slaughter-house, No.—" (public or private, as the case may be). The Committee do not bind themselves to accept the lowest or any Tender. Plans may be seen, and particulars obtained, at the City Architect's Office, Guildhall.

MEREWETHER.

HAMPTON-COURT. — BUILDING LAND TO BE LET, for ninety-nine years, with option of purchase, near the above station, and close to East Moulsey Church. A portion of the estate has been laid out for villa residences, some already erected, with gardens running down to the river Mole. The plots vary in depth from about 180 feet to 400 feet, and in price from about 8s. 6d. to 5s. per foot frontage. Another portion has been devoted to cottages (which are much required in this locality), at extraordinarily low rates. The residue of the estate is admirably adapted for shops or small houses.—Apply to F. LETT, Esq. Architect, 30, Essex-street, Strand, London.

GUILDHALL, March 6, 1855.—The Committee for Letting the City's Lands will meet at GUILDHALL, on WEDNESDAY, the 14th MARCH instant, at ONE o'clock precisely, to receive PROPOSALS for LEASES of a House, No. 18, on the east side of South-street, Finsbury; a House, No. 2, on the north side of South-place, at the corner of South-street; and Premises, No. 24, on the north side of South-place; a House, No. 8, City-terrace, Old street-road; and Four Houses, Nos. 6, 7, and 8, Sycamore street, and No. 9, Ragged-row, Old-street. The premises are to be let for 21 years (less three days), from Lady-day next.—Further particulars and plans may be seen, and forms of Tender obtained, at the Architect's Office, Guildhall.

FERDINAND BRAND, Comptroller.

TO CAPITALISTS. — WESTON-SUPER-MARE.—TO BE SOLD by PRIVATE CONTRACT, nearly FOUR ACRES of BUILDING LAND, abutting upon the sea-beach, and entirely overlooking the sea, adapted for the erection of eighty houses, to form a grand square, terraces, and streets. It is now the only frontage land to the sea remaining unbuilt on in this rapidly-increasing bathing place. There are several thousand feet of frontage, a large cottage ornee, with two other cottages, three pews in the parish church, and most valuable restrictive non-building covenants over the adjoining lands. The purchase-money may remain on mortgage, if wished. Immediate possession may be had.—Plans and all particulars obtained of B. GUY PHILLIPS, Esq. Weston-super-Mare.

WATER-SIDE PREMISES. — TO BE SOLD, freehold and part leasehold, BRUNSWICK WHARF and DRAW DOCK, VAUXHALL, many years established in the brick, tile, stone, slate, and lime trade, &c. Excellent RESIDENCE, Offices, Stabling and Warehouses, the whole in substantial repair, adjoining the South-Western Railway Goods Station, and abutting on the road leading to Wandsworth, with 135 feet frontage to the river Thames.—Apply on the premises; or to Messrs. NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 38, Regent-circus, Piccadilly.

VALUABLE BUILDING LAND.—TO BE SOLD in PLOTS, or LET on BUILDING LEASES at moderate ground rent (especial advantages will be offered to Builders). The land is Freehold, and the situation singularly eligible near to a first-class railway station, surrounded by a park and open meadows; the soil gravel, of which there is an unlimited supply; the neighbourhood highly respectable and proverbial healthy, and the demand for villas far exceeds the supply. Further particulars may be obtained of Mr. S. S. SCOTT, Surveyor, 19, Commercial-road, St. George's East; and of Mr. ABRAHAMS Auctioneer and Estate Agent, London road, Twickenham.

DORSETSHIRE. — CLAY LANDS. — TO BE LET, on long leases, several valuable parcels of LAND, in a good clay district, with direct railroad communication. Also, a large BRICKYARD, in working order, with kilns and plant complete.—Apply to THOMAS KINGDON, Esq. Solicitor, Wimborne, Dorset.

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SLUICE-VALVES, fitted with square double-threaded screws, springs, brass nuts, glands, and facings; price, from 2½ inch to 12 inch, 2s. per inch. These valves, being steam tight, and of the best workmanship, are particularly applicable to Baths and Washing-use, and the better class of work. Liberal discount allowed to architects and the trade.—Falcon Engine Works, Loughborough; orders in London kindly received by W. H. WALENN, C.E. 7, Duke-street, Adelphi.

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WARNER'S PATENT CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in Town or country, or of the Patentees and Manufacturers,

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Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 45s. per doz. galvanized.

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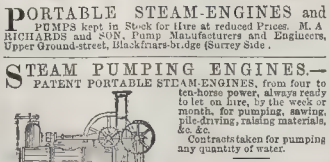

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STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

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Engineers and Contractors,
John's-place, Holland-street,
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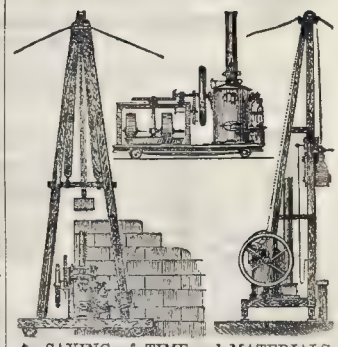

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HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

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"DEAR SIR,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Bacup Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although, for weeks the fire has never been out, we have no stoppage for repairs.

"We remain, dear sir, yours most faithfully,
"Mr. Gough." "DICKSON and McKENZIE."

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PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 14-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work, at Messrs MEDWIN and HALLS, Engineers, 92, Blackfriars road, Sole Patentees and only Manufacturers.

N.B. Any of these Engines may be purchased.

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PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, "POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

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ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 35s. per ton. Importer of Trinidad Asphalte.

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DOULTON AND WATTS,
LAMBETH POTTERY,
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Have reduced the price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
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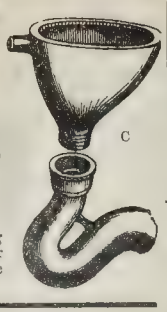

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

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MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
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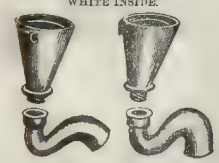
IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.



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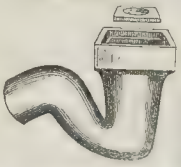

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Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

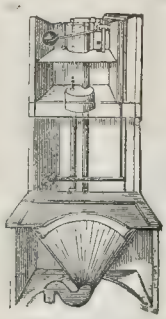
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective Article has not any Crank or Wire to get out of order, and is all complete and ready to use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

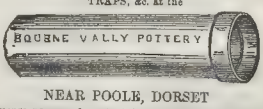
Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to
THE AGENTS:—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of this tubing, the Gutta Percha Company have pleasure in drawing attention to the following letter received from Mr. C. Hacker, surveyor to the Duke of Bedford:—"Office of Works, Woburn-park, Jan. 1, 1852.—In answer to your inquiries respecting the gutta percha tubing for pump suctions, I find that the water has not affected it in the least, although it will eat lead through in two years; we have adopted it largely, both on account of being cheaper than lead, much easier fixed, and a more perfect job. Yours, &c. C. Hacker." N.B. The Company's Illustrated Circulars, containing instructions to plumbers for joining tubes, lining tanks, &c. will be forwarded on the receipt of three postage stamps.—The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

ONE THOUSAND BEDSTEADS to CHOOSE FROM.—HEAL & SON have just erected extensive Premises, which enable them to keep upwards of One Thousand Bedsteads in stock. One Hundred and Fifty of which are fixed for inspection, comprising every variety of Brass, Wood, and Iron, with Chintz and Damask Furniture, complete. Their new warerooms also contain an assortment of BED-ROOM FURNITURE, which comprises every requisite, from the plainest Japanned Deal for Servants' Rooms, to the newest and most tasteful designs in Mahogany and other Woods. The whole warranted of the soundest and best manufacture. HEAL & SON'S ILLUSTRATED CATALOGUE of BEDSTEADS and PRICED LIST of BEDDING, sent free by post.—HEAL & SON, 196, Tottenham Court-road.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 23s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 23, Old Fish-street, near St. Paul's, London.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

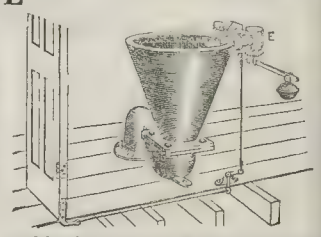
DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

HENRY TURNER, 2, SOUTH WHARF, PADDINGTON,

5s. Traps, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured.—A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.

LAMBERT'S DOOR-ACTION CLOSET.



100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, Wilts County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve-cock, lever, weights, &c. 1l. 18s.; Cottage Closet complete, with white wedgewood basin and trap, with 1 inch patent valve-cock, lever, and handle to pull up, 17s. 6d.

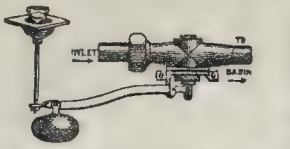
THOMAS LAMBERT and SON,
Patentees and Manufacturers, Short-street, New-cut, Lambeth.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B PEARSE and CO. Great Northern-wharf, York road, King's-cross.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

BURSTING of PIPES by FROST.



This accident is prevented by the use of LAMBERT'S PATENT LEVER VALVE-COCKS, which act as safety-valves.

The lever is weighted, to resist the pressure of the column of water upon the valve, but it is not weighted sufficiently to resist the powerful expansion of water caused by the frost, which lifts the lever, and thereby prevents injury both to valve and pipe. When reaction takes place, the lever and weight resume their original position.

Many thousands of these Valve-cocks are now in use under pressures of from 2 to 300 feet, with uniform success.

Price of ½ inch bore, with sunkplate and handle, 10s. 6d. each.

THOS. LAMBERT AND SON,
Patentees and Sole Manufacturers, Short-street, New-cut, Lambeth.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1855.

TO BUILDERS AND HOUSE DECORATORS.

THE LARGEST STOCK of Upholsterers' Cloths, Baizes, and Druggets, in every width, colour, and quality, is kept at HILL and SON'S, 88 and 89, St. Martin's-lane, Charing-cross. Patterns forwarded upon application.

SCAFFOLDING.—Wanted, to Purchase, 1,000 POLES, 1,000 PUTLOGS, 1,000 BOARDS, 1,000 CORDS.—Apply by letter only (prepaid), addressed, Y. Z. 9, Stratford-grove, Putney.

WILLIAM BATLEY, Engineer and Boiler Maker, Northampton. Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts apply as above.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the necessary and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

GREAT REDUCTION IN THE PRICE OF

JENNINGS'S PATENT WATER-CLOSETS.

LOCAL BOARDS of HEALTH, BOROUGH ENGINEERS, and all interested in SANITARY PROGRESS, are respectfully informed that the commonalities of

JENNINGS'S PATENT IMPERISHABLE WATER-CLOSETS,

can now be had at very reduced prices. These Brown Stone, or Yellow Glazed Pans, in point of efficiency, are equal to the best qualities of Enamelled Ware. Many thousands of these Closets were fixed during the last year in the dockyards of Woolwich, Deptford, Chatham, Sheerness, Plymouth, Devonport, Keyham Steam-yard, the Royal Victualling Establishment, Plymouth, Model Lodging Houses in Town and Country, Prisons, Unions, Asylums, &c., and among the many first-class dwellings fitted with these Closets, may be named the residence of the proprietor of the *Times*, and J. Simon, Esq. Medical Inspector for the City of London; other references if necessary.

JENNINGS'S PATENT DRAIN-PIPES.

The demand for these pipes is proof positive, that some alteration in Drain Pipes was necessary; every week adds a town, or some public work to those already to be drained with these pipes. Last week the Town Council of Oxford decided to use them; this week the Improvement Commissioners for Keovil have decided to use them; as also the Wilts County Magistrates, through their Architect, Thomas Henry Wyatt, Esq. for the Wilts County Militia Barracks and Stores.

A Book containing Illustrations and Particulars of JENNINGS'S Drain Pipes, Water Closets, Urinals, Lavatories, Sluice-Valves, Fire-Cocks, Gully-Traps, Shop-Shutter Shoes, &c. &c. can be had free on application, or by post if two postage stamps are inclosed to

GEORGE JENNINGS, SANITARY ENGINEER,
29, GREAT CHARLOTTE-STREET, BLACKFRIARS-ROAD.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

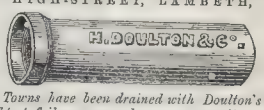
LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.	WIGAN.....James Fairclough, King-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.	KENDAL.....Robt. Thompson.
CORK.....J. and J. Harley	CARLISLE.....C. Armstrong, Lowther-street.
WATERFORD....J. Sparrow and Co	WHITEHAVEN...Hugh Todhunter.
CARNARVON....Jno. Jackson.	COCKERMOUTH..John Hird.
PRESTON.....J. Armstead, Hudson-street.	GUERNSEY.....Guerin, Brothers.
CHORLEY.....Thomas Saville	LONDONDERRY..W. and A. M'Elwee.
BLACKBURN....W. Hopwood, Clayton-street.	LIMERICK.....W. Burgess and Sons.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



Twenty-one large and important Towns have been drained with Doulton's Glazed Stone-ware Pipes, and in no case has the slightest failure occurred, or any necessity arisen for examination.

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

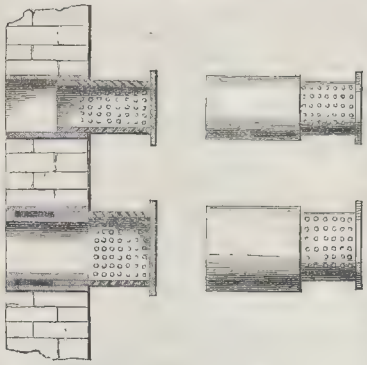
LOOKER'S PATENT VENTILATORS.

This invention consists of a tubular piece of pottery, or other material, of any size or shape, fixed into the wall of a building, in which another with a closed end is made to slide, the latter being perforated about two-thirds of its length with small holes, made in a slanting direction.

When the ventilator is open, or drawn out to any extent, fresh air may be admitted, or impure air find egress, without the slightest draught being felt. It may be closed entirely, opened to admit or carry off as much air as will pass through the larger tube, or regulated with perfect ease to any point.

The engravings represent round ventilators, but they may be square, or any other shape, with the perforations only on the upper part, or the top of the sliding piece may be entirely open.

The fixed tube may be double, the sliding one working in the middle, by which the ventilator may be adapted to any apartment.



Among the advantages which this invention possesses are:—

1. The simplicity of its arrangement.
2. It can be made of any shape, size, or design, and in any kind of pottery to suit every situation.
3. It may be made ornamental, the closed end admitting of any embellishment or device.
4. The pure air is much rarefied by the manner in which it passes through this ventilator.
5. It may be made an effectual preventive of down-draught and back-smoke.

MANUFACTURED in RED POTTERY, for the USE of WORKHOUSES, BARRACKS, FACTORIES, STABLES, FARM BUILDINGS, &c. &c. by the INVENTOR & PATENTEE, BENJAMIN LOOKER, JUN. KINGSTON-ON-THAMES, of whom further particulars, with terms of license to manufacture the above in other material, may be obtained.

TO SANITARY COMMISSIONERS, SURVEYORS, ARCHITECTS, BRASSFOUNDERS, PLUMBERS, BUILDERS, ENGINEERS, &c.

61,000 of the Deaths in England during the Year 1854 are referable to the imperfect operation of the sanitary organisation of our towns.—*Globe*, 1st February, 1855.

MAYER, BOULTON, AND CO.

CORNWALLIS POTTERY, STAPLETON-ROAD, BRISTOL.

This is the only Manufactory in the Kingdom for the exclusive production of Plug Closet, Sanitary, and Lavatory Basins of all descriptions.

M. B. and Co. having an intimate knowledge of, as well as a practical acquaintance with, this peculiar business, can manufacture cheaper than any other house. They invite especial attention to their

DRAB HOPPER BASIN AND TRAP, AT 7s. 6d. EACH,

Delivered in any part of the kingdom;

AND WHERE LARGE QUANTITIES ARE REQUIRED, A LIBERAL DISCOUNT IS ALLOWED.

Orders for White, Drab, Marbled, Blue Printed, Enamelled, and Gilt Goods attended to on the shortest notice.

LONDON DEPOT—18 WHARF, CITY-BASIN;
FLINT AND STONE MILLS, FRAMPTON COTTERELL;
AND THE SANITARY POTTERY NAILSEA (Late Couthupes and Co.)

SALES BY AUCTION.

THE COLOSSEUM.

MESSRS. WINSTANLEY are directed to SELL BY AUCTION, at the MART, Bartholomew-lane, on WEDNESDAY, MARCH 11, pursuant to a Decree in the High Court of Chancery, with the approbation of the Master, in the cause of "Phillips and another v. Turner and others," THE COLOSSEUM IN THE REGENT'S-PARK; an Exhibition of Science and Art, which has justly merited and received the patronage of Royalty, the support of the public, and universal approbation, 15,000 persons having paid for admission, and as much as 5,000*l.* received in the course of one year. THIS VALUABLE AND IMPORTANT PROPERTY, viewed merely as an investment, would produce a very large return for capital, but as a place of public amusement, in the hands of another spirited proprietor (who would add to the numerous great objects of attraction novelties suited to the present time) it offers greater pecuniary advantages, an unsuccessful capability as a public to any other establishment. THE MAGNIFICENT EDIFICE, with its finely-proportioned PORTICO and DOME was originally designed by Mr. Decimus Burton; the interior of the building was rearranged and decorated, at an enormous cost, under the superintendence of the late Mr. W. Bradwell; works of extraordinary merit, by talented artists, have from time to time been produced, and the present Exhibition now possesses the following leading features, viz.: THE GLYPTOTHECA, or MUSEUM OF SCULPTURE. The enchanted Panorama of "LONDON BY DAY," and the two splendid moveable Panoramas of "LONDON BY NIGHT," and "PARIS BY MOONLIGHT," the Stalactite Caverns, Swiss Cottage, Chasm and Lake, Rustic Bridge, the Classic Ruins and Models of celebrated Greek and Roman Temples in the exterior promenade, the extensive and beautiful ranges of Conservatory, Gothic Aviary, splendid Saloon, or Refreshment room, &c. In addition to the foregoing is the GRAND COLORAMA IN ALBANY STREET,

a building of the first order, constructed especially for holding Dioramas on an unparalleled scale. In connection with it is the ELEGANT AND CHASTELY-DECORATED THEATRE, with beautiful stage scenery and other paintings by Mr. Banks, the "THE DIORAMA OF NAPLES," a MUSEUM in the exhibition, showing the great ERUPTION OF VESUVIUS and DESTRUCTION OF POMPEII, A.D. 79, and which, like the preceding one of Lisbon, by Danson, is a masterly production. This portion of the property might be let off as an independent undertaking, and would readily produce a very considerable rental. The working machinery, steam engine, gas, and other fittings, fixtures, and sundry effects, will be included in the purchase. The property occupies a FRONTAGE OF ABOUT THREE HUNDRED FEET, both to the Park and Albany street, and is held by one lease under the Crown for about sixty-seven years, at the very low ground-rent of TWO HUNDRED AND SIXTY-TWO POUNDS EIGHTEEN SHILLINGS PER ANNUM.—Printed particulars may be had, three weeks prior to the day of Sale, at the Colosseum; of Messrs. CHARLIN and HILLIARD, Solicitors, 3, Gray's-inn-square; of Messrs. HINE and ROBINSON, Solicitors, Charterhouse-square; of Mr. ARCHER, Surveyor, 18, Lower-street, Bedford-square; at the place of Sale; and of Messrs. WINSTANLEY, 10, Paternoster-row; of whom may be had orders to view the whole, at 1s. each person, at stated times.

THREADNEEDLE-STREET and FINCH-LANE.—Building Materials of Three Houses.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, MARCH 31, at TWELVE, all the valuable BUILDING MATERIALS of THREE HOUSES, situate at the corner of Threadneedle-street and Finch-lane, comprising sound brickwork, plain and pan tiles and slates, at 3d. timber in roofs and floors, glazed sashes, doors, floor-boards, shop-fronts, iron columns, lead flats, gutters, and pipes, cisterns, stoves, and useful fittings up.—May be viewed the day previous, and catalogues had of Messrs. JAMES and JOHN, Architect, 9, Lawrence Pountney-lane; and of PULLEN and SON, 80, Fore-street, Cripplegate.

The Materials of the Outer Walls of the Gaspar street Compter, containing 2,000 capital Bricks.

PULLEN and SON respectfully announce that they will SELL by AUCTION, on the PREMISES, on MONDAY, MARCH 19, in lots (unless an acceptable offer be previously made by private contract), the capital BRICKWORK and MATERIALS of the outer walls (with a surrounded the late Giltspur street Prison, comprising about 2,000 cubic stock bricks, 200 feet run of stone coping, &c. May be viewed, and catalogues had of PULLEN and SON, 80, Fore-street, Cripplegate.

FARRINGDON-STREET EXTENSION.—Important Sale of Building Materials of Fifty Houses.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on THURSDAY, MARCH 22, and following days, at TWELVE, by order of the Commissioners of Sewers for the City of London, the whole of the VALUABLE BUILDING MATERIALS of about fifty houses, shops, factories, and various premises, situate in Turnagain-lane, Clark's-place, Wild-street, Bittern-place, and Ray-street, Cockerwell, comprising about 1,000,000 excellent bricks, several tons of lead, plain and pan tiles, prime timber, sashes, doors and fittings, floor boards, paving, slate, and an immense assortment of useful materials, fixtures, and fittings. May be viewed two days previous. Catalogues had at the Architect's Office, Guildhall, and of PULLEN and SON, Fore-street, Cripplegate.

Important Sale of upwards of 200 Marble and Stone Chimney-Pieces

MR. BRAY, Jun. will SELL on the PREMISES, Hunter's Marble Saw Mills, Cambridge-heath, Hackney, on TUESDAY, MARCH 24, at TWELVE for ONE, upwards of 200 CHIMNEY-PIECES in Statuary, Black, Bardilla, Vein, and Siberian Marbles, many with carved trusses and other ornaments. The whole are complete and ready for fixing.—May be viewed, and catalogues had, on the Premises, and at the Auctioneer's office, 57, High Holborn.

FIFTEEN TONS OF ROPE, TWINE, AND TOW, 2,000 NEW SACKS, &c. By

MESSRS. FULLER and HORSEY, on FRIDAY, MARCH 10th, at TWELVE, at CANDLER'S WAREHOUSES, Billiter-street, City, 15 tons ROPE, TWINE, and TOW, 2000 new SACKS, &c. in 1,000 dozen twine, assorted, 90 dozen tea-twine, 6 dozen chalk-line, 6 dozen shoe-thread, 40 gross patent sash-line, 3 cwt. Manilla rope, 6 cwt. yarn, 1,500 Dutch and Scotch sacks, 12 cwt. old rope, 12 cwt. old Dutch tow, 5 cwt. coloured yarn, 3 dozen engine mats, quantity of enamelled leather chalk reminders &c. To be viewed on THURSDAY previous, and catalogues had. Catalogues may be had of Messrs. FULLER and HORSEY, Billiter-street, City.

Very valuable and beautifully-situate Freehold Building Land, at Lewisham, with an approach from the Highland-road and also from the Lee and Eltham turnpike-road.

MESSRS. DANIEL SMITH and SON will SUBMIT to SALE by AUCTION, in APRIL next (unless previously sold by private contract), FORTY-EIGHT LOTS of very valuable FREEHOLD LAND, of a rich dry gravelly soil, well watered. It is elevated, commands cheerful scenery, and offers a most desirable site for family residence, within 20 minutes' walk of the railway station. Particulars and plans will be published when the day of sale is fixed, and in the interim may be had at their Offices, in Waterloo-place, Pall-mall; or of Messrs. DRUCE and SONS, Solicitors, Billiter-square

TO CARPENTERS, BUILDERS, CABINETMAKERS, COACH BUILDERS, AND OTHERS. Superior Stock-in-Trade of a Timber Merchant, Charles-street, Hampstead-road.

MR. W. R. GLASIER is instructed to SELL by AUCTION, on the PREMISES, 24, Charles-street, Hampstead-road, on TUESDAY, MARCH 28, at TWELVE for TWELVE, the STOCK-IN-TRADE of a TIMBER MERCHANT, consisting of well-seasoned yellow pine planks, deals, and battens, 1,200 lin. wide spruce deals, sundry planks and white deals and linen panels and deals, 2 superior yellow and white prepared Beading and moulded boarding, 1200 feet lin. of 6-in. pine moulded, rabbeted, bead, and flush, and 4-in. plank and batten. May be view'd the day prior, and morning of sale; and catalogues had on the Premises; of GARRAWAY'S; and at the Offices of the Auctioneer, 21, Chancery-lane.

SALES BY AUCTION.

To Timber Merchants, Shipbuilders, Wheelwrights, and Others.

MR. WILLIAM HODSOLL is instructed by Sir P. H. Dyke, bart. to SELL by AUCTION, at the BULL INN, Dartford, Kent, on FRIDAY, MARCH 9th, at THREE, a large quantity of superior OAK TIMBER, now standing and growing in various woods on the Lullingstone estate. Further particulars will appear in future advertisements and catalogues may be had ten days previous to the sale, at the Inns in the neighbourhood; Palace of Sale; and of the Auctioneer, Farningham, Kent.

IN BANKRUPTCY. Stock of Deals, Dry Pine Boards, and other Timber, Steam engines Sawing frame, and Circular Bench, by order of the Assignees of Mr. W. BOWLER.

MESSRS. HAMMOND and EILOART will SELL by AUCTION, on the PREMISES (old Jamaica Wharf, Upper Ground-street, Dowgate), on FRIDAY, MARCH 16th, at TWELVE, about 70 tons 2nd and 3rd yellow planks, deals, and battens; 45 tons boards, from 1½ in. to 3 in. cut; 1,500 prepared Mordecai's match boarding, feet or edge dittо; two sheet coils of fine tarred Petersburgh flax; beech planks and quarters, for poles, quartering, &c.; also the tire and timber erections of sheds; a three horse high-pressure portable steam-engine and boiler, with capital saw-frame for two sets of saws, circular bench, 28 frame and circular saws, and complete fittings of the saw-mill, &c. To be viewed the day prior and morning of sale. Catalogues on the Premises; of Messrs. RYDON and SON, 11, King William-street, City; J. NICHOLSON, Esq. Official Assignee, Basinghall-street; and at the Auction Offices, 38, Chauncery-lane.

BOROUGH of SOUTHWARK. Ninety-three Freehold Houses, in single lots, each House entitling to a Vote,—particularly worthy the notice of capitalists.

MR. W. F. HAMMOND has been favoured with instructions from the proprietor to SELL by AUCTION, at GARRAWAY'S, on FRIDAY, MARCH 30 at ELEVEN for TWELVE, in single lots, the above valuable FREEHOLD ESTATE, comprising Ninety-three Houses, all lying compact in four blocks, and known as Henry-street and Elham-street, with a frontage in Swan-street, Borough. The description of the property is of the third and fourth rates, well built, having been erected about thirty years, consisting of shops and dwelling houses, which are well occupied, and producing rentals from 10*l.* to 35*l.* each, making a total sum of 1,234*l.* 4*s.* 0*d.* per annum, each house entitling the fortunate purchaser to an important investment to small capitalists, being sold in separate lots, with a special condition granting to every purchaser, as a further facility, the option of leaving one half of the purchase-money upon mortgage, to be paid off by such instalments, and at such periods, as may be mutually agreed upon between the vendor and purchaser; but the vendor will not object to receive proposals for allowing a larger proportion of the purchase-money to remain on mortgage.—N.B. Although the property is appropriated into separate lots, to meet the interests of small capitalists, the auctioneer will be prepared to put up several lots together should it be desired by those present at the time of sale.—Further particulars, with conditions of sale, and plans of the estate, to be had: Messrs. JACOB, COBB & BUCKLE, Solicitors, 4, Basinghall-street, City; at Garraway's Coffee-house, Cornhill; of Mr. SAXON, the Collector on the Estate, 47, Henry street; and at the Auctioneer's Offices, 3, Carey street, Lincoln's-inn.

To Timber Merchants, Cabinetmakers, Pianoforte Manufacturers Coach Builders, &c. &c

MESSRS. C. LEARY and CO. have been favoured with instructions from Mr. Henry Bateman, of 35, Sun-street, Bishopsgate, who is about to relinquish the retail parts of his business) to OFFER by PUBLIC AUCTION, on the PREMISES, about EIGHT HUNDRED, on TUESDAY, the 19th and 20th inst. a FIRST PORTION of his well-known and most valuable STOCK of WOOD, consisting of prime Dry Wainscot, in every thickness; Dry Spanish and Honduras Mahogany, in logs, planks, and boards; Rosewood and Walnut Wood, in planks and veneers; Dry Pine, plank and board; Amboyna Veneers, &c. &c.—Catalogues will be ready in a few days when they may be had, on the Premises, and at the Office of the Auctioneers, 75, Old Broad-street, City

CROYDON, SURREY.—TO BUILDERS, CONTRACTORS, AND OTHERS

ROBERT W. FULLER has received instructions to SELL by AUCTION, at the THREE TUNS Inn, Croydon, on WEDNESDAY, MARCH 14th, 1838, at TWELVE for ONE o'clock, a Stock of dry-seasoned TIMBER, comprising about 12,000 feet of yellow pine, and mahogany of various thicknesses, 7,000 feet white and yellow ditto, 3,000 feet feather-edge weak or boarding, 2,000 feet useful quarter do. 100 square prepared white and yellow floor-boards, laths, scaffold poles, pallings, arris-railing, &c. May be viewed two days previous to the sale, and descriptive catalogues obtained at GARRAWAY'S Coffee-house, Change-alley; at the Place of Sale; and of ROBERT W. FULLER, Auctioneer, Surveyor, and Estate Agent, High-street, Croydon.

TO RAILWAY COMPANIES, CONTRACTORS, SHIP-BUILDERS, AND OTHERS.

ON FRIDAY, the 16th instant, at TWELVE o'clock at noon, precisely, in the BROKERS' SHEDS, south end of the Brunswick Dock, Liverpool.

1,250 St. John Yellow Pine Sleepers, 9 by 12 by 6, ex Lisbon.
4,982 St. John Yellow Pine Sleepers, 9 by 10 by 5, ex Lisbon.
300 St. John Yellow Pine Sleepers, 9 by 9 by 5 and 4½, ex Lisbon.
904 St. John Yellow Pine Sleepers, 9 by 13 by 6, ex Lucy Thompson.
4,883 St. John Yellow Pine Sleepers, 9 by 10 by 5, ex Lucy Thompson.
92 St. John Yellow Pine Sleepers, 9 by 9 by 5, ex Lucy Thompson.

On account of the Importers.

44 Logs Havana Cedar, ex Marina.

Apply to Messrs. B. HALL and Co. Merchants.

1,030 Lancewood Spars, ex sundry vessels

On account of the Importers.

Without Reserve.—On account of whom it may concern.

79 Logs Quebec Yellow Pine.
45 Logs Quebec Red Pine.
85 Logs Quebec Oak.
40 Logs Savannah Pitch Pine.
6 Logs Greenheart and Morra.
182 Oak Treenail sticks, 12 ft. inch.
308 Assorted Planks and Deck Planks.

A Quantity of Hacmatac Treenails, &c

For further particulars apply to

EDWARD CHALONER, Broker.
No. 6, East side, Queen's Dock, Liverpool.

ON WEDNESDAY and THURSDAY, the 28th and 29th instant, commencing at TWELVE o'clock at the first day, and resuming at TEN o'clock on the morning of the second day, in the SHEDS, Brunswick and Toxteth Docks, Liverpool

581 Logs Cuba Mahogany just landed, ex Mariana, from Cuba direct

Apply to Messrs. BERNARD HALL and Co. Merchants.

559 Logs and Planks, St. Domingo Mahogany, now landing, ex Harness, from Hayti.

Apply to Messrs. EDWARD LLOYD and Co. Merchants.

771 Logs and Planks, St. Domingo Mahogany, now landing, ex Galatea, from the Cape.

Apply to Messrs. IMRIE and TOMLINSON, Merchants.

431 Logs and Curls, St. Domingo Mahogany, now landing, ex Marietta, from Hayti.

Apply to Messrs. EDWARD LLOYD and Co. Merchants.

181 Logs, nearly the whole of the above valuable Mahogany, daily expected to arrive, per Louise, from the Bay direct, on account of the importers.

45 Logs Mahogany, ex Rosetta.

Apply to Messrs. CROOSS, GRAY, and Co. Merchants.

1,250 Curls and Logs, St. Domingo Mahogany, ex sundry vessels, on account of the importers.

291 Curls St. Domingo Mahogany, ex Nelson, on account of the importers.

To which will be added quantities of the best Bahia Rosewood, Rio Zebrawood &c. &c.

EDWARD CHALONER, Broker.
No. 6, East Side Queen's Dock, Liverpool.

TO BUILDERS AND OTHERS

MR. A. BOOTH will SELL by AUCTION, on THURSDAY, 22nd MARCH, 1838, at TWELVE for ONE o'clock, at the AUCTION MART, opposite the Bank of England, by direction of the mortgagee, without reserve, a PAIR of UNFINISHED VILLA RESIDENCES, with large gardens, situate and being Nos. 20 and 27, Gravesend-villas, St. Bartholomew-road, Camden road, leading from Camden-town to Holloway; held on lease for sixty-six years and a half at a ground-rent. The above houses are in a forward state, having all the floors and staircases fixed, and a great portion of the roofing completed. May be viewed until the sale; printed particulars and conditions of sale may be obtained at the Auction Mart; of W. KING, Esq. Solicitor, 3, South-square, Gray's-inn; and of Mr. ABRAHAM BOOTH, Auctioneer and Estate Agent, No. 7, Carlton-hill Villa, Camden-road, opposite the Brecknock Arms

KINGSTON-ON-THAMES.—Building Materials.

MR. J. CAIN will SELL by AUCTION, without reserve, on the PREMISES, Apple Market, Kingston, on WEDNESDAY, MARCH 14th, 1838, at TWELVE for ONE, the whole of the excellent BUILDING MATERIALS of FOUR RESIDENCES, comprising a large quantity of timber, 150,000 stock bricks, four lead pumps, about four tons of lead, stone coping, 21 ft. rail-sliding fifty squares of plain and pan tiles, and numerous useful materials. May be viewed and catalogues had of A. B. BUNKHAM, Esq. Architect, 3, Size lane, City; at the principal Inns in the neighbourhood; and at the Auction Offices, Richmond.

KING'S-ROAD, CHELSEA.—Valuable Timber yard, producing 700*l.* per annum free of ground-rent.

MR. GEORGE BERRY will SELL by AUCTION, pursuant to a decree of the High Court of Chancery, made in a cause Clarkson, &c. the AUCTION MART, near the Bank of England, on TUESDAY, the 20th day of MARCH, 1838, at ONE o'clock precisely, in one lot, a valuable LEASEHOLD ESTATE, comprising a timber-yard, engine house, workshop, counting-house, sheds, and other buildings, situate on the north side of the King's road, Chelsea, in the county of Middlesex, and also a double house on the east side of Robert-street, Chelsea. The property is held direct from the freeholder for about 44 years unexpired, and is in mortgage for 1,600*l.* for a period of 14 years from 5th of May, 1824, and is sold subject to such mortgage. The whole of the premises are free of ground-rent, and are let to Mr. Thomas Wilford for 40 years from Midsummer, 1823, at a clear annual rental of 130*l.*—The property may be viewed by leave of the tenant, and particulars and conditions of sale had: of Mr. J. H. KAY, 2, Newman-street; Messrs. JERKINSON and Co. 29, Lombard-street; T. TYRMAN, Esq. Architect, Wakefield Chambers, 340, Strand; and Mr. J. WREST POOLEY, 34, Lincoln's-inn-fields, and of the Auctioneer, at his Office, Motcomb-street, Belgrave-square.

TO SHIP BUILDERS, TIMBER MERCHANTS, TURNERS, and Others.—About 100 fine Elm Trees, one a splendid tree about seven loads, and many others of good dimensions; also a Horse-Chestnut, Beech and other Trees, TO BE SOLD by AUCTION, by

MR. T. BAXTER, on THURSDAY, MARCH 15, 1838, at TWO o'clock at the GEORGE INN, Beckenham, Kent, all readily felled, and lying on Thayer's park, Elm Farm, and Village Farm, near to Penge and Beckenham, Kent, 11 mile from the Sydenham Station, on the Croydon Railway. May be viewed four days prior to the sale; and catalogues had at the Dover Castle Inn, Deptford; Crooked Billet, at Penge; and of the Auctioneer, Bromley, Kent.

GREAT WESTERN RAILWAY. Further portion of the valuable Materials of the Old Terminus of Paddington.

MESSRS. FIELDER and HORNE are instructed by the Directors of the Great Western Railway Company to SELL by AUCTION, on the PREMISES, on TUESDAY, MARCH 20, at TEN for ELEVEN, the valuable MATERIALS and FITTINGS of the BUILDING, consisting the solid board-room and offices, together with the engine-house, smiths' sheds, and other erections, comprising 100 squares of slates, a large quantity of Elm and Deal boarding, excellent doors, sashes, and other fittings, several tons of lead, capital stock brickwork, iron columns, and other effects.—May be viewed one day previous, and catalogues had on the Premises; and of the Auctioneers, 49, Parliament-street, or Coal Exchange.

TO BRICKLAYERS, BUILDERS, and MASONS.—To be DISPOSED OF, in consequence of the death of the proprietor, the GOODWILL, Stock, &c. of an Old established Business, in a good and healthy situation a few miles from Town, at the West End.—The premises being close to the Regimental Barracks, offer a desirable opportunity for a Mason, and would be an excellent opportunity for a Statuary Mason. To any purchaser the coming in would be low. Apply by letter, p.p. to C. D. care of Mr. Spiller, Stationer, 109, Holborn-hill.

TO STOVE-GRATE MANUFACTURERS.—To be Founders, Engineers, Builders, Smiths, and Others. TO BE DISPOSED OF, spacious MANUFACTURING PREMISES, in most desirably situate in a central part of London, and in a leading thoroughfare. The freehold may be purchased if desired. The tools and stock may be reduced to about 200*l.*—For further particulars apply to Messrs. FULLER and HORSEY, Billiter-street, City.

TO BUILDERS, &c.—TO BE SOLD, a well established BUSINESS in the City of London in the PAINTING, PLUMBING, and BUILDING LINE; with an old and respectable connection, which might, with judicious management, be secured to a successor; to which end every facility and long date of lease would be given. The business which has been conducted by the widow of the late proprietor under great disadvantages, is capable of much improvement. Every explanation relating to the amount of business done and doing, will be freely afforded. No agent need apply, as principals only will be treated with. Offers will be taken—Address, prepaid, J. N. X. Mr. Greig's, Baker, Holloway.

LARGE HOUSE and GROUNDS WANTED, by the Committee of the Soldiers' Orphan Asylum, in the vicinity of London, for a temporary Asylum; a healthy site, easy of access, with good drainage and water indispensible. A suitable House and Building Land for the Asylum intended to be built, which might be erected during the occupancy of the temporary building will be preferred.—Particulars to be sent to the Architect, F. HALMAN POWELL, Esq. 4, Gardener's-court, Temple

FREEHOLD LAND.—Wanted to PURCHASE, FIVE to TWENTY ACRES of FREEHOLD LAND, near a railway station, and within twenty miles of London. A direct full particulars to Mr. R. BRETT, 4, Wellington-street, chambers, London-bridge, Southwark.

LEASEHOLD or FREEHOLD.—Wanted to PURCHASE, TEN to TWENTY Long Leasehold or Freehold HOUSES, rentals from 20*l.* to 40*l.* in or near London.—Address, prepaid, to Mr. R. BRETT, 4, Wellington-chambers, London-bridge, Southwark.

WANTED to PURCHASE, a detached Freehold Six or Seven roomed COTTAGE, with a garden, situate in the suburbs of London.—Direct A. Z. 190, Southwark-bridge-road, Borough, London.

OFFICES for an ARCHITECT, with or without apartments, close to the British Museum. An Architectural Draftsman lives in the house. Apply at 25, Great Russel-street, Bedford-square.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of THE BUILDER, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex. Saturday, March 10, 1838.

The Builder,

AN ILLUSTRATED JOURNAL FOR THE Architect, Engineer, Operatives & Artist.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square.—NOTICE to ARTISTS.—All works of Painting, Sculpture, Architecture, or Engraving, intended for the ensuing EXHIBITION at the ROYAL ACADEMY, must be sent in on MONDAY, the 9th, or TUESDAY, the 10th of APRIL next, after which time no work can possibly be received, nor can any works be received which have already been publicly exhibited.

FRAMES.—All pictures and drawings must be in cut frames. All paintings under glass, and drawings with wide margins are inadmissible. Excessive breadth in frames as well as projecting mouldings may prevent pictures obtaining the situation they otherwise merit. The other regulations necessary to be observed may be obtained at the Royal Academy.

JOHN PRESCOTT KNIGHT, R.A. Sec.

Every possible care will be taken of works sent for exhibition, but the Royal Academy will not hold itself accountable in any case of injury or loss, nor can it undertake to pay the carriage of any package. The prices of works to be disposed of may be communicated to the Secretary.

ART-UNION of LONDON. — By Royal Charter. — Prizeholders' select for themselves from the Public Exhibitions. Every Subscriber of One Guinea will have, besides the chance of a Prize, an Impression of a Plate of "A WATER PARTY," by J. T. WILLMORE, A.R.A. after J. M. CHALON, R.A. and a Quarto Volume of Thirty Illustrations of Byron's 'Childe Harold." The prints are ready for delivery, and the volume may be seen at the Office.—Subscription closes 31st inst. GEORGE GODWIN, } Honorary
444, West Strand. LEWIS POCOCK, } Secretaries.

INSTITUTION of BUILDERS' FOREMEN and CLERKS of WORKS.—NOTICE to MEMBERS.—In consequence of WEDNESDAY, the 31st day of MARCH being appointed for a general fast, the ordinary Meeting of this Institution is postponed until the FIRST WEDNESDAY in APRIL next.
W. ALLARD, Secretary.

DEPARTMENT of SCIENCE and ART. Lectures will be delivered during the Spring Session as follows:—

AT THE MUSEUM OF PRACTICAL GEOLOGY, JERMYN-STREET.

On ANIMAL FORM, by Thomas Huxley, Esq. F.R.S. A course of Six Lectures, on FRIDAYS, at FOUR p.m. commencing the 9th of MARCH.

On the HUMAN FORM, by John Marshall, Esq. F.R.C.S. A course of Twelve Lectures, on FRIDAYS, at FOUR p.m. commencing the 27th of APRIL.

On FORM and COLOUR, by John Lindley, Esq. F.R.S. A course of Five Lectures, on WEDNESDAYS, commencing the 9th of JUNE.

AT MARLBOROUGH HOUSE.

On SURFACE DECORATION, by O. Hudson, Esq. A course of Five Lectures, on TUESDAYS, commencing 20th of MARCH

On the HISTORY of ORNAMENTAL ART, by R. N. Wornum, Esq. A course of Twelve Lectures, on MONDAYS, at Half-past EIGHT, p.m. and TUESDAYS, at FOUR p.m. commencing the 2nd and 3rd of APRIL.

On WOOD ENGRAVING, by John Thompson, Esq. A course of Three Lectures, on WEDNESDAYS, commencing the 2nd of MAY.

For Tickets apply at Marlborough House, Pall Mall.

BOROUGH of MIDDLESBROUGH.—SURVEYOR WANTED.—The Town Council of Middlesbrough are desirous to ENGAGE an active and competent person as BOROUGH SURVEYOR. He must be sufficiently acquainted with engineering to be able to survey, plan, and level, and carry out sewerage and drainage works. Population about 11,000. Salary, 150l. per annum. The person appointed will be required to devote his whole time to the office. Further particulars, with respect to the duties to be performed, may be had on application to the undersigned, and applications in the hand-writing of the party, and with testimonials of his character and ability, and a statement of his age, and previous and present occupation, must be at my Office not later than TWELVE o'clock at noon, on TUESDAY, the 20th MARCH next. By order,
JOHN S. PEACOCK, Town Clerk.
Middlesbrough, February 23rd, 1855.

COMPETITIONS.

SOHAM BURIAL BOARD.—DESIGNS for NEW BURIAL-GROUND, CHAPELS, and ENTRANCE-LODGE.—PREMIUM of 10*l.*—The Burial Board for the parish of Soham, in the county of Cambridge, hereby offer a Premium of 10*l.* to the architect or other person whose design for the above chapels and entrance-lodge shall be selected for adoption. Two chapels will be required, one for the use of the members of the Church of England, the other for all other denominations. The cost of the two chapels and entrance-lodge not to exceed in the whole 950*l.* The parish of Soham contains upwards of 4,500 inhabitants. The design, with an estimate of the expense, accompanied by working drawings and specifications complete, to be sent to me, on or before WEDNESDAY, the 11th day of APRIL next, at TEN o'clock in the forenoon, when the examination will take place.—The Board does not pledge itself to employ the architect whose design shall be accepted.—By order,
THOMAS HUSTWICK, Clerk to the said Burial Board.
Soham, March 14, 1855.

PREMIUMS for DESIGNS.—The Woolwich Burial Board offers a PREMIUM of TWENTY GUINEAS for DESIGNS and ESTIMATES for the necessary CHAPELS, LODGE, &c. and the laying out, draining, and planting the intended burial-ground at Woolwich, which sum will be increased to THIRTY GUINEAS if the approved designs be accompanied by detailed working drawings and specifications sufficiently comprehensive to enable the Board at once to enter into contracts for the execution of the works. Designs to be sent in to Mr. HENRY BLAND, Clerk to the Woolwich Burial Board, on or before THURSDAY, the 29th day of MARCH inst. Any person desirous of competing for the above will be furnished with a plan of the ground and other particulars upon application to the Clerk to the Burial Board, at the above address, on and after MONDAY, the 19th inst.

CONTRACTS.

TO BUILDERS AND OTHERS.

SEALED TENDERS, in one specific sum, will be received at the Ordnance Office, Pall-mall, London, on or before the 20th MARCH, 1855, for the following SERVICES at Bull Point, in the parish of Saint Budeaux, near Devonport, viz.:—

1.—Building Cottages for a Foreman and sixteen Labourers.
2.—Building a Cook-house and Wash-house for the Crews of the two Powder Vessels, with Privy and Urinal.
3.—Building an Office for the Ordnance Storekeeper.
4.—Building a Civil Watch-house and a Shed for Waggons.
5.—Building a Warder's Lodge and a Shoe-house.
6.—Building an Engine-house.
7.—Building a Boat-house.
8.—Removing the present wooden Filling and Examining-house at Keyham to Bull Point.

Detailed working drawings of above eight services, with addenda thereto, and every requisite information may be obtained at the Royal Engineer Office, Bull Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from THURSDAY, the 1st, to FRIDAY, 16th of MARCH, 1855, both days inclusive.
Royal Engineer Office, Devonport, 23rd February, 1855.

TO BUILDERS AND CONTRACTORS.

MILITARY DEPOT for the County of DENBIGH, at Wrexham. — Any person willing to CONTRACT for BUILDING the new MILITARY DEPOT, for the custody of the stores, arms, and accoutrements of the Royal Denbighshire Rifles, and for ERECTING a HOSPITAL, with QUARTERS for the Sergeant-Major and Six Sergeants of the Permanent Staff, together with all necessary Outbuildings, and for forming the PARADE GROUND, may see the plans and specifications, after the 9th of MARCH next, upon application to Mr. WHITTAKER, at the Turf Tavern, near the Railway Station at Wrexham, or at my Office in Oswestry. Sealed Tenders to be sent, addressed to me, at Gwerasylit-hill, on or before the 18th day of MARCH, endorsed "Tenders for the Military Depôt at Wrexham." The Contractor will be required to enter into security, with sufficient sureties, for the due completion of the works. The lowest Tender may not be accepted, without having due regard to the eligibility of the parties.—Any further information may be obtained at my Offices at Oswestry, and Gwerasylit-hill, near Wrexham. THOMAS PENSON, Architect.
Oswestry, February 21, 1855.

EXTENSION OF TIME.

BURSLEM LOCAL BOARD of HEALTH. NEW TOWN HALL.—CONTRACT for GAS FITTINGS.—The Local Board of Health are prepared to receive TENDERS for the supply and fixing of the CHANDELIERS, PENDANTS, BRACKETS, and the necessary GAS FITTINGS required for the lighting of the New Town-hall. Drawings and specifications may be seen, and further particulars obtained, on application to C. T. ROBINSON, Esq. Architect, 35, Upper-parade, Leamington; or to Mr. RALPH HALES, Cobridge, Surveyor to the Local Board. Sealed Tenders must be sent to me on or before TUESDAY, the 3rd day of APRIL next. By order,
JOSEPH LOWNDES, Clerk.
Public Offices, Burslem, February 10, 1855.

NEW TOWN-HALL BUILDINGS, PRESTON.—To BUILDERS.—Masons, Bricklayers, Plasterers, Slaters, Plumbers and Glaziers, Carpenters, Joiners, Smiths, and Painters, desirous of CONTRACTING for all or any of the works required to be done in the ERECTION of the above BUILDINGS, upon the site of part of the present building, are hereby informed that the plans and specifications may be seen at the offices of the Architect, from MONDAY, the 9th, to SATURDAY, the 14th of APRIL next, both inclusive, and in the Council-chamber, Town-hall, Preston, from MONDAY, the 16th, to SATURDAY, the 21st of APRIL next, both inclusive. Tenders, endorsed "Tender for Works," must be sent to me on or before FOUR o'clock on TUESDAY, the 24th of APRIL next. Bills of quantities, and any other information may be had at the Offices of the Architect, Mr. WILLIAM HILL, 53, Albion-street, Leeds. No allowance will be made for estimates, and the lowest Tender will not be necessarily accepted.
ROBERT ASCROFT, Town clerk.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will meet at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 20th day of MARCH inst. at ELEVEN o'clock a.m. precisely, to open TENDERS for the SUPPLY of MATERIALS, and the execution of the day jobbing and measured works of the said Commission within the limits of the undermentioned districts and divisions, viz.:—

1. Fulham and Hammersmith, Counters Creek and Ranelagh districts, in one Tender.
2. Eastern and Western Divisions of the Westminster Sewers, the Regent street and Regent's-park District, and the Holborn Division, in one Tender.
3. Tower Hamlets and Poplar, and Blackwall Districts, and Finsbury Division, in one Tender.
4. Greenwich and Rotherhithe Districts, in one Tender.
5. Surrey and Kent and Wandle Districts, and the Districts west of Wandle, in one Tender.

The Tenders are to be upon the basis of schedules of prices, and the contracts are to be for one year from the date of the contract, and bonds subject to determination in the manner stated in the conditions. Parties wishing to submit Tenders may, on payment of 10*s.* 6*d.* obtain printed forms, with general conditions, particulars, descriptions, and schedules, on application at No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. on and after TUESDAY, the 13th day of MARCH instant. Each Tender is to include neither more nor less than the number of districts or divisions as classified as above, and to be inscribed, "Tender for the Works in the ——" (the names of the districts or divisions to which the Tender is to apply being inserted). No Tender will be received after ELEVEN o'clock a.m. precisely, on the said 20th day of MARCH, and any Tender which is not upon the printed form and schedules of the Commissioners, and duly signed by the party or parties tendering, will be rejected. The parties whose Tender shall be accepted will be required to enter into bonds with two responsible sureties, to be bound jointly and severally in the sum of 3 000*l.* for the due performance of their contracts respectively. The Commissioners do not bind themselves to accept the lowest or any Tender.—By the Court,
G. H. WOOLRYCH, Secretary.
1, Greek-street, Soho-square, March 9, 1855.

PONTYPRIDD GASLIGHT and COKE COMPANY.—To IRONFOUNDERS and GASHOLDER-MAKERS.—The Directors of this Company are prepared to receive TENDERS for a CAST-IRON TANK, 63 feet in diameter by 16 feet deep, with columns, girders, &c. and a GASHOLDER, to work in the same, the whole to be erected and fixed complete, at the Company's Works, Pontypridd, Glamorganshire. Plans and specifications with conditions of contract, and forms of Tenders obtained, after the 13th instant, upon application to Mr. HENRY BOWEN, Engineer Gas Works, Cardiff. Sealed Tenders addressed to the Chairman of the Directors, to be forwarded, under cover, to MONTAGUE GROVER, Esq. Solicitor, Cardiff, on or before the 4th day of April next, endorsed "Tender for Tank," or "Gasholder," as the case may be.—The Directors do not bind themselves to accept the lowest or any Tender.
Cardiff, March 8, 1855.

TO BUILDERS.

PARTIES desirous of TENDERING for the whole of the works required to be done in PULLING DOWN and RE-BUILDING a DWELLING-HOUSE, with front shop, work-shops, and offices, on the Cornhill, Bridgewater, may see the plans and specifications, and obtain every requisite information, at the Offices of Mr. DOWN, Architect, Bridgewater. Sealed Tenders are to be delivered on SATURDAY, the 31st of MARCH, but the lowest Tender will not necessarily be accepted.

TO BUILDERS.

PARTIES desirous of TENDERING for a CHAPEL, to be built at Chepstow, may see the plans and specifications at my Office; or at Mr. JAMES COLES, Chepstow. Tenders to be delivered to the Rev. J. ALDIS, Chepstow, on or before the 31st inst. The lowest or any Tender will not necessarily be accepted. JAMES WILSON, F.S.A. Architect.
1, Belmont, Bath, March 14, 1855.

TO BUILDERS.

SCHOOL-HOUSE and TEACHERS' RESIDENCE, in the Birchills, Walsall.—PROPOSALS for the ERECTION of the above will be received by the Rev. CHARLES DIXON, the Parsonage, St. Peter's, Walsall, where the plan and specification may be seen, on any day before the 29th MARCH. The committee do not bind themselves to accept the lowest or any Tender.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the REBUILDING of the PARISH CHURCH of ABERPORTH, about six miles from Cardigan, are informed that the drawings and specifications may be seen at the Office of THOMAS MORGAN, Esq. Solicitor, Cardigan, on and after the 19th inst.; or at the Office of Mr. R. J. WITHERS, 6, John-street, Adelphi, London. The Tenders to be delivered at the Office of THOMAS MORGAN, Esq. Cardigan, on MONDAY, the 26th inst. endorsed, "Tender for Rebuilding Aberporth Church." The committee do not bind themselves to accept the lowest Tender.
Aberporth, Cardiganshire, March 7, 1855.

DONCASTER CHURCH.—To BUILDERS and OTHERS.—Such Builders or other persons as may be willing to TENDER for the ROOFING PITCHING, &c. of the above-named Church, are requested to send their names to HENRY WHITAKER, Esq. Doncaster, for the Architect, GEORGE GILBERT SCOTT, Esq. 20, Spring-gardens, London, from whom orders may be procured to see the new plans and specifications, and information obtained as to the conditions of the competition and the time for receiving the Tenders. Proper security will be required, and the Committee do not pledge themselves to accept the lowest Tender.
R. BAXTER, } Hon Secs.
Doncaster 12th March, 1855. H. WHITAKER, }

[*For remainder of Contracts see next page.*

CONTRACTS.

WEST COWES LOCAL BOARD of HEALTH.—To IRONFOUNDERS.—The Local Board are ready to receive TENDERS from parties willing to undertake the following Contract.

CONTRACT No. 3.—For delivering at Cowes the yards of Cast-Iron Socket-Pipes, 12 inches in diameter in the clear, weighing not less than 1cwt. 3qrs. per yard, in lengths of 9 feet each; the whole to be delivered by the 1st day of MAY, 1856.

Forms of Tender and other particulars may be had on application at my office. The Tenders to be delivered by the 27th day of MARCH instant.

HENRY JAMES DAMANT, Clerk to the Board.

Cowes, March 17, 1855.

BOROUGH of BIRMINGHAM.—"THE BIRMINGHAM IMPROVEMENT ACT, 1851."—BIRMINGHAM SEWERS.—CONTRACT No. 33.—To CONTRACTORS for PUBLIC WORKS.—The Public Works Committee of the Council of the said Borough hereby give Notice, that on MONDAY, the 26th day of MARCH instant, they will meet at the Committee-room, Borough Surveyor's Office, to receive and open sealed Tenders from persons willing to CONTRACT with them for the CONSTRUCTION of the following WORKS, viz.: MAIN BRICK and PIPE SEWERS, 19,365 feet in length, in the undermentioned Streets and Places, viz. Bordesley-street, Lower Park-street, Adderley-street, Alcester-street, High-street, Bordesley, Camp-hill, Stratford-place, High-street, Deritend, and Branch left from Rea, Saint-street, Birchall-street, Moseley-street, Bradford-street, Sherlock-street, Green-street, Warwick-street, Macdonald-street, Thomas-street, Vaughton-street, Berry-street, Berlin-street, Sherlock-street. Together with JUNCTIONS for BRANCH SEWERS, 1,750 feet in length; as also Side Entrances, Manholes, Lamp and Ventilating Shafts, and Stools, Ventilating Necks, Gullies, and all Works connected therewith. Forms of Tenders together with general conditions, plans, sections, and specification of the proposed Work, may be seen at the undermentioned Offices daily, between the hours of TEN and FOUR. The party whose Tender may be accepted shall enter into a bond, jointly and severally, with two responsible sureties, in a sum equal to one-fourth the amount of his Tender for the due performance of the contract. Any Tender which is not strictly in accordance with the printed forms of the Council will be rejected. The Council do not bind themselves to accept the lowest or any Tender.

J. PIGOTT SMITH, Borough Surveyor.

Borough Surveyor's Office, Moor-street, March 13, 1855.

BOROUGH of BIRMINGHAM.—"THE BIRMINGHAM IMPROVEMENT ACT, 1851."—BIRMINGHAM SEWERS.—CONTRACT No. 34.—To CONTRACTORS for PUBLIC WORKS.—The Public Works Committee of the Council of the said Borough hereby give Notice, that on MONDAY, the 26th day of MARCH inst. at TEN o'clock precisely they will meet at the Committee-room, Borough Surveyor's Office, to receive and open sealed TENDERS from persons willing to CONTRACT with them for the CONSTRUCTION of the following WORKS, viz.: MAIN BRICK and PIPE SEWERS, 7,565 feet in length, in the undermentioned streets and places, viz. Spring-vale, Spring-vale left-hand-road, and Great Colmore-street, Sunstreet, West and Summer-street, Bromsgrove-street, Great Colmore-street, Bourne-place, Essex-street, Little Hill-street, and Little Ann-street. Together with JUNCTIONS for BRANCH SEWERS, not less in length, as also Side Entrances, Manholes, Lamp and Ventilating Shafts, and Stools, Ventilating Necks, Gullies, and other Works connected therewith. Forms of Tender, together with general conditions, plans, sections, and specification of the proposed Works, may be seen at the undermentioned Offices daily, between the hours of TEN and FOUR. The party whose Tender may be accepted shall enter into a bond jointly and severally with two responsible sureties, in a sum equal to one-fourth the amount of his Tender for the due performance of the contract. Any Tender which is not strictly in accordance with the printed forms of the Council will be rejected. The Council do not bind themselves to accept the lowest or any Tender.

J. PIGOTT SMITH, Borough Surveyor.

Borough Surveyor's Office, Moor-street, March 13, 1855.

BOROUGH of BIRMINGHAM.—"THE BIRMINGHAM IMPROVEMENT ACT, 1851."—BIRMINGHAM SEWERS.—CONTRACT No. 35.—To CONTRACTORS for PUBLIC WORKS.—The Public Works Committee of the Council of the said Borough hereby give Notice, that on MONDAY, the 26th day of MARCH inst. at TEN o'clock precisely, they will meet at the Committee-room, Borough Surveyor's Office, to receive and open sealed TENDERS from persons willing to CONTRACT with them for the CONSTRUCTION of the following WORKS, viz.: MAIN BRICK and PIPE SEWERS, 2,961 feet in length, in the undermentioned streets and places, viz.—from the River Rea main sewer, near the aqueduct of the Worcester and Birmingham Canal, to the Lower Park-street, along the line of open sewer to the Dutch branch of the Birmingham and Fazeley Canal, under the said canal, and in the Bantbury-street, Banbury-street, Bartholomew-street, Duddeston-row, Park-street, Albert-street, Moor-street, Bowyer-land, Pinfold-land, New Canal-street and Cattle-street. Two Intercepting Gullies on the Freeschool estate. Walmer-lane, near St. Stephen's Church. From the main sewer, New Town-row, Bowyer-land, along Newt-town-row, under the Birmingham and Fazeley Canal, in Lancaster-street, Lancaster-street, Stafford-street, Tanter-street, Vauxhall-street, and to extend from the main sewer at Newt-town, along Assembly-street, Penn-street, Penn-street, New Thomas-street, and Tanter-street. From the intended main sewer at junction of Saint-mary-row with Newt-hill, under the Birmingham and Fazeley Canal, in Snow-hill, and Severn-street. Together with JUNCTIONS for BRANCH SEWERS, 1,050 feet in length; as also Side Entrances, Manholes, Flushing Apparatuses and Stools, Ventilating Necks, Gullies, and other Works connected therewith. Forms of Tender, together with general conditions, plans, sections, and specification of the proposed Works, may be seen at the undermentioned Office daily, between the hours of TEN and FOUR. The party whose Tender may be accepted shall enter into a bond jointly and severally with two responsible sureties in a sum equal to one-fourth the amount of his Tender for the due performance of the contract. Any Tender or schedule which is not strictly in accordance with the printed forms of the Council will be rejected. The Council do not bind themselves to accept the lowest or any Tender.

J. PIGOTT SMITH, Borough Surveyor.

Borough Surveyor's Offices, Moor-street, March 13th, 1855.

SOUTHPORT WATERWORKS.—CONTRACTS for ENGINE-HOUSE, BOILER-HOUSE, COOLING-POND, SERVICE RESERVOIR, &c.—The Directors of the Southport Waterworks Company are ready to receive TENDERS for the CONSTRUCTION of an ENGINE HOUSE for the waterworks steam engines, BOILER-HOUSE for three boilers, COOLING-POND, and SERVICE RESERVOIR, BRICK, STONE, WALLING, &c. Plans and specifications, and forms of Tender obtained, on application to THOMAS HAWKSLEY, Esq., of No. 1, Great George-street, Westminster, London, the engineer to the company; or at the Office of Mr. WM. HARPER, 19, Silver-street, Bury, Lancashire. The several terms required must be rendered in sealed envelopes, and with the necessary Deposit accepted, and delivered to Mr. WILLIAM HARPER, No. 17, Silver-street, Bury, on or before WEDNESDAY, the 14th day of MARCH next, by order,

WM. HARPER, Clerk to the Company.

Bury, Lancashire, Feb. 28, 1855.

THE PHŒNIX GASLIGHT and COKE COMPANY are ready to receive TENDERS for TAKING AWAY all the SMALL COKE or BREEZE from their three Stations. The quantities will be about 3,000 tons each from Bankside and Vauxhall, and 1,500 chaldrons from Greenwich. Tenders for separate parcels of less than 500 tons, or for delivery in smaller quantities than 50 tons, will not be accepted. Two contracts will be entered into, each for one year. The contractor will make a deposit of £100 as a security for the due performance of his contract. Tenders to be delivered at the Company's Office, Horsleydown, on or before the 20th day of March, 1855. Two contractors will be required to enter into bond with sufficient sureties, each in the sum of £1,000, for the due performance of the contract. Tenders to be marked with the words "Breeze Tender," on the cover, and to be delivered at their Office before TWELVE o'clock on TUESDAY, 20th instant.

March 14, 1855.

CONTRACTS.

TO BUILDERS, who may be desirous of TENDERING for the ERECTION of a Pair of VILLAS, on the land (late Prescot and Collins's Farm, Hare-stock Hill, for S. S. ALPOND, Esq. may view the plans at my office, from MONDAY next, until the 30th instant, when the Tenders are to be delivered. Copies of the quantities and specification with condition, will be furnished on payment of two guineas. The highest Tender will not necessarily be accepted.—R. H. MOORE, Architect, 4, Queen's-terrace, Albert-road, Regent's-park.

TO BUILDERS AND OTHERS.

NOTICE is hereby given, that PLANS and SPECIFICATIONS for BUILDING TWO RESIDENCES, in the parish of Caterham, near Croydon, in the county of Surrey, will lie at the Office of Mr. G. H. DREW, No. 28, Parliament-street, Westminster, from MONDAY the 26th day of MARCH instant, till THURSDAY, the 29th day of MARCH instant. All parties willing to CONTRACT for Building the said Houses, and executing the Works connected therewith, are invited to send in sealed Tenders, directed to Mr. G. H. DREW, 28, Parliament-street, on or before THURSDAY, the 12th day of APRIL next. In the Tenders the amount for each house is to be given separately. The advertisers do not bind themselves to accept the lowest or any Tender.

LIME TENDERS.—The Phœnix Gaslight and Coke Company are ready to receive TENDERS for the supply of WHITE FLARE BURNT LIME, for their stations at Bankside, Vauxhall and Greenwich, until Ladyday in next year. The quantity will be about 15,000 tons. The lime to be fresh burnt from the 1st of January, or of the current year, and to be delivered on the stations as quantities as ordered, in no exceeding two yards at a time; or in barge loads of sixty or eighty yards, divided between two stations. Each load of white flare burnt, parties may tender to supply common chalk lime, only taking care to so designate it in their tenders. Payment to be in cash, quarterly, or in coke, at the option of the company on the commencement of each quarter; or parties tendering can offer for payment in cash only in the present year. The Tender to state the lowest price per yard for lime in carts and also separate price if delivered by barge, and also the price for coke to be taken in exchange. The Tender to be marked with the words "Lime Tender," on the cover, and to be delivered at the Company's offices, at Bankside, before TWELVE o'clock on TUESDAY, the 20th inst.

March 14th, 1855.

TO ARCHITECTS.

NEW SENATE-HOUSE for the CITY of HAMBURG.—The Commissioners appointed by the Senate of Hamburg for erecting the new Senate-house, hereby give notice that the plans selected from the designs sent in for competition the following three, to which they have awarded the premiums in the following order:—

"Gott mit uns!" designed by George Gilbert Scott, of London.

"Passe que dois Adrienne que pourra," designed by A. Meuron, of Hamburg.

"Was schad versuchen," designed by Ludwig Franz Carl Bohnstedt, Member of the Imperial Academy of Arts in St. Petersburg.

The Commission requests all other competitors to reclaim their designs as early as possible, by sending their receipts to the Syndicats Cancley in Hamburg, between the hours of ONE and FOUR in the afternoon.

THE COMMISSION FOR THE ERECTION OF THE NEW SENATE HOUSE

Hamburg, February 24, 1855.

BUILDERS and PERSONS desirous of CONTRACTING for the NEW CHURCH at Tidebrook, in the parish of Wadhurst, in the county of Sussex, may see the specification, and all particulars be obtained at J. NEWINGTON'S, Esq.'s, Tunbridge Wells; or, on and after the 20th of MARCH. Tenders to be sent in before the 30th of APRIL, to the Rev. THOMAS HENRY RUSHFORTH, Esq. 1, Trinity-place, Charing-cross. The committee do not bind themselves to accept the lowest Tender.

TO BUILDERS.

PERSONS desirous of submitting TENDERS for the ERECTION of a NEW VICARAGE HOUSE and OUTBUILDINGS, at High Ercall, near Wellington, Salop, may inspect the plans, &c. at the Vicarage, on and after the 26th day of MARCH, at the Bull's Head Hotel, Wellington, and at the offices of the Architects, Messrs. WEHNERT and SHROWN, 32, Charles-cross, London. Sealed Tenders to be delivered at the Vicarage, High Ercall, on or before the 11th day of APRIL next. The lowest or any Tender will not necessarily be accepted.

SOUTHPORT WATERWORKS.—TENDERS for ENGINE-HOUSE, BOILER-HOUSE, COOLING-POND, SERVICE RESERVOIR, &c.—Notice is hereby given, that PRINTED SCHEDULES of the quantities of the various Works will be furnished, among with the specifications, on and after THURSDAY, the 15th of MARCH instant; and the time for receiving Tenders is extended until the 31st day of MARCH instant—By order,

WM. HARPER, Clerk to the Company.

Bury, Lancashire, March 8, 1855.

HEREFORD IMPROVEMENT.—To CONTRACTORS, IRON-FOUNDERS, SANITARY PIPE-MAKERS, &c.—The Committee of the Town Council acting under the Hereford Improvement Act, hereby give Notice, that they will receive at the Guildhall, Hereford, on the 2nd day of APRIL, 1855, at HALF PAST TWO o'clock, in the presence of the Contractors from parties who may be willing to become Tenderers for the following WORKS, viz.:

CONTRACT No. 1.—For manufacturing and supplying at Hereford, certain cast-iron branch and socket pipes, bends, junctions, taders, covering-plates, and other special castings, and gully-grates, safety gratings and flaps, ventilating-grates, cast-iron culvert, cast-iron columns for cattle-sheds, cast-iron railing, &c. &c.

CONTRACT No. 2. For manufacturing and supplying glazed earthenware socket and spigot pipes, gullies, syphons, traps, &c. &c.

CONTRACT No. 3 includes the construction of a reservoir, filterbeds, tanks, pools, well-holes, basins, and building water-pipes, culverts, retaining-walls, wash-outs, and other works connected with the water-supply; also the construction of certain brick sewers, side entrances, vertical shafts, the laying and jointing of pipe drains, and other works connected with the sewerage, with the fixation and metalling of the cattle market, building boundary-wall round the same, constructing roads, sheep and cattle-pens, gates, fencing, and other works connected with the cattle-market.

CONTRACT No. 4.—For supplying and erecting a corrugated galvanized iron roof over certain sheds, with other works connected therewith.

The Committee will require proper sureties for the fulfilment of the respective contracts. Plans, sections, and specifications of the above works, together with the forms of Tender, may be inspected at the Hereford Improvement Office, Widemarsh-street, on and after the 1st day of MARCH instant. Any further particulars may be had from Mr. T. CURLEY, C.E., Hereford. The Committee do not bind themselves to accept the lowest or any Tender.

RICHARD JOHNSON, Town-clerk.

Hereford, March 8th, 1855.

EAST and WEST-INDIA DOCK COMPANY.—TENDERS for STONE for ROADS.—The East and West-India Dock Company are ready to receive TENDERS for 500 YARDS of BROKEN GUERNSEY GRANITE, and 750 YARDS of BROKEN FLINTS, either together or for separate parcels, as according to a specification and particulars which may be had at the Engineer's Office, Western Docks.—Tenders, addressed to the Secretary, to be delivered at the Dock House, Billiter-square, on or before the 20th MARCH, 1855.

GEORGE COLLIN, Secretary.

East and West-India Dock House, Billiter-square, March 8th, 1855.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of TEN HOUSES at Poplar, may see the plans and specification at the offices of F. HAYMAN FOWLER, Esq. Architect, 4, Bedford-row, Temple, from MONDAY, the 19th, to SATURDAY, the 24th inst., on which latter day the Tenders are to be delivered by TWELVE o'clock. The lowest or any Tender will not necessarily be accepted.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION-HOUSE PLACE, and 8, BERKELEY-STREET, LONDON; BERKELEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Feeding, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKELEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE PLACE, CITY, LONDON.

SKAIFE'S GALVANIZING WORKS, Commercial road, Limehouse, London

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated.—Roofs fixed complete.

J. Skaife is also agent for Messrs. Rogers's Patent Galvanized Tinned Iron, Plumpe Zink, and Pipes.

An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,

Patent Corrugated, Galvanized and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices: Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

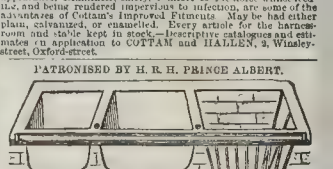
JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them, for that purpose, in point of neatness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Island Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

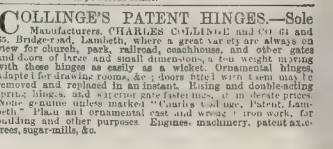
SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from LIVERPOOL to BOW, near London, close to the Bow Railway Station.—A large variety of Buildings always on view, churches, chapels, shooting boxes, lodges, houses, ornamental villas, dwelling-houses, farm buildings, and for roof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practice and experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's improved Fixtures. May be had either plain, galvanized, or enamelled. Every article for the harness-room and table kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 3, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse, 81, Upper Thames-street.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

RAIN PIPES &c. — F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O-G Gutters, Socket Pipes for Water or Gas, Hinge Pipes, Hot Water Pipes and all sanitary ones, Sash Weights, and other castings, Iron work for Bakers' Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competitors, and contracts taken to any extent. Goods landed. A powerful crane.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 61 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, on which the weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing rooms, &c.; doors fitted with them may be removed and replaced in a moment. Raising and double-acting spring hinges, and supreme gate fastenings, of moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

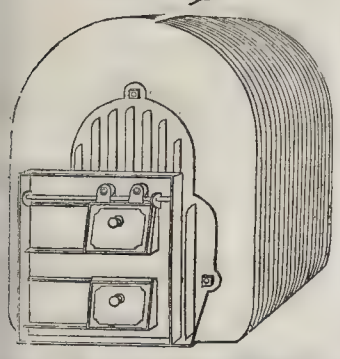
THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

Gill Stove.



for Firing underground

STUART AND SMITH'S

PATENT GILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

STUART AND SMITH,

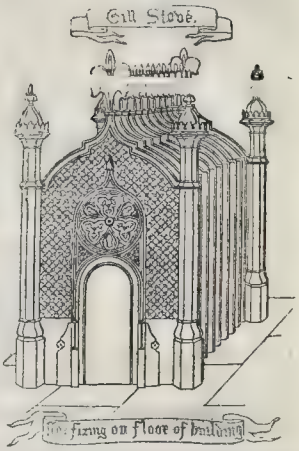
ROSCOE-PLACE, SHEFFIELD,

confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

Prospectuses, and every information, sent on application.

Gill Stove.



for Firing on Floor of building

FLAVEL'S PRIZE KITCHENER.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

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EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

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COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL

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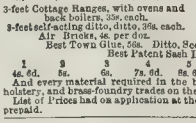

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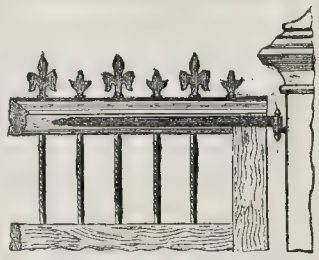

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The Builder.

SATURDAY, MARCH 17, 1855.

WE have fallen somewhat behind in our report of papers read at the Royal Institute of British Architects, and must endeavour to supply the omission. Let us first say that the Queen has, by a letter from the Hon. Col. Phipps to Earl de Grey, approved and sanctioned the award of her Majesty's gold medal to M. Hittorff, architect, of Paris. Further, that a deputation from the Institute, consisting of Mr. B. Ferrey, vice-president; Messrs. J. J. Scoles and C. C. Nelson, honorary secretaries; and Mr. W. L. Donaldson, honorary solicitor, had an interview on the 10th instant with Sir Benjamin Hall, the President of the General Board of Health, on his proposed Health Bill. The chief points the Institute are endeavouring to get altered are, that surveyors and inspectors should be duly qualified, and should be incapable to perform works within their own districts; and if the building clauses are struck out, as Sir B. Hall in the House of Commons said he proposed to do, that the local boards should not be able to frame similar by-laws without there being a sufficient controlling party, such as the Board of Works, to sanction them. There are other points which they intend urging in committee referring to their professional duties.

On the 5th, Mr. C. C. Nelson gave a general account of Salzenberg's illustrated work on the "Early Christian Monuments of Constantinople, from the Fifth to the Twelfth Century."

The earliest remains of Christian buildings in Constantinople, if any of them exist, date from the first half of the fourth century, when, according to Du Cange, not less than 430 religious edifices, churches, chapels, and monasteries were raised in the city and its suburbs under the auspices of Constantine; but the difficulty of access to the mosques into which the Christian churches had been converted presented insurmountable obstacles to any satisfactory investigation, especially of Sta. Sophia, till the repairs in the years 1847-1848 afforded a favourable opportunity, and the King of Prussia despatched Salzenberg to the spot. Aided by Fossati, the architect employed, he was enabled to prosecute his researches, and take full and accurate measurement of that building and its details, as well as to collect other materials for the work in question, which forms a valuable supplement to the collection of views published by Fossati from drawings made on the same occasion.*

Following Mr. Nelson,—the largest portion of the work is devoted to Sta. Sophia; but various other buildings are also illustrated and described.

Though the buildings of Diocletian and Maxentius exhibit much skill in the construction of large vaultings, they show the extent to which art had declined at Rome and in the provinces. The hasty and probably slight construction, the numerous earthquakes, and human violence, have prevented any of those subsequently erected by Constantine in his new capital from enduring as examples to the present time. But the remains of Justinian's buildings bear evidences of the influence of the late Roman art during the first period of the Byzantine school. In them the Roman Corinthian and Composite orders are imitated, though with many deviations. The leafage is treated in an Hellenic rather than in a Roman manner—the tradition of older works previously introduced from Greece and Asia Minor. This peculiar acanthus-like treatment of the leaf ornament continues in works of the Byzantine school to the latest period, and something very similar may be observed in mediæval buildings of the west of Europe. Though the columns present an imitation of the attic base, deep and heavy members are introduced at each end of the shaft in place of the classic apophyge. Alterations in the proportions of the entablature and its divisions, the omission of the corona in the cornice, the overcharging the entablature with egg and bead enrichment and flutings—arches springing at once from columns, or the architrave curved to form an archivolt to the arches between them—these and many other licenses to be seen in the buildings of the late Roman school may be observed in those of the early Byzantine.

The first church dedicated to Sta. Sophia by Constantine, or his son Constantius (326-360), which appears to have been a Basilica after the Roman type, with a wooden roof, was destroyed by fire during a revolt A.D. 532. Justinian entrusted the erection of the new edifice to Anthemius of Tralles. It was commenced within forty days after the fire, and having been completed in less than six years was dedicated on the 26th December, 537. Security from fire was a condition strictly enjoined on the architect, which the vaulted construction has fully ensured to the present day, notwithstanding the numerous conflagrations that have occurred in the city.

Several remarkable deviations from the arrangement of plan observed in the earlier churches result from the particular kind of vaulted covering adopted, which consists of a cupola vault, supported over a quadrangular space by four equal semicircular arches or barrel vaults, corresponding with the sides of the square. The transition from the square to the circular form at the foot of the cupola is effected by means of gussets or pendentives, filling up the angles between the semicircular arches. The interior thus derives an imposing effect from the boldness of the vaulting, though the show of colour and of precious materials has been preferred by the Oriental Christians to correctness of form and execution in the sculptured enrichment. Columns of rare marble taken from ancient buildings, walls lined with many-coloured marbles, and vaults covered with golden mosaic—produce an interior to rival the painted walls and gilded ceilings of later basilicas. The walls and vaults are of brick. The external elevations are plain and exhibit the naked constructive forms, which divide the larger masses into portions, again subdivided and terminated by simple horizontal members. The external covering of the roof rests immediately on the vaulting.

Twenty-two years after the dedication, a violent earthquake having destroyed the eastern part of the cupola, Justinian caused it to be raised 25 feet; the counterforts were strengthened, and the interior was renovated. Since that time, notwithstanding the numerous earthquakes which have taken place at Constantinople in the course of thirteen centuries, the bold system of construction employed at Sta. Sophia has lasted well, and but few extensive repairs are on record.

After the fall of Constantinople, A.D. 1453, Mahomed II. destroyed the arrangements adapted to Christian worship, and dedicated Sta. Sophia to the service of Islamism. The effects of this change are, however, less visible in the interior than on the exterior of the building; the form of Mahomedan worship being simple, and consisting chiefly in the repetition of daily prayer. The mihrab, a niche indicating the direction of Mecca and containing the Koran; the minber, a raised stand from which the prayer for the Sultan is repeated on Fridays; the mahfil, a platform of moderate height from which the Koran is read; lamps for illumination during the *fête* of the Beiram; and a carpet spread over the pavement, constitute the requirements of a Dschami or place of meeting of the faithful to which at Sta. Sophia the Makssure, an enclosed elevated seat for the Sultan, has been added on the north of the space formerly appropriated to the clergy.*

The building had been much neglected of late years, till the present Sultan entrusted the work of restoration to Fossati, who not only carried out substantial repairs and removed many of the useless buttresses, but also effected a partial restoration of the ancient splendour of the interior: the marble work was cleaned and repolished, the golden mosaic vaulting freed from coats of whitewash, deficiencies supplied with gold leaf and ornament in oil colour, and only the personal representations on them forbidden by the Koran were again concealed to preserve them for future generations. The external face of the walls after the repair was stuccoed and painted with alternate bright yellow and reddish bands, to represent layers of stone in the style of Late Byzantine and Arabian architecture.

Sta. Sophia is situated near the Palace of the Seraglio, at the eastern extremity of the present town, where the original Byzantium stood. The apse of the church does not exactly face the east, but, as in most churches in Constantinople, it is turned somewhat towards the south-east, the direction of Jerusalem. The external main walls of the church enclose a space which is nearly square—the length inside, exclusive of the eastern apse, being 241 and the breadth 224 feet.† In the middle, four strong semicircular arches, supported on piers at the angles of a square space, carry the cupola. Between the four main arches in the centre pendentive vaults are introduced, which meet in a circle 100 feet in diameter. This circle forms a gallery at the springing of the great cupola, which there measures 104 feet across between the ribs, and rises at the crown to the height internally of 179 feet from the pavement.

The reader described the building at length: we must content ourselves with fewer particulars.

The materials used in the construction of the building are brick and a kind of peperino freestone, the latter where great pressure occurs, as in the four main piers of the cupola and the adjoining piers, and in those carrying the arched ribs in the side halls. A course of stone 2 feet high is laid about 4 feet above the pavement all round the building. The original external walls and vaultings are of brick: the later additions show alternate layers of brick and quarry stone. The Turkish counterforts are of wrought stone.

The main inclosing walls are about 70 feet high, and are 3 feet 6 inches thick on the north and south, 4 feet 6 inches on the east, and 5 feet on the west, between the nave and the narthex. The principal cupola appears at first sight to rest upon four arches, each 100 feet wide, but in fact only those on the east and west have that span, and on the north and south the real supporting arches are diminished in width to 72 feet, and only three-fourths of the circumference of these last arches has radiating joints, the parts next the springing being laid horizontally. The buttresses attached to the main piers on the north and south were at first only carried up to the spring of the great arches, and were concealed beneath the roofs over the side galleries, but after the fall of the dome they

* Aya Sofia, as lately restored by order of H. M. the Sultan Abdul-Medjid. Folio, London: 1852.

* Numerous authors, ancient and modern, have occupied themselves with the history and description of Sta. Sophia. Among the early Byzantine writers, Procopius, Paulus Silentiarius, and Agathias, contemporaries of Justinian, are alone deserving of confidence: the late Greek authors abound in fabulous narratives. Gyllius and Grelot visited the church in the seventeenth century, and Du Cange affords much valuable information in the Third Book of his Description of Constantinople.

† All the dimensions are given in Prussian feet, 100 of which are equal to 103 English, or 1 foot is equal to 1·03 English.

were raised by command of Justinian, so that they now are within 18 feet of the basis of the cupola, and form vast projecting masses, necessary perhaps for the stability, but certainly injurious to the external appearance of the building.

The cupola of St. Peter's at Rome is not seen with effect till the spectator is beneath it, and its supports equal half the space left free. From the central entrance-door of Sta. Sophia, the eye embraces at a glance the greater part of the interior, with the aërial cupola, the supports of which amount to barely one-tenth of the unencumbered space.

Of the three kinds of interior decoration employed, sculpture, marble linings, and glass mosaic painting (oil painting was not used, unless gilding the ornaments in relief be considered such), the first holds only a subordinate place, and is obviously not a main element of Byzantine art; but the marble decoration is in unison with the Oriental taste for show and glittering colours, which was gratified by the display of rare and precious materials, taken from ancient temples throughout the empire. All the walls of the interior of the church and narthex are lined, from the pavement to the vaulting, with slabs and bands of variously coloured marbles. In the church the mass is divided horizontally by two cornices of white marble, simple in profile and enriched with leaf ornaments, and a cornice is carried round the foot of the cupola. All the bands, as well as the panels, are surrounded by narrow borders of white marble, charged with fret work. The larger panels have wider borders of the same material, carved with ribbons and rosettes between frets and beads: by this means a marked division of the various marbles is obtained. Single friezes and panels are further ornamented by mosaic work, like the Florentine, representing leafage and tendrils, flowers, fruits, and animals. The arches and spandrils over the columns between the great piers in the nave are covered with relief ornament in white marble: on the upper floor these parts contain mosaic work of coloured marble. The ornament, which has a peculiar stencilled character, was once gilt, and the remains of deep red colour are seen in the sinkings. The walls of the bema are of the richest description, being almost entirely covered with slabs of marble mosaic: they formed with the barrel vault over them the arcus triumphalis, under which stood the gorgeous ciborium and the holy table. The walls of the adjoining apse, which contained the patriarchal chair and the seats of the priests, are less ornamented.

In obedience to the command that combustible materials should be avoided, the window openings are filled with bars of marble or stone, and the leaves of the doors were of bronze, or of wood covered with it. The larger window openings are subdivided by piers or columns with narrow architraves or transoms fixed midway in the height. Perforated slabs, 4 inches thick, form the window bars, which are about $3\frac{1}{2}$ inches wide, and are splayed inwardly. The panes of glass * (originally cast singly), vary in height from 9 inches to 10 inches by 7 inches to 8 inches in width. The door dressings are of marble, with the exception of those belonging to the royal door which are of bronze. Of the bronze door leaves, those at the south end of the narthex are alone deserving of special notice. They are apparently formed of Hellenic work of the best kind taken from some ancient temple, with Byzantine additions to adapt them to the opening. The plates of bronze, $\frac{1}{8}$ inch to $\frac{1}{4}$ inch thick in the old part, $\frac{3}{8}$ to $\frac{1}{2}$ inch in the later, are fixed on leaves of wood 4 to 5 inches in thickness.

According to Paulus Silentiarius, the ambo was placed centrally between the main eastern piers, but advanced somewhat westward, and beneath it the singers stood behind a barrier. Behind the ambo, the solea, appropriated to the inferior clergy, occupied the whole of the space under the eastern half cupola, which was separated from the rest of the nave by a low divisional wall.

Mr. Nelson, after alluding to the discrepancies existing in different accounts as to the dimensions and other particulars of the dome or cupola of Sta. Sophia, expressed a hope that another evening might be devoted to domes, as much more might be said upon the subject generally; and he hoped, in reference to Sta. Sophia, they might have the benefit of Mr. Petit's researches on the question of Byzantine architecture, and its applicability in the present time. Mr. Garbett's work might also be consulted on the subject, as the author traced the change from the Roman style of cross-vaulting to that used at Sta. Sophia, and compared the cross or groined with the domical, and pointed out the merits and defects of each in a very clear manner. It would be interesting to consider the different modes of lighting domes; the ancient western example, the Pantheon, was lighted from the centre; the eastern ones from the sides; and the modern domes of Europe from the centre. He also showed how domes had been progressively heightened, from the proportions found in the Pantheon to those of the most recent building.

The internal decorations of Sta. Sophia, the magnificent clothing and completion of the carcase, were left in the hands of Mr. Digby Wyatt, and were treated of by him at a meeting held on the 19th. We shall give the substance of his address next week.

* It is doubtful whether the glass panes in the windows belonged originally to the building.

THE WEATHER-COCKS AND VANES OF THE LONDON CHURCHES.

SUCCESS and excellence in art depends in a great measure on attention to details. Some of our greatest painters, whose style became eventually remarkable for breadth and vigour, at the outset of their career were almost to a painful extent careful of the most minute details. The early drawings of Turner, the landscape painter, are curious examples of patient finish.

In architecture, attention to the hundreds of details which form the grand whole, is of great importance. Even without this remark, we think that the termination of "the heaven-directed spire" will be acknowledged by most as a matter worth considerable attention. On it depends whether or not the eye, after passing pleasantly over the bold masses of a building, the chaste and beautiful decorations, the pinnacles, turrets, and other portions, shall by the lofty spire convey the eye (pleasing it as distant music does the ear) to the clear sky.

Vanes were used in very early times; but there is little information on the subject to be found. In the indexes to the long range of volumes of the "Gentleman's Magazine," that most venerable of periodicals, which is still strong and hearty in its old age, we find, although almost every phase of antiquity is considered, there is little mention made of vanes or weather-cocks. A correspondent gives it as his opinion, that they were introduced during the time of the great French war, as a sort of emblem of the changeable opinions and movements of that people! Another correspondent replies, that the church weather-cocks are of more antiquity; and this is all we can find on the subject by an examination of the indexes of the publication alluded to. The "Archæologia" is in like manner scanty of information: all that we find there is the remark, that the cock is frequently introduced in the ornamental part of mediæval architecture as an emblem of watchfulness.

The Temple of the Winds at Athens had a vane. Chaucer (as quoted in the Oxford "Glossary") writes:—

> "O sterne people, vnsad and vntrue,
> Are vndiscrete, and changing as a *fane*."

Shakspeare only speaks of the *weathercock* twice in the whole of his plays; of the *vane* twice, and the *vane and weathercock* once. Evelyn, when journeying in Kent, says that the weathercocks were very numerous, and placed not only on the churches, but also on the farm-houses, barns, stacks of corn and hay, and on the large trees. He found sometimes on one tree several weathercocks, which he supposed had been placed there by the rustics at times of festivals and rejoicings.

It may be noticed, that at the period alluded to by Evelyn, when barometers for denoting the changes were not to be met with as now in every farm-house, the weathercock would be of considerable importance in agricultural districts; and it is probable that in out-of-the-way places there would be so little skill used in their manufacture, that a number might be necessary in order that a majority should inform the rustics *which way the wind blew*. Having stated this much respecting the origin of weathercocks, we leave the subject open to the ingenious remarks of our readers.

Many as are now the forms of the vanes on English churches, it would seem that an effigy of the wakeful chanticleer was the first pattern. We still meet with him on the old churches, barns, stacks, &c. in Kent, Somersetshire, and several other counties, and the village maypoles in parts of Gloucestershire, are still surmounted by the original weathercock. Since then the ingenuity of man has invented many devices for the purpose of showing the direction of the wind—arrows, greyhounds, horses, sportsmen, and other devices too numerous to mention. The London churches display a considerable variety, some by no means remarkable for their beauty (17, 18, and 19). No. 3, on the south transept of Westminster Abbey, is a good example, probably about the date of Henry VII. Nos. 8, 9, 10, may be taken as samples of the vanes on many of Sir Christopher Wren's churches. They are useful, plain, and commonplace. There are, however, several exceptions, for instance, the dragon on Bow (11), the gridiron on St. Stephen's, Wallbrook (14), emblematical of the martyrdom of that saint, &c. The portly-looking cock near the Guildhall (12), richly gilt, is a comfortable looking specimen, for the execution of which the artist had no doubt in his day the admiration of the ward. On the Church of St. Clement's Danes, the weathercock is ornamented with an anchor, the instrument of St. Clement's martyrdom. St. Clement is the patron of *blacksmiths*. "His quality," says Hone, "in this respect is not noticed by Brand, or other observers of our ancient customs, nor do they mention any observance by that trade in commemoration of his festival. But the following communication" (which we condense), "will show the estimation wherein he is held among the 'cunning workers in iron.'"

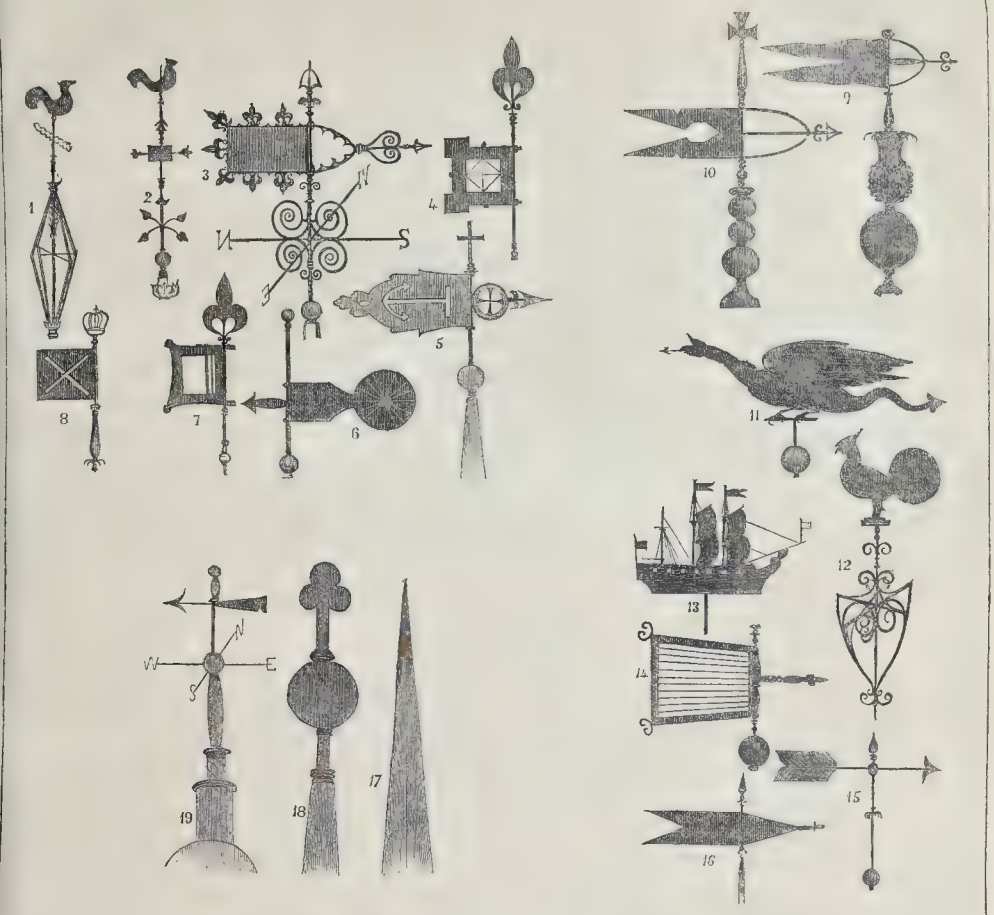
The secretary of the Benevolent Institution of Smiths jogs Mr. Hone's memory, and hopes he will not forget St. Clement's-day (Nov. 23), in the "Everyday Book." "When I was a child," says the secretary, "an old man went about in the trade, reciting the following ode on smithery, which I believe is very old." This ode would seem to be dated 1610. It begins—

> "By reading old authors you will find,
> The smithes have been a trade time out of mind;
> And it's believed they may be bold to say,
> There's not the like of them now at this day:
> For was it not for smiths, what would we do?
> We soon should lose our lives and money too."

The poet proceeds at some length to sound the praises of the smiths. Old Clem. then recites the following speech:—"I am the real St. Clement, the first founder of brass, iron, and steel from the ore. I have been to Mount Etna, where the god Vulcan first built his forge, and forged the armour and thunderbolts for the god Jupiter. I have been through the deserts of Arabia—through Asia, Africa, and America—through the city of Pongrove—through the town of Tipnings, and all the northern parts of Scotland. I arrived in London on the 23rd of November, and came down to his Majesty's dockyard at Woolwich to see how the gentlemen Vulcans come on there. I found them all hard at work, and wish to leave them well on the 24th."

Clement was a follower of the apostle Paul.

THE WEATHER-COCKS AND VANES OF THE LONDON CHURCHES.



It is said that he suffered martyrdom, and an anchor has been assigned to him as an emblem of distinction because, it is alleged, that he was thrown into the sea with an anchor round his neck.

It was curious to note, when making these slight sketches, how many eyes were directed by our own to the weather-cocks. Many of these persons seemed so struck with astonishment that a stranger would imagine they had seen them for the first time, and yet most of them had passed and repassed for years, and would have noted in an instant if one of the vanes should have been blown down by a storm; but the eye becomes so accustomed to things of daily sight, that they are seemingly unnoticed, and still day after day the taste becomes debased or raised by all that is reflected through the eye to the mind.

1. New Church, Margaret-street.
2. Do. Camden Town.
3. South Transept Westminster Abbey.
4. Houses of Parliament.
5. St. Clement Danes, Strand.
6. St. Mary's-in-the-Strand.
7. Houses of Parliament.
8, 9, 10. Wren's City Churches.
11. Bow Church.
12. Near the Guildhall.
13. St. Mildred's.
14. St. Stephen's, Walbrook.
15, 16. Common examples of Weathercocks in London.
17, 18, 19. London Church Termination.

FOOD AND ITS ADULTERATIONS.

THE SCIENCE OF SHAM.

Having within the last few years made some little progress in clearing away that *outward* filth which stands so much in the way of our projected Life *Assurance* Association, in which life for a century is to be the perennial profit, and health for a century the accordant bonus, in return for perennial cleanliness and good arrangement as the sanitary premium, it cheers us to see a prospect of progress also towards the realization of that *inward* cleanliness which must constitute an essential portion of the requisite *premium*, and ought to be specially seen to by proper authorities. Meantime, there are able sanitary labourers busily at work in preliminary inquiries, which will not a little hasten the happy era of health and long life. Of these labourers, amongst the most important is the Analytical Sanitary Commission of the *Lancet*, a commission which has advanced nothing in the way of assertion as to food-adulteration without special verification by microscopical and chemical science, and which, therefore, stands apart from almost all previous testifiers to the extent and prevalence of such adulteration, much of what had been previously written on this subject having been collected from hearsay evidence merely, and some of it based on mere suspicion, so that the subject as a whole was somewhat distorted, and occasionally exaggerated in certain points, and hence discredited, whilst in others little or no conception existed as to the extent and universality of malpractices affecting substances held till recently to be beyond the power of analysis, although from their vegetable nature or origin comprising an extensive and important portion of our daily food and drink.* The very difficulty of detection thus admitted on the one hand, and understood on the other, has till now afforded a tempting field for rascality, on which dishonest *manufacturers* and tradesmen but too eagerly entered, and from which they have already reaped but too much gain. Imagining themselves perfectly safe in such malpractices, they have not even rested satisfied merely to pass off adulterated articles as genuine, but not seldom have even had the consummate impudence to extol their spurious compounds as something of a most superior and ultra genuine description. Often, too, they have not only most unscrupulously adulterated their goods with immense proportions of spurious ingredients, but have even grossly adulterated these various ingredients, whether sold in deceitful combination or in a separate form, thus too, accordingly, often cheating the smaller fry of cheaters themselves.

Such being the state of matters until recently, the astonishment and confusion of these knavish manufacturers and traders may be conceived when they became aware, as many of them now are for the first time, that what che-

* "Food and its Adulterations; comprising the Reports of the Analytical Sanitary Commission of the *Lancet*, for the Years 1851 to 1854, inclusive." By A. H. Hassall, M.D. Longman and Co. London. 1855.

mistry had failed to do in the exposure of their hidden tricks, that important instrument,—the microscope, had proved itself to be perfectly capable of doing! This is the unexpected *eye-witness*, to whose penetrating investigations we are likely to be now indebted for the total overturn of a hideous and abominable system of imposture. Every different vegetable substance (and mineral as well indeed) has its own peculiarities of appearance, which completely distinguish it from all spurious accompaniments, such as those which so commonly exist in many necessaries and luxuries, including coffee, cocoa, tea, sugar, flour, arrow-root, tapioca, sago, spices, &c. And where the microscope may fail, there analytical chemistry steps in, and these two witnesses go hand in hand in unmasking that knavery which not only plunders the ill-filled pockets of the poor, but fills their stomachs with filth and rubbish, nay, not seldom with positive and deadly poison; and even where that is not the case, imposes on all articles which, while they ought to nourish, do but emaciate, and so, as well as otherwise, in many ways undermine the health of the rich as well as the poor.

It is by a steady and continued exposure of this villanous system that we hope ere long to see established a true *Exetse*, if it may still be so called, which will maintain an efficient and constant supervision and inspection of every article in use for food or drink, for luxury or for medicine; with power to bring within the fangs of the law every evil-doer who robs the people either of money or of health by the manufacture or the sale of adulterated articles coming under any one of these four heads, if not indeed of any kind of article whatever, whether for internal use, or for mere external; for adulteration prevails to an enormous and most shameful extent in many other branches of trade besides those connected with the food, drink, or drugs of the people; witness the building trades themselves, and their spurious cements, paints and oils, &c.—their white leads made up with plaster of Paris, and their plaster of Paris with something still cheaper. It would be well, however, were white lead and plaster of Paris confined to the building trades: perhaps indeed confectioners, in erecting their elegant brides' and other ornamental cakes and confections, may rank themselves amongst the building trades, since they include amongst their usual building materials, not only plaster of Paris and white lead, but lime and clay, chrome lead, and numerous other *paints* of lead, copper, mercury, and arsenic, wherewith to attract the eye, and repel the stomach of the young and unwary.

Adulterations and poisonous impregnations are not the only evils connected with the food, &c. of the people which demand correction. The same authorities to whom the supervision of these ought to be committed, must, of course, be empowered to punish those who sell, or who manufacture for sale, unwholesome articles, even though genuine so far as regards adulteration. Nor do we restrict our meaning here merely to such substances as tainted meat, rotten hams, eggs, &c. stinking fish, &c. There are abominations of this kind which neither smell nor eyesight can reveal to the purchaser or consumer. Thus almost every specimen of raw or brown sugar examined by the Analytical commission to whom we have referred, was defiled by microscopic insects of loathsome form and aspect! In many specimens, the article under examination was infested with myriads of vermin, and it is actually believed that "the grocers' itch," got by "handling" sugars is produced by these insects, which, in fact, are closely analagous to microscopic insects which produce other kinds of itch. Flour is another article of great and universal consumption sometimes infested with a similar "mite" or *acarus*, though not to so appalling an extent as sugar seems to be; but flour has been suspected, when very old, to be the actual cause of deadly diseases attributed to epidemical, atmospheric, or other causes.

Though not usually subject to objections so disgusting as that of brown sugar, which is so often partaken of, either in a raw state, or without heat sufficient to kill the *acarus sacchari*, which survives even a pretty smart or scalding heat, bread is a substance exceedingly obnoxious to various most grievous, unprincipled, and objectionable tamperings. Thus bad flour is made to appear good, and dingy flour white, by an admixture of alum, which also enables the bread to absorb much water, and is hence extensively used by bakers and millers; and so deleterious is this admixture, that Liebig was lately induced to offer a sort of compromise by recommending the use of rice instead, which, it appears, absorbs or enables the bread to absorb still more moisture, and so still certainly to cheat the public in the weight of the staff of life—which is not *water*, essential as that "element" is—but at all events, thus to withdraw the positively deleterious alum. Potatoes are also much used to adulterate and cheapen bread.

Cocoa is another important article, possessing in its genuine state very nutritive qualities, and even esteemed by some medical men as an effective substitute for cod-liver oil in cases of consumptive disease, but which is vilely, or at least unscrupulously adulterated. This seems to be particularly the case with the numerous "homœopathic cocoas," a cognomen which would appear to have been satirically applied by the manufacturers in order to indicate that the article contained but a homœopathic or minute dose of the real cocoa in combination with the potato starch, mitey brown sugar, red ochre, &c. of which it is mainly composed.

As for coffee, it is notoriously still in many cases half chicory, which chicory is itself in as many instances made up of "roasted wheat and rye flours, burnt beans and acorns (pigs' food), burnt sugar, saw dust (!), mahogany sawdust (!!), carrot, or mangel wurzel!" and is nicely tinted with "ferruginous earths," or "black jack!"

Tea is in more senses than one often a *sloe* poison, elegantly painted of a lovely green, black, or blue by help of such innocent *blooms* as those made up of indigo and prussian blue, black lead, Chinese yellow, French chalk, or China clay.

Amongst the many (amusing were they not melancholy) instances of audacious knavery, by aid of which, with a due quantum of impudent effrontery, the cheapest or most rubbishy articles are palmed off on the rich invalid or other *bleedable* and believing customer, is one in which the changes have of late been pretty loudly rung on the taking titles "Revalenta," "Ervalenta," "Everlanta," "Relaventa," &c. a most invaluable and "astonishing," "health-restoring food," or farina, derived "from the root of an African plant somewhat similar to our honeysuckle." Each of the honest people who advertised this precious article declared all the others of course to be spurious,—to be made of mere beans and barley-flour,—or of some other similar common and contemptible ingredients. The principal firm, whom we shall call the *Do* Farina Company, *which* consists, it seems, of one German Jew, took the wind out of the sails of another of the tribe in a very clever way. This worthy colleague, if we may so call him, seeing that both were in league against the public pocket, though not in Co. had very knowingly procured an imposing chemical testimonial from a celebrated "analytical chemist," to the effect that his was the real genuine article. Messrs. Do Farina and Co. by dint of a double fee probably, and prepared specimens, *did* the poor chemist out of a similar genuine testimonial, and then exposed this, his own testifier, as a pecuniary humbug, thus completely neutralizing the credit which his opponent had derived from him. This chemical testificate system is very properly reprobated by the analytical commission, and in the present instance well it might be, for the microscope revealed to them the fact that the precious farina, sold "in canisters of not less than 5 lbs. each, price 22s." was no other than a mixture of bean or lentil meal and barley-flour, worth "about 2d. per pound!" It was to be supped with a syrup titled "Melasse," and which turns out to be nothing more or less than mere molasses, more commonly called treacle! Yet still the invalid and innocent public suck away confidingly at the African "honeysuckle" root, at the reduced price of 2s. 9d. per pound, and well lubricated with "Melasse" in "7s. bottles, carefully packed," and worth at least 3d. to 4d. per pound weight.

For the many thorough and salutary exposures of imposture thus effected, the public are deeply indebted to Mr. Wakley and Dr. Hassall in particular, and to the Analytical Sanitary Commission in general, of which they were the prime movers. Dr. Hassall states that the inquiry thus originated:—In 1850 he came to reside in London, and not many months had elapsed ere he saw that something was radically wrong with most of the articles of consumption commonly sold in the metropolis,—a distinguished compliment assuredly to sharp-set Cockney commerce,—and he was led to make certain microscopical and other investigations, the result of which he communicated to the Botanical Society, and which attracted some public attention; after which, Mr. Wakley communicated with the author, and had the moral courage to propose a thorough analytical investigation, and publication of the results, under the auspices of a commission to be appointed for the purpose. This investigation is still going on, and the present elaborate and important volume constitutes merely the first fruits. It is illustrated with numerous engravings of microscopic objects, many of which are of special interest, apart altogether from their bearing on the subject of adulteration.

RUINOUS BUILDINGS UNDER METROPOLITAN BUILDINGS ACT.

COSTS OF HOARDING.

A FEW weeks ago, Mr. John Day, the vestry clerk and assistant overseer of St. George's, Southwark, summoned the owner of some dilapidated houses in Mint-street, to recover the value of a hoarding erected in front of them by the parish authorities, under the Buildings Act.

Mr. Day stated that the houses in question were in such a dilapidated state, that they were really dangerous to the public passing them. A survey was made, and the houses were condemned by the district surveyor. The parish authorities, according to their sense of duty, erected a hoarding in front of them, and gave the owner notice to pull down within fourteen days. The houses were pulled down within that time, and the parish authorities removed their hoarding, which cost 12*l*. It was sold for 3*l*. and then they sought to recover the balance from the defendant.

Mr. Allen, for the defendant, contended that his client was not liable. The Act of Parliament, 41st, 42nd, and 43rd sections, clearly defines the liability. The parish authorities for the protection of the public placed up the hoarding, and sent a notice to his client to pull down within the fourteen days. He did so, and consequently had nothing to do with the expense of the hoarding. He (Mr. Allen) stated that a year or two ago he was engaged in a similar case for the parish of St. Anne, Soho, when Mr. Hardwicke gave his judgment against the parish, inasmuch as the owner of the property had pulled down within the fourteen days.

Mr. Combe, the sitting magistrate at Southwark Police-office, said he had communicated with Mr. Hardwicke on the subject, and after mature consideration he was of the same opinion. Had not the defendant pulled down the houses after receiving fourteen days' notice of condemnation, then the parish authorities could have pulled them down, sold the material, and reimbursed themselves for the expense of the hoarding out of the proceeds. The parish authorities certainly were, in a moral point of view, rather imposed upon, as it might seem proper that the owner should pay the expense of the hoarding erected around his own property, but that was their duty as protection to the public. Had the houses fallen, the blame would have rested on them, and they were bound to protect the public.

Mr. Day considered that the parish authorities were entitled to be reimbursed the sum they were actually out of pocket. The Act of Parliament never contemplated that the parish rates were to be expended in protecting ruined property, which was well known to the owners to be in such a state, instead of going to the support of the poor. He (Mr. Day) cited the different clauses in the Act, in order to show that he was entitled to the sum demanded.

Mr. Combe said the Act of Parliament was perfectly clear on the subject. The defendant had complied with it, and had nothing whatever to do with the expense of the hoarding. He must, therefore, dismiss the summons. At the same time, he must say that Mr. Day had acted very properly in bringing such a case before him, and had conducted it in an able manner.

It is difficult to believe that the views of those who framed the Act coincided with that taken by the magistrate, however the wording of the

A may justify the decision. Section 40 makes it t' duty of the overseers, on receiving copy of e district-surveyor's certificate of condemna-on from the official referees, to shore up the uilding or put up a proper hoard for the safety f all passengers, and to give the owner notice to repair or pull down within fourteen days. If within the fourteen days the repair or demolition be not begun, they are "authorized and required" to cause such repair or demolition to be performed. Section 41 authorizes them, "with regard to any such such ruinous building *so pulled down*," to sell the materials, and to reimburse themselves for putting up the hoard, pulling down the building, and all other expenses; and section 42 enables them, "if the moneys arising from such sale be insufficient," to levy the amount deficient under the warrant of magistrates by distress and sale of owner's goods. The Act makes no provision beyond this for the recovery of expenses where no materials have been taken down and sold; and as, in the case above reported, the owner himself took down the building within the fourteen days, the magistrates decided that the overseers could not recover for the erection of the hoard. The correctness of this decision seems to us very doubtful. It could not have been intended that, because *all* the expenses were not borne by the overseers, *none* should be recoverable. It might be that the surveyor's certificate simply directed the shoring up of a building, and the insertion of iron ties; and that the fourteen days having expired, this had been done by the overseers. There would be no pulling down and no sale of the materials. Would Mr. Combe consider that in such a case the outlay could not then be recovered?

The parishes should get counsel's opinion on the point.*

ON THE SEWAGE QUESTION.

A VERY interesting and important paper was read at the Society of Arts on 7th instant by Mr. J. B. Lawes, on the Sewage of London, and was followed by an equally important discussion by various gentlemen well acquainted with the subject, although differing very much in opinion on it.

In the outset Mr. Lawes remarked that whoever undertakes to bring forward plans for the economical disposal of the sewage of the metropolis, is at once met by the difficulty arising from the enormous bulk of the material with which he has to deal. It is estimated that between one and two hundred million tons of fluid pass through the sewers annually; and it is said, that solid matter amounting to nearly 200,000 tons, is suspended or dissolved in this liquid. Those who advocate the employment of the sewage by irrigation, must therefore seek for an extensive tract of land at no great distance from London on which to deposit this fluid; whilst those who propose to separate from it a solid manure, must produce a substance of sufficient productive value to bear the cost of carriage to all parts of great Britain. Of late years much money has been uselessly expended in patents and inventions for converting the sewage into a portable manure, which might have been saved by a better knowledge of the true principles of manuring, and the wants of agriculture. The question farmers are beginning to ask is, *not* what is the price *per ton*, of this or that manure? But, in what manure can I most cheaply bring upon my land certain constituents which I require? The inability to answer this question satisfactorily has hitherto brought all the producers of sewage manure to a stand-still. Those who in future propose to deal in this manner with sewage, should consider well this question. The success or failure of their inventions will infallibly depend upon the answer they can give.

It should never be forgotten that it is the cost of carriage which regulates in a great measure the distribution of manures, and assigns to each a limit of area, beyond which it cannot profitably be employed. True economy in manuring consists in adding those substances to the land of which the supplies of the soil and atmosphere will be deficient.

Farm-yard manure is estimated to contain about ½ lb. per cent. of ammonia; or about 11 lbs. in a ton. It would therefore require about 17 tons of farm-yard manure to supply to the land the amount of ammonia used in an experiment to which Mr. Lawes adverted. Now, he continued, my farm is situated twenty-five miles from London, and being inconveniently situated for conveyance by railway or canal, the cost of carriage from London upon one ton of manure is fifteen shillings. Therefore, if I were to bring my 180 lbs. of ammonia from London in the form of dung, the carriage alone would amount to 12*l.* 15s. I could obtain the same amount of ammonia in half a ton of guano, or in 7 cwt. of sulphate of ammonia, at the cost of one half of the carriage alone of the dung. This example clearly shows, that it would be cheaper for me to give 10*l.* per ton for guano, or 1*l.* per ton for sulphate of ammonia, than to have the dung as a gift. In the case of the guano and the salts of ammonia, pounds weight only of manure are brought upon the farm to produce tons of growth; in the other you bring tons to produce pounds. Whilst I consider ammonia by far the most important and valuable constituent in an artificial manure, phosphoric acid is certainly the second in this respect. All my experiments lead to this conclusion; and it is, moreover, fully confirmed by the composition of all those manures in the market which have the most extended sale, and which are the most highly prized by the farmer.

Mr. Lawes then entered into a series of very elaborate statistical details on the subject of the actual nature and quantities of the several ingredients contained in the London sewage. The amount of the most important ingredients in course of one year, entirely freed from water, he estimated at 51,286¾ tons. Of this, he continued, about one-fifth is mineral matter; and the *nitrogen* it contains amounts to about one-sixth of the whole, namely, 8,859¾ tons, which is equal to 10,758¼ tons of ammonia. Now little more than half a cwt. of ammonia is the usual artificial dressing for an acre of cereal grain, and it might be calculated to yield an increase of crop of ten to twelve bushels of wheat, or these 10,758¼ tons of ammonia would afford a produce of about 600,000 quarters, if it could be conveniently applied for such a purpose. The intrinsic value of the sewage of London considered in this merely chemical point of view is therefore enormous. Indeed, according to the above supposition, it would return to the metropolis nearly one-third of the wheat consumed by its population. If, however, it were thus devoted exclusively to the growth of corn, it would, at the rate above mentioned, extend over more than 400,000 acres of land. But this ammonia in the sewage of London is unfortunately distributed through an enormous bulk of water, and Mr. Wicksteed has shown us how immense would be the cost of distributing this material over any enormous area of land in the liquid form.

This leads me to a consideration of Mr. Wicksteed's alternative of a solid manure. Mr. Wicksteed's method consists in adding a certain quantity of lime to the sewage, by which the insoluble and suspended matters, and also some small portion of those in solution, are carried down in the form of a liquid mud. This mud, after proper subsidence, is removed into a centrifugal machine, by the rapid revolution of which a certain portion of the remaining water is thrown off. The manure is afterwards further dried by exposure to a current of air in sheds. The value of this solid product Mr. Wicksteed estimates at from 2*l.* to 2*l.* 13s. per ton. He does not, however, give any analysis of it.

But we are not left to conjecture merely, as to the composition of a sedimentary sewage manure, such as that which would be the result of Mr. Wicksteed's process. Professor Way, in his valuable paper upon the composition of sewage, published in the Journal of the Royal Agricultural Society of England, has given us three analyses of manures made by adding charcoal and lime to sewage water, and in none of these does the ammonia amount to 2 per cent. whilst the average amount of phosphate of lime is less than 5 per cent. equal to about half that quantity of phosphoric acid.

Before purchasing any manufactured manure, I should sit down to calculate at what price I could purchase the constituents it contained? I find 1¾ cwt. Peruvian guano would supply all the nitrogen or ammonia, and the phosphoric acid of such a sewage manure; three or four cwts. of rotted straw would supply all its organic matter; and the residue I could obtain from the chalk and sand pits. Thus, for about 25s. I could bring upon my land the constituents of a ton of this manure, and for 30s. less money. Again, to supply the amount of ammonia put upon the experimental plot already adverted to, in 1854, I should require nearly seven tons of the sewage manure, at a cost, including carriage, of about 19*l.* I could obtain the same amount in seven cwt. of sulphate of ammonia, at a cost of 5*l.* Such, then, is the nature of the facts which lead me to the conclusion, that a *sedimentary sewage manure* cannot be profitably made by Mr. Wicksteed's process, or, I may add, by any known process.

There can be little doubt, that if the sewage of London is to be turned to some useful purpose, it must be applied in the liquid form in such quantities as to yield the greatest possible growth that land and season are capable of. *Grass* is the most suitable crop for the application of liquid sewage. But that its use, even for this purpose, should be attended with advantage, it must be employed in the most liberal quantities, that the capabilities of land and season will admit of; and, in this way, it is not impossible that in the neighbourhood of a large city a rental of 20*l.* to 30*l.* per acre might be obtained. Experience alone can decide what is the minimum area of land which would yield the maximum produce and rental from the sewage of London, but there can be little doubt that it would require many thousand tons of sewage per acre to yield the rental I have supposed. I may mention, however, that if 10,000 tons of sewage were annually applied to each acre, it would take about 20,000 acres to absorb the whole sewage of London, upon the estimate of 50 gallons per head per day.

In conclusion, Mr. Lawes remarked, that there would surely be no great difficulty in appropriating a few thousand acres at no great distance from the Thames to the purpose in question. And grass being the produce grown, so milk and cream should be the chief products obtained in return. Irrigated grass appears to supply food peculiarly adapted for the production of milk; and there are certainly few articles with which the inhabitants of the metropolis are so inadequately supplied. Whilst, therefore, they must be justly charged for the removal of the sewage on sanitary grounds, they might surely demand, that the cost should be lessened by a proper application of the sewage: and it appears to me, that a liberal distribution of it on grass is the most promising means of attaining this result.

The discussion was opened by Mr. Foster, the secretary, reading a communication from Mr. Wicksteed, in which it was stated that in a few weeks the works at Leicester would be completed, when quantities of manure sufficiently large to enable practical agriculturists to give practical opinions would be prepared, and which he should consider in a commercial point of view the best test of the value of the manure to be thus supplied.

Mr. Sidney said that on most points the experiments in irrigation with sewage manure in Lombardy were very far from bearing out the views of Mr. Mechi and Mr. E. Chadwick, and of these views he proceeded to speak, and was followed by Mr. Chadwick, who defended his own well-known opinions, and minutely criticised those of Mr. Lawes. He was followed by Mr. A. Morse and by Mr. Mechi, who briefly addressed himself to the subject in question in accordance with his also well-known views. Mr. F. O. Ward gave an elaborate sketch of his

* Touching "Ruinous Buildings," we may add as a note the following from a correspondent:—"A ruinous building in Clerkenwell, formally condemned by the district surveyor, of which a certificate of condemnation was duly forwarded from the office of Metropolitan Buildings to the overseers, has been suffered by the overseers to remain in a dangerous condition for two years and upwards, threatening the lives of the inhabitants, and a source of great loss and detriment to the adjoining property. Surely, sir, there must be some remedy in the form of a mandamus, compelling the overseers to act as 'authorised and required' by the Act of Parliament. It is highly necessary that parishes should know the responsibilities that attach to them, and that they should take the requisite steps to be able to act on all occasions as 'authorized and required.'—AN INQUIRER."

own ideas, in which the separation of manure proper from rain-fall, &c. formed a special element. Bramah's great invention of the water-closet, he remarked, had originated the modern problem of the disposal of sewage manure, since it gave rise to a new requirement, that of an outfall for soil-water, to which purpose the rain-sewers came gradually and illegally to be turned:—

"The surreptitious pollution of the rain-channels, originally connived at as insignificant, had come at last to be recognised as a system. The recent introduction of a cheap form of water-closet for the use of the working-classes, had given to this system such a sudden and rapid extension, that attention had at length been called to the monstrous proportions of the evil; which, plainly stated, was the annual discharge of many thousands of tons of putrifying matter into the rain sewers, the brooks, and the river. Every step that we had made in this false direction must (in his opinion) be retraced. The dispollution of the river, the brooks, the rain sewers, constituted a chain of operations, the links of which were bound together by the logic of an irresistible necessity. This necessity might seem hard, but it was absolute. You could not divert into tunnels, nor master with pumps, half-a-dozen rain-swollen brooks: their flood-waters must rush into the Thames, and must carry thither whatever pollution you had turned into their channels. Dispollute the Ranelagh, the Fleet, and the other brook-sewers of London, and your main difficulties at once disappear; the purification of the river, and the utilisation of the sewage become comparatively easy matters."

The chairman, Colonel Chaloner, in conclusion said that "what was most satisfactory to his mind was, that no two opinions seemed entirely to agree, because, so long as the scientific men whom they had heard that night differed in opinion, it would be the interest of every man of common sense, and with brains in his head, to work out the subject for himself: at the same time, he hoped in the end they would come to something like a definite result." We are much afraid that we must not yet calculate on deriving pecuniary advantage from the sewage of London.

ARCHITECTURAL AND BUILDING MATTERS IN VICTORIA.

BUILDING has been very dull, little being done anywhere, but is beginning to brighten. Several large public buildings have been or are about to be commenced, viz. in Geelong, the Exchange (the cost of which will be 20,000*l.*), the town-hall (40,000*l.*), the court-house, post-office, and telegraph station. In Melbourne, no public building of any importance is on the *tapis*, with the exception of the Exhibition Building. This arose as follows. It being intended to send specimens of colonial manufactures and natural productions to the Paris Exhibition in 1855, it was deemed advisable to hold a preliminary exhibition in Melbourne previous to the transmission of the articles to France. Soon after the first announcement, applications for space became so numerous that the commissioners decided on erecting a special building for the purpose. They were met in the most liberal manner by the Government, who provided ground, and pay half the cost of erection, on the condition that the building is to become their property for the purpose of Government offices at the close of the exhibition.

In accordance with this arrangement, the building is more substantially built than usual. It is of wood, two stories (about 40 feet) high. It has a gallery all round internally, and is covered partly with a semicircular glass roof, on the ridge and furrow principle. It is altogether a very creditable production; and as it stands on almost the highest ground in Melbourne, it is visible for miles around.

Next comes, perhaps, the greatest work yet accomplished in Victoria—the Melbourne and Hobson's Bay Railway, opened September the 12th. This, the first line in the colonies, is about 4 miles long. The entire distance is nearly level, and where gradients have occurred (these very slight), it has been surmounted by the construction of the road-way, which is raised about 4 feet; the embankment composed principally of sea sand, with a double line of rails laid in the usual manner on longitudinal sleepers, no transverse sleepers being used. It is the usual narrow gauge. The premises, &c. consist of (commencing at Sandridge), a jetty 1,000 feet into the bay, a large locomotive department, and the usual station buildings, all finished. There is no particular engineering work until close to the Melbourne station, where the line crosses the river Yarra, on a viaduct about 500 feet long, built of timber, on the American lattice principle. The line here takes rather a sharp curve to the station in Flinders-street (close to the Princes-bridge), a rather handsome wooden structure. Here very extensive goods' sheds, &c. are in course of erection.

At present the company have but one locomotive and four carriages, all of colonial manufacture; but both engines and carriages are daily expected from England.

The line was opened by the governor, Sir C. Hotham, on September 12th, since when trains have been running regularly every half-hour. As yet the company charge but one fare, viz.—1s. 6d. each way. They have only first-class carriages.

At the top of William-street, Melbourne, is just finished the Electric Telegraph Station, built of brick, with stucco quoins, &c. in imitation of freestone. It has a tower and electric time-ball, which falls at one o'clock.

The telegraph itself extends from the wharfs and Custom-house; thence up William-street to station; thence to the Government-office, and from thence across to the flagstaff, a distance of about one mile. It is a single wire, on posts about 16 feet high.

Numerous handsome blue-stone stores and warehouses are springing up in Melbourne. Most of the principal streets are paved. On the right-hand side of Collins-street, nearly every shop has a handsome plate-glass window. Gas, too, is beginning to be used, made from oil by the consumers themselves. All these many and great improvements are the work of a short twelve months. There is no other country (except, perhaps, California) where so much enterprise is united to so much capital; consequently, no place but Melbourne could make such rapid strides: the only parallel is the city of San Francisco; and there the improvements, though equally rapid, are less substantial.

In Geelong, the principal work already in course of erection, is the St. Mary's Roman Catholic Church. This is a very fine structure; though of a most medley style of Gothic. The basements are very fine *blue-stone*; the rest above the ground line of freestone. The estimated cost is 112,000*l.*! Messrs. Cowden and Ross, architects.

The Geelong and Melbourne Railway Company are getting on very well, and quickly: the line is 46 miles long, and already 38 miles of it are under way by different contractors. Part of the permanent terminus, too, is erected, and in occupation for the engineer's and secretary's offices, board-rooms, &c.

At the corner of Mercer-street and Brougham-place, in Geelong, is the Terminus Hotel, just opened (Messrs. Snell and Kaweran, architects). It is of brick, three stories high, and contains forty-six bed-rooms, and eighteen other rooms, including ball-room, 96 feet by 23 feet. It is sumptuously furnished, and fitted up on the principle of the great New York hotels. The decorations and fittings from the designs and under the superintendence of F. T. Honey.

At the gold field of Balarrat, there is a move in the right direction. Storekeepers and diggers, as they "pile dust" (Anglicè—"make money"), have come to the conclusion that a weather-tight brick or wooden house is preferable to a *tent*; and hence many buildings are erecting at Balarrat, Boningong, and Meredith. Messrs. Snell and Kaweran have built at Balarrat a stone building for a branch bank of Australia; at Boningong a large hotel; and at Meredith they were the architects for "Watson's Hotel," (with the exception of the Exhibition building at Melbourne), the largest wooden building in the colony: it is three stories high, and contains twenty-nine bed-rooms, and eleven other rooms, forty stables and outhouses, and is built entirely of wood except being roofed with corrugated iron.

Such is, up to the present time, a slight account of the building works going on in this colony. The markets are dull generally, but building materials command a ready sale. The labour market is overstocked; wages as follow:—Carpenters, joiners, bricklayers, masons, plasterers, and painters, getting from 20s. to 35s. per day. Quarries of excellent granite just opened, about six miles from Geelong.

F. T. HONEY,
Member of Geelong Architectural Association.

VALUE OF LAND IN LONDON.

A CORRESPONDENT, "C. S." is very much afraid lest the public should be misled by the statements we gave recently under this head, and assumes that the information was furnished "by a party for other objects than to inform and benefit the public." He says,—"If peculiar circumstances did not exist where such reported heavy ground-rents have been given or offered for building sites, in the City, how can we account for the fact that the old South Sea House did not produce, by public competition, 56,000*l.*?—decidedly a first-rate situation, being accessible both from Old Broad-street and Threadneedle-street, readily connecting it with the business of the Bank of England, of the Royal-Exchange, the Stock-Exchange, Lloyd's, and even of the Docks, and comprising above half an acre (with trifling exception, of equal value), all freehold, and its substantial buildings well adapted for a large banking or mercantile establishment, and all landlord's fittings and fixtures included! Also that some very commanding and newly-erected freehold premises, at the corner of Threadneedle-street, opposite the Royal-Exchange, within the last three weeks did not realise 15,000*l.*!"

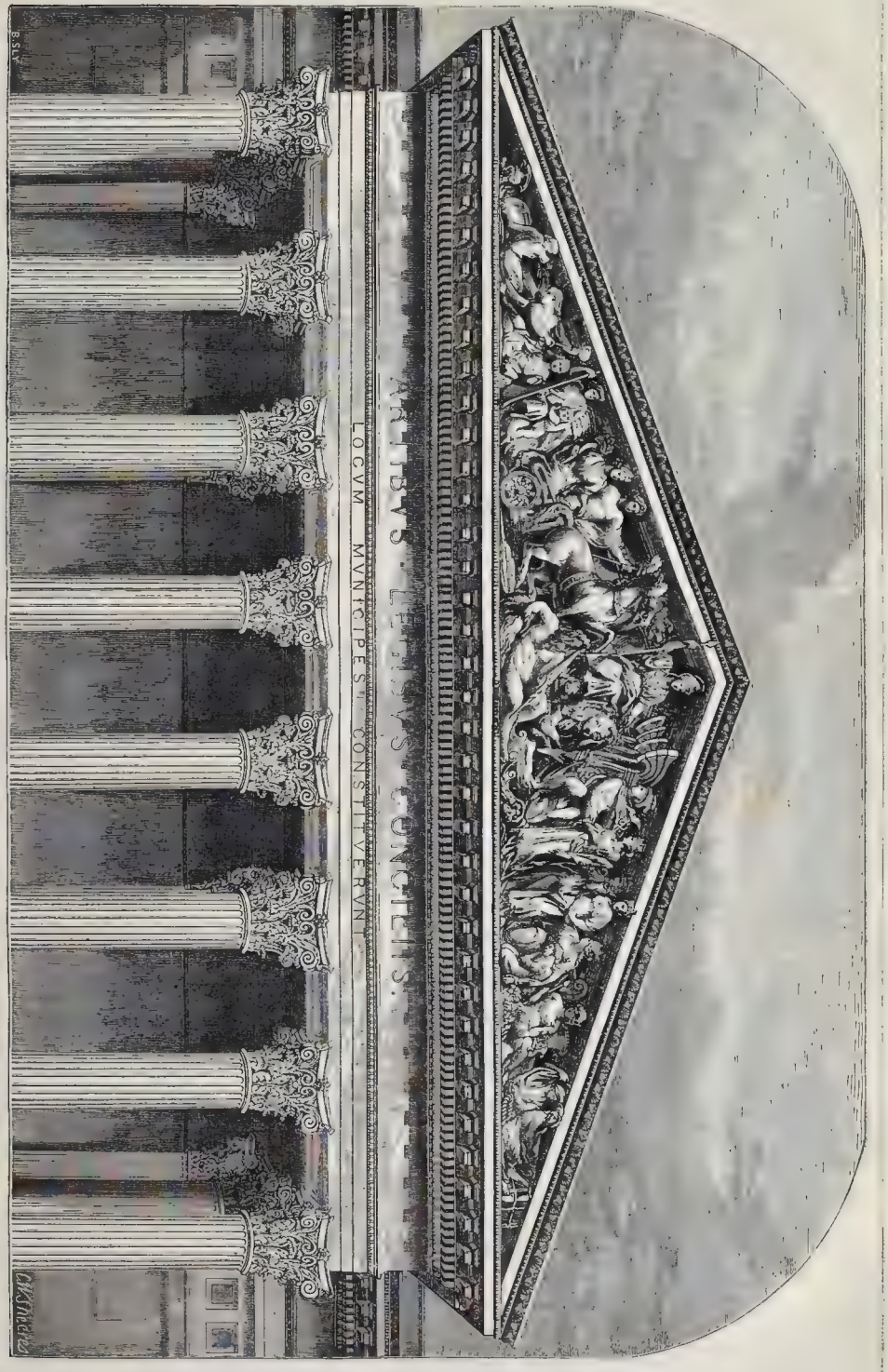
"C. S." may rest perfectly satisfied that no person with an ulterior motive had anything to do with the particulars given. They were collected by us simply for information sake, and, so far as we know, are substantially correct. Touching the published contradictions to which he refers, they do not affect the accuracy of the article in the least. As to the plot at the corner of Finch-lane, we merely mentioned the "report" that it had been let at a certain ground-rent, a report which appears to have been premature; while Messrs. Savory's land, as we stated last week, has been bought by those gentlemen exactly at the rate we estimated it at.

ST. GEORGE'S HALL.—THE SCULPTURE IN THE PEDIMENT.

THE sculpture in the pediment of St. George's Hall, at Liverpool, represented by the accompanying engraving, was designed by Professor Cockerell, and executed by Mr. Nichol. Although we have already described the intention of the group, it is desirable to repeat the particulars to prevent the necessity for reference.

Britannia armed, her lion by her side, and seated on a rock, forms the centre: she holds in her left hand the olive-branch, and in her right the spear. She hails the four quarters of the globe, presented to her by Mercury; the last of whom, Africa, inclines with the form of the pediment, and, with her negro children, acknowledges her obligations to the queen of freedom, who laboured so long and successfully for their emancipation: beyond are the vine and foreign productions. To the right of Britannia, Agriculture and the Arts, seated in a car, represent England and her productions; the husbandman and his plough, his wife with the distaff, and her child, express industry, manufacture, and domesticity: at the end are labourers at the anvil, the anchor, and the arms of mail, which she has not forgotten how to use. It is an admirable design and has been well carried out.

The same sculptor is executing four recumbent lions for the great pedestals outside. Their cost will be 200*l.* each.



THE PEDIMENT, ST. GEORGE'S HALL, LIVERPOOL.

PROVINCIAL NEWS.

Stamford.—The following were the tenders for re-pewing and restoring St. John's Church, Stamford:—Messrs. Richardson, 568*l.*; Mr. J. T. Jeffs, 639*l.*; Mr. Bradshaw, 625*l.*; Messrs. Chapman and Garnar (Leicester), 725*l.* Messrs. Richardson's tender was accepted by the committee.

Whitstable.—Tenders for erecting a new Independent chapel in High-street, Whitstable, have been opened. The amounts were as follows:—Messrs. Rook and Orpin, 1,161*l.*; G. Cozens, 1,056*l.*; J. Willson, 963*l.*; G. Crothall, 920*l.*; P. Ayres, 883*l.*; A. Baker, 855*l.*; J. Kelson, 844*l.* 19s. Mr. T. Marsh, the surveyor, had given the committee an estimate that the works might be done for 940*l.*

Oxford.—It is proposed to erect an epidemic hospital in the vicinity of this city. The Vice-Chancellor and the mayor have taken preliminary steps to that end.

Bursledon.—The erection of the new town-hall proceeds but slowly. The late frosts much retarded the work, and now a strike it appears has taken place amongst the men. Previously to Christmas the masons were paid 4s. 6d. per day: then they were reduced to 4s. 2d. but were last week raised to 4s. 4d. and they now refuse to work unless at the old price.

Worcester.—A branch main is being laid down here, under the direction of Mr. Purchas, the engineer of the waterworks, for the purpose of supplying the Oxford, Worcester, and Wolverhampton Railway Company with water from the river Severn.

Bodmin.—The London committee for the erection of a monument to the late Sir Walter Raleigh Gilbert, Bart. have unanimously decided that the monument shall be erected on the beacon, at Bodmin. The beacon contains 17½ acres, rises 515 feet above the sea, and can be seen from Fowey to Padstow.

Cardiff.—The new church in the thriving suburb of Canton, the nave of which only has as yet been opened, was consecrated on the 6th inst. The style is Early Decorated, and the edifice is intended to consist of a nave, with north and south aisles, under lean-to roofs extending eastward so as to embrace the tower, which will be situated between the nave and chancel, and will be surmounted by a spire. Further eastward, beyond the tower, will be the chancel, with a sacristy attached on the north side. The nave will be divided on either side from the aisles by an arcade of four bays, having a clerestory above lighted with circular foliated windows. There will be an entrance doorway in the western end, with a large five-light window with geometrical tracery above, also a doorway and porch to both the north and south aisles. The tower, chancel, and side aisles are to be erected as soon as funds can be obtained. The cost of the present erection is about 1,400*l.* towards which 1,300*l.* have been subscribed, leaving a deficiency of about 100*l.* The nave accommodates about 250 persons. The nave arcades are temporarily filled with brick. The west walls of the aisles have been erected, so that the western façade is tolerably complete. The four-light window has geometrical tracery in the head: the columns which support the outer arch mouldings are of polished serpentine from Cornwall. The clerestory consists of three circular foliated windows, with deeply splayed and moulded inner jambs and sills: they are glazed with green and white cathedral glass. The roof is of Memel timber stained: each rafter being a principal, it is boarded above, and covered with Bangor slates. The passages between the seats are paved with Herefordshire tiles. The open pews or benches have sloping backs. The walls of the church are faced with granite, brought as ballast to Cardiff. The freestone is Combedown Bath stone. The architects were Messrs. Prichard and Seddon, of Llandaff, and the builders, Messrs. James and Price, of Cardiff.

Bridgnorth.—The new cemetery in the vicinity of this town is progressing, and will probably be opened by midsummer. The two chapels have been erected. These and the lodge were nearly finished before the late frost set in. The contract for the lodge and chapels was 1,200*l.*; the cost of land, 400*l.*; the laying-out, road-making, building of the walls, planting, and incidental expenses, about 600*l.* more; total cost, 2,200*l.* There will be a further outlay of about 100*l.* for extending the walls, which at present enclose two sides only. The trees have been planted, and the walks laid out and gravelled, and already the ground is quietly resorted to, for wholesome reflection doubtless, by many of the inhabitants of Bridgnorth and its neighbourhood.

Liverpool.—The Greek residents, it is said, are about to erect a new church here.——The new Palatine Club-house in Bold-street is in progress. The building was designed by Mr. C. O. Parnell, of London. Mr. J. Jordan, clerk of works. The contractors are Messrs. Jones and Jump, of Liverpool: their estimate was 8,500*l.* The building is being erected by the trustees of the Palatine Club, and will be ready for use by September next. It is in a very unfinished state, the only portion which approaches completion, according to the local *Journal*, being the front elevation or façade. The elevation is Italian. Rising to about 9 feet high from the pavement is a rusticated base, extending from one end to the other. In the centre is the principal entrance doorway, which will be rather plain. Above the base, eight three-quarter projecting Doric columns "coupled" spring, surmounted by the entablature. Between the columns are three square windows. Above this entablature six Corinthian whole columns rise, surmounted by a pediment, which is quite plain. Between these columns are three circular-headed windows, the key-stones of the arches being ornamented, and tending to support the entablature, acting as a kind of bracket or truss. Another story has yet to be completed, which will only consist of three square windows and a cornice. The whole height of the elevation is 35 feet 5 inches, breadth 56 feet, length 88 feet 5 inches. The stone was brought from Box, near Bath, and the base part is of Stourton stone. In the interior a great quantity of cast-iron work is used.

Coventry.—The following were the tenders for removing old galleries and pews in Trinity Church, Coventry, and reseating same in wainscot. Old materials to be the property of the contractors.—Highams, Wolverhampton, 4,095*l.*; Rattee, Cambridge, 2,850*l.*; Young and Co. Oxford, 2,800*l.*; Broadbent, Leicester, 2,485*l.*; Kingham, Ipswich, 2,327*l.*; Pratt, Coventry, 2,250*l.*; Taylor, ditto, 2,247*l.*; Marriott, ditto, 2,230*l.*; Robinson and Son, ditto, 2,196*l.* 10s. 6½d.; Hall, Nottingham, 1,950*l.*; Ruddle, Peterborough, 1,767*l.*

Clitheroe.—A meeting of the directors of the Clitheroe Waterworks Company was held on Wednesday in week before last, for the purpose of contracting for the construction of a service reservoir, and the laying of the pipes. There were eighteen tenders in all: three of them were made by resident contractors. There was a difference of upwards of 2,000*l.* between the highest and lowest tender. They were all rejected except four, which were very much alike, and which were retained for further consideration. The names are, Messrs. Webster and M'Guire, of Derby; Mr. William Knight, of Manchester, Mr. Robert Ibbotson, of Blackburn; and Mr. John Metcalf, of Bradford. The taker was to be declared in a few days. The works are required to be completed by 1st September. The contracts for the cast-iron pipes and earthenware pipes are progressing. The pipes are being coated, it is said, to prevent rust, and to keep the water pure.——A fire occurred in Whalley Church on Sunday before last. Although at one time serious apprehensions of its extending from the steeple, where it began, into the body of the church, were entertained, nothing but the steeple has suffered any injury. The fire originated in the higher part of an old flue, where an old beam had been built into it forty years ago and left unprotected.

Newark.—Among disasters attending the breaking up of the late frost, is the partial destruction of the new bridge over the Trent, at Kelham. It was erected only three years ago by the county, at a cost of nearly 3,000*l.* and was composed of wood, and supported by wrought-iron screw-piles and girders, with stone abutments. It is said to have always been considered a very weak structure, ill adapted to carry the heavy traffic passing over it, and withstand the rapid current of the river, which at that spot is very wide and deep. An immense sheet of ice, of many tons weight, floating rapidly down the Trent, came with great violence against the piles which support the end of the bridge next Kelham: four of the piles were instantly snapped asunder, and half of the bridge fell into the river. No person was at all injured, although several carts had only just crossed. It was feared the other portion of the bridge would fall, as the water was rising fast. It is hoped the county magistrates will cause a substantial bridge to be erected, and so abandon the "penny wise and pound foolish" system of doing things. The safety of the public would appear to demand it.

THE NATIONAL INSTITUTION, PORTLAND GALLERY.

The exhibition of the National Institution of Fine Arts is now open in the galleries opposite the Polytechnic Institution, Regent-street; but we are unable through pressure on our space to give more than a brief notice of it. It includes 527 works of art, and although wanting in paintings of the highest class, is a very interesting collection. It is to be regretted that the president, Mr. R. S. Lauder, has devoted himself almost exclusively to landscape painting on the present occasion, notwithstanding the beauty which some of his works present. Mr. J. E. Lauder has a picture of large size and considerable merit, from the life of Sir Tristram and "la beale Isonde," where "Sir Tramtris learned her to harp, and she began to have a great fancy unto Sir Tramtris." Mr. Underhill has made a great advance, witness his "Sport in the Highlands," (107), and Mr. W. Cave Thomas has distinguished himself in two heads the size of life (86), "A Russian Dealer of the Gostvinorder," and (359), "Dealing in the North." Miss Howitt has an elegant though fanciful picture, in two parts, from Shelley's "Sensitive Plant," full of sentiment; and Mr. Mclan has, what is, to our minds, the best picture he has yet exhibited,—(77), "The Battle of Stone Ferry." "A Coast Scene," by Charles Dukes (54), "Box Hill," by Stark (66), "Kilchurn Castle," by James Danby (104), "Orphans," by H. Barraud (116), "The Rendezvous," by J. D. Wingfield (125), "Shrimp Catchers," by T. S. Robins (142), "Autumn in the Highlands," by Sidney Percy (401), "The Haunt of Fallow Deer," by J. S. Raven (391), "Start of a Pleasure-boat," by W. Parrott (416), "The Matin Prayer," by Frank Wryburd, Mr. Provis's "Interiors," Mr. Duffield's "Fruit," and several others call for notice.

INSTITUTION OF CIVIL ENGINEERS.

COALS.

In the course of the paper read February 27th, "On Steam and Sailing Colliers, and the various modes of Ballasting, &c." by Mr. E. E. Allen, the extent of the coal trade, particularly that of London, was examined, and tables were given of the areas of the coal formations of the different countries of the world, and the annual production in 1852.

The annual produce of England was stated to be estimated at 35,000,000 tons, and the quantity exported, about 8 per cent. of the quantity raised.

The areas of the coal fields in the United Kingdom gave a grand total of nearly 8,000 square miles.

The coal imported into London during the last three years was shown by the following table:—

	Coastwise.	Railway and Canal, &c.	Totals.
1852	3,330,428	411,821	3,742,249
1853	3,373,256	653,729	4,026,985
Excess...	42,828	241,908	284,736
	= 1·28 per cent.	= 58 per cent.	= 7·60 per cent.
1853	3,373,256	653,729	4,026,985
1854	3,399,561	979,170	4,378,731
Excess..	26,305	325,441	351,746
	= ·78 per cent.	= 50 per cent.	= 8·73 per cent.

EDUCATION IN HIGHGATE CEMETERY.

Some years ago we used often to hear that "the schoolmaster was abroad," and I could not but think as I walked in Highgate Cemetery on Monday last, that he must indeed and literally have been abroad, or have been out of the way of forming an acquaintance with the letter-carvers of the tomb-sculptors' yards of the great metropolis. It is a pity that the "sculptors" who furnish the majority of these sad mementos of the dead do not attend some night-school for three months, that they might know a little of spelling, syntax, and punctuation. I do not think it necessary that they should be so profound as Dr. Johnson, but it is very desirable that they should be able to execute an order in such a manner as shall not offend the eye and vex the temper of the poor mourner who visits the narrow home of some dearly loved friend. Passing over the fact that the deviations from stereotyped ugliness and common-place absurdities, found by hundreds in all our cemeteries, are few indeed and far between, the eye has little relief in seeking for change from form to sentiment. The stock epitaphs are repeated *ad nauseam*, whilst vulgar conceits, and sickening and unmeaning flattery, join with bad spelling, false grammar, and wrong punctuation, to render the visit, instead of being one of melancholy pleasure, a painful and disgusting task. The loveliness of the situation is forgotten, the still repose is marred and broken by the obtrusive, staring vulgarities and the world-speaking blunders which meet the eye and offend the sense wherever it turns. Rest there is none, for nearly every slab has a trumpet tongue "to damn its carver's name or sense."

For example, I quote only the following from hundreds of instances that may be cited in Highgate Cemetery.

"Here *lies* the *two* children;" "she *dy'd* in the Lord;" "the remains of 2 children *is* interred;" "her remains *is intered*;" "*liveing*;" "of this *parrish*;" "who was *kiled*," &c. &c. On a slab in the sarcophagus belonging to a wealthy city merchant, is a very touching and beautiful inscription, marred by "*humble*" being engraved for "*humbly*."

Let these examples suffice; and I hope that by the medium of your journal, the attention of those in the proper quarter may be excited, and a change for the better in every way be effected, by a reform in the shops of these so-called *sculptors*.

A Walker among the Tombs.

COMPETITIONS.

KING'S LYNN.

We are informed that the competition for the chapels, &c. for the new burial ground of St. Margaret's parish has been decided in favour of Messrs. Aickin and Capes, of London. We have received complaints of the hasty manner in which the drawings were examined. The "Instructions" shewed a strange confusion of the functions of architect and builder.

INSUFFICIENT TIMBERS.

In any New Building Act a clause should be inserted giving the district surveyor direct control over these,—not now the case,—his powers extending only to walls and roofs and their materials.

In the case of a corner shop, a heavy quoin is supported by two strong posts composed of two deals I saw a case the other day, brick piers having been removed, and these two insufficient posts placed in their stead, to carry out some alteration. The posts had buckled with the weight: reply of builder to objection: "Amply sufficient, sir, for anything; could not see any buckling, might perhaps wind a little." It must be borne in mind that the surveyor has no power or authority to *interfere* in this case, any jobbing carpenter determining to the best of his judgment the scantling of timbers,—the smaller the scantling necessary the better for his pocket, if he has contracted for a certain amount.

Another defect in the Act is, that all parts of buildings, rear fronts as well as fronts, chimneys, in whatever position, ruinous workshops and outbuildings, in rear of premises, do *not* come within the scope and meaning of section 40, which apparently considers dangers to *passengers* only, does not take account of *inmates* or *adjoining owners* or *workmen* employed in various trades and callings. Notwithstanding all these remediable points, the Act has, on the whole, been a great public boon, if only considered as in the avoiding of the enormous mass of litigation that must have ensued from the conflicting interests of adjoining owners and properties, now so easily arranged by a reference to the surveyor and the official referees. An Observer.

BUILDERS' RESPONSIBILITIES.

ELLIS *v.* PETERS.

In this case the plaintiff was a builder and the defendant an ironmonger, at Peterborough, and the action was brought to recover compensation for injury which a building belonging to the plaintiff had sustained, in consequence, as he alleged, of the defendant's negligent and improper construction of a gutter of galvanized iron, which went round the outside of the roof. The building in question was a large one which the plaintiff had erected at Peterborough for the purpose of public lectures, balls, concerts, and meetings; and the project originally was that it should be built at the expense of a company to be formed by the inhabitants, with a capital of 2,500*l.* in 1*l.* shares; but this scheme failed, and the speculation became exclusively the plaintiff's. He employed the defendant to make the iron roof, and, when that was completed, to surround the building with a gutter of galvanized iron, to carry off the water. The building was opened in the summer of 1854, and not long afterwards the wet began to make its way through the walls, and eventually did considerable damage. No complaint, however, was made to the defendant until late in the year, when other disputes had arisen between the parties, and now the defence to this action was, that the injury had arisen not from any negligence on the part of the defendant in the manner of doing the work, but in consequence of the insufficient description of gutter which, for the sake of economy, the plaintiff had adopted. Several witnesses were examined on each side, and in the end the jury found a verdict for the defendant.

WAR APPLIANCES.

Considerable progress is being made with the camp at Aldershot. The site is about three miles from Farnham. The nearest station from London is Farnborough. We understand the contractors have undertaken to have 1,200 huts ready by the 1st of April, each at a cost of 100*l.* and capable of containing twenty-five men. A writer in the *Morning Herald* says:—"These huts are made of Canadian fir, just cut out from the balk, and are put together without any preparation or seasoning, and being exposed to the torrents of rain usual at this season, will become in a very short time perfectly saturated with wet. The consequences will be, that the action of the summer's sun will shrink, rend, and split the wood, so as to render them altogether unserviceable and untenable." There are now about 800 mechanics and labourers employed in erecting huts, draining, and road-making, and many more are advertised for. The permanent camp, to be built of brick, is to be three years in construction, and is to be formed on the other side of the range of hills before mentioned, facing the road along which the temporary quarters for the officers are being erected.——In the recent debate on the Ordnance estimates Sir Joseph Paxton found considerable fault with the course which had been adopted touching the works here. He said he found that not a single thing had been done towards that object, not even a tender sent out earlier than the 22nd January last. On that day advertisements came forth from the Ordnance Office at Portsmouth, calling for tenders for the erection of huts for 20,000 men: the tenders were to be sent in on the 31st of January, and the huts were to be completed on the 31st of March. Now, it struck him as a very extraordinary thing, that the Board of Ordnance had only given six weeks' notice for the erection of huts to contain 20,000 men: and on entering into some calculations as to the amount of labour to be employed in the erection of the huts, he found it would require 150 trains per day to take the required quantity of wood to the spot, reckoning from the time the tender was sent in to the period when the work was to be completed. That was to say, materials amounting to between 500 and 600 tons per day were to be fixed and placed in position within a period of six weeks. Again, these huts were to be formed principally of yellow Christiana deal. Now, if the hon. gentleman (Mr. Monsell) would inquire of any timber merchant in London, he would find there was not sufficient yellow Christiana deal in Great Britain to complete that number of huts. So that, quite independent of the extraordinary shortness of the period allowed for the erection of the huts, he defied the Government to procure them of the material specified.——The *Horatio* steam frigate is preparing, at Sheerness, to receive two of the monster mortar guns invented, and it would now appear already constructed, by Nasmyth. These guns are 10 feet 6 inches long, and in diameter at bore, 13 inches; muzzle, 31½ inches; base, 40 inches. The weight of each is about 23 tons. It is slung on Captain J. Roberts's plan, and will throw a solid spherical shot of 302·4lbs. with a charge of 30lbs. of powder.——The construction of the bomb-proof iron-cased floating mortar-vessels has been kept very quiet, but we now learn that they are of exactly the same construction as the broadside iron-cased batteries carrying sixteen Lancaster guns. The upper deck is so strengthened as to bear the weight of the heavy piece of ordnance with which it is armed. These mortar vessels, it is said, will throw bomb-shells a distance of four miles! With their guns, ammunition, and stores on board, the floating batteries will only draw 20 feet of water, so that the whole fleet of *forty* vessels can approach within a comparatively short distance of any of the marine Russian fortresses. Their cost has been enormous. A fleet of English and French line of battle ships and smaller craft will accompany them. The mortar batteries are each 70 feet in length, 23 feet in width, and 9 feet four inches in depth. Several of these mortar batteries will be attached to the fleet of forty floating batteries propelled by steam. Their construction in the hull is the same, and their decks are bomb-proof. That they are destined for the Black Sea as well as the Baltic, we are still hopeful, though no official hint has even yet appeared to that effect that we are aware of. The British fleet for the Baltic will consist, it appears, of no less than a hundred vessels, every one of them propelled by steam.—— Messrs. Losh, Wilson, and Bell, of the Walker iron works, Newcastle-on-Tyne, have entered into a contract with the Admiralty for the supply of between thirty and forty thousand bomb shells. They are to be of 10 inches diameter, and weigh about 63lbs. each.——A large fourgon, containing a printing press for the Crimea, has been embarked on board the *Empress* steamer at Lyons. On it was to be seen the inscription,—*Armée d'Orient, Imprimerie Impériale*. Two of the best compositors of the Imperial printing establishment of Paris accompany it. This is rather an unexpected step for our allies to take in advance of us.

A HAND-RAILWAY.

Some time ago I suggested a hand-railway, that could be arranged in working order, at the rate of six miles of railway in one hour, and over which deal timber could be passed at the rate of four miles of timber in one hour. This might have saved thousands of lives if in operation for a few hours between Balaklava and Inkermann; and as, with slight modifications, it would be useful for other purposes, I beg to explain how the timber might have been passed in the case alluded to. A common "office ruler" will give a good idea of the sort of thing to be used. Old musket barrels would have done, and they would have had the advantage of being ready. An experiment has been tried by passing timber over common iron bolts, which was done readily, so as to prove the correctness of the principle. The recurrence of such cases as that at Balaklava might be effectually guarded against by preparing small iron rollers to revolve in wooden handles, lined with iron: by this simple means you would have a portable hand-railway, over which not only timber but many other things might be passed. Each handle to the rollers should have an iron guard, or shield, to protect the hand of the person that held it, and guide the timber on its path: the handles should be held in the left hand of each person, and the timber slightly pushed with the right hand, and thus at least four miles of timber per hour might be passed any distance that the men available would extend over if standing in pairs, so as to hold the rollers 4½ feet apart. Barugh Almack.

THE GREAT BELL OF ST. PAUL'S.

I feel obliged, as I am sure do your readers generally, by the courtesy of the Messrs. Mears, in supplying the information contained in your last number, forming, as it does, a valuable contribution to our campanalogical statistics. The discrepancy which startled me proves to have proceeded not from an under-stating (to any important extent) of the weight, as surmised by me, but an over-stating of the diameter; and this, not in Mr. Dent's essay. The 9 feet, I find, is repeated in Mr. Timbs's "Curiosities of London." In that interesting volume, at page 39, are given the particulars of the Great Tom's history, removal from the "clochard" at Westminster, re-casting in 1716 (which it appears should be 1709), and all about the sentinel at Windsor, who did not go to sleep on his post, but was only rapt in a brown study, from hearing Tom (then at Westminster) strike thirteen. There is also the following paragraph, which explains the fulness of tone heard when the hours are struck:—

"The same hammer which strikes the hours has always been used to toll the bell on the occasion of a demise; but the sound produced on the latter occasions is not so loud as when the hours are struck, in consequence of the heavy clock-weight not being attached when the bell is tolled, and causing the hammer to strike with greater force than by manual strength."

St. Paul's Great Tom, then, measuring but 6 feet 9¼ inches in diameter, and weighing but 5 tons 4 cwt. while that for Sir Charles Barry's clock-tower is to be about 9 feet in diameter, and between 14 and 15 tons, the descendants of Dick Whittington and John Gilpin must confess that Westminster is again going to "bear the bell." J. W.

THE ART-UNION OF LONDON.

We would direct attention to the fact that the subscription lists of this important corporation will be closed on the 31st, with the hope that we may induce such of our readers as are interested in the progress of the fine arts and the welfare of artists to exert themselves in its favour while there is time. A strong effort is needed at this moment of general depression when individuals are less likely than usual to be purchasers. The works to be distributed to each subscriber, a fine print and a volume of engravings in illustration of Childe Harold (of which more hereafter), are now ready, and are worth much more than the whole amount of the subscription.

ROAD MAKING.

In a paper read to the Society for Promoting Public Improvements in the Town of Leeds, by Mr. J. P. Smith, surveyor of the borough of Birmingham, "On Macadamised Roads for the Streets of Towns," the lecturer said he had had under his management for many years 150 miles of street road, and the general superintendence of 180 miles of turnpike road, and the result of his experience was that he was confirmed in his opinion that broken stone, or Macadamised roads, if properly constructed and managed, are better adapted for the streets in large towns than any other description of road. It was essential that the foundation of a road should be of a firm material, well consolidated, and perfectly drained; if not, it became rough and uneven, and very soon required repairs. The next thing was to cover it with hard stones, impervious to water, broken to a proper size and laid out at a proper cross-section. The stones should then be dressed or bound with a coarse grit, which in dry weather should be watered and well raked. Under no circumstances should a road be permitted to be worn down, but it should be continually kept in repair. It was also very necessary that roads should be regularly swept and watered in dry weather, so as to prevent any accumulation of dust and dirt. The great objections which had been urged against Macadamised roads was the annoyance of dust and dirt which they were said to occasion, and many persons would prefer submitting to the deafening noise of the pavement. There would be no occasion of complaint, however, against dust and dirt if machine cleansing were adopted, and the expense would soon be saved in the diminished cost of repairs. In Birmingham there were about 150 miles of street and carriage road, and he understood about the same extent in Leeds. He had made an estimate of the probable cost for the present year, founded on the actual cost of the preceding year, and he believed that it would also apply to the borough of Leeds. It appeared from the estimate that the cost of maintaining the 150 miles of road would be about 34,000*l.* but the sum also included 11,600*l.* for lighting. Mr. Smith recommended that in making a road a substratum of ashes should first be laid down, and that should then be covered with the broken stone, which was called "ragstone," and which might be obtained in Birmingham for about 5s. 4d. per ton, or 6s. 8d. per ton broken, and then covered with the channel sweepings, and upon that might be laid a sprinkling of sand. In making Macadamised roads he would not have any large quantity to be commenced at one time, but the work should be done gradually, and the streets continually kept in repair. Macadamised roads were first commenced in Birmingham about seventeen years ago, and now he believed Mr. Smith stated that in the estimate to which he had referred was included the purchase of sixty-three horses, and also twenty sweeping-machines and 1,200 gallons of water, which in Birmingham they could purchase at 6d. per 1,000 gallons. The sweeping-machines and horses were never idle, but could be employed both in wet and dry weather. The average cost per yard per annum of maintaining a Macadamised road, including the watering and cleansing, he calculated at 8d. per yard; and, in Birmingham, paving would at least cost 15s. per yard, and would require to be renewed about every fifteen years.

THE LITERARY SOCIETY OF JERUSALEM.

Some of our readers may not have heard of this society. It was instituted by a few friends assembled in the City of Jerusalem, in November, 1849, who after some years residence in the Holy Land, were convinced that there are manners, literature, antiquities, &c. existing around them, which would highly interest the learned in Europe, especially those who attach themselves to biblical studies; and were of opinion, that instead of merely detailing these in correspondence to their friends, as anecdotes or descriptions, it would be better to concentrate such information in such a mode as would make it generally accessible. Weekly meetings were therefore appointed for reading original papers, and for the exhibition of curiosities. A few fundamental rules were laid down, from which other regulations have since been developed according to circumstances, and literary contributions, or specimens of natural curiosities, were solicited from European or American gentlemen residing within the Holy Land. These gentlemen were elected corresponding members.

Some collateral advantages are expected to arise from this association, such as affording intellectual recreation to European travellers to the country, the number of whom is on the increase, and the possibility of augmenting the number of European residents in Jerusalem, by which means more of the benefits of civilization will be diffused among the native inhabitants.

His Grace the Archbishop of Canterbury is patron; the vice-patrons are the Right Rev. the Anglican Bishop of Jerusalem, and the Right Hon. the Earl of Aberdeen: the president is Mr. Finn, H.B.M. consul for Jerusalem and Palestine.

In the opening address of the latter, for 1850, which has been printed at the American press, Beyroot, and again at Tenby, in England, he says:—

"Permit me to mention one subject more that may be properly brought within our province, viz. that of the fine arts,—architecture, painting, sculpture, and music; and these may be divided into three sections, or periods,—

1. Hebraic.

2. Grecian, under the Ptolemies and the Herod family.

3. Mohammedan, from the middle of our seventh century till the present day.

A question often arises in my own mind which, though easily answered by the coherence of Moslem fanaticism, or Maccabean righteous zeal, still dwells upon the thought with some degree of interest. What has become of all the Greek and Roman statues of fabulous divinities, and the busts of celebrated men, that have been set up in Palestine? And why are no mythological figures ever found upon ancient pottery? But it should be observed, that relics still survive of (it is believed) Hebrew architecture, with rich floral embellishment; not to mention Saracenic public works, sufficient to prove that gods of wood and stone, however perfected by genius, are not absolutely necessary to the development of fine taste, in a prosperous and happy nation. Music, too, and poetry have reached their highest extension within this city. Certainly no heathen idolatry has been ever found to institute such a costly and elaborate worship by means of music, as the Jerusalem Temple used to supply; and Hebrew poetic feeling was not limited to the writers of the inspired hymns and prophecies now in our possession, for David, Isaiah, and Jeremiah, did not invent, but use, under Divine inspiration, the rules of art already existing.

Have not all of us observed the costumes of the Bethlehem peasantry, both male and female, with simple masses of rich red and blue colour? How exactly they accord with the paintings of the old Italian masters. One might imagine that Correggio and Raffaelle drew and coloured from dresses of the groups, or individual persons, that we meet any day upon the road from Jerusalem to Bethlehem, persons whom we might address by name. This seems only to be accounted for on the supposition that coloured sketches were forwarded or carried to Italy, by monks or pilgrims, on their return to Europe."

England's Mineral Wealth.—On the authority of Mr. R. Hunt, the Government Keeper of Mineral Records, according to the *Mining Journal*, the following statement is regarded as a near approximation towards the annual value of our mineral wealth:—Coal, as raised at the pit's mouth, 11,000,000*l.*; iron, 10,000,000*l.*; copper, 1,500,000*l.*; lead, 1,000,000*l.*; tin, 400,000*l.*; silver, 210,000*l.*; zinc, 10,000*l.*; salt, clays, &c., 500,000*l.*; giving the enormous total of 24,620,000*l.* This is the value of the raw material. When the cost of labour employed in converting this mass of matter into articles of utility or objects of ornaments is added, it will be swelled a hundredfold.

Notices of Books.

Every Man his own Printer; or, Lithography made Easy. Waterlow and Sons, London-wall. 1851.

This is an Essay on Lithography in all its branches, showing more particularly, however, the advantages of "The Patent Autographic Press," a substitute for, or improvement on, Watt's Copying Machine, enabling all, but especially mercantile and other firms, draughtsmen, teachers, music-sellers, and others to multiply copies of writings, drawings, notations, diagrams, &c. *ad infinitum*. The patent, in fact, is just an adaptation of lithography to the copying machine essentially speaking, although copper-plates, as well as lithographic stones, and even types can be worked readily by means of the "Autographic Press," which seems to be a very useful invention, although hardly justifying such a title as "Every man his own Printer," for the whole tribe of *authors* may be said to be excluded from its use, unless they are satisfied to print their works in single pages, and in autographic or at least lithographic characters. The capability of using types is admittedly very restricted. We will venture to suggest an additional step towards enabling poor authors really to act as their own printers, however. Might not a press on the principle of the copying machine be made of sufficient size to enable a small sheet to be printed from, by means of gutta percha stereotypes, prepared from gutta percha matrices, stamped from types set in form, on the apparently very effective and simple plan exhibited at the Crystal Palace of 1851? If so, then it is evident that such a copying machine, or printing press, together with paper, an inking roller, and as many types as would merely enable the poor author to set up even a single small page of his proposed work would be sufficient to set him up as his own printer, so soon as he could accumulate as much gutta-percha, in the form of stereotypes, taken from each page of the types as he set them up, as would enable him to print off a sheet or volume, both types and matrix, so soon as each stereotype was got, being ready to assume the new form of the following page. Should any patent-eater or patent-hunter think of appropriating this suggestion, in the way that so many of the thousand-and-one suggestions of the *Builder* have already been, and yet will be appropriated, it is to be hoped he will at least do us the honour, which so few do us, of acknowledging the source of his second-hand inspiration, and of citing number and page, while he is about it, so as to save us the endless trouble of hunting through our own teeming columns for the registry of the actual birth of *his* (adopted) "invention."

Miscellanea.

Metropolitan Bridges and Roads.—On the motion of Mr. Jackson, the House of Commons has appointed a select committee to inquire into the state and condition of the several communications to and in the metropolis, including the bridges over the Thames and the approaches thereto; to report whether the communications and approaches are adequate to the present and increasing traffic to and in the metropolis; if not, the best mode of improving the same, and whether it will be desirable to have one or more bridges over the Thames, and where, and the best mode, out of local fund, of providing the cost of such bridges, and of improving the said communications and approaches, and throwing open to the public the toll-paying bridges.——In reply to Mr. Oliveira, who asked the First Commissioner of Works, whether it was the intention of her Majesty's Government, during the present session, to take any steps in reference to the report of the select committee of the last session on metropolitan bridges, Sir William Molesworth said, the Board of Works did not possess any funds with which to execute the works pointed out in the report of the committee on metropolitan bridges; nor was it the intention of the Government to apply to Parliament for a grant of public money for that purpose. But his hon. friend the President of the Board of Health intended to ask leave to introduce a measure for the better local government of the metropolis, which Bill would contain a clause which would enable local metropolitan boards to provide funds for carrying out public works of this nature.

THE IRON TRADE.—Reductions in wages are being quietly submitted to by the workmen in this trade, and prices are being "ruled by circumstances." At the death of the Czar Nicholas pigs rose, it is said, 3s. in Scotland. The ironmasters are now complaining of the combination of the coalmasters, *suo more*, to keep up prices. The Cleveland district iron is getting into all the Yorkshire and Derbyshire markets, and must soon, it is thought, still further reduce the value of the article. More failures in the trade are still talked of as probable. America is coming slowly into our markets again since prices fell, and the steel trade is becoming more active in consequence.

WARMING CHURCHES.—In the dark ages (rightly so called, because little is known about them), the daily services with its incense and lights, and the lamps burnt continually before shrines, were found sufficient to warm the interior of churches; but in these days of close-fitting, draught-excluding windows, more complete means of heating our places of worship are required, yet the necessity for this seems to be disregarded, by the absence of all provision for an adequate, or, indeed, any warming apparatus, in the majority of new churches; consequently the same plan is often resorted to which obtains in most churches erected in times long past, viz. the placing on the floor of the building stoves, each with an elbow of iron-piping passing through the tracery of a window. Now, this disfigurement would be altogether avoided were fireplaces and chimneys considered allowable features in the structure of a church: they might be rendered an adornment rather than otherwise. Taste is much, if not altogether, regulated—or, at least, is much influenced, by what we are accustomed to; and if the eye were rendered familiar with the appearance of two or more recesses in the walls of a church, lined and paved with encaustic tiles, containing moveable grates with brass guards as protection from fire, we should soon consider any church incomplete unless it were so furnished. Chimneys on the exterior somewhat resembling buttresses would scarcely be eyesores; indeed, they might, without dishonesty, serve two purposes, provided the architect sought not to conceal the chimney in the buttress, nor placed his chimney buttress where a buttress is not needed. If a smoke-consuming invention were used for the grate, the top of the chimney would not be much blackened: in towns a "gas-fire" might be advantageously used. The heating power, if thus placed in close connection with the cooling-surfaces of the walls and windows, would probably counteract in some measure the currents of cold air so continually complained of by those who sit near a window.—W. S. MEADE.

HOUSES FOR THE POOR.—In your journal of the 3rd inst. your Birmingham correspondent, in speaking of the sufferings of the bricklayers, labourers, &c. inquires, "When will they renounce the baneful influence of the pot-house and learn self-respect?" I, who know much of them from thirty years' experience, would answer this question, by saying that it will never take place until they are provided with decent and cleanly homes, and their children are reared in wholesome dwellings, and a young mechanic can take to his wife a virtuous young woman, without fear of her becoming a slattern or a drunkard, from the contamination which at present she is sure to be surrounded with in the courts and alleys the labouring man is forced to reside in. The wretched lodgings of the poor are the cause of more than half the misery now existing. It is of no use preaching religion, or making education cheap, or founding ragged schools, while the present state of things in this respect exists. Give to the poor man a cleanly and cheerful home at a price his means will bear, and then order and sobriety will ensue. If this cannot be brought about by private enterprise, let it be done by parochial boards, and the rental collected by parish authorities,—it would save the trouble of collecting poor-rates. If masses of lodging-houses fitted for the poor were built now, in twenty-five years an entire change would appear among the working population, and religion and education would be honoured and reverenced by those who are now known as the *unwashed*. Notwithstanding the blessings which baths and washhouses have conferred, the poor cannot be clean while they have the abodes you have so frequently illustrated and so fervently condemned. The thousand dens of iniquity you have pointed out ought to be broken up as speedily as masses of new dwellings could be erected. No class of society pay, in proportion to their incomes, such high rents as the poor,—I include all ranks of poor—clerk, mechanic, and labourer,—and none pay so much for warmth or for cooking of their food. Some persons may say that in doing this you strike at the root of self-independence. I deny this: you will, on the contrary, engender habits of order that will prompt ambition to more lucrative positions in society, and diminish the morbid feeling existing in favour of distant lands, which is carrying away the bone and sinew of the country.—A.

THE PARIS EXHIBITION OF INTERNATIONAL INDUSTRY AND ART.—The London commissioners of metropolitan sewers intend, at the request of the Board of Trade, to see what can be done by them in the way of sending sewage plans and models to the great Paris exhibition.——The Sunderland contingent has been exhibited at home before being despatched to its destination. It will constitute a highly respectable portion of the general display. There are numerous complete models of the chief manufacture of Sunderland, namely, shipping, among which we notice the *Empress Eugenie* herself: these are all suspended in glass cylinders, provided by Mr. Hartley, and, with a great, case have a novel and imposing appearance. Glass is separately illustrated by Messrs. Hartley's firm. Architecture takes its place in a series of perspective drawings of public works sent by Mr. Oliver. There are various choice specimens of ship carving, and of course of coal, as well as a large model of a coal-pit, with Davy lamps, &c.; besides a large quantity of miscellaneous articles.——A granite dial pedestal has been ordered, on account of the Prince of Wales, to be prepared by the Cheesewring Granite Company, whose granite quarries are on the property of the prince, as duke of Cornwall. This company, by the way, is sending immense blocks of their fine granite to the new Westminster-bridge works, where they may be seen on the contractor's wharfs.

SOUTHAMPTON DRAINAGE.—A report, by Mr. James Simpson, the president of the Institution of Civil Engineers, London, "On the intended Sewageometer, and the Sites suggested for erecting the same," has been published, by order of the local Board of Health. Several statistical tables and reports on the rain-fall are appended. The principal object of the "sewageometer," or iron air-tight tank, alluded to, seems to be to retain the sewage for a short period, and prevent it from flowing into the river about the time of high-water. It was proposed to form it above ground, but Mr. Simpson states that such a purpose would be better effected by reservoirs underground at the outfall. As to projected works for the application of the sewage to agricultural purposes, the reporter questions the propriety of expending capital for such a purpose, or at least with the idea that it would be remunerative for some years to come, and especially in any other than private hands.

REMEDY FOR DOWN-DRAUGHT.—In reply to your correspondent of the 24th ult. who asks for a remedy for down-draught, I beg to suggest that he should try the following, which I have found successful. It is simply to suspend a curtain in front of the fireplace down which the smoke comes, extending from the top of the opening to about *four inches from the ground*. Care should be taken that the curtain fits closely, so as to leave no opening at the top or sides. If the curtain extends to the ground it fails to answer the purpose. An old cloth and a couple of sticks to prop it up will enable anybody to try the experiment, and if it answers, a more permanent substitute may be found.—J. B. B.

RED BRICKS IN OLD BUILDINGS.—Your correspondent, "Red Rubber," in your journal of February 17, is right in his surmise as to where some of the red rubbers used in many of the old buildings in London were obtained. They are still manufactured at the Nonsuch Works, Ewell, Surrey; also the red fire-bricks, termed Nonsuch Fire-bricks, mentioned by him, which are used for copper smelting works, chemical works, gas works, and other purposes where a very intense heat is required. But your correspondent is wrong in his supposition that the same clay (a "marly loam with sand") was used in the manufacture of both kinds of bricks. The fire-brick at the above-named works is made from a vein of earth more resembling sand, from 9 to 12 inches in depth, deposited below a peculiar bed of red clay, whilst the red rubbers are manufactured from a lower stratum—a species of green loam, from 18 to 24 inches in depth, producing bricks of a rich deep red colour. A specimen of these may be seen in the archway recently erected, forming the entrance to the Necropolis Company's Station, in the Westminster-road; and they will be used in the new works at the Small-arm Factory, Enfield-lock. Your correspondent is quite right as to their not containing any chalk, or carbonate of lime.—J. EASTWOOD and SONS.

WREN.—At Puttock and Simpson's, Auctioneers, Piccadilly, next Tuesday, Lots 478, 479, will be sold, Letters and Signatures of Sir C. Wren, and following day Lot 545, "Sir C. Wren, Pen Sketches, with written explanations, of a proposed English Walhalla, two leaves, small folio, covered on both sides, *very interesting and rare*." This appears to me to have been the original design for the proposed monument of Charles I. intended for erection in the neighbourhood of Windsor Castle, for which the parliament voted 70,000*l.*; used for other purposes by Charles II. I believe mention is made of this in the "Parentalia."

CONSTANT READER.

A HOUSE OF BUTTONS.—The *Atlas's* Paris correspondent states that Clapisson, the musical celebrity, is building a chateau composed entirely of buttons! The walls, the ceiling, the doors, the exterior, the interior, are all ornamented with this novel element of architecture. Buttons of every description, from the very origin of their invention up to those of the present day, have been employed in the arabesques and ornamentation of the walls. Every country has been ransacked, and some curious specimens have been brought to light. Those dating from the lower Greek Empire are of the most curious manufacture.

RAILWAYS IN CANADA.—In the *Canadian Journal*, a repertory of industry, science, and art (published by Maclear and Co. Toronto, for the Canadian Institute), is a recent statistical article on railways in Canada, from which it appears that the number of railways now in course of construction in the province is 32, with 1,193 miles completed, and 2,022 more or less advanced, besides "a vast number of miles of road not yet commenced." The number of companies who have not as yet begun to lay down any length of way is 14. The number of companies whose charters have expired from "non user" is 10. The total number of charters granted is 56. Under railway influence the forests, at the head of the Androscoggin and Connecticut rivers, have been quadrupled in value in the last four years, and a similar result is found along the streams of Canada in the vicinity of the lines. Half a million feet of lumber was moved on the Grand Trunk Line in one week in July last, and in another year it is expected that the average per week will be a million feet.

BRISTOL FINE ART ACADEMY.—At a meeting on Monday before last of the artist members of the Bristol Academy for the promotion of the fine arts it was resolved that an exhibition, consisting exclusively of productions of local talent, should be opened early in May, at the Academy-rooms in St. Augustine's-parade.

TELEGRAPHIC PROGRESS.—TELEGRAPHING WITHOUT WIRES!—Among the most startling wonders of this wonder-working age, is the announcement that M. Bonelli, of Turin, has invented a new electric or magnetic telegraph, by which trains in motion on a railway are enabled to communicate with each other at all rates of velocity, and, at the same time, with the telegraphic stations on the line, while the latter are simultaneously able to communicate with the trains; and it is added, that M. Bonelli is in possession of a system of telegraphic communication by which wires are entirely dispensed with. The idea, however, is not new: we have repeatedly alluded to its possibility; but like multitudes of such ideas the suggestion drops into oblivion, and reappears after a while as a fresh novelty. Who was its real originator we do not know, but the nearest approximation to its practical realization we remember anything of was the mode by which a Dundee gentleman transmitted messages across rivers and straits without any intervening or subaqueous wire. Still wire was necessary, and a good long coil too, at either extremity of the space telegraphed through.

STYLE.—When, at last, Art, by means of imitation of Nature, of efforts to create a common language, and of clear and profound study of objects themselves, has acquired a clearer and clearer knowledge of the peculiarities of objects and their mode of being, oversees the classes of forms, and knows how to connect and imitate those that are distinct and characteristic, then will style reach the highest point it is capable of—the point where it may be placed on a par with the highest efforts of the human mind. Simple imitation springs from quiet existence and an agreeable subject. Manner seizes with facile capacity upon an appearance. Style rests upon the deepest foundations of knowledge, upon the essence of things, so far as we are able to recognise it in visible and comprehensible forms.—*Goethe.*

BAVARIAN BRICKS.—When, for the second time, I was last summer in Munich, none of the many fine brick buildings with which that city abounds appeared to me more worthy of admiration than the imposing structures recently erected, particularly "the Royal Library" and "the Wittelsbach Palace," which are built entirely of brick, "that common material which we are accustomed to consider somewhat beneath the dignity of architecture as a fine art" (p. 98, *ante*). I have visited many of the first cities on the continent, including Paris, Vienna, and Berlin, but, unfortunately for myself, have seen very little of my own country—or I will not deny that I might have seen much good and substantial brickwork; but I am afraid none so really beautiful as the Bavarian. Even now, all that I can say of the Munich bricks, is, that they are of a pretty colour—not red—and that they seem to be exquisitely put together, as my stay in that city was too short to permit of my making such inquiries as I could have wished to make. J. F.

THE SANITARY USES OF CHARCOAL.—At the Royal Institution in Albemarle-street, Dr. Stenhouse lately delivered a lecture on this subject, in which he urged the importance of charcoal as a destroyer of noxious or infectious effluvia. If all be true that is said as to the extraordinary *extent* of the disinfectant or detoxicant powers of charcoal, we think it is questionable whether the mere accommodation alleged to be afforded in its "pores" for immense quantities of gaseous or atmospheric combinations, is capable of explaining these powers, and would much incline, as we have before said, to attribute the combinations and destruction of noxious gases ascribed to it, to a power possessed by it of promoting the slow combustion of the gases, irrespective, in great measure, of mere porosity. Its action, as we observe, is now compared by Dr. Stenhouse himself to that of platinum in promoting the combination of hydrogen with oxygen, an action which is probably connected with electrical agency. The more porous the substance, however, the more points of action of course there will be; but the mere capacity of such pores for *holding* a certain quantity of the gases does not appear to be quite a satisfactory explanation *per se* of the alleged extent of the action. The respirator was one of the chief forms brought by the lecturer under notice. This, he said, he had purposely refrained from appropriating to himself by patent. Dr. Sutherland had desired to take with him 500 of these to Constantinople, but he is said to have been prevented doing so by official routine. The use of bandages or coverings holding charcoal over wounds, and so absorbing and destroying putrid effluvia escaping from the wounds, and infecting the atmosphere of the hospital, would, we think, be no less important and sanative than the use of the respirator itself. Charcoal, according to Dr. Stenhouse, destroys the efficacy of the manures which it deodorizes.

RAILWAY TRAIN SIGNAL: COMMUNICATION BETWEEN GUARD AND DRIVER.—A patent has been granted to Mr. J. G. Jones, of Islington, for a means of communication between the guard and driver. In the specification the patentee says:—"I cause to be extended over the tops or other convenient part of the carriages forming a train a flexible tube, one end of which terminates close to the engine-driver, the other end being wound round a drum or reel fixed in some convenient part of the break-van or carriage occupied by the guard; the arrangement being such that when it is required to detach one or more carriages between the break-van and the engine, all that is necessary is to wind upon the reel the superfluous length of tube caused by the removal of such carriage or carriages; and in like manner when more carriages are to be added the required length of tube can be unwound or let off from the reel, an arrangement which entirely dispenses with everything in the shape of couplings. The guard and engine-driver are therefore put in direct communication with each other by means of a continuous flexible tube, into each end of which there is placed a whistle, which can be removed at pleasure, and the tube employed as a speaking-tube." A recent accident near Crewe affords one of many warnings of the necessity of having some such means of communication as this of Mr. Jones, between the guard and driver, as well as between the passengers and guard, and a way for the guard to each carriage, that he may satisfy himself as to the urgency of the call made by the passengers.

STRIKES AT LIVERPOOL.—Some of the bricklayers and plasterers have struck work in consequence of disagreements with masters as to wages. The operative bricklayers state that by an understanding with their employers, wages for the summer half-year beginning 1st March, were to have been 5s.; those for the winter half-year being 4s. 6d. Seventeen out of the thirty-four employers have acceded to this arrangement; but the remainder have refused to give more than 4s. 8d., in consequence, as they state, of a numerous body of the operatives having worked for the dock-trustees all last year for 4s. 6d. while refusing to work for them at less than 5s. Meetings both of men and masters have been held, but the former complain that the latter have refused to confer with them on the subject. The operative plasterers employed by one master have struck, in consequence, as they allege, of his refusal to return to the standard wages this spring, namely 26s. a week, after having reduced them at the beginning of winter. A levy of 6d. a day to support this strike has been imposed on the Associated Operative Plasterers, and the bricklayers appeal to their 1,000 fellow-workmen to support those out on strike.

TO CORRESPONDENTS.

"*Mildew.*"—"S. H." asks how to remove mildew from engravings.—"J. H." (thanks).—"Young Subscriber," Brighton (no).—"Rev. Mr. G."—"A Student."—"S. H."—"W. S."—"G. G."—"W."—"Mr. W."—"F. E. D." (in type).—"J. R." Liverpool.—"C. M. I."—"W. G."—"C. H."—"Dr. A."—"T. E. K."—"E. L. T."—"T. G."—"D. B."—"J. T."—"D. S. and Son."—"G. L. T."—"T. E." (shall have an answer).—"G. P."—"M. D. W."

ADVERTISEMENTS.

FOREMAN.—WANTED a FOREMAN thoroughly qualified to superintend the construction of a Lock in a navigable river.—Address C. E. Castle and Lamb's Newspaper-office, Bull Head-court, Newgate-street.

PLAIN AND DECORATIVE UNITED SOCIETY OF PAPERHANGERS TO THE TRADE.—Established 1854. WANTED immediately, good and efficient WORKMEN to join the above Society. Parties with undoubted references as to capability, &c. may apply to the Secretary, any SATURDAY evening, between the hours of EIGHT and TEN, at Mr. DODSON'S, the Fox Tavern, Duke-street, New Oxford-street, Bloomsbury.—Books of rules may be obtained at the bar.

TO ARCHITECTURAL DRAUGHTSMEN.
WANTED, a first-rate ARCHITECTURAL DRAUGHTSMAN, who thoroughly understands perspective and making out working drawings. Specimens of ability and terms required, to be addressed to Messrs. LOCKWOOD and MAWSON, Bradford, Yorkshire.

WANTED, in a Builder's Office, a YOUTH who can write a good hand, quick at figures, and can trace drawings. One who has been in a Surveyor's or similar office preferred.—Address, with age, last engagement, salary, &c. to T. B. care of Mr. Paradise, 40, Watling-street.

WANTED, in a Surveyor's Office, a YOUTH of about 17 or 18. A good hand and quickness at figures indispensable.—Apply by letter, stating age, qualifications, and salary required, to J. B. Mr. Miller, Bookseller, &c. Little College-street, Westminster.

WANTED, an ARCHITECTURAL DRAUGHTSMAN, competent to prepare specifications, take off quantities, and measure up builders' works. Reference will be required.—Apply to M. JOYCE, Building Surveyor, St. Neots, Hunts.

TO HOUSE-PAINTERS AND DECORATORS.
WANTED, for an Establishment in Edinburgh, which has for thirty years carried on a very extensive business of the highest respectability, a MANAGER of first-rate ability and experience, thoroughly acquainted with the details of the trade; or, an ACTING PARTNER of like qualifications, possessed of adequate capital, or who can give security for the same. For further particulars apply to STODART MACDONALD and CO. No. 1, Abercromby-place, Edinburgh.

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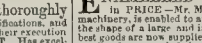

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MR. EDWARD L. PARAIRE is desirous of Meeting Gentlemen who require TINTED ARCHITECTURAL DRAWINGS. Carefully executed, Internal, Isometrical Perspectives got up; outlines of same neatly coloured, with background, or tinted with Indian ink, have spent some years in making designs, plans, perspective and working drawings, for ironwork, masonry, and carved work; is a practical marble, stone, or wood carver, has been much engaged in the two former lately; can keep books by double or single entry; is a fair accountant; is willing to take to the shop, floor, or road, an fair security, give the most unexceptionable references both as to character and ability, and will be at liberty on 25th March.—Address, M. S. Y. Post-office, Shrewsbury.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.— Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either for land or river carriage. Portland, Derby, Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's station.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—JAMES PIGGOTT, 115, Fore-street, City. Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance

PAVING, 2s. 9d. per SQUARE YARD.— Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at this above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, Fish-street-hill.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 36s. per ton. Importer of Trinidad Asphalte.

Shipping Depôt, Devon Haytor Wharf, Rotherhithe.

G. H. CLARK, Agent.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works.

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THOMAS MILLINGTON

Begs to inform ARCHITECTS, BUILDERS, and the Trade, that he supplies the following articles of the best quality and at the same time upon the lowest terms:—

ENGLISH AND FOREIGN SHEET GLASS, PLATE, PATENT PLATE, PATENT ROUGH AND FLUTED PLATE, MILLED SHEET LEAD,

PATENT PIPE, LEAD, IRON, AND BRASS PUMPS, AND WATER-CLOSETS,

Genuine White Lead, Colours, Varnish, Brushes, and every article in the Trade.

FOR PRICE SEE ADVERTISEMENT FIRST SATURDAY IN EVERY MONTH, OR UPON APPLICATION AT THE WAREHOUSE,

87, BISHOPSGATE-STREET WITHOUT, LONDON.

CHARLES WM. WATERLOW AND CO.

MANUFACTURING JOINERS,

121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

N.B.—ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

SANDS AND EMERY,

CURSITOR-STREET, CHANCERY-LANE.

MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

Lists of Prices and Estimates forwarded on application.

GENUINE SEYSSEL ASPHALTE.

ORSI AND ARMANI.

THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

DIRECT FROM THE MINES.

REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

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WORK GUARANTEED FOR THREE YEARS.

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

PATENT METALLIC LAVA.

A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1853, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALTE.

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 32 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 315, OXFORD-STREET.

GOOD FOREIGN SHEET-GLASS.—Thirds, 40s.; common thirds, 36s.; fourths, 30s.; in cases 200 feet each, average size 40 by 30. English or foreign ground ditto, 3½d. per foot. Crown and sheet squares, in 100 feet boxes, from 14 by 10 to 22 by 14, 2d. per foot. ½ inch rough British plate tiles, 11s. per dozen. Also, crown and sheet glass in crates; British and patent plate, fluted, and stained glass; glass slates, &c. Sheet lead, pipe, white-lead, oils, turpentine, colours, &c.

JG. FARMILOE and SON, 138, St. John-street, West Smithfield, London.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 295, Oxford-street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot. Crown or Sheet Squares, in 100 feet boxes, 2d. per foot.

Sashes Primed and Glazed, 3d. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

PATENT and BRITISH PLATE GLASS.—JAMES HETLEY and CO. beg to inform Architects, Builders and the Trade generally, that their new Tariff of Prices for the above will be sent on application; they will also on receipt of particulars, furnish estimates for any description of Glass now manufactured.—Patent Plate, Sheet, Crown, and Ornamental Window Glass Warehouse, 35, Soho-square, London.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.

The Warehouse, 98, Hatton-garden, London.

" 48, Piccadilly, Manchester.

Messrs. C. and J. Malloch, 30, Turner's-court, Glasgow.

" John Dix and Co. Bath-street, Bristol.

" H. Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ⅜ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

SOHO CROWN, SHEET, ORNAMENTAL, PATENT PLATE, AND PLATE-GLASS WAREHOUSE, 26, SOHO-SQUARE.

ALFRED GOSLETT begs to inform Builders, &c. that he is prepared to Tender for the supply of EVERY DESCRIPTION of Glass, now manufactured at WHOLESALE PRICES.

FOREIGN SHEET GLASS.—W. HICKSON, 46, Long-acre, importer of the above, begs to inform Builders, &c. that he has a large stock on view; sizes from 40 inches by 30 inches, 40s., 36s.; 3rds, 14 oz. 36s.; 3rds, 16 oz. 40s.; opaque, 3d. per foot; also some 48 inches by 36 inches, to 52 inches by 32 inches. Sashes glazed, squares under 40 inches long, at 3d. per foot (cash).

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz. Sheet Glass, in crates, from 21d. per foot; C C C Crown, 18 tables, 32s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 32s. 0s. and 40s. per case: Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d. 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester square, London.

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and, the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 4d. 6d. and 8d. per foot; sizes varying from 24 by 16 to 40 by 28.—G. FARMILOE and SON, 138, St. John-street, West Smithfield.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock. By enclosing a postage-stamp, a full list of prices will be returned.

ATHEA and WALKER, Manufacturing Joiners, Cropper-lane, Westgate, Bradford, Yorkshire, Sash, Shop-front, and Door Makers to the trade, and for exportation.—Price List and Estimates forwarded, on application, inclosing a postage-stamp.

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence, Shop-front builder and Manufacturing Joiner. 1¼ and 1½ four-panel doors from 6s. each; 1¼ sashes and frames from 7d. per foot; 2 inch ditto from 8d. Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

MONEY TO BE LENT, in Sums of 500*l.* and upwards, on the security of Freehold or Long Leasehold Property.—Apply to Mr. W. S. BOUSFIELD, Solicitor, 14a, Philpot-lane, Eastcheap.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country; an extensive assortment of specimens and patterns commencing at 1s per foot super. together with every particular of its cost and adaptation, can be obtained of Mr. HURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

FOWLER'S
IMPROVED FARM AND
COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION bored perfectly true by improved machinery, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ships, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S IMPROVED
WROUGHT IRON PUMPS

FOR CONTRACTORS, BUILDERS, EXCAVATORS, and OTHERS.

A LARGE STOCK, from 3-inch to 9-inch Barrels, with Plain or Sliding Telescope Suction, always on hand.

This description of Pump Work varying in almost every case, it is impossible to quote a general price, but the fullest particulars will be given on application.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B PEARSE and CO. Great Northern Wharf, York-road, Kings-cross.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c. &c., to their Paving, Sinks, &c., Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E and W. STURGE, Bridge-wharf, City-road

N.B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1855.

GIBBS, CANNING & Co.
TAMWORTH.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c., &c. Agents,—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

SLUICE-VALVES, fitted with square double-threaded screws, springs, brass nuts, glands, and foxings; price, from 2½-inch to 9 inch, 30s. per inch. These valves being steam-tight, and of the best workmanship, are particularly applicable to Baths and Washhouses, and the better class of work. They can be easily repaired without interfering with the pipes. Liberal discount allowed to architects and the trade.

J. J. CAPPER, Falcon Engine Works, Loughborough; orders in London kindly received by W. H. WALENN, C.E. 7, Duke-street, Adelphi.

TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to
JOHN WARNER & SONS'
PATENT VIBRATING
STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

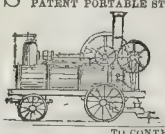
N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s per doz. painted.
Ditto .... 48s per doz. galvanised.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

IRON PILLARS WANTED, CHEAP; four small and second-hand required. State length, substance, and lowest price, per letter, to C. C. 1, Edith-grove, New Brompton.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.



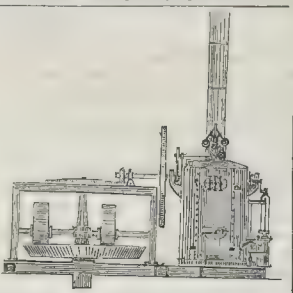
Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street,
Southwark, London.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12 horse, 16-horse, 20 horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work at Messrs MILDWIN and HALL'S, Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers

N.B. Any of these Engines may be purchased.



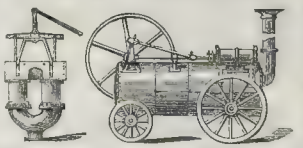
A SAVING of TIME and MATERIALS, with Solidity of Building.

HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

"Railway Contractor's Office, Wellington, Salop.
"December 1, 1853.

"DEAR SIR,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Bacup Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although for weeks the fire has never been out, we have no stoppage for repairs.

"We remain, dear sir, yours most faithfully,
"Mr. Gough." "DICKSON and McKENZIE."



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSS'S WHOLESALE WAREHOUSE, 29 GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXPENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other House in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY,
Nine Elms, London

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

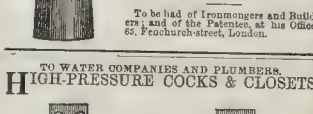
With single pulley, from 6s. each; with leading pulley, from 6s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required. HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUPER'S PATENT WIND-GUARD.—This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

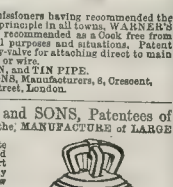
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

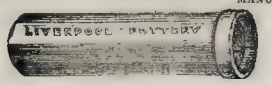


PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the concession and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country. Used and approved at the Offices of the General Board of Health. Exclusively adopted by the Crystal Palace Company. Easily cleaned without trouble or expense.—To be seen in operation daily, at J. EVANS and SON'S, Ironmongers, 33, King William-street, London-bridge.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD.....J. Sparrow and Co
CARNARVON.....Jno. Jackson.
PRESTON.....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN.....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.
CARLISLE.....C. Armstrong, Lowther-street
WHITEHAVEN.. Hugh Todhunter.
COCKERMOUTH.. John Hird.
GUERNSEY.....Guerin, Brothers.
LONDONDERRY.. W. and A. M'Elwee.
LIMERICK.....W. Burgess and Sons.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

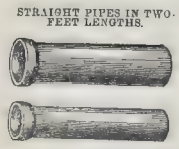
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES, LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

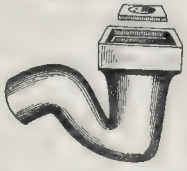
IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.



HALF-SOCKET PIPES, in 3 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryd ges-street, Covent-Garden; and at EDWARD COCK'S, 94, Wardour street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

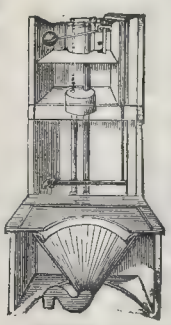
Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

REDUCTION IN THE PRICE OF CLOSET-PANS.

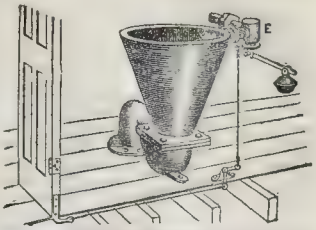
DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

GEORGE JENNINGS, inventor of the IMPROVED DRAIN PIPES, EARTHENWARE and OTHER CLOSETS, SLUICE VALVES, TYRE, and all kinds of COCKS, Shop shutter Shoe and Fastener, &c. 29, Great Charlotte-street, Blackfriars-road. A book containing illustrations and particulars free on application, or by post, if two stamps are enclosed.

LAMBERT'S DOOR-ACTION CLOSET.



100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, Wilts County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve-cock, lever, weights, &c. 11. 18s.; Cottage Closet complete, with white wedgewood basin and trap, with 1 inch patent valve-cock, lever, and handle to pull up, 17s. 6d.

THOMAS LAMBERT and SON,
Patentees and Manufacturers, Short-street, New cut, Lambeth.

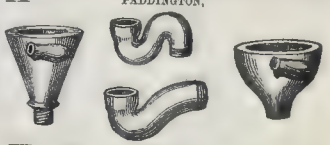
COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

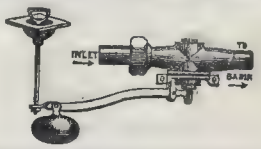
HENRY TURNER, 2, SOUTH WHARF, PADDINGTON,



5s. Traps, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured. A list of shapes and prices sent free, on application. A large stock of Ping Basins of every variety.

BURSTING of PIPES by FROST.



This accident is prevented by the use of LAMBERT'S PATENT LEVER VALVE-COCKS, which act as safety-valves.

The lever is weighted, to resist the pressure of the column of water upon the valve, but it is not weighted sufficiently to resist the powerful expansion of water caused by the frost, which lifts the lever, and thereby prevents injury both to valve and pipe. When reaction takes place, the lever and weight resume their original position.

Many thousands of these Valve-cocks are now in use under pressures of from 3 to 300 feet, with uniform success.

Price of ½ inch bore, with sankplate and handle, 10s. 6d. each.

THOS. LAMBERT AND SON,
Patentees and Sole Manufacturers, Short-street, New-cut, Lambeth.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price of R. and A. Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

THE BUILDER.

SALES BY AUCTION.

BOROUGH of SOUTHWARK.—Ninety-three Freehold Houses, in single lots, each House entitling to a Vote,—particularly worthy the attention of small Capitalists.

MR. W. F. HAMMOND has been favoured with instructions from the proprietor to SELL by AUCTION at GARRAWAYS, on FRIDAY, MARCH 20, at ELEVEN for TWENTY, in single lots, the above Valuable FREEHOLD ESTATE, comprising Ninety-three Houses, all being comp te in four blocks, and known as Henry-street and Elham-street, with a frontage in Kent-street, Borough. The description of the property is of the third and fourth rates, well built, having been erected about thirty years, consisting of shops and dwelling-houses, which are well let or need, and producing rentals from 12 to 50l each, making a total sum of 1,300l. 4s. 8d per annum, each house entitling to a vote. This forms an important investment to small capitalists, being sold in separate lots, with a special condition granting to every purchaser, as a further facility, the option of leaving one half of the purchase-money upon mortgage, to be paid off by such instalments, and at such periods, as may be mutually agreed upon between the vendor and purchaser: but the vendor will not object to receive proposals for allowing a larger proportion of the purchase-money to remain on mortgage.—N.B. Although the property is apportioned into separate lots to meet the interests of small capitalists, the auctioneer will be prepared to put up several lots together, should it be desired by those present at the time of sale. Further particulars, with conditions of sale, and plans of the estate, may be had of Messrs. Lawson, Owen & Pearce, Solicitors, 4, Bucklersbury, City; at Garraway's Coffee-house, Cornhill; of Mr. Swann, the Collector on the Estate, 47, Henry-street; and at the Auctioneer's Offices, 3, Carey-street, Lincoln's-inn.

KING'S-ROAD, CHELSEA.—Valuable Timber yard, producing 19l per annum, free of ground-rent

MR. GEORGE BERRY will SELL by AUCTION, pursuant to a decree of the High Court of Chancery, made in a cause of Archbutt v. Clarkson, at the AUCTION MART, near the Bank of England, on TUESDAY, the 24th day of MARCH next, at ONE o'clock precisely in one lot, a valuable LEASEHOLD ESTATE, comprising a timber-yard, engine-house, workshop, counting-h use, sheds, and other buildings, situate on the north side of the King's road, Chelsea, in the county of Middlesex, and also a Cottage, situate on the east side of Robert street, Chelsea. The property is held direct from the fee holder for about 43 years unexpired, and is to mortgage for 1,000l. for a period of five years from 8th of May, 1854, and is sold subject to such mortgage. The whole of the premises are free of ground-rents, and are let to Mr. Thomas Alford for 60l. per annum from Midsummer, 1853, at a clear annual rental of 120l. The property may be viewed by leave of the tenant, and particulars and conditions of sale of Mr. J. E. Kay, 2, Newsham, Strand; Messrs. Jenkinson and Co. 29, Lombard-street; T. Tyerman, Esq Arel stect, Waterloo Chambers, Strand; and Mr. J. Wiley wood, 35, Lime Burnin Buildi, and of the Auctioneer, at his Office Motcomb street, Belgrave-sq. are.

GREAT WESTERN RAILWAY.—Further portion of the valuable Materials of the Old Terminus of Paddington

MESSRS. EVERSFIELD and HORNE are instructed by the Directors of the Great Western Railway Company to SELL by AUCTION, on the PREMISES, on TUESDAY, MARCH 20th, at TEN for ELEVEN, the valuable MATERIALS and FITTINGS of the BUILDING, containing the old boarded roan and offices, together with the engine house, smiths' sheds, and other erections, comprising 100 squares of slates, a large quantity of sound timber roofs and flooring, excellent doors, sashes, and other fittings, several tons of lead, cast iron, &c. in work, iron columns, and other effects.—May be viewed one day previous, and catal gues had on the Premises; and of the Auctioneers, 40, Parliament-street, or Coal Exchange.

Important Sale of valuable Machinery of an Iron Foundry, powerful Steam Engines, extensive Stock-in-Trade, &c. Poulton cum Seacombe, near Liverpool.

MESSRS. THOMAS WINSTANLEY and SONS, of Liverpool respectfully announce that they have received instructions to SELL by AUCTION, on MONDAY, the 2nd APRIL next, and following Saturday and Sunday excepted), at ELEVEN o'clock precisely each day, the whole of the highly important, costly, and valuable MACHINERY, manufactured and offered for SALE, by UNRESERVED SALE, &c. of those extensive Premises, the Seacombe Foundry, lately in the occupation of Mr. Edwin Maw, on the Cheshire side of the Mersey, Liverpool. The powerful newly-erected Steam Engine, &c. consists of five capital inch pressure steam engines, two of 4-horse power, one 16-horse power, one 12-horse ditto, one 8-horse ditto, with valuable slotting complete, large and capital lathe, with bed 40 feet long by 2 feet wide, and several others of various dimensions, squaring, bending, and other machines; also 6 double planing, screwing, cutting, punching, gun and 1 pipe boring, vertical drilling, corrugating and curving machines, hydraulic press of great power, cast iron cranes, complete new and valuable smiths' ditto, crab winches, screw jacks, sawing machines, several patent tenoning, planing and moulding ditto, smiths' hearths, anvils, vices, tools, moulding boxes, core bars, levelling blocks, &c.

The MANUFACTURED STOCK, &c. comprises nineteen sets of ten-ton railway carriage-wheels, twenty tons of iron oil-boxes for ten-ton carriages, three sets of wheels and axles (Great Western pattern), iron-work of every description for five and ten ton waggons, broad and narrow gauge iron axles, about thirty tons of iron bolts, Brown's patent spring buffers, cloth covers, copper and iron piping, nails, bolts for iron houses, tinned tacks, capital weighing-machines, 1 cwt. mill, and lines of railway.

The UNMANUFACTURED STOCK and MISCELLANEOUS PROPERTY includes a large quantity of bar and rod iron, boxes of plate iron, corrugated and galvanized iron, extensive assortment of wood patterns, adapted for steam-engines, waggon-work, flywheels, &c.; quantity of well-seasoned timber, in English oak, poplar, American oak, Scotch fir, teak, &c.; bar, oil paints, painters' tools, joiners' benches, ottoman-boxes, suitable for the Australian trade, &c.

New galvanized iron shed, 120 feet long by 31 feet wide, and 12 feet high, on massive supports, house of galvanized iron, containing two rooms, with glazed sashes, &c. Also the whole of the excellent fittings up of the counting-houses and offices, desks, counters, partitioning, &c.—The whole may be viewed four days prior to the sale. Catalogues are now preparing, and may be had at the Place of Sale; and of Messrs. Tines, Winstanley and Sons' Office, Church street, Liverpool.

N.B.—Catalogues will be forwarded to parties residing in the country upon receipt of twelve postage-stamps, on application to the Auctioneers.

TO CARPENTERS, BUILDERS, CABINETMAKERS, COACH BUILDERS, AND OTHERS.—Superior Stock-in-Trade of a Timber Merchant, Hampstead-road.

MR. W. R. GLASIER is instructed to SELL by AUCTION, on the PREMISES, 33, Charles-street, Hampstead-road, on TUESDAY, MARCH 20, at ELEVEN for TWELVE, the STOCK-IN-TRADE of a TIMBER MERCHANT, consisting of 1,800 best and second dry pine planks, deals, and battens, 1,200 dry white spruce deals, 300 dry yellow and white Gefle and Onega planks and deals, 200 squares very superior yellow and white prepared flooring and matched lining, 12,000 feet dry wide pine panel board, mahogany, birch, wainscot, &c. in plank and board, 20 cwt. of best dry glue and numerous lots of sale; and catalogues had on the Premises; at Garraway's; and at the Offices of the Auctioneer, 41, Charing-cross.

FARRINGDON-STREET EXTENSION. Important Sale of Building Materials of Fifty Houses.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on THURSDAY, MARCH 22, and following days, at TWELVE, by order of the Improvement Committee of the Corporation of the City of London, the whole of the VALUABLE BUILDING MATERIALS of about fifty houses, shops, factories, and various premises, in Vine street, Brooksbill, Clark's place, Widnall's place, Hitt's place, and Ray-street, Clerkenwell, comprising about 1,000,000 excellent bricks, several tons of lead, plain and pan tiles, prime timber, sashes, doors and fittings, floor boards, paving, shop fronts, and an immense assortment of useful materials, fixtures, and fittings. May be viewed two days previous. Catalogues had at the Architect's Office, Guildhall, and of Pullen and Son, 80, Fore-street, Cripplegate.

SALES BY AUCTION.

FIGURES, FOUNTAINS, VASES, TAZZAS, &c. To PRIVATE GENTLEMEN, BUILDERS, and OTHERS.

MR. PEAKE is directed to SELL by AUCTION, on the PREMISES, 74, Borough-road, New-ington causeway, on THURSDAY, MARCH 22, 1855, at TWELVE, with at reserve, the genuine STOCK-IN-TRADE of the eminent stone worker, comprising a great and pleasing variety of figures, fountains, vases ornaments and other elaborate works of art; as well as suitable for embellishing gardens and pleasure grounds, worthy the attention of private gentlemen and others. May be viewed prior to the sale, and catalogues obtained on the Premises; or at Mr. Peake's Auction Offices, 44, Tooley-street, and 4, Fair-street, Southwark.

DISSOLUTION of PARTNERSHIP of MESSRS. BROWNING and DEARLOVE.—To Cabinetmakers, Builders, Coach Builders, Organ Builders, Pianoforte Makers, and Others. Important and extensive sale of the very superior well-seasoned Stock in Trade, comprising choice Spanish and Honduras Mahogany, in thicknesses Spanish and Rosewood Veneers, of a first-class make, dry boxed, panel-board, and about 4,000 sawn and unsawn Planks, Deals, and Battens.

MR. PEAKE is ordered by the Proprietors, Messrs Browning and Dearlove, in consequence of their dissolution of partnership, to submit to PUBLIC COMPETITION, upon the PREMISES, 9, Wm Small-street, Hammerton, on MONDAY, MARCH 26, 1855, and following days, at TWELVE o'clock each day in lots, for sale, the very superior, choice, unusually well-seasoned STOCK, suitable for the above business, comprising about 1000 feet of Spanish and Honduras Mahogany judiciously selected for the manufacture of furniture of the first class; 20,000 feet good dry old Wainscot, rich figure; 15,000 feet Spanish, Rosewood, and Walnut-tree Veneers, of very rare quality; 7,000 feet excellent dry Birch; 10,000 feet Panel Board; and nearly 4,000 Pine Planks, Deals, and Battens, with sundry other useful stuff.—May be viewed three days previous and mornings of Sale; Catalogues obtained on the Premises; and at Mr. Peake's Offices, 44 Tooley-street, and 4, Fair-street, Southwark. Approved bills at four months' date will be taken in payment from purchasers of 25l and upwards. Luncheon provided for purchasers.

To Timber Merchants, Cabinetmakers, Pianoforte Manufacturers, Coach Builders, &c. &c.

MESSRS. C. LEARY and CO. have been favoured with instructions from Mr. Henry Bateman, of 35, Sun street, Bishopsgate, who is about to relinquish the retail portion of his business, to OFFER by PUBLIC AUCTION, on the PREMISES on MONDAY and TUESDAY, the 19th and 20th of MARCH, a FIRST PORTION of his well known and most valuable STOCK of WOOD, consisting of prime Dry Mahogany, in every thickness; Dry Spanish and Honduras Mahogany, in logs, planks, and boards; Rosewood and Walnut Wood, in planks and veneers; Amboyna Veneers; Dry Deals and Battens, &c. &c.—To be view d two days previous to, and on the mornings of Sale Catalogues may be had on the Premises; and at the Office of the Auctioneers, 75, Old Broad street, City.

A Valuable Assemblage of Drawings, Sketches, and Engravings, including the Collection of the late Frederick Mackenzie, esq.

MESSRS. S. LEIGH SOTHEBY and JOHN WILKINSON (Auctioneers of Literary Property and Works illustrative of the Fine Arts) will SELL by AUCTION, at their House, 3, Wellington-street, Strand, on SATURDAY, MARCH 24th, 1855, and five following days, at ONE o'clock precisely, a VALUABLE ASSEMBLAGE of DRAWINGS, SKETCHES, and ENGRAVINGS, including the Collection of the late Frederick Mackenzie, esq. comprising some interesting architectural and topographical drawings and sketches, interiors, and exterior of cathedrals, crypts, and priories, some pleasing water colour drawings by modern artists, also some miscellaneous books, capital engravings from the portfolio of an amateur, including the works of Hollar, and early landscapes after Turner, the fine productions of Sir Joshua Reynolds, Sir Thos. Lawrence, and Sir E. Landseer, interesting portraits after H. W. Pickersgill, esq. R.A. all being choice artists' proofs; beautiful proofs of modern engravings of the first class; drawings by the old masters, important framed and glazed prints, capital portfolios, &c.—May be viewed two previous, and catalogues had; if in the country, on receipt of six postage-stamps.

OLD BUILDING MATERIALS.

MR. H. W. ROWLSTONE is instructed to SELL by AUCTION, on THURSDAY, 22nd MARCH, 1855, at ONE o'clock, on the FIRST-RATE PREMISES, Hatton-street, Gerrard's-cross (close to the railway station), the MATERIALS comprised in the said three houses, consisting of pan and plain tiles, bricks, lead gutters, doors and partitions, sashes and frames, floor-boards and joists, stoves, &c. &c. Catalogues forwarded on application at Mr. Rowlstone's Offices, North Kent-terrace, Woolwich.

500 TIMBER TREES, WALTHAM ABBEY.

MR. C. PRYOR will SELL by PUBLIC AUCTION, at the NEW INN, Waltham Abbey, on TUESDAY, 27th MARCH, at TWO for THREE o'clock, 395 Oaks, with the top, top, and bark, standing (mainly end with white paint) in Galley Hill Wood, Galley Hill, Sewardstone, and Paternel lands adjoining, and at Oxley's Wood, a short distance only from the navigable river Lea and Waltham station of the Eastern Counties Railway. Also 14, Ash, and 149 Elm, with the top and top The oak is of useful dimensions, being hearty and clear and a portion of the elm is large. Persons will attend four days prior to the sale, to shew the timber, of whom catalogues may be had; at the Auctioneer's Offices, Waltham Abbey; and 18, Smithfield Bars, St. John street.

TO BUILDERS, PAPER-HANGERS, AND OTHERS.—Under Execution, a choice Stock of Paper-hangings, about 5,000 Pieces, with a variety of French Papers.

MR. IZOD will SELL by AUCTION, at his OFFICES, 3, Bell-yard, Doctors' commons, on TUESDAY, MARCH 20, at TWELVE, without reserve, in lots suitable to the trade and present purchase. The Stock comprises a choice selection of bed-room, parlour, and drawing-room paper, in flock, velvet, silk, satin, granite, stucco, and other papers. The French papers are of choice quality and pattern. May be viewed on Monday previous and morning of Sale; and catalogues had of Mr. Izod, at the Offices, 3, Bell-yard, Doctors'-commons.

BRICKS—GRAYS, THURROCK, ESSEX, near Gravesend.—To BUILDERS, BRICKMAKERS, and OTHERS.—TO BE SOLD by PUBLIC AUCTION, by

MR. WM. JEFFRIES, on the Premises, Little Thurrock, on SATURDAY, the 24th MARCH, 1855, at TWELVE o'clock for ONE, under a distress for rent, from THREE HUNDRED THOUSAND to FOUR HUNDRED THOUSAND STOCK BRICKS, and various other sorts of bricks; several pug-mills, shunting iron pumps, pipe mill, deal trestles, planks, iron plates, brickmakers' barrows, brick carts, and other brickmakers' effects. For particulars, apply to Mr Wm Jeffries, Auctioneer, Gravesend; and the King's Arms, Grays, Essex. Little Thurrock is situate about half a mile from the Grays Station of the Tilbury and Southend Railway.

FREEHOLD LAND PLOTS, at HOLLOWAY, HORNSEY, FINCHLEY, and EALING—BUILDING SITES, eligibly situated, in close proximity to the church, in the main road, with the convenience of omnibus and railway accommodation.—Apply to W. C. WILLIAMS, 9, Acton-place, Lower Pent-nville

BUILDER'S PREMISES WANTED.—Workshops and Yard, in the neighbourhood of the City or Westminster, either side the river Address by letter, stating rent and descripti n, to J. H. ERRINGTON, Messrs. Dawson and Sons, 74, Cannon-street

ENSBURY, near Bournemouth, Hants.—Eligible Freehold BUILDING LAND to be DISPOSED OF, commanding extensive and beautiful views of the counties of Hants and Dorset, land tax redeemed.—For particulars, apply to Mr. M. A. ROSCOE, Surveyor, Lewisham, near London.

TO MANUFACTURERS.—TO BE LET, with immediate possession, with or without the machinery, CHEMICAL WORKS and COPPERAS MANUFACTORY The copperas manufactured will, in addition to the rent, leave a clear profit of 120l. per annum. The premises are large, waterside, and within one tide's sail of London; suitable for carrying on manure or other noxious manufacture.—Application to RICH COMYN, Esq 31, Lincoln's-inn-fields, by letter only

WATERSIDE PREMISES, WESTMINSTER. TO BE LET, near the Houses of Parliament, a good WAREHOUSE, having one floor over It could be easily converted into excellent workshops.—For further particulars apply to Messrs EVERSFIELD and HORNE, Auctioneers, &c. 40, Parliament-street, or Coal Exchange.

FREEHOLD BUILDING LAND TO LET, abutting on the Barking station of the Tilbury line, twenty minutes from Fenchurch street, where moderate sized houses are greatly in demand, and a first-class public-house urgently wanted for the accommodation of the station and neighbourhood Apply to Mr. EDWARD LACKIE, 36, Lamb's-Conduit-street, Foundling Hospital

FREEHOLD GROUND, for Building on.—TO BE LET, up n BUILDING LEASES, PLOTS of GROUND, in that healthy locality, Holloway, two or three minutes' walk from the Archway Tavern. Omnibuses every four or five minutes to the City and Paddington, and Islington in St. John's-road, where houses let as fast as built. For particulars apply to Mr. H. WITHERS, 9, Poultry. The leases direct from the freeholder. Money advanced.

TO CAPITALISTS.—WESTON-SUPER-MARE.—TO BE SOLD by PRIVATE CONTRACT, nearly FOUR ACRES of BUILDING LAND abutting upon the sea beach, and entirely overlooking the sea, adapted for the erection of eighty houses, to form a grand square, terraces, and streets. It is now the only freehold building land remaining to be built on in this rapidly increasing bathing place There are several thousand feet of frontage, a large cottage orner, with two other cottages, three pieces in full bearing, and most valuable and attractive non-building covenants over the adjoining lands. The purchasemoney may remain on mortgage, if wished. Immediate possession may be had.—Plans and all particulars obtained of B. GUY PHILLIPS, Esq Weston-super-Mare.

WATER-SIDE PREMISES.—TO BE SOLD, a freehold and part leasehold, BRUNSWICK WHARF and BRAN DOCK, with DWELLING-HOUSE, many years established in the brick, tile, stone, slate, and lime trade, &c. Excellent RESIDENCE, offices, Shedding, and Warehouses, the whole in substantial repair, adjoining, the South-Western Railway Goods Station, and abutting on the road leading to Wandsworth, near to 135 feet frontage to the river Thames. Apply on the premises; or to Messrs. NELSON and INNES, Architects and Surveyors, Regent Chambers, No. 38, Regent-circus, Piccadilly.

PROFITABLE LEASEHOLD PROPERTY.—SIX HOUSES and SHOPS, known as Nos. 10, 11 12, 13, 14, and 15, Cavendish-terrace, Wandsworth-road, let to respectable tenants, at rents amounting to 74l per annum, held for a term of 99 years, unexpired, at a ground rent of 23l. 18s. per annum. TO BE SOLD, to pay a high rate of interest.—May be viewed. Particulars may be obtained of Messrs. STRAKER, BIRD, BIRN, and WILDE, Solicitors, Copthall-court, Throgmorton-street; and at Messrs. GADSDEN, WINTERFLOOD, and ELLIS'S Offices, 18, Old Broad-street.

A VOTE FOR THE COUNTY.—TO BE SOLD, a PLOT of FREEHOLD GROUND, suitable for a villa residence, situate on the Conservative Land Estate. The roads are well made and drained, in a most healthy respectable and healthy village of Ealing, within half an hour's ride of Hyde-park.—Address, T. W. J. 33, Seckford-street, Clerkenwell.

A FARM of FIFTY ACRES.—Superior ARABLE, MEADOW, and WOOD LAND, close to a railway station, within thirty miles of London, TO BE SOLD by PRIVATE TREATY.—Possession.—For particulars and terms, apply by letter, pre-paid, to Mr. GEO. FULLER, Land Agent, 54, Great George-street, Westminster.

TO BE SOLD, within a few minutes' walk of the Kilburn Station, on the North-western Railway, and immediately adjacent to the intended line of the Hampstead Junction Railway, about EIGHTEEN POLES (or 297 feet) of BUILDING LAND, having a frontage next Westend-lane of more than 300 feet The estate, which is beautifully situated, is at present let to a yearly tenant, to whom possession may be had. The soil is capable of being made into bricks, and a specimen of the earth may be seen at the Office of Mr. O'NEALL, 37, Bloomsbury-square, where lithographed plans and further particulars may be obtained; or of R. B. ARMSTRONG, Esq. 8, Staple-inn.

WANTED to PURCHASE, a PLOT of FREEHOLD LAND, in Westminster, or within about a mile thereof, to be not less in size than 300 feet by 150 feet. Waterside premises preferred. Particulars of locality and price to be sent to Mr. R. R. AKUTZ, Surveyor, 4, Cannon-row, Westminster.

WANTED, a LARGE YARD, not less than 100 feet by 80, in the vicinity of King's-cross; there must be no other parties to Smiths' Forges.—Apply, stating rent, &c. to A. B. Post-office, Old St. Pancras-road.

WANTED, a LARGE SMITH'S SHOP in the vicinity of King's-cross. If with a large yard would be preferred.—Address, stating number of fires, &c. and rent, to A. B Post-office, Old St. Pancras-road.

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.
Enrolled as the "Borough of Lambeth Benefit Building Society

PRESIDENT.
The Hon. JOHN LOCKE KING, M.P.

TRUSTEES.
George Singer, Esq. Thomas Sims, Esq. S. Etches, Esq.

Offices, 211, High-street, Borough.
Open from Ten A.M. till Seven P.M.

Shares, 30l.

Entrance fee, 1s. Payments, 4s. monthly.

Allotments distributed by rotation, ballot, and to complete Sixteen Shares out of 5,706 The Shares divided amongst members, being 67,787.

No Fines on unadvanced Shares No back payments.

This Society within four years has divided five estates, satisfying 1,215 Shares out of 5,706 The 6th estate is now completed.

A Bonus of 5 per cent. in addition to 5 per cent. Interest, in all 10 per cent. was declared upon all unadvanced Shares at the annual meeting of 30th January last.

WM. BANKS, Secretary.

211, High-street, March 1, 1855.

BUILDING LAND.—For SALE by Private Treaty, about fifty acres of LAND, admirably adapted for a good residence, or for plots available for villa residences, being within half a mile of a railway station, on a commanding position, with extensive views and gravelly soil. The water excellent, and a large quantity of Elm-trods thereon. The land is situate thirty miles from London, on the South-Coast Railway.—For particulars and terms, apply to Mr. GEO. FULLER, Land Agent, 54, Great George-street, Westminster.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter street, Brunswick-square, in the Parish of St George, Bloomsbury, Printer, at the Printing office of COX Bros & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "The Builder," 1, York street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, March 17, 1855.

The Builder.

AN ILLUSTRATED WEEKLY MAGAZINE FOR Architect, Engineer, Operatives & Artist.

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ROYAL ACADEMY of ARTS, Trafalgar-square.—NOTICE to ARTISTS.—All works of Painting, Sculpture Architecture, or Engraving, intended for the ensuing EXHIBITION at the ROYAL ACADEMY, must be sent in on MONDAY, the 9th, or TUESDAY, the 10th of APRIL next, after which time no work can possibly be received, nor can any works be received which have already been publicly exhibited.

FRAMES.—All pictures and drawn s must be in gilt frames Oil paintings under glass, and drawings with wide margins are inadmissible. Excessive breadth in frames as well as projecting mouldings may prevent pictures obtaining the situation they otherwise merit. The other regulations necessary to be observed may be obtained at the Royal Academy

JOHN PRESCOTT KNIGHT, R.A. Sec.

Every possible care will be taken of works sent for exhibition, but the Royal Academy will not hold itself accountable in any case of injury or loss, n r can it undertake to pay the carriage of any package. The prices of works to be disposed of may be communicated to the Secretary.

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

Sir Robert Smirke, R.A. | George Stanley Repton, Esq.

PRESIDENT—Sydney Smirke, A.R.A.

TRUSTEES.

Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq.
Philip Hardwick, Esq. R.A.

TREASURER—William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's court, Charing-cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, MARCH 30, the subject of Mr. ROSSER'S Paper, "Warming by Hot Water," will be resumed.

The Class of Design will meet on APRIL 13. Subject for sketch, a Lectern

The Register of architects requiring assistance, and of draughtsmen wanting employment, may be consulted daily, between the hours of TEN and FIVE, at the HOUSE of Mr. ARTHUR BILLING, 10, Buckingham-street.

ARTHUR CATES, } Hon. Secs.
Lyon's inn Hall, Strand. T. W GOODMAN, }

CENTRAL PHILANTHROPIC SOCIETY OF HOUSE DECORATORS, Golden Cross, King-street, Long acre. To BUILDERS, HOUSE DECORATORS, &c. The members of the above Society, viewing with regret the inconvenience arising from the evil of employing men unacquainted with the trade, beg to state that the Society is established solely for the purpose of supplying the trade with competent workmen of good character, and as none else are admitted, employers may be supplied at any time with experienced workmen, on application at the Society's house, as above.

March, 20, 1855.

COMPETITIONS.

SOHAM BURIAL BOARD.—DESIGNS for NEW BURIAL-GROUND, CHAPELS, and ENTRANCE LODGE.—PREMIUM of 10*l*.—The Burial Board for the parish of Soham, in the county of Cambridge, hereby offer a Premium of 10*l*. to the architect or other person whose design for the above chapels and entrance-lodge shall be selected for adoption. Two chapels will be required, one for the use of the members of the Church of England, the other for all other denominations. The cost of the two chapels and entrance-lodge not to exceed in the whole 850*l*. The parish of Soham contains upwards of 4,500 inhabitants. The design, with a guaranteed estimate of the expense, to be sent to me, on or before WEDNESDAY, the 11th day of APRIL next, at TEN o'clock in the forenoon, when the examination will take place. The architect or other person whose design shall be approved shall, in order to be entitled to the above premium, within ten days next after the said 11th day of APRIL forward to me detailed working drawings and specifications complete, but the Board does not pledge itself to employ such architect.—By order,

THOMAS HUSTWICK, Clerk to the said Burial Board.
Soham, March 14, 1855.

KING'S LYNN UNION.—NEW WORKHOUSE.—The Poor-law Board having approved the plans of Messrs. MEDLAND and MABERLY, of Gloucester, the Authors of the other PLANS sent are requested to APPLY for them to me, by letter, pre-paid.—By order,

Lynn, 20th March, 1855. JNO. JAS. COULTON, Clerk.

CONTRACTS.

NEW TOWN-HALL BUILDINGS, PRESTON.—To BUILDERS.—Masons, Bricklayers, Plasterers, Slaters, Plumbers and Glaziers, Carpenters, Joiners, Smiths, and Painters, desirous of CONTRACTING for all or any of the works required to be done in the ERECTION of the above BUILDINGS, upon the site of part of the present buildings, are hereby informed that the plans and specifications may be seen at the Offices of the Architect, from MONDAY, the 9th, to SATURDAY, the 14th of APRIL next, both inclusive, and in the Council-chamber, Town-hall, Preston, from MONDAY, the 16th, to SATURDAY, the 21st of APRIL next, both inclusive. Tenders, endorsed "Tender for Works," must be sent to me on or before FOUR o'clock on TUESDAY, the 24th of APRIL next.—Bills of quantities, and any other information may be had at the Offices of the Architect, Mr. WILLIAM HILL, 59, Albion-street, Leeds. No allowance will be made for estimates, and the lowest Tender will not be necessarily accepted.

ROBERT ASCROFT, Town-clerk.

PONTYPRIDD GASLIGHT and COKE COMPANY.—To IRONFOUNDERS and GASHOLDER-MAKERS. The Directors of this Company are prepared to receive TENDERS for a CAST-IRON TANK, 63 feet in diameter by 16 feet deep, with columns, girders, &c. Also, a GASHOLDER, to work in the same, the whole to be erected and fixed complete, at the Company's Works, Pontypridd, Glamorganshire. Plans and specifications with conditions, may be seen, and forms of Tenders obtained, after the 16th instant, upon application to Mr. HENRY BOWEN, Engineer to the Works, Cardiff. Sealed Tenders addressed to the Chairman of the Directors, to be forwarded, under cover, to MONTAGUE GROVER, Esq. Solicitor, Cardiff, on or before the 4th day of April next, endorsed "Tender for Tank," or "Gasholder," as the case may be.—The Directors do not bind themselves to accept the lowest or any Tender.

Cardiff, March 8, 1855.

NEWPORT and PILLGWENLLY WATERWORKS COMPANY.—CONTRACT for WORKS. HENLLIS BROOK EXTENSION TUNNEL, 841 feet long, or thereabouts with Shafts, Tanks, Weirs, and other Works, and a quantity of Pipe-laying, in extent about 1¼ mile. The plans and specifications, with forms of Tender, may be seen at the Company's Office, Stow-hill, on and after the 19th inst.; and Tenders for the Works are to be sent in on or before the 16th day of APRIL next, at TEN o'clock in the forenoon. The Directors do not bind themselves to accept the lowest Tender, nor any Tender, until the securities are approved.—By order of the Directors.

HENRY W. WEBBER, Secretary.

Newport, Mon. 19th March, 1855.

NEWPORT and PILLGWENLLY WATERWORKS COMPANY.—CONTRACT for CAST-IRON PIPES.—The Directors of the Newport and Pillgwenlly Waterworks Company are desirous of receiving TENDERS for 400 to 800 TONS of 12-inch and 15-inch diameter CAST IRON SOCKET-PIPES, and sundry WROUGHT-IRON WORK to be delivered at Newport. Specifications and drawings, with form of Tender, may be seen at the Company's Office, Stow-hill, on or after the 19th inst. The Tenders to be signed and delivered on or before the 16th day of APRIL next, at TEN o'clock in the forenoon. The directors do not bind themselves to accept the lowest Tender, nor any Tender, until the security is approved.

By order of the Directors,
HENRY W. WEBBER, Secretary.

Newport, Mon 19th March, 1855.

MIDLAND RAILWAY.—The Directors of the Midland Railway are prepared to receive TENDERS to CONTRACT for the EXECUTION of the whole of the WORKS necessary to be done in keeping the Stations and Buildings on the West Branch of the Midland Railway between Birmingham and Derby, in proper and efficient Repair, for a term of Seven Years. The specification and draft contract may be seen, upon application at the Engineer's Office, Derby Station, on and after WEDNESDAY next. Tenders to be delivered to the Secretary of the Way and Works Committee, Derby Station, by TEN a.m. on TUESDAY, the 3rd of APRIL next. The Directors do not bind themselves to accept the lowest, or any Tender.—By order,

Derby, March 14, 1855. JOSEPH SANDERS, Secretary.

FAVERSHAM UNION.—To BUILDERS. The Guardians of the Faversham Union, are desirous of receiving TENDERS for certain ALTERATIONS and REPAIRS intended to be done to, and COOKING and WASHING APPARATUS to be put up at, the Union Workhouse, near Faversham. All Tenders must be delivered (free of expense), at the Office of the Clerk to the Guardians, sealed and endorsed, "Tender for Works at the Faversham Union Workhouse," on or before THURSDAY, the 29th day of APRIL next, and the Tenders will be opened by the Guardians, at their meeting on the following day, Friday. The plans and specifications, prepared by Mr. M. BULMER, Architect, may be inspected at the Union House, on any day, except FRIDAY and SUNDAY, between the hours of TEN and FOUR. The quantities will be furnished, and copies may be obtained of the Clerk, upon payment of five shillings for each copy. The Guardians will not be bound to accept the lowest or any other Tender, and security will be required for the due performance of the works.—By order of the Board,

Faversham, March 16, 1855 WILLIAM MAILE, Clerk.

TO BUILDERS AND TIMBER MERCHANTS.

CONTRACT for WOODEN BUILDINGS. Notice is hereby given, that Plans and Specifications for extensive WOODEN BUILDINGS for Hospitals, with conditions and form of Tender, may be obtained on and after WEDNESDAY, the 28th inst. on application at the War-office, Horse Guards, London.—The Tenders are to be delivered in at or before TWELVE o'clock, on TUESDAY, the 3rd APRIL next.

March, 1855.

CONTRACTS.

NOTICE TO BUILDERS.
Commanding Royal Engineer's Office, Dublin, March 16, 1855.

ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive PROPOSALS for the following CONTRACT, viz.: For the CONSTRUCTION and ERECTION of TWO HUNDRED and THIRTY-THREE WOODEN BUILDINGS, to accommodate officers, with out-buildings, store rooms, guard rooms, hospitals, &c. &c. at the Curragh of Kildare, in the Dublin district. Persons desirous of Tendering for the same, will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin; and at the Commanding Royal Engineer's Office, Manchester; and may obtain specifications, with the terms of contract, upon making a deposit of 1*l*. for the same, which deposit will be repaid when the specifications are returned uninjured. The whole of the buildings to be completed within sixty days after the acceptance of the Tender, but the Tenders to state the period (less than sixty days) within which the contractor will undertake to perform the work, on which point a preference will be given in the consideration of the offers.—The letters of Tender to be sealed and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before TWELVE o'clock, of the 27th day of MARCH, 1855; and to be marked on the outside, "Tender for Work at the Curragh of Kildare." These buildings are connected with the accommodation of ten battalions of Infantry, viz.—twenty-one huts for each battalion, and twenty-three for hospital accommodation; and it is to be understood that parties have the option of Tendering for two or more battalions, or for the hospital accommodation, or for the whole.

TO BUILDERS.

THE Plans and Specification for the Erection of TWO THIRD-RATE DWELLING HOUSES, may be seen at the Office of Mr. JAMES HARGRAVE, Architect, 34, Moorgate street, City, between the hours of TEN and FOUR. The Tenders are to be delivered on or before the 31st inst. No pledge is given to accept the lowest Tender.

PARTIES willing to CONTRACT to supply 500,000 STOCKS and GRISSELS, may have the particulars, by letter or application, at the Office, 14, Princes-terrace, Maldon-road, Haverstock-hill, Camden-town

TO CARPENTERS AND OTHERS.

TENDERS are required for a large quantity of FIR SPACE PALING, to be used in dividing the Camden-town Cemetery from the adjoining ground, about to be appropriated for building sites. The paling to be formed of good Memel fir, and of the following description and dimensions, viz.: posts, 6 inch. by 6 inch. with strong bases and spurs, to be 5 feet 6 inches out of the ground, and 7 feet 6 inches long, dressed on posts to be 6 inch. by 6 inch. well and securely set. The posts to be 9 feet apart. Three courses of Arris rails out diagonally from timber, 3 inch. by 6 inch. The fence to be 5 feet 6 inches high. Arris pales, cut diagonally from timber, 2½ inches by 2½ inches, to be 3 inch. apart, pointed at top, and studded with tenter hooks. The posts to be splayed at top, and also to have tenter hooks. The rails to be well and properly tenoned into the posts. All wood and ironwork to be twice gas-tarred. The whole of this work to be put together in the strongest manner, and to the entire satisfaction of the Surveyor to the Trustees. The whole of the above-described works to be completed within six weeks from the time that the ground is given up to the contracting parties. Tenders for supplying and putting up the above-described works at per 100 feet run, to be sent to H. E. KENDALL, Esq. Architect, 17, Suffolk street, Pall mall East, on or before the 27th day of MARCH, 1855, endorsed, "Tender for Space Fencing." The trustees of the estate will not undertake to accept the lowest or any other Tender.

RUNCORN UNION.—To BUILDERS and OTHERS.—Parties desirous of CONTRACTING for the whole of the works required in the ERECTION of a new WORKHOUSE, intended to be built at Dutton, in the county of Chester (about one mile from the Preston-brook station on the London and North Western Railway) may see the plans and specifications at the Office of Mr. CULSHAW, Architect, Runcorn-place, Liverpool, until the 14th day of MARCH next, and after that date at my Office, Frodsham, until the 28th day of MARCH. Sealed and indorsed Tenders to be delivered at my Office, on or before the 29th day of MARCH next, addressed to me. The Guardians do not pledge themselves to accept the lowest or any other Tender. Security will be required for the due performance of the contract when entered into

DANIEL ASHLEY, Clerk to the Runcorn Union.

Frodsham, Feb. 29, 1855.

WILLENHALL, STAFFORDSHIRE.—Public Health Act, 1848.—The Local Board of Health for the district of Willenhall, are prepared to receive TENDERS from Surveyors and others willing to undertake the complete SURVEY and preparation of PLANS of this district for the purposes of the Public Health Acts. The conditions, with further information, and also a form of Tender, may be obtained from the Clerk to the Board. Tenders, sealed and addressed to the Chairman, must be sent to the Office of the Local Board, Market-place, Willenhall, on or before TUESDAY, the 10th day of APRIL, 1855, accompanied by suitable testimonials of the general experience of the applicant, especially with reference to town surveys and levelling The Board do not bind themselves to accept the lowest or any Tender. By order of the Local Board,

JOB T. COOPER, Clerk.

Willenhall, 16th March, 1855.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of a PARSONAGE HOUSE, at Barnardiston, Suffolk, may inspect the plans and specification of the work at the office of Mr. J. F. CLARK, Architect, Newmarket.—Tenders to be delivered and opened in the presence of the parties on the 9th day of APRIL next, and the lowest or any Tender will not necessarily be accepted.

[*For remainder of Contracts see next page.*

CONTRACTS.

COLCHESTER BURIAL-BOARD. — To BUILDERS and OTHERS.—Notice is hereby given, that it is the intention of the Colchester Burial-board to enter into a CONTRACT or CONTRACTS with some person or persons willing to undertake the Excavating, Brick-work, Plasterers', Masons', Carpenters', Joiners', Paperhangers', Smiths', Plumbers', Glaziers', and Painters' Works, in the erection of Two Mortuary Chapels, Porter's Lodge, Reception-house, and Entrance-gate upon their intended New Burial-ground, also of the Eastern Boundary Wall of the said ground next the Road to the East of Messrs. EDWARD, S and LEAVER, at No. 38, James-street, Covent-garden, London, the Architects, under whose superintendence the Works will be carried on. The working drawings and specifications may be seen at my Office; and all persons desirous of entering into such Contracts are to send proposals, under a sealed envelope, addressed to me, the undersigned, and endorsed "Tender for Mortuary Chapels, &c.;" and the same will be submitted to the Board on MONDAY, the 14th day of APRIL next, at SEVEN o'clock p.m. It shall not be incumbent, however, on the Board to contract with the person offering the lowest price, nor with any person proposing as aforesaid.—By order,

PHILIP SMITH SPARLING, Clerk to the Board

Dated the 24th day of March, 1855.

5, Vineyard-terrace, Colchester.

TO STONE MERCHANTS, MASONS, SCAVENGERS, CARMEN, AND OTHERS.

ALL SAINTS, POPLAR.—The Trustees of the Parish will meet at the VESTRY-HALL on TUESDAY EVENING the 3rd day of APRIL next, at SIX o'clock in the EVENING precisely, to receive PLANS for the following PARISH WORKS, and further particulars of the same may be obtained of Mr. JAMES BUNSTONE, Surveyor to the Trustees, at 2, Poplar-terrace, Lady-day, 1855 STONE MERCHANT 3,000 feet lineal of Abyssian Hexham, or Guernsey Granite kerb, edged to the footway, 6 inches deep, and laid in mortar, to be cut superficial not less than 7 inches broad; the tops of kerbers edged Scotch, and not less than 6 inches wide, dressed for crossings, also 300 tons of broken Guernsey Stone. MASON.—To provide the requisite Materials and Labour for Kerbing and Paving with Stone in Poplar High-street, Chapel-street, and other Streets, &c. as may be ordered; also to provide the necessary Labour and Mortar only for the laying the said Kerb, York, and Pitcher Paving. SCAVENGER.—To provide Men, Horses, and Carts for scraping and cleansing, and water for the roads, streets, and public places, and carting away the dirt, filth, rubbish, &c. &c. from the same, also to provide Horses and Carts to cart and carry away the dirt, filth, and rubbish, &c. &c. as before mentioned, in the cleansing and watering being performed by the trustees. CARMAN.—To provide Horses and Carts as may be required; to provide gravel and flints as may be required. —The Trustees do not bind themselves to accept the lowest or any Tender, and the contractor will be required to enter into sureties, and execute a bond for the due performance of his contract. Further particulars and forms of tenders may be had by applying at my Office any day from TEN till TWO p.m.

CHARLES C. CEELY, Clerk to Trustees.

Town-hall, All Saints, Poplar, March 21, 1855.

TO ROAD CONTRACTORS and others. The Executive Committee of the Peoples Freehold Land Society are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the ESTATE of HILLSTEAD, at Pudsey, near Bromley, Kent. The drawings and specifications may be seen at the Office of the Surveyor, Mr. SAMUEL BOOLE, London-street, Fenchurch-street, on and after MONDAY, MARCH 31st inst., between the hours of TEN and FOUR. Tenders to be sent in on or before Monday, April 2nd, addressed to the Surveyor, and endorsed "Tender for Roads, Spring Hill Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

W. W. GURLEY SMITH, Secretary.

Provident Institution, London-street, Greenwich, March 20th, 1855.

TO BUILDERS.—PARTIES desirous of TENDERING for the whole of the WORKS required to be done in PULLING DOWN and RE-BUILDING a DWELLING-HOUSE, with Shop, Fixtures, Fittings, and Offices, in the Cornhill, Bradford, may see the plans and specification, and obtain every requisite information, at the offices of Mr. DOWN, Architect, Bridgewater-square, Bradford. Sealed Tenders are to be delivered on SATURDAY, the 31st of MARCH, but the Lowest Tender will not necessarily be accepted.

TO BUILDERS AND OTHERS.

HOLY TRINITY CHURCH, COVENTRY. PLANS and SPECIFICATIONS of the WORKS required to be done in certain Repairs and Restorations of the said Church, consisting of Re-roofing the Aisles and Porches, and Re-building the North Wall of the Nave, the Repairs of the Roofs and Walls of the Chancel, Re-building the North and South Walls of the Vestry, and other Works of the Church, may be seen at the Office of the undersigned Architect, Mr. G. G. SCOTT, 7, Spring Gardens, London, from THURSDAY, 8th day of MARCH, to SATURDAY, 24th day of MARCH, between the hours of NINE and FIVE. Tenders to be sent to the Accountant Churchwarden, Mr. LYNES, on or before TEN o'clock on MONDAY, 9th of APRIL. The Committee do not pledge themselves to accept the Lowest Tender.

CARTAGE of ROAD MATERIALS, and of SCRAPINGS and SLOP from HIGHWAYS and for Watering the same. The Board for the Repair of the Highways, Chesterbench Surrey, are ready to receive TENDERS for CARTAGE, from the Faleon, Waterson, or other Lambeth Wharfs, docks, of such ROAD MATERIALS as they may require for the repair of highways, on the day of contract, the 3rd of MARCH, 1856; and for the Cartage from off the highways of all such Mud, Scrapings, Slop, or other matters, as by the laborers of the Board may be gathered thereupon, the said laborers will load such matters into the contractor's carts. The contractor will be subject to an agreed fine or forfeiture of 20s for each day and for each article in the contract from which he may neglect, omit, or refuse to cart away the above-specified matters within forty-eight hours after the same has been delivered from off the highways ready for loading. The said Board will receive separate tenders for watering the whole of the highways of the said parish, extending from the Surrey foot Obelisk, Westminster-bridge, north to the King's Head, in Blackfriars-road south, and from Broadwall and Boundary-row west to Gravelhane and Holland-street east, except the two streets on the river bank, which are under local jurisdiction. The surveyors provide water and horses to work the pumps. The contractors to furnish never less than four water carts, in sound condition, and proper men, boys, and drivers, and a yet further number of carts, horses, and drivers, if more be required, to keep the dust on the aforesaid highways constantly laid, and the roads and streets satisfactory of the said Board, from the day of agreement to the 31st of OCTOBER, 1855; and the contractor will be subjected to an agreed fine or forfeiture of 40s. for each day and for each article included in the said contract in which he may fail to keep the roads constantly laid. Other particulars of the said Board. Forms of Tender may be had at the Surveyor's offices, 3, Lorette Row, Brompton-road, and all tenders must be forwarded to the said office on or before NINE in the morning of 3rd APRIL, sealed and endorsed "Tender for Cartage," or "Watering," as the case may be.

GREAT WESTERN RAILWAY.—CONTRACT for STATION BUILDINGS and other WORKS.

The Directors of the Great Western Railway Company will receive TENDERS for the execution of the following works:—

The Erection and Enclosing of Locomotive Engine Sheds at Landore.

The Enlargement of Station Buildings at Swansea.

Passenger Station Buildings and other Works at Oxford Canal Junction, Alvey.

The Construction of two Bridges on the Station of Level crossings at Langley and Basildon, and of a Timber Foot Bridge in place of a footpath level crossing at Leamington.

Drawings and specifications may be seen, and forms of Tender, with any further information, may be obtained at the Bute Street Office, Paddington, on and after MONDAY, the 26th of MARCH, and Tenders are to be sent in to the Secretary, not later than WEDNESDAY, the 11th of APRIL. The Directors do not bind themselves to accept the lowest Tender.

Paddington Station, March 19, 1855.

CONTRACTS.

PIERS, HARBOURS, SEA DEFENCES, and WHARFS.—To CONTRACTORS and OTHERS.—The Directors of the Margate Pier Company have to OFFER for SALE by TENDER the JETTY, known as "Jarvis's Landing-place," which consists of a large number of iron piles, in good condition, and fit for use in works of the above description, together with a large quantity of English oak of various dimensions. A specification may be seen, and full particulars obtained of Mr. CAVELIER, Secretary to the Company, Margate; or of Messrs. J. B. and F. BIRCH, 3, Cannon-row, Westminster, on and after TUESDAY, the 20th of MARCH. Sealed Tenders, addressed to the directors and endorsed "Tender for Purchase of Jarvis's Landing-place," to be received at the Pier Office, Margate, on or before NEXT BOYS, the 11th of APRIL, 1855. The Directors do not bind themselves to accept the highest or any other Tender.

By order of the Court of Directors,

ARTHUR SACKETT CHANCELLOR, Clerk.

Margate, March 15, 1855.

TO BUILDERS.

TENDERS are required for the ERECTION of SCHOOLS and MASTER'S RESIDENCE, at HORNCHURCH, Essex. Two sets of plans, specifications, and conditions by Mr. FREDERICK BLESSLEY, Architect, 7, Adam-street, Adelphi, may be inspected at the Offices of T. GOTTO, Esq., 35, A. Great George-street, Westminster. Tenders to be sent in on the 31st of MARCH, to Mr. FREDERICK BLESSLEY, Horncliurch, Romford, Essex. The Committee do not bind themselves to accept the lowest or any Tender.

TO BUILDERS AND OTHERS.

TENDERS are required for the ERECTION of SCHOOLS and MASTER'S RESIDENCE, at HORNCHURCH, Essex. Two sets of plans, specifications, and conditions by Mr. FREDERICK BLESSLEY, Architect, 7, Adam-street, Adelphi, may be inspected at the Offices of T. GOTTO, Esq., 35, A. Great George-street, Westminster. Tenders to be sent in on the 31st of MARCH, to Mr. FREDERICK BLESSLEY, Horncliurch, Romford, Essex. The Committee do not bind themselves to accept the lowest or any Tender.

TO BUILDERS AND OTHERS.

SUCH Person or Persons as are desirous of undertaking the several WORKS in the ERECTION of a VILLA RESIDENCE, upon a Piece of Land in Ashton, Manchester, may inspect the drawings and specifications at my Offices, Exchange-street, Manchester, Drawing-room, Manchester, on and after Tuesday, the 3rd of APRIL next, upon which date sealed Tenders will be received by the Proprietor at his Office at 9 o'clock, a.m. precisely. TWELVE o'clock a.m. Parties will have the liberty of Tendering for the whole of the works, or for separate trades, the quantities have been taken out, and can be had on application at the Office. The lowest Tender not necessarily accepted. JAMES STEVENS, Architect.

Manchester, March 22, 1855.

TO ROAD CONTRACTORS AND OTHERS.

THE DIRECTORS of the LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY are prepared to receive TENDERS for the FORMATION of ROADS and other WORKS on their Estate at Potter's Bar, Middlesex. Plans and specification may be seen each day from TEN till SEVEN o'clock, at the Office of the Society, 30, Bedford-street, Strand. Tenders to be sent in addressed to the Secretary, on or before FIVE o'clock p.m. on the 2nd APRIL next, endorsed "Tenders for Roads, &c. Potter's Bar" (The Directors do not bind themselves to accept the lowest or any Tender.

WM. BANKS, Secretary.

211, High-street, Borough, March 22, 1855.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing at 1s. 6d. per foot.

R. S. NEWALL and Co.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES, Gateshead-on-Tyne.

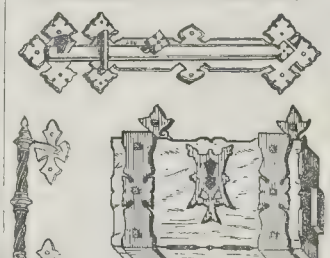
1, a, Strand, London.

67, Hyde-park-street, Glasgow.

27, Dale-street, Manchester.

HART AND SON,

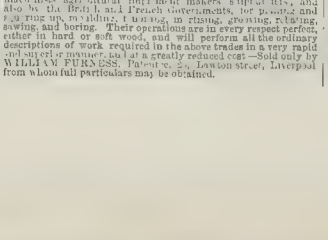
IRONMONGERS AND MANUFACTURERS,



53, 54, & 55, WYCH-STREET, STRAND.

Illustrated Catalogues post-free on receipt of six postage-stamps.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



PLANING MACHINE.

PRIZE MEDALS have been awarded to the celebrated Machines, both by the Great Exhibition in London, and many others in all parts of the world. They are used throughout the United Kingdom by joiners, contractors, cabinet-makers, railway carriage and wagon builders, and many agricultural implement makers and others, and also by the British and French Governments, for planing and tongueing, grooving, rebating, beading, moulding, mitering, grooving, rabbeting, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee, 55, Lawton-street, Liverpool, from whom full particulars may be obtained.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's. JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS,

63, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Plates, Ladles, and Steam-engine Castings. Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Cartright Saw Cases, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Verandahs, Gardens, Fireproof Doors, Book safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and dispatch.

GLOVERS' IRONWORKS,

163, DRURY-LANE, and CHARLES-STREET.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK. W. R. BARCLAY, manufacturer of Girders, Columns, Cantilevers, Newel and Railway Bars, Pipes, Gratings, Coping, Hat Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

NAILS and IRONMONGERY, from BIRMINGHAM direct. Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES, will be forwarded upon application.

FREDERICK BLYTH,

Nail Manufacturer and General Factor,

Regent-parade, BIRMINGHAM;

or at 16, Gresham-street, LONDON.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of Ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 30s. per inch and upwards.

Register Stoves, 3jd. 6d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 3l.s each.

3-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 4s. per doz.

Best Town Glue, 5ds. Ditto, Scotch, 6ds. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms. List of Prices had on application at the Warehouse, or by letter prepaid.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

30 32 34 36-inch.

30s. 30s. 32s. 34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars

34 36 38 42-inch.

54s. 56s. 58s. 63s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 9½d.

Register Stoves, with Solid Bars, per inch, 6d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 6d. per inch.

Best Solar ditto, with Fine Brick Backs, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe { 2 2½ 3 inch.

Cast Gutters—4 inch, 10d. per yard. { 9d. 9½d. 10d. per yard.

4½ inch.

O G Gutters..... { 1s. 4d. 1s. 6d. per yard.

Best Out Clasp	1½	1¾	2	2½	3 inch, and larger
and Rose	7d.	8d.	10d.	13d.	14d. per cwt.

Cast Billed Brads, 5½d. per cwt. Cast Lath, 13s.

1 inch Out Lath, 16s.

Patent Line	2	3	4	5
	4½d.	5d.	7d.	9d. 1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr Arnott's Ventilators, 4s. 6d. each.

An extensive Stock, rolled, of all sheet Iron.

Brick Moulds kept in stock. Any size made to order.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures. Patentees and manufacturers of the Governed Gas Regulator. Complete pattern-book and price list, 10s 35 and 36, High Holborn.

EARTH WAGGONS and DOBBIN CARTS. For SALE, by PRIVATE CONTRACT, thirty-two earth waggons, recently built, and in good working condition, now lying at the Great Northern Railway station, Doncaster. For particulars, apply to Mr. MERRYWETHER, Mr. Buck's, Clerkenwell-street, Doncaster.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Superior Bell Brass for Engravers, Castings in Fine and Common Brass, Gong Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have no other manufactory of Corrugated Iron but the premises of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from these premises.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches of 2½ inches each corrugation, in all lengths up to about 11 feet, as the special circumstances of each case may require.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS, also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

GALVANIZED or PAINTED IRON ROOFS ERECTED in EVERY PART of the UNITED KINGDOM at the most moderate price, consistent with the best workmanship and material. Many years' experience enables FRANCIS MORTON and CO. to refer to many roofs, &c. erected by them, and works executed for the Government, railway, and other public companies: also to works in the Colonies, &c.

To ensure prompt execution of orders, large stocks are always kept on hand of Galvanized and Black Corrugated Plates

GALVANIZED SHEET IRON, and every description of GALVANIZED IRON and IRON WARES, NETTING, POULTRY NETTING, FENCING, &c., kept in stock.

WIRE ROPES, WIRE SASH CORDS, COPPER ROPE LIGHTNING CONDUCTORS, with attachments complete, always kept in stock. Galvanizing and Corrugating executed at the most moderate Prices.

THE TRADE SUPPLIED ON LIBERAL TERMS.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL;

Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. Ships fitted with Wire-rope Rigging and Lightning Conductors complete, Galvanized Anchors, Chain Cables, &c. &c.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form

Sheets plain and Corrugated—Roofs fixed complete

J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tunnel Iron, Plumbic Zink, and Tiles.

An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, Principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON;

BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Pencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or

BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 2, MANSION-HOUSE-PLACE, CITY, LONDON.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Island Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice

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COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed and fitted complete, if iron or wood, and fixed complete. Estimates given on application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ROYAL POLYTECHNIC GAS FIRE.

BACHHOFFNER and DEFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented; a strong, white fire presents all the comfort and appearance of an open coal fire, securing at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 147, Regent-street, London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet in Manufactoried, with all its recent improvements, by THOMAS RADCLIFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having the kitchener, and it eventually cures smoky chimneys, and is the best close fire grate extant

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FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for,—the prize of public approbation, has been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect open metal, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

THE SMOKE-CONSUMING STOVE, invented by Dr. ARNOTT, and explained by him at the Society of Arts, on WEDNESDAY, MAY 10, insures perfect combustion, economises fuel, requires much less attention than the register stoves in general use, and produces by the use of Dr. Arnott's improved Circular Valve, a perfect system of Ventilation.—Manufactured by D. and E. BAILEY, 273, Holborn.

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. to their superior APPARATUS At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating a building containing 1,000 feet in length, at the small expense per day in fuel and labour of 6s. 6d. The achievement in heating by hot water is unprecedented.

TO IRONMONGERS, BUILDERS, &c

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 75, High Holborn.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26 Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH-WESTERN RAILWAY, LIVERPOOL.

"London and North-Western Railway Company,
Liverpool, May 7, 1853.

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs. Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"5, Great Vine street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant, "C. OTWAY.

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBBS LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 23, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and CO. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES, MILNES'S PATENT, fitted with HOBBS'S PATENT IRON DEED-PROOF LOCKS, form the strongest safeguards against Fire and Robbery; they are made of various dimensions, suitable for the security of Money, Plate, and important Documents, Deed Boxes, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Rods (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER (late BUURGH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stonhope street, Cave-market, London.

MACHINERY.—SAWING, PLANING, MOULDING, and WOOD CUTTING MACHINES.—To Timber Merchants, Contractors, and others. SAMUEL WORSSAM and CO. of Hertham-place, King's-road, Chelsea, invite the attention of Timber Merchants and others to their new inventions and improvements in all kinds of machinery used in Sawing, Planing, Moulding, and Wood Cutting. S. WORSSAM and CO. are able to execute orders with cheapness and despatch; they also invite an inspection of their machines constantly on hand and in progress; and they can refer to parties of the highest position and respectability, as to the goodness and efficiency of their machines.—Estimates made for Exportation, or otherwise.—Drawings and prices on application.

February 16th, 1856.

RAIN-WATER PIPES.—O-G and Half-round Gutters, Sash Weights, Railway Bars, Air Bricks, &c. J. JONES, Iron Merchant, Iron-bridge Wharf, No. 6, Bankside, has the largest stock in London of the above and other castings, of the very best quality. Also cast-iron pipes for gas, water, or drainage; bends, tees, &c.; flange and hot-water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig-troughs, &c. &c.

J. JONES, IRON MERCHANT, IRON-BRIDGE WHARF, No. 6, BANKSIDE, LONDON, near the Southwark Iron Bridge.

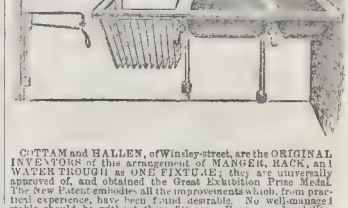
LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Castiron & Works, and

STEWART'S PATENT CAST IRON GAS and WATER PIPES.

Office, No. 7, Sise-lane, London.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock. Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.

The only Patented Invention of this description constructed so as to prevent considerable waste of Hay and Corn, together with all the recent improvements.

STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.

Manufacturer of Kirk's Patent Noiseless Cast-iron Smoke-curing Chimney Cap—Goon Reasonable Price, only 2s. 6d. each. Price-lists and Illustrated Catalogues forwarded on receipt of two postage-stamps

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SAW-MILL, with Engine and Gearing, TO BE SOLD for less than half its value.—For particulars, apply to DUNN and Co. 18, Great George-street, Westminster; and at their Works, Manchester; Mr. THOS. WRIGHT, 8, George-yard, Lombard-street, London; and Mr. THOS. MOLE, Engineer, Birmingham.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELL and STEDALLS,
Nos. 5 and 6, BROAD STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from the various manufacturers all that is new and choice in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designed expressly for him; these are now ON SHOW in one of his TEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Ironmongery Establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. (two light) to 16l. 16s.
WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY (including cutlery, nickel silver, plated and japanned wares, iron and brass bedsteads), so arranged and classified that purchasers may easily and at once make their selections.
Catalogues, with engravings sent (per post) free.
The money returned for every article not approved of
39, OXFORD-STREET (corner of Newman-street); 1 and 2, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO IRON DEALERS AND OTHERS.
WANTED, an IRON DOOR and FRAME, with look and key complete, 6 feet 6 inches by 2 feet 6 inches, not less. Address, with full particulars, to J. HUTCHINGS, Builder, 16, Castle-street, Holborn.

FOR SALE, R. TROW'S DOUBLE-PURCHASE IMPROVED BUILDERS' CRABS, on a superior principle, combining power and lightness, being very little more than half the weight of the ponderous single-purchase crabs now in general use, and at a less cost, on a timber frame ready for immediate use.—To be obtained at 14, Huntley-street, Frances-street, Tottenham court road.
N.B. Tackle kept on hand for hire.

CHEAP GAS-FITTING WAREHOUSE.—The Trade supplied with every description of GAS CHANDELIERS, Hall Lamps, Pendants, Pillars, Brackets, Iron and Brass Tube, Tin and Composition Pipe, &c. &c. at J. PEALS', 20 and 21, Old-street, near St. Luke's Church, London.
P.S.—As large and choice an assortment as any house in London.
Gas-fitting Contracts to any amount.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally a very extensive assortment of vein, Sicilian, and statuary marble, in slab and block, at prices never before offered. JAMES SIMMONS, Manager.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarries in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c. Yorkshire and Portland Stone for sale on commission
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Cromer-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.
THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St Ann's, and Ser, entire Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, and Bed-rooms. Also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and of the finest Italian and Belgian, Italian and British Marble, at the lowest remunerative prices.

BUILDERS, &c. &c.—Take Notice of the extraordinary Reduction made in the price of marble work at the WESTMINSTER MARBLE FACTORY.—A Vein Marble Box Chimney-piece, only 25s. A good-sized Vein Marble Box Chimney-piece, with cane and bance on plinths fitted up in the best style, only 1l 12s. Their patent machinery enables them to execute Marble Floor at 2s. 6d. per foot super. and every variety of Marble work at reduced prices. Their show Rooms contain the largest Stock of Chimney-pieces in England.—Address, WESTMINSTER MARBLE COMPANY, EARL-STREET, MILBANK.

AMATEURS, BUILDERS, and OTHERS, in want of two splendid STATUARY MARBLE DRAWING or DINING ROOM CHIMNEY PIECES, carved in the style of Grinling Gibbons, but not to be met with in any sale or stock at the price. Also Eight Basso-relievo Subjects, from the British Museum, in reduced scale, drawn by N. J. Cottingham, Esq.
N.B.—Carving executed in any style for the trade, &c. by J. C. 23, East-place, Kennington-road, Lambeth.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Waterloo-bridge. Offices: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, & Co.), General Stone Merchants, Caen Wharf, Rotherhithe, are supplying the above and Bath, Portland, Yorkshire, Granite, and other stones from their depôt, at current prices by land and water carriage; also by vessel direct from the quarries, at moderate ship freight to any part of the United Kingdom.
N.B. Heavy goods landed, transhipped, or carted with despatch, and at moderate charges.

ANCASTER STONE, from the celebrated quarries of Mr. John Wilson, Ancaster, who has appointed GATES and GEORGE, Stone Merchants, his sole consignees for the London district. Ancaster Stone, so generally esteemed by the building profession, for its great durability, economy, and general utility, is to require but a trial to secure the approval of architects and others for its more extended use in building.—Samples and other information can be obtained at the Great Northern Depôt, King's-cross; Caen-wharf, Rotherhithe; and Hibernia-chambers, London Bridge, Borough; or forwarded to address, free of charge.

GODSTONE STONE.—GATES and GEORGE beg to solicit the attention of architects, engineers, and builders to the above Stone, as being suitable for all purposes of construction, either as a substitute for brickwork, or in connection therewith, the price in most respects being that the same as ordinary brickwork. It can be obtained in large quantities, and to specified sizes, in rubble or rough square blocks, direct from the quarries.—Information and samples given at Caen-wharf, Rotherhithe, and Hibernia-chambers, London-bridge, Borough.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge.

TREVALGA ROOFING SLATE.—T. B. HANNAFORD, Sole Consignee of the above beautiful Slate, is in a position to supply the same at extremely low prices. Cisterns, sinks, and every description of slate-slab work executed with despatch
Trevalga Wharf, Ratcliff cross.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work. PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave place, Pimlico.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Tradia, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Slops, Landings, &c. out on the shortest notice. Country orders promptly attended to.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS,
QUARRYMEN AND STONE-MERCHANTS,
BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at new premises.
Whitehall Wharf, Cannon row, Westminster.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prisons, Penitentiaries, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

WILKINSON'S IMPROVED ARTIFICIAL STONE CHIMNEY-PIECES.—Nearly 3,000 of the above have been Sold, although only recently brought to their present state of perfection, and offered to the public. The prices range from 6s. for a neat bedroom set: with jambs, moulded with large ogee on inner edge, set on plinths, Mantel, moulded with ovolo and fillet under shelf, and shelf with hollow on edge, to 50s. for sitting-room patterns of more elaborate character. A liberal discount for quantity.—Address W. B. WILKINSON, Newcastle-on Tyne.

NORTH-WESTERN STONE DEPOT, Hampstead road Bridge, Camden-town.—W. ASPINALL, begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potterscrton, Newton, Harebith, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c; Park Spring, Robin Hood, Hare-hill Landings and slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curb and Pitching, all at the very lowest prices.
N.B. Estimates given for Masons' Work.

IMPERISHABLE STONE.—TRICKETT and PERKINS having erected new and powerful machinery, at their extensive quarries, are now able to execute orders to any extent with their much esteemed RAWDON-HILL STONE, which, from its strength and durability, together with its beautiful colour and readiness of conversion, renders it one of the most desirable stones cut, being at once useful and ornamental. Architects and others are requested to test its qualities for strength and durability, either for external, internal, or ornamental purposes. Samples and prices furnished by SAMUEL TRICKETT, Stone Wharf, Isle of Dogs.
NOTE.—Can be got any size, or delivered to any part by rail or water carriage.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLAB WORK for 1855 are NOW READY, and can be had on application, inclosing a postage-stamp.
N.B. A liberal discount to the trade.

HOUSEHOLDERS and GENERAL LIFE ASSURANCE COMPANY, 15 and 16, Adam-street, Adelphi.
Money received at interest at 5 per cent. per annum, payable in April and October.
Agents (with references) may apply.
R. HODSON, Secretary.

THE ALBERT ASSURANCE COMPANY, Established in 1838.
MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square. W. S. VARDY, Manager.

INDISPUTABLE LIFE POLICY COMPANY,
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A reduction of 25 per cent. has been made on the premiums of all policies of five years' standing.
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Insurances against loss by fire are effected by the PHŒNIX COMPANY upon every description of property, in every part of the world, on the most favourable terms.
Persons insuring with the Phœnix Company are not liable to make good the losses of others, as is the case in some offices.
Insurances with this Company expiring at Lady-day must be renewed within fifteen days thereafter, or they will become void.
Receipts are now ready at the Offices, Lombard-street, and Charing-cross, and with the respective Agents throughout the United Kingdom.

THE ASYLUM LIFE ASSURANCE OFFICE, 72, CORNHILL, LONDON.
Established 1824.
Policies on healthy and diseased lives, at home and abroad, for civil, military, and naval employments.
The only Office on purely proprietary principles, involving therefore no partnership among policy-holders.
For prospectuses, proposal papers, &c. apply to
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LIFE DEPARTMENT. Under the Provisions of an Act of Parliament, this Company now offers to future insurers four-fifths of the profits, with quinquennial division, or a low rate of premium, without participation of profits.
The next division of profits will be declared in June, 1855, when all Participating Policies which shall have subsisted at least one year at Christmas, 1854, will be allowed to share in the profits.
At the several past divisions of profits made by this Company, the reversionary bonuses added to the policies from one-half the profits amounted, on an average of the different ages, to about one per cent per annum on the sums insured, and the total bonuses added at the four septennial divisions exceeded 770,000l.
FOREIGN RISKS. The extra premiums required for the East and West Indies, the British Colonies, and the northern parts of the United States of America, have been materially reduced
INVALID LIVES.—Persons who are not in such sound health as would enable them to insure their lives at the lowest premiums, may have their lives insured at extra premiums.
LOANS granted on Life Policies to the extent of their values, provided such Policies shall have been effected a sufficient time to have attained in each case a value not under 50l.
ASSIGNMENTS OF POLICIES.—Written Notices of, received and registered.
Medical fees paid by the Company, and no charge will be made for Policy Stamps.
NOTICE is hereby given, That Fire Policies which expire at Lady-day must be renewed within fifteen days at this Office, or with Mr. SAMS, No. 1, St. James's-street, corner of Pall-mall; or with the Company's Agents through out the Kingdom, otherwise they become void.
Losses caused by Explosion of Gas are admitted by this Company.

LADDERS, BARROWS, &c. for SALE or HIRE. GEORGE ELL, 3, Tottenham-court, New road, opposite the Hampstead-road, and corner of Praed-street, Paddington, has on hand at all times, a large stock of LADDERS, EXCAVATORS', BRICKLAYERS', and other BARROWS, PAINTERS' TRESTLES, MACHINES, STEPS, &c. Price lists can be had on application, at 3, Tottenham-court.

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c. The nobility, gentry, water-companies, towns, baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 10, Camming-street, Pentonville. Pumps and machinery for raising water from deep wells, boring-tools, and well-pipes for exportation. Men and tools supplied to bore for railroads, minerals, &c.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, beg to call the attention of Civil Engineers, Contractors, and others interested in the construction of railways to the present low price of iron, by which a saving may be effected of nearly 300l. per mile, single line, in the adoption of Mr. W. H. BARLOW'S Patent Wrought-iron Permanent Way overthat of the ordinary road.—Every information can be obtained on application to
WILLIAM HOWDEN Secretary

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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TO ARCHITECTS.

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The Builder.

SATURDAY, MARCH 24, 1855.

THERE are few places in London which produce more useful results than the Reading-room at the British Museum. In this place is stored and arranged an immense amount of varied and useful knowledge, open to all without difficulty. It is true that a stranger calling at the reading-room would for a time be puzzled to know where to lay his hands on the matters he wanted, but "Rome was not built in a day," and no valuable knowledge, in connection with either literature, art, or science, can be acquired without a certain amount of exertion. Properly and fairly to understand a book we must fairly and patiently run over the lines, and by some consideration and study gather up the sense.

Fresh works are in progress to increase the efficiency of the Reading-room. The question of additional space for the collection is one which has occupied the trustees from a period even before the completion of the present building, as planned by Sir Robert Smirke, up to the present time. Our attention just now will be confined to that part of the question which refers to the library of printed books. When the present building approached an end, it was found that that portion which was allotted to the department of printed books would not contain more than about 20,000 volumes above the number then in the library, whilst books were pouring in at the rate of a larger number than that *per annum*. It became necessary, therefore, at once to provide for future accumulations. This was done by the erection of an additional room at the north-west end of the building. The space thus afforded gave relief for a few years, but it soon became apparent, from the rapid increase of the collection, that further accommodation must be provided, and it was determined by the trustees to build a room on the east side of the Royal library. This erection filled up all the available space for the library, and Mr. Panizzi began very soon to call out for more room. He suggested that a new library and reading-room should be erected on ground to be purchased in Russell-square.* This scheme was viewed favourably by the trustees, and also by the Commissioners, but the expenses involved in it were so great, that it was necessarily abandoned.

Several reports upon the subject of want of room, and also upon the insufficient accommodation afforded to readers in consequence of the contracted space of the present reading-rooms, were afterwards addressed by Mr. Panizzi to the trustees; and under the date of the 5th of May, 1852, we find one in which, after adverting again to the serious evils which must result from the accumulation of books without proper shelf-room being provided for them, he proceeded to show that any comprehensive system of relief for the whole establishment must involve delays fatal to the library. He then submitted to the trustees a plan, by which he thought that the inconveniences then felt, so far as the library of printed books and the reading-rooms were concerned, could be completely remedied, as well as all eventual difficulties removed in a short time, and at a comparatively small cost, by the erection of a suitable building in the inner quadrangle. This proposal was accompanied by a ground-plan, explanatory of Mr. Panizzi's views upon the subject.

* See Minutes of Evidence, taken before the Commissioners, to inquire into the constitution and management of the British Museum, Q. 4934, 4976, &c.

The plan which offered the greatest facilities was one for building in the quadrangle of the museum a reading-room, with additional libraries round it, clear space being reserved all round for giving light and air to the existing buildings. This plan had the advantage of involving the purchase of no new ground; and, being absolutely out of sight, it spared the necessity of any expense in exterior architecture.

This arrangement was finally adopted. Mr. S. Smirke was authorised to obtain tenders, and last year a contract was entered into for the execution of the whole work by Messrs. Baker and Fielder, for about 100,000*l*.

The new reading-room is a circular apartment, 140 feet diameter, and 106 feet high, lighted by twenty windows, at the springing of the dome, and by a glazed aperture in the crown of it, 40 feet in diameter. The superintendent will sit on a raised platform in the centre, and he is surrounded by two concentric ranges of table cases, for catalogues, &c. The tables for readers radiate from these as a centre, a small segment of the circle being partitioned off to give free access for the attendants going to and from the library, and for the temporary deposit of books *in transitu*. Allowing upwards of 4 feet for each reader, there will be room for 336 readers. The cubic content of air within this room is about 1¼ million of cubic feet, and this ample volume of air will be constantly and gradually renewed by a provision for summer and winter ventilation.

Between the entrance-hall and the reading-room, are the cloak-rooms and other offices; the whole of the remainder of the new building being appropriated to the reception of upwards of a million volumes of books. The book-cases are of wrought-iron, and in the construction of the libraries and of the central dome, bricks and iron are exclusively used. The dome will be covered with copper. The galleries in the reading-room will be of slate, those throughout the rest of the new building, of perforated cast-iron. The decorations will be painted. It is proposed to introduce a series of statues around the room, at the springing of the dome.

The new reading-room will be the largest, and may be made the handsomest in the world. Its position in the quadrangle allows immediate access from the hall, through which readers will proceed to the reading-room, from the king's library, and from the library in the north wing of the building. It is calculated that this structure will be completed and fit for the reception of books and readers in less than two years from the present time. The plan we publish in our present number (p. 138), will give a clear idea of the arrangement, and the view shows the appearance it will take.

To return for an instant to the rooms as they now are, we feel sure that we shall have the concurrence of the majority of those who use the reading-room when we offer testimony to the painstaking endeavours of all the attendants to meet the wants of the readers. Without joining in the common cry against the arrangements, we would yet point out one evil allowed to exist, and that is the length of time during which books of reference are occasionally absent on the score of "binding." The annoyance occasioned at times is very great.

It is much to be desired that arrangements should be made to open some portion of the library at night—say till ten o'clock, to meet the wants of those who have no time at their disposal till the regular pursuits of the day are finished.

It would be a great convenience, too, if the library and print-room were brought more immediately together, and the necessity of obtaining separate admissions to these departments abrogated. The print-room, notwithstanding many important gaps which require filling, is undoubtedly a very fine collection, most interesting both to the scholar and artist; and yet from its isolated position or some other cause, the place is but little frequented. The collection of Flemish prints here brought together is perhaps unrivalled. The Italian and German schools are fairly represented; and the engravings after the works of Reynolds, Lawrence, Turner, and other of our eminent English artists, offer a field of interesting study. The late Sir Robert Peel warmly supported an idea, suggested, we believe, by Mr. Carpenter, the curator of the print-room, to form a gallery of engravings, which would be open to the public in the same manner and at the same time as the other parts of the Museum; and we believe that the long gallery which now contains the Nineveh marbles was originally intended for this purpose, the advantages of which it would be difficult to estimate.

If this gallery were formed, the public would have the opportunity of viewing the rare etchings of Rembrandt, engravings of the works of Raffaelle, Michelangelo, and other magnates in art. The prints might be changed at intervals, and a constant and varied interest kept up.

To the student in architecture or art, the print-room is much injured in utility by the strict regulation against either tracing or measuring the engravings. No doubt the scarce and valuable proofs should be treated with care, but not so much as to render them, to a certain extent, a dead letter; for of what use is the architectural collection if the architect who goes there for information is neither allowed to trace nor measure the proportions? Some plan should be hit upon, to facilitate the means of obtaining correct copies, either by squared glasses, or by some other process.

ON THE MOSAICS AND OTHER DECORATIONS OF THE CHURCH OF STA. SOPHIA, CONSTANTINOPLE.

THE following is the substance of Mr. Digby Wyatt's address referred to in our last;—

The decoration of Sta. Sophia is of two principal kinds: one consists of a certain number of points, more or less structural, to which I shall first call your attention; and the other of a system of mosaic ornamentation of the highest importance in relation to the history of that art,—so important, indeed, that I propose to bring under your notice first, the mosaics of Sta. Sophia as they exist; secondly, their historical position as compared with other mosaics; and, thirdly, their peculiar technicalities of production: so that our review may embrace not only the artistical nature of these magnificent monuments of early Christian art, but their historical position, and the actual mechanical operations by which they were executed.

The principal technical point in relation to the general working of the sculptured ornament of Sta. Sophia to which I would call your attention is displayed, almost universally, in the capitals and other carved features which stamp Byzantine architecture with its leading peculiarities of style. In classical architecture, the principle of superadding foliage to construction was generally followed, and in obedience to this law both ancient Greeks and Romans usually adopted a bell or a moulding line as a basis, and then planted on such a fundamental form whatever decoration of leafage they desired to use. The Byzantine architects departed from that system by first cutting their stonework into the general shape required, and then sinking or draughting into it all their different enrichments; and from this it follows as a corollary, that Classic ornament was completed before the erection of the block of stone or marble decorated, and that Byzantine was executed subsequently to the fitting in place of the main structural forms. This is the general principle which distinguishes Byzantine from Latin work; and wherever we recognise its adoption in the architecture of India, Russia, Lombardy, or the North, we may be sure that the influence of the Byzantine school was paramount; as was especially the case at Pisa and in Sicily. As Byzan-

tine architecture reached its earliest, as well as its highest, development in Sta. Sophia, it becomes exceedingly interesting to recognise the unquestionable assertion of this principle by its architects and artificers.

The second point with regard to ornamental decoration to which I shall allude is very important, since it materially affects the history of both plain and coloured glass. The windows of Sta. Sophia are formed of a series of slabs of marble, pierced in apertures of about 8 inches by 10 inches. In these sash-bars, as I may call them, there is a rebate left on the outside in all cases, and it appears to me most probable that these apertures were filled in with coloured glass. The reason I have for thinking so is, that we know that the Byzantines were perfectly well acquainted with all the processes of glass-making. Their enamels were proverbially beautiful, and Buonarotti has given us many interesting details concerning their glass vessels, which they painted with fluxes, and decorated by other processes at a very early period. Of many varieties of such vessels there are specimens existing in the Museum Christianum of the Vatican at Rome. These actual remains prove to us that they were masters of the technicalities of glass-work. Paulus Silentiarius alludes to the beautiful effect of light and colour in this building of Sta. Sophia, when seen in the early morning; and Paul the Hermit, and Fortunatus of Poictiers, in his "Carmina," also describe this effect. Theophilus, who was a writer on the technical arts a little before our Conquest, has a whole treatise upon the subject of stained glass, which he prefaces by stating that he had taken the pains to go to Sta. Sophia to examine the effect of the light, coloured by transmission, in order to qualify himself for writing this section of his book. When it is remembered that Sta. Sophia was commenced in the year 532, and completed about 540, it is interesting to have grounds for the belief that stained glass was extensively used at such an early period.

Until recently, the assertion of the Benedictines, that coloured glass was not known previously to the time of Charlemagne, has been generally regarded as correct. French and English antiquaries have, however, found allusions to its existence at a much earlier period; as early, indeed, as the year 600, and the details now given to the world concerning Sta. Sophia afford a strong corroboration of their views.

These windows, in their general form, present a certain number of square compartments, by filling in some of which, and omitting others, a Greek cross would be produced in the centre opening, and crosses, similar to those carved beneath the window, in the side openings, supposing such an ornament was wanted. Although frequently alluded to by ancient writers, few remains exist agreeing with what they called the "simplex fenestra;" but it appears that in the early days of the history of coloured glass, that was the most common form; and I have little doubt that the windows of Sta. Sophia presented the primitive type of such windows as those which Benedict and Biscop, according to Bede, introduced into this country in the seventh century.

Another circumstance which corroborates my view that there was stained glass in Sta. Sophia, is that the Eastern nations generally, whose architecture was originally based on that of Byzantium, have windows cut or pierced out of stone, and occasionally made up with plaster, on the weather side of which they fix pieces of coloured glass of singular shape and pattern. Occasionally these windows are introduced in domes, and in such cases, the stone or plaster inside forms the lines of the dome, and light enters through the little pieces of stained glass which cover the apertures, which are formed into simple geometrical patterns, as they would be in this pierced part of the dome of Sta. Sophia.

These are the most important special points to be noticed, so far as the building of Sta. Sophia itself is concerned; but since its peculiarities of style and the novelties of form introduced in its construction can be properly appreciated only by contrast with the monuments which preceded it, we shall glance for a few moments at them.

One of the plates in Salzenberg's work, to which Mr. Nelson did not particularly allude, gives illustrations, showing the extent to which the Latin or Basilican arrangement was carried in the church of Agios Johannes, built by Leo the Great, in 463, only seventy years before Justinian commenced the building of Sta. Sophia. We find in that church a perfect basilican arrangement, exactly similar to that of Sta. Agnese at Rome, with narthex, apse, choros, second story, forming galleries for females, &c. complete. A hasty comparison of the plan of this church with that of Sta. Sophia shows how the Latin mode of arrangement differed from the Byzantine, while a close investigation of the subject generally, will demonstrate that, as the styles were retained clearly and distinctly in architecture, they were no less so in portraiture and ideal painting.

Proceeding now to the mosaics of Sta. Sophia itself, I will begin by describing the visitor's impressions on entering and making the circuit of the building. He first passes through a small and rather unimportant pro-narthex, or portico, which conducts him into the long gallery, which is the real narthex. As it is in this gallery that we first meet with any indication of Byzantine individuality of faith and character, I may be allowed perhaps to dwell briefly upon qualities which lie at the very root of the outward and visible forms in which much religious fervour was for ages embodied, not only by means of mosaic, but by calligraphy, sculpture in stone, metal, and ivory, embroidery, and every process by which the voice of art has ever hitherto appealed to the heart and conscience of man. Now, the great distinction between the Byzantine and Latin modes of working out religious conceptions (that is, between the Eastern and the Western modes) is, that, in the Western or Latin mode, symbolism was universal. The art of the Catacombs was followed distinctly, though frequently remotely, developing itself in mythical and sentimental forms, and systems of parallelism between type and prototype. In the Greek Church, the exposition of faith through art took a more tangible form. Symbolism was avoided on all possible occasions; and direct representation led to a partial transfer to the representation of the adoration due to the thing represented. In the advanced periods of Greek art, this realistic tendency led to a painful view of the nature of religion, more particularly in connection with the martyrdom of saints, and the physical sufferings of our Saviour and his followers, which were represented in the most positive and often repellent forms.

I stop at this point to point out that over the entrance-door is to be found the only piece of symbolism throughout the building. Over that door is a small panel cut in stone, intersecting the mouldings of the architrave, and containing a representation of a sort of enclosure or "cancellum," with a seat of honour, and upon it an open book with the Holy Ghost in the figure of a dove descending upon it; being, in fact, the Spirit of Holy Wisdom (to which Justinian dedicated his Church) embodied. The inscription on the book is, "I am the door for the sheep: let him who is fitted enter, and he may walk in and out, and there shall he find pasture."

Numerous doors from the narthex lead into the main building. The whole of the sides of the walls were lined with precious marbles to a certain height, and above that commenced the mosaic work. This is, like all Byzantine glass mosaic work, on *a gold ground;* but it also has the peculiarity (unique, so far as I, or anybody I know, is aware of), that it has, in its patterns, in addition to gold mosaics, *silver mosaics.*

There is a very valuable MS. known as the Lucca MS. supposed to be of the seventh or eighth century, and printed by Muratori, in his great "Annali d'Italia," in which the writer gives an account of the process of making golden and silver mosaics. Both in the "Schedula diversarum Artium," of Theophilus, and in another MS. of rather later date, about the year 1200, known as the "Mappæ clavicula," or key to drawing), published by Sir Thomas Phillips in the Archæologia, and supposed to be an English work, there is an almost identical description of the art of making mosaics, but omitting any special allusion to silver work. In writing a book on the subject some time ago I mentioned this process, though I was not then aware of the existence of any actual specimen of it; and I am therefore very glad to recognise it in Sta. Sophia, since it proves that the old writer of the Lucca MS. described things which really existed, and not myths or traditions only.

We here meet with a very interesting and entirely new element of design, which is totally different from any of the Roman ornament. A comparison of these with analogous Latin remains will show that the latter are almost entirely imitations of antique work; but here, coupled with these silver mosaics, we find a distinctly Oriental character of decoration. It is again repeated in other mosaics—particularly in this form of leaf, which is quite Oriental in character.

Now, it is a curious fact, that the year in which Sta. Sophia was commenced was the very year in which Justinian concluded an eternal peace with Chosroes Nushirvan, king of Persia. We know that in one or two reigns antecedent to his, Greek artists had been employed in Persia, and that there had been a friendly communication between the two countries. We may therefore assume, that when Justinian proposed to build this structure in so short a time, he not only enlisted the ability of those about him, but that he attracted back those erring spirits who had gone to seek their fortunes in other countries. He probably, indeed, employed not only his own subjects, but foreigners—and in that way we may believe that a considerable portion of what no one can fail to recognise as Oriental art was mixed with Byzantine.

The principal portion of the mosaic work in the narthex is over the centre door, which was known as the King's door; and there we find a very beautiful mosaic, which represents the figure of Our Saviour in the act of benediction.

There is a peculiarity about the mode of benediction which it may be interesting to point out. The Latin benediction was given with the thumb and two fingers extended, representing the Trinity. Here, however, the first finger is presented straight—representing the J in "Jesus"—the second is crooked, to form the Greek capital S in the same word—the third finger is crossed to it, but still bent, to make the Ch for "Christus"—and the fourth is bent to make the S the last letter, and in that ingenious way the benediction appears to have been given, as here represented.

The book held by Our Saviour in this mosaic bears the words in Greek, "Peace to you. I am the light of the world;" confirming the view that it is actually the representation of Our Saviour. In medallions, on one side is the Virgin Mary, and on the other the Archangel Michael holding the abacus, which was a symbol of chiefdom. There is another figure, prostrated in the Eastern manner introduced by Diocletian. There has been a question as to whom this figure represents. Salzenberg supposes it to be Justinian himself. Fossati says it is Constantine Pogonatus. I think the mosaic is certainly of Justinian's time, and that it is a *capo d'opera*—the best piece of all the mosaics, and one upon which the artist would take most pains, and that it therefore probably represents the great emperor himself. It appears to be in good preservation. Unfortunately Sta. Sophia has suffered very much indeed, and the highest class of representations is that which has been most injured; because, as the Mussulman could not bear the representations of the Giaour, they covered them up as far as possible, and damaged them wherever they could.

Passing through the King's door, and turning to the right or left, we enter the side halls, which are groined over with flattened heads to the groins, just as in the narthex; and the mosaics are of a similar character. They exhibit the same principle of marking all the arch lines and the lines of the vaults, and indicating the round basin-shaped termination by a circular ornament in the centre.

It is remarkable that in these mosaics there is no religious symbol but the cross; a circumstance which does not occur in any building of the period in the Latin Church.

Leaving the under part of these galleries, appropriated to the men, for the upper part (or

naeum) appropriated to the women, we find e richest kind of mosaics, placed there no doubt ecause they were conspicuous from the nave low through the openings between the pillars the upper arcade. From the central point of ew under the great cupola, these domes and oins would appear to great advantage and ave a very beautiful effect. Here appear to ave been a certain number of domical parts sing to a higher basin shape than the lower nits. There are only two of the decorations isting, and of them only some small fragments e perfect; but there is enough to make out at the central subject was our Saviour, and ound him the twelve apostles, with the fire scending from heaven upon their heads: a epresentation of "The Day of Pentecost." The gures in the pendentives are spectators looking p in wonder at the miracle.

These patterns are the triumph of the whole eries of illustrations of surface decoration. They re singularly beautiful, and in them we find the aste of the master architects themselves displayed, who no doubt gave the predominant nes; and we see, as might be expected from nthemius of Tralles and Isodorus of Miletus, remarkable retention of Greek forms, while in thers an Oriental character is introduced pparently by the workman or "pattern-rawer," an occupation which has ever remained istinct in the East from that of the architect or uilder.

The central nave has a great semi-conch at ach end, with subsidiary conchæ opening into hem. From the springing level of the greater onchæ the pendentives start, and over them ises the main dome. It appears that the de-oration of both conchæ and of the great hollow f the roof was plain gold ground mosaic. The ain western and eastern arches were orna-ented, but both of them were executed at a eriod subsequent to that of Justinian, or at ny rate some accident may have happened to hem, and what now appears is of a later era.

The principal mosaics of this part of the entral nave are between the windows. Under-eath the windows are a series of Greek saints n arched recesses, St. Gregory, St. Nicholas, St. Basil, St. Anthemius, and others. The figures re very dignified; they wear the pallia so con-picuous in the bishop's dress of the Greek hurch. Above them stand the twelve minor rophets, and at the ends are two larger figures n each side, representing the four greater-rophets. Above are some slight remains of our figures, supposed to be the four evangelists.

In the pendentives there are enormous eraphim. These figures are of immense scale, nd fitly carry up the eye to this "empyrean" —(the dome itself). The effect produced in his dome by the cross lights admitted through he coloured windows at its base, must have een that of an air of mist and rainbow-tinted apour, so that any great picture at the summit would appear to be floating in it, especially if he glass contained a predominance of blue. The ancient writers describe a great figure of he Almighty in this place. So that, in looking t this series of mosaics, we ascend the grada-ions of the saints, the prophets, and the evan-gelists to the abode of Deity itself—a very eautiful conception, and very beautifully vorked out.

As we enter the bema or sanctuary, we find hat here, over the high altar, stood guardian ngels. The whole arrangement of the east nd is very simple: there is no dramatic story old, but the treatment is noble and impressive.

Architecturally speaking, there is great ability displayed in the introduction of lines of colour n the ribs of the great dome, to give the gold which occupies the spaces between the ribs tint nd substance. The rib patterns are shown on he drawing. The detail looks coarse, but as it was very distant from the eye, the forms and colours required to be strongly contrasted.

This is a section through the windows at the ase of the dome. As the light played on their lluminated jambs or sides, and flowed across his coloured work, the effect must have been quite exquisite.

The two main arches having to do the prin-cipal work in the support of the dome have uffered most, and have consequently needed eparation. This western one was repaired in the time of Basil the Macedonian, late in the ninth century. The other or eastern one was restored in the time of Johannes Palœologus (about the year 1345). The first of these has in the centre a representation of the Virgin Mary, with St. Peter and St. Paul on each side, and two other figures which are not very clear. On the other is a representation of a sort of throne, which is very much defaced, and figures of the Virgin Mary, St. John the Baptist, and Johannes Palœologus himself, who repaired the arch. The presence of the Virgin, as she is represented in the picture, would at once indicate a later date than that of Justinian, even if we did not know the exact period of its execution.*

AN ARCHITECTURAL SCAMPER IN FLANDERS AND BRABANT.†

GHENT AND ANTWERP.

WE will now proceed to furnish a few notes on the far-famed city of Ghent. Architecturally speaking, there is much more of an interesting character to be found in Ghent than in Bruges, whilst its historical associations are of a much higher order. The streets are more modernized, but the antique specimens which remain bear a more costly and magnificent stamp. Stone is very generally the building material employed, and the house-fronts being in many cases profusely carved, a degree of richness is produced, which, in brick, would be utterly impracticable.

Viewed from a distance, the appearance of the city is extremely picturesque. The great number of towers, and the peculiar shape of some of the cupolas and other crowning portions, impart something of an Oriental aspect to the place.

Some of the old buildings still preserve a little of the castellated character. The castle of the counts of Flanders still exhibits its portcullised gateway, and in the Friday's Market a lofty circular tower with conical roof flanks the corner of the square. The Hotel de Ville is a thing of shreds and patches, erected at different periods and in different styles. The more ancient part is a fine example of the dying glories of the Gothic style, when, like the expiring dolphin, its convulsive struggles resulted in a hue of richness which for a time almost atoned for the progress of decay. The general description is something as follows. There are two tiers of windows, the lower having four-centred depressed arches, the upper ones trefoil cuspated: each tier have transoms, and are in two lights each. Between the windows shallow angular buttresses spring from the base, and are corbelled out, and branch into two niches each, surmounted with canopies and tabernacle-work, rising to the summit of the building. The spandrels and wall-spaces are sunk in panels, with tracery of the most elaborate character worked in them. Rich dormers rise from the roof, but they have either never been completed, or have been partially destroyed. This general character of the façade is broken into in several places. In one part a double portal with panelled division occupies two bays: in another, a semi-hexagonal oriel of shallow projection in three lights extends the whole height of the building. At the external angle an octagonal turret is carried up with a projecting balcony carried round midway. The more modern part of the stadt house, is a bald and tame structure in the revived Italian of the seventeenth century, with three orders over each other, and is utterly unworthy of criticism, though the dormers on the roof are rather picturesque.

The beffroi, or belfry tower of the city, is of very ancient date; but the windows having been built up with brick, and all signs of decoration destroyed, it presents nothing specially worthy of notice. An ugly lantern of cast iron, surmounted by a low open spire, is now in process of erection.

Of the churches, the cathedral of St. Bavon claims the pre-eminence. It is a large and noble structure, the exterior bold and effective. The style of the work varies in different parts, commencing with the choir, which is the oldest, probably the latter end of the thirteenth century, and continuing on westward to the latter part of the fourteenth. The western tower, which is of later date, has octagonal turrets carried up in the angles, which are detached in the upper part. The window tracery is geometrical in the choir, and flowing in the nave. The exterior, generally, is rather decayed and dilapidated.

The plan of the building is a Latin cross, with apsidal east end, and multangular chapels round the choir. The piers are shafted. The shafts of the choir piers have foliated capitals. The shafts of the nave piers have no caps at the spring of the pier arches. The shafts which go up to the summit have foliated caps at the spring. There is no triforium in the nave. In its place there is a recess in the wall over the pier arches, along which a passage extends. The choir has a triforium of continuous panelling. The north and south transept windows are large and lofty, but the tracery has disappeared. The screen between the choir and its aisles, is in black and white marble. The screens of the side chapels are in coloured marbles, with columns and pediments, and statuary above. The chapels are rich in pictures. The organ is a fine Renaissance composition. It is placed against the east wall of the south transept over the arch of the aisle. The pulpit is a very beautiful piece of sculpture, having statues in marble of a man awaked from sleep by an angel, with the inscription, "Awake, thou that sleepest, and Christ shall give thee light."

The church of St. Jacques is a very ancient building, in a wretched state of dilapidation externally. The interior has been restored in modern Gothic. The plan is the usual Latin cross, with apsidal east end, and multangular chapels. The transepts do not project beyond the side aisles, which are carried out to the outside of the buttresses, forming recesses internally.

There are two towers at the west-end, and an octagonal tower and slated spire at the intersection. The western towers are Romanesque in character, with semi-circular blank arcades. The southern tower has a low octagonal stone spire, crocketted at the angles, with lower spirets at the corners. This is apparently of twelfth-century date. The North-Western tower has a slated square spire. The pulpit is rich, with a fine marble statue of Moses below. The choir screen is Renaissance, in black and white marble.

The church of St. Nicholas is also much dilapidated, the tracery knocked out of the windows, and hovels built against the exterior. The original style appears to be early thirteenth century, continued down to a later date. The plan is similar to the churches already described, the aisles carried to the outside of the buttresses. The interior possesses the main features of the thirteenth-century architecture, but they have been considerably pared away and modernized in the style of the seventeenth century. The choir has no screen, and is merely surrounded by a simple railing. There are two stained glass windows, recently inserted, of the modern Flemish school,—one by Capronnier, the other by La Roche of Brussels,—which possess considerable merit. A carved marble balustrade behind the high altar is worthy of notice. There is also some new carved woodwork across one bay, between the choir and north aisle, which is very beautifully executed in wainscot, in the Renaissance style. The tower is at the intersection of the cross, with round turrets at the angles. The turrets and towers are covered with slated spires. It has two tiers of coupled windows on each face, with flowing tracery.

St. Michel is a large cross church, with apsidal east end, of late thirteenth-century character. The tracery in the clerestory windows is, for the most part, gone. That in the aisle windows is of flowing design. There is no triforium, its place being occupied by a balustrade, in the Renaissance style. This church, in the upper part especially, has evidently been patched up and restored with small regard to consistency. The pulpit is very fine, carved in mahogany, with white marble bas-reliefs in the panels, and a group of statuary below, of Christ restoring the Blind.

The Church of the Dominicans, in the Rue de la Vallée, is a somewhat remarkable building. It is apparently of early fourteenth century date, a period when boldness of design and

* To be continued. † See p. 98, *ante*.

daring construction began to take the place of the simplicity of the previous century. In plan it is a simple parallelogram, without aisles. The buttresses are of great depth. The windows, which are brought to the outer edge of the buttress, occupy the entire space of each bay, and are faced externally by gables rising above the eaves. The internal recesses thus formed are vaulted with stone. The main roof in one span is a pointed arched barrel vault, with wood ribs, and boarded with oak shingles. The whole strength of the walls has been concentrated in the buttresses, to resist the thrust of the roof ribs, but their strength has been insufficient, the walls having yielded, and the roof is now tied with iron rods. The west front is remarkable for the enormous triple windows which occupied originally nearly the entire breadth and height of the façade. This construction, like the other, appears to have been too daring, the tracery has disappeared, and the apertures are built up with brick.

The modern public buildings in Ghent are not numerous. The university, built in the year 1826, has an octostyle composite portico, with pediment over. The details are said to be copied from the Roman Pantheon. The sculpture is hard and poor, in the worst Roman style, and the whole composition wants life and vigour.

The Palais de Justice, by the same architect (Roelandts), is a much superior building in point of design. It is in plan a rectangular parallelogram, with pedimented central projection on each front. The principal front—which, unfortunately, like too many of our own public buildings, faces the north—has a Corinthian portico, hexastyle pseudodipteral, crowned by a pediment with sculpture in the tympanum and statues at the angles and summit. The portico is elevated on a lofty rustic basement, and is approached by two flights of steps, with balustrades extending laterally on each side from the ends of the projection. The windows of the principal story are faced with Corinthian columns, pediments, and balustrades, supported on corbels, and corresponding with the sub-order underneath the portico. Altogether the arrangement and conception of this façade are exceedingly effective. The lateral staircases were a happy idea, extending the base of the portico, giving apparent strength and dignity to the centre, assisting to carry the eye easily upwards, and imparting an agreeable variety to the design.

The situation of the building is admirable, the river flowing along one side, and an open area round the three others. The interior arrangements, so far as accessible, appear to be good, with evidences of careful study, and some originality of design and construction.

Some of the modern houses in Ghent are worthy of notice for the taste displayed in their designs. We will not further allude to the subject here, as before concluding the paper it is our intention to say a few words on the modern domestic architecture of Flanders.

Let us now proceed to the far-famed city of Antwerp, which is to a much greater extent the resort of tourists than either Ghent or Bruges. Few cities present greater claims to the notice of the artist, the architect, and the antiquary. The birthplace and the residence of Rubens, and the depositary of the most precious relics of this prince of Flemish painters, it is the shrine towards which the steps of many an art-pilgrim are yearly directed. Its marvellous cathedral offers food for thought and practice for the pencil of the architectural student; whilst as a commercial city of the first class during the Middle Ages, and still retaining many of its ancient characteristics, the historical student may glean suggestive illustrations of the highest value.

Some of its street architecture, both ancient and modern, is very fine, particularly that in the Flemish modification of the Cinque cento style, the influence of which may be traced down to the present time.

The cathedral naturally claims our first architectural notice. In size and proportions it ranks in the very first class, being 500 feet long and 250 feet across the transepts. It has also the great advantage of unity of design and consistency of style, being pure Mediæval, without any admixture of Renaissance. The plan is the usual Latin cross, with apsidal east end. The nave has five aisles in the width, open without obstruction from side to side. The choir has also double side aisles, but the outer aisle is formed into chapels. Many of the windows have lost their tracery heads. That which remains is of flowing character, some of it of beautiful design. The clerestory windows are unusually large. There is no triforium, in the usual sense of the word, its place being supplied by a gallery or passage, faced with a balustrade and panelling continued down to the extrados of the pier arches. The piers are shafted in a very elaborate manner, the shafts carried round the pier arches without capitals. The shafts which run up to the upper vaulting have foliated caps.

The vaulting consists simply of pier ribs and cross springers, with bosses at the intersections. The walls of the side aisles under the windows are worked in narrow sunk panelling with trefoil arched heads. The lantern at the intersection of the cross is wood, of modern construction.

The stalls in the choir are modern, very beautifully carved, but with a certain degree of stiffness and constraint about them: some of the figures are exquisite. From an examination of some repairs going forward, it appears that the interior face of the walls is brick, covered with a thin coat of plaster.

The pulpit, situated on the south side of the nave, is a rich piece of sculpture by Verbruggen, comprising emblematical figures of the four quarters of the globe, foliage, drapery, cherubs, angels, birds of all climes, &c. The organ occupies the west end of the nave, and blocks up a large portion of the great west window. It is Renaissance in style, and very large. The orchestral gallery is supported by columns of coloured marbles, with similar balustrade.

In one of the octagonal side chapels of the choir, we observed a monument somewhat novel in style, but very effective. It consisted of a bas-relief in white marble, placed within a pointed arch, forming a shallow niche, the exterior mouldings carried up square, so as to form spandrels. The mouldings and spandrels were richly ornamented in gold and colours. Within the niche under the bas relief is placed a brass panel, on which is engraved the memorial inscription. The contrast of the white marble with the richness of its enclosing frame, so far from being inharmonious, rather seemed to add to the beauty of each.

The exterior of the minster is so completely hidden by the buildings erected round it, that it is only at the portals and the west end that a glimpse can be obtained. The portals are large and fine, but have been, to some extent, mutilated in the restoration of them. Some polychromic decoration has been introduced, with good effect.

The appearance of the west front, with its twin towers, one truncated, the other shooting up its rich coronal to the height of 403 feet, is well known, and in its particular style—that of early or middle fifteenth century work—is unsurpassed. The plan of its construction is very simple,—a square substructure in four stages, slightly recessed back in each of the upper stories, having square buttresses at the angles finished with a corbelled projecting parapet. A multangular staircase turret is carried up in one of the resilient angles of the buttresses, partially obscuring one bay of the windows. From the level of the parapet rises an octagonal lantern in three stages, crowned with an ogival coronal. The buttresses are carried up as counterforts, encrusted with tabernacle work, and connected with the lantern by flying buttresses. The tracery of the windows is peculiarly light and delicate, and the whole of the surfaces are covered with panelling, tracery, crockets, finials, &c. for which all the resources of mediæval skill and taste have been laid under contribution. In the upper part of the lantern, where there is a profusion of light and delicate shafts standing detached from extraneous support, a system of iron ties and bands has been adopted, which very judiciously *encircles* the parts to be supported, instead of—as is too often the case—letting in the iron rods and ties, and so hastening decay by the very means adopted to prevent it.

The Dominican Church of St. Paul is more celebrated for its "Calvary," with its artificial rockwork and tawdry accessories, than for any special architectural beauty. It deserves, however, a passing notice, for some peculiarities of construction. Its plan is the usual Latin cross; the transepts shallow, and the choir without aisles. The piers are cylindrical. In place of the triforium, galleries are carried over the side aisles. The south transept has an aisle carried across its south end, opening by arches into the transept,—a very unusual arrangement. The choir windows are very long, and extend nearly down to the top of the stalls: they have transoms, and are filled in with flowing tracery of rather late date. The vaulting is somewhat dome-shaped between the pier ribs, a peculiarity not common in Flanders, but very frequent in the centre and south-west of France. The west end, with its portal, has been very effective, though, in style, of late date. It is now much dilapidated. Internally, the walls are lined with good carving in wainscot, having twisted columns in the Renaissance style. A noble organ, with an orchestral gallery, fills up the western end of the nave. An octagonal tower of seventeenth century architecture, crowned with a dome and cupola, is carried up on the east side of the south transept.

St. Jacques is a large and noble cross church, with a tower at the west end. Its principal celebrity is derived from the tomb of Rubens, which is situated in a chapel immediately behind the high altar. Architecturally, the nave and choir have double aisles, the outer range of which are chapels, very rich in marbles, statues, stained glass, and pictures. The transepts have double aisles on the east side; the piers are cylindrical; the vaulting slightly domical; the window tracery of flowing design. The east end is apsidal, with multangular chapels round. The general character of the architecture is early fifteenth century. The tower is apparently of the same date as the western towers of the cathedral, which it much resembles in style, having boldly-projecting buttresses with deep recesses, incrusted with panelling and tabernacle-work. Though now of considerable height, it is incomplete, having evidently been intended to be carried much higher. The western portal is large and lofty. It bears the date of 1694, and is a curious and almost unique specimen of Gothic architecture as understood at that time. As may be supposed, the design and detail are as poor and meagre as could well be imagined. The exterior of the church is almost entirely blocked up with buildings erected against the walls.

The Jesuits' Church, dedicated to St. Charles Borromeo, is a florid Renaissance design, bearing the date of 1621. The western front is now undergoing a thorough restoration. It consists of three stages or orders. With some freedom and originality in the design, it is too much broken up into detached portions, with fritteredy patches of ornament stuck on. Internally it is fine, being somewhat of a basilica in form. The aisles have two tiers of arcades, with galleries the full width of the aisles. The east end is semicircular. Two chapels at the sides are very rich in marbles. The gates of these chapels are fine specimens of metal-work, and the altar balustrades richly sculptured in marble. The wainscotting of the walls, the confessional, and pulpit, are beautiful specimens of wood-carving. The panels are fitted in with bas-reliefs, illustrating scenes in Scripture history.

The church of St. Andrew owes most of its fame to the celebrated pulpit, by Van Hool and Van Gheel, of the Calling of Andrew and Peter. Architecturally it possesses no features worthy of special remark. It is a cross church, the transepts shallow, the choir short, without aisles, the latter being, however, prolonged two bays to the eastward of the cross. The tracery has disappeared from most of the windows. What remains is of geometrical design. The piers are cylindrical. There is no triforium. The vaulting consists of pier ribs and cross springers slightly domical.

A new church in the Rue de Malines, dedicated to St. George, is in progress, but the works seem to be at present suspended. The architecture is in a very good style of late Pointed, having a little of the Flamboyant cha-

racter. The depth of the projections and recesses gives great boldness and vigour to the design.

Of the secular buildings, the Bourse is, on many accounts, the most interesting. Erected in the palmy days of mediæval commerce, it furnished Sir Thomas Gresham with the model for his own Royal Exchange of London, which was but a humble copy of its continental original. How different have been the fortunes of the two erections! Whilst the younger edifice has been twice a prey to the flames, and has each time risen from its ashes with expanding vigour and increasing splendour, until it has become the centre of the world's commercial transactions, its prototype has quietly dozed down the march of time a monument of departed greatness. The situation and arrangement of the building are somewhat peculiar, though well adapted for its purpose. It is placed at the intersection of two lines of streets at right angles, which abut upon the centre of each face of the building, so that the only external façades it presents are those closing the ends of the four streets. Within it consists of a quadrangle, with a surrounding cloister, having an upper story. The architecture is debased Gothic, of the date 1531. The front is supported by slender cylindrical columns, having shallow tracery or panelling of various patterns worked on the shafts. The cloister is groined with stone, with tracery of very complicated design. The vaulting, pressing outwards on the slender columns supporting the front, has required the introduction of iron ties, by which the edifice is now bound together, both laterally and transversely.

Within the last twelve months a roof of iron and glass has been thrown over the centre quadrangle.* The execution of this work required more than common boldness and skill. The old building was so ricketty, that no support whatever could be permitted from that quarter, and the introduction of cross ties was deemed objectionable, probably from the lowness of the structure. These difficulties have been overcome in a most skilful and scientific manner by the architect, M. Marcellis, of Liége. The size of the area covered is 140 feet by 100 feet. The roof is formed by four cast-iron ribs at the angles, and two on each of the four sides, springing from strong cast-iron columns, and abutting against the rim of a large oval lantern in the centre. The unequal lateral thrust of the ribs at the sides, compared with those at the angles, is overcome by a very ingenious application of a simple geometrical principle. All the ribs except the hips are projected over to such a distance beyond the supporting column that they are all the same length. The extremities being tied by strong iron bars, form a regular polygonal figure, counteracting the lateral thrust, and supported by the iron columns, entirely independent of the building. The projections alluded to are not visible, being hidden by the roof of the building surrounding the quadrangle.

The Grand Theatre is a large and spacious building of classical design. The entrance front is a composition of considerable merit. The basement is open, with an attached semi-circular colonnade on the principal story of the Corinthian order, having niches in the intercolumniations, filled with busts of Mozart, Racine, Molière, and other dramatic writers and composers. On the entablature statues are placed over each column.

* A view of this was given some time ago in the *Builder*.

WAGES WITH STOPPAGES.

The truck system has more than once formed a subject of legislative inquiry and enactment, on account of the rascality by which, through its means, the poor working classes have been cheated of the fruits of their labour. If what is represented to us be true, there is another system of stoppage of wages to which the Legislature, and even the Government, would do well to turn their immediate attention. We allude to the frame rent system of the frame-work knitters in the midland districts. Under this system, it is alleged that it frequently occurs that where a master has a certain number of frames in his premises, for which it is the custom to charge a weekly rent, payable by those who work at them for the frame proprietors themselves or while in their employment, the master, instead of employing only so many operatives as may be able to earn a sufficient livelihood, will, if possible, employ as many of these poor people as he has frames for them to work at; and that he makes it his object to give each, in the first place, only so much as will pay himself the rents demanded for being allowed to work at the frames, so that when each may thus earn 3s. 6d. only in the course of a week, as often happens, they actually get nothing for their labour. Nay, that in cases where the frame has been idle for several weeks, the rent for all these weeks is first deducted, so that as lately occurred, one poor workman had to pay 9s. 1d. out of 9s. 2d. or rather was paid one penny out of 9s. 2d. earned by his labour! In another case, brought in vain before the magistrates, a master who "did not like to be hard with" the unfortunate who worked for him, liberally gave him 6d. out of 5s. 11½d. thus earned. There is something so incredible—so abominable in such a system, that for the sake of humanity we do hope it is much exaggerated; but if not, the Government ought to look to it; for it would seem to explain much of the turbulent spirit not seldom manifested amongst the frame-work knitters of the midland district. Here, in solemn earnest, are, in that case, the seeds of revolution. This is the tinder or the explosive train which only awaits the spark, and its action will be sudden and unexpected, and may rouse thousands, and tens of thousands, who may have their own special subjects of discontent, real or imaginary, but have no other interest in common with these poor unfortunate frame-work knitters. At this moment, we do not hesitate to say that, throughout the whole country, disturbance could thus and otherwise be but too easily excited. There is a chafed feeling amongst these poor frame-work knitters against our legislators, for allowing the iniquity of which they complain to continue, in spite of efforts to put an end to it, so that our legislature as well as our Government, ought to give the subject their most serious attention. Petitions are meantime being prepared, with the view of once more trying to put an end to this frame rent stoppage of wages, allowing the employers of course to substitute a modified rate of money wages for labour actually done. Why should frame-work knitters pay rent for frames any more than ploughmen for ploughs, spinners for spinning machines or steam-engines, clerks for desks, or workmen in general for their masters' benches and workshops?

THE LOCAL MANAGEMENT OF THE METROPOLIS.

The Bill brought into the House of Commons by Sir Benjamin Hall, for the better local management of the metropolis, seems calculated to effect improvement to a great extent. As it will not be brought up for second reading till the 16th of next month, we may defer particulars for a week. It is much to be regretted that Sir Benjamin Hall should have been led to repeat his charge against the district surveyors for neglect of duty touching the occupation of cellar dwellings, in the face of the legal opinions expressed, and the strong evidence to the contrary which was laid before him.

CHURCH-BUILDING NEWS.

Great Horkesley.—Two windows have recently been placed in Great Horkesley Church, in memory of a late rector. The glass is by Wailes. The subjects are "The Sower," from St. Matthew; "Christ blessing Little Children," from St. Mark; "The Good Samaritan," from St. Luke; and "Feeding the Multitude," from St. John.

Norwich.—Scaffolding has been erected outside the west side of the tower of Norwich Cathedral, and men are now engaged in restoring the exterior, after the original design. The work is being executed under the superintendence of Mr. John Brown, architect to the Dean and Chapter. One of the fronts of the tower was restored in cement some time since; but in the present instance stone is to be used.

Stamford.—We stated lately that the new burial-ground here had been consecrated by the Bishop of Lincoln. The chapels are nearly alike in the interior: they are floored with Minton's Staffordshire tiles, and have stained deal roofs; but the string-course under the plate of the roof is plain in the Dissenters' chapel, while that in the Episcopal chapel is inscribed in illuminated letters.

Tiptree-Heath (Essex).—A new church is to be erected here, to hold 500 persons, at a cost of about 2,000*l.* Messrs. Christian, Laing, Watson, and Hayward, and a gentleman of Colchester have been invited to submit designs in a private competition. The drawings were to be sent in on 17th inst.

Romsey.—Braishfield New Church, erected mainly during the past year, was consecrated on Thursday before last by the Bishop of Winchester. The building has windows of pointed Gothic, with a south entrance. The interior consists of a main and north aisle, the latter having been added at the expense of the Rev. J. Davis, and as a memorial token to his late wife. The church was erected by Mr. Petty, of Wellow, and the benches were fitted up by Mr. Wheeler, of Romsey.

Over Tabley.—The new church at Over Tabley, near Knutsford, Cheshire, was consecrated by the Bishop of Chester, on Tuesday before last. The edifice is situated close to the high road to Northwich. It has no tower. The building is sufficiently capacious to afford the church accommodation required in the neighbourhood, and is similar to the new church at Bollington, near Altrincham.

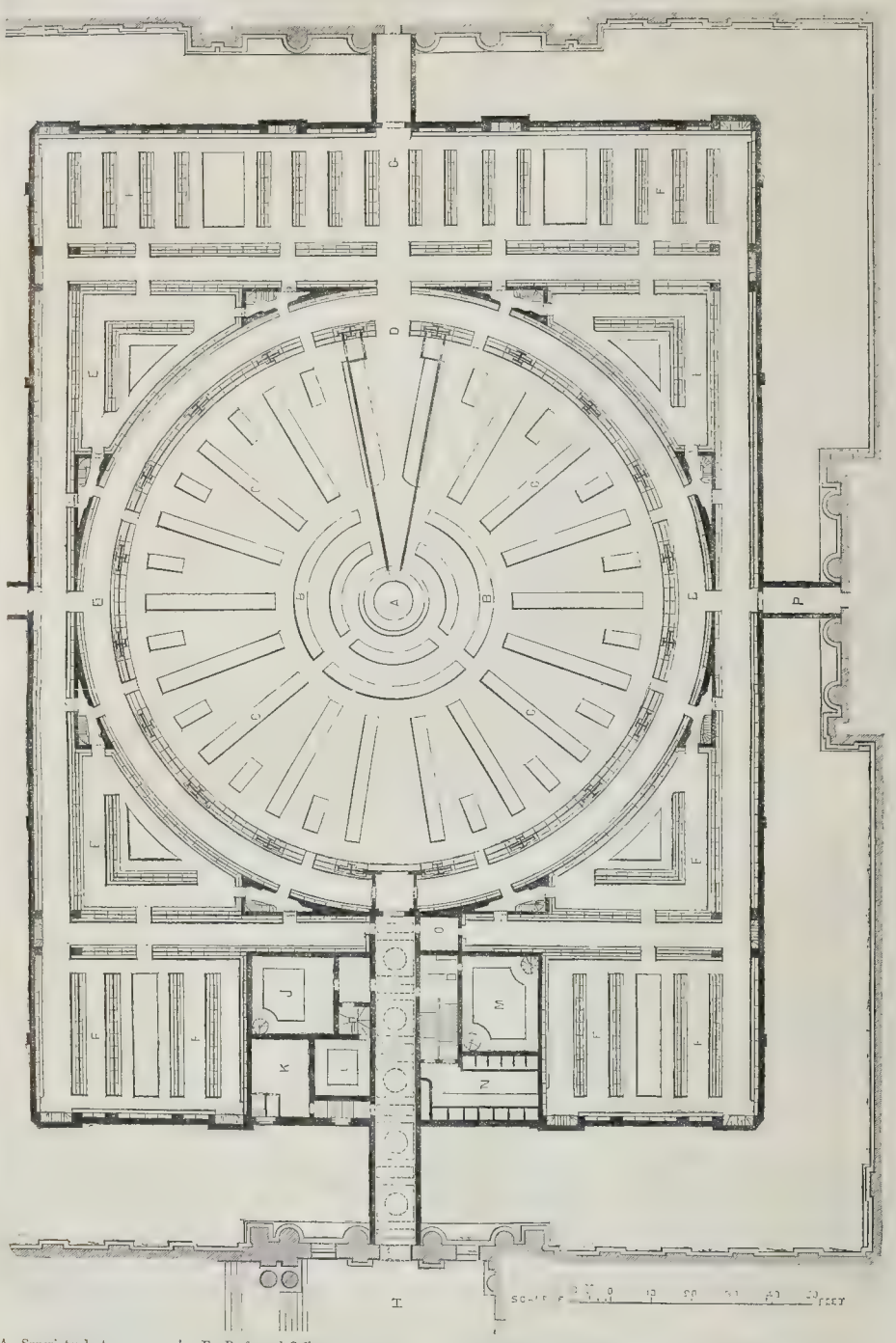
Harpurhey (near Manchester).—The Union Chapel, Queen's-park, Harpurhey, was opened on Thursday, March 8th. The general plan of the building is in the form of a parallelogram, with a tower on the north-west angle. The tower contains the gallery staircase, and a smaller turret is carried up with it, which has an open belfry, with crocketed spire and vane, altogether 90 feet high. The main entrance is in the centre of the front to Rochdale-road, and is formed with a large archway which spans the porch. On either side the porch are the doors leading to the interior. The roof is of novel construction, having two trussed tie-beams running parallel with the length of the chapel, thus dividing it into three parts. The centre part or nave, extends the full length of the building, and includes the recess which contains the choir at the east end. The roof is overlaid with boarding, and asphalte roofing felt is placed between the boarding and the slates. From the point of the roof are suspended three chandeliers. The back gable is pierced with a circular window filled with stained glass. Underneath the orchestra is a lecture-room, and on one side is the minister's vestry, on the other a staircase to the organ-gallery. The style of the architecture is Decorated, chiefly expressed in the window tracery and carving; the other details being exceedingly simple. The outside length of the building is 90 feet, and the outside width 46 feet. There is now accommodation for 700 persons, and when the side galleries are added, there will be a total accommodation for 900. The cost of the whole, including heating apparatus, gas fittings, upholstery, gates, railings and fences, architect's commission, &c. will not exceed 2,100*l.* The architect is Mr. R. Moffat Smith, of Manchester; and the contractors Messrs. Farrell and Griffiths, of Lower Broughton.

Barnsley.—A stained-glass window, by Hardman of Birmingham, is being put up in the east end of St. George's Church here, at a cost of upwards of 200*l.* defrayed by voluntary subscription.

Gateshead.—The decision of the rector and churchwardens, according to the *Observer*, was formed on Monday week, when the whole of the works required for the restoration of the parish church were let, in one contract, for 1,127*l.* to Messrs Kyle, who will perform their task under the superintendence of Mr. Dobson, architect.

Destruction of the Opera-house at Dessau.—The Opera-house at Dessau, one of the largest in Germany, was burnt to the ground on Wednesday, the 7th inst. The building was completely gutted in a few hours. The front portion of the building has been preserved.

BRITISH MUSEUM: PLAN OF NEW READING-ROOM IN QUADRANGLE.

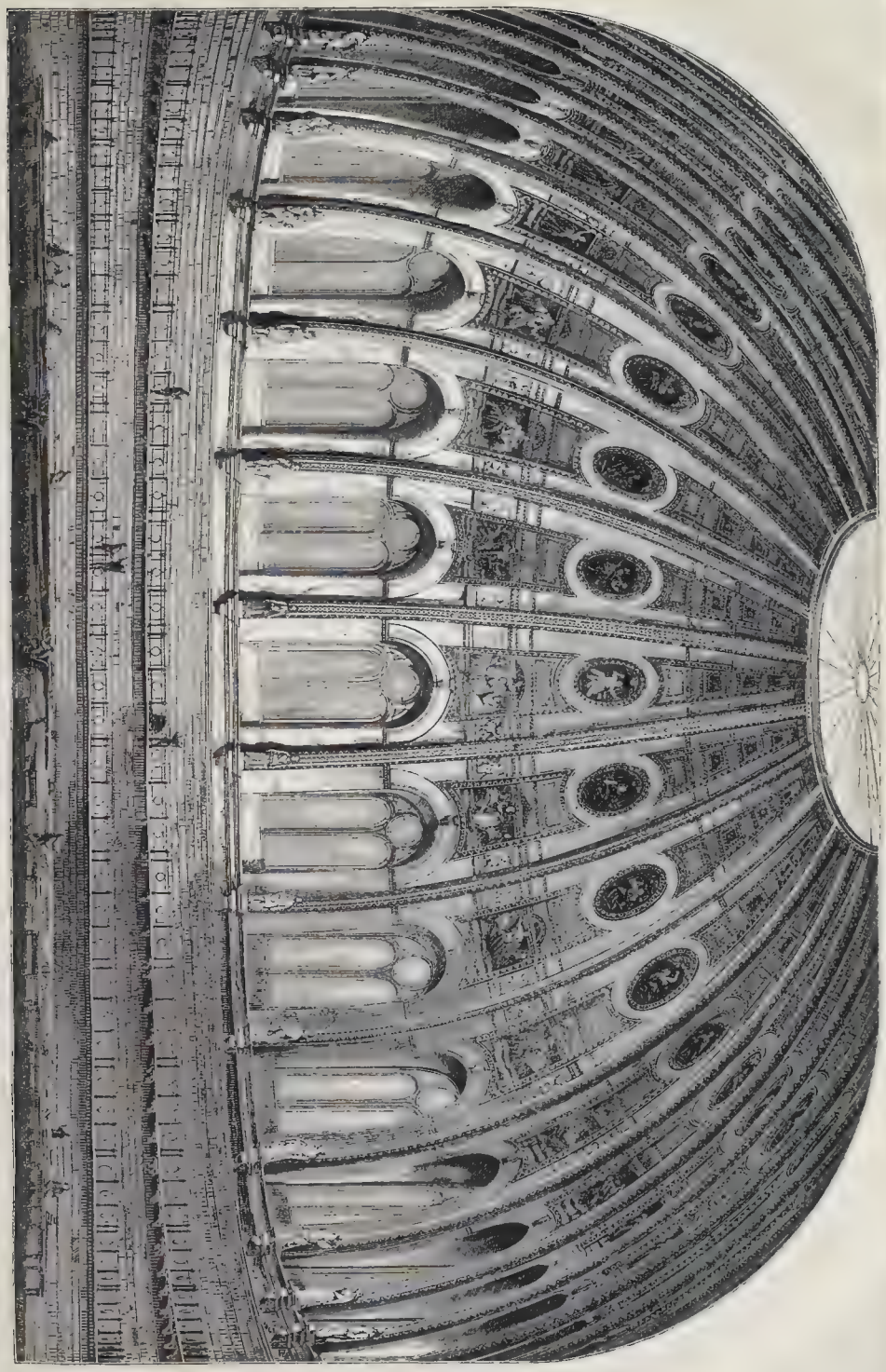


A. Superintendent.
B. Catalogues.
C. Tables for Readers.
D. Access for Attendants.

E. Perforated Gallery.
F. Bo kcases.
G. Entrance to new Reading-room from North Library.

H. Entrance Hall, Museum.
J. For Registration of Copyrights.
K. Ladies' Cloak-room.
L. Attendants' Room.

M. Gentlemen's Cloak-room.
N. For Gentlemen.
O. Assistants' Room
P. Entrance from Royal Library.



THE NEW READING-ROOM, BRITISH MUSEUM.—Mr. Sydney Smirke, A.R.A. Architect.

THE OPENING OF NEW BRANCHES OF INDUSTRY.

AN anonymous writer in the New World, has somewhat skilfully grouped together many of the wonderful exchanges which free-trade and advancing civilization have effected, and the spirit of enterprise brought to their shores. The picture is almost equally true and graphic when applied to either hemisphere. To take a condensed view of the opening of new branches of industry:—Among the two or three hundred thousand vegetables and animals that God has created, to satisfy our natural and artificial wants, there are very few that we have yet acclimated or domesticated, or know how to employ. However few they may be, we continue to increase them, and our power to make acquisitions would appear to have no limits but those of creation. A considerable number of the plants which grow among us, have been brought very recently from climates quite different from ours. It will be useful to notice this fact.

Thus, Asia has given us hemp, the cherry, the peach, the French bean, the tarragon, the onion, rhubarb, mint, the mulberry, the citron, the lime, the orange, the chesnut, the pine of Siberia, the pine of Jernsalem, the plane-tree of the East, the aloe, the rose of Provence, the mallow rose, the millet, the cypress, and so forth. Grain and buck-wheat we get from the Levant, and the olive from Africa.

Europe has borrowed from America the potato, the maize, tobacco, the banana, the love-apple, the strawberry, the medlar-tree, and a hundred other trees, fruits, plants, and flowers.

Within three or four centuries Europe and America have been literally invaded with vegetables from all parts of the globe. We live almost entirely upon what has been borrowed from other countries, and it is but the advance guard of the immense quantity and variety which science, and the rapid intercommunication between the different parts of the world will give us. We are at liberty to choose from the general herbal of creation all that suits us.

An inventory of all the riches we appropriate would be a long one. It would be almost endless labour to give such a catalogue of creation. To glance at a few only of the alimentary plants,—the *arto carpe* (so precious to the inhabitants of Tahiti), the *sagotier*, the palm cabbage, the bamboo of Celebes (of which the young sprouts have a delicious flavour), the cocoa-tree (of which the fruit is both meat and drink), the gum-tree, the bread fruit, the sugar-palm, the plantain, and banana; the tamarind, the *papaver*, the mangosteen, &c. Among the textile plants, may be noticed the New Zealand flax and the *abaca* (*artica utilis*), a kind of flax in the Philippine Islands and China, of which the Chinese make the most superb stuffs. Of the trees for cabinet-making, for building, and for the masts of vessels, a thousand might be taken from the pines, the cedars, the ebony, the sandal, and the satin wood. Then there are trees which yield us gums, resins, tinctures, and medicines; the spice-tea, and tea-plant; and a number of others, not so useful perhaps, but which would delight us with their beauty and fragrance.

To speak of the animal kingdom: how many more kinds might we domesticate than we have? M. Jeoffry St. Hilaire cites several in his memoir upon the utility of a menagerie of acclimatization, those great antelopes, which would furnish an abundance of healthy food; the Peruvian sheep, of which the wool is so fine and soft; the tapir, larger than the pig, and as easy to feed, the flesh of which is very agreeable and wholesome, and which might be made useful as a beast of burden; the lama, the alpaca, &c. Again, among birds, if we direct our attention to the subject, we shall discover many other kinds worth introducing or domesticating, for their flesh, their eggs, or their beauty. With respect to fish also, our rivers or our streams and small lakes could be peopled with a vast multitude and variety of the finny tribes. Fish increase very abundantly, and science will teach us to transform those of the sea into fresh-water fish. Carp did not appear in England till the sixteenth century, and the plaice of the North Sea have multiplied infinitely in the ponds of the New World.

PROVINCIAL NEWS.

Lynn.—The Public Baths Committee here, having come to a resolution in favour of annexing washhouses to the baths already decided on, have called a meeting of the subscribers to consider that proposal.

Newark.—Since the destruction of Kelhambridge, the county magistrates have met and resolved to re-erect a new bridge on the same site. They have appointed a committee to ascertain as to whether the new bridge should be of stone or on the suspension principle.

Clitheroe.—Out of the four tenders selected from eighteen, received by the directors of the Clitheroe Waterworks Company, for making a reservoir and laying upwards of twelve miles of main pipes, the tender of Mr. Ibbetson, of Blackburn, was selected. The works are now being carried out from the designs and under the directions of Mr. McLandsborough, of Bradford, the company's engineer.

Oldham.—One day lately, eighty-three persons were summoned before the General Purposes Committee, and fined 2s. 6d. each, for not having whitewashed their dwellings within seven days after the 1st of March.

Chester-le-Street.—The local guardians are about to erect a new workhouse here, on an elevated site south of the town, and from the designs of Mr. Matthew Thompson, of Newcastle, architect.

Newcastle and Gateshead.—"Our friends at a distance," says the *Gateshead Observer*, "are often sorely perplexed by the sister boroughs at Tyne Bridge." In reference to a note of ours as to a music-hall, it is then explained that "the Mayor of *Gateshead* was presiding over a company in *Newcastle*, when he threw out the invitation to his fellow members of the Sacred Harmonic Society; and it was in that town that the 'castle in the air' was to be conjured into existence."

Witton.—The Wear Valley Railway-bridge across the Wear, at Witton Park, has been completed. It is built (on piles) in stone, with six brick arches, and is 375 feet in length. The rails run at the height of nearly 68 feet above the level of the water, and the parapet is nearly 71 feet above that level. The three centre arches are askew at an angle of 66 degrees, with a rise of 22 feet, the span of each being 66 feet on the skew, and 60 feet 3 inches on the square. The two end arches are square, with a span of 47 feet, and a rise of 19 feet 3 inches.

ROAD BOOKS TO ART.*

"IF from all that has been written on painting," says Mr. Leslie, in his preface to "A Hand-Book for Young Painters," the truth could be brought out, and presented clear from every ambiguity of language, the student of the present day would stand in little need of further guidance." And his aim has evidently been to strip theory of ambiguity, in imparting the knowledge derived from years of practical experience, and to assist in clearing a proverbially long, toilsome path of some of its besetting brambles, difficulties almost sufficient to discourage the most adventurous of aspirants.

The lectures delivered at the Royal Academy, during the author's professorship, form the basis of this very interesting volume, which independently of its value to the student, has a charm for the most general reader. While recommending it cordially, we would remind "young painters," that the necessity for individual exertion—manual and mental—precedes theory, however preceptive and comprehensive — there is very much more to be learned besides laws and rules; yet the guide is indispensable—practice is as likely to lose its way by lagging behind as getting too far in advance of it. It must further be remembered that, "it is not the length of time spent in study that is to make a painter of you, but *how* you spend that time. Try to keep in mind the greatest things, and secure these first."

It must not be expected that rules will give a royal road to art. "There is, I believe," says our author, "a good deal of what may be called honest quackery among painters; quackery, I mean, which those who practise it mistake for sound doctrine. One safeguard against this is, to beware of all rules that promise an easy acquirement of the art, and to mistrust our own dexterity when we find it saving us the labour of thought."

"There is no easy way of becoming a good painter", wrote Sir Joshua Reynolds, and it is an undeniable fact. Early use of the brush is advocated, and fine colour considered as essential an element as fine drawing. "But colour, it is, said, is sensual as addressing itself to the sense of sight only, and not to the mind."

After ably combatting this objection, Mr. Leslie says, "I can never, therefore, think that Venetian or Dutch colour can do otherwise than exalt the highest subjects; and it seems to me a most injurious error for painters to consider colour a thing that may be either neglected as a minor excellence, or deliberately rejected as inconsistent with other qualities."

Instruction, founded on thorough knowledge of the subject, conveyed so concisely as it is in this volume, can be appreciated by any reader.

The illustrations that embellish it are well selected, as examples of the various great masters, and make it a book for the drawing-room as well as the studio.

A series of very useful lessons in water-colour drawing, has been compiled by Mr. George Barnard, in his "Theory and Practice of Landscape Painting," in which Messrs. Leighton, Brothers' chromatic process proves an efficient assistant to the amateur and an admirable auxiliary in demonstrating the directions of the master to the pupil. With very little other help, one might cultivate a taste for sketching from nature, and those who are at all advanced in acquiring the ability, will be wise to avail themselves of the means afforded by this treatise of furthering it.

Mr. Charles Martel dissertates cogently, chiefly on the modification of colour by contrast, as pointed out by Chevreul, and makes a variety of useful deductions for the advantage of those who will not trouble themselves to master more elaborate works.

* "A Hand Book for Young Painters." By C. R. Leslie, R.A. (John Murray, Albemarle-street.)—"The Theory and Practice of Landscape Painting in Water-Colours." By G Barnard. Wm. S. Orr and Co. Amen-corner.)—"The Principles of Colouring." By C. Martel. (Winsor and Newton, Rathbone-place.)

STREET-WATERING.

ON a hot day, near the end of last July, I saw in the clean-swept streets of Cambridge what I do not remember to have seen anywhere else, namely, water, pure and bright, from a public fountain, running in the channels outside the footpaths,—and the effect was most grateful to the senses. If I mistake not, the water is brought by the small canal, named Hobson's stream, to the fountain in the market-place, and is there set free, to proceed on its refreshing and purifying mission. An excellent individual, no doubt, was Hobson; and happy are the dwellers on the classic Cam in having been peculiarly that Hobson's choice. The water, be it noted, comes by way of the *Trumpington*-road. The channels (not kennels), I think, were sunk and parallel, and, therefore, tidy, and easy to step over.

It has occurred to me that the above method of watering the streets might be much improved upon, for the Cambridge carriage-ways were quite dry. In those of the leading thoroughfares of the metropolis, I should think, rectangular cast-iron pipes, narrow and deep in their proportions, might with advantage be sunk, flush with the surface, transversely to the direction of the street, connected with the mains of the water-companies, and perforated along their upper side, to permit the escape of the water. The water-cart in those thoroughfares would thus be superseded, and their contents no longer, at the touch of the driver, take the shine out of our boots: the way would be cleared of a slow-going vehicle, and the distribution of the water would be more equable. A turncock would have the charge of turning on the water, and would adjust the pressure, so that it should just run over at the perforations: the longitudinal slope and transverse convexity of the street would carry it forward, with a sideward tendency: the distances of the pipes would be regulated with reference to the efficiency of the slope, which few streets are without, it being usually given to them, for drainage purposes, where the ground may happen to be level. Where the street was but slightly inclined lengthways, a herring-bone arrangement of the pipes would ensure the water performing its office before running off at the sides; and if in any case it was perfectly level, they might might be laid longitudinally in the centre.

J. W.

THE INSTITUTION OF CIVIL ENGINEERS AND THE METROPOLITAN SEWERS COMMISSION.

SIR,—In the course of a recent discussion, at the Institution of Civil Engineers, on the flow of water through pipes, reference was made to a paper of mine, published by the Metropolitan Commissioners of Sewers, and entitled "Memorandum on the Data employed by Mr. Bazalgette in determining the Sizes and estimating the Cost of the Works designed for the Main Drainage of the Metropolis."

The first paragraph of this paper, which was quoted, in terms of disapproval, by one of the most distinguished speakers on that occasion, runs as follows:—

"Mr. Bazalgette has, I think, fallen into unintentional error in his mode of applying the formula he employs to calculate the sizes of the great intercepting sewers.

He says ('Data,' p. 4) that the various formulæ propounded lead practically to the same results. So far is this from the truth, that De Prony's formula, based on the results of Dubuat's experiments, leads to conclusions totally different from those obtained by Eytelwein's formula, with the modified co-efficients which he deduced from the experiments of Brunings, Woltmann, and Funk, on larger streams of a wider range of velocities. De Prony's formula applied to this latter class of cases, gives results which, as Claudel states ('Formules,' p. 110), deviate in some instances from the truth by no less than 29 per cent. The approximate formula adopted by Mr. Bazalgette, and applied in the manner he describes, to determine the discharging power of each tunnel, 'at all those points where a change in its dimensions has been made,' leads necessarily, I think, to fallacious conclusions.

For, the discharging power of any point (*a*) of the tunnel assumed as running full bore, having been thus computed, it is assumed by Mr. Bazalgette that any additional influx brought into the tunnel by a branch *below* that point, would require as much increase of capacity as an equal influx *above* that point,—a conclusion obviously erroneous.

Mr. Bazalgette's mistake lies, I think, in the assumption of constant parallelism between the declivity of the running stream and that of the channel in which it flows; whereas this parallelism is liable, in the case of sewers receiving branches, to continual disturbance; seeing that, while the declivity of the channel remains fixed, the declivity of the stream varies with every increase of its velocity.

Such increase of velocity is doubtless partly determined by the accelerating force of gravity, as the stream runs down the channel; but it partly, also, results from the head or momentum of the branch streams coming in, and producing a quickened flow of the resultant mass.

Hence it happens that a tunnel running full bore at the head may take in a number of collateral streams at different points of its course, without requiring any increase of its capacity; room having been made (so to speak) for the additions, by the quickened speed, and therefore diminished section of the original stream."

In the course of the debate, as reported in a paper issued from the private press of the Institution, certain experiments conducted by Mr. Medworth, under the Trial-works Committee of a former Commission, and referred to in my "Memorandum," were stated "to have cost 7,000*l*.;" "to have been tampered with and perverted, apparently with the object of fitting them to preconceived theories;" and "to have given results utterly worthless for all practical purposes."

In stating that the experiments in question cost 7,000*l*. the eminent speaker fell into an error, which I have no doubt was inadvertent, and which, I am sure, he will be the first to acknowledge and regret. The accountant of the Metropolitan Sewers Commission, to whom I referred this point, assures me that the sum in question includes the whole cost of all the experiments ever made by the Trial Works Committee, as, for instance, the sewage irrigation experiments, the street cleansing experiments, the establishment of improved kilns for the manufacture of pipes, hollow bricks, &c. besides sums expended in clothing for the men, and in other stores available for general purposes. I have requested the accountant to dissect the figures; and I shall have much pleasure in communicating the result to the honourable Institution of Civil Engineers, who, I am convinced, will readily withdraw an imputation which they will see to be groundless.

With reference to the speaker's assumption that Mr. Medworth's experiments on waterflow were "tampered with and perverted to fit them to preconceived theories," there is sufficient internal evidence in the printed results of the experiments, to exonerate Mr Medworth from this very serious charge; which must, I think, have escaped the speaker in the warmth of impromptu debate. Thus, for instance, in one of Mr. Medworth's diagrams, showing the time required to discharge 50 cubic feet of water through 100 feet of 4-inch pipe, laid at varying inclinations, and with varying heads, the velocity of discharge is seen to have increased with the declivity up to 1 in 120; but at higher rates of fall the results appear anomalous and irregular, an increase of slope from 1 in 80 to 1 in 10 giving often no appreciable improvement of the discharge. This curious, and at first sight perplexing result is, I think, susceptible of explanation; in which opinion I have the concurrence of an engineer whom I have consulted on the point, and who is profoundly conversant with this department of hydraulics. But the faithful record of anomalies so likely to excite suspicion of his care and accuracy, tends, I think, to prove that Mr. Medworth simply stated what he saw, and was too honest to "tamper" with his results.

In reply to the allegation that these experiments were practically worthless, I would point to the incontestable value of one of the results they elucidated; the only one, indeed, on which, in the paragraph quoted from my paper, I had occasion to lay stress, viz.—that a pipe, fed by branches at intervals along its course, discharges more than a similar pipe supplied only at the head.

The honourable Institution of Civil Engineers will not, I think, on consideration, deny either the fact here stated itself, or its practical bearing on the determination of the size and cost of Intercepting-sewers. These sewers will receive collateral streams at many points along their course; and it would be a waste of public money to provide in the main tunnels an amount of space equal to the collective areas of all the tributaries. A tunnel so calculated would certainly never run full; and its excessive capacity, while increasing its cost, would impair its scour, and render it more apt to silt up.

These experiments, and others of the same sort, made under the Trial-works Committee of the first consolidated Commission, though, probably, like those on which Eytelwein and De Prony themselves rely, open in some respects to criticism, prepared the way for the introduction of tubular sewers and drains, of which 380 miles, varying from 3 inches to 20 inches in diameter, are now working successfully in London, with a saving of more than 200,000*l*. cost to the public. This splendid result surely justifies the relatively trifling outlay that was incurred in the experiments which prepared its achievement.

With respect to a passage quoted in my "Memorandum" from Claudel's "*Formules*," p. 110, to the effect that De Prony's formula, when applied to a particular class of cases, gives results deviating from the truth in some instances by no less than 29 per cent. it is stated in the authorized report of the debate, that on reference to the work quoted by me, "it appeared that no such passage existed."

In reply to this grave imputation, I subjoin, in Claudel's original French, the passage referred to, of which, for convenience, I add a literal translation:—

"La formule de Prony, modifiée par les nouvelles valeurs de *a* et *b* d'Eytelwein, convient mieux au cas des grandes rivières; mais elle ne s'applique pas également bien aux quatre-vingt-onze expériences discutées par Eytelwein; ainsi, pour vingt d'entre elles, les vitesses données par la formule s'écartent de 0·11 à 0 29 des vitesses observées."—*Formules, &c. par J. Claudel, p.* 110. *Paris*, 1849.

"The formula of Prony, modified by Eytelwein's new values of *a* and *b*, applies better to the case of great rivers; but it does not agree so well with the ninety-one experiments discussed by Eytelwein; thus, for twenty of them, the velocities assigned by the formula differ from the observed velocities by from 0 11 to 0 29."

The minimum deviation here stated, it will be observed, is 11 hundredths, and the maximum, 29 hundredths, *i. e.* 29 per cent.

The report contains other charges, susceptible of equally easy refutation; but I forbear further discussion of these ungrateful themes. I will not believe these errors, authoritatively promulgated as they are, to be otherwise than inadvertent; nor will I suffer them to diminish my esteem for the engineering profession, whose many splendid works I regard as an honour to our country. The engineers, on their part, will not I hope take amiss my brief refutation of charges, reflecting not only on my own character, but also on that of the Commission to which I have the honour to belong.

F. O. WARD.

A FEW THOUGHTS ON THE STATE OF THE FINE ARTS IN ENGLISH SOCIETY.

IT is a theme, I believe, often played upon by our continental neighbours, that the English, as a nation of shopkeepers and contractors, have no taste for the fine arts. As an Englishman, and one professionally engaged in one branch of the fine arts, I feel a pang of regret come over me, because it is in a great measure true. Should any one doubt this, I would advise him to do as I have done, viz. go to the fine art corridors of the British Musum, the National Gallery, and the Architectural Courts of the Crystal Palace, and watch the visitors, and listen to the remarks of the varied groups who come and depart, and he will then find that two-thirds of the number will either excite his pity or contempt, and in many instances both. The ignorance of the concatenation and history of art, together with the elements that constitute the really beautiful in a work of art, be that art architecture, painting, or sculpture, is often as great in the educated gentleman as in the unlettered ploughman. This is a defect wofully seen in the greater portion of the middle classes of society, thus proving that the defect is owing in a great measure to our systems of education, in which the fine arts are almost universally left in the back-ground, as if they were some dry philosophic lore. If we turn to our mechanics' institutes, our literary and scientific institutions, scattered throughout the length and breadth of our land, what do we find the general tone of their lecture-lists to be? Alas! far from what they ought to be. They are generally replete with lectures of mere amusement, a scientific lecture being the exception. I have seen many in the western, eastern, midland, and southern counties, and such has been my experience. Their various committees seem to pander to the public instead of endeavouring to elevate it—to raise the higher and intellectual portions of our nature to their proper position. To accomplish this is no mean object; but this is the mission of the fine arts to

"This dim spot which we call earth."

Truly is the ark of science and the fine arts afloat on some unknown sea, and we can scarcely trace her course through the clouds which every way gather round her.

Music for some has no charms: poetry for others has no perspicacity or beauty: the sublime conceptions displayed in a great painting, to some are a dead letter: to others, the Minerva of Phidias would be no more than a mere mass of marble, carved into the shape of the human figure; or perhaps the beauty of the marble would excite more of their attention than the grandeur of art displayed in the proportional parts, and the exquisite beauty of the anatomical portions; whilst in the other, the vivacity of the colours raise the value of the picture more than the genius evinced in its conception. But on by far the greater number, the lines of beauty conveyed by architecture in living representations to the soul, rest there as if in the soul of an automaton.

"Surely the time shall come
When this fine overplus of might,
No longer sullen, slow, and dumb,
Shall leap to Music and to Light."

So sang the poet, and shall it not be so? Of a truth the fine arts shall yet ascend to their proper position in the scale of our being, for their study cannot fail to lead our minds

To truth's eternal source,

and enable us more and more to glorify the Almighty Creator of the Universe.

F. E. D.

BUILDERS AND THEIR TENDERS.

Burial-Board Equity.—The Portsea Burial Board, anxious doubtless to do their duty to the ratepayers who are their constituents, by getting the chapels and other works at their new cemetery erected at as reasonable a rate as possible, advertised for tenders to that effect, and obtained ten separate offers, ranging in amount from 4,516*l*. to 3,605*l*. 12*s*. The right man not appearing on this list to be in the right place, the Board directed the cards to be shuffled again, on the ground that the sum total must be reduced as much as possible, by the omission of something that could be dispensed with, as well as by the competition of the tenderers themselves, eight of whom were accordingly again applied to for new and reduced tenders. Four of those applied to do not seem to have thought it prudent or worth while to waste any more time, so that four only of the original tenderers remained to be dealt with. Now it so happened that the lowest tenderer on the first list was also the lowest on the last, and that accordingly, having thus doubly committed themselves, by a special and formal second request that he in particular *would* tender, thereby foreclosing themselves from all pretence of rejection on the score of insufficient respectability or anything else objectionable on the part of the tenderer, Mr. Callaway,—the Portsea Burial Board were of course bound, in honour to themselves as well as in justice both to their constituent ratepayers and to their tenderers, to accept the terms on which Mr. Callaway had thus twice secured the preference. Nevertheless, this only fair and honourable way of settling the matter was not taken. The tendering firm who stood the highest, on the first list, of all the four who latterly re-tendered, were the favourites of fortune. The amount of their first tender was 4,200*l*. The amounts of reduction made by the other three tenderers of the second order were

respectively 663*l.* 10s., 515*l.*, and (Mr. Callaway's), 501*l.* 8s. The firm who were destined to have the preference, right or wrong, made a strong effort certainly to deserve it, for they cut off 1,025*l.* from their first tender: still, however, they stood 70*l.* short of the mark, and it remains for the Portsea Burial Board to explain to their ratepaying constituents why they chose to make a clear present of 70*l.* out of the ratepaying pockets to any favourite of their own.

Withdrawal of Tenders.—Messrs. Faudell and Co. complain that, having received tenders from four well-known builders, varying from 1,100*l.* to 417*l.* for certain proposed alterations, the firm who made the lowest tender have since declined to ratify the contract: they wish to know the custom on this point and our opinion. Although not a desirable proceeding, it seems to us there are various circumstances which might justify such a course. If, as in this case, for example, the parties tendering discovered an important error in their calculations before entering into *mutual* engagements, we should certainly not think it dishonourable if they declined to proceed farther. What the legal position of the parties may be we cannot say: this would depend on the special facts of the case.

THE ART-UNION OF LONDON ILLUSTRATIONS.

THE volume of "Illustrations of Childe Harold" produced by the Art-Union of London (to a copy of which *every* subscriber of the current year is entitled, in addition to an engraving after Chalon), is by far the best set of wood engravings yet issued by that Society; in fact, it would scarcely be too much praise if we said it is the best thing of its kind yet done. It contains thirty designs by Ansdell, Cope, R.A., Corbould, Dodgson, E. Duncan, Faed, James Godwin, F. Goodall, A.R.A., Gilbert, Holland, Hulme, Hart, R.A., Leitch, Lake Price, H. C. Selous, Tenniel, and Wehnert, and a portrait of the poet. The engravers are Messrs. J. L. Wiliiams, Dalziel, J. Thompson, W. J. Linton, W. Measom, H. D. Linton, W. T. Green, F. J. Smyth, and M. Jackson. Many of the designs are remarkable for a poetical feeling and sentiment not often found in wood engravings; take, for example, the "Bridge of Sighs," by Mr. Lake Price,

"A palace and a prison on each hand;"

the Hall of the Childe's Father, by Mr. Hulme, bathed in a flood of moonlight; Mr. Faed's Rustics gazing after a departing Son (though a reversal of the lines quoted); and Mr. Ansdell's illustration of,—

"Then to the dogs resign the unburied slain,
Then to the vulture let each corse remain."

Mr. Leitch's Storm amongst the Mountains,—

"With night, and clouds, and thunder, and a soul
To make these felt and feeling;"

Mr. Tenniel's Baronial Feud, where love,

"Through all the mail of iron hearts would glide;"

Mr. Wehnert's "Tasso,"—

"Hark to his strain! and then survey his cell!"

and Mr. Duncan's rendering of the magnificent apostrophe to the sea, beginning—

"Roll on, thou deep and dark blue ocean—roll!
Ten thousand fleets sweep over thee in vain;"

all demand more than ordinary admiration.

Mr. Cope illustrates The Departure,—

"The sails were filled, and fair the light winds blew;"

Mr. J. Godwin,—

"Maidens, like moths, are ever caught by glare;"

and Mr. Hart, "Blind Old Dandolo," and "The starry Galileo."

We must add, that Mr. Murray is preparing an edition of the poem, in 4to, expressly for the use of those members who may desire to bind up the text with the illustrations of which we have spoken.

Notices of Books.

VARIORUM.

"THE Golden Colony; or, Victoria in 1854," is a neat little book by Mr. G. H. Wathen, known to our readers as the author of "Arts, Antiquities, and Chronology of Ancient Egypt." The present volume (published by Messrs. Longman and Co.) embodies much interesting personal experience in the colony and among the gold-diggers, from the first dawn of the golden sun of Australia down to a recent period. It is illustrated with original sketches, by the author, including some characteristic traits of the "diggins;" and also contains remarks on the geology of the Australian gold-fields, with maps, &c. The whole forms a pleasant as well as instructive compendium, both for emigrants and for those who have no intention to emigrate.——"Fenn's Compendium of the English and Foreign Funds," &c. is a reliable work, revised and re-edited by Mr. H. Ayres, the editor of the *Bankers' Circular*. It contains a large mass of information as to the funds, debts, and revenues of all nations, banks, railways, mines, and joint-stock companies, forming in all an epitome of the various objects of investment and speculation negotiable in London; with explanatory tables, and stock-exchange regulations. The present is the fifth edition, but though nominally Fenn's, it is really Ayres's as much as if it had been an old building, comprising valuable building materials, re-erected into a new and more extensive mansion. With the date 1855 on the title-page, however, we ought not to meet with a slip such as the following, touching the 3½ per cent. annuities. "The present rate of interest on this stock is to continue until the 10th of October, 1854, and then to be reduced to 3."——Messrs. Trübner and Co. of Paternoster-row, have just issued in this country the Boston "Annual of Scientific Discovery, or Year-book of Facts in Science and Art for 1855;" edited by Mr. D. A. Wells, A.M. Those who possess the previous volumes of this valuable annual will be glad, we are sure, to know that a new one is now in store for their perusal.——"Mensuration made easy; or, the Decimal System for the Million, with its Application to the Daily Employments of the Artizan and Mechanic," is a shilling tract published by Mr. Wilson, of the Exchange, and prepared by Mr. C. Hoare. It seems to do justice to its title, and is simple and intelligible.——Mr. J. J. Scott, Barrister-at-Law, has had published by Knight and Co. Fleet-street (the publishers to the General Board of Health), two useful little volumes, or tracts rather, one a manual for the Clerk to a local Board of Health, containing directions and instructions as to his appointment, duties, responsibility, &c. so that any one who wishes or requires to look into the duties of such an office can now do so without wading through various tedious Blue Books, or Parliamentary Acts. The other is a "Guide for Burial Boards," under the Metropolitan and Local Burial Acts, with respect to fees and charges for interments, monuments, &c. with all the sections of the Acts relating to the subject, and various scales of fees charged by burial boards, both at home and abroad, and miscellaneous information thereon.——Mr. S. C. Gant, C.E. Engineer and Surveyor to the Merthyr Tidvil Local Board of Health, has had published by Messrs. Longman and Co. and Knight and Co. "Notes and Queries on the Public Health Act, 1848, with Suggestions for a new Bill." The object of this pamphlet is simply to direct the public attention to the difficulties experienced in the working of the Act. Mr. Gant is of opinion that local Boards of Health should be virtually General Improvement Commissioners as well as trustees for the public health.

Miscellanea.

NORTH BIERLEY UNION WORKHOUSE COMPETITION.—The competition for the North Bierley Union Workhouse, was decided on Monday last in favour of Messrs. Lockwood and Mawson, architects. The building is for the accommodation of 400 inmates, properly classified according to the requirements of the Poor Law Board, with every requisite convenience suitably arranged for each class of inmates, and a detached infirmary for the accommodation of 50 patients. The elevation is in the Italian style of architecture. There were 15 competitors, and the plans of Mr. Milnes, of Bradford, obtained the next number of votes.

PATRIOTIC FUND ART EXHIBITION AND SALE.—An influential list of patronesses and patrons has been formed for the purpose of obtaining a collection of Works of Art, by artists and amateurs, for exhibition and sale; the amount so raised to be applied to the relief of the widows and orphans of British officers, who may fall in the war with Russia. The exhibition will be open in the last week in March (the current week of this announcement) at the Gallery, 121, Pall-mall. All the contributions were to be sent in by the 16th inst. By Her Majesty's special permission, the Princesses will contribute drawings and other of their works. If they are as good as some we have accidentally had a sight of, they will be eagerly sought for.

NEW DETACHMENT OF NAVVIES.—A body of 2,000 "navvies," says the *Times*, is going out to the Crimea, to do all that digging and trenching work which, rough as it may seem, requires as much apprenticeship as a soldier's proper trade. The soldier, for the future, is to be reserved as much as possible as the fighting man. These "navvies" are to be victualled by contract: they take out their own horses, their own chief, Mr. Cochrane, who did most of the work of the Crystal Palace at Sydenham under the contractors. It is a great experiment in the work of commissariat, and, as civilians are the subject of it, it is endured in military circles.

EDINBURGH ARCHITECTURAL INSTITUTE.—At a meeting of the Institute, held on Thursday night, in their hall, George-street, Mr. M. Rhind in the chair, Mr. D. R. Hay read a paper, in which he touched on the present state of the fine arts in connection with science, and threw out a number of striking views in relation to the laws which govern architectural proportions. A discussion followed, in which the chairman, Mr. Cousins, Mr. Peddie, and Mr. Ballantine took part.

A CAMP IN IRELAND.—Messrs. Courtney and Stephens, of Dublin, have received government orders for the erection of 450 huts and stables for a camp about to be formed on the Curragh of Kildare. The work was to be completed in sixty days from Wednesday before last, and if before a premium to be granted. The contractors are employing upwards of 600 men, 450 of them carpenters. It is said to be estimated that the contract will amount to 40,000*l.*: this would be equivalent, however, to about 90*l.* a hut, so that unless these and the stables are very large and extensive, there must surely be some mistake in the amount of estimate named.

THE NEW CONSUMPTION HOSPITAL IN VICTORIA PARK.—The visitors to the Victoria-park will have remarked a stately edifice at its south-eastern angle. This is the new Consumption Hospital, of which the foundation-stone was laid by Prince Albert, in 1851, and which now, after a long delay, occasioned by a deficiency of funds, is about to be opened. It appears that the building has cost about 21,000*l.*

THE MARYLEBONE EXTRAMURAL CEMETERY has been consecrated. According to the daily papers, the St. Marylebone Extramural Cemetery is situate at East End, in the parish of Finchley, and is in extent about 26 acres. It possesses a frontage to the public road, and is about half-a-mile distant from the cemeteries of St. Pancras and Islington, the consecration of which took place in July last. The cemetery is entered beneath an arched gateway, and a circular carriage-drive leads to the Episcopal Chapel, situate midway between the entrance and east lodges. The church is of a cruciform character, with open bell-turret and spire on the nave or western gable, 70 feet in height, strangely placed, if the view we have seen be correct. On each side of the entrance, entered under cover of the church, are waiting-rooms and conveniences for persons in attendance on funerals. The edifice is pewed to accommodate 120 persons. The roof is open. The architects are Messrs. Barnett and Birch, and the builders are Messrs. Higgs and Cullingford. The total expenditure, including the purchase of the land, is said to be about 20,000*l.*

MASTERS AND MEN.—At an entertainment recently given by the Westminster Marble Company to their workmen, it was stated that in connection with the marble works, Mr. Hartley had established a Masons' College for the improvement of his apprentices. During the past year, a statistical account has been kept of those residing in the college and those residing out: the result shows that the out-door apprentices have lost in value of time 42*l.*; whilst the indoor apprentices of the same number have lost 11s. only.

THE PARIS EXHIBITION. — The department of Science and Art have published a report on the results of the preliminary measures adopted for transmitting works of industry and art to the Paris Universal Exhibition. It seems not to include the section of Fine Arts. Mr. Henry Cole, C.B. will have the general superintendence on the part of England.

BALMORAL.—Allow me to express to you the pleasure I have derived from inspecting the plan in the *Builder* of Her Majesty's new palace at Balmoral. It is quite a treat to an old Jacobite Scotsman, even though he is now a resident in Canada, to learn that a royal palace is in progress of erection in the highlands of Scotland. I will not criticise the building, but am impelled to notice what appears to me a strange omission, viz. that no provision seems to be made for a chapel. That a royal palace, in the nineteenth century, should be erected for the head of the English Church, without a chapel for domestic use, wherein the sacred rites of the distinctive religion which Her Majesty so solemnly professed at her coronation may be decently and reverently celebrated, does seem to me a strange omission.

AN OLD SCOTSMAN.

Cobourg, Canada West.

THE LATE JOHN MARTIN'S PLANS FOR IMPROVING THE THAMES.—We have had more than one inquiry concerning the plans designed and prepared at so much cost of thought and money by the late Mr. John Martin for the improvement of London; and one writer is under the impression that they are in the hands of some who have no right to them. We find, however, that the drawings are all in the safe keeping of Miss Martin, the painter's daughter, who, more than any one else, aided her father for years in setting forth his views, and bringing them under the notice of persons interested in the matter.

GRATUITOUS ARCHITECTS.—A building committee required the assistance of a professional architect in the decision of some plans sent in through the public competition. But being in want of a job, he proposed that he should be the architect *gratuitously*, and his services were accepted on these conditions. Now, is it usual for the gratuitous architect to receive a bonus or a per-centage from the contractors? and if so, at what per-centage, so that it can be added to the contract? Secondly, is it usual for a professional gentleman so placed to take into his care certain plans, in order (as the secretary said) to cull some ideas from them; and that after keeping the drawings about six months, they should be returned, without even thanks, in not the most cleanly state?—A. B. C.

ST. GEORGE'S, SOUTHWARK.—RUINOUS BUILDINGS.—Mr. Combe is clearly wrong in not allowing the expenses of hoarding to the overseers. The wording of the Act is explicit, as are also the obvious intent and meaning of the same. Mr. Day should at once proceed by requisition to the official referees, requiring them to determine the liabilities or non-liabilities in question by award under their seal. The Act provides that all matters of doubt, dissatisfaction, and dispute, may be referred to them (sec. 82). Such a course is more clear, than to call upon a police magistrate to interpret the complicated points arising under the Buildings Act. A real Metropolitan Buildings Court is what is wanted.—FIAT JUSTITIA.

THE IRON FOUNDRY TRADE.—Mr. Edington, of Glasgow, gives the following list of contracts likely to be given out during 1855:—Water-pipes for Melbourne; water-pipes for Litchfield, Walsall, Wednesbury, Bilston, Darlaston, Willenhall, Sedgeley, Tipton, West Bromwich, Rowley Regis, Dudley, and Old Bury; chairs, &c. for the Rhymney Railway Company, South Wales; water-pipes for Hamilton, Canada West, and other towns in Canada; additional chairs, waggon wheels, axles, &c. for Nova Scotia Railway Company; chairs, &c. for extensive railways in South Australia; iron cannon, shot, gates, railings, &c. for East Indies; water-pipes for Loch Katrine scheme; additional quantities of cast-iron cannon, mortars, shot, and shells, for the Government; gas-pipes, &c. for Calcutta, Valparaiso, Liverpool, Haverhill, Beccles, &c., water-pipes for Wallasey, Grantham, Grimsby, Kelso, Beccles, Halifax, &c.; additional railway chairs for the East-Indies and Canada.

NASH AND JEWELL'S SAFETY SASHES.—This appears to be a very practicable arrangement for the purpose of preventing accidents during the cleaning or painting of upper windows. The inventor claims for it, that the sashes may be reversed with the greatest ease by the most inexperienced servant, and the outside of the window cleaned with perfect safety, and with a great saving of time; that they present the same appearance as the ordinary hanging sashes, and are perfectly air-tight, and free from any possibility of shaking, as they act by means of springs, instead of balance-weights and lines; that the whole space of the window may be opened to afford full ventilation; and that old sashes may be altered to act on this principle without disturbing the frames.

DRAINING THE GASES FROM SEWERS.—A report from Mr. Gurney, on his experiment for draining the noxious gases from the sewers in the neighbourhood of the Houses of Parliament, recently published, asserts that perfect success in this respect has attended the use of the steam jet, and that the gases were decomposed.

LIMITED LIABILITY IN PARTNERSHIP.—Lord Palmerston has announced his intention to bring a Bill before the Commons on this subject.

THE CONSERVATIVE LAND SOCIETY.—At the tenth quarterly general meeting of the members of this society, held on Wednesday, the 14th inst. the accounts showed an excess in the receipts of the quarter. The gross receipts up to the date of the report were 163,509*l.* 19s.; less withdrawals, 152,730*l.* 6s. 4d. The total number of shares issued to March 10th was 10,729. The returns of the sale of land showed the following results:—

	£.	s.	d.
From Michaelmas to Christmas, 1854	2,985	0	0
From Christmas to March 10th, 1855	7,892	10	0
Total land sold in less than 6 months	10,877	10	0

The total sold during the operations of the society amounted to 102,994*l.*

THE COLOSSEUM, REGENT'S-PARK.—When the Colosseum, in the Regent's-park, with the Cyclorama, in Albany-street, were put up to auction, at the Auction Mart, by the Messrs. Winstanley, the other day, the auctioneer stated that the Colosseum was erected after a design by Mr. Decimus Burton, at a cost of 23,000*l.* for Mr. Thomas Horner, who held a lease of it direct from the Crown, at a ground rent of 262*l.* 18s. for a period of ninety-nine years, sixty-nine of which were unexpired on the 10th of October, 1854. He subsequently expended above 100,000*l.* to carry out the objects for which it was intended, by decorating the interior, purchasing the pictures, &c. In August, 1836, the lease was sold to Messrs. Braham and Yates. Mr. Braham laid out about 50,000*l.* on the building, which in a few years afterwards became the property of Mr. Turner, who added the Cyclorama, which cost 20,000*l.* to the establishment, with many decorations, which cost several thousand pounds, so that the entire edifice has cost above 200,000*l.* The sum of 20,000*l.* was bid, but as this was below the reserve price, the property was not sold.

FALL OF BUILDINGS.—Accidents of this kind have been rather frequent of late. During Saturday night before last, according to the local papers, a portion of two of the arches of the west end of the New Market House, at Bolton, fell to the ground. The fourth pillar from the west end, and the third from the east, had sunk at the foundation two feet, thereby causing the fall of the arches of which it was the support. The fall is about 52ft. by 42ft. The iron pillar which supported the beam for the roof snapped at the top, and fell into the vault with the ruins of the arches, and the adjoining pillar to the west was also broken by the weight suddenly thrown upon it; but the heavy iron beam which rested on the fallen pillar remained in its position, though much strained for want of support.——Between 30 and 40 yards of the outer north wall of the General Prison of Perth, lately fell, and by the *débris* the South Inch lade was dammed up, and the water thrown upon the Inch. The cause of the fall was owing, it is said, to the water in the lade having undermined the foundation of the wall.——At Glasgow, on Friday before last, a chimney stalk, 80 feet in height, at Townhead, fell to the ground, in consequence, as is believed, of some operations at its base having undermined the foundation.——About 48 feet of the Holywell Tunnel, on the Wilts, Somerset, and Weymouth Railway, went down on the 4th instant. The other part of the tunnel stands good. The cause of the accident was the undermining of a pond, the water weakening the work. The damage is estimated at 1,000*l.* which will have to be borne by the contractor.

STRIKES.—In consequence of a depression of certain branches of trade in the northern towns, the masters have been reducing wages, more especially builders and joiners. In November last, the North and South Shields master masons and joiners gave notice of a reduction of wages from 30s. to 24s. during winter. The men refused such terms, struck work, and, except a few engaged fitting up iron steam-ships, have remained idle ever since. The master painters of Sunderland having given notice of a reduction of wages from 27s. to 24s. the men have refused to accede. We learn that the masons, plasterers, and bricklayers of Hartlepool have resolved to strike for an advance from 24s to 27s. a week. The puddlers at large iron works at Middlesborough, turned out on notice of reduction; but after striking a fortnight, have returned to work. The fortnight they were out, they lost, it is said, 6,000*l.*; and though several had been earning 10s. to 20s. a day for a considerable time, they were quite unprepared for a prolonged strike, as in the second week they were soliciting aid from fellow-workmen.

THE ROYAL ACADEMY.—Mr. E. M. Ward has been elected an Academician: a better choice could not have been made.——Professor Hart's Lectures on Painting are being published *in extenso* in the *Athenæum*, and well deserve study.

THE PUBLIC LIBRARIES AND MUSEUMS' BILL.—This Bill, as amended in the committee of the whole House, has been printed. As it now stands, the overseers of the poor are to call public meetings to determine on the adoption of the Act, ten days' notice to be given. The list of articles for the libraries now includes books, newspapers, maps, and specimens of art and science.

THE LATE MR. GEORGE PAPWORTH.—We regret to have to announce the death on the 14th (Wednesday), of Mr. George Papworth, of Dublin, architect, Member and Treasurer of the Royal Hibernian Academy, aged about 75. We shall shortly illustrate one of his most recent works.

TENDERS FOR HOUSES AT HOLLOWAY.—The tenders for four fourth-rate houses at Holloway, for the Equitable Building Society, ranged from 973*l.* (Baker), to 769*l.* (Charles Warr), which latter was accepted.

ST. MARYLEBONE.—In a map published in 1742, the diminutive church of St. Marylebone is shown detached from London, with two zig-zag ways leading to it, one near Vere-street, then the western extremity of the new buildings, and the second from Tottenham-court-road. Rows of houses, with their backs to the fields, extended from St. Giles's-pound to Oxford-market; but Tottenham-court-road had one cluster on the west side, and the spring-water house. The zig-zag way above mentioned, near Vere-street, still retaining its original name of Marylebone-lane, was the communication between the high road and the village. A friend, born in 1780, remembers his father and mother relating how they walked out *through the fields* to be married at Marylebone Church.—*Timbs's Curiosities of London.*

COLOURING.—He who first developed the harmony of colours, out of the systole and diastole to which the retina is formed, this synkrisis and diakrisis, as Plato would call it, was the discoverer of the principles of colouring.—*Goethe.*

TO PREVENT PASTE FROM GETTING MOULDY.—A correspondent, "W. L." asks us for a recipe as to this matter, which he reminds us appeared in the *Builder*. We have no time to search for it; but would be glad to have a recipe anew from some one who can give it. If we mistake not, alum and finely pounded resin are used, as also some spirit or essence.

"NATURE-PRINTING."—Mr. Smith, of Auchterarder, a chemist, is said to have discovered a means of transferring the impressions of natural objects to glass with minute accuracy.

SURVEYOR FOR WEST HARTLEPOOL.—Mr. Smith, of Bingley, has been appointed surveyor and inspector of nuisances for West Hartlepool, at a salary of 120*l.*

WHAT ARE THE BUILDERS AT?—The following tenders have been delivered for finishing four houses, situate in the Drive, St. German's-park estate, Forest-hill. Mr. William Purdue, architect:—

Dove and Co.	£1,025	0	0
Colls and Co.	989	0	0
Thomas Nash	945	0	0
Richard Case	777	0	0
W. H. Unwin	737	0	0
J. Bishop	688	0	0
W. T. Thorpe (accepted)	618	0	0
H. Hughes	328	13	2

Z. Z.

TENDERS

For offices in Turnwheel-lane, Cannon-street. Mr. R. W. Wright, architect. Quantities supplied:—

		Allowance for Old Materials.
Lawrence and Sons...	£5,200	... —
Piper	5,100	... —
Fox	5,100	... £400
I'Anson (accepted)	4,768	... 200

For building two of a group of schools, with master's house, for the district of St. John's, Deptford. Mr. Peacock, architect:—

Myers	£2,965	0	0
Colls and Co.	2,750	0	0
Rudkin	2,689	0	0
Searle	2,541	0	0
Todd	2,443	0	0
Wilson	2,399	0	0
Higgs	2,388	0	0
Piper	2,364	0	0
Constable	2,300	0	0
Wells	2,295	0	0
Thompson	2,230	0	0

For building a sea-wall and forming an esplanade and approaches; for the commissioners of the town of Ryde. Mr. Francis Newman, town surveyor:—

Lee and Lavers, London	£5,937	0	0
Diggle, Gosport	4,000	0	0
Bushby, Littlehampton	3,910	0	0
Croft, Southampton	3,736	10	0
Bennettand Holdsworth, London	3,665	0	0
Kingswell and Booker, Godshill, Isle of Wight	3,986	0	0
Dashwood, T. and J. Ryde	2,559	0	0
Harbour, Ryde	2,531	0	0
Meader, Ryde	2,350	0	0
Cutler, Ryde	2,190	0	0
Langdon, Ryde (accepted)	1,188	0	0

TO CORRESPONDENTS.

"T. E." in most of the principal London establishments the men both out and in-doors leave off at four o'clock on Saturdays, and are paid as if they had worked the ten hours). "W. P."—"Dr. G."—"J. E." (comment does not seem necessary!)—"R. R. R."—"J. E."—"C. F. D."; we shall notice the factory.—"T. W."—"G. S."—"J. B."—"W. S."—"R. M. S."—"Subscriber."—"C. S."—"A Poor Man."—"J. B. P."—"J. D. P."—"J. B. B."—"Mr. W."—"C. M. I." Daly's *Revue Generale de l'Architecture*.—"Inaccuracies."—"F. and P."—"M. A. A." (shall appear).—"W. P." (should obtain prospectus of the shutters in question and judge for himself).—"Dr. C."—"A Reader" (house shall be looked to).—"R. M. M."—"Judex."—"W. O. Jun."—"Mr. H."—"F. N."—"F. M. N." "Anti-Observer."—"P. and N."—"J. M."—"F. and H." (thanks).—"An Architect."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

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MR. WILLIAM HODSOLL is instructed by Sir P. H. Dyke, Bart Wm. Waring, Esq. and others, to SELL by AUCTION, at the Bull Inn, Dartford, on FRIDAY, MARCH 9, at THREE, 1300 excellent OAK TIMBER TREES, many of them being very large dimensions, now standing and growing in various woods in the above parishes, together with their lop, top, and bark; 300 capital oak trees, felled, mostly of large sizes, 43 fine elm trees, five ash-trees, recently felled, and six large walnut-trees, rubbed; also, 1,049 oak tellers, standing, and 650 firs, felled. Nearly the whole of the timber is adjacent to good roads, and may be readily removed. The woodmen, who will show the timber, are all named in the catalogues, which may be had ten days previously, at the inns in the above named and adjoining parishes; also Greenwich, and Woolwich, Deptford, Rotherhithe, Bromley, Sevenoaks, and Gravesend; at the Place of Sale; and of the Auctioneer, &c. Farningham, Kent.

MARBLE.—To Sculptors, Masons, Builders, and Others.

MESSRS. THOMPSON and HOLMES will OFFER by PUBLIC AUCTION, on MONDAY, 2nd day of APRIL next, at TWELVE for ONE o'clock, at their WHARF, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall Bridge, about ONE THOUSAND TONS OF MARBLE, consisting of Statuary, Sicilian, Veined, Black and Gold, Dove, Bardilla, Emperor's Red, St. Anny's and Irish Black, of the finest quality and sizes. Also about 10,000 superficial feet of English and Foreign cut SLAB.—May be viewed previous to the Sale, Catalogues and further particulars had of the Brokers, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall Bridge.

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DRAWING, MODELLING & CARVING, &c.—A Person of good address, about 40, a good, quick, ornamental draughtsman and modeller; has spent some years in making designs, plain, perspective, and working drawings, for ironwork, masonry, and cabinet furniture; is a practical marble, stone, or wood carver, has been much engaged in the two former lately; can keep books by double or single entry; is a fair accountant; is willing to take to the shop, office, or road; can find security, give the most unexceptionable references both as to character and ability, and will be at liberty on 25th March. Terms moderate. South of England preferred.—Address, M. S. Y. Post-office, Shrewsbury.

CIRCULAR SAWING.—An experienced WORKMAN in Ivory and Hard Wood, and having some working tackle of his own, requires EMPLOYMENT. Has a knowledge of fixed steam-engines, of accounts, and of the French language. The first references.—Address, D. H. 5, Clarence-road, Kentish town.

TO BUILDERS, &c.

A PRACTICAL, middle-aged Person, thoroughly proficient and experienced in measuring, estimating, taking out quantities, and the ordinary duties of a builder's office, is desirous of an ENGAGEMENT.—Apply to H. E. 31, Coleman-street, City.

TO ARCHITECTS.

A PRACTICAL CLERK of WORKS wishes a RE-ENGAGEMENT.—Address, J. C. Office of "The Builder."

TO BUILDERS.

A PRACTICAL STAIRCASE-HAND is open to a RE-ENGAGEMENT in town or country. Piecework preferred. Satisfactory references given. -Address, T. K. No. 11, Draycott-street, Chelsea.

A BUILDER'S CLERK, of middle-age, and of very considerable experience in measuring, estimating, and bookkeeping, is open to an ENGAGEMENT, or to undertake the routine of duties, where one person only is employed. He is of irreproachable character.—Address, A. Z. 8, Twyford-street, Caledonian-road, Islington.

TO ARCHITECTS, &c.

AN Artistic Colourist, Draughtsman, and Designer, OFFERS his SERVICES in the preparation of Perspective Views, with landscape and figures, also in general drawing, on moderate terms.—Address, A. Z. 51, Denbigh-street, Belgravia.

AN ARCHITECT'S ASSISTANT, who thoroughly understands every branch of his profession, and has been employed by some of the first Architects, is desirous of a RE-ENGAGEMENT in the above capacity. -Address, F. H. 2, Shawfield-street, King's-road, Chelsea.

TO LAND SURVEYORS AND CIVIL ENGINEERS.

A RE-ENGAGEMENT required by a thorough experienced and practical SURVEYOR, competent to take the sole management of any survey, either of town or country. The best of reference will be given. For further particulars, address Y. Z. Town Surveyor's Office, Burton-on-Trent, Staffordshire.

A CIVIL ENGINEER, of considerable experience on railways, offers his services to any Engineer or Contractor in want of assistance on Foreign Railway or other Works. Is a good surveyor, draughtsman, can design, or take out quantities, and has had several lengths of railway under his charge during construction.—Address, R. X. Post-office, Sydenham, Kent.

TO ARCHITECTS.

A GENTLEMAN, possessed of considerable professional attainments, who is, moreover, an artistic draughtsman, is desirous to occupy the WHOLE, or a PORTION of his TIME,—preferred with a view to Partnership.—Address to W. G. B. 59, Stanley-street, Eccleston-square.

AS IMPROVER.—A Gentleman, well acquainted with construction, a good draughtsman, and accustomed to take out quantities, wishes for more experience in house and street architecture, and is therefore willing to make arrangements with any architect or builder of considerable practice who may require temporary assistance. Aged 30 years.—Address O. C. at Mr. Hailes', Stationer, Leadenhall-street, City.

TO ARCHITECTS.

A PRACTICAL CLERK of WORKS wishes a RE-ENGAGEMENT.—Address, J. COLEMAN, Clerk of the Works, Guildford Militia Depôt.

TO ARCHITECTS.

A GENTLEMAN who, under several eminent Architects, has had considerable experience in preparing working drawings, specifications, &c. especially of Gothic work, desires a RE-ENGAGEMENT.—Address, A. B. 112, High Holborn.

AS CLERK of WORKS.—An experienced Clerk of Works is open to an ENGAGEMENT. The highest references given.—Address K. L. Office of "The Builder."

TO ARCHITECTS, CIVIL ENGINEERS, AND OTHERS.

A YOUNG MAN, well educated, desires a RE-ENGAGEMENT. He is a good architectural draughtsman, a ready accountant, can map, plan, and take out quantities, and is thoroughly acquainted with book keeping, and the principles of levelling and surveying. Salary moderate.—Address A. C. Messrs. Hookham's Library, Old Bond-street.

TO BUILDERS AND OTHERS.

AS CLERK or TIME-KEEPER.—WANTED, by a respectable Young Man, a SITUATION as above. He is thoroughly acquainted with taking men's time, and booking materials, understands figures and accounts, can copy or trace drawings.—Address to W. M. G. Office of "The Builder."

TO BUILDERS, CONTRACTORS, AND OTHERS.

A PERSON who has had great experience has two or three days a week disengaged, and would be happy to offer his services to make estimates, measure up works in progress or finished, or assist in making up accounts. Any Builder or Contractor whose accounts are in arrear would find him capable of wading through almost any difficulty, and he can introduce a most perfect and simple method of keeping their accounts.—Address in the first instance, to No. 225, at the Office of "The Builder."

AN experienced man, with good references, is open to an ENGAGEMENT with a Surveyor or Builder, as FOREMAN or CLERK of WORKS.—Address, K. H. care of Mr. J. Rowell, 19, Raphael-street, Trevor-square, Knightsbridge.

PARTNERSHIP.—An Architect and Surveyor of long standing, in a rapidly increasing town, on the south of England, is desirous of taking into PARTNERSHIP a gentleman who will not object to undertake the more active part of the business.—Apply, by letter, addressed G. H. care of Messrs. Job and Co. Wellington-chambers, Cannon-street West, London.

WILLIAM BATLEY, Engineer and Boiler Maker, Northampton.—Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts apply as above.

DO YOU BRUISE YOUR OATS YET? or, HOW TO KEEP A HORSE FOR ONE SHILLING PER DAY.—One bushel of Oats when crushed will make two.—Great saving. OAT BRUISERS, Chaff Cutters, Ploughs, Thrashing Machines, Flour-mill Carts, Corn-dressing ditto, Horse and Steam Machinery, put up, &c.—M. WEDLAKE, 118, Fenchurch-street.—Book on Feeding, 1s.

THE GOODWILL of an established BUSINESS of a Carpenter, Builder, and Undertaker to be DISPOSED OF, on account of the proprietor going abroad. Also the leasehold interest in the LEASE of the capital business PREMISES and RESIDENCE, which comprises three sleeping rooms, parlour, kitchen, washhouse, store-room, &c. a large, light workshop, counting house, sheds, good timber-yard, and every convenience for carrying on the above business. Held for an unexpired term of 16½ years, at the low rent of 15l. per annum, Premium moderate. For further particulars, apply to Mr. CAIN, Auctioneer and Estate Agent, Richmond.

TO ARCHITECTS AND SURVEYORS.

TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place – For particulars, address, S. S 9, Studley-terrace, Larkhall lane, Stockwell, Surrey.

FREEHOLD LAND.—To Builders or Parties wishing to Build Suburban Residences.

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—

Forest-hill, Croydon Railway.
St. Margaret's, near Richmond, South-western Railway.
Oatlands Grange, Weybridge, Surrey, ditto
Tottenham-green, Eastern Counties Railway.
Putney, South-Western Railway.
Rectory Estate, Ealing, Great Western Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
Wood-green, Green-lanes, Hornsey, Great Northern Railway.
Old Ford, Stratford, Eastern Counties Railway.

Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of house, to the extent of One acre, can be obtained. On the two first estates, large pleasure-gardens are allotted to the freeholders or tenants of houses. Part of the purchase-money may remain at 6 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge for about ten years less in amount than the ground-rent of the same under the usual system. In addition, therefore, to the amount to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building lease. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

TO BE SOLD, within a few minutes' walk of the Kilburn Station, on the North-western Railway, and immediately adjacent to the intended line of the Hampstead Junction Railway, about EIGHTEEN ACRES of COPYHOLD LAND, having a frontage next Willesden-lane of more than 800 feet. The estate, which is beautifully situated, is at present let to a yearly tenant, and immediate possession may be had. The soil is capable of being made into bricks, and a specimen of the earth may be seen at the Office of Mr. POWNALL, 37, Bloomsbury-square, where lithographed plans and further particulars may be obtained; or of R. B. ARMSTRONG, Esq. 8, Staple-inn.

ALDERSHOT CAMP.—FREEHOLD BUILDING GROUND TO BE SOLD or LET, on Building Lease, fronting the new military (paving ground, with frontages to the main road, near two railway stations, where houses are much required, and may be had in large or small quantities. Apply to Mr. HUGHETT, 4, Bouverie-buildings, Strand, where plans of the ground and neighbourhood may be seen.

NEAR the SOUTH DOWNS.—FOR SALE, by Private Contract, a compact and improving FREEHOLD PROPERTY. Present rental, 150l. per annum; secure by lease.—Apply to FREDK. R. BEESTON, 21, Northumberland-street, Strand.

CEMETERY LAND for SALE.—Sewers Office, Guildhall, March 13th, 1855. The Commissioners of Sewers of the City of London, acting as the Burial Board for that city, have about 200 acres of suitable FREEHOLD LAND, which they are desirous to DISPOSE OF, for the formation of one or more cemeteries, it being peculiarly adapted for such purposes. The land is situate at Little Ilford, and abuts upon the Eastern Counties Railway, which, by arrangement, may run direct into it. It is also directly accessible by the high road from London, and from Wanstead, and is about one mile and a quarter west of Ilford. The cemetery for the City of London is formed on the adjoining portion of the estate. The land tax is redeemed. Plans of the property may be inspected at this Office; or at the Office of the engineer, Mr. HAYWOOD, 14, Old Jewry Chambers. The Commissioners will receive proposals for the said land, or any portion thereof, on MONDAY, APRIL 30th, at ONE o'clock. Such proposals must be sent sealed and endorsed "Tenders for Land at Ilford," to the undersigned, at this Office, before TWELVE o'clock on that day. The Commissioners do not bind themselves to accept any of the proposals unless deemed eligible.

JOSEPH DAW, Principal Clerk.

ELIGIBLE BUILDING-GROUND, NORWOOD, SURREY.—LEASES FREE of CHARGE.—TO BE LET, the few remaining PLOTS of GROUND in Edenroad and Woodstock-place, Norwood, Surrey, to fill up the line of buildings, the chief part of the ground being already built on.—Apply to Mr. PEACOCK, Architect, 11, Coburg-place, Kennington-lane, and G. HULKS, 8, Woodcote place, Norwood.

WATERSIDE PREMISES, WESTMINSTER, TO BE LET, near the Houses of Parliament, a good WAREHOUSE, having one floor over. It could be easily converted into excellent workshops.—For further particulars apply to Messrs. EVERSFIELD and HORNE, Auctioneers, &c. 60, Parliament-street, or Coal Exchange.

TO MANUFACTURERS.—TO BE LET, with immediate possession, with or without the machinery, CHEMICAL WORKS for COPPERS MANUFACTORY. The copperas manufactured will, in addition to the rent, leave a clear profit of 100l. per annum. The premises are large, waterside, and within one tide's sail of London; suitable for carrying on manure or other noxious manufacture. Application to RICH COMYN, Esq. 31, Lincoln's-inn-fields, by letter only.

FREEHOLD BUILDING LAND TO LET, abutting on the Barking station of the Tilbury line, twenty minutes from Fenchurch street, where moderate-sized houses are greatly in demand, and a handsome church is wanted for the accommodation of the station and neighbourhood.—Apply to Mr. EDWARD LACKIE, 23, Lamb's Conduit-street, Foundling Hospital.

MAITLAND-PARK, HAVERSTOCK-HILL, Hampstead-road.—LAND-TAX REDEEMED.—TO BE LET, upon Building Leases, for ninety-nine years, desirable BUILDING SITES upon the above Estate. The continued demand for houses in this locality, and the picturesque position of the property adjoining the ground of the Orphan Working School, render this a desirable opportunity for builders or gentlemen wishing to erect villas for themselves.—For terms, and to view plans, apply to the Secretary of the Orphan Working School, 32, Ludgate-hill; Messrs. TERRELL and CHAMBERLAIN, 30, Basinghall-street; the Architects, Messrs. WEHNERT and ASHDOWN, 43, Charing-cross; or at the Porter's Lodge, on the Premises.

TO BUILDERS and OTHERS requiring roomy premises.—TO BE LET, a valuable and useful piece of GROUND, good HOUSE thereon, near the City.—Apply to the freeholder, S. ROBERTS, 58, Shoreditch.

THE ARUNDEL, SURREY, and SUSSEX BENEFIT BUILDING and FREEHOLD LAND SOCIETY.—The DRAWING for Rights of Choice will take place at the BRIDGE HOUSE, ARUNDEL, on TUESDAY, APRIL 3, 1855, at TWELVE o'clock at noon. All persons becoming members previously to such drawing will be entitled to participate therein.—Prospectuses may be had of the Secretary, Mr. WILLIAM WOODS MITCHELL, Arundel, Sussex.

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.
Enrolled as the "Borough of Lambeth Benefit Building Society

PRESIDENT.
The Hon. JOHN LESLIE KING, M.P.

TRUSTEES.
George Singer, Esq. James Bevan, Esq. S. Etches, Esq.

Offices, 211, High-street, Borough.
Open from Ten A.M. till Seven P.M.

Entrance fee, 1s. Payments, 4s. monthly.

Allotments distributed by rotation, ballot, and to completed Shares in the order of their completion.

No Fines on unadvanced Shares. No back payments.

This Society within four years has divided five estates, satisfying 1,514 Shares out of 3,750. The value, as divided amongst members, being 67,797l.

A Bonus of 5 per cent. in addition to 5 per cent. interest, in all 10 per cent. was declared upon the unadvanced Shares at the annual meeting of 30th January last.

211, High-street, March 1 1855 WM. BANKS, Secretary.

NOTICE TO ARTISTS

NORFOLK and NORWICH FINE-ARTS ASSOCIATION.

PRESIDENT.
His Grace the Duke of Wellington.

VICE PRESIDENTS.

The Lord Bishop of Norwich.	Edward Warner, Esq. M.P.
The Mayor.	Sir Morton Peto, Bart.
The Right Hon. Lord Stanley, M.P.	Sir E. H. K. Lacon, Bart. M.P.
Lord Sondes.	J. H. Gurney, Esq. M.P.
Sir Samuel Bignold, M.P.	Henry J. Stacey, Esq.
	Robert J. H. Harvey, Esq.
	Edmund Wodehouse, Esq. M.P.

COUNCIL.

John Barwell, Esq.	Alfred Masters, Esq.
William Claborn, Esq.	John Nevgate, Esq.
William Freeman, Esq.	Rev. P. Nursey.
J. G. Johnson, Esq.	T. S. Patteson, Esq.
Thomas Lound, Esq.	Rev. A. B. Power.
George Middleton, Esq.	James Smith, Esq.
John Middleton, Esq.	James Stone, Esq.
	Claude L. Nursey, Esq.

The EXHIBITION of the above Society will OPEN in MAY next, at the Exhibition Rooms, Broad-street, St. Andrew's, Norwich. Those artists receiving the society's circular are requested to forward their works (if in London) to Mr. GREEN (the Society's Agent), 14, Charles-street, Middlesex Hospital, on or before the 10th of MAY. Those artists not residing in London or its vicinity, who have received the circular, are requested to forward their works direct to the Secretary, as above.

Artists will observe that the time has been extended from the 8th to the 10th of MAY.

The object of the Society is to promote a knowledge of the fine arts, and aid in the sale of works of art. The council has resolved to apply for authority to establish an Art-Union in connection with the Exhibition. CLAUDE L. NURSEY, Hon. Sec.

MATHEMATICAL DRAWING INSTRUMENTS.—JOHN ARCHBUTT, 20, Westminster Bridge-road, Lambeth (near Astley's Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than those charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. An illustrated price-list will be immediately forwarded, free, on application.

DRAWING, CARTRIDGE, TRACING, and MOUNTED PAPERS, TRACING LINEN, CONTINUOUS CARTRIDGE, &c. for the use of Architects, Engineers, Surveyors, Builders, &c. are sold by EDWARD STANFORD, Mapseller and Stationer, 6, Charing-cross. A book of samples and prices may be obtained on application, or per post for six stamps.

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instruments, and considerably cheaper.—Apply to Mr. S. BARLOW, 3, Thavies-inn, Holborn (between 1 and 2 p.m.); or to Mr. H. B. HARLOW, Office for Patents, Dudley-place, Exchange, Manchester.

TO ARCHITECTS.—EXHIBITION and COMPETITION DRAWINGS COLOURED or TINTED, and Lithography in its various branches executed by Mr. T. J. RAWLINS, 36, University-street, University College, London.

TO BUILDERS AND HOUSE DECORATORS.

THE LARGEST STOCK of Upholsterers' Cloths, Baizes, and Druggets, in every width, colour, and quality, is kept at HILL and SONS, 88 and 89, St. Martin's-lane, Charing-cross. Patterns forwarded upon application.

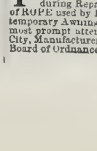
WHITE OXIDE of ZINC.—Addington-Wharf, Camberwell.—This article in its pure state, can be obtain'd at the Patent Oxide of Zinc Works, Addington-Wharf, Camberwell, where it is manufactured.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Boilers, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potters', Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNING COMPANY, Nine Elms, London.



SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTCH'S PATENT WIND-GUARD.—This Guard effectually allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of this tubing, the Gutta Percha Company have great pleasure in drawing attention to the following letter received from Mr. C. Hacker, surveyor to the Duke of Bedford:—"Office of Works, Woburn-park, Jan. 10, 1853. "In answer to your inquiries respecting the gutta percha tubing for pump suctions, I find that the water has not affected it in the least although it will eat lead through in two years; we have much easier bxed and a more perfect job. Yours, &c. C. Hacker." N.B. The Company's Illustrated Circulars, containing instructions to plumbers for joining tubes, lining tanks, &c. will be forwarded on the receipt of three postage stamps. The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

MAW'S ENCAUSTIC TILE PAVEMENTS—a highly durable and decorative substitute for ordinary flooring and their perishable oil cloth coverings; for entrance halls, passages, verandahs, conservatories, &c.

MAW and Co. send, free of expense, their pattern and price book, with designs, to any given spaces (and estimates), free of expense.

BENTHALL WORKS, BROSELEY, SALOP

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Maiden-field-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORT OF THE JURIES," page 981, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambra Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Covings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Pairces, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, at weekly or any periods not exceeding fifty months, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy 1s. per post.

CHARLES JAMES THICKE, Resident Secretary.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSS'S WHOLESALE WAREHOUSE, 23, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

PATENT SANITARY GAS SHADES.—These Shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the effluvia and smoke which have hitherto made the use of gas so objectionable in dwelling-houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had at the Works in a variety of forms adapted to the style of fitting, or the taste of purchasers; also at Mr. JOHN SHORTHOUSE, Crispin-street, Spitalfields, London.

ONE THOUSAND BEDSTEADS to CHOOSE FROM.—HEAL & SON have just erected extensive Premises, which enable them to keep upwards of One Thousand Bedsteads in stock. One Hundred and Fifty of which are fixed for inspection, comprising every variety of Brass, Wood, and Iron, with Chintz and Damask Furnitures, complete. Their new warerooms also contain an assortment of BED-ROOM FURNITURE, which comprises every requisite, from the plainest Japanned Deal for Servants' Rooms, to the newest and most tasteful designs in Mahogany and other Woods. The whole warranted of the soundest and best manufacture. HEAL & SONS'S ILLUSTRATED CATALOGUE of BEDSTEADS and PRICED LIST of BEDDING, sent free by post.—HEAL & SON, 196, Tottenham Court-road.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a great saving in time and cost, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone, always in stock. Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, as they can recommend as being made in the best manner: Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 8d.; gauze wire blinds, in mahogany frames, 3s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

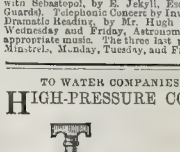
PARTNERSHIP.—WANTED, in an established Carpenter's and Builder's Business, at the West End, an active person with about 2 or 300l. to command. The above is a first-rate opening for any party wishing to make position, and not necessary to have a knowledge of the business if of business habits, the advertiser is only a single man, and wishes association.—Apply for further particulars, with real name and address, to A. Z. Mr. Spencer's, 7, Great Portland-street, Oxford-street.

PATRON: H.R.H. PRINCE ALBERT.

ROYAL POLYTECHNIC INSTITUTION. Monday Evening, the 26th inst. Lecture by J. H. Pepper, Esq. on the Chemistry of the Non-Metallic Elements. Tuesday Evening, important Lecture on Siege Operations in connection with Sebastopol, by C. Jekyll, Esq., late Captain Grenadier Guards). Telephonic Concert by Invisible Performers. Thursday, Dramatic Reading, by Mr. Hugh Leslie, Richard the Third. Wednesday and Friday, Astronomy, by Dr. Buchhoffner, with appropriate music. The three last performances of the Tyrolese Minstrels, Monday, Tuesday, and Friday Evenings.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates not upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Painters-dealers in Original Packages, each cask stamped HUBBUCK—LONDON PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

WHITE OXIDE OF ZINC AND ZINC PAINT.

(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in Oil.

Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innocuous qualities, is peculiarly applicable to first-class Decorations and House Painting For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

Messrs. MORANT and BOYD, 91, New Bond-street, who have lately used Zinc Paint to a great extent at Cliefden (the Duke of Sutherland's), and other mansions, have specimens, and will give any information respecting it.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO

MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark-in Hull by Messrs BLANDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO and by the Company's Grinding Agents, in London, Messrs. CHARLES DEVAUX and CO., Wholesale Agents, 62, King William-street City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 6, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting shire, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Flint-proof, Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lb and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O. and T. can deliver by their own boats, or by rail to any part of the kingdom.

Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in colour and quality.

Office, Warwick.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or smack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, as further are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of this valuable Cement, that they have, by means of a recent discovery (patented by Mr. ASPDIN) much improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.

A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster; at their Works, Gateshead-on-Tyne; at Messrs. Rosher's Wharfs, Holland-street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland yard, and at the Works.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c

PORTLAND CEMENT WORKS, NORTHFLEET, Kent—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, for Delivery, Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Firebricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

Greaves's Blue Lias Lime and Cement, 6, South Wharf, Paddington-basin, London, March 30, 1850.

CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

BUILDERS, IRONFOUNDERS, and OTHERS.—The Subscriber is in possession of several PATENTABLE WATER CEMENTS and COMPOUNDS (Frost, Fire, and Waterproof), adapted to every branch of plain and ornamental art, cheap in material and working. No engines, presses, or kilns required. Also, a Loom, wherein duplicate casts of metal can be taken out without destroying the mould; and a Material for Cores of Pipes, Cylinders, &c. with many advantages over any in present use The undersigned will treat with any capitalist for carrying out the above on easy terms.—Information personally, or address to THOS. HODGSON, 101, Drummond-street, Euston-square.

BRICK-MAKING MACHINES. TO CONTRACTORS, BRICK AND TILE MAKERS, AND EXPORTERS.

ATLAS WORKS.

CLAYTON'S PATENTS, patronized by H. R. H. Prince Albert.

CLAYTON'S PATENT BRICK-MAKING MACHINES offer a most important and profitable investment.

CLAYTON'S PATENT BRICK MACHINE (of which there are upwards of 600 in use) is worked by one horse by steam or water power, and combines the whole process of pugging the clay and making the bricks at one time. Awarded the prize medal at the Great Exhibition at Amsterdam, Nov. 1853.

CLAYTON'S PATENT CLAY SCREENS, for cleansing clay from stones, roots, &c.

CLAYTON'S PATENT TILE, PIPE, and HOLLOW-BRICK MACHINES, of various sizes and construction.

CLAYTON'S PATENT BRICK or TILE-PRESSING or MOULDING MACHINES.

CLAYTON'S PATENT DIES, for the manufacture of socketing sewerage pipes

CLAYTON'S PUGGING MILLS, of various sizes and construction, for tile clay, brick earth, mortar, &c.

And every article connected with the brick, tile, and pottery trades

The above machines may be inspected, and illustrated catalogues obtained, at the Manufactory, Atlas Works, Upper Park-place, Dorset-square, London.

TESTIMONIAL.

"Haslingden, near Manchester, Dec 2, 1854.

"SIR,—Several kilns of bricks made by your machines have been burnt, and I have great pleasure in informing you that they are as good as can be desired. They are in all respects superior to hand-made bricks, and command a much better price. Your machines are simple and efficient implements. I have sent you a few bricks for a sample, which I hope you have received.—I remain, yours very truly,

"Mr. Clayton, London." "J. RAWSTHORNE."

WHITE FACING BRICKS.—The public can now be SUPPLIED with a very BEAUTIFUL ARTICLE on moderate terms. Dies of any size. Stock bricks may also be had W. FOSTER, Manager.

Patent White Brick Works, Rugby, March, 1853.

TO AGENTS AND TILE MERCHANTS.

WANTED, by the Advertiser, THIRTY THOUSAND, of best quality, PANTILES, delivered alongside of any wharf at Paddington. Tenders on or before the 1st APRIL, to be sent to Mr. J JONES, Lead and Glass Merchant, 17, High-row, Knightsbridge.

BRICKS.—Best Kent Grey Stocks, delivered alongside in the River; also Patent Perforated and Solid White Suffolk and Red Facings—Apply to W. ALLAWAY, 4, Catherine-court, Tower-hill.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. R. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external use

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pale Stock of approved quality constantly on sale upon reasonable terms This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business will be carried on at Newington Causeway, Kingston butts, will, from MONDAY, the 11th inst be carried on at 5, ADELAIDE PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

BRICK-MAKING EXTRAORDINARY!! BY OATES AND INGRAM'S PATENT MACHINE.

TO CAPITALISTS AND BRICKMAKERS.

Messrs. OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen (by order only) in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

To great advantages possessed by this machine over all others are, no tempering is required.

The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be backed up in ranks before leaving the machine, which is entirely self-acting, consequently requires only the labour of feeding and carrying off.

Applications, either to view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, T. WELLS INGHAM, Engineer, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

CRYSTAL PALACE BRICK and TILE COMPANY'S WORKS, Lordship-lane, Dulwich, one mile from Forest-hill station, on the Croydon and Epsom Line, are prepared to supply, 1,000,000 REDGRAIN and RED KILN BRICKS for SALE, at the Works of the Crystal Palace Brick and Tile Company. Applications to be made to Mr. T. H. MAYHEW, on the ground, or to Mr. DOWELL (the Secretary, at No. 1, George street, Croydon.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry sand delivered per barge, in any quantity, alongside the Thames.

BRICK MOULDS (improved), STEEL-FACE STOCKS and PLATES, with regulating screw pegs, used three seasons by the leading brickmakers, bowls, hoes, cuckholds, pug-mills, &c. Numerous references where in use. T. LEACH, Manufacturer, 90, Critchill-place, New North-road, Hoxton.—N.B. A variety of sizes kept on hand.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per week, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country. Used and approved at the Offices of the General Board of Health. Exclusively adopted by the Crystal Palace Company. Easily cleaned without trouble or expense.—To be seen in operation daily, at J. EVANS and SON'S, Ironmongers, 33, King William-street, London-bridge.

FOWLER'S
IMPROVED FARM AND
COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.
The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION bored perfectly true by improved machinery, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast iron, copper and brass, for hot or cold liquids, &c. &c. Long barrel and hydraulic lift pumps, with handles on planks; and engines of various powers, for wells of any depth.

FARM AND COTTAGE PUMPS.

WARNER'S PATENT
CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump..... £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing..... 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Foreing, and Plant Houses, from underground Water-Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.
The usual allowance to the Trade.

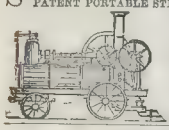
M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 18-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s per doz. painted.
Ditto .... 48s per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

STEAM PUMPING ENGINES.—
PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.
Contracts taken for pumping any quantity of water.

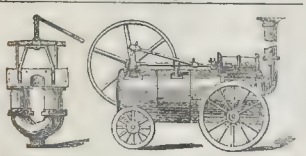


JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street, Southwark, London.

TO CONTRACTORS

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work at Messrs MEDWIN and HALLS, Engineers, 92, Blackfriars road, Sole Patentees and only Manufacturers N.B Any of these Engines may be purchased.

PUMPING ENGINES.—TO BE LET ON HIRE, TWO PORTABLE STEAM-ENGINES, of three and five horse power with pumps, complete—Apply to Mr HENRY JOHNSON, 71, Bleeding Heart-yard, Hatton Garden, London; and 44, Broad-street, Birmingham.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TERRA-COTTA.—Statues, Statuettes, Vases, Tazzas, Busts, Consoles, Bas-relievi, &c. by J. M. BLASHFIELD, of Millwall, near the West-India Docks Station, and sold at No. 1, Praed-street, Paddington-road, where prices and designs can be obtained. Examples of Terra cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Mineral Court. The statues of Australia, Venus de Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra-cotta, so are the friezes at the Renissance Court, and the roof of the Alhambra Court. The Pompeian roofs of Terra-cotta and red cement combined. Since the execution of these works, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

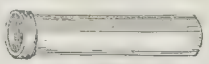
E. and W. STURGE invite special attention to their revised LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sills, &c.; Slates of the best quality, wholesale and retail. Country millers and others supplied at all information, on application to E. and W. S. URGE, Bristol wharf, City-road.
N.B. Bristol is well situated for carriage by canal, boats, or to the railways, to which but a small charge for cartage is made.
January, 1859.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to THE AGENTS.
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

THE NORTH DEVON POTTERY COMPANY,
MANUFACTURERS OF SUPERIOR SALT-GLAZED STONEWARE PIPES, &c.

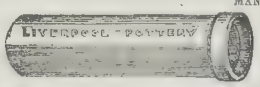

SOCKET.

HALF SOCKET

BUTT-JOINT WITH SLEEPERS.

To the LATTER attention is invited as the most SIMPLE and EFFICIENT yet introduced, obviating all difficulty in examining and repairing a Drain, all pipes and sockets at the Joint, with many other advantages at once apparent.
Prices and Terms may be obtained at the Manufactory, near Bideford.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF



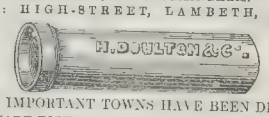
DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

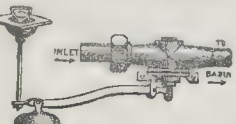
GLASGOW.....J. A. Mathieson, Hope-street.	WIGAN.....James Fairclough, King-street.
DUBLIN.....Robt. Lovely, Cooling-street.	KENDAL.....Robt. Thompson.
CORK.....J. and J. Harley.	CARLISLE.....C. Armstrong, Lowther-street
WATERFORD.....J. Barrow and Co.	WHITEHAVEN.....Hugh Todhunter.
CARNARVON.....Jno Jackson.	COCKERMOUTH.....John Hird.
PRESTON.....J. Armstead, Hudson-street.	GUERNSEY.....Guerin, Brothers.
CHORLEY.....T. Toms, Saville	LONDONDERRY.....W. and A. M'Elvee.
BLACKBURN.....W. Hopwood, Clayton-street.	LIMERICK.....W. Bourke and Sons.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES
MANUFACTORIES, HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.



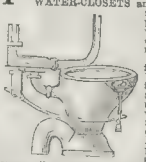
TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*
Messrs D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

BURSTING of PIPES by FROST.



This accident is prevented by the use of LAMBERT'S PATENT LEVER VALVE-COCKS, which act as safety valves.
The lever is weighted, to resist the pressure of the column of water upon the valve, but it is so weighted sufficiently to resist the powerful expansion of water caused by the frost, which lifts the lever, and thereby prevents injury both to valve and pipe. When reaction takes place, the lever and weight resume their original position.
Many thousands of these Valve-cocks are now in use under pressures of from 3 to 300 feet, with uniform success.
Price of 1 inch. bore, with sandplate and handle, 10s 6d. each.
THOS. LAMBERT AND SON,
Patentees and Sole Manufacturers, short street, New-cut, Lambeth.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in all of which numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 20s. and perfect action guaranteed. First Specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish street, near St. Paul's, London.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

SUPERIOR GLAZED STONEWARE
DRAIN PIPES, invented and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.
W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and renders leakage stoppage in the drains impossible.
W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—
Rosher and Co.'s Wharfs: Kingsland, Blackfriars, and Millbank.—Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No 8, Upper Thames-street.—C. Richardson's, South Wharf, Paddington.—G. Frith's, Cambridge Heath Wharf, Hackney. Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

UNDERHAY'S PATENT
REGULATOR CLOSETS, for constant or intermitting supply, dispense with cisterns. Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan-valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. Nine of them have been sold, and no instance of failure has occurred.

These VALVES are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of

Manufactured by
CHARLES BOTTEN and SON,
Brass Founders, Crawford passage, Clerkenwell, London.

HOSPITALS FOR THE BRITISH ARMY.

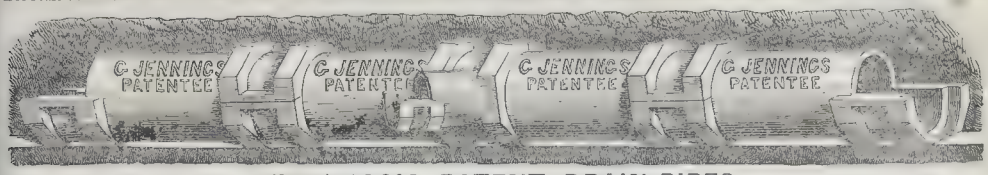
THE FRIENDS OF SANITARY PROGRESS are informed that, after strict inquiries, AT GUY'S HOSPITAL and other PUBLIC WORKS,

JENNINGS'S WATER-CLOSETS, PIPES, LAVATORIES, VALVES, AND URINALS, HAVE BEEN SELECTED.

GEORGE JENNINGS HAS RECEIVED ORDERS TO PREPARE, WITHIN ONE MONTH,

TWENTY-ONE SETS OF THE ABOVE, FOR TWENTY-ONE HOSPITALS, NOW IN COURSE OF CONSTRUCTION FOR THE EAST.

These sets comprise ONE HUNDRED AND SIXTY-EIGHT OF JENNINGS'S EARTHENWARE WATER-CLOSETS (Fig. 3 fitted as Fig. 5; see Jennings's Illustrated Book); ONE HUNDRED AND TWENTY-SIX OF JENNINGS'S PATENT LAVATORY ARRANGEMENTS (see Figs. 21 and 31); besides JENNINGS'S BELL-TRAPS, PIPES, URINALS, &c.



JENNINGS'S PATENT DRAIN-PIPES

Have just been ordered by, and supplied to, Messrs. Fox, Henderson, and Co., for the WOOLWICH ARSENAL, and they have also been ordered for the GOVERNMENT ARMS FACTORY, ENFIELD-LOCK, and for many other important PUBLIC AND PRIVATE WORKS, during the past week.

Licenses are now being granted to MEN OF KNOWN MECHANICAL ABILITY in all parts of the United Kingdom; and by a COMBINATION OF FIRE WITH OTHER CLAYS, Pipes, not only of superior manufacture, but of QUALITY, will be readily obtainable in any quantities, of any size, in any part of the kingdom, and at such prices as must cause their UNIVERSAL ADOPTION.

SINCE THE TIME OF THE ROMANS, little or no alteration has been made in drain pipes, and no testimonials would help them as regards the IMPOSSIBILITY OF EXAMINATION, THE INTRODUCTION OF JUNCTIONS AFTER PIPES ARE LAID, DEFECTIVE JOINTS, &c. &c.

The favour with which the POTTERS have received JENNINGS'S Improvements in Drainage Pipes is most satisfactory, and is another proof that COMMON SENSE INVENTIONS have only to be submitted to the INTELLIGENT manufacturers of this country to insure their adoption.

A Book containing Illustrations and Description of many of JENNINGS'S Sanitary Inventions, can be had FREE ON APPLICATION, or by post, if two stamps are inclosed to

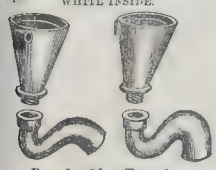
GEORGE JENNINGS, SANITARY ENGINEER, 29, GREAT CHARLOTTE-STREET, BLACKFRIARS-ROAD.

N.B.—Engineers and Architects are respectfully invited to visit Jennings's Factory.

JAMES STIFF,

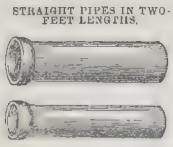
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES, LONDON POTTERY, HIGH-STALEL, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

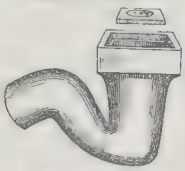


Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



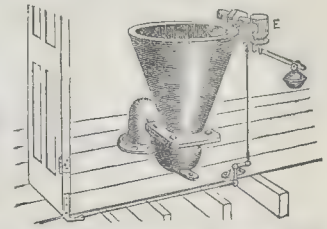
IMPROVED YARD SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City-basin; Dock-head, Bermondsey; Isaacs's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 33, Bryde's-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

LAMBERT'S DOOR-ACTION CLOSET.

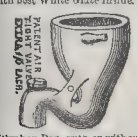


100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, Wilts County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve-cook, lever, weights, &c. 1l. 18s.; Ditto, Closet complete, with white wedgewood basin and trap, with ¾ inch patent valve-cook, lever, and handle to pull up, 7s. 6d.

THOMAS LAMBERT and SON,
Patentees and Manufacturers, Short-street, New-cut, Lambeth.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers. Sole Agents, L. B. PEARSE and Co. Great Northern-wharf, York-road, King's-cross.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.



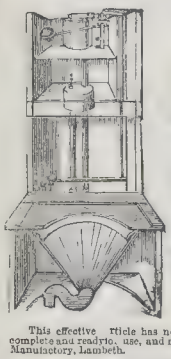
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN, Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 50, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

SLUICE-VALVES, fitted with square double-threaded screws, springs, brass nuts, glands, and facings; price, from 2½-inch to 9-inch, 2s. per inch. These valves being steam-tight, and of the best workmanship, are particularly applicable to Baths and Washhouses, and the better class of work. They can be easily repaired without interfering with the pipes. Liberal discount allowed to architects and the trade.

J. J. CAPPER, Falcon Engine Works, Loughborough; orders in London kindly received by W. H. WALENN, C.E. 7, Duke-street, Adelphi.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet pans.

HENRY TURNER, 2, SOUTH WHARF, PADDINGTON,

6s. Trap, 2s. 6d. 5s.

Manufacturer of Closet Basins and Traps, yellow outsides, with white insides. These are warranted to be the most durable earthenware now manufactured. A list of shapes and prices sent free, on application. A large stock of Plug Basins of every variety.

SALES BY AUCTION.

BOROUGH of SOUTHWARK. Ninety-three Freehold Houses, in single lots, each House entitling to a Vote, — particularly worthy the attention of small Capitalists.

MR. W. F. HAMMOND has been favoured with instructions from the proprietor to SELL by AUCTION at GARRAWAY'S, on FRIDAY, MARCH 30, at ELEVEN for TWELVE, in single lots, the above valuable FREEHOLD ESTATE, comprising Ninety-three Houses, all lying compact in four blocks, and known as Henry-street and Etham-street, with a frontage in Kent street, Borough. The description of the property is of the third and fourth rates, well built, having been erected about thirty years, consisting of shops and dwelling-houses, which are well occupied, and producing rentals from 13l. to 50l. each, making a total sum of 1,334l. 4s. 8d. per annum, each house entitling to a vote. This forms an important investment to small capitalists, being sold in separate lots, with a special condition granting to every purchaser, as a further facility, the option of leaving one half of the purchase-money upon mortgage, to be paid off by such instalments, and at such periods, as may be mutually agreed upon between the vendor and purchaser: but the vendor will not object to receive proposals for allowing a larger proportion of the purchase-money to remain on mortgage.—N.B. Although the property is apportioned into separate lots, to meet the interests of small capitalists, the auctioneer will be prepared to put up several lots together should it be desired by those present at the time of sale.—Further particulars, with conditions of sale, and plans of the estate, to be had of Messrs. JANSON, COBB, & PEARSON, Solicitors, 4, Basinghall-street, City; at Garraway's Coffee-house, Cornhill; of Mr. SEAGER, the Collector on the Estate, 47, Henry-street; and at the Auctioneer's Offices, 3, Carey-street, Lincoln's-inn.

Important Sale of valuable Machinery of an Iron Foundry, powerful Steam Engines, extensive Stock-in-Trade, &c. Poulton-cum-Seacombe, near Liverpool.

MESSRS. THOMAS WINSTANLEY and SONS, of Liverpool, respectfully announce that they have received instructions to SELL by AUCTION, on MONDAY, the 2nd APRIL next and eight following days (Saturday and Sunday excepted), at ELEVEN o'clock precisely each day, the whole of the highly important, costly, and valuable MACHINERY, manufactured and other STOCK, UTENSILS-IN-TRADE, &c. of those extensive premises, the Seacombe Foundry, lately in the occupation of Mr. Edwin Maw, on the Cheshire side of the Mersey, Liverpool. The powerful and newly-erected machinery, &c. consists of five capital high-pressure steam-engines, two of 4-horse power, one 10-horse ditto, one 6-horse ditto, one 8-horse ditto, with valuable shafting complete, large and capital lathe, with bed 40 feet long by 2 feet wide, and several others of various dimensions, squeezing, bending, and blocking machines; also slotting, planing, screwing, cutting, punching, gun and pipe boring, vertical drilling, corrugating and curving machines, hydraulic press of great power, ten tons massive cranes, quite new, wood traveling ditto, crab winches, screw jacks, sawing machines, several patent tenoning planing and moulding ditto, smiths' hearths, anvils, vices, tools, moulding boxes, core bars, leveling block, &c.

The MANUFACTURED STOCK, &c. comprises nineteen sets of ten-ton railway carriage-wheels, twenty tons of iron oil-boxes for ten-ton carriages, brass steps, white metal ditto (Great Western pattern), iron-work of every description for five and ten ton waggons, broad and narrow gauge iron axles, about thirty tons of iron bolts, Brown's patent spring buffers, cloth covers, copper and iron piping, nails, bolts for iron houses, tinned tacks, capital weighing-machines, barn-mill and lines of railway.

The UNMANUFACTURED STOCK and MISCELLANEOUS PROPERTY includes a large quantity of bar and rod iron, boxes of plate tin, corrugated and galvanized iron, valuable assortment of wood patterns, adapted for steam-engines, waggon-work, fly-wheels, &c.; quantity of well-seasoned timber, in English oak, poplar, American oak, Scotch fir, red deal, &c.; tar, oil paints, painters' tools, joiners' benches, ottoman-boxes, suitable for the Australian trade, &c.

Newly-erected iron shed, 130 feet long by 31 feet wide, and 12 feet high, on massive supports, house of galvanized iron, containing two rooms, with glazed sashes, &c. Also the whole of the excellent fittings up of the counting-houses and offices, desks, counters, partitioning, &c. The whole may be viewed four days prior to the sale. Catalogues are now preparing, and may be had at the Place of Sale; and of Messrs. THOS. WINSTANLEY and SONS' Office, Church street, Liverpool.

N.B. Catalogues will be forwarded to parties residing in the country upon receipt of twelve postage-stamps, on application to the Auctioneers.

DISSOLUTION of PARTNERSHIP of MESSRS. BROWNING and DEARLOVE. —To Cabinetmakers, Builders, Coach Builders, Organ Builders, Pianoforte Makers, and Others.—Important and extensive Sale of the very superior well-seasoned Stock in Trade, comprising choice Spanish and Honduras Mahogany, in thicknesses, Spanish and Rosewood Veneers, of a first class quality, dry birch, panel board, and about 4,000 sawn and unsawn Planks, Deals, and Battens.

MR. PEAKE is ordered by the Proprietors, Messrs. Browning and Dearlove (in consequence of their dissolution of partnership) to submit to PUBLIC COMPETITION, upon the PREMISES, 36, Windmill-street, Haymarket, on MONDAY, MARCH 26, 1855, and three following days, at ELEVEN for TWELVE o'clock each day, punctually, on account of the number of lots, to realize, the very superior, choice, unusually well seasoned STOCK, suitable for the above businesses, comprising about 1[illegible] feet of Spanish and Honduras Mahogany, judiciously selected for the manufacture of furniture of the first class; 20,000 feet good dry old Wainscot, rich figure; 15,000 feet Spanish, Rosewood, and Walnut-tree Veneers, of very rare quality; 10,000 feet of superior dry walnut-tree plank; 7,000 feet excellent dry Birch; 10,000 feet Panel Board; and nearly 4,000 Pine Planks, Deals, and Battens, with sundry other useful stuff.—The Premises for upwards of 1[illegible] years have been noted as a depôt for the choicest description of stock, which needs only to be viewed to arrive at a correct estimate of its value.—May be viewed three days previous and mornings of Sale. Catalogues obtained on the Premises; and at Mr. PEAKE's Offices, 44, Tooley-street, and 4, Fair-street, Southwark. Approved bills at four months' date will be taken in payment from purchasers of 25l. and upwards and 2½ per cent. discount allowed upon cash payments of 10l. and upwards. Luncheon provided for purchasers.

CITY of LONDON.—97, Cheapside, corner of King street.—General Annuity Endowment Association.

MR. PEAKE is favoured with instructions from the Trustees of the above Association, to SELL by AUCTION, in consequence of their present premises being about to be rebuilt, on the PREMISES, in lots, on TUESDAY, APRIL 3rd, 1855, at TWELVE o'clock, the MATERIALS comprised in the aforementioned Offices and Dwelling-house, consisting of a large quantity of sound stock brickwork, plain tiles, lead gutters, flats, dormers, cisterns and pipes, fir timber in girders, joists, flooring-boards, sash-frames, plate glass sashes, partitions, and a variety of other capital fittings. Also the Fixtures and Office Furniture of the several offices, mahogany desks, tables, iron repository, and a quantity of useful effects.—May be viewed the day previous and morning of sale, and catalogues obtained of PHILIP CURTIS, Esq. Secretary to the Association, at their temporary Offices, Charlotte-row, Mansion House; on the Premises; and at Mr. PEAKE's Offices, 44, Tooley-street, Southwark.

IN BANKRUPTCY. Important Sale of Ironmongery, superior Furniture and Effects, at Folkestone, near Dover.—To BUILDERS, GENERAL FURNISHING IRONMONGERS, and PRIVATE FAMILIES.

AUGUSTUS SMITH has the honour to announce that he is instructed by the assignees of W. R. Barrett, to SELL by AUCTION, on the PREMISES, in Tontine and High street, Folkestone, on MONDAY, APRIL 2nd, and four following days, Friday excepted, at ELEVEN, the extensive stock of household and builders' IRONMONGERY, copper, plated, and metal goods, stoves, ranges, garden implements, three fireproof safes, together with the excellent household furniture, superior 1[illegible] feet slate-bottomed bagatelle, with marking board, ivory balls and queues complete, &c. On view SATURDAY, the 31st MARCH, when catalogues may be had, or earlier from H. H. STANSFIELD, Esq. Official Assignee, 76A, Basinghall-street; MORRIS, STONE, TOWNSON, and MORRIS, Solicitors, Moorgate-street Chambers; R. W. KENNARD and Co. Ironfounders, Thames street; or the Auctioneer, 255, Blackfriars-road, near the bridge, London.

SALES BY AUCTION.

SALE on THURSDAY and FRIDAY, 29th and 30th of MARCH, at No. 346, PARLIAMENTARY-ROAD, GLASGOW, elegant Three-story Iron House and Store, splendid Iron Dwelling-house, several Iron Houses, Garden-house, Corrugating and Curving Machines, Three Punching, Clipping, and Screwing Machines, Boring Machines, Turning Lathes, Jib Crane Travelling Crane, Utensils, Tools, Patterns, stock of Iron, Wood, Counting house Furniture, &c. (belonging to the sequestered estate of Robertson and Lister).

MESSRS. HUTCHISON and DICKSON, by instruction of Mr. Walter Mackenzie, the Trustee, will SELL as above, by PUBLIC AUCTION, each day at TWELVE, Noon, the whole MACHINERY, PLANT, STOCK, TOOLS, &c. &c. used by the bankrupts in their business, and in the manufacture of iron houses, consisting of valuable corrugating machine, curving machine, several punching and clipping machines with bolsters, crab winches, turning lathes, lathe heads, boring vertical machine, boring cramps, vices, screwing machines, taps and dies, and catches for screwing machines, crane, [illegible]-inch cylinder and force pump, jib crane, traveling crane, weighing machine, weights, a large quantity of corrugated sheet iron assorted sizes and kinds, bar and angle iron, deck iron, iron rack. First rate anvils, bellows, a number of them new cast-iron forges, with fire plates and the irons, portable forges on wheels, washolder and ventilator plates, oiled plates, galvanized roof tiles, 36-inch grindstone and frame, numerous vices and vice boards, screw bolts, rivets, various pieces of chain, large assortment of punches, crosses, bores, mandrels, chisels, pairs 8½ and 10½ inch lathe heads with rests, lathe tools, sets of blowing furnaces, Newcastle grindstone, malleable iron shafting with gearing and drums, cast-iron windows, ship pump, iron and wooden smiths' troughs, fore and hand hammers, Cast-iron mantelpieces with ornamental grate and pipes, waste files, old files, iron dumb craft, malleable iron beam with standard and scales, cramp and braces, screw stocks with dies, three large engine brasses, wood screws, screw bolts and nuts, linseed and mineral oil, oil paints, barley barrows, lot of ½ inch lining boards, planks, tresses, wood and iron wheelbarrows, timber blocks, old beams, long shear ladders, lot of ropes, weighing beams, weights, large quantity of slabs used to enclose premises, scrap iron, patterns, &c. &c. (And if not previously sold by private bargain)—

On FRIDAY, 30th MARCH, at TWO o'clock, will be put up at moderate upset prices:—

1st. Large three-story galvanized CORRUGATED IRON HOUSE, with ornamental front and balcony, 40 feet deep, by 33 feet of front, and 36 feet in height to the eaves, all lined and floored with wood, and divided into elegant apartments.

2nd. Large CAST-IRON DOUBLE DWELLING-HOUSE (unfinished), consisting of three flats, with projecting porch and ornamental balcony. This house is 34 feet deep, by 44 feet of front, and 31 feet in height to the eaves.

NOTE.—These two houses are well suited for shipment abroad, or for shooting lodges or country houses at home.

3rd. Galvanized CORRUGATED IRON HOUSE, suitable for an office, gate house, or detached kitchen, all lined, floored, and ceiled with wood. Size, 18 feet 3 inches by 15 feet 3 inches, and 10 feet in height to the eaves.

4th. CORRUGATED IRON HOUSE, suitable for an office, gate-house, or detached kitchen or out-house, all lined, floored, and ceiled with wood, complete.

5th. CORRUGATED IRON STORE or WORKSHOP, 67 feet 6 inches, by 21 feet, and 12 feet in height to the eaves, complete.

6th. Small CORRUGATED IRON SUMMER or GARDEN HOUSE, 6 feet 8 inches, by 5 feet 3 inches, and 7 feet to the eaves, with verandah projecting.

The whole of these houses can be easily removed and fitted up again with little trouble or expense. They may be seen before the sale. Catalogues may be had, and information given, on application to AITKEN and MACKENZIE, 66, St. Vincent street, or to the Auctioneers, 8, Virginia-street, Glasgow.

BANKSIDE.—The valuable Plant, Utensils, and Stock-in-Trade, together with the extensive Wharf and Premises (partly let off to the full extent of the rent) of Mr. William Ward, who is retiring from this branch of his business.

MESSRS. EVERSFIELD and HORNE are instructed to SELL by AUCTION, during the ensuing MONTH, on the PREMISES, Honduras Wharf, Bankside, Southwark, the whole of the valuable PLANT and UTENSILS, comprising seven very excellent coal-barges, from 35 to 63 tons, several powerful cart-horses, well-built coal-waggons, vans, and carts, several nearly new brick-carts, a very strongly-built town-waggon, on springs; a superior wine-merchant's cart, by Braby and others, of a light construction; complete sets of cart-harness, coal sacks, wharf, and waggon, weighing machines and weights, planks, ladders, and the usual trade implements. The stock-in-trade consists of a well-selected assortment of fire-goods of the best manufacture in Newcastle, Stourbridge, &c.; also several thousand excellent sound stock bricks, pantiles, and other goods, for the building trade, together with a large quantity of best made real Dutch clinkers. At the same time will be offered the remaining Term of the beneficial Lease of the valuable Wharf and Premises, sufficient of which is let off to cover the whole rent, leaving a large extent of river frontage, with counting-houses, lobby, sheds, warehouses, extensive open and covered storage, stabling, cart sheds, a lofty building, suitable for the erection of machinery, and other accommodation, which might be still further let off, or would be equal to the requirements of an extensive trade.—Further particulars may be had, by applying to Messrs. EVERSFIELD and HORNE, 40, Parliament-street, and Coal-Exchange, who are authorized to treat by private contract.

Re CROUCH and CROUCH.—Valuable new Building Materials and Effects, Wimbledon.

MESSRS. EVERSFIED and HORNE are instructed by the assignees to prepare for SALE by AUCTION, in APRIL, a quantity of valuable new MATERIALS, prepared joiners' work, and flooring; about twenty-five loads of timber, several thousand new STOCK BRICKS, stone landings, laths, scaffolding, &c.; also three useful horses, several builders' carts, harness, and other effects.—Auction and Estate Offices, 40, Parliament street.

HIGHGATE.—Notice of Resale of 400,000 capital Stock and other Bricks in default of clearance.

MR. LEREW will SELL by AUCTION, on the PREMISES, the Brickfield, on the west side of the Archway-road, Upper Holloway, on MONDAY, MARCH 26th, at TWO for THREE o'clock precisely, about 400,000 BRICKS, comprising Stock, Place, and Grissels. May be viewed the Saturday prior and morning of Sale, and catalogues had on the Premises, and of the Auctioneer, 2, Cardington-street, Hampstead-road.

Important Sale of 3,400 Oak Timber Trees, in Weddington Wood, Warwickshire.

MR. LEIFCHILD is instructed to SELL by AUCTION, at the NEWDEGATE ARMS HOTEL, Nuneaton, on WEDNESDAY, APRIL 4, at ONE precisely, in seventeen lots (unless the whole shall be previously sold in one lot, of which due notice will be given), about 3,400 capital OAK TIMBER TREES, with their lop, top, and bark, 170 ASH TREES, 70 ELM TREES, and about 2,300 OAK TELLERS, now standing and growing, and being the remaining portion of Weddington Wood, which adjoins the old Watling street road, and is within three miles of the railway stations at Nuneaton and Atherstone, and of the Ashby and Coventry Canal.—The lots will be carefully marked and set out ten days previous to the Sale; and catalogues, with a plan of the lots, may be had of Mr. EARPS, Fenny Drayton; or of Mr. HOUSDEN, the Red Gate Inn, who will show the lots; at the Place of Sale; and at Mr. LEIFCHILD's Land and Timber Offices, 63, Moorgate street, London.

IMPORTANT SALE of MAHOGANY, ROSEWOOD, &c. at LIVERPOOL.—The next LIVERPOOL PERIODICAL SALE of BALTIC and AMERICAN White Woods, Mahogany, and other Furniture-woods, will take place on WEDNESDAY and THURSDAY next, the 28th and 29th inst. beginning with the White-woods at half-past TEN o'clock in the morning of the first day, continuing at TWELVE o'clock at noon with the Furniture Woods, and resuming at TEN o'clock on the morning of the second day, in the Brokers' Sheds, Brunswick and Toxteth Docks, Liverpool. Catalogues containing full descriptive particulars may be seen at the Office of "The Builder," or had, on application to EDWARD CHALONER, Broker, No. 6, East Side, Queen's Dock, Liverpool.

SALES BY AUCTION.

WIMBLEDON, SURREY.—Four substantially-built Freehold Residences, situate on the park side of Wimbledon-common, producing rentals and of the value of about 626l. per annum, eligible for investment and occupation; also a valuable Plot of Freehold Building Land in the rear, having a frontage of 156 feet, by a depth of 275 feet.

MESSRS. NORTON, HOGGART, and TRIST have received instructions to OFFER for SALE, at the MART, on FRIDAY, APRIL 20th, at TWELVE, in lots (unless previously sold by private contract), FOUR capital FAMILY RESIDENCES, very substantially built and delightfully situate at West-hill, between Wandsworth and Wimbledon-park, and within a mile of the Putney Station on the Richmond Railway. The houses command fine views of the surrounding country; they contain several bed-chambers and dressing-rooms, elegant drawing, dining, and breakfast rooms; gardens 400 feet in depth, stabling, &c. and every accommodation for moderate establishments. Three are let to highly respectable tenants, at rentals amounting together to 466l. per annum; and the fourth house, which is complete for immediate occupation, will be sold with possession. May be viewed by permission, and particulars had of W. FLOWER, Esq. Solicitor, 17, Gracechurch-street; at the Mart; and of Messrs. NORTON, HOGGART, and TRIST, 62, Old Broad-street, Royal Exchange.

WANDSWORTH, near to Wimbledon-park, Surrey.—Semi-detached Villa Residences (unfinished), ground-rents amounting together to 32l. 5s. per annum, and several plots of Building Land, the whole freehold and land-tax redeemed.

MESSRS. NORTON, HOGGART, and TRIST have received instructions to offer for SALE, at the MART, on FRIDAY, APRIL 20th, at TWELVE, in lots, eight unfinished semidetached VILLA RESIDENCES, with good gardens, pleasantly situate in the West-hill-road, West-hill, Wandsworth, near to Wimbledon-park, and only a mile from the Wandsworth station on the Richmond and Windsor Railway, several plots of valuable freehold building Land, situate in the West-hill, Melrose, Spencer, and Seymour roads, in the rear, and well-secured freehold ground-rents, amounting together to 32l. [illegible]s. per annum, arising from eleven dwelling-houses and gardens, situate in Mount pleasant, close to the Park Tavern, in the road leading from Wandsworth to Merton and Wimbledon, the rack rental of the houses being about 200l. per annum.—Particulars may be had fourteen days prior to the sale, at the Inns at Windsor, Wandsworth, and Putney; of J. W. FLOWER, Esq. Solicitor, 17, Gracechurch-street; at the Mart; and of Messrs. NORTON, HOGGART, and TRIST, 62, Old Broad street, and Royal Exchange.

WIMBLEDON-PARK, SURREY.—Freehold Mansions, with Coach-houses, Stabling, Offices, and Pleasure-grounds, one mile from the Putney Station on the Windsor and Richmond Railway, together of the value of about 1,000l. per annum, and eligible for occupation or investment.

MESSRS. NORTON, HOGGART, and TRIST have received instructions to offer for SALE, at the MART, on FRIDAY, APRIL 20, at TWELVE, in lots, THREE very valuable and elegant FREEHOLD MANSIONS (land tax redeemed), beautifully situate fronting Wimbledon-common, in the county of Surrey, commanding uninterrupted and lovely views over the richly-diversified scenery of the park, and the surrounding highly picturesque country, the district being remarkable for its pure air and dry gravelly soil. They are of handsome elevation, stand perfectly detached, are most substantially built, and the interior arrangements are most complete. The accommodation in each consists of numerous lofty bed chambers and dressing-rooms, servants' apartments, secondary staircase, spacious landings and wide staircase, a suite of splendid reception-rooms, including noble drawing and dining rooms, library and morning rooms, all fitted with plate-glass windows; an elegant entrance hall, three water closets, inner hall, very superior domestic offices, and every convenience for a gentleman's establishment; the detached offices comprise excellent stabling for four horses, double coach house, harness-room, loft and man's room over, carriage yard, &c., large pleasure grounds an acre and a quarter in extent, beautifully laid out in lawn and flower-gardens, and planted with choice shrubs; and the premises are abundantly supplied with spring and soft water. Two of these first-class residences have been finished in a very superior style at great cost, and they are fit for immediate occupation. The third house is nearly three parts finished, and a purchaser could therefore exercise his own taste in its completion.—Particulars may be had fourteen days prior to the sale at the Star and Garter and Castle Hotels, Richmond; the White Hart, Windsor; the Inns at Wandsworth and Putney; of J. W. FLOWER, Esq. Solicitor, 17, Gracechurch street; at the Mart; and of Messrs. NORTON, HOGGART, and TRIST, 62, Old Broad street, Royal Exchange.

CROYDON, SURREY.—Forty Acres of valuable Freehold Building Land (including two brick fields), containing excellent brick earth, having frontages of about 7,000 feet to capital roads, and within a mile of the Croydon Railway Station, land-tax redeemed.

MESSRS. NORTON, HOGGART, and TRIST have received instructions to OFFER for SALE by AUCTION, at the MART, opposite the Bank of England, on FRIDAY, APRIL 13, at TWELVE, in thirty-five lots, about 40 acres of very valuable FREEHOLD BUILDING LAND, delightfully situate in St. James's road, adjoining Heath Lodge, the residence of J. Morland, esq. near to Addington, the seat of his Grace the Archbishop of Canterbury, to Addiscombe College, and on the road from Croydon to Bromley and Beckenham. It possesses important frontages to the high road, and to well-made 40 feet roads leading to Woodside, and being chiefly upon a dry gravelly soil, and within half an hour's ride of the City by the Epsom branch of the Brighton Railway, and only a very short distance from the station and the populous market-town of Croydon, is admirably adapted for the erection of detached and semi-detached villa residences. It will be subdivided into lots, varying from about half an acre to seven acres in extent, and purchasers will be entitled to votes for the eastern division of the county.—May be viewed, and particulars, with plans, had at the —— Inn, Addiscombe-road; the Greyhound, Croydon; the Inns at Sydenham and Bromley; of W. FLOWER, Esq. Solicitor, 17, Gracechurch-street; at the Mart; and of Messrs. NORTON, HOGGART, and TRIST, 62, Old Broad-street, Royal Exchange.

LONDON DOCK ENLARGEMENT.—Important Sale of Building Materials of eighty-two Houses, to be taken down and cleared away, by purchasers.

MESSRS. BROMLEY and SON have received instructions from the Directors of the London Dock Company, to SELL by AUCTION, on WEDNESDAY, MARCH 28, 1855, and following day at TWELVE o'clock, on the several PREMISES at Shadwell, comprising—

13 houses, Shakespeare's-walk, including the Ship Public-house.	4 houses, Titmose-court.
8 houses, Spring-street.	8 houses, Fox's-lane.
8 houses, Colborn-place.	6 houses, New Gravel-lane.
14 houses, Upper-turning.	4 houses, Hallett's-court.
	12 houses, New-court.

May be viewed two days prior to Sale. Catalogues had at the Marlborough-head, Fox's-lane; and of the Auctioneers, 17, Commercial-road, St. George's East.

FREEHOLD BUILDING GROUND.—Bishopsgate-street, within the City of London.

MR. C. WARTON is directed to SELL by AUCTION, at the MART, on WEDNESDAY, MARCH 28, at TWELVE, in one lot, a valuable plot of FREEHOLD GROUND, in Angel-alley, Bishopsgate-street, the centre of a densely-populated neighbourhood, where small houses are much needed, and calculated also for the erection of a chapel, model washing-houses, &c.; there are three frontages, 145 feet, 76 feet, and 36 feet.—Particulars may be had at the Mart; of JOHN DE LA MARE, Esq. 7, St. Martin's-court, Leicester-square; and of Mr. C. WARTON, Union-court, Old Broad-street, removed from Threadneedle-street.

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The Builder.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square. NOTICE to ARTISTS.—All works of Painting, Sculpture, Architecture, or Engraving, intended for the ensuing EXHIBITION at the ROYAL ACADEMY, must be sent in on MONDAY, the 30th, or TUESDAY, the 31st of APRIL next, after which time no work can possibly be received, nor can any works be received which have already been publicly exhibited.

FRAMES.—All pictures and drawings must be in gilt frames. Oil paintings under glass, and drawings with wide margins are inadmissible. Excessive breadth in frames as well as projecting mouldings may prevent pictures obtaining the situation they otherwise merit. The other regulations necessary to be observed may be obtained at the Royal Academy.

JOHN PRESCOTT KNIGHT, R.A. Sec.

Every possible care will be taken of works sent for exhibition, but the Royal Academy will not hold itself accountable in any case of injury or loss, nor can it undertake to pay the carriage of any package. The prices of works to be disposed of may be communicated to the Secretary.

EXHIBITION of the SOCIETY of BRITISH ARTISTS, incorporated by Royal charter.—The THIRTY-SECOND ANNUAL EXHIBITION of the SOCIETY is NOW OPEN, from NINE a.m. until dusk.—Admittance, 1s. Suffolk-street, Pall-mall East.

ALFRED CLINT, Hon. Sec.

ART-UNION of LONDON. — By Royal Charter. — Prizeholders select for themselves from the Public Exhibitions. Every Subscriber of One Guinea will have, besides the chance of a Prize, an Impression of a Plate of "A WATER PARTY," by J. T. WILLMORE, A.R.A. after J. S. CUITON, R.A. and a Quarto Volume of Thirty Illustrations of Byron's 'Childe Harold." The prints are ready for delivery, and the volume may be seen at the Office.—Subscription closes this day.

GEORGE GODWIN, } Honorary
444, West Strand. LEWIS POCOCK, } Secretaries.

DEPARTMENT of SCIENCE and ART.—Division of Art, Marlborough House, Pall mall.

LECTURES on ORNAMENTAL ART, by R. A. WORNUM, Esq. Lecturer on Ornament, on the following MONDAY evenings, at HALF-PAST EIGHT o'clock, and on TUESDAY afternoons at FOUR.

Lecture 1. Decorative Art of the Ancient Egyptians, 2nd and 3rd of APRIL.
2. Egypt: Ornamental Details, 16th and 17th of APRIL.
3. Greece—Heroic Age of Greek Art, 23rd and 24th of APRIL.
4. Greece—Ornamental Elements, 30th of APRIL and 1st of MAY.
5. Rome—The Decline, 7th and 8th of MAY.
6. Early Christian and Byzantine Art, 14th and 15th of MAY.
7. Byzantine, Romanesque, and Saracenic Art, 21st and 22nd of MAY.
8. The Siculo, Norman, and Early Pointed Style, 28th and 29th of MAY.
9. Gothic Ornament. Decorated Pointed, 4th and 5th of JUNE.
10. The Renaissance Trecento, 11th and 12th of JUNE.
11. The Cinquecento, 18th and 19th of JUNE.
12. The Elizabethan, the Louis Quatorze, 25th and 26th of JUNE.

Tickets for the Course of Twelve Lectures at 6d. each, or 1s. for a single Lecture; to be had at the Museum, Marlborough House.

COMPETITIONS.

SOMERSET ASSIZE COURTS.—All Architects who have sent designs for new Assize Courts, House for the Judges and Record Rooms, and Office for the Clerk of the Peace (except the one who adopted the motto of "Equitas"), will have their plans, &c. returned to them by Mr. OAKLEY, Governor of the Gaol, at Wilton, near Taunton, on application to him by the various parties, with sufficient instructions as to the desired mode of their conveyance.

EDWIN LOVELL, Clerk of the Peace.
Wells, Somerset, March 22nd, 1855.

ROYAL INSTITUTE of BRITISH ARCHITECTS.
Incorporated 7th William IV.
16, Grosvenor-street, London.

Her Majesty having been pleased to grant her gracious permission for the ROYAL MEDAL to be conferred on such distinguished Architect or Man of Science of any Country, as may have designed or executed any building of high merit, or produced a work tending to promote or facilitate the knowledge of Architecture, or the various branches of Science connected therewith, the Council will proceed, in January, 1856, to take into consideration the appropriation of the Royal Medal.

The SILVER MEDALS of the Institute will be awarded to the Authors of the best Essays on any subjects tending to promote or facilitate the knowledge of Architecture, or the various branches of Science connected therewith.

The SOANE MEDALLION will be awarded for the best Design for any of the following subjects:—

A Town Mansion;
Drawings of the Remains and a Restoration of the Church and Conventual Buildings of the Priory of St. Bartholomew the Great, Smithfield, London;
A Building to contain Six Courts of Law;

Or any other like subject of equal importance, at the option of the Candidate.

The successful competitor, if he go abroad within three years after receiving the medallion, will be entitled to the sum of 50*l.* at the end of one year's absence, on sending satisfactory evidence of his progress and his studies. The competition is open to all Members of the Profession under the age of thirty years.

Full particulars may be had on application to the Honorary Secretaries, by letter, prepaid.

CONTRACTS.

NEW TOWN-HALL BUILDINGS, PRESTON.—To BUILDERS.—Masons, Bricklayers, Plasterers, Slaters, Plumbers and Glaziers, Carpenters, Joiners, Smiths, and Painters, desirous of CONTRACTING for all or any of the works required to be done in the ERECTION of the above BUILDINGS, upon the site of part of the pres nt buildings, are hereby informed that the plans and specifications may be seen at the Offices of the Architect, from MONDAY, the 26th, to SATURDAY, the 14th of APRIL next, both inclusive, and in the Council-chamber, Town-hall, Preston, from MONDAY, the 16th, to SATURDAY, the 21st of APRIL next, both inclusive. Tenders, endorsed "Tender for Works," must be sent to me on or before FOUR o'clock on TUESDAY, the 24th of APRIL next. Bills of quantities, and any other information may be had at the Offices of the Architect, Mr. WILLIAM HILL, 59, Albion-street, Leeds. No allowance will be made for estimates, and the lowest Tender will not be necessarily accepted.

ROBERT ASCROFT, Town-clerk.

FAVERSHAM UNION.—To BUILDERS.—The Guardians of the Faversham Union are desirous of receiving TENDERS for certain ALTERATIONS and REPAIRS intended to be done to, and COOKING and WASHING APPARATUS to be put up at, the Union Workhouse, near Faversham. All Tenders must be delivered free of expense at the Office of the Clerk to the Guardians, sealed and endorsed, "Tender for Works at the Faversham Union Workhouse," on or before THURSDAY, the 26th day of APRIL next, and the Tenders will be opened by the Guardians, at their meeting on the following day, Friday. The plans and specifications, prepared by Mr. M. BULMER, Architect, may be inspected at the Union House, on any day, except FRIDAY and SUNDAY, between the hours of TEN and FOUR. The quantities will be furnished, and copies may be obtained of the Clerk, upon payment of five shillings for each copy. The Guardians will not be bound to accept the lowest or any other Tender, and security will be required for the due performance of the works.—By order of the Board,

Faversham, March 16, 1855. WILLIAM MAILE, Clerk.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of a PARSONAGE HOUSE, at Harkardiston, Suffolk, may inspect the plans and specification of the work at the office of Mr. J. F. CLARK, Architect, Newmarket.—Tenders to be delivered and opened on the presence of the parties on the 9th day of APRIL next, and the lowest or any Tender will not necessarily be accepted.

TO BUILDERS.—PARTIES desirous of TENDERING for the whole of the WORKS required to be done in PULLING DOWN and RE-BUILDING a DWELLING HOUSE, with Front shop, Workshops, and offices, on the Cornhill, Bridgewater, may see the plans and specifications, and obtain every requisite information at the offices of Mr. DOWN Architect, Bridgewater.—Sealed Tenders are to be delivered on SATURDAY, the 7th of APRIL, but the lowest Tender will not necessarily be accepted

HER MAJESTY'S CROWN ESTATE, SUNK ISLAND, county of York.—Persons desirous of CONTRACTING for the ERECTION of sundry HOUSES, COTTAGES, and other BUILDINGS upon this Estate, are requested to communicate their intention to the undersigned, Mr. TEDLON, 9, Craig's court, Charing-cross, London. The plans and specifications are deposited with Mr. SUTTON, the Clerk of Works, at Mr. SUDDABY'S, Sunk Island; and the Tenders are to be delivered, free of expense, on or before the 8th of APRIL next, to the Office of Woods, &c. 1, Whitehall-place, London, addressed to the Hon. G. A. GORE, on H.M.'s service, and endorsed "Tender for Works at Sunk Island."

TO BUILDERS AND CARPENTERS.

PARTIES desirous of TENDERING for certain WORKS contemplated in the RESTORATION of MERE CHURCH, Wilts, are informed that the plans and specification may be seen at Mere, on application to Mr. G. CARD, Churchwarden, on and after MONDAY, the 2nd of APRIL.—Further information may be obtained, on application to T. H. WYATT, Esq. 77, Great Russell-street, London, at whose office the Tenders are to be delivered, on the 12th of APRIL, sealed and endorsed "Tenders for Mere Church." The Committee will not bind themselves to accept the lowest Tender."

CONTRACTS.

Royal Engineers' Office, London District, 23th March, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer in the London District hereby gives Notice, that sealed TENDERS, addressed to the Secretary to the Board of Ordnance, will be received at the Office of Ordnance, Pall mall, on or before the 16th of APRIL, 1855, for the ERECTION of a STOREHOUSE in the Tower of London. The specification and plans for the above service may be seen, and forms of Tender obtained at the Royal Engineers' Office, No. 11, James-street, Pimlico, between the hours of TEN and FOUR o'clock, from the 2nd to the 14th of APRIL, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

TOWNSHIP of MANCHESTER.—ERECTION of NEW WORKHOUSE.—The Guardians of the Poor of the township of Manchester are prepared to receive sealed TENDERS for the whole or any of the following WORKS, required in the ERECTION of a NEW WORKHOUSE, capable of affording accommodation for 1,600 inmates, together with the necessary staff of officers, &c. and intended to be built at Crumpsall, near Manchester, namely:—Carpenters' and Joiners' Work, Bricklayers' Work, Masons' Work, and Smiths' and Ironfounders' Work. The plans and specifications may be seen at the offices of Messrs. MILES and MURGATROYD, Architects, Exchange-chambers, Bank-street, Manchester, where full particulars on all matters connected therewith may be obtained. Tenders addressed to the Board of Guardians, and superscribed "Erection of New Workhouse," must be delivered to me at the Poor-law offices, New Bridge-street, Manchester, on or before SATURDAY, the 28th day of APRIL next. The Guardians do not pledge themselves to accept the lowest Tenders.—By order, &c.

JNO HARROP, Clerk to the Guardians.
Poor-law Offices, New Bridge-street, Manchester,
March 23, 1855.

CONTRACT for CAST-IRON PIPES.—The Local Board of Health for the borough of Preston are prepared to receive proposals from parties willing to CONTRACT for about 260 TONS of CAST-IRON PIPES. The specification may be seen, and forms of Tender obtained, at the Office of the Engineer, on and after MONDAY, the 26th instant. Tenders must be lodged by the 7th of APRIL, 1855. Further information that may be required can be obtained from the Engineer.

HENRY WRIGG, Engineer to the Preston Waterworks.
Preston, 24th March, 1855.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of extensive BUSINESS PREMISES, at Bridgwater, may see the plans and specifications at the Offices of Mr. EDWARD, Architect, Bridgwater. Tenders to be delivered on or before SATURDAY, the 7th of APRIL next. The proprietors do not pledge themselves to accept the lowest Tender. Quantities supplied.

Dated Bridgwater, 27th March, 1855.

TENDERS are required for COMPLETION of EIGHT semi detached DWELLING-HOUSES, with additions, at CROYDON, Surrey. The plans and specifications may be seen, and copies of Bill of Quantities obtained, at the Offices of Messrs CHURCH and SON, Surveyors, Wolverton, to whom the Tenders are to be sent on THURSDAY next, the 5th day of APRIL. The lowest or any Tender will not necessarily be accepted.

FISHERTON ANGER CEMETERY, SALISBURY, WILTS.—To BUILDERS.—The Burial Board of the Parish of Fisherton Anger, are desirous to receive TENDERS for the several WORKS required to be done in ERECTING the ENTRANCE BOUNDARIES, the BOUNDARY ENCLOSURES, and the two CHAPELS, and FORMING, and LAYING OUT, and PLANTING the NEW CEMETERY in the Devizes Road. The plans and specifications of the same may be seen at the Office of Mr. JOHN TURNER, 15, Wilton-street, London, the Architect, until the 27th instant; and at my Office, High-street, Salisbury, from the 28th instant, to the 7th day of APRIL next. The Burial Board will not object to receive Tenders for the separate trades, or for the whole works, but they do not bind themselves to accept either of these, or the lowest Tender. The Tenders are to be forwarded to me on or before the said day of APRIL next, marked on the outside, "Tender for Fisherton Cemetery," and if for either of the trades, stating which. The contractor or contractors will be required to give such security as the Board may require for the due performance of the work, agreeably to the plans, and the general conditions and specification, such security to be prepared at his or their expense.

G. SMITH, Clerk to the said Board.
Salisbury, March 23, 1855.

CAMDEN-HILL ESTATE, Beaulieu-hill, Norwood.—To BUILDERS, &c.—Parties desirous of CONTRACTING for the CONSTRUCTION of about 60 yards of ROAD and SEWER, and the ERECTION and FINISHING of SIX HOUSES, can see the drawings and specification at the Office of the Architect, HORACE JONES, Parliament-street. The property is within 200 yards of the Crystal Palace, in the parish of Lambeth.—N.B. It will be one of the conditions of Contract, that the builder will have to take ground for, and erect six other houses on the same estate. The ground-rent of each house will be 7*l.* 7*s.*

TO BUILDERS AND OTHERS.

NOTICE is hereby given, that Plans and Specifications for REBUILDING the Parish Church of the HOLY CROSS, at Wherwell, in the County of Hants, may be seen on application to the Parish Clerk, at Wherwell, on MONDAY, the 2nd day of APRIL, until SATURDAY, the 22nd inclusive. All persons willing to contract for the works are to send in sealed Tenders, directed to the Rev. S. G. DUDLEY, Wherwell, on or before the 24th day of APRIL. The Building Committee will not bind themselves to accept any or the lowest Tender.

[For remainder of Contracts see next page.

CONTRACTS.

COLCHESTER BURIAL-BOARD. — To BUILDERS and OTHERS. Notice is hereby given, that it is the intention of the Colchester Burial Board to enter into a CONTRACT or CONTRACTS with some person or persons willing to undertake the Excavators', Bricklayers', Masons', Carpenters', Joiners', Paperhangers', Smiths', Plumbers', Glaziers', and Painters' Works, in the erection of Two Mortuary Chapels, Porter's Lodge, Reception-house, and Entrance-gate upon their intended New Burial-ground; also of the Eastern Boundary Wall of the said Ground, according to the design of Messrs. EDWARDS and DAY, of No. 81, St. James's-terrace, Cumberland-road, London, the Architects, under whose superintendence the works will be carried on. The working drawings and specification may be seen at my Office; and all persons desirous of entering into such Contract are to send proposals, under a sealed envelope, addressed to me, the undersigned, and endorsed "Tenders for Mortuary Chapels," &c.; and the same will be submitted to the Board on MONDAY, the 16th day of APRIL next, at SEVEN o'clock p.m. It shall not be incumbent upon the Board to contract with the person offering the lowest price, nor with any person so proposing as aforesaid. By order,

PHILIP SMITH SPARLING, Clerk to the Board.

Dated this 18th day of March, 1855.
3, Abbeygate-street, Colchester.

CARTAGE of ROAD MATERIALS, and of SCRAPINGS and SLOP from HIGHWAYS and for WATERING the same. The Board for the Repair of the Highways, Christchurch, Surrey, are ready to receive TENDERS for CARTAGE, for a term of Two Years, Workmen, or other good paving flecks, of such ROAD MATERIAL as they may require, for the repair of highways for the day of contract till the 31st MARCH, 1856; and for the Cartage from off the highways of all such Mud, Scrapings, Slop, or other matters, as may by the Labourers of the Board may be gathered thereupon, the said Labourers will find such matters into the contractor's carts. The contractor will be subject to an agreed fine or forfeiture of 40s for each and for every such load, that in the contractor's opinion they may neglect, omit, or refuse to cart away the above-specified matters within forty-eight hours after the same has been gathered from off the highways (reading, Tuesday Board will likewise receive tenders for watering the whole of the highways of the said parish, extending from the Surrey Side Toll-bar-bridge north to the King's Head, in Blackfriars-road; south, and from Broadwall and Boundary-row west to Gravel-lane and Holland-street east, except the first streets on the river bank, which are under local management. The surveyor to render and labourers to work the pumps. The contractors to furnish never less than four water-carts, in sound condition, and provided with troughs, horses, and drivers, and a sufficient number of other horses, and drivers if more be required, to keep the dust on the above-said highways constantly laid, and the roads sound, to the satisfaction of the said Board, from the day of agreement to the 31st of OCTOBER, 1855; and the contractor will be subjected to an agreed fine or forfeiture for a failure and for every street omitted on the said contract in which he or they shall not effectually keep the dust instantly laid, to the satisfaction of the said Board. Forms of Tender may be had at the Surveyor's Offices, 8, York-street, Blackfriars-road; and all tenders must be forwarded to the said office on or before NINE in the morning of 3rd APRIL, sealed and endorsed "Tender for Cartage," or "Watering," as the case may be.

GREAT WESTERN RAILWAY.—CONTRACT for STATION BUILDINGS and other WORKS.

The Directors of the Great Western Railway Company will receive TENDERS for the execution of the following Works:—

The Erection of an Engine-house at Didcot Junction.

Two Carriage-sheds at Oxford Station Works at Swindon.

Passenger Station Buildings and other Works at Grange-court Junction. Also,

The Construction of two Bridges in substitution for level crossings at Langley and Basildon, and of a Timber Foot Bridge in place of a footpath level crossing at Moulsford.

Drawings and specifications may be seen, and forms of Tender, with any further information, obtained at the Engineer's Office, Paddington, on and after MONDAY, the 26th of MARCH, and Tenders are to be addressed to the Secretary on or before WEDNESDAY, the 11th of APRIL. The Directors do not bind themselves to accept the Lowest Tender

Paddington Station, March 17, 1855.

PIERS, HARBOURS, SEA DEFENCES, and WHARFS.—To CONTRACTORS and OTHERS. The Directors of the Margate Pier and Harbour Company have to OFFER for SALE by TENDER, the JETTY, known as "Jarvis's Landing-place," consisting of a large number of iron piles, as road condition, and fit for use in works of the above description, together with a large quantity of English oak of various dimensions. A specification may be seen, and full particulars obtained of Mr. CAVELIER, Secretary to the Company, Margate; or of Messrs. J. and E. BIRCH, 3, Compton-street, Westminster, on and after TUESDAY, the 20th of MARCH. Sealed Tenders, addressed to the directors and endorsed "Tender for Purchase of Jarvis's Landing-place," to be delivered at the Pier Office, Margate, on or before SATURDAY, the 14th of APRIL, 1855. The directors do not bind themselves to accept the highest or any other Tender

By order of the Court of Directors,
STEPHEN SACKETT CHANCELLOR, Clerk.

Margate, March 15, 1855.

TO BUILDERS.

PARTIES desirous of submitting TENDERS for the ERECTIONS of NEW SCHOOLS, SCHOOL-MASTER'S HOUSE, SIX ALMSHOUSES, and other Buildings, at Rugby, for the Trustees under the Will of Mr. WILLIAM ELBOROW, may inspect the plans and specifications at the present Elborow School-room, on and after the 9th day of APRIL next. Tenders to be sent in on or before the 23rd day of APRIL next, to the Offices of Messrs. HARRIS, SONS, and HUSBARD, endorsed "Tenders for Elborow Schools." The lowest or any Tender will not necessarily be accepted. Any further particulars may be obtained by application to Mr. HENRY HADDON, Albert-street, Rugby.

SOUTH STAFFORDSHIRE WATER-WORKS COMPANY.—To CONTRACTORS and FOUNDERS. The Directors are prepared to receive TENDERS for the CONSTRUCTION of the following WORKS:—

CONTRACT, No. 1.—For a RESERVOIR, HEADINGS, and WELLS, at LICHFIELD.

CONTRACT, No. 2. For a RESERVOIR, at the MOAT HILL, near Walsall.

CONTRACT, No. 3. For PROVIDING and LAYING DOWN about 6,000 tons of cast-iron MAIN PIPE.

Plans, specifications, and quantities, may be seen at the Offices of Mr. HENRY WARREN, Market-street, Wolverhampton, on and after the 1st instant, and at the Office of Messrs. MARRIAN and STEWART, Great George-street, Westminster, S.W., and after the 24th instant, Tenders, addressed to the Secretary, as below, must be sent in on or before the 7th day of APRIL next.

By order, JOSIAH CHURCHILL, Secretary.

Darlaston-street, Wolverhampton, March 5, 1855.

DONCASTER CHURCH.—To BUILDERS and OTHERS. Such Builders or other persons as may be willing to TENDER for the ROOFING FITTINGS &c. of the Nave and Chancel, are requested to send their names to HENRY WHITAKER, Esq., Doncaster, or to the Architect, GEORGE GILBERT SCOTT, Esq., 2, Spring-gardens, London, from which Architect the plans, specifications, and general drawings and specifications, and uniformal on estimate, as to the details of the execution. The drawings and specifications may be seen at the Office of the CLERK of the WORKS, at the Church, in Doncaster. Each Tender to be sent addressed to the Rev. HENRY WHITAKER, Rectory, Doncaster, endorsed "Tender for Roofing, Fittings, &c. for Doncaster Church," before TEN o'clock on the morning of SATURDAY, March 31. Proper forms will be required, and the Committee do not pledge themselves to accept the lowest Tender

Doncaster, March 28, 1855

R. BAXTER,
H. WHITAKER, } Hon. Secs.

CONTRACTS.

TO BUILDERS.

PEOPLE'S INSTITUTE, BELPER.—Builders desirous of CONTRACTING for the ERECTION of the above, are requested to send in sealed TENDERS, free of charge, on or before MONDAY, the 9th day of APRIL, 1855. The drawings, specifications, and conditions may be seen on and after THURSDAY next, on application to the Hon. Secretary, and bill of quantities may be obtained on payment of one guinea. The Committee do not bind themselves to accept the lowest, or any Tender; and no Tender will be received unless upon the form attached to the bill of quantities.

By order, REES L. LLOYD, Hon. Sec.

Belper, Derbyshire, March 20, 1855.

TO ROAD CONTRACTORS AND OTHERS.

THE DIRECTORS of the LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY are prepared to receive TENDERS for the FORMATION of ROADS and other WORKS on their Estate at Potter's Bar, Middlesex. Plans and specifications may be seen each day from TEN till SEVEN o'clock, at the Office of the Society up to the 31st inst. Tenders to be sent in addressed to the Secretary, on or before FIVE o'clock, p.m. on the 2nd APRIL next, endorsed "Tenders for Roads, &c. Potter's Bar." The Directors do not bind themselves to accept the lowest or any Tender.

WM. BANKS, Secretary.

211, High-street, Borough, March 22, 1855.

TO BURIAL BOARDS.—COMPETITION. TEN SHILLINGS PREMIUM.—An Architect of London, offers a premium of 10s. for the best ESSAY upon the Constitution of Burial Boards in general, and that of Soham, in Cambridgeshire, in particular. The writers are clearly to state the amount of education and gentlemanly feeling necessary to exclude any man from membership of such Boards, also the amount of emolument requisite to ensure to a candidate the position of Secretary to the Board.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,

53, 54, & 55, WYCH-STREET, STRAND.

Illustrated Catalogues post-free on receipt of six postage-stamps.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. HOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Metal Furnishers of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, on the ground floor, No. 63, Old-street.

J. H. HOOBBYER (late STURGE and HOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions; in the present state of the art, picking them would seem to be impracticable." *Standard.*

Depôt: 120, FLEET-STREET; where also may be had PRICE'S FIREPROOF SAFES, &c.

COPYING PRESSES, CASH and DEED BOXES.

LISTS and Prospectuses free.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION of BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of everyone.

Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 13, York-buildings, Adelphi.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GUTTER and WATER PIPES.
Office, No. 7, Size-lane, London.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street. Finsbury-square, respectfully invites the above Trade to the inspection of his numerous stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Fitting Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings,—

3 ft., 2l. 13s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3 feet Cottage Ranges, with ovens and back boilers, 35s. each.

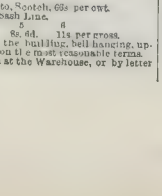
3-feet self-acting ditto, ditto, 28s. each.

Air Bricks, 4s. per doz.

Best Town Grate, 5s. 6d. Ditto, Scotch, 6s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.



And every material required in the building, bell-hanging, upholstery, and brass-founding trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION HOUSE PLACE, and LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Flooring, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL, DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coalscoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFING and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, and economy, and consequent stability, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 13, Pencharch-street, City.

SAMUEL HEMMING'S PATENT MUCH approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near Hamilton, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, reading boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores, warehouses, counting-houses, and carriages, made to any plan on the shortest notice.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron. The Importation, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.
Superior Polished Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 16, 11, and 13, Charles-street, Long-acre, London.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated. Roofs fixed complete.
J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumble Zinc, and Tiles.
An Allowance to the Trade

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS
Portable Galvanized Iron Fronted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal Glass and Slated Roofs, to any span.
Wrought and Cast-iron Bridges, Girders, Fire-proof Floorings, Sliding Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by
JOHN WALKER,
Builder, Contractor, and Ironfounder, Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and Painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES.—"Unsurpassed for security."—Latest testimonial.
COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.
"24, High-street, Manchester, March 6th, 1854.
"Messrs. Chubb and Son.
"Gentlemen,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, from your Show-room, 57, New Bridge-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, in the recent fire of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the books all answered to their respective keys, and all the damage the contents received (under one pint) was that only some of the books were slightly singed at the edge.
"You are at liberty to make what use of this communication you may think proper.
"We are, Gentlemen, yours respectfully,
"RYLANDS and SONS."
CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.
CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from the various manufacturers all that is new and beautiful in cut glass pendants, and chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to the more expensive decorated furniture; these are now ON SHOW in one of the TEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unparalleled assortment. They are marked in plain figures at prices to correspond with those which have tended to make his Ironmongery Establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. (two lights) to 10l.
WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the sale of GENERAL FURNISHING IRONMONGERY, including cutlery, nickel silver, plated and japanned wares, iron and brass bedsteads), so arranged and classified that purchasers may easily and at once make their selections.
Catalogues, with engravings, may be had free. The money returned for every article not approved of.
39, OXFORD-STREET (corner of Newman-street); 1 and 2, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

SAW-MILL, with Engine and Gearing, TO BE SOLD for less than half its value. For particulars, apply to DUNN and CO., 18, Great George-street, Westminster; and at their Works, Manchester; Mr. PIM, 9, Wrington-street, Gray's-inn-road; Mr. WRIGHT, 9, George-yard, Lombard-street, London; and Mr. THOS. MOLE, Engineer, Birmingham.

CAST-IRON PIPES, WORK FOR OVENS, &c.
RAIN PIPES, &c.—F. A. TIDDEMAN and CO. of St. Ann's-wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and round gutters, Socket Pipes for Water or Gas, Plunge Pipes, Hot Water Pipes, and Connections, Sash Weights, Sash Cord, Nails, Iron work for Makers' Use of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

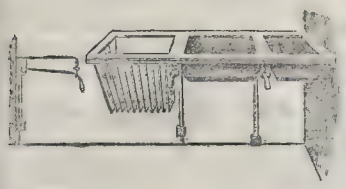
ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

COTTAM'S NEW PATENT FOR STABLE REQUISITES.

COTTAM AND HALLEN,



the original projectors of the above arrangement of MANGER RACK and WATER TROUGH, AS ONE FIXTURE, which obtained the Great Exhibition Prize Medal, and universally approved of, have added all the latest improvements to their invention (secured by patent), which includes an entirely new method of attaching the water bell and rein, giving to the horse greater freedom, and rendering it scarcely possible to operate, and much to its comfort whilst feeding and convenience when at rest.

COTTAM'S ENAMELLED MANGERS

are constructed in the best possible manner, both as to form and utility, are cleanly in appearance, durable, and impervious to infection; manufactured PLAIN, GALVANIZED, or ENAMELLED.

Improved Stable Guttering, with Moveable Safety Covers.

Loose Box Fittings, Harness-room Appendages, and every Article in Stable Furniture kept on show.

Descriptive Catalogues and Estimates on application to

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET, LONDON.

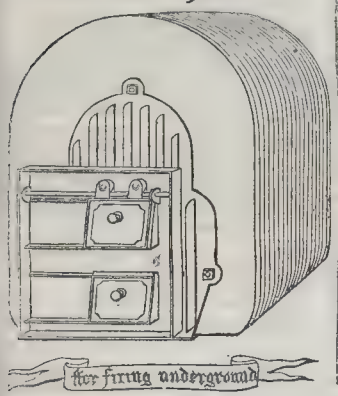
IMPROVED PUMPS,

Of the best Workmanship and warranted.

The VALVES and SUCKERS of these Pumps are constructed upon an entire new and SIMPLE principle; they are not likely to get out of order; should they do so, can easily be repaired, as the Pump is so contrived that the valves can readily be got at.

An Improved CAST IRON TRAP strongly recommended by the Sanitary Commissioners, and suitable for Sugar Bakers, Slaughter Houses, &c. &c. It is so formed that the Trap-plate will pass any matter the top grating will let through and therefore is not liable to stoppages and well adapted to Stables and Stable-yards, for saving the best part of Liquid Manure.

Grill Stove.



for firing underground

STUART AND SMITH'S PATENT GRILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

STUART AND SMITH,

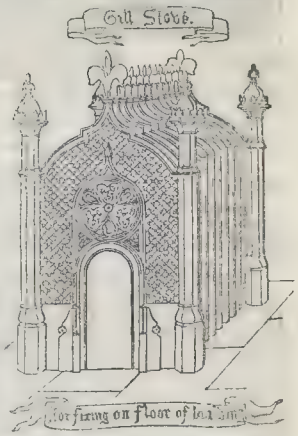
ROSCOE-PLACE, SHEFFIELD,

confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

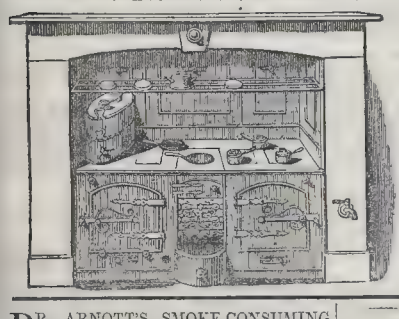
Prospectuses, and every information, sent on application.

Grill Stove.



for firing on floor of building

FLAVEL'S PRIZE KITCHENER.



These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

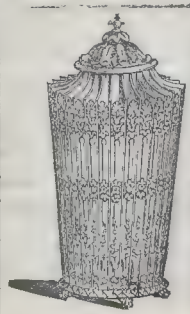
19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 32 Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel. Prospectuses, with testimonials, sent on application.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of Low water upwards of 1000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing houses, &c can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application to COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot doors for the same, hot-water pipes, elbows, &c; sashes, troughs, pipes, brazing, and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron-bridge.



SYLVESTER'S HOT WATER STOVES, for Warming Halls, Staircases, Galleries, Warehouses, Stores, Hotels, and Offices, require no Flue, create no Dust, and are safe from all risk of fire.

Any number of these Stoves may be heated from one Boiler, and may be used equally well with steam or Hot Water.

SYLVESTER'S IMPROVED AIR WARMER is the most powerful, salubrious, and economical Apparatus yet invented for Heating Churches, Chapels, Schools and Public Rooms, by means of Hot Air.

Prospectuses and Estimates may be obtained on application to

SYLVESTER and CO. Engineers and Manufacturers of Heating Apparatus, 96, Great Russell-street, Bloomsbury.

ROYAL POLYTECHNIC GAS FIRE. BACHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S office, 145, Regent-street, London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS RADCLIFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having the kitchener, and it effectually cures smoky chimneys, and is the best cooking range extant.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for,—the prize of public approbation,—has long been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

HEATING by HOT WATER.—JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating building measuring 100 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

TO IRONMONGERS, BUILDERS, &c

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks. Manufacturers of Dr Arnott's improved Ventilators. HULETT and CO. 85, High Holborn.

PATRONISED BY H. R. H. PRINCE ALBERT.

S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse, 81, Upper Thames-street.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 6d. shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
139, Strand, London.
67, Hyde-park-street, Glasgow.
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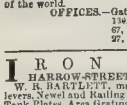
IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. A. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rigers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES,
a complete LIST of which
will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and Best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler.
30 32 34 36-inch.
26s. 30s. 32s. 34s.
Best Self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42 inch.
54s. 56s. 58s. 63s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 9½d.
Register Stoves, with Solid Bars, per inch, 3d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 6d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.
Cast Rain-water Pipe { 2 2½ 3 inch.
1s. 1s 3d. 1s. 6d per yard.
Cast Gutters—4 inch, 10d. per yard.
4 4½ inch.
O G Gutters ..... { 1s. 4d. 1s. 6d. per yard.
Best Cut Clasp } 1½ 1¾ 2 2½ 3 inch, and larger
and Rose } 17s. 19s. 22s. 25s. 34s. per cwt.
Cut Billed Brads, 13s. 6d. per cwt.
1 inch Cut Lath, 10s. Cast Lath, 13s.
Patent Lime { 3 3 4 5 6
4d. 5d. 7d. 9d. 1s. per knot.
6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO IRONMONGERS AND THE TRADE GENERALLY.
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—35 and 36, High Holborn.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, conservative, and other gates and doors of large and small dimensions, a ton weight moving with their hinges as easily as a wafer; ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double acting spring Hinges, and every description, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservatory and Hot-house Builders, either in wood or iron, respectfully call the attention of the nobility, gentry, and nurserymen to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, reference of the highest respectability can be given, and full particulars furnished on application.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, DAVIS, JAMES, and Co. Wholesale Ball-iron and Railway Makers, Ironmongery Establishment, 24, Watling-street, City, and see in motion this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these different separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

MACHINERY.—SAWING, PLANING, MOULDING, and WOOD CUTTING MACHINES.—To Timber Merchants, Contractors, and Others.—SAMUEL WORSSAM and CO. of Hortulan place, Kings-road, Chelsea, invite the attention of Timber Merchants and others to their new inventions and improvements in all kinds of machinery used in Sawing, Planing, Moulding, and Wood Cutting. S. WORSSAM and CO. are able to execute orders with cheapness and despatch; they solicit an inspection of their machines constantly on hand and in progress; and they can refer to parties of the highest position and respectability, as to the goodness and efficiency of their machines. Estimates made for Exportation, or otherwise.—Drawings and prices on application.
February 16th, 1850

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delhruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEILL and STEDALL'S,
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

CHEAP GAS-FITTING WAREHOUSE.—The Trade supplied with every description of GAS CHANDELIERS, Hall Lamps, Pendants, Pillars, Brackets, Iron and Brass Tube, Tin and Composition Pipe, &c. &c. at J. JEALS 20 and 21, Old street, near St. Luke's Church, London.
P.S.—As large and choice an assortment as any house in London.
Gas-fitting Contracts to any Amount.

PIMLICO MARBLE WORKS, LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally, their extensive assortment of vein, Sicilian, and statuary marble, in slabs and blocks, at prices never before offered. JAMES SIMMONS, Manager.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sterling, Dove, and Black and Gold Marbles, at PARKIARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Tinson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

TO BUILDERS, MASONS, AND OTHERS.
THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Norfolk, Bath, York-paving, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England. THOMAS JACOMB, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Carcos shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Waterloo-bridge Offices, 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEDDAM and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to deliver from their Wharf and Depôts CAEN STONE, AUBIGNY, CHILMARK, and CHASTER, BATH, GODSTONE, BUILDING, BLOCK, and RUBBLE STONE, BLOCK and BURR HEARTH STONE, RUBBLE BUILDING STONE, direct from the Quarries, and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For information, direct to Caen Wharf, Rotherhithe; or to Hibernia-chambers, London-bridge, Borough.

ANCASTER STONE, from the celebrated quarries of Mr. John Wilson, Ancaster, who has appointed GATES and GEORGE, Stone Merchants, his sole consignees for the London district. Ancaster Stone, so generally esteemed by the building profession, for its great durability, economy, and general utility, as to require but a trial to secure the approval of architects and others for its more extended use in building.—Samples and other information can be obtained at the Great Northern Depôt, King's-cross; Caen-wharf, Rotherhithe; and Hibernia-chambers, London Bridge, Borough; or forwarded to address, free of charge.

GODSTONE STONE.—GATES and GEORGE beg to solicit the attention of architects, engineers, and builders to the above Stone, as being suitable for all purposes of construction, either as a substitute for brickwork, or in connection therewith, the price in most respects being about the same as ordinary brickwork. It can be obtained in large quantities, and to special sizes, in rubble or rough square blocks, direct from the quarries.—Information and samples given at Caen-wharf, Rotherhithe, and Hibernia-chambers, London-bridge, Borough.

BANGOR WHARF, King's-road-bridge, Camden-town.—STRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cement, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials landed, wharfed, and carted.

BATH STONE DEPOT, BOX STATION.—ROBERT STRONG, STONE MERCHANT, Box, Wilts. Box Ground Stone, Scaliett Block, Ashlar, Ringework, &c. &c. supplied direct from the Quarries; also every description of Stonework for Building purposes, both plain and ornamental, prepared ready for fixing, and forwarded to any part of the kingdom. Vases in elegant variety always on view; Urns, Fountains, Chimney-piece, Tombs, &c. &c.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TEGGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge.

TREVALGA ROOFING SLATE.—T. B. HANNAFORD, Sole Consignee of the above beautiful Slate, is in a position to supply the same at extremely low prices. Cisterns, sinks, and every description of slate-slab work executed with despatch.
Trevalga Wharf, Ratcliff cross.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave-place, Pimlico.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

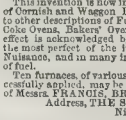
WILKINSON'S IMPROVED ARTIFICIAL STONE CHIMNEY-PIECES.—Nearly 3,000 of the above have been Sold, although only recently brought to their present state of perfection, and offered to the public. The prices range from 6s. for a neat bedroom set; with jambs, moulded with large ogee on inner edge, set on plinths, Mantel, moulded with ovolo and fillet under shelf, and shelf with hollow on edge, to 50s. for sitting-room patterns of more elaborate character. A liberal discount for quantity.—Address W. B. WILKINSON, Newcastle-on-Tyne.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W. ASPINALL begs to call the attention of Builders, Masons, and Masons, to his Stock of Portland, Park Spring, Potternewton, Newton, Harehill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Slabs, Sills, &c.; Park Spring, Robin Hood, Harehill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curb and Pitching, all at the very lowest prices.
N.B. Estimates given for Masons' Work.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN DE POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material to the best manner. Asphalte for Railway Arches, 33s. per ton. Importer of Trinidad Asphalte.
Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

THE SMOKE NUISANCE.—M COUPLAND and CO. beg to call the attention of all parties concerned, to their improved PATENT APPARATUS for the PREVENTION of the SMOKE, and saving of fuel. May be seen in operation in one of the largest establishments in London, every day Sunday and Monday excepted. Apply, between the hours of TEN and FOUR, to M. C. and CO. Engineers and Millwrights, St. John's-terrace, Hackney-road, London. Prospectuses and drawings sent free.



SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTER'S PATENT WINDGUARD.—This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.
To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnaces, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and it is therefore valuable for conveying water, chemicals, &c. It is peculiarly valuable for liquid manure, drain, and soil pipes. Being a non-conductor, it is not affected by the frost of winter or drought of summer, like metal or leather. Its strength is extraordinary; the small half-inch diameter tubing having resisted a pressure of 250 lbs. on the square inch, without bursting. The smaller sizes may be had in 100 feet, and the largest in 50 feet lengths. The joints are easily made. As a conductor of sound it is most valuable for conveying messages in lieu of bells. ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA. The GUTTA PERCHA COMPANY, Patentees, 18, Wharf-road, City-road, London.

WHITE OXIDE of ZINC.—Addington-Wharf, Camberwell.—This article in its pure state, can be obtained at the Patent Oxide of Zinc Works, Addington-Wharf, Camberwell, where it is manufactured.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

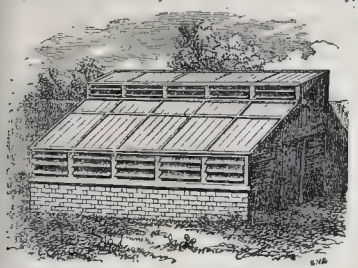
The Works, Sutton, St. Helen's, January, 1855.

MOORE'S PATENT VENTILATOR,

FOR EVERY DESCRIPTION OF

FARM-BUILDINGS, CONSERVATORIES, HOT-HOUSES, WAREHOUSES, MARKET-HOUSES, BELL-TURRETS, ALSOFOR VENTILATING-SHAFTS, &c.

81, FLEET-STREET, LONDON. Manufactory, SEKFORD WORKS, CLERKENWELL.



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The Builder.

SATURDAY, MARCH 31, 1855.

BEFORE pursuing the course of our history of architecture, brought up to about the period of the French Revolution, we should refer to some peculiarities of art in the seventeenth and eighteenth centuries, of which we deferred speaking, and which it is very desirable should be rightly understood. Few styles may be deemed so familiar to every one as those comprehensively designated "Louis Quatorze,"—from the French king, in whose reign they were originally introduced into France. Yet, these styles, in modern practice, are often intermingled with other favoured systems, with which they had no original connection—further than the general debt to Italian origin—and with which they may be unfitted to coalesce.

The question of "synchronism of style," indeed, we are not now prepared to argue. We might even discover that that question is one which there should never be occasion to enter upon, as it is usually raised, with reference to modern practice. All the materials of art are for our application or instruction, and the chief point should be—whether the lines, contours, proportions, and so forth, are such as harmonize. Were Grecian and Gothic ornament placed together in the same composition, we presume there would be an apparent dissonance of a different nature from the mere "anachronism." If evidence for that belief were wanted, we have it in what all must have noticed,—namely, that the same draughtsman never yet presented both classes of ornament. But, assuming the unison of forms to be secured, we may still have to settle—whether we can afford to part, in cases of whatever description, with even the reflection of historic interest. That may lend a charm to the highest living *art*. It may be the excusable part in the *sentiment* animating the revival of Gothic architecture. The idea that a certain permanence of character should be found in the architecture of religious uses, held place even in the works of the Anglo-Italians, and gave to the steeples of Wren the character that we discovered in them.

Clearly, however, on all grounds, it is important that the architect should study the materials which he uses, somewhat more intimately than with the mere pencil; and whatever be the purpose to which he may afterwards turn them. Therefore, when with this view, we seek to define the character of a style, we must reject much that has, perhaps, entered into combination, in the works of the best architects.

The difficulty of fixing upon examples, we may say, is sometimes considerable; for it seems to be forgotten, that the works of architects were not designed by them to illustrate particular systems: the works derived their chief value from *innovation* upon the system, and from their giving forth examples of the artist's mind. Rickman found the difficulty so great, that he attempted his own illustrations of styles'—a plan always regarded with suspicion by the professional reader.

We saw that the grand monumental style of the English and French architects was, in the main, free from the vices of manner which formed the whole style of the most influential of the contemporary Italians. In each country the same styles were existent—Cinque-cento, degenerate Italian, and "Louis Quatorze," each originally transported from Italy. What *prevailed* in one country, was, however, the exception in the other. In both countries, the Cinque-cento art was that to which men would again and again recur, as the highest attained standard of excellence,—the mother-earth from which they derived fresh strength for the contest, at every touch. Yet, as we saw, circumstances led to great difference in the character of the external architecture, as viewed in the greater number of works. In the treatment of interiors generally, there was still greater discrepancy between the two countries. The principle of the English architects was to carry the same general style throughout the building: but in the course of this praiseworthy endeavour, they occasionally gave to the interior, features too nearly resembling those of exteriors, and originally designed, if not for direct utility in the open air, with that "semblance of utility" which should always be found. We are not preferring the *Rococo* of French abasement to the doorways with pediments, and the excessively massive cornices in some English works. We merely point out that the style adopted in France was one which would have allowed a change in the principle of decoration—indeed, greater than it effected at first—and free from the eccentricities which were ultimately reached,—a modification which might, perhaps, have been made to contrast advantageously with the ponderous dressings and moulded panellings of the more strictly Italian architecture. As regards the pediment in interiors, the objection may be mitigated, but only in the case of the broken pediment of the degenerate style,—so that it would appear that what might be intolerable throughout an exterior, might be used,—because elsewhere the form could convey no idea of insufficiency. The whole question here raised, is one about which the moment we begin to reason we find the difficulty. Take up one extreme view, and you would lose the labels to Gothic arches in interiors, and, perhaps, cornices, and many of the most important features of architecture altogether, such as there was no idea of rejecting in the French interiors. Casuistry surely cannot be allowed to trench so much upon the field of art. With dogmas for the support of everything, *art* itself will evaporate. Rules are not unimportant: indeed, nothing can be effected unless there are guiding principles expressed or felt. Those rules, however, which are in the latter position, are what are most valuable. It is not possible, and, perhaps, not desirable, to prevent each spectator from settling the question in his own way. The feeling in our own case is not always shocked by the use of pediments to windows,—because there may be just the semblance of use, which is all we care about. Inside the building, however, the case is very different; for there, the idea of protection, or of a roof, is instantly negatived by the recollection that we are already under cover. In the broken pediment in exteriors, however, we are a degree further removed from actual use; whilst in the interior the same form cannot challenge our objections, for it is clearly not fitted for the duty which it has not to perform. There is only just so much connection between it as an architectural decoration, and the original pediment, as there may be between the triglyphs of the Grecian Doric and their supposed origin, the ends of beams. These observations will be found to apply to the styles we are now more especially contemplating,—not only because of the general tendency of those styles away from *structural* design, but also on account of their frequent use of the broken pediment.

But, we were about to remark, that whilst the Louis Quatorze style, and its successors, were essentially belonging to the architecture of interiors, their growth out of the degenerate Italian, necessarily brings occasional Louis Quatorze ornament into exteriors. Seldom, however, anywhere, is the style found to pervade a whole façade. A few churches of the Jesuits are the chief examples. Features both of the degenerate Italian and the Louis Quatorze, thus may be found strangely mingling with a general style, the principle of which was to reject them. Of the former innovation, St. John's Church, Westminster, by Archer, might have served to illustrate a former article. The Louis Quatorze character may be seen along with the architecture of Wren, and in certain parts of the tower of that church in the Strand, which Gibbs would seem to have raised as though it should be a pattern card of everything that he had brought from Italy. Where, however, the Louis Quatorze ornament is sparingly introduced, as in some of the details of St. Paul's—where it mingles with the regular lines of the entablature—it seems to perform the part of a useful foil to increase the beauty of the ordinance.

The "Louis Quatorze,"—speaking of the styles as one, under the name generally used,—had, then, this especial and distinctive character, that it was essentially a style of decorative art. Vitruvius, indeed, directs a difference of treatment between the design of external and internal architecture; but the difference is merely a difference of proportions, not that radical change in both composition and style which would seem in the license of the later period of French extravagance, to require the employment of two different architects.

It may be urged that the case as here put, should be subject to exceptions. The Alhambra, plain externally, gorgeous within, might be instanced; and the Roman houses themselves, judging from those at Pompeii, exhibited something of the same contrast. Still, the difference there, naturally arises from the plainness of exteriors,—kept so for reasons unconnected with art,—rather than from any intended difference in the architecture. The Alhambra decorations are little more than flat surface ornaments; and in the Roman villas, the differences occur only where pictorial art has, in some degree or other, been called into play. Even in the Elizabethan decoration, the styles of exterior and interior are plainly identical. Such as the Roman style is, much of it may be taken as condemned by one of the passages in Vitruvius.

Whilst a right conception of the principles of architecture would dictate, in design for furniture, the use of members different from those of masonic and structural architecture, it is remarkable that after the period of Greek art, the error of copying the parts of buildings in unsuitable positions was frequent. A general unity of feeling and character should of course pervade the whole building, its interior, its fittings, furniture, and household utensils. The same ornaments which the Grecks used in their buildings and vases, were the most beautiful and appropriate decorations for the edges of garments. But the true principle of architecture is to confine forms originally designed for peculiar *structural* offices, to similar situations and materials; and in every fresh case, to seek without prejudice the form which is best fitted for the new office, or for the new material, and which will usually have distinct characteristics. It is to inattention to this first principle of design, that is due a pestilential fallacy,—that real skill in architecture does not imply skill in furniture design and interior decoration;—whereas a proper view of what is necessary to success in the one department of architecture, should recognise that aptitude to seize all new requirements, which is the indispensable condition of success in any branch of our art. But it does not appear, that distinctions in structural purpose were held in view until the Louis Quatorze period,—when, however, the separation of what is essentially one profession, into the two of architecture and decoration, which then seems to have first taken

place, whilst seeking one object, eventually went to the extreme of divergence, and terminated the existence of true art in decoration by the disregard of the structural element altogether.

The proportions of the column had been fixed by properties of a friable and disintegrating material, as well as by consideration for effect,—indeed, with reference to this, we must not disregard the theories founded on the supposed perception of the structural sufficiency as having to do with the sense of delight. We shall not, for the sake of building up a theory, question the propriety of the Gothic mullions in the particular material; for, the same line of reasoning may touch upon the use of all stones set on end, of slender dimensions, or indeed of everything originally derived from "post and beam" construction. Still, in any new attempt, and where materials such as wood or iron are employed, we seem to be justified in seeking for forms and proportions, better suited to the new structural office and the different properties of the material. The Italian artists, however, adopted the classical columnar system in furniture, where no great weight had to be supported, and for a fibrous material. It is clear that the leg of a table, or the post of a bedstead, could be executed in wood or iron of much more slender proportions than either could be in stone, and that it might even be twisted or curved without endangering the structural sufficiency. The point, then, is that which was not perceived in the heavy table-legs and the bed-posts formed of the classical columns, that were used in the Elizabethan furniture,—interesting though that may be to us. It was perceived in the furniture of the Greeks. It was felt also by the artists of the age of Louis Quatorze. By these last, however, whilst one error was avoided, it may be said that another was fallen into. That was one avoided in a style, which, like the Italian, had not escaped some mistakes. The Gothic architects generally recognized the fact that furniture in woodwork is not built up or carved from one block, but that pieces are framed together. The Louis Quatorze system, however, would treat the form of a chair as though it were necessary to give the notion of having been carved from a single piece. The infusion of new thought into the profession of architecture had its advantages: at first, at least, it prevented the mimicry of forms suited to one object, where the purpose was different—such erroneous taste as even the mediæval artists indulged in, in small coffers and altar furniture mimicking the forms of buildings—but it fell into the error which we have alluded to. The Louis Quatorze style is beautiful in many of its features: it is highly suggestive as to the application of materials: it is instructive as material for study: but it is dangerous as "example."

The characteristics of the Louis Quatorze differed essentially from those of all contemporary or preceding styles. It was, indeed, a development of the degenerate Italian, as that style was a variation on the Cinque-cento. It therefore recognised the classical orders, and comprised many successful adaptations of their mouldings and ornaments. But it was essentially an ornamental style,—one finding its more genial home in mere surface work and decoration, than in anything where structural principle was concerned, and which there was danger that it might set at nought. This last result was not generally attained during the early and better period of the style, but was reserved for the works of the period of Louis Quinze, which, although a development of the same principle, are rather an extravagant caricature of the original style, than part of what for the moment we included above under one general designation. Mr. Wornum's valuable course of lectures, to which we have before referred, is the source from which we may derive a nice perception of the peculiarities. The chief aim of the style was effect, by a brilliant play of light and shade. To this, mere beauty of form in detail was secondary—though we think frequently provided. In the decoration of walls, colour, unless in flat tints, was omitted. Gilt stucco work for a time, almost superseded decorative painting. Thus the absence of certain previous characteristics of decorative art led to the predominance of others—in this case, the infinite play of light and shade. We may ourselves remark, that this fondness for gilding,—which eventually went to great excess and extended to England,—has ever since weighed heavily upon efforts for the real improvement of art. It seems to have been considered, that under the new direction taken, exact symmetry was no longer essential. It was not, however, till the period of Louis Quinze, that symmetry was systematically disregarded. We think, however, that the Louis Quatorze may have been not the first style which disregarded the important element mentioned; for we recollect many Flamboyant windows in which there is decidedly a similar tendency. These instances of repetition of events in the history of art are important, and should be instructive to us.

The distinctive character of the Elizabethan was, that it used all those elements of the comprehensive "Renaissance" which did not become the especial property of the Cinque-cento. Thus the cartouche and strap work are predominant in the Elizabethan. The general principle of Louis Quatorze, however, is explained to be—the assumption of those elements which were rejected by the Elizabethan. Thus, strictly speaking, in the Louis Quatorze, the cartouche and strap work have no place. Where in the Louis Quatorze style we should meet with round surfaces, in the genuine Elizabethan there would be flat surfaces. The flatness in the latter case was modified by the cartouche-work element of the age of James I. In the Louis Quatorze, both scroll and shell work are common, and much of the character of the ornament may be traced to developments of the shell form. The classical anthemion is conjoined with the shell, to produce a new ornament. A small scroll, sometimes clothed with acanthus foliations, is common. We may add, that curves of contrary flexure are general, though frequently the junction is interrupted by a rectilinear break. Curves, with voluted ends, are profusely employed, and these placed end to end, often serve to make up a design. In fact, nothing is so easy as to get over an awkward space by a few of these forms. Applied as *decoration*, they are to be tolerated; but where they are laid together, for a structural office, the contrary flexure necessarily acquires the appearance of weakness. In the combination of scrolls, a fiddle-shaped appearance is common. Flowers, Cupids, stalactites, and "rocaille," or grotto work, and imitations of architecture, at length made up a curious combination, and led to the extreme of *bizarrerie* in ornament—the "Rococo," the origin of which term has not been exactly explained.

Thus in the Louis Quinze, even in the better versions of it, which sometimes are marked by much inventive fancy, the exceptional characteristics of the earlier style become prominent. Original classical types are still further departed from. What were elements in the former style, rule the composition in the later version. Want of symmetry is general. As the authority we have before referred to says,—in many of its examples, the Louis Quinze is an almost random dispersion of the scroll and shell, mixed only with flat peculiar crimping of shell-work—the "coquillage." The feathered scroll was also used. The mixture of round and hollow forms for the mere play of light and shade became a mannerism. There was no object but the sensuous—no individuality in ornament—and therefore the result at length was the entire destruction of art. As in the degenerate Italian architecture, the greatest skill in construction was called up, for the object of accomplishing ornaments contravened by the ordinary structural conditions, so in the French furniture, like skill was required by the opposition to constructive truth. It must be allowed, however, that in the furniture of the period, the importance which we attached to the style at the outset of our remarks is evidenced. Many excellent methods were invented for the treatment of surface work, as by metals in relief, ivory, *pietra dura*, and inlays of tortoise-shell and metal, called "buhl-work." The amount of design often displayed in these, and the extraordinary skill of the workmanship, must be conveyed to the mind of our readers by their recollection of the exhibition at Gore House, for it is beyond powers of description. The inlays of porcelain which were used in the later period, had both beauty and appropriateness as enrichment; and the mode of veneering so as to give various modifications of surface, should lead to a similar practice now, in preference to the ordinary form of application. The one form may be open to the objections of certain opinionists,—the other is unquestionably free from them, and consistent with the attainment of good art.

The Louis Quatorze style of ornament, believed to have had its nearest type in the Chiesa del Jesu, at Rome, may be said to commence in France with the king's reign in 1643. The succeeding style commenced about 1715, with the reign of Louis XV. Watteau, the chief of the characteristic painter's art of the time, died in 1721. The style, as a general system of decoration, is said to have ended about 1774. The interior of Versailles is the chief example of the style. On this building astounding sums of money were laid out. The style extended to England, and was used by Chipendale, author of a book of designs, who was established in St. Martin's-lane. It still prevails to a great extent, the peculiar character of the ornament adapting itself readily to the finger and thumb of the modern composition-ornament maker; who, in pier-glass frames and console-tables, sometimes contrives to produce a character of ornament,—than which, the wildest extravagance of the Louis Quinze was scarcely worse. The style was succeeded in France, by a manner less eccentric, but quite as deficient in *art*. That again in later times, has been followed in furniture, by the Renaissance, though a style of a higher character than our Elizabethan, and to the same style it would be desirable for English designers to give a little more attention.

In some of the old London houses, in corners of the City and elsewhere, we occasionally meet with charming bits of architecture in interiors—as in staircases and entrances. In other works like the Mansion-house, and in a great number of later buildings, which from their exteriors have a certain reputation, there is an obvious want of art in the interior decoration. That by the mere adoption of a distinct *style* for interiors, what is wanting might be gained, we do not think; and were we of such opinion, we might doubt the advantage of selecting the *Louis Quatorze:* still it is clear to us, that that style attained much of what we want, and that at all events it might well receive more intelligent study than has hitherto been given to it.

ST. MILDRED'S SCHOOLS, CANTERBURY.

THESE schools are now nearly completed, on a plot of ground adjoining the parish church of St. Mildred, Canterbury. The materials are flint and Bath stone dressings. The roofs are covered with ornamental tiles, with an ornamental ridge. The work is being executed under the superintendence of Mr. Joseph Messenger, architect, by the Messrs. Lancefield, builders. There were five tenders sent in, varying from 2,200*l.* to about 1,700*l.* which was accepted.

It is mainly through the exertions of the Rev. W. J. Chesshyre, the rural dean of Canterbury, that these schools have been built. The funds have been raised by grants from the committee of Council, the Diocesan Society, and by subscriptions in the neighbourhood.

THE GRAVE-DIGGER.*

"OLD man! old man! for whom digg'st thou this grave?"
I asked as I walked along,
For I saw in the heart of London streets,
A dark and a busy throng.
It was a strange, wild deed, but a stranger wish
Of the parted soul to lie,
'Midst the troubled numbers of living men,
Who would pass him idly by;
So I said, "Old man, for whom digg'st thou this grave,
In the heart of London town?"
And the deep-toned voice of the digger replied,
"We're a laying a gas-poipe down!"

* Altered from the German.

REFERENCES.

A. Boys' school-room.
B. Girls' school-room.
DD Class-rooms.
EE. Hat and bonnet rooms.
FF. Coats.
GG. Dust.
HH. Water-closets.
I. Urinals.
K. Boys' play-ground.
L. Girls' and infant play ground.
M. Parlour (Master's residence).
N. Living-room.
O. Scullery.
P. Pantry.
Q. Yard.

ST. MILDRED'S SCHOOLS, CANTERBURY.—MR. JOSEPH MESSENGER, ARCHITECT.

ON THE MOSAICS AND OTHER DECORATIONS OF THE CHURCH OF STA SOPHIA, CONSTANTINOPLE.*

I HAVE hitherto only alluded to the gold-ground mosaics; but they are by no means the only kind of decoration, as up to the height of the springing of the main arches supporting the dome, the whole wall is covered with slabs of precious marbles, no doubt in imitation of the wall-covering that helped to make the Pantheon so celebrated a monument, and so worthy of imitation by all the eastern successors to the glories of Rome.

The mosaics of all this wall-covering are very interesting, because they consist not only of slabs of marble put together like the antique, but of marbles cut out and fitted into each other, like Florentine mosaic. In addition to this, in *pietra dura*, there is a curious mosaic made up with a resinous composition. It forms the spandrels of the arches of the *gynæceum*, and other places. Some of the lines in these ornaments are so fine that it was necessary to cut it out of very thin marble indeed, and of various thicknesses. As it was difficult in such delicate work to pierce a thick slab truly, the slabs were thinned down in parts to $\frac{1}{4}$ or $\frac{3}{8}$ of an inch; and where the line required to be very thin, the marble was sloped away at the back, and cut through clean. Resin mixed with marble dust and other substances was poured over it to make what would be less than $\frac{1}{2}$ an inch thick into the thickness of about 1 inch. It was then fastened to the wall with cramps, and more hot resin was poured behind the cramps to make the whole secure. The patterns of this style of work are curious, as they have a mixture of the old Greek in them.

I will now proceed to advert to the historical position which these mosaics occupy.

As we have given (as everybody who looks at Sta. Sophia must) the highest credit to the Byzantines for architectural originality in every form,—in capitals, mouldings, &c.—they can afford to spare a little of the reputation usually attributed to them of being the only mosaicists. Writers constantly allude to "Greek mosaic," as though there were no other kinds. It is to be remembered, on the contrary, that the gold-ground mosaic was essentially an old Roman art. We know that Pliny describes distinctly the introduction by Agrippa of glass mosaic; and we know that the most ancient mosaic was known as *lithostratum*, being made of stones, and was taken from the Greek. As the exigencies demanded by improvements in the art went on, more colours were wanted than could be found in natural substances, and to supply such wants fictile materials were invented. In such glassy substances the Romans produced all the colours employed in the most celebrated antique mosaics, such as Pliny's "Doves," "The Battle of Issus," &c. Pompeii contains numbers of specimens of gold-ground mosaic, perfectly well made, as pure in colouring, as little obscured as when they were first executed, and as excellent in every technical respect as any of the best Greek mosaics. We know that in the house of which Mr. Falkener gave such a beautiful illustration in the Exhibition of last year, there were four columns entirely clad with mosaics. A very elaborate specimen of a column decorated with patterns introducing gold ground mosaic has been lately put into the museum at Naples; and in the house of the Greater Fountain, and of Medusa, there are noble fountains with "conchæ," thoroughly well enriched with mosaics. Pompeii was overwhelmed in the year 79; and therefore in the interval between that date and the time of Constantine—about 330—a very considerable progress might have been made in the art, especially at a period when richness was sought for rather than beauty. From these and other facts it is perfectly clear that the Romans had an immense number of workmen perfectly competent to carry out works in mosaic when Constantine removed the seat of empire to Byzantium. One fact may be mentioned strongly corroborative of this view; namely, that at Rome, whoever wishes it, may find them himself, or have shoals of fragments of gold mosaic brought to him. The poets allude to it frequently, and it is clear beyond all question that the *vitreæ parietes* were essentially Roman.

When Constantine went to Constantinople, he took a certain number of workpeople with him, but perhaps not the greatest number of those who worked at Rome; and even up to the time of Sta. Sophia I believe the mosaics were worked by the regular descendants of the Roman mosaicists, and not by Greeks. We may indeed state broadly that up to the year 500, almost all the churches in Italy were decorated by Roman mosaicists, and after that time by Greek artists. The oldest example of all is Sta. Costauza, the funeral chapel built by Constantine for his sister, adjoining the church of Sta. Agnese at Rome, and there we find the subjects of the catacombs reproduced. The colours are black and white, as in the remains of the baths of Caracalla, and the subject is a large vine, trailing over a "pergola" or framework, and between the branches are genii eating the grapes. The meaning of this is of course the faithful living on the benefactions offered by the church. It is a subject of frequent recurrence in the catacombs. I need scarcely observe that angels were not depicted till a later period, and the angelic idea was therefore expressed by children, or *amorini*.

It may be desirable, before I proceed, to recall some of the subjects of the Catacombs, because, as I have already observed, they gave the first tone to all the early Latin mosaics. The Christians of the first three centuries, in their shelter in these caves, were afraid to express openly the doctrines which they held: they therefore veiled or concealed their sufferings, preferring to proclaim rather their faith in the happiness that awaited them. Thus we find the idea of the Saviour is expressed by a representation of Orpheus winning all to him by celestial music. Again we have him as the Good Shepherd, with his sheep, or disciples: we have representations of a large cup with birds drinking from it, indicating the faithful receiving the sacrament, and stories from the Old Testament, all of which find their counterpart in circumstances connected with our Saviour, but there is no direct representation. Where the resurrection is expressed, it is frequently under the image of the raising of Lazarus; or the escape of Jonah from the whale's belly. Everything is expressed under a symbolical form, and Christ himself is represented invariably "imberbis," and arrayed with eternal youth.

There is no doubt the early Christians followed these types for some time; hence the number of representations of the cross, the vase with birds drinking, green fields with sheep feeding, &c. which are constantly found in all the Latin mosaics. * * * *

Returning to Byzantium, we find that Greek art does not appear to have reasserted itself in the treatment of pictorial subjects till about 120 years after the publication of the edict against the image painters and makers. The Empress Irene found that the feeling of the people was in favour of a somewhat sensual indulgence in pictures and statues, and it was agreed at a general council that paintings should be introduced, but not statues. A discussion of the subjects then began, and authority was given for a certain series, which are embodied in the celebrated "Menologion," one of the most valuable MSS. in the Vatican Library. All the sacred acts depicted are recognised by this as allowed to be painted, and they form the staple materials of ecclesiastical decoration throughout the Norman and early Teutonic periods, and all the Middle Ages.

After the close of the ninth century, during which almost all these great mosaics were executed in Italy by Greek artists, who found very little employment in their own country (the Greek Emperors declining in power) there was again a great lull till about the year 1100. It is true many Greek workmen were employed at Venice about 1020, going steadily on at S. Marco, till 1200 or 1300, both with carved stone-work and glass gold ground mosaics; but their early specimens in the eleventh century were very poor. At the commencement of the twelfth century came an after-crop of Greek art, the great example of which is in the church of S. Clemente, about which Lord Lindsay is so enthusiastic. As far as mechanical execution goes, it is very beautiful—there are a number of little figures of animals and birds of all kinds very delicately executed, and quite reviving the manual dexterity of the best Roman time.

I need scarcely remind you that it was from these artists at Venice that the art of working in mosaics was acquired by Italian artists. Greeks were brought from Venice to decorate the Baptistery and the church of S. Miniato, at Florence, and they became the teachers of the great Italians—Mino da Turrita, Andrea Tafi, Gaddo Gaddi, and others. Furthermore, I have little doubt that the processes of glass-working, which have made the glass of Venice so famous, were almost all derived from Byzantium.

In reference to these Florentine monuments, it is curious to notice the occurrence in Tuscany of a peculiar kind of carved work, cut out with a drill and filled up with mastic, which has puzzled other travellers as well as myself to account for. It may be seen in the pulpit of S. Miniato, and is precisely identical with the carving of foliage, and the mastic inlaying I have pointed out as occurring in the arch spandrels of Sta. Sophia. It occurs also in the font in the Baptistery at Pisa, and I have seen it at Messina. Until I had an opportunity of looking carefully into the details of Sta. Sophia I was unable to find out whence it came, and I was of course pleased to recognise it.

In summing up the general artistic features of novelty presented to us in Sta. Sophia, there are four points (in addition to the great structural novelties) to which I would direct special attention. The publication of M. Salzenberg's detailed drawings and descriptions, if it has done no further good, has at least made it pretty clear that we are indebted to these Byzantine Greeks and to the great impulse given by Justinian;—in the first place, for the introduction of all the processes of Florentine mosaic; in the second, as I believe, for the introduction of stained glass into church architecture;—in the third, for the peculiar mode of sinking carved work beneath bounding lines of form;—and in the fourth place, for the liberties of direct representation of basket-work and other novel features in the capitals and sculptured ornaments.

I shall now say a few words about the technical execution of these mosaics, to which I would specially beg your attention; because I see no reason whatever why we should not practise in the present day exactly what the Greeks and Latins practised of old. The dome arch, or conch, was built with brick or stone, and rendered with rough plaster to make a key for subsequent coatings. Then a strong and fine plaster nearly an inch thick was put upon it. Cartoon or drawings were made, to assist in transferring the subjects to the wall, or they were drawn on the plaster itself;—then, beginning with the most important part, the artist knocked out with his chisel a piece of the plaster corresponding in size to that which would be occupied by a few tesseræ. He then went to the trays in the compartments of which the coloured glasses were sorted, and selected a piece of the vitreous material of the proper colour, which might be of the size of a circle 5 or 6 inches diameter and half-an-inch thick. To cut this to a particular shape, he used a particular apparatus. Placing the piece of mosaic upon a sharp edge of iron, and striking it with an edge-tool exactly plumb with the under iron, he fractured it in a direct line between the two edges. This was the later method, but an earlier one was to draw a hot iron along the line in which it was desired that the material should be fractured. Having thus the small piece he wanted, the artist took some fresh cement (made of one part of lime with two of marble-dust), inserted the piece, and pressed it till it was flush with the adjoining plaster, and he could see whether more cement was wanted, and how the mosaic was bedded; and so he proceeded till he had finished a face, or some other leading feature, when he left off to commence in another place, allowing an inferior hand to work upon the draperies, &c.

We may as well remark, that in the ancient mosaics the cement was made as above described. In the middle ages it was made with lime and travertine stone; and still later, where the work was very fine, and it was wished to retard the setting, lime and linseed oil were used, so

* See p 133, *ante*.

that the mastic remained soft all day; and the mosaics might be eased as they were respectively bedded. There is one peculiarity of treatment which was universally observed; namely, if the artist had to execute a profile of any kind, all the longitudinal joints of the flesh would be parallel to the contour; but instead of the joints of the gold ground abutting directly upon the contour, they followed round it, parallel to those of the outer flesh-colour series: the great object of *this* line of gold ground mosaic was to prevent any interference by the joint-lines of the general ground with the repose of the heads. An inferior workman, who had his cubes of gold ground mosaic ready cut to a rough square on the surface, then put them in as fast as possible. That completed the work, and it set, as we see, for ever. Could we but add up the sums which we pay for painting and repainting our monuments, I think there cannot be much doubt we should find that it would have been far cheaper to have executed our decorations in mosaic.

Some of the mosaics at Sta. Sophia have a peculiar character, which M. Salzenberg observed by the aid of the scaffolding for the repairs; namely, when the mosaics can only be seen from beneath, at an angle exceeding 45 degrees, the pieces are arranged with their upper edges set forward from the wall face in tiers, farther and farther apart, as the angle of vision is increased. By this means the work is saved on much intervening space, and both material and cost economised—in some parts to the extent of two-thirds of the whole. This method had also the advantage of reflecting the light at a better angle to the eye.

These, I think, are the principal technical points connected with mosaic in general, and Sta. Sophia in particular. I must not trespass longer upon your time; but I would, in conclusion, beg you to attend for one moment to what I venture to call the moral of Sta. Sophia. I know of no monument which so satisfactorily and honestly answers the purpose for which it was built; or which so completely expresses in every way its construction and intention. By the exterior you perceive exactly what is internally: there is no fudge, no sham, no concealment about it. Every material is fireproof; and one ever-memorable fact about it is, that although Justinian sent out in all directions for the old materials of temples, precious marbles, and everything of the kind that could be found, I am not aware that there is any piece of old work used in its original state, throughout the whole building. If the artists who designed and executed Sta. Sophia were influenced by tradition, they were, at any rate, no blind copyists: they set a far nobler example to those who succeeded them than Constantine had to those who followed him. Would that the art of the nineteenth century in this country could stand the test of comparison as satisfactorily! Let us remember that it is only by equal truth, honesty of purpose, and originality, that we can ever hope to see realised the day-dream of a Sta. Sophia of our own.

M. DIGBY WYATT.

ENGLISH ARCHITECTS IN THE PARIS EXHIBITION.

As most of our readers must desire to know how English architects and architecture will be represented in the Paris Exhibition, and the list of contributions, from some cause or other, is unfortunately not a very long one, we are glad to be able to print it entire:—

ADEEN, C. B. and DUDGEON, W.
Street Architecture.

ALLOM, T.
A Design for improving the Property on the Banks of the Thames.
A Design from another point of view.

BANKS, R. R. and BARRY, C. Jun.
Bylaugh Hall, Norfolk.
Crystal Palace—Court for the Exhibition of Woven Fabrics.
Designs for the Library and Staircase Hall at Dorndon, Kent, the residence of John Field, Esq.

BARRY, Sir CHARLES.
Bridgewater House.
Bridgewater House—Plan.
New Palace at Westminster.
New Palace at Westminster—Plan.
Clevedon Villa.
Clevedon Villa—Plan.
Original Design for Crystal Palace.

BRANDON, R and RITCHIE, R.
Portswood Church, near Southampton.
Catholic Apostolic Church, Gordon-square.
Public Baths and Laundries at Greenwich.

BUNNING, J. B.
The New Billingsgate Fish-Market.
The New Coal-Exchange.

BURTON, D.
Entrance to the Green-park from Piccadilly.
Entrance to Hyde-park from Piccadilly.
Models of the above.
Athenæum Club, Pall-mall—Plans, Elevations, and Sections.
The Coliseum, London—Plans, Sections, and Perspective View.
Model of the above.

BUTTERFIELD, W.
All Saints Church, Margaret-street—Exterior.
All Saints Church, Margaret-street—Interior.

CARPENTER, R. C.
Exterior View of the Cathedral proposed to be built at Inverness for the Diocese of Moray and Ross.
Abbey Church of St. Mary at Sherborne—Interior of the North Transept, as restored.
Abbey Church of St. Mary at Sherborne—Interior of the Choir, in progress of restoration.

CLUTTON, H.
Chapter House of Salisbury Cathedral, in progress of restoration.

COCKERELL, C. R., R.A.
Wren Testimonial.
Professor's Dream.
Model of the Temple of Apollo at Phigaleia.

DAVIES, J.
Rectory and Campanile, St. Martin's, Cannon-street.
Jews' Synagogue, Great St. Helen's, London.

DIGWEED, I. F.
Study for a Chateau, in the style of the Renaissance.

DONALDSON, PROFESSOR T. L
Hallyburton House, Cupar-Angus; designed for Lord C. Douglas.
Plan of a Design for a Temple to Victory, according to ancient usages; with a view to illustrate all the offices connected with the sacred games.
Perspective View of ditto.
Design for the Royal Exchange, London. One of the first class selected by the Committee in 1841.

FALKENER, E.
Restoration of an Asiatic Greek Theatre.
Tomb in Lycia.
Pompeian Studies—The Atrium.
Pompeian Maritime Villa.
Pompeian Implavium.
Pompeian Triclinium with Pergula.
Pompeian House, excavated by E. Falkener in 1847.
Pompeian House, Transverse View through Double Atrium.
View showing the Origin of Architectural Arabesque Painting
View of the Great Mosque at Adrianople.

FERREY, B.
St. Stephen's Church, Westminster; built at the sole expense of Miss A. Burdett Coutts.

FOWLER, CHARLES
Designs for a Bridge at Westminster.
Elevation.
Centre Arch, &c.
Details of ditto.
Lunatic Asylum for Paupers, Devon—Plan.
Bird's-eye View of ditto.
Market at Exeter—Elevation.
Interior of ditto.
South-east View of ditto.

GABRIEL, S. B. and HIRST, J. H.
Design for the West of England District Bank.

GIBSON, JOHN.
Bloomsbury Chapel, London.
The Imperial Insurance Office, London.

HAMILTON, THOMAS, R. S. A.
View from the Scott Monument, Prince's-street, Edinburgh, in illustration of a Design for Exhibition Galleries, approved of and recommended to the Lords of the Treasury by the Royal Scotch Academy.
South-east View of John Knox's Church, as intended to be built on the Castle-hill, Edinburgh.
South east View of the Royal High School, Edinburgh, and the Burns's Monument.

HARDWICK, PHILIP, R.A.
The Dining-room of the Hon. Society of Lincoln's-inn on the occasion of H.M. Queen Victoria visiting the Society, on opening the Hall, 30th October, 1845. Painted by J. Nash.
Goldsmiths' Hall, London.

HARDWICK, P. C.
The Great Hall of the London Terminus of the London and North-Western Railway.
Gilston Park, N.W. view.

HENMAN, C.
Design for a new system of Street Architecture.

HILL, W.
Preston Town Hall.

HOPPER, T.
Upper Court and Keep of Penrhyn Castle, at Bangor, N. Wales.

HUMPHREYS, N.
Model of the Cornhill, corner of the Royal Exchange Buildings.
Model of intended buildings at the N.W. corner of Finch-lane, City of London.

I'ANSON, E.
Drawings illustrative of a London House, as inhabited by the middle classes in England.
A Country House as inhabited by the middle classes in England.

JONES, OWEN.
Study of the "Hall of the Two Sisters," in the Alhambra.
Study of the "Hall of Justice," in the Alhambra.

KENDALL, H. E. Jun.
Architectural Composition.
["A vast metropolis with glist'ning spires,
With theatres, basilicas, adorned,
A scene of light and glory."—ROGERS.]

Shooting-box near Carlisle, erected for W. Hodson, Esq. M.P.

LAMB, E. BUCKTON.
Shooting-lodge, erected for the Marquis of Breadalbane, Loch Tulla, Scotland.

LOCKYER, JAS. M.
Elevation of business premises for Messrs. Heal and Son.

PAXTON, SIR JOSEPH.
View of the exterior of the Crystal Palace, Sydenham. Painted by J. D. Harding.
Two interior views.
Court of Mentmore House, Buckinghamshire; erected for Baron Lionel Rothschild.

PENROSE, F. C.
Elevation of the West Front of Lincoln Minster.

POTTER, R. H
Church Educational Institution at Bolton-le-Moors.

PRICHARD and SEDDON.
Design for a Marine Chateau near Milford Haven, for G. Kindersley, Esq.
Two exterior and one interior views of a Church designed for Cardiff, Glamorganshire.

PULLAN, R. P.
Design for a Cathedral Altar Screen.

RAILTON, W.
Bean Manor, the residence of W. P. Herrick, Esq.
Staircase of ditto
Chancel of Bromley Church.
Two Views of the Interior of Meanwood Church, Yorkshire.
Chapel of Ripon Palace.

SALVIN, A.
Dining-room and other Buildings, Caius College, Cambridge.
Peckforton Castle, Cheshire, the seat of John Tollemache, Esq. M.P.

SHARPE, E.
Three Drawings exhibiting the History of English Architecture.

SCOLES, J. J.
Chapel of the Blessed Sacrament in the Church of the Immaculate Conception, Farm-street, London.
Façade of ditto.

SCOTT, G. G.
Interior of the Choir of Ely Cathedral, as recently renewed.
South east view of the Church of St. Nicholas, at Hamburg, now being erected.
Interior of ditto
Restoration of the Chapter House at Westminster Abbey.
New Reredos of Ely Cathedral, presented by J. D. Gardner, Esq.
Design selected for the New Town hall at Hamburg.

SHAW, H., F.S.A.
A German Beaker.
A Funeral Pall belonging to the Fishmongers' Company of London.

SLATER, W.
South-east View of a Cathedral designed for South Australia.

SMITH, W. J.
Kiosk erected on the Bosphorus for the Sultan.

TITE, W.
A Collection of Works designed by Inigo Jones, Architect, including the Royal Palace, Whitehall.

WHITE, W.
Elevation of the Exterior of All Saints' Church, Kensington-park.
Elevation of the Interior and Exterior of one Bay of the same Church.

WORTHINGTON, T.
Design for a Church.

WYATT, T. H.
Interior of St. Mary's Church, Flint.
St. Aidan's College, Birkenhead, Cheshire; now erecting.
Model of the Church of St. Nicholas and St. Mary, erected at Wilton for the Right Hon. Sidney Herbert, M.P.
Institution of Civil Engineers in Great George-street, London. Modelled by S. Salter.

WYATT, DIGBY.
View of the Exterior of the Pompeian Court of the Crystal Palace, Sydenham.
View of the Upper Church of the Monastery of St. Benedetto at Subiaco.
Façades of the entire Series of the Fine Arts' Courts of the Crystal Palace, Sydenham (Department of Christian Art).
Study of the Arch of Titus at Rome.
Loggia of the Italian Court, Crystal Palace.

DOWNING-STREET IMPROVEMENTS AND PUBLIC BUILDINGS.

YOUR paper of the 3rd of March gives such an extraordinary account of the value of the ground in the neighbourhood of the Bank and Exchange, that again I am desirous of calling your attention to the immense loss the public are sustaining by allowing the large space of vacant ground at Whitehall to remain unoccupied. Either the Government require it, or they do not. If they really need it, is it not time to put an end to an annual rental of 23,000*l.* per annum for offices in separated and unconnected situations? If they do not require it, then let the public have the benefit of the ground-rent.

It should be borne in mind that by the sixth report of the Woods and Forests, 1830, the purchase of the vacant ground of Downing-street was 98,966*l.* 8*s.* and for which immense sum not one shilling has been realized; but in addition a poor-rate to the parish of 100*l.* per annum has been paid, and the interest of the capital expended altogether lost. T. G.

THE LATE MR. GEORGE PAPWORTH, ARCHITECT.

THIS gentleman, who died on the 14th inst. was born about the year 1781. He was one of the ten children of Mr. John Papworth, of Great Portland-street, London, on whose death he became a pupil of his elder brother, the late Mr. John B. Papworth, with whom he remained improving himself by acting as clerk of works, &c. till 1804, when he went to Northampton to take the direction of Mr. Kershore's office. He remained there until 1806, in which year he settled in Dublin, being engaged to superintend the affairs of the company then working the patent of Sir James Wright, bart., for the manufacture of stone-tubes for pipes, &c. In 1808 he married, and began his professional career by designing "a Gothic entrance," to be executed by the company for Mr. Macklin, and in the same year he obtained the patronage of Lords Westmeath and Gormanstown. In the following year the two leading architects in Dublin offered him 250*l.* a year for his services during seven hours in each day, which was declined in 1812 the company sold its business, and he produced his "sawing-machine," and also a "pump," which met with general encouragement, and obtained for him a valuable connection in Mr. Slater's, of Birmingham. In 1812 he was able to call himself "one rich enough to have had losses;" and from the period, 1812, when he first exhibited, until 1818, he was laying the foundations of his reputation, both as an artist and an arbitrator. In the last-named year he was employed upon the Library in D'Olier-street: this was followed by the Court-house at Castlebar, in the county of Mayo (1822); Portumna Castle, county of Galway, for the Marquis of Clanricarde (1824-1826); King's Bridge, over the River Liffey (1827), in consideration of which work he was elected Academician in 1831; the Marlborough-street, and the Whitefriars Chapels, in Dublin; Kilconnan-house, county of Galway, for Sir Thomas N. Redington (1836); Brennanstown-house, county of Dublin, for Joseph Pim, Esq. (1842); Seafield, county of Sligo, for J. Phibbs, Esq. (1842); Kilkenny Lunatic Asylum for the Commissioners of Public Works, in 1849, in which year he was chosen a treasurer to the Academy; and the Museum of Irish Industry, Stephen's-green, Dublin (1851), a building well adapted for its purpose: the roof of the lecture-room, 50 feet by 45 feet, with a central skylight, is admirably arranged, both for the lecturer and the audience. From 1837 to 1842, he acted as architect for the province of Connaught to the Ecclesiastical Commissioners, and lately held the appointments as architect under the Dublin and Drogheda Railway, and the Royal Bank in Foster-place. His latest important building was the mansion of which we append an illustration and description.

"He was the first," writes an Irish civil engineer of our acquaintance, "to introduce into Dublin, and Ireland generally, external decoration in architectural design, combined with lightness and elegant appearance, especially in private houses; and, in fact, was the father of a new school, in which Mr. Turner, a builder of Dublin (father of Mr. Turner, architect, of Belfast), took pattern from him at Kingstown, Harcourt-street, and Pembroke-road; and other persons copied his ideas just as much as if they had a property in them. His cast-iron bridge across the Liffey was, at the time that he designed it, a novelty in bridge-building, especially from the precautions which he took against the efforts of expansion. it is beautiful in design, and light in appearance, and is the best monument that his memory can have."

With great skill as a draughtsman and colourist, he combined a knowledge of the means of producing effect in his executed works, as well as economy of material, and was extremely original in his methods of construction, which frequently required him to be his own clerk of works; but this was accompanied with a just pride that these means never failed. An example may be cited in the curious case of an extensive warehouse built on the sand, by the side of the Liffey, below Dublin. This building sank bodily, about 18 inches, without requiring any repair or attention, beyond screwing up some iron work, for which preparation had been made.

Mr. Papworth's amiability of temper, except when he conceived himself being urged to deviate from what he thought to be right, and his lively disposition rendering him *Hibernior Hibernicis*, made him a welcome guest to the families in the many mansions at which he spent the summer months while engaged upon little matters which he sometimes fancied were invented for the purpose of commanding his attendance.

Of his numerous family a few only are left. The eldest son, John Thomas Papworth, secretary to the Institute of Irish Architects, died in 1841. Another son, Collins, holds an appointment in the Colonial Engineer's Office, at Melbourne, in Australia; and a third, Charles, succeeds his father in business at Dublin.

RUSH-PARK, COUNTY DUBLIN.

KENURE HOUSE, now called Rush-park, built on the level of the approach road, about the year 1700, was a common-place structure, having small rooms not more than 10 or 11 feet high, and devoid of all ornament; but in 1777 Sir William Roger Palmer took down the centre portion towards the south, and built a spacious dining-room and drawing-room over it, which were richly decorated by Italian plasterers, who were probably the same that were employed in the Castle at Dublin.

We are informed that not long previously to the epoch of the "Adam's" fashion, there was a school of most excellent sculptural decoration in Ireland, where the real taste of the style of Louis XIV. (*not Louis XV.*) lingered much later than on the Continent: indeed, some houses in Ireland still contain specimens of decoration in ceilings and cornices, &c. equal to the best of the later Venetian palazzi. In the Vice-regal abode are plaster decorations, with the human figure successfully introduced, which surpass anything that has been done in England since the time of Grinling Gibbons. The architect passing more than a day in Dublin should obtain a sight of some of these works.

On succeeding to the estates, the present owner deemed that his father's alterations were only suitable to the domain, and in 1842 commenced alterations which have resulted in the mansion represented by the accompanying plan and view.

The hexastyle portico (U), formed by granite columns 3 feet in diameter, with capitals of the same material, stands on a double base of Portland stone, 3 feet 8½ inches high, of four steps, 6 feet wide, running the whole length of the portico, and terminates at each end with another granite column on the return, forming an intercolumniation of 12 feet for the drive. The base, shaft, and capital of the columns stand 28 feet 4 inches high, and the cap alone is 3 feet 5 inches high above the astragal. The quarry was twenty miles from Dublin, and fourteen from Kenure. The artist employed to make a full-sized model of the capital to be sent to the quarry gave notice that it was ready to the architect, who at once saw that it was shortened at each angle, and volute, to the extent of 6 inches less than it should have projected. The reply to the criticism was, "Had I followed the working drawing, I could not have got it through the door;" whereon a wider doored studio was procured, and the necessary alteration made. It might have struck the parties that a quicker mode of procedure would have been to cut the existing doorway wider for the occasion. (Mr. Dighton's copy of the Hyde-park Crystal Palace could not be removed without underpinning the front of his house, and taking out the pier between the windows).* The artistic execution of the capitals is a credit to the workmen in the quarry: they are the first modern capitals carved of granite in Ireland, and the relief is beautiful.

The hall (E), 27 feet by 19 feet 6 inches, is decorated with eight columns in scagliola of a fully enriched Doric order, with a coved, coffered, and flowered ceiling, and niches for marble statues in the walls. Passing through mahogany doors, 6 feet wide and 12 feet high, with plate-glass panels, the visitor enters the principal staircase (F), 33 feet long, and 19 feet wide, paved like the hall with 12-inch squares of black and veined marbles. This vestibule is lighted by ten stained and figured sashes, as shown in the section; which is given as rather unique, and producing an effect pleasing from its very simplicity, yet allowing all the decoration suitable to the panelled cove and dentilled cornice of the Ionic order of pilasters, which occupies the level of the drawing-room floor.

On the right hand of the hall is the billiard-room (R), 23 feet by 19 feet 6 inches: on the left is the day-parlour (D), 31 feet by 22 feet, and the dining-room (C) of Sir William's time, 35 feet by 24 feet, with a bow of 11 feet, and beyond it is the library (B), 22 feet by 20 feet, with the back-stairs, butler's pantry, and passages to the kitchens, servants' hall, and the other offices.

The ascent of the grand staircase is by a flight of steps, 8 feet wide, branching from the right and left to the drawing-room built by Sir William, to a picture-gallery, 51 feet by 20 feet, and to the boudoir and bedrooms opening from a gallery, all round the walls of the staircase, which leads to the twenty bedrooms and dressing-rooms, with closets, bath-rooms, back-stairs, &c. The house is supplied with water by a ram, distant three-quarters of a mile from the mansion.

REFERENCES.

A. Agent's room, dressing-room over.
B. Library, bed-rooms over.
C. Dining-room, drawing-rooms over, of the same height.
D. Parlour, boudoirs and part of picture-gallery over. These three rooms are 16 feet high.
E. Hall, with picture-gallery over, in connection with the above, 50 feet long, 14 feet high.
F. Grand staircase, lighted from roof.
G. Back stairs.
I. Strong closet.
K. Coals, for this side of the house.
L. Staircase to Mezzanine story.
M. Housemaid's closet.
N. and O. Water-closets.
P. Servants' hall.
Q. Passage to kitchen.
R. Billiard-room.
S. Housekeeper's room.
T. Kitchen, scullery, &c. &c.
U. Portico.

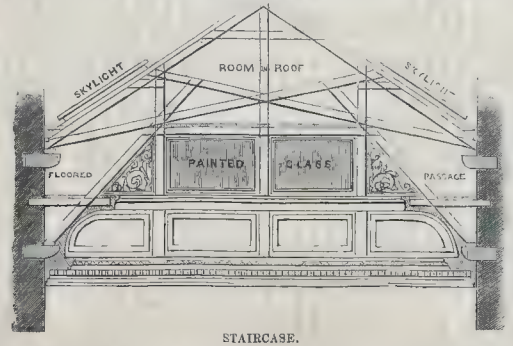
The roof of staircase is composed of timber, bolted together with ⅝ bolts and nuts; the principal rafter, 7 in. by 4 in.; all the remaining timbers are 6½ in. by 2 in. all resting on granite stone corbels, 3 feet asunder. The staircase is 37 feet long by 29 feet wide, and lighted by three frames of stained glass on each side, and two frames at each end, 6 feet 6 inches long by 4 feet wide: these frames of glass receive their light from the skylight on roof, level with the slating. There is a communication by a passage round the whole of this roof from the back stairs, for the purpose of cleaning the lights, and any repairs that may be necessary. Over the centre is a room for imperials, boxes, &c. &c.

The new portion, and the casing of the old part, were executed by Mr. B. Eaton, in a very creditable manner, for the sum of 8,000*l.* in about two years: this amount did not include the offices, which are very extensive; and only those who are acquainted with what an Irish price-book (if such existed) ought to contain, will understand how so much has been done for so apparently small a sum. The final operations of the decorator and upholsterer are still wanting, in consequence of the death of Lady Palmer, and the absence of her son in the Crimea.

The taste of the architect displayed on the works, both in mass and detail, the forethought taken for the constitution, medically speaking, of the house (the gutters, for example, are floored over the lead), and the arrangements for domestic accommodation, the most important part of his duties, must be left to the judgment of any professional man who can spare a few hours for a trip on the Dublin and Drogheda Railway.

* What has become of this admirable model?

MR. BRASSEY, the railway contractor, has, it is said, since 1846, upon his own responsibility and credit, constructed upwards of 500 miles of railway, representing an aggregate of 9,250,000*l.* of contract money. What shall we put for his profit?



STAIRCASE.

KENURE - PARK

ERECTED FOR

SIR ROGER PALMER · Bt

GEORGE PAPWORTH · R.H.A

SCALE OF PLAN 0 20 40

SCALE OF SECTION 0 10

PROVINCIAL NEWS.

Lynn.—At a meeting of the subscribers to the scheme for erecting public baths in this town, plans by Mr. Oliver were inspected, and a report read, from which it appeared that the estimated cost, including engineering, for the baths, was 1,400*l*.—with washhouses, if built at same time, 2,000*l*. By reducing the plan generally, and with two baths less, it could be built as a bath establishment, without salt water, for 1,200*l*. The estimated income (from experience) would be, for baths only, about 200*l*. per annum; with the washhouses added, about 380*l*. per annum. After much discussion, it was resolved to annex washhouses to the baths, should the committee deem it expedient to do so; and for that purpose to borrow not exceeding 1,000*l*.

Wisbech.—The old bridge here is in course of removal.

Huntingdon.—Although not hitherto remarkable for its public buildings, this town (says the *Cambridge Chronicle*) has of late considerably advanced. Besides the new County Hospital, now for some time occupied, the cemetery is completed and in use. There is no distinctive boundary between the consecrated and unconsecrated portions, saving ordinary pathways, the graveyard being no place for uncharitable distinctions. The chapels are placed in about the centre of the grounds, in friendly contact. Near the entrance-gates is the lodge, containing a board-room, besides accommodation for the keeper of the grounds. The builders were Messrs. Bird and Maile, and the architect, Mr. Hutchinson, all of the town. The barracks for the County Militia are being proceeded with; and the Union Workhouse is to be considerably enlarged, if not entirely rebuilt.

Margate.—The new high-water landing-pier has so far advanced that it will be forthwith available for passengers. The landing-place starts from the Droit Office, on each side of which building there will be an ornamental entrance of considerable width, afterwards abridged, but still leaving space between the parapets. The first pile was driven on 1st May, 1853, the last on 3rd March, 1855. The pier is principally constructed of iron. The platform is supported by fourteen groups of piles, five in a group; each pile being 14 inches in diameter, and driven into the chalk rock 30 feet. These piles are connected with each other by cast-iron girders, 72 feet in length, by 4 feet in breadth, each weighing eight tons; and the cross beams are 1 foot 9 inches wide, and the planks 3 inches thick. The pier-head is to be constructed with wrought-iron screw piles, with wood framing, 14 inches square, 117 feet in length. The work in preparing materials has been carried on in Mr. Bastow's factory, near the gas-works. The total length of the pier is 1,300 feet, and the cost of construction 12,000*l*. A promenade will be had on its completion, from which extensive views both up and down the Channel may be obtained. The plans were provided by Messrs. Birch, engineers, and the contractor was Mr. Bastow.

Birmingham.—The erection of the projected Music Hall for this town is to be commenced, it is said, without delay. The building, which is designed by Mr. Cranstén, architect, will externally be almost entirely hidden by the surrounding erections; but the interior is Gothic of the fourteenth century, with wrought open timbers to the roof and the galleries. There are two tiers of galleries—a stall gallery and upper—which do not project into the body of the hall, but are built over saloons on the ground floor. The orchestra occupies one end of the hall, the upper part containing the organ. The Hall will afford accommodation to more than 2,000 persons. On the floor, 728; stall gallery, 438; upper gallery, 680; orchestra, 200. The means of egress and ingress are said to be adequate. There will be two entrances, both from Broad-street, by corridors, with façades in Bath stone, and iron gates of open work. The building, which is erected for a joint-stock company, is to be finished within six months, and is estimated to cost some 5,000*l*. The committee have accepted the tender of Mr. Samuel Briggs, for the execution of the work.

Newcastle-upon-Tyne.—The consent of the Treasury to the proposal by the Town Council of Newcastle, for raising 17,000*l*. by mortgage on the public buildings to be erected in St. Nicholas square, has been received by the Mayor, and the contract only requires to be sealed in order that the buildings be proceeded with immediately. The contractor, Mr. Richard Robson, is bound to have a portion of the buildings completed by November next. The notice given to tenants occupying the site of the new approaches to the High Level Bridge, expires in May next, and the two improvements might be simultaneously effected.—— Some dissatisfaction, according to a local paper, is beginning to be felt with respect to the proceedings or rather the absence of proceedings —on the part of the committee appointed to consider the plans and arrangements for the building of streets on the quay, in the place of those destroyed by the memorable conflagration of October last.

Granton (Edinburgh).—The patent slip here is described by the *Edinburgh Post*. The slip is composed of five lines of rails, whereas, any one of the kind the writer had hitherto seen, whether in Dundee, Glasgow, or Greenock, consisted of only three such lines. Its capabilities are estimated for a ship of 2,000 tons. The vessel on the slip at the time was one of about 1,000 tons, and two steamers, each equal to this vessel in burthen, had been on at once. The engine is high-pressure, of thirty horse power, and from the purchase, capable of any weight the foundations, &c. will carry. In an apartment adjoining the engine-room there are twelve portable hydraulic presses, capable of being shouldered by an equal number of carpenters, and brought to any given point, when 480 tons could be thus raised by their men alone.

Stirling.—A building intended for a new academy, founded by Lieut-Colonel Tennent, of Middlesex, and for which 5,000*l*. have been subscribed, is at present erecting at Stirling. The directors of the School of Arts there having offered a prize for the best poem on the erection of the seminary, it was presented to a Mr. William Sinclair, author of "Poems of the Fancy and the Affections."

CHURCHES AND SCHOOLS.

Cambridge.—The following tenders for mediæval wrought iron fence and gates round Great St. Mary's Church, Cambridge (Mr. R. Reynolds Rowe, architect), have been lodged, namely:—

J. Vail	£680	0	0
Shallow and Coleman	662	0	0
S. Hurrell	540	10	0
Headly and Manning (accepted)	497	0	0

Wolverhampton.—An effort is being made to complete the subscription opened some time since for a Wellington memorial window in the Collegiate Church here.

Stoke-upon-Trent.—The chief stone of a new church, in connection with the Independents, was laid on Monday before last. The site is in Copeland-street, near the Railway Station, and the edifice, when completed, will seat about 700 persons. It will be erected from the designs of Messrs. Bidlake and Lovatt, of Wolverhampton, architects; Mr. Burkett, of that town, being the contractor. The cost will be about 1,500*l*. towards which 950*l*. (including a proposed grant of 250*l* from the English Congregational Chapel Building Society, in London) have been received and promised. The building is expected to be completed by September next. The form of the church is rectangular: it will be 53 feet in length, by 37 feet 6 inches in breadth. On entering from the lobby, doors to the right and left lead to side aisles, from which the seating (which will be open) is approached. At the farther end, elevated two steps above the aisle door, is the table-pew, so arranged that it can be used as a platform at public meetings. Galleries are provided on the two sides for adults, and over the entrance lobby is an end gallery for children, and space for an organ. The roof is open timbered, and will be partially supported by iron columns. The woodwork will be stained and varnished. The style of architecture adopted is that prevalent during the early part of the twelfth century. The materials will be red brick, with Hollington stone dressings. The frontage towards the main street is divided by buttresses into three bays. In the centre are coupled doorways, slightly projecting, as porches, and over which is the principal window—triple lancet-headed—grouped under a single hood moulding. The lower side windows are one light, and the upper are equilateral trefoils. The front is gabled. The building is lighted on each side by five double-light windows on the ground-floor, and a similar number of single-light on the gallery floor. A minister's vestry is provided at the rear.

Tiverton.—St. Peter's Church, one of the largest perpendicular edifices in Devonshire, has for the most part been recently rebuilt. The nave and clerestory have been reconstructed; the north aisle, in length 120 feet, has been widened; and the south aisle is about to have its original panelled oak roof restored. These alterations occasion the removal of some very incongruous additions to the fabric made in the eighteenth century; also some plaster groinings, trabeated ceilings, with dentilled cornices of "fine stuff" within the memory of man. Measures had been taken by the restoration committee, and plans made by the architect, Mr. Ashworth, for reseating the whole edifice with substantial low seating of oak; but in a select vestry a few weeks since, it was moved and resolved that the former seating, a striking arrangement of theatric platforms, pews of goodly altitude, of "churchwardens' Gothic," should be carefully reinstated. This resolution is the more to be deplored, since the restoration committee, heavy as has been their outlay already, offered to reseat the church without the aid of a parish rate.

Sheffield.—On Tuesday before last the ceremony of laying the foundation stone of the schools in connection with the church soon to be erected in the Dyer's-hill district of Sheffield-park, was performed by Mr. Wm. Overend. The site of the schools is a piece of elevated ground on the south-east side of Granville-street, and in the rear of West Norwich-street. The site was given by the Duke of Norfolk. Mr. John Billing is the architect; and the contractors are Messrs. Taggart and Street, of Sheffield.

Leeds.—Moor-Allerton Church, near Leeds, has recently had presented to it three stained glass windows, gifts of three of the parishioners, Mr. Purchon, Mr. Donisthorpe, and Mr. Thompson. The windows are by Wailes, and have for subjects the parables of the Good Samaritan, the Good Shepherd, and the Pharisee and Publican. It is intended to place two more stained glass windows in the church at an early period, with subjects taken from the parables of Our Lord.

Seaham Harbour.—The site for the new Congregational Chapel at Seaham Harbour, has been given by Lady Londonderry on highly advantageous terms. The building will be commenced forthwith. It will be entirely of stone, in the Gothic style, with double belfry and open roof. Mr. T. Oliver, jun. is the architect.

EXHIBITION OF THE SOCIETY OF BRITISH ARTISTS.

The collection of paintings in Suffolk-street is above rather than below the average in goodness, as compared with those of several previous years here. It consists of 803 works, and is, as usual, strongest in the landscape department. Mr. Hurlstone keeps his place as the principal contributor of figure pieces, and contributes five works: the chief of these are, "Columbus" (163), when the mariners, having lost sight of the known world, declared they would proceed no further; and "Dante begging his Bread" (296). Mr. Woolmer has not done so much as might have been expected from his earlier works. He has thrown nature overboard, and simply paints,—Woolmer. Nevertheless, "The Den of Errour," after Spenser (13), is poetical in tone and feeling. Mr. Clint's large picture, "Evening, after a Stormy Day, near Ilfracombe" (28), is scarcely so satisfactory as some of his previous works, or as "Barmouth Waters" (280), in the present collection. Mr. Buckner has an excellent portrait of the "Marquis of Douglas" (67). The middle distance in Mr. Tennant's "Dunster Castle" (68), is heavy, otherwise it is a very agreeable landscape, painted in his best manner. (179),

"Composition," by the same artist, has much merit. "Fishing Boats off Fecamp" (77), and some others, by Mr. Wilson, jun. are noticeable for the truthfulness with which the water is painted. Mr. H. J. Boddington is especially happy on the present occasion: his "Summer Morning" (130), "A Bright Morning" (330), and "A Quiet Evening" (556), all on the Thames, are full of tranquil beauty.

The most important landscape in the collection, is Mr. West's "Gudvangen Branch of the Sogne Fiord," Norway (213). The same artist whose industry equals his ability, sends eight other pictures, all more or less excellent. The life of this gentleman, if it were written, would show how much may be accomplished, in spite of great obstacles, by energy and determination. Mr. Pyne has a large landscape, "Evening at Chelsea" (108), painted in his own peculiar key; the sky and water very beautiful; the houses (Cheyne-walk), thin and unsubstantial. Mr. J. P. Pettitt has made a very considerable advance, but is less successful in rocks and water than in trees and distance. We prefer his two views on the Conway (175 and 519), to his more ambitious work, "The Fairies' Glen" (157). Mr. Noble's "Incident in the Shepherd and Shepherdess," time of Louis XIV. is an elaborate work, the result of much labour, but it excites no emotion. Mr. Gosling's landscapes are a great acquisition to the gallery. They have both force and beauty, and though wanting in finish, are full of suggestion. Mr. Baxter is scarcely equal to himself; still "The Bouquet," a group of pretty women (254), will not pass without admiration. Mr. Gill's "Winter" (45); "The Origin of the Free Press," by R. W. Buss (58); "The Cabin-door," by J. J. Hill (112); "Loch Lubnaig," by G. Cole (91); "View of Carnarvonshire, Storm Gathering" (196), by J. C. Ward; "Charcoal Burners" (210), by W. S. Rose; "The Story Book," by G. Smith (281); "A Study from Nature," by G. A. Tuson (431); "The Bridal of Andalla," by A. F. Patten (566), are all works of very considerable merit. "The Brides of Venice," by F. Cowie (420), would be thought very good if it were not so much like the work of another. Mr. Dobbin has two effective architectural pictures, "Sunday Morning, Brussels" (627), showing the Town-hall, and "Malines" (730), the interior of the church; and near these are some characteristic studies from life in Russia (650), "Russian Peasant Girl of the Ukraine;" and "Nikito, a Russian Serf," by Mrs. Croudace, better known, perhaps, to some of our readers as Miss Vignolles.

ART CONTRIBUTIONS FOR WIDOWS AND ORPHANS OF OFFICERS.

A READY response was made to the appeal under this head, and in the Gallery, 121, Pall-mall, there are now not merely the 724 works of art described in the catalogue, and which cover the walls from ceiling to floor, but a very large number as yet unhung, which will be substituted by-and-by for works sold. The Prince of Wales, the Princess Victoria, Prince Alfred, Princess Alice, the Princess Helena, and the Duchess of Gloucester have contributed, as we mentioned would be the case, and considerable sums have been offered for their works. These, however, will remain open to the highest bidder for a certain time. For "The Battle-field," the picture sent by the Princess Royal, who shows great skill and right feeling, there is already an offer of 200 guineas. The two best pictures in the room, to our mind, have been purchased by members of the Art Union of London Council,—namely, "A Camaldolese Monk," Anonymous, but understood to be by the Countess of Waterford, bought by Mr. Zouch Troughton, and No. 106, by Miss Blake, purchased by Mr. Lewis Pocock. Where the motive of all is so good, it may be better not to particularize: we may, however, mention, as having come specially under notice, Lady Augusta Cadogan's "Twilight" (148), Miss Houlton's portraits, Capt. Inglefield's "Flag-ship dismasted" (348), Mr. F. Pollock's water-colour version of a picture by Bright, Miss Richard's "Tea-time," Mr. Stubbs's "Gleaners," two or three by Lady Clementina Villiers; a beautiful head in bas-relief, by Mr. Alex. Munro; and a very clever set of illustrations in outline, by Miss Fraser, called "The Wreath." Miss Cantwell's "Cornfield" (160), and her copy after John Martin, will be noticed, if it be but for her name, well known to London architects.

WAR APPLIANCES.

COLT'S REVOLVER FACTORY.

IF we were to describe the factory (we can scarcely call it *manufactory*, the hand has so little to do in it), which Colonel Sam Colt has set up at Thames-bank for the production of "Revolvers," fully and as it deserves, we should be led perhaps a little too far out of our more particular track: for a few memoranda, however, we *must* find room. It is so well ordered, so complete, so striking in its results, that all engaged in manufacture may learn something from it: it is itself one large machine, well oiled too, which takes in at one end a shapeless lump of iron and a piece of wood, and puts out at the other a beautifully-finished arm, which you may load and fire six balls from separately in three-quarters of a minute, after a certain amount of practice. In each pistol there are fifty-three distinct pieces, including fourteen screws; and, for the formation of these, forty or forty-five separate machines co-operate—hammering, milling, cutting, drilling, punching, rifling, and shaving; all put into motion by a gallon of water "in a violent perspiration;" in other words, a 20-horse power steam-engine. Some of the machines are especially beautiful: look at that for rifling the barrels, for example, with the brush to keep the cutters clean; and the one near it for drilling the six chambers around the central boring in the solid cylinder, where accuracy is so indispensable. That regular irregularity, the eccentric, plays an important part in this, as it does in the hammering-machine below;—the machine patented by Ryder. Last week they turned out 525 perfect pistols here, and there are the means for making 800 or 900 a week, if it were necessary to do so.

COMPETITIONS.

Chapel at Pimlico. We are informed that twenty-nine projects were sent in for the new chapel at Pimlico, and that the design sent by Messrs. E. W. Parker and Hall, of Chelsea, was selected.

Reading Pleasure-grounds.—Six designs were sent in for laying out as a pleasure-garden the land adjoining Forbury-hill, purchased a few months since, and of these, two were selected as being equally suitable. One was by Mr. Francis Hawkes, jun. the corporation surveyor, and the other by Messrs Poulton and Woodman. The committee, it appears, were struck at what is really the marvellous similarity of the two plans. In their essential features, both are the same. Both propose the erection of a lodge on the site of the old conservatory; a fountain in the centre of the garden; an alcove at the north-west corner; and also connecting the abbey ruins with the gardens by an arched passage under the east end of the Abbot's-walk. So strange is the coincidence, that the last-named architects have given in the *Mercury* dates, &c. of the preparation of their drawings, and call upon the corporation surveyor to do the same.

BILL FOR THE BETTER LOCAL MANAGEMENT OF THE METROPOLIS.

THE following report on Sir Benjamin Hall's Bill, made to the City Sewers Commissioners by Mr. Tyrrell, the Remembrancer, will serve to convey an outline of the scheme:—

"The Metropolitan Commission of Sewers, and all local Acts for paving, lighting, watching, cleansing, or improving any parish within the metropolis, except the City of London Sewers Act, are virtually repealed.

The metropolis is divided into twenty parishes, fourteen districts, and the City of London, making together thirty-five vestries and districts, which thirty-five vestries and districts are to appoint forty-four members, forming the Metropolitan Board of Works, two of which members are to be elected by the corporation of London.

All sewers, except main sewers, are vested in the board or district in which they are situate, and general powers are given to the vestries and district boards, similar to those contained in the City of London Sewers Act.

By clause 106, the main sewers mentioned in schedule D (which is left blank), are vested in the Metropolitan Board of Works, with full power to make such sewers and works as they may think necessary for preventing the sewage within the metropolis from passing into the river Thames, and power to make all other sewers and works, and to alter existing sewers and works, as they may think necessary for the effectual drainage of the metropolis. And clause 108 gives power to the Metropolitan Board of Works to make any sewers, or main sewers, which it appears to them ought to be considered main sewers.

Clause 112 gives power to the Metropolitan Board of Works to make, widen, or improve any streets, roads, or ways for facilitating the traffic in the different parts of the metropolis, and to make applications to parliament for that purpose.

The vestries and district boards have power to require the overseers of the parishes in their district to levy with the poor-rate the sums they may require for defraying the expenses of the execution of the Act; and clause 131 gives the Metropolitan Board of Works power from time to time to assess upon the City of London the sums which, in their judgment, ought to be charged upon the City for defraying the expenses of the said Board in the execution of the Act, and such sum may be so assessed either in respect of expenses already incurred or hereafter to be incurred; and by clause 133, Chamberlain of London is to pay such sums of money out of the moneys in the chamber, and to reimburse himself out of any rates made by the Commissioners of Sewers of the City of London.

Clause 135 gives power to the Metropolitan Board to assess the Inns of Court, several of which are in the City of London."

The chairman of the Board of Works would have a salary out of the rates of not less than 1,500*l.* per annum, and not more than 2,000*l.*; and would hold his office during good behaviour.

MASTERS AND MEN.

NOTICE TO LEAVE WORK.

SIR,—You would much oblige a large body of men by inserting the following case in your valuable journal. A.

An important case was heard in the Sheriff's Court on Saturday, March 17th, in which two workmen, G. Trollope and J. Griffiths, carpenters, were the plaintiffs, who sought to recover a quarter of a day's pay, according to the usual custom of the trade, viz. a quarter of a day's notice or a quarter of a day's pay. The plaintiffs said they had been at work about eighteen weeks, in the employ of Messrs. Brass and Son, builders, at the London and South-Western Railway, and were discharged on Saturday, at four o'clock, without any notice, which being contrary to the usual custom of the trade, they summoned Mr. Brass for a quarter of a day's pay. The defendant stated that about two years ago he decided on not giving his workmen any notice whatever on being discharged from his employ; and also stated, that as he paid his men up to half-past five o'clock on Saturday, he ought not to give notice. The plaintiffs urged that that had nothing to do with the case, as leaving off at four o'clock on all Saturdays constituted a day, and was acknowledged by the trade in general, and they considered they ought to receive a quarter of a day's notice before four o'clock, or a quarter of a day's pay, as it was essentially necessary that they should have time to put their tools in order, as they are expected to have them so when they go to work for any employer. The Judge agreed with the plaintiffs that they ought to have the usual notice, and gave judgment for the plaintiffs, with costs.

PREVENTIBLE DISEASES.

EPIDEMIOLOGICAL SOCIETY.

A FEW years ago a society for investigating the history, nature, causes, prevention, and cure of epidemics,—that class of diseases of which cholera, typhus fever, scarlet fever, and influenza, are examples, was established under the name of the Epidemiological Society. To accomplish its ends, this society, besides commencing the formation of an appropriate library, has mainly adopted two methods. First, for inculcating a general knowledge of epidemics, monthly meetings are held, at which papers are read and discussed. Secondly, for investigating specific subjects connected with epidemics, committees are nominated, which, besides collecting and collating information already possessed, issue carefully-prepared queries to all who are in a position to furnish satisfactory replies, and thus acquire new materials for valuable reports. An elaborate report on small-pox and vaccination, drawn up by one of these committees, which was presented to the Government two years ago, and was printed by order of Parliament, was very instrumental in promoting the "Vaccination Extension Act."

An active committee is engaged in collecting information from all parts of the world relative to cholera.

A committee has undertaken an inquiry into the feasibility of training and employing the able-bodied female inmates of workhouses as nurses for the poor, so as thus indirectly to diminish the ravages of epidemics as well as other diseases in so far as they depend on inefficient attendance; and a committee still more important (because striking more directly at the root of the evil), "for investigating the conditions which develop epidemic diseases in the metropolis, with the view of inquiring if any, and what changes are necessary in the existing laws for promoting the public health," is only in abeyance for the want of funds to carry out its investigations.

These instances are sufficient to illustrate the valuable character of the labours undertaken by the society. There can be no doubt that, if more generally known, many persons would be glad to associate themselves with it for the purpose of aiding its investigations with their time, talents, and contributions.

DESCRIPTION OF MELBOURNE.

THE following is an extract from a letter from Melbourne, dated January 6, 1855:—

Melbourne is indeed become one of the wonders of the world! Fourteen years ago a few tents were all the habitations it could boast of. Scarcely inferior in business and appearance to many large country towns in England, its situation is highly picturesque. It stands upon two hills, the principal streets being carried down the slope of each, and across the intervening valley. There are four of these streets, all running parallel to each other, all perfectly straight, and nearly as wide as Portland-place. All can boast of handsome shops, and public offices of a more or less imposing character, and an important stream of traffic is flowing on in each the whole day, giving them a very bustling and animated appearance. Running at right angles to these principal thoroughfares are seven streets, which are even now almost as striking as those they intersect. Elizabeth-street, indeed, which is one of them, can boast of some very good specimens of street architecture.

The best place from which to view the city is the high ground on the eastern hill, or Collingwood (as it is called), where a suburb has sprung up containing 2,000 or 3,000 souls. Walking along the plateau at the summit of the hill, you can see every leading street from end to end, and every large edifice in the town. The houses in the lateral streets, built as they are upon a steeply rising ground, appear at a distance like so many terraces, and, as nearly all are stuccoed and vary much in height and architecture, the effect is picturesque in the highest degree. In front, towards the left, is seen the Yarra, wending its way to the bay, which is distinctly visible, with its fleet of merchantmen ever riding there at anchor. The horizon is bounded by a most splendid range of hills, called the Station Peak, distant in reality nearly forty miles, but often appearing not more than ten or twelve miles. On the extreme left lies the plain between the Yarra and the sea, from which rises, nearly opposite the centre of the town, a fine hill, whereon is hereafter to be erected the Government domain. This hill is backed by thick woods, among which are to be seen, every here and there, beautiful villas, equal to any that the far-famed Norwood can boast of.

The Yarra is crossed, about the centre of the town, by a stone bridge of one arch, so beautiful in design, so solid in construction, and so artistic in effect, as to be worthy of any place in the civilized world. There are, indeed, in Melbourne, several buildings which show the presence in the place of architectural taste and talent. The more recent buildings display these characteristics in a high degree, and not a week passes without some addition to the town which not only improves but adorns it.

There are three banks in Melbourne (one having a shop which would cut a very excellent figure in Lombard-street), two markets, a Roman Catholic cathedral, three churches belonging to the Established Church, and chapels of every denomination,—some ambitious in design, others very plain.

PORTABLE BARRACKS, OR EMIGRANTS' HUTS.

A PORTABLE hut, or barrack, of wood and iron, or other and lighter materials, has been invented by Mr. J. R. Isaac, of Liverpool, on a plan whereby unskilled labour only is requisite for the erection or the taking of it to pieces and storing it in convenient portions. To use the inventor's own words in describing it, "Each room, lined throughout with felt, is 14 feet by 12, and 7 feet 6 inches high, with light weather-proof roof, and stove in the centre, containing ample sleeping-room for from fourteen to sixteen men, weighing under 20 cwt. It is put together in a few minutes, without nails, and struck and repacked in the same space of time, folding into two flat packages, of 7 feet 3 inches, by 6 feet 3 inches, and only 18 inches in thickness, or in four parts, 4½ cwt. each. By eaving out the ends, and bringing two or more together, a store or mess-room, barrack, or hospital, may be formed of any length."

In cases where it may be inconvenient to billet a regiment in transit, or indeed in preference to billeting, Mr. Isaac proposes that a store of such barracks should be kept in the town or vicinity where required, or forwarded thither, and put up in some field taken temporarily or permanently for the purpose. A dozen orderlies, he remarks, might in course of a few hours, erect a sufficient number for a regiment of, say 1,000, strong. The adoption, as a recognised provision in the army, of something better than mere tents under which to shelter our troops, either in summer or in winter, is very desirable, especially while on active service abroad as at present; and that something like this invention of Mr. Isaac's will eventually constitute a permanent addition to the army stores there appears to be little reason to doubt.

BARRACKS AND THE ADMIRALTY.

THE *Times* of the 19th contains an excellent letter, signed "C. E." on the subject of barracks—their cost, inconvenience, and improper execution; and as the insertion of it in your largely-circulating columns might perchance tend to do good to the professions of architecture and civil engineering, I wish you would give it a place, or at any rate that portion of it which I enclose.

I have seen many barracks, and certainly think there is room for much improvement in them, not only as to arrangement, but as to architectural character.

Such large and costly structures as they generally are, might, I think, be made embellishments to the locality they occupy. AN ARCHITECT.

With reference to a well-known contractor,—"If any design is proposed by him to Government (and he proposes many which the Admiralty have been glad to adopt, without giving themselves further trouble), he also becomes the contractor to carry out that design. Now, in this we have the false principle involved, that the designer and the contractor are the same person, and it requires a rare combination of character, not to say an angel, to prevent the interest of the contractor's pocket from interfering with the ability of the engineer's or designer's head.

"Moreover, the superintendence of these designs must be committed, under the present system, to the officers of Royal Engineers, who, as I have above shown, are little fitted for the details of non-military works, and who look down upon them as derogatory; and an able contractor can generally do very much as he pleases with prices or amounts under such circumstances. My recommendation in outline is, that competition designs and estimates on a large scale should be advertised for by the Ordnance, with a fair payment for the (at least two) best designs in each case; that the specification of the accommodation required should be given by the Ordnance officers in as general terms as possible, leaving it to the civil engineers or architects to exercise their own ability on all but the most technical military points of each design. Let those designs be impartially investigated, under cipher, by three officers, of whom one should be selected from the class who have lived for half their lives in bad barracks; and you may depend, sir, that the result will shortly be the practical verification of Earl Grey's remark, viz.—That barracks, with excellent accommodation for our troops, ought to be completed at a rate not exceeding 14*l.* per head."

GAS.

A CORRESPONDENT, "C. W." calls attention to the injurious effects of the flickering of gas-lights without chimney glasses on the eyesight of clerks in offices, many of whom, he has had opportunity of knowing, have had their sight so damaged, that, by the time they reach middle age, if much accustomed from youth to attentive fixture of the eye on white paper, under gas-light, they are unable to see or to write or read without spectacles. Public companies, boards, &c. as our correspondent remarks, ought to look to this.——The following, as to the price of gas, is extracted from the *Darlington Times*:—"List of towns where the price of gas has risen during the last twelve months, owing to the advance in materials:—

		s.	d.	s.	d.
London, Phœnix Gas Co. advanced from		4	0	to 4	6
London, Equitable Co.	,,	4	0	to 4	6
London, Surrey Consumers	,,	4	0	to 4	6
Gravesend	,,	4	6	to 5	0
Woolwich	,,	4	6	to 5	6
Deptford	,,	5	0	to 6	0
Oxford	,,	4	0	to 5	0
Hampton	,,	6	0	to 7	6
Stamford	,,	6	0	to 6	8
North Shields	,,	5	0	to 5	6

"*Competition.*—Leeds Old Company, advanced from 4s. to 4s. 6d.; Leeds New Company, advanced from 4s. to 4s. 6d. Brighton, 5s. to 6s.; Brighton and Howe, 5s. to 6s. Sheffield New, 3s. to 4s.: Sheffield Old, 3s. to 4s. Dublin Hibernian, 5s. to 5s. 10d.; Dublin Consumers, 5s. to 5s. 10d.

"PRICES OF GAS PER 1,000 CUBIC FEET IN THE FOLLOWING TOWNS:—

South Shields—4s. nett.
York—4s. 6d. subject to discount to large consumers.
Middlesbro'—6s. 8d. less 10 per cent.
Newcastle—4s. less 10 per cent.
Durham—4s. less discount to large consumers.
Carlisle—4s. 2d. nett.
Stockton New Gas Company—4s. 6d. nett.
Edinburgh—5s. 10d. nett to all consumers under 20*l.*
Darlington—5s. less 10 per cent.
Birmingham—5s. discount to large consumers.
Stockport—5s. discount to large consumers.
Manchester—5s.; large consumers 4s.
Preston—4s. 9½d. discount allowed to large consumers.
Oldham—5s 2d. discount allowed to large consumers.
Salford—5s. to 4s. 6d. nett.
Liverpool United Gas Company—4s. 6d. to 4s. nett.
Wakefield—3s. 9d. nett.
Morpeth—6s. 8d. nett.
Hartlepool—4s. 6d. nett.
Sunderland—3s 9d. nett.
Great Central Gas Company, London—4s. nett.

"The directors of the last-named company made a contract in 1850 with the promoter to be supplied with gas, delivered into the gas-holder, at a certain price for twenty-one years. Consequently, advance in materials does not affect the company."

THE OUTLINE OF BRECHIN STEEPLE.

IN the course of some "Notes from the North," read recently at Liverpool, by Mr. John Hay, the writer said: About a fortnight ago I had occasion to visit the town of Brechin, in Forfarshire, for the purpose of examining the site of a new church, and I was very much struck with the fine old steeple on entering the town, together with one of the mysterious round towers rising by its side. The church itself has been sadly mangled to adapt it to modern requirements, and the fine nave and aisles with clerestory are now encased with one huge and unseemly roof. The chancel is of the rich early English, with the dog's-tooth and bay-leaf enrichment; the roof gone, and the ivy, with the weather, expediting its utter ruin. The church is of a later date, with Flamboyant tracery; but the convex outline of the steeple piercing the massive and stubborn tower, is the feature that I wish to call your attention to, together with the small spirelet over the staircase leading to the embrazured parapet.

I may state, by the way, that some authorities call it a cathedral, but it can only have been ecclesiastically so: architecturally it is strictly a parish church.

In all the Scotch ecclesiastical architecture there is a very marked and decided difference of feeling and treatment to that of England, while some have traced a strong affinity in the Scotch to that of France. I cannot help acquiescing to a certain extent in the resemblance; but I am persuaded each has as decided and defined a character as the people themselves at that period of history. There is a richness and sumptuousness in the French that is very sparingly scattered over the external aspect of the Scotch; a delicacy, purity, and elegance in the English that neither of the others can claim; and I question whether the means at command in the erection of these fabrics had not less to do with this circumstance than the careful adaptation of design and detail to the respective climates and feelings of the respective peoples. I feel also sure that the ecclesiologist of the present day, in his itinerant wanderings, is impressed with a far more lively interest from, perhaps, this unconscious fact, than if he were to drop upon *Lincoln* at *Aberdeen*, *Amiens* at *York*, or *St. Mungos* at *Rouen*.

The convexity of outline, picturesquely broken by the Lucerne windows of the steeples that I recollect of having seen, is a peculiar feature that I am not aware of having been noticed by any writer; and they favourably contrast in that artistic freedom of contour to many of our rigid and attenuated modern structures. Carrying out this view—which I think may be set down as a principle, in some measure proved by supposing the transposition of *St. Michael's, Coventry*, to the town of *Brechin*, or *St. Chad's, Shrewsbury*, to the site of *Dumfermline Abbey*,—the mind instantly recoils at the attempt to reconcile these graceful productions with the stunted severity of the districts of the north; and again, recurring to those features of climate and character of these respective kingdoms from three to five centuries ago, it appears only the more obvious that the most enlightened and profound care adapted these noble structures to the distinctive peculiarity of their respective circumstances. And although the rapidity and facility of transit through these three kingdoms are daily obliterating these individualities, these principles and facts nevertheless claim great consideration on

the part of the members of the architectural profession, whose services are required beyond their immediate locality.

The yet unsettled origin and object of the round towers of Ireland, so fertile a source of conjecture and hypothesis to the antiquary, have not thrown any satisfactory light upon the one at Brechin, and its companion at Abernethy, in Fifeshire, the only two in Scotland. A very early date is, however, assigned to the one under notice. The roof, as it appears to me, is evidently a modern one of stone, and judging from the masonry, I should say the 12th century was about the limit. There is some worn-out carving round the narrow entrance, which is about six or seven feet from the ground, and seems to be of Saxon or Eastern character. The symbols of the cross said to be on this carving, I must confess, I could not alone have discovered. The stone of the church and tower is the old red sandstone, and in fair preservation.

By the way, I have never discovered in any of these old structures anything like our modern tooling, polishing, rubbing, or brotching. Invariably the work is chiselled, and where the stone is of hard texture, or fine mouldings or carving, it seems to be worked with the edge of the tool at right angles to the stone, in the same manner that the millwright dresses his millstones.

Notices of Books.

Hints on Village Architecture. By HENRY WEAVER, Architect, &c. Bath: Holloway and Son. London: Pope, Budge-row.

UNDER this title, the author has published, in a large form, a selection of designs for schools, cottages, and parsonage houses, mostly executed. Mr. Weaver says, in his preface, that many such buildings are now springing up, "the outlines of which are anything but in harmony with the surrounding scenery, which is often more or less disturbed in effect by ill-proportioned and inelegant buildings, almost or altogether destitute of that distinctive sober character so beautifully exemplified in even the most simple of the old religious edifices." He attributes this correctly to the non-employment of a "professed architect," from some exaggerated idea of the expenses into which such a precaution might lead them: in other cases, designs have been procured from an architect unacquainted with the locality, and not fully apprised of the circumstances under which the building would be undertaken, or the limit often necessarily placed on the funds provided for its erection. As a consequence, highly-decorated and proportionately expensive designs have been submitted, unsuited to the peculiar circumstances of the case, and the plan of the architect, however able or judicious in general arrangement, has necessarily been rejected: hence the erection of many a school or rural parsonage has been entrusted to the guidance of a country builder, who, although he might do himself or his employers ample credit in the operative department, has been totally unfit to be entrusted with a higher responsibility."

The cost of each building represented is appended, and it may be better that some persons about to build in the country should get this book rather than none at all; but we are bound to say that it is much inferior to some works of the same kind already published, and really does not supply a single new thought.

VALUE OF LAND IN THE CITY.—Observing by a communication in a recent impression, that an endeavour has been made to throw some doubt on the accuracy of your statements on the above subject, I beg to inform you that a piece of land on the south side of Cornhill, having a frontage of 58 feet by a depth of 17 feet! has been within the last few days let on lease for a building term at a ground rent of 900*l.* per annum. This, I think, will be found to be a higher rate per acre than any plot heretofore let. I may add, that the ground in question is the property of the parish of St. Michael, Cornhill, and was let by public tender.—T. H.

*** Calculated as in the previous instances, at thirty years' purchase, the sum produced is at the rate of 1,182,030*l.* per acre!

Miscellanea.

LECTURES ON CHRISTIAN ART.—In the course of next month Mr. George Scharf is to deliver a course of eight lectures at the Royal Institution on Christian Art, from the earliest period to Raffaelle and Michel-angelo. The following are the heads:—Lecture I. From A.D. 300. The Catacombs of Rome, and Churches of Ravenna. Early Christian Painting and Sculpture—Historical Notes upon the Relations between Popes, Emperors, and Byzantines—Mosaics—The Saracens — Dark Ages — The Millenium. II. From A.D. 1000. Sicilian Mosaics and Architecture. Institution of the Mendicant Orders—Close Relation between Painting, Sculpture, and Architecture—Contemporaneous Buildings in France, Germany, Italy, and England.—The Pisani. III. From A.D. 1234. Assisi. Giunta Pisano—Guido da Siena—Cimabue—Dante—Giotto—Mosaics in Rome—Shrine in Westminster Abbey. IV. From A.D. 1300. Campo Santa, at Pisa. Jubilee—Simone Memmi—Duccio—Gaddi—Orcagna—Petrarch—Boccaccio. V. From A.D. 1360. San Marco at Florence. Orcagna as Sculptor and Architect—D'Avanzo—Venetian School—Angelico da Fiesole—Ghiberti—Donatello. VI. From A.D. 1432. The Carmine, at Florence. Paolo Uccello—Masolino—Masaccio—Gozzoli—Van Eyck—The Paduan School—Andrea Mantegna. VII. From A.D. 1473. Walls of the Sistine Chapel. Sandro Botticelli—Ghirlandajo—Signorelli—Leonardo da Vinci—Perugino—Francia—Origin of Engraving. VIII. From A.D. 1492. The Vatican. Pinturicchio—Michelangelo—Raffaelle—Andrea del Sarto—Correggio—Venetian School—Sebastiano del Piombo and Giulio Romano.

EXPENSES OF A SAILING COLLIER.—During the discussion on Mr. Allen's paper "On Steam and Sailing Colliers," at the Institution of Civil Engineers, March 13, the details were given of the working expenses of a sailing collier brig, of 227 tons register, which had made, in the last year, nine voyages from the North to London, delivering on an average 335 tons per voyage, at 9s. 4½d. per ton freight. The gross receipts were 1,416*l.* 3s. 1d. and the expenditure 1,149*l.* 13s. 1d., leaving a nett profit of 266*l.* 10s. = 18¾ per cent. upon the receipts, or 26½ per cent. on the original capital. The brig was twelve years old, and had cost 1,000*l.*

TEMPLE OF JUNO, AT ARGOS.—A correspondent of the *Leader* says,—Rauch, the sculptor, has just shown me a letter from Athens, in which it is stated that the temple of Juno has been excavated at Argos, and as many as three hundred fragments of statues have already been recovered. Remember that this temple was, in the life of Polycletes, what the Parthenon was in the life of Phidias—that it contained the masterpiece of his art, at a time when art was at its apex of glory,—and you can form some idea of the thrill which this announcement will give every lover of sculpture. The Greek government will not, it is supposed, sell the treasures, but it has no money to devote to their restoration. Casts are to be taken of them; and ere long we may hope to feast our eyes on works worthy to be placed beside the Elgin marbles! Some further particulars have since appeared in the *Times*.

FALLING IN OF A TUNNEL.—On the Midland line of railway, the Long Landstone tunnel, on the Derby side of the Ambergate station, is cut out of the solid limestone rock: a portion of this tunnel fell in on Thursday in last week, choking up the line with about fifty tons of *débris*. A plate-layer named Orme happened to be close at hand, and observing what had happened, immediately ran down the line, where he heard an expected express train coming up at the rate of fifty miles an hour. Orme had no signal other than the expressive movement of his arms, which he flung wildly about, and so attracted the attention both of driver and guard. The engine was instantly reversed, but notwithstanding, the train was so near destruction that it could not be prevented from running right up to the *débris*, where it was stopped, however, without the slightest injury to the passengers. We hope they immediately made up a pretty heavy subscription for Orme, in which one and all united to show their gratitude for life preserved.

AWARD OF A RAILWAY JURY.—On Tuesday before last, according to the *Gateshead Observer*, a special jury met at the Talbot Inn, Bishop Auckland, for the purpose of assessing the value of 4a. 3r. 21p. of land, required by the Stockton and Darlington Railway Company in forming their branch railway between the Shildon tunnel and St. Helen's Auckland, when they awarded as under:—

For the value of the land.....	£1,125
For severance.....	600
	£1,725

The company, in the first instance, offered 500*l.* and afterwards tendered 781*l.* The landowners proposed to take 1,500*l.*

CHRIST'S HOSPITAL.—We are glad to find that the Committee of Inquiry hold the same views as to the desirability of removing the school from the heart of the city, as have been expressed in our journal. The committee say in their report, just now laid before the governors,—"Your committee cannot help here calling the attention of the governors to the large sums which have been for some years past expended in repairs and alterations, and the very insufficient result which has yet been arrived at, as shown by the want of sufficient day-rooms for the boys, and of a well-arranged library, and the insufficiency of proper conveniences for personal cleanliness. It is manifest that if these wants are to be supplied, very large sums of money will yet have to be expended, while it is exceedingly doubtful whether sufficient space can be obtained to make that expenditure effectual. Your committee, therefore, feel, that before any further expenditure is incurred, it must be a matter of grave consideration whether the physical and moral wants of the scholars will not be best provided *for by the removal of the establishment from the heart of this great metropolis.*" The committee are of opinion, that more might be done with the princely revenues of this institution, 45,000*l.* per annum, than is now effected.

PRESTON CHURCH SPIRE COMPLETION.—The workmen employed at the Preston parish church, with several promoters of the re-erection, had a supper together on Saturday in week before last, in celebration of the completion of the spire. The curate, *vice* the vicar, who was unwell, took the chair; and Mr. J. J. Myers acted as vice-chairman. After the usual routine of toasts, the chairman made the following presentations to workmen who had distinguished themselves, and which we quote from the *Preston Guardian*:—Mr. Abel Ellis, foreman of the masons, and Mr. J. Beardsall, foreman of the joiners, a church service; Mr. Henry Colebeck and Mr. Henry Ellis, the masons who set the stonework of the spire 50s. and a Bible each; Thomas Sutcliffe and Michael Lynch, labourers, employed on the spire, 25s. and a Bible each.

CUTTING DOWN TREES IN KENSINGTON-GARDENS OR HYDE-PARK.—Correspondents complain that the authorities are allowing the trees in the Park or Gardens to be cut down and carted away, and indeed we happened to see one on its way off the ground. It is to be hoped, now that attention has been called to this matter, it will be put a stop to, otherwise we must really endeavour to induce the band of the Life-Guards to march down to Whitehall and serenade Sir William Molesworth with "Woodman spare that Tree," till his ears ring and his heart softens under the persuasive influence. The trees are too precious an ornament to the parks to be lightly disposed of in this way, and we are scarcely willing even to admit that death by old age or lightning's blast affords excuse sufficient for stripping our suburban landscape of such relics. There is an old blasted holly in Kensington-gardens we would not lose for a trifle.

THE FALL OF A BRIDGE AT BRISTOL.—The bridge which so strangely disappeared last week under the shock of a flat-bottomed barge, crossed the Avon on the London and Eastern road from Bristol *viâ* Bath, and was of iron, and erected in 1805-9, by the Coalbrook Dale Company. It was a single span of 160 feet, with six cast-iron ribs tied by girders, supported by stancheons cemented into masonry. It appears that a similar accident on a smaller scale as regarded the bridge, but serious as regarded injury to life, took place before it was completed, when thirty-two persons were injured by the fall of a portion of the works through a barge coming in contact with them. In the present instance the whole of the bridge, except one of the piers, disappeared in the river, and several persons have been drowned.

THE THAMES TUNNEL.—In the week ending 24th March, 24,639 passengers passed through, and paid the sum of 102*l.* 13s. 3d. in tolls.

SMOKE "BELOW BRIDGE." — Happening to seek a little relaxation the other day in one of those semi-rural resorts of Cockneydom "below bridge," I was much surprised to find that, instead of escaping from, we were fast getting into, the heavily-laden atmosphere which, until now, we have considered almost necessary to our existence. On reflecting as to the cause, I discovered that not only was our vessel a *steamer*, but also, in defiance of legislative enactment, an out-and-out Dutch *smoker*. No sooner, however, in returning, had we sighted London's noble highway than, like a modern "fast" youth surprised in this reprehensible practice by some influential relative, away disappears the obnoxious cloud, and in its place the white steam gently curls its way, in sportive innocence, through the wide-mouthed funnel. Now, air, I would ask, through the medium of your searching columns—If furnaces can be made to consume their own smoke "above bridge," why, in the name of all that's salubrious, should they not likewise do so "*below bridge?*"

JUDEX.

ELECTRO-TELEGRAPHIC PROGRESS.—The electro-telegraphic line, bringing Bologna and Rome into instantaneous communication, has at last been completed. The first experiment consisted of a characteristic message from the prelate commissary extraordinary of the legations, and the Bolognese municipality, returning thanks to the "Holy Father" for so advantageous a public work, and imploring his apostolic benediction. The far-famed Easter blessing from the balcony of St. Peter's may now be telegraphed to the faithful all over Christendom.——The electric telegraph between Bucharest and Varna, *viâ* Shumla, Silistria, and Rustchuk, is being constructed by the French, the British Government paying half the expense. It will be worked by a French staff, our Government sharing the cost and the receipts.——The Magnetic Telegraph Company, it appears, have expended on their works, &c. and on capital account, 259,504*l.* 7s. 3d. The traffic account at last meeting showed a total of 29,677*l.* 14s. 6d. After payment of 5 per cent. dividend for 1854, there remained a balance of 1,545*l.* 9s. 4d.——The Electric Telegraph Company alone have now organized communications over 4,625 miles of country, involving the use of 25,233 miles of wire. The wires of various companies now reach from Aberdeen, in the North, to Viterbe and Corsica, in the South; from Cork, in the West, to Lemburg and New Orsova, in the East. They reach from Konigsberg, in the Baltic, to Marseilles and Toulon, in the Mediterranean. These wires will shortly unite Africa and Europe. Reaching Egypt, they will quickly extend still farther eastward. In India, 3,000 miles are in course of construction: these will eventually meet the wires from Egypt. In the United States of America there were, at the commencement of 1854, telegraphs extending over 41,392 miles, and now one is projected to unite Mississippi with San Francisco, a distance of 2,400 miles. Such are the great results which have sprung from the mere abstract truth observed by Oersted, that a magnet placed itself at right angles to the direction of an electric current. "Practical men" are fond of contrasting their own doings with those of the more abstracted experimental and speculative philosophers and men of science, and here they have literally done wonders; but where would all these wonders have been but for Oersted's modest little abstract truth on which they have all been based? Oersted was the master: "Practical men" are but the meritorious servants of such masters.

KILKENNY ARCHÆOLOGICAL SOCIETY.—At the March meeting of the Kilkenny Archæological Society, twenty-three new members were elected, including the Marchioness of Waterford and another lady. Numerous presentations were received, and various interesting communications read. Amongst the latter was one in which Irish Sepulchral Usages were illustrated by those of North America, in a letter by Mr. C. Stewart, a gentleman engaged on a railway in Canada West, forwarded to the Society by a member, Miss Beaufort. Other communications sent by Mr. Hitchcock related to gallauns or pillar-stones for land-marks, to the Ardmore Ogham inscription, and to a similarity between ancient Irish and ancient Egyptian sculptures. Mr. E. Fitzgerald, of Youghal, surprised the meeting by a communication to the effect that an attempt had been made by the Royal Irish Academy to induce the proprietor of Ardmore to remove the Ogham stone in the masonry of St. Declan's ancient oratory, and send it to the museum of the Academy. Mr. J. G. Robertson exhibited a numerous collection of sketches in ink of crannieges, by Mr A. Johns, of Carrickfergus, showing striking mutual resemblances in those of Ireland, England, France, Prussia, and Denmark. The Rev. James Graves called attention to rubbings from ancient Irish tombstones.

A RAIL OF RAILS.—The Rhymney Iron-work Company, of Newport, have just completed the largest railway rail, perhaps, ever made, and have sent it off to the French Exhibition. It is one of Barlow's patent rails. Only three works in Great Britain can make these heavy rails, it is said. From 18 to 20 feet was considered a good length for them: 22 feet was the longest ever made. This one is 16 metres, or 62 feet 6 inches long, and is not even painted, but is merely brushed over with oil to prevent rust; and it will be so exhibited. The work was done under the direction of the engineer of the works, Mr. G. P. Hubbuck.

SEPARATION OF SEWAGE.—With reference to statements at the Society of Arts, on the 7th inst. in which the separation of manure proper from rain-fall, &c. formed a special element, I beg to remind you that this idea is contained in a paper on Sewage, in the *Builder* of October 15, 1853, written for the special purpose of showing that the present plan of mixing sewerage (or the removal of refuse) with the natural drainage of land, is radically wrong, and that the sound principle is to keep the sewage distinct, and in as small a compass as possible.—H. G. C.

BROAD WHEELS ON MACADAMIZED ROADS.—In a printed communication addressed to Sir B. Hall, Mr. R. Blaydon, road surveyor on the Leeds and Wakefield trust, suggests measures to check the transport of heavy loads on narrow wheels, or on broad ones, improperly formed, and the adoption of flat broad wheels in such cases, as on the trust in question. By such regulations, and others connected with them, which, he remarks, might be introduced into such an Act as the new Health Act, not only would the prevalence of unwholesome dust and mud on Macadamized roads, and the jolting and discomfort of ill-made granite block roads, by the substitution of Macadamized ones be obviated, but these latter would be made much more lasting, repairs being only required probably in three to five years, instead of in one year.

PRODUCTIVE EMPLOYMENT IN WORKHOUSES.—At the Hertford Union an experiment has been made with decided success. A field in the Ware-road was cultivated at a cost of 20*l.* 7s. and it yielded potatoes, &c. to the value of 57*l.* 16s. of which 31*l.* were realised in money by the sale of the surplus crop. We do not see, as we have often said, why every workhouse should not produce its own food, and earn its own clothing by the surplus, and so relieve the poor-rate payers from a heavy and most unnecessary burden, while at the same time promoting a spirit of self-dependence in young and old; for there are few that could not help in some way, were it but in cutting potatoes for seed and the like, towards earning their own livelihood.

TINKERING EXTRAORDINARY.—The iron steamship *Dunedin*, of about 400 tons, was taken up on a slip at Glasgow lately, and 21 feet added to her length, increasing her burthen by about 100 tons, and she was completed and launched, being made nearly one-third longer, in fourteen days! Rather too fast, it may be feared.

THE BERNAL COLLECTION.—The "crockery" in this collection has brought enormous prices: a pair of vases realized the value of a fine house, and a "Pahssy" dish, not 12 inches over, was thought a catch at 162*l.* The value which has been given to the items is wholly adventitious and unwholesome. A friend writes, touching one pair of vases for which some 170*l.* were given, we believe, for the British Museum, "These vases produced at my sale about the same number of farthings," and, he adds, "brought me their real value too." The British Museum and the Department of Art, it appears, have been bidding against each other! We use mild language when we say, that the gentlemen who managed this ought to be ashamed of themselves.

BELLS.—Mr. Mears's recent explanation shows how exactly St. Paul's bell had been estimated at 11,600 lbs. Perhaps the power may be superior to the weight, as, to the best of my recollection, it is nearly, if not quite, equal to "Great Tom of Oxford," which weighs about 17,000 lbs. The great bells of Rouen and Paris weigh respectively 40,000 lbs. and 32,000 lbs. There was a pretty good single bell at Cherbourg, though the organ had been destroyed in the "revolution," when I was there in 1819. It seemed a little cruel in the ambitious Yorkists to oust poor "Oxford Tom" from his lofty pre-eminence. There is a bell at Exeter Cathedral said to weigh about six tons; also the heaviest "peal" of ten in England,—the tenor weighing 7,500 lbs. "Tom of Lincoln" now weighs about 10,000 lbs.; Canterbury Cathedral, 7,500 lbs. I think; Gloucester or Hereford about 6,000 lbs. It may be worth observing, that there seems to have been in the sixteenth century hardly any peal of more than five or six,—the old number at Christ Church, Oxford,—though generally heavier than now; and Sir W. Scott speaks of the "huge" bell of Melrose. The only monastic notice of "eight" bells I have seen is of *Tewkesbury* Abbey. I have read of a bell of 8,000 lbs. at *some* parish church in Gloucestershire, and heard of a village peal of six, tenors 56 cwt. in Oxfordshire; and am inclined to think there may be several little known heavy tenors.

J. D. PARRY.

EARLY CLOSING.—BOOKSELLERS.—I beg to call the attention of booksellers, and the public in general, to the early-closing movement, now being advocated amongst booksellers. A great many of the wholesale houses in Paternoster-row have closed for several months past, and continue to close, on Saturday at five o'clock, with the exception of several of the larger firms, who are prevented from following the good example of the smaller houses, from the fact that country booksellers will persist in sending orders to their town agents on Saturday. I am now able to inform you that, notwithstanding the obstacles to be surmounted, the booksellers in Paternoster-row have all agreed to close at five o'clock on April the 7th, and will continue to close at that hour through the spring and summer months. Be kind enough to insert this in your next publication.

AN ADVOCATE FOR THE EARLY-CLOSING MOVEMENT.

FENCHURCH-STREET, LONDON.—A correspondent, "D." points to the evils caused by the narrowness of the western end of Fenchurch-street, and the additional traffic it must accommodate when the Victoria Dock, Blackwall, Eastern Counties, North London, and Southend Railway Companies carry into effect their proposed arrangements; and says, with justice, it is necessary that the narrowest part near Messrs. Hankey's Bank should be widened, by setting back the few houses opposite, lying between Gracechurch-street and the corner of Lime-street.

TO MAKE PASTE THAT WILL KEEP FOR A YEAR. Dissolve slowly in water two square inches of glue and an equal quantity of alum. Mix and boil with flour as usual, and when nearly cold stir in two teaspoonfuls of oil of cloves or lavender, the whole to make a pint of paste. Keep in a well-covered vessel. —*Belfast Newsletter*.—To prevent paste from getting mouldy is a very simple affair. Boil with the paste acetate or as commonly called sugar of lead: a piece the size of a small filbert, to a pint of paste, is, I think, sufficient for the hottest weather. It must, of course, be kept out of the reach of children, &c. as the sugar of lead is poisonous.

IMPROVEMENT IN SCREW STEAM MACHINERY.—A simple plan has been suggested by Mr. Penn, the eminent engine-maker, for preventing the excessive wear and tear of the bearings on the shafts. He introduces between the bearing and the shaft thin slips of wood, which have the remarkable property of entirely suspending that incessant waste of material which, after a certain pressure on the square inch has been attained, is constantly in progress. This simple expedient has been adopted in the recent repairs of the *Himalaya*. While the surface of the bearing is preserved from waste, singularly enough, it is said, the slips of wood show no indication of being rubbed away or heated.

TENDERS

For building a Villa Residence at Horstal, near Rochester, for Mr. J. C. Park. Mr. R. W. Armstrong, architect:—

Andrews, Rochester	£1,776	4	0
Wood, Gravesend	1,375	0	0
Spicer, Rochester	1,266	14	8
Fowler, London	1,165	0	0
Wallbutton, London	1,100	0	0
Cobbam, Gravesend	1,088	0	0
Nayler, Rochester (accepted)	1,073	0	0

For building St. Paul's Church, Warwick-road, Maida-hill. Mr. Thomas Little, architect:—

Higgs and Cullingford	£11,798	0	0
Holland	11,400	0	0
Piper	10,900	0	0
Myers	10,666	0	0
Higgs	10,145	0	0
Pollock and McLennan	10,130	0	0

For Sewers to be constructed on the Dorville Estate, Hammersmith. Mr. Alfred C. Bean, architect. Quantities not furnished:—

Pound	£1,215	12	0
Johnson	1,096	0	0
Cowland	1,088	0	0
Rentmore	993	0	0
Hayes	990	0	0
Fowman	982	0	0
Messrs. Bird, Hammersmith	969	0	0
Chandler	950	0	0
Bunn	925	0	0
Fraser	863	0	0
Alder and Pearson	860	0	0
J. and S. Williams	850	0	0
Heaven	815	0	0
Wheeler and Croft	799	15	6
Campbell	744	17	0
Rogers	735	10	0
Maynard	721	15	0

For a pair of Villas, boundary walls, &c. for Mr. J. Caulett. Mr. Hambridge, Jun. architect:—

Gosling	£3,400	0	0
Archbutt	3,240	0	0
Partridge and Crutch	2,717	0	0
Honeyman	2,700	0	0
Howlison and Co.	2,590	0	0
Case	2,427	0	0
Pauline, Jun.	2,426	0	0
Hughes	2,333	0	0
Bishop	2,315	0	0
Hocken	2,272	0	0

For a Villa on part of Wimbledon-park Estate, for Mr. S. Green. Messrs. Aicken and Capes, architects. Quantities not furnished:—

Hill	£1,250	0	0
Joliffe	1,197	0	0
Honeyman	1,150	0	0

For House and Outbuildings at Tulse-hill, Brixton, Surrey, for Mr. R. S. Griffiths. Mr. C. Gray, architect. Quantities supplied:—

	House	Outbuildings.		Total.		
Brown	£1,998	250	0 0	£2,248	0	0
T'Anson	1,940	280	0 0	2,220	0	0
Clemence	1,900	200	0 0	2,100	0	0
Burt	1,839	231	10 6	2,070	10	6
Saunders and Woolcot	1,798	200	0 0	1,998	0	0

ERRATUM.—The amount of lowest tender for sea-wall, &c. Ryde (Langden), should have been 2,183*l.*—not 1,183*l.* The error was in list sent us from head-quarters.

TO CORRESPONDENTS.

Cast-Iron.—Will one of your correspondents have the kindness to inform me of the best mode to ascertain the strength, and for proving cast-iron columns?—S. Some valuable tables on the strength of cast-iron columns will be found in Weale's "Engineer's Pocket-Book." See Mr. Hodgkinson's experiments, and previous volumes of the *Builder*.—"E. A."—"A. R."—"W. B. W."—"W. H."—"Mr. W."—"W. P." (the remuneration of architects' assistants for "over-hours," would be a matter of private arrangement).—"W. P."—"H. C." (thanks).—"S. S."—"Sig. B."—"H. S. S."—"W. G. D."—"J. H."—"A. C."—"H. L."—"C. B."—"Non-Professional"—"J. R. L."—"J. B."—"R. S."—"C. and Co."—"G. S."—"H. D. G."—"J. S. S."—"J. H." (in type).—"M. A. A." (ditto).

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

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EASTWOOD ESTATE, near Berkeley, Gloucestershire.—WANTED, immediately, a thoroughly competent person to CONTRACT for DIGGING CLAY, MAKING and BURNING 1000,000 or more of fine BRICKS. The contractor will have to provide all working plant, but kilns and shedding will be built for him.—For further particulars and to view the ground, apply to Mr. F. W. GILL, Clerk of Works, Eastwood House. The nearest railway station is Charfield, Bristol and Birmingham Railway.

OFFICE LAD.—Wanted, an Office Lad, in an Architect's Office in the City. He must be a respectable youth, of 16 years of age, and must write a fair hand. Five shillings per week will be given.—Address, X. Y. Z. 32, Richmond-road, Barnsbury-park.

WANTED, a CLERK, who is capable of keeping the books of a plumber, painter, and glazier; can measure off work, make out estimates, and will make himself generally useful.—Apply by letter only, stating amount of salary required, to A. B. 1, Kelvin-terrace, Upper Sydenham, Kent.

WANTED, a FOREMAN, to superintend a few joiners, and set out working drawings.—Apply by letter, stating wages required, &c. to A. B. 100, Leadenhall-street, City.

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JOSEPH DAW, Principal Clerk.

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LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.
Enrolled as the "Borough of Lambeth Benefit Building Society
PRESIDENT.
The Hon. JOHN LOCKE KING, M.P.
TRUSTEES.
George Singer, Esq James Smee, Esq S Etches, Esq.
Offices, 21, Higb-street, Borough
Open from TEN A M till SEVEN P.M.
Shares, 30l
Entrance fee, 1s. Payments, 4s. monthly.
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No Fines on unadvanced Shares No back payments.
This Society within four years has divided five estates, satisfying 1,810 Shares out of 3,700 The value, as divided amongst members, being 57,762l.
A Bonus of 5 per cent. in addition to 5 per cent. interest, in all 10 per cent was declared up to all unadvanced Shares at the annual meeting of both January last.
WM. BANKS, Secretary.
211, High-street, March 1 1855.

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Pine Planks, 12 ft. 3 in. by 11 in.	.....	From 4s. 6d.	each.
Spruce Deals	,,	3d.	per foot.
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Six-feet Pipe-staves	,,	2s. 6d.	each.
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Prepared Flooring, Veneers &c. at equally low prices.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

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AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT A large assortment of seasoned PLANKING and MATCH-BOARDING of all descriptions Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Stuff, &c. Timber of all kinds Deals, Deals, and Battens, fetched from the Docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 3, North Wharf-rd, Paddington.
N.B Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

ACORN TIMBER WHARF, Canal-bridge, Old Kent road—RICHARD MAY'S extensive Drying Warehouses and Waterside Premises, with the improved machinery for sawing all kinds of wood, enable him to keep one of the largest stocks in London, of
PLANKS, DEALS BATTENS,
DRY PREPARED FLOORE-BOARDS, AND MATCH-BOARDING
FOREIGN FIR TIMBER OF ALL KINDS.
English Oak, Elm, Ash, Alder, Laths, Mouldings, Sash Stiles, always on sale at the lowest prices for cash.—A monthly Price Current forwarded on application

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings, a large stock of dry flooring at low prices.—Southwark bridge Wharf, Bankside.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c for SALE on COMMISSION, at very low prices for cash. Timber Deals &c. received for Sale on Commission.—THOMPSON and HIVES, Wharf in Stone Bridge, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge

SALE of OAK TIMBER, Hainault, Essex. —By order of the Hon. Charles Gore, Commissioner in charge of Her Majesty's Land Revenue.—TO BE SOLD by TENDER, in 20 lots, a large quantity of very valuable OAK TIMBER, comprising about 1,000 trees, together with their top, lop, and bark, many of them being of large size, and well adapted for navy and general purposes, now standing on portion of the Queen's allotment in Hainault, which is eligibly situate for water carriage by the River Thames at Barking, or by railway, being about four miles from the Ilford station, on the Great Eastern Counties Railway, and about ten miles by the high road from London Sealed Tenders endorsed Tenders for Timber will be received by the Surveyor of the Forest, at his house, Woodmaster, on or before THURSDAY, 5th APRIL 1855. Printed particulars and conditions, with form of Tender, may be had on application at the Office of Woods, at the Cork Hotel, Stoney Stratford; of Mr. John Curtis, 3, Whitehall-place; or of Mr. Moody, at Paddnall-grove, Ilford, who will show the timber.
March 12 1855.

SALE of OAK TIMBER.—Whittlewood Forest, Northamptonshire.—TO BE SOLD by TENDER, by order of the Honourable Charles Alexander Gore, commissioner in charge in Twelve Lots, a large quantity of very valuable OAK TIMBER, comprising about 6,500 trees and 6,700 tellers, together with their tops, lops, and bark; many of them being of large size, and well adapt d for navy and general purposes, as now standing on portions of the forest of Whittlewood, in the county of Northampton, which is situate a short distance from the Buckingham and Grand Junction Canals, and will in about six miles of the Railway Stations at Wolverton and Buckingham. Sealed Tenders will be received at the Office of Woods, 1, Whitehall place, Westminster, on or before TUESDAY, the 10th day of APRIL next Printed particulars and conditions, with forms of Tender and plans sh wing the position of the timber may be had on application at the office of Woods, at the Cork Hotel, Stoney Stratford; of Mr. Joseph Currell, 4, Whitehall-place; or of Mr George Mason, Potterspury, near Stoney Stratford, who will show the timber.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities is now introduced into this country, and an extensive assortment of specimens and patterns commencing at 1s per foot superficial, together with every part color of its use and adaptation, can be obtained of Mr. BURT, 3, Charlotte-street, Mansion House; or of Messrs ARROWSMITH and Co. 89, New Bond street.

BUILDING MATERIALS.
BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply up at this wharf, on reasonable terms, with every convenience for speedily loading by trucking stages, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c N B This wharf is very near the St. Margaret's estate.

LADDERS, BARROWS, &c for SALE or HIRE. GEORGE ELL, 3, Tottenham-court, New-road, opposite the Hampstead road, and corner of Pratt-street, Pad-dington, has on hand at all times a large stock of LADDERS, EXCAVATORS', BRICKMAKERS', and other BARROWS, PAINTERS' PRENTICES, MACHINES, SLIPS, &c. Price lists can be had on application at 1, Tottenham court.

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c The nobility, gentry, water-companies, towns baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring tools, 19, Cumming-street, Pentonville. Pumps and machinery for raising water from deep wells brought in, and new lifting forcing apparatus. Men and tools supplied to bore for railroads, minerals, &c.

ARCHITECTURAL DRAWINGS WANTED.—Any person having some first rate Architectural Drawings to dispose of on moderate terms, may hear of a purchaser by applying to W. R. 34. Guildford-street, Brunswick-square.

EVENING INSTRUCTION given in taking out quantities, measuring, estimating, drawing plans, and perspective, by a practical Surveyor.—For cards of address and terms, apply to H. B. No. 4, Wilmot street, Russell square.

SURVEYORS, BUILDERS, and Others desirous of finding their own materials, will find a party that will EXECUTE WORK at the following terms, viz.:—To provide scaffolding and labour at per contract at the lowest possible terms; painting, with scaffolds, at per job; buildings at per rod. Scaffolds, ladders, and straps, on hire.—Direct to A. B. Standard Coffee-house, 17, Tottenham-court, New-road.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.
H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London. These Pencils are prepared in various degrees of hardness and shades.

H H H for drawing on wood.		F F light and shading.	
H H H for architectural use.		F for general use.	
H H for engineering.		B black for shading.	
H for sketching.		B B ditto	ditto.
H B hard and black for drawing.		B B B ditto	ditto.
		B B B B ditto	ditto.
M medium.			

Sold by all the principal Stationers in town or country.

SATIN PAPER-HANGINGS, cheapest ever manufactured.—Builders, Decorative Paperhangers, and dealers, can be supplied with good Satin Papers at Tenpence per piece. Specimens sent to any part.—C. WHITE, Paper Stainer, Baltic Wharf, near Vauxhall-bridge, Pimlico.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is the WHOLESALE WAREHOUSE, 32, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the KINGDOM. THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

THE PERMANENT WAY COMPANY, 28, Great George-street, Westminster, beg to call the attention of Civil Engineers, Contractors, and others interested in the construction of railways to the present low price of iron, by which a saving may be effected of nearly 300l. per mile, single line, in the adoption of Mr. W. H. BARLOW'S Patent Wrought-iron Permanent Way overthat of the ordinary road.—Every information can be obtained on application to
WILLIAM HOWDEN Secretary

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water Pipes; also Rubber Deer sprues, and Solid Round Rubber Cord of all sizes of any length Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.
Driving-straps of vulcanized canvas, and improved Vulcanized Rubber Supply-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS which they can recommend as being made in the best manner.—Venetian blinds, per square foot, 9d.; best hollow blinds, 6d.; gauze blinds, 3d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 3s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 3s. Transparent blinds in great variety. Elevations, with prices and discounts to builders and the trade, forwarded on application, post free.

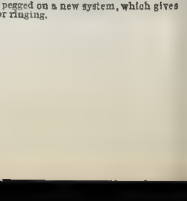
TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings for Fêtes, &c. Estimates per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers can be supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 6, 10, 15, and 20 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with cisterns up to 20,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

FORSTER and SLATE'S PATENT CONSTANT SUPPLY FILTERS, tested and approved by the first water engineers in the country, and approved at the Offices of the General Board of Health. Exclusively adopted by the Crystal Palace Company Easily cleaned without trouble or expense.—To be seen in operation daily, at EVANS and SON'S, Ironmongers, 35, King William street, London-bridge.

PATENT SANITARY GAS SHADES.—These Shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the effluvia and smoke which have hitherto made the use of gas so objectionable in dwelling-houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had at the Works in a variety of forms adapted to the style of fitting, or the taste of purchasers; also at Mr. JOHN SHORTER'S, Crispin-street, Spitalfields, London.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heret fore been accomplished.
Bells for Churches, Chapels, Colleges, Sch ols, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.
TUNED BY MACHINERY.
Stocked and wheeled ready for hang. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.



WHITE OXIDE OF ZINC AND ZINC PAINT.
(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in Oil.

Zinc Paint, being unchangeable by colour, gases, or pigment for the highest purposes of Art; and from its perfectly pure and innocious qualities, is peculiarly applicable to first-class Decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

Messrs. MORANT and BOYD, 91, New Bond-street, who have lately used Zinc Paint to a great extent at Cliefden (the Duke of Sutherland's), and other mansions, have specimens, and will give any information respecting it.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO
MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

HUBBUCK'S PATENT WHITE ZINC PAINT,
The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK—LONDON PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurcous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. R. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 63, King William-street, City; FREDERICK BRADY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O. and T. can deliver by their own boats, or by rail to any part of the kingdom.

Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in colour and quality.

Office, Warwick.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack: combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—ASPDIN'S PATENT.

Messrs. ASPDIN, ORD, and CO. have much pleasure in informing consumers of this valuable Cement, that they have, by means of a recent discovery patented by Mr. ASPDIN, much improved the quality of this Cement without any increase in price.

Engineers and architects are recommended to specify "Aspdin's Patent," as there are numerous imitations sold as Portland Cements resembling it only in colour.

ASPDIN, ORD, and CO. beg to call attention to their SECOND QUALITY, which is equal, if not superior, to most of the Cements sold as Portland, and is considerably cheaper.

A report of experiments made to prove the extraordinary strength of their Patent Portland Cement, may be had at their Office, New Wharf, Abingdon-street, Westminster, at their Works, Gateshead-on-Tyne; at Messrs. Rosher's Wharfs, Holland-street, Blackfriars, Kingsland Basin, and Limehouse; or from their Agent, Mr. HENRY ROBINSON, 31, King-street, Liverpool.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland Cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccos dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Firebricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS, STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREY STONE LIME WHARFS, 12, Upper Ground-street, Blackfriars (Surrey side), and 7, North Wharf road, Paddington.—WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns, Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester.

WHITE FACING BRICKS.—The public can now be SUPPLIED with a very BEAUTIFUL ARTICLE on moderate terms. Dies of any size. Stock bricks may also be had. W. FOSTER, Manager.

Patent White Brick Works, Rugby, March, 1855.

BRICKS.—Best Kent Grey Stocks, delivered alongside in the River; also Patent Perforated and Solid White Suffolk and Red Facings.—Apply to W. ALLAWAY, 4, Catherine-court, Tower-hill.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Malms, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light coloured Pit Sand of superior quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 57, Newingston-crescent, Newington-butts, will, from MONDAY, the 11th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

BRICK-MAKING EXTRAORDINARY!! BY OATES AND INGRAM'S PATENT MACHINE.

TO CAPITALISTS AND BRICKMAKERS.

Messrs. OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen (by order only) in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

The great advantages possessed by this machine over all others are, no tempering is required.

The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be backed up in ranks before leaving the machine, which is entirely self-acting, consequently requires only the labour of feeding and carrying off.

Applications, either to view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, T. WELLS INGRAM, Engineer, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

BRICKS.—MALM SECONDS and PICKINGS, Moore-park Brickfield, Fulham; 2 miles from Sloane-street. A large quantity of Malm Pickings, Grizzles, and Place Bricks, to be sold cheap.—Apply to Mr. F. A. GUSH, 12, Stamford Villas, Fulham.

BRICKS.—Yellow Malm Cutters, Seconds, Paviors, and Pickings of a very superior quality and colour. Address, Mr. WM. WEBB, Brick fields, Stoke Newington.

TO BRICKMAKERS and OTHERS requiring Mills for Washing.—TO BE DISPOSED OF by PRIVATE CONTRACT, three capital 2-horse WASH MILLS, two with pumps, rods, &c. to lift water from wells of 60 feet deep. To be seen and prices obtained at JOHN E. LEES Brickfields, Lewisham, Kent.

TO BRICKMAKERS.—TO BE SOLD, together or separately, at half their value, FIVE nearly new PUG-MILLS, in perfect order.—Apply to Mr. LOVEL, Foreman of Brickfield opposite Seven Stars, New-road, Shepherd's-bush.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

BRICK MOULDS (improved), STEEL-FACE STOCKS and PLATES, with regulating screw pegs, used three seasons by the leading brickmakers, lowis, hoes, cuckholds, pug mills, &c. Numerous references where in use. J. LEACH, Manufacturer, 36, Critchill place, New North-road, Hoxton. N.B. A variety of sizes kept on hand.

MAW'S ENCAUSTIC TILE PAVEMENTS—a highly durable and decorative substitute for ordinary flooring and their perishable oil-cloth coverings; for entrance halls, passages, verandahs, conservatories, &c.

MAW and CO. send, free of expense, their price and price book, with designs, to any given spaces and estimates), free of expense.

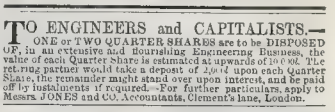
BENTHALL WORKS, BROSELEY, SALOP.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for the WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin, whereby, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 381, of the Great Exhibition, rank the Manufactories known so long as "The Tilenea," Tunstall, Staffordshire, as the first of the kind in the world.

OLD PLAIN TILES.—WANTED, about 8,000 or 10,000 good old Plain Tiles, fit for roofing, to be delivered near Beckenham Church, Kent.—Address, stating price, &c. to J. and J. COLEMAN, Builders, Weston-street, Bermondsey.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

TO ENGINEERS and CAPITALISTS.—ONE or TWO QUARTER SHARES are to be DISPOSED OF, in an extensive and flourishing Engineering Business, the value of these shares is estimated at upwards of £1,000. The retiring partner would take a deposit of £500 upon each Quarter Share, the remainder might stand over upon interest, and be paid off by instalments if required.—For further particulars, apply to Messrs. JONES and CO. Accountants, Clement's lane, London.

SIX-HORSE CONDENSING ENGINE, and 12-foot Cylindrical Boiler FOR SALE.—To be seen at WILSON'S, 13, New Ivy-street, Hoxton.

STEAM-ENGINES of 2, 4, 6, 8, and 12-horse power (new for SALE. The 4-horse and upwards are fitted with separate expansion valves.—Apply to GIMSON and CO. Engine Works, Leicester.

STEAM-ENGINE.—TO BE SOLD, an excellent high-pressure STEAM-ENGINE, 10-inch cylinder, 9 feet stroke, with a good pump attached; price fifty guineas. Also, a 6-horse cylindrical BOILER, three-eighths plate, nearly new, with fittings and fire-bars complete; price fifteen guineas.—Apply to Mr. GEORGE THOMPSON, C.E. Nantwich.

SALES BY AUCTION.

MARBLE To Sculptors, Masons, Builders, and Others.

MESSRS. THOMPSON and HOLMES will OFFER by PUBLIC AUCTION, on MONDAY, 2nd day of APRIL next, at TWELVE for ONE o'clock, at their WHARF, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall Bridge, about ONE THOUSAND TONS OF MARBLE consisting of Statuary, Sicilian, Veined, Black and Gold, Dove, Bardilla, Emperor's Red, St. Anne's and Irish Black, of the finest quality and sizes. Also about 10,000 superficial feet of Engl sh and Foreign cut SLAB. May be viewed previous to the Sale. Catalogues and further particulars had of the Brokers, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall Bridge.

IN BANKRUPTCY. Important Sale of Ironmongery, superior Furniture and Effects, and Pollie tone, near Dover.—To BUILDERS, GENERAL FURNISHING IRONMONGERS, and PRIVATE FAMILIES.

AUGUSTUS SMITH has the honour to announce that he is instructed by the assignees of W. R. Barrett, to SELL by AUCTION, on the PREMISES, in Tontine and High-street, Folkstone, on MONDAY, APRIL 2nd, and four following days, Friday excepted, at ELEVEN, the extensive stock of household and builders' IRONMONGERY, copper, plated, and metal goods, stoves, ranges, garden implements, three fireproof safes, leather waiting chairs, counting-house and furniture, superior 10 feet slate-bottom mod Lagatelle, with marking board, ivory balls and queues complete &c. On view SATURDAY, the 31st MARCH, when catalogues may be had, or either three days, of JAMES STANFIELD, Esq. Official Assignee, 78a, Basinghall-street; Messrs. Stone, Towson, and Morris, Solicitors, Moorgate-street Chambers; R. W. Rawson and Co. Ironfounders, Tenterden-street; or the Auctioneer, 2, Blackfriars-road, near the bridge, London.

BANKSIDE The valuable Plant, Utensils, and Stock-in Trade, together with the extensive Wharf and Premises (partly let off to the full extent of 60l. per annum), of Mr. William Ward, who is relinquishing that branch of his business.

MESSRS. EVERSFIELD and HORNE are instructed to SELL by AUCTION, during the ensuing MONTH, on the PREMISES, Hopton's Wharf, Bankside, Southwark, the whole of the valuable PLANT and UTENSILS, comprising seven very excellent coal-barges, from 45 to 80 tons; several useful lighters, shell barges, flats, wagons, vans, and carts, several nearly new brick-carts, a very strongly-built town-waggon, on springs; a superior wine-merchant's cart, by Brady and others, of a light construction; complete sets of cart-harness, coal-sacks, wharf, and waggon, weighing-machines and weights, planks, ladders, and the several trade implements. The stock-in-trade consists of a well-selected assortment of fire-proofs of the best manufacture in Newcastle, Staffordshire, &c., also several thousand excellent fire-bricks, paviors, and other articles, for the building trade, together with a large quantity of best made real Dutch cinders. At the same time will be offered the remaining Term of the long and desirable Leasehold Wharf and Premises, sufficient of which is let off to cover the whole rent, leaving a large extent of river frontage, with counting-houses, lobby, sheds, warehouses, extensive open and covered storage, standing cart-sheds, a lofty building, suitable for the erection of machinery, and other accommodation, which might be still further let off, or would be equal for the purposes of an extensive trade. Further particulars may be had by applying to Messrs. EVERSFIELD and HORNE, 40, Parliament-street, and Coal-Exchange, who are authorized to treat by private contract.

Re CROUCH and CROUCH.—Valuable new Building Materials and Effects, Wimbledon.

MESSRS. EVERSFIELD and HORNE are instructed by the assignees to prepare for SALE by AUCTION, in APRIL, a quantity of valuable new MATERIALS, prepared works, and effects, consisting of a large stock of timber, several thousand new STOCK BRICKS, stone landings, laths, scaffolding, &c.; also three useful horses, several builders' carts, harness, and other effects.—Auction and Estate Offices, 40, Parliament-street.

IMPORTANT SALE of MARBLE and ITALIAN SCULPTURED MARBLE FIGURES.—To Architects, Statuaries, Masons, and Others.

MESSRS. EVERSFIELD and HORNE have received instructions from the proprietors to SELL by AUCTION, on the PREMISES, Westcott's Wharf, Along Pye-street, Westminster, on TUESDAY, APRIL 8th, at TWELVE for ONE, a very valuable consignment of MARBLE, consisting of about 150 blocks of most superior Statuary, Sicilian, and Dove marbles, in various dimensions; also a number of finely-executed Italian sculptured figures. Approved bills at four months will be taken in part of May be viewed two days previous, and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, or Coal Exchange.

STAFFORD-PLACE, PIMLICO.—To Builders, Masons, and Others.

MESSRS. EVERSFIELD and HORNE have received instructions from the Commissioners of her Majesty's Public Works and Buildings, to SELL by AUCTION, on the PREMISES, opposite the gate entrance of Buckingham Palace, on THURSDAY, APRIL 9th, at TWELVE for ONE o'clock, the MATERIALS of a BRICK ERECTION; also, mahogany and deal sashes, doors, frames, a quantity of mahogany hand-rails, Portland and Lisse and blocks, scagliola columns, with gilt caps, pilasters, with marble caps and bases, Industrie marble chimney-pieces, and a very handsome fire-proof safe, a large quantity of iron, gas, and water pipe, a large iron steam table, lamp irons and candelabra, quantity of old fine brass cocks, and other metal goods, with many other effects. May be viewed one day previous, and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, or Coal Exchange.

GRAVESEND, KENT.

MR. EVERSFIELD will SELL by AUCTION, at PORTLAND HALL, Windmill-hill, Gravesend, Kent, on WEDNESDAY next, APRIL 4, 1855, with out reserve, a large quantity of superior BUILDING MATERIALS, several thousand feet of prepared well-seasoned flooring, 1½ inch yellow deal lining boards, chimney pieces, mouldings, Portland paving tiles, 9 inch and 6 inch Welsh slates, lead pipes, Portland pallosad, garden lights, quarrelling, useful iron, and other materials. The valuable stationary room in the ground comprises Wellington, Mapping, in the Hon. Rec. Regent's Park, Slate, Paint, Pipe, and Chimney, several sphynxes, dolphins fountain vases, urns, and many other cast-iron articles, which may be seen to be appreciated.—May be viewed on MONDAY and TUESDAY next. Sale on WEDNESDAY next, at ELEVEN o'clock precisely, and the lots will be given for delivery Catalogues of Messrs. Gravesend, Sheerness, and Sheerness to the Mortgagee, 10, Angel-court, Bank, London; and of the Auctioneer, 38, New-road, Gravesend. Sent post-free on application.

8,750 Pieces of Paperhangings; Forty capital Marble and Enamelled Slate Chimney-pieces.

MR. BRAY, jun. will SELL, at his ROOMS, 329, High Holborn, on WEDNESDAY, APRIL 4th, at ONE for TWO o'clock, 8 awards of 8,750 PIECES of PAPERHANGINGS, suitable for drawing and dining rooms, parlours, and principal bedrooms, secondary apartments, halls, and staircases. May be viewed and catalogues had.

TO TIMBER MERCHANTS, CABINETMAKERS, PIANOFORTE MANUFACTURERS, COACH BUILDERS, &c.

MESSRS. C. LEARY and CO. have been favoured with instructions from Mr. Henry Bateman, of 9, Sun-street, Bishopsgate, to DISPOSE of, by PUBLIC AUCTION, the retiring portion of his business, to offer by PUBLIC AUCTION, on the PREMISES, on MONDAY and TUESDAY, the 2nd and 3rd of APRIL, the entire remaining portion of his unequalled and most valuable STOCK of WOOD, comprising prime dry wainscot, in every thickness, 3, 4, 5, 6, and 7 inch; fine mahogany, in logs, planks, boards, and veneers; dry waterproof board, rosewood and valuable wood in planks and veneers; fine oak and beech, &c. &c. To be viewed two days' previous to, and on the mornings of sale. Catalogues may be had on the Premises, and at the Offices of the Auctioneers, 75, Old Broad-street, City.

SALES BY AUCTION.

On the Camden Estate, Chislehurst, Kent.—To Timber Merchants, Builders, Wheelwrights, and Others.—TO BE SOLD, by AUCTION, by

MESSRS. DICKSON and DAVENPORT, at the QUEEN'S HEAD INN, CHISLEHURST, on WEDNESDAY, the 4th of APRIL, 1855, at TWO o'clock in the Afternoon, without reserve, 259 OAK TREES, of good dimensions, and 10 ASH TREES, with their tops, lop, and bark, standing and growing on the Camden and Elmstead Estate, Chislehurst, and convenient for hauling thence. Approved securities will be taken in part payment.—May be viewed five days previous to the sale, on application to Mr. Morris, bailiff, Elmstead Lodge Farm. Catalogues may then be had at the place of sale; White Hart, Bromley; Lion, Farningham; Greyhound, Eltham; King's Head, Bexley; Lion and Lamb, and Plough, Lewisham; and of Messrs. Dickson and Davenport, Land Agents and Auctioneers, 33, Bucklersbury, City.

Valuable Oak Timber, Burstow Surrey.

MESSRS. NORTON, HOGGART, and THRIST have received instructions to offer for SALE, at the MART, on MONDAY, APRIL 9, at TWELVE, in convenient lots, 1,200 capital OAK TIMBER TREES, with tops, lops, and bark, and a small quantity of elm and ash, now standing and growing upon the Burstow Estate, the property of Sir Thomas Turton. The quality of the timber and bark is excellent, and a considerable portion is of good dimensions. The estate is 4 miles from the Three Bridges and Horley, 6 from the Godstone, and 6 from the Reigate Stations. The several lots are marked in white paint, and may be viewed on application to Mr Brown, Red hall Farm, Burstow, and of whom catalogues may be had. Catalogues may also be had at the White Hart, Reigate; Railway Hotel, Reigate Station; White Hart, Godstone; the Fox, Three Bridges; at the Mart; and of Messrs. Norton, Hoggart, and Thrist, 69, Old Broad-street, Royal Exchange.

TO BRICKMAKERS, BUILDERS, and OTHERS. Ilford, Essex.—Valuable Stock in Trade, Erections, and Buildings. Pinet Steam engines, Implements, &c.

MESSRS. NORTON, HOGGART, and THRIST have received instructions to OFFER for SALE, on the PREMISES, the Cauliflower Brickfield, about one mile from the Ilford Station, on THURSDAY, 12th APRIL, at ELEVEN, in lots, the whole of the valuable STOCK in TRADE and ERECTIONS, comprising the extensive brick and timber erection of two drying sheds, each 200 feet in length and 60 feet in width, with brick flues and chimney shafts, barn and boiler shed sheds, about 3,000,000 capital bricks, a nearly new 12-horse power steam engine, by Daglish, wash-mills, 6-horse engine, wrought-iron tender, new iron cutters, rollers and machinery for grinding clay, several hand pumps, iron and wood pug mills, stiff iron, wheeling planks, mill floors, hacks, barrows, 78 sheets, about 150 tons of breeze, and a variety of tools and implements of trade May be viewed and catalogues had on the Premises, at the Red Lion, Ilford; the Cauliflower, Ilford-road; Swan, Stratford; King's Head, Romford; of Messrs. Rixon and Son, Solicitors, 11, King William street; and of Messrs. Norton, Hoggart, and Thrist, 69, Old Broad street, Royal Exchange.

500,000 NEW BRICKS, &c. GRAYS, THURROCK, ESSEX.—TO BUILDERS AND OTHERS.

MR. F. HALL has been favoured with instructions to SELL by AUCTION, on THURSDAY, APRIL 5, at TWELVE, on the PREMISES, near the Ship Inn, Little Thurrock, Grays, Essex, within five minutes' walk of the Grays Station, on the Tilbury Fort and Gravesend Line, about 500,000 excellent NEW BRICKS, comprising picking, stocks, grizels, and place; adjoining are three substantial barns; several broad and narrow wheel carts, and various useful effects, to be sold by order of the Proprietor.—May be viewed the day preceding the sale, and catalogues had on the Premises, at the principal Inns in the neighbourhood, and of Mr. F. Hall, Auctioneer and Valuer, Chester-street, Kennington.

TWICKENHAM, MIDDLESEX.—To Freehold Land and Building Societies.

MR. ABRAHAMS is instructed by the Proprietor to SELL by AUCTION, in MAY (unless an acceptable offer be made by private treaty), Acres of FREEHOLD LAND, in an unrivalled situation for building, close to Sir Wm. Clay's park, and commanding extensive diversified views over a beautiful and highly cultivated district, not quite a mile from the railway station, and a few minutes' walk from the new church. Particulars, and plan of Mr. ABRAHAMS, Auctioneer and Estate Agent, Twickenham, Middlesex

Important Sale of 3,400 Oak Timber Trees, in Wellington-wood Warwickshire.

MR. LEIFCHILD is instructed to SELL by AUCTION, at the NEWDEGATE ARMS HOTEL, Nuneaton, on WEDNESDAY, APRIL 4th, at ONE precisely, in seventeen lots (unless the whole shall be previously sold in the gross), of which due notice will be given, about 3,400 capital OAK TIMBER TREES, with their tops, lops, and bark, 170 ash trees, elm trees, and about 2,000 cordwood, now standing and growing, and being the remaining portion of Weddington-wood, which adjoins the old Watling-street-road, and is within three miles of the railway stations at Nuneaton and Atherstone, and of the Ashby and Coventry Canal. The lots will be carefully marked and set out ten days previous to the sale, and catalogues, with a plan of the lots, may be had of Mr. Eaden, Fenny Drayton, of Mr. Holbeiden, the Red Gate Inn, who will show the lots; at the Place of Sale; and at Mr. Leifchild's Land and Timber Offices, 82, Moorgate-street, London.

ST. MICHAEL, CORNHILL.—Capital Building Materials of Four large Houses.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on MONDAY, APRIL 9, at TWELVE, in lots, all the excellent BUILDING MATERIALS of FOUR spacious HOUSES 4, 5, 6, and 7, belonging to the parish, and adjoining the church of St. Michael, Cornhill, comprising capital sound brickwork, 2,000 feet of sheet copper on the roofs, several tons of lead, 3 cwt. of iron, 2 tons of iron and fir timber, in roofs and floors, seventy pairs of glazed sashes, doors, chimney-pieces, floor-boards, and interior fittings, handsome modern staircase, with mahogany rail, moulded brass capping, and cutting, balusters, slabs, and pipes, and useful fixtures and fittings up. May be viewed on Saturday, and catalogues had of Pullen and Son, 81, Fore-street, Cripplegate.

CORNHILL. Handsome Plate Glass Shop Fronts, Plate Glass Bookcases, and Jewellery Cases, and expensive Fittings up of Show rooms

PULLEN and SON are directed to include in their SALE by AUCTION, in CORNHILL, on MONDAY next, APRIL 2nd, three handsome newly new shop fronts, glazed with large plates of glass with lofty doors complete, elegant side and counter show cases, glazed with plate-glass; mahogany counters, glazed bookcases, writing-desks, silvered plate-glass, sashlights, hat and shoe stove, and sundry fittings up May be viewed, and catalogues had of PULLEN and SON, 81, Fore-street, Cripplegate.

Detached Villa, near St. Stephen's Church, with the unusual extent of nearly four acres of Ground, between the Regent's park and Primrose-hill.—Eligible sites for three or four houses.

MESSRS. DANIEL SMITH and SON will submit to PUBLIC SALE, on the PREMISES, on TUESDAY, APRIL 3, without reserve, a most desirably situated VILLA RESIDENCE, in complete repair, "as in urbe," substantially detached in about four acres of garden and secluded pleasure grounds and paddock, approached by the Avenue-road and Regent's park, near Primrose-hill. It is held for an unexpired term of about fifty-six years, and its great extent of ground and important frontages render it a most valuable and improvable property, both for occupation and investment, as a considerable portion of the ground may be advantageously appropriated for the erection of three or four villas.—It cannot be viewed without an order which, with particulars and plans, may be had at their Offices, in Walbrook-place, Paddock. Lots 2 and 3 may also be had of C. Walton, Esq. Solicitor, Bucklersbury; and of Thomas Briggs, Esq. Lincoln's-inn fields.

SALES BY AUCTION.

BATTERSEA-BRIDGE-ROAD.—Nine Leasehold Houses.

MR. W. F. HAMMOND has been instructed to SELL by AUCTION, at GARRAWAY'S, on FRIDAY, APRIL 27, at TWELVE for ONE, the above valuable PROPERTY, comprising nine well-built houses, of neat elevation, being Nos. 5 to 14 inclusive (excepting Nos. 10), Eden-terrace, Battersea-bridge-road, held on a lease for a term of eighty years, and producing a gross rental of 97l. per annum.—Further particulars, which are now being prepared, to be had, and a plan of the property to be seen, at the Auctioneer's Offices, No. 3, Carey-street, Lincoln's-inn-fields.

NOTICE.—To BUILDERS.—Important Sale of low-priced Marble Chimney-pieces, well manufactured; also a few of rare statuary marble for drawing-rooms.

MESSRS. ROBINS are instructed to SELL by AUCTION, at their ROOMS, in Covent-garden, on THURSDAY, APRIL 12th, at TWELVE, VEIN and SICILIAN MARBLE CHIMNEY-PIECES, of the best manufacture, of low price, calculated for small-sized houses; also some of a more expensive character, of rare statuary and other marbles, suitable for drawing and dining rooms.—The attention of builders is especially invited to this sale. On view two days prior, and catalogues had in Covent-garden.

THE SAW-MILL and MACHINERY lately adverti ed at Manchester, will be SOLD by AUCTION, on THURSDAY, the 5th day of APRIL at THREE o'clock, p.m. at the WARRILOW HOTEL, Piccadilly, Manchester.—May be seen at work three days prior to Sale.—For further particulars of view, apply to DEAN, HAWORTH, and Co. Windsor Bridge Iron Works, near Manchester.

LAND in the FINCHLEY NEW-ROAD TO BE LET, on building lease. That beautiful plot of ground has a frontage of 400 feet, and a depth of 200 feet. It is situated in the most pleasant road in the environs of London, elevated 150 feet above the level of the finest part of Hyde Park, is a sex. yet comfortably sheltered from the east by Hampstead hill, 4 miles from the Swiss Cottage.—For particulars, apply to R. L. ROUMIEU, Esq. 15, Lincoln's-inn-fields, Strand.

GUILDHALL, MARCH 27, 1855.—The COMMITTEE for LETTING the CITY'S LANDS, will MEET at GUILDHALL, on WEDNESDAY, the 11th APRIL next, at ONE o'clock precisely, to receive PROPOSALS for LEASES of a HOUSE, No. 12, Wood-street, Cheapside; two HOUSES, Nos. 13 and 14, South-street; a HOUSE, No. 3, Sculpture; a HOUSE, No. 29, Finsbury-place; a HOUSE, No. 59, Great Leonard-street; and a HOUSE, No. 4, Wood-street, Finsbury. Further particulars and plans may be seen, and forms of Tender obtained, at the Architect's Office, Guildhall

FERDINAND BRAND Comptroller.

FREEHOLD BUILDING LAND at OLD FORD TO LET, with liberal cash advances, suitable for Fourth-rate Houses. This class of house being much required in the locality, they will be taken on completion.—For further particulars apply to Mr. GEORGE CLARKSON, Surveyor, 23, Fulton street, Pentonville.

HAMPTON-COURT.—BUILDING LAND TO BE LET, for ninety-nine years, with option of purchase, near the above station, and close to East Molesey Church. A portion of the ground has been laid out for villa residences, some erected, with gardens running down to the river Mole. There is a plot containing about two acres, very eligible for a first-class house; the plan fronts the road for about 180 feet by 400 feet, and in price from about 25l. to 30l. per foot from a c. Another portion has been divided to suit those who are much required in this locality, for the accommodation of the residue of the estate is admirably adapted for shops or small houses.—Apply to FREDERIC LETT, Esq. Architect, 26, Essex-street, Strand, London.

TO MANUFACTURERS.—TO BE LET, with immediate possession, with or without the machinery, CHEMICAL WORKS and DYING PREMISES, MANCHESTER. The copperas manufactured will, in addition to the rent, leave a clear profit of 120l. per annum. The premises are large, waterside, and within one side's sail of Liverpool, and are capable of carrying on manure or other noxious manufacture.—Application to R. H. COMAN, Esq. 31, Lincoln's-inn fields, by letter only.

FREEHOLD BUILDING LAND TO LET, abutting on the Barking station of the Tilbury line, twenty minutes from Fenchurch-street, where moderate-sized houses are greatly in demand, and a first-class public-house urgently wanted for it, accommodation of the station and neighbourhood. Apply to Mr. EDWARD LACKIE, 23, Lamb's Conduit-street, Foundling Hospital.

MAITLAND-PARK, HAVERSTOCK-HILL, Hampstead-road LAND-TAX REDEEMED.—TO BE LET, on Building Leases, for seventy-one years, desirable BUILDING SITES up in the above fields. The continued demand for houses in this locality, and the picturesque beauty of the property (up among the woods of the Eyre's Working School), render this a desirable opportunity for builders or gentlemen wishing to erect villas for themselves.—For terms, and to view plans, apply to the secretary of the Orphan Working School, 39, Ludgate-hill; Messrs. TERRELL and CHAMBERLAIN, 30, Basinghall-street; the Architects, Messrs. WEBSTER and ASHDOWN, 23, Charing-cross; or at the Porter's Lodge, on the Premises.

TO BUILDERS and OTHERS requiring roomy premises. TO BE LET, a valuable and useful piece of GROUND, good HOUSE thereon, near the city. Apply to the freeholder, S. ROBERTS, 65, Shoreditch.

TO BE LET, for EVER, a small PLOT of LAND at Plaistow, ground-rent, 12l. Also, various plots eligibly situate near the Victoria Docks, that may be let close to the railway at Stratford, and within ten minutes' walk of the railway station, Norwood, at terms 12l. 10s. and upwards.—TO BE SOLD, 1,000 Acres of Freehold, at Swindon, Wilts, commodious Public-House at Stratford.—Apply to Mr. WILLIAM ELLISON, Architect and Surveyor, 26, Stamford road, Limehouse.

RIVER-SIDE PREMISES TO BE LET, with use of 30 and 50-ton cranes and drawing-dock.—Apply at Lett's Wharf, Waterloo-bridge.

TO ARCHITECTS and OTHERS.—Offices TO BE LET, at Chandos-chambers, corner of Buckingham-street and Duke street, Adelphi. Apply to Mr. ROBERT GRAY, Estate Agent, 15, Southampton-street, Strand

BUILDING GROUND WANTED, for Four or Six fourth-rate houses.—Address, pre-paid, A. B. at Mr. Trimmer's, Post office, Camden New Town.

WANTED to PURCHASE, a PLOT of FREEHOLD LAND in Westminster, or within a mile thereof, for building upon; must be cheap for cash. Victoria-street preferred.—Particulars of locality and price to be sent to Mr. R. R. ARNTZ, Surveyor, 4, Cannon-row, Westminster.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing office of COX (Brook) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, March 31, 1855.

The Builder.

A JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square.—NOTICE to ARTISTS.—All works of Painting, Sculpture, Architecture, or Engraving intended for the ensuing EXHIBITION at the ROYAL ACADEMY, must be sent in on MONDAY, the 9th, or TUESDAY, the 10th of APRIL next, after which time no work can possibly be received, nor can any works be received which have already been publicly exhibited.

FRAMES.—All pictures and drawings must be in gilt frames. Oil paintings under glass, and drawings with wide margins are industriously. Excessive breadth in frames as well as projecting mouldings may prevent pictures obtaining the situation they otherwise merit. The other regulations necessary to be observed may be obtained at the Royal Academy.

JOHN PRESCOTT KNIGHT, R.A. Sec.

Every possible care will be taken of works sent for exhibition, but the Royal Academy will not hold itself accountable in any case of injury or loss, nor can it undertake to pay the carriage of any package. The prices of works to be disposed of may be communicated to the Secretary.

DEPARTMENT of SCIENCE and ART.—Division of Art, Marlborough House, Pall-mall.

LECTURES on ORNAMENTAL ART, by R. A. WORNUM, Esq. Lecturer on Ornament, on the following MONDAY evenings, at HALF-PAST EIGHT o'clock, and on TUESDAY afternoons at FOUR.

Lecture 1. Decorative Art of the Ancient Egyptians, 2nd and 3rd of APRIL.
2. Egypt Ornamental Details, 16th and 17th of APRIL.
3. Greece—Heroic Age of Greek Art, 23rd and 24th of APRIL.
4. Greece—Ornamental Elements, 30th of APRIL and 1st of MAY.
5. Rome The Decline, 7th and 8th of MAY.
6. Early Christian and Byzantine Art, 14th and 15th of MAY
7. Byzantine, Romanesque, and Saracenic Art, 21st and 22nd of MAY.
8. The Sicuto, Norman, and Early Pointed Style, 28th and 29th of MAY.
9. Gothic Ornament. Decorated Pointed, 4th and 5th of JUNE.
10. The Renaissance Trecento, 11th and 12th of JUNE.
11. The Cinquecento, 18th and 19th of JUNE.
12. The Elizabethan, the Louis Quatorze, 25th and 26th of JUNE.

Tickets for the Course of Twelve Lectures at 6d. each, or 1s. for a single Lecture; to be had at the Museum, Marlborough House.

COMPETITIONS.

TO ARCHITECTS, &c.

BURNLEY NEW CEMETERY.—The Burnley Improvement Commissioners hereby give Notice, that they are desirous of receiving DESIGNS and ESTIMATES for the DRAINING, FENCING, PLANTING, and ORNAMENTING of about 18 ACRES of LAND for a New Cemetery. Also for the erection of THREE CHAPELS, with Entrance Lodge and other necessary works. The premium for the best design will be 25l. and for the second best 15l. Persons desirous of competing for the above may obtain a plan of the ground and a copy of the conditions and particulars, on application to Mr. BRIERLEY, Surveyor to the Commissioners. Designs must be sent in on or before the 30th day of APRIL inst.

By order, RICHD. SHAW, Law Clerk.

Burnley, April 4th, 1855.

CONTRACTS.

TO BUILDERS.

TENDERS are required for the COMPLETION of an Italian VILLA, now in carcase, situated at Forest-hill, Sydenham. The plans and specifications may be seen at the Office of the Architects, Messrs. TINKLER and MORPHEW, 4, Queen-street-place, Cannon-street. Tenders to be delivered on SATURDAY, the 14th inst.—N.B. The lowest Tender not necessarily accepted.

CONTRACTS.

Royal Engineers' Office, London District, 28th March, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer in the London District hereby gives Notice, that sealed TENDERS, addressed to the Secretary to the Board of Ordnance, will be received at the Office of Ordnance, Pall-mall, on or before the 16th of APRIL, 1855, for the ERECTION of a STOREHOUSE in the Tower of London. The specification and plans for the above service may be seen, and forms of Tender obtained at the Royal Engineers' Office, No. 11, James-street, Finsbro, between the hours of TEN and FOUR o'clock, from the 2nd to the 14th of APRIL, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

Office of Commanding Royal Engineer in Ireland, Dublin, 30th March, 1855.

NOTICE to ENGINEERS and OTHERS.—ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland hereby gives Notice that he will receive PROPOSALS for the following CONTRACTS, viz.—

For the CONSTRUCTION and ERECTION of such WORKS as shall be necessary for the delivery of a sufficient and constant SUPPLY of WATER to the Temporary Barracks, on the Curragh of Kildare.

The water is proposed to be obtained from the River Liffey, in quantity about 70,000 gallons per day, and to be in all respects fit for her Majesty's troops. It will require to be forced to a height sufficient to be delivered into iron tanks placed on the site of the barracks, extending to the Hare-park, near to the Gibbet Rath, a distance of about three miles from the river, and at highest point about 150 feet above its level. The work to be done in the most substantial and workmanlike manner, and with materials of the best quality, and the contract to include the providing, fixing, and laying of all such engines, machinery, pumps, reservoirs, with filtering apparatus, main and branch pipes, stop-cocks, and any requisite buildings, iron tanks, &c. as shall be necessary for the full and complete working and constant delivery of the required supply of pure filtered water; also for the daily working, superintendence, and conservancy of the same. The iron tanks on the side of the barracks to be thirteen in number, containing 10,000 gallons each, according to an established Ordnance pattern.

The Board of Ordnance will arrange all necessary treaty for private interests in land, &c. requisite for this contract, and the rental of which, ending 31st March, 1860, as a sum per annum to be named by him, but determinable at the option of the Board of Ordnance at any period after one year, on giving six months' notice. Persons desirous of tendering for the same will receive every information, and a plan of the ground may be seen, on application at the Office of the Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin; and at the Commanding Royal Engineer's Offices at Manchester and Glasgow. The whole of the work must be finished, and delivery of water ready at all the requisite positions, within sixty days after the acceptance of Tender. Proper securities, under legal bond, will be required in a sum equal to 10 per cent. on the amount of tender accepted, for the due performance of the contract. Each letter of Tender to be accompanied by an estimate in detail of the means proposed to gain the supply of water, with sizes and weights of pipes, power and description of engines and pumps to be employed, with all other request information, which must be sealed, and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to arrive on or before TWO o'clock p.m. of the 16th day of APRIL, 1855, and to be marked on the outside, "Tender for the Supply of Water at the Curragh of Kildare."

NEW TOWN-HALL BUILDINGS, PRESTON.—To BUILDERS.—Masons, Bricklayers, Plasterers, Slaters, Plumbers and Glaziers, Carpenters, Joiners, Smiths, and Painters, desirous of CONTRACTING for all or any of the works required to be done in the ERECTION of the above BUILDINGS, upon the site of part of the present buildings, are hereby informed that the plans and specifications may be seen at the Offices of the Architects, from MONDAY, the 9th, to SATURDAY, the 14th of APRIL next, both inclusive, and in the Councilchamber, Town-hall, Preston, from MONDAY, the 16th, to SATURDAY, the 21st of APRIL next, both inclusive. Tenders, endorsed "Tender for Works," must be sent to me on or before FOUR o'clock on TUESDAY, the 24th of APRIL next. Bills of quantities, and any other information may be had at the Offices of the Architect, Mr. WILLIAM HILL, 29, Albion-street, Leeds. No allowance will be made for estimates, and the lowest Tender will not be necessarily accepted.

ROBERT ASCROFT, Town-clerk.

TO BUILDERS.

PARTIES desirous of CONTRACTING for the ERECTION of NATIONAL SCHOOLS and MASTER'S HOUSE at Bank Top, Blackburn, may see the plans and specifications at the Office of Mr. WALSH, jun. Architect, 14, King William-street, Blackburn, on or after MONDAY, the 16th of APRIL next.—The Tenders to be sent to the Architect on WEDNESDAY, the 25th inst. sealed and endorsed "Tender for Bank Top Schools." The Committee do not pledge themselves to accept the lowest or any Tender. By order of the Committee.

THOS. SHARPLES, M.A. Hon. Sec.

Blackburn, 2nd April, 1855.

MELCOMBE REGIS BURIAL-BOARD. To BUILDERS.—EXTENSION of TIME for TENDERS.—TENDERS for the ERECTION of TWO CHAPELS, LODGE, and RECEPTACLE-HOUSE, GATES, &c. in the intended new Burial-ground for this parish, situate at Wall Mead, near the Shale Works, in the parish of Wyke Regis. Persons desirous of contracting to erect the above-mentioned buildings, and perform the different works connected therewith, according to the plans and specifications to be seen at my Office, are requested to send sealed Tenders for executing the same, to me, on or before ELEVEN o'clock in the morning of MONDAY, the 16th day of APRIL next. The Burial board does not bind itself to accept the lowest or any Tender.—Further particulars may be known on application to the Architect, W. J. PINCH, Esq. 11, Park-street, Westminster; or to

GEORGE ANDREWS, Clerk to the Board.

Weymouth, April 2nd, 1855.

CONTRACTS.

TO ROAD CONTRACTORS AND OTHERS.

THE COMMITTEE of the COVENTRY FREEHOLD LAND SOCIETY are prepared to receive TENDERS for the MAKING of about 16,000 YARDS of STREETS, with drains, culverts, approaches, and other works, over and upon their sixth estate, situate at Swanswell. Plans, sections, and specification may be seen at the Office of Mr. HENRY ROBINSON, Surveyor, Hay-lane, Coventry, on and after TUESDAY, APRIL 10th, to whom all Tenders are to be sent, sealed, and addressed to "The Secretary of the Coventry Freehold Land Society," on or before APRIL 23rd.—The Committee do not engage to accept the lowest Tender.

DORCHESTER.—ST. PETER CHURCH RESTORATION.—Parties desirous of TENDERING for certain WORKS contemplated in the RESTORATION of the CHURCH of St. Peter, Dorchester, Dorset, are informed that the plans and specifications may be seen at the Offices of Mr. JOHN HICKS, Architect, South-street, Dorchester, on and after the 11th inst. from TEN to FOUR o'clock. Tenders are to be delivered on or before the 24th day of APRIL inst. sealed and endorsed, "Tenders for St. Peter's Church," to either of the Honorary Secretaries, Dorchester.

Rev. W. BARNES,
FREDERICK COSENS, Esq. } Hon. Secs.
Mr. JOHN GARLAND,

OXFORD UNIVERSITY MUSEUM.—The University Museum Delegacy will receive TENDERS for ERECTING the NEW MUSEUMS, according to the plans and specifications to be seen at the Radcliffe Library, Oxford, on and after the 10th instant, between the hours of TEN and FOUR; and at the Office of Mr. GRITTEN, No. 8, Parliament-street, London, who has taken out the quantities, copies of which may be had from him on payment of 1l. to be returned to the parties who shall send in proposals thereon. Tenders to be forwarded, post paid, and endorsed, "Tenders for Museums," under cover to the Secretary, 15, St. Giles's-street, Oxford, on or before the 21st day of APRIL. The Delegacy do not bind themselves to accept the lowest Tender.

GEORGE BUTLER, Secretary to the Delegacy.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of a CORN-EXCHANGE and other buildings connected therewith, together with alterations and additions to the Essex Arms Hotel, Watford, Herts, are requested to communicate with the Architect, on MONDAY, of Coventry, from whom all information respecting the intended works, can be obtained. The Tenders to be sent in not later than the 20th of APRIL.

TO MASONS AND PAVIORS.

THE COMMISSIONERS of SHOREDITCH PAVEMENT will meet in the Vestry-room of Shoreditch Church, in the parish of St. Leonard, Shoreditch, Middlesex, on MONDAY, the 23rd day of APRIL instant, at SIX o'clock in the evening precisely, to receive PROPOSALS for taking up all and every the FOOT and CARRIAGE WAYS in the streets and lanes within the jurisdiction of the said Commissioners; and Relaying and Repairing the same with such good and proper materials as and when the said Commissioners, or their Surveyor, may order and think necessary. Printed forms of Tender, in the meantime, may be had of the Clerk to the Commissioners, or their Surveyor, Mr. DAVID DAWKES, of 63, High-street, Shoreditch. The Commissioners will not hold themselves obliged to accept the lowest or any offer. The Contracts and Bonds are to be prepared by the Clerk to the Commissioners, at the expense of the contractor, or contractors.

THOS. WARE,
Clerk to the Commissioners, 36, Kingsland-road.

Dated this 3rd day of April, 1855.

TOWNSHIP of MANCHESTER.—ERECTION of NEW WORKHOUSE.—The Guardians of the Poor of the township of Manchester are prepared to receive sealed TENDERS for the whole or any of the following WORKS, required in the ERECTION of a NEW WORKHOUSE, capable of affording accommodation for 1,600 inmates, together with the necessary staff of officers, &c. and intended to be built at Crumpsall, near Manchester, namely—Carpenters' and Joiners' Work, Bricklayers' Work, Masons' Work, and Smiths' and Founders' Work. The plans and specifications may be seen at the Offices of Messrs. MILLS and MURGATROYD, Architects, Exchange-chambers, Bank-street, Manchester, where full particulars on all matters connected therewith may be obtained. Tenders addressed to the Board of Guardians, and superscribed "Erection of New Workhouse," must be delivered to me at the Poor-law Offices, New Bridge-street, Manchester, on or before SATURDAY, the 28th day of APRIL next. The Guardians do not pledge themselves to accept the lowest Tenders. By order, &c.

JNO. HARROP, Clerk to the Guardians.

Poor-law Offices, New Bridge-street, Manchester, March 23, 1855

PIERS, HARBOURS, SEA DEFENCES, and WHARFS.—To CONTRACTORS and OTHERS.—The Directors of the Margate Pier and Harbour Company have to OFFER for SALE by TENDER, the JETTY, known as "Jarvis's Landing-place," which consists of a large number of iron piles, in good condition, and fit for use in works of the above description, together with a large quantity of English oak of various dimensions. A specification may be seen, and full particulars obtained of Mr. CAVELIER, Surveyor to the Company, Margate; or of Messrs. J. B. and F. BIRCH, 3, Cannon-row, Westminster, on and after TUESDAY, the 20th of MARCH. Sealed Tenders, addressed to the directors and endorsed "Tender for Purchase of Jarvis's Landing-place," to be delivered at the Pier Office, Margate, on or before SATURDAY, the 14th of APRIL, 1855. The Directors do not bind themselves to accept the highest or any other Tender.

By order of the Court of Directors,
STEPHEN SACKETT CHANCELLOR, Clerk.

Margate, March 15, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TENDER for SEWER, Cassland Estate, South Hackney.—PLANS and SPECIFICATIONS may be inspected at the Estate Office, Cassland-road, from TEN to FIVE. Tenders will be received up to 12th instant, at THREE o'clock. The lowest Tender will not necessarily be accepted

TO BUILDERS, CONTRACTORS, &c.

THE COMMITTEE of the CITY of WORCESTER ASSOCIATION for BUILDING DWELLINGS for the LABOURING CLASSES, are ready to receive TENDERS for the execution of the several WORKS required in the ERECTION of FOUR RANGES of BUILDINGS; a carding to plans and specifications, which may be seen at the Offices of Messrs. PARKER and GOLDINGHAM, Foregate-street, Worcester, and at the Offices of the Architects, between the hours of TEN and FIVE o'clock on each day (Sunday excepted), after MONDAY, the 2nd day of APRIL next. Tenders, which must be in the form prescribed in the specifications, are to be sent, addressed to HENRY ALDRICH, Esq., Foregate-street, Worcester, and marked on side "Tender for Model Dwelling-Way," on or before TWELVE o'clock on WEDNESDAY, the 18th day of APRIL next. The Committee do not bind themselves to accept the lowest or any Tender. Any further particulars may be ascertained by application at the Architects' Office Association Messrs. REEVES and BUTCHER, 147, Guildford-street, Russell-square, London.

Worcester, March 20, 1875.

TO BUILDERS AND OTHERS.

UXBRIDGE, MIDDLESEX.—Notice is hereby given, that the Burial Board for the township of Uxbridge, in the county of Middlesex, intend to enter into CONTRACTS and subsequently receive PROPOSALS or TENDERS for the ERECTION of TWO CHAPELS, Lodge, or Sexton's Residence, Boundary Wall, Entrance Gates, and Iron Railing, required for the Formation of the Burial Ground, and for Planting, and Laying Out the new Burial Ground, for the said Township, containing four acres, situate on the Hillingdon-road, in the Parish of Hillingdon, Middlesex. The drawings, specifications, and conditions of contract may be seen at my Office, at Uxbridge aforesaid, on and after TEN o'clock in the forenoon, and FIVE o'clock in the afternoon, until the 26th day of APRIL instant on which days will be sealed Proposals or Tenders for the said Works to be delivered at the said Burial Board, and delivered to me at my Office at Uxbridge aforesaid. The said works are to be tendered for in four divisions, as follow:—

1st Forming and Roadwork, Drainage, and for Planning and Laying Out the Ground

2nd Boundary Wall, Entrance-gates, and Iron Railing.

3rd, The Chapels.

4th Lodge or Sexton's Residence

The plans and specifications may also be seen at the Office of the surveyor to the Board, Mr. C. J. SHOPPEE, of 66, Doughty-street, London. The Board does not pledge itself to accept the lowest or any Tender. By order of the Board.

Uxbridge, April 2 1875. HENRY S. BATT, Clerk.

BRISTOL LOCAL BOARD of HEALTH. TO BUILDERS, CONTRACTORS, and OTHERS.—The Committee of the Bristol Local Board of Health hereby give notice, that they are ready to receive TENDERS from parties who may be willing to CONTRACT for the following WORKS, viz.:—CONSTRUCTING, and completely FINISHING certain intended BRICK SEWERS, as follows, viz.:—

CONTRACT No. 1. MAIN SEWER, from Cotham-lane into the River Avon; about 2,070 yards in length.

CONTRACT No. 2. MAIN BRANCH SEWER, along the White Ladies-road, North and South; about 2,206 yards in length.

CONTRACT No. 3. MAIN BRANCH SEWER, in Richmond-park-road; about 1,247 yards in length.

CONTRACT No. 4.—MAIN BRANCH SEWER, for Cotham and Kingsdown; about 2,508 yards in length.

Any person or persons willing to engage for making any, or either, or all of the before-named Sewers, are requested to deliver separate Tenders for each of the said Contracts, at the Offices of the Local Board of Health, No. 13, Prince-street, Bristol, on THURSDAY MORNING, the 29th day of APRIL next, at TWELVE o'clock precisely, when the Committee will meet to determine upon the same. Trial shafts have been sunk along the several lines of sewers, and are now open for inspection; and the plans, sections, and specifications of the Contracts may be seen at the Offices of the Local Board of Health, No. 13, Prince-street, Bristol; and any further information may be obtained, either on personal application, or by letter addressed to the Surveyor, Mr. FREDERICK ANDREAE, C.E. The party Tendering will be required to give the names of two responsible persons willing to become sureties for the due performance of the works. The Committee will not bind themselves to accept the lowest or any Tender, nor until the proposed sureties are approved.—By order of the Committee, JAMES HARRIS, Clerk.

Local Board of Health Offices, 13, Prince-street, Bristol, 15th March, 1875.

KENSINGTON IMPROVEMENT ACT, 1851.—The Kensington Improvement Commissioners will meet at the Vestry Hall, Kensington, on WEDNESDAY, the 14th day of APRIL next, at SEVEN o'clock in the evening, to receive TENDERS, and to contract for the WATERING of certain STREETS in the parish of Kensington, from six months next ensuing. Form of Tender, and further particulars may be obtained of Mr. JAMES BROADBRIDGE, Surveyor to the Commissioners, Vestry Hall. Tenders to be sealed and endorsed, "Tender for Watering Roads," and to be delivered at my Office on or before FOUR o'clock in the afternoon of the above-named day. The contractor or contractors will be required to enter into a written contract at his or their own cost or expense.

REUBEN GREEN, Clerk to the Commissioners.

Vestry Hall, Kensington, March 24, 1875.

TO BUILDERS AND OTHERS.

THE COMMISSIONERS of SEWERS of the CITY of LONDON, acting as the Burial Board for the said City, hereby give Notice, that they will, at the GUILD-HALL of the said City, on TUESDAY, the 27th of APRIL inst. at TWELVE o'clock at noon precisely, receive TENDERS for BUILDING CATACOMBS, and FORMING ROADS, &c., in the City of London Cemetery, at Little Ilford, agreeably to plans, and specification to be seen at the said Guildhall, or at the Office of the Engineer to the Commission, Mr. HAYWOOD, 11, Old Jewry-chambers. Security will be required for the due performance of the contract. The Commissioners do not pledge themselves to accept the lowest Tender. No Tender will be received after TWELVE o'clock on the day of treaty.—Builders intending to Tender for these works are requested to inspect the same to Mr. HAYWOOD, on or before WEDNESDAY, the 14th inst.

Sewers' Office, Guildhall, April 3, 1875.

TENBURY NATIONAL SCHOOLS.—Persons desirous of CONTRACTING for the ERECTION of SCHOOL-ROOMS and MASTER'S HOUSE, at Tenbury, may inspect the plans and specification at my Office, in every requisite information, on application to Mr. NORRIS, Architect, Tenbury, or to Mr. JAMES CRANSTON, Architect, 2, Bennett's-hill, Birmingham. Sealed Tenders to be delivered, or sent to Mr. Norris, on or before SATURDAY, the 31st of APRIL. The Committee do not bind themselves to accept the lowest or any other Tender.

Tenbury, April 4, 1875.

CONTRACTS.

LEEDS WATERWORKS.—The Corporation of Leeds require TENDERS for CONSTRUCTING and satisfactorily COMPLETING an ENGINE and BOILER HOUSE, CHIMNEY and CHIMNEY FLUE, SUBSIDING RESERVOIR and FILTER, TUNNEL, COTTAGE, and other Works connected therewith, on or in land situated in the township of Armley, in the county of York. All work done and materials provided by the contractor to be subject to the provisions of the specification; and Tenders are to be made in a printed form filled up and signed by the contractor, addressed "To the Chairman of the Waterworks Committee, Town Clerk's Office, Leeds," and to be delivered on or before the 24th day of APRIL next, at ELEVEN o'clock in the morning. Prints of the specification and forms of Tender, can be obtained, and the drawings inspected at the Offices of the Town Clerk, Leeds; or of Mr. HAWKSLEY, C.E., Great George-street, Westminster, on and after the 5th of APRIL next. The works will be let altogether, or in separate divisions or contracts, as the Corporation may determine after the receipt of the Tenders. The Corporation do not bind themselves to accept the lowest or other Tender.

By order of the Waterworks Committee of the Mayor, Aldermen, and Burgesses of the Borough of Leeds.

JOHN ARTHUR IKIN, Town Clerk.

Town Clerk's Office, Leeds, March 30, 1875.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, & 55, WYCH-STREET, STRAND.

Illustrated Catalogues post-free on receipt of six postage-stamps.

WILLIAM BATLEY, Engineer and Boiler Maker, Northampton.—Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice. For catalogues, estimates, or contracts apply as above

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Wansley-street, Oxford-street, having acted thirty years' experience, and having warranted by the circumstances of hot water apparatus of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, in the various improvements they have made, has perfected the construction, and economised the expense. Churches, conservatories, and in-door work entirely of iron or wood, and of iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers as Hereabove, 2, Wansley-street, Oxford-street.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from air are thereby prevented, and the apartment presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 125 Regent-street, London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, as Manufactured by all the leading Ironmongers, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices and testimonials may be had on application. It is made from three feet to twenty, all working by one small fire. A great saving in fuel is effected by having the kitchen, range, and fire entirely out of smoky chimneys, and is the best cooking range extant

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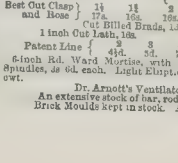
SAW-MILL, with Engine and Gearing, TO BE SOLD for less than half its value.—For particulars, apply to HUNT and CO., 15a, Great George-street, Westminster, and at their Works, Manchester; Mr. THOS. B. WRIGHT, 1, Gloucester-yard, Lombard-street, London; and Mr. THOS. MOLE, Engineer, Birmingham.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE, Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-Iron Goods, and STEWART'S PATENT CAST-IRON GAS and WATER PIPES. Office, No. 7, Bisc-lane, London.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic Register Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler, 30 32 34 36 inch. 2½ 3 3½ 4in.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars— 44 36 38 40-inch 5in. 5½ 6in.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

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Improved New Pattern Circular Check Register, with strong Bars and Levis, 6d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 10os. each.

Cast Rain-water Pipe { 2 2½ 3 inch. 1s. 1s. 3d. 1s. 6d. per yard.

Cast Gutters—4 inch, 10d. per yard.

O G Gutters { 4 4½ inch. 1s. 4d. 1s. 6d. per yard.

Best Cut Clasp } 1½ 1¾ 2 2½ 3 inch, and larger and Hose } 17s. 16s. 20s. 18s. 14s per cwt.

Cut Billed Brads, 13s. 9d. per cwt.

1 inch Cut Lath, 16s. Cast Lath, 13s.

Patent Line { 3 3 4 5 6 4-inch 4d. 5d. 7d. 9d. 1s. per knot

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 2s 6d. each. Light Elliptic and Register Metal, 14s per cwt.

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An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock

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Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Cottage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lattices, and Steamengines, Range and Hot-plate Metal. An improved Boot Scraper for internal work.

A large stock of Rain water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c

Plain and Ornamental Vases 20 per cent. cheaper than Terracotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book Cases in Strong Rooms, Tanks and Boilers, and every description of ironwork, to specification, and all work executed with every attention to quality and despatch

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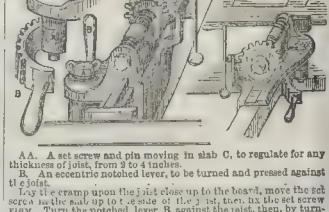
PATENT CRAMP FOR FLOORS, DOORS, AND SASHES. W. BISSELL, PATENTEE, Manufacturer of Rein and Mortise Locks and Builders' Ironmongery,



AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 2 to 4 inches.

B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw and the slab A up to side of the joist, then the set screw firm. Turn the notched lever B against the joist, then, by turning the handle D, the lever will gradually fix itself and hold the cramp firm; the greater the strain, the more firmly, by its eccentric action, will the lever bind. The Patentee, in asking the attention of Builders and others to this cramp, has every confidence that it will be found a most useful article, and one not yet brought out, and at the same time it is light and portable.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Register Stoves, Backs, 3d. per inch, and upwards.

Register Stoves, 5d 6d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

2 feet Cottage Ranges, with ovens and back boilers, 3½ wide.

3-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 4s. per doz.

Best Town Glue, 8d. per lb. Ditto, Scotch, 6d. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

Lists of Prices had on application at the Warehouse, or by letter prepaid.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show, every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern book and price list, 1s. 55 and 56, High Holborn.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS, THE BEAR GARDEN LEAD WORKS, SOUTHWARK, Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their latest method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Lead-en Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

NAILS and IRONMONGERY, from BIRMINGHAM direct. Builders, Contractors, and Others, supplied with Nails, Iron, and any foreign Ironmongery of every description, at the LOWEST BIRMINGHAM PRICES, a complete LIST of which will be forwarded upon application.

FREDERICK BLYTH, Nail Manufacturer and General Factor, Regent-parade, BIRMINGHAM; or at 16, Gresham-street, LONDON.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

THE PATENT GALVANIZED IRON.

TUPPER AND CARR'S PATENT GALVANIZED IRON IS THE ONLY ARTICLE THAT HAS STOOD THE TEST OF TIME.

Several Roofs in Woolwich and Deptford Dockyards, erected in 1843, are as perfect as on the day they were put up.

TUPPER and CARR'S process of Galvanizing is used very extensively in the Dockyards and by the Board of Ordnance, it can be applied to EVERY ARTICLE MADE OF IRON, and, when properly done, is a SECURE and LASTING PREVENTIVE of RUST.

The PATENT GALVANIZED IRON is to be had ONLY of TUPPER and CARR, the Manufacturers and Patentees, at their Warehouses and Works,

3, Mansion House-place, and Limehouse ..... LONDON.
Nos. 6 and 10, Berkley-street ..... BIRMINGHAM,

Where also are kept in Stock COMMON, BEST, and CHARCOAL (Black) SHEETS, GAS-TUBING, and TIN-PLATES.

☞ IRON ROOFING FIXED IN TOWN OR COUNTRY.

Iron-plate working in all its branches; also Smith's Work and Castings.

Full particulars, Lists of Prices, Drawings, Estimates, &c. can be obtained at TUPPER and CARR'S OFFICE, LONDON,

3, MANSION HOUSE-PLACE, CITY,

Where it is requested all Letters may be addressed.

N.B.—AN ALLOWANCE TO THE TRADE

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and Co. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches up to 10 inches each corrugation, in all lengths up to about 11 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock, or galvanized to order.

The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters plain and moulded, Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Palleys; Copper Rope Lightning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, at 3d. per square foot. Dry-hair Felt for Deadening Sound, for Boilers and Steam Pipes, made in rolls 20 yards long, at a greatly reduced price.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chain, Anchors, &c.

THE TRADE SUPPLIED ON LIBERAL TERMS.

Head Offices: 13, JAMES-STREET (late Coalbrookdale Company's Premises), LIVERPOOL;
Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. All kinds of Iron and Ironwork Galvanized, and Sheet-iron Corrugated at very moderate prices.

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to direct the various manufacturers all their new and choice in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designed expressly for him; these are now ON SHOW in one of his TEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Ironmongery Establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. (two-light) to 16l. 16s.

WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRON MONGERY including cutlery, nickel silver, plated and japanned wares, iron and brass bedsteads, so arranged and classified that purchasers may easily and at once make their selections.

Catalogues, with engravings, sent (per post) free. The money returned for every article not approved of.

39, OXFORD-STREET (corner of Newman-street); 1 and 2, NEWMAN-STREET; and 4 and 5, PERRY'S-PLACE.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and Co. 75, High Holborn.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS

Messrs. HOBBS, ASHLEY, and CO are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO. Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; Chimn, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c. &c.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 60 years, for the supply of Goods from the best Manufactories, at the lowest price.

14, Stanhope-street, Clare-market, London.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH-WESTERN RAILWAY, LIVERPOOL.

"London and North-Western Railway Company,
"Liverpool, May 17, 1853

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door. I am, gentlemen, your obedient servant,
"GEORGE PALMER.

"Messrs. Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"8, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant,
"C. OTWAY.
"Superintendent C Division of Police.

"Messrs. Chubb and I Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool, and Horsley fields, Wolverhampton.

RAIN-WATER PIPES.—O-G and Half-round Gutters, Sash Weights, Railway Bars, Air Bricks, &c. J. JONES, Iron Merchant, Iron-bridge Wharf, No. 6, Bankside, has the largest stock in London of the above and other castings, of the very best quality. Also cast-iron pipes for gas, water, or drainage; bends, trees, &c.; flange and hot-water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig troughs, &c. &c.

J. JONES, IRON MERCHANT, IRON-BRIDGE WHARF, No 6, BANKSIDE, LONDON, near the Southwark Iron Bridge.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 9d. a foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

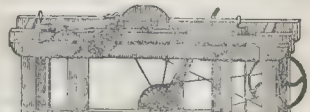
OFFICES.—Gateshead-on-Tyne.
149, Strand, London.
67, Hyde-park-street, Glasgow.
97, Dale-street, Manchester.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELE and STEDALLS.

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



SASH AND MOULDING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders: and also by the Board, and French Government dockyards, for planing, squaring up, moulding, tenoning, morticing, grooving, rebating, sawing, and boring. Their certain and accurate results perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM HUGHES, Patentee, 5, Union-street, Liverpool, from whom full particulars may be obtained.

COTTAM'S NEW PATENT for STABLE REQUISITES.

COTTAM and HALLEN, Wimpole-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH all as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No walls required; stable can be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and horse rendered impervious to infection, are some of the advantages of Cottam's Improved Fixture. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive and illustrated catalogues and estimates on application to COTTAM and HALLEN, 2, Wimpole-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.

The only Patented Invention of this description constructed so as to prevent considerable waste of Hay and Corn, together with all the newest improvements.

STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.

Manufacturer of Kite's Patent Noiseless Cast-iron Smoke-curing Common Caps 2s 6d; Buckingham Pain 4s; Prince's 6s each. Price-lists and Illustrated Catalogues forwarded on receipt of two postage-stamps

JAMES BARTON, Ironfounder, &c. 3?, Oxford-street, a few doors east of the Pantheon.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. Invaluable to Builders and Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Sash-frame Makers, Ironmongery Establishment, 30, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work on one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

MACHINERY.—SAWING, PLANING, MOULDING, and WOOD CUTTING MACHINES.—To Timber Merchants, Contractors, and others. SAMUEL WORSSAM and CO. of Hortensia-place, Kings-road, Chelsea, invite the attention of Timber Merchants and others to their new Patent and Improvements in and Kinds of Machinery used in Sawing, Planing, Moulding, and Wood Cutting. S. WORSSAM and CO. are able to execute orders with cheapness and despatch; they solicit an inspection of their machines constantly on hand and in progress; and they can refer to parties of the highest position and respectability, as to the goodness and efficiency of their machines. Estimates made for Exportation, or otherwise. Drawings and prices on application.

February 19th, 1853.

CHEAP GAS-FITTING WAREHOUSE.—The Trade supplied with every description of GAS CHANDELIERS, Hall Lamps, Pendants, Pillar, Brackets, Iron and Brass Tube, Tin and Composition Pipe &c. &c. at J. JEAL'S 9 and 21, Old-street, near St. Luke's Church, London.

N.B.—As large and choice an assortment as any House in London.

Gas-fitting Contracts to any amount.

THE BUILDER.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Wire, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Curtice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated. Roofs fixed complete.
J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zink, and Tiles.
An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted. Wrought-iron, principal, Glass and Slated Roofs, to any span.
Wrought and Cast-iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor, and Ironfounder, Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be had gratis on application.
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade

SMITH'S PATENT DOOR-SPRINGS.—The attention of Architects and Builders is particularly called to the acknowledged superiority of these Springs. They are applied to the New Houses of Parliament, the Royal Palaces and Yachts, and all the principal Bank and Buildings throughout the Kingdom. Can be had at BOOBBYER'S, NETTLEFOLD'S, HART and SONS, PUGH and SONS, of all the principal Ironmongers; and at the Manufactory, Princes-street, Leicester-square.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for.—the prize of public approbation.—has long been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO 57, Upper Thames-street, London. Manufactory, Luton, Beds.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, Manufacturer of all kinds of STEAM-ENGINES (portable and stationary), Sawing Machinery, Pumps, Cranes, Crabs, &c.
N.B Several high pressure Steam-engines for Sale.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, conchhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c. ; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years.—E. REDMUND, sole maker of the late Hollog, and manufacturer of REDMUND'S and HOLLOP'S PATENT, rising and not rising spring, swing, double acting, cate, and other Hinges, Floor Plates, &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 59, Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

MAW'S ENCAUSTIC TILE PAVEMENTS—a highly durable and decorative substitute for ordinary flooring and their perishable oil cloth coverings; for entrance halls, passages, verandahs, conservatories, &c.
MAW and CO. send, free of expense, design, pattern and price book, with designs, to any given spaces and estimates), free of expense.
BENTHALL WORKS, BROSELEY, SALOP

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT of these WARES is REMOVED to No. 21, WHARF, Macclesfield street North, City-road Basin. Secondly, that the trade term. "TERRO-METALLIC" is the exclusive right of the Proprietor, and, thirdly, that the "REMARKS ON THE JUBILEE," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Copings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 3, Alison-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements, are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally, their extensive assortment of vein, Sicilian, and statuary marble, in slab and block, at prices never before offered. JAMES SIMMONS, Manager.

MARBLE.—THOMPSON and HOLMES, Marble Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

BUILDERS, &c. &c.—Take Notice of the extraordinary Reduction made in the price of marble work at the WESTMINSTER MARBLE FACTORY.—A Vein Marble Box Chimney-piece, only 25s. A good-sized Vein Marble Box Chimney-piece, with cane and bars on plinths fitted up in the best style, only 11. 12s. Their patent machinery enables them to execute Marble Floor at 2s. 6d. per foot super, and every variety of Marble work at reduced prices. Their Show Rooms contain the largest Stock of Chimney-pieces in England.—Address, WESTMINSTER MARBLE COMPANY, EARL-STREET, MILLBANK.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.
THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble: bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocadilla, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor Red, and Amber Marble, for Boudoirs, Breakfast Rooms, first and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

BRAMLEY FALL STONE and LARGE LANDINGS.—Mrs. ANN HUSLER can supply any quantity of BRAMLEY-FALL STONE, large landings, flags, steps, sills, copings, sinks, &c. &c. at the lowest wholesale prices. Note.—No charge made for supplying to dimensions. Apply for price, &c. to S. THICKETT, Stone Wharf, Isle of Dogs

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter. London Agent, C. HOAR, 4, Millbank-row, Westminster. This Granite was used exclusively in the Selection Competition for Trafalgar-square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall
London Agents—FREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Waterloo-bridge. Offices: 246, High-street, Southwark, near the Town-hall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEEDHAM and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to deliver from their Wharf and Depôts CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, BATH, GODSTONE, BUILDING HEARTH, and RUBBLE STONE, BLOCK and BURR HEARTH STONE, RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For information, direct to Caen Wharf, Rotherhithe; or to Hibernia-chambers, London-bridge, Borough.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS,
QUARRYMEN AND STONE-MERCHANTS,
BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

TREVALGA ROOFING SLATE.—T. B. HANNAFORD, Sole Consignee of the above beautiful Slate, is in a position to supply the same at extremely low prices. Cisterns, sinks, and every description of slate-slab work executed with despatch.
Trevalga Wharf, Ratcliff cross.

ENAMELLED SLATE. — REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 30 and 40, Upper Belgrave-place, Pimlico.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLAB WORK for 1857 are NOW READY, and can be had on application, inclosing a postage-stamp.
N.B. A liberal discount to the trade.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

WILKINSON'S IMPROVED ARTIFICIAL STONE CHIMNEY-PIECES.—Nearly 3,000 of the above have been supplied, only recently brought to their present state of perfection, and offered to the public. The prices range from 8s. for a neat bedroom set: with jambs, moulded with large ogee on plinths, Hamlet moulded with ovolo and fillet under shelf, and shelf with hollow on edge, to 30s. for sitting-room patterns of more elaborate character. A liberal discount for quantity.—Address W. B. WILKINSON, Newcastle-on-Tyne.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W. ASPINALL begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potternewton, Newton, Harehill, Bath, Caen, and other Stock Stone; York Paving, Landings, Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curb and Pitching, all at the very lowest prices.
N.B. Estimates given for Masons' Work.

HARE-HILL SLAB.—MARBLE WHARF, THAMES BANK, PIMLICO, adjoining Vauxhall bridge.—12,000 feet of Hare-Hill in Slab, being part of a BANKRUPT STOCK, to be SOLD VERY CHEAP, in quantities of not less than 800 feet.—THOMPSON and HOLMES.

NORTON and WHITE, 24, Wharf, Harrow-road, Paddington, West-end Depôt for Portland and Yorkshire Stone, Head Stones, Landings, Steps, Curb, &c. Cut to size on the shortest notice.—Heavy goods landed and carted.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN SHORTON'S, BODNEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1838. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 35s. per ton. Importer of Trinidad Asphalte.
Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTERS' PATENT CHIMNEY-CAPS. This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.
To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnaces, viz. Engine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most powerful known extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, London-wall, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 2s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

IMPROVED WINDOW BLINDS.—SAXBY'S PATENT ECCENTRIC CLEAT, manufactured solely by THOMAS PEMBERTON and SONS, and may be had of all ironmongers. It is the only perfect method yet introduced, of sustaining a Venetian blind, on releasing the cord, and avoiding winding up books. For calico blinds its action is perfectly noiseless, as it works on centre pins, and the blind is raised and lowered by a single line without a centre cord.

PATENT SANITARY GAS SHADES.—These Shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the effluvia and smoke which have hitherto made the use of gas so objectionable in dwelling-houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had at the Works in a variety of forms adapted to the style of fitting, or the taste of purchasers; also at Mr. JOHN SHORTON'S, Crispin-street, Spitalfields, London.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and trust they can guarantee the maintenance of these essential requirements They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

LOOKER'S PATENT VENTILATORS,

FOR FACTORIES, WORKSHOPS, GREENHOUSES, STABLES, FARM BUILDINGS, &c. &c.

The Inventor solicits an inspection of the above at his POTTERY and DRAIN-PIPE WORKS, Kingston-Hill, where orders to any extent can now be received The Ventilators are extremely simple in construction, and can be made of any size or shape, in Pottery, Metal, or other Material. They admit fresh air without the slightest draught, can be regulated with perfect ease, and are not a third the cost of any other arrangement for the purpose hitherto introduced.

Full particulars, with prices, forwarded to any part of the United Kingdom, on application to the Inventor, Patentee, and Manufacturer, BENJAMIN LOOKER, JUN. Kingston-on-Thames.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel. and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years. ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz. Sheet Glass, in crates, from 3jd. per foot; CCC Crown, 18 tables, 32s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 32s. 48s and 40s per case; Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.
The Warehouse, 99, Hatton-garden, London.
" 43, Piccadilly, Manchester.
Messrs. C. and J. Mallech, 30, Turner's-court, Glasgow.
" John Dix and Co. Bath-street, Bristol.
" H. Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ⅛ to ¼ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

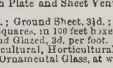
Superior silvered Plate-glass Mirrors of all sizes.

SOHO CROWN, SHEET, ORNAMENTAL, PATENT PLATE, AND PLATE-GLASS WAREHOUSE, 26, SOHO-SQUARE.

ALFRED GOSLETT begs to inform Builders, &c. that he is prepared to Tender for the supply of EVERY DESCRIPTION OF GLASS, now manufactured at WHOLESALE PRICES.

GOOD FOREIGN SHEET-GLASS.—Thirds, 40s.; common thirds, 35s.; fourths, 30s.; in cases 200 feet each, average size 40 by 30 English or foreign ground ditto, 4d. per foot. Crown and sheet squares, in 100 feet boxes, from 14 by 10 to 22 by 14, 2d. per foot. ¼ inch rough British plate tiles, 11s per dozen. Also, crown and sheet glass in crates; British and patent plate, fluted, and stained glass slates, &c. Sheet lead, pipe, white-lead, oils, turpentine, colours, &c.

G. FARMILOE and SON, 118, St. John-street, West Smithfield, London.

By Royal  Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 226, Oxford street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Re-formed Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3jd.; Enamelled, 8d. per foot.

Cut-to or Sheet Squares, in 100 feet boxes, 2½. per foot.

Bevilled Edges Painted and Glazed, 3d. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 313, OXFORD-STREET.

CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d 6d. and 8d per foot. Price-lists for squares cut to order forwarded on application ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester square, London

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, L. ad, Iron and Brass Pumps Water-closet Cocks and Plumbers' Brasswork. Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 87, Bishopsgate-street, London. Established more than 100 years.

ATHEA and WALKER, Manufacturing Joiners, Cropper-lane, Westgate, Bradford, Yorkshire, Sash, Shop-front, and Door Makers to the trade, and for exportation.—Price List and Estimates forwarded, on application, inclosing a postage-stamp.

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence, Shop-front Builder and Manufacturing Joiner. 1½ and 1¾ four-panel doors from 6s. each; 14 sashes and frames from 7d. per foot; 2 inch ditto from 8d. Windows fitted with Arbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth Shop-fronts, fittings, staircases, &c. Well seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a penny-stamp, a full list of prices will be returned.—Workshops, 100, Broadwall.

JAMES RHODES, No. 6, Macclesfield-street, North, City-road, London, Manufacturer of Sashes, and Frames, Doors, &c. and every description of House Joinery. Glazed goods securely packed for the country. Prices on application at the Counting-house, as above.—N.B. This is the cleanest manufactory in London, and well deserving the attention of all engaged in building.

STAINING WOOD, to imitate Oak and all other woods, twenty-two different shades.—A perfect substitute for paint. 6s. per gallon; varnish prepared for ditto, 10s. and 12s per gallon. WILSHERE'S 3, Talbot court, Gracechurch-street. Agents: WILSHERE, Edinburch; SMITH and SONS, Northampton. Specimens sent, and estimates given for staining churches, chapels, &c.

STAINING DEAL TO IMITATE ALL KINDS of WOODS It requires NO SIZING, and will stand the exposure to the weather Price 8s. per gall-n. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes

ACORN TIMBER WHARF, Canal-bridge, Old Kent-road. RICHARD MAY'S extensive Drying Warehouses and Water-side Premises, with the improved machinery for sawing all kinds of wood, enable him to keep one of the largest stocks in London, of

PLANK-, DEALS, BATTENS,
DRY PREPARED FLOOR-BOARDS, AND MATCH-BOARDING.
FOREIGN FIR TIMBER OF ALL KINDS.

English Oak, Elm, Ash, Laths, Mouldings, Sash Sills, always on sale at the lowest prices for cash.—A monthly Price Current forwarded on application

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is prepared to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

REDUCED PRICES.—EDWARD SIMMS (late William Cleaver), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of manufacturers and others to the greatly reduced prices of PINE, SPRUCE, and YELLOW DEALS, MAHOGANY, &c. &c.:—

Pine Planks, 12 ft. 3 in. by 11 in.	from 4s. 0d.	each.
Spruce Deals	" 2d.	per foot.
Yellow ditto	" 4½d.	"
Six-feet Pipe-staves	" 2s. 0d.	each.
Spanish Mahogany	" 6d.	per foot.
Honduras ditto	" 6d.	"
Wainscot	" 8d.	"

Prepared Flooring, Veneers, &c. at equally low prices.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

IMPROVEMENT in WOOD MOULDINGS: J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 20, North Wharf road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London

EXTENSION OF TIME.

SALE of OAK TIMBER.—Whittlewood Forest, Northamptonshire.—TO BE SOLD by TENDER, by order of the Honourable Charles Alexander Gore, commissioner in charge, in Twelve Lots, a large quantity of very valuable OAK TIMBER, comprising about 5,000 trees and 5,000 fellers, together with their top, lop, and bark; many of them being of large size, and well adapted for navy and general purposes, as now standing on portions of the forest of Whittlewood, in the county of Northampton, which is situate a short distance from the Buckingham and Grand Junction Canals, and within about six miles of the Railway Stations at Wolverton and Burkit-ham.—Sealed Tenders will be received at the Office of Woods, 1, Whitehall place, Westminster, on or before TUESDAY, the 17th day of APRIL next. Printed particulars and conditions, with forms of Tender, and plans showing the position of the timber, may be had on application at the Office of Woods; at the Cock Hotel, Stoney Stratford; of Mr. John Curtois, 8, Whitehall-place; or of Mr George Mason, Potterspury, near Stoney Stratford, who will show the timber.

SALE of OAK TIMBER, SUSSEX.—Poynings Wood, five miles from the Hassock Gate Station of the London, Brighton, and South Coast Railway, and seven miles from Brighton.—By order of the Honourable Charles Gore, the Commissioner in charge of her Majesty's Land Revenue, TO BE SOLD by TENDER, in three lots, 250 OAK TREES The timber is adjoining good roads, and is well adapted for navy and general purposes Sealed Tenders will be received at the Office of Woods on or before THURSDAY, the 19th of APRIL, 1855.—For particulars and conditions of Sale, apply to the Office of Woods, No. 1, Whitehall-place; to Mr. John Clutton, 8, Whitehall-place; or to James Hollingdale, the Woodreve, at Poynings, near Hurstpierpoint, who will show the timber.

SAW-MILLS.—EASTON and AMOS, beg to inform the proprietors of Saw-Mills, Timber Merchants, Builders, and Others, that having purchased the STOCK, PLANT, and PATTERNS, of the Assignees of W. N. PARSON, of Gravel-lane, Southwark, they are now prepared to supply SAWING, PLANING, and MOULDING MACHINERY of every description. With the facilities that EASTON and AMOS possess for manufacturing machinery in general, and as the Sawing Machinery will be made under the immediate superintendence of Mr. W. N. PARSON, the public may rely upon having their orders executed in a superior manner, with punctuality and despatch.

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THE well-being of society will be promoted by the provision of healthful homes for the poor and the labouring classes. This is a theme on which we have often preached, and it may be hoped with some little good effect; but it must be echoed again and again throughout the length and breadth of the kingdom before it will produce its proper results. We have recorded from time to time in our pages, endeavours made and being made, in the metropolis and various parts of the country, to provide improved dwellings for the labouring classes; but at present these are wholly incommensurate with the existing necessity. The association for this purpose at Bristol, is now organized, and will, it may be hoped, shortly commence operations. The model dwellings at Dudley, as we have mentioned elsewhere, are covered in. In the village of Charlton Marshall, near Blandford, in Dorset, a commodious building is in course of erection, the larger portion of which is intended for a club-house, chiefly, but not exclusively, for labourers and artisans; and the remaining portion for a bakehouse and shop. The idea of such a club-house suggested itself to its promoter, Mr. T. Horlock Bastard, from his attention having been drawn to the little benefit which has accrued, from mechanics' institutes, to labourers, or even to mechanics; and from his attributing this ill-success to the circumstance that, in these institutions, intellectual recreation has been made the sole object, without any consideration of the question, whether the physical comfort of the members had previously been provided for. The entrance-money is proposed to be sixpence, and the subscription three-halfpence per week for males, and one penny per week for females. The things to be provided are tea, coffee, sugar, milk, bread, butter, cheese, fruit, buns, biscuits, and effervescent drinks, and possibly cocoa, chocolate, soup, and cold meat—all at prices little exceeding their cost, to pay for fuel and service. Newspapers and periodicals will be furnished.

In London various societies are at work each in their little circle. The Lodging-house Act is working well, and the diminution of epidemic disease produced by it, is much greater than was even anticipated. A report on the lodging-houses of the metropolis by Mr. Glover, Superintending Medical Inspector of the General Board of Health, recently made public, shows that in 1853 there were registered houses of this kind, accommodating about 30,000 persons, yet during the year only ten cases of fever occurred. "Considering the class of persons," remarks Mr. Glover, "inhabiting these houses, it must be acknowledged that three cases of fever to every 10,000 of such persons is an almost incredibly small amount of sickness of this character." It appears that there are, in all, 10,284 common lodging-houses more or less under the superintendence of the police, the number of persons inhabiting the registered houses being estimated at 32,000, and the number inhabiting the unregistered at 50,000. In all these houses, registered and unregistered, there were in the first nine months of last year seventy-two cases of cholera and sixty-one deaths—an amount of sickness, all things considered, very small. The mortality from cholera in thirteen weeks of 1854, in every 10,000 of the population, in the common lodging-houses under the superintendence of the police, amounted to seven only, whereas the lowest proportion in other districts of the superintendent-registrars was never less than twelve (Hampstead), while the mortality was as high as 162 in Bermondsey. This result is so startling (remarks the report), as to suggest some doubts of the absolute correctness of the police return, but there can be no question that the Common Lodging-house Acts have materially contributed to the preservation of that portion of the population of the metropolis who have no settled place of abode. Still the evil is scarcely touched,—such is its vastness; and we can put our finger on scores of localities which are a disgrace to a civilized country. Many of the fearful holes described by us in an earlier volume remain precisely as they were—hotbeds of disease and vice: some of them are even worse. A frightful picture was given in the daily papers a few weeks ago of a lodging-house within the Thames police district, filled with Chinamen and Lascars, and including two dead bodies: in one room there were twelve Lascars, six of whom were sleeping on bedsteads, three on the floor, and two on chairs. The condition of the atmosphere throughout the house was revolting and dangerous in the extreme.

It is mentioned on the authority of the rector of one of the populous London parishes just to the north of the City, in an Essay recently published by Messrs. Ashpitel and Whichcord, "on the Erection of Fire-proof Houses in Flats,"* that there has been an addition of one thousand persons in his parish upon a former population of four thousand, since the last census, and *yet not a single house has been built* in the district: in fact, there is no room for building, every scrap of ground being covered. He states that people have been driven in from the dwellings destroyed in Holborn, Clerkenwell, and Spitalfields, and that they have been thrust upon the other population; huddled into any hole and corner they could put their heads into,—not from poverty, but from sheer want of any dwelling within reach of their work; that respectable artisans, particularly among the class who work at their own homes, even makers of little fancy articles and of parts of watches, have been forced into the same dwellings with the worst class, who have been driven from Field-lane and the "slums" near Sharp's-alley.

In this essay the authors come forward to meet the demand which may be expected, it is to be hoped, from the endeavours of earlier labourers in this field, and give plans for the arrangement of buildings on plots of ground of various shapes, calculated to afford healthful habitations to various classes at a cost not exceeding what they are now paying for most insufficient and death-dealing retreats. This is the cogent argument for endeavours that we have constantly used, namely, that good may be done and money made at the same time, or at all events not lost. We would just whisper, however, apart from this, without any desire to seem to affect the possession of the virtue we would see exercised by others, that "when God gives a blessing to be enjoyed, he gives it with a duty to be done; and the duty of the happy is, to help the suffering to bear their woe."

Thousands of pounds may be saved by improved sanitary arrangements,—and thousands of souls. Lord Shaftesbury has said that one-third of the pauperism of the country at large arises from the defective sanitary condition of large multitudes of the people, and that, if the population were placed under proper sanitary regulations, in less than ten years the poor-rates would be diminished to the extent of two millions annually. Who shall calculate the diminution that would be effected in crime? And crime costs a great deal of money, and causes a vast amount of suffering. To induce anything like the practice of morality on the part of men and women in the state of physical debasement to which thousands in this vast metropolis are condemned, is impossible, as we have asserted again and again: "Talk of morality," says the Rev. Robert Bickersteth, in a lecture on "The Physical Condition of the London Poor," lately delivered before the Church of England Young Men's Society,* "amongst people who herd—men, women, and children—together, with no regard of age or sex, in one narrow, confined apartment! you might as well talk of cleanliness in a stye, or of limpid purity in the contents of a cesspool. Look at the testimony of experience: I appeal to all who have ever laboured in scenes such as these—to our toil-worn parochial clergymen in metropolitan parishes—to our Scripture-readers and City missionaries, who have penetrated these haunts of infamy, and who, are familiar with these nests of pauperism and vice—I ask, if all their labour is not thrown away upon a population so circumstanced? Does not the same state of things go on from year to year? Is there any moral improvement in the mass, so long as the physical condition is unchanged? I have put the question to men who have faithfully toiled for years in these dens of London, and the answer is invariably the same. No general impression is made. Here and there, possibly, one may be roused to some kind of moral perception, as by a miracle of mercy, and what happens? Why, the first token of moral life is an attempt to migrate, as though by the instinct of self-preservation, to some purer scene."

We have lately spent some hours in the Bow-street Police-court.

Bow-street is a name of power. The notion of a Bow-street officer still awes, though their red waistcoats are now scarcely remembered, and "the detective," not confined to that locality, has taken his place. Bow-street is in the centre, or nearly so, of this great world of London, and its jurisdiction is over that miserable mass of humanity which festers round the plague-spots which have fastened on the very heart of our civilization. It is, *par excellence, the* London Police-office. And hence we see here brought to a focus all that is foul and all that is pitiful in the concentrated misery of the capital of the world.

There are few situations, indeed, in which man can be placed, so trying as that of a London police magistrate. His position, if properly filled, calls for a union of qualities of the greatest and rarest order. His authority, in one sense, is absolute; for except the control of the public press, the great mass of unfortunates who stand at his bar are absolutely at his mercy. He must be a sharp lawyer, with a memory capacious enough to contain an unknown number of statutes—elastic enough at the same time to admit the annual trifle of one or two hundred fresh ones cooked by Parliament. Every knave who comes before him has exercised his ingenuity in Lord Brougham's exercise of driving a "coach and four" through these enactments, and often with legal skill to back him. He must not swerve one hair's-breadth for any rank: he must not give way to any false pity before an assumed penitence, or on account of a mawkish sentimentality. As the guardian of social order, he must at once be firm and composed,—ready to detect the specious tale of the bold, and yet shrewd, to elicit from the simple and bewildered what is necessary for their own justice. And all this must be done on the instant. When we think of the vast number of cases which are to be disposed of, and the varied circumstances by which they are environed, and at the same time observe how

* Published by Weale, Holborn. 1855.

* London: James Nisbet and Co.

few mistakes are made, we may justly be proud of this department of our national executive. The even-handed English justice dealt out by the metropolitan magistrates has now become proverbial. The men who fill those responsible stations have generally been well selected; and the majesty of the law, while it has been vindicated, has won the respect even of the poor degraded beings whose evil courses have placed them under its lash. They know—and this knowledge is a powerful preservative from much evil—that once they have broken the bonds of society, they will meet the inevitable penalty, enforced without a shadow of oppression or vindictiveness, but with all the sternness which their case demands.

Within the precincts of Bow-street, the soul sickens, and amongst the crowd of human beings so utterly fallen, it is hard to recognise one gleam of that pristine greatness in a mass which seems almost to have sunk to the level of the brutes. The newspapers daily report a selection of the cases which are tried throughout the different divisions, and there is no surer index of the need of home mission work—no more melancholy evidence of the dreadful excesses of vice, than is presented by this fearful phantasmagoria of human life, recorded in the columns of these prints. But lamentable as are these solemn evidences of blood, crime, and villany, they afford but a feeble index of its amount.

On the particular morning of our first visit, there were nearly as many cases gone through as would suffice to fill a space equal to that occupied in the public paper by all the stations put together; and that, too, on what would technically be called a "heavy" day. Our thoughts were many and bitter, while we stood pent up in that little square dock, encircled by the dregs of humanity, who yet were brothers and sisters of the one great family. Incessantly it would occur to the mind, as a fresh criminal was led to the bar, or some poor battered wretch staggered blindly forward to take the oath before she told of the savage treatment which had almost extinguished the spark of life, that one of the greatest of the Creator's mercies is the hiding of futurity. The most loathsome creatures that appeared, had once been young and innocent, but it was spared many of those who had reared and loved them, to behold the depths into which they should plunge. A snatch of the grand old Latin hymn forced itself upon us—

"Dies iræ, dies illa,
Solvet Sæclum in favilla."*

We noticed the hard stern lines in the generally impassive features of the magistrate. Well, indeed, it might be so, for so great and terrible an experience as this is accorded to few. But sometimes even his hard strong lineaments showed the feelings which were roused. An expression of commiseration for some poor victim of brutality, whom the mad blow of frenzied passion, or drunken rage, had disfigured for life, if even that lasted. Or some brawny hardened culprit comes up to answer a charge for misconduct committed almost the moment he was out of prison, and human nature could not refrain from administering a stern rebuke where clemency was lost.

On Monday last (we may as well be precise, and show we do not fear contradiction) we were there for an hour and a half, and here is an epitome of the charges made:—1st, a woman—drunk; 2nd, a woman, well-looking and decent—drunk; 3rd, a man (a collector with the charity's money in his pocket)—drunk; 4th, a boy—picking a pocket; 5th, a woman,—drunk; 6th, a woman, drunk; 7th, a man—case of stabbing while drunk (the injured man not sober); 8th, a girl of about sixteen—drunk; 9th, a girl—drunk; 10th, a well-looking woman—drunk; 11th, a woman—drunk; 12th, two boys (thirteen and fifteen)—for stealing: untaught, with scarcely knowledge that they had done wrong; 14th, a girl—drunk; 15th, a woman—drunk! How many more were brought up, victims of the monster evil—drink—we know not: it was too saddening to be endured longer.

But admitting that indulgence in intoxicating liquors is a monster evil, an overwhelming vice,—that it fills our workhouses, prisons, lunatic asylums, penal settlements and churchyards; demoralizes, debilitates, and degrades,—still, an objector may say, why introduce it here, when you are urging the evils of ill-arranged, unwholesome dwellings, and the want of sanitary arrangements? For this reason, good friend, that a large portion of this intemperance and consequent crime is owing to the miserable condition of the dens in which the people are forced to exist. The impurity of the air creates a craving for stimulants, and the attractions of the public-house have no counterpoise at home.

Perhaps the best synopsis of the multifarious causes which exert so baneful an influence in filling Bow-street, and all such institutions, is to be found in two little volumes, entitled "Meliora; or, Better Times to come," being the contributions of many men touching the present state and prospect of society; edited by Viscount Ingestre.* They contain also a body of practical suggestions demanding consideration. Dr. Guy takes up the advocacy of that great system now receiving a trial, of which the result is being anxiously watched,—the policy of prevention. This broad principle is only now beginning to be appreciated. So long as we could export our criminals, whom we did not hang, so long we remained content on the old notion of "Out of sight out of mind." But by and by, when we found that the colonists objected to have their home made a receiving-house for the scum of others, then when we were driven to keep the reprobates, whom we durst neither let loose nor send away, we began to think whether it were not possible to save them by some means from getting into that position at all. In a sanitary point of view Dr. Guy remarks, that to us the achievements of Cook, Howard, and Jenner, are very precious. With what irresistible arguments and potent precedents, have not the three sanitary philanthropists of the eighteenth furnished their successors of the nineteenth century! With what a treasury of analogies has not Howard himself endowed us,—analogies admitting of the most important practical applications! Mice are not more alike than the prisons of Howard's time and the low lodging-houses of our own day. Honest working men, by the thousand, in town and country, in every part of England, are compelled to live in as complete destitution of all the appliances of comfort and decency, and of all the physical aids to morality and religion, as the most degraded tenants of the worst gaols of the last century. They breathe the same foul atmosphere, they are pressed into the same narrow space, they are compelled to the same unseemly companionship, they languish under the same loathsome diseases, they are doomed to the same premature decay. Howard's gaol fever was but the prototype and progenitor of the typhus fever, which, one year with another, brings from fifteen to twenty thousand of the most valuable part of our population to untimely graves, and stretches twice as many for weeks together in muttering delirium on beds of sickness. Now, as then, the same causes produce the same effects. The owner of house property at the present day leases his tenements to middle men, whose only care is to secure a maximum of rent with a minimum of outlay. The owner of prison property in Howard's time did the same. To make the analogy complete, some of the worst tenements now, like some of the worst prisons then, are the property of ecclesiastical corporations and men of rank. In one important point alone does the analogy fail us: the window-duty, which robbed the prisons of the last century of light and air, and has done so much to make dungeons of our houses, has happily been abolished, after a struggle which did little credit to our financial reputation, and still less to our humanity. In all other respects, the analogy between the low lodging-house, or the squalid dwellings of the poor in town and country, and the prisons of which Howard has left us such graphic sketches, is complete. The sanitary history of the eighteenth century has yet to be written, and the instruction it is calculated to afford us is still very far from being exhausted. One great lesson, however, written in characters so large and legible that he that runs may read, forces itself especially upon our attention: it is the immense superiority of *prevention* to *palliation*. The efficacy of simple measures of prevention is the great truth, the broad principle, which stamps the works of Cook, Howard, and Jenner, as belonging to the same class. It is this common attribute that links all their labours together. It did not occur to either of them that the labour of love in which he was engaged was but part of a large measure of reform, destined some day to have a name and a status among great social and political movements. It was enough for Cook to remodel the internal economy of his ships, for Howard to correct the abuses of prisons, for Jenner to disarm the small-pox of its terrors: it was reserved for our own times to point the moral of their acts, to apply their methods on a larger scale, and to discover the life-giving principle of which those isolated reforms, and even the most comprehensive measures of our own day, are but special cases and illustrations. This, undoubtedly, is the system which will tend to lessen the labours of our police and empty our prisons. Whether we grapple with the "beer-shop evil," educate the poor or the adult, improve dwellings and lodging-houses, or cultivate kindly feelings between rich and poor, we work to the same end.

In the two series of the work we have named, and which has now been published some time, there are many chapters by eminent men, all bearing closely, and many of them practically, upon the necessities which must be attended to if we would carry out the policy of *prevention*, and would diffuse comfort and good feeling amongst the working classes, instead of a sour misanthropy which stalks in the rear of gaunt misery, and would, if it dared let itself loose, sap the foundation of every social edifice, and snap every tie which binds humanity together. It is better and cheaper,—it is our social and Christian duty,—to do all we can to ameliorate the condition of our suffering fellow-mortals, to dissipate the evil thoughts engendered by their stricken condition, rather than simply hold them in check, and pass by on the other side.

Prominent amongst the contributors to "Meliora," is the distinguished correspondent of the *Times*, S. G. O. or in other words, the Honourable and Reverend S. G. Osborne. He handles, in his usual trenchant style, two subjects, the "Beershop Evil," and, as he quaintly terms the other, "Immortal Sewerage." In the latter, he describes with terrible pictorial power a visit paid in company with the police to one of the lowest dens in Glasgow. Then the Rev. Henry Mackenzie, Rector of St. Martin's-in-the-Fields, gives his "Ideas of the Parish." Lord Teignmouth descants on Ragged and Industrial Schools. Viscount Ingestre (the editor) has some observations on "Social Evils, their Causes and Cure;" and a shoemaker in the parish of St. James's, gives his "Ideas on Model Lodging-houses and the Working Classes." A chief constable and governor of a gaol, has some memoranda on the same subject. It is likewise handled in another paper, by Mr. Beckett Denison. The Hon. F. Byng has some remarks on Improved Dwellings for the Poor; and Henry Mayhew writes on the theme "Home is Home, be it ever so homely." A pawnbroker tells some "Truths," which employers would do well to study, seeing that they may easily, by the time at which they pay wages, &c. be the cause, unthinkingly, of much misery and demoralization. Well, sickened by such scenes as those we have depicted in Bow-street, we turn with a feeling of grateful relief to these things, as an evidence that skilful and powerful men are awake to their obligations in their day and generation. That property has its duties as well as its rights, is an axiom, which, like many other axioms, has been very much left out of sight for a long time, all the more perseveringly, perhaps, because it is so very true and apparent. The "good time is coming," we hope it is not so very far off; but there is much to do: and as a fitting close to this article, we transcribe two of the

* Freely translated—
The dreadful day, the day of ire,
Shall kindle up the avenging fire,
Around the expiring world;
And earth as sybils said of old,
And as the prophet king foretold,
Shall be in ruin hurled.

* J. W. Parker and Son. Two Series.

genial verses of Martin Farquhar Tupper, who affords another evidence on the point lately urged, that even in every-day concerns the poet has his use; that it is, in fact, the office of the greatest poets to lay down their choicest offerings on the shrine of common life,—home needs and home feelings:—

"Still are these homes overclouded with night;
Poverty's sisters are Care and Disease;
And the hard wrestler in life's up-hill fight,
Faints in the battle and dies by degrees!
Then, let his neighbour stand forth in his strength,
Like the Samaritan, swift to procure
Comfort and balm for his struggles at length,
Pouring in peace on the homes of the poor.

Cleanliness, healthiness, water and light;
Rent within reason, and temperate rules;
Work and fair wages (Humanity's right);
Libraries, hospitals, churches and schools,—
Thus let us help the good brother in need,
Dropping a treasure at Industry's door;
Glad, by God's favour, to lighten in need
The burden of life in the homes of the poor."

ON SOME ALTERATIONS IN BELLS AND BELL MACHINERY.

AT the ordinary general meeting of the Royal Institute of British Architects, March 5, Mr. W. L. Baker gave particulars of some alterations in the mode of hanging bells, proposed by himself, in the course of which he said:—

A bell hung in the ordinary way for ringing is suspended from and firmly secured to a wooden beam, called the stock, by means of long iron links. The lower ends of these links are attached to ears, technically called cannons, cast on the crown of the bell, or to cross-bars passing through the eyes of the cannons. The upper ends of the links, which are screwed, are passed through iron clamp-plates bedded on the top of the stock, and are secured by nuts, which are screwed with the aid of a spanner down to the clamps, until the tops of the cannons are pressed firmly up into a recess cut in the under side of the stock, so as exactly to suit their shape. The length of the stock is generally about 2 or 3 inches more than the diameter of the mouth of the bell, in order to give clearance between the skirt of the bell and the framing. At each end of the stock, and at the lower part of it, is fixed a pivot or gudgeon, which rests and turns in a brass bearing fixed in the framing. A large rigger-wheel is attached to the stock, and by means of a rope connected with a particular part of the periphery of this wheel, a ringer is able to put the bell into a state of oscillation. After a few primary impulses a firm stroke is given to the bell by the clapper just at the completion of each arc of the bell's oscillation. In simply ringing a bell after it has been raised, the only resistance to be overcome is that of the air acting upon the moving bodies of the bell, wheel, and stock, and the friction of the gudgeons, and, although these resistances are scarcely felt by the ringer in ringing a well-hung bell for a few strokes, they begin to tell upon him if he continues ringing some time. One object, therefore, to be aimed at in hanging a bell, is to reduce these resistances as much as possible. The stay is a simple adjunct to a bell's gear, consisting of a vertical bar of wood attached to the stock, and projecting somewhat above it. When the bell is set, the extreme end of the stay comes in contact with a moveable stop attached to the framing, which prevents the bell from overturning, and eases the ringer of the trouble of holding his bell when set. He then proceeded to explain the alterations proposed.

Instead of the cannons mentioned before, a strong circular box, concentric with the vertical axis of the bell, is cast on the crown, and in place of the links and clamps before described, a single bolt, with a thread and nut at the upper end, is used for the purpose of securing the bell to the stock. This bolt is passed up through the centre of the boss and the stock, till the collar forged on the bolt comes in contact with the underside of the crown of the bell: the nut is then screwed down upon the top of the stock, and the top of the boss brought thereby into firm contact with the stock, to which the bell is thus securely fixed. When the nut has been screwed firmly down, the check nut should be screwed down tightly upon it: this will prevent the nut from unscrewing, a frequent occurrence in machinery in motion where check-nuts or keeps have not been provided. The lower end of the bolt is prolonged sufficiently and formed into a joint to carry the upper end of the shank of the clapper. The stock, instead of being made of timber, is cast in iron. It has a central boss to receive the main bolt, and the lower part of this central boss is sufficiently enlarged to receive the bell's boss, so that the lower edge of the stock may be brought down to within an inch of the crown of the bell. Two gudgeons are securely fixed in the ends of the stock by being turned to fit slightly tapered holes, into which they are tightly driven and fixed by their inner ends being rivetted over or pinned in. The stock with the gudgeons fixed in it, is then put into a lathe, and the gudgeons turned accurately true to one another, both as regards their diameters and concentricity. At the same time the end of the stock is turned to suit the hole in the central boss of the rigger-wheel, and the other end is turned to enter the eye of a catch. A socket is cast in the stock to receive the lower end of the stay. When the bell is set, the upper end of the stay rests against the tail of the catch, which itself rests against a stop on the framing. The rigger-wheel is of cast-iron. It has seven arms and an inner circle. It is put into a lathe, checked truly, and then the central boss is bored out. It is attached to the upper part of the stock by a bolt passing through a boss at the intersection of the inner circle, and the vertical arm and a corresponding boss on the stock. The rope passes through a hole into the groove of the wheel, and there are hooks attached to the wheel, upon which the ordinary quantity of surplus rope may be wound. This completes the description of my alterations in bells and their gear. The small and simple apparatus which remains to be described is an addition to the ordinary gear of a bell, and consists of an endless screw fixed in a boss in the stock, and made to gear into a toothed wheel, keyed into the central boss of the bell. The outer end of the endless screw's spindle is made square to receive a spanner or wrench with which it may be turned by hand, and through the medium of the toothed wheel move the bell round horizontally on its vertical axis, in order to present a fresh part of the sound-bow to the wear occasioned by the clapper. The following advantages are obtained, he considered, in this system of hanging bells:—

To cast a central boss is a much more simple operation than to cast cannons on the crown of a bell, as the latter are complicated and expensive to mould, and, without care, are liable to turn out faulty. The method of attaching the bell to the stock is rendered much more simple by using one main bolt, instead of six to ten links, with their necessary nuts, clamps, and cross-bars. One large bolt is also more secure than a number of small ones, which, in all probability, will not all be screwed up equally tight, and consequently there will be a greater strain on some than others. The stock of a bell, which is generally more or less cranked, has to stand considerable strains and counter strains; and, when made of timber, the bell and wheel are attached to it by iron bolts and fastenings. To insure sufficient strength, it is therefore necessary that a tough and hard wood should be used. Elm, possessing these qualities to a greater extent than any other available wood in this country, is the most approved of for the purpose. But elm is one of the worst woods for swelling, shrinking, and warping, when exposed to variation of temperature and moisture. The consequence is that, as the summer advances, all bolts and iron fastenings connected with the moving gear of a peal of bells get loose and require tightening up. The gudgeons also being let into the stock, and bolted to it, are consequently thrown out of truth, and this cannot be permanently rectified in a wooden stock. The advantages of the exclusive use of iron as the material for the moving gear of bells, are greater rigidity and durability, gudgeons permanently true, and a reduction of atmospheric resistance. A peal of bells would also be rendered fire-proof by the further addition of iron framing.

It is well known by those who are conversant with the subject, that the clappers of bells, by constantly striking the same parts of the sound-bow, wear two indentations, which may be found oftentimes three-quarters of an inch deep or more in bells that have not been cast more than from thirty to fifty years. These indentations must necessarily weaken a bell considerably in the very part that has to sustain the blows of the clapper. But when a bell is hung upon one central bolt which forms a fixed axis upon which it may be moved round, quartering is no longer necessary, because by turning the screw provided for the purpose, a man can at any time with great ease present any part of the sound-bow to the action of the clapper.

At the close of the paper, Mr. E. B. Denison, Q.C. visitor, said that he had been a bell-ringer for many years, like a very famous member of his profession, Sir Matthew Hale. The only publications on bells which he knew of merely touched the fringe of the subject; and, judging by the results, it seemed to him that the modern bell-founders knew less of their art than the old ones. It was well known that not one of the very large bells which had been cast in England within this century was considered equal to the Old Tom of Lincoln, or even to St. Paul's bell; and at the Royal Exchange not only one but two successive peals of bells had been condemned by the public ear, and they had now been again recast by another founder, although they had been approved by musical referees. But musicians did not necessarily know what bells ought to be, though they could of course tell if they were in tune with each other; but a set of cast-iron saucepans might be made in tune. He believed that architects might do something towards the improvement of bells, as they no doubt often had the management of them, if they would select bell-ringers in the neighbourhood to approve them before they were certified and paid for as perfect. He had been consulted by the Board of Works, on the recommendation of Sir C. Barry, with reference to the bells for the great Westminster clock, which had been made from his designs; and it was proposed to have the bells, of which the largest would be 15 tons, cast under the superintendence of himself and the Rev. W. Taylor, who had paid great attention to this subject, and from whom he hoped they would hear something to-night. But the Board had now declined any further assistance from them, because they refused to have the Chief Commissioner of Works associated with them, knowing that his interference could not possibly be of any use, and might at any moment become obstructive. This was one more specimen of the way in which Government Boards did their work in small matters as well as in large. In answer to a question from Mr. Donaldson, Mr. Denison said that bell-metal held a mean place between the speculum metal of telescopes (which was a saturated compound of copper and tin, and excessively hard), and gun-metal; but metal having about three of copper to one of tin, and gun-metal having still less tin in it. The proper fusion of the metals so as to avoid *burning* the tin, was a matter of primary importance, and where it was not properly managed the bells would be porous and utterly bad, as some of the late Exchange bells were, though a few of them were as good as need be. He had long been struck with the want of uniformity, both in the hardness and the shape of bells, even in the same peal. Messrs. Warner, of Cripplegate, the well-known brass-founders, had lately taken up the trade of making church bells, of which they had three in the Great Exhibition. Since then they had made some considerable improvements, and were able to avoid the *sand-cracks*, which were a common defect.

Bell-frames were usually made on the most absurd principle, of what the bell-founders' carpenters call balancing the swings, which they fancied was to be done by making some of the bells swing at right angles to the others—the position in which any counteraction was impossible,—and the effect was, that the bells were always trying to twist the frame to pieces. He had himself designed the frame for the large peal of bells cast by Messrs. Warner for the cathedral at Fredericton in 1852, as to which he had been consulted by the bishop. The carpenter violently objected to making the model which was to be sent out; but *his* plan was followed, and he had heard no complaints of its unsteadiness: on the contrary, the peal seemed to give great satisfaction in all respects. He need not tell the architects present that the bell-frame itself should not rest on or butt against the walls of the tower, but be laid on the floor, of which the main timbers should be braced together, either by strong floor-boards or otherwise, so as to be as stiff as possible. In this way the bell-floor for Doncaster Church had been designed by Mr. Gilbert Scott, the architect, and himself (he being one of the committee for rebuilding that church). He could not at all approve of Mr. Baker's plan of hanging a large bell by a single bolt through a hole in the crown, and would be sorry to stand under such a bell to ring it, as the strain was then six times what it was when stationary: even if the bolt itself stood, he thought it not at all unlikely to tear the crown out.

Mr. Ashpitel said,—the practice in hanging bells

was to fix strong stone corbels in the walls of the tower. On these corbels he placed the main girders, quite free of the wall, with a space of 1 inch or more allowance for play; on them the floor, and on the floor the bell-frame or cage, but not fixed to it, so that each of these parts might move independently of the others. The theory of vibration, that a bell struck became changed from a circular to an oval shape in producing a musical sound, might, he considered, apply also to the tower. He would therefore advise that the tower should be constructed to allow for this change of form: let it be built solid in itself, a homogeneous mass of wall all round, but without any cross-bracing or strutting to resist the vibration. There might be some difficulty in getting an iron wheel into belfries, but the ordinary wooden ones were easily taken up in pieces. He had some hesitation in trusting to cast-iron for the stock and gudgeons, having seen instances of the sudden manner in which failure took place in that material.

Other speakers followed.*

A SYSTEM FOR FURNITURE AND DECORATION.

IN the letter upon "Errors in Furnishing and Decoration," which appeared in your paper of February 24, I endeavoured to prove the existence of many radical defects in the practice of that branch of art which necessarily exercises so great an influence over the comfort of our dwellings. To point out the existence of an evil is an easier matter than successfully to suggest the remedy; yet the latter, in all fairness, should follow the former: but in attempting this, I must claim the full indulgence of your readers, as I find it is no easy task to explain my own ideas upon this subject without incurring the charge of plagiarism,—for when such men as Redgrave and Owen Jones have both written and spoken about it, it is almost an impossibility to delineate the principles of such a simple matter, without in some degree embodying their ideas upon the subject. The plea that the principles which they have striven to inculcate have not yet been brought in a popular form before the public, must be my apology if I *unconsciously* trespass upon their copyright illustrations.

Proceeding to the discussion of the question, suppose I am asked, "If it is improper that we should have mullions and tracery, landscapes and perspective on our carpets, stags with antlered heads, and lions preparing to spring, or cosily in possession of our hearth-rug; flowers in bold relief, or playing at hide and seek round the chilly *iron* framework of our *paper* hangings; and a vulgar imitation of a Mosaic pavement on our ceilings,—if this is unfit and improper, then what is fit and proper?"

In such a short sketch as this it would be impossible to point out rules for each individual object, under every possible circumstance: my design is rather to give a general idea, whereby *consistency* may be obtained without the sacrifice of beauty. I will, therefore, confine myself, first, to enumerating the essential requisites in the features of the principal articles of furniture; secondly, briefly to state the aspect which the whole apartment should assume when tastefully and properly furnished, explaining the difference which should exist between the tone of the decoration on the several floors; and, thirdly, to demonstrate certain laws and principles by which we may ultimately arrive at a decided style in ornamentation. Speaking of the most important objects, the following may be taken as general laws:—

Of Carpets.—A carpet should be always chosen as a background upon which the other articles of furniture are to be placed, and should, from its sober colours and unattractive features, have a tendency rather to improve by comparison objects placed upon it, than command for itself the notice of the spectator. It should vie with nothing, but rather give value to all objects coming in contact with it. Composed of sombre shades and tones, and treated essentially as a *flat* surface, it exerts a most valuable, though subordinate influence upon all the other decorations of the room. Upon it the eye *rests*, whilst surveying the more important furniture; and its presence, properly treated, supplies the necessary material for a satisfactory contrast with other portions of the decoration, which comparison in no wise detracts from its own peculiar degree of merit, but proves from this circumstance how valuable it is as contributing to the pleasing effect of the whole apartment.

Of paper and other hangings, Mr. Redgrave has so clearly expressed the uses, that I cannot do better than transcribe his rules.

Paper and other Hangings.—"If the use of such materials is borne in mind, the proper decoration for them will at once be evident, since this ought to bear the same relation to the objects in the room that a background does to a picture. In art, a background, if well designed, has its own distinctive features, yet these are to be so far suppressed and subdued as not to invite especial attention, while, as a whole, it ought to be entirely subservient to supporting and enhancing the principal figures —the subject of the picture. The decoration of a wall, if designed on good principles, has a like office: it is a background to the furniture, the objects of art, and the occupants of the apartment. It may enrich the general effect, and add to magnificence, or be made to lighten or deepen the character of the chamber: it may appear to temper the heat of summer, or to give a sense of warmth and comfort to the winter: it may have the effect of increasing the size of a saloon, or of closing in the walls of a library or study; all which, by a due adaptation of colour, can be easily accomplished. But like the background to which it has been compared, although its ornament may have a distinctive character for any of these purposes, it must be subdued, and uncontrasted in light and shade: strictly speaking, it should be flat and conventionalized, and lines or forms harsh or cutting on the ground, as far as possible avoided, except where necessary to give expression to the ornamentation." "Well-considered design thoroughly adapted for this process" (of printing by machinery) "would enable the manufacturer to unite good taste with extreme cheapness; whereas, the only present result is by increased labour to detract from the beauty of the ornamentation." All designs which have a tendency to divide the flat surface of a wall paper into distinct compartments, or have colours so distributed that they abstract the eye at intervals; all designs which cut sharply from the ground, and exhibit the ornamentation in strong contrast to that which it is upon, or by a combination of several tints of the same colour appear to relieve the ornament from its background, are false in principle, and deficient in the simplicity which should characterize this branch of decoration. An evenness of effect must be the *sine quâ non* of a material which is to cover a surface which, if it were otherwise than flat, would not be tolerated.

Of Curtains.—It is evident that a material which owes its chief grace to the folds which it assumes, should not be covered with a design which spreads over a much larger space than can possibly be seen at one time, when the curtain hangs gracefully in folds, thereby hiding the greater part of its surface. A diaper, or an arrangement of geometrical forms, or flowers in such forms, the whole design not larger than the visible surface of one fold in a horizontal direction, is obviously the proper ornamentation for an object of which a very slight proportion can be seen at once.

Ceiling Decoration.—The flat ceiling, or that which is not divided into compartments by cross-beams, when papered or diapered, should be treated, as to the design, much in the same manner as the floor, but with an essential difference of colour. An all-over treatment is best applied to this portion of the room; and geometrical forms, very simply disposed, are the most appropriate decoration. The foregoing rules apply to all objects of the description manufactured: as regards the selection for harmony, I will treat of that in my account of the furniture of each room as a whole. But, previously to going into that part of this letter, I must explain, as a key to it, the system of colouring which has been adhered to. It is a theory which I heard proclaimed by one of the lecturers at Marlborough House; and where I have seen it put in practice, I must say it has been so with the most successful results.

Colour is the most valuable part of decoration, and the most beautiful principles of colouring are to be borrowed from Nature, who produces the exquisite harmony to be observed in her works, by a systematic application of certain fixed laws, so simple, that if once thought over, and their truths realised, it will be impossible to forget them. These laws are few and decided. In the first place, the primary colours, red, blue, and yellow, are placed in the sky, and the fusion of them in a certain subtle proportion produces light. This, when decomposed, returns to its primitive colour, as the hues of the prism plainly prove, and even when, the clouds being of sufficient density to receive decided tints, we see them red and blue. Secondly, the position midway between earth and heaven is assumed by the secondaries, orange, green, and purple, as seen in the colours of fruit and flowers, and the foliage of trees and plants. And, thirdly, the tertiaries, citron, olive, and russet, are seen in the colour of the several kinds of earths: these are the most substantial and least agreeable of all the variety of tints, and therefore are chosen to contrast with the other and more pleasing colours. Here, then, in a nutshell, is a rule of colour to be observed in decoration. I do not say that these colours should be used exclusively, but I with confidence assert that they should preponderate in the several positions in which they are to be found in nature.

To proceed to the second portion of my task.

The Characteristics of the Furniture of the several Floors.—The ground-floor of a house may be supposed to consist of a dining-room and study, or library. The carpets should consist entirely, in their colouring, of tertiaries, the hearthrug lighter tones of the same, the papers entirely of secondaries, and the ceiling, if coloured at all, of the primaries. The degrees of colouring should be—the darkest the carpet, medium the wall-paper, and the ceiling, by being coloured with tints of the primaries, in the proportion of five of yellow, five of red, and eight of blue, will assume the lightest appearance. The regular proportion is three of yellow, but as this floor is inclined to be dark in most houses, I think the equality of yellow and red will remedy this evil. The heavy furniture should either be the natural colours of the wood, or the medium tint between the tertiaries of the carpet and the secondaries of the paper. The curtains should be of the secondary colours, and of a lighter tint than the paper, thereby acting as a graduating medium between the paper and the light. Pictures and prints are disposed on the walls of this floor more than any other: the pure secondaries will be found an admirable background for them, as being the most grateful and soothing to the eye.

The First-floor Drawing-room.—The colour of the carpets of this floor might partake of the secondaries in a slight degree, which will have the effect of making them more articles of furniture and more cheerful. But here they should always be the most sombre colour in the room. Of the paper, Owen Jones has thus said: "In drawing-rooms, where the paper has more to do towards furnishing and beautifying a room, they may be more gay: almost any tone and shade of colour, heightened with gold, may be used, provided, always, that the colours are so arranged and the forms so interspersed that a perfect balance may be obtained, and the eye never attracted to any one portion." This is departing from the theory of colouring I before stated, but with the use of gold it may be more safely done, and on this floor more appropriately than on any other. But if there are works of art in Parian and alabaster dispersed over the room, it is dangerous to have any other background than judiciously-harmonized secondaries. On the ceiling the primaries should be diluted more with white, and the preponderating colours should be blue and yellow, or rather tints of these. The moveable furniture should be of a lighter and more elegant character than that on the ground-floor.

The Bed-rooms of the house may be treated, as to the disposal of the degrees of colour, in

* Mr. Baker, under date March 17, forwarded the following communication. "The great bell at York is furnished with two wheels, and two ropes to each wheel. It weighs 10 tons 17 cwt. and is considerably the largest bell in this country, being 7 cwt. more than twice the weight of the great bell of St. Paul's in London. Messrs. Mears, of Whitechapel, also wrote that "the great bell at York Minster was completely raised and fairly rung by sixteen men, on the 21st of August, 1845. There were four ropes, and four men to each rope."

the same way as the dining-room and ground-floor, except that a lighter tint of colouring should be used, and the degrees more blended.

And now to demonstrate the laws of the true principles of the style:—In the first place, then, a distinction should always be preserved between those objects which are wholly useful and those purely ornamental, for the production of the mongrel attempts which are now so highly patronised has resulted solely from the confusion and attempted unity of these two opposite principles, it being impossible to associate the necessary requisites of an article of use with the distinctive peculiarities of a work of high art. It must not be supposed that any objection is made to the ornamentation of ordinary objects: on the contrary, articles of use may be beautified without giving offence, so long as the ornamentation in no way interferes with the express utility of the object, and is not liable to be destroyed by constant use before the article itself is worn out. In all cases, the ornamentation should be strictly subordinate to the utility of the object ornamented; and this rule, when followed, will be found to result in adding to the beauty and grace of the object, be it what it may, rather than decreasing it. But it is the barbarously artificial taste which requires objects of every-day use to be so ornamented that a constant fear is entertained in using them lest that part which is quite unnecessary to the utility of the article itself should be injured by the express use for which it was manufactured: this is what is objectionable. If we are to be cautioned every time we sit down in a chair not to lean back in case we should destroy the gilding of the wood-work, or discolour the cloth covering where the anti-macassar has fallen down—as it always does—upon the seat; if we are to be kept half-an-hour on a cold day scrubbing our feet in a draughty passage, before venturing into our dining-rooms, for fear of spoiling my lady's carpet; then I assert we are living in a state of self-inflicted martyrdom and golden-cage luxury. Common sense will always avenge such outrages of her precepts; and people who possess such valuable objects generally condemn themselves to be content with a paltry covering of some cheaper material, in order to preserve their pet folly for grandee occasions, and other people's use and admiration. The reverse error of designing a really beautiful and expensive work of high art, with a view to its becoming not wholly ornamental, is even more to be deprecated. A popular instance of this may be seen in the Parian figure, which, by some clever little contrivance, serves also as a match-box. I should strongly recommend those who can afford to buy such things, to purchase a down-right useful common-sense match-box, and not allow themselves, by their love of prettiness, to be betrayed into patronizing these unsuccessful attempts to unite the two purposes. If you have a place in your house which will be improved by a statuette, then, for the sake of art, and even your own convenience, spare a trifle more, add it to the cost of the figure-deformed match-box, and buy a really good work of art; and even if it does answer no useful purpose, it will amply repay you for your investment—for "a thing of beauty is a joy for ever." The human figure is, or ought to be, too noble and dignified a subject to be degraded to the level of a candlestick.

Alas! that this mingling, marring spirit should pervade all subjects, and corrupt all classes of society, and be indiscriminately applied to all circumstances! English people seem determined to blend these two opposite principles, so distinctive in their features; and it is this trait in our national character which makes us the laughing-stock of Europe for our shop-keeping utilitarianism. To this spirit must we attribute the proposition, which at first was thought such a grand hit, to drain the whole of London as a fitting metropolitan tribute to the memory of the great Duke of Wellington!! That such a spirit is contemptible few will deny; and that it exists, the above instance, and many more which might be enumerated, will plainly prove. This is an evil which *must* be eradicated: it is positively necessary for the true appreciation of high art and the purity of ornamental art; for as long as their distinct characteristics are allowed to invade the domain of each other, no refinement can possibly exist. It is only when each individual object has its recognised and specific use, that an advance on the present state of confusion can be hoped for. In a piece of machinery we know the effect of the several wheels becoming complicated, or misplaced as to their position; and in decoration, to which no less decided laws may be applied, what must be the result when every branch of art competes with its fellows, every material disputes characteristics of surface and manufacture with its opposites, every article contends for and frequently usurps the proper position of that which precedes it in importance? The result has been, and is now, that an immense deal of valuable labour is thrown away; art and the public taste are degraded and vitiated; and, without any style at all, we are left a prey to every novelty which arises. Thus we have now floods of Renaissance, than we are threatened with an inundation of "Rococo;" and the peculiarities of these styles in their infancy are as nicely copied as when they were more fully developed. All these circumstances are sadly indicative of a want of that consistency, which is the foundation of taste.

As a rule, all imitations, in whatever material, of a totally different surface from that which characterizes the material itself, are false. It seems a wonderful instance of misdirected talent, that, whilst the art of the engraver has attained the perfection it has, so many young ladies should perseveringly waste their time in attempting to delineate a minute face, full of expression, on a surface which is totally unfit for the reception of a design which has any pretension to graceful curves or delicate light and shade. *Vice versâ*, this peculiarity of Berlin wool is transferred with the greatest nicety to block printing for paperhangings, the smoother surface of which renders it capable of receiving the most elegant curves, and the most delicate tints. The very fact of a manufacture attempting to pass muster as something different to what it really is, should condemn it. The fact of an object being a great deal too good for its use, should condemn it. Every object in a room may be good in its degree, but it should not attempt to be of more importance than its degree warrants. Supposing the occupants of an apartment to be of primary consideration, as everything else is for their gratification, their works of high art take the precedency. Nothing should be more attractive than that which precedes it in importance; and, for this reason, life-size figures, either in painting or sculpture, are out of place in a constantly occupied apartment. The next degree is taken by the moveable furniture; and last of all comes the background on the wall and floor; and each room being of course furnished with direct allusion to its use or accident of situation, these degrees of consideration being borne in mind when houses are furnished, will, I feel confident, be productive of more agreeable results than those which characterize house furnishing and decoration now.

I should mention that suspended on the walls of the staircase in the museum at Marlborough House, are many admirable paperhangings, exhibited by Simpson, of the Strand, and collected from various manufacturers. A comparison of the merits of these productions with the popular specimens of the day, will surely result in a verdict for the former. There are many examples of all colours, and I have no doubt suitable to the pockets of all classes. It is to be regretted that the portion of the museum which contained the illustrations of false principles and bad taste should have been withdrawn. In attempting to ascertain the reason, in one quarter I heard that it was the result of "a pressure from without;" but if the directors of the museum have listened to the remonstrance of a few manufacturers who find themselves and their wretched productions left in the lurch by their more discriminating competitors for public favour,—I say, if this has been the case, it shows a want of moral courage in the heads of the Department and a bowing to private interest, which should not characterize the directors of any institution designed for the *public* good. I believe that the effect upon the public of the examples suspended in "The Chamber of Horrors," was much greater and more effective than the beautiful examples of a purer taste, as the evil complained of was so much more familiar, and when pointed out so self-evident, and easily retained in their memories: whereas, the reason why the examples of the reformed style are more appropriate, is not so easily remembered without the advantage of a comparison, though perhaps equally obvious.

It is the more to be deprecated as the Department of Science and Art, is no longer the School of Design, and the production of skilled workmen and designers, as a means of influencing the ornamental art of the country, is not so much the object of the head school, as the producing a class of men called training masters, who are required, before they are considered capable of teaching, to cram themselves for a twelvemonth with a heterogeneous mass of all that is requisite in a pedagogue, though scarcely necessary in an artist. Whether these were acting as the teachers of the future designers, who in their turn are to inculcate the laws of decoration to others, who will in the year of grace two thousand and one, raise decorative art to its proper position, remains to be seen by our lucky descendants. Certainly the production of such men, instead of practical designers, places the improvement a dozen removes farther off. And whether the system of cramming now adopted with regard to the masters in training, is likely to result in the successful transformation of the crammed into artists, is a subject which will well repay investigation. Perhaps it is not the proper subject to be handled by one who is himself a student; but if the result of the last year's training is at all a specimen of the advancement to be looked for in future years, then I am afraid we must look to some other source as a means of influencing the art of the country successfully. I suppose the authorities argue that it is only by having well-trained masters, that well-trained students can be expected. But it seems to me, that getting rid of all the old Somerset-house students, who were confessedly infinitely the superiors of the present set of men, was a step sadly in the wrong direction, as it necessitated the introduction of a new supply of raw material, which has to overcome all that the old stuff had long passed, before it can be transmogrified into the manufactured article, which in the old students they already possessed. If the making use of my means of knowledge on these subjects, as a student, should be construed into treachery, by the Marlborough-house authorities, then I defend myself from the imputation by stating, that my interest in the success of the school has alone prompted me to offer the above remarks.

A MARLBOROUGH-HOUSE STUDENT.

ENGLISH ARCHITECTS AT THE PARIS EXHIBITION.

THE list of works we gave last week was official, and correct so far as we are concerned. It would seem, however, that contributions have been forwarded which do not appear in it: thus Mr. Sydney Smirke has sent a large model of the new Reading-room at the British Museum, prepared at the cost of much pains and money. In the published "Report," too, under the head of "Civil Engineering," Class XIV. we find a short list of illustrations of "Sperial Buildings," which should have been included, one would think, in the list we printed. Time, however, will doubtless put the matter right.

Mr. I'Anson also states that two models, one of the corner of Finch-lane, the other the corner of Royal Exchange-buildings, attributed to another gentleman in the list, were sent by him.

The following letter will serve to represent the statements of several correspondents:—"SIR: In your list of the architects exhibiting at the Paris Exposition, my name would have appeared, had I been afforded the opportunity of sending in. I received the circular in October last year, which I filled up and returned; but being informal in the definition of the series of drawings I proposed sending, I was requested to make another return. This I did immediately to Capt. Owen, but no answer or intimation of any kind was returned, whether the space I applied for, which was considerable, would be granted me or not; consequently I have been entirely precluded from becoming an exhibitor, though I had commenced a series of illustrative drawings for the purpose. JOSEPH CLARKE."

CLERGY ORPHAN SCHOOLS, CANTERBURY.

COMPETITIONS.

West Bromwich.—On Monday in last week the adjudication on the plans for the new workhouse at West Bromwich was made. Sixteen sets of designs were sent in, of which four were selected as possessing the greatest merit, a professional gentleman from London, as we are told, with the Poor-law Inspector, having made the examination. After inspection, two were ultimately selected, Mr. W. B. Briggs and Mr. Everal being the successful competitors, while the second premium of 25*l.* was awarded to Mr. Edward Holmes and Mr. Joseph Phelps.

Dudley.—The guardians of the Dudley Union have advertised for designs, &c. for their new workhouse, and state that the successful competitor shall be employed at a commission not exceeding 4*l.* per cent. including all charges. Thus thirty, or forty, or more, as it may be, architects, are to spend their time and ability for the *chance* of getting something to do at less than the ordinary rate of charge. The guardians will probably find before they have done how dear some "cheap" things are.

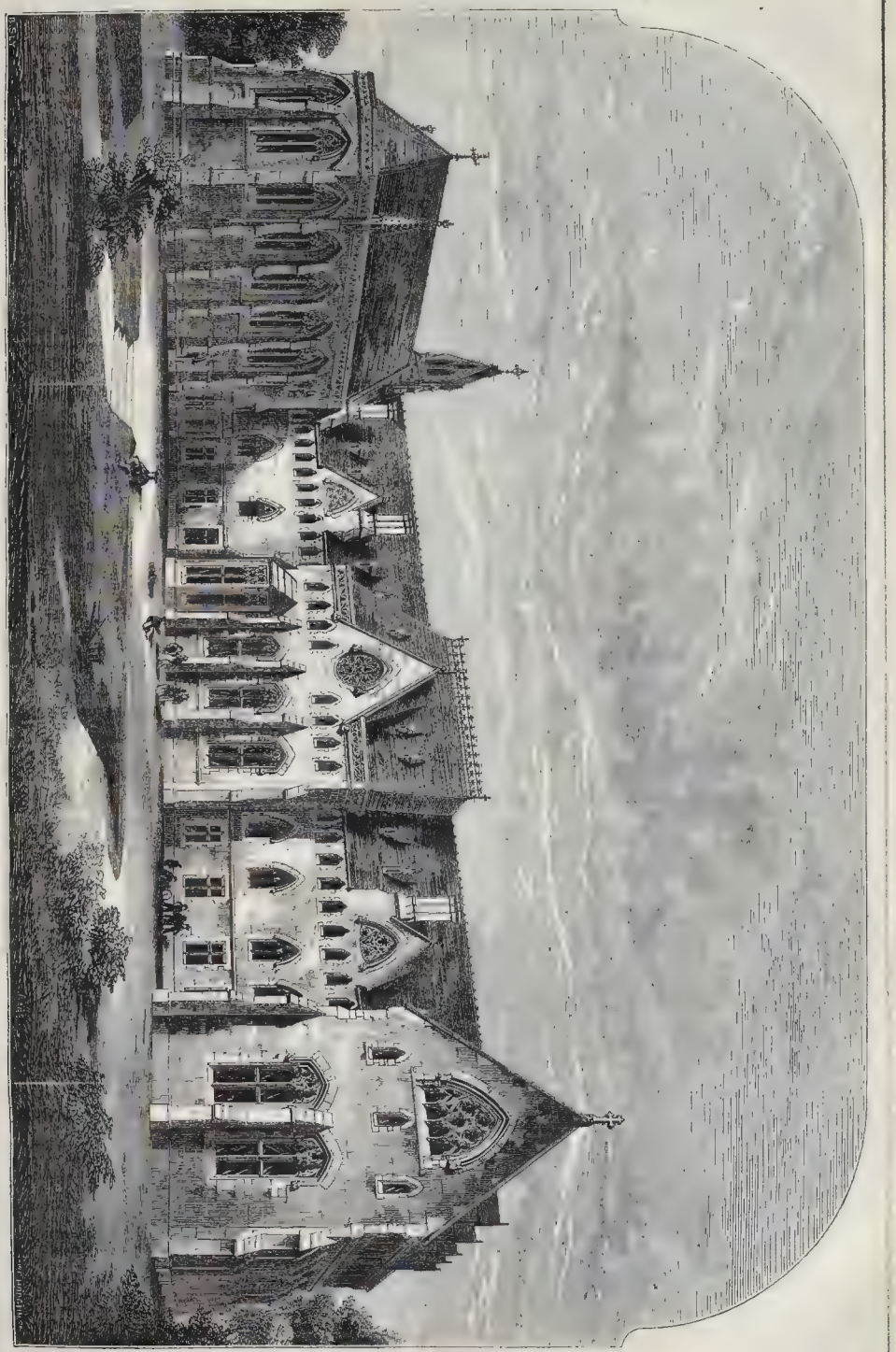
CLERGY ORPHAN SCHOOLS, CANTERBURY.

The accommodation for children in the schools of the Clergy Orphan Corporation, at St. John's Wood, having become insufficient, it was determined to appropriate that building exclusively to girls, and to erect elsewhere a school sufficiently large to contain 200 boys, and fitted up for the immediate reception of at least one-half that number. The Rev. Dr. Warneford, with the munificence which is so well known, provided a site at Canterbury, at a cost of upwards of 3,000*l.* and also offered 4,000*l.* towards the erection of a new school for boys, together with 6,000*l.* to found scholarships.

On June 29th, 1854, the Bishop of London laid the first stone of the boys' school, on the site given, at St. Thomas's-hill, Canterbury. The building has been rapidly advancing since that time. It is calculated for the reception of 120 boys, but is so arranged that it can be enlarged to receive 200.

Mr. P. C. Hardwick is the architect: Mr. Kelk is the contractor. The amount of contract is 15,000*l.* The materials are Kentish rag and Caen stone. The dormitories extend over the whole of the upper story. Each boy has a separate cubicle, which is formed by partitions, about 7 feet high: and a separate infirmary is provided.

A large additional sum is requisite for the accomplishment of the work; and as the number of children which the buildings of the corporation will in future be able to admit is nearly *double* what it has hitherto been, a *proportionate* increase in the annual subscriptions or permanent income is indispensably necessary in order to maintain the institution in efficiency. The object is an excellent one, and should have general support.



CLERGY ORPHAN SCHOOLS, CANTERBURY.—Mr. P. C. Hardwick, Architect.

THE LATE MR. R. C. CARPENTER, ARCHITECT.

THE removal, by death, of this gentleman, from the high position which he had attained in his profession, has doubtless become known to many of our readers, and will be extensively deplored, the more so from the comparatively early age at which he has been taken from us, just as he had entered upon an honourable career of fame and fortune.

Mr. Richard Cromwell Carpenter was the son of the late Richard Carpenter, Esq. for many years an active member of the Middlesex bench of magistrates, and a deputy-lieutenant of the county. He received a classical education at Charterhouse School, and was then articled, by his own particular desire, to Mr. John Blyth, of London, a gentleman with whom he continued upon terms of brotherly intimacy to the end of his life. Mr. Blyth early discovered in the mind of his pupil a strong inclination towards the study of ecclesiastical architecture, a bias which he encouraged by releasing him from the trammels of "office routine," and affording him full liberty and means for following the natural bent of his mind. At that time, the revival of Mediæval art had been vastly promoted by the recent publication of the now well-known works of Britton and Pugin. These were early and assiduously studied by him, as well as nearly every other work elucidating Christian art, whilst, accompanied by Mr. Blyth, he made frequent visits to the noble monuments of our Mediæval forefathers, which he studied with enthusiastic ardour.

The early history of Mr. Carpenter, as a professional man, is not unlike that of many other architects. He laboured for years, at all times cheerfully and most zealously, without any distinguishing success; but gaining the confidence of all with whom he became connected, his ability and energy at length obtained for him a large amount of employment. To great skill in general arrangement, and a knowledge of the effects of light and shadow, and the due proportions of surface and ornament, he added an excellent judgment in all matters of coloured decoration; so that his attention was not confined alone to the solid form and construction of his buildings, but he successfully designed and directed the coloured enrichments of the walls and the painted glass for the windows. Considering the large field of operations which his skill and knowledge embraced, his minute attention to every drawing and detail emanating from his office is not the least remarkable point in his character. It is in fact to be feared, that his laborious and zealous application to his profession tended to shorten his life.

His earliest efforts in ecclesiastical architecture are to be found in the churches of St. Stephen and St. Andrew, Birmingham, erected about 1841, and which exhibit a considerable advance on the knowledge of many of his contemporaries. Among his later works are the churches of St. Paul, Brighton; St. Mary Magdalen, Munster-square, London; and the little church of St. John the Baptist, Bovey Tracey, Devonshire, on which, with the important restorations at Chichester Cathedral; Sherborne Abbey, Dorsetshire; St. Nicholas, Brighton; Algarkirk, Lincolnshire; and the building erected at Hurst, Sussex, at a cost of nearly 20,000*l.* and known as St. John's College, his reputation will chiefly rest. He has besides been engaged in the restoration of churches at Kirkby Stephen, Westmoreland; Kemerton and Pucklechurch, Gloucestershire; Devizes, Wiltshire; Sompting, Old Shoreham, and Eastbourne, Sussex, and others in different parts of the country. He has erected, besides those before named, All Saints, Brighton; churches at Stubbings and at Cookham Dean, Berkshire; a church at Gravesend; one at Monkton Wylde, Dorsetshire, &c.; and has supplied designs for the restoration of St. Mary's, New Shoreham, Sussex; St. Patrick's Cathedral, Dublin; and has erected one church at Galashiels, North Britain, and supplied designs for one at Burntisland, on the Firth of Forth. These, with various schools and parsonage-houses, present a large amount of work for so short a life.

The Committee of the Ecclesiological Society, at a meeting on the 28th ult. passed a strong resolution, expressive of their regret, and of the high esteem in which they hold his memory.

As a testimony of respect to his memory, it has been resolved to fill the west window of the church of St. Mary Magdalen, Munster-square, London, erected by him, with stained glass, at a cost of 350*l.*; and Mr. Beresford Hope and others have already taken means to carry the resolution into effect. It will also be satisfactory to many of Mr. Carpenter's friends to learn, that for the benefit of his family, Mr. Beresford Hope, the Rev. B. Webb, the Rev. N. Woodard, the Rev. E. Tower, the Rev. G. Carpenter, with other clients, in conjunction with the executors, have placed Mr. W. Slater, of New Adelphi Chambers, London, in the position of successor to Mr. Carpenter. Mr. Slater was his first pupil, and has been intimately connected with his affairs for twenty years.

Mr. Carpenter expired at his residence, 40, Upper Bedford-place, Russell-square, on the 27th ult. in his forty-third year. He held the office of district-surveyor for East Islington, and was one of the honorary architects to the Incorporated Society. He married a daughter of the Rev. F. Dollman, of Loaders, Dorsetshire; and leaves two sons and a daughter, still in childhood.

The recollection of his early death, rightly considered, should moderate the exultation of success, and quiet the repinings of the "unlucky."

THE SCULPTURE AT ST. GEORGE'S HALL, LIVERPOOL.

MAY I beg a small portion of your valuable space, to say a few words with respect to the sculpture in the pediment of St. George's Hall, Liverpool, illustrated lately in the *Builder*? With regard to the disposition or execution of the various figures I have nothing to remark, conceived and executed as they have been, by men of undoubted science, and unquestioned skill; but I wish to draw attention to the lesson these figures convey.

Britannia, that is to say, England personified, sits in the centre, and the four quarters of the globe are hastening to pay her homage, while the god Mercury, in very scant clothing, acts the part of master of the ceremonies. May I be permitted to ask what Liverpool has to do with Mercury, and whether for the chief decoration of the chief provincial town of a Christian country, no better source of inspiration can be found than the fabled creations of Paganism?

It has been well and truly said of late, that the dominion of art is belief. But who of all the inhabitants of Liverpool places any faith in Mercury? It can be to them but at best the well-formed, well-placed, and ably-designed figure of a man. Spirit it can have none. It is a creation in which no one believes, in which no one is interested; and the only pleasure it can give will be the merely sensuous one, caused by the contemplation of abstract beauty.

If a child should ask what it may mean, as many children will, seeking instruction in their appointed way, what answer can be given to it? An obscure one at the best,—one that will but partially be understood; and yet, in proportion to the extent of the understanding, will be the error infused into that child's mind. Better that the figure should be to him but a stone doll, devoid of any meaning, than that at the first dawning of his intelligence, he should be led to confuse the false deities of dead and buried Paganism with his belief in that one true Power, from whom Liverpool alone derives her glory, and her merchants their enterprize and skill. Will Mercury still the winds, and calm the sea, when the fleets of Liverpool are in danger?

This is really no light matter. If such things are done in high places, what hope for the interests of art elsewhere? We talk about the men of old, and despair of emulating the works they have left us. In all they did they believed. The chisel of the sculptor cut other things than leaves and fair forms: each stroke of his hammer was the utterance of his creed, and the foundation of his work was Truth. If true art has any other foundation than this, it is not a thing for honest men to follow. We are all called upon to work, but the duty is a sacred one. We may praise God with our lives more than with our lips, and if those who follow art are endowed with a more exquisite perception of the beauty and loveliness of His creation than their fellow men, it is that they may use it to His glory, and not that they should pervert it to false and useless ends.

May I add one word more. There are ingenious persons who delight in drawing unwarrantable inferences, and it may seem that in what I have written improper reflection is cast on the author of the design. I do not blame the designer: the root of the evil lies in that indolence of belief under which we all suffer. The time makes the man, far oftener than the man influences the time. Professor Cockerell's name is one which all followers of architecture speak of with deserved reverence.

M. A. A.

PROVINCIAL NEWS.

Ipswich.—The works connected with the formation of the cemetery have been begun. The approach will start from the new road uniting the Woodbridge-road with the Tuddenham-road. On one side of the gateway there will be an entrance-lodge, and the Board has also decided upon having a "lich-house," for the reception of bodies awaiting interment. There will be two chapels, one for the Episcopalians and the other for the Nonconformists. A committee of the Board has selected designs for the chapels and other buildings. Twenty-two designs were sent in, and placed on view in the Town-hall. The majority of the designs, according to the estimates of the authors, would cost much about the same sum.

Weymouth.—A local paper says, that nearly the whole of the General Market-house works here are condemned, and will have to be pulled down and rebuilt, at a probable cost to the contractors of nearly 1,000*l.* Already, it is added, the work of demolition has commenced, and if the building is not completed in the specified time, the contractor will be called on to pay 20*l.* a week after that date.

Aberystwith.—At a recent meeting of the local commissioners, the chairman read a letter from Messrs. Cockram and Co. of the Dudley Ironworks, offering to make a reduction of 5*s.* a ton in their tender for supplying about 40 tons of patent coated pipes. Mr. George Green, of the Cambrian Foundry, also offered a reduction of 10*s.* a ton in his tender, which would thus reduce it to 8*l.* a ton. Several commissioners considered this as cheap as getting them from Dudley at 7*l.* 5*s.* a ton, besides freights, harbour dues, cartage, &c. from Newport. The chairman and others considered that the patent coat to preserve from oxidation was a recommendation, but no one opposed a resolution to order them from this town, both foundries to have a share of the order. The commissioners resolved to offer the local gas company the sum of 1,623*l.* for their old works, exclusive of the metres: that is the amount at which they were valued, less 286*l.* for goodwill of company.

Birkenhead.—The authorities of Liverpool are said to have purchased the Birkenhead Docks from Baron Goldsmidt and Sir Joseph Bailey, for 1,300,000*l.* payable in six years, with interest, at the rate of 4 per cent.

Sheffield.—After the laying of the first stone of the Dyer's Hill Schools here on Tuesday week, the Rev. W. Hall, according to the local *Independent*, treated the contractors and workmen to a good dinner at the Napier Hotel.

Leeds.—New offices were opened by the Leeds and Yorkshire Assurance Company on Wednesday before last. The building is from the design of Mr. W. B. Gingell, of Bristol, selected from fifty competition drawings. It contains on the basement the usual offices, and a residence for the porter; on the ground-floor, the public office (about 40 feet by 30 feet), secretary's office, and strong room; on the next story the board-room and ante-rooms; and on the top story a suite of rooms for the resident clerk. The building is fire-proof throughout, the floors being on Fox and Barrett's principle—iron, concrete, and cement; and the heating and ventilating apparatus is by Hadens, of Trowbridge. Mr. Atack had the

masonry; Messrs. Winn and Pawson the joiners' work; Messrs. Singleton and Tennant the iron-work; Mr. Fearnside the painting. The plasterers' work was executed by skilled workmen from London, engaged by the company, and directed by the clerk of the works, Mr. Robert Cairns. The carved stone decoration on the exterior of the building was by the late Mr. Robert Mawer, much of it his own design. The stone for the building was supplied from Rawdon-hill Quarry, Harewood, near Leeds. by Trickett and Perkins.

Worcester.—Tenders for the model dwellings (in flats) at Worcester, were to be delivered on the 28th. Messrs. Reeves and Batcham are the architects. The dwellings are in flats, fireproof, and of plain exterior. They are to be three stories high.

Glasgow.—The works of the new suspension bridge, near the Humane Society's House, are rapidly advancing, and it is expected that the bridge will be finished by the end of July or beginning of August, or about two months earlier than the period stipulated in the contract.——Messrs. R. Laidlaw and Son, of this city, have just completed, for the Island of Cuba, two large cast-iron lighthouses; one, measuring from the base to the top of the lantern, 160 feet; and the other, 130 feet in height.

CHURCH BUILDING NEWS.

Retford.—The tablets in the parish church of East Retford have all been cleaned and restored. There will be several new memorials erected;—among these a tablet of Caen stone, designed and worked by Mr. Lee, contractor. It is a Gothic form, and worked in foliage round the borders, which are closed at the bottom in raised old English characters.

Warley.—The *Chelmsford Chronicle* reports the consecration of the new church erected on Warley Common. The site was given by the East-India Company, and the whole sum estimated as necessary to be subscribed in the outset was 4,200*l*. The first stone was laid in May, 1853, and the structure was completed last autumn. The design (by Mr. Teulon) is Early English, the material of red brick interlaced with black, and the dressings of Bath stone, the buttresses having in all cases ornaments of black brick. There is a tower, which rises with the pinnacles to a height of 80 feet, in a high and picturesque situation. The interior is calculated to contain between 500 and 600. Instead of a chancel there is an apse, in the centre of which there is a stained glass window by Messrs. Oliphant and Wilmshurst. The interior is fitted up with low pews of stained wood, with open seats running under the tower. The total cost of the church has been 2,200*l*. A house for the resident clergyman has been built close to the spot, in the same style of architecture, the cost of which is 800*l*. The amount of actual subscriptions leaves a deficiency in the funds of about 200*l*. The whole has been erected by Mr. Hammond, of Warley.

Knowlton (Kent).—The church here is being renovated. New roofs to the nave and chancel, and the erection of a new timber bell column at the west end of nave, will be at once proceeded with. The works are to be done at the sole cost of Admiral D'Aeth, and under the superintendence of Mr. White.

Horley.—St. Etheldreda's church, at Horley, near Banbury, is in course of restoration and embellishment. The chancel is about to be put into a state of repair, at the expense of the lady of the manor, Miss C. Stuart. A wall painting of St. Etheldreda, on one of the most western pillars, according to the *Oxford Journal*, has just been laid open by the Incumbent: it is immediately over the ancient font. The Saint holds the gospels under one arm, and a long rosary of red beads in her hands. The whole figure, &c. is about 2½ feet high. The face is almost obliterated, but the nimbus remains, together with various curious objects, such as a ladle and cauldron, plates, chatelaine, &c.

Bridgewater.—An amicable settlement of the unpleasant and long-disputed claim of Mr. Brakspear, the architect connected with the restoration of the parish church, has, it is said, been made, through the instrumentality of Mr. J. Hayward.

ON A SYSTEM OF TEACHING MECHANICAL DRAWING.

AT the Society of Arts, on 14th March, the paper read was titled "On a New Method of Teaching Drawing, involving the Principle of a New System of Architecture," by Herr Joseph Kumpa, of Dresden. It developed the various steps by which geometrical patterns may be evolved on bases mainly consisting of the square and its diagonals. The patterns themselves appeared much to resemble many of those crystalline forms assumed by water in the state of icy snow-flakes, and which are certainly as beautiful as varied; or, combining colours with geometrical patterns, somewhat like the ever-varying and ever *new* forms and combinations of the kaleidoscope, only these are generally based on the triangular disposal of the reflectors, instead of on the square, to which, however, Herr Kumpa's system is not limited. Mr. Digby Wyatt compared them to the mechanical forms developed by the eccentric chuck, by which, however, he remarked that they were really "beaten out of the field," as, indeed, they may be said in some respects to be by those of the kaleidoscope, and other kindred inventions.

Herr Kumpa's system comprises the free-hand drawing of straight lines and curves on the principles indicated, although the diagrams exhibited were said to show traces of the use of geometrical instruments, at least of the compass. Series of such diagrams, or drawings, the author stated, are to be published, so as to "constitute a complete course of instruction in the combination of straight and curved lines, with ornamental designs, passing into studies from models and nature." The system of teaching is especially designed for mechanics, masons, &c. and Herr Kumpa drew particular attention to the manner in which his system might be developed in architectural schools, and lead, it might be, to the establishment of a new system of architecture, examples of which were exhibited, in which the cross, geometrically treated, and something like the Katherine-wheel window, were distinguished specimens, together with a combination of the pentagonal form with a less strictly geometrical leaf form, crocket shapes, &c.; and the design of a complete edifice, made up of such details, was offered as a developed result of the whole system.

A discussion ensued, preceded by written communications from Messrs. R. Redgrave, Wallis, and D. R. Hay, which were read by Mr. Foster, the secretary. In the discussion itself, Mr. Digby Wyatt, Mr. J. D. Harding, Mr. J. W. Papworth, Mr. W. Hawkins, Mr. F. S. Cary, Mr. H. Twining, Mr. H. Mogford, Mr. Burchett, Capt. Ibbitson, Mr. Warren, Dr. Hoffman, and other gentlemen took part, the general opinion being, that considering what had been done in this country for many years past, and of which Mr. Kumpa did not appear to have been aware, there was really little novelty in his system, except as to the extent and the strictness of its development, to which some of the speakers objected. The system of the Government Schools of Art was pointed to by more than one as in fact comprising this, as well as, or rather in useful and necessary combination with, other modes of teaching drawing; and it seemed to be thought that although the accumulation of lines and circular segments into patterns such as those resultant from Herr Kumpa's system had an interest in them which might to a certain extent urge on the young better than more irregular forms of drawing, and was thus on the whole best adapted to the teaching of children,—yet even these, if restricted to it, which, however, Herr Kumpa did not seem strictly to insist on, would soon become weary and satiated. Some gentlemen were even inclined to deny the system a place in art-teaching at all, regarding it more in the light of mechanical exercise.

The chairman, Professor Donaldson, said he thought that Herr Kumpa's aim had hardly been distinctly appreciated, and that he had been supposed to give greater extension to his system than he himself intended; a natural mistake, however, arising from the title of the paper. The chairman himself regarded the system as at least useful in a subordinate department of architecture, although it was a mistake to imagine that it could produce a new style, which depended much on the question of material: glass had been alluded to, he remarked, by one speaker, as calculated to suggest a new style; and to this might be added iron. Geometrical forms were desirable as an elementary principle to enable the beginner to appreciate form in connection with mental training and mechanical handling, and in this they could agree with Herr Kumpa; but this was known long ago both abroad and at home.—Dr. Thudicum added some remarks on behalf of Herr Kumpa, who, he said, never thought of claiming the single steps of his system as a novelty, but the method as a whole, carried out to the extent indicated, seemed to be admitted to be new. The architectural part, he said, had attracted more attention than the system of teaching drawing; and Herr Kumpa wished it to be particularly understood that he intended to teach able mechanics, masons, carpenters, designers, and so on; in short, practical men, rather than artists.

THE LATE MR. J. GILLESPIE GRAHAM ARCHITECT.

MR. JAMES GILLESPIE GRAHAM, of Orchill, N.B. architect, died at Edinburgh, on the 21st March. He executed Murthley House, Perthshire, for Sir John Stuart, and the Victoria Hall, Castle-hill, Edinburgh, for the meetings of the general assembly; as also other buildings of considerable importance in Scotland. He sent in a design for the Houses of Parliament, which attracted great attention at the time.

WAR APPLIANCES.

THE barrack huts in course of erection at Aldershot were again complained of by Sir Joseph Paxton in the House of Commons last week. The roofs, he said, were flat, and otherwise faulty: the windows ought to have been placed at the top of the roof, whereby better ventilation would have been secured. Some of these huts had been erected without any foundations; but now, although a little concrete and a few bricks would have answered every purpose, expensive foundations were being laid as if a house were to be reared on them. Colonel Knox said that Sir F. Smith, the engineer officer who had the arrangement of the Aldershott Camp, had explained to him, as to the want of foundations, that they were obliged to proceed during the frost when concrete and brick-work could not be worked with, but that this was to be made good. Col. Knox suggested a roofing of felt and a false ceiling, both for warmth in winter and for coolness in summer. Mr. Monsell stated the Ordnance surveyor had given a satisfactory report of progress, and that the hut roofs were to be covered with asphalted felt.—— It is proposed to erect additional barracks at Preston capable of holding twelve or fourteen hundred men, and which will be occupied by militia whilst these regiments are in service.——A lady writing from Scutari, makes sad complaint of the indecent and shocking way in which the soldiers' wives are housed amongst the soldiers in barrack there. This is an evil for which there is not even the excuse of war mal-arrangements, for the very same shameless system of indiscriminately mixing up the married with each other, and with the single, in barracks, has long prevailed, and still prevails, in our home barracks no less than abroad. This is a state of things that is a disgrace to any Government. It cannot be longer allowed to continue. To be shamed out of existence at once, it only requires that the responsible authorities in Parliament be compelled to reply to inquiries as to it; urged, if requisite, again and again, till the object be effected. They dare not for an instant attempt to defend or even to palliate such a state of things, fit only, as it is, for the brute creation, and a gross indignity to our right principled and intelligent as well as gallant soldiery. ——It is the intention of the Government to erect new fortifications, and to strengthen and put into a state of defence the existing forts, towers, and batteries on the eastern coast of the kingdom, and on the coasts of Kent, Sussex, and Hampshire, for which purpose the line of coast will be surveyed by competent officers of the Royal Engineers and the Royal Navy, assisted by the corps of Sappers and Miners. The works will be done by contract. —— The nuisance-inspecting and cleansing corps of the Eastern Sanitary Commission are now hard at work, both at Scutari and in the Crimea, and it is to be hoped that by the time the heats of summer have arrived, quicklime and earth will have done much to destroy those fearful accumulations of decomposing

matter which were already fast preparing the way for the advent of plague amongst our most unfortunate and truly ill-used army. Mr. Peel stated in the Commons the other day, that special instructions had been given to the Sanitary Commissioners to see to the state of the burial-places near the hospitals, at Balaklava, as well as Scutari. Large quantities of peat charcoal had been sent out. The abundance of lime between Sebastopol and Balaklava, however, only requiring quickening by fire, affords a still more summary and effectual means of getting rid of the sources of noxious effluvia. —— The railway to the camp has made wonderful progress. Lord Raglan now writes home that it is open, and of important service, for a great part of the way; and he specially refers to the exertions of Mr. Beattie. The locomotive and the train will prevent our poor soldiers from much longer acting as beasts of burden. ——A Cornish miner, writing to one of the London daily papers, suggests that a corps of such men as he would be of great service in the capture of Sebastopol. He says, "I think, after examining the ground, I could contract with Government to take the place. I should first ascertain the hardness of the rock, and the distance to drive; then put down a shaft, drive a large level just up to the walls, and then branch off into three or four large levels, with smaller ones branching off; fill the whole with powder, and when all was prepared, 'give them a lift heavenwards.'" By sinking his shaft deep enough, doubtless, the chances of check by countermining might be greatly diminished, and hence the chances of success for a Cornish scheme such as this be equivalently increased. Military mining seems to have been already met by countermining, and but little, probably, is to be hoped for in that way.

HOARDS UNDER BUILDINGS ACT.

IN Mr. Haywood's report on the works executed by the Commissioners of Sewers of the City of London in 1854, he draws attention to the length of time during which shorings and hoards, put up under the direction of the Buildings Act, remain upon the public way. Of those put up during 1853 and 1854, five have been standing from thirteen to seventeen months, and eight from seven to twelve months. The report shows satisfactory activity and progress in the City. It closes with a reference to the comparatively high sanitary condition in which the city has been maintained, and of the comparative immunity from disease which the citizens enjoyed during a year of unusual sickness and mortality.

THE INSTITUTION OF CIVIL ENGINEERS AND THE METROPOLITAN SEWERS COMMISSION.

SIR,—In Mr. F. O. Ward's letter in the *Builder* of the 24th ult. is the following paragraph:—

"In the course of the debate, as reported in a paper issued from the private press of the Institution, certain experiments, conducted by Mr. Medworth, under the Trial-works Committee of a former Commission, and referred to in my memorandum, were stated 'to have cost 7,000*l.*; to have been tampered with and perverted, apparently with the object of fitting them to preconceived theories;' and 'to have given results utterly worthless for all practical purposes.'"

Instead of 7,000*l.* the total cost of the experiments conducted by Mr. Medworth was only 154*l.* 17s. 11d.

The experiments under the Trial-works Committee were confined to the observing and noting of the flow of water in pipes and sewers, and to some attempts to ventilate sewers. The total cost of all their experiments, including those conducted by Mr. Medworth, was only 472*l.* 12s.

These items were certified on the 21st of January, 1850, by the clerk of accounts, and the clerk of surveyors' and contractors' accounts, after three of the four members of the Trial-works Committee had ceased to be members of the Commission.

No one of the members of the Trial-works Committee had any preconceived theory to support. Their sole object was to obtain and record exact facts, and to ascertain and state what appeared to be the fairly deducible conclusions from the facts brought under their notice.

Their instructions to Mr. Lovick were very general, and they did not interfere with his experiments, which he appeared to them to be perfectly competent to conduct without any interference, and which were carried on in a sewer.

Their instructions to Mr. Medworth were also very general, and their only interference with him was occasionally to test, by repetition of the experiments in their presence, the accuracy of his notes. His experiments were carried on in the yard at Greek-street.

I should not have noticed the accusation referred to by Mr. F. O. Ward, were it not for the attack made on Mr. Medworth, and some doubt whether it might not, if altogether unnoticed, be injurious to him.

In justice to him, I, as one of the members of that committee, feel bound to say that there is not only not a shadow of foundation for that attack, but that it is absolutely the reverse of the truth; that to Mr. Medworth's very uncommon accuracy and unwearied painstaking, the members of the Trial-works Committee felt themselves greatly indebted; and that it was their conviction that his statements might be implicitly relied on. JOHN BULLAR.

THE MODEL BATHS AND WASHHOUSES AT WHITECHAPEL.

ENDEAVOURS are being made to induce the City corporation to take the baths and washhouses in Goulstone-square. It appears to be the only chance the committee see of avoiding a sale under the power which the mortgagees have, and of keeping open permanently a most valuable institution. There have been 900,000 bathers and 200,000 washers there. The committee offer the City for 13,000*l.* (the amount of their liabilities), what has cost 23,000*l.* to build. The income is 3,000*l.* a year, and but for the rise in coals, it would, in 1854, as in 1853, have covered all expenses and interest. But with a committee dwindled to three working members they cannot go on.

THEATRICAL.

The Vanbrugh Club.—The "Vanbrugh Club" having expressed a desire to subscribe the proceeds of a gratuitous performance in aid of the objects of the Architectural Exhibition, the committee have resolved to accept their offer, and arrangements have been made to carry it into effect. The performance will be given at Miss Kelly's Theatre, Dean-street, Soho, on Wednesday the 2nd of May, 1855, and will include the comedy, in five acts, entitled "Love in a Maze," and the Italian comedietta, "Oste e Non Oste," translated and adapted for the occasion, under the title of "Food for Gossip." Application may be made to either of the honorary secretaries of the Architectural Exhibition.

The Royal Italian Opera, Covent-garden, will open on the 10th instant with a remarkably strong company, especially on the male side, and under Mr. F. Gye's management as of old. *L'Etoile du Nord*, and the *Trovatore* will be produced with great completeness. Mr. W. Beverley is the scenic artist. Mr. Costa conducts. Every one who loves music, who feels its value as a civilizing agent, and would have the practice of it extend and improve amongst us, should feel it a duty to give aid to the Italian Opera-house.

Miss P. Horton's Entertainment.—Mrs. German Reed, better known under the first-mentioned name, in conjunction with Mr. Reed, is giving a very interesting entertainment at St. Martin's-hall, including songs, stories, and personations, most cleverly and charmingly presented. But who in the name of harmony can have led Mrs. Reed, with her excellent taste, to give the platform on which they stand its present extraordinary *decoration*, compounded of two four-post bedsteads and a certain amount of pink glazed calico!

Miscellanea.

THE BUILDINGS ACT.—Sir W. Molesworth has obtained leave to bring in a Bill to amend the laws relating to the construction of buildings in the metropolis and its neighbourhood. Strange to say, on the previous evening, Lord Palmerston had said, in reply to Mr. Fitzroy, who asked when a Bill to amend the Metropolitan Buildings Act would be brought in, that he had no knowledge of any intention to introduce such a Bill.

THAMES TUNNEL.—In the week ending 31st of March, 60,232 passengers passed and paid the sum of 250*l.* 19s. 4d.

CLITHEROE WATERWORKS.—In your publication of the 17th ult. you state that at a meeting of the Waterworks Committee at Clitheroe, out of eighteen tenders, four run nearly alike, and a contractor is to be chosen out of the four; and in yours of the 24th, you say Mr. Ibbotson is the party so chosen. Now, on reading the two statements, one would infer the difference in the amount was not the reason of Mr. Ibbotson's being chosen, but that he was the most respectable and competent man of the four. If this is the case, let the public know it: if the amount of money is the reason, I think both myself and the public ought to know it. I believe the amounts run thus:—

Webster and McGuire	£2,720
Ibbotson	2,320
Knight	2,300
Metcalf	2,150

ONE OF THE FOUR.

WHITE ZINC.—"A Tinworker" asks "If white zinc has greater affinity for zinc than white lead as a paint for out-door use has?" To this question some practical man may perhaps favour us with a reply; meantime we may state that although some chemists speak of a tendency that oxide of zinc has to unite with zinc itself, and although the oil and turpentine both in white zinc and white lead paints, will doubtless modify the chemical affinities very considerably, we have little doubt that zinc surfaces painted with white lead will be much more likely to act upon and injure the white lead than the same surfaces would be to injure the white zinc. Besides, white zinc, if pure and good, is much less likely to be blackened by exposure (except by soot or dirt) than white lead, which is rapidly acted on and blackened by the sulphuretted hydrogen which the atmosphere in towns is but too apt to derive from sewers and drains. If the experience of practical painters accords with our own, we may add, it is injudicious to paint with white zinc upon a previous coating of white lead. We should be glad to hear the results of actual experience in the use of white zinc.

STRIKE AMONG THE BRICKLAYERS.—During the past week, this numerous body of men struck for an advance of wages from 4s. 6d. a day to 5s. The masters, after a meeting, offered the men 4s. 8d. a day, but this has been obstinately refused. The principal buildings in the town are necessarily stopped in consequence of this strike. A great portion of the men were taken back yesterday at the advanced rate of wages. One large establishment still persists in not giving the advance.—*Liverpool Mercury.*

BUCKINGHAM PALACE-ROAD.—Do, pray, call public attention to the botching going forward at the Pimlico corner of Buckingham-palace, where a new road is being made in the form of a *ram's horn*, all ins and outs, with a sharp turn, which might be actually dangerous.—A WEST-ENDER.

THE IRON TRADE.—At a preliminary quarterly meeting held at Wolverhampton on Wednesday in last week, it was agreed to reduce the nominal price of iron still further than before, to the extent of 20s. a ton; the selling price of bars to be henceforth regarded as 8*l.* and that of hoops 9*l.* a ton; sheets to be left an open question, as indeed, for that matter, bars and hoops, too, may be said still to be, notwithstanding this understanding. Iron has been sold of late at prices considerably lower than even those now announced. The iron masters having run up prices, or allowed them to be run up, of late as heretofore, at a gambling and reckless rate, were of course followed hard on the heels by the various workmen connected with them, who reasonably considered that they had a right to a share in the apparently rising profits. Now that the bubble has again burst, the masters are determined, "whatever be the consequences," forthwith to force down wages, in order to rid themselves of the evil consequences of their own speculative rashness; and the serious disturbances, robbery, and bloodshed, which have already begun to take place in the Midland districts are some of these consequences. Yet, with these staring them in the face, still do they deliberately threaten to force on the like doings to a still greater extent, "let the consequences be what they may." It seems to be time the Government or the Legislature were looking a little into the history and the state of this trade.

FINANCE OF THE SANITARY QUESTION.—A lecture was delivered on Monday before last by Mr. David Chadwick, in the Salford Mechanics' Institution, on "The Financial Aspect of the Sanitary Question." The lecturer commenced by observing that in this utilitarian age every social movement ultimately resolved itself into a question of cost; yet the promoters of sanitary reform need not be afraid of having their principles tested by this standard. It would be found that sanitary regulations were not only morally and socially desirable, but that they were in the highest degree economical. In course of his lecture, which was numerously attended and respectfully listened to, Mr. Chadwick showed that the loss of life from preventible causes in Salford is not less than 700 annually. The actual known pecuniary loss by the sacrifice of these 700 lives annually he thus set down:—

For sickness	700	×	£25	0	0	= £17,500
For Funerals and mourning	700	×	5	0	0	= 3,500
For Lost labour of adults	200	×	97	10	0	= 19,500

Cost of preventible sickness and death..... £40,500 per annum. This sum, he observed, does not include, perhaps, anything like the ultimate cost of this waste of life. It is sufficient, however, to give the inhabitants of Salford, as well as of other towns to which the same principles may be but too truthfully applied, something of obvious personal interest and importance to reflect on in reference to the sanitary question.

Institution of Civil Engineers.—The evenings of March 27 and April 3, Mr. James Simpson, president, in the chair, were wholly occupied by a discussion on Mr. R. A. Robinson's paper, "On the Application of the Screw-Propeller, to the larger class of Sailing Ships, for long voyages." Models were exhibited of the Feathering Screw, adapted successfully, by Messrs. Maudslay, to several vessels, extracts from whose logs were given; whence it appeared, that great benefits, both in speed and convenience, resulted from the use of the system. The same had been experienced on board the *Jason*, fitted by Messrs. Watt and Co. The Differential-pitch Screw, by which any degree of pitch could be given to the propeller, was shown: it had been found very useful in variable weather, when used on board the *Prince*, which was lost in the great storm off Balaklava.

The New Junior United Service Club.—On Thursday, the 29th ult. the foundation-stone of the Junior United Service Club-house, now rebuilding at the corner of Charles-street and Regent-street, London, was laid by the Right Hon. the Earl of Orkney, in the presence of a large number of the members of the club and their friends, the architects, and contractor. The ceremony was rendered interesting on account of the mallet with which his lordship adjusted the stone to a level bed, being that used by Charles II. in laying the foundation-stone of St. Paul's Cathedral, and which was presented by Sir Christopher Wren to the Masonic "Lodge of Antiquity," of which he was Grand Master. Instead of providing a dinner for the workmen, which is not unusual on these occasions, it was thought better to present each man with a day's wages, in order that he might enjoy himself at home with his family.

New Church in St. James's.—It is stated, that a parishioner of St. James's, Westminster, has offered to the rector the sum of 4,000*l.* towards the erection and endowment of a church in that parish, on condition that not less than 500 of the sittings shall be free and well situated, that the services of an additional clergyman shall be secured to the parish, and that a suitable site shall be provided within three years.

Institute of British Architects.—At the next ordinary general meeting, to be held on Monday evening, the 16th instant, the chair will be taken by Earl de Grey, president, to present the Royal medal, the Institute medal, and the prizes in books, in accordance with the award of the special general meeting held on the 26th of February. A paper "On the Architectural Medals of Classic Antiquity, more particularly in reference to the Civil Edifices," will be read. A special general meeting of the members will be held on the same evening, the chair to be taken at half-past seven o'clock precisely, to consider and decide on a recommendation of the Council that the Institute medal be awarded to W Salzenberg, for his work entitled, "Early Christian Monuments of Constantinople from the Fifth to the Twelfth Century." At the meeting held on the 19th March, the paper read was,—"On the Principles to be observed in Designing Mediæval Decorations and Ornaments, with reference to the Sources of Ornament offered by the Natural Kingdom," by W. P. Griffith, Fellow.

Solidification of Town Sewage.—It is suggested by a correspondent, Mr. W. B. Williamson, that the sewage of towns might be mixed with calcined sulphate of lime, or plaster of Paris, and dried down, each ton to one ton and a half, the additional half ton being water and solid sewage. In this way he calculates that the result might be sold to farmers at the usual price paid by them for the gypsum itself, and a profit of 4*s.* on 25*s.* be thus realized from the compost. In towns, he adds, where gypsum abounds the price would be 5*s.* to 10*s.* a ton less. There are strong objections, we fear, to the practicability of such a mode of dealing with the whole sewage of a town. Its bulk, even by itself, constitutes a drawback, much more if thus augmented; and the cost of transit to and fro would be immense: moreover, would the result be still sufficiently fertilizing.

Bookbinding Clasps.—I heard a suggestion made the other day by a very intelligent bibliopolist which I take the liberty to whisper in the ear of good *Mr. Builder*, in order that his pleasant voice may re-echo it in the hearing of those whom it concerns. I was admiring along with him some of the Oxford Prayer-Books and Church Services, and their tasteful binding by Hayday, when he pointed out a fault in the clasps which might easily be rectified. When the book is opened, the clasp is thrown back so as to project in a manner both inconvenient to the person holding it, and incurring the risk of the hinge being strained by a fall or a blow. He then took up a MS. several centuries old, with clasps of iron, and showed that these little matters were better managed in the *dark* ages. In this case, as soon as the volume was opened, *the clasps fell down of themselves on the inside of the cover*, and thus remained quite out of the way.

Beta.

Artists' Benevolent Institution.—The annual dinner in aid of the funds of the Artists' General Benevolent Institution for relief of Decayed Artists of the United Kingdom, and of their Widows and Orphans, took place on 31st ult. The Right Hon. Francis Graham Moon, Lord Mayor of London, admirably filled the chair, and drew from those present an excellent subscription.

Society of Arts Exhibition.—The seventh exhibition of inventions collected under the auspices of the Society of Arts, and in their apartments at Adelphi, is now open, and a catalogue has been published. The exhibition is very varied; but having already occupied some considerable space this week with the report of a paper lately read at the Society of Arts, we can only announce its opening.

Extinct Animals.—Last week Mr. Waterhouse Hawkins gave a very interesting lecture at the London Institution on the restored extinct animals at Sydenham, and showed the steps by which he had satisfied himself of the forms they would take. One is now in progress, the body of which will weigh about sixty-five tons, and to place this on four legs in a stable manner is a work of some difficulty.

The Gridiron Vane.—By a slip in the paper on Vanes (p. 122), the gridiron is said to be from St. Stephen's, Walbrook, instead of, as is the case, from the church of St. Lawrence, Jewry. It is emblematical of the martyrdom of the latter saint.

Gas in California.—A company is in course of formation for lighting the city of Sacramento, the capital of California, with gas. A concession has been obtained from the mayor and common council of that city, giving the exclusive right for the supply of gas for fifteen years, and at the expiration of that term the works to be afterwards purchased by the corporation at a fair valuation, or the contract to continue till they do so. The basis of the negociation is, that the estimated profit will pay 3 per cent. per month upon the capital to be invested, such being the ordinary money rate of interest in California. The capital proposed to be raised in the first instance was 50,000*l.* in 1*l.* shares, deposit 2*s.* 6*d.* per share. The works were rapidly progressing, so that the lighting of Sacramento was expected to commence in the course of the past month. The State House was to be illuminated on the 15th. The gasometer was to be 50 feet in diameter by 20 feet deep. There are twenty-four retorts. These will furnish 75,000 cubic feet of gas per day.

Soldering.—Mr. W. J. Stevenson, of New York, has obtained a patent for soldering expeditiously straight seams, such as the sides of gutters. The can or tin pipe to be soldered is placed upon a mandril, which is divided longitudinally by a line running slightly oblique to its axis. This is for allowing the mandril to be contracted after the seam has been soldered, to allow the article to be easily removed from it. The mandril is secured in the jaws of a clamp, the upper ends of said jaws when brought together forming a channel in line with the seam to be soldered, so as to receive the solder and retain it where its presence is required when melted. By this method of confining the solder, a neat bead is formed on the outside of the can. A strip of wood is placed in the mandril under the seam of the joint, which, being a good non-conductor, makes the solder retain its heat longer, and allows of it flowing into the seams more freely.

Our Schoolmasters.—You sometimes give your readers odd specimens of incongruous combinations adopted by men of versatile genius in *your* profession, what think you of the following, in another profession, extracted from the *Ecclesiastical Gazette*:—

"Wanted, a Schoolmaster, to give the children of an agricultural parish a plain education (as far as circumstances will admit, of an industrial character), suited to their prospects in life. If, in addition, he can, with the assistance of a lad, undertake the culture of the kitchen and flower garden, and mow the lawn of the parsonage, and also overlook the management of a horse and chaise, it would be a great recommendation to the advertiser, and an advantage to himself. He will be required to teach singing; and, as the school is a mixed one, a married man would be preferred, whose wife would teach plain needful work, &c."

I say it is altogether a mistake: the *Gardeners' Chronicle* ought to have been favoured with the advertisement, in this form:—"Wanted, a married couple as out-door servants, the man as groom and gardener, the wife to do the charring and plain needlework for the family. If the man can read and write, and will not object to impart his knowledge to the youth of the village, it would be considered a recommendation." The advertiser's notions of education seem as practical as Squeers's, "B, double-o, t, s, Boots, noun substantive, not shoes,—now, to fix that in your memory, Sir, go and clean mine." Pray, Sir, let the advertiser know that the instructor of the rising generation, the foster-father, as it were, of their whole parish, should be another than the rector's ostler or gardener.

A Non-Professional.

Holborn Turnstiles.—*Great* and *Little Turnstile* are named from the turning stiles which, two centuries since, stood at their ends next Lincoln's Inn Fields, to prevent the straying of cattle therefrom. Sir Edward Sandys's curious *Europæ Speculum*, 4to. 1637, was "sold by George Hutton, at the *Turning Stile* in Holborne." The English translation of Bishop Peter Camus's *Admirable Events*, 4to. 1639, was also "sold in Holborne, in *Turnstile-lane*." In 1685 was built *New Turnstile*. *Turnstile-alley*, leading to Holborn, was first designed as a change for selling Welsh friezes, flannels, &c. Here Cartwright, the bookseller, kept shop: he was an excellent player, and bequeathed his plays and pictures to Dulwich College.—*Timbs's Curiosities of London.*

The Metropolitan Water Supply.—A correspondent, draws attention to the absurdity while compelling a water company to draw their water from the Thames miles up the river, at Ditton, at a cost of thousands of pounds, of allowing hundreds or thousands of houses to be drained as they now are into the river just above the new and purer sources.

Antwerp Cathedral.—In your journal of last week, the writer of the "Architectural Scamper" says, on page 136, that the cathedral at Antwerp is "500 feet long, and 250 across the transepts:" he also adds that "the choir has double aisles (like the nave); but the outer aisle is formed into chapels." Now as the first statement is also the length of York and Lincoln cathedrals (internally 498 feet), I referred to the Dictionary now being issued by the Architectural Publication Society, article *Antwerp*, and find that the dimensions therein given are "384 feet by 213 feet," which better coincides with the reports given to me. The Dictionary also shows, by the plan of the cathedral therein given, that the aisles of the choir are double, and have chapels in addition, though on one side not quite so developed as those in the nave. This I may therefore presume to be correct; but regarding the dimensions, have any of your readers trustworthy notes to arrange such a discrepancy?

D. A.

TENDERS

For new Jubilee Schools, Newgate-street. Mr. G. Searle, architect:—

Brown	£7,190	0	0
Lawrence	6,890	0	0
Nixon	6,796	0	0
Holland	6,700	0	0
Pritchard	6,694	0	0
Piper	6,658	0	0
Burton	6,310	0	0
Brass	6,086	0	0
Hill	5,917	0	0
Myers	5,720	0	0

For Hereford Improvements:—

Marryatt	£36,000	0	0
Rennie and Co.	25,210	0	0
Giles and Gaskel	23,082	0	0
W. Moxon (accepted)	22,468	0	0

For erecting two houses in the East-India Dock-road, Limehouse, and alterations to an old house adjoining. Mr. Edward Salter, architect:—

Legge	£1,413	0	0
Searle	1,400	0	0
Ennor	1,383	0	0
Scarborough	1,190	0	0
Chapman	1,090	0	0
Cox	899	0	0
Pascoe (accepted)	847	0	0

For erecting a villa, with stable, conservatory, &c. at Woodford, for Mr. J. H. Ebblewhite. Mr. J. Sheppard Scott, architect:—

	Villa.			Total.		
Gosling	£1,095	1	0	£1,241	0	0
Abel	1,027	0	0	1,183	10	0
Case	897	0	0	1,151	0	0
Scarborough	884	2	9	1,118	12	9
Smith	827	0	0	1,042	0	0
Burrows	810	0	0	1,017	0	0
Chapman	793	0	0	1,008	0	0
Hughes	647	10	0	791	16	0

[The lowest tenderer afterwards declined the contract; and the architect protests "against the custom of a builder tendering for works who at the same time cannot have any intention of executing the same."]

TO CORRESPONDENTS.

"G. S."—"J. S."—"C. M. I."—"E. H."—"S. S."—"A Lady."—"C. I."—"G. S." removal of the National Gallery is not determined on.—"T. L. D."—"W. A."—"J. C."—"B. and E."—"G. M. C" (Fleet-street).—"G. J."—"G. W."—"H. H. P."—"H. C. G."—"G. and L."—"S. G."—"J. L."—"G. C." (thanks).—"A. C." (a similar suggestion has been made).—"H. H. P."—"G. M. H."—"E. S."—"G. J."—"T. H."—"A. B"—"E. I'A."—"J. J. L."—"A Bookseller."—"W. H."—"J. B. B."—"G. H. R." in type.—"F. and W."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE. All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the Editor, and not to the Publisher.

ADVERTISEMENTS.

BRECONSHIRE HIGHWAYS.—To SURVEYORS.—Notice is hereby given, that the Roads Board of the county of Brecon, will, at their adjourned meeting on the 25th day of APRIL instant, or at some further adjournment, proceed to appoint a SURVEYOR for the No. 2, or Brecon district, to fulfil the duties imposed by the 14th and 15th Vict. cap 16, such surveyor will be required to devote his whole time to his duties, and to keep a horse. He will be allowed the necessary forms, stationery, and postages, but no other extras whatever. Candidates for the appointment, must send applications to the office of the Clerk, on or before SATURDAY, the 21st day of APRIL instant, and each application must be accompanied with testimonials as to diligence, intelligence, and trustworthiness of such candidate, and his qualifications as a Road Surveyor and Accountant, and also with written undertakings from responsible parties willing to become sureties in the sum of 200l. The salary is 150l. per annum, and the estimated mileage of highways in the district is 168.—By order,

JOSEPH R. COBB, Clerk to the County Roads Board.
Brecon, April 4, 1855.

TO PARENTS AND GUARDIANS

ARTICLED PUPIL. — Two Architects, in partnership, possessing a good practice, have a VACANCY for an IN-DOOR ARTICLED PUPIL.—Address, A. B. Post-office, Reigate, Surrey.

CARPENTER WANTED, able to undertake general repairs, and willing to make himself generally useful about houses, valuing a permanent situation at a moderate stipend more than high wages with uncertain employment.—Apply by letter, stating qualifications and wages, A. Z. care of Mr. Ball, 54, Wells-street, Oxford-street.

FOREMAN OF ENGINEERS.

WANTED, an active Man, not exceeding 40 years of age, as working FOREMAN in a factory employing twenty-five to thirty men. Must be capable of conducting it in all its branches. Testimonial or reference as to capability and sobriety.—Address (post-paid), A. M. Office of "The Builder."

WANTED, a Person as WHARF-KEEPER, to superintend the Landing and Loading of Bricks.—Address to C. B. A. Office of "The Builder."

TO STONEMASONS

WANTED, a good working FOREMAN for country jobs, one thoroughly conversant with plans, and making details, especially for Gothic work. Situation permanent. None need apply whose character will not bear the strictest investigation.—Address, S W post-office, Leicester.

TO BUILDERS' FOREMEN.

WANTED, a first-rate and thoroughly competent WORKING BUILDERS' FOREMAN, to superintend, set out, and make work drawings of every description of work connected with the trade. Liberal wages will be given to a man of practical abilities. Apply to Messrs. JOHN WEEKS and CO. King's-road, Chelsea.

TO HOUSE-PAINTERS AND DECORATORS.

WANTED, for an Establishment in Edinburgh, which has for thirty years carried on a very extensive business of the highest respectability, a MANAGER of first-rate ability and experience, thoroughly acquainted with the details of the trade; or, an ACTING PARTNER of like qualifications, possessed of adequate capital, or who can give security for the same. For further particulars apply to STUDART MACDONALD and CO. No. 1, Abercromby-place, Edinburgh.

WANTED, a YOUTH in a BUILDER'S OFFICE. Must write a good hand, and be enabled to trace drawings. One who has been similarly engaged preferred.—Address, with age and salary and last engagement, to B. R. care of Mr. Dromgole, Glass Factor, 20, Barbican.

WANTED, a BUILDER'S CLERK. Must be practically acquainted with measuring up out-door works and taking out quantities.—Address, with particulars of last engagement, age, and salary required, to B. R. care of Mr. Dromgole, Glass Factor, 20, Barbican.

TO CARPENTERS AND BUILDERS.

WANTED, by a Young Man, aged 22, a SITUATION as IMPROVER, in a Carpenter's and Joiner's Shop, where good work is executed. Has been at the trade five years. Wages not so much an object.—Address, H. D. 24, Newstreet, Covent-garden.

TO BUILDERS, PAINTERS, &c.

WANTED, an ENGAGEMENT, by a first class Sign and Glass Writer and Embosser. Understands Decoration. No objection to the country.—Address, O. J. Office of "The Builder."

TO BRICKMAKERS AND OTHERS.

WANTED, by a Person of good testimonials, a SITUATION to take the MANAGEMENT of a BRICK and TILE WORKS, or at per thousand, white or red bricks, pipes, tiles, &c.—Address, J. H. Chessington, near Kingston-upon-Thames, Surrey.

TO CABINETMAKERS, CARPENTERS, JOINERS, AND OTHERS

WANTED to APPRENTICE, a strong healthy LAD, aged 14. A small premium will be given.—Letters addressed, post-paid, to E. B. care of Mr. Blanchard, No. 4, Webber-street, Blackfriars-road, two doors from the Angel), will be immediately attended to.

TO BRICK MANUFACTURERS.

WANTED, a SITUATION as CLERK in a Brickfield, or other similar capacity, by a respectable young man of active business habits, and in whom the most implicit confidence may be placed. Can give satisfactory references.—Address, A. B. Mr. D. Cooper's, Cowley Brickfields, near Uxbridge.

WANTED, a SITUATION as a SUPERINTENDENT, by a person of middle age, who is accustomed to railway and water works. Is a good accountant, writes a good hand, and understands surveying. Indisputable testimonials can be furnished.—Address, P. T. Post-office, Darlaston, Staffordshire.

TO BUILDERS, CONTRACTORS, AND OTHERS.

WANTED, an ENGAGEMENT for one or two days a week, or otherwise, by a middle-aged person, of considerable practical experience in taking off quantities, measuring up work, &c.; also is a thorough builder's accountant.—Address, A. B. C. 5, Triangle, Upper Kennington-lane, Lambeth.

WANTED, a RE-ENGAGEMENT by a Practical Man, a Situation as OUT-DOOR FOREMAN. The highest references can be given. Locality of no consequence.—Address, E. R. No. 3, Francis-street, Tottenham-court-road.

TO ARCHITECTS.

WANTED, by a Young Man, a Joiner, a SITUATION in the above office, can make out working and finished drawings, understands taking out quantities and measuring artificers' work. Salary not so great an object as improvement.—Address, D. R. Office of "The Builder."

TO ARCHITECTS AND BUILDERS.

WANTED, by a Young Man, who has had considerable experience in the building trade, a SITUATION as Clerk of Works, or in any other capacity connected with the building trade. Salary moderate.—Apply by letter, pre paid, to J. W. News Rooms, &c., Cheapside.

TO BUILDERS AND OTHERS.

WANTED, by a Young Man, a Situation as PAPERHANGER, PAINTER, &c. Wages not so important as a constancy.—Address, H. W. No. 30, Providence-street, Walworth-common.—N.B. No objection to the country.

WANTED, a RE-ENGAGEMENT, by a Person who has had good experience in building land, surveying, levelling, the construction of roads, sewers, &c. Can execute architectural drawings neatly, and is used to the general routine of an office. Good reference.—Address, P. G. E. Office of "The Builder."

TO BUILDERS, CONTRACTORS, AND MASTER BRICKMAKERS.

WANTED, a SITUATION as FOREMAN, to manage a Brickfield, by a man who understands brickmaking in all its branches, for the last twenty-five years: that is, common stocks, malm bricks, close-kiln ware—that is, red and white bricks and tiles; or to take the work by contract, to dig, make, and burn. Any reference may be had that may be required.—Please to direct to A. B. at Mr. Bundle's, 42, North-street, Manchester-square, London.

WANTED, by an active, steady Youth, aged 17, EMPLOYMENT; he has been upwards of two years with a joiner, &c. Improvement and a comfortable home the primary object. Please address, W. M. Half Moon, Borough.

WANTED, a SITUATION, by a Person of experience in the pricing and general office department of the building trades, and preparing the current prime cost of works weekly if required. No objection to the country, or temporary engagement.—Address, A. B. Mr. Carnicks, Carpenter and Undertaker, New-street, Battersea-fields, Surrey.

TO BUILDERS AND PLUMBERS.

WANTED, by a Young Man, aged 25, a constant SITUATION, as PAINTER, GLAZIER, and PAPER-HANGER; can do Plumbing, if required. No objection to country. Good reference can be given.—Address, G. S. R. No 8, Princes-street, Whitechapel.

TO ARCHITECTS.

A DRAUGHTSMAN, fully competent in preparing working detail, finished, and perspective drawings, and who can assist in surveying, is desirous of a RE-ENGAGEMENT. References can be given from town and country.—Address, C. E. R. 10, Trinity-street, Bristol.

TO ARCHITECTS.

A GOOD and expeditious DRAUGHTSMAN, who is perfectly capable of getting up working and finished drawings, perspectives, &c. is a good colourist, and understands the routine of an office, is desirous of meeting with an ENGAGEMENT. Terms moderate.—Address, C. R. 5, Caledonian-road, Islington.

AN ARCHITECTURAL DRAUGHTSMAN, of first-rate ability, is desirous of a constant ENGAGEMENT in an Architect's Office, commencing with a salary of 100 guineas per annum, and a yearly advance, as may be agreed.—Address, ZITZKA, Office of "The Builder."

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A PRACTICAL CLERK of WORKS wishes a RE-ENGAGEMENT.—Address, J. C. Office of "The Builder."

AS BUILDER'S CLERK.—The Advertiser is well acquainted with the duties of a Builder's Office, has a knowledge of drawing, and is willing to make himself generally useful. Unexceptional references. Age 23.—Address, R. P. 19, Spencer-street, Islington.

TO IRONFOUNDERS, ENGINEERS, AND OTHERS.

AN experienced ENGINEER, with a good knowledge of the timber trade, wishes for an ENGAGEMENT as SUPERINTENDENT or FOREMAN of WORKS, or would take the Management of Engines and Machinery in any factory, or any capacity where his services would be useful. The highest references given.—Address, A. M. N. Temperance-hall, Newsrooms, Leicester.

AN Ironfounder and Engineer, with a good knowledge of the timber trade, requires a SITUATION as SUPERINTENDENT or FOREMAN of WORKS, or would undertake the management of engines and machinery in a manufactory, or any capacity where his services would be useful. The highest references given.—Address, A. M. N. Temperance Newsroom, Leicester.

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A YOUNG MAN wishes for CONSTANT EMPLOYMENT at the Bench; wages not so much an object.—Address, A. B. 5, Pickard-street, City-road.

TO BUILDERS.

AN active, intelligent, experienced Person is desirous of a RE-ENGAGEMENT as CLERK in a Builder's Counting-house, at a moderate salary.—Address, Z. at the Office of "The Builder."

TO ARCHITECTS AND SURVEYORS.

A YOUTH, in his eighteenth year, who has been two years in an Architect and Surveyor's Office, is quick at accounts, writes a good hand, and can copy and trace drawings neatly, OFFERS his SERVICES at a moderate salary. Good references from previous employers.—Address, B. Post office, Darlington.

TO ARCHITECTS.

A PRACTICAL CLERK of WORKS wishes a RE-ENGAGEMENT.—Address, J. COLEMAN, Clerk of the Works, Militia Depôt, Guildford.

TO BUILDERS AND OTHERS.

A JOINER, who has been used to good work, is well acquainted with Sashes, and has a knowledge of Stairs, wishes for a SITUATION where constant employment would be given.—Address to A. D. Post-office, Lee-bridge, Lewisham, Kent.

THE Advertiser is desirous of a RE-ENGAGEMENT in the Office of an Architect and Surveyor, or the Office of a Civil Engineer, where his experience might be improved. A moderate remuneration required.—Address, OMEGA, 58, Old-Broad-street, City.

THE Advertiser, aged 26, is desirous of an ENGAGEMENT in an Architect's and Surveyor's Office, either in the City or West-end; is a first-rate draughtsman, arithmetician, and penman. Salary, 80l. per annum. Address, A. L. 27, St. Mark's-crescent, Queen's-road, Regent's-park.

TO ARCHITECTS AND SURVEYORS.

THE Advertiser, who will shortly complete his articles with an Architect and Surveyor in the country, wishes for an ENGAGEMENT in a London Office. Good references can be given.—Apply by letter, addressed NEMO, Office of "The Builder."

TO CIVIL ENGINEERS AND SURVEYORS.

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TO ARCHITECTS, BUILDERS, &c.

THE Advertiser having nearly completed a large job, is desirous of a RE-ENGAGEMENT as CLERK of WORKS or GENERAL FOREMAN, in town or country. Can be well recommended by his present employers.—Address, C B. No. 7, New Church-cottages, Isle of Dogs, Poplar, London.

TO BUILDERS, &c.

THE Advertiser, an experienced Practical Man, thoroughly proficient in measuring, estimating, taking out quantities, drawing, bookkeeping, and conducting works, is desirous of an ENGAGEMENT in a Builder's Office.—Apply to H. E. No. 61, Coleman-street, City.

TO ARCHITECTS AND SURVEYORS.

OCCASIONAL ASSISTANCE.—A qualified ASSISTANT, of fifteen years' experience, is desirous of affording temporary assistance to the Profession, at the offices or his own residence. Address, A. B. 38, Duke-street, Grosvenor-square.

TIVERTON and WEST of ENGLAND EXHIBITION of WORKS of ART and INDUSTRY.—The EXHIBITION will be opened in Tiverton on THURSDAY, MAY 31st, and will close at the end of JUNE next. The Committee have the pleasure of numbering among the patrons and contributors:—

The Right Rev. the Lord Bishop of Exeter.	John Heathcoat, esq. M.P.
The Right Hon. the Earl of Portescue, K.P.	The Hon. W. W. Addington.
The Right Hon. the Earl of Fortescue, K.P.	The Lord Lieutenant of the county of Devon.
The Venerable the Archdeacon of Exeter.	
The High Sheriff of Devon.	The Rev. Prebendary Dunsford.
The Worship the Mayor of Tiverton.	The Rev. Prebendary James.
Sir Thomas Dyke Acland, bart. M.P.	T. Carew, esq.
Sir John Kennaway, bart.	E. P. Drewe, esq.
Sir Stafford H. Northcote, bart. M.P.	Lieut.-col. Hamilton.
Sir E. Prideaux, bart.	C. H. Hippisley, esq.
Vice-Chancellor Sir W. T. Wood.	G. Pearse, esq.
The Right Hon. Sir J. Patteson.	W. N. Rowe, esq.
The Hon. Mr. Justice Coleridge.	D. Ashford Sandford, esq.
Sir Charles S. Eastlake, P.R.A.	John Sillifant, esq.
W. Bock, esq. M.P.	Colonel Kemeys Tynte.
	John Walrond Walrond, esq.
	&c. &c.

The Exhibition will comprehend four departments:—(1) Architecture and Antiquities; (2) Paintings and Statuary; (3) Natural History, Curiosities, and Scientific and Philosophical Apparatus; (4) Art, Manufacture, and Science. Trade Department.

The Committee respectfully invite those who are willing to aid them in carrying out this undertaking, to entrust to their care, for exhibition, specimens of nature's history, antiquities, ancient work, models, caste, pictures, statuary, musical instruments, plate, china, glass, rare books, MSS. tapestry, pottery, manufactures, textile, and others, &c. &c.

Extensive buildings have been obtained for the Exhibition, in which specimens will be always present, and one or more members of the committee will attend day and hour. The secretaries have been appointed to each section, who will receive, unpack, arrange in their several departments, and return to the respective owners, all the articles lent for exhibition.

Tradesmen and manufacturers desirous to exhibit specimens of ornamental and decorative art are requested to apply to the Secretary for such information as they may require.

It is hoped that those who are good enough to lend objects of interest for the Exhibition, will kindly intimate their intention of doing so as soon as possible. The proceeds of the Exhibition are to be applied towards the Restoration of the Parish Church of Tiverton, and towards a Hospital.

By order of the Committee,
J. B. HUGHES, M.A.
Secretary to the Committee of Management.

The Bristol and Exeter Railway Company will convey all Goods to and from the Exhibition over their line free of charge.

THE AGRICULTURAL MACHINERY DEPARTMENT of the CRYSTAL PALACE will be ready for PUBLIC INSPECTION on and after EASTER MONDAY. It contains the largest and most complete Collection ever exhibited, comprising the most approved Agricultural Implements and Machines by all the first-rate makers.

By Order,
Crystal Palace, March 30, 1855. G. GROVE, Sec.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. HOSKINS, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Drawing, and Colouring. Making Finished and Working Drawings, Preparing Specifications, Taking out Quantities, Estimating, &c. &c. Terms—Day Pupils, Three Guineas per Quarter; Evening Pupils, One Guinea per Quarter, which includes Drawing Boards, T squares, Plans, Drawings, Models, &c. For Prospectuses, apply at the Offices, 24, Guildford street, Russell-square.

CENTRAL PHILANTHROPIC SOCIETY of HOUSE DECORATORS, Golden Cross, King-street, Long-acre. To BUILDERS, HOUSE DECORATORS, &c.—The members of the above Society, viewing with regret the inconvenience arising from the evil of employing men unacquainted with the trade, beg to state that this Society is established solely for the purpose of supplying the trade with competent workmen of good character, and as none else are admitted, employers may be supplied at any time with experienced workmen, on application at the Society's house, as above.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, beg to call the attention of Civil Engineers, Contractors, and others interested in the construction of railways to the present low price of iron, by which a saving may be effected of nearly 30*l.* per mile, single line, in the adoption of Mr. W. H. BARLOW'S Patent Wrought-iron Permanent Way over that of the ordinary road. Every information can be obtained on application to

WILLIAM HOWDEN, Secretary.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country, and an extensive assortment of specimens and patterns commencing at 1s. per foot superficial, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 3, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

BUILDING ACCOUNTS, Measurements, Dilapidation Surveys, Quantities, Land Surveys, &c.—Architects, Builders, or Employers, in town or any part of the country, requiring a practical and experienced SURVEYOR, would find prompt and undeviating attention to any business of this nature, combined with a scale of moderate charges, on application to Mr. A. ANDERSON, Offices, 62, St. Martin's-lane, and Acton-hill.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with ultimate set upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped "HUBBUCK, LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

WHITE OXIDE OF ZINC AND ZINC PAINT.

(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in Oil.

Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innocuous qualities, is peculiarly applicable to first-class Decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether employed for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

Messrs. MORANT and BOYD, 91, New Bond-street, who have lately used Zinc Paint to a great extent at Chiefden (the Duke of Sutherland's), and other mansions, have specimens, and will give any information respecting it.

PRICE LIST AND TESTIMONIALS FORWARDED IN ANSWER TO LETTERS ADDRESSED TO MESSRS. CROWLEY, WHITE, AND CROWLEY, 39, KING WILLIAM-STREET, CITY, LONDON.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT Warminster

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase of weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 69, King William-street City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company's Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 28, and 56 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isle of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O. and T. can deliver by their own boats, or by rail to any part of the kingdom.

Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in colour and quality.

Office, Warwick

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland-yard, and at the Works.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement, does not vegetate, turn green, or crack, combined with which, its eminently hydraulic properties stamp that once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and other, to the quality of their Roman Portland, and Bath Cement, which they are manufacturing at their works adjacent to the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to agents in town and country.

Dated St. Mary-street, Bridgewater, July 26th, 1834.

FRONTS of HOUSES.—GREENE and CO.'s PORTLAND CEMENT WASH, equal to oil paint for durability in casks, 1 cwt for 10s.

DAMP WALLS.—GREENE and CO.'S OXIDE SOLUTION PAINT, for damp, salt, or spotted walls; price 12s. per gallon, which will cover 200 square feet.—Prepared only by GREENE and CO Original Inventors, 23, Norfolk-street, Islington.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland yard, Westminster Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Bethelere-road, Lambeth.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER for internal use. These well-known hard stucco—dry quickly, and can be painted upon within a few days—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian and other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made Manufacturers also, and Dealers in Flint, Pure White Mastic, Hair Lias Lime, Laths, Slates, and all Style Slate Fireworks, Grindstones, Cement Trimmings, ditto Vases, Hodging, &c Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cement with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. An outset of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS Millbank Street, Westminster, who prepare one quality only of Portland Cement.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, and Seel street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above lime is ground renders it clearer for concrete or mortar than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving it clear of core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Traps.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality

SEYSSEL, FAVERSHAM, and STOCKS, and other BRICKS.

CHARLES RICHARDSON 6 South Wharf Paddington

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1834.—MESSRS. HARRISON beg to inform their friends he has taken another Wharf adjoining, specially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, and that in future all orders can be promptly attended to. Orders for exportation alongside river vessels, or railway stations should be given a few days before required.

GREY STONE LIME WHARFS, 2 UPPER GROSVENOR-STREET Back-Yards (Surrey side), 7, SOUTH WHARF ROAD Paddington

WILLIAM LEVERS begs to inform the trade he is in a position to supply the best GREY STONE LIME, in any quantities from these above wharfs, or next to the street from the kilns Woundsand-shallows, Stone Lime Works on the Medway, near Rochester, March 31, 1834.

BRICKS.—Best Kent Grey Stocks, delivered alongside in the River, also Patent Perforated and Soft White and Red Facings.—Apply to W. ALLAWAY, 4, Catherine-court, Tower-hill.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at R. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS.—Excellent hard-burnt Red Bricks, of deep colour and perfect shape, delivered into the carts or railway trucks, at 25s. per thousand, cash; also, Malms, Stocks, Seconds, and Place, at low prices. The railway carriage to London or Blackwall, 4s. 7d. per thousand May be viewed on the premises, adjoining the Goods' Station of the Eastern Counties Railway, at Brentwood, Essex.—For further particulars, address to Mr. LEVETT, Brentwood Brick and Tile Works, Brentwood, Essex Agricultural Draining Tiles.

POTTERY, BRICK, and TILE YARD, near RYDE, ISLE of WIGHT.—TO BE SOLD, by Private Contract, near the improving town of Ryde, a FREEHOLD YARD of the above description, abounding in clays of various qualities, sand, &c. comprising about six acres of land, an excellent dwelling-house, extensive and substantial sheds steam engine, and patent machinery. In connection with the above is offered for Sale the remainder of a Lease ninety-six years unexpired) of a Farm of about 60 acres of land, affording great advantages if held in conjunction with the Pottery Part of the purchase money might remain on mortgage; or in the case of a builder, arrangements might be made to otherwise advantageous to the purchaser.—Apply to EDWARD WELLINGTON, Esq. 3, Red Lion-square, London; or to HENRY HEAM, Esq. Solicitor, Newport, Isle of Wight.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey stocks, 25s. per thousand; halves and halves, 20s.; rough stocks, 23s.; place, 16s.—Terms, cash on delivery.—Apply to Mr G. SMEED, Sittingbourne, Kent.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newington-crescent, Newington butts, will, from MONDAY, the 28th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 3, 1834.

BRICK-MAKING EXTRAORDINARY!! BY OATES AND INGRAM'S PATENT MACHINE TO CAPITALISTS AND BRICKMAKERS.

Messrs OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen (by order only in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

The great advantages possessed by this machine over all others are, no temper ng is required.

The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently dense to be laid up in mortar before leaving the machine which is entirely self-acting, consequently requiring only the labour of feeding and carrying off.

Applications for the view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, T. WELLS INGRAM, Engineer, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

BRICKS.—Yellow Malm Cutters, Seconds, Paviors, and Pickings of a very superior quality and colour. Address Mr. WM. WEBB, Brick-fields, Stoke Newington.

TO BRICKMAKERS and OTHERS requiring Mills for Washing.—To BE DISPOSED OF by PRIVATE CONTRACT, three capital 2 horse WASH MILLS, two with pumps, tools, &c. to lift water from wells of 60 feet deep. To be seen and prices obtained at JOHN E. LEE'S Brickfields, Lewisham, Kent.

CAPITAL BRICK EARTH, within three miles of Town, TO BE LET, about 4 acres at a royalty of 3s per thousand Stabling, foreman's cottage, &c. &c. on the ground.—Apply to Mr. C BROWN, Westcroft-place, Hammersmith.

BRICK-MAKING MACHINES.—TO CONTRACTORS, BRICK AND TILE MAKERS, AND EXPORTERS

AYLAS WORKS.

CLAYTON'S PATENTS, patronized by H.R.H. Prince Albert.

CLAYTON'S PATENT BRICK-MAKING MACHINES offer a most important and profitable investment

CLAYTON'S PATENT BRICK MACHINE (of which there are now upwards of 60 in use) works by one horse by steam or water power, and completes the whole process of preparing the clay and moulding the bricks at one time. Awarded the prize medal at the Great Exhibition at Amsterdam, June, 1834.

CLAYTON'S PATENT CLAY SCREENS, for cleansing clay from stones, roots, &c.

CLAYTON'S PATENT TILE, PIPE, and HOLLOW BRICK MACHINES, of various sizes and construction.

CLAYTON'S PATENT BRICK or TILE-PRESSING or MOULDING MACHINES.

CLAYTON'S PATENT DIES, for the manufacture of socketing sewerage pipes

CLAYTON'S PUGGING MILLS, of various sizes and construction for tile clay, brick earth, mortar, &c

And every article connected with the brick, tile, and pottery trade.

The above machines may be inspected, and illustrated lists obtained, at the Manufactory, Atlas Works, Upper Park-place, Dorset-square, London.

TESTIMONIAL.

"Hasbingden, near Manchester, Dec 2, 1834.

"Sir, Several kilns of bricks made by your machines have been burnt, and I have great pleasure in informing you that they are very good, can be trusted. They are in all respects superior to hand made bricks and command a much better price. Your machines are simple and efficient implements. I have sent you a few bricks for a sample, which I hope you have received.—I remain, yours very truly,

"Mr Clayton, London." "J. RAWSTHORNE."

O. McCARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast, screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks dry rubbish, delivered per barge, in any quantity, alongside the Thames.

FREEHOLD LAND.—To Builders or Parties wishing to Build Suburban Residences.

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—
Forest-hill, Croydon Railway.
St. Margaret's, near Richmond, South-western Railway.
Oatlands Grange, Weybridge, Surrey, ditto.
Tottenham-green, Eastern Counties Railway.
Putney, South Western Railway.
Rectory Estate, Ealing, Great Western Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
Wood-green, Green-lanes, Hornsey, Great Northern Railway.
Old Ford, Stratford, Eastern Counties Railway,
Each of the above estates offers its own peculiar advantages Plots of land of any size, or for any class of houses, to the extent of One acre, can be obtained. On the two first estates, large pleasure-grounds are allotted to the erection of mansions of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase money may remain at an annual charge (for about ten years) less in amount than the ground-rent of the same under the usual system. In addition, therefore, to the amount to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building leases. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

CEMETERY LAND for SALE.—Sewers Office, Guildhall, March 13th, 1855.—The Commissioners of Sewers of the City of London, acting as the Burial Board for that city, have about 100 acres of valuable FREEHOLD LAND, which they are desirous to DISPOSE OF, for the formation of one or more cemeteries, such being peculiarly adapted for such purposes. The land is situate at Little Ilford, and abuts upon the Eastern Counties Railway, which, by arrangement, may run direct into it. It is also directly accessible by the high road from London and from Wanstead, and is about a quarter of a mile west of Ilford. The cemetery for the City of London is formed on the adjoining portion of the estate. The land tax is redeemed. Plans of the property may be inspected at this Office; or at the Office of the engineer, Mr. HAYWOOD, 14, Old Jewry Chambers. The Commissioners will receive proposals for the said land, or any portion thereof, on MONDAY, APRIL 30th, at ONE o'clock. Such proposals must be sent sealed and endorsed "Tenders for Land at Ilford," to the undersigned, at this Office, before TWELVE o'clock on that day. The Commissioners do not bind themselves to accept any of the proposals unless deemed eligible.
JOSEPH PAW, Principal Clerk.

TO BE SOLD, within a few minutes' walk of the Kilburn Station, on the North-western Railway, and immediately adjacent to the intended line of the Hampstead Junction Railway, about EIGHTEEN ACRES of COPYHOLD LAND, having a frontage next West-end-lane 'of more than 800 feet. The estate, which is beautifully situated, is at present let to a yearly tenant, and immediate possession may be had. The soil is capable of being made into bricks, and a specimen of the earth may be seen at the Office of Mr. POWNALL, 37, Bloomsbury-square, where lithograph ed plans and further particulars may be obtained; or of R. B. ARMSTRONG, Esq. 8, Staple-inn.

WEYBRIDGE, SURREY, and FOREST-HILL, SYDENHAM.—Several PLOTS of FREEHOLD BUILDING LAND, close to these railway stations, TO BE SOLD, subject to a small chief rent, instead of purchase-money, for private villas. Also, a Plot for an Inn. Moderate advances made.—For further particulars, apply to Mr A. C. HOOK, Land-agent, 134, Great George-street, Westminster.

WALTHAMSTOW.—FREEHOLD LAND for SALE by Private Contract, about 15 acres, situate at Chapel-end, Walthamstow, Essex, with considerable frontage for building purposes, upon the road leading to Woodford and Chingford. Will be sold in one or more plots. A convenient cottage with stabling, &c. is erected upon the estate One-half the purchase money may remain on mortgage, if required. The land-tax is redeemed.—Apply to Mr. LILLEY, Land Surveyor and Estate Agent Walthamstow.

BUILDING GROUND WANTED, for four or six-roomed Houses.—For particulars apply by letter to A. B Trimmer's post-office, Camden New Town.

FREEHOLD LAND.—WANTED to PURCHASE, a PLOT of FREEHOLD LAND, containing two or three acres, in the neighbourhood of the Lea-bridge Road, Leyton, Walthamstow, Woodford, or Wanstead.—Address full particulars to Mr. JOHN KELDAY, Jun. Architect, 76, Coleman-Street, City.

LAND in the FINCHLEY NEW-ROAD TO BE LET, on building lease. This beautiful plot of ground has a frontage of 400 feet, and a depth of 300 feet. It is situated in the most pleasant road in the environs of London, elevated so as to command one of the finest prospects in Middlesex, yet comfortably sheltered from the east by Hampstead-hill, ¾ miles from the Swiss Cottage.—For particulars, apply to R. L. ROUMIEU, Esq. 10, Lancaster-place, Strand.

TO BUILDERS and OTHERS requiring roomy premises. TO BE LET, a valuable and useful piece of GROUND, good HOUSE thereon, near the City.—Apply to the freeholder, S. ROBERTS, 65, St. Swithin's.

WANTED to PURCHASE, a PLOT of FREEHOLD LAND in Westminster, or within a mile thereof, to be not less in size than 300 feet by 150 feet. Waterside premises preferred.—Particulars of locality and price to be sent to Mr. R. B. ARNTZ, Surveyor, 4, Cannon-row, Westminster.

LAND TO BE LET for Building Purposes (about three acres), on East-hill, Wandsworth, within five minutes' walk of the Wandsworth Railway Station, and ten from the Clapham Station. A portion of the necessary funds will be advanced to eligible parties if required.—A plan may be seen, and particulars obtained of Messrs. H. and F. CADOGAN, Surveyors, Picket-place, Temple-bar.

FACTORIES.—Several eligible Plots of LAND adjacent to River Wandle, at Wandsworth, suitable for the erection of Factories, &c. TO BE LET, on Lease, for 99 years.—Apply to Mr. DANIEL HEATH GARRATT, Wandsworth, or Mr. GEORGE LOW, Architect, Church-court, Clement's-lane, City.

TO CARPENTERS and BUILDERS.—TO BE LET, at Loughton, Essex, a good HOUSE, with extensive outbuildings, garden, orchard, and about four acres of land; rent, 45*l.* per annum; well adapted for the above trade, there being no good carpenter in the neighbourhood. Railway to be completed in six months. Apply to Mr. C. W. SHEERES, 14, Upper Barnsbury-street, Islington; or Mr. SHEERES, Loughton, Essex.

CAMDEN TOWN CEMETERY BUILDING ESTATE.—TO BE LET on Building Leases for ninety-nine years, very eligible SITES upon the above estate, having good frontages into Camden-street, Pratt-street, and Bayham street. There is a great demand for houses and shops of the third rate in this locality, which is enhanced by its near proximity to the North Western and North London railway stations, and the Hampstead road. Plans may be seen, and particulars obtained by application to H. E. KENDALL, Esq. Architect, 17, Suffolk-street, Pall-mall East; or to JOHN DANGERFIELD, Esq. Solicitor, 36, Craven-street, Charing-cross.

TO LET, or SELL, an eligible corner Plot of FREEHOLD GROUND for Ten Houses, in the vicinity of Victoria-park.—Apply to C. H. B. 18, Cannon-street-road, St. George's East.

OXFORD.—BUILDING GROUND at Park-town, TO BE LET, on long building leases, at moderate ground-rents; several plots. This is worthy the attention of respectable builders, to whom, if required, advances will be made.—Particulars and plans of Mr. THOMAS WYATT, Architect, 2, Maddox-street, Regent-street.

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THE Nobility, Clergy, and Gentry, are respectfully informed, that the BUSINESS of the late ROBERT MAWER, Carver in Stone and Wood, is still carried on by his Widow and Son, under the superintendence of Mr. INGLE, Nephew to her late husband, who was in his employ for nearly twelve years.—Orders received and executed. No. 7, Oxford-place, Leeds, where a number of experienced Workmen are constantly employed.

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April 5, 1855. W. E. WHITTINGHAM, Secretary.

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SCAGLIOLA, done on an improved principle. I refer to the Gothic Arch, by D. DOLON, in the Great Exhibition of 1851, in Hyde-park, which gained the only prize medal awarded for the manufacture of the above work in the British department. Architects and builders can be supplied with columns, &c. at less than half the usual cost. Specimens to be seen at 192, Drury-lane, two doors from Holborn. More brilliant than anything ever yet offered to the public.

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HENRY BLAND, Clerk to the Board.

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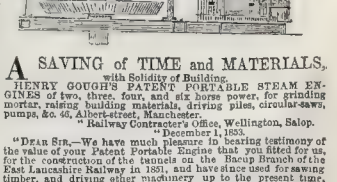

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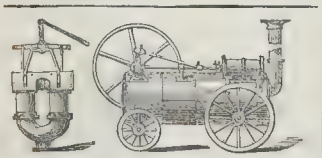

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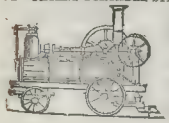

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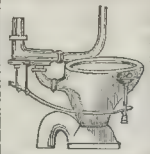

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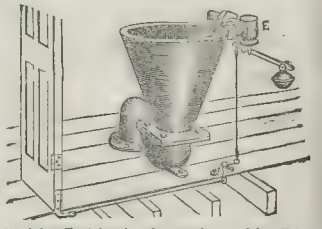

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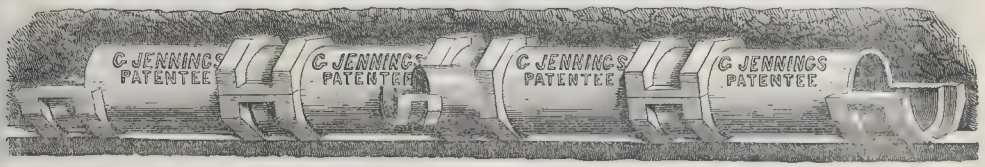

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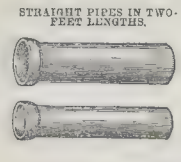

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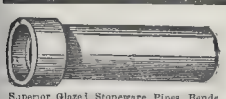
HALF-SOCKET PIPES, in 3 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danvers Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Brydges-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.



Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

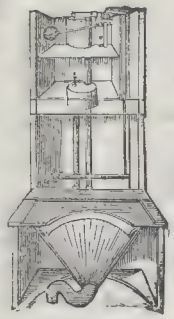
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

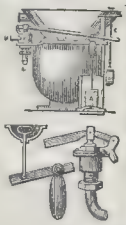
NEAR POOLE, DORSET

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.



UNDERHAY'S PATENT REGULATOR CLOSETS, for economy of water in their supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on the principle, may be seen at the Works. They are very cheap, the efficiency guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stoneware are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

Manufactured by
CHARLES BOTTEN and SON,
Brass Founders, Crawford passage,
Clerkenwell, London.

SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

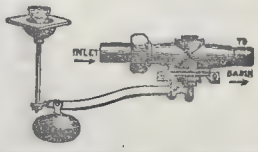
W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that its insures perfect uniformity in form and size, both of pipe and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Rosher and Co.'s Wharfs: Kingsland, Blackfriars, and Millbank. Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—C. Richardson's, South Wharf, Paddington.—G. Erith's, Cambridge Heath Wharf, Hackney. Millwall and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

BURSTING of PIPES by FROST.



This accident is prevented by the use of LAMBERT'S PATENT LEVER VALVE-COCKS, which act as safety-valves.

The lever is weighted, to resist the pressure of the column of water upon the valve, but it is not weighted sufficiently to resist the powerful expansion of water caused by the frost, which lifts the lever, and thereby prevents injury both to valve and pipe. When reaction takes place, the lever and weight resume their original position.

Many thousands of these Valve-cocks are now in use under pressures of from 3 to 300 feet, with uniform success.

Price of ½ inch bore, with sunk plate and handle, 10s. 6d. each.

THOS. LAMBERT AND SON,
Patentees and Sole Manufacturers, Short-street, New-cut, Lambeth.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1855.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

SALES BY AUCTION.

IMPORTANT SALE of MARBLE and ITALIAN SCULPTURED MARBLE FIGURES. – To Architects, Statuaries, Masons, and Others.

MESSRS. EVERSFIELD and HORNE have received instructions from the proprietors to SELL by AUCTION, on the PREMISES, Western Wharf, Abingdon-street, Westminster, on WEDNESDAY, APRIL 11, at TWELVE PRECISELY, a very valuable consignment of MARBLE, consisting of about 150 blocks of most superior Statuary, Siphiani, and Dove marbles, in various dimensions; also a number of finely-executed Italian sculptured marble figures. Approved bills at four months will be taken in payment. May be viewed two days previous, and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, or Coal Exchange.

Metropolis Improvements: Spitalfields Extension.—Seventeenth Sale. Materials of Eighteen Houses and the Remainder of a Blue Factory.

MESSRS. EVERSFIELD and HORNE have received instructions from the Commissioners of her Majesty's Public Works and Buildings to SELL by AUCTION, on the PREMISES, on WEDNESDAY, APRIL 11, at TWELVE, the MATERIALS and FITTINGS, of the usual description, of Eighteen Houses, being six houses in Marshall's buildings four in St. John's-place, four in St. James's-place, and four in St. Leonard's-place; and the remaining portion of a Blue Factory, Spitalfields. May be viewed one day previous, and catalogues had on the Premises; at the Office of Messrs. Peacock, Penderel, and Peacock, Esqs., 7, Whitehall-yard; of Mr. Brown, Clerk of the Works, corner of Fashion-street, Spitalfields; and of the Auctioneers, 40, Parliament, Westminster, or Coal Exchange.

BANKSIDE.—To Builders, Coal Merchants, Brick and Lime Merchants, Engineers, Chemical Works, Gas Companies, and others.

MESSRS. EVERSFIELD and HORNE are instructed to SELL by AUCTION, on the PREMISES, Honduras Wharf, Bankside, Southwark, on TUESDAY, APRIL 24, and following day, at TEN for ELEVEN each day, the valuable PLANT, UTENSILS, and STOCK in TRADE of Mr. Wm. WARD, who is retiring from this branch of the business, comprising seven very excellent coal-barges, from 35 to 63 tons; several powerful cart-horses, well-built coal-waggons, vans, and carts; several nearly new brick-carts; a very strongly-built tow-waggon, on springs; a superior wine merchant's cart, by Braby and others, of a light construction; complete sets of cart-harness, coal sacks, wharf, and waggon, weighing machines and weights, planks and ladders, and the usual trade implements. The stock-in-trade consists of a well-selected assortment of coals of the best manufacture in Newcastle, Stourbridge, &c.; also several thousand of excellent sound stock bricks, pantiles, and other goods, for the building trade, also with a large quantity of best made real Dutch clinkers. At the same time will be offered the remaining Term of the beneficial lease of the valuable Wharf and Premises, sufficient of which is let off to cover the whole rent, leaving a large extent of river frontage, with counting-houses, lobby, sheds, warehouses, extensive open and covered stowage, stabling, cart-sheds, a lofty building suitable for the erection of machinery, and other accommodation, which might be still further let off, or would be equal to the requirements of an extensive trade. Further particulars may be had, by applying to Messrs. Eversfield and Horne, 40, Parliament-street, and Coal-Exchange, who are authorized to treat by private contract for an investment of the Premises, or for the whole with the Stock and Business.

ABINGDON STREET, WESTMINSTER.—Sculpture Marbled Figures for an Italy.

MESSRS EVERSFIELD and HORNE will SELL by AUCTION at WESTERN WHARF, Abingdon-street, Westminster, on TUESDAY, APRIL 10th, after the Sale of the Marble Blocks, thirteen Figures and a Group in Statuary, recently imported.—May be viewed and Catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, or Coal Exchange.

WIMBLEDON.—TO BUILDERS AND OTHERS.—Valuable Building Materials, Horses, Carts, &c.

MESSRS. EVERSFIELD and HORNE are instructed by the Assignees of Crouch (Brothers) to SELL by AUCTION on the PREMISES, Wimbledon Common and Town, on TUESDAY, APRIL 17, 1855, at TWELVE for ONE, a large quantity of new MATERIALS, prepared joiners' work, and flooring boards, about five loads of bricks, several thousand stock-bricks, York landings, new laths, scaffolding, three useful horse, built brs' carts harness, and other effects. May be viewed one day prior to, and Catalogues had on the Premises; also of Messrs. Rawlings, Peake, and Hoyt., Solicitors, Old Jewry Chambers; and of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

TO TIMBER MERCHANTS, CABINETMAKERS, PIANOFORTE MANUFACTURERS, COACH BUILDERS, &c

MESSRS. C. LEARY and CO. have been favoured with instructions from Mr. Henry Bateman, of 25 Bun-street, Bishopsgate-street, about to relinquish the retail portion of his business, to offer by PUBLIC AUCTION, on the PREMISES, on MONDAY and TUESDAY, the 23rd and 24th APRIL, the second lots of his unequalled and most valuable STOCK of WOOD, comprising prime dry mains, &, in every thickness, Spanish and Honduras mahogany, in logs, planks, boards, and veneers, dry white pine boards, veneers, and whitewood in planks and veneers, dry pine planks and board, &c. &c.—To be viewed two days' previous to, and on the mornings of sale. Catalogues to be had on the Premises, at the Offices of the Auctioneers, 75, Old Broad-street, City.

TO BUILDERS.—Extensive Sale of Chimney Pieces, including a large number of low priced Vein and Siculian

MR. GAIRDNER will SELL by AUCTION, on the PREMISES, No. 5, Francis-street, Tottenham-court-road, on WEDNESDAY, APRIL 11, at TWELVE, 100 CHIMNEY-PIECES, in Vein, Siculian, Statuary, Black and Gold, and various other Marbles, adapted for every description of House. The property is worthy the attention of Builders and Gentlemen, the sale being to cover several advances.—Catalogues had free by post on application at the Office of Mr. GAIRDNER, 150, Tottenham-court-road.

CAPITAL TIMBER.—Sandwell Estate, West Bromwich, near Birmingham. TO BE SOLD by AUCTION, by

E. and C. ROBINS, on MONDAY, the 16th day of APRIL instant, at FOUR o'clock in the afternoon, at the DARTMOUTH HOTEL, WEST BROMWICH (subject to conditions to be then produced), upwards of 1,200 sound TIMBER TREES, principally oak, but including ash, and several poplars, elms, alders, &c., many of them of large dimensions, growing and being on the Sandwell Estate and at Friar-park, on lands in the occupation of Mrs. Cotterell, William Harwood, Thomas Bloomer, Hoods Hinchley, Hughes, Charles Thornton, William Hadley, and others. The situation, relatively to Birmingham and the manufacturing districts, renders this timber worthy the attention of timber merchants and consumers. The roads, canals, and railways, facilitate the removal in all directions. The timber is marked and numbered, and Mr. Mousley, of Manwoods, will appoint a person to show it.—Particulars may be obtained from Frederick Thorne, Esq. Great George street, Westminster; Mr. Mousley, at Manwoods; of E. and C. Robins, Surveyors and Auctioneers, New-street, Birmingham.

TO BUILDERS, CONTRACTORS, and OTHERS.—Victoria-street, Westminster.

MR. OUGHTON will SELL by AUCTION, on WEDNESDAY and following day, APRIL 11 and 12, 1855, at ELEVEN for TWELVE o'clock each day, by order of the assignees, the whole of the BUILDING PLANT; comprising an extensive range of builder's workshops, with offices and fittings; about 1,000 scaffold-poles, 1,500 ditto boards, 2,500 putlogs, 1,200 scaffold cords, ninety round ladders, twenty-four earth barrows, an excellent crab-engine, with blocks and falls complete, a powerful gin machine complete, twenty carpenters' benches, a quantity of pottery, and numerous useful items appertaining to the trade. On view two days previous to the Sale.—Catalogues may be had on the plant; of Messrs. Dryson and Flavel, Solicitors, 21, Bedford-row, Bloomsbury; or at the Auctioneer's Office, Fulham-road, Chelsea.

SALES BY AUCTION.

Valuable Oak Timber, Burstow, Surrey.

MESSRS. NORTON, HOGGART, and THRIST have received instructions to offer for SALE, at the MART, on MONDAY, APRIL 9 at TWELVE, in convenient lots, 1,300 capital OAK TIMBER TREES, with top, lop, and bark, and a small quantity of elm and ash, now standing and growing upon the Burstow Estate, in the county of Surrey. The quality of the timber and bark is excellent, and a considerable portion is of good dimensions. The estate is 4 miles from the Three Bridges and Horley, 6 from the Godstone and 8 from the Reigate stations. The several lots are marked in white paint, and may be viewed on application to Mr Brown, Red Hall Farm, Burstow, and of whom card mes may be had. Catalogues may also be had at the White Hart, Reigate, Railway Hotel, Reigate Station; White Hart, Godstone; the Fox, Three Bridges; at the Mart; and of Messrs. Norton, Hoggart, and Thrist, 62, Old Broad-street, Royal Exchange.

TO BRICKMAKERS, BUILDERS, and OTHERS.—ILFORD, ESSEX.—Valuable Stock in Trade, of 2,500,000 capital Bricks, Premises and Buildings, Plant, Implements and Instruments &c.

MESSRS. NORTON, HOGGART, and THRIST have received instructions to OFFER for SALE, on the PREMISES, the Caul Roser Brickfield, about one mile from the Ilford Station, on THURSDAY, 26th APRIL, at ELEVEN, in lots, the whole of the valuable STOCK in TRADE and ERECTIONS, comprising the extensive brick and timber erections of two workyards, each 300 feet in length and 60 feet in width, with brick flues and chimney shafts, foreman's house and sheds, about 2,500,000 capital bricks, a nearly new 15-horse power steam-engine, by Daglish, with patent governor, 8-inch cylinder, 20-feet iron boiler, new iron castings, rollers and machinery for grinding clay, several hundred tons iron and wood pugmills, stout iron wheeling-planks, metal fire-bars, back-stands, water-shoots, about 150 tons of breeze, and a variety of tools and implements of trade May be viewed and catalogues had on the Premises; at the Red Lion, Ilford; the Cauliflower, Ilford road; Swan, Stratford; King's Head, Romford; of Messrs. Rixon and Son, Solicitors, 11, King William-street, and of Messrs. Norton, Hoggart, and Thrist, 62, Old Broad street, Royal Exchange.

TO IRON FOUNDERS, AGRICULTURAL IMPLEMENT MAKERS, AND OTHERS.—To be Sold by Auction, by

MESSRS. FULLER and HORSEY, on MONDAY, APRIL 16, 1855, at TWELVE o'clock, at the GROVE FOUNDRY, Great Guildford-street, Southwark, in lots, without reserve, by order of Mr. Jeffery, the premises being disposed of, the remaining PLANT and TOOLS of the FOUNDRY and STOCK of AGRICULTURAL IMPLEMENTS, including 50 dozen ploughshares, grounds and points, plough bodies, beams and handles, cart and waggon skids, 20 new forge backs and tew irons, patent and common cast boxes, wet, implement and break, box patterns and moulds, two powerful lathes, foot lathe, two steam engines, of six and one horse power, five tons iron blocks, solid-feet crane, wheel and pinion, 30 tons cast-iron, quantity of useful wood, one ton railing bars and baleony panels, ten large iron rangers, and other effects. To be viewed on Saturday previous and morning of sale. Catalogues may be had on the Premises, and of Messrs. Fuller and Horsey, Bulitter-street, City.

VULCAN WHARF, EARL-STREET, BLACKFRIARS.—By

MESSRS. FULLER and HORSEY, on TUESDAY, April 10, at ELEVEN, on the PREMISES as above, by direction of the Assignees.—ORE PULVERIZING MACHINES (Perkes's patent), new 10-horse power engine and boiler, improved Chilian mill, with three 8-feet iron runners, 10 ton wharf crane, 10 tons patent rivets, 2 and 13-16 inch, and other effects. The larger of the four machines is capable of crushing 5 tons per diem. The engine is shortly finished. The boiler is on the Cornish principle, and is 30 feet in length. 80 iron headsteads, two yards of bed section, 3ft and 4ft force pumps, lintons and gearing, sever 1-rods if brickwork and fire brick setting, quantity of useful machinery, and other effects.—To be viewed on Monday previous to the sale. Catalogues may be had on the Premises: and of Messrs. Fuller and Horsey, Bulitter-street, City.

THE LATE Mr. PROSSER'S LIBRARY &c.—Sale of the extensive and valuable Library of Scientific and Miscellaneous Works, Portfolios of splendid Engravings, from the old masters; Globes, Optical and Mechanical Instruments, Antique Bronzes, Mineral Porcelain, and other unique productions. To be SOLD by AUCTION, by

MESSRS. CHESSHIRE and GIBSON, on TUESDAY and WEDNESDAY, the 10th and 11th days of APRIL next, at the OLD FELLOWS HALL, Temple-street, Birmingham, by direction of the executors of the late Richard Prosser, Esq. C.E.) the valuable LIBRARY and EFFECTS, as above, comprising the splendid editions of the best author for, on mathematics, geometry, geology, astronomy, pneumatics, pneumatics, geology, mining engineering, physiology, agriculture, political and domestic economy, &c. The miscellaneous portion embraces the best productions of the first writers, with illustrated editions connected with science, topography, &c. The portfolios of engravings include upwards of 150 choice impressions of the celebrated Pompeian Roman Fresco works; Geological, railway, and other maps, specimens of tesselated inventions, a pair of valuable 36-inch globes, a large reflecting telescope, Dent's Patent Meridian Instrument, an automatic calculative, engine counter, paging machine, drawing and other instruments, two cases of ancient portrait engravings, and other valuable property. Catalogues can be obtained at the offices of the Auctioneers, 11, Bennett's-hill, Birmingham.—The Sale will commence punctually each morning at ELEVEN o'clock

NOTICE TO BUILDERS.—Important Sale of low-priced Marble Chimney-pieces, well manufactured; also a few of rare statuary marble for drawing-rooms.

MESSRS. ROBINS are instructed to SELL by AUCTION, at their ROOMS, in Covent-garden, on THURSDAY, APRIL 12, at TWELVE, TWENTY-FOUR ITALIAN MARBLE CHIMNEY PIECES, of the first manufacture, of low price, calculated for small-sized houses; also some of a more expensive character, for dining and other rooms, suitable for drawing and dining rooms. The attention of builders is especially invited to this sale. On view two days prior, and catalogues had in Covent-garden

HIGHGATE.—Second Notice of Re-sale of Bricks. 430,000 capital Stock and other Bricks in duplicate, of clearance.

MR. LEREW will SELL by AUCTION, on the PREMISES, the BRICKFIELD on the west side of the Archway-road, Upper Holloway, on WEDNESDAY, APRIL 11, at TWELVE for THREE precisely, in lots, the BRICKS, comprising Stock, Place, and Grisel's. May be viewed the day prior and morning of sale, and catalogues had on the premises, and of the Auctioneer, 2, Cardington street, Hampstead-road.

TO BUILDERS, CARPENTERS, PIANOFORTE MAKERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, 42, Union-street, Somers' town, on THURSDAY, APRIL 12th, and following day, at ELEVEN for TWELVE each day, about 3,000 yellow and white deals and battens, 1,000 white deals, 50 pine planks, 200 squared prepared flooring, 1,000 feet quartering, seventy four-panel doors, 15,000 feet wide pine board, mahogany, birch, ash, dry cut stuff, scaffolding, put-logs, ladders, barrows, marble slabs, stone chimney-pieces, quantity of builders' ironmongery, truck, and other sundry stock appertaining to the trade. Also the offices, Cardington street, Hampstead-road, near the Euston station.

SPRINGFIELD.—TO BE SOLD by AUCTION, by

MR. EDWARD BAKER, at the BRICK-YARD, Springfield, Essex, on THURSDAY, APRIL 12th, 1855, at TEN o'clock, by direction of the administrator of Mr. George Wright, deceased, 12,000 white and red kiln-burnt building BRICKS, of excellent quality; 5,000 drain-pipes, pantiles, ridge, gutter, and plain tiles, pipe-making machine, hay, straw, two harkneys, all the house and furniture, pictures, brewing utensils, and other effects.—Catalogues to be had at the Place of Sale, Bell, Chelmsford; and of the Auctioneer, Hatfield Peverel.

SALES BY AUCTION.

Large Timber 24 miles from London, by AUCTION, by

MR. RUMBALL, at the BULL, Redbourne (between St. Albans, Herts, and Dunstable, Beds), on WEDNESDAY, APRIL 11, at ONE for TWO, by order of the Trustees; comprising 200 standing OAKS, 200 felled elms, and 50 felled ash; many of the trees containing from 50 to 100 feet each, and all of it large and fine.—Catalogues of Mr. Rumball, Land Agent, &c. St. Albans, Herts.

Second and last portion of the Estates and Ground-rents of Mr. srs. Davis and Eaton, bankrupts, at Kingston-upon-Thames, Surbiton, and Ewell, all in Surrey.

MR. W. BUTCHER will SELL by AUCTION, at the GRIFFIN HOTEL, Kingston-upon-Thames, on THURSDAY, 19th APRIL, 1855, at TWELVE o'clock, in lots, by instructions from the Assignees, and with the consent of the Mortgagees, the following valuable PROPERTIES; at Surbiton, the ground-rents upon Mr. Vachell's residence and brewery, with other houses, a plot of eligible building ground adjoining; also, four freehold houses in Richmond-grove, being Nos. 1, 2, 3, and 4; and four genteel villas in Paragon-grove, Nos. 3, 4, 7, and 8. At Kingston, four commanding and spacious villas in Anglesea road, Raphael park, only partly finished, but the dispositions of the rooms is extremely well planned, the Union Hotel admirably placed between the town and railway station; also, three unfinished houses adjoining, which may be used as private residences or business premises. At Ewell, two detached villas, admirably arranged, and opposite the railway station; also, the Adelaide Inn, with about 35 acres of land, upon the main turnpike-road from London to Portsmouth. Detailed particulars may be obtained fourteen days previous to the Sale, upon application to G. J. Graham, Esq. Official Assignee, 28, Coleman-street, London; of Messrs. Blake and Sons, Solicitors, 4679, Blackfriars-road; of Messrs. Jay and Pilgrim, Solicitors, 14, Bucklersbury, London; and also at their Offices at Norwich; at the Griffin and Sun Hotels, Kingston-on-Thames; at the Southampton Arms Hotel, New Kingston; at the Artichoke, Newington causeway; at Garraway's Coffee-house, Change-alley; and of Mr. W. Butcher, Estate Agent, Surbiton.

CROYDON, SURREY.—To Builders, Contractors, and Others.

ROBERT W. FULLER has received instructions to SELL by AUCTION, at the THREE TUNS INN, CROYDON, on SATURDAY, APRIL 21st, at TWO for THREE o'clock, a STOCK of DRY SEASONED TIMBER, comprising about 6,000 feet of yellow and white pine boards, of various thicknesses, 3,000 feet of white and yellow ditto, 3,000 feet feather-edge weather boarding, 4,000 feet useful quartering, 18 squares prepared white and yellow deals and battens, 500 sash pulleys, pulleys, arms railing, &c.—May be viewed two days previous to the Sale; and descriptive catalogues obtained at Garraway's Coffee House, Change-alley; the place of Sale; and of Messrs. W. Pullen, Auctioneer, Surveyor, and Estate Agent, 14, High street, Croydon, Surrey.

Materials of two large Houses, Nos. 1 and 2, Queen's Head-lane, Islington, by

MR. RICHARDS, on the PREMISES, on MONDAY, APRIL 16th, at TWELVE o'clock, in lots, to be taken down by the purchasers, without reserve. Comprising about 8,000 stock-bricks, sound boarded and timber floors, timber in roofs, sashes, and frames, panel-doors, cupboards, partitioning, flights of stairs, copper, stoves, and other fixtures, quantity of lead, in pumps, gutters, &c. 10,000 pan and plain tiles, York coping, paving cells, and a variety of materials, also 100 new pine boards.—May be viewed 1st and Saturday preceding and Morning of Sale Catalogues obtained on the Premises, and the Auctioneer, Tottenham.

TO STOVE GRATE MANUFACTURERS, FOUNDERS, ENGINEERS, BUILDERS, SMITHS, and OTHERS.—TO BE DISPOSED OF, spacious MANUFACTURING PREMISES, most desirably situate in a central part of London, and in a leading thoroughfare. The freehold may be purchased if required, or the rent will be reduced to about £200. For further particulars apply to Messrs. FULLER and HORSEY, Bulitter-street, City.

TO ARCHITECTS AND SURVEYORS.

TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place.—For particulars, address, S. S. 9, Studley-terrace, Larkhall-lane, Stockwell, Surrey.

IRONMONGERY BUSINESS.—TO BE DISPOSED OF, at Worcester, an excellent and well-established IRONMONGERY BUSINESS.—Applications to be addressed to WILLIAM SPARKES, No. 50, High-street, Worcester.

TO BE LET, and may be entered immediately, a good WINDOW-GLASS CUTTER'S BUSINESS. No Premium required.—Apply at 15, Princes-row, Pimlico, or of the present proprietor retiring.—Apply on the Premises, 3, Caledonian-road, King's Cross.

TO CARPENTERS, BOX AND PACKING CASE MAKERS.

TO LET, with Immediate Possession, an OLD-ESTABLISHED BUSINESS, in a commanding part of the City, in consequence of the proprietor relinquishing the Business. Extensive Premises and Light Shops.—For particulars, apply first by letter, post-paid, A. B. care of Mr. Harding, No. 5 Aldermanbury-lane, Basinghall.

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.

Enrolled as the "Borough of Lambeth Benefit Building Society."

PRESIDENT.

The Hon. John Locke King, M.P.

TRUSTEES.

George Singer, Esq. James Smee, Esq. S. Etches, Esq.

Offices, 31, High-street, Lambeth.

Open from Ten a.m. till Seven p.m.

Shares, 30l

Entrance fee, 1s. Payments, 4s. monthly.

Allotments distributed by rotation, ballot, and to completed Shares in the order of their completion.

No Fines on unfinished Shares. No back payments.

This Society within four years has divided five estates satisfying 1,414 Shares out of 3,766. The value, as divided amongst members, be 67,750l.

A Bonus of 5 per cent. in addition to 5 per cent. interest, in all to per cent. was declared upon all unadvanced Shares at the annual meeting of 30th January last.

WM. BANKS, Secretary.

211, High-street, March 1, 1855.

NATIONAL FREEHOLD LAND SOCIETY, 14, Moorgate-street, London.

The Estates at STRATFORD, South Essex; at MILSTONE (B), West Kent; and WEST COWES (C), South Hants, will be READY for SALE on the 9th of APRIL next. Members entitled to priority of choice will have the option of choosing in their order from the estates on the 9th, 14th, and 18th of APRIL next. Shares at any late left after that time they may be taken by any person paying the price, or assuming a purchase; the right to borrow the money; and if the whole should not be sold during the first week, the remaining lots may be taken by any person on payment of the Purchase-money and Allotment-rate, with interest on the unpaid balance at 5l. per cent.

Persons having rights of their own, but wishing to obtain early choice, can do so by purchasing the right of others, and a register of rights offered for sale, with prices, is kept at the Office.

Plans, with conditions of sale, may be had on application.

March 29, 1855. W. E. WHITTINGHAM, Secretary.

London: Printed by Charles Wyman, of 13, Hunter-street, Brunswick-square, in the Parish of St George, Bloomsbury, Printer, at the Printing-office of Cox (Bros.) & Wyman, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said Charles Wyman, at the Office of "The Builder," in York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, April 7, 1855.

The Builder.

AN ILLUSTRATED JOURNAL FOR THE Architect, Engineer, Operatives & Artist.

VOL. XIII.—No. 636. APRIL 14, 1855. PRICE FOURPENCE *Stamped 6d.*

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ADVERTISEMENTS.

TO the JUSTICES of the PEACE for the County of MIDDLESEX.

MY LORDS AND GENTLEMEN,—The office of District Surveyor of the Eastern Division of the Parish of Islington being vacant, I beg most respectfully to offer myself as a candidate for the appointment

I shall have the honour to lay before you Testimonials which I trust will prove satisfactory, and obtain for me your patronage on this occasion

I have the honour to be, my Lords and Gentlemen,
Your most obedient servant,
JOHN JOHNSON.

9, John-street, Adelphi.

TO the WORSHIPFUL the MAGISTRATES for the COUNTY of MIDDLESEX.

MY LORDS AND GENTLEMEN,—The District Surveyorship of East Islington having become vacant by the decease of Mr. R. C. Carpenter, I beg most respectfully to solicit the honour of your votes and interest for the appointment.

The encouragement I received on two former occasions when I had the pleasure to lay my testimonials before you, leads me to hope that I shall be again favoured with your support.

Should I be so fortunate as to obtain the present appointment, I pledge myself to reside within the District, and to merit your approval by a faithful discharge of the duties of the office.

I have the honour to be, My Lords and Gentlemen,
Your most obedient servant,
JAMES THOMSON.

57, Devon-shire-street, Portland-place, April 18, 1855

ART-UNION of LONDON.—The ANNUAL GENERAL MEETING, to receive the Council's Report, and to distribute the amount subscribed for the purchase of Works of Art, will be held at the THEATRE ROYAL, HAYMARKET, by the kind permission of J. B. Buckstone, esq. on TUESDAY, the 24th instant, at ELEVEN for TWELVE o'clock. The Right Hon. Lord MONTEAGLE, President. The receipt for the current year will procure admission for a member and friends

GEO. GODWIN, } Hon.
444, West Strand, April. LEWIS POCOCK, } Secs.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, APRIL 30, Mr. BUNKER will read a Paper, entitled "Practical Hints on Writing a Specification."

The Class of Design will meet on APRIL 27; subject for Sketch, An Alms-chest."

ARTHUR CATES, } Hon.
Lyon's Inn-Hall, Strand. T. W GOODMAN, } Secs.

THE ARCHITECTURAL MUSEUM, CANON ROW, WESTMINSTER.—The COURSE of LECTURES for the Session 1855, will commence on MONDAY, MAY 7, at EIGHT o'clock, and will be continued on each alternate MONDAY, until JULY 30th inclusive. Cards for the course will be ready at the Rooms of the Museum, on and after WEDNESDAY, the 25th instant, between TEN and FOUR o'clock. Subscribers can receive their cards on application at the Museum. Tickets for the Course of Seven Lectures, 2s. 6d. Single Lectures, 6d. each.

April 19, 1855. HENRY CLUTTON, Hon. Sec.

Office of Metropolitan Buildings,
6, Adelphi-terrace, Strand, 5th April, 1855.

METROPOLITAN BUILDINGS ACT.—NOTICE.—An examination of persons desirous to obtain Certificate of qualification for the office of District Surveyor, will take place on MONDAY, the 30th day of APRIL inst. at ONE o'clock. Persons desirous to be examined must apply on or before the 26th inst. and the application must be accompanied by a preliminary statement, according to the course of examination prescribed in the rules for that purpose, copies of which may be had at this Office.

ARTHUR SEMON DS,
Registrar of Metropolitan Buildings.

COMPETITIONS.

TO ARCHITECTS.—The Council of the Borough of Cambridge is desirous of receiving PLANS for a NEW CONDUIT, to be erected in the centre of the Market Place of the said Borough (a square computed to contain an acre), at a cost not exceeding £300 (exclusive of Architect's commission). The Architect whose plans are approved of by the Council, and also by the Feoffees of the Conduit Land, to be employed at the usual Commission, provided a responsible person be found to execute the work for a sum not exceeding that above named. Plans to be sent (free of expense) to my Office, Guildhall, Cambridge, on or before WEDNESDAY, the 25th instant.

By Order C. H. COOPER, Town Clerk.

Guildhall, Cambridge, 5th April, 1855.

IPSWICH CEMETERY.—The Burial Board have selected a design bearing the motto "Justitia," provided it can be executed for the stipulated sum. They desire, however, to retain the rest of the designs in order to make a second selection in case the lowest Tender should exceed the estimate. In the meantime, if any competitor wishes to have his drawings returned, and will apply to the Town Clerk, they will be immediately forwarded.—Ipswich, April 10, 1855.

CONTRACTS.

Office of Commanding Royal Engineer in Ireland,
Dublin, 30th March, 1855

NOTICE to ENGINEERS and OTHERS.—ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive PROPOSALS for the following CONTRACTS, viz.:—

For the CONSTRUCTION and ERECTION of such WORKS as shall be necessary for the delivery of a sufficient and constant SUPPLY of WATER to the Temporary Barracks, on the Curragh of Kildare

The water is proposed to be obtained from the River Liffey, in quantity about 70,000 gallons per day, and to be in all respects fit for her Majesty's troops. It will require to be forced to a height sufficient to be delivered into iron tanks placed on the site of the barracks, extending to the Hare park, near to the Gibbet Rath, a distance of about three miles from the river, and at highest point about 150 feet above the level. The work to be done in the most substantial and workmanlike manner, and with materials of the best quality, and the contract to include the providing, fixing, and laying of all such engines, machinery, pumps, reservoirs, with filtering apparatus, main and branch pipes, stop-cocks, and all requisite buildings, iron tanks, &c. as shall be necessary for the full and complete working and constant delivery of the required supply of pure filtered water; also for the daily working, superintendence, and conservancy of the same. The iron tanks on the side of the barracks to be thirteen in number, containing 10,000 gallons each according to an established Ordnance pattern.

The Board of Ordnance will arrange all necessary treaty for private interests in land, &c. requisite for this contract, and the rental of which land the Ordnance will pay. The works, of every description, to become the property of the Ordnance, and the contractor to be bound to maintain the supply of water for a period of five years, ending 31st March, 1860, at a sum per annum to be named by him, but determinable at the option of the Board of Ordnance at any period after one year, on giving six months' notice. Persons desirous of tendering for the same will receive every information, and a plan of the ground may be seen, on application at the Office of the Commanding Royal Engineer in Ireland, Lower Castle yard, Dublin; and at the Commanding Royal Engineer's offices at Manchester and Glasgow. The whole of the works must be finished, and delivery of water ready at all the requisite stations, within sixty days after the acceptance of Tender. Proper securities, under legal bond, will be required in a sum equal to 50 per cent on the amount of tender accepted, for the due performance of the contract. Each letter of Tender to be accompanied by an estimate in detail of the means proposed to gain the supply of water, with sizes and weights of pipes, power and description of engines and pumps to be employed, with all other requisite information, which must be sealed, and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle yard, Dublin," so as to arrive on or before TWO o'clock p.m. of the 16th day of APRIL, 1855, and to be marked on the outside, "Tender for the Supply of Water at the Curragh of Kildare."

NOTICE to IRONFOUNDERS and OTHERS

ORDNANCE CONTRACT.—OFFICE OF COMMANDING ROYAL ENGINEER IN IRELAND, Dublin, 5th April, 1855

THE COMMANDING ROYAL ENGINEER IN IRELAND hereby gives Notice that he will receive proposals for the following Contract, viz.:—

For the SUPPLY of Thirteen Hundred and Eighteen CAST IRON STOVES, for Officers' and Soldiers' Rooms: Three Hundred and Thirty-Two STOVES and BOILERS, for Cooking Houses; Three Hundred and Twenty-Eight CAST IRON TRUCKS, for Privy Soil; Eighteen Hundred Yards lineal of IRON RAILS, for do.; and Eleven HOT PLATES, for Officers' Mess Kitchens, at the Curragh of Kildare, in the Dublin District

Persons desirous of tendering for the same will receive every information on application at the Office of the Commanding Royal Engineer in Ireland, Lower Castle Yard, Dublin; and at the Commanding Royal Engineers' Offices at Manchester and Glasgow, where they may see the drawings, and obtain specifications with the terms of contract.

The whole of the articles to be supplied within forty days after the acceptance of tender.

The letters of tender to be sealed and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle Yard, Dublin," so as to arrive on or before Two o'clock p.m. of the 20th day of April, 1855, and to be marked on the outside, "Tender for Iron Work, at the Curragh of Kildare."

Parties have the option of tendering for any or all the above items, but the tender must embrace the total number of articles in each item.

TENDER for SEWER, Cassland Estate, South Hackney.—PLANS (and SPECIFICATIONS may be inspected at the Estate Office, Cassland-road, from TEN to FIVE. Tenders will be opened on 16th instant, at THREE o'clock. The lowest Tender will not necessarily be accepted.

CONTRACTS.

TO ROAD CONTRACTORS AND OTHERS.

THE COMMITTEE of the COVENTRY FREEHOLD LAND SOCIETY are prepared to receive TENDERS for the MAKING of about 11 yards of STREETS, with drains, culverts, approaches, and other works, over and upon their Estate, situate at Swanswell. Plans, sections, and specification may be seen at the office of Mr HENRY ROBINSON, Surveyor, Hayle-ane, Coventry, on and after TUESDAY, APRIL 10th, to whom all Tenders are to be sent, sealed, and addressed to "The Committee of the Coventry Freehold Land Society," on or before APRIL 23rd.—The Committee do not engage to accept the lowest Tender

DORCHESTER.—ST. PETER CHURCH RESTORATION. Parties desirous of TENDERING for certain WORKS contemplated in the RESTORATION of the CHURCH of St Peter, Dorchester, Dorset, are informed that the plans and specifications may be seen at the Offices of Mr JOHN HICKS, Architect, South-street, Dorchester, on and after the 16th inst. from TEN to FOUR o'clock. Tenders are to be delivered on, or before the 24th day of APRIL inst. sealed and endorsed, "Tenders for St. Peter's Church," to either of the Honorary Secretaries, Dorchester.

Rev. W. BARNES,
FREDERICK COSENS, Esq. } Hon. Secs.
Mr. JOHN GARLAND,

TOWNSHIP of MANCHESTER.—ERECTION of NEW WORKHOUSE.—The Guardians of the Poor of the Township of Manchester are prepared to receive sealed TENDERS for the whole or any of the following WORKS, required for the ERECTION of a NEW WORKHOUSE, capable of affording accommodation for 1,500 inmates, together with the necessary Stuff Officers, &c. and intended to be built at Crumpsall, near Manchester, namely:—Carpenters' and Joiners' Work, Bricklayers' Work, Masons' Work, and Smiths' and Ironfounders' Work. The plans and specifications may be seen at the Offices of Messrs. MILES and MURGATROYD, Architects, Exchange-chambers, Bank street, Manchester, where full particulars on all matters connected therewith may be obtained. Tenders addressed to the Board of Guardians, and superscribed "Tenders for New Workhouse," must be delivered to me at the Poor-law Offices, New Bridge-street, Manchester, on or before SATURDAY, the 28th day of APRIL next. The Guardians do not pledge themselves to accept the lowest Tender. By order, &c.

JNO. HARROP, Clerk to the Guardians,
Poor-law Offices, New Bridge-street, Manchester,
March 23, 1855.

CHORLEY IMPROVEMENT.—SEWERAGE.—To CONTRACTORS, BRICKLAYERS, EARTHENWARE PIPE LAYERS, and OTHERS. The Chorley Improvement Commissioners hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake the following CONTRACTS:—

CONTRACT No. 1.—For EXCAVATIONS and LAYING SEWER and DRAIN PIPES, also for the CONSTRUCTION of BRICK SEWERS, GULLIES, MAN-HOLES, FLUSHING CHAMBERS, and OTHER WORKS.

The drawings and specifications may be examined, and duplicate copies of the schedule, bill of quantities, and form of Tender may be obtained on payment of five shillings; together with any further information required, on application to me at the Commissioners' Office, High-street, Chorley, at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street, Westminster. Sealed Tenders, to be delivered at the Commissioners' Offices, on or before TWELVE o'clock on SATURDAY, the 28th day of APRIL instant, endorsed "Tender for Contract No. 1."

RICHARD JACKSON, Clerk to the Commissioners,
Chorley, April 11th, 1855.

LEEDS WATERWORKS.—The Corporation of Leeds require TENDERS for CONSTRUCTING and satisfactorily COMPLETING an ENGINE and BOILER HOUSE, CHIMNEY and CHIMNEY FLUE, NEW PUMPING RESERVOIR and FILTER, TUNNEL, COTTAGE, &c. &c. Works connected therewith, on or in land situated in the township of Armley, in the county of York. All work done and materials provided by the contractor to be subject to the provisions of the specification; and Tenders to be made in a printed form filled up and signed by the contractor, addressed "To the Chairman of the Waterworks Committee, Town Clerk's Office, Leeds," and to be delivered on or before the 24th day of APRIL next, at ELEVEN o'clock in the morning. Prints of the specification and forms of Tender, can be obtained, and the drawings inspected at the Offices of the Town Clerk, Leeds; or of Mr. HAWKSLEY, C.E. 30, Great George-street, Westminster, on and after the 5th of APRIL next. The works will be let together, or in separate divisions or contracts, as the Corporation may determine after the receipt of the Tenders. The Corporation do not bind themselves to accept the lowest or other Tender.

By order of the Waterworks Committee of the Leeds Corporation.

JOHN ARTHUR IKIN, Town Clerk.

Town Clerk's Office, Leeds, March 30, 1855

GAS LAMPS.—The Commissioners for Lighting, &c. the district of Camden Town will meet at their rooms in Prat-street, Camden Town, on THURSDAY, the 19th day of APRIL inst. at TEN o'clock in the forenoon, to receive TENDERS for LIGHTING the district of CAMDEN TOWN with well purified Coal Gas for three years, to commence from the 24th day of JUNE next, determinable at the option of the Commissioners at the expiration of the first or second year. And also TENDERS for REPAIRING and KEEPING in REPAIR the Gas Columns, Lanterns, Glasses, and Burners, and Painting the Columns and Frames of the Lamps once in every year twice in each of the first two years. The number of Lamps at present lighted is 250.—Further particulars may be obtained at the Office of Messrs. DENT and SON, Surveyors, 38, High-street, Camden Town.—By Order of the Board,

S. BARKER BJOTH, Clerk to the Commissioners.

51, Tavistock-square.

[For remainder of Contracts see next page.

CONTRACTS.

TO SEWER CONTRACTORS AND OTHERS.

BOROUGH of GATESHEAD.—SEWERAGE.—The EASTERN DISTRICT.—CONTRACT No. 1.—The Gateshead Local Board of Health are desirous of receiving TENDERS for the CONSTRUCTION of SEWERAGE WORKS, consisting of brick sewers, stone culverts, sewer and trunk pipes, and other works. Specification, schedule of prices, bill of quantities, and form of Tender, may be obtained upon payment of 5s.; and the plans, sections, and drawings may be examined on and after the 16th inst. by application at the office of Mr. WILLIAM HALL, C.E., Town-hall, Gateshead. Tenders must be delivered at the office of the Board not later than Twelve o'clock at noon on Tuesday, the 25th day of April next, endorsed "Tender for Contract No. 1, Drainage Pipes, &c." and addressed to the Local Board of Health, Gateshead. The Board do not bind themselves to accept of the lowest or any Tender. G. J. KENMIR, Clerk.

Town hall, Gateshead, April 11, 1855.

BURIAL BOARD, ST. NICHOLAS, HARWICH.—To BUILDERS and OTHERS.—Notice is hereby given, that the said Board propose to build on their new Burial-ground Two Chapels, a Keeper's Lodge, and an Office for the Board, and the usual other erections for the business of the Board, and also to construct Roads and Walks with Entrance-gates, as per plans now deposited at the same Office, and prepared by Mr. C. H. EDWARDS, of 4, St. James's-terrace, Camden-town, the Architect to the Board. And that the plans, drawings, and specifications may be seen at the said Office, and also at Mr. LOWARDS's Residence above-mentioned. And that persons wishing to enter into CONTRACTS for the whole or any of the above-mentioned Works are desired to send TENDERS for their respective Estimates, sealed up, to the said Office, and addressed "Tender for Harwich Burial-ground Works." All such Tenders must be delivered on or before Saturday, the 28th day of the 28th day of APRIL instant. The Board will not be bound to accept any Tender EDWARD CHAPMAN, Clerk to the Board.

Harwich, April 11, 1855.

TO BUILDERS

PERSONS willing to TENDER for the ERECTION of a WAREHOUSE, &c. for Messrs. Laurence and Hall, of High-street, Maidstone, are requested to meet a person appointed at the Office of Mr. MARTIN BULMER, Architect, Maidstone between the hours of TEN and FIVE, on and after MONDAY, the 9th instant. Sealed Tenders to be delivered at Mr. BULMER'S Office, on or before MONDAY, the 23rd instant, endorsed "Tender for New Warehouse, &c." Security will be required for the due performance of the contract and the lowest Tender will not be accepted unless approved of in every respect.

Maidstone, April 8th, 1855.

TO CONTRACTORS.

THE LOCAL BOARD of HEALTH for the District of DEWSBURY is prepared to receive TENDERS for the CONSTRUCTION of a PURE WATER STORAGE RESERVOIR, at Broadstone Close, adjoining Potter's-gate road, in the township of Dewsbury, in the parish of Batley, containing 10 Cubic Yards of Work, the Towers on Brandstone Dyke, or 1 the necessary Bridge Boxes, Valves, &c. connected therewith; also for the Excavating and Laying down a Pure Water Conduit and Inverted Syphon between that Reservoir and the termination of Contract No. 1 near Burland-house Plains. Plans, &c. may be seen at the Offices of Messrs. MORGAN and HORN, C.E.'s, Westgate, Huddersfield, on and after the 7th instant; and copies of the specification and conditions may be had at the Board's Office, on payment of 1s. on and after the aforesaid date. Tenders, sealed and endorsed "Tenders for Broadstone Dike Reservoir," to be sent, under cover, to me, on or before the 20th instant.

CHAS. OLDROYD,
Clerk to the said Local Board of Health.

Dewsbury, 2nd April, 1855.

N.B. This Advertisement will not be repeated.

TO BUILDERS, CONTRACTORS, &c.

THE COMMITTEE of the CITY of WORCESTER ASSOCIATION for BUILDING DWELLINGS for the LABOURING CLASSES, are ready to receive TENDERS for the erection of Four Blocks of Buildings, containing the PRESCRIBED NUMBER of FOUR RANGES of BUILDINGS, according to plans and specifications, which may be seen at the Offices of Messrs. PARKER and GOLDINGHAM, Crowngate-street, Worcester, and at the Offices of the Architects, between the hours of TEN and FIVE o'clock on any day (Sunday excepted) after MONDAY, the 2nd day of APRIL next. Tenders, which must be in the form prescribed in the specification, are to be sent, addressed to HENRY ALDRICH, Esq. Foregate-street, Worcester, and marked outside "Tender for Model Dwellings," to reach it on or before TWELVE o'clock on WEDNESDAY, the 18th day of APRIL next. The Committee do not bind themselves to accept the lowest or any Tender. Any further particulars may be ascertained by application to the Architects of the Association, Messrs. REEVES and BUTCHER, 123, Guildford-street, Russell-square, London.

Worcester, March 30, 1855.

TO BUILDERS AND OTHERS.

UXBRIDGE, MIDDLESEX.—Notice is hereby given, that the Burial Board for the township of Uxbridge, in the county of Middlesex intend to enter into CONTRACTS for the following WORKS, and invite TENDERS for the ERECTION of TWO CHAPELS, Lodge, or Sexton's Residence, Boundary Wall, Entrance-gates, and Iron Railing, and for the Formation of Roads and Walks, and for Draining and Laying Out the new Burial-ground for the said township, containing four acres, or thereabouts, situate a-joining Knightsbridge, in the parish of Hillingdon, Middlesex. The drawings, specifications, and conditions of contract may be seen at my office, at Uxbridge aforesaid, on and after Monday next, the 9th day of April instant, between the hours of TEN and FIVE o'clock in the afternoon, and the 23rd day of APRIL instant is or before which day sealed Proposals or Tenders for the said Works are to be delivered to the said Burial Board, and delivered to me at my office at Uxbridge aforesaid. The said works are to be tendered for in four divisions, as follow:—

1st. Formation of Roads and Footways, and for Draining and Laying Out the Ground.
2nd. Boundary Wall, Entrance-gates, and Iron Railing.
3rd. Two Chapels.
4th. Lodge or Sexton's Residence.

The drawings and specifications may also be seen at the Office of the Secretary to the Board, Mr. CHARLES HOPPER, of 61, Doughty-street, London. The Board does not pledge itself to accept the lowest or any Tender By order of the Board.

Uxbridge, April 3, 1855. HENRY S. BATT, Clerk.

NEW INDEPENDENT MEETING-HOUSE, HITCHIN, HERTS.—NOTICE to BUILDERS.—Persons desirous of TENDERING for the Works in the Erection of the above place of worship, may inspect the Plans and specifications at the vestry adjoining the present chapel, on and after the 16th of APRIL. Tenders are to be sent for the whole of the works or for parts of them, according to the following division:—

1. Bricklayer, Plasterer, Slater, and Mason.
2. Carpenter and Joiner.
3. Plumber, Glazier, and Painter.
4. Ironfounder.

And must be forwarded to Mr. GEORGE JACKSON, Hitchin, not later than the 27th day of APRIL. The committee do not bind themselves to accept the lowest, nor any of the Tenders.—BIDLAKE and LOVATT, Architects.

CONTRACTS.

BRISTOL LOCAL BOARD of HEALTH.—TO BUILDERS, CONTRACTORS, and OTHERS.—The Committee of the Bristol Local Board of Health hereby give notice, that they are ready to receive TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and completely FINISHING certain intended BRICK SEWERS, as follows, viz:—

CONTRACT No. 1.—MAIN SEWER, from Colham lane into the River Avon; about 2,070 yards in length.

CONTRACT No. 2.—MAIN BRANCH SEWER, along the White Ash Hazel-road, North and South; about 2,197 yards in length.

CONTRACT No. 3.—MAIN BRANCH SEWER, in Richmond-park-road; about 1,957 yards in length.

CONTRACT No. 4.—MAIN BRANCH SEWER, in Cotham and Kingsdown; about 2,208 yards in length.

Any person or persons willing to engage for making any, or either, or all of the before-named Sewers, are requested to deliver separate Tenders for each of the said Contracts, at the Offices of the LOCAL BOARD of HEALTH, No. 14, Prince-street, on THURSDAY MORNING, the 19th day of APRIL next, at ELEVEN o'clock precisely, when the Committee will meet to determine upon the same. Trial shafts have been sunk along the several lines of sewers, and are now open, for inspection, and the plans, sections, and specifications of the works to be done, may be seen at the Offices of the Local Board of Health, No. 13, Prince-street, Bristol; and any further information may be obtained, either on personal application, or by letter (post paid), addressed to the Surveyor, Mr. FREDERICK ASHMEAD, C.E. The party Tendering will be required to give the names of two responsible persons willing to become sureties for the due performance of the works. The Committee will not bind themselves to recommend the acceptance by the Local Board of the lowest or any Tender, nor until the proposed sureties are approved. By order of the Committee, JAMES HARRIS, Clerk.

Local Board of Health Offices, 13, Prince-street, Bristol, 12th March, 1855.

NEW CHURCH, PORTSEA.—Builders desirous of TENDERING for the ERECTION of a new CHURCH in the District of Miller, Portsea, may, on and after the 10th instant, inspect the drawings and specifications on the same, and also at the Offices of Messrs. BAFFLES, BROWN, and WALTER LIGHTLY, Architects, Tudor-chambers, Fleet-street, London. The Tenders are to be sent in addressed to us, on or before the 30th instant. The Committee do not bind themselves to accept the lowest or any Tender.

C. H. BINSTEED,
H. HARD, } Hon. Secs.

16, High-street, Portsmouth, April 11, 1855.

TO BUILDERS.

BOLNHURST, in the County of Bedford.—Persons desirous of CONTRACTING for the ERECTION of a NEW HOUSE, and FARM BUILDINGS, at the Farm in the occupation of Messrs. Green, the drawings and specifications of the works may be seen at the Office of Mr. JAMES HORSFORD, Architect, Wellington-street, Bedford, after TUESDAY, the 17th instant. Tenders to be sent in at the Architect's Office, on MONDAY the 30th day of MAY next. The Trustees will not be bound to accept the lowest Tender. Security will be required for the due performance of the works. Bedford, April 11, 1855.

OSSETT and HORBURY GAS COMPANY.—To Bricklayers Masons, Carpenters Ironmongers Gas fitters Plumbers Painters, &c.—The above Company is prepared to receive TENDERS from competent persons or firms of CONTRACTING for the undermentioned WORKS, viz:—

The whole of the Brick Buildings, Fence Walls and excavating, puddling, and building one Tank, 71 feet 6 inches diameter, by 14 feet deep.

One Telescope Gasholder, 70 feet diameter, by 36 feet, with framework &c.

Iron Roof, thirty Iron Retorts, Condensers, Breaker, Purifiers, &c.

6,720 yards of Street Mains, varying from 2 inches to 12 inches in diameter, excavating for, and laying down of same.

Plans and specifications may be seen and bills of quantities, and any other information had, at the Office of the Engineer, Mr. Darleys-rest, Bradford, from THURSDAY, the 12th to SATURDAY, the 21st inst. inclusive. The Directors will meet at the ARCHERS, the Gosforth Inn, in Ossett, on MONDAY, the 23rd inst. at ELEVEN o'clock in the forenoon, to examine the Tenders. They do not bind themselves to accept the lowest or any Tender. Tenders to be addressed to Mr. WM. SPEIGHT, Manufacturer, Ossett, Wakefield, endorsed "Tender for Gas-Works." By order,

CHARLES CAUDWELL, Engineer.

Bradford, April 5, 1855.

CONTRACT for WATERING.—The Commissioners for Paving the United Parishes of St. Andrew, Holborn, and St. George the Martyr, Middlesex, will meet at the Workhouse, in Little Gray's Inn-lane, on MONDAY, the 16th day of APRIL next, at SEVEN o'clock in the afternoon precisely, to receive proposals in a sealed cup, from persons desirous of CONTRACTING for WATERING the several carriage-ways and footways of those united parishes, or any part thereof, for the season ending Michaelmas next. Forms of Tender, with full information and particulars as to the number of square yards and the work to be performed, may be had at the Office of Mr. BRIAN HELM, the Surveyor of Pavements, No. 5, Gray's Inn-terrace. Security to be given for the due performance of the contract. One-half of the amount of the contract to be paid by the contractor. By order of the Commissioners,

S. W. HOPWOOD, Clerk.

47, Chancery-lane, April 5, 1855.

CARMARTHEN CEMETERY.—To CONTRACTORS. The Carmarthen Burial Board are prepared to CONTRACT for BUILDING TWO CHAPELS, BOUNDARY WALLS, ENTRANCE GATES, LAYING OUT and MAKING ROADS, PATHS, and other WORKS &c. at their new Parochial Cemetery. The plans and specifications for the above may be seen at the Clerk's Office, No. 8, Spilman-street, and at the Office of the Architect, Mr. WILLIAM W. JESKINS, 7, Bartlett's-buildings, London, on and after the 1st day of APRIL next. TENDERS and FORMS. Tenders are to be sent to the Clerk of the Board on or before the 23rd instant. The Board do not pledge themselves to accept the lowest, or any Tender.

JOHN L. BRIGSTOCKE, Clerk.

Carmarthen, April 4th, 1855.

TO BUILDERS.

WANTED, TENDERS for the ERECTION of FOUR HOUSES, adjoining the Henley and Marston-roads, Oxford. Plans and specifications to be inspected between the hours of ONE and FOUR, at Mr. HERBERT'S, No. 3, Beaumont-terrace, St. Giles's, Oxford. Tenders to be sent as above, on or before the 2nd of MAY, 1855.

TO CONTRACTORS AND BUILDERS.

PARTIES desirous of CONTRACTING for the ERECTION of a NEW PARSONAGE HOUSE, at Troswell near East Retford, in the county of Nottingham, may see the plans and specification at the Granby Inn, East Retford, from MONDAY, the 16th of APRIL, to FRIDAY, the 20th; and at the Office of the Architect, Lime Causeway, Peterborough, from the 23rd to the 27th instant. All Tenders to be sent in on or before SATURDAY, the 28th instant, to the Architect, Mr. ARTHUR WILSON. 10th April, 1855.

NEW SCHOOL of ART, SHEFFIELD.—TO BUILDERS.—Persons desirous of TENDERING for the EXECUTION of the WORKS to be done in the ERECTION of the above SCHOOL, are hereby informed, that the plans and specifications may be seen on and after the 16th inst. between the hours of TEN and FIVE, at the Office of the Architects, Messrs. MANNING the School of Design, Arundel-street, Sheffield.—Tenders to be sent to me, or on or before MONDAY, the 30th inst. and endorsed "Tender for new School of Art."—The council do not bind themselves to accept the lowest or any Tender

BENJAMIN WIGHTMAN, Hon. Sec.

School of Design, Sheffield, April 4, 1855.

CONTRACTS.

OXFORD UNIVERSITY MUSEUM.—The University Museum Delegacy will receive TENDERS for ERECTING the NEW MUSEUMS, according to the plans and specifications to be seen at the Radcliffe Library, Oxford, on and after the 19th instant, between the hours of TEN and FOUR, and at the Office of Mr. GRITTEN, No. 8, Parliament-street, London, who has taken out the quantities, copies of which may be had from him on payment of 1l. to be returned to the parties who shall send in proposals thereon. Tenders to be forwarded sealed and endorsed, "Tenders for Museums," under cover to the Secretary, 15, St. Giles's-street, Oxford, on or before the 21st day of APRIL. The Delegacy do not bind themselves to accept the lowest Tender.

GEORGE BUTLER, Secretary to the Delegacy.

TO MASONS AND PAVIORS.

THE COMMISSIONERS of SHOREDITCH PAVEMENT will meet in the Vestry-room of Shoreditch Church, in the parish of St. Leonard, Shoreditch, Middlesex, on MONDAY, the 23rd day of APRIL instant, at SIX o'clock in the Evening precisely, to receive PROPOSALS for taking up all and every the FOOT and CARRIAGE WAYS in the streets and lanes within the jurisdiction of the said Commissioners; and Relaying and Repairing the same with such good and proper materials as and when the said Commissioners, or their Surveyor may order and think necessary. Printed forms of Tender, in the annexed form, may be had at the Office of the Commissioners, of their Surveyor, Mr. DAVID DAWKES, of the High-street, Shoreditch. The Commissioners will not hold themselves obliged to accept the lowest or any offer. The Contracts and Bonds are to be prepared by the Clerk to the Commissioners, at the expense of the contractor, or contractors. THOS. WARE,
Clerk to the Commissioners, 98, Kingsland-road.

Dated this 3rd day of April, 1855.

TO BUILDERS CARPENTERS AND OTHERS.

KING'S BRIDGE, BRIMPTON, BUCKS.—Persons desirous of TENDERING for REBUILDING this BRIDGE may inspect the specification, and conditions at my Office, 80, Broad-street, Reading, on FRIDAY, the 20th instant, between the hours of TEN and FOUR. Sealed Tenders, endorsed "Tender for Kings Bridge," may be sent to me on or before FRIDAY, the 27th instant. The lowest Tender will not necessarily be accepted. By order of Committee,

Reading, April 12th, 1855. B. CLACY, County Surveyor.

TO SMITHS AND FOUNDERS.

TENDERS are required for CAST-IRON PALISADE FENCING to Eight detached Villas, at Walthamstow; together with the Brick Piers, Curbs, &c.; also Eight Cast-iron Pumps. Further particulars may be known on application to Mr. W. P. LAING, Surveyor, 73, Coleman-street, between TWELVE and FOUR, on and after TUESDAY next. Mr. W does not bind himself to accept the lowest or either Tender; but the party whose Tender may be accepted will have the preference given him to provide the stores and ranges for the said villas.

LUTON LOCAL BOARD of HEALTH.—Parties desirous of TENDERING for PROVIDING and LAYING about 19 yards 1,175 inch, 60 yards of 12 inch, and 1850 yards of 9 inch PIPE SEWERS, with the necessary junctions, gullies, and other works connected therewith, may inspect the plans, sections, specification, and form of Tender, at the Offices of the Board, Gross-street, on and after THURSDAY, 19th instant, and copies of the same may be had, on payment of 7s. 6d. by applying to Mr. JAMES HORSFORD, Surveyor to the Board. The Tenders to be delivered at the Boardroom, on TUESDAY, the 1st day of MAY.

GEORGE BAILEY, Clerk.

Luton, April 11, 1855.

SHERBORNE LOCAL BOARD of HEALTH.—To PLUMBERS and OTHERS.—The Board are prepared to receive TENDERS from persons willing to CONTRACT for the supply of about 6,000 FEET of HALF-INCH LEAD PIPE, required for the purposes of water supply. The specification may be seen at the office of the Board, or at the Office of Messrs. DYMOND and SONS, Exeter. Tenders are to be forwarded to the Clerk on or before the 23rd instant, and the Board will not be bound to accept the lowest or any Tender. JNO. Y. MELMOTH, Clerk.

Sherborne, April 11, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will meet at the Court-House, No. 9, Greek-street, Soho-square, on TUESDAY, the 24th day of APRIL, instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties willing to CONTRACT for the master down, constructing, and completely finishing the following WORKS, viz.:—

7,000 feet in length, or thereabouts, of brick and pipe sewers, with other works in connection therewith, in Stepney-causeway, James place, Stepney, Pennyfields, Poplar, Brick-lane, Whitechapel, and other streets and places in the county of Middlesex (in one Tender).

1,850 feet in length, or thereabouts, of brick and pipe sewers, with other works in connection therewith, in Kentish-road, Tottenham-place, and Beaumont-place, Tottenham-court-road, Hertford-place, and Smith's-place, Somers'-town; Laystall-street, Gray's-inn-lane; Southampton-mews, Russell-square, and other streets and places in the county aforesaid (in one Tender).

600 feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Southampton-street, Gospel Oak-fields, Kentish-town, in the county aforesaid (in one Tender).

2,050 feet in length, or thereabouts, of brick and pipe sewers, with other works in connection therewith, in Ann-street, Ann-place, in New Victoria street to Ray street, Clerkenwell, in the county aforesaid (in one Tender); and for the maintenance of such works in complete order for 12 months.

Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected and other particulars had, at the Engineer's Office, at the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 23rd instant. The Commissioners are not bound to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

No. 1, Greek-street, Soho-square,
Dated this 12th day of April, 1855.

E. H. WOOLRYCH, Secretary.

WATERING STREETS.—The Commissioners for Watering, &c. the district of Camden Town will receive Tenders for Watering Camden Town, on THURSDAY, the 19th day of APRIL inst. at TEN o'clock in the forenoon, to receive PROPOSALS or TENDERS for CONTRACTING to WATER the CARRIAGEWAYS of the district until the end of SEPTEMBER next, at per day for horse, cart, and man. Further particulars may be obtained at the Office of Messrs. HEY, Surveyors, 38, High-street, Camden Town.—By Order of the Board,

SAMUEL BARKER BOOTH, Clerk to the Commissioners.

5a, Tavistock-square.

MALDON BURIAL BOARD.—To BUILDERS and OTHERS.—Notice is hereby given, that the Maldon Burial Board is prepared to enter into a CONTRACT with some person willing to undertake the Excavating, Bricklayer's, Plasterer's, Mason's, Carpenter's, Joiner's, Smith's, Plumber's, and Painter's works, in the ERECTION of TWO WAITING ROOMS, ENTRANCE GATES, PIERS, and WALLS, upon their intended new burial ground. The working drawings, plans, and specifications may be seen at my office in Maldon, and at the Office of the Architect, Mr. GEORGE COOTE, opposite the Wharf, Strand, from MONDAY, 16th, to SATURDAY, 28th APRIL instant, on which latter day sealed Tenders, endorsed "Maldon Burial Board Cemetery Works," are to be delivered at my office. The quantities will be taken out, and can be had on application as above.—The lowest Tender will not be necessarily accepted. By order,

JOHN CRICK, Clerk to the Board.

Maldon, Essex, April 12, 1855.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and Co., are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents. Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and Co.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence lane, London.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions; in the present state of the art, picking them would seem to be impracticable."—*Standard.*

Depôt: 181, FLEET-STREET; where also may be had PRICE'S FIREPROOF SAFES, &c.

COPYING PRESSES, CASH AND DEED BOXES.

Lists and Prospectuses free.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Founding, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s., and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 300 years for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope street, Clare-market, London.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent.—Mr. BARRETT, 12, York-buildings, Adelphi

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE. Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 13 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS.

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42, Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweepine being required, and a saving of from 40 to 70 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S GAS PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent-street London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having this kitchener, and it effectually cures smoky chimneys, and is the best cooking range extant

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron-bridge.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for, the prize of public approbation, has been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton Beds.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 1000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of Iron or wood, and of Iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservatory and Hot-house Builders, either in wood or iron, respectfully call the attention of the nobility, gentry, and nurserymen to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, & 55, WYCH-STREET, STRAND.

Illustrated Catalogues post-free on receipt of six postage-stamps.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Penciling, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

PATENT GALVANIZED IRON. (IMPROVED PROCESS.)

JOHN SYMONDS and CO.

WORKS.—GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c. Roofs fixed complete.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form

Sheets plain and corrugated—Roofs fixed complete.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Island Foundry and Ironworks, Millwall, London.

Offices: 13, Fenchurch-street, City.

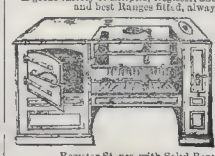
TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire, Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Curtain-poles, Rings and Lacquered Cane Tube for Picture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10 11, and 12, Charles-street, Long-acre, London.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 150, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler.

30 32 34 36-inch.

2os. 30s. 32s. 34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars

34 36 38 42-inch.

5os. 56s. 58s. 63s.

Strong Elliptic Stoves, with extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 6d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 9d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 4os. to 10os. each.

Cast Hain-water Pipe	2	2½	3 inch.
	1s.	1s. 3d.	1s. 6d. per yard.

Cast Gutters—4 inch, 10d. per yard.

O G Gutters	4	4½ inch.
	1s. 4d.	1s. 6d. per yard.

Best Cut Clasp	1½	1¾	2	2½	3 inch, and larger
and Rose	17s.	19s.	16s	15s.	14s per cwt.

Cut Billed Brads, 1s. 6d per cwt

1 inch Cut Lath, 16s. Cast Lath, 13s.

Patent Line	2	3	4	5	6
	4½d.	6d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet Iron

Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5½d. 6½d. 7½d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 36s. each.

3-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 4s. per doz.

Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s 6d.	8s. 6d.	11s per gross

And every material required in the building, bell hanging, upholstery, and brass-foundry trades on the most reasonable terms.

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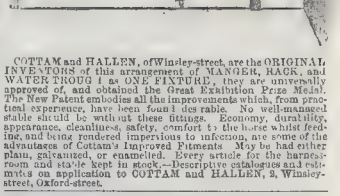

COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH in one FIXTURE, they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

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PATRONISED BY H. R. H. PRINCE ALBERT.

S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

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D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—35 and 36, High Holborn.

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ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK.

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

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NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES,

a complete LIST of which will be forwarded upon application.

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Nail Manufacturer and General Factor,
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or at 16, Gresham-street, LONDON.

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R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

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67, Hyde-park-street, Glasgow.
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BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELand STEDALL'S,

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

STRONG WROUGHT-IRON DOOR and FRAME WANTED. Door not Less than 5 feet by 1 foot 10 inches.—G. A. YOUNG, 34, Engle-street, Red Lion-square.

GAS CHANDELIERS and BRACKETS.—The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from the various manufacturers all that is new and choice in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designed expressly for him; these are now ON VIEW in one of his TEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Ironmongery Establishment the largest and most remarkable in the kingdom, viz. from 19s. 6d. (two-light, to 16l. 16s.

WILLIAM S. BURTON has TEN LARGE SHOW-ROOMS devoted to the show of GENERAL FURNISHING IRONMONGERY including cutlery, nickel silver, plated and japanned wares, iron and brass bedsteads, so arranged and classified that purchasers may easily and at once make their selections.

Catalogues, with engravings sent (per post) free. The money returned for every article not approved of.

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JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

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Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and

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NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Factories, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

MACHINERY.—SAWING, PLANING, MOULDING, and WOOD CUTTING MACHINES.—To Timber Merchants, Contractors, and Others.—SAMUEL WORSAM and CO. of Hortulus-place, King's-road, Chelsea, invite the attention of Timber Merchants and others to their new inventions and improvements in all kinds of machinery used in Sawing, Planing, Moulding, and Wood Cutting. S. WORSAM and CO. are able to execute orders with cheapness and despatch; they solicit an inspection of their machines constantly on hand and in progress; and they can refer to parties of the highest position and respectability, as to the goodness and efficiency of their machines.—Estimates made for Exportation, or otherwise.—Drawings and prices on application.

February 16th, 1855.

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P.S.—As large and choice an assortment as any house in London.

Gas-fitting Contracts to any amount.

JAMES MICHIE, Engineer, &c. Battersea-park, Nine Elms, (Manufacturer of all kinds of STEAM-ENGINES (portable and stationary), Sawing Machinery, Pumps, Cranes, Crabs, &c.

N.B Several high-pressure Steam-engines for Sale.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton-weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work for building and other purposes. Engines, machinery, patent axletrees, saw-mills, &c.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years. E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and not rising spring, swing, double acting, gate, and other Hinges. Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 59, Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

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W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Copings, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

TO IRONMONGERS, BUILDERS, &c.

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VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used in the British Museum, Buckingham Palace, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Hertfordshire and Hertfordshire Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

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N.B. Estimates given for Masons' Work.

HARE-HILL SLAB.—MARBLE WHARF, THAMES BANK, PIMLICO, adjoining Vauxhall bridge.—13,000 feet of Hare-Hill in Slab, being part of a BANKRUPT'S STOCK, to be SOLD VERY CHEAP, in quantities of not less than 500 feet.—THOMPSON and HOLMES.

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By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

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PIMLICO MARBLE WORKS,
BELGRAVE WHARF,
LOWER BELGRAVE-PLACE.

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PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

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THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Harehill, Park Spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

A FEW MARBLE CHIMNEY-PIECES, suitable for second or third-rate houses, TO BE SOLD CHEAP.—Apply at 10, Crescent-mews North, Burton-crescent.

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This Granite is selected for the New Westminster-bridge.

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CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEEDHAM and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to deliver from their Wharf and Depôts CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, BATH, GODSTONE, BUILDING BLOCK, and RUBBLE STONE, BLOCK, and BURR HEARTH STONE, RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For information, direct to Caen Wharf, Rotherhithe; or to Hibernia-chambers, London-bridge, Borough.

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By order,
EDWARD B. STEPHENSON,
Clerk and Solicitor to the Trustees.

NOTE.—The Trustees meet on the second Wednesday in every month, to consider such applications for loans as have been sent in one clear week at the least before the first day of the month.—The sureties must be unexceptionable.

WANTED, from 500l. to 1,000l. worth of GLAZED STONEWARE DRAIN-PIPES, to be delivered alongside in the Thames. To be of the thickness required by the Commissioners of Sewers. Lowest terms to be sent to H. W. C. 33, Marylebone-street, Regent-street.

CLARK & CO.

MANUFACTURERS OF

REVOLVING SHUTTERS IN IRON AND WOOD, BRASS SASH-BARS AND STALL-BOARD PLATES, &c.

ILLUSTRATED PROSPECTUSES FORWARDED POST-FREE.

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

CHARLES WM. WATERLOW AND CO.

MANUFACTURING JOINERS,

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N.B.—ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

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MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

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A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c, &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT

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CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz. Sheet Glass, in crates, from 2½d. per foot; C C C Crown, 18 tables, 23s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 22s. 6d and 40s. per case; Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c. Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 296, Oxford-street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

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The Builder.

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Of how many of the architects who "flourished" about the opening of the nineteenth century, might we once more, with Pope, have said, they—

"—— hide with ornaments their want of art;"

or of how many might we say, with Martial:—

"Cinna videri vult pauper, et pauper *est*."

A condition so degraded, of a noble art, in all that constitutes art, as that which was for some years maintained throughout Europe, and perhaps longest in England, will, we hope, one day receive its full elucidation. We have tried to contribute to this by extended notices of periods in art-history, which must have had much to do with the result. We would proceed with the epoch itself, in the same humble and inquiring spirit. Considering the original unity of all art, it seems most extraordinary, that with painting and sculpture, as well as poetry, equal to, if not in advance of those arts in continental Europe, architecture should have held a position so far behind them. The country of Reynolds, Hogarth, and James Barry, in painting, and of Flaxman in sculpture, has, during their time, the names of barely two architects who formed for themselves any distinctive style, which, if it be sometimes the result of caprice, is a thing of which the *absence* is not consistent with the working of genius. Such individual character, be it recollected, we found through the very height of the domination of precedent. Why, with professors of our art by the thousand—academies and societies—knowledge of examples such as the Cinque-centisti did not dream of—and similarly, with powers of delineation perhaps unattained till the late period of a Pozzi and a Piranesi—why, with our modern science of æsthetics and observation of every work of nature—and finally, our accumulated resources of mechanism and chemistry, and of material products from every corner of the globe,—why with all these things, an opening should be left for those who may have been ready to detract from the real merits of the architects of the nineteenth century, is still to us the modern riddle of the Sphinx. Great progress has, however, been made of recent years, and continues to be made throughout the country, and though it is retarded by the slow pace of public education, it is proceeding to that ultimate safe foundation—of which the support had not been offered perhaps since the golden age of Greek art.

Without this sympathy and popular appreciation, art does not only waste its efforts on a "desert air," it cannot in the medium of architecture get called into general existence. For, our art, if, from its distinction from painting and sculpture by the use of principles of nature, rather than imitative forms, it requires special study, is clearly that art which cannot be put forth till the demand is expressed. The works, good or bad, however, cannot be dispensed with; and when completed, they are not to be put out of sight.

Now, the training for the principles of architecture, and for those applicable to the design of household fittings and utensils, being the same, it seems that absence of taste must result as to buildings, where the ordinary furniture of a house is uncared for. A combination of causes led to the dearth of taste in architecture; but the absence of intelligibly expressed demand for it, is to be traced in great measure to the circumstances under which decorative art was left, when the "Louis Quinze" style of ornament had been worked out. Then followed in England, that epoch once called, in our pages, the *dark age of taste*. As the original beautiful contour of a Gothic moulding becomes a misshapen lump by the weather, and greater severity of reparations by the village mason, so even those forms which originally were graceful, were divested of all proportion, and all beauty of ornament. At an unfortunate moment casting came into general use, and whoever compares bits of the seventeenth century iron-work, yet remaining in some of the suburbs of London, as in Cheyne-walk, Chelsea, or in Great Ormond-street, or Portman-square, with the cast spear-heads in any of the same neighbourhoods, will regret that a valuable invention should have been applied on such erroneous principles. The art of the time, in truth, was not capable of *design*, unless, it may be, with such of the very worst elements of the Louis Quinze ornament as were left.

But you cannot, if you would, put out the desire for ornament, which is part of the natural yearning after pleasure: and it holds good in art as in society, that if you do not provide the harmless, refuge will be taken in whatever is at hand. Hence all the lion's-head door-knockers, the castellated fenders and fire-grates, or the mere arrangements of mouldings. The naturalistic style of ornament which now gets too much of high patronage, is, at all events, a trifle more pleasing. Indeed, people were *not* pleased where they fancied they ought to be. The principles of art, however, being not understood, the aim in the drab walls and plain mahogany of "genteel" society, was to be "coldly correct." Gilding, in the drawing-room, was the highest stroke of art. It is to this state of taste, that we owe the plain brick-fronted hole-in-the-wall style of house, whereabout it would puzzle the observer to find anything like what he has been accustomed to, as architectural members. Looking closely, indeed, some reflection from the earlier style of degenerate Italian, may be found about the doorway, or in fortunate exceptions, the style of the Adams, of which it will be necessary for us to take some account. Generally, however, you are able to assume that the "style" arose out of the Italian, only because it does not appear to be the Gothic.

In the suburbs of towns you will occasionally meet with more decided efforts in taste. A very damp-looking and rough-cast structure, deriving any picturesqueness that it may have from insidious ivy, and somewhat rickety about the casements, is chanced upon. Here you have the true "carpenter's Gothic," the great discovery of that "enlightened critic," the dabbler in the tag-rag and bob-tail of auction-rooms—the great amateur architect of Strawberry-hill—whose *dictum* as to Inigo Jones was brought to our aid of late, perhaps somewhat more hastily than it merited. So that there were pointed arches, and pinnacles albeit of wood, the ends of art were answered, and the work became a desirable country residence. The builder's Gothic of later days is a stage in advance of this: pointed arches were discovered to be no longer essential: besides, there were labels to the windows, and boards to the gables—very stringy, as they say, for want of better phrase—and sometimes a castellated porch. Sash windows and square Italian sills accorded with ideas of convenience, and so forth, and were retained. One day, some one discovered that the old Gothic houses were not built so; and then red brick, stone mullions, and splayed sills, and lead lights, were the order of the day.

Now, all this system, erroneous in its origin, erroneous at every step, is just one exemplification of what was ever a practice followed throughout this later Georgian period of British art. It is easier to say what have been errors in the use of ancient models, than to put into words what should be done,—since some use is to be recommended rather than avoided; but it is clear, that such modern use should neither be in the way of caricature, nor in that of direct reproduction.

We have given these as examples of different errors that have marked the architecture of our own time. In a score of temporarily prevailing fashions, we have mere child's play, unsuccessful imitation, and direct *fac simile*,—and we incline to prefer the first, as least harmful. Similar variations have lately been played off in ecclesiastical architecture,—which has long been denied by those who have control over it, to gain any sufficient impregnation of living art.

We have heard much from certain writers, as to the singular position of the nineteenth century in regard to co-existent styles, and singular it is. But in the course of the present series, we have found several periods in which there were contemporary systems. We have, however, not found any previous period, in which it was the general practice to use the model in one or other of the ways that we have described,—although we believe, Mr. Fergusson advisedly carries "the Monkey styles" over a much more extended area. We hail the growth of a better system; still, all should be made to feel what disadvantages are allowed to remain, and how little reason we have to be satisfied with our position, so long as the vast acquirements of which we confess the need, are not supported by a defined course of professional education. Until we do this,—aid in the growth of a true love of ART amongst the public, and set the world right as to the duties and position of architects,—we shall remain but "infirm of purpose," and false to our expressed aspirations.

It must by no means be concluded, that the check to the steady progress of art was confined to this country. We have been merely urging that our country has yet to complete the emancipation which has already, within our immediate recollection, given a number of fine works of art to Paris, Munich, and Berlin. What, then, is this cloud of which the *incubus* still overshadows us?—for the contrast between the richest capital of Europe and every other, we fear, is beyond question. In art, as in war, the history of mistakes should not be unprofitable. We are about to deal with a chapter of unwritten history, more difficult than any we have attempted.

MEMORIALS OF SMITHFIELD.

IN a brief space of time the ancient market of Smithfield,—like the Fleet Prison, Bartholomew Fair, and some other relics of former days,—will have become a matter of the past; and the huge assemblage of pens and railings, which has been long the wonder of all beholders, will cease to encumber this historical site, which will be carefully preserved, we hope, for the purposes of health improvement. We have seen it in the dark night, in the bustle of the fair, illuminated by torch-light and specked with crowding and struggling life, both human and animal; and we have also seen it silent and lighted only by the clear moon.

Whatever may be the time, it is scarcely possible to pass through Smithfield without being impressed by the recollection of events which have here taken place. Amid the curses of drovers,

the noise of cattle, the barking of dogs, and other confusions, a recollection of the hangings, the burnings, the tournaments which have here been held, and which have rendered the name of Smithfield familiar throughout the land, will come back.

"In former times," the monk of St. Bartholomew, who has so carefully recorded the particulars of the life of Rahere, the founder of the old church and monastery, says of Smithfield, "right uncleane it was, and as a marsh dunge and fenny, with water almost every time abounding; and that that was eminent above the water dry was deputed and ordained to be the gallows of thieves and to the torment of others that were condemned by judicial authority." In this wild and then solitary place, in the reign of Henry I. Rahere, "a man sprung and born of low kaynge," founded the church and hospital, and also established the first fair or market in Smithfield.

"Rahere," says the chronicler, "when he attained the flower of youth, began to haunt the households of noblemen and the palaces of princes—where under every elbow of them spread their cushions—with jokes and flatteries delectably anointing their eyes, by this manner to draw to him their friendships, and yet he was not content with this, but often haunted the king's palace, and amid the noiseful press of the tumultuous court enforced himself with jolity and carnal suavity by which he might draw to him the hearts of many a one."

In this manner Rahere spent his youth until visited by a fearful vision, in which St. Bartholomew appeared and saved him from seeming destruction. In the dream the saint said, "I am Bartholomew, the apostle of Jesus Christ, that come to succour thee in thy anguish, and to open to thee the secret mysteries of heaven: know me, truly, by the will and commandment of the Holy Trinity, and the common favour of the celestial court and council, to have chosen a place in the suburbs of London, at Smithfield, where in my name thou shalt found a church."

After this time, Rahere withdrew himself from the vanities of courts, and proceeded earnestly to carry into effect the instructions of the saint. He availed himself in divers ways of the assistance of his powerful friends, and by assuming an appearance of insanity, obtained the aid of the multitude, who brought materials for the building from various parts. The hospital was first built in 1102, and then the church and priory, which he finished in 1123. Ten years after the church was completed, certain enemies of the founder rose against him, and threatened him with persecution. The king, in order to rescue him from this injustice, issued a grant which confirmed to the prior and brethren of St. Bartholomew many privileges, amongst which they were allowed to hold a fair on the eve of St. Bartholomew's day and the day after. This document says,—"I also grant my firm peace to all persons coming to and returning from the fair which is wont to be celebrated in that place at the feast of St. Bartholomew; and I forbid any one of the royal servants to send to implead any of their persons," &c.

Shortly after this event Rahere died, and was buried in the church, where his tomb may be found. Even at this remote period, St. Bartholomew fair assumed considerable importance, and became famous as the resort of dealers in woollen cloths. The fair was at this time, and for long afterwards, held in Bartholomew-close.

In 1195, William Fitz-Osbert, *alias* Longbeard, with several adherents, disturbed the tranquillity of the city. They were overpowered and committed to the Tower, and next morning they were brought to their trial, and sentence of death being passed upon them, they were allowed one night to make their peace with heaven, and on the following morning they were drawn by the feet through the city, to a part of Smithfield, then called the *Elms*, where they were publicly executed, and then hanged in chains. This, however, did not entirely appease the disturbance; for the body of Fitz-Osbert being carried away, a report was immediately propagated by a priest, who was a kinsman of the deceased, that several miracles had been wrought at the place of his execution.

Hereupon vast numbers of people resorted to Smithfield, many of whom picked up and carried away, as holy relics, pieces of the earth in which the blood of their champion had been spilt, while others continued there the whole night in devotion, nor did they quit the place until a military guard was sent, by whom they were at length, though with great reluctance on their part, dispersed to their respective habitations.

In 1295 a dispute arose between Ralph Sandwich, the custos of the city, and the prior of St. Bartholomew's, relative to the profits of the fair held in Smithfield, the custos insisting that as the privileges of the city were forfeited, all the benefit arising therefrom must, of course, belong to the king. The affair coming to the knowledge of Edward, who was then at Durham, he directed that the controversy should be decided by the barons, who were in favour of the prior.

As early as the reign of Edward III. Smithfield was used for jousts and tournaments, and must have presented a gay scene when Dame Alice Ferrars rode as the Lady of the Sun from the Tower, through Cheap, accompanied by many lords and ladies,—every lady leading a lord by his horse's bridle till they came into West Smithfield; and then began a great joust, which lasted seven days.

In Smithfield, and most probably near the entrance-gate of St. Bartholomew's, the famous interview took place between Richard II., Wat Tyler, and the rebels.

In the ninth year of Richard II. "there was a great riding from the Tower to Westminster, and every lord held a lady's bridle; and in the morning began the joust at Smithfield, which lasted three days."

In 1390, a grand tournament was held in Smithfield, on which occasion many German princes and numbers of the nobility from various parts of the Continent came to England, to partake of the royal entertainment.

Then in the year 1393, certain lords of Scotland came into England to get worship by force of arms. The Earl of Mar challenged the Earl of Nottingham to joust with him, and so they ran certain courses, but not the full challenge. The Earl of Mar was cast, both horse and man, and two of his ribs broken with the fall, so that he was conveyed out of Smithfield, and so towards Scotland, but died by way of York.

In the ancient days, when every serving-man carried a sword and buckler, they and other loose characters made Smithfield a rendezvous, filling the place with uproars and quarrels,—so much so, that it was for many years called Ruffians' Hall.

Between Hosier-lane and Cow-lane, in Smithfield, anciently was a large pool of water for horses, &c. and to the south-west of which, in Cow-lane, where St. John's-court is situated, stood the gallows, or public place of execution, called the Elms, from the number of such trees growing there. But the gallows being removed to the west suburb of London (Tyburn), the site of the pond was covered with houses.

It would be by no means agreeable to enter into the particulars of the sad cases of those who have in Smithfield perished for conscience sake, or of those charged with witchcraft and sorcery; some were hanged and quartered, some boiled, some burnt. In 1652, May 10th, Evelyn, in his Diary, says, — "Passing by Smithfield, I saw a miserable creature burning who had murdered her husband."

The church and priory of St. Bartholomew must, in the olden time, have been a fine feature in Smithfield. The various edifices were restored and added to by Prior Bolton, shortly before the sequestration of the monasteries, &c. by Henry VIII. at which time it was suddenly dismantled, and sold to the unscrupulous Chancellor Sir Richard Rich.

Amongst other things conveyed by the king's grant was, "all that water and conduit, and course of water running from a certain place called the Conduit-head of St. Bartholomew, within the manor of Canonbury, in the parish of Islington, and county of Middlesex, with the cistern and pipe of lead as enjoyed by William Bolton."* The profits arising from the fair also fell into the hands of the chancellor

The grant proceeds to state "and whereas a certain chapel, called the parish chapel, and part of the great parish church, have been *taken away, and the materials* sold for our use; nevertheless, there still remains a part fit for creating a parish church, and already raised and built." This the king gave to the use of the parish. Stow says "that he in his youth had yearly seen, on the eve of St. Bartholomew the Apostle, the scholars of divers grammar-schools repair unto the church of St. Bartholomew, the priory in Smithfield, when, upon a bank boarded about under a tree, some one scholar had steped up, and then had opposed and answered until he were by some better scholar than himself overcome and put down; and then the overcomer taking the place, did like as the first, and in the end the best opposers and answerers had rewards, which I observed not. But it made good schoolmasters and good scholars diligently against such times to prepare themselves for the obtaining of this garland."

In course of time Bartholomew's Fair became rather a place for sport than for the sale of merchandize.

Pepys, in his Diary, 30th August, 1667, says, "I to Bartholomew Fayre to walk up and down, and there among other things find my Lady Castlemain at a puppet-play (patient grizell), and the street full of people, expecting her coming; and I confess I did wonder at her courage to come abroad, thinking the people would abuse her, but they, silly people, do not know the work she makes, and therefore suffered her, with great respect, to take coach, and she away without any trouble at all." Eventually Bartholomew Fair became a great nuisance, and instead of three days, was prolonged to a fortnight, and was, says Chamberlain, "of little other use than for idle youth and loose people to resort to spend their money in vanity, and what is worse, in debaucheries, &c. Thereupon the magistracy, often intending, at last fully resolved in the year 1708 to reduce the fair to the space of time originally granted."

The humours of Bartholomew's Fair have been rendered famous by Hogarth, and well described by Hone. We progressed last Bartholomew's day to Smithfield, and saw one or two stalls, a couple of policemen, and a few children. This was all that was left of the famous fair, which had been held on the spot for about 700 years. The Lord Mayor, in stately procession, generally proclaimed the fair near the old gateway. On these occasions it was usual for the Lord Mayor to call on the governor of Newgate, and partake of a cool tankard of wine spiced with nutmeg and sugar. This custom caused the death of Sir John Shuter, Lord Mayor in 1688. In holding the tankard he let the lid flap down with so much force that his horse started, and he was thrown to the ground with so much force that he died next day.

"In March, 1849," says the "Handbook of London," "during the excavation of a drain at the depth of 3 feet from the service, immediately opposite the entrance of the church of St. Bartholomew the Great, the workmen laid open a mass of unhewn stones, blackened as if by fire, and covered with ashes, and human bones charred, and partially consumed." This is believed to have been the spot generally used for the Smithfield burnings, the face of the victims being turned to the east and to the great gate of St. Bartholomew's, the prior of which was generally present on such occasions.

Having thus slightly glanced at the history of St. Bartholomew's and Old Smithfield, we would direct attention to a valuable relic of that place, which seems just now to be in danger.

The engraving will in a measure serve to show the rent and dilapidated condition of the principal gateway of the ancient monastery, which has been "a thing of beauty" and interest for a period of 600 years. We have not so many of these remnants remaining in the metropolis that we can afford to part with it: it is an historical monument, which (as Dr. Johnson said of St. John's Gate, Clerkenwell) has been "looked upon with veneration" for several centuries by our ancestors, and is still looked upon with interest by numbers who have the good taste to appreciate the memorials of former days. It would be a pity to let it be destroyed for want of a little care.

It would seem that the gate of St. Bar-

* The garden-house and other remains of the country residences of the priors of St. Bartholomew, are still to be traced near Canonbury tower, Islington.

GATEWAY, ST. BARTHOLOMEW'S, SMITHFIELD.

PART OF CLOISTERS, ST. BARTHOLOMEW'S.

tholomew's is unfortunately situated: we believe that it is claimed by the parish of St. Bartholomew, which still retains peculiar privileges, independent of the City. The parish is small, and the funds are insufficient to provide for the proper repair, and the City authorities decline to assist: so between these parties the old gate is likely to fall.

A recent fire has demolished an adjoining house, which has added much to the danger of the gate, and we are told that, but for the exertions of Mr. Palmer, who has built up a wall for its support, it would have been before this time removed.

Our second cut represents part of the cloisters of the Priory of St. Bartholomew, on the south side of the church, now below a tobacco manufactory.

WHAT TO DO WITH SMITHFIELD.

Your powerful leader of last week shows that there are pressing reasons why a speedy decision should be arrived at as to the appropriation of the site of the old Cattle Market. It is not all required as an open space for air and ventilation. Eastward there are Finsbury-square and the Artillery Ground: northward, the open spaces of St. John's-street and Clerkenwell; westward, the improvements in Farringdon-street; and southward, the large areas of St. Bartholomew's Hospital and the Blue Coat School. It will thus be seen that no case can be made out for retaining the whole of Smithfield unoccupied, while every other consideration requires that no time be lost in applying it to useful and well-regulated dwellings for the industrious and poorer classes. The recent demolition of the numerous but wretched dwellings of the poor throughout the course of the continuation of Farringdon-street, has in no way provided them with better abodes, and these miserable beings have been driven to augment the population of the already over-crowded localities, where dirt, depravity, and death already reigned. Probably no class of people ever suffered more unjustly than the indigent inhabitants of the dens that have been destroyed throughout the metropolis to effect public improvements. While they have been rooted out from many places, no proportionate provision has been made to locate them in better habitations: an impulse has thus been given to the production of all those calamities incidental to overcrowding a poor and ill-educated people. Prisons, hospitals, and lunatic asylums are full. On the other hand, the traders in the neighbourhood of Smithfield, and the holders of property there, deserve some consideration, as they have had no compensation for taking away the cause of their trade. To bring a large population into the locality would be but doing them justice, by restoring trade and activity again to the neighbourhood. I would, therefore, propose that under the city, or other control, extensive lodging should be provided for a very large class of the industrious population. Such establishments are found not only to be self-supporting, but to pay well. If schools for the young, means of improvement for the adult, baths and washhouses, were provided, together with dwellings adapted in *their original construction* to people of limited means, on a most extensive scale, no greater moral revolution could be effected in this vast city. The thing, however, must be done well: I would not spare an inch of the available site for any other purpose than for providing for the physical, moral, and social welfare of the poor; and by providing, under strict regulation, for 5,000 or 10,000 old and young, although it may be at first at some cost, still it will be all saving in the end. The population which we will not care for in their infancy, we are compelled to provide for as they grow up. Wretched children unconsciously imbibing in over crowded dwellings, the licentiousness of adult degradation, are subsequently kept by us in prisons; or by their feeble health, in workhouses and unions; or by their further physical and mental degradation, in our lunatic asylums. Look in at the Westminster prisons: see hundreds of children, most of whom would not have been lodging free at your or my expense had we caused them to live with their parents only, instead of in a room with three or four adults and hosts of children, too crowded for decency or control. Some of these have been tried five or seven times, and a trial may be said to cost us at least 5*l*. How could this 5*l*. be better expended in the beginning? Look at Cold Bath Fields prison: there you see exceeding 1,400 adult males, who owe their boarding and lodging at our expense, to our neglect in the beginning. Look at our two Middlesex Lunatic Asylums, together holding at the present moment exceeding 2,200 pauper lunatics, and yet space is required for 600 or 800 more, paid for in licensed houses: and then the

cost of the sites and fabrics of these asylums, how far short of 800,000*l.*? And why required? Mainly from the physical and mental degradation during infancy.

Stimulated by your admirable article of last week, and your perseverance in promoting better dwellings for the poor, I venture through your columns to urge the appropriation of a site in all ways favourable for realizing your humane and yet economical aspirations. The site of Smithfield is central, and therefore favourable for the homes of the industrious, as being within hail of their employment.

It is sufficient in extent to afford substantial relief to the overcrowded districts within the metropolis. It would lessen the price of lodgings in unwholesome districts, and cause the proprietors there to improve them for their own benefit.

It would save the almost total destruction of the surrounding property, which must otherwise follow the removal of the cattle-market, by bringing a population to the locality. It would save the conversion of the numerous houses in the neighbourhood into dens of disease, crime, and death, which must otherwise follow their desertion by the present occupiers.

In fine, it appears to me to afford the opportunity for which you and your fellow labourers have struggled so long and faithfully,—the doing justice at once to the poor and ourselves, by finding the former proper dwellings. Pray use your powerful influence and practical knowledge to carry out this suggestion of

A MAGISTRATE.

THE CAMP AT ALDERSHOTT.

HAVING given currency to some of the objections which have been made to the works now going on for the accommodation of the troops at Aldershott, and being anxious not to swell without cause the chorus of abuse of everything and every body which is now ringing through the country, we ran down the other day from the Waterloo Station to Farnborough, by the South-Western Railway (the distance is 33 miles), and thence by chaise, easily procurable *at present*, to the site of the camp, about 2½ miles off, in order to judge for ourselves. The country is beautiful; the ride a charming one; and if our purpose were to write an article, and induce some of our readers to make a journey to the camp, and get the advantage of a little fresh air, we might descant through a page on these subjects, and introduce all sorts of information on trees in general and pines in particular, talking learnedly of the *pinus abies*, *pinus cedrus*, and the *pinus strobus*, or what is called the Weymouth pine, whereof there are large numbers on the road; and pointing out specimens of the larch,—the only one of the fir trees, by the way, not an evergreen,—standing unclothed and shivering amongst their well-covered companions. This, however, is not our present object, and we will only stop to say, that the prevalence of the pine gives a very advanced look to the country about Aldershott: the eye finds it everywhere, and the nose receives suggestions of Canada balsam, turpentine, and spruce beer at every turn.

On approaching the heath, said to comprise 3,000 acres, the long ranges of wooden huts have a curious appearance, and suggest the temporary towns of the gold country. Six hundred of the huts are ready, about half the number intended, and these stand 18 feet apart, on each side of a road (a sufficient number being together to serve for a battalion). Each hut for the privates is to accommodate twenty-five men, with a kitchen, and (too small) range, or cooking-stove. With the exception of the fire-place, the huts are wholly formed of timber, boarded inside and out, and, in the first instance, were planted down on the soil without any foundation. Those erected more lately, however, have some concrete, with a few courses of bricks, for the woodwork to stand on; and, so far from finding fault with this, which costs, perhaps, 2*l.* 10*s.* a hut, as some have done, we should say that it would be much better if a layer of concrete were spread over the whole site of the hut, so as not merely to save the joists from decay, but to keep down those vapours and damps which make a bed close to the ground unwholesome. Nothing will be gained, we suppose, by accustoming the men to get ill, and be cured. They will not be any better prepared thereby to stand unavoidable unwholesome influences when the time of real struggle arrives. The roof is formed of feather-edged deals covered with asphalted felt.

The arrangement of the huts is not good: in fact, we should not be honest if we did not say that it seems to us to be very bad. A flat ceiling is formed with boarding at the level of the underside of the tie-beams, and the windows, *hinged at the top*, to make the matter worse, are placed low in the sides of the hut, not more than 4 feet 6 inches from the hinges to the floor. The room has the aspect of a large egg-box: with a quarter of hundred of men sleeping in it, the atmosphere will become poisonous. It is true there is a hole through the ceiling, to allow the smoke pipe of a stove to pass through, but the small annular opening left round the pipe would be altogether insufficient for the purpose of ventilation. Why have the flat ceiling at all? If the boarding followed the line of the rafters at a sufficient distance from them to inclose a layer of air, protection would be obtained from sudden alternations of temperature, and a more lofty and healthful apartment formed of a convenient shape for draining off the vitiated air.

The greater number of the huts are being executed by Messrs. Haward and Nixon.

Going towards the village of Aldershott (where a fresh publichouse is being built, by the way), the ground has been staked out for the permanent barracks; but the arrangement of these seems even yet scarcely settled. Inasmuch as it is proposed to erect accommodation for 10,000 infantry, 3,000 cavalry, officers' quarters, magazines, depôts, &c. &c. it is desirable that the best consideration should be given to the subject. It is understood that these barracks will take the shape of quadrangles, each lodging 1,000 men, and it is intended, we are told, that the dormitories are to be open for the accommodation of the married and unmarried indiscriminately. Language too strong cannot be used in condemnation of such a system; and we do most sincerely hope that the determination will not be adhered to. Surely a classification could be made, and the dormitories appropriated to the married should be divided into compartments by low screens.

Mr. Myers has the contract for the erection of the barracks.

Good roads are being made throughout the camp, but when these will be finished it would be hard to say, under the system at present pursued. One good road-man, working with a will, would do as much as six of the incapables there gathered together.*

The camp will raise the value of some of the adjacent properties. We were told on the spot, that three acres of land which were bought not long ago for 100 guineas have been sold recently for 1,020*l.* Owners may rejoice, and the lucky proprietor of the Row Barge Inn, at the entrance to the camp, is probably already in correspondence with some eminent "Threadneedle-street broker," to obtain good investments for his surplus profits.

Aldershott Church appears to be mainly of the fifteenth century, and has few beauties—externally at all events. We could see through the window a seventeenth-century monument, displaying the regiment of small children, before and behind the kneeling mother, which the sculptors of that time delighted in setting forth, but further than that we could not penetrate. The stonework of the tower has been renewed with brick. There is a wonderful old holly in the churchyard, which has silently looked on while twenty generations of the Aldershottians have passed away, and two fine yews keep it company, planted at a time when the fighting men thereabout looked to such trees for their arms.

FIRE IN THE CITY-ROAD.—Last week three workshops belonging to Mr. J. Lunnagden, cabinet-maker; a timber and veneer store, belonging to Mr. S. J. Cross; and several houses, were rapidly consumed by fire before the engines could be effectually brought to bear upon them.

* With reference to a recent letter, headed "Barracks and the Admiralty," one of the Department desires to state "that all work submitted to public competition for special contract, and all others of major importance, for those in civil rank which are carried out by measurement, although under the general control of the officers of the Royal Engineers, are under the personal superintendence of the Civil Professional Branch of the Royal Engineer Department, the members of which, speaking generally and particularly, are fully competent and it is their duty to analyze and check all prices for works or materials not specified in the agreed price-book or schedule."

THE PARIS EXHIBITION.

AN ordinary observer, looking at the building, would say that it was quite impossible the Exhibition could be ready by the 1st of May: indeed, there is not a single thing unpacked yet in the *Palais d'Industrie*; nevertheless, the authorities on the spot still assert that it will be opened on that day.

The long gallery, which is to be appropriated to the machinery in motion, and which, by the way, is twice as long as our building was in Hyde Park, is in a very unfinished state: the flooring is not down, and not a single piece of machinery is erected: indeed, there are very few packages of any kind to be seen, though the officials say they scarcely know where they will find space for the claimants. The other building—the *Palais des Beaux Arts*, is in a much more forward state; and in it there are some magnificent galleries for pictures and sculptures, with the lights most admirably arranged. The French have secured for themselves the best rooms, or rather the *largest*; but this is perhaps as it should be, as they exhibit some pictures of extraordinary size, belonging to the nation's galleries and churches. England has a portion of two narrow galleries, speaking comparatively, one on the ground floor, the other above: in the former will be placed the oil pictures; in the latter, the water-colour drawings, engravings, and lithographs. The engravings and lithographs are hung, and it is curious to see how many of the works issued by the Art-Union of London are on the walls: in fact, most of the prints, and many of the woodcuts, are there. These are all exhibited by the engravers themselves. The works sent by the council will be in the other building—the *Palais d'Industrie*, and a capital place has been allotted to them.

Our correspondent happened to be present on the 7th, at the opening of many of the cases of pictures from England, and says that, with but one exception, there was not an accident of the most trivial kind: even this was not of any moment, being only damage to the frame of one of Mr. Uwin's pictures.

Messrs. Redgrave, Creswick, Hurlstone, and Warren, are vigorously at work with hammers and screw-drivers, superintending the unpacking. Our display will not be a large one, but it will be very creditable. There are hundreds, nay thousands, of pictures in the building piled up one against another, but not half a dozen are hung.

The jury have had a little matter to contend with, somewhat of the nature of our "fig-leaf controversy" at Sydenham, relating to a picture which represents an interior of the artist's studio; it is an immense picture, with the figures all life-size, consisting of portraits of artists, amateurs, and models, some of the latter being "in the nude." The eyes had it, and it will probably be hung. Nothing is yet settled about the opening ceremony, and not a single invitation has been sent out. Paris is very full already: the people are looking out for a great harvest.

GLASGOW,—ITS PROGRESS AND ITS EXHIBITION.

GLASGOW, it is my belief, is at the present time the most go-ahead city in Great Britain. Her progress, even within the last five years, is extraordinary; and it does not consist in extension merely, but in the recognition and application of the powers daily unfolded by science, as well as no small encouragement of art. The miles and miles of new streets are, to one who has been for some years an absentee, surprising; and they are the more striking, if his stay the while has been in the metropolis; seeing the great advantage which the "flat" or horizontal system of houses possesses over what the Glasgow people call the "self-contained" or vertical system,—at least as viewed externally. In the former, the architecture may be magnificent; in the latter it seems fettered to mediocrity. This can be understood at a glance by the Londoner, by a visit to Victoria-street, Westminster. As regards the commercial metropolis of Scotland, its street-architecture has been making rapid strides in the period I have named; and Venetian, which offers many advantages,

sees to be considerably cultivated. In Ingram-street there is, near its completion, an extensive and costly erection of warehouses, in what is intended for the Old Scottish style, by a clever London practitioner who ought to have known beer; but the pigeons at least will be pleased when billing and cooing up among its dormers and turrets: it is ornamented with a row of sun-heads about 2 feet square, and not far off a foot in projection. The worthy citizens are much given to church-building; and each succeeding effort seems to eclipse its predecessor: in fact, that seems, *par excellence*, there, to be "the way the money goes,"—all due acknowledgment being understood as to the princely contribution to the Patriotic Fund, which only London could surpass. The modern knowledge of Gothic art is of English growth, and mainly due to the enthusiasm of a sect. The Glasgowegians are all the better for having had a few ecclesiastical structures erected from designs procured beseuth the Tweed: at any rate, they have amongst their own artists now men who have the true feeling for mediæval art, which a few short years ago was to them a mystery—under a great seal.

The equestrian statue of her Majesty the Queen, by Baron Marochetti, is a fine work; and I have no doubt that the Peel statue by John Mossman,—judging by the small model, and by the head, which is already completed in plaster, and presents an excellent, characteristic likeness,—will be an ornament to the city. The figure is to be 8 feet high, in bronze, and will probably be cast in London. There appear to be disadvantages attending the electro-deposition process of obtaining the metal figure; one of which consists in the metal being pure copper, which sculptors do not esteem so highly as they do bronze.

The new stone bridge at Stockwell-street is a satisfactory structure, excepting that it seems as if three arches might have sufficed instead of five. The question of *rise* comes into play, but the ellipse in lieu of the circular-segment would probably have afforded the requisite facility. The suspension-bridge at Portland-street also looks well: another is commenced near the Humane Society-house. Below bridge, the increased river business points to the desirableness of a tunnel for the cross traffic. A Glasgow architect suggests the opportunity which certain river operations at the present time offer for the diversion of the stream from one-half its channel, to enable the excavation for the tunnel, and its construction, to be carried on from above, one-half at a time,—thus obviating the costly, tedious, and hazardous process of doing it by "tunnelling:" depth, also, could probably be saved by adopting such a course.

The Clyde continues to hold its character for marine-engines: a companion on the rail—on his first visit from the land of stars and stripes—told me of the special reliance placed by all classes on those "l-ners" which are fitted up with engines from the Clyde.

In Glasgow, Dr. Arnott's chimney-valves are not so well known as they ought to be; and revolving iron-shutters seem slow of adoption. I also saw no application of the principle of laying-on daylight in basements by means of reflectors: when that wrinkle strikes, I hope the white porcelain washable tiles will be used, not oxydizable metal. They have in the streets a number of spiral-planned halting-places, somewhat similar in appearance to those on the Boulevards of Paris, but not painted of a stone colour, but nearly black: the former I think preferable. Their omnibuses are amongst the most remarkable objects in the streets,—large, light, and elegant: compared with them, the London 'buses are mean and incommodious in the extreme, and the sooner some spirited capitalist introduces the Glasgow ones in town, the better for himself and the public. On the other hand, Glasgow wants a few of our large-wheeled "Hansom" cabs, and its cab fares want modifying. The clever suggestion made about a twelvemonth ago, and shortly after adopted, to separate, on London-bridge, the fast-going from the slow-going vehicles, should be immediately applied to Glasgow-bridge; and it is equally desirable in the main and crowded thoroughfares of London and other cities. On London-bridge, the two pairs of to-and-fro currents are as regular as if they were on tramways; and there are now no stoppages: in fact, the improvement is equivalent to another bridge, and the public are deeply indebted to its ingenious propounder. There is much hinderment in social affairs through the admixture of "slow coaches."

The Glasgow Exhibition presents a remarkable example of what a few men, imbued with a fervid love of, and having a burning thirst for, their art, and a resolute purpose withal, can achieve. There is a lofty main hall, having an aisle of two stories, open to it, on one of its sides; and from the exterior side of the lower story of the aisle open a series of rooms serving the purpose of the "courts" in the past and present Crystal Palaces: besides these, there is another hall, and a council-room and offices. In these halls and rooms are accumulated and displayed a surprising assemblage of works of art in all its departments, obtained from the collections of illustrious and distinguished personages in this country and the Continent,—paintings, sculptures, models, casts, bronzes, stained glass, glass mosaics, carpets, furniture, china, porcelain, bisque, terra-cotta, tapestries, drawings, photographs,—*cum multis aliis*. There is a large series of drawings, possessing great interest, and for which, I understood, overtures have been made on the part of the British Museum, namely, highly-finished views and measured projections of classic remains, made by Bruce, the traveller: they are in India-ink, and have all the appearance of fine engravings, the scenery and figures true to nature: they are unpublished and unique; and their ransom is a high figure, which I forget. Bruce, I was informed, had studied for two years at Rome, to complete his qualification for this undertaking; and his earlier performances, views of the temples at Pæstum, evince his probationary progress. From Lord Elgin's collection, there are some tinted drawings of Greek remains, by Lusieri, of admirable finish. Mrs. Williams has contributed several fine and large views, in water-colours, of the Acropolis, by the famous "Greek Williams," the finest, unfortunately, not having the foreground finished. There is a beautiful and extensive collection of drawings, early and late, by David Roberts, R.A.—Venice, Glasgow, Dumblane, Elgin, Melrose, St. Andrew's, &c.—including those referred to by Ruskin; some finely-engraved and highly-coloured interiors from Rome, designed by "the inventor of the style called Pompeian;" and an interesting collection, by Dr. Putrick, of Leipsic, consisting of drawings of the Gothic buildings of Germany, &c.

John Thomas figures in James I. Anne of Denmark, and other plastic performances; and Handyside Ritchie is strong in Wallace, and a variety of compositions. Copeland has fine chinas and parians, and Templeton, carpets. The terra-cottas (red), are from Germany, and are very fine: they include a large bust of Hadrian. The architectural models include the palace of Saxe-Coburg, the residence of the father of H.R.H. Prince Albert, who is the contributor; George Gilbert Scott's Gothic houses at Westminster; Somerleighton, the seat of Sir S. M. Peto, Bart. and Preston Hall, the seat of Mr. Betts, both works by Mr. Thomas; Trinity Church, Edinburgh, executed for the Antiquarian Society, for the purpose of the re-edifying of the church with the old materials (the stones having been numbered); Mr. Rochead's Royal Arch, Dundee. The casts include bosses from the crypt and choir of Glasgow Cathedral, and Egyptian and Assyrian fragments in the British Museum.

Of the "Rooms," the Greek, the Italian, and the Gothic, were designed by, and executed under the superintendence, respectively, of, Messrs. Thomson, Clarke, and Burnet; and they reflect much honour on these artists. Mr. Thomson (architect also of the building) has, in the Greek room, a chimneypiece, in two stages, executed in Sicilian marble, with only incised ornamentation, such as the lotus and honeysuckle, and gilt, producing much chaste effect, with a minimum of cost: in the main hall, is another large chimneypiece (in one stage), by the same artist, different in design, but treated similarly, the cost of which I was told would not exceed 35*l*. There are other rooms, the produce of several architects, one which may be denominated Scotobaronial, ably decorated by Messrs. Bogle and Bennett; a fine stained-glass window, by Ballantine, of Edinburgh, who, himself a poet, has depicted the poets of Caledonia, from Barbour to Campbell, — well designating his performance, "The Makers of Scotland:" there is also a good ceiling, by Mr. D. R. Hay, of Edinburgh.

This exhibition is, as I have said, the work of a few spirited men, Glasgow members of the Scottish Institute of Architecture. But they had first to buy property, adapt existing buildings, and erect new; so that their enthusiasm has indeed been of no ordinary kind. Yet, although their efforts have been crowned with success, so far as the eye can discern; and they have been smiled on with the united countenance of all the civic rulers in Scotland, headed by the Hon. Lord Provost Orr, of Glasgow; I doubt whether they will not come out with a loss, apart from the consideration of their property-investment; for, although my visit was on a Saturday, the halls were far from crowded. My opinion is, that the magnates and merchant-princes of Glasgow would do well to put their hands into their pockets, and purchase from the architects of Glasgow this property for the city,—together with such of the works of art as are obtainable and adapted for permanent purposes, as a nucleus for a continuous exhibition; but the trusteeship should remain with the founders, associated with a limited number of distinguished patrons of art. As it is, it will let more light into the minds of both the old and young citizens of Glasgow, in matters of art, supplementing, for the benefit of the home-keepers, the work of the great exhibition of 1851, than anything that has gone before. Art culture by eye-tuition is to that by books as the electric telegraph is to the old semaphore All honour to such spirit, and to such indefatigable and enlightened workers as Mr. Salmon, the (I believe) presiding genius,—with Charles Wilson, architect; Charles E. Wilson, of the School of Design, and other confreres, whose names my memory does not enable me to particularize. A remarkable and admirable feature in the business, is the cordiality with which these local architects, with an utter absence of professional jealousy, have worked hand-in-hand together, showing how paltry considerations vanish when a noble work is to be done.

I was glad to meet with several men who now eschewed tobacco, and were breaking off their noses from the nasty habit of snuff-taking: their libations of fire-water, too, are less deep than formerly; and though still, after dinner, the lady toddles for the toddy-ladles, the lords generally hesitate about indulging in a second *tumbler*.

JAMES WYLSON.

DISMISSAL OF A DISTRICT-SURVEYOR UNDER METROPOLITAN BUILDINGS ACT.

On Thursday in last week, at the West Kent Quarter Sessions, held at Maidstone, certain charges preferred against Mr. C. R. Badger, the surveyor under the Metropolitan Buildings Act for the district of Lewisham,—for demanding and illegally and wilfully receiving certain fees,—came on for hearing.

Mr. Bodkin and others appeared in support of the charges; Mr. Horn and Mr. Russell for the defendant. The allegation was, that Mr. Badger had illegally received 10s. each for three water-closets attached to three fourth-rate houses, for which houses he had been paid 2*l*. 2s. each, the said water-closets having been covered in within twenty-one days after the completion of the building. This covering-in had been effected by a slate cistern over each closet. The district-surveyor asserted that the covering-in was not done within the time, because the cistern, through its shape, left a portion of the top, running from 9 inches wide to a point, uncovered, and that this was not made perfect, nor was the party-wall made of the proper thickness, till nearly two months after the houses had been covered in.

The counsel for plaintiff admitted that an association of builders had been formed, to bear the expenses of this and similar proceedings

against the district surveyor. Mr. Horne commented severely on this, and showed the diversity of opinion as to construction of certain parts of the Act, which rendered it difficult for the district surveyor to act rightly.

After consideration, the chairman (the Earl of Romney), said the court had taken the subject into consideration, and was of opinion that the complaint was well founded, and also bearing in mind the fact that Mr. Badger had before been fined 30*l.* for a similar offence, the court ordered that he be dismissed his office.

We shall not be suspected of any undue bias in favour of Mr. Badger: on more than one occasion we have considered it our duty to express strongly our objection to views entertained and acted on by him, in the office of district surveyor: nevertheless, we must now say, that if the statements forwarded to us be correct, he has lately experienced very improper treatment at the hands of what in plain English was very much like a conspiracy.

PROVINCIAL NEWS.

Worksop.—In order to complete the restoration of Worksop Abbey Church, a bazaar was to be held in the Assembly-room of the Corn-Exchange, Worksop, on the 10th, 11th, and 12th of the present month, under the patronage of the nobility, clergy, and gentry of the neighbourhood. Facilities for speedy and cheap travelling were to be provided by the Manchester, Sheffield, and Lincolnshire Railway Company.

Lowestoft.—A new fish-market on the north pier has been erected. The length of the building is 350 feet, by about 22 feet in width; height, 10 feet in the clear, floor flagstone. At the western end there is a look-out, 60 feet in height. Nine pumps will furnish a supply of water from the sea beneath. At each end of the market are offices, for the fish salesmen and clerk of the market. A couple of landing stages are provided on the harbour side, for the despatch of goods. On the north side of the building is constructed a road 40 feet in width, with a double line of rails communicating with the railway station. In front, trucks will be arranged, having their floors on a level with the floor of the market, thus dispensing with the hitherto heavy work of lifting to a height of some 4 feet. To prevent interference with the fair-way of the harbour, an additional pier 420 feet long, by 20 feet in width, has been formed, running from the end of the north pier, on which the market stands, in a line with the old inner north pier, thus forming for the use of the fishing-boats a harbour within the harbour. Opposite the cattle-sheds twelve white brick salt-stores are now in course of erection.

Battles-bridge.—The committee appointed at the Essex Sessions, on the subject of the erection of a new bridge at Battles-bridge, have reported that they advertised for tenders for an iron bridge, and had received two, and also a letter from Messrs. Cottam and Hallen, who stated that they had before offered to erect the bridge for 1,550*l.* and they still adhered to the offer. The committee therefore recommended that this should be adopted; and considering the labour and trouble of Messrs. Law and Blount, they recommended that 110*l.* should be paid to them for the designs and drawings, and for the superintendence of the work to completion. The report was agreed to. The committee was continued in the case of Bell-bridge, Nayland.

Barnet.—The works of the new Gas Consumers Company here being completed, the town has been lighted with gas from their mains.

Welford.—Three years since the rebuilding of this church was begun by the rector, the Rev. Wm. Nicholson, who, it is expected, will expend about 4,000*l.* in the completion of the structure. The works for the body of the church were sufficiently executed to allow of being opened for service on Sunday, March 26th. The old church consisted of chancel, nave, and south aisle. In the rebuilding, a north aisle has been added, uniform with the south, the style being that of the fourteenth century, adopted for the new works. The nave and aisles form a square of 50 feet. The walling is of faced flints, with Bath stone dressings, and ashler inside. The aisle windows all vary in the design of tracery and mouldings. The chancel arch is of bold dimensions, having three tiers of richly-carved mouldings in the arch, supported by five serpentine marble shafts on each side. The roofs are open, and of timber; the bonds English oak, with ribs resting upon stone corbels. A series of eight monumental recesses are worked in the aisle-walls. The seats are open, with carved ends of English oak. The chancel, not yet completed, will, in style, be Early English, with three Lancet windows on each side, with triplet at east end. The dimensions of the chancel are 31 feet 9 inches, by 14 feet 9 inches. A series of enriched arcading extends round the north, south, and east walls, the shafts to be serpentine marble. The whole of this portion will be groined in stone. The architect is Mr. Talbot Bury; clerk of works, Mr. George Jarrett, sen. We regret to say the round tower of the church, which supports a beautiful Early English spire, is reported by the architect to be in a dangerous state.

Kidderminster.—The manufacturers of this town speak of an extensive adoption of steam power as absolutely necessary to enable them to hold out any prospect of the trade here being preserved. It is said that Lord Ward has offered to advance of from 20,000*l.* to 30,000*l.* for the purpose of erecting large sheds and power to work a great number of looms, if the manufacturers would meet his views by a fair and equitable arrangement. This has, it is also said, already been done, so that the undertaking will be carried out, and thus the present hand-loom manufacturers be enabled to rent any number of power-looms that they require. It is to be hoped that Lord Ward will take care to prevent the possibility of power-loom rents being charged to working hands by those who employ them to work at such looms.

Corse.—The ceremony of laying the foundation-stone of a new national school-room in this parish, took place on Monday before last. The stone was laid by Mrs. H. Malpas, assisted by the architect, Mr. Archibald McGachen. The land was granted for the purpose by Sir W. Page Wood, and the plans and designs were supplied gratuitously by the architect.

Chester.—The grand stand for the races here, which lately suffered by fire, is to be substantially re-erected or repaired. Messrs. Royle and Son are the contractors, and Mr. T. M. Penson the architect.

Stratford-on-Avon.—A corn exchange is proposed to be erected on the site of the Wheat Sheaf Inn, in High-street, of this town.

Newark-upon-Trent.—On 29th ult. the directors of the New Waterworks Company here made a tour of inspection of their works previous to delivering them into the hands of the shareholders. They assembled at the engine-house near Muskham-bridge, and after inspecting the buildings, engine-house, filter-beds, well, and grounds, proceeded through the town, along the company's mains to the reservoir upon the summit of Beacon-hill. The engineer, Mr. T. Hawksley, accompanied the directors. After the inspection, the company, upwards of thirty in number, sat down to dinner in the Ram Hotel.

Manchester.—An improvement of sanitary importance has just been completed, by the arching over of a part of the river Medlock, to the west of Oxford-street. A curvature of 15 yards to the south has been cut off, and the stream has been arched over for a continuous length of 156 yards. The arch has a span of 13 feet, and rises 8 feet from springing to crown. It is below the level of Oxford-road, but a street is to run along the line, uniting Hulme-street with George-street, and earth is being placed over the brickwork, so as to raise the road to the required level. The original estimate of the borough surveyor was 4,300*l.* and the actual cost is within 100*l.* of that sum. The proceeds of the plots of land gained by the improvement will, of course, be in reduction of the amount expended.

Blackburn.—The mayor of Blackburn, says the *Preston Guardian*, is using exertions to procure the erection of public baths for the use of the town, to be erected in the proposed public park.

Stockton.—A large yard in the midst of human dwellings in Portrack-lane, it appears, has been opened out as a burying-ground for horses. The inspector of nuisances reported to the Board of Health that the carcases of the horses were hardly covered, and appeared to have been attacked by dogs. The affair, says the *Gateshead Observer*, has occasioned some excitement, thus justifying what we have more than once affirmed, that if any one were to take a field in the midst of a town, in the way of trade, and bury therein, year after year, hundreds of the bodies of brute beasts, he would become an object of universal execration; while yet the burial of our own race in populous towns is regarded as a thing of course.

Norwich.—It is in contemplation to erect a new workhouse here, the present one being condemned as inadequate by the guardians and the Poor-law Board.——A fine-art exhibition is to be held in the city in the course of the ensuing month.

Dudley.—The contractor for the model cottages at this place having finished the covering in, the workmen engaged thereon were entertained at a supper on the 22nd of March, at which several of the committee were present, Dr. Browne, the vicar, occupying the chair, and E. Hollier, Esq. the vice-chair. According to the local *Journal*, great satisfaction was expressed at the progress of the works generally, fifty-two working days only having elapsed since the first sod was turned, exclusive of forty-one days of frost. Among the toasts were "The Committee;" "The Secretary;" "The Shareholders;" "The Architect," Mr. W. Wigginton; "The Contractor," Mr. Nelson; "The Dudley Local Board of Health;" and "The Working Classes in *general*, and those then assembled in *particular*."——A gentleman of the name of Jesson, who was rather inclined to be miserly, has just died, and left 10,000*l.* for the erection and endowment of a school at Dudley. To judge from the *clever bits* in *Punch*, collected from the "Mining Districts," this will be an acquisition to the black country.——The Freehold Land and Building Society have agreed with Lord Ward for the purchase of about twelve or fifteen acres of land adjoining the town, and in a very valuable situation. The new street proposed by the Board of Health, three-quarters of a mile long (to relieve the traffic in Wolverhampton-street), runs right through it.

BRICK HOUSE AT TREPORT.

Finding in the *Revue de l'Architecture* the elevation and details of a house built at Tréport, from the designs of M. Stillierre, architect, whereof the façade is wholly of brick, we have re-engraved it, on a larger scale. It faces the sea-shore (Treport is a bathing-place), and is intended for two families. The ground-floor consists of drawing-room and dining-room (*salon* and *salle à manger*), kitchen, and offices. In the floor above there are five rooms, to serve as chambers and dressing-rooms. The third and fourth floors have the same distribution as the ground-floor and first-floor.

Nearly all the constructions there are of brick, stone being expensive, and M. Stillierre has adopted the material of the country, and used for his mouldings the forms commonly employed there, the cavetto and quarter-round, variously combined. The decoration over the third story is produced by the use of flints, black and white, from the shore. The cost of the house was 547*l.* sterling. The frontage is 6 mètres.

REFERENCES.

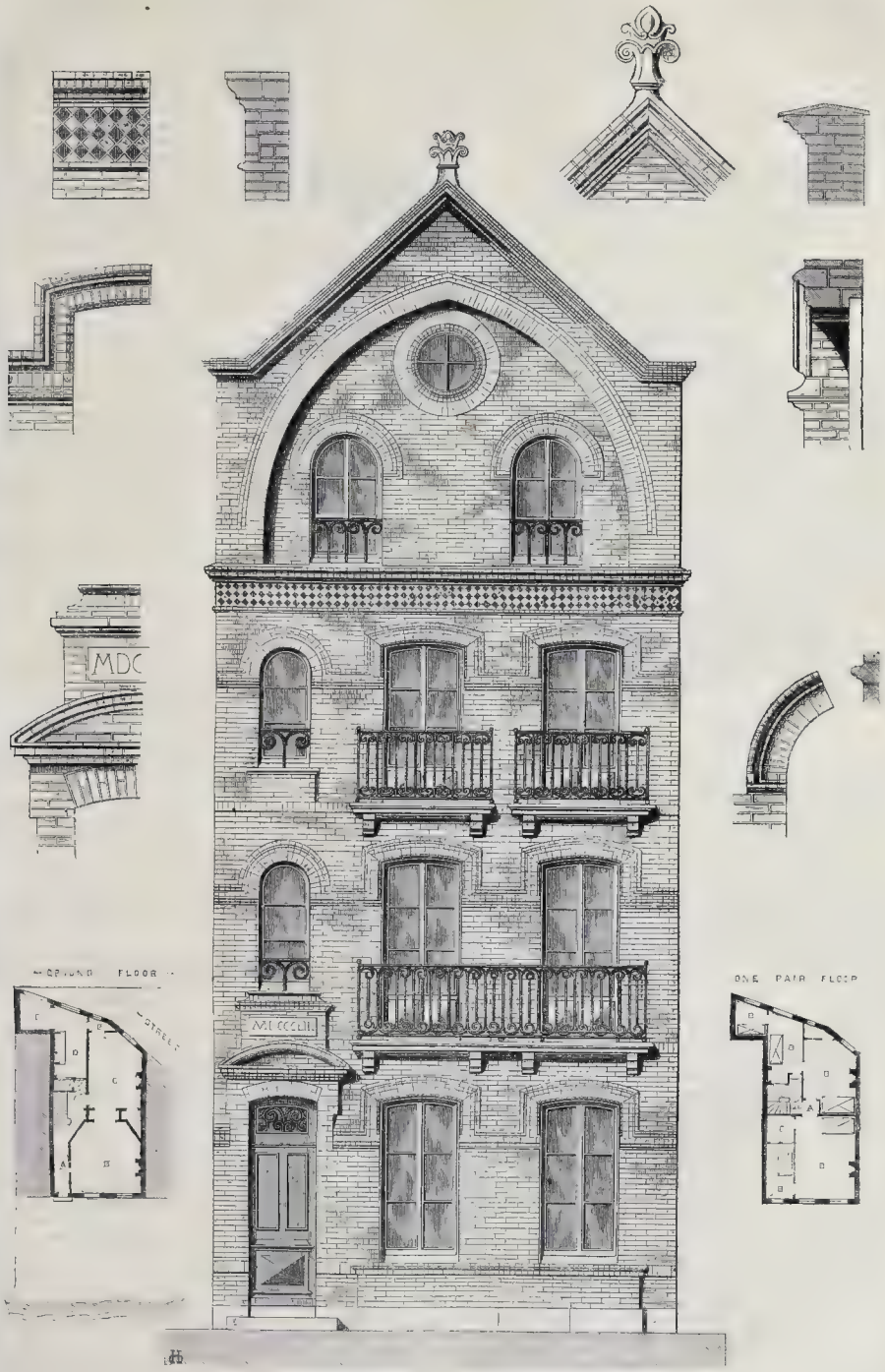
Ground Floor.

A. Vestibule.
B. Sitting-room.
C. Dining-room.
D. Kitchen.
E. Scullery.
F. Entrance from the street.

One-pair Floor.

A. Landing.
BB. Bed-rooms.
C. Dressing-room.

Yankee Visiting Cards.—The *élite* of New York, it seems, made their last New Year's day calls with visiting cards displaying photographed likenesses of the upper works of the callers, instead of mere names. This is going *ahead* with a vengeance.



HOUSE AT TREPORT, FRANCE.—MONS. C. STILLIEBRE, ARCHITECT.

COMPETITIONS.

Woolwich.—Fifteen designs for laying out, planting, and draining the intended new burial-ground, and erecting two chapels and lodge, were received by the burial board, from which they have selected those of Messrs. Church and Son, Woolwich.

Aberystwyth.—A correspondent wants to learn something about the competition for a clock-tower at Aberystwyth, having sent in a design, and being unable to ascertain if any decision has been come to.

Edinburgh.—The Commissioners of Police some time since announced their intention to give two prizes—one of 50*l.* and the other of 25*l.*—for the best designs for laying out the meadows at Edinburgh as a public park. The period allowed for depositing these designs expired on Saturday, and up to that day nearly forty had been lodged with the clerk of the commissioners. We have received some premonitory warnings as to the decision, but must wait events.

Conduit at Cambridge.—An advertisement has appeared in our columns inviting designs for a new conduit. Three local boards are interested in its erection, and will defray its cost from their respective funds. Each board sent a deputation to form one joint committee, who instructed the town surveyor, Mr. R. R. Rowe, to prepare designs for a conduit, the size, style, shape, and other arrangements being given. The design was made, and so far approved, that the improvement commissioners entered into a contract with a builder to construct the foundation, pen-stocks, waste-water drains, &c. for 199*l.* 15*s.* on the 16th of January, 1855. This work is now daily in course of erection upon a treacherous site, part quicksand, and part recently made ground. A committee of the council met on the 4th instant, and agreed to a report recommending Mr. Rowe's design to be carried out. Yet the council on the following day rejected the report of their own committee by a majority of four, upon an amendment being proposed to the effect, that "they had seen only one design, and others might be obtained for them to look at, from architects, free of expense, if they advertised for new plans." And accordingly they did advertise. It is right intending competitors should know this.

WAR APPLIANCES.

WE some time since noted the importance of using the electric light by night in discovering the whereabouts of the enemy while at work, so as to direct the efforts of the ordnance against him. It would appear, however, that the Russians have actually adopted it against the Allies themselves in a late unsuccessful French attack. The *Morning Post's* correspondent says, as to this very important and serious matter,—"I am told that electric lights were placed on the attack as a guidance to the batteries and shipping which played on the French, among whom it caused considerable confusion—the light being thrown occasionally upon them, and then taken off, in the one case dazzling the troops, and in the other throwing them into a darkness which might almost be felt. This was very unfortunate, as the French had just imported a similar invention, which was not quite ready for adoption." Such a circumstance may serve to show the importance of being first in hand with such novel war appliances in this unprecedented warfare.——A complete floating flour-mill and bakery have *at length* been got ready for the Black Sea, twelve months after they were pointedly urged as an important *desideratum*. Two vessels have been fitted up in two months for these purposes, one as a flour-mill and the other as a bakery, by Messrs. Fairbairn and Son, of Manchester. The mill can grind 700 to 800 bushels of wheat a day, and the bakery is capable of turning out 20,000 lbs. of bread a day.——A design has been prepared for an improvement in cannon, by Mr. Thomas Shepherd, engineer, who thus describes it:—"Four large guns are fitted upon a horizontal face plate, with an upright shaft in the centre. This upright shaft works in the centre of the carriage cross-head, and takes a rotary-horizontal motion. The guns are equally divided into four parts, so that the shot from each gun takes the same direction and elevation, which can be adjusted with an index plate. The guns and carriages are made of wrought-iron. They will pour out thirty-four balls per minute, in a direct line. This four-gun ordnance can be fitted up for light or heavy artillery. As regards ships of the line, they will be more easily worked than the old guns. The port-holes of the ships may be one-fourth less in number. This machine, with its four guns in one port-hole, will discharge thirty-four red-hot balls in one minute."——A revolving battery was invented five or six years since by a correspondent of our own, Mr. Elliot, of Southampton, of whose rough-and-ready war-railway we lately gave some account. The battery referred to was submitted to Sir John Burgoyne, through the interest taken in the inventor of this plan by the Duke of Richmond; but Sir John, while admitting its ingenuity, said that as the great object in defence was to avoid concentrated fire from the same spot, he doubted whether the invention would be of any use. Mr. Elliot thus describes his plan: "It consists of a circular shaft, say of 100 feet diameter, sunk in the ground and made water-tight. Within this was to be a circular wooden vessel, on the outer rim of which the cannon were to be mounted. The shaft was to be deep enough to allow the vessel with its load of cannon to float. One or two men could then easily bring each cannon in succession to bear on any object. The cannon, as discharged, could be reloaded by men stationed in trenches at the back of the shaft. As the mouths of the cannon would have been barely clear of the ground, there would be nothing for an enemy to fire at in return. There would be little recoil to guard against, as the cannon fired would have the resistance of all its neighbours, and the weight of the wooden vessel immersed in the water, which would reduce the shock to a mere nothing." Mr. Elliot thinks that a series of such batteries along the coast would greatly conduce to its safety.——A contemporary tells a strange story about an immense and insurmountable difficulty which lately occurred at Scutari to some invalid officers who desired to obtain a medical board to "sit on them." The difficulty arose from want of foolscap! and the invalids had been waiting twelve days from want of it. "At last it is discovered that 'Stampa' has foolscap, and the medical department receives notice of the fact. But, if Dr. Menzies purchases a quire, it will possibly be at his own expense, and at least another quire will be taken up in the correspondence relative to reimbursement. He therefore hesitates to take the step. One of the officers then says he will buy some, but is at once met with the objection that the medical department cannot receive stores of any kind except from the properly constituted authorities." How or when the difficulty ended does not appear. Lord Lucan knew how to overcome such official "foolscap" difficulties as these: having written his signature on the official foolscap "half an inch too low," and had the foolscap accordingly sent back to him for correction, he threatened that if such foolery were ever played off on him again, he would take care that the fool who did so should have no further opportunity of repeating the nuisance. The result was that *no more difficulties* of this kind ever occurred again to Lord Lucan. This little anecdote may show how far it is the unbending stringency of official regulation, or the still more unbending and insolent, pragmatical, and impracticable stringency of officials themselves, that, in such cases, ought to be blamed.——The British fleet at the present moment in commission counts 271 ships of all classes, mounts 6,370 guns, and is manned with about 62,000 officers, seamen, boys, and marines. It is estimated that we require at least 4,000 petty officers and seamen to complete the crews of our ships at present fitting out at the ports.——At a recent meeting in London, Sir S. M. Peto stated that on the 26th ult. the line was to be completely finished to the English head-quarters, and that it would be then employed daily in carrying up 1,000 tons of stores and ammunition. General Canrobert and the Emperor of the French had intrusted to his firm the performance of the same duties for the French as they had accomplished for the English. The branch to the opposite side of the harbour at Balaklava has for some time been completed, and available for removing the heavy guns and mortars on the Diamond wharf, and by rendering both sides of the harbour available, is of the greatest utility. The issue department of the Commissariat for fuel and barley has for some time back been removed from Balaklava to Kadikoi, where the navvies have constructed a depôt and platform, with sheds and other conveniences. Of barley alone nearly 1,000 sacks are required by the army daily. The naval brigade being short of water, the well-sinkers belonging to the railway corps were set to bore for water in the neighbourhood of the camp, and it was expected that their researches would be speedily successful.——The great point of attraction in the Thames at present is the construction of the screw batteries for the Baltic. Mr. Scott Russell is building one, Messrs. Green two, and Messrs. Mare and Co. two. They are crowded with workmen: night and day gangs of men are employed, and there is no pause to the busy work. The chief difficulty is in the bending of the massive plates, 4½ inches thick, to adapt them to the peculiar curves of the bows and sterns of these new batteries. Messrs. Green have their plates from Scotland, and Mr. Scott Russell has his from the country; but everything for the batteries constructing by Messrs. Mare has been manufactured on their premises: in fact, the whole of their gigantic concern has been absorbed in this great national work,—steam-hammers and forges in making and twisting, lathes and tools of all kinds in the machinery department, drilling, planing, cutting, and squaring, and at least a dozen furnaces and 200 men in bending, hollowing, and adjusting. At least 800 men in various departments are employed in the construction and completion of these batteries, on which, though regarded by many experienced officers as so many useless logs or targets, our chief hopes of destroying the Russian fortifications would appear to be centered. That even these, however, are capable of reducing formidable earthworks on the Russian coasts, may certainly be questionable, but, at all events, something else than mere combustible and splintering "wooden walls" are requisite to cope with walls either of stone or earth. A combination of blocks of timber bound up, in several series, with bolted encasements of iron, has been suggested for war ships, as not only powerfully resistive of the force of cannon balls to penetrate the whole, but as also practically incombustible by red-hot shot, though these be imbedded in charred circles of the timber, thus excluded from access to the air by alternating iron plates, and also by concrete poured into all interstices. We still trust that some of the iron floating-batteries now forming both in England and France are destined for the Black Sea, where both these and the new gun-boats are at least as much needed as in the Baltic to assist in bringing to a speedy close this butcherly and horrid war.

SIZE OF ANTWERP CATHEDRAL.

THE following particulars will give your correspondent, "D. A." the information he requires respecting the dimensions of Antwerp Cathedral, and will exhibit the difficulties of obtaining accurate information on topographical subjects:—

According to the "Encyclopædia Britannica" (new edition), the dimensions are—Length, 500 feet, breadth, 250 feet (across the transepts); height of tower, 403 feet.

"Murray's Hand-book,"—500 feet long, 250 feet wide; height, 403 feet 7 inches.

"Penny Cyclopædia,"—500 feet long, 240 feet wide; tower, 366 feet high.

"Belgian Hand-book," published by Lannoy, of Brussels—160 metres long, 80 metres wide; tower, 130¾ metres, or 391 French feet high: this, in English feet, is respectively 524 feet 11 inches, 262 feet 5 inches, and 428 feet.

M. Schayes (in Weale's Quarterly Papers), 117 metres long, 65 metres wide, and 122·925 metres, or 430 Antwerp feet high, equal respectively to 383 feet 10 inches, 213 feet 3 inches, and 403 feet 3 inches English.

I have not the article in the "Architectural Dictionary" at hand, but very probably the dimensions given therein were derived from Schayes, as they appear to correspond.

Hope does not give the horizontal dimensions, but states the height of the tower and lantern to be 466 feet.

The metre is taken in the above calculations, at 39·37 English inches, and the French foot, at 12·789 inches.

In the article in the *Builder*, the dimensions inserted were those most commonly received.

J. A. P.

LONDON ANTIQUITIES.

IT will probably be admitted that the capital of a great empire should possess a collection of national antiquities illustrative of its rise and progress through successive changes of local government, occupation, and social peculiarities. Such *pabulum* for the archæologist, the student of national developments, and the historian, is abundantly afforded by every city of civilized Europe, with the exception of our metropolis. May I, as a very humble inquirer, ask if this deficiency is attributable to apathy, incompeteuce, party spirit, parsimony, want of funds, or want of opportunity? I will, with your permission, speak only of the two last suggested causes, and leave the remainder for independent criticism.

1st. A certain collection of London antiquities has been formed by Mr. C. Roach Smith, and has recently been offered to the British Museum for the sum of 3,000*l.* If worthy of the nation's regard, it should have been instantly accepted, and the money paid from a fund of 100,000*l.* which the Secretary of the Treasury last week informed the House of Commons is annually allotted for the express purpose of making such acquisitions. But the offer has just been declined by the trustees, and it only remains to determine how much the public may have lost or gained by their decision. So much, however, against the excuse "want of funds."

2nd. To treat of the position "want of opportunity," it is simply necessary to consider what the

Roach Smith collection really is. It is, then, a series of objects in every conceivable material, discovered in the process of city excavations, or dredged from the bed of the Thames. Primeval, Roman, Saxon, Norman, and Mediæval articles are all in their several places: they were all found *in London*; and they consequently afford to the enlightened student a daguerreotype view of what the great city was from the epoch of its foundation to the close of the seventeenth century. If a wounded warrior before the iron era lost his shield in combat, that bronze shield is here: if a sandalled Roman walked through the half-peopled streets, he died, but left those sandals: if a sculptured deity or hero decorated a temple, or frowned from a tiny forum, it is now exhumed: if a Saxon prince or noble cantered by the water's strand, and dropped his golden brooch, that brooch retains its integrity, its enamel, and its pearls. I have no heart to speak of the mediæval department, now lost to our Museum for ever: and it is useless to exclaim, "Tell it not in Gath, publish it not in the streets of Ascalon."

WM. HARRY ROGERS.

DUST-HO!

CAN any one account for the rare appearance of dust-carts throughout the northern districts? The bins and receptacles, and, in many cases, the yards and closets, are full to suffocation, of ashes and the ordinary *débris*. Are there no local contractors? or is the coal waste now worth nothing? Possibly the stoppage of brick-making, and lull of trade, may explain that the cause of neglect arises from the reduced demand, and the low value of the article. This, however, is no excuse for municipal inspectors, if, indeed, there are any.

Several curtilages in the rear of small houses in Portland and Camden-towns preserve, for the benefit of poor occupants, the accumulated dust of years!

Surely the Board of Health ought to make provision regarding this nuisance. It is true the equinoctial breezes have of late tempered the clime to the shorn pauper; but *Ash*-Wednesday once passed, there can be no occasion for such hoards, and there may arise much evil from their continuance.

RAILWAY SUSPENSION-BRIDGE AT NIAGARA FALLS.

THE railway suspension-bridge here was opened on the 9th of March, by the passing of a special train. The passenger-engine and tender, crowded with people, crossed over to the American side, and, after returning, one of the Mammoth English freight engines made its appearance on the track, decorated with the British and American colours,—flying in honour of the union of British America and the United States,—and crowded with spectators. How they sang "God save the Queen," as it passed to the centre, and gave three hearty cheers, we need not tell.

The engine and tender, fully loaded with fuel and water, weighed about thirty-five tons, and a passenger-car, containing from seventy to eighty people, was also attached. The bridge was crossed at the rate of about ten miles an hour, and we are told that the utmost deflection of the bridge was half an inch, and that there was no perceptible lateral vibration or oscillation.

The following statistics, with which we have been favoured, will give some idea of the bridge and its capacity:—

Length of span from centre to centre of towers	822	feet.
Height of tower above rock on the American side	88	,,
Ditto ditto on the Canada side	78	,,
Ditto ditto on floor of railway	60	,,
Number of wire cables	4	
Diameter of each cable	10	inches.
Number of No. 9 wires in each cable	3,659	
Ultimate aggregate strength of cables	12,400	tons.
Weight of superstructure	750	,,
Weight of superstructure and maximum loads	1,250	,,
Maximum weight the cable and stage will support	7,300	,,
Height of track above water	235	feet.

The railway portion of the bridge is, we understand, leased and controlled by the Great Western Railway Company, and has upon it tracks of three different gauges, viz.,—The "New York Central," 4 feet 8½ inches; the "Elmira, Canandaigua and Niagara Falls," 6 feet; the "Great Western," 5 feet 6 inches; thus affording facilities for the transit of passengers and freight from all the different lines.

The engineer of the work, Mr. John A. Roebling, is a German by birth.

Those who are interested in this important undertaking point to the aggregate strength of the cables, and to the fact that a train of eight cars, filled with passengers, two baggage cars, locomotive and tender, weigh but about 130 tons, or one *sixtieth* of its capacity.

This, however, would be by no means sufficient proof of its power to meet all requirements: the question is, the strain to which separate portions of the structure may be subjected by vibration or otherwise, and their power to resist it. They consider that Mr. Stephenson's prediction, that no wire suspension-bridge could ever be used for railway purposes, "has been proved erroneous." We have yet, however, to see the effect of time.

SCENERY AND THE STAGE.

Theatre Royal, Haymarket.—The Easter Extravaganza produced here by Mr. Buckstone, under the title of "The Haymarket Spring Meeting," is capitally written, amusing, and successful. It is from the pure and graceful pen of Mr. Planché; and, like most of his pieces, contains teaching in its fun; urging social reforms and sanitary improvement. *Time*, *London*, and *Westminster*, figure in the Introduction. *Time* and *Westminster* stir up the city to fresh works:—

"Your ancient hospitality keep up,
But wider circulate the loving cup.
Instead of up the Thames, alone, swan-hopping,
Help me to keep it clear from Kew to Wapping.
Release the poor from pestilential sties:
Think of their rooms more than your Companies.
Shall we whose vital interests mutual are,
Divided see them still by Temple-bar?
Down with all bars that would two sisters sever:
London with Westminster should live for ever."

Some good-natured rubs are given to the City, which by the way, needs them less just now than many other bodies:—

"While you are naps enjoying
Time goes on destroying,
Though he can't help feeling
Wounds he might be healing.
London, wake!
For goodness' sake!"

Westminster's daughters, *Tyburnia* and *Belgravia*, are introduced, and the *Lord Mayor's Fool* says,—

"That girl, Belgravia, a few years ago
Was found in the Five Fields, at Pimlico;
So poor, so plain, you might have been afraid of her;
It's wonderful what Westminster has made of her!
London.—And I remember surely t'other daughter.
Fool.—Of course, in a low place this side Bayswater.
She was called Tyburn then: of all folks you
Cannot forget where she hung out,—or who?"

and so, 'twixt joke and earnest, the author revives recollections, urges the truth, and makes the audience laugh. The Lord Mayor's show by water and land, and a very pleasantly-painted "Bird's-eye view from the top of the Grand Stand on Upsand Downs," are prominent amongst the scenery, and will help, with the good singing of Miss Harriett Gordon, to ensure the lengthened run of the "Haymarket Spring Meeting."

Theatre Royal, Sheffield.—The interior of this theatre is being re-constructed after plans of Messrs. Flockton and Son. The contract for the whole of this portion of the work, with the exception of the stage, has been let to Mr. T. E. Mycock. The gallery will be enlarged. The pit and stage are to be lowered to such an extent that the whole of the space under the boxes, now forming a useless corridor, will be available for seats. The three front seats of the pit will be cushioned and fitted up as stalls, with a view to accommodate a class of spectators at prices between those of the boxes and pit. The boxes will be enlarged: two rows of iron pipes will be carried along the floor for warming them by means of hot water. There is to be an entirely new stage, the contract for which has been let to Mr. Straughan, of London. These alterations involve an expenditure of between 3,000*l.* and 4,000*l.*

ON ORIGINALITY OF DESIGN IN ARCHITECTURE.

AT a meeting of the Oxford Architectural Society, on the 14th of March, the Rev. J. L. Petit read a paper, in the course of which he urged that the present attempt to revive the Gothic style did not seem favourable to the development of the full powers of the architect. Our admiration of a modern Gothic building is much akin to that which we bestow on a successful copy. It is not expected of every original architect that he should strike out a new style. We do not complain of want of originality in examining any group of old Gothic churches, even on the same type and of the same character. It is not intended to assert that no invention is shown in modern Gothic. We have instances to the contrary in the bridge of St. John's, Cambridge; in the spire of the Assembly Hall, Edinburgh; in the new church in Gordon-square, and many other examples that might be named, as the steeple of St. Mary's, Lichfield, now in the course of erection. Still the modern Gothic architect may be compared to a writer in a dead language, who is obliged to catch the spirit of an age different from his own, and cannot escape the trammels of imitation, however lightly he may contrive to bear them. Our knowledge of Gothic architecture, and even our success in dealing with it, does not prevent it from being as it were a dead language; because, of all developments of human intellect and character, nothing has ever appeared so thoroughly interwoven with the spirit of the age which produced it as the system of Gothic architecture. We are still working up to ancient models instead of starting from them, and rather setting aside our own wants for the sake of the system than adapting the system to our wants;—for instance, in our condemnation of galleries. We must, however, distinguish between originality of invention and fancifulness of design. The architect who aims at novelty must combine it with truth, purpose, and order.

CONTRACTS.

Watkins v. *Tillitt.*—The plaintiff in this action, tried in the Bloomsbury County Court, is a builder residing in Camden-town, and the defendant a carpenter, carrying on business in the same neighbourhood. It would appear that the defendant is building some houses in St. Augustine-road, and employed the plaintiff to do some portion of the work remaining unfinished. A portion of the plaintiff's contract was to supply a certain quantity of scaffolding, which was to remain until the work was done. The sum agreed to be paid to the plaintiff was 50*l.* as appeared by the contract produced. *This document was not, however, stamped*, and the learned judge (Heath) was not in a position to receive it in evidence without the plaintiff's consent, which was eventually obtained. The work was on the point of completion, when a slight disagreement occurred, and the plaintiff announced his intention of abandoning the work, and forthwith proceeded to take away his scaffolding. The value of the work up to the time of the abandonment, was 40*l.* 9s. 3d.; and credit being given for 35*l.* paid on account, this left a balance of 5*l.* 9s. 3d. the amount of the claim in this action.

The plaintiff stated that he was requested by the defendant to abandon the work, or he would not have done so; moreover, that other persons were put on to finish the work he had contracted to do, before he did abandon it. This was denied by the defendant, and he called two witnesses to corroborate his statement. He explained as to the other men that were put on, that they were *carpenters*, and were incapable of doing the plaintiff's work.

The special defence now set up by the defendant was, that by the hasty removal of the scaffolding, the plaintiff's men had pulled down and damaged portions of the work, and that this damage was more than commensurate with the plaintiff's claim.

Mr. Hodgkin, a surveyor, was called, and stated that in his opinion the damage sustained by the defendant was about 7*l.*

Upon this evidence the judge summed up the case, and found, taking all the circumstances into consideration, that the plaintiff had been fully paid the value of the work as it stood owing to the removal of the scaffolding; and he should, therefore, find his verdict for the defendant. He should, *if the contract had been stamped*, call it a breach of contract, but, under the circumstances, as the contract was not legally in existence, he was bound to look to the justice of the case.

ECCLESIASTICAL MEMS. IN IRELAND.

WE hear at Ballina that the western tower of the Cathedral, which was only carried to a height of 50 feet, is to be finished with a bell stage, having a deeply moulded and traceried window on each face, and terminated by a broach spire. The entire height will be about 175 feet, and the style of the Decorated period. The material is fine limestone, from the Moyne quarries.

A Convent of Mercy, with church, orphanage, and schools, is to be erected on a plot of ground on the north side of the Crumlin-road. They are arranged in two cloistered quadrangles. The front quadrangle has the schools standing on two sides. That behind has the orphanage on two sides, and one side of both quadrangles is filled up with the church. The orphanage will contain forty children, and the cost of same, with the schools, will be about 750*l.* The church, with sacristies, will be about 125 feet long. The convent is to consist on plan of three sides of a quadrangle of 120 feet square, is arranged for forty nuns, and will be three stories high. Decorated Gothic is the style; materials, red brick, mixed with black, and Scotch sandstone dressings. The convent will be commenced this month, and the church and schools when it is finished.

At Tralee, a new convent is to occupy a position on the north side of the road to Ardfent, and overlooking Tralee-bay. It will be in two quadrangles of 140 feet square each, and occupying three sides, the south being left open. Twenty-four nuns will be accommodated. At right angles to east side stands a school-house for 500 children. The other quadrangle contains a church, on the south side, and house of mercy for thirty inmates (with laundry, work-room, dormitory, refectory, &c.), on the north and west sides. The church consists of *nave* and *chancel*, about 100 feet long by 25 feet wide, with north aisle exclusively for inmates, a cloister, chapel of Virgin, &c. The style is Geometric Decorated Gothic, and the material limestone of the neighbourhood. Mr. M'Carthy is the architect for these and the other works mentioned.

GALLERIES IN CHURCHES.

IT often happens, that galleries are indispensable in modern churches, and many otherwise beautiful interiors have been disfigured by the usual mode of introducing them, where, instead of forming part of the original plan, the galleries too often appear thrust into a building never intended to receive them. My idea is, that the gallery should be made to form an *upper* aisle, answering in some measure to the ancient "triforium," but not raised to so great a height: for this purpose, the arches of the lower aisle might be less acute than those above. The gallery front would be formed by carrying up a parapet, either plain or pierced, to a sufficient height above the lower arches; also, I would submit, that each aisle (upper and lower) should have a distinct set of windows; thus avoiding the bad effect of one row of long windows being cut in two by the gallery. Should the funds for building forbid the addition of a clere-story, in that case the triforium or upper aisle might have a ridge roof, which, by allowing loftier windows than a lean-to roof, would, I think, throw sufficient light into the body of the church. J. B. P.

ON CHURCH RESTORATION.

AT the adjourned annual meeting of the Norfolk Archæological Society, Mr. Harrod read a paper on church restoration, in the course of which he said:—

One great difficulty almost always arises in the conduct of a church restoration, from the numerous changes made in its architecture and arrangements at various times. A church originally erected in the Norman period, has, as glass got more generally used, —and by the way it is strange how little attention has been given to the influence of glass in the development of the various styles,—had its narrow loops built up or removed, and the long lancets of the next period inserted, and these again gave way to larger windows of the decorated and perpendicular periods—the north door remains Norman, the south door decorated, the porch perpendicular. Within, the roof probably of the latter period, the remains of a screen and benches of the same date, the font of a different period, the pulpit and reading desk Elizabethan or Jacobean. What has been done in such cases? The fiat goes forth—the church is to be restored, an architect is called in, estimates made, tenders accepted. In flock the tradesmen, off goes the roof, and off goes the clergyman for a few months' holiday. At last the restoration is completed, the bells summon you to the church, and you take the old path-way to it. What do you see when you enter? Is it the same church? Are these the old pillars and walls? Are those the benches in which the rude forefathers of the hamlet slept? No, all is new—it is a mockery and a delusion. The windows have all been made uniform—the screen was too dirty, and has given place to a modern imitation—the wretched old pews are gone, but in their places benches are introduced entirely unlike anything that ever appeared in the neighbourhood before, like something the architect has seen in some distant county. All Elizabethan and Jacobean work is zealously removed, and all the curious odds and ends of carved work, of an early date, which had been built up in the pews, and thus for a time preserved, have found their way, through the tradesmen, into the hands of some industrious collector, and are already being made up into bookcases and cupboards, or put away in a corner until the day of dispersion arrives, and the auctioneer gets a long price for "these valuable and beautiful specimens of ancient art." * * * It is strange to see the perplexity into which you will find clergymen thrown in reviewing the work before them. If he were to ask an archæologist, as he very rarely does, what he would do, what would be his answer? He would say, beware of getting a taste for pulling things about—an old feature may be destroyed, it can never be replaced. Succeeding ages have each left their peculiar impress upon the fabric, and where they do not interfere with the proper performance of our spiritual duties, let them rest undisturbed. If your fabric is dilapidated, judiciously and with a loving careful hand repair it; if it be damp, drain and ventilate it. If a stone has fallen out, or is likely to do so, let careful hands replace or repair it. Think of the thousands we are spending yearly about preparing suitable buildings for our records, and the thousands spent in carefully repairing and sorting those old decayed parchments. What would that man be thought of who should say, "Enough of this, spend more in having them copied and destroy the originals?" He would be set down for a madman. We preserve our national records, it would be said, for all time; those who have the ability to do so may inspect the originals, and there see how far history that "teaches by example" is true to her facts. Why should our more substantial records be subjected to the madman's process?

RECENT AMERICAN PATENTS.

WE condense the following from the *Journal of the Franklin Institute* of Pennsylvania:—

For an Improvement in Furnaces for Making Wrought-iron directly from the Ore; the late T. W. Harvey's Administrators, Assignors to the Harvey Steel and Iron Company, City of New York.—Claim: Causing the de-oxidating and de-sulphuretting flames and gases, generated in the furnace, to act directly in contact with properly prepared ores of iron (and other metals) placed upon suitably arranged tables, while, at same time, a high degree of heat is imparted to the under sides of said tables.——For an Improved Mode of Constructing Iron Buildings; Amos J. Saxton, Brooklyn, New York.—Claim: The process of connecting and combining all the different points by improved joints, so arranged that screws, rivets, bolts, or nails, are not required in the erection of iron frame, fireproof, or other buildings.——For an Improvement in Machines for Graduating Carpenters' Squares; N. Millington and D. J. George, Shaftsbury, Vermont.—Claim: 1st. The arrangement in a single frame of as many gravers as there are units to be divided, so as by the action of the cam wheel, or its equivalent, simultaneously to trace, of the proper length, each set of division and fractional lines. 2nd. The balance-frame, with its appendages, to equalize the pressure of the spiral springs on the graver handles, so as to give the same depth of mark on the thin as on the thick end of the taper square. 3rd. The inclined plane, with its appendages, for moving the square longitudinally, and dividing the inch into any desirable number of equal parts. 4th. The carriage, arranged to press the square up against the points of the gravers, by a cam or otherwise.——For Improved Wooden Pavements; Samuel Nicolson, Boston, Massachusetts.—Claim: To so combine or arrange the blocks or wooden portion of the pavement, that there may be cells or channels formed between them, and for the reception of tar and gravel, &c. and that each cell or channel shall have a wooden bottom for the cement to rest on, whereby, when pressed down by wheels, it shall be prevented from being forced through the cavity, and be caused to be spread in lateral directions, so as to maintain a firm and close joint between the adjacent blocks, such as will operate to prevent water from passing down between their joints.——For an Improvement in Chimney Caps; John Clark, Washington, D. C.—Claim: Constructing chimney caps, having balance compensating valves, with lever and weight, or its equivalent, together with the valve opening at the top, whereby is prevented the undue accumulation of smoke within the space, thus affording the speedy escape of smoke.——For an Improvement in Water-pipes; Richard B. Stevenson, York, Ohio. Claim: The combination of pipe of sheet zinc, or other sheet metal, and an exterior coating of hydraulic cement mortar of requisite thickness for strength, durability, and impermeability, for conveying water or other fluids beyond the action of frost.——For Improvements in Warming Houses by Steam; S. J. Gold, New Haven, Conn.—The object of this apparatus is, the heating of buildings by radiation from broad, thin chambers, made the receivers and condensers of steam generated in a suitable boiler connected with the heaters, and otherwise arranged.——For an Improvement in Stone-dressing Machines; C. T. Porter, city of New York. Claim: 1st. The employment of a rest having its face parallel with the contiguous face of the tool-stock, when the said rest is rigidly attached to the ways in which the hammer and tool-stock work, or forms part of the same frame therewith, and when the frame thus formed is provided with and swings from journals which fit in journal-boxes suspended or supported in a suitable manner in the main framing of the machine, so that the ways may be adjusted to different angles of the surface desired to be cut on the stone, without changing the relation of the hammer, the tool, and the rest. 2nd. Constructing the tool-stock and arranging it relatively to the rest and the hammer, so that it is capable of vibrating, to allow the tool resting upon the surface of the stone to be carried back by the feed motion, and cause it to be driven by the blow of the hammer, not in the line of the direction of the blow, but forward, in or nearly in the line or plane of the surface desired to be produced.

Mr. N. Aylsworth, of Rochester, New York, has patented a machine for turning, boring, cutting, and slotting iron and other metals, cutting key-seats in car-wheels, cranks, and machinery, and all other similar purposes. The principal feature in the machine is, that the several operative parts are arranged in such manner as to allow all the operations to be completed from the same centres, without unchucking the apparatus, by which means the work is made true, and completed in a more perfect manner than when it has to be removed, and the machine re-chucked for every operation.

The *Journal of the Franklin Institute* translates the following, as to a new mode of building ships, from "Cosmos." M. Lombo-Miraval called the attention of the Society for the Encouragement of National Industry to a mode of building vessels, which is entirely original. The boats, in this system, are entirely built of iron wire and hydraulic cement, and the author attributes to them the following advantages,—great strength, absolute impermeability, quick repair in case of damage, perfect stability obtained by the ballast being at the bottom and making part of the hull; finally, incomparable quickness of building. A vessel built on this system six years ago, has been running ever since, without requiring any repairs, although it has gone through rough trials. Nothing easier, says M. Miraval, than to build in a few days, on board a fleet, as many gun-boats, or rafts for disembarkation, as may be wanted.

STAINED GLASS WINDOWS.

MR. BELL, of Bristol, we hear, has had an order from the family of the late Mr. Loscombe, of Clifton, for a memorial window to be placed in the south aisle of Bristol cathedral. The subject will be a suitable one. The sum of 250*l.* has, it is said, been appropriated for the purpose. The late Mr. Loscombe, sen. was an antiquary and collector, as well as interested in architecture and matters of art.——A stained-glass memorial window, by Mr. Wailes, has lately been erected in West Lydford Church, Somerset. It is the east window, consisting of four lights in tracery, of the perpendicular period of architecture. It contains eight subjects—giving an epitome of our Lord's life. In the left-hand compartment, at the bottom, is "The Birth," designed from a relic discovered by Mr. Wailes, in Belgium. Above "The Birth" is represented "Christ seated among the Doctors," "The Baptism in Jordan," "The Last Supper," "The Agony in the Garden," "Christ Bearing the Cross," "The Resurrection," and "The Ascension." All these are represented in canopied niches. The tracery of the window is filled with angels bearing texts, in scrolls. At the foot of the window are the memorials, with armorial bearings, of the Colston family.——The interior fittings of Preston parish church are rapidly approaching completion. Two more stained glass windows have been put in within the week just passed. They are donations of the respective families of the late Mr. Edward Gorst, and the late Mr. John Gorst. They are placed on the north side of the chancel, and occupy each side of the entrance from the churchyard. The one to the east end represents "Faith, Hope, and Charity, inseparable from the Principles of Christianity." These three figures are surrounded by persons who have been eminent in propagating the gospel. In the lower part of the window are the twelve apostles. The canopies over the principal figures are supported by angels. On the top of the centre canopy is the figure of our Saviour, and a little lower the Virgin and St. John. At the top of the side canopies are St. Peter and St. Paul, and beneath them some of the early fathers of the church. In the centre opening of the tracery is St. John writing his gospel, and the other portions of the tracery are filled with angels playing upon musical instruments. The companion window to the west end proposes to express, in the strongest manner, the design of the first window, by St. Peter (the central figure), who first acknowledged Christ; St. John the Baptist, the first preacher; St. Stephen, the first martyr in the cause of faith; in the bottom panel of the centre light, the resurrection; at the top of the tracery, the ascension; and in each panel under the side figures, two of the evangelists writing. These windows have been designed and executed by Mr. E. B. Lamb.

HONOUR TO ARCHITECTS.—The Queen of Spain has conferred on Mr. W. J. Smith, of the Office of Works, the title of Chevalier of the Order of Charles III.

Notices of Books.

VARIORUM.

AN interesting little tract, titled, "Notes on Spontaneous Combustion," of various materials, such as vegetable oils and fibres, as a hidden cause of fires in buildings, has been prepared by Mr. Wyatt Papworth, architect, and published by Layton, of Fleet-street, as "An Appendix to Notes on the Causes of Fires in Buildings," by the same gentleman. The present tract comprises within small compass a compendium of what has hitherto been ascertained on the subject of spontaneous combustion in buildings, collected from various sources, the *Builder* inclusive, and ought to be extensively circulated. The subject of spontaneous combustion is one of momentous interest, all the more especially that it is one still involved in some degree of obscurity, so far as regards the number or variety of its causes. Of course we still refer, as Mr. Papworth does, to the subject as it relates to the origination of fires in buildings. As to spontaneous combustion of the human body we do not quite agree with him that such combustion is a well-ascertained fact. That drunkards have not seldom been found burnt to death in dwelling-houses, and occasionally their bodies charred in a way not fully accounted for, no one can doubt; but in all such cases, so far as we recollect, the bodies have been *found* in the state indicated, and no one has ever been present during the process, so as to attest its spontaneity. The *à priori* supposition on which the possibility of such a thing has been based, we presume, is, that the immense proportion of incombustible water which usually pervades the tissues of the human body, is replaced by combustible alcohol, which, being a hydro-carbon, may also certainly become a vapory substitute for the more solid hydro-carbonaceous fat of the body; but no such suppositions can be allowed to have much weight without direct evidence of the spontaneity of the combustion. There is no direct evidence, so far as we are aware, that the bodies of drunkards are more combustible than other human bodies, even though not spontaneously set fire to. As regards spontaneous combustion in buildings, leading to their more or less serious damage or destruction, as we have before noted, there are probably certain seasons during which there is a greater or more imminent risk of such combustions than during other seasons, even apart from the amount of solar heat,—as, for instance, while ozone prevails to an unusual extent in the atmosphere. There are well-known combinations, however, which are predisposed peculiarly to *heat*, and at length to burst into flame under favourable circumstances. Such is the spreading of linseed oil and turpentine over extended surfaces, as in cotton or linen (not woollen?) rags, as used by polishers, cabinet-makers, carpenters, &c. In a recent lecture at the Royal Institution, on "Catalysis," the Rev. J. E. Ashley suggests that many cases of spontaneous combustion may be accounted for by catalysis (itself, however, as yet, not very well accounted for). A rusty nail, he remarks, is a catalytic agent, and in certain states of the atmosphere it might serve to ignite the inflammable vapours arising from putrescence, and thus produce what is called spontaneous combustion.——"Railway Collisions Prevented," by Mr. A. Ogan (Pope, Hackney), is a pamphlet containing a full account of Tyer's system of electro-magnetic railway signals, already brought by us to the notice of our readers (see Number for 25th March, 1854, *et passim*). The system is one which appears to merit much more general consideration from railway directors than it has even yet received. Collisions are still a fertile cause of accidents. Of 233 persons killed, and 453 injured by eighty-five railway accidents, specially reported on in course of the year just passed, no less than 283 suffered in fifty-two accidents by collision, or nearly 61·18 per cent. of the whole, which might have been prevented by the adoption of some such signals as the electro-magnetic, by means of which trains can announce their own whereabouts *in transit* to the stations either in advance or in rear, and, *vice versâ*, station-masters warn coming trains of danger of collision.

Miscellanea.

STONEHENGE AND ABURY: IPSWICH MUSEUM.—A lecture on Druidical remains was delivered at the Ipswich Museum a fortnight ago by the Rev. Dr. Rigaud. Stonehenge and Abury were the principal subjects treated of, and the rev. lecturer adopted the astronomical theory as to the meaning and object of the Druidical circles, but appears to have given rather unusual latitude and longitude to that theory. Assuming a certain spot in Wiltshire to represent a centre, he is said to have endeavoured to demonstrate that, according to their respective distances from this centre, the several Druidical temples which once existed in the district were symbolical of the planets in the solar system in the form in which that system was understood by the ancients. Stonehenge would thus appear to have been a representative of Saturn, and the vallum by which it is surrounded would correspond with the ring of that planet. Whether, in addition to their reputed astronomical lore, the Druids were familiar with the powers of the telescope, the ring of Saturn being invisible to the naked eye, is a point which the lecturer declined to affirm as probable, although he would not deny its possibility. This idea, however, was scarcely in accordance with an opinion also expressed, that Stonehenge was a temple dedicated to the worship of the sun, and that the construction of every portion of the structure was symbolical of certain well-known astronomical phenomena, such as the course of the sun along the plane of the ecliptic, the summer and winter solstice, the number of days in the year, and in the month, according to the Egyptian division of time. It was shown by quotations from Diodorus Siculus and Cæsar's Commentaries, that the Druids certainly had a reputation for great learning and wisdom. Beyond this it was remarked that the Druids belonged to the Cymri branch of the Celts, who originally came from the shores of the Black Sea, and might have brought with them the religion of the East, modified, perhaps, by the visits of the Phœnicians in their traffic with the Ancient Britons for tin. In short, the religious rites of the Druids were represented as analogous to the Sabian or sun worship of the Persians and Chaldeans, coupled with human sacrifices similar to those offered to Moloch by the Carthaginians.

NOTTINGHAM CHURCH CEMETERY.—The first general meeting of the proprietors of the Nottingham Church Cemetery was held at the Exchange, Nottingham, on Friday before last. The report stated, that the directors, being desirous of having the grounds of the Cemetery laid out in the most efficient manner, unanimously decided upon offering a premium of £20 for plans, and after much consideration and correspondence with various parties, and with the authorities of other cemeteries, both in England and Scotland, Mr. J. F. Wood, of the Coppice, and Mr. McPherson, of Knap Hill, were invited to visit and inspect the grounds, and to send in plans, £10 to be paid to either if his design were not accepted, or he was not otherwise engaged upon the Cemetery. The plans were sent in, but neither of them being satisfactory to the directors, Mr. E. Patchitt undertook to form and lay out the grounds, and to superintend the execution of the works. The directors accepted the offer, and the Cemetery has assumed its present shape from the designs and under the direction of that gentleman, with the confirmation, from time to time, of the directors. Mr. McPherson was paid the 10*l.*, whilst the claim of Mr. Wood was merged in his being employed to execute various of the earth-works and provide the trees for planting. From a communication by Mr. Patchitt, which was read, it appears, that from financial causes, not nearly all has yet been made of the site which he designed; that the Cemetery might be made one of no ordinary attractions; the site being capable of varied arrangements, promotive both of privacy and of picturesque display. There are caverns, and rocky strata of which great use might be made; and, even as it is, much appears to have been done to render the cemetery attractive. The money basis on which the works were to be carried out, consisted of 5,000 guineas, in five-guinea shares. The directors, at the recent meeting, were authorized to borrow 2,000*l.* and to erect a chapel in the cemetery, on a design suitable for its future appropriation as the chancel of a church. The erection will be proceeded with as soon as possible, and the ground then consecrated.

CRYSTAL PALACE.—The pediment sculpture of the Parthenon model in the Greek Court has recently been erected. It was modelled by Monti, under the supervision of Messrs. George Scharf, jun., F. C. Penrose, and W. W. Lloyd. The Indian collection, which promises well, is being arranged in the gallery behind the Assyrian Court. It contains many elaborate articles of furniture, contributed by London firms, with utensils, accoutrements, and models. The interior of the building is now looking beautiful: the canvas partition should be at once removed.

DENBIES, SURREY.—Statements have appeared in some of the newspapers, and have been forwarded to us, that the house building by Mr. Thomas Cubitt at Denbies, is intended for some branch of the royal family. We can state positively that there is no truth in the story, and that the residence is being erected for a private family.

TREATMENT OF TRADESMEN.—Sir,—Tenders were requested to be sent in for the works and fittings required for the water supply and cisterns and the gas-lighting and heating of the Lunatic Asylum at Red-hill, Surrey, the architect giving no specification or data to base an estimate upon, but requiring each party to state what they would consider necessary. The works not proceeding at the time, the architect some two months back requested of Mr. Ashdown, of Piccadilly, Mr. Hayden, of Birmingham, and the Messrs. Bacon and May, of London, to tender, and to attend with the estimates and any plans the contractors might please to send in, on several successive Mondays. *the days of meeting at Red-hill*, some twenty miles from London, and without giving any information as to whose tenders will be taken, but always the query—"*Is this all that is necessary for the works you tender for?* but no answer given as to the successful candidate! Now, sir, let me ask if this is tradesmanlike—if it is professional—to give all this trouble, for the purpose of learning how to get those works required done properly, and the prices they should be done at; or can those persons who have been given this trouble, and put to the expense of the attendance and loss of time in attending the committee at Red-hill, compel payment for the expense attending the estimates?—WM. HAYDEN.

SMOKING STEAMERS.—The phenomenon noticed by correspondent "Judex," viz. the consumption and non-consumption of smoke at will by some of our river steamers, may, I think, be satisfactorily accounted for by well-known laws. 1st. Whilst it is compulsory for a river steamer to consume its own smoke *above* bridge, that obligation ceases on passing downwards *below* London-bridge. 2ndly. There is no smoke-consuming apparatus, yet devised, altogether free from disadvantages. 3rdly. Common coal, or that ordinarily employed, and which in its combustion evolves *much* smoke, is considerably cheaper than Anthracite coal occasionally used, and which makes almost *no* smoke. *Ergo*, steamers which run both above and below bridge, instead of involving by a series of experiments much outlay and trouble, adopt the less expensive alternative of employing ordinary coal below bridge, Anthracite above.—H. C. G.

THE NATIONAL GALLERY.—A document titled "The Protest and Counter Statement," has been published by J. R. Smith, of Soho-square, and an "Abstract" of it, titled "Jobbery at the National Gallery," has been printed and circulated. The protest and counter statement refer to the report of the select committee of the House of Commons, on the National Gallery, of 4th August, 1853, against which it is directed. As to the purchasing of pictures, it points attention to the fact, that although the committee alludes to this as the most important duty in the management, they are all but silent on the subject, and evade its investigation. As to the picture cleaning of 1852, it estimates that the evidence adduced before the committee was in reality as ten to one against the cleaning. As to the past management in general, the statement of the committee that the system, not the individual managers, were to blame, is declared to be repugnant to common sense, and a misrepresentation of the evidence. As to future management, the committee's report is protested against, inasmuch as it recommends that same system to be continued which it blamed as the cause of past bad management. The conclusions of the same report against the present site of the National Gallery are also protested against. The protesters who, in fine, maintain that the committee betrayed their duty, are Messrs. F. Y. Hurlstone, W. Coningham, G. A. Arney, A. Stevens, R. Evans, W. S. Landor, G. Long, A. B. Richards, P. E. Barnes, J. I. Lockart, C. F. Perkins, T. Wakley, R. Barnes, M.D., J. Hamilton, "An Englishman," H. Clarke, E. Mayhew, and J. Taylor, Ph.D.

WEST OF ENGLAND BANK, BRISTOL.—The tenders were exclusive of foundations and basement story: quantities furnished by Mr. J. Williams, London. Architects, Messrs. Gingell and Lysaght. The only two general tenders were,—J. Davis, 13,890*l.* with Dundry stone,—13,350*l.* with Bath stone; and W. Baker, 13,145*l.* with Bath stone. There were fifty-four special tenders for the various works. The following special tenders were accepted: B. Farmer, for mason and bricklaying work, with Bath stone 6,700*l.*; J. C. Harris, for carpenter and joiner's work, 1,418*l.*; H. B. Osborne, for plumber work, 699*l.*; J. Diment, for plasterer, painter, and slater's work, 1,374; W. and S. Butcher, for smith's work, 577*l.*; and St. Helen's Company for glaziers' work, 710*l.*

SALE OF OAK TIMBER.—In week before last, according to the *Worcester Herald*, 400 oak trees in the Bach Wood, Foxley, near Hereford, were, with other lots of timber, sold by auction, at Hereford. The Foxley timber, it is remarked, always obtains a good competition. The first lot of 100 trees, it is added, was knocked down to Messrs. Langton and Son, Lambeth, at 582*l.*; the second lot, of 100 trees, to Mr. Henry Gurney, of Gracechurch-street, London, at 565*l.*; the third lot, of 100 trees, to Messrs. Langton and Son, at 722*l.*; and the fourth lot of 100 trees, to Mr. Henry Gurney, at 855*l.*

THE LATE GENERAL SIR CHARLES NAPIER.—At a meeting of the executive committee of the Napier Testimonial, held lately at the United Service Museum, Whitehall, and presided over by the Earl of Ellesborough, it was resolved that the design of Mr. George G. Adams, for a statue, as a memorial of this late distinguished officer, should be selected. The statue to be executed by Mr. Adams will be of bronze, 12 feet in height, and will be placed on a granite pedestal 18 feet in height. It will be erected in the metropolis.

FIRE AT WATERFORD CATHEDRAL.—On Sunday before last a fire took place in Waterford Cathedral, in consequence of burning soot, in the vestry flue, setting fire to a piece of Irish oak inserted in the flue. Access was difficult; but, by help of a fire-engine, the danger was obviated without much damage done.

SINGULAR EXPLOSION IN A DWELLING AT GLASGOW.—An explosion in the dining-room of a house at Regent-terrace Glasgow, occurred on Friday week, shattering the window-panes, and blowing them outwards, as well as leaving other traces of its action, which appears to have originated in the chimney, where, from some peculiarity in the coal used probably, an accumulation of hydro-carbonaceous gas may have collected as in a gasometer, but mixed with common air so as to explode when set fire to.

SURREY ARCHÆOLOGICAL SOCIETY.—A general meeting is fixed to take place on Thursday, the 19th of April, at Chertsey. It will be held in the Town Hall, where the chair will be taken at eleven o'clock, and papers will be read;—On Chertsey Abbey, by Mr. W. W. Pocock; description of a series of ornamental tiles recently discovered on the site of the abbey, by the Rev. C. Boutell; and upon an Anglo-Saxon grant of land made by Alfred the Great to Chertsey Abbey, by Mr. Geo. R. Corner. At the conclusion of the meeting members and their friends are invited to visit, under the guidance of the local committee, various objects of interest in the neighbourhood—including the site of the abbey and Cowley House. Moreover, there will be a dinner at "The Crown" Inn.

HIGHGATE CEMETERY.—SIR,—They have nearly completed the enclosure to the new portion of Highgate Cemetery, and, to my mind nothing could be worse. The piers, one dropping below the other, are like so many nine-pins: the railings are miserable. A different arrangement of the bricks and iron could have been made so as to have added beauty to the scenery, and without adding to the cost. A competition would have been useful here.—T.

NEW MUSEUM AT COLOGNE.—A design in the Tudor style, it is stated, has been selected at Cologne for a proposed museum. The architect's name is Felten, and the sum fixed for the expense of the museum is not to exceed 127,400 rix-dollars, or about 19,000*l.* The plan adopted has not wanted opponents, who dispute its fitness on æsthetical grounds, as well as on its alleged want of proper adaptation for the purpose intended, among whom is the architect for the city of Cologne, Herr Raschdorf, who submitted a design more in accordance with the German architecture of the middle ages, and in harmony with the Church of the Minorites, immediately adjoining.

BRICKS FROM SLAG.—The proposition to make bricks from the refuse of iron foundries appears to gain favour. Relative to some recently made, the manager of the Dowlais Iron Works, who has seen them, draws particular attention to the fact that it costs the ironmasters 150,000*l.* per annum to throw away what he is convinced might be made an article of immense commercial value.

COMPRESSED AIR LOCOMOTIVES FOR COMMON ROADS.—M. Julienne, of Paris, civil engineer, is endeavouring, according to *Galignani*, to employ compressed air as a motive power for omnibuses and vehicles on ordinary roads. He lately caused to be constructed a metallic tube of sufficient strength to be able to receive compressed air of the force of thirty-two atmospheres. Some of his workmen proceeded to make experiments with the tube, and had reached a compression of nearly twenty-nine atmospheres, when all at once the tube exploded, and struck a man working at a bench, and literally swept off his head as completely as a cannon-ball could have done. Another fragment struck a man in the left arm, and fractured it.

DILAPIDATIONS ON A DEMOLISHED PARSONAGE.—At the late Derby Assizes, an action for dilapidation was brought against the administrator of the Rev. C. C. Bates, late vicar of Castleton, Derbyshire, by the Rev. H. F. Bacon, the present vicar. During the incumbency of Mr. Bates there had been no vicarage-house: it had been pulled down in 1780 by the then vicar, who built upon the site a cow-house and barn. The plaintiff sought to make Mr. Bates responsible for not having, during his incumbency, supplied the loss of the vicarage-house, either by proceedings against his predecessor, or otherwise. The verdict of the Court was for the plaintiff, damages 100*l.*—subject, however, to a motion to be made to the Court above.

THE SATURDAY'S HALF-HOLIDAY AT PATERNOSTER ROW.—"A Bookseller" informs us, that our intimation as to the boon granted to the *employés* of Paternoster-row, does not go far enough, inasmuch as though some of the leading firms resolved to close at 5 P.M., others, on a second application recently made, have agreed to close an hour earlier; while several have determined to do so at 3, and others even at 2; which our correspondent expects will be the general hour of closing on the Saturdays ere long, the half-holiday system has worked so well in other departments of business.

THE INSTITUTION OF CIVIL ENGINEERS AND THE METROPOLITAN COMMISSIONERS OF SEWERS.—In a letter by Mr. Bullar, inserted in the last number of the *Builder*, the name of Mr. F. O. Ward is placed in such collocation with the words "accusation" and "Medworth," that, to a cursory reader, the aspersions cast on Mr. Medworth by the Institution of Civil Engineers, may appear to have originated with Mr. F. O. Ward. We are asked to point out that Mr. Ward's letter, cited by Mr. Bullar from a previous number of our journal, so far from being an attack on Mr. Medworth, was, on the contrary, written in his defence, and in refutation of the charges brought against him and others, by the Institution of Civil Engineers.

METROPOLITAN COMMISSION OF SEWERS.—At a meeting on the 3rd inst. various additional plans for the drainage north of the Thames were received, and it was resolved that the several plans sent in since the 29th of November be referred to a general committee of the court, and that the City representatives be members of that committee.

ANNULAR SWIMMING BATH.—We are informed that the plan for an Annular Swimming Bath, published in our number for December 9th, has been adopted at Banbury, and is being carried out. It will be 216 feet in circumference, and 18 feet wide.

DISTRICT OF ST. GILES AND ST. GEORGE'S, BLOOMSBURY.—Mr. George Pownall has resigned the district surveyorship of St. Giles and St. George's, Bloomsbury, which he has held for some time with great credit to himself and advantage to the public. There are now, therefore, three metropolitan districts vacant.

NEW STEAM FUEL.—Mr Robinson, mining engineer, has lately been exhibiting to engineers and others a new fuel, in which the sulphur and silicates, the objectionable substances in all artificial fuels of which coal is the basis, are said to be got rid of. He throws his invention open for the public good.

RICHMOND BATHS.—Tenders have been opened for the Richmond Public Baths and Lavatory Company, and they were as follow:—

Gascoyne	£968
Carless	955
S. E. Long and Son, accepted	950

TENDERS

For a new Baptist chapel, Mare-street, Hackney. Messrs. Habershon, architects. Quantities supplied.

Callow	£11,150	0	0
Ashby and Sons	10,760	0	0
Jay	10,730	0	0
Norris	9,997	0	0
Perry	9,820	0	0
Locke and Nesham	9,500	0	0
Wm. Cubitt	9,330	0	0
Robinson	9,170	0	0
G. Myers	8,790	0	0
Tolley	8,460	0	0
Rowland and Evans	8,298	0	0

For building ten houses at Millwall, Isle of Dogs, for Mr. Walters. Mr. F. E. H. Fowler, architect.

Turner	£2,287	0	0!
Richards	2,130	0	0
Bland	2,050	0	0
Alder and Pearson	2,018	0	0
Bottomley	1,952	0	0
Watts	1,905	0	0
Chapman	1,850	0	0
Partridge and Crutch	1,809	0	0
Hecken	1,761	0	0
Colls and Co.	1,710	0	0
Gosling (accepted)	1,497	0	0!

For erecting house in Threadneedle-street. Mr. T. Hague, architect.

Lucas, Brothers	£4,910	0	0
Haynes and Eyre	4,814	0	0
Rowland and Evans	4,774	0	0
Gammon	4,652	0	0
Myers	3,970	0	0

For additions and alterations to the Jews' Free School, Bell-lane, Spitalfields. Mr. James Tillott, architect. Quantities supplied.

Pritchard and Son	£2,690	0	0
Piper and Son	2,656	0	0
Haynes and Eyre	2,598	0	0
Ashby and Son	2,579	0	0
Little and Son	2,432	0	0
Brass and Son (accepted)	2,192	0	0

For Hurst-green Parsonage. Mr. Vernon Arnold, architect. The quantities taken out by Mr. C. Poland.

Davey (Lewes)	£1,349	0	0
Haward and Nixon	1,347	0	0
Fabian (Brighton)	1,263	0	0
Nye (Ealing)	1,129	0	0
Gallard (Southborough)	1,096	0	0
Pollack and McLennan	1,066	0	0

For building No. 4, Bridge-terrace, Richmond (part of the late Royal Hotel). Mr. Henry Laxton, architect.

Patrick and Son (Lambeth)	£1,628	0	0
Carless (Richmond)	1,575	0	0
Gascoyne (Richmond)	1,458	0	0
Mills (Egham)	1,436	0	0
Seeley (Vauxhall)	1,380	0	0
Simms (Richmond)	1,375	0	0
Long (Richmond)	1,139	0	0

For finishing three carcases of eight-roomed houses, in St. James's-road, Victoria-park. Mr. Springbett, architect.

Nash	£1,155	0	0
Fowler	919	0	0
Scaddan	799	0	0
Hebb	755	0	0
Copland	730	0	0

For building two third-rate houses for Pontifex, in St. Paul's-road, Islington. Mr. Charles Mr. James Harrison, architect.

Dunford	£1,175	0	0
Scarborough	1,093	5	0
Ashton	1,085	0	0
Smith	1,073	0	0
Bishop	1,070	10	0
Freeman	1,067	0	0
Butler	1,025	0	0
Brake	1,023	19	0
Green	974	0	0
Gilbert	960	0	0
Tarrant	948	0	0
Baker	897	12	0
Partridge and Crutch	865	0	0
Willcock	864	0	0
Liddiatt	818	0	0
Roycroft	795	0	0

TO CORRESPONDENTS.

"*To Prevent Sound.*"—Will any of your readers afford information to prevent sound from passing from one apartment to another where folding-doors are used? Frequent complaints are made of this inconvenience, especially in town houses.

AN ARCHITECT.

"C. E. L."—It has been already suggested that a statue of Wren should be placed on the vacant space next St. Paul's—"H. D."—"J. L."—"G. W. R. of C."—"J. W."—"Dr. R."—"W. B."—"W. S." (a short notice would be useful).—"C. H."—"P. A. T."—"O. C. A."—"H. B."—"G. B. W."—"J. H. jun."—"J. W. B."—"C. R. B."—"Mr. O."—"T."—"F. G."—"G."—"G. P."—"J. E."—"Rattee."—"G. R. F."—"*Pro Rata*."—"A. M."—"T. M. F."—"W. A. jun."—"R. D."—"C. H. W."—"Bookseller."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

SURVEYORS, BUILDERS, and Others desirous of finding their own materials, will find a party that will EXECUTE WORK at the following terms, viz.—To provide scaffolding and labour at per contract at the lowest possible terms; pointing, with scaffolds, at per yard; buildings at per rod. Scaffolds, ladders, and straps, on hire. Direct to A. B., Standard Coffee-house, 17, Tottenham court, New-road.

TO UPHOLSTERERS, UNDERTAKERS, &c.

MR. MARSH has received instructions to DISPOSE OF, by PRIVATE CONTRACT in consequence of the proprietor's retirement after a most successful occupancy of thirty years), a well-established BUSINESS, situate in one of the most thriving and rapidly-improving localities, within six miles of London, accessible by railway. The business has risen proportionate with the neighbourhood, and as the latter is daily becoming of great importance, a more favourable opportunity is rarely offered to an enterprising man of business. A capital of about £500 will be requisite. For particulars and terms apply to Mr. MARSH, Auctioneer, 2, Charlotte-row, Mansion House.

TO STOVE GRATE MANUFACTURERS, FOUNDERS, ENGINEERS, BUILDERS, SMITHS, and OTHERS.—TO BE DISPOSED OF, spacious MANUFACTURING PREMISES, most desirably situate in a central part of London, and in a leading thoroughfare. The fresh-old may be purchased if desired. The tools and stock may be reduced to about £200.—For further particulars apply to Messrs. FULLER and HORSEY, Billiter-street, City.

TO BUILDERS, STONE MERCHANTS, and OTHERS.—TO BE DISPOSED OF the LEASE of some valuable STONE QUARRIES in the Forest of Dean, situated within two miles of the railway terminus, with Fixtures, Cranes, &c. and the good will of the business. The quality of the stone is well known in Cheltenham and Oxford, and has been largely used in the grounds of the Crystal Palace at Sydenham. About £1,000 required. Apply to Mr. BUTCHER, Belmont-wharf, King's-cross, London.

IMPORTANT, USEFUL, and POPULAR ARCHITECTURAL ART-MANUFACTURE BUSINESS TO BE DISPOSED OF.—The Works which are convenient and substantial, are well provided with handy new Machines and Apparatus of the very best construction and quality. Although the article is in extensive and rapidly increasing demand, there is scarcely any competition, and many anxious articles used in Decorative Architecture and ordinary Building, may be profitably added to the Manufacture, with but little additional outlay, the raw materials being close at hand.—Application for further particulars, with real name and address, must be made by post, to M. C. 11, Aldersgate-street, London.

THE BUILDER.

SALES BY AUCTION.

BANKSIDE.—The Lease of spacious Waterside Premises, the Rent of which is covered by Lettings.

MESSRS. EVERSFIELD and HORNE are instructed by Mr William Ward to SELL by AUCTION, on WEDNESDAY, APRIL 26th, previous to the sale of the stock, the LEASEHOLD LEASE of HONDURAS WHARF, Bankside, Southwark, where he has for many years carried on successfully an extensive trade in firewood, and all materials required in the building trade, and portions of which are let off sufficient to cover the rent, leaving a large extent of wharf room, with good dry storage, lofty warehouses, lime-sheds, offices, and stabling, which are exceedingly well adapted for the above trade or many others. Only four years of the term remain unexpired, at 325l. a year; but a renewal on equally favourable terms may be safely reckoned upon.—For particulars apply to the Auctioneers, 40, Parliament-street, or Coal Exchange, who are authorised to treat by private contract for any portion of the premises, or for the whole, with the stock and business.

TO BUILDERS, COAL, BRICK, AND LIME MERCHANTS, ENGINEERS, MALTSTERS, CHEMICAL WORKS, GAS COMPANIES, AND OTHERS.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, Horselydown wharf, Bankside, Southwark, on TUESDAY, APRIL 25th, 1865, and following day at TEN for ELEVEN each day, the valuable PLANT, UTENSILS, and STOCK-IN-TRADE of Mr W. Ward, who is retiring from this branch of his business, comprising seven excellent horses, powerful cart-horses, coal-wagons, vans, and carts, several nearly new truck-carts, very strong built town wagon, on springs; superior wine merchant's one horse cart, by Brady, and others of a light construction; complete sets of cart harness, coal sacks, weighing machine, weighing machines and weights, planks, ladders, and the usual trade implements. The stock in trade consists of a well-selected assortment of fire goods for the building trade, and a large quantity of best-made real Dutch Clinkers.—May be viewed on SATURDAY and MONDAY previous to the Sale; and catalogues had of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

TO CONTRACTORS AND OTHERS.

MESSRS. EVERSFIELD and HORNE are instructed by the executors of the late William Cowasjee, to SELL by AUCTION, at DAWES'S NEW YAUXHALL BRIDGE, on THURSDAY, APRIL 19, at TWELVE for ONE, EIGHT SUPERIOR BARGES, carrying from 40 to 65 tons, built in the best manner within the last few years.—May be viewed three days previous, and catalogues had on the Premises, and of the Auctioneers, Coal Exchange and 40, Parliament-street.

WIMBLEDON.—TO BUILDERS AND OTHERS. Valuable Building Materials, Horses, Carts, &c.

MESSRS. EVERSFIELD and HORNE are instructed by the Assignees of Crouch Brothers to SELL by AUCTION on the PREMISES, Wimbledon Common and Town, on TUESDAY, APRIL 17, 1865, at TWELVE for ONE, a large quantity of new MATERIALS, prepared joiners' work, and flooring boards, twenty-five loads of timber, several thousand stock-bricks, York landings, new baths, scaffolding, three useful horses, builders' carts, harness, and other effects.—May be viewed one day previous, and Catalogues had on the Premises; also of Messrs Lawrance, Prince, and Rowan, Solicitors, Old Jewry Chambers; and of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

STROUD, GLOUCESTERSHIRE.—TO BE SOLD by AUCTION, at the ROYAL GEORGE HOTEL, in Stroud, on THURSDAY, the 20th day of APRIL next, at FIVE o'clock, by

MESSRS. T. and W. DAVIS, subject to conditions, the following desirable FREEHOLD PROPERTY, situate in the town of Stroud in the following lots:—

Lot 1. A substantial modern-built Dwelling-house, with convenient outbuildings and spacious yard, well adapted either for private residence or business purposes, and at present occupied in part by Mr Keal, the proprietor, as a boarding-school, and in part as Mr Little's office.

Lot 2. Two Cottages, and a large building now used as a school-room, adjoining the last-mentioned lot, and in the occupation of Mr. Read, Mrs. Simmons, and others, separate from the two last-mentioned lots by St. John's street, with a piece of garden-ground in front, abutting on the London-road, and another piece at the back, the whole containing with the site of the buildings 1,480 square yards or thereabouts. This lot is particularly well adapted for building on.

Lot 4. A large piece of ground on the opposite side of the London-road, in front of the last-mentioned lot, and extending from the London-road (to which there is a frontage of 160 feet) to the goods' station and yard of the Great Western Railway; of the same width as above, containing 2,560 square yards, or thereabouts. This lot, from its peculiar advantageous position, having a commanding view of the valley, and a soil of brick earth, is especially fitted for the erection either of private dwelling-houses or shops of which there is good room for six or seven, with gardens behind, or for any building of a public or commercial character requiring immediate access to a railway, with good frontage at the same time to a turnpike road; and will be put up in one lot or in several lesser lots, as may be determined on at the time of sale. To view the premises, and for a plan and particulars of the different lots, apply to Messrs. Cregoe and Hunt, Solicitors, Cainscross, near Stroud; John Mattingley, Esq. Solicitor, Bank of England Chambers, Bristol; William Maskelyne, Esq. Solicitor, Tetbury; E. C. Little, Esq. Solicitor, Stroud; or to the Auctioneers, at their Offices, Stroud.

TO TIMBER MERCHANTS, CABINETMAKERS, PIANOFORTE MANUFACTURERS, COACH BUILDERS, &c.

MESSRS. C. LEARY and CO. have been favoured with instructions from Mr. Henry Bateman, of 55, Sun street, Bishopsgate (who is about to relinquish the retail portion of his business to effect by PUBLIC AUCTION, on the PREMISES, on MONDAY and TUESDAY, the 23rd and 24th APRIL, the second portion of his immense and most valuable STOCK of WOOD, comprising prime dry mahogany, in logs, planks, boards, and veneers, dry wide sound board, rosewood and satin wood in planks and veneers, oak, lime, pollh and board, &c. &c. &c.—May be viewed two days' previous to, and on the mornings of sale Catalogues to be had on the Premises, and at the offices of the Auctioneers, 79, Old Broad-street, City.

BARRINGDON-STREET EXTENSION, BUILDING MATERIALS OF TWENTY HOUSES.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on FRIDAY, APRIL 28, at TWELVE, by order of the Improvements Committee of the Corporation of the City of London, the whole of the valuable BUILDING MATERIALS and FIXTURES of TWENTY HOUSES, shops, factories, stabling, and premises, in Castle-street, York-street, Saffron-hill, and Hockley-in-the-Hole, comprising prime fir, sawn, and red and white deals, Spanish and Honduras mahogany, oak logs, planks, boards, and veneers, dry wide sound board, rosewood and satin wood in planks and veneers, oak, lime, pollh and board, &c. &c.—May be viewed two days' previous to, and on the mornings of sale Catalogues to be had on the Premises, and at the offices of the Auctioneers, 79, Old Broad-street, City.

TO BUILDERS, IRONMONGERS, &c.

MESSRS. H. BROWN and T. A. ROBERTS will SELL by AUCTION, on the PREMISES, 24, Wallbrook, on TUESDAY, APRIL 17, and following day, at ELEVEN for TWELVE precisely, by order of the executors of Mr. Thomas Walter, wholesale ironmonger, deceased, the whole of the valuable STOCK IN TRADE, including 600 bags of cut shop nails, from 7 sths to 5 inches, 42 bags of wrought, clout, and clasp nails; 27 bags of wrought cut rose nails, 22 bags of floor and joist brads; 18 bags of horse nails; 13 bags of lath and fine basket nails; 20 bags of hob, boat, and wherry nails; 10 bags of copper boat nails; 17 bags of sleeder clinch and spike nails; 30 bags of tacks; 5 bags of Kent and Essex bardle, and a variety of other nails; 300 dozen of butt, pew, and other hinges; 1,000 pairs of cross-garnets; 150 dozen of bolts, 150 dozen latches; 350 dozen sash and axle pulleys; 300 dozen of drawbolt, plate, deed, mortice, and trunk locks, with ebony, china and brass furniture; 1,000 pairs of screws, various; 80 dozen of files and rasps; a quantity of carpenters' and other tools; shutter-bars, scythes, spades, pit-saws, axles, &c. &c. An assortment of brass-work and general ironmongery, also the fixtures and implements. May be viewed on Monday, and catalogues had on the premises; also of Messrs. H. Brown and T. A. Roberts, 22, Throgmorton-street.

A FEW good STONEMASONS may hear of employment, also a Working Foreman, by applying on the Works, Kew Bridge, Kew Yard, Saffron Walden. None but sober, steady men need apply.

TO PARENTS AND GUARDIANS.

A RESPECTABLE and well-educated YOUTH can be received as OUT-DOOR PUPIL in the place of one whose term has nearly expired, in a Timber Merchant's Counting-house; he will have unusual facilities afforded him of learning thoroughly the business in all its details. Term, three years, with a Salary of 1l per week allowed during articles. First class references given, and a premium expected.—Address to B. A. Messrs. Jackson and Reed, Solicitors, 18, Essex-street, Strand.

A COLLECTOR and CANVASSER.—Wanted, a respectable person to undertake the above duties. Security will be required.—Apply, by letter only, enclosing references, &c., to "The Assistant Secretary, the Architectural Museum, Canonrow, Westminster," on or before WEDNESDAY, the 26th inst. April 12, 1865.

TO BUILDERS' FOREMEN.

WANTED, in the Country, for a constancy, a thoroughly practical BUILDER'S FOREMAN, to take the out-door superintendence of works throughout, in the erection of Villas and First Class Houses, to set out work generally, and make working drawings. Age preferred from 30 to 45. None but those whose characters and abilities can bear the strictest investigation need apply. Address, W. WILLICOMBE, Builder, Tunbridge Wells.

TO GRAINERS OF MARBLES.

WANTED, a good GRAINER.—Apply to Mr. BUSSELL, House Decorator, Bath.

TO BRICK AND TILE MAKERS.

WANTED, an experienced Man as FOREMAN, or to undertake the making of about 700,000 house-tiles, draining-pipes, bricks, &c. at the New Russian Tile Works. Apply to J. S. POLSTEIN, 102, High-street, Camden-town, N.B.—He must be well recommended. The clay is prepared.

TO CARPENTERS AND BUILDERS.

WANTED to PLACE, as IN-DOOR APPRENTICE, a respectable Youth, aged 17, who has a slight knowledge of the trade. References exchanged.—Apply by letter only, stating terms, to Z. Y. X. No. 4, New King's-road, Chelsea.

TO PLUMBERS AND BUILDERS.

WANTED, a SITUATION, by an experienced Plumber. Can turn his hand to any other part of the business if required. Good references can be given.—Direct, B. Y. No. 3, Woodfield-road, Harrow-road, Paddington.

WANTED, a SITUATION, as estimating and measuring CLERK, or to superintend the repairs of houses, by a practical Man, of some years' experience. Can make specifications.—Address, B. B. No. 4, Walmer-street, Russel-square.

TO BUILDERS AND PAINTERS.

WANTED, by a Young Man who understands his business, a constant SITUATION as PAINTER, &c. Can do paperhanging if required. Wages twenty-four shillings per week.—Direct to P. G. 9, Mornington-street, Camden town.

WANTED, a SITUATION for a Youth in a Builder's Office; he can write a good plain hand and square dimensions.—Address H. H No. 3, Argyle-street, New-road.

SALES BY AUCTION.

TO IRON FOUNDERS, AGRICULTURAL IMPLEMENT MAKERS, AND OTHERS.—To be Sold by Auction by

MESSRS. FULLER and HORSEY, on MONDAY, APRIL 10, 1865, at TWELVE o'clock, at the GROVE FOUNDRY, Great Guildford-street, Southwark, in lots, without reserve, by order of Mr Jeffcris, the premises being disposed of, the remaining PLANT and TOOLS of the FOUNDRY and STOCK of AGRICULTURAL IMPLEMENTS, including 50 dozen ploughshares, grounds and points, plough bodies, beams and handles, cart and waggon skids, 20 new large locks and tree irons, patent and common cart boxes, 5 cwt. implement wheels, box rafferns and mulds, two powerful lathes, foot lathe, two steam-engines, of six and one-horse power, five tons iron flasks, eight feet crown wheel and pinion, two tons casteron, quantity of useful wood, one ton railing bars and balcony panels, ten large iron riggers, and other effects.—To be viewed on Saturday previous and morning of sale. Catalogues may be had on the Premises, and of Messrs. Fuller and Horsey, Billiter-street, City.

IMPORTANT SALE OF IRON

TO BE SOLD by AUCTION, on MONDAY, the 30th day of APRIL, on the PREMISES of BOYDELL and GLASIER, Camden Works, Hawley-crescent, near the Camden-bridge, Camden Town. From 300 to 400 tons of STAFFORDSHIRE BAR IRON, manufactured by the sellers, Boydell and Glasier, at the Anchor Iron Works, Smethwick, who intend to continue sales periodically in lots suitable to the wants of general consumers.—Engineers, Farriers, Wheelwrights, Shipbuilders, Whitesmiths, and Smiths in general. Approved bills at four months will be taken from parties purchasing to the extent of 5l with interest at 5 per cent. added, and permission will be given to leave the Iron on the premises a reasonable time.—May be viewed and Catalogues had on the Premises, one week previous to the sale.

TO CONTRACTORS, BUILDERS, AND OTHERS, LEE, NEAR BLACKHEATH.

MR. MARSH has received instructions from Messrs. J. and C. W. Todd, to SELL by AUCTION on the PREMISES, the Belmont Estate, near the Church, Lee, on THURSDAY, APRIL 20th, at TWELVE o'clock, about ONE MILLION AND A HALF of good, sound STOCK BRICKS, and other BRICKS, in lots to suit the convenience of large and small purchasers. The Belmont Estate is within five minutes walk of the Lewisham and Blackheath Stations on the North Kent Railway. Approved bills will be taken from purchasers, over 25l.—May be viewed the day prior and morning of sale, and Catalogues obtained at the Office; on the Estate, at the Railway Tavern, Lewisham; Tiger's Head, Lee; Green Man Hotel, Blackheath; Greyhound, Eltham, and Greenwich, and at Mr. Marsh's Offices, 3, Charlotte-row, Mansion-house.

TO BUILDERS, IRONMONGERS, &c.

MESSRS. H. BROWN and T. A. ROBERTS will SELL by AUCTION, on the PREMISES, 24, Wallbrook, on TUESDAY, APRIL 17, and following day, at ELEVEN for TWELVE precisely, by order of the executors of Mr. Thomas Walter, wholesale ironmonger, deceased, the whole of the valuable STOCK IN TRADE, including 600 bags of cut shop nails, from 7 sths to 5 inches, 42 bags of wrought, clout, and clasp nails; 27 bags of wrought cut rose nails, 22 bags of floor and joist brads; 18 bags of horse nails; 13 bags of lath and fine basket nails; 20 bags of hob, boat, and wherry nails; 10 bags of copper boat nails; 17 bags of sleeder clinch and spike nails; 30 bags of tacks; 5 bags of Kent and Essex bardle, and a variety of other nails; 300 dozen of butt, pew, and other hinges; 1,000 pairs of cross-garnets; 150 dozen of bolts, 150 dozen latches; 350 dozen sash and axle pulleys; 300 dozen of drawbolt, plate, deed, mortice, and trunk locks, with ebony, china and brass furniture; 1,000 pairs of screws, various; 80 dozen of files and rasps; a quantity of carpenters' and other tools; shutter-bars, scythes, spades, pit-saws, axles, &c. &c. An assortment of brass-work and general ironmongery, also the fixtures and implements. May be viewed on Monday, and catalogues had on the premises; also of Messrs. H. Brown and T. A. Roberts, 22, Throgmorton-street.

TO MANUFACTURING IRONMONGERS, BUILDERS, AND OTHERS.

WANTED, by the Advertiser, a Situation as FOREMAN. Has been many years used to the manufacturing of all kinds of smiths' work, and is thoroughly acquainted with every description of hot-water apparatus, bath-work, gas-cooking stoves, &c.—Address to G. H. Office of "The Builder."

TO ARCHITECTS, AND BUILDERS.

WANTED, by the Advertiser, a RE-ENGAGEMENT as CLERK of WORKS, or GENERAL FOREMAN.—Address, C. B. 7, Newchurch Cottages, Manchester-road, Isle of Dogs, London.

SAW-MILLS

WANTED, EMPLOYMENT as SAWSHARPENER, or otherwise, where he can be useful; is able to work the bench or frame, take measurement, keep accounts, and make himself generally useful in a timber-yard or mill; can give a four years' reference to last employer, and satisfactory reasons for leaving. Apply by letter, pre-paid, Y. Z. Mr Macmichael's Library, King's-road, Chelsea.

WANTED, a SITUATION as PAINTER, GLAZIER, and PAPER-HANGER. Can make himself generally useful at Plumbing. Wages not so much an object as a permanent situation.—Address, J. GEORGE, No. 6, Little Newstreet, Shoe-lane, City, London.

WANTED, by a person of considerable experience, a SITUATION as FOREMAN of PLASTERERS. Has been accustomed to making plasterers' estimates, &c. &c. Can model, if required. Good reference can be given as to ability, integrity, &c.—Address, B. Office of "The Builder."

TO ARCHITECTS, BUILDERS, &c.

WANTED, by a Young Man, who has been articled to an architect and Surveyor, an ENGAGEMENT where he would have opportunities for improvement, at a moderate salary.—Address, C. D. 78, Little Britain.

TO STONEMASONS.

WANTED to APPRENTICE a LAD to the above trade, till he attains 21 years of age; was 15 last November.—A moderate premium will be given.—Apply to JOHN COOPER, jun. West Wickham, Bromley, Kent.

WANTED, by a Man respectably connected, a SITUATION as FOREMAN of a BRICK FIELD; has had the entire management of brick fields for upwards of twelve years, has a perfect knowledge of all the various branches of making, having had to manufacture goods from various descriptions of earth. An unexceptionable reference can be had.—Address, Y. C. C. Mr. Halford's, Auctioneer, Mare-street, Hackney.

TO BUILDERS AND MASTER PAINTERS.

WANTED, a RE-ENGAGEMENT as FOREMAN, by an experienced practical Man, having a thorough knowledge of every branch of the Painting Business. Can write, grain, gild, &c. Can have good reference as to ability, &c.—Direct A. B. 4, Shard's-place, Bell alley, London-wall, City.

TO STOVE AND RANGE MAKERS AND GAS-FITTERS.

WANTED, by a Young Man, who has been five years in the trade, a SITUATION where he can improve himself; is a good gasfitter, and understands hot-water work. No objection to the country.—Address A. B. Office of "The Builder."

TO BUILDERS, CONTRACTORS, &c.

WANTED, by a middle-aged Person, of considerable practical experience in taking off quantities, estimating, and in securing up works, &c. an ENGAGEMENT, or otherwise, upon reasonable terms; has been engaged in building pursuits upwards of twenty years. The most satisfactory references offered as to ability, &c.—Address A. B. C. 8, Triangle, Upper Kennington lane, Lambeth.

TO BUILDERS.

WANTED, by a practical Working Man, a SITUATION as Shop or Out-door Foreman. No objection to the country. Satisfactory references can be given.—Direct to B. C. Office of "The Builder."

TO BUILDERS, &c.

WANTED, by a Young Man, permanent EMPLOYMENT for about two years, as IMPROVER in the BUILDING. Has been two years in the trade. Moderate wages required. No objection to the country.—Address, A. H. 23, Princes-street, Westminster.

WANTED, by an ARCHITECTURAL DRAUGHTSMAN, EMPLOYMENT of an evening. Drawings traced or copied.—Address, L. G. W. Office of "The Builder."

TO PLUMBERS, PAINTERS, GLAZIERS, AND GAS FITTERS.

WANTED, a SITUATION for a Youth of fifteen years, who has been a year at the business with his father, since dead.—Apply to J. GARRETT, 22, Carter-street, Walworth.

TO BUILDERS.

WANTED, by a Young Man of business habits, accustomed to the routine of a country house, a SITUATION in a BUILDER'S OFFICE, where he will have an opportunity of becoming conversant with the business. Salary no object. Unexceptionable references.—Address, A. B. 59, Huntingdon-street, Bamsbury-park.

TO ARCHITECTS.

WANTED, a SITUATION as CLERK of WORKS, by a well-experienced, practical man in building. A country job would be preferred. Address, F. K. Shaw's Livery Stables, Carey-street, City.

TO BUILDERS AND CONTRACTORS.

THE Advertiser having just completed his engagement with builders, wishes to take BRICKWORK, at per rod, either including scaffolding, or scaffolding, time, and labour to any extent. First rate testimonials from late employers. No objection to the country.—Address, A. B. 36, Pickering-place, Paddington.

TO ARCHITECTS.

THE Parents of a Young Man are desirous of placing him in an OFFICE of good practice, where opportunities for Improvement would be given to him. He is acquainted with office routine and can prepare architectural and artistic drawings.—Address, W. R. J. City News Rooms, Cheapside.

TO BUILDERS.

THE Advertiser wishes to enter into arrangements for Building Small Villa Residences in an eligible part of ground and out with good road and sewer, in the vicinity of a considerable town.—Address, LUCAS, Kelly's, 2, Vigo-street, Regent-street.

TO BUILDERS AND DECORATORS.

THE Advertiser wishes a Re-Engagement as FOREMAN of PAINTERS, GLAZIERS, and DECORATORS. Can estimate and measure up work if required; can have good reference from who he last employed. No objections to charge of a good job in the country.—Address to J. L. 9, Macclesfield-street, Soho.

THE Advertiser, in consequence of the near completion of some large public works upon which he is employed, is open to a RE-ENGAGEMENT. Is thoroughly accustomed to office work, having served his articles to one of the most eminent London architects, and has since been in constant employment under several other well-known gentlemen.—Address, R B C News Rooms, Cheapside.

PLASTERING.—An experienced Plasterer is open to take PLASTERING, either by the whole or at measured prices. Good references. Address, A. B. C. Oak Villa, Woodgrange, New Pinner, Middlesex.

PLUMBING or PAINTING.—The Advertiser, having some surplus labour, which he is desirous of employing, would be glad to TAKE any quantity of WORK (with or without materials), in town or country. Any party requiring work done will find this worth their notice.—Address, THOMAS STANWAY, No. 10, Dorset-street, Portman-square, London.

TO ARCHITECTS AND SURVEYORS.

OCCASIONAL ASSISTANCE.—A qualified ASSISTANT, of eleven years' experience, is desirous of affording temporary assistance to the Profession, at their offices or his own residence.—Address, A. B. 36, Duke-street, Grosvenor-square.

TO ENGINEERS AND OTHERS.

EXPOSITION de PARIS. — An English Engineer, residing in Paris, who can give respectable references in England, is desirous of meeting with an APPOINTMENT, in connection with a firm exhibiting Machinery, &c as their agent. Address (post-paid), E. W. C. 4, Rue Neuve des Mathurins, Paris—E. W. C. would devote partial or entire time, and give security if required. - Terms, by commission, or otherwise.

TO SURVEYORS, BUILDERS, &c.

AN Experienced Practical Man, proficient in and accustomed to measuring, estimating, taking out quantities, drawing, book-keeping, and conducting works, is desirous of an ENGAGEMENT.—Address, H. E. No. 67, Colemanstreet, City.

A YOUNG MAN (well educated), desires a RE-ENGAGEMENT. He is a good Architectural Draughtsman, a ready Accountant, can map, plan, and take out quantities, and is thoroughly acquainted with Book-keeping and the principles of Levelling and Surveying. Salary moderate.—Address, A. G. Messrs. Hookham's Library, Old Bond-street.

TO ARCHITECTS, &c.

AN Artistic Colourist, Draughtsman, and Designer, OFFERS his SERVICES in the preparation of Perspective Views, with landscape and figures, also in general drawing, on moderate terms. -Address, A. Z 61, Denbigh-street, Belgravia.

TO ARCHITECTS.

A GENTLEMAN, having been many years in the profession, is desirous of an ENGAGEMENT for Three or Four Days a Week.—Address L. Office of "The Builder."

TO ARCHITECTS.

A GENTLEMAN of great experience is open to an ENGAGEMENT as an ASSISTANT in an ARCHITECT'S OFFICE.—Address to G. G. 1, Brunswick-place, Brompton

AS IMPROVER.—A Gentleman, well acquainted with construction, a good draughtsman, and accustomed to take out quantities, wishes for more experience in house and street architecture, and is therefore willing to make arrangements with any architect or builder of considerable practice who may require temporary assistance. Aged 30 years.—Address O. C. at Mr Hailes', Stationer, Leadenhall-street, City.

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A GOOD Architectural Draughtsman wishes EVENING EMPLOYMENT. Good references; terms, 1s. 6d. per hour.—Address, B. W. H 4, Garden-court, Temple.

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A YOUNG MAN who has had six years' practice in an architect's and civil engineer's office, wants a SITUATION. He is a good draughtsman, and is well acquainted with the routine of an architect's and civil engineer's office, and can produce the highest certificate from his late employer. As employment is his chief object, a small progressive salary is all he expects.—Address, C E Office of "The Builder."

AS CLERK of WORKS.—An experienced, practical, and theoretical Clerk of Works wishes to meet with an ENGAGEMENT, having just finished an extensive work, is conversant with Gothic details; references and testimonials unexceptionable —Address, A. E. Mr. Lawson's, Stationer, 19, Melton-street, Euston-square.

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A GENTLEMAN, who has been engaged for the last four years in the office of a very eminent firm as Assistant, is now open to a similar ENGAGEMENT in Town. The most unexceptionable references as to character and ability can be given from his late employers. Terms, two guineas per week.—Address, BETA, Mr. Burns' Library, Kennington-green, Kennington

TO BUILDERS AND CONTRACTORS.

A QUALIFIED BUILDER'S and CONTRACTOR'S CLERK, of middle age, exceedingly steady, business habits, a thorough book-keeper, and accountant, will be happy to FILL a SITUATION in Town or Country, at a moderate salary.—Address, R. Office of "The Builder."

THE AGRICULTURAL MACHINERY DEPARTMENT of the CRYSTAL PALACE is now open for PUBLIC INSPECTION. It contains the largest and most complete Collection ever exhibited, comprising the most approved Agricultural Implements and Machines by all the first-rate makers.

By order,
G. GROVE, Sec.

Crystal Palace, April 9, 1853.

BARROWS! BARROWS! &c.—The best and cheapest place in London for Navvy, Bricklayers', and every other description of Barrows, Ladders, Railway Trucks, &c. is at J. BARNESS', 2, York-place, Pentonville-hill.

FREEHOLD LAND.—To Builders or Parties wishing to Build Suburban Residences.

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—
Forest-hill, Croydon Railway.
St. Margaret's, near Richmond, South-western Railway.
Oatlands Grange, Weybridge, Surrey, ditto.
Tottenham-green, Eastern Counties Railway.
Putney, South Western Railway.
Rectory Estate, Ealing, Great Western Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
Wood-green, Green-lanes, Hornsey, Great Northern Railway.
Old Ford Stratford, Eastern Counties Railway.
Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of one acre, can be of tained, in the two first estates, large pleasure gardens are allotted to the freeholders or tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge for about ten years less in amount than the ground-rent of the same under the usual system. In addition, therefore, to the amount to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit Several plots to be let on building lease Money advanced to responsible parties.—Apply to Mr GEORGE MORGAN, Architect, 5, Chancery-lane.

CEMETERY LAND for SALE.—Sewers Office, Guildhall, March 19th, 1853.—The Commissioners of Sewers of the City of London, acting as the Burial Board for that city, have about 100 acres of valuable FREEHOLD LAND, which they are desirous to DISPOSE OF, for the formation of one or more cemeteries, it being peculiarly adapted for such purposes. The land is situate at Little Ilford and about one mile from the Eastern Counties Railway, which, by arrangement, may run direct into it. It is also directly accessible by the high road from London, and from Wanstead, and is about a quarter of a mile west of Ilford The cemetery for the City of London is formed on the adjoining portion of the estate. The land tax is redeemed. Plans of the property may be inspected at this Office; or at the Office of the engineer, Mr. HAYWOOD, 14, Old Jewry Chambers. The Commissioners will receive proposals for the said land, or any portion thereof, on MONDAY, APRIL 25th, at ONE o'clock. Such proposals must be sent sealed and endorsed "Tenders for Land at Ilford," to the undersigned, at this Office, before TWELVE o'clock on that day. The Commissioners do not bind themselves to accept any of the proposals unless deemed eligible,

JOSEPH DAW, Principal Clerk.

CAMDEN TOWN CEMETERY BUILDING ESTATE.—TO BE LET on Building Leases for ninety-nine years, very eligible SITES upon the above estate, having good frontages into Camden-street, Pratt-street, and Bayham street. There is a great demand for houses and shops of the first rate in this locality, which is enhanced by its near proximity to the North-Western and North London railway stations, and the Hampstead-road Plans may be seen, and particulars obtained by application to H E KENDALL, Esq Architect 17, Suffolk-street, Pall mall East; or to JOHN DANGERFIELD, Esq Solicitor, 26, Craven-street, Charing-cross.

FREEHOLD GROUND for BUILDING ON.—TO BE LET, upon Building Leases, PLOTS of GROUND, in that healthy locality Holloway, two or three minutes' walk from the Archway Tavern. Omnibuses every four or five minutes to all parts of London Situate in St. John's-road, where houses let as fast as built.—For particulars, apply to Mr. H WITHERS, 9, Poultry. The leases direct from the freeholder.

WANTED to purchase, from TWO to FIVE ACRES of FREEHOLD LAND, within twenty five miles of London, suitable for the erection of a genteel villa residence, a healthy and picturesque neighbourhood, good society, and good water supply, will be considered of more importance than rather more commercial advantages. Gentlemen having command, are requested to forward particulars, without delay, to Mr. H. B GARLING, No. 11, King's-road, Gray's-inn, London, Architect.

FREEHOLD BUILDING LAND TO LET.—To LET, at KENTISH TOWN, several PLOTS of FREEHOLD BUILDING LAND, for third or fourth-rate houses To respectable parties money will be advanced if required.—Apply to Mr. DYE, 76, Carlton-road, Grafton-road, Kentish-town

WEYBRIDGE, SURREY, and FOREST-HILL, SYDENHAM Several PLOTS of FREEHOLD BUILDING LAND, eligible for these rising localities, TO BE SOLD, subject to a small chief rent, instead of purchase-money, for private villas. Also, a Plot for an Inn. Moderate advances made.—For further particulars, apply to Mr. A. C HOOK, Landagent, 13a, Great George street, Westminster.

PUTNEY.—Several Private Eight and Ten-roomed newly-erected DWELLING-HOUSES, with good gardens, within five minutes' walk of the rural station. TO BE LET or SOLD. For further particulars, and for plans, apply to Mr. A. C. HOOK, Land-agent, 13a, Great George-street, Westminster.

FIRST-CLASS BUILDING LAND to LET. Liberal advances made to builders —Apply to Mr. J. P. PATMAN, Surveyor, 4, Sergeants' Inn, Fleet-street.

FREEHOLD LAND.—Ten Acres of Freehold Land for SALE, forty miles from London, and three miles from a first-class station. Price 200l.—Address 430, 35, St. James-street, London.

RIVER-SIDE PREMISES TO BE LET, with use of 30-and Boston crane and drawing-dock. -Apply at Lett's Wharf, Waterloo-bridge.

HAMPTON COURT.—BUILDING LAND TO BE LET, for ninety nine years, with option of purchase, near the above palace, and close to Kent Mulley Church A portion of the estate has been laid out for villi residences is now enclosed with gardens running down to the river Mole There is a plot containing about three acres, very eligible for a first-class house, at a very moderate price The plots vary in depth from about 150 feet to 400 feet, and in price from 40l to 80l. per foot frontage Another portion has been devoted to cottages (which are much required in this locality), at extraordinarily low rates The residue of the estate is admirably adapted for villas or small houses.—Apply to FREDERIC LETT, Esq. Architect, 36, Essex-street, Strand, London

TO SHIPBUILDERS, MILLERS, WHARFINGERS, MANUFACTURERS, and OTHERS. —TO BE LET, with an extensive frontage for building and commercial purposes, the creek shores and reed grounds called Westham, Plumstead, and Erith Creek, situate on the north side of the river Thames, in the parishes of Eastham, Westham, and Woolwich, near the Woolwich Ferry, and adjoining north, on the North Woolwich Railway, and south, on the Thames, and containing, including the Creek (which is about one acre, and is now partly used as a reed bed), six acres or thereabouts. Mr. THOMAS MATHEWS, of Eastham, will show the premises, and for further particulars, apply to Messrs. H. W. and N. COULTHURST, New Inn, Strand, London Solicitors.

FREEHOLD BUILDING LAND TO BE SOLD or LET, in handsome plots, beautifully situated, a few minutes' walk from the Carshalton Station of the London, Croydon, and Epsom Railway, in Surrey, about eleven miles from London Several pretty villas in course of erection. A large plot for disposal suitable for a tavern and shops for the estate.—Apply to Mr. PARSONS, 7, Union-court, Old Broad-street, City.

TO MANUFACTURERS, BUILDERS, and OTHERS.—TO BE LET, a DWELLING-HOUSE, with office, large yard, workshops, two-stall stable, chaisehouse, and covered sheds. The situation is good, and within three miles of the London bridges. The premises have been occupied by a builder doing a large business, and have been built within the last three years regardless of expense. Gas and water laid on throughout, and drainage first-rate, the main sewer passing through the yard. A term of years granted at a moderate rent.—For full particulars, apply to Mr. W. WELLS, Surrey House, Coleman-street, Camberwell.

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Enrolled as the "Borough of Lambeth Benefit Building Society."

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WM. BANKS, Secretary.

211, High-street, March 1, 1853.

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TO CAPITALISTS, IRONMONGERS, BRAZIERS, AND OTHERS.

FOR SALE, the PATENT RIGHT of an article of great utility, viz. a GAS BATH, which is the simplest, cheapest, and the most economical bath out, and will pay the purchaser a first-rate per-centage; also will be given to the purchaser an entirely new invention of a Self-acting Shower-bath.—Apply to C. ASKEW, 97a, Charles-street, Hampstead-road.

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ARCHIBALD SMITH begs to acquaint the Trade that he manufactures the undermentioned patented and other articles—viz. Patent Double Action Door Springs; Patent weather-tight Fastenings and Oil Bars for French Casements, the most simple and perfect article known; Patent Wire Rope and Solid Lightning Conductors, prepared for fixing; Revolving Iron Shutters, Iron Sash Door Suspension and Sympathetic Bells, Doors, Flooring Cramps, Screw Jacks, for sale or hire, and every description of Iron and Brass Work for building. Princes-street, Leicester-square.

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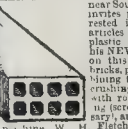
FOUNTAINS, FIGURES, VASES: TRU-SES, CENTRE FLOWERS, TRACERY, and other Building Materials in great variety, of the best description, are being offered for Sale at unusually low prices for cash, a 74, Borough-road, Southwark, near Blackman-street, Borough.

J. S. NORTON (late Norton and Borie) ENGINEER and IRONFOUNDER, New Park-street near Southwark bridge, London invites parties engaged or interested in the manufacture of articles from Clay and other plastic substances, to inspect his NEW MACHINE (the first on this principle for making bricks, tiles, cornices, &c Combining the several operations of crushing the clay and stone with rollers; pugging, self-feeding (screening also, where necessary); and moulding. The pur-



chaser of this machine, W. H. Fletcher, esq. having granted permission, it is intended to work it here from TEN to TWELVE o'clock each day, until the 21st instant. Pipe and tile machines from 15l. Catalogues and price lists to be had at the works. A quantity of fullular bricks on sale; red colour and wall burnt, samples to be seen here the bulk at Islington.

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BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone always in stock. Landings, Paving, &c Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c. N.B This wharf is very near the St. Margaret's estate

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PATENT SANITARY GAS SHADES.—These Shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the effluvia and smoke which have hitherto made the use of gas so objectionable in dwelling houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had at the Works in a variety of forms adapted to the style of fitting or the taste of purchasers; also at Mr. JOHN SHORTON, 45, Crispin-street, Spitalfields, London.

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These Pencils are prepared in various degrees of hardness and shades.

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Sold by all the principal Stationers in town or country.

WHITE OXIDE OF ZINC AND ZINC PAINT.
(LANGSTON SCOTT'S PATENT.)

CROWLEY, WHITE, AND CROWLEY, *Sole Manufacturers.*

This healthful substitute for White Lead, of unrivalled colour and texture, may be obtained from most of the principal Paint Grinders, Oil and Colourmen, and Ship Chandlers in the United Kingdom, or direct from the Works, Grand Surrey Docks (Wholesale under Brand), either in the dry state or ground in Oil.

Zinc Paint, being unchangeable in colour, stands pre-eminent for the highest purposes of Art; and from its perfectly pure and innocuous qualities, is peculiarly applicable to first-class Decorations and House Painting. For Iron it possesses great affinity, and hence its preservative properties for that Metal, whether used for Marine or other purposes. It is now ground in Colours, and may be successfully employed on Stucco, or any other outside work for which White Lead is used; it sets harder, is consequently more durable, economical in first cost, and covers equal to any known pigment.

Messrs. MORANT and BOYD, 91, New Bond-street, who have lately used Zinc Paint to a great extent at Chiefden (the Duke of Sutherland's), and other mansions, have specimens, and will give any information respecting it.

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The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysa and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in oil: also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK—LONDON—PATENT. And if not so marked, the quality and cost will be unwarranted. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase l weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BRUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO. and by the Company's Grinding Agents. in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool, by R. CLAY, 2, Nersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting shire, warehouses, dwelling-houses, &c. In Leith, by Messrs R ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c.; and they most respectfully solicit orders.

O. and T. can deliver by their own boats, or by rail to any part of the kingdom

CHARLES RICHARDSON, 6, South Wharf, Paddington. Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying uniformity properties will ensure regularity in colour and quality.

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PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland-yard, and at the Works.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the trade the above superior CEMENT, being of uniform colour and quality,—a desiderstum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminently hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by R. GREAVES, Esq at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and Builders to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Parrett Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

FRONTS of HOUSES.—GREENE and CO.'s PORTLAND CEMENT WASH, equal to oil paint for durability; in casks, 1 cwt. for 10s.

DAMP WALLS.—GREENE and CO.'S OXIDE SOLUTION PAINT, for damp, salt, or spotted walls; price 12s. per gallon, which will cover 300 square feet.—Prepared only by GREENE and CO. Original Inventors, 22, Norfolk-street, Islington.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with special reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Rideine, &c. Petials, Stucco, &c. Marble Merchants and Importers of Pozzolano.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

TO BUILDERS AND OTHERS.

TO BE DISPOSED OF, above 100 tons of ROMAN CEMENT, from Civitavecchia, now lying at Liverpool, but can be delivered at any part in Great Britain.—Samples may be seen, and further particulars ascertained, on application at 8, Crosby-square, second floor.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster, who prepare one quality only of Portland Cement.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, and Seel-street, Liverpool.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side, 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works on the Medway, near Rochester, March 31, 1855.

BRICKS.—Best Kent Grey Stocks, delivered alongside in the River; also Patent Perforated and Solid White Suffolk and Red Facings.—Apply to W. ALLAWAY, 4, Catherine-court, Tower-hill.

ONE MILLION BRICKS for SALE, within three miles of Hyde-park.—For particulars, apply to Mr. HEWLETT, Staroh-green, Hammersmith, where the bricks may be seen.

BRICKS.—MOORE PARK BRICKFIELD, Fulham, two miles from Sloane-street. A large quantity of Malms, Seconds, and Pickings; also Place and Grizzels to be sold on very moderate terms.—Apply, Mr. F. A. GUSH, 12, Stamford-villas, Fulham.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests any inspector to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS.—Excellent hard-burnt Red Bricks, of deep colour and perfect shape, delivered into the carts or railway trucks, at 25s. per thousand, cash; also, Malms, Stocks, Seconds, and Place, at low prices. The railway carriage to London or Blackwall, 4s. 7d. per thousand. May be viewed on the premises, adjoining the Goods' Station of the Eastern Counties Railway, at Brentwood, Essex. For further particulars, address to Mr. LEVETT, Brentwood Brick and Tile Works, Brentwood, Essex. Agricultural Draining Tiles.

POTTERY, BRICK, and TILE YARD, near RYDE, ISLE of WIGHT.—TO BE SOLD, by Private Contract, near the improving town of Ryde, a FREEHOLD YARD of the above description, abounding in clays of various qualities, sand, &c. comprising about six acres of land, an excellent dwelling-house, extensive and substantial sheds, steam engine, and patent machinery. In connection with the above is offered for Sale the remainder of a Lease ninety-six years unexpired of a Farm of about 60 acres of land, affording great advantages if held in conjunction with the pottery. Part of the purchase-money might remain on mortgage; or in the case of a builder, arrangements might be made otherwise advantageous to the purchaser.—Apply to EDWARD WILLIAMSON, Esq. 9, Red Lion-square, London; or to HENRY HEAM, Esq. Solicitor, Newport, Isle of Wight.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newington-crescent, Newington-butts, will, from MONDAY, the 11th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

BRICK-MAKING EXTRAORDINARY!! BY OATES AND INGRAM'S PATENT MACHINE. TO CAPITALISTS AND BRICKMAKERS.

Messrs. OATES and INGRAM beg to announce, that the above powerful and effective machine may be seen by order only, in daily operation at the works of the Vaughton's Hole Brick Company, near Birmingham.

The great advantages possessed by this machine over all others are, to the purchaser,

The bricks are produced at the rate of twenty-five per minute, smooth on the surface, being pressed in moulds, and sufficiently close to be packed up in a barrow on leaving the machine, which is entirely self-acting, consequently requires only the labour of feeding and carrying off.

Applications, either to view the machine, or for the purchase of the patent right for counties or for royalties, to be addressed, T. WELLS INGHAM, Engineer, Birmingham; or to J. P. OATES, Inventor and Patentee, Lichfield.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS

Also Malms and Sale Malms Seconds, Cutters, Faviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

BRICKS.—Yellow Malm Cutters, Seconds, Paviors, and Pickings of a very superior quality and colour. Address, Mr. WM. WEBB, Brick-fields, Stoke Newington.

1,000,000 STOCK, PLACE, and RED KILN BRICKS, FOR SALE, at the WORKS of the CRYSTAL PALACE BRICK and TILE COMPANY, Sydenham-lane, Dulwich (situated about a mile from Penge-lane, and Brixton, and a mile and a quarter from the Forest-hill Station of the Croydon and Epsom Railway).—Applications to be made to Mr. J. MAYHEW, at the Works; or to Mr. C. DOWELL (the Secretary), at No. 1, George-street, Croydon.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

TO BRICK and TILE-MAKERS.—To be SOLD, price 20l. a CLAYTON'S PATENT TILE MACHINE, with screen and 2-inch pipe die-plate. Has been very little used, and is quite as good as new.—Apply to T. RICHARDS, Ironmonger, Wincanton, Somerset.

BRICK MOULDS (Improved) steel-faced stocks and plates with regulating screw pegs, used three seasons by the Messrs. Cubitt, Contractors. References to Messrs. Bowls, Sloes, Cuckholds, Pug Mills, Millwork, &c.—J. LEACH, Millwright and Manufacturer, 29, Critchill-place, New North-road, Hoxton.

N.B. Moulds of various sizes kept on hand.

GLOBE-TOWN BRICKFIELDS, within one minute's walk of Bethnal-green.—A large quantity of light-coloured PIT SAND, of excellent quality, on SALE, reasonable.—Apply to SAM. EMSLEY, for large quantities, or to the Foreman, JOHN SARGENT, on the Premises.

FIRST-RATE BRICK-EARTH, UXBRIDGE. TO BE LET, about SEVEN ACRES. The earth is of similar quality to the best Cowley. Average depth, 6 feet 6 inches, close to the canal and railway, and a wharf secured.—Samples of the bricks made from this earth may be seen, and particulars obtained, at Messrs. ASPITEL and WHICHCORD, 2, Poet's-corner, Westminster; Mr. EDMESTON, jun. 5, Crown-court, Old Broad-street; or of Mr. CHIDLEY 19, Gresham-street.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, CHARLOTTE-street, Blackfriars-road, North, City-road. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," Class 23, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 22s. 6d. per 1,000; floor bricks and 6-inch pavings, at 40s. per 1,000; 8-inch pavings, at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ships, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE AND HIRE,

SINGLE AND DOUBLE

PUMPS, 3 in. to 15 in.

BARRELS to any depth,

AT SHORTEST NOTICE,

FOR HAND OR

STEAM POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

ATHEA and WALKER, Manufacturing Joiners, Cropper-lane, Westgate, Bradford, Yorkshire, Sash, Shop-front, and Door Makers to the trade, and for exportation.—Price List and Estimates forwarded, on application, including a postage-stamp.

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence, Shop-front Builder and Manufacturing Joiner. 1¼ and 1¾ four-panel doors from 6s. each; 1¾ sashes and frames from 7d. per foot; 2 inch ditto from 8d. Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned.—Workshops, 106, Broadwall.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. Those filters, at one, two, three, and four guineas each, yielding 5, 10, 15, and 20 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

VABRE'S IMPROVED FRENCH FIRE-PROOF BUILDINGS.—This improved system consists in forming a floor, or roof, by a series of flat arches, of a short span, resting on the bottom flanges of rolled or wrought-iron girders. The arches being composed of a peculiar shape of hollow pottery, affording a perfect key for the ceiling. This mode of construction increases the strength and the rigidity of the whole floor or roof, affords the means of saving a considerable quantity of metal, by reducing to about one-third the weight to be carried by the girders, and answers all the requirements of a fire-proof structure, even for buildings liable to be exposed to a long continued fire, in which case the joinery and cement to be used for the flat arches may be of burnt fire clay. For further particulars and estimates, apply to B. VABRE, C.E. 4, St. Thomas's-street East, Borough.

TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to
JOHN WARNER & SONS'
PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
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Manufacturers and Patentees.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c adapted for any depth. Hydraulic Rams for deep wells.
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 3ss. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street,
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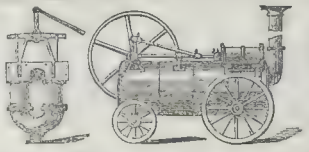
TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work at Messrs MEDWIN and HALL'S, Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers.

N.B. Any of these Engines may be purchased.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

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JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and it is therefore valuable for conveying water, chemicals, &c. It is peculiarly valuable for liquid manure, drain, and soil pipes. Being a non-conductor, it is not affected by the frost of winter or drought of summer, like metal or leather. Its strength is extraordinary; the small half-inch diameter tubing having resisted a pressure of 250 lbs. on the square inch, without bursting. The smaller sizes may be had in 100 feet, and the larger in 50-feet lengths. The joints are easily made. As a conductor of sound it is most valuable for conveying messages in lieu of bells. ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA. The GUTTA PERCHA COMPANY, Patentees, 18, Wharf-road, City-road, London.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 30s. per ton. Importer of Trinidad Asphalte.

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ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads, 3s. to 5s. per square yard. Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed. Apply to Messrs. WRIGHT and BROWN, 39, Bucklersbury, City.

WOOD'S PORTABLE ASPHALTE CALDRON, highly commended by the Royal Agricultural Society, to prepare a cheap and durable Flooring for every description of Agricultural Buildings, also Malting Floors, Warehouses, Cellars, Workshops, Yards, Paths, &c. &c. The judges of the Royal Agricultural society of England, at the Lincoln and Gloucester meeting, highly commended this caldron.

Directions for use, and illustrated circulars, with prices, will be sent post-free, on application to JAMES WOODS, Agricultural Engineer, Stowmarket, or Implement Depot, Bury St. Edmund's.

LADDERS, BARROWS, &c. for SALE or HIRE. GEORGE ELL, 3, Tottenham court, New-road, opposite the Hampstead road, and corner of Price-street, Pad-dington, has on hand at all times a large stock of LADDERS, EXCAVATORS', BRICKMAKERS', and other BARROWS, PAINTERS' TRESTLES, MACHINES, STILES, &c. Price lists can be had on application, at 4, Tottenham-court.

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TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1850.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

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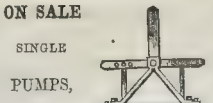
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

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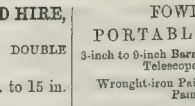

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HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danvers Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 33, Brydges-street, Covent Garden; and at EDWARD COCK'S, 92, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,

MANUFACTURER of GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, CLAP-TRAPS, &c.

CLOSET-PANS AND TRAPS, 5s. 6d. EACH.

AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

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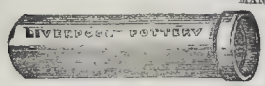

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HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,

LAMBETH POTTERY, HIGH-STREET, LAMBETH,

Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

WILLIAM NORTHEN'S

WHITE ENAMELLED STONEWARE,

UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

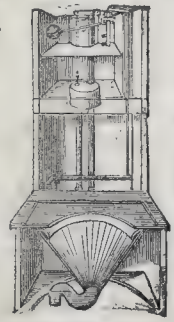
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

SEE "The BUILDER" of LAST WEEK for Particulars of JENNINGS' SANITARY INVENTIONS. A book containing Illustrations and Descriptions of PATENT DRAIN PIPES, CLOSETS, Sluice Valves, &c. &c. can be had FREE on application, or by post if two stamps are enclosed to GEORGE JENNINGS, Sanitary Engineer, 30, Great Charlotte street, Blackfriars-road

---

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, KING'S-cross.

ISAAC PARRY'S

GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

VICTORIA POTTERY, LEIGH,

NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

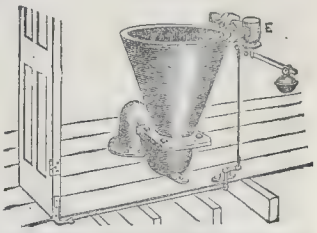
MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

PATTEN'S PATENT HIGH-PRESSURE

WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

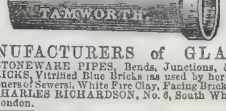
Also PATTEN'S Improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 23s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

LAMBERT'S DOOR-ACTION CLOSET.



100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, Wilts County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve-cock, lever, weights, &c. 1l. 18s.; Cottage Closet complete, with white wedgewood basin and trap, with 1 inch patent valve-cock, lever, and handle to pull up, 17s. 6d.

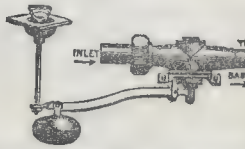
THOMAS LAMBERT and SON,
Patentees and Manufacturers, Short street, New-cut, Lambeth.



MANUFACTURERS of GLAZED

STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c. &c. Agents,—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

BURSTING of PIPES by FROST.



This accident is prevented by the use of LAMBERT'S PATENT LEVER VALVE-COCKS, which act as safety-valves.

The lever is weighted, to resist the pressure of the column of water upon the valve, but it is not weighted sufficiently to resist the powerful expansion of water caused by the frost, which lifts the lever, and thereby prevents injury both to valve and pipe. When reaction takes place, the lever and weight resume their original position.

Many thousands of these Valve-cocks are now in use under pressures of from 3 to 300 feet, with uniform success.

Price of ½ inch bore, with sunkpiate and handle, 10s. 6d. each.

THOS. LAMBERT AND SON,
Patentees and Sole Manufacturers, Short-street, New-cut, Lambeth.

THE BUILDER.

SALES BY AUCTION.

SURBITON-HILL, KINGSTON, SURREY.—Three detached Villa Residences, of handsome elevation; also, Five Houses and Shops, forming a good investment.

MESSRS. FAREBROTHER, CLARK, and LYE are instructed to SELL, at GARRAWAYS, on WEDNESDAY, APRIL 18, at TWELVE, in Three Lots, THREE capital and well-built detached VILLA RESIDENCES, with good gardens, detached stable, and being Nos. 1, 2, and 7, South-bank, Surbiton-hill, Surrey, admirably planned, and finished in the best style, and suitable for the occupation of families; also, Five Houses and Shops, Nos. 1 to 5, Eastcourt Villas. The residences are but a short distance from the station, and command extensive and beautiful views.—May be viewed on application to Mr. Pocock, House Agent, near the church, Surbiton; of Messrs. Lewis and Nisbett, Solicitors, 3, Copthall-buildings, E.C.; at the Gordon Inn, Kingston; at Garraway's; and at the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster-place, Strand.

WANDSWORTH-ROAD, opposite Pensbury Capital detached Leasehold Residence, and Builder's Yard, with possession, and Four Cottages, at St. John's-hill Pattern-estate.

MESSRS. FAREBROTHER, CLARK, and LYE are instructed to SELL, at GARRAWAY'S, on WEDNESDAY, APRIL 18, at TWELVE, in two lots, spacious LEASEHOLD PREMISES, situate opposite Pensbury, in the Wandsworth-road, Surrey, comprising a capital brick built and slated detached private residence, containing four bed-rooms, two dressing-rooms, water-closets, drawing-room and dining-room, two kitchens, cellars, & good detached office next the road, a spacious built coach-yard, with watch-house partly arched, with saw-pit and drying shed therein, carpenter's shop, stable and store-room, and an enclosure of land in the rear, affording ample space for the erection of three cottages (with possession); held by lease for a term, of which 27 years are unexpired, at a small ground-rent. Also, in the St. John's New-road, St. John's-hill, Battersea, and abutting on the railway at the Queen's Bridge, Four Leasehold Cottages, Nos. 19, 20, 21, and 22, brick-built and slated. Leasehold Cottages, Nos. 19, 20, 21, and 22, brick-built and slated. Leasehold Cottages, and producing together about 60l. per annum, held on lease for a term, of which 62 years are unexpired, at a small ground-rent. Particulars, with plans, may be had at the Falcon, St. John's-hill, Battersea; of Messrs. Hand and Chester, Solicitors, Church-row, Newington; at Garraway's; and of the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster-place, Strand.

STRAND.—Highly Valuable and Important Freehold Estates, Nos. 345, 346, 347, Strand; Nos. 2 and 3, and 4, Catherine-street; the Fountain Tavern, Catherine-street; the Porter-Change-arcade, No. 16, Wellington-street North; the Bell Tavern, corner of Wellington-street and Exeter-street, the Board Head Inn, and several houses in Exeter-street, being a portion of the London Estates of the Most Hon. the Marquis of Exeter, K.G. presenting a most favourable opportunity for large Capitalists and property will be sold in three lots

MESSRS. FAREBROTHER, CLARK, and LYE have received instructions to SELL, at GARRAWAYS, on WEDNESDAY, APRIL 18, at TWELVE, by direction of the Most Hon. the Marquis of Exeter, K.G. the following very valuable FREEHOLD ESTATES, in three lots, viz.

Lot 1 will comprise that well-known property, the Exeter-Change, with Two Dwelling-houses and Shops, forming an arcade leading from Catherine-street to Wellington-street; the house and premises, No. 17, Wellington-street North, and Freehold No. 1, in the arcade; the house and shop, No. 4, Catherine-street, and forming No. 7, in the arcade, with extensive cellarage; two dwelling-houses and shops, Nos. 2 and 3, Catherine-street adjoining, viz.—the Exeter Coffee-house, let on lease; No. 5, in hand; the Fountain Tavern, with entrance from Exeter-street; and the house, No. 40, in Exeter-street. A freehold ground-rent of 30l. per annum, with reversion to the fee in 1855, issuing out of two private dwelling-houses, Nos. 6 and 7, Exeter-street, at the east side of Lyceum-yard, late the residence of the celebrated Joseph Grimaldi; dwelling-house and premises, No. 45, Strand, of handsome elevation, and recently repaired throughout, occupying a prominent position, Masonic and Universal Mutual Life Offices; spacious workshops of three floors and a basement, situate at the rear, with entrance from Catherine-street, now occupied and used as printing offices, let on lease, expiring in 1858. Thus valuable block of Buildings, covering an area of upwards of 12,000 square feet of ground, presents, from its central situation in the Strand, the most important freehold properties for the capitalist, either in its present state or for conversion to other building purposes. This lot at present produces, and is of the estimated value of, 1200l. per annum, exclusive of the reversions.

Lot 2 comprises a desirable and eligibly situate Dwelling house and shop, being No. 2, Wellington-street North, and the south-east corner of Exeter-street, of handsome elevation, let on lease to Messrs. Bradbury and Evans, publishers, at 105l. per annum, a Freehold Ground-rent of 6l. 6s. per annum, with reversion to the fee in 1869, issuing out of a capital house, No. 2, Exeter-street, recently rebuilt in a very substantial and handsome manner, forming a portion of the extensive factory of Mr. Bielefeld, papier maché manufacturer; valuable and capital Freehold Premises, known as the Bell Tavern, Wellington-street North and corner of Exeter-street, let at the low rent of 75l. per annum), for a term expiring 1874, with the valuable Reversion at the expiration of the lease; Two Houses and shops adjoining, Nos. 3 and 4, Exeter-street, let at 50l. per annum each; a Ground-rent of 50l. per annum, with the Reversion to the rack rental in 1934, issuing out of three houses and premises, Nos. 5, 6, and 7, Exeter-street, and large messuage at the rear, of the annual value of 160l.; a valuable Freehold Public-house, known as the Boar's Head, No. 9, Exeter-street, at the top of Burleigh-street, facing the Strand, with possession at Midsummer next (the lease expiring), and is of the value of 160l. per annum; Two Houses, on with Shop adjoining, Nos. 10 and 11, Exeter-street, both let on lease for twenty-one years from 1851, producing together 77l. per annum. The total rental of this lot being fine and the reversions.

Lot 3 will comprise Two Freehold Dwelling-houses and Premises, Nos. 344 and 345, Strand, at the corner of and with considerable frontage to Catherine-street, all let on lease, and with possession at Time, Dwelling-houses and Shop, occupied by Messrs. Grissell and Peto, being Nos. 1, 2, and 3, Catherine street, with extensive cellarage, in the several occupation of Mr. Hoskins, bookseller, the Office of *Country Life*, and the Agricultural papers. This lot forms a valuable range of compact freehold property, and is of the rental of 200l. per annum. Particulars of the property can be viewed on application to the respective tenants. Descriptive particulars, with plan, to be had in due time of Messrs. Wallford, Solicitors, Bolton-street, Piccadilly; at Garraway's; and at the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster-place, Strand.

FINCHLEY, MIDDLESEX.—Very valuable Freehold Estate, capital Residence, gardens, and park-like Paddock of merchow land, containing altogether about fifty acres, between the Great Northern and Finchley new roads, at their junction, and about six miles from Regent-circus. Also, eleven newly-erected Cottages, with gardens, in the village of Finchley.

MESSRS. FAREBROTHER, CLARK, and LYE respectfully inform the public, that they are instructed by the Executors of the late Samuel Hudson Cox, Esq. to OFFER for SALE by AUCTION, at GARRAWAY'S, on WEDNESDAY, MAY 16, at TWELVE, in one or forty lots, the above valuable FREEHOLD ESTATE, which will be so arranged in the allotments, as in the event of the entire estate not being sold in one lot, to leave the capital villa residence, commanding beautiful and extensive views, and its hereditaments, its gardens and paddocks intact, and entirely severed and screened from the remainder of the estate, which will be divided into suitable building plots of one-quarter of an acre, and fit for the erection of detached villa residences. The estate extends from the Finchley new-road, at the sixth milestone, to the Great North road, a short distance beyond the new workhouses, and close to the junction of the two roads, on the London side of Whetstone. Either as a whole or severed, this property both presents a most unusual opportunity for occupation or the investment of capital. There are also several semi-detached villas, situate in the Finchley new-road and in the village of Finchley. Particulars, with plans, may be had at the several inns at Finchley, Highgate, Whetstone, and Barnet; of Wm. Mc Dall, Esq. Solicitor to the Vendors, 11, London-street, Fenchurch-street; at Garraways'; and at the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster-place, Strand.—The residence can be viewed by cards only, which may be obtained of Messrs. Farebrother, Clark, and Lye.

SALES BY AUCTION.

Very valuable Freehold and part Leasehold Estate, Brunswick-wharf, Wandsworth-road, Vauxhall, with capital residence, drawing dock, warehouses, sheds, &c.; together with the good will of the Business, which has been for many years successfully carried on by Mr. Forest.

MESSRS. FAREBROTHER, CLARK, and LYE are instructed by the Proprietor, who is retiring from business, to SELL by AUCTION, at GARRAWAYS, on WEDNESDAY, APRIL 18, at TWELVE, the very extensive and valuable FREEHOLD and part LEASEHOLD LIME BURNERS PREMISES, known as Brunswick-wharf, situate in the Wandsworth-road, adjoining the manufactory of Messrs Price and Co., and comprising a spacious brick, slate, stone, tile, lime, and cement warehouse, with a river frontage to the Thames of 134 feet, by a depth, from the Wandsworth-road, of 256 feet, several warehouses fitted in compartments, counting-houses, open sheds, with flat roofs, constructed with strong timbers, convenient for the Manufacture of cement for the stowage of heavy goods on the top; stone yard, sand-pit, &c.; an excellent private residence, enclosed from the road by iron railing, containing entrance hall, drawing and dining rooms, breakfast-room, study, seven bed-room, dressing-room, and good domestic offices; stabling, yard, and double coach-house; together with the goodwill of the business, which has been carried on successfully for the last twenty-seven years by the present owner. The whole of the premises are in the best possible state of repair; a considerable outlay has been incurred of late years to render them complete for every purpose in connection with the trade. Early possession will be given. The estate may be viewed, and particulars, with plans, had on the premises; of Messrs. Chester, Solicitors, Church-row, Newington-butts; at Garraway's; and at the Offices of Messrs. Farebrother, Clark, and Lye, 6, Lancaster-place.

VAUXHALL.—Important and extensive Freehold and part Church-hold Estates, forming a large portion of the Manufactory of Messrs Price and Co. and part of the Wharf and Premises occupied by Mr. Forest.

MESSRS. FAREBROTHER, CLARK, and LYE are instructed to SELL, at GARRAWAYS, on WEDNESDAY, APRIL 18th, at TWELVE (unless an acceptable offer is previously made by private contract), a very valuable and extensive FREEHOLD ESTATE, on the banks of the Thames, including a part having considerable frontage to the Wandsworth-road, at Vauxhall, consisting of a large portion of the spacious factory of Messrs. Price and Co. known as Belmont; also a portion of the adjoining Premises, known as Brunswick-wharf, including an excellent lime dock, &c. in the occupation of Mr. Forest. The present rental is only 54l. per annum, which, upon the expiration of the leases, in nine years, will be more than doubled. The premises are in the best possible state of repair, and form together a most compact property, on the banks of the Thames. Particulars and plans may be had at the Bridge-house Inn, Vauxhall; of B. W. Powys, Esq. Solicitor, 38, Russell-square; of William Pace, Esq. Solicitor, 23, Bucklersbury; at Garraway's; and at the Offices of Messrs. Farebrother, Clark and Lye, Lancaster-place, Strand.

WEST-HILL, near WIMBLEDON, SURREY.—Four substantially built Freehold Residences, situate on the park side of West-hill-road, in a pretty rising portion of the village, all in good repair, and let to respectable tenants, also a valuable Plot of Freehold Building Land in the rear, having a frontage of 186 feet, by a depth of 275 feet.

MESSRS. NORTON, HOGGART, and TRIST have received instructions to OFFER for SALE, at the MART, on FRIDAY, APRIL 20th, at TWELVE, in the unless previously sold by private contract, FOUR capital FAMILY RESIDENCES, very substantially built, delightfully situate at West-hill, between Wandsworth and Wimbledon, and within a mile of the Putney Station on the Richmond Railway. The houses contain every convenience for genuine country; they contain several bed-chambers and dressing rooms, elegant drawing, dining, and breakfast rooms; gardens 400 feet in depth, and productive orchards, and plantations of fine timber. These are let to highly respectable tenants at rentals amounting together to 466l. per annum; and the fourth house, with the valuable freehold plot and land, is held with a lease of 75 years at 9l. per annum.—May be viewed by permission, and particulars had of W. Pocock, Esq. Solicitor, 17, Gracechurch-street; at the Mart; and of Messrs. Norton, Hoggart, and Trist, 93, Old Broad-street, Royal Exchange.

WANDSWORTH, near to Wimbledon-park, Surrey.—Semi-detached Villa Residences, unfinished, or let as tenants together to 42l. 5s. per annum, and several plots of Building Land, having a fine freehold aspect and level.

MESSRS. NORTON, HOGGART, and TRIST have received instructions to offer for SALE, at the MART, on FRIDAY, APRIL 20th, at TWELVE, in 20 lots, EIGHT unfinished semi-detached VILLA RESIDENCES, with good garden, &c. situate in the Wandsworth-road, West-hill, Wandsworth, near to Wimbledon-park, and only a mile from the Wandsworth station on the Richmond line of the Railway, several plots of valuable freehold building Land, situate in the Westhill, Melrose, Spencer, and Somerset roads, in the rear, and well-secured freehold ground-rents, amounting together to 93l. per annum, arising from eleven dwelling houses and gardens, situate in Montpelier-row, close to the Park Tavern, in the road leading from Wandsworth to Merton and Wimbledon, the rack rental of the houses being at present 140l. per annum. Particulars may be had fourteen days prior to the sale, at the Inns at Wands.r. Wands worth, at Putney, at Kingston, at Wimbledon, at Garraway's, Gracechurch-street; at the Mart; and of Messrs. Norton, Hoggart, and Trist, 93, Old Broad-street, Royal Exchange.

WIMBLEDON-PARK, SURREY. Freehold detached Residence many years, unfurnished, and a valuable Plot of Building Land, beautifully situate close to Wimbledon and the Church, and within five minutes' walk of the Wimbledon Station on the South Western Railway. Land to be viewed.

MESSRS. NORTON, HOGGART, and TRIST have received instructions to offer for SALE, at the MART, on FRIDAY, APRIL 20, at TWELVE, a delightful RESIDENCE, situate in the Wimbledon-park-road, the residence of Graham, Esq. most handsomely facing the Church, and commanding uninterrupted and beautiful views over the surrounding country. It is arranged to contain seven principal bed chambers and dressing-rooms, lofty drawing, dining, and breakfast-rooms, of good proportions, superior domestic offices, waterclosets, cellarage, and every convenience for a moderate-sized family, carriage-yard, harness-room, stabling, coach-house, loft, and man's rooms over, and capital garden, extending about 600 feet in depth. The property is in the most complete order, and fit to be entered upon at present or at completion, when it would readily let for about 160l. per annum. The plot of building land adjoins the residence on the park, is very eligibly situate for building, and has a depth of 169 feet or thereabouts, and presents a most eligible and beautiful site for the erection of a family residence.—May be viewed, and particulars had at the hotels at Wimbledon and Richmond, of W. J. Flower, Esq. Solicitor, 17, Gracechurch-street, at the Mart; and of Messrs. Norton, Hoggart, and Trist, 93, Old Broad-street, Royal Exchange.

Bermondsey Leather Market, Upper Russell-street.

MR. PEAKE is ordered by the Proprietor, to SELL by AUCTION, in lots, upon the PREMISES, on TUESDAY, APRIL 17th, 1855, at TWELVE o'clock, the BUILDING MATERIALS comprised in four dwelling houses and a variety of workshops and sheds, consisting of brickwork, plain and moulding, timber boarding and half-pitch tiles, slates, pipes, &c. Catalogues may be obtained on the Premises; of Messrs. Edwards, Solicitors, 37, Bloomsbury-square; and of Mr. Peake's Offices, 44, Tooley-street, Southwark.

To BUILDERS and OTHERS.—TO BE SOLD, by AUCTION, by MR. E. RAINBOW, on the PREMISES, corner of Daville-row, Hammersmith, on THURSDAY next, APRIL 19th, at TWO o'clock for HALF-PAST precisely, the whole of the BUILDING MATERIALS of a New House to be taken down and cleared away to make a new road into Albion-road.—May be viewed at any time previous to the sale, and particulars to be had on the Premises, and of the Auctioneer, 7, Paddington-green, and at King street, Hammersmith. Ground to be let on building leases on very moderate terms.

SALES BY AUCTION.

CAPITAL TIMBER, Sandwell Estate, West Bromwich, near Birmingham, TO BE SOLD BY AUCTION, by

E. and C. ROBINS, on MONDAY next, the 16th day of APRIL, at FOUR o'clock in the Afternoon, at the DARTMOUTH HOTEL, WEST BROMWICH (subject to conditions to be then produced), upwards of 1200 good sound TIMBER TREES, principally oak, but including 180 ash, and several poplar, elms, alders, and 2 sycamore trees, many of them of large dimensions, growing and being on the Sandwell Estate, and large elm stumps, growing and being on the Sandwell Estate, and large elm stumps, growing and being on lands in the occupation of Mr. Cotterill, William Harwood, Thomas Beeson, Hugh Hughes, Thomas Hughes, Charles Thornton, William Hadley, and others, in the following Lots:—

Lot
1.—Twenty-three OAK TREES, numbered from 1 to 23 inclusive.
2.—Nine OAK TREES, numbered from 24 to 32 inclusive.
3.—Twenty-four OAK TREES, numbered from 33 to 56 inclusive.
4.—Fifteen OAK TREES, numbered from 57 to 71 inclusive.
5.—Twenty-two OAK TREES, numbered from 72 to 93 inclusive.
6.—Twenty-six OAK TREES, numbered from 94 to 119 inclusive.
7.—Twenty-six OAK TREES, numbered from 120 to 145 inclusive.
8.—Ten OAK TREES, numbered from 146 to 155 inclusive.
9.—Twenty OAK TREES, numbered from 156 to 169 inclusive.
10.—Twenty OAK TREES, numbered from 170 to 189 inclusive.
11.—Twenty-seven OAK TREES, numbered from 190 to 216 inclusive.
12.—Sixteen OAK TREES, numbered from 217 to 232 inclusive.
13.—Seventeen OAK TREES, numbered from 233 to 249 inclusive.

The following thirteen lots are to be Land lying on lands in the occupation of Mr. Cotterill, Mr. Bagley, Cotterill, Thornton, Gregg, Hughes, Beeson, and others.

14.—Twenty-one OAK TREES, numbers 1 from 250 to 270 inclusive.
15 to 30.—Sixteen lots of twenty OAK TREES, each consecutively numbered from 271 to 590 inclusive.
31.—Seventeen OAK TREES, numbered from 591 to 607 inclusive.

The last lot, the produce of "The Leasowe," now growing on lands in the occupation of the above mentioned parties, and of Messrs. Benjamin Whitehouse, George Downing, John Marshall, and Mr. Hall, of Dartmouth.

32 to 35.—Four lots of twenty OAK TREES, each consecutively numbered from 1 to 80 inclusive.
36.—Thirty-two OAK TREES, numbered from 81 to 112 inclusive.

The preceding five lots are growing in Friar Park Wood, occupied by the Earl of Dartmouth.

37.—Twenty ASH TREES, numbered from 1 to 20 inclusive.
38.—Twenty ASH TREES, numbered from 21 to 40 inclusive.
39.—Twenty-nine ASH TREES, numbered from 41 to 69 inclusive.
40.—Twenty ASH TREES, numbered from 70 to 89 inclusive.
41.—Twenty-four ASH TREES, numbered from 90 to 113 inclusive.
42.—Seventeen ASH TREES, numbered from 114 to 130 inclusive.
43 to 46.—Four lots of ten ASH TREES, each consecutively numbered from 131 to 170 inclusive.
47.—Seventeen ASH TREES, numbered from 171 to 187 inclusive.

The preceding eleven lots are felled, and lying on land occupied by the parties at present named.

48.—Ten ELM TREES, numbered from 1 to 10 inclusive.
49.—Ten ELM TREES, numbered from 11 to 20 inclusive.
50.—Eight POPLAR TREES, numbered from 1 to 8 inclusive.
51.—Nine POPLAR TREES, numbered from 9 to 17 inclusive.
52.—Nine POPLAR TREES, numbered from 18 to 26 inclusive.
53.—Nine POPLAR TREES, numbered from 27 to 35 inclusive.
54.—Three BEECH, three SYCAMORE, and one SPANISH CHESNUT.
55.—About thirty ALDERS, in lots.

Lots 48 to 55 inclusive, are also on lands in the occupation of the before-mentioned parties.

The situation, relatively to Birmingham and the manufacturing districts, renders this timber worthy the attention of timber merchants and builders, and the roads, recently made, facilitate the removal in all directions. The timber is marked and numbered, and Mr. Mousley, of Manwoods, will appoint a person to show it. Particulars may be obtained from Messrs. Dayne, Esq. Great George-street, Westminster; Mr. Mousley, at Manwoods; or E. and C. Robins, Surveyors and Auctioneers, Newstreet, Birmingham.

TO BE SOLD by AUCTION, on WEDNESDAY next, APRIL 18th, at TWELVE o'clock at noon precisely, the two Brunswick and Toxteth Docks, Liverpool, in addition to the cargo of

70 Logs and Curls St. Domingo Mahogany, and
50 Logs Cuba Mahogany, in blocks.

And other Woods particularized in a Catalogue already issued, the following cargoes, viz.:

127 Logs and Curls Mahogany, ex Ithaki, anny,
Being the cargo now landing, ex Eliza Kidlick, from St. Domingo direct.

Apply to Messrs. Kellick, Esq. Merchant.

147 Logs and Curls Cuba Mahogany.
208 Logs Havana Cedar.
750 Lancewood.
20 Tons Quassawood.
63 Tons Lignumvitæ.

Being the cargo now landing ex John, from Cuba direct.

On account of the Importers.

966 Pieces, of which
393 are Curls St. Domingo Mahogany.
Being the cargo now landing, ex Mary Marsden, from Gonaives.

Apply to Messrs. J. Mc Andrew and Co. and
Messrs. Dayne, Brown, and Co. Merchants

438 Logs and Curls City St. Domingo Mahogany.
801 Pieces Lignumvitæ
Being the cargo now landing, ex Arica, from the city direct.

On account of the Importers.

Catalogues, containing full particulars of a portion of the above may be seen on the Docks, Liverpool, and an appendix of the remainder will be ready in a few days, which may be had on application to No. 6, East Side Queen's Dock, Liverpool.

EDWARD CHALONER, Broker.

TO ADMIRERS OF ANTIQUITY.—Town-hall, Leominster, Herefordshire.

MR. EDWARD RUSSELL has received instructions from the Town Council of the Borough of Leominster to offer for PUBLIC COMPETITION, on the PREMISES, on MONDAY, the 30th day of APRIL, 1855, at TWELVE o'clock at noon, that ancient and valuable building called the TOWN-HALL, situate in the centre of the town. This is one of the few remaining specimens of timber architecture of the fourteenth century. It was erected by John Abel, the most noted architect of his time. It is composed of timber and plaster, and adorned with curious grotesque figures, in a very picturesque manner, standing on twelve oak pillars of the old Ionic order, now sustained on stone pedestals. The upper part of the building displays a profusion of carving, and has a curious projecting clock upon it. To all lovers of such curious antiquated buildings an opportunity of gratifying their tastes now presents itself, which may never occur again, and which should not be lost sight of. Further particulars may be obtained of Mr. Thomas Sale, Town Clerk, Leominster.

PALL-MALL.—Cabinet Pictures and Drawings, by British Artists, of celebrity.

MESSRS. FOSTER and SON announce that they are instructed by Samuel Carter Hall, Esq. F.S.A. Editor of the Art Journal, to SELL by AUCTION, at the GALLERY, 54, Pall-Mall, on MONDAY, APRIL 23, at ONE precisely, the entire COLLECTION of CABINET PICTURES and DRAWINGS, formed during a series of years. To be sold to meet the costs arising from the action for libel, "Hart v. Hall," tried before Baron Alderson and a special jury, at Warwick, on the 30th ult. An autograph letter from the Artists will accompany nearly each picture.—Catalogues are preparing, and may be had seven days before the Sale, at Messrs. Fosters' Offices, 54, Pall-Mall. The view will take place FRIDAY and SATURDAY prior.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX, Brothers & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields, and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, April 14, 1855.

The Builder.

A JOURNAL FOR THE

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ADVERTISEMENTS.

TO the MAGISTRATES of the County of KENT.

GENTLEMEN,—There being a vacancy for the District Surveyor-ship of Lewisham, I beg, very respectfully, to offer myself as a candidate for the appointment.

I have been in the profession of an architect and surveyor almost thirty years, in and near London; consequently, I trust my testimonials will prove my professional capability.

Should I be honoured by being elected to fill the office, it is my intention to perform nearly all the duties personally; and no exertion of mine shall be wanting to execute them satisfactorily according to the meaning of the Building Act.

I have the honour to be, gentlemen,

Your most obedient humble servant.

THOMAS J. PRING.

Wellington-road, Camberwell, April, 1855.

KENT ADJOURNED QUARTER SESSIONS.—DISTRICT SURVEYOR for LEWISHAM. Notice is hereby given, that an Adjourned General Quarter Sessions of the Peace for the County of Kent, will be held at the Courts of Justice at Maidstone, in and for the said County, on SATURDAY, the 28th day of APRIL instant, at half-past TWELVE o'clock in the afternoon, when the appointment of DISTRICT SURVEYOR, under the Provisions of the Act 7 & 8 Vict. cap. 84, for Regulating the Construction and the Use of Buildings in the Metropolis and its neighbourhood, for the district comprising the parish of Lewisham, will be made in the room and stead of CHARLES ROBERT BADGER.

H. A. WILDES, Clerk of the Peace for Kent.

Maidstone, April 11, 1855.

MIDDLESEX.—Metropolitan Buildings Act, 7th and 8th Vict. cap. 84.—Notice is hereby given, that the Court will proceed on THURSDAY, the 31st day of MAY next, to the ELECTION of a SURVEYOR, for the district of East Islington, in the said county, in the room of Mr. Carpenter, deceased, and that such election will be subject to the standing orders of the Court as to districts and district surveyors; and that no person will be admitted a candidate unless duly qualified under the Act and such standing orders: and every candidate must, on or before SATURDAY, the 12th day of MAY next, address to me in writing a statement of his name, residence, age, and qualification; and must also personally appear before the Committee for General Purposes appointed by the Court, on TWO o'clock in the afternoon precisely, on MONDAY, the 14th day of MAY next, at the Sessions House, Clerkenwell green, and produce to them satisfactory evidence that he is of the full age of thirty years, and a certificate from the Board of Examiners appointed under the Act for their approval, and also such other testimonials of character and qualifications as he may deem expedient or the Committee may require; and, if approved by the Committee, will then be sanctioned by them to be a candidate for the said district.

C. HEATON ELLIS, Clerk of the Peace.

Sessions House, Clerkenwell April 16, 1855.

MIDDLESEX.—Metropolitan Buildings Act, 7th and 8th Victoria, cap 84. Notice is hereby given, that the Court will proceed on THURSDAY, the 31st day of MAY next, to the ELECTION of a SURVEYOR for the district of the parishes of St. Giles-in-the-Fields and St. George, Bloomsbury, in the said county, in the room of Mr. George Pownall, resigned, and that such election will be subject to the standing orders of Court as to districts and district surveyors; and that no person will be admitted a candidate unless duly qualified under the Act and such standing orders, and every candidate must, on or before SATURDAY, the 12th day of MAY next, address to me, in writing, a statement of his name, residence, age, and qualification; and must also personally appear before the Committee for General Purposes appointed by the Court, at TWO o'clock precisely in the afternoon of MONDAY, the 14th day of MAY next, at the Sessions House, Clerkenwell-green, and produce to them satisfactory evidence that he is of the full age of thirty years, and a certificate from the Board of Examiners appointed under the Act, for their approval, and also such other testimonials of character and qualification as he may deem expedient or the Committee may require; and, if approved by the Committee, will then be sanctioned by them to be a candidate for the said district.

C. HEATON ELLIS, Clerk of the Peace.

Sessions House, Clerkenwell, April 16, 1855.

ART-UNION of LONDON.—The ANNUAL GENERAL MEETING, to receive the Council's Report, and to distribute the amount subscribed for the purchase of Works of Art, will be held at the THEATRE ROYAL, HAYMARKET, by the kind permission of J. B. Buckstone, esq. on TUESDAY, the 24th instant, at ELEVEN for TWELVE o'clock. The Right Hon. Lord MONTEAGLE, President. The receipt for the current year will procure admission for member and friends.

GEO. GODWIN. } Hon.
LEWIS POCOCK. } Secs.

444, West Strand, April.

COMPETITIONS.

TO ARCHITECTS.

NEW CORN-EXCHANGE and covered MARKETS, at GREAT GRIMSBY.—Notice is hereby given, that the Council of the Borough of Grimsby, are prepared to receive DESIGNS and ESTIMATES for a new CORN-EXCHANGE and COVERED MARKETS, intended to be erected upon the site of property near the present Market-place, and will give a premium of 25*l.* to the person whose designs and estimates, ranging from three to four thousand pounds, shall be approved of. The designs, estimates, &c. receiving the premium, will belong to the corporation, and the successful competitor will not be employed as the architect to carry out the works. A sketch of the site, with further particulars, may be obtained on application to the Town Clerk.—The designs, &c. to be sent in under seal (without the author's name, but with a motto), before noon, on the 15th day of MAY next, and addressed to the Town Clerk, Great Grimsby, marked "Corn-Exchange and covered Markets." A sealed letter, containing the author's name and address, must accompany each plan, which will be opened after the selection has been made.—By order,

GEORGE BABB, Town Clerk.

Town Clerk's Office, Great Grimsby, April 7, 1855.

BENNETT PARK ESTATE, BLACKHEATH.—To SURVEYORS.—TWENTY-FIVE GUINEAS PREMIUM.—WANTED, a BLOCK PLAN for Laying-out this Park, for building purposes. The above premium will be given for the plan selected by the proprietors. The plans to be forwarded to Messrs. PARKER and SON, Solicitors, Greenwich, by the 19th of MAY.—For particulars, apply to Mr GEO. BENNETT, Osbourne-place, Blackheath; or to Mr. JOHN BENNETT, 65, Cheapside.

CONTRACTS.

TOWNSHIP of MANCHESTER.—ERECTION of NEW WORKHOUSE.—The Guardians of the Poor of the township of Manchester are prepared to receive sealed TENDERS for the whole or any of the following WORKS, required in the ERECTION of a NEW WORKHOUSE, capable of affording accommodation for 1,600 inmates, together with the necessary staff of officers, &c. and intended to be built at Crumpsall, near Manchester, namely,—Carpenters' and Joiners' Work, Bricklayers' Work, Masons' Work, and Smiths' and Ironfounders' Work. The plans and specifications may be seen at the Offices of Messrs. MILLS and MURGATROYD, Architects, Exchange-chambers, Bank-street, Manchester, where full particulars on all matters connected therewith may be obtained. Tenders addressed to the Board of Guardians, and superscribed "Erection of New Workhouse," must be delivered to me at the Poor-law Offices, New Bridge-street, Manchester, on or before SATURDAY, the 28th day of APRIL next.—The Guardians do not pledge themselves to accept the lowest Tenders.—By order, &c.

JNO. HARROP, Clerk to the Guardians.

Poor-law Offices, New Bridge-street, Manchester, March 29, 1855

CHORLEY IMPROVEMENT.—SEWERAGE.—To CONTRACTORS, BRICKLAYERS, EARTHENWARE PIPE LAYERS, and OTHERS. The Chorley Improvement Commissioners hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake the following CONTRACT:—

CONTRACT No. 3.—For EXCAVATIONS and LAYING SEWER and DRAIN PIPES, also for the CONSTRUCTION of BRICK SEWERS, GULLIES, MAN-HOLES, FLUSHING CHAMBERS, and OTHER WORKS.

The drawings and specifications may be examined, and duplicate copies of the schedule, bill of quantities, and form of Tender may be obtained (on payment of five shillings); together with any further information required, on application at the Commissioners' office, High-street, Chorley, at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street, Westminster. Sealed Tenders, to be delivered at the Commissioners' Office, Chorley, before TWELVE o'clock on SATURDAY, the 28th day of APRIL instant, endorsed "Tender for Contract No. 3."

RICHARD JACKSON, Clerk to the Commissioners,

Chorley, April 11th, 1855.

TO MASONS AND PAVIORS.

HORNSEY PARISH.—The Board for the Repair of the Highways of this Parish are ready to receive TENDERS for PAVING and REPAIRING all such STREETS and WAYS as may be required to be PAVED or REPAIRED during the space of ONE YEAR (computed from the 25th MARCH last), with new Yorkshire Paving, 2½ and 3 inches thick, properly squared and laid, at per foot superficial; new Aberdeen or Guernsey granite curb, 13 inches by 6 inches, and ditto, 12 inches by 8 inches, at per foot run. Also for squaring and relaying old Yorkshire paving at per 100 feet superficial; repointing and resetting old curb, at per foot run. The Board do not bind themselves to accept the lowest or any Tender, and the contractor will be required to enter into sureties, and execute a bond for the due performance of his contract. Tenders to be sent in on or before THURSDAY, 26th APRIL, sealed and endorsed, "Tender for Masons' and Paviors' Work," addressed to Mr. H. MALCOLM RAMSAY, Surveyor to the Board, 17, High-street, Highgate.—By order,

TOULMIN SMITH, Chairman.

CONTRACTS.

GREAT WESTERN RAILWAY.—CONTRACT for RAILWAY CARRIAGES. The Directors of the Great Western Railway Company are prepared to receive TENDERS for the SUPPLY of TWELVE FIRST-CLASS and TWELVE SECOND-CLASS NARROW-GAUGE CARRIAGES, the Company finding the wheels and springs. Parties disposed to Tender may see the drawings and specifications, on and after MONDAY, the 16th instant, at the Offices of the Carriage Department, at Paddington, and at Saltney, on the Shrewsbury and Chester Railway.—Sealed Tenders, marked "Tenders for Carriages," must be lodged at this office before TEN a.m. on THURSDAY, the 26th instant. The Directors do not bind themselves to accept the lowest or any Tender. By order

CHAS. A. SAUNDERS, Secretary.

Secretary's Office, Paddington, April, 1855.

BURIAL BOARD, ST. NICHOLAS, HARWICH.—To BUILDERS and OTHERS.—Notice is hereby given, that the said Board propose to build on their new Burial-ground Two Chapels, a Keeper's Lodge, and an Office for the Board, and the usual other erections for the business of the Board, and also to construct Boundary-walls, with Entrance gates, according to the plans and drawings prepared for that purpose by Mr. C. H. EDWARDS, of 4, St. James's-terrace, Camden-town, the Architect to the Board. And that the plans, drawings, and specifications may be seen and inspected at my Office, and also at Mr EDWARDS'S residence above mentioned. And that persons willing to enter into CONTRACTS for the whole or any of the above-mentioned works, are requested to send TENDERS for that purpose, under cover and sealed up, addressed to me, and endorsed "Tender for Harwich Burial-ground Works." All such Tenders must be delivered at my Office by SEVEN o'clock p.m. on the 28th day of APRIL instant. The Board will not be bound to accept any Tender.

EDWARD CHAPMAN, Clerk to the Board.

Harwich, April 11, 1855

TO BUILDERS

BOLNHURST, in the County of Bedford.—Persons desirous of CONTRACTING for the ERECTION of a NEW HOUSE and FARM BUILDINGS, at the Farm in the occupation of Messrs. Green, the drawings and specifications of the works may be seen at the Office of Mr. JAMES HORSFORD, Architect, Well-street, Bedford, after TUESDAY, the 17th instant. Tenders to be delivered at the Architect's office, on MONDAY, the 7th day of MAY next. The Trustees will not be bound to accept the lowest Tender. Security will be required for the due performance of the works. Bedford, April 11, 1855.

NEW SCHOOL of ART, SHEFFIELD.—BUILDERS desirous of TENDERING for the EXECUTION of the WORKS to be done in the ERECTION of the above SCHOOL, are hereby informed, that the plans and specifications may be seen on and after the 18th inst. between the hours of TEN and FOUR, at the Office of their Architects, Messrs. MANNING and MEW, 21, Great James-street, Bedford-row, London; and at the School of Design, Arundel street, Sheffield.—Tenders to be sent to me, or on before MONDAY, the 30th inst. and endorsed "Tender for new School of Art."—The council do not bind themselves to accept the lowest or any Tender.

BENJAMIN WIGHTMAN, Hon. Sec.

School of Design, Sheffield, April 4, 1855

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINS on the West Malvern Estate, Worcestershire. The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN, and duplicates of the drawings and specification may be seen on application to Mr. HENRY WEBB, Broad-street, Worcester, on and after MONDAY, APRIL 16th, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on FRIDAY, MAY 11th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Malvern Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 19, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the Alford Estate, Lincolnshire. The drawing and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN, or duplicates of the drawings and specification may be seen on application to Mr. GEORGE ATKINSON, Surveyor, Alford, Lincolnshire, on and after MONDAY, APRIL 9, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on FRIDAY, MAY 11th, addressed to the Surveyor, and endorsed, "Tenders for Roads, &c. Alford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 19, 1855.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of a CORN-EXCHANGE and other buildings, together with alterations to the Bear Arms Hotel, Watford, may inspect the plans and specifications at the Offices of the Architect, Mr. JAMES MURRAY, Coventry, and in Watford by applying to J. SEDGWICK, Esq. Solicitor. The Tenders to be sent in not later than 30th APRIL.—The committee do not bind themselves to accept the lowest or any Tender.

[*For remainder of Contracts see next page.*

CONTRACTS.

LUTON LOCAL BOARD of HEALTH.—Parties desirous of TENDERING for PROVIDING and LAYING about 130 yards of 9 inch, 60 yards of 12-inch, and 1680 yards of 9-inch, PIPE SEWERS, with the necessary junctions, gullies, and other works connected therewith, may inspect the plans, sections, specifications, and form of Tender, at the Office of the Board, George-street, on and after THURSDAY, 19th instant; and copies of the same may be had, on payment of 7s. 6d. by applying to Mr. T. L. EVANS, Surveyor to the Board. The Tenders to be delivered at the Boarderoom, on TUESDAY, the 1st day of MAY. GEORGE BAILEY, Clerk.

Luton, April 11, 1855.

TO BUILDERS, CARPENTERS AND OTHERS.

KING'S BRIDGE, BRIMPTON, BERKS.

Persons desirous of TENDERING for REBUILDING this BRIDGE, can see plans, specification and conditions at my Office, 6, Bridge-street, Reading, on FRIDAY, the 20th instant, between the hours of TEN and FOUR. Sealed Tenders endorsed "Tender for King's Bridge," may be sent to me on or before FRIDAY, the 27th instant. The lowest Tender will not necessarily be accepted.—By order of Committee.

Reading, April 12th, 1855. J. B. CLACY, County Surveyor.

NEW CEMETERY for ALL SAINTS' PARISH, NEWCASTLE-UPON-TYNE.—To CONTRACTORS.—The All Saints' Burial Board are prepared to receive TENDERS for the EXECUTION of the whole of the WORKS necessary for the COMPLETION of the CEMETERY for the above Parish, including Boundary Inclosing, Laying out, Planting, Entrance, Chapels and necessary Buildings, the Board reserving to themselves the right to Let the Works either in One or separate Contracts. Plans and specifications of the Works may be seen on application to the Architect of the Board, JOHN GREEN, Esq. 8a Grey-street, on and after the 23rd instant. Sealed Tenders, addressed to the Chairman of the Board, 14, Ellison-place, Newcastle-upon-Tyne, will be received not later than the 30th of MAY, to be endorsed "Tenders for Cemetery." Security will be required; and the Board do not pledge themselves to accept the lowest Tender. By order,

JOHN BLACKWELL, Chairman.
ANDREW MIDDLEMASS, Clerk.

Board-room, Poor-law Union Office, Digram-street, Newcastle-upon-Tyne, April 2, 1855.

TO BUILDERS AND OTHERS.

THE GUARDIANS of the POOR of the CHESTER-LE-STREET UNION, being about to ERECT a NEW UNION WORKHOUSE, invite the competition of Excavators, Bricklayers, Masons, Carpenters, Joiners, Plasterers, Plumbers, Painters and Glaziers, Roofmakers, and Slaters, who may be desirous of TENDERING for the whole or any portion of the work. Such persons may inspect the drawings, specification, and conditions, at the Office of MATTHEW THOMPSON, Esq. Architect, 14, Arcade, Newcastle, from the 10th to the 25th of APRIL, both inclusive. Sealed Tenders, endorsed "Tender for Work," must be sent to the Board-room, on or before TEN o'clock a.m. on THURSDAY, the 10th of MAY, addressed to C. H. BAINBRIDGE, Esq. Chairman of the Board of Guardians, Chester-le-Street. No pledge is given to accept the lowest or any Tender.

WANTED, a duly qualified CLERK of the WORKS, to superintend the above. Testimonials, with the amount of salary required, to be sent to the Architect, before the 21st inst.

(Signed) By order, JAMES GRAY, Clerk.

Chester-le-Street, March 31, 1855.

BRISTOL LOCAL BOARD of HEALTH.—CLEANSING.—The Committee of the Bristol Local Board of Health hereby give notice, that they are ready to receive TENDERS FOR SWEEPING and CLEANSING the CARRIAGEWAYS of all the Streets, Squares, Courts of every description, Yards, Lanes, Passages, and Places in Divisions, Nos 1 and 2 within the City and County of Bristol (exclusive of turnpike-roads), thrice in each week, and including watering previous to such sweeping and cleansing, and all for taking away the dirt, dust, &c. to be made by the inhabitants of the said divisions twice in the said week, for the term of THREE YEARS from the 29th SEPTEMBER next. Any persons or parties willing to Contract for doing the work, in both or either of the said divisions, are required to deliver sealed Tenders for performing the same on or before TEN o'clock on THURSDAY MORNING, the 3rd day of MAY next, addressed "To the Committee of the Local Board of Health, 13, Prince-street, Bristol," where a specification of the work to be Tendered for, and the form of Tender, and any other information may be obtained. Each contractor will be required to fix two good sufficient sureties for the due performance of his contract. The Committee will not bind themselves to recommend the acceptance by the local Board of the lowest or any Tender, nor until inquiry as to the sufficiency of the proposed sureties.

By order of the Committee,
JAMES HARRIS, Clerk.

Offices, 13, Prince-street, Bristol, 19th April, 1855.

MALDON BURIAL BOARD.—To BUILDERS and OTHERS.—Notice is hereby given, that the Maldon Burial Board is prepared to enter into a CONTRACT with some person willing to undertake the Excavators, Bricklayers, Plasterers, Mason's, Carpenter's, Joiner's, Smith's, Painter's, Plumber's, and Glazier's works, in the ERECTION of TWO CHAPELS, ENTRANCE GATES, PIERS, and WALLS, upon their intended new burial ground. The working drawings, plans, and specifications may be seen at my Office in Maldon, and at the Office of the Architect, Mr. GEORGE CROTE, opposite the Wharf, from MONDAY, 16th, to SATURDAY, 28th APRIL instant, on which latter day sealed Tenders, endorsed "Maldon Burial Board Cemetery Works," are to be delivered at my Office. The quantities will be taken out, and can be had on application as above.—The lowest Tender will not be necessarily accepted. By order,

JOHN CRICK, Clerk to the Board.

Maldon, Essex, April 12 1855

TO PAVIORS, ROAD-MAKERS, BRICKLAYERS, AND OTHERS.

PERSONS desirous of CONTRACTING for the PAVING and MACADAMISING to be done in making the ROADS on the Leicester Freehold Land Society's fourth DRAINAGE of the said estate, are invited to apply to Messrs. FLINT and SHENTON, Surveyors, Friar-lane, Leicester, at whose office the plans, sections, and specification of the works may be seen, on and after the 23rd day of APRIL, and to deliver their Tenders on the 8th day of APRIL instant. The Directors of the Society do not pledge themselves to accept the lowest Tender. The surface of the roads to be constructed and drained contains about 12,000 square yards.—Leicester, April 18th, 1855.

TO BUILDERS.

PARTIES desirous of CONTRACTING for the ERECTION of a FACTORY for the Manufacture of Fire Arms upon an extensive scale, by Messrs. Deane, Adams, and Deane, may see the plans and specifications at the Office of Mr. MELVILLE, 24, Laurence Pountney-lane, Cannon-street, City. Messrs. DEANE, ADAMS, and DEANE do not pledge themselves to accept the lowest or any Tender. The estimates must be sent in on or before MAY 4th, 1855.

TO SEWER CONTRACTORS AND OTHERS.

BOROUGH of GATESHEAD.—SEWERAGE of the EASTERN DISTRICT.—CONTRACT No. 1.—The Gateshead Local Board of Health are desirous to receive TENDERS for the CONSTRUCTION of SEWERAGE WORKS, consisting of brick sewers, street gullies, sewer entrances, flushing-shafts, and other works. Specification, schedule of prices, bill of quantities, and form of Tender, may be obtained upon payment of 5s.; and the plans, sections, and drawings may be examined on and after the 16th inst. by application at the Office of Mr. WILLIAM HALL, C.E. Town-hall, Gateshead. Tenders must be sent in on or before the 28th inst. endorsed, "Tender for Contract No. 1 the Construction of Works for the Sewerage of the Eastern District," and addressed to the Local Board of Health, Gateshead. The Board do not bind themselves to accept the lowest or any Tender. G. J. KENMIR, Clerk.

Townhall, Gateshead, April 11, 1855.

CONTRACTS.

DORKING BURIAL BOARD.—Tenders for the ERECTION of TWO CHAPELS, LODGE, RECEPTACLE-HOUSE, GATES, and other WORKS necessary for the intended new BURIAL GROUND for the Parish of Dorking in the county of Surrey, in accordance with the plans and specification prepared by Mr. HENRY CLUTTON, of No. 8, Whitehall-place, Westminster. Parties are to be at liberty to Tender for the necessary work for enclosing the ground (except the front wall) separately from the buildings and other works mentioned and set forth in the said plans and specifications. The quantities may be obtained upon application to Mr. GARDINER, of 8, Montague-street, Russell-square, and upon payment of one guinea, in the usual manner. Sealed Tenders are to be delivered to the Clerk of the Burial Board, at Dorking aforesaid, by Twelve o'clock at noon, on THURSDAY, the 3rd day of MAY next. Contractors are to find sureties to the satisfaction of the Board; but it shall not be incumbent on the Burial Board to accept the lowest or any Tender. The plans and specifications may be seen upon application to Mr. GARDINER, until the 26th of APRIL, and after that date, at the Office of Mr. CLUTTON.

By order of the Board,
Dorking, April 12, 1855. JOHN DENDY SADLER, Clerk.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on THURSDAY, the 26th day of APRIL instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the lowest or any of the following WORKS, viz.:—

7,314 feet in length, or thereabouts, of brick and pipe sewers, with other works in connection therewith, in the streets of Pentonville, and James place, Stepney, Pennybells, Poplar, Brick-lane, Whitechapel, and other streets and places in the county of Middlesex (in one Tender).

1,861 feet in length, or thereabouts of brick sewer, with other works in connection therewith, in West-street and Sheep-lane, Hackney, in the county aforesaid (in one Tender).

4,216 feet in length, or thereabouts, of brick and pipe sewers, with other works in connection therewith, in the New-road, Tottenham-place, and Beaumont-place, Attenham-court-road, Hertford-place, and Smith's-place, Somers'-town; Layston-street, Gray's-inn-lane, Southampton-mews, Russell-square, and other streets and places in the county aforesaid (in one Tender).

680 feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Southampton-street, Gospel Oak-fields, Saint John's-town, in the county aforesaid (in one Tender).

2,650 feet in length, or thereabouts, of brick and pipe sewers, with other works in connection therewith, to extend from a point in New Victoria-street to Ashe-street, Clerkenwell, in the county aforesaid (in one Tender): and for the maintenance of such works in complete repair for twelve calendar months.

Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected and other particulars obtained at the Principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 23rd instant. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

No. 1, Greek-street, Sohosquare,
Dated this 12th day of April, 1855.

E. H. WOOLRYCH, Secretary.

TO SEWER AND DRAIN PIPE MANUFACTURERS.

BOROUGH of GATESHEAD.—SEWERAGE of the EASTERN DISTRICT.—CONTRACT No 2.—The Gateshead Local Board of Health are desirous to receive TENDERS for the supply of SEWER and DRAIN PIPES, and other articles. Specification, schedule of prices, bill of quantities, and form of Tender may be obtained upon payment of 2s. 6d.; and the drawings may be examined on and after the 16th inst. by application at the Office of Mr. WILLIAM HALL, C.E. Town-hall, Gateshead. Tenders must be delivered on or before the 28th inst. endorsed, "Tender for Contract No. 2 Drainage Pipes, &c." and addressed to the Local Board of Health, Gateshead. The Board do not bind themselves to accept the lowest or any Tender. G. J. KENMIR, Clerk.

Town-hall, Gateshead, April 11, 1855.

LEEDS WATERWORKS.—The Corporation of Leeds require TENDERS for CONSTRUCTING and satisfactorily COMPLETING an ENGINE-HOUSE, BOILER-HOUSE, CHIMNEY and CHIMNEY FLUE, SUBSIDING RESERVOIR and FILTER, TUNNEL, COTTAGE, and other Works connected therewith, at the Waterworks, Meanwood, in the township of Arbingthorpe, in the county of York. All work done and materials provided by the contractor to be subject to the provisions of the specification and Plans for the same, which may be form filled up and signed by the contractor, addressed "To the Chairman of the Waterworks Committee, Town Clerk's office, Leeds," and to be delivered on or before the 5th day of APRIL next, at ELEVEN o'clock in the morning. Prints of the specification and forms of Tender, can be obtained, and the drawings inspected at the Town Clerk's Office, Leeds; or of Mr. HAWKSLEY, C.E. 30, Great George-street, Westminster, on and after the 5th of APRIL next. The works will be let altogether, or in separate divisions of the contract, as the Corporation may determine after the receipt of the Tenders. The Corporation do not bind themselves to accept the lowest or other Tender.

By order of the Waterworks Committee, the Local Corporation.
JOHN ARTHUR IKIN, Town Clerk.

Town Clerk's Office, Leeds, March 30, 1855.

BRUNSWICK SQUARE and TERRACE DISTRICTS, HOVE, near Brighton, Sussex.—Notice is hereby given to Persons who may be willing to enter into a CONTRACT with the Brunswick-square and Terrace Commissioners for ERECTING certain BUILDINGS in Brunswick-street West, in the parish of Hove, Sussex, and for the performance of various WORKS connected therewith, that the plans and specification of the several works required may be seen at the Commissioners' room, in Brunswick-street West aforesaid, on any day after the date hereof, between the hours of TEN and FOUR o'clock. Tenders are requested to be addressed, "Tenders for New Work for the Brunswick square Commissioners," will be received at the Office of Mr. HILL, Solicitor, Brighton, on or before FIVE o'clock in the afternoon of THURSDAY, the 3rd day of MAY next. The Commissioners do not bind themselves to accept the lowest or any Tender.

Dated this 16th day of April, 1855.

WILTON LOCAL BOARD of HEALTH.—To SURVEYORS.—The Local Board of Health for the District of Wilton, are prepared to receive TENDERS from Surveyors and others, willing to undertake the PREPARATION of a Detailed Plan of the TOWN PORTION of the District, on a scale of 10 feet to the mile. Such plan to be completed in accordance with the plans and specifications of the General Board of Health, and with the special conditions issued by them, and will be subject to their approval. The special conditions, and a form of Tender, with any further information, may be obtained from the Clerk to the Board. Tenders, sealed and addressed to the Chairman, must be sent to the Office of the Local Board, at Wilton, on or before FRIDAY, the 4th of MAY next, accompanied by suitable testimonials of the general experience of the Surveyor tendering, especially with reference to Town Surveys. The Local Board do not bind themselves to accept the lowest or any other Tender.

By order of the Local Board,
Wilton, near Salisbury, April 13, 1855. THOS. TIRING, Clerk.

TO BUILDERS.

TENDERS are required for the ALTERATION and COMPLETION of an ITALIAN VILLA, now in carcase, situate at St. Germain's-park, Forest hill, Kent.—Plans and specifications may be seen on the Premises from TWO till SIX o'clock daily; other information may be obtained at the Offices of the Architect, Mr. R. J. WOODCOCK, Adelaide-chambers, 52, Gracechurch-street, City. Tenders to be delivered on FRIDAY, the 27th inst.—The lowest Tender not necessarily accepted.

CONTRACTS.

TO BUILDERS.

WANTED, TENDERS for the ERECTION of FOUR HOUSES, adjoining the Henley and Marsh roads, Oxford. Plans and specifications to be inspected between the hours of ONE and FOUR at Mr. D. HERBERT'S, No. 1 Blenheim-terrace, St. Giles's, Oxford. Tenders to be sent as above on or before the 2nd of MAY, 1855.

GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO. 1, Arthur-street East, London-bridge.

Testimonial respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and CO.

8, Belgrave-place, Hampstead, March 9th, 1855.

Gentlemen.—I have great pleasure in bearing testimony to the capabilities of your extraordinary Gas Cooking Apparatus, being clearest and most perfect yet in use. Suitable for hotels, messes, clubs-rooms, private houses, and the army; having cooked, on one day, 1,500 meals, and many ovens of ham beef, veal mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 80 lbs in nine hours, and other meats proportionately. I presented J. Banister, esq. Threadneedle-street, to the directors, for a banquet given to the foreign ministers. They have been in full operation for nine months, and are now in as perfect order as when first finished. "They have not cost one shilling for repairs."

I am, Gentlemen, yours respectfully,
EDWARD HORNE.

Messrs. Deane, Dray, and Co.

ROYAL POLYTECHNIC GAS FIRE BACHHOFFNER and DEPRIENS PATENT.—The public is respectfully informed that these Improvements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEPRIENS Office, 125, Regent-street London.

THE PATENT PRIZE KITCHENER with Boiler to supply Bath, Scullery, Hot and Steam Closets Manufactured, with all its recent Improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all working by one small fire. A great saving in fuel is effected by having this kitchener, and it effectually cures smoky chimneys, and is the best cooking range extant.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for—the prize of public approbation, has long been obtained by BROWN and GREEN'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect, economical, and complete apparatus for all cooking operations. It is warranted a certain cure for a smoky chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, chapels, asylums, halls, and staircase-galleries, conservatories, forcing houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Wimsley-street, Oxford-street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel. It is manufactured in sizes suitable for large or small families. In operation daily in the stove and feeder department of Deane, Dray, and Co.'s establishment, 46, London-bridge. Estimates, with prices, forwarded free by post. DEANE, DRAY, and CO. opposite to the Monument London-bridge. Established A.D. 1700

SAWING, PLANING and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises at the Surrey Canal Works, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have also made many Wood Machines either wholly or partly made, so that they can at all times on short notice supply them S W and Co. beg to state that they combine the advantages of manufacturers, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

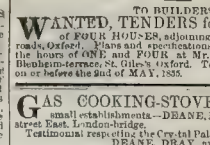
TO BE SOLD CHEAP, a PLANING MACHINE by Furness, of Liverpool, will plane and square up boards and scantlings of any dimensions up to 3 feet by 9 feet 6 inches, and 40 feet long. Also, one of BRUSKILL'S PATENT UNIVERSAL MILLS, for grinding bones, minerals, or grain. N.B. The above is nearly as good as new, and will be sold decided bargains. Apply to F. J. Office of "The Builder."

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, and GENERAL IRONMONGERY at PEEL and STEDALL'S,

Nos. 5 and 6, BROAD STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

30	32	34	36-inch,	
28s.	30s	32s	34s	

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch,	
55s.	60s.	65s.	80s.	

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 3d.

Improved New Pattern Circular Check Register, with strong Bars and Trivits, 6½ per inch.

Best Solar ditto, with Patent Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2	3	4	3 inch.	
	3d.	4d.	5d.	6d. per yard.	
Cast Gutters—4 inch, 10d. per yard.					
O G. Gutters			4	4½ inch.	
			1s. 4d.	1s. 6d. per yard.	
Best Cut Clasp	1½	1¾	2	2½	3 inch, and larger
and Rose	16s.	16s.	16s.	16s.	14s. per cwt.
Cut Rilled Brads, 13s. 6d. per cwt.					
14inch Cut Nails, 16s.				Cast Nails, 13s.	
Patent Line	2	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

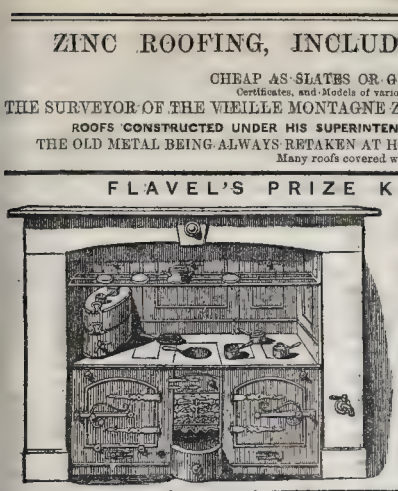
THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

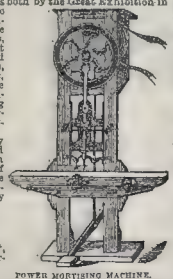
BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

PRIZE MEDALS have been awarded to these celebrated Machines both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom by joiners, contractors, coach and cabinet makers, railway carriage and wagon builders, mechanists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring.



POWER MORTISING MACHINE.

Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.

Sold only by

WILLIAM FURNESS,

Patentee, No. 20, Lawton-street, Liverpool, from whom full particulars may be obtained.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

PATENT GALVANIZED IRON,

(IMPROVED PROCESS.)

JOHN SYMONDS and CO.

WORKS.—GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process, THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c. Roofs fixed complete.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by

JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SKAIFE'S GALVANIZING WORKS,

Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated. Roofs fixed complete.

J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zink, and Tiles.

An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much improved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Island Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

HART and SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, & 55, WYCH-STREET, STRAND.

Illustrated Catalogues post-free on receipt of six postage-stamps.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. B. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c. each.

J. B. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH-WESTERN RAILWAY, LIVERPOOL.

"London and North-Western Railway Company,

"Liverpool, May 17, 1852.

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs. Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"8, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant, "C. OTWAY.

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

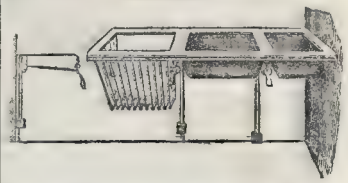
Messrs. HOBBS, ASHLEY, and CO. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

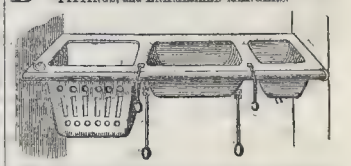
PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery. They are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fixments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.



The only Patented Invention of this description constructed so as to prevent considerable waste of Hay and Corn, together with all the newest improvements.

STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.

Manufacturer of Kite's Patent Noiseless Cast-Iron Smoke-curing Chimney Caps (200 on Buckingham Palace), price 3s. each. Price-lists and Illustrated Catalogues forwarded on receipt of two postage-stamps.

JAMES BARTON, Ironfounder, &c. 370, Oxford-street, a few doors east of the Pantheon.

HOOD and SON'S CASTINGS WAREHOUSE REMOVED from No. 81 to No. 68, Upper Thames-street.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Paneling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY and IRON WORKS,

68, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Ladders, and Steam-engines; Range and Hot-plate Metal. An Improved Boot Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,

168, DRURY-LANE, and CHARLES-STREET.

WILLIAM BATLEY, Engineer and Boiler Maker, Northampton.—Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts apply as above.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.— HULETT and CO. 55, High Holborn.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendant, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Curtice-poles, Rings and Lacquered Case Tube for Fixture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Iron Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 13, Charles-street, Lone-acre, London.

RAIN-WATER PIPES.—O-G and Half-round Gutters, Sash Weights, Railway Bars, Air Bricks, &c. J. JONES, Iron Merchant, Iron-bridge Wharf, No. 6, Banksside, has the largest stock in London of the above and other castings, of the very best quality. Also cast-iron pipes for gas, water, or drainage; bends, tees, &c.; flange and hot-water pipes, with all the usual connections; lamp-posts and retorts, stable fittings, pig-troughs, &c. &c.

J. JONES, IRON MERCHANT, IRON-BRIDGE WHARF, No. 6, BANKSIDE, LONDON, near the Southwark Iron Bridge.

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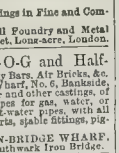
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 2l. 8s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

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Best Town Glue, 56s. Ditto, Scotch, 68s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

ESTABLISHED, 1817.

WILLIAM HARMER'S Smith's Work, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 11, New Peter-street, Westminster. Builders, contractors, and others, supplied at the lowest wholesale prices, with Improved Self-acting Kitchen Ranges, Hitchie and Register Stoves and Shams; Fire Lumps to suit the same; Cast-iron Rain-pipes, Eaves Gutters, Sash Weights, Air Bricks, Sink Traps, &c.; Sheet Zinc, Perforated Zinc and Tubing; Cut and Wrought Nails, Brads, &c.; Rim, Mortise, Dead, Cupped, and other Locks; Patent Sash Line, Glue, &c.; Bar, Rod, Hoop, and Sheet Iron; Galvanized Iron and Galvanized Iron Coppers.—Price lists on application, which will be found equal to all competition. Estimates given for Wrought and Cast Iron Railing, Gates, Balconies, staircase work, Verandah, and Wrought and Cast Iron Work of every description.

TO BUILDERS and OTHERS.—A quantity of strong cast-iron BALLUSTER PANELS for staircases TO BE SOLD at 10s. each; height about 2 ft. 3 in.; each: 3 feet 6 inches high; 4½ inches wide, at WILLIAM HARMER'S Iron Warehouse, 1, New Peter-street, Horseferry-road, Westminster.

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D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 55 and 56, High Holborn.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS, THE BEAR GARDEN LEAD WORKS, SOUTHWARK, Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES, a complete LIST of which will be forwarded upon application.

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LIGHTNING CONDUCTORS.—R. S. NEWALL and CO Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO's Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

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JOHN WEEKS and CO., King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating building measurement 40,000 in length, at the small expense per day in fuel and labour of 3s 8d. This achievement in heating by hot water is unprecedented.

SAW-MILL, with Engine and Gearing, TO BE SOLD for less than half its value.—For particulars apply to BINN and CO 18, Great George-street, Westminster; and at their Works, Manchester; Mr. THOS. WRIGHT, 9, George-yard, Lombard-street, London; and Mr. THOS. MOLE, Engineer, Birmingham.

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Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Castings & Gods, and

STEWART'S PATENT CAST IRON GAS and WATER PIPES.

Office, No. 7, Size-lane, London.

COLLINGE'S PATENT HINGES.—Sole Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, and railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

SMITH'S PATENT DOOR-SPRINGS.—The attention of Architects and Builders is particularly called to the acknowledged superiority of these Springs. They are applied to the New Palace at Westminster, the Royal Palaces and Yachts, and all the principal Banking and Building Establishment the Kingdom. Can be had at BOOBBYER'S, NETTLEFOLD'S, HART and SON'S, PUGH and CO'S, of all the principal Ironmongers; and at the Manufactory, Princes-street, Leicester-square.

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W. H. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

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WILLIAM SHORT, Commission Agent, Surrey-street, Sheffield, undertakes to purchase, on commission, register stove grates, shams, ovens, ovens and boilers, castings, &c suitable for any description of property. Having been engaged in the foundry business many years, he is enabled to select and buy to great advantage on the spot.

VABRE'S IMPROVED FRENCH FIRE-PROOF BUILDINGS.—This improved system combines, with the Security from Fire, Economy, Strength, Rigidity, Lightness, and a perfect Key for the Ceiling. It consists in forming a floor or roof by a combination of rolled or plate girders, with a series of flat arches of a short span, composed of a peculiar shape of hollow pottery. By this mode of construction, the whole floor or roof becomes a FRAMED block of light masonry with iron ribs, which answers all the requirements of a fire-proof structure, besides reducing considerably the expense and affording the double advantage of timber floors; viz. the key of the ceiling and the lightness.—For further particulars and estimates apply to R. VABRE, C.E. 4, St. Thomas-street East, Borough.

BUILDERS, &c. &c.—Take Notice of the extraordinary Reduction made in the price of marble work at the WESTMINSTER MARBLE FACTORY.—A Vein Marble Box Chimney-piece, only 3l. A good-sized Vein Marble Box Chimney-piece, with caps and bases on plinths fitted up in the best style, only 1l. 12s. Their patent machinery enables them to execute Marble Floor at 4s. 6d. per foot superf. and every variety of Marble work at reduced prices. Their Show Rooms contain the largest Stock of Chimney-pieces in England.—Address, WESTMINSTER MARBLE COMPANY, EARL-STREET, MILLBANK.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.

THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in all marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble: bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Sweet Anglesea, Black and White, Ann's, and Anglesea Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Jasper Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their NEW SLABS of MARBLE are received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS, BELGRAVE-WHARF, LOW-PRICED BELGRAVE-PLACE.

SAMUEL CUNDY, THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL, PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE SLABS.—MARBLE and STONE SAWING-MILLS, 8, NORTH WHARF-ROAD, PADDINGTON. The proprietors of the above mills beg to offer to masons and the building public generally, their extensive assortment of vein, Sicilian, and statuary marble, in slab and block, at prices never before offered. JAMES SIMMONS, Manager.

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By Her Majesty's — Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

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GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS J. TRATHAN, Liskeard.

This Granite is selected for the New Westminster-bridge.

MARKET-WHARF, REGENT'S-PARK BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, REEDHAM, and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to carry on their Wharf and Depôt CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, Gothic STONE IN BUILDING, BLOCK, and RUBBLE STONE. BLOCK and RUBBLE HEARTH STONE; also RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For Information, direct to Caen Wharf, Rotherhithe; or 1, Hibernia-chambers, London-bridge, Borough.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchants and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett Waterloo-bridge. Offices: 246, High-street, Southwark, near the Townhall.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

BROKEN KENTISH RAG and FLINTS. HORNSEY PARISH.—The Board for the Repair of the Highways of this Parish are ready to receive TENDERS for the supply of KENTISH RAG, broken to a 2-inch gauge, free from small and dust, as also broken KENTISH FLINTS, at per cubic yard, including wharfage, delivered by measure from the barge at Kentish-town, between the day of contract and the 25th day of MARCH, 1856. Tenders to be sent in on or before THURSDAY, 26th APRIL, sealed and endorsed, "Tender for Broken Kentish Rag and Flints," addressed to Mr. H. MALCOLM RAMSAY, Surveyor to the Board, 17, High-street, Highgate.

By order, TOULMIN SMITH, Chairman.

TO BUILDERS.—TO BE SOLD, about 900 feet run of FREESTONE STEPS, fine dressed, twelve inches by seven, originally made to order. Price 9d. per foot run. Also, some SADDLE COPING, eighteen inches by six. Apply to Mr. HOLLAND, Steward's-wharf, Cannon-row, where the stone is lying.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRIZE LIGHTS for SLATES and SLATE TILES are NOW READY, and can be had on application, including a postage-stamp.

N.B. A liberal discount to the trade.

BANGOR SLATE PAVING, 1½ inch thick, 2 inches thick, planed both sides, and sawn all round, 6d. 7d. per foot super. Trevalga Roofing Slates at extremely low prices. HANNAFORD'S Slate Works, Trevalga-wharf, Ratcliff-cross.

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ENAMELLED SLATE.—REDUCTION IN PRICE. Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave-place, Pimlico.

WILKINSON'S IMPROVED ARTIFICIAL STONE. CHIMNEY-PIECES.—Nearly 300 of the above have been Sold, although only recently brought to their present state of perfection, and offered to the public. The perfect adaptation of a neat bedroom set: with jambs moulded with large ogee on inner edge, set on plinths. Mantle moulded with ovolo and fillet under shelf, and shelf with hollow on edge, to 30s. Specimens in drawing-room patterns of more elaborate character. A liberal discount for quantity.—Address W. WILKINSON, Newcastle-on Tyne.

NORTH-WESTERN STONE DEPOT. Hamp-stead-road Bridge, Camden-town.—W. ASPINALL begs to call the attention of Contractors, Builders, and Masons, his Stock of Bark Park Spring, Pottern-hoe, Newton, Harehill, Bath, Caen and other Block Stone; York Paving, Landing Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Sinks. Also, Aberdeen, Guernsey, and Hayt. Granite Curb and Pitching, all at the very lowest prices.

N.B. Estimates given for Masons' Work.

IMPERISHABLE STONE.—TRICKETT and PERKINS having erected new and powerful machinery at their extensive quarries, are now able to execute orders to any extent with their much esteemed HAWDON-HILL STONE, which, from its strength and durability, together with its beautiful colour and readiness of conversion, renders it one of the most desirable stones out, being also most useful and ornamental. Architects and others are requested to test its qualities for strength and durability, either for external, internal, or ornamental purposes. Samples and prices furnished by SAMUEL TRICKETT, Stone Wharf, Isle of Dogs.

NOTE.—Can be got any size, or delivered to any part by rail or water carriage.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazza, Busts, Consoles, Bas-reliefs, &c. J. M. BLASHFIELD, of Millwall, near the West-India Dock Station, and sold at No. 1, Pratd-street, Pentonville-basin, where prices may be obtained. Examples of Terra cotta, of J. M. Blashfield, are to be seen at the Crystal Palace, as well as in the Mineral Court. The statues of Australia, Venus di Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra cotta, as are the fountains at the Renaissance Court, and the roof of the Alhambra Court. The Pompeian roof is of Terra-cotta and red cement combined. Since the execution of these works J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cottas and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

LOOKER'S PATENT VENTILATORS,

FOR FACTORIES, WORKSHOPS, GREENHOUSES, STABLES, FARM BUILDINGS, &c. &c.

The Inventor solicits an inspection of the above at his POTTERY and DRAIN-PIPE WORKS, Kingston-Hill, where orders to any extent can now be received. The Ventilators are extremely simple in construction, and can be made of any size or shape, in Pottery, Metal, or other Material. They admit fresh air without the slightest draught, can be regulated with perfect ease, and are not a third the cost of any other arrangement for the purpose hitherto introduced.

Full particulars, with prices, forwarded to any part of the United Kingdom, on application to the Inventor, Patentee, and Manufacturer, BENJAMIN LOOKER, JUN. Kingston-on-Thames.

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CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 49 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

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In order to supply the deficiency which has hitherto existed in Furniture suitable for the many Mansions that have been erected or restored in the MEDIÆVAL STYLES, Messrs. CRACE have directed their particular attention to this subject, in addition to their other works, and have prepared appropriate specimens in the various branches of Furnishing.

STUFFS for HANGINGS, in simple Worsted Damask, in Silk; also in Tapestry of Baudekin.
CARPETS, plain or in rich Velvet pile, with appropriate Borders.
PAPER-HANGINGS of various kinds.
OAK CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and appropriate Furniture

The whole of the above-mentioned Furniture, &c is designed by the late Mr. A. W. PUGIN, Architect.

To render this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with its ancient character.

14, Wigmore-street, January, 1853

SMALL GREENHOUSE WANTED, either new or second-hand; if in good condition, the latter preferred.—Particulars, stating dimensions and cost, including erection in the neighbourhood of Bayswater, with the necessary furnace, flues, ironwork, stages, &c. complete, to be addressed to Mr. C. J. KNIGHT, Architect, 57, Charlotte-street, Portland-place.

CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d 4½ and 5d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 296, Oxford-street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot.

Crown or Sheet Squares, in 100 feet boxes, 3d. per foot.

Sashes Primed and Glazed, 3d. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.
The Warehouse, 89, Hatton-garden, London.
" 45, Piccadilly, Manchester.
Messrs. C. and J. Malloch, 30, Turner's-court, Glasgow.
" John Dix and Co. Bath-street, Bristol.
" H. Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ¾ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

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SATURDAY, APRIL 21, 1855.

BY what must be considered a curious and interesting coincidence, at the moment that our Excellent Queen was receiving the Emperor and the Empress of the French on English ground (the evening of Monday last), the Institute of British architects met to present Her Majesty's gold medal to a distinguished French architect, M. Hittorff, in consideration, both of the buildings erected by him, and his published works. Earl de Grey, the president, took the chair, and was supported by Professor Cockerell, Professor Donaldson, Mr. Salvin, Mr. C. C. Nelson, Mr. Scoles, Mr. Ferrey, Mr. Mair, Mr. Kendal, Mr. Teulon, Mr. Hesketh, Mr. Mocatta, and many others. The routine business having been disposed of, including some interesting communications from abroad, the president proceeded to present first the Institute medal to Mr. W. P. Griffith, for his Essay on Mediæval Ornaments, with reference to the sources offered by the natural kingdom, accompanying it with a few appropriate observations.

Mr. Godwin said he had been requested by Mr. W. P. Griffith, who was absent through ill health, to receive the medal for him, and to express to the Institute the recipient's great gratification. It would be impertinent, he thought, if he were to occupy their time with any lengthened observations, but there was one remark which might be usefully made. Mr. Griffith was known beyond that room by his elaborate and successful researches into the geometrical system discoverable in the works both of the antique artists and those of the middle ages. Some of his later observations, as yet unpublished, were very curious: for example, he showed with respect to the plan of the Pantheon at Rome, that by carefully drawing lines across the diameter, and connecting these by lines at the circumference, the size and positions of the recesses, the centres of the columns, the width of the piers, in fact, the distribution of all the parts, were at once marked out. He mentioned this simply for the sake of the deduction, that notwithstanding Mr. Griffith had gained a reputation, he had considered it worth while to devote a great deal of time to the preparation and illustration of an Essay, in the hope of gaining the Institute medal; and he, the speaker, thought this should show to the younger members of the profession the esteem in which the medal was held, and lead them to make worthy efforts to obtain it. It had been his privilege, when a student, to receive the Institute's first medal, and he could say that on more than one occasion, and in quarters where he had not expected it, it had been viewed as a diploma. On the part of Mr. Griffith, he assured the meeting the medal was viewed as an important testimonial.

Prizes of books were then presented to Mr. Beazley and to Mr. Willey; and the president further announced that at a special meeting, which had been held that evening, the medal of the Institute had been awarded to M. Salzenberg, for his work on the Early Christian Monuments of Constantinople.

At this meeting, if we understand rightly, the principle was laid down that the Institute medal, and not the Royal medal, should be voted for works produced with credit by an author at another's expense; the gold medal being reserved for those produced at his own risk.

Earl de Grey then addressed himself to M. Hittorff, at first in French, but afterwards in English, remarking that M. Hittorff understood the latter better than he, the president, spoke the former. His lordship dwelt very happily on the claims which M. Hittorff had to their applause; remarked on the coincidence already referred to, and stated that the Council had at one time hoped that the presentation to M. Hittorff would have been made in the presence of his Sovereign. The president said he thought it honourable to the Institute that this was the third occasion on which the Royal medal had been presented to a foreign architect, and concluded his genial address with some good wishes, earnestly expressed in French.

M. Hittorff's response, delivered in his own language, with evident marks of feeling, was to the following effect:—

To tell you, gentlemen and honoured colleagues, he said, that I am in the highest degree confused by the too flattering words that the noble lord has done me the honour to address to me, is to say that this feeling prevents me from expressing all the others with which my heart is filled. Knowing the high value of a distinction which is one of the most honourable that an architect can strive for, and that in giving your votes for the award each of you weighed in his conscience the importance of the choice he was about to make,—how, gentlemen, can I believe myself worthy of such a favour,—how dare to credit the possibility of having merited it? I can, in truth, only attribute my success to the sympathy I have met with during more than a quarter of a century from the artists and the scientific men who do honour to England, and whose loyal appreciation of talent amongst others is a shining confirmation of their own merits. Yes, gentlemen, your celebrated architects have materially aided in the success of my works of art and archæology, and I should be most ungrateful if in receiving the medal for which you have selected me, and for which your gracious Queen has deigned to confirm the choice, if I did not render homage to those illustrious *collaborateurs*. I believe, too, gentlemen and honoured colleagues, that in awarding it to me you have wished that the honour should be reflected on other French architects. You know too well the remarkable works of many amongst them not to wish that those artists should participate in the distinction that you can award only to one. Your gracious sovereign, gentlemen, has given a noble spectacle to the artist world, in desiring that by the side of the distinguished men of England, foreign architects might obtain the royal medal; and nothing shows more the true and enlightened love for the fine arts, which Prince Albert shares so ardently with her Majesty the Queen, than this glorious encouragement, serving to create a never ending emulation amongst the artists of all countries. France, whose sovereigns have always loved and encouraged the arts, has also found, happily, in Napoleon III. and his august companion, the most complete counterpart of these noble sentiments. Thanks to their majesties, never was there a wider field opened for the efforts of intelligence, talent, and genius—for the exercise of the highest faculties of man, in short—than that which is preparing in our capital. Your artists, I have no doubt, will there shine brilliantly; and if any of the veterans, and their young and worthy emulators should honour the coming solemnity with their presence, my countrymen will not have a long time to wait to show their appreciation of the distinguished honour you have done them in my person. Your noble president, so worthy by his distinguished taste, and his knowledge of our fine art, of being placed at the head of the Institute, will rejoice in your success and share it; and in like manner that the words which Lord de Grey has just now pronounced, will be for mine and for me, a precious heir-loom, so he will know how to add to the triumphs of those amongst you whom France will have had the happiness of crowning.

An elaborate and interesting paper on Medals illustrative of Architecture, was read by Mr. Donaldson, and to this we shall refer hereafter.

AN ARCHITECTURAL SCAMPER IN FLANDERS AND BRABANT.*

ANTWERP AND BRUSSELS.

There is much in the domestic architecture of Flanders generally, and especially of Antwerp, worthy of particular notice; and this, not merely on account of the quaint and crisped specimens of the sixteenth and seventeenth centuries which yet remain, but of the school of modern architecture in full vigour at the present day. The truest indications of the architectural taste and genius of a people are always afforded by their domestic buildings. The public edifices may be influenced by foreign taste, or by the caprices of those who have the direction of them. A particular style may linger amongst ecclesiastical buildings after it has been abandoned for general purposes; but the points in which the dwelling-places of mankind are touched by the mental, moral, and physical habits of those who erect them, by the climate and soil of the locality, by the laws and fiscal regulations of the country, and the amount of comfort and civilization enjoyed, are so numerous as to leave their impress indelibly stamped upon the streets of their towns.

In tracing the progress of domestic architecture in Flanders, we find, along with many changes and diversities from time to time, a good deal of similarity in general character. The same necessity no longer exists as formerly, for running up the narrow façades to such an enormous height: the gables are no longer in modern erections turned towards the street, but abundant evidence remains to indicate the several links in the chain which connects the modern with the ancient Flemish architecture.

Many of the houses erected in the 16th and 17th centuries are faced with small columns and entablatures on each story, the scroll-work of the gables assuming the Renaissance character. In the more modern houses the façades have more of an astylar character, but the curved lines and free ornament still prevail. These characteristics have been to a considerable extent lost in the modern architecture of Brussels, where the French style has been substituted; but in Ghent and Antwerp it still prevails, even in the most recently constructed houses. Many of these are worthy of attentive study, displaying an amount of careful design, and possessing a distinctive character not always attained amongst ourselves.

The Place de Meir, at Antwerp, contains some of the finest specimens of modern Flemish domestic architecture. Rubens's house is a very rich and interesting composition by the great painter. The ornament is rather too much distributed over the surface, but the doorway and screen are very fine. A private house now in course of erection on the opposite side of the street, in size and breadth of style possesses something of the magnificent. It has three stories in height besides the basement, and seven openings in each floor, the piers much wider than is usual in Flanders. The ground-floor is arcaded; the one and two-pair windows have curvilinear heads, with balconies to the one-pair, and a profusion of foliaged enrichment of very good design. The cornice is fine and bold, supported by large enriched consoles, having open glazed panels in the frieze. The plain portions of the wall are built with a light yellow oolite in small courses. The Rez-de-chaussée and the dressings are grey limestone. The flanks are brick, probably intended for stucco.

The King's Palace, in the same street, can only claim to take rank as a large mansion. It is a pleasing composition, with pilasters running up two stories, having a porte-cochère in the centre, above which is a large centre window, round which the principal cornice breaks in a curved pediment. The central portion of the attic is finished with a coronal of carving, and there are smaller terminations of the same kind over the wings.

There are several other buildings worthy of a passing notice. The Vieilles Boucheries, now converted into a granary, is a fine specimen of brickwork of the early part of the 16th century, in very sound and excellent condition.

The Hôtel-de-Ville, also a 16th century build-

* See p 135, *ante*.

ing, but of later date, possesses more of the modern Italian than of the old Renaissance feeling, and has not much of the distinctive Flemish stamp except in the centre, where it towers aloft, encrusted with niches, statuary, and pediments, flanked by obelisks, tritons, and mermaids, in all the mazes of symbolical illustration.

Our attention will next be directed to the metropolitan city of Brussels, which displays a curious medley of ancient and modern architecture. Much of its ancient architecture, and some of its modern, is well worthy of study, though the modern domestic architecture has departed, as already noticed, from the characteristic Flemish type. We will commence, as usual, with the ecclesiastical buildings.

The cathedral of St. Michael and St. Gudule claims the pre-eminence amongst the churches. The architecture is progressive in its character, presenting specimens of every style, from the 12th to the 16th century. A portion of the choir and its aisles belong to the earliest of these dates. The remaining piers and arches, and the triforium and clerestory of the choir, belong to the 13th century. The clerestory and aisles of the nave are of later date, with flowing tracery. The side-chapels of the choir are rich 15th or early 16th century work, and the western towers are of elaborate 15th century work. The vaulting of the church and aisles is one of simple design, having pier-ribs, and cross-springers with bosses at the intersections, and is slightly domical. The vaulting of the side-chapels is later and very elaborate. The chapels of the nave have the windows surmounted with gables and pinnacles in each bay. The windows in the choir chapels and the transepts are very fine, though the tracery and mullions are rather slender. They are about 50 feet high by 10 feet wide, the mullions running up the full height without transoms. The wrought iron work separating the choir from its aisles, and the gates of the chapel behind the high altar, are amongst the finest specimens of wrought iron work in existence. Foliage, flowers, and fruit, are executed with a delicacy and richness which the finest sculpture in wood could not surpass.

There is a beautifully sculptured modern Gothic altar-piece in wood in one of the chapels on the north side of the choir, and there is a considerable quantity of stained glass of the 16th and 17th centuries in the windows of the choir and its aisles and chapels.

Externally this church is less encumbered and hidden from view than most of the Flemish churches, and shows to great advantage from the high ground on which it is seated. The west front and its towers are in the latest pure style of continental Gothic. They are covered with panelling, niches, statues, tabernacle work, crockets, and finials. A portal attached to the south transept in the same style is also very rich, and is crowned with a statue of St. Michael overcoming the dragon. The west and south fronts have just been restored very carefully and skilfully, especially the statues. The pulpit in this church, representing the expulsion of Adam and Eve from Paradise, is very celebrated, and is stared at with gaping wonder by thousands on whom the richness of the architecture is altogether lost.

Notre Dame-de-la-Chapelle, in the Rue Haute, is a large cross church in a mixture of styles. The nave is lofty: it has a clerestory and gallery under the windows, but no triforium. The piers are cylindrical, and the window-tracery is in geometrical patterns, but somewhat flowing in design. The general style of the nave is early 14th century work. The church contains a good carved pulpit, representing Elijah fed by the angel. The spreading palm with its foliage, the rocks with their creeping plants, and animals and birds interspersed, are executed with much spirit.

Notre Dame des Victoires, in the Rue de Sablons, is so hemmed in with buildings that very little of its exterior can be seen. Internally it is a cross church. The chapel of the family of De la Tour et Tassis, is beautifully enriched in the modern Italian style, and contains some fine modern sculpture. The pulpit is ornamented by sculptures of the lion, the ox, the eagle, and the angel, the usual emblems of the four evangelists.

The church of St. Jean Baptiste, near the Rue de Lacken, is a very fine example of what may legitimately be called true Renaissance architecture. There are few architectural terms more abused than this, for we see it employed with a sort of vague and indeterminate application, to designate every variety and date of revived Roman architectural forms, except the purely classical, including in the same category the dawning efforts of Brunelleschi, the matured compositions of Alberti and Palladio, the eccentricities of our own Elizabethan, the vagaries of the Louis Quatorze school, and even the noble creations of Wren. If we use the term according to its simple meaning, its application is not difficult. At the second birth or dawn of the new taste in architecture, old forms and arrangements, hallowed by association and tradition, could not all at once be got rid of. The plan and mode of construction, particularly in churches, remained for a time the same as before, the only difference consisting in the applied ornament and decoration. After a while further and more radical changes took place, which led to the entire abandonment of mediæval forms. Now it is to this transition period, when architecture was drifting with the new current, but had not yet lost sight of the ancient land-marks, that the term of Renaissance more particularly applies, and for which it would be difficult to find a more appropriate name.

"Le style de la Renaissance (says M. de Caumont, in his *Abecedaire d'Archéologie*) a son caractère propre. Les architectes du seizième siècle n'imitèrent pas servilement l'architecture antique dans ses formes et ses dispositions. Les ordres superposés, les revêtements de marbre, furent, avec ceux que nous allons indiquer, les principaux caractères de la Renaissance lorsque cette architecture fut introduite."

In spite of all Mr. Ruskin's denunciations of the "pestilent Renaissance," I confess to a certain amount of weakness in yielding to its seductions. There is about it an absence of constraint, a joyous rollicking freedom which reminds one of Collins's personification of Mirth,—

"Loose were her tresses, and her zone unbound."

Human nature cannot always be tied down to severe and virtuous æsthetical rules. An occasional outbreak, particularly in a new and untried field, may be forgiven and even countenanced. The author above quoted further remarks:—"Malgré les défauts qui viennent d'être signalés, les monumens de la Renaissance se font généralement remarquer par la grâce de leurs proportions: ils plaisent par la richesse et la délicatesse de leurs ornements."

The church of St. Jean Baptiste, from which we have rambled too far, is a true Renaissance building in the sense in which I have employed the term. In plan and arrangement it is decidedly Gothic, a Latin cross, with clerestory, side aisles, and transepts, bold projecting buttresses, and flying buttresses; the interior groined in stone with ribs and bosses. On this solid framework of Mediæval construction, the mouldings and decorations superadded are altogether of Italian or classic character. The west front has three stages of superimposed orders, and a profusion of ornament rather too much spread over the surface and frittered into patches, the general fault of the style.

St. Catherine's Church, near the old corn-market, has the west front and a portion of the interior of thirteenth-century architecture: the remainder is Renaissance, of poor design. The only thing worthy of remark about this building is the ceiling of the nave, which is in three aisles of equal height, the centre ceiling being flat, and the side aisles slightly pointed. The ceilings are plaster, covered with *bas reliefs* of scenes from Scripture history, evidently modelled, not cast, no two being alike. Each compartment is surrounded by rich scroll-work of varied patterns. The design and workmanship of the whole are exceedingly good.

St. Christophe is a church in the Renaissance style; but the interior has apparently been modernised. Its plan differs from the usual Latin cross. It consists of a nave and side aisles, divided into bays by piers and arches. Above the central aisle, over the eastern bay, rises a dome, springing from pendentives following the curve of the arches. The spandrels are filled by large statues of angels, finely executed in bold relief. Eastwardly from the dome a semi-circular recess constitutes the chancel. The aisles have similar terminations with side altars, and similar projections are thrown out north and south of the side aisles opposite the bay over which the dome stands, forming shallow transepts. The side altars are modern, and finely sculptured in marble. There is some good wood carving, particularly the entrance doors, which are large and very fine, with bronze mouldings and *bas reliefs* of Christ and the Virgin in the panels.

The church of the Assumption is somewhat singular in plan. It is a parallelogram in three aisles, with semi-hexagonal east end. The other portion of the hexagon is formed by the arrangement of the piers and arches internally. These carry a hexagonal drum, with a dome above of similar form. The semi-hexagon which terminates the building, has a semicircular recess carried out from each of its planes, covered with a semi-dome. Each of these recesses has an altar. The plan is ingenious and effective. The style of the building is late Renaissance. The pier arches spring from the columns, which are of the Composite order, but there is an entablature above.

The church of St. Jacques-sur-Caudenberg, in the Place Royale, is a building of the modern school. In plan it consists of a nave with aisles, and a choir in a single aisle. The piers of the nave are faced with Corinthian columns, carrying a straight entablature with the arches between. Externally the west end has a hexastyle Corinthian portico and pediment, not of any extraordinary merit in the design. The pediment is filled in with painting and gilding, which, whatever may be its own excellence, proves rather too brilliant a contrast with the cold tint of the grey stone which composes the general mass. The Place Royale, though not large, forms a fine architectural feature of the town, to which Simonis's noble statue of Godfrey of Bouillon, which attracted so much attention at the Great Exhibition, gives a tone and finish.

The view from the corner, looking along the *vista* of the Rue Royale, the Park, the Palaces of the King and the Prince of Orange on the right, and the domes and towers of the old town rising up from the valley on the left, forms a very picturesque *coup d'œil*, reminding one in some of its details of the view of Edinburgh from the Calton-hill.

The Chamber of Deputies which faces one end of the Park is a fine classical composition, having an Ionic portico with sculptured pediment raised on a lofty basement. The wings are brought boldly forward, enclosing three sides of a quadrangle.

The ancient street architecture of Brussels is not generally so remarkable as that of others of the Flemish cities. An exception must, however, be made in favour of the Grande-place, the buildings surrounding which are not surpassed by anything of a similar kind in the Netherlands. The Hôtel de Ville is a fine specimen of the secular architecture of the fifteenth century. Its tower, with the rich openwork of its galleries and lantern, possesses a harmony of proportion and an elegance of detail not always found in such edifices. This tower has recently been thoroughly restored in a very creditable manner.

The Theatre, in the Place de la Monnaie, is a fine building, with a prostyle portico and surrounding arcade. The pediment has just been filled in with sculpture, which at the time of my visit had not yet been exposed to public view.

The Passage or Galerie St. Hubert, extending from the Rue de l'Ecuyer to the Marché aux Herbes, is equal to the finest of the Parisian "galeries," and contains some of the best shops in Brussels. It is to be wondered at and regretted, that a style of building so well adapted to the moist and changeable climate of England should not, owing probably more than anything else to defective police regulations, have become more naturalised amongst us. J. A. P.

SKETCHES IN BERMONDSEY.

Fig. 3.

Fig. 2.

THE CONDITION OF THE SUBURBS.

DUST—BERMONDSEY.

We must not wait till the heat of summer developes fever and other diseases before we begin to remove existing bad influences: now is the time: what is done now may save many lives. Some recent visits have shown us that in several places described in former articles in the *Builder*, a marked improvement has taken place. In many neighbourhoods during the winter months we have met with several intelligent police-officers doing much useful work, by visiting systematically, for sanitary purposes, the dwellings of the London poor. Some of these officers complain strongly of the difficulty which at the present time exists in legally putting an end to acknowledged and dangerous nuisances, but this will presently be lessened. We have particulars of many cases before us, showing the time that elapsed before admittedly dangerous conditions could be remedied, but it is scarcely desirable to sicken our readers with the repetition of them. We let them pass then, and proceed to glance at a neighbourhood which has long been famed for its insalubrity,—Bermondsey. Before doing so, however, we would refer to what some may consider a trifling matter, but which is in truth the source of great evil in the poor neighbourhoods of London,—we mean the refusal of the dustmen to remove any refuse without a fee of pence "for beer:"—this practice is fraught with mischief, and is most unjust to the poor. A short time ago we overheard a poor woman telling her landlord that the men had refused to take away the dust spread over the yard without money to drink, and that she objected to give it to them because she paid taxes for the paving and cleansing of the neighbourhood. On this, we ventured to inquire of the men if they really spent all the money they received in beer. "The Lord bless you, sir; I see you are a reasonable man, and don't mind telling you it is not beer, but bread, meat, and lodging we ask for: how else could I keep my wife and little ones, when *we receive, my mate and I, only sixpence a load for collecting the dust and conveying it to the contractor's yard?*" This statement will startle many persons, and should go far towards insuring an alteration. It would be a great saving eventually to parishes for them to do away at once with a practice which, as a necessary consequence, causes so many of the poor for long periods to be surrounded by filth full of danger. The results of putrefaction are deadly: and yet we hear of places where the dust and refuse are, in consequence of the present arrangement, allowed to remain for six weeks or two and even three months distilling evil.

Another point we would urge, and that is, the appointment of some efficient person in large parishes, whose duty it should be to see after the conditions of the various articles of food. In the City there are such officers, by whose activity diseased meat has been driven into the large districts surrounding them, where there is no one to see that articles injurious to health are not be offered for sale.

We have been told that people go to market with their eyes open. This is true; but then much of the food used by the poor is so chopped and squeezed, that it is difficult to guess at the component parts; and many are tempted, by quantity and cheapness, to buy that which is so decayed as to be absolutely poisonous.

However, to Bermondsey,—Bermundesye, or Beormund's eye, as it was anciently called, showing its watery neighbourhood. It is flat and unfavourable for draining operations, and whenever cholera has visited the metropolis, it has made fearful ravages in Bermondsey. Until lately it has been much neglected.

After passing Tooley-street, from London-bridge, the visitor will find himself amongst wide and airy-looking streets of small houses, many of them built during the last twenty or thirty years. Here and there a few close courts of ancient wooden houses contrast strongly with the less picturesque dwellings. We did not observe numerous instances of overcrowding, and many of the houses were comfortably furnished, and occupied by respectable working men. But, notwithstanding these favourable circumstances, the effect of the last attack of cholera at Bermondsey was, we were told by many persons, "dreadful," and the extent of diarrhœa created surprise, even amongst the medical attendants. Sad as have been the effects of cholera and fever in this district, it is difficult to conceive what would have been the extent of the pestilence if the ground had been thickly covered with crowded and ill-constructed houses!

Passing on to Dockhead, an unwholesome slip from the Thames, similar to that still remaining at Whitefriars, we found that the tide was out, and the decomposing slime in the dock was offensive to more senses than one. We were glad, however, to notice that extensive sewer operations were actively going forward in the neighbourhood. Close to Dockhead is Jacob's Island, a spot which we remember visiting some years ago. It is difficult to imagine anything worse than the state of both the inhabitants and the houses at that time. The former were lawless and degraded, and the latter dilapidated in the extreme. The island was separated from the *main land* by a deep and putrid ditch, into which the refuse of both the island and the surrounding neighbourhood poured a sable stream, and this was crossed at intervals by rotten and dangerous-looking wooden bridges, and the banks lined by houses similar to that shown in the engraving, warped and rent in all directions, and partly projected as galleries over the ditch. The artist could not fail to admire the picturesque arrangement of the materials; but looking at the island with a sanitary eye, few who understood the subject could fail to tremble at the severe consequences of such conditions. Here were packed together some hundreds of wretched people, many of whom, both from ignorance and necessity, used for domestic purposes the water from the ditch, hoisting it up from the galleries with pails, to which ropes were attached. The police at that time had not begun particularly to notice the sanitary condition of the London lodging-houses, and the place was left in complete neglect. We remember seeing houses without doors or windows taken possession of and occupied without the payment of rent by crowds of Irish. The certain results of this neglect appeared. On the first attack of cholera, Jacob's Island was ravaged. Recently, Mr. Martin, the medical officer of the district told one of our inquirers that he could, at one time, within a small space, point to nine houses in which dead bodies were then lying.

After this visitation, efforts were made to get rid of the ditch, but this met with opposition from the proprietors of some mills and other persons to whom the stream was useful, and in whose opinion it was no doubt considered salubrious and pleasant. On the representations of some of the inhabitants of the neighbourhood, the Board of Health recommended the filling up of this dangerous channel in spite of the threats which were held out against such an operation. The ditch was, however, two or three years ago, filled up at a considerable cost, and then legal proceedings were commenced against the authorities for damages. This, together with some purchased rights, law expenses, &c. caused the filling up to cost (we are told) between 7,000*l.* and 8,000*l.*—a large sum, no doubt, but nothing in comparison to the extent of the benefit which must ultimately be found. It appears that since the ditch was closed, the health of the neighbourhood has been much improved, and that at Jacob's Island the cholera of last year was not nearly so fatal as at the last attack.

Still the island wants looking after. In passing to the place through Gilman's-court, Dockhead, a very unsatisfactory state of things will be found. Facing the entrance to the court is the continuation of the houses shown in the upper engraving, which have been partially disguised with slates: the wooden gallery still remaining, on which are the closets and water-barrels. From the galleries, the people throw every kind of refuse into the unpaved court below, creating a smell when the water comes in almost, we were told, "beyond bearing." A small expense in paving, and common prudence on the part of the inhabitants, would lead here to great benefit. Moving on to a somewhat cleaner part of the place, we found a broken part of the road, where a quantity of water did not flow away, but was stagnant. Opposite this there had been deaths from cholera.

In the Bermondsey district, some of the most serious attacks of cholera occurred amongst the market-gardens which surround the place; and it may not be without use to give a word of warning respecting many rural spots which, although pleasant to the eye, are dangerous to health, man doing all he can to prevent the beneficent operations of nature.

A short time ago, when travelling on the borders of South Wales, in a delightful place, where the mountains begin to rise finely from the plain, we noticed half way up the mountain-side a cluster of neat-looking white cottages. But for former experience, we might have exclaimed, "How desirable a place this would be to live in!" where—

> "The air inhal'd is not the gas
> That from a thousand wings reeks back to thine
> Sated with exhalations rank and fell,
> Which drunk, would poison the balsamic blood
> And rouse the heart to ev'ry fever's rage;
> But air that trembling floats from hill to hill,
> From vale to mountain, with incessant change
> Of purest element."

On inquiring, however, we learnt that scarcely a summer passed without attacks of fever amongst the comparatively few inhabitants; and examination prevented us from wondering that it should be so. The platform on which the houses were planted was made damp by the runnings from the higher ground: there was a large and stagnant pond; the cesspools were full, pigs abundant, and the people at night were crowded into small and ill-ventilated rooms, and were dirty in their habits. Instead of profiting, by the chance given to them, so far as the atmosphere was concerned, of living beyond the regular term of man's life, the people were generally cut off early, and at a short notice. In consequence of similar mismanagement, many parts of the suburbs of London are very dangerous; in the Bermondsey district particularly so.

Following the road from Dock-head, guided by the finger-post directing towards the south entrance of the Thames Tunnel, we came to Blue Anchor-lane. Here there is a cottage—we will not name it—where the cholera carried off several victims, nor need we wonder. It is ill-built, situated in a garden without drainage. Close to the house there was a pond, from which the gardeners took water; the cesspool overflowed into the pond, and soon after the cholera attacked the inhabitants, and three persons died. An open ditch runs along Blue Anchor-lane, into which runs the water from the premises of some manufacturing chemists. We have been to Cologne, and have a tolerably intimate acquaintance with Coleridge's seventy stenches; we are bound nevertheless to say, that this ditch has an odour peculiarly its own. Closely bordering on the ditch, as shown in the engraving (Fig. 2), are eight or nine little cottages. The water passing at the time of our visit was very trifling in amount, not sufficient to move the matters which passed from the closets, the vegetables, dust, and dead cats observable. The condition was frightful; and here, the inhabitants said, the cholera took away one or more from each house. A decent-looking woman said, "I had a fine little girl died, and this woman's daughter (a fine young woman) died after a few hours' illness," and so on. The warning has not produced any improvement. "The tide, sir," said one person, "can be made to come through the sluices and wash the place frequently; but I do not think it has been let in more than two or three times during the last three months, and then, God bless you, what with the cleaning of the closets and one thing and the other, it is scarcely possible to live in it." Fever, of course, is well known here. Such a state of things requires no comment; and yet, strange to say, along the edge of this pestilent ditch houses are rapidly springing up, as shown in the sketch No. 3.

The writer of a striking pamphlet, entitled, "Plague Cradles,"* makes Nature answer to a supposed questioning:—

"Removal of offensive matter, and its consignment to safe custody, is the first of my sanitary commandments.

In virgin forests, decaying lumber is absorbed, or reduced to harmless dust, by parasitic vegetation. On burning plains of sand, the scarcely dead are consumed by keen-eyed vultures. The mole in your fields, the maggot in your dung-heaps, and the very rats in your sewers, are, together with millions of creeping things, engaged in the ever necessary work of removal."

And then again:—

"Where removal of foul accumulations would disturb the life or happiness of my creatures, I counteract their deleterious influences, or convert their elements into sudden forms of life or inorganic beauty. This is the second of my laws. Some foul smells I chain by gravity to earth; others I drug with perfumes. I salt the heated desert as well as the putrid sea. I touch the lifeless, purple blood and it becomes vital crimson. I smite the local poisons of the cave and they grow up into pillars of solid crystal. I speak to the respiring breath, laden with injurious vapour, and it parts asunder, the poisonous portion flying far away, giving pure ingress to the succeeding inspiration."

Suicidically different have been and are the blindly ignorant and wantonly obstinate proceedings of man:—

"There is nothing 'strange' in your shortening breath: nothing 'mysterious' in your diminished days. Can a man take fire to his breast and not be burned? You have eaten sour grapes, and your teeth are necessarily set on edge. Your path inclineth unto death, and your roadways unto the dead."

SCHOOLS AND COLLEGES OF LONDON.

It is not in countries presenting the most numerous and the most showy public schools that we find the people the most educated: if it happened to be so, then England should be the first in literature and science, as she unquestionably is in manufactures and commerce. We find from well-authenticated returns of the year 1850, that in Prussia, Holland, and the little States of Baden and Switzerland, there are just double the number of persons able to read and write, and that the free States of the American Union show a still greater number; whilst our country stands on a parallel with the Slave States of South Carolina, Georgia, and Florida. These latter discover only one for every twelve of the inhabitants attending schools; Ireland one in twelve; Scotland one in eleven; but the preceding Continental States one in six!

A tourist in Great Britain would, from the number of schools and their external appearance, be led to infer that next to religion, education was the paramount object of existence here. Every parish has its church and public seminary; and in the capital and chief cities, the array of academies, charity schools, and foundations, bequeathed by the pious and philanthropic, to educational purposes, would appear to suffice for the whole national offspring in nonage.

This is very far from the fact, for the great majority of children of our day are schooled in private establishments, many of which equal in numbers the old monastic institutions, and even surpass them in the *standard of instruction.*

For centuries Westminster, Winchester, Harrow, Eton, and Rugby, sustained a character not to be approached by private teachers, trained in the routine of the Universities: pupils from these foundations carried off the honours; their rich endowments enabling them also to bestow exhibitions on distinguished pupils during their college career. So long as the monastic system, or old curriculum at college endured, a monopoly was sustained by them: that system has, however, been somewhat liberalized and extended, and the result has been that other academies, and even private teachers, taking a wider range in the *artes humaniores*, are now sharing the credit and honours so long monopolised by the old schools. Education is daily becoming more popular. The manufacturing towns of the West Riding and of Lancashire are already become signal for the great advance they have made. Literary institutes everywhere spread the thirst for knowledge, and the penny press is about to consummate what a reforming spirit began, carrying out their objects to such an extent, that the child of an artizan might now, in many instances, not only rival (*in useful knowledge*), but shame the pupil prepared for his collegiate course.

This has been long known of many metropolitan schools, and the fact has been admitted and affirmed by the highest authority, of one of the most distinguished amongst them—*Christ's*

* Published by Bosworth, Regent-street.

Hospital; that charitable foundation has been already, in part, referred to, and it is now upon its trial as to the system adopted, as well as to the application of the princely income committed by testament to the guardianship of the governors. The responsibility imposed by the solemn words of the testator, is heavy; and if it should turn out that the position of governor has been *habitually assumed as an honorary distinction*, or as a trust without a duty, the neglect or delegation of the office almost amounts to criminality!

Of civic schools, the next in importance (in point of income) is the Charter-house; but as to the number of resident pupils it is quite insignificant, there being on the foundation only forty, whilst Christ's Hospital clothes, nurtures, and educates 1,400. Whether in compliance with the statutes this number should be increased according to the increase of income, is a question for the parliamentary committee to solve.

Until within the last twenty years the metropolis of Great Britain possessed no university. At present there are two, advancing in utility upon a nearly equal ratio, each numbering about 700 extern students.

King's College may be considered as in the centre of population; a wing of Somerset-house added thereto, without uniformity, straitened in space; a noisy thoroughfare on one side, the polluted Thames on the other, and incapable of future enlargement; it may suit for the education of 1,000 non-residents, and for that class and number of youth perhaps no available site could be better chosen, as the convenience of town and city residents must be consulted in that respect. The whole plan of this establishment is purely collegiate, on the old principle, embracing a regimen of church ceremonials and religious instruction. This, of course, meets the views of a large section of the community, and in time, when the scope and accommodation of the building shall be found insufficient for increased numbers, the College will doubtless be transferred elsewhere, unless, indeed, the whole of Somerset-house should be devoted to the purpose.

In the sister kingdom, the University of Dublin is placed in the centre of the city. The buildings are more extensive than Somerset-house. The chapel, halls, and provost's house are splendid structures; and a park of some 40 acres skirts the spacious courts; besides the library—an immense fabric, containing perhaps the largest collection in the kingdom. No prejudice exists against that university on account of the position, or on the score of health,—that city being in extent perhaps not larger than Marylebone, St. Pancras, and St. George's parishes; but as to morality, the habits of the students, and the infallible evil effects ensuing from such a population (comparatively small though it be), constitute an existing, growing, and inevitable objection.

There are in Trinity College, Dublin, about 1,800 resident and 2,000 non-resident students: for the non-resident, the advantages of a university education and degree are incalculable; for those resident, the chances of contamination are as in all great towns.

The second university of London, situate in a higher, healthier, and more retired (because less commercial) district, is, in every sense of the word, universal. It possesses ample scope of ground for enlargement to any desired extension. The buildings now standing afford accommodation for double the number (about 700) receiving instruction there. Looking like the thing it represents, a noble façade (as yet unfinished) stands off 100 yards from the causeway, with spacious halls, well warmed and ventilated class-rooms, a first-rate medical and surgical school, an hospital at convenient distance for practical demonstrations, professors of the first order, and the widest range of literature in classics, languages, arts and sciences, comprised in its course of studies; and all this available by the middle classes of *moderate means*. No Institution that could be founded in a great city could more fully meet the requirements of the time; and when to all this is superadded the fact, that its portals and advantages are open to all creeds and all classes, the growth and popularity of the institution must be certain as the lapse of time.

Many other schools of great celebrity and utility there are in the metropolis: the Mercers' Company, for instance, most richly endowed and supported by the guild, as well as by pupils paying large annual sums. The situation of this, near to St. Paul's Cathedral, and close under its shadow, may by some be thought unfavourable, but it is convenient to those having privilege—the tradesmen of the guild. The buildings are excellent, and even possess some little architectural merit,—at least, as to the portico and its columns, which make a pleasing break in the road-line, terminated by Canon-street, and cutting the *moot plot*, which is still an open question between the public and the corporation. This school is limited to the reception of 150 boys: the education is first-rate, and the management admirable: it is, however, the property of a guild, and so far private.

Again, the Merchant Tailors' School, one of the most distinguished in the land, educates 260 boys, externs like the former, attending class daily, some living with the head master, the rest in lodging-houses at suitable distance.

In a retired nook (Cross-street, Canon-street), in the busiest quarter of the City, the ancient hall or school-house exhibits a front of the inns-of-court character, in brick once red, now of an indefinable bistre shade. The street affords scarce room for two wains to pass, and directly opposite, within 20 feet, a colossal store is in progress of erection, which being planned for six stories of 10 or 12 feet, will obscure the sunlight of the old academy. This situation also may be deemed convenient: no one can consider it healthy; and viewing the modern advances made in the structural arrangements of even parochial seminaries, it is fair to hope that a total change may be made in the location of so creditable and valuable an institution.

With respect to residentiary schools, such as Christ's Hospital and the Charter-house, this plea of convenience will not hold: a youth boarded, lodged, and clothed on the foundation is much better beyond the smoke, the traffic, the allurements, and the pollutions of a city. The masters and professors also should find in a rural situation, not too remote, far greater facilities for the improvement of their classes, as well as for their own accommodation, and the health of all. That hospital contains and lodges as many as the two London universities, and more than Westminster* School, the Merchant Tailors', the Mercers', and the Charter-house put together, the venerated great monastic school of St. Peter, Westminster, having but 160 boys, Merchant Tailors' 260, the Mercers' 150, and the Charter-house only 44 on the foundation! being 614 scholars, against 1,400 in Christ's Hospital.

In all these schools, the students not lodging on the precincts have opportunities for exercise in pure air,—they may even sleep in the suburbs. In the school *of a thousand* (Christ's Hospital), the intermissions of vacant hours scarce admit of a run to the Angel or the Temple; immured within paved courts and stony colonnades, in winter below zero, in summer no better than the racket-courts of Whitecross or the Bench; no converse with glowing nature's landscape is allowed them, beyond the dry study of the agrestic bucolics (an infliction of conventual education imposed upon all): it is a question whether the hospital ever produced a poet, unless the master be an exception. But health—the health, not the tastes—the health, and, combined with that, the sound mental progress of the pupils, should be the grand object. With a view to these ends, as well as to the economical management of the estates bestowed upon this noble institution, it ought to be removed to the country, there to assume the dimensions and importance which comparatively and really belong to it.

As to old scholastic habitudes, it is important to remark that the London University has wholly abolished the degrading, cruel, and unchristian custom of corporal punishment. Whether the block is retained in any of the metropolitan schools it behoves parents who love their offspring to inquire; a poet wrote, "Ah, few can tell how hard it is to climb the steep ascent of science," &c.; how much harder, how much less inviting, when savage constraint and torture are superadded to toil and drudgery. That towards which a boy has a disinclination never can be flogged into him. Swift, the greatest master of language, the most powerful satirist of his day, would never study mathematics,—he ridiculed the science; had he been coerced, most probably he would have turned out an ignoramus. Masters, since Solomon, have been in error upon the point, and even Pope, who approaches the truth, is not wholly right in saying,—

> "'Tis education forms the common mind:
> *Just as the twig is bent*, the tree's inclined."

Away, then, with the vile system of dark ages,—that of flogging: there are more effective and more humanized methods of correction for the most stubborn dispositions. To chastise stolidity is utterly in vain, and it brutalizes the ferocious. The army has discarded it, and the London University has introduced a model discipline into the junior classes for the imitation of other schools which, to *their own disgrace*, retain it. These schools (ancient seats of learning) are for the present nameless. Q.

* Two years back Westminster School numbered only sixty pupils! Under the excellent management of the present able master it is rapidly on the increase.

THE LABOUR QUESTION.*

ONE of the most perplexing, and yet one of the most urgent, of the great questions of the age is that which relates to the rights of labour and the competitive system as between employer and employer on the one hand, and between workman and workman on the other. That there is here a problem which *must* be solved in some way ere long, unless we would have chaos come again, seems but too evident. Various schemes or systems have been set afloat in the course of the present century, by means of which sanguine minds fully hoped to be able to set the world in order. Socialism was at one time the most popular of these schemes. Under its benignant sway the world was to be converted into a paradise, without a God to shed the light of his countenance upon it. Men were to live in common, and to work—or at least to do what little work would be needed,—not for their own individual behoof, but for the general good alone. All hands might for a time require to be industrious, but at length much or most of what was requisite would fall upon the shoulders of the young only, as the natural servants of the elder and more reverend members of the community, these young, by the way, while yet children, owning no individual parentage, but belonging to the community at large, almost as much as if they were orphans without either fathers or mothers; while, so far as regarded the marriage tie, these millenial parents were much more to resemble those angelic and unsensual choirs among whom there is neither marrying nor giving in marriage, than what mere frail and fallible mortals are, or probably ever will be, in this world. No wonder that a Turkish paradise such as this had, for a time at least, not a few longing adherents. Socialism spread abroad over the land with rapid strides. Attempts, time after time, were made to lay the foundations of communities, who were, as far as possible, to act up to the precepts of their enthusiastic and well-meaning founder; but he as each and every attempt became abortive in succession, disowned the result, as arising only from ignorance of his true ideas. No one, indeed, seemed fully to comprehend these ideas, although many did their best to do so, and to carry them forth to their legitimate issue. Every endeavour, however, to establish an approximation to community of goods was unsuccessful. These endeavours certainly did not go far: they mainly consisted in attempts to establish labour exchanges, or general stores, by means of which

* "The relative Rights and Interests of the Employer and the Employed discussed, and a System proposed by which the conflicting Interests of all Classes of Society may be reconciled." By M. Justitia. Simpkin, Marshall, and Co. London. 1855.

"The Claims of Capital and Labour; with a Sketch of Practical Measures for their Conciliation." By William Pare. Ward and Lock, Fleet-street. 1854.

"Our National Sickness; or, a Word on, to, and for the Working Classes, showing their present Condition, socially, intellectually, and morally, and the desirableness and practicability of its being improved." By Stephen Shirley. London: Horsell and Shirrefs.

the working classes might be able, without the intervention of money, and merely by the production of articles of value, to purchase, or to exchange these for, other articles of value already in store, or which could be produced by others as required. This system of barter seems to have been established on the ground that the ordinary currency was not a true representative of wealth produced, as it ought to be, and that it was necessary to have a true representative; and, indeed, some substitute, if we mistake not, such as labour notes, or receipts for goods stored, was actually appointed in connection with the labour exchanges referred to. The whole thing, however, was, over and over again, a failure, and ceased to be repeated. Yet there was something like feasibility in it, too; and the doctrine that our monetary system is a false representative of wealth, appears to be in the main correct. Gold and silver were specially objected to, as in themselves intrinsically valuable, and subject to waste as well as restricted in amount, and hence unsuited to act as a mere representative of other property or wealth, or a fitting means of its mere exchange. That much evil must and does arise from such a strait-lacement of the money representative of the value of other property or goods seems to be evident; but how it is to be discreetly amended is another question. Connected with this, probably, is a great defect in the working of our commercial and industrial system to which we have before alluded, and which it is but justice to the impracticable socialists or communists, and to Mr. Robert Owen, as their leader and indoctrinator, to acknowledge that they appear to have clearly seen and pointed out;—namely, that while, for instance, to adduce a special case in point, ten thousand poor stocking weavers may be in absolute want of shoes and as many shoemakers in want of stockings, neither one nor other of these thousands or tens of thousands may be able to purchase what he wants, from want of wages, arising from want of marketable or money *demand* in their respective trades; and that even where middle men or speculators at length step in, as they certainly do, and set both to work to supply each other's actual wants, they overdo the necessary intervention to so enormous an extent, that they constitute a heavy and unprofitable burden on the producing community, and immensely and artificially increase the natural value and price of the goods wanted to those who are really engaged, or ought to be, in providing them for each other alone. As regards the general defect to which we allude, it may be said, indeed, to be an absurdity that there should ever be a want of demand for anything required or desired by any member of the community, so long as any one is actually in want of it, and is able and willing to produce some other desirable or necessary thing as an equivalent; and keeping this broad view in our eye, where are the actual limits of production, and why should any one be idle against his will? On the subject of what is called "overproduction," as well as on that of "proportionate production," there are some suggestive remarks, to which we can here only refer, in the small pamphlet on the claims of capital and labour named in the note at the beginning of the present article. The writer of this pamphlet suggests various measures for the amelioration of the state of the industrious classes, among which are,—an amendment of our monetary laws, in reference to production —early industrial training—a reform of our partnership laws—and a practical recognition of the rights of labour, as by the remodelling of our workhouses, or rather by the restoration of these *idle houses* to the purposes for which, as *workhouses*, they were designed, in the time of Queen Elizabeth. In respect to this last proposal, we do not overlook the tremendous meaning, *in our time*, which is involved in such a *restoration* as that suggested; nevertheless, being convinced that it is equitable and right that, on the one hand, the ratepayers should, to the utmost possible extent, be relieved of the pressure of poor-rates, by causing the able-bodied pauper to work out his own provision; and that, on the other hand, the unavoidably idle, or those in actual want of work,—exclusive of all strikers, as for mere increase of wages, or other grievance, real or affected,—*ought* to be "set to work," as designed by the law which originally established our workhouses;—we cannot conscientiously avoid the sincere and strenuous advocacy of a great extension of productive employment in our workhouses, as we have ever done. But at the same time we think it will be advisable, *simultaneously*, to afford an opening, to the more self-dependent and self-respecting workman, into the Eden (as it is to him) of capital, by the promotion of co-operative, associative, or joint-stock workmen's companies, based on very small shares of capital, and under protection of a new law of partnership, limiting individual liability to shares held. That the respectable workman would be likely, at any time, or under any new arrangements or facilities, to flood our *restored* workhouses, there is not the slightest risk. On the contrary, we are clearly of belief that actual work in the workhouse or its dependencies would tend to promote the respectability and the self-dependence of the poorer classes by emptying the workhouses; but this would be all the more likely, had they, at same time, a fair opening into other and more respectable sources of self-advancement, such as the associative or co-operative companies referred to. Yet we do not mean it to be understood that we feel quite sure of the success of these latter projected establishments. We suspect the working classes are scarcely as yet prepared to take prudent and permanent advantage of them: but something really must be done; and although it may be with some misgiving, since we can see no better or more likely way of lifting the labouring classes out of the slough of despond in which they are plunged, let us do what we can with the best of such means as are at hand. Those who desire to know how it is proposed in detail to work out such joint-stock co-operations as those suggested, may peruse the scheme developed in the first of the three treatises to which we have referred. The scheme there drawn out has, no doubt, its peculiarities; but the author (who would seem to be a clergyman, if we rightly understand an allusion to "a Christian minister") is mistaken, we think, in supposing that such schemes have not heretofore been suggested in detail, or proposed to so great an extent as now. Some years since we gave an account of Mr. Silk Buckingham's scheme for model villages, and others have to a great extent developed such ideas. Although essentially different, too, as regards individual property, and distribution of profits, both of which are of course to be respected in such companies, there is not a little in common, of course, in such schemes, with those of the Socialists themselves; and, indeed, there has been, or is a Society of Christian Socialists, who have advocated something like the same principles. Even the engraved parallelograms of Robert Owen and others have a close resemblance to that of "M. Justitia." We do not say so in reprobation of them: far from it. To Mr. Buckingham's, indeed, we have not specially objected; and the most commendable may in such respects resemble the most objectionable. Every thing depends on the prudence and practicability of the scheme itself; and the less outrageously different it may be from the present state of things the better. Joint-stock companies in the abstract are no novelty; neither are Saltaire mills and other extensive assemblages of workmen and their domiciles. The essential and only necessary peculiarity in addition here, is the common though limited partnership interest; and as "M. Justitia" remarks, even under the present law of unlimited liability, the working class, or the man of skill and sinews, has certain advantages in connection with such joint-stock companies which the man of property does not possess. The law may take away the property of the capitalist, and give it to the creditor, but it will not take the workman's sinews nor his skill.

NEW CHURCH IN WESTMINSTER-ROAD.—Arrangements are in progress for the erection of a new church, a few yards east of the rear of the Roman Catholic Cathedral, Westminster-road.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

AFFECTIONS of the chest, including the various diseases of the lungs and heart, are among the most prevalent of those to which the inhabitants of this country are exposed; and they are, for various reasons, especially frequent and fatal among the indigent portion of the population. They are also diseases which pre-eminently require for their relief those means which can only be afforded in the wards of a hospital. The accommodation for cases of this description in this metropolis, is, however, not at all commensurate with their number, and it is imperatively necessary to provide additional means for their treatment. This has already been to some extent done, by the establishment of the Consumption Hospital at Brompton; but in the City and eastern districts, where the larger portion of the labouring population reside, a deficiency has hitherto existed.

To meet this want, the City of London Hospital for Diseases of the Chest was established; and in 1851, the first stone of a hospital, designed for the reception of eighty in-patients, and with full accommodation for the out-patients' department, was laid at the Victoria Park, by His Royal Highness Prince Albert.

The hospital is now completed and opened for the reception of patients; but the cost of its erection, owing to the anxious desire of the committee to make the internal arrangements as perfect as possible, has greatly exceeded the funds obtained. There is still a debt on the building of 6,000*l.* and the further liabilities (including the cost of maintaining the establishment during the present year) cannot be estimated at less than from 4,000*l.* to 6,000*l.*

We give a view of the building, and shall be glad if we obtain supporters for the establishment.

The number of patients admitted to the benefits of the charity, from the 31st of December, 1853, to 31st December, 1854, has been	4,570
Patients admitted from the opening of the institution in 1848, to the 31st of December, 1853	18,245
Total to 31st December, 1854...	22,815

The architect employed was Mr. Ordish, and the builder Mr. George Myers. The warming and ventilating arrangements were executed by Mr. W. Jeakes, and the enclosure of the site by Messrs. E. and R. Dewer. The cost of the building, including the gas and some other fittings has been about 17,200*l.* There is accommodation at present provided for eighty in-patients, with every convenience for the treatment of a large number of out-patients. It is proposed hereafter to extend two wings rearward, so as to afford accommodation for 160 in-patients. The internal arrangements have been carried out with great care and attention, in order to render the hospital as far as possible a model of its kind. Mr. Richard Slater, of Liverpool-street, Finsbury, is the secretary of the charity.

PROCEEDINGS IN THE DISTRICT OF LEWISHAM.

AN association has been formed in this parish to nullify any proceedings that may be taken by the district surveyor to carry out the rules and regulations of the Metropolitan Buildings Act. It is for the Secretary of State for the Home Department, Sir George Grey, to determine how far such an association is legal or otherwise. If any individual of this association may have been thwarted in his particular views with regard to the Act, he can thus at a small cost indulge his pique by a malicious prosecution. The monstrous character of this association was brought before the bench of magistrates at Maidstone. To this it was replied by way of rejoinder, by the counsel for the association, that the district-surveyors had a similar association, whose funds were available in a similar manner for the protection of its members. This assertion is utterly untrue, but passed uncontradicted: the funds or other means of the surveyors' association have never in any one instance been applied for the benefit of any individual member.

CONSTANT READER.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, BONNER'S FIELDS, VICTORIA-PARK.—Mr. F. W. Ordish, Architect.

CHURCH BUILDING NEWS.

Newport.—It was stated some time since, that on the restoration of St. Thomas's Church, at Newport, in the Isle of Wight, her Majesty intended to erect a monument to the Princess Elizabeth, the daughter of the unfortunate Charles I. who was buried in that church. Baron Marochetti, the sculptor, according to the *Hampshire Advertiser*, is now carrying out the Queen's design. The monument will consist of a statue, representing the unhappy princess in her last moments, having in her hand the Bible given to her by her father. The statue will be placed in a niche in the church.

Watlington.—Pyrton Church, which was built some two or three hundred years since, is about to be pulled down and rebuilt.

Chippenham.—The new church, to be called St. Paul's, close to the Chippenham Railway Station, is now completed, as far as the funds will permit. This church, the foundation-stone of which was laid by Mr. J. Neeld, M.P. on Feb. 21st, 1854, was designed by Mr. Scott, and it has been erected by Mr. David Jones, of Bradford, Wilts. The style is Decorated, of the fourteenth century, and the edifice consists of a nave with a clerestory, lighted by clerestory windows, and two side aisles. On the north side of chancel is the vestry; and on the south side, inside the communion rails, are sedilia. The seats in the chancel are of carved open work. The chancel is laid with Minton's encaustic tiles. There are 410 free sittings, 153 free sittings for children, and 240 to be appropriated, making a total of 803. The tower, forming a porch at the south-west end, to be surmounted with a spire, cannot be completed at present from want of funds. The total cost of this church will be a little more than 4,000*l.*

Wells.—A handsome monument, says the *Taunton Courier*, has just been placed in Wells Cathedral over the remains of the late Dean Jenkyns. It is in the Mediæval style of art, and the material used is Caen stone. Round the base runs a border of Poppy foliage, and on the top is a cross, each extremity of which terminates with a lily carved in high relief. On the bevelled surface of the north side is the inscription. The monument is placed on a level with the floor, and thus loses much of the effect it would have produced had it been raised on a plinth of some twelve or eighteen inches high. As a work of art, adds our authority, the monument reflects great credit on the artist, Mr. Forsyth, of London, a young and rising man, who executed a considerable portion of the stone and wood carving used in the recent restoration of the cathedral.

Hooe (Devon).—The new church here, described in our last volume, is completed, and will shortly be consecrated. Schools, with master's house and offices, are also being built at a cost of 750*l.* exclusive of fittings. It is intended to erect a parsonage-house, the works for which will be begun forthwith. Messrs. May, builders, of Devonport, are executing the works of the school-house, under the direction of Mr. White, architect.

Birmingham.—The foundation-stone of a new synagogue was laid here on Thursday before last, on a site in Blucher-street, not far from the present building. Mr. H. R. Yeoville, architect, has prepared the plans, in the Byzantine style. The synagogue will be 80 feet long by 60 feet wide, within the walls, divided into nave and aisles by arcades of seven arches on either side, and arranged in two orders, the lower one to give support to the galleries (which are carried over the aisles and across one end), the upper one supporting a semi-circular enriched ceiling. The sanctuary will be semi-circular, with an arcade of columns, having enriched capitals, carried round, and opening to the main building by a large and bold arch, supported by four columns of a similar character to the others. The elevations to Blucher-street will consist of a triple-arched porch, placed in advance of the main building, and flanked on either side by two residences, thus forming three sides of a quadrangle, the fourth being open to the road, and screened by an iron palisade. The whole will be worked in brick, with white brick and Kingswood stone dressings. The estimated cost of the whole will be 6,000*l.*

Sheffield.—The congregation of St. Thomas's, Crookes, have placed in the church a monument to the memory of Mr. Owen, their late pastor. The style is Gothic, of statuary marble, mounted on a black ground, 7 feet 6 inches high by 4 feet 3 inches wide, having clustered columns, with a panelled pedestal resting upon carved trusses. In the recess, within the Gothic arch, is carved a sacramental slab and drapery, supporting an open book, chalice, and bread, relieved in the background by the rays of glory. The tablet bears a suitable inscription.——The foundation-stone of a new chapel for the Primitive Methodists of this town was laid in Stanley-street, Wicker, on Tuesday before last, by Alderman Pye Smith who stated that the Primitive Methodists had 1,850 chapels of their own, besides a great number rented from others; and that they had 125,000 Sunday scholars and 23,000 teachers.

Heckmondwike.—A new Congregational chapel was opened here on Friday before last. It is a plain building, capable of holding 800 or 900 persons, and has cost about 2,400*l.*

Halifax.—The foundation-stone of the new Congregational chapel about to be erected in Square-road, was laid on Tuesday before last.

Doncaster.—The foundation-stone of the cemetery chapels was laid here on 9th inst. by the mayor. The architect who furnished the plans is Mr. R. J. Johnson, of Newcastle-upon-Tyne. Messrs. T. and C. Anelay, of Doncaster, are the builders, and Messrs. S. Appleby, W. Bradley, and W. Boddy, are the contractors for planting and laying out the ground. Mr. W. Green is clerk of the works.

York.—The foundation-stone of a new Wesleyan chapel was laid in Micklegate, on Easter Tuesday. The land is said to have cost about 2,000*l.* and 4,000*l.* is the estimated cost of the new building, which will accommodate between 1,500 and 1,600 persons, 350 free. The new chapel, therefore, will be about as large again as the one at present in use in Albion-street, which will hereafter be closed. The architect is Mr. James Simpson, of Leeds.

Gallyhurst.—St. Oswald's Church, Gallyhurst, Lancashire, was consecrated on Sunday before last. The site, with that of a parsonage and schools, is the gift of Sir Oswald Mosley, Bart.

PROVINCIAL NEWS.

Burnham.—On Tuesday before last the foundation-stone of the intended National Schools, about to be erected here by Mr. G. Reed, was laid. The building will be in the Early English style, and will comprise one school for boys and another for girls, besides a residence for the master. It will be 57 feet by 39 in width, and calculated to accommodate about 200 children. The cost of erection is estimated at about 1,000*l.* Mr. Salisbury, of Burnham, is the builder.

Chirk.—At a meeting of the trustees of the Wem and Bronygarth district of turnpike roads, on 28th ult. for the purpose of considering the feasibility of making a new line of road from Bronygarth through the vale of the Geiriog to Llansaintffraid and Llanarmon, and also from Bronygarth through the same vale to Chirk, two plans were submitted to notice, one previously approved of by the lord-lieutenant of the county, Colonel Biddulph. This was selected, and steps were immediately taken to petition Parliament for an Act to make it available, and also to procure loans to effect the desired object. The inhabitants of the Vale of Geiriog are aware doubtless of the benefits to be derived from a good line of communication between them and the railway at Chirk, and also the market-town of Oswestry. At present coals are supplied to a great portion of the inhabitants on the backs of donkeys. The adjacent mountains abound in slate, which, on account of bad roads, does not meet with a very ready sale. The new line of road, it is believed, will be one of the most picturesque drives in the Principality.

Leeds.—We are requested to state that the plasterers' work at the Leeds and Yorkshire Assurance Offices, was executed by Messrs. James Wilson and Son, of Leeds, assisted by skilled workmen from London.

Bradford.—The Exchange News-room here, now reopened, has been closed for several months in consequence of workmen putting down a new floor in the upper room, rendered necessary by an accident at a public meeting. The occasion has afforded an opportunity for adding to the ornamentation of the ceiling of the news-room. A design, by Messrs. Andrews and Delauney, architects, has been executed by Messrs. Duckworth and Holroyd.——The foundation stone of the Bierley Union Workhouse, was laid, near Bradford, on Thursday before last. The site is in the parish of Calverley. The buildings will be erected from plans prepared by Messrs. Lockwood and Mawson, of Bradford, architects. They will cover an area of 1,200 square yards, and will consist of an entrance building, containing board-room, waiting-rooms, three relieving offices, probationary wards, and vagrants' wards; the centre occupied by the main building, affording accommodation for the able and the infirm, and having airing courts, laboratories, bath-rooms, &c. for each class of inmates. Connected with the main building will also be the kitchens, offices, and dining-hall. Farther in the rear, to the north, will be the workshops, wash-houses, and laundries; and at the extremity of the premises will be a detached building to serve for the purpose of an infirmary, with separate fever wards, and accommodation for idiots. The workhouse will be of stone, and in the Italian style of architecture, and will afford accommodation for about 450 persons.

Darwen.—On Monday before last, the foundation-stone of the new schools belonging to the Duckworth-street Congregational Chapel of this town was laid.

Southport.—The Southport Waterworks Company have let to Messrs. Farrell and Brownbill, of Manchester, the contract for the construction of an engine-house for two waterworks steam-engines, boiler-house for three boilers, cooling pond, covered service reservoir, cottage, walling, &c. The mains are laid within a few yards of the town, and those along the streets will shortly be proceeded with.

Gainsborough.—The plans for the waterworks and drainage of this town have at length been submitted to the local board, and Mr. Ranger has been sent down by the general board, and reports, it is said, that there are some deficiencies in the plans, and that the estimated cost of 16,000*l.* is too large a sum for a town like Gainsborough to provide.

South Shields.—The receipts of the first year of the South Shields Baths and Washhouses are satisfactory, being about equal to the third year's receipts of the Sunderland establishment, according to a local paper, and nearly equal to the first year's receipts at Monkwearmouth. There have been upwards of 600 more bathers during the first six months at Shields than during the first twelve months at Monkwearmouth; and the corresponding total receipts are, Monkwearmouth, 267*l.* 8s. against 206*l.* 12s. for Shields. It is expected that the income will be upwards of 500*l.* at the end of the first year. The cost of the building, exclusive of the ground, fittings, &c. was 3,066*l.*

Sunderland.—The corporation of Sunderland has set a good example to the north-eastern towns by laying out a site, known as Building-hill, on the west side of the town, as a people's park and public pleasure grounds. The park, which is now about completed, has been laid out by a gentleman from Chatsworth. It is within easy distance of the centre of the town, and commands extensive views. The grounds were visited by thousands during the Easter holydays, including a large proportion of working men with their families.

Newcastle-upon-Tyne.—The Admiralty report that the new line of quay to be built under the powers of the Newcastle Improvement Bill, commences at the Swirle, about 700 yards below Newcastle bridge, and extends down the river a distance of about 750 yards, terminating at the Ouseburn. The river wall, to sustain the quay, projects beyond the present line of shore into the tideway from 40 to 60 feet; and although this encroachment on the tidal area is not without its effect in diminishing the backwater, their lordships are of opinion that the same will be more than compensated for by the

improved line of river wall. They, therefore, assent to the proposed line of quay.

Edinburgh.—A committee of the City Police Commissioners have resolved to recommend to their board the appointment of an officer to superintend the drainage of the city, and to look after the streets and buildings, &c. at a salary of 300*l.* with Mr. Blyth, the present superintendent of streets and buildings, under him, at a salary of 100*l.* and with two assistants at smaller salaries. Some such arrangement, according to the local papers, has been rendered necessary by the appointment of Mr. R. Paterson, who has been discharging some of these duties, to a situation under the Valuation Act.

Dublin.—The committee of the Catholic Deaf and Dumb Institution, are about to commence an extensive new asylum at Cabra, within three miles of Dublin, for the accommodation of 200 children, with dwellings for chaplain, masters, and domestics, attached. The plans of Mr. Charles Geoghegan, architect, have been accepted, and under his superintendence the buildings are to be completed.

Guernsey.—The contractors for the new harbour-works are erecting scaffolding on the north beach, preparatory to the commencement of the sea-wall, which is to extend from the north pier to the southern extremity of Glatney Esplanade. A large quantity of stone, to be used in the formation of the wall, has already been deposited on the spot. There is no sign of a continuance of the new south-arm towards Castle Cornet.

Grouville. — According to a local paper, quoted by the *Jersey Times*, the foundation stone of the Grouville Central School, was laid on Monday in week before last.

THE LATE MR. JAMES RATTEE, ECCLESIASTICAL CARVER.

THIS gentleman, well known to the majority of our readers by his works, was born at Fundenhall, in Norfolk, in 1820. He was educated at the best school in the neighbourhood, and apprenticed to Mr. Ollett, of Norwich, as a carpenter and joiner. He worked but two years at this branch. His natural love of the beautiful led him frequently into the cathedral and other churches of that city and county, to study the relics of Christian art, and at his request Mr. Ollett (who was employed on the cathedral) taught him carving, at which he displayed unusual skill and ability. When twenty-two years old he left Norwich, and commenced business on his own account in a humble way in Cambridge.

The Cambridge Camden Society soon discovered his talent, and appointed him their wood-carver. From this period the success that attended his future brief career may be dated. He was associated with Welby Pugin in restoring Jesus College Chapel. The designs, it is stated, were made chiefly by Mr. Rattee, and submitted to Mr. Pugin before execution. Health, however, forsook him: his body proved too frail for his overtasked brain.

By the advice of his best friend and counsellor, Mr. G. Scott, he spent part of the year 1852 on the Continent in recruiting his health, and in studying the principles that guided the master spirits of Louvain, Lubeck, Cologne, Hamburgh, Antwerp, Malines, and other cities, in the construction and manipulation of carved woodwork, artistically wrought ironwork, and sculptured stone. The information derived from this tour is shown in the choir of Ely Cathedral, where he has carried out the architect's designs with the true feeling of the ancient craftsmen. The oak screen, stalls, and organ-case, with the restored tomb of Bishop de Luda, were so exquisitely wrought, that to him was entrusted alone the construction of the reredos, which is composed of choice stone and alabaster, highly enriched with delicate carving, and inlaid with gold and gems, forming, perhaps, the most elaborate piece of art-workmanship executed since the Reformation.

His work is to be found in Newfoundland Cathedral, Westminster Abbey, Perth Cathedral, S. Michael's, Cambridge, and Merton College Chapel, Oxford; the restoration of Eton College Chapel, Magdalen College Chapel Cambridge, and Trumpington Church, besides a large number of partial restorations under various architects.

On the 27th of March he was at Guilden Morden Church, and there took cold, and on the 29th died. He was buried in the Cambridge Cemetery on the afternoon of Good Friday, 1855, where 1,500 persons were assembled to evince their admiration of his abilities, and their respect for his character.

COMPETITIONS.

Taunton Assize Courts.—At a meeting of the Building Committee, held last week, in Taunton, it was decided, after some discussion, to commence the works at once, according to the designs and estimates furnished by Mr. Moffatt. The contract for the building was at the same time offered to Mr. George Pollard, builder, of this town, at the sum estimated by the architect, and accepted, subject to future arrangement with respect to some minor details.

Grimsby.—It has been resolved, on the recommendation of the Committee of the Town Council, appointed to examine and report on the plans prepared by Mr. Micklethwait for a corn-exchange and covered market, that the ground-plan, with the corn-exchange on the site of the shops and buildings occupied by Mr. Bennett, Mr. Askey, and others, and the covered market on the site of the old Granby inn and town-hall, be adopted, and that elevations and designs, with detailed estimates, be advertised for, and a premium of 25*l.* offered for the design selected.

New Corn Exchange, Hull.—One of the competitors asserts that this "affair has been characterised by a shocking want of integrity and honour." He says, that amongst the conditions were these: that the estimates should be within the limits of 3000*l.* and 4000*l.*; the roof to be formed of iron; the elevations and sections to be in outline as well as the interior view. That in the premiated designs,—The roofs were not designed to be formed of iron; the drawings were not in outline, but actually shaded and coloured; and that the tender now accepted amounts to no less a sum than 5,200*l.* for the naked building alone, without any fittings whatever, and not even pipes for the gas.

Aberystwith.—Sir: I am able to relieve the anxiety of your correspondent, who "wants to know something about the competition for a clock-tower at Aberystwith." I observe in the local paper a paragraph to the effect that, at a meeting of the Aberystwith Commissioners on Thursday last, "5*l.* was ordered to be remitted to Mr. G. J. Owen, of Liverpool, architect, for the design selected, and others ordered to be returned, carriage paid." If I had not been informed that upwards of eighty (!) designs were sent in for this trumpery 5*l.* competition, I should have felt some surprise that an inquiry on such a paltry subject was considered worthy a place in your columns. As it is, I can only feel that my profession is degraded by those who, in accepting such terms, justify the insulting allurements of burial boards and town commissioners. AN ARCHITECT.

RAILWAY MATTERS.

The works for the line between Plymouth and the Tamar are being pushed forward. The Royal Albert-bridge at Saltash, is also progressing. The cylinder for the erection of the centre pier is now on a perfect foundation as far as examined in the eleven compartments, the masonry for which was commenced on 4th instant. Mr. Brunel, the engineer, made a third inspection on Saturday before last, remaining in the cylinder (under pressure) one hour and twelve minutes, on which occasion what is termed the foundation stone was laid. The workmen employed remain below, a depth of 88 feet, from two to three hours at a time, and appear to suffer from the pressure far less than might be anticipated.——The Boyne Viaduct, on the Dublin and Belfast Junction, was opened on Thursday week. The work was executed partly by contract, and partly by the company themselves. We have already more than once given notes of its progress, but may here observe, that it is described as consisting of sixteen stone arches, and three openings formed of wrought-iron lattice-work. The stone arches rest on high slender piers, composed of the same material as the arches, blue limestone; the quoins and string courses of light grey stone. The span of the stone arches is 60 feet, and the centre opening of the iron work is 265 feet, with two side openings of 126 feet on each side. It is wide enough for two lines of rails. The weight of wrought iron is said to be about 730 tons, not one-third of the weight required for a tubular bridge of same length. It is stated that it has been tested by the Government inspector, Major Wynn, and that 1,200 tons were placed upon it, without causing more than an inch and a half of deflection in the middle of the largest span. The height over the river at high-water is about 100 feet. There was great difficulty encountered in laying the foundation of some of the piers, in consequence of the very soft sand and mud that was found on the north side of the river.——The *Cambrian* newspaper announces the death of Mr. Wyndham Harding, who died on Tuesday before last, near Cheltenham, in his 37th year. Mr. Harding, as the *Cambrian* justly remarks, was too well known in the scientific world to require any eulogium on such an occasion. He was for many years secretary to the South-Western Railway Company. As a philanthropist, hundreds feel grateful for his exertions in assisting and advancing loans to emigrants. In every sense he was the working man's friend.——Cavaliere Bonelli (the director of telegraphs in the kingdom of Sardinia) has commenced experiments with his newly-invented "locomotive telegraph," wherewith he professes to communicate from a train in motion with any station on the line, or with another train on the line. The result is naturally looked for with much anxiety.

Notices of Books.

How the Poor may be taught without compromise of Principles or Opinions. CALDER, 199, Oxford-street, London. 1855.

THIS is a small treatise, or rather tract, on a great and important subject. Its object is to suggest a new way of attaining an end to promote which much more has been attempted hitherto than effected, and in regard to which opposing opinions, especially in respect to religious doctrine and sectarian prejudice, have as yet but neutralized each other in the midst of the earnest and sincere endeavours of all to realize the object in view. The method suggested by the author of the tract under notice is one which steers clear of all such sources of failure, and, on the contrary, may unite all sects in hearty co-operative efforts for its realization. The only doubt is that such a method, in its adoption, may be regarded as rather hard upon the poorer orders themselves, inasmuch as it would seem to throw an additional obstacle in the way of their obtaining employment. The proposal is that a law be passed compelling all employers of children or youths of a certain age, to reject such as do not possess and produce a proper or appointed educational certificate of a not very stringent order, employers as well as employed (or those responsible for the latter) being finable, unless in exceptional cases, for infringement of the law. A demand for education, it is suggested, would thus be excited amongst those who, as yet, unfortunately, may be said, as a class, to manifest no such demand or desire, but on the contrary, require to be besecched and coaxed, by philanthropic well-wishers and promoters of gratuitous education, to allow their children to be educated. There is certainly much strong shrewd sense in the idea; and it seems exactly to meet and to neutralize the serious defects in the present well-intended efforts of those interested in the progress of the lower orders. As regards the idea that such a method as that suggested, of creating a positive demand for education amongst the lower classes, and of closely associating in their minds employment with mental improvement, would throw an additional obstacle in the way of those who have already great difficulty in earning an honest livelihood, there may be something in it; but we must look to the ultimate benefit as a compensation; and besides, there are social and political reasons of paramount force in favour of the elevation and enlightenment of the more brutally ignorant amongst the population. There are other ostensible objections to the idea suggested, all of which the author declares himself quite prepared to meet; but as to these other objections, there really seems to be even less force in them than in those we have alluded to. That this little pamphlet at all events will, ere long, induce discussion, we have but little doubt; and we do think it is well worthy of the fullest consideration. The author is known to be one who has long devoted time to the education of the poorest classes.

VARIORUM.

A NEW candidate for popular favour has just appeared, in shape of a "Quarterly Journal of Public Health, and Record of Epidemics and Hygiene," edited by Dr. B. W. Richardson, and published for the proprietors by Highley, of 32, Fleet-street. The number now issued is that for the first quarter of the present year. It contains various articles on sanitary science, besides a record of the transactions of the Epidemiological Society; and the new journal on the whole bids fair to become a valuable periodical. Still it must do better if it would

thrive. Its special attention to the subject of epidemics is an important feature, and in the present number, besides the transactions alluded to, there is an interesting article on the ancient occurrence of epidemics, pestilences, plagues, &c. and local reports from various towns on epidemics and other cognate subjects. The army, too, has timely attention given to it, in articles on its sanitary regulations and condition, together with an account of Xenophon's opinions on the sanitary management of armies, &c.——A Lecture to the Working Classes of Cheltenham on Sanitary Reform and the Health of Towns, by Mr. H. Dangerfield, Architect, and Borough Surveyor, has been printed at the request of the Working Men's Committee of Cheltenham. The *Local Free Press* reports that the lecture, when delivered, was listened to with deep attention. Indeed, it is pleasing to observe the interest which the people, and particularly the working classes, now appear to take in sanitary science when expounded to them in the form of popular lectures.——A small treatise on "Composition and Punctuation," by Justin Brenan, has been issued in the form of a "People's Edition," by Wilson, of the Royal Exchange, London. It is intended as a familiar explanation for those who have neglected the study of grammar, and for the use of the artizan and mechanic in particular, as well as for foreigners learning English, to facilitate their progress in the understanding of the language. There is a good deal of originality in this little treatise, and much of what is said *versus* previous writers on the subjects treated of is true; but we demur to the author's own "system" of punctuation, which he comprises in the dash, in every case, throughout sentences, where semi-colons and colons ought to be. The author of this system proposes thus to dash out the semi-colon and colon not so much because he denies that these are right elements of punctuation when rightly applied, but mainly on account of the trouble and difficulty of arriving at a correct knowledge of their proper application,—a free and easy "system" truly! Why the very efforts of mind necessary in the endeavour to attain to the right use of the semi-colon and colon are of importance in promoting a correct understanding of the construction and composition of sentences, as well as psychologically, as a mental gymnastic. The writer who cannot go farther in punctuation than the comma, and who cuts the Gordian knot of his own ignorance by obliterating all the higher or farther punctuative *numerals*, as we may call them, and remaining satisfied with the dash as a common substitute for at least more than one distinct numeral, each differing in strict value and meaning from the other, can only be compared to one who can count but two or three, and confounds all higher numbers together as *many* or *innumerable*. ——The current number of the *Quarterly Review* has a well-written article on the Crystal Palace, pointing out its value, and praising, for the most part, the arrangements. The writer objects in strong terms to the way in which polychromy has been applied. There is an interesting article, too, on forest trees, with a brief reference to the *management* of the Royal Forests.

Miscellanea.

ST. JAMES'S-PARK.—May I call the attention of the Chief Commissioner of the Woods and Forests to the great advantage it would afford the public if an entrance could be made to the inclosure of St. James's-park, opposite the steps leading down from the Duke of York's Column, as at present you have to walk to the entrance opposite the Horse Guards or St. James's Palace.—F. J. W.

TELEGRAPHIC PROGRESS.—Prof. Edlund, a Swedish *savant*, of the Royal Academy of Sciences, is said to have succeeded last year in so improving the construction of the electric telegraph apparatus, that it becomes possible to send messages by the same wire simultaneously in two opposite directions. The principle on which this discovery is based is said to be altogether different from that applied by Dr. Gintl, at Vienna, which was found not to succeed. As soon as the needful number of apparatus are constructed, they are to be introduced at every telegraph station in Sweden. The alteration, it seems, is not expensive.

THE GREAT RAIL QUESTION.—The manufacture at the Rhymney Works, Monmouthshire, of the *heaviest* rail ever made, a Barlow rail, 52 feet 6 in. long, 90 lbs. to the yard, total weight 1,575 lbs. was lately noticed. Attention has since been drawn to the *longest* rail ever made, a double-headed rail, 60 feet long, 75 lbs. to the yard, total weight 1,500 lbs. which has been recently manufactured at Tredegar Works, Monmouthshire. The Rhymney rail is one-twentieth heavier than the Tredegar rail: the Tredegar rail is one-seventh longer than the Rhymney rail. The Emperor of the French has allowed some thousands of tons of rails to be admitted into France lately at reduced duties. A large quantity of these has been manufactured at Tredegar, and the rail referred to is of the "section Maniel," so called after the engineer of the Great Northern of France. The workmen turned out the rail without cost to their employers for labour, and at the end of a week's work.

STATUE OF JEFFREY AT EDINBURGH.—The pedestal is now being put up in the Parliament House for the statue of the late Lord Jeffrey, which has been executed by Mr. John Steell. A corresponding niche is to be filled by a statue of the late Lord President Boyle, which is in the hands of the same sculptor.

WISBECH-BRIDGE.—The removal of this bridge, as lately noticed by us, is, it appears, a source of much regret to the inhabitants, having been one of the leading features of the town. Its rusticated elliptical arch, of 74 feet span, surmounted by a neat and well-proportioned cornice and balustrade, are said to have had a very pleasing effect. The cause of its removal is to allow of extensive works (under the Nene Valley Act) being constructed by Mr. Leather, of Leeds, under the superintendence of Mr. J. M. Rendel, the engineer-in chief. A new wrought-iron girder swing-bridge, not very ornamental it would seem, will shortly be erected near the site of the old one.

CANNON-SPIKING. — A Brighton correspondent, Mr. T. M. Feist, suggests, that to prevent the enemy from spiking our guns, the touch-hole ought to be fitted with a massive cap of plate iron, 5 inches broad and 1 inch thick, bent into a semicircle, to suit the semicylindrical girth of the gun, and hinged on the right, with a strong spring lock on the left, acting at once when the cap falls, but requiring peculiar manipulation, by four men acting on indices, to open it. This latter protection he proposes in preference to keys, which might be lost. By such means, he thinks the advantages afforded to the enemy by spiking the guns might be obviated, as the cap could be in an instant thrown over the touch-hole and locked by a single man, while the peculiarity of its opening, and the number of men required, would be likely, in most instances, to prevent the possibility of the enemy being able, in the hurry and struggle of attack, to spike the gun.

SATURDAY THE PEOPLE'S HOLIDAY.—It is being urged by those who aid the early closing movement, that now that Saturday is becoming a business holiday to a certain extent, such places of recreation and instruction as the British Museum and National Gallery ought to be open to the people generally on Saturdays, and some other day chosen for more exclusive purposes; that Saturday ought to be a shilling day at the Crystal Palace, more especially in this, as in other instances, since this day is a half-holiday in schools as well as in business; that Saturday should be the sixpenny day at the Zoological Gardens; that the time for delivering the lectures on English at Gresham College should be changed to the evening; that the Dulwich Gallery should be continued open till eight p.m. in summer; and that the National Gallery should be thrown open till ten p.m. at least twice a week; and the British Museum at least thrice a week from six till ten p.m.

GAS.—At the London Gas Company's half-yearly meeting, lately held, the accounts are said to have showed a profit of 5,042*l.* 14*s.* 2*d.* of which some 3,746*l.* 15*s.* 6*d.* was recommended as a dividend. The report stated that the expenses of changing the mode of manufacture, and laying down fresh mains, had fallen very heavily on the last half-year's revenue. ——At the half-yearly meeting of the Lincoln Gas Company, the usual 10 per cent. dividend was declared. The affairs of the company are said to be in a most flourishing condition.

THE POLYTECHNIC INSTITUTION. —The active manager of this institution, Mr. Pepper, has added a fresh entertainment to the attractions of this excellent institution, under the title of "Sam Slick at Home and Abroad, with Sparks and Specs of American Humour." This is illustrated by an entirely new Moving Diorama, depicting the mail steamer's passage from Liverpool across the Atlantic; embracing a visit to important cities and places in the United States. It would be improved if the gentleman who delivers the running commentary were to omit the "jokes," which are mostly dreary; but the views are very good, and the amusements, as a whole, are admirable.

LIGHT AT A FIRE.—Having frequently attended fires, it has occurred to me that it would be a good contrivance to have a branch from the gas main and a large burner fixed near each fire-plug; so that whenever required, the gas could be instantly turned on, affording ample light for the fixing of the hose, &c. The jets of flame would distinctly mark the position of the plugs in action, and would tend to prevent loss of time and much of the blundering and confusion consequent upon working in the dark. The cost would be trifling.—J. B.

THE ARCHITECTURAL JURY: PARIS EXHIBITION. —The following gentlemen constitute the jury for the examination and admission in the section of architecture: Messrs. Caristie, De Caumont, Duban, De Gisors, Hittorff, Labrouste, Lassus, Le Bas, Lefuel, Lenoir, Lenormant, and Viollet-Leduc.

BRIDGEWATER HOUSE.—Sir: The pleasure I have often found in seeing the beautiful façade of Bridgewater House, is, I regret to say, daily on the decrease, exactly in proportion as the *zinc tubes* of the chimney doctor are on the increase. I believe I am right in saying, that there are now five tall boys and three short ones towering above the general skyline of the building. Surely the architect cannot be aware that this is the case, or he would prevent the chimney doctor from humbling him to the exaltation of himself and his chimney-pots, by adopting some method of curing the smoky chimneys without marring the appearance of one of the finest private dwellings in London.—A. F.

HOME-MADE CHLORIDE OF LIME. — Professor Nash says, take one barrel of lime, and one bushel of salt. Dissolve the salt in as little water as will dissolve the whole. Slack the lime with the water, putting on more water than will dry-slack it, so much that it will form a very thick paste: this will not take all the water. Put on, therefore, a little of the remainder daily, until the lime has taken the whole. The result will be a sort of impure chloride of lime, but a very powerful deodorizer, equally good for all out-door purposes with the article bought under that name at the apothecary's, and costing not one-twentieth part as much. This should be kept under a shed, or some out-building. It should be kept moist, and it may be applied wherever offensive odours are generated, with the assurance that it will be effective to purify the air, and will add to the value of the manure much more than it costs. It would be well for every farmer to prepare a quantity of this, and have it always on hand.

YANKEE INGENUITY.—The little steamer *Surprise*, built to run on the Androscoggin, and recently reported as in "winter quarters," says the *Oxford (Me.) Democrat*, has rather a novel shelter. The owners drew it upon the shore in a cove, and built a saw-mill over the steamer, using the engines as a motive power for the mill, while the mill answers the purpose of a boat-house.

MODEL OF THE '51 EXHIBITION BUILDING.—A remark on Mr. Dighton's model of the Hyde-park building in a recent number has brought us intimation that it is, unhappily for the modeller, still in his hands. It should be purchased by the Royal Commission as a memento of the event. The same able artist has just now completed a model of the "Sunderland Docks" for the French Universal Exhibition.

ANTWERP CATHEDRAL.—The extracts given last week by "J. A. P." show very satisfactorily how difficult it is to obtain decisive information, especially with regard to measurements. The plan given in the "Dictionary of Architecture," now being issued by the Architectural Publication Society, was reduced from that given in the magnificent large folio work entitled "*Chiesi principali d'Europa*." Milan, 1824. The drawings being to a large scale, may, perhaps, be considered sufficient authority for the sizes in question. The dimensions are not figured, but the scale gives 397·31 feet for the length of the interior, and 220·79 feet for the length of the transept. Both of these closely approximate to those given by Schayes; but the same work gives the height of the tower to the foot of the weathercock as 420·27 feet. The superb northern tower has been variously stated at from 366 feet to 466 feet in height; but is fixed at nearly 403 feet, inclusive of 15 feet for the cross, by Serrure, who states that it ought to have had another story, but that the slowness of its construction gave occasion for the substitution of the present termination in the *style Flamboyant*. It has been published separately, in a work of eight plates, by Serrure, folio, Antwerp, 1840.—W. P.

SUPPLYING PARIS WITH WATER.—A project is entertained in Paris for supplying that city with pure spring water, instead of from the Seine. It is contemplated to divert the waters in the valleys of the Marne, between Chalons and Epernay, and conduct them, by means of a gigantic aqueduct, into the city. By this means a supply of 21,600,000 gallons a day of twenty-four hours could be delivered throughout Paris at a height of about 250 feet.

NEW JOINTING FOR GAS, WATER, AND STEAM-PIPES.—Messrs. William Smith and Thomas Phillips, of Snow-hill, have patented a new mode of constructing and connecting pipes or tubes for gas, water, or steam purposes, consisting of forming at the ends of each length of pipe or tube a narrow rim, with bevelled edges, so formed that when one length of pipe or tube is placed in connection with another the bevelled edges thus brought together formed between them a ring or groove to receive suitable packing. The joints when packed are enclosed and held together by socket-pieces, formed to act upon the rims for that purpose. These socket-pieces are formed in halves, with flanges for screws to hold them together when applied to the junctions of the pipes. It is also proposed to form the end of the pipes at an angle to a line drawn through such pipes in the direction of their length, by which the continuance in a straight line, or a divergence therefrom in several lengths of pipe, is affected by the position of one pipe or tube next to be connected in relation to the preceding. The angular end of one piece will make up for the angularity of that preceding, in order to maintain a straight course, but by turning the pipe or tube partly round a divergence from the straight line will be more or less obtained, whereby the use of curved or bent pipes may in a great measure be dispensed with.

THE COMBINED STEAM AND ETHER ENGINES.—Our readers may recollect occasional notices in these pages, of M. Du Trembley's patent invention, by means of which the heat of used steam was applied in converting ether into vapour or steam, to be also used as engine power. It appears that M. Du Trembley's invention is making practical progress in France, where not only the ship named after himself, but other vessels have been fitted up with his combined engines, and have made voyages which are said to have proved the efficiency, economy, and safety of his invention, by means of which it is asserted that no less than four tons of coal out of seven have been saved, and the space occupied by the additional quantity, of course, made available for cargo. The steam under this system is conducted through tubes, after use in the steam-engine, into a reservoir of ether, which absorbs the heat of the steam without mingling with the steam itself, and the ether vapour or steam thus obtained, is made to work a second or ether engine. That the cost of the ether is no objection to its use, the projector urges, may be inferred from the circumstance that other fluids of light specific gravity, and much cheaper, such as those obtainable from gas tar, might be used instead of the ether, but are not so used, and the safety of working with inflammable materials such as these may be inferred from the fact that the French Government have not hesitated to employ a vessel fitted up on Du Trembley's principle, for the purpose of carrying gunpowder as well as other war materials and men to the Crimea, where all were safely landed. An English company has been formed for working the new patent. Mr. F. J. Bramwell, of Bridge-street, Blackfriars, is their engineer. The invention appears to be at least worthy of investigation by our own engineers and others interested

RAILWAY FROM THE DANUBE TO THE BLACK SEA.—The introduction of the railway system on the shores of the Black Sea, leads me to suggest the great advantage of a line of railway from the western shore of the Euxine to the Danube. Reference to the map will show that the Danube, after pursuing a course nearly west to east from Widdin to Rassova, takes a direction due north, and from Rassova to Hirschova its course is nearly parallel with the western shore of the Black Sea; and for a considerable length, the distance between the river and the sea does not exceed sixty miles, affording a choice of situation for a terminal port, though probably Kustendjeh would be found most eligible, and might become another Southampton. If the railway were made to pass along the direction of Trajan's-wall, its importance, as a military auxiliary, would be enhanced. Its commercial advantages it would be impossible to estimate too highly, and such a mode of conveying the traffic of the Danube would render that noble river independent of the caprice of a Russian Czar, as well as of the impediments caused by the accumulation of sand at its several mouths. Thus the political, commercial, and military advantages of such a junction of the Danube with the Black Sea would be great; nor would the expense deter an English company from undertaking the enterprise under the auspices of the Sultan. A canal was suggested many years since in a similar position, but the superiority of the railway system is obvious.—G. R. F.

THE ART-UNION OF LONDON DISTRIBUTION.—The annual meeting for the distribution of the amount subscribed for the purchase of works of art, will be held on Tuesday, the 24th, at the Theatre Royal, Haymarket, kindly granted by Mr. Buckstone for that purpose. Lord Monteagle will preside. The subscription is a large one.

MR S. C. HALL'S PICTURES.—We would direct attention, for more reasons than one, to the sale by Messrs. Foster, on Monday, 23rd inst. of a collection of cabinet pictures and drawings by British artists of celebrity, formed during a series of past years by Mr. S. Carter Hall, editor of the *Art Journal*; including specimens by D. Roberts, R.A.; T. Creswick, R.A.; F. Goodall, A.R.A.; E. M. Ward, R.A.; T. S. Cooper, A.R.A.; R. Redgrave, R.A.; Sir W. Allan, R.A.; W. Collins, R.A.; W. F. Frith, R.A.; J. B. Pyne; W. Muller; E. W. Cooke, A.R.A.; W. Mulready, R.A. &c. The occasion of the sale is a reason why we should especially allude to it. For many years, as editor of the journal in question, Mr. S. C. Hall has waged war against the sale of mock old masters and other dishonourable practices *in picture dealing*. He has put the public on their guard against impositions. In doing this, he recently set forth the proceedings of a certain picture-dealer in a way that brought upon him an action for libel; and, although the jury marked their opinion of the case by giving 40s. damages, the costs to the extent of about 800*l*. as we are told, have fallen upon him. To meet this, instead of falling back upon his ordinary sources of income, he has chosen, it seems, to sell his pictures. For the course he has pursued, modern artists owe him deep thanks, for it must have aided very materially in turning the current of expenditure from old to modern art, where imposition was less easy. Although even here, as we have seen in the recent exposure by Mr. E. M. Ward, R.A. the unknowing public are victimized, and the fame of the artist injured.

PATENT KITCHEN RANGE.—The *Nottingham Guardian* describes a kitchen range on Goddard's patent principle, manufactured for Mr. John Gray, the conductor of the *North British Advertiser*, and intended to be fitted up as a new residence built by Mr. Gray on his landed property, near Edinburgh. The striking feature of the whole contrivance, says the *Guardian*, is its combination of a close and open fire-range in one apparatus, a thing, we believe, never hitherto accomplished. The back part of the fire-place is fitted with a blower or bonnet belonging to the "patent disperser," which draws forward to let up the smoke for making an *open* fire, shutting back when the range is to be worked as a *close* range. Thus during the whole early part of the day a very small open fire alone is kept up. Above this, a sliding ventilator inserted in the chimney, draws off all excess of steam, heat, and fumes of cooking. The range itself comprises a surface or hot plate, where as many vessels may be kept boiling as will stand without inconvenience. On the right hand is the bread, pastry, and game oven; on the left hand the fast roaster, then a large folding door, hot closet, and above them a steam closet of very superior construction is placed. The heat proceeds from either side of the fire, through flues surrounding these ovens and boilers, by direct openings, through which the hottest heat of the fire passes down the sides and under the bottoms. Betwixt the several ovens the passage for the heat is interrupted by dampers, which restrict the action of the fire, when requisite, to a single part of the range. The hot plates for boiling are also suited for use as ironing stoves. The fire is also, by means of apparatus at the back, employed for warming baths or conservatories.

THE WEST-END.—Most persons think that the reason why the west-end of London is more fashionable than the east is nothing more than the topographical configuration of the capital. But the Academy of Sciences at Paris, in its last sitting, pronounced this opinion to be a delusion. In the first place, says the *Literary Gazette*, it appears that it is not only at London, but at Paris, Vienna, Berlin, Turin, St. Petersburg, and almost every other capital in Europe —at Liege, Caen, Montpellier, Toulouse, and several other large towns—wherever, in fact, there are not great local obstacles—the tendency of the wealthier inhabitants to group themselves to the west is almost as strongly marked as in the "great metropolis." In the second place, at Pompeii and other ancient towns the same thing may be noticed; and in the third place, where the local configuration of the town necessitates an increase in a different direction, the moment the obstacle ceases houses spread towards the west. What is that law? "It arises from the atmospheric pressure," answers the Academy of Sciences. After explaining why the western parts are the best, the Academy makes these recommendations,—1. That persons who have the liberty of choice, and especially those of delicate health, should reside in the western parts of towns. 2. That all establishments from which emanate pernicious vapours and gases should be placed to the east. 3. That in building a house in a town, and even in the country, the kitchens and other dependencies from which pernicious emanations may arise should be placed to the east.

MAKING IRON DIRECT FROM THE ORE.—Messrs. M. Bell and E. B. Isett, of Spring Forge, Pennsylvania (U.S.), have patented an improvement in furnaces for this purpose: they claim a series of inclined close deoxydising tubes or vessels, built of common fire-bricks, and arranged so as to be parallel, or nearly so, with each other, and inclined at an angle of about 50° from the horizon, the same being combined with the main flue through the opening, and with the interior of the furnace, each ore tube having an adjustable cut-off or sliding gate at its lower end, and also combined with a separate horizontal way, leading directly into and connecting the said tubes with the bottom of the reverberatory furnace.

ALMSHOUSES WANTED.—I hope you will advocate the increase of almshouses, particularly for decayed members of the respectable classes, as it is extremely hard for them to have to go to a workhouse, or be dependent on precarious charity in their old age; the inmates of the unions being, for the most part, uneducated, and of totally different habits from themselves; and we know, that in the many changes that will occur in life, there must always be many deserving members of this class unprovided for. Such almshouses are numerous in some counties, but extremely rare in others, and, I believe, provide for (exclusive of Greenwich and Chelsea) only about 8,000 or less than one to a parish; and, when vacancies occur, there are generally very many more candidates than can be elected; the pensions likewise granted by societies, being only sufficient to provide for a fraction of the applicants. We constantly hear of men dying with hundreds of thousands, or millions, without having appeared to live with any object worth living for; yet, but a small portion of their great wealth would make very many comfortable in their old age. It is a work of charity, too, that would necessarily employ the building trades.—G. B.

UNDERMINING PREMISES.—At Birmingham, before Baron Alderson. — Fenn *v.* Briggs. — The plaintiffs in this case are tailors, in New-street, Birmingham, and the defendant a builder, in Birmingham. The action was brought to recover damages for the falling down of some back premises in New-street, caused by the defendant having excavated the adjoining ground in some building operation. The defendant pleaded not guilty, and five or six other pleas. It appeared that Mr. Briggs had been employed to pull down certain of the adjoining buildings, and in order that he might safely do so he applied to Mr. Nicholls, the owner of Messrs. Fenn's premises, for the purchase of a little part of the back. This, however, was refused. Mr. Briggs went on, excavated part of the soil, and that without any notice, and on the 24th of August last the back part of Messrs. Fenn's premises fell down. Some laundresses were hurt, and other persons with difficulty escaped, and great damage was done. Mr. Smith, architect, was called in, and he found that the premises had not been shored up, the soil within two or three feet was excavated, and there could have been no doubt that the fall of the building was so caused. A bill of particulars was sent in, showing that the amount Messrs. Fenn claimed was 139*l*. Mr. Brigg, while admitting his liability, thought this sum too great. After a good deal of evidence was led, a verdict by consent was taken for the plaintiff; damages, 75*l*.

THE IRON TRADE.—The nominal fall of another pound sterling a ton, recognised at the preliminary quarterly meeting, as already noted, has been fully adhered to at the subsequent meetings at Birmingham and elsewhere. Complaints are made of the want of usual attendance at these meetings, of the "great diversity of quotations," and of the "underselling," which goes considerably beyond the 3*l*. of late nominally recognised at quarterly meetings. Few or no furnaces are fully employed.

SURVEYOR TO THE ORPHAN WORKING-SCHOOL.—We are informed that sixty-four applications were made for this appointment. The election took place on Wednesday last, by the Board of the General Committee, when Messrs. Wehnert and Ashdown were chosen. The salary is 50*l*. per annum, and the same fees on all new buildings as paid to the district surveyor. The estates are at Haverstock-hill and in the City-road. Twelve candidates were selected. That number was afterwards reduced to three, and the contest was, in fact, between Messrs. Wehnert and Ashdown and Mr. James Harrison. The casting vote of the chairman decided the election.

TENDERS

For the erection of a villa residence on Bureledon Common, for Mr. F. Fox. Mr. E. T. Howell, architect. Quantities supplied. —

Newman	£1,095 0 0
Brinton	1,074 15 0
Chapman	1,025 0 0
Bull	897 0 0

TO CORRESPONDENTS.

"J. W. P."—"C. C. N."—"E. L. T."—"W. G. D."—"Dr. B"—"J. T."—"E. G. L."—"W. B"—"W. S."—"T. H. W."—"W. R. N."—"W. C."—"J. J."—"J. S. B" (there is no process the result of which is certain).—"W. P." (much depends on the terms of the contract. Take proper advice).—"E. H. M." (shall hear from us.—"Constant reader."—"J. T."—"W. G. R."—"J. H. B."—"Member of the Council."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

A SOLICITOR, in extensive practice in an agricultural district in the Midland Counties, has a VACANCY for a well-educated youth, as an ARTICLED PUPIL.—Address, F. G. *Advertiser* Office, Warwick.

APPRENTICE WANTED, for MODELLING and CARVING in WOOD and STONE.—Apply to Mr. PHYFFERS, Sculptor, Bennett's-yard, Marsham-street, Westminster.

TO PARENTS AND GUARDIANS.

ARTICLED PUPIL.—Two Architects, in partnership, possessing a good practice, have a VACANCY for an IN-DOOR ARTICLED PUPIL.—Address, A. B. Post-office, Reigate, Surrey.

MIDDLESEX COUNTY LUNATIC ASYLUM, COLNEY-HATCH.—WANTED, as RESIDENT CLERK of the WORKS, at this Asylum, a Person, between the ages of twenty-five and forty, who is practically acquainted with and capable of superintending the making of gas, and who can undertake the management of gas-making and lighting apparatus, warming and ventilating apparatus on Prout's principle, stationary steam-engine, water supply, drainage, sewage, and liquid manure works, general building repairs, and carpenters', plumbers', painters', glaziers', bricklayers', and smiths' work. He will have the superintendence of the mechanics and workmen employed in the establishment, and he will be required to perform all such other duties connected with the situation as the Committee of Visitors from time to time may direct him to do. The services will commence at Midsummer next. The salary will be 120*l.* per annum, with an unfurnished house, coals, gas, milk, and vegetables. Each person who may be desirous of becoming a candidate for this appointment must forward to me at the Asylum, before SATURDAY, the 13th day of MAY next, a letter of application, in his own handwriting, stating his age, present or late employment, length of service, present residence, and number of his family, together with testimonials of fitness for the situation, and of good character. Candidates must personally attend at the Asylum, on WEDNESDAY, the 15th of MAY next, at one o'clock precisely, when the Committee of Visitors will proceed to the election. Further information may be obtained by application, personally, to the Steward, at the Asylum, on any MONDAY or FRIDAY, between TEN and FIVE; or printed rules will be sent by post on application by letter to me.

April13, 1853. JOHN S SKAIFE, Clerk to the Visitors.

SUPERINTENDENT of STREETS and BUILDINGS WANTED by the COMMISSIONERS of POLICE for EDINBURGH.—WANTED, a properly qualified person to undertake the statutory and other duties of SUPERINTENDENT of STREETS and BUILDINGS, DRAINAGE, POLICE Establishment: It will be the duty of the officer to be appointed to make surveys, plans, specifications, schedules of measurement, &c. for new drainage works, and for the repair and reconstruction of old sewers and drains throughout the City, and also such other plans and specifications and works as may be required by the Commissioners, all as more particularly detailed in the Acts of Parliament and minutes of the Board, which may be seen in the hands of the Clerk. He will be required to devote his whole time and attention to the duties of the office, and be precluded from honse clearance in or accepting any other employment whatever. Salary 300*l.* a-year. The person to be appointed shall not be under twenty-eight years of age, nor exceed forty, and certificates of age must be sent along with applications. Applications, with fifty copies printed for distribution, to be lodged at the Clerk's Office here, on or before MONDAY, the 30th APRIL current.

GEORGE MILNE, Clerk to the Commissioners of Police.

Police Chambers, Edinburgh, April 17, 1853.

TO JOINERS AND PAINTERS.

TWO good HOUSE PAINTERS and two good JOINERS may have EMPLOY on application to Mr. ROBERT ELLIS, Builder, Fleet, near Wisbeach.

WANTED, in a Builder's Office, an intelligent and respectable Young Man as JUNIOR CLERK. He must write a good hand.—Address, stating age, particulars, and salary required, to L. M. N. Office of "The Builder."

TO SAW-FRAME AND PLANING-MACHINE WORKERS.

WANTED, a steady MAN, who must be a good mechanic, and well acquainted with the management of the above machines. Also a SAW-SHARPENER, one stating qualifications and wages required, with references, to F. J. UTTING, Eagle Foundry, Wisbech.

TO LAND SURVEYORS.

WANTED, the assistance of a Gentleman, accustomed to town surveys. He must be a good draughtsman.—Apply, stating terms, to Mr. J. S. B. Civil and Agricultural Engineer, St. Andrew's Hall-plain, Norwich.

TO STONEWARE PIPE-MAKERS.

WANTED, a steady Man, who has been accustomed to make pipes by the AINSLIE MACHINE, and who could also burn and salt glaze them, fit for the market, if satisfaction is given, there would be constant employment by the piece.—Apply to Mr. C. TURNER, Richmond-lodge, Shirley, Southampton.

WANTED, by a Surveyor and Auctioneer in the country, a Young Man as GENERAL ASSISTANT. The situation offering every opportunity of improvement, a large salary will not be given. References as to respectability will be required, with security, to the amount of 100*l.*—Address, with particulars, to the Advertiser, WILLIAM RUSSELL, Spencer-street, Leamington

TO PAINTERS AND BUILDERS.

WANTED, by a young Man, of good character, a permanent SITUATION, in town or country. Has had some experience in writing, graining, marbling, &c. No objection to fill up time in plain painting.—Address, M. A. No. 4, Princes-terrace, Caledonian-road, Islington.

TO ARCHITECTS AND BUILDERS.

WANTED, by a Young Man who has had considerable experience in the building trade, a SITUATION as CLERK of WORKS, or in any other capacity connected with the building trade. Salary moderate.—Apply, by letter, prepaid, to M. A. News Rooms, 66, Cheapside.

TO BUILDERS AND CARPENTERS.

WANTED, by a Young Man, aged 22, who has a knowledge of the trade, a SITUATION in the above line. Constancy and improvement the only object.—Address, post-paid, P. P. Mr. Starr, Carpenter, 159, High Holborn.

WANTED, by the Advertiser, a RE-ENGAGEMENT as Builder's Clerk, who is thoroughly acquainted with the routine of a builder's office, and has a good knowledge of drawing. Salary moderate. Aged 23.—Address to A. B. Post-office, Albion-terrace, Canonbury.

WANTED, by a Young Man from the country, a SEAT of WORK in the carpentry line: not quite competent in the business. No objection as to wages.—Address, C. A. W. Office of "The Builder."

WANTED, by a respectable Young Man, who thoroughly understands his business a SITUATION as CUTTER, or CUTTER and GLAZIER, who is capable of taking the entire management of a business.—Address, C. R. 32, Windsor-terrace, City-road.

WANTED, a SITUATION as PAINTER, GLAZIER, and PAPERHANGER; can make himself useful at plumbing. Wages not so much an object as a constant situation. No objection to town or country.—Address, J. GEORGE, 6, Little New-street, Shoe-lane, London.

WANTED, by a Young Man, a SITUATION in a Surveyor's or Builder's Office, who has a knowledge of drawing and taking out quantities, &c.—Apply R. N., Henry S. Colbran's, Tunbridge Wells.

TO BUILDERS, LOCKSMITHS, BELL-HANGERS, AND OTHERS.

WANTED, by a Young Man, an ENGAGEMENT in either of the above trades. No objection to the country.—Address, JOHN BAMBER, care of James Dickinson, 4, High-street, Peckham, Surrey.

TO MARBLE MASONS.

WANTED, by a Young Man, a SITUATION in a Marble Mason's Shop. The Advertiser writes a good hand, and is conversant with accounts; could fill up his time in rate.—Address, Mr. SMITH, care of S. E. 4, Grove-terrace, St. John's-wood.

TO BUILDERS AND OTHERS.

WANTED, by a respectable Young Man, a Carpenter, a SITUATION as Timekeeper, or constant Employment as Carpenter; is willing to make himself useful. Wages not such an object.—Address to W. C. L. 13, Friern-place, Friern Barnet, Middlesex.

TO ARCHITECTS.

WANTED, by a Young Man, a Joiner, a SITUATION in the above office; can make out working and finished drawings, understands taking out quantities, and measuring artificers' work. Salary not so great an object as improvement.—Address to A. Z. 19, Grafton-road, Kentish-town.

TO BUILDERS, SURVEYORS, &c.

WANTED, EMPLOYMENT, by a Young Man, as CLERK, TIMEKEEPER, or YARDSMAN, at a guinea per week. Has a knowledge of the building line, prices, plans, &c.—Address, T. Y. C. 14, Harp-alley, Farringdon-street.

TO ARCHITECTS.

WANTED, by a Builder's Foreman, an ENGAGEMENT as CLERK of WORKS, &c.—Address, F. M. Office of "The Builder."

TO PLUMBERS AND BUILDERS.

WANTED, by a Young Man, who is a good Plumber, a constant SITUATION; can fill up his time with glazing and painting.—Address, E. W. Office of "The Builder."

TO BUILDERS AND OTHERS.

WANTED, a SITUATION, by a Builder's Clerk and Accountant, of experience in getting up costs of works, and in pricing the trade's charges in all its branches. No objection to the country, or to render temporary assistance.—Address to A. Z. at Mr. Blake's, Butcher, Bradley-terrace, Wandsworth-road, Surrey.

TO ARCHITECTS, &c.

WANTED, by a Middle-aged Man, a SITUATION as GENERAL SUPERINTENDENT, or CLERK of WORKS; has had many years' experience in all the branches of a building, under the first architects and contractors in London; has no objection to the country.—Address, A. Z. Post-office, Stoke Newington.

TO ARCHITECTS.

THE Advertiser, who will be disengaged about the end of this month, wishes for an ENGAGEMENT in London. He has had several years' experience in the profession.—Address, Q. W. Office of "The Builder."

TO BUILDERS AND CONTRACTORS.

THE Advertiser, having just completed his engagement with a builder, wishes to take Brickwork at per rod, either including scaffolding, or scaffolding, lime, sand, and labour, to any extent. First-rate testimonials from late employer. No objection to the country.—Address, A. B. 35, Pickering-place, Paddington.

TO CONTRACTORS, BUILDERS, &c.

THE Advertiser, aged 38, is open to an ENGAGEMENT, either as CLERK of WORKS or MANAGING FOREMAN; has carried out some extensive engineering works, buildings, &c.; is a good practical draughtsman; no objection to go abroad. First-rate testimonials.—Address, A. Z. Post-office, Greenwich.

TO ARCHITECTS AND SURVEYORS.

THE Parents of a respectable Youth are desirous of placing their son in an office of good practice. He has a natural talent for drawing, and is a quick active youth. His first two years' services will be given.—Address to G. TRIMMINGS, Belmont-place, Wandsworth-road.

TO ARCHITECTS AND SURVEYORS.

THE Advertiser, who will shortly complete his articles with an Architect and Surveyor in the country, wishes for an ENGAGEMENT in a London Office. Good references can be given.—Apply by letter, addressed NEMO, Office of "The Builder."

TO ARCHITECTS.

THE Advertiser, who is a first-rate Draughtsman, and has a thorough knowledge of detail and construction, is open to an ENGAGEMENT.—Address, H. W. W. No. 39, Michael's-place, Brompton.

TO SURVEYORS, BUILDERS, AND OTHERS.

THE Advertiser, aged 26, being only partially employed, wishes to occupy from one to five hours per day in preparing plans, book-keeping, &c. &c. for a moderate remuneration, either in the office, or at the very residence.—Address, PROSPERO, 6, Tufnell-place, Upper Holloway.

TO CIVIL ENGINEERS.

THE Friends of a Young Gentleman wish to ARTICLE him to an ENGINEER of repute, with whom he may obtain a practical knowledge of the profession. He has a competent knowledge of drawing, perspective, and mathematics. Premium must be moderate.—Address free, A. M. care of Robert Burt, Esq., 5, Conduit-street, Regent-street.

TO ARCHITECTS, SURVEYORS, BUILDERS, &c.

THE Advertisers have spare time, which they are in the habit of employing in the preparation of drawings and specifications for other gentlemen.—Address, X. N. O. City News Rooms, Cheapside.

SAW-MILLS and TIMBER-YARD.—WANTED, EMPLOYMENT, as SAW-SHARPENER. Is able to work the bench or frame otherwise to measure any kind of timber, and tenderour dimensions for sale yard, and make himself generally useful in timber-yard, or mill. Can give a four years' reference to last employer, and satisfactory reasons for leaving.—Address, Y. Z. Mr. MacMichael's Library, King's-road, Chelsea.

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CLAYTON'S PATENT BRICK MACHINE (of which there are now upwards of 600 in use) is worked by one horse, by steam or water power, and combines the whole process of pugging the clay and making the bricks at one time. Awarded the prize medal at the Great Exhibition at Amsterdam, Nov. 1853.

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TESTIMONIAL.

"Haslingden, near Manchester, Dec. 2, 1854.

"SIR,—Several kilns of bricks made by your machines have been burnt, and I have great pleasure in informing you that they are as good as can be desired. They are in all respects superior to hand-made bricks and command a much better price. Your machines are simple and efficient implements. I have sent you a few bricks for a sample, which I hope you have received.—I remain, yours very truly,

"Mr. Clayton, London." "J. RAWSTHORNE."

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KENTISH RAG-STONE of the FINEST QUALITY.

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WILLIAM HOWDEN, Secretary.

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TO ARCHITECTS AND SURVEYORS,
TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place.—For particulars, address, S. S. 8, Studley-terrace, Larchfield-lane, Stockwell, Surrey.

HERTS.—To BUILDERS and CARPENTERS.—Mr. J. J. SIBLEY has been favoured with instructions to DISPOSE OF, by private contract, an old-established COUNTRY BUSINESS, from which a respectable income may be derived. The party retiring will render every assistance in securing the valuable connection. Coming in not less than 500l. Possession may be had immediately if required, or at the end of six or twelve months. Further particulars may be obtained of Mr. J. J. SIBLEY, Estate Agent, Buntingford, Herts.

HOLLOWAY and NORTH METROPOLITAN FREEHOLD LAND and PERMANENT BUILDING SOCIETY. Enrolled, under Act of Parliament, as "The Holloway and North Metropolitan Permanent Benefit Building Society," 31, Bellevue-villas, Seven Sisters'-road, Holloway.

PRESIDENT
THOMAS CHALLIS, Esq. M.P. Alderman.
TRUSTEES.
A. A. Croll, esq. ex-Sheriff of London and Middlesex, Finsbury-circus.
F. Goodyear, esq. 35, St. Paul's-churchyard.
F. J. Law, esq. 14, Mansfield-street, Cavendish-square, Director of the London and County Bank.

At the first Public Meeting, held at the King's Head Tavern, Holloway, on Tuesday evening, the 10th instant, upwards of 600 shares were announced to have been taken, the Society having had only one subscription night previous thereto, namely, the 9th ult. This (it is believed) unprecedented success is highly gratifying to the gentlemen engaged in its formation and management, and serves to show that the objects and principles of this Society have met with general approbation, and need only to be known to be appreciated. The peculiar object of this Society, as regards the Land Department, is to confine its operations to land in the immediate vicinity of London.

Land Shares, 40l. each. Entrance, 1s. per Share. Subscriptions, 4s. per lunar Month.

Building Shares, 10l. each. Entrance, 2s. 6d. per Share. Subscriptions according to the term of years of working out, and which the tables annexed to the rules will explain.

Office, 31, Bellevue-villas, Seven Sisters'-road, Holloway.

The last Subscription Meeting was held at the Office, on Tuesday evening, the 17th instant; and the future Subscription Meetings will be held at the Office, on TUESDAY evening, from SIX to NINE o'clock, in every succeeding fourth Week, when one or more of the executive committee will attend to enrol members, and give every information.

The Public Meeting, to ballot for seniority of Membership of all Members entering prior thereto, will be announced in a few days.

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.
Enrolled as the "Borough of Lambeth Benefit Building Society."
PRESIDENT.
The Hon. John Locke King, M.P.
TRUSTEES.
George Singer, Esq. James Sims, Esq. S. Etches, Esq.
Offices, 311, High-street, Borough.
Open from Ten A.M. till Seven P.M.
Shares, 50l.

Entrance fee, 1s. Payments, 4s. monthly.

Allotments distributed by rotation, ballot, and to completed Shares in the order of their completion.

No Fines on unadvanced Shares. No back payments.

This Society within four years has divided five estates, satisfying 1,814 Shares out of 3,756. The value, as divided amongst members, being 87,767l.

A Bonus of 5 per cent. in addition to 5 per cent. interest, in all 10 per cent. was declared upon all unadvanced Shares at the annual meeting of 30th January last.

211, High-street, March 1, 1855. WM. BANKS, Secretary.

J. S. NORTON (late Norton and Borie), ENGINEER and IRONFOUNDER, New Park-street, near Southwark-bridge London, invites parties engaged or interested in the manufacture of articles from Clay and other plastic substances, to inspect his NEW MACHINE, the first on this principle for making bricks, pipes, cornices, &c. Combining the several operations of crushing the clay and stones with rollers; pugging, self-feeding screening also where necessary), and moulding. The purchaser of this machine, W. H. Fletcher, esq. having granted permission, it is intended to work it here from TEN for TWELVE o'clock each day, until the 27th instant. Pipe and tile machines from 15l. Catalogues and price lists to be had at the works. A quantity of tubular bricks on sale; red colour and wall burnt, samples to be seen here, the bulk at Islington.

REVOLVING SHUTTERS,

CLARK and CO. Engineers and Manufacturers of Patent Revolving Shutters, in iron and wood, at very reduced prices. Brass Sash Bars, Stall Board Plates drawn by machinery. Prospectuses forwarded post free.—CLARK and CO. 15, Gate-street, Lincoln's-inn-fields.

CONTRACTORS can have their Joiners' Work done at the most moderate prices, with best workmanship and materials, if preferred they can provide their own materials.—Address, X.X. No. 3, Portland-place, New Kent-road, Surrey.

FOR SALE, a handsome PULPIT; it was constructed by Messrs. Cubitt, is in the Gothic style, in very excellent preservation, and with a slight expense might be converted into two, or a pulpit and reading-desk.—Apply to Mr. GINN, Carpenter, &c. Highgate.

MAGNET BUILDING SOCIETY.—MONEY to LEND on MORTGAGE for six years, at five per cent. repayable monthly. Apply to the Secretary, Mr. PETERS, 45, Bell-yard, Temple-bar.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding fifty months, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASS B. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 1s. per post.
CHARLES JAMES THICKE, Resident Secretary.

ACORN TIMBER WHARF, Canal-bridge, Old Kent-road.—RICHARD MAY'S extensive Drying Warehouses and Waterside Premises, with the improved machinery for sawing all kinds of wood, enable him to keep one of the largest stocks in London, of
PLANKS, DEALS, BATTENS,
DRY PREPARED FLOOR-BOARDS, AND MATCH-BOARDING,
FOREIGN FIR TIMBER OF ALL KINDS.
English Oak, Elm, Ash, Laths, Mouldings, Sash Stiles, always on sale at the lowest prices for cash.—A monthly Price Current forwarded on application.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry) DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Stills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road Pimlico Basin.

IMMENSE REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Pine Planks, 19 ft. 3 in. by 11 in.	from	3s. 9d.	each.
Spruce Deals	"	3s. 9d.	"
Yellow ditto	"	4s. 0d.	"
Honduras Mahogany	"	0s. 6d.	per foot.
Spanish ditto	"	0s. 8d.	"
Oak Staves	"	2s. 0d.	each.

Prepared Flooring, Veneers, &c. at equally low prices.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TEN FINE WALNUT TIMBER-TREES TO BE DISPOSED OF. Apply to Mr. WILLIAM HODSOLL, Auctioneer, &c. Farningham, Kent.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 20, North Wharf-road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

VENEER SAWS.—FOR SALE, by PRIVATE CONTRACT, together or separately, THREE VENEER SAW BENCHES, 6 feet, 10 feet, and 16 feet SAWS.—Apply to Messrs. FULLER and HORSEY, 13, Billiter-street, City.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 4a, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c. N.B. This wharf is very near the St. Margaret's estate.

TO BUILDERS AND OTHERS.
LANDING, ROSEMARY-BRANCH BRIDGE-WHARF, Regent's Canal, Hoxton.—J. TARR begs to call the attention of builders and others to the advantageous situation of his wharf for the landing of bricks, slates, drain pipes, &c. being situated within five minutes' walk of the ground lately occupied by the Islington Cattle-market, also the most central wharf for Islington, Newington, and Kingsland, and every accommodation given, and the most reasonable terms charged.

N.B.—An excellent Warehouse with Loft over, and Stables, to be Let, together or separate, at a moderate rent, suitable for a drain-pipe or slate and tile merchant, which is much required.

TO COMMISSIONERS of SEWERS, BRICKMAKERS, and POTTERS.
THE Advertiser has discovered a perfectly WHITE OPAQUE ENAMEL, which will resist acids. Is applicable to bricks, pipes, &c. Is anxious for a SITUATION in the above line.—Address, J. S. Post-office, Dawley-green, Salop.

NOTICE TO BUILDERS, &c.
FOUNTAINS, FIGURES, VASES, TRUSSES, TRACERY, CENTRE FLOWERS of all sizes, BANNISTERS, &c. &c. warranted of the best materials, selling at greatly reduced prices, at 74, Borough-road, near Blackman-street, Southwark.

PAPER-HANGINGS, &c.—W. SHIERS and CO. Manufacturers and Importers. Largest and most magnificent stock in the world (half a million pieces). Prices lower than any other house in the kingdom.—3 to 5, DEANSGATE (Old Church-end), Manchester.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSS'S WHOLESALE WAREHOUSE, 23, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s per doz. painted.
Ditto ..... 48s per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

FARM AND COTTAGE PUMPS
WARNER'S PATENT CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND WELLS.

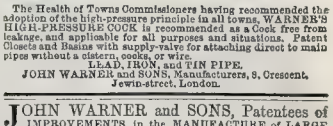
Patent Pump	£1 15 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing	2 12 0

Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,
JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET, LONDON.
Every description of Machinery for raising Water, Fire Engines, &c.
The usual allowance to the Trade.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and suitable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells re-cast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of this tubing, the Gutta Percha Company have pleasure in drawing attention to the following letter received from Mr. C. Hacker, surveyor to the Duke of Bedford:—"Office of Works, Woburn-park, Jan. 10, 1852.—In answer to your inquiries respecting the gutta percha tubing for pump suctions, I find that the water has not affected it in the least, although it will eat lead through in two years: we have adopted it largely, both on account of being cheaper than lead, much easier fixed, and a more perfect job. Yours, &c. C. Hacker."
N.B. The Company's Illustrated Circulars, containing instructions to plumbers for joining tubes, lining tanks, &c. will be forwarded on the receipt of three-penny postage stamps.—The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

COOPER'S PATENT DRAIN PIPES

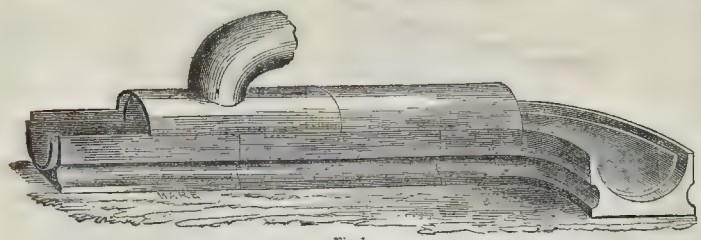


Fig. 1.

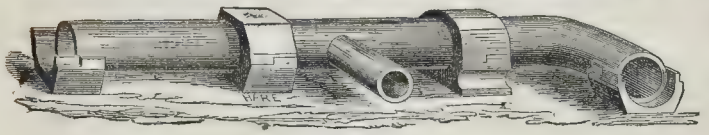


Fig. 2.

Obviate the inconvenience arising from the weight, &c. of large pipes, and facilitate their laying down in deep drains, or places of difficult access. These pipes are made in two halves, which interlock, and with a small quantity of cement form a complete pipe, with a flush waterway throughout. The upper and lower divisions are laid so as to break joint, whereby great strength is obtained; half lengths complete the ends of the pipe. These pipes are made from one foot in diameter and upwards, with tees, crosses, or bends, as required.

COOPER'S PATENT CONNECTIONS for drain or sewer pipes are formed in two parts, with projections on their edges, which placed together around the ends of cylindrical pipes, with a small quantity of cement, unites them firmly together. These Patent Connections are superior to all heretofore used; the pipes are cylindrical throughout, and firmly united with a single joint to each pipe.

Descriptive particulars may be had on application to

THOMAS COOPER,
BRICK AND POTTERY WORKS,
WOOTTON, ISLE OF WIGHT,
Of whom Licenses can also be obtained.

N.B.—White and Red Bricks, Tiles, and Pipes; Ornamental, Splay, Plinth, and Fancy Bricks made to order.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, H. 158.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors. &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

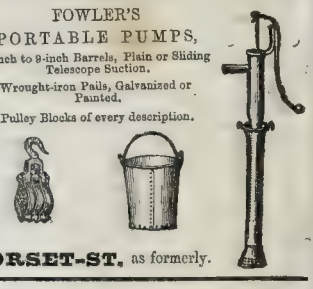
AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

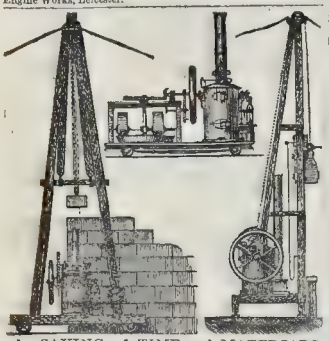
Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

STEAM-ENGINES of 2, 4, 6, 8, and 12-horse power (new for SALE. The 4-horse and upwards are fitted with separate expansion valves.—Apply to GIMSON and CO. Engine Works, Leicester.



A SAVING of TIME and MATERIALS, with Solidity of Building.

HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

"Railway Contractor's Office, Wellington, Salop.
"December 1, 1853.

"DEAR SIR,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Bacup Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although for weeks the fire has never been out, we have no stoppage for repairs.

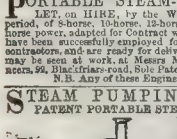
"We remain, dear sir, yours most faithfully,
"Mr. Gough." "DICKSON and McKENZIE."

TO CONTRACTORS

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work, at Messrs MEDWIN and HALL'S, Engineers, 99, Blackfriars-road, Sole Patentees and only Manufacturers.

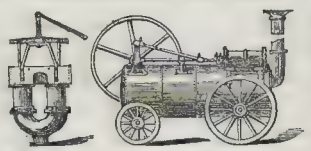
N.B. Any of these Engines may be purchased.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.



Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street,
Southwark, London.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 3s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application. post free.

PATENT SANITARY GAS SHADES.—These Shades, manufactured exclusively by RICE HARRIS and SON, Islington Glass Works, Birmingham, on an entirely new principle, effectually destroy the effluvia and smoke which have hitherto made the use of gas so objectionable in dwelling-houses and offices where cleanliness and freedom from smell are of importance. They are simple and inexpensive, and may be had as the Works in a variety of forms adapted to the style of fitting, or the taste of purchasers; also at Mr. JOHN SHORTOR'S, Orlspin-street, Spitalfields, London.

ONE THOUSAND BEDSTEADS to CHOOSE FROM.—HEAL & SON have just erected extensive Premises, which enable them to keep upwards of One Thousand Bedsteads in stock. One Hundred and Fifty of which are fixed for inspection, comprising every variety of Brass, Wood, and Iron, with Chintz and Damask Furnitures, complete. Their new warerooms also contain an assortment of BED-ROOM FURNITURE, which comprises every requisite, from the plainest Japanned Deal for Servants' Rooms, to the newest and most tasteful design in Mahogany and other Woods. The whole warranted of the soundest and best manufacture. HEAL & SON'S ILLUSTRATED CATALOGUE of BEDSTEADS and PRICED LIST of BEDDING, sent free by post. HEAL & SON, 196, Tottenham Court-road.

LADDERS, BARROWS, &c. for SALE or HIRE.—GEORGE ELL, 8, Tottenham-court, New-road, opposite the Hampstead-road, and corner of Praed-street, Paddington, has on hand at all times, a large stock of LADDERS, EXCAVATORS', BRICKMAKERS', and other BARROWS, PAINTERS' TRESTLES, MACHINES, STEPS, &c. Price lists can be had on application, at 4, Tottenham-court.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Patent Vases, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1855.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers. Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

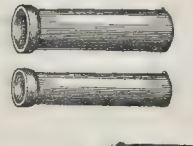
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSED PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danyer's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Brydges-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW	J. A. Mathieson, Hope-street.	WIGAN	James Fairclough, King-street.
DUBLIN	Robt. Lovejy, Poolbeg-street.	KENDAL	Robt. Thompson.
CORK	J. and J. Harley	CARLISLE	C. Armstrong, Lowther-street.
WATERFORD	J. Sparrow and Co	WHITEHAVEN	Hugh Tudhunter.
CARNARVON	Jno. Jackson	COCKERMOUTH	John Bird
PRESTON	J. Armstead, Hudson-street.	GUERNSEY	Guerin, Brothers.
CHORLEY	Thomas Saville	LONDONDERRY	W. and A. M'Elwee.
BLACKBURN	W. Hopwood, Clayton-street.	LIMERICK	W. Burkes and Sons.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans with best White Glaze inside.

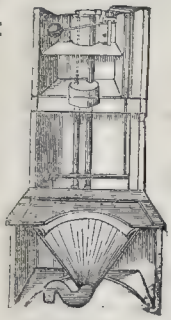
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

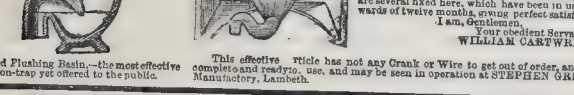
Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready to use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.



WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,
MANUFACTURER of GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, CLAP-TRAPS, &c.
CLOSET-PANS AND TRAPS, 5s. 6d. EACH.
AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to
THE AGENTS:—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

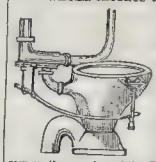
GEORGE JENNINGS, Inventor of the IMPROVED DRAIN PIPES, EARTHENWARE and OTHER CLOSETS, SLUICE VALVES, FIRE, and all kinds of COCKS, Shop-Shutter Shoe and Fastener, &c. 99, Great Charlotte-street, Blackfriars-road. A book containing illustrations and particulars free on application, or by post, if two stamps are enclosed.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

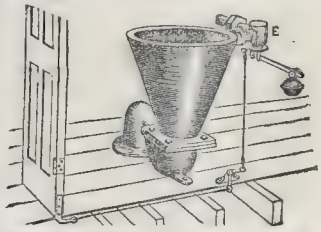
DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



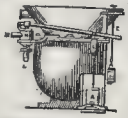
Also PATTEN'S improved powerful PLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 3½s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 39, Old Fish-street, near St. Paul's, London.

LAMBERT'S DOOR-ACTION CLOSET.



100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, Wilts County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve-cock, lever, wood, &c. 11. 18s.; Cottage Closet complete, with white wedgewood basin and trap, with 1 inch patent valve-cock, lever, and handle to pull up, 17s. 6d.

THOMAS LAMBERT and SON,
Patentees and Manufacturers, Short-street, New-cut, Lambeth;



UNDERHAY'S PATENT REGULATOR CLOSETS, for constant or intermittent supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stop-valves are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

Manufactured by
CHARLES BOTTEN and SON,
Brass Founders, Crawford-passage, Clerkenwell, London.

SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the sockets being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and renders stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

SALES BY AUCTION.

BANKSIDE.—The Lease of spacious Waterside Premises, the Rent of which is covered by Lettings.

MESSRS. EVERSFIELD and HORNE are instructed by Mr. William Ward to SELL by AUCTION, on WEDNESDAY, APRIL 25th, previous to the sale of the stock, the beneficial LEASE of HONDURAS WHARF, Bankside, Southwark, where he has for many years carried on successfully an extensive trade in fire goods, and all materials required in the building trade, and portions of which are let off sufficient to cover the rent, leaving a large extent of wharf room, with good dry stowage, lofty warehouses, lime-sheds, offices, and stabling, which are exceedingly well adapted for the above trade or many others. Only four years of the term remain unexpired, at 315l. a year, but a renewal on equally favourable terms may be safely reckoned upon. For particulars apply to the Auctioneers, 40, Parliament-street, or Coal Exchange, who are authorised to treat by private contract for any portion of the premises, or for the whole, with the stock and business.

TO BUILDERS, COAL, BRICK, AND LIME MERCHANTS, ENGINEERS, MALTSTERS, CHEMICAL WORKS, GAS COMPANIES, AND OTHERS.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, Honduras-wharf, Bankside, Southwark, on TUESDAY, APRIL 24th, 1855, and following day, at TEN for ELEVEN each day, the valuable PLANT, UTENSILS, and STOCK IN TRADE of Mr. W. Ward, who is retiring from this branch of his business, comprising seven excellent barges, powerful cart horses, coal waggons, vans, and carts, several nearly new brick carts, very strong built town waggon, on springs; superior wine merchant's cart, by Braby, and others of a light construction; complete sets of cart harness, coal-sacks, wharf and waggon weighing machines and weights, planks, ladders, and the usual trade implements. The stock in trade consists of a well-selected assortment of fire goods for the building trade, and a large quantity of best-made real Dutch Clinkers.—May be viewed on SATURDAY and MONDAY previous to the Sale; and catalogues had of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

To Gas Companies, Engineers, Furnace Builders, Maltsters and Others.—Important Sale of Mr. Ward's Stock of Stourbridge, Newcastle and Welsh Fire Goods, at Honduras Wharf.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, Honduras Wharf, Bankside, Southwark, on WEDNESDAY, APRIL 25th, and following day, at TEN for ELEVEN, this important STOCK of FIRE GOODS and NEW MATERIALS, comprising an assortment of lumps, tiles, and bricks, of every size and variety, 50,000 real Dutch clinkers, several thousand pantiles, malt kiln tiles, stock bricks, fire-clay, &c.; together with the carts and trade implements. May be viewed, and catalogues had on the Premises; and of the Auctioneers, 40, Parliament street, or Coal Exchange.

FARRINGDON STREET EXTENSION.—BUILDING MATERIALS OF TWENTY HOUSES.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on TUESDAY, APRIL 24, at TWELVE, by order of the Improvements Committee of the Corporation of the City of London, the whole of the valuable BUILDING MATERIALS and FIXTURES of TWENTY HOUSES, shops, factories, stabling, and premises, in Castle street, York-street, Saffron place, and Lockwood's court, Great Saffron-hill, including the White Horse public-house and the Wesleyan Chapel, comprising capital sound brickwork, large quantity of plain and pan tiles, prime timber in roofs and floors, sashes, doors, floor boards, shop-fronts, stone paving, and a great variety of useful materials and fittings up.—May be viewed two days previous. Catalogues had at the Architect's Office, Guildhall, and of PULLEN and SON, 80, Fore-street, Cripplegate.

TO CONTRACTORS, BUILDERS, AND OTHERS, LEE, NEAR BLACKHEATH.

MR. MARSH has received instructions from Messrs. J. and C. W. Todd, to SELL by AUCTION, on the PREMISES, the Belmont Estate, near the Church, Lee, on THURSDAY, APRIL 26th, at TWELVE o'clock, about ONE MILLION AND A HALF of good, sound STOCK, PLACE, and other BRICKS, in lots to suit the convenience of large and small purchasers. The Belmont Estate is within five minutes walk of the Lewisham and Blackheath Stations on the North Kent Railway. Approved bills will be taken from purchasers, over £50.—May be viewed the day prior and morning of sale, and Catalogues obtained at the Office; on the Estate; at the Railway Tavern, Lewisham; Tiger's Head, Lee; Green Man Hotel, Blackheath; Greyhound, Eltham, and Greenwich, and at Mr. MARSH's Offices, 2, Charlotte-row, Mansion-house.

TO ADMIRERS OF ANTIQUITY. Town-hall, Leominster, Herefordshire.

MR. EDWARD RUSSELL has received instructions from the Town Council of the Borough of Leominster to offer for PUBLIC COMPETITION, on the PREMISES, on MONDAY, the 30th day of APRIL, 1855, at TWELVE o'clock at noon, that much-admired old building called the TOWN-HALL, situate in the centre of the town. This is one of the few remaining timber structures of the fifteenth century. It was erected by John Abel, the most noted architect of his time. It is composed of timber and plaster, and adorned with curious grotesque figures, in a good state of preservation, standing on twelve oak pillars of the old Ionic order, now sustained on stone pedestals. The upper part of the building displays a profusion of carving, and various inscriptions are inscribed upon it. To all lovers of such curious antiquated buildings an opportunity of gratifying their tastes now presents itself, which may never occur again, and which should not be lost sight of.—Farther particulars may be obtained of Mr. THOMAS SALE, Town Clerk, Leominster.

Veneer Saws.—By

MESSRS. FULLER and HORSEY, on MONDAY, APRIL 30, 1855, at TWELVE o'clock, at the GRAND JUNCTION DOCK, Wharf-road, City-road, in lots, THREE VENEER SAWS, 6 feet, 10 feet, and 16 feet diameter, in good working order.—May be seen at Mr. MEREDITH's Saw-mills, Bankside, three days prior to the sale. Catalogues may be had of Messrs. FULLER and HORSEY, Billiter street, City.

CHELSEA EMBANKMENT and APPROACHES.—Second Sale of very valuable Building Materials, lying exceedingly well for land and water carriage.

MR. W. R. GLASIER is honoured with instructions from the Commissioners of her Majesty's Works and Public Buildings to SELL by AUCTION, on the PREMISES, on TUESDAY, MAY 1st, at TWELVE for ONE, the very valuable BUILDING MATERIALS of Ranelagh-wharf and Thorne's newly-erected and substantially-built Malt-houses, Commercial fields, Commercial-road, Pimlico, comprising upwards of 500,000 capital stock bricks, several tons of lead, large brass taps, copper-wire flooring, a large quantity of very excellent timber in girders, joists, rafters, and plates, flooring, gates, doors and sashes, iron columns, furnace-bars, gas-piping, two large cast-iron water-tanks, to hold about 2,000 gallons each, a large quantity of very excellent slating, York and other paving, step-ladders, fixtures and fittings. May be viewed the day prior and morning of sale, and catalogues had at the Office of Works, 12, Whitehall-place; of JAMES PENNETHORNE, Esq. 7, Whitehall-yard; at Garraway's, Change-alley, Cornhill; on the Premises; and at the Offices of the Auctioneer, 41, Charing-cross.

The Materials of Crowley-house, fronting the Thames, East Greenwich, and of the Dwelling-house, Lodge, &c. in the Woolwich Old-road. Also, the Garden Trees and Shrubs.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, MAY 8, the BUILDING MATERIALS of the above house and premises, garden wall and greenhouses, comprising several tons of lead, sound brickwork, oak and fir timber, flooring boards, tiled roofs, stone paving, &c. a carved oak staircase, a few pieces of tapestry, lead cisterns and waterclosets, stoves, and other fixtures.—To be viewed the day preceding and morning of sale, when catalogues may be had on the Premises; at the Kentish Mercury-office, Greenwich; Crown and Anchor, at Woolwich; Dover Castle, Deptford; and of Messrs. WINSTANLEY, Paternoster-row.

SALES BY AUCTION.

TO TIMBER MERCHANTS, CABINETMAKERS, PIANO-FORTE MANUFACTURERS, COACH BUILDERS, &c.

MESSRS. C. LEARY and CO. have been favoured with instructions from Mr. Henry Bateman, of 35, Sun-street, Bishopsgate (who is about to relinquish the retail portion of his business), to offer by PUBLIC AUCTION, on the PREMISES, on MONDAY and TUESDAY, the 23rd and 24th APRIL, the second portion of his unequalled and most valuable STOCK of WOOD, comprising prime dry wainscot, in every thickness, Spanish and Honduras mahogany, in logs, planks, boards, and veneers, dry wide panel board, rosewood and walnutwood in planks and veneers, dry pine plank and board, &c. &c.—To be viewed two days' previous to, and on the mornings of sale. Catalogues to be had on the Premises, and at the Offices of the Auctioneers, 75, Old Broad-street, City.

IMPORTANT SALE OF IRON.

TO BE SOLD by AUCTION, on MONDAY, the 30th day of APRIL, on the PREMISES of BOYDELL and GLASIER, Camden Works, Hawley crescent, near the Canal-bridge, Camden Town. From 300 to 400 tons of STAFFORDSHIRE BAR IRON, manufactured by the sellers, Boydell and Glasier, at the Anchor Iron Works, Smethwick, who intend to continue sales periodically in lots suitable to the wants of general consumers.—Engineers, Farriers, Wheelwrights, Ship-builders, Whitesmiths, and Smiths in general. Approved bills at four months will be taken from parties purchasing to the extent of 50l. with interest at five per cent. added, and permission will be given to leave the Iron on the Premises a reasonable time. May be viewed and Catalogues had on the Premises, one week previous to the Sale.

HIGHGATE. To Wheelwrights, Smiths, Carpenters, and Others.

MESSRS. PRICKETT and SON will SELL by AUCTION, without reserve, on the PREMISES, North-street, Highgate, near the Red Lion Inn, on TUESDAY, APRIL 24, at ELEVEN for TWELVE o'clock, in lots, by direction of the Executor of Mr. Andrew Johnston, deceased, the STOCK in TRADE, consisting of oak and ash planks, spokes and felloes, steel and bar iron, new and old carts, a quantity of new cart-wheels, garden and box barrows, a large quantity of useful ironwork, and other materials.—May be viewed the day prior to the sale. Catalogues obtained on the Premises; at the Inns in the neighbourhood; and of Messrs. PRICKETT and SON, Auctioneers and Valuers, 34, Southampton-buildings, Chancery-lane, and Highgate.

TO BUILDERS, CARPENTERS, PACKING-CASE MAKERS, CABINETMAKERS, AND OTHERS.

MR. TINDALE will SELL by AUCTION, on the PREMISES, North-street, Whitechapel-road, near the railway, on TUESDAY, 1st MAY, at ELEVEN o'clock, all the dry, well seasoned STOCK of a TIMBER MERCHANT, comprising 1,500 yellow deals, 1,400 dry pine planks, 800 yellow and pine battens, 700 white Christiana deals and battens, 600 spruce battens, Memel and Dantzic timber, cut stuff, &c. &c. On view the day before sale.—Catalogues may be had on the Premises; at Garraway's; and of the Auctioneer, Portland-place, Commercial-road, Stepney.

KENNINGTON, SURREY.—The well-seasoned Stock of a Timber Merchant and Lease of Premises.

MR. LEREW is favoured with instructions (in consequence of the dissolution of partnership of Messrs. J. and R. Vigers) to SELL by AUCTION, on the PREMISES, in the Clapham road, on WEDNESDAY, APRIL 25, and following day, at ELEVEN for TWELVE each day, the valuable LEASE, together with the STOCK, comprising 4,000 pine, yellow, white, and spruce planks, deals, and battens, 9,000 feet choice mahogany, in thicknesses, 1,000 feet mahogany panel board, 1,000 feet dry wainscot, 500 feet cedar veneers, 2,500 feet American birch, 100 squares prepared flooring, quartering, laths, slating battens, 10,000 feet moulding, elm board, staves, nine loads of ash, oak post, scantling, and sash sills, cart, horse, pony, chaise, light cart, three trucks, &c. &c.—May be viewed the day before the sale, and catalogues had on the premises; and of the Auctioneer, Cardington-street, Hampstead road, near the Euston-station.

Capital Stock and Place Bricks.

MR. DANIEL CRONIN will SELL by AUCTION, in about thirty lots, in the FIELD, near to the White Horse Brewery, Shepherd's bush, on MONDAY, APRIL 30, at TWELVE, about 800,000 STOCK and PLACE BRICKS, in lots suitable to likely purchasers.—Catalogues may be had at the White Horse Tavern; and of the Auctioneer, 42, Bloomsbury-square.

Important Sale of about 3,000 very fine Larch, Spruce, and Scotch Fir Trees and Poles of various sizes and good lengths; also about 7 Beech Trees, and a few Elms, and a quantity of Beech, Birch, and other Poles, 4,000 Faggots, &c.—TO BE SOLD by AUCTION, by

MR. T. BAXTER, on THURSDAY, APRIL 26th, 1855, at ELEVEN o'clock, on the PREMISES, High Elms, Farnborough, Kent. May be viewed four days preceding the Sale, and catalogues had at the Inns in the neighbourhood; of Mr. FALGATE, at High Elms; and of the Auctioneer, Bromley, Kent.

TO BUILDERS, CARPENTERS, AND OTHERS.

MR. FREDERICK INDERMAUR will SELL by AUCTION, on WEDNESDAY next, on the PREMISES, No. 72, Blackman street, Borough, the STOCK of a BUILDER, comprising long ladders, scaffold poles and boards, putlogs, builder's cart, dry 12, 14, and 21 feet cut deals, planks and battens, powerful crab, bending apparatus, large iron safe doors, casting-mould for chimney-pots, ironmongery, doors, sashes and frames, mahogany counting house desks and fittings, useful wood, iron, and other articles. May be viewed and catalogues had, and of the Auctioneer, 71, Union-street, Borough.

HORTON and MAPLESCOMB, KENT.—Valuable Oak, Elm, and Beech Timber.

MR. WILLIAM HODSOLL is favoured with instructions from Thomas Colyer, Esq. to SELL by AUCTION, at the LION INN, Farningham, Kent, on WEDNESDAY, APRIL 25th, at TWO o'clock, 150 superior OAK TIMBER TREES, of excellent quality, standing and growing in the Horton Woods, and on the Maplescomb Estate, together with the lop, top, and bark; 43 capital ELM TREES, including many of large dimensions (all recently felled); and 12 BEECH TREES (also felled). Catalogues may be had four days previously at the Inns in the neighbourhood; and of Mr. WILLIAM HODSOLL, Auctioneer, &c. Farningham, Kent.

CAMDEN TOWN CEMETERY BUILDING ESTATE.—TO BE LET on Building Leases for ninety-nine years, very eligible SITES upon the above estate, having good frontages into Camden street, Pratt-street, and Bayham street. There is a great demand for houses and shops of the third rate in this locality, which is enhanced by its near proximity to the North-Western and North London railway stations, and the Hampstead-road.—Plans may be seen, and particulars obtained by application to H. E. KENDALL, Esq. Architect, 17, Suffolk-street, Pall-mall East; or to JOHN DANGERFIELD, Esq. Solicitor, 26, Craven-street, Charing-cross.

SOMERSET.—TO BE LET, with immediate possession, a remarkably compact and convenient DWELLING HOUSE, called Brook House, with all suitable offices and excellent garden and shrubbery, situated in the midst of the beautiful scenery of Stourhead, within easy distances of the towns of Wincanton, Mere, and Bruton, at which last place there will be a station of the Wilts, Somerset, and Weymouth Railway.—Further particulars may be obtained of JOHN SWAYNE, Esq. Wilton, near Salisbury: or of Mr. COOPER, Solicitor, Wincanton.

BUILDING GROUND TO BE LET, direct from the freeholder, in Plots. Land-tax redeemed.—Apply on the Premises, to Mr. GROVER, Builder, Graham street, City-basin.

CEMETERY LAND for SALE.—Sewers Office, Guildhall, March 13th, 1855.—The Commissioners of Sewers of the City of London, acting as the Burial Board for that city, have about 100 acres of valuable FREEHOLD LAND, which they are desirous to DISPOSE OF, for the formation of one or more cemeteries, it being peculiarly adapted for such purposes. The land is situate at Little Ilford, and abuts upon the Eastern Counties Railway, which, by arrangement, may run direct into it. It is also directly accessible by the high road from London, and from Wanstead, and is about a quarter of a mile west of Ilford. The cemetery for the City of London is formed on the adjoining portion of the estate. The land tax is redeemed. Plans of the property may be inspected at this Office; or at the Office of the engineer, Mr. HAYWOOD, 14, Old Jewry Chambers. The Commissioners will receive proposals for the said land, or any portion thereof, on MONDAY, APRIL 30th, at ONE o'clock. Such proposals must be sent sealed and endorsed "Tenders for Land at Ilford," to the undersigned, at this Office, before TWELVE o'clock on that day. The Commissioners do not bind themselves to accept any of the proposals unless deemed eligible.

JOSEPH DAW, Principal Clerk.

FREEHOLD LAND.—To Builders or Parties wishing to Build Suburban Residences.

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—

- Forest-hill, Croydon Railway.
- St. Margaret's, near Richmond, South-western Railway.
- Oatlands Grange, Weybridge, Surrey, ditto.
- Tottenham-green, Eastern Counties Railway.
- Putney, South Western Railway.
- Rectory Estate, Ealing, Great Western Railway.
- The Waddington Estate, Enfield, Eastern Counties Railway.
- Wood green, Green-lanes, Hornsey, Great Northern Railway.
- Old Ford, Stratford, Eastern Counties Railway.

Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of One acre, can be obtained. On the two first estates, large pleasure-gardens are allotted to the freeholders or tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge (for about ten years) less in amount than the ground-rent of the same under the usual system. In addition, therefore, to the amount to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building lease. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

BUILDING LAND TO BE LET.—Liberal advances made to builders. Also, several Sums of Money to be Lent, as mortgage upon good security.—Apply to Mr. PATMAN, Surveyor, 4, Serjeant's-inn, Fleet-street.

TO BE SOLD, within a few minutes' walk of the Kilburn Station, on the North-western Railway, and immediately adjacent to the intended line of the Hampstead Junction Railway, about EIGHTEEN ACRES of COPYHOLD LAND, having a frontage next West-end-lane of more than 800 feet. The estate, which is beautifully situated, is at present let to a yearly tenant, and immediate possession may be had. The soil is capable of being made into bricks, and a specimen of the earth may be seen at the Office of Mr. POWNALL, 37, Bloomsbury-square, where lithographed plans and further particulars may be obtained; or of R. B. ARMSTRONG, Esq. 8, Staple-inn.

CROWN LANDS, WINDSOR.—By order of the Commissioner in charge of Her Majesty's Land Revenue, TO BE LET, for the erection of villas and close rows of houses, BUILDING LAND, eligibly situate in Windsor near the Great-park, having frontage to new roads, with ample provision for good drainage. For particulars apply to Mr. JOHN CLUTTON, 8, Whitehall-place, Westminster.

FREEHOLD BUILDING LAND.—Wanted, from ONE to TWO ACRES, situate in the immediate suburbs, suitable for fourth-rate houses. Particulars to be addressed to Mr. PARSONS, 7, Union-court, Old Broad-street, City.

£55 RENT MANUFACTURING PREMISES to LET at Uxbridge. These premises were built for engineering purposes, and are well lighted. The shop is about 80 feet long by 30 feet wide, with a large yard in front, and an eight-roomed dwelling house adjoining. The railway station is behind, and the canal from Birmingham to London passes within about 200 yards, presenting an excellent opening for an engineer or agricultural implement maker.—For further particulars, apply to Messrs. RICHES, WOODBRIDGE, and SON, Uxbridge; or the Proprietor, Mr. JOHN GORDON, 5, Railway-place, Fenchurch-street.

BUCKINGHAM HOUSE, PALL-MALL, TO LET.—The tenantry of the Carlton Club, will terminate at Midsummer next. Parties wishing to purchase or rent, are requested to apply to BANTING and SONS, St. James's-street; RICKARDS and SON, Crown-court, Broad street, City; or the Secretary of the Union Assurance Company, 81, Cornhill.

FREEHOLD BUILDING LAND TO LET, abutting on the Barking station of the Tilbury line, twenty-minutes from Fenchurch-street, where moderate-sized houses are greatly in demand, and a first-class public-house urgently wanted for the accommodation of the station and neighbourhood.—Apply to H. WILLIAMS, Esq. Architect, 54, Great Ormond-street, Queen-square.

HIGHBURY NEW PARK.—FREEHOLD BUILDING GROUND TO BE LET, in this desirable locality, commanding extensive views. To gentlemen desirous of selecting a site for the erection of villa residences, this affords an excellent opportunity. Money advanced to responsible persons, if required.—For particulars apply to Mr. C. HAMBRIDGE, Architect, 73, Coleman-street, City.

TO ARCHITECTS AND OTHERS.

WINCHESTER.—TO BE SOLD, or LET upon GROUND-RENTS, from 13 to 20 Acres of LAND, close to the city of Winchester, well adapted to building purposes, and commanding views of the beautiful valley of the Itchen. The parochial rates are almost nominal. The locality is one in which houses of a superior class and character are much sought after. The peculiar park like appearance of the ground, and its undulating surface, is most advantageous for houses of a tasteful and elegant description. Any person wishing to entertain the above may receive particulars on application to Mr. GALE, Land Agent, St. Peter-street, Winchester.

WEYBRIDGE, SURREY, and FOREST-HILL, SYDENHAM.—Several PLOTS of FREEHOLD BUILDING LAND, close to these railway stations, TO BE SOLD, subject to a small chief rent, instead of purchase-money, for private villas. Also, a Plot for an Inn. Moderate advances made.—For further particulars, apply to Mr. A. C. HOOK, Land-agent, 13A, Great George-street, Westminster.

PUTNEY.—Several Private Eight and Ten-roomed newly-erected DWELLING-HOUSES, with good gardens, within five minutes' walk of the railway station, TO BE LET or SOLD.—For further particulars, and for plans, apply to Mr. A. C. HOOK, Land-agent, 13A, Great George-street, Westminster.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, April 21, 1855.

The Builder.

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Architect, Engineer, Operative & Artist.

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ADVERTISEMENTS.

MIDDLESEX.—Metropolitan Buildings Act, 7th and 8th Vict, cap. 84.—Notice is hereby given that the Court will proceed on THURSDAY, the 31st day of MAY next, to the ELECTION of a SURVEYOR, for the district of East Islington, in the said county, in the room of Mr Carpenter, deceased, and that such election will be subject to the standing orders of the Court as to districts and district surveyors; and that no person will be admitted a candidate unless duly qualified under the Act and such standing orders; and every candidate must, on or before SATURDAY, the 26th day of MAY next, address to me in writing a statement of his name, residence, age, and qualification; and must also personally appear before the Committee for General Purposes appointed by the Court, at TWO o'clock precisely in the afternoon of MONDAY, the 28th day of MAY next, at the Sessions House, Clerkenwell-green, and produce to them satisfactory evidence that he is of the full age of thirty years, and a certificate from the Board of Examiners appointed under the Act, for their approval, and also such other testimonials of character and qualification as he may deem expedient or the Committee may require; and, if approved by the Committee, will then be sanctioned by them to be a candidate for the said district.

C. HEATON ELLIS, Clerk of the Peace.

Sessions House, Clerkenwell, April 16, 1855.

MIDDLESEX.—Metropolitan Buildings Act, 7th and 8th Victoria, cap. 84.—Notice is hereby given, that the Court will proceed on THURSDAY, the 31st day of MAY next, to the ELECTION of a SURVEYOR for the district of the parishes of St. Giles-in-the-Fields and St. George, Bloomsbury, in the said county, in the room of Mr. George Pownall, resigned, and that such election will be subject to the standing orders of Court as to districts and district surveyors; and that no person will be admitted a candidate unless duly qualified under the Act and such standing orders, and every candidate must, on or before SATURDAY, the 12th day of MAY next, address to me, in writing, a statement of his name, residence, age, and qualification; and must also personally appear before the Committee for General Purposes appointed by the Court, at TWO o'clock precisely in the afternoon of MONDAY, the 14th day of MAY next, at the Sessions House, Clerkenwell-green, and produce to them satisfactory evidence that he is of the full age of thirty years, and a certificate from the Board of Examiners appointed under the Act, for their approval, and also such other testimonials of character and qualification as he may deem expedient or the Committee may require; and, if approved by the Committee, will then be sanctioned by them to be a candidate for the said district.

C. HEATON ELLIS, Clerk of the Peace.

Sessions House, Clerkenwell, April 16, 1855.

SOCIETY of PAINTERS in WATER COLOURS.—The Fifty-first Annual Exhibition will OPEN at their Gallery, 5, Pall-mall East (close to Trafalgar-square), on MONDAY NEXT, APRIL 30th. Admission, 1s. Catalogue, 6d.

JOSEPH J. JENKINS, Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s.

JAMES FAHEY, Secretary.

THE ARCHITECTURAL MUSEUM, CANON-ROW, WESTMINSTER.

The FIRST of a COURSE of SEVEN LECTURES will be delivered at the Museum, on MONDAY, MAY 21 (instead of MAY 7, as previously advertised), "On the employment of Stained Glass," by CHARLES WINSTON, Esq.

Hour of admission, Seven o'clock. The chair to be taken at Eight o'clock. Cards for the Course, 2s. 6d each, to be had at the Rooms of the Museum. Single Lectures, 6d.

Subscribers can receive their cards on application. The Museum is open daily, excepting Saturday, from Ten to Four o'clock.—Admission to non-subscribers, 6d.

April 26, 1855. HENRY CLUTTON, Hon. Sec.

A COURSE of EIGHT LECTURES, on the HUMAN FORM, will be delivered by JOHN MARSHALL, Esq. F.R.C.S. in the LECTURE ROOM of the GEOLOGICAL MUSEUM, Jermyn-street, on the 4th of MAY, and following FRIDAYS, at FOUR o'clock p.m. Tickets of admission to be obtained on application at the Museum, Marlborough House, Pall-mall.

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

Sir Robert Smirke, R.A. | George Stanley Repton, Esq.

PRESIDENT Sydney Smirke, A.R.A.

TRUSTEES.

Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq. R.A.

Philip Hardwick, Esq R.A. | R.A.

TREASURER William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 5, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

THE VANBRUGH CLUB will perform at Miss KELLY'S THEATRE, 73, DEAN-STREET, Soho, on WEDNESDAY EVENING, MAY 2nd, "Love in a Maze" And an adaptation of the Italian Comedietta, "Ogni e non Ogni," made expressly for this occasion, by ALFRED ELMES. The proceeds are subscribed by the Club in aid of the Architectural Exhibition.—Reserved seats, all numbered, in Dress Circle or Stalls, 5s. Other parts of the house, 2s. 6d.—Tickets to be obtained only of JAMES FERGUSSON, F.R.A.S. 20, Langham-place, Regent street; and JAMES EDMESTON, Jun. 5, Crown-court, Old Broad-street, Hon. Secs. to Architectural Exhibition.

COMPETITIONS.

TO ARCHITECTS.

NEW CORN-EXCHANGE and covered MARKETS, at GRIMSBY.—Notice is hereby given, that the Council of the Borough of Grimsby, are prepared to receive DESIGNS and ESTIMATES for a new CORN-EXCHANGE and COVERED MARKETS, intended to be erected upon the site of property near the present Market-place, and will give a premium of 95*l.* to the person whose designs and estimates ranging from three to four thousand pounds, shall be approved of. The designs, estimates, &c. receiving the premium, will belong to the corporation, and the successful competitor will not be employed as the architect to carry out the works. A sketch of the site, with further particulars, may be obtained on application to the Town Clerk—The designs, &c. to be sent in under seal, without the name of the author, but with a motto, before noon, on the 14th day of MAY next, and addressed to the Town Clerk, Great Grimsby, marked "Corn-Exchange and covered Markets." A sealed letter containing the author's name and address, must accompany each plan, which will be opened after the selection has been made.—By order,

GEORGE BABB, Town Clerk.

Town Clerk's Office, Great Grimsby, April 7, 1855.

THE BURIAL BOARD for the PARISH of BRAINTREE, in the county of Essex, are desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising ground plans, sections, and elevations for LAYING OUT, DRAINING, PLANTING, and FENCING a NEW BURIAL-GROUND, with suitable ENTRANCE-GATES, and for BUILDING a LODGE and TWO CHAPELS thereon. The ground contains about three acres, a plan of which may be seen and further information obtained at the Offices of the Board. The party whose plans are approved will, at the option of the Board, either have the superintendence of the works, or be paid the sum of twenty guineas for his designs. The plans and estimates must be deliver d at the office of the Board, on or before TWELVE o'clock at noon, on the 18th day of MAY next. Each plan is to be distinguished by a motto and a sealed letter similarly indorsed, containing th author's name and address, to be sent therewith.

A. CUNNINGTON, Clerk to the Board.

Braintree, April 24, 1855.

Royal Engineer Office, Chatham, 23rd April, 1855.

TO CONTRACTORS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall Mall, London, on or before MONDAY, the 7th day of MAY next, from persons desirous of contracting with the Hon. Board of Ordnance for REFORMING the PARADE at Brompton barracks, near Chatham. Plans and specifications of the work are to be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 5th of MAY next, Sundays excepted. The person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and separately to be bound under a penalty of 150*l.* for the due performance of the contract. Tenders to be addressed to the Secretary to the Board of Ordnance, Ordnance Office, Pall Mall, London, and to be delivered free, endorsed, "Tender for Works at Chatham." No Tender can be admitted after the said 7th day of MAY, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

TYNEMOUTH LOCAL BOARD of HEALTH. — SEWERAGE. — To BRICKMAKERS, EARTHENWARE SEWER and DRAIN PIPE MAKERS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:—

CONTRACT No. 1.—For the supply of SQUARE and RADIATED BRICKS.

CONTRACT No. 2.—For the supply of EARTHENWARE SEWER and DRAIN PIPES, &c.

Specifications, schedules, bills of quantities, and forms of Tender (five shillings the set), may be obtained, together with any further information required, on application at the Town Surveyor's Office, Tynemouth; or at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street, Westminster. Sealed Tenders to be delivered at the Town Clerk's Office, Tynemouth, before TWELVE o'clock, on THURSDAY, the 17th day of MAY, endorsed "Tender for Contract No. 1 or 2," as the case may be.

(Signed) THOS. C. LIETCH, Town Clerk.

Tynemouth, 26th April, 1855.

WANTED, a BRICKLAYER, to contract at per rod for the labour of BRICKWORK, in the erection of from Four to Twelve Six-roomed Houses, that would agree to give from three to six months for the payment of the money. Good security will be given for payment of the money, and a liberal price agreed to.—Address, in the first instance, to A. B. Office of "The Builder."

CONTRACTS.

NEW CEMETERY for ALL SAINTS' PARISH, NEWCASTLE-UPON-TYNE.—To CONTRACTORS The All Saints' Burial Board are prepared to receive TENDERS for the EXECUTION of the whole of the WORKS necessary for the COMPLETION of the CEMETERY for the above Parish, including Drainage, Inclosing, Layingout, Planting, Entrance, Chapels, and necessary Buildings,—the Board reserving to themselves the right to let the Works either in One or separate Contracts. Plans and specifications of the works may be seen on application to the Architect of the Board, JOHN GREEN, Esq. 28, Grey-street, on and after the 23rd instant. Sealed Tenders, addressed to the Chairman of the Board, 14, Ellison-place, Newcastle-upon-Tyne, will be received not later than the 5th of MAY, to be endorsed "Tenders for Cemetery." Security will be required; and the Board do not pledge themselves to accept the lowest Tender.—By order,

JOHN BLACKWELL, Chairman.
ANDREW MIDDLEMASS, Clerk.

Board-room, Poor-law Union Office, Pilgrim-street, Newcastle-upon-Tyne, April 2, 1855.

THE PUBLIC HEALTH ACT, 1848.—To CONTRACTORS and OTHERS.—The Local Board of Health for the District of Leamington are prepared to receive TENDERS for the EXECUTION of WORKS required in the CONSTRUCTION and SEWERAGE of about 2,200 LINEAL YARDS of NEW STREETS, including the Macadamization of the carriage-ways, and flagging and paving of the footways, and the laying of upwards of 2,500 lineal yards of Stoneware Socket-pipes, and a short length of Brick Sewers under and adjacent, and other Works connected therewith, as described in the plans and specifications prepared by their Surveyor, Mr JOSEPH FOX SHARP, which, with samples of the materials to be used, may be seen at his Office, Town-hall, Leamington, between the hours of TEN and ONE o'clock, on and after SATURDAY, the 28th day of APRIL instant. Copies of the specifications, schedule of price, and form of Tender, may be obtained on application to the Clerk, at his Office, Town-hall, on payment of 5*s.* and to whom Tenders must be forwarded, endorsed "Tenders for making New Streets," on or before MONDAY, the 7th day of MAY, 1855. The Board do not bind themselves to accept the lowest or any Tender.—By order,

R. H. DAVIES, Clerk.

Town-hall, Leamington, 17th April, 1855.

COUNTY ASYLUM, CHESTER.—TO BUILDERS and CONTRACTORS.—The Visiting Justices of the County Asylum, Chester, are prepared to receive TENDERS for the ERECTION of a NEW CHAPEL, and HOUSE for the Superintendent. The drawings and specifications may be seen at the Asylum, Chester, from the SATURDAY, 24th APRIL, to SATURDAY, 12th day of MAY, between the hours of TEN and SIX, P.M. each day. Sealed Tenders for the Chapel and House, separately, to be addressed "To the Chairman of the Visiting Justices of the County Asylum, Chester," and marked "Tender for Chapel or House," to be delivered at the Asylum on or before the 14th day of MAY, 1855.—By order of the Magistrates,

ARTHUR HILL HOLME, Architect.

N.B.—The Magistrates do not bind themselves to accept the lowest or any Tender.

Liverpool, April 16th, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c. The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINS on the West Malvern Estate, Worcestershire The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN, and duplicates of the drawings and specification may be seen on application to Mr HENRY WEBB, Broad-street, Worcester, on and after MONDAY, APRIL 30th, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on FRIDAY, MAY 11th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Malvern Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 19, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c. The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the Alford Estate, Lincolnshire. The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN, or duplicates of the drawings and specification may be seen on application to Mr. GEORGE ATKINSON, Surveyor, Alford, Lincolnshire, on and after MONDAY, APRIL 30, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on FRIDAY, MAY 11th, addressed to the Surveyor, and endorsed, "Tenders for Roads, &c. Alford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 19, 1855.

SOUTH WALES RAILWAY STORES.—The Directors will be prepared to receive TENDERS for a SUPPLY of GENERAL RAILWAY STORES, on or before THURSDAY, the 3rd of MAY, addressed to the undersigned,—Specifications, stating the estimated quantities required, to other with form of Tender, may be obtained on application to the Stores-keeper, at Chepstow.—By order,

FRED. G SAUNDERS, Secretary.

10, Eastbourne-terrace, Paddington, April 20, 1855

[For remainder of Contracts see next page.

CONTRACTS.

MIDLAND RAILWAY.—The Directors of Th. Midland Railway are prepared to receive TENDERS for the WORKS necessary to be done in carrying the Stations and Buildings on the deviation line between Leeds and Morley Hall Road way in front and other part from Leeds to seven acres—

CONTRACT No. 1.

The Line is said Road and Branch, including Bridges.

CONTRACT No. 2—The Arch rade, Matlock, and Rowsley Railway.

The specification and drafts, at act may be seen and form of Tender obtained for Contract No. 1 up to application at Derby, Engineer's Office, Wenzett Street, Leeds, and for Contract No. 2 upon application at the Engineer's Office, Derby Station, on and after the 1st of MARCH next. Tenders to be sent to the Secretary at Derby, on or before Contract No. 1 on MONDAY, the 16th day of MAY next. To be delivered on or before TUESDAY, the 10th day of MAY next. The Directors do not bind themselves to accept the lowest or any Tender. By order,

JOSEPH SANDERS, Secretary.

Derby, April 24th, 1855.

CITY OF YORK.—INTERCEPTING SEWERS for the FOSS DISTRICT.—To CONTRACTORS for SEWERS and PUBLIC WORKS.—The Sanitary Improvement Act Committee are desirous of receiving TENDERS for the execution of INTERCEPTING SEWERS in the FOSS DISTRICT, the whole to be executed with the Bricks and Blue Lias, or Hydraulic Lime, of the following sizes:

CONTRACT No. 1.

567 yards circular Brick Sewer, 54 inches diameter.
562 do do do 48 do
1 do do do 15 do

FISHERGATE DISTRICT.

85 yards 9 inch Egg-shaped Sewer, 30 in. by 21 in.
20 do. 42 in. do 24 in. by 30 in.
265 do. do. do. 20 in. by 16 in.
385 do. do. do. 18 in. by 15 in.
do. do. of Drainage Pipes, 12 inches diameter.

CONTRACT No. 2

340 yards 9 inch Brick Sewer, 30 in. by 24 in.
20 do. do. 9 inches diameter.
420 do. do. 27 do
135 do. do. 24 do
405 do. do. 18 in. by 15 in.
18 do. of Drainage Pipes, 12 inches diameter.

The above items are exclusive of vertical Rain, inspecting shafts, junctions for branch sewers, connexions with existing drains, and other works. The drawings and specifications may be inspected, form of Tender, and bill of quantities, obtained at the City Surveyor's office, from the 7th to the 21st MAY next, between the hours of TEN in the FORENOON and four o'clock in the afternoon. Sealed Tenders to be delivered at the Surveyor's office before HALF PAST NINE in the Forenoon of TUESDAY the 22nd of MAY. Security will be required for the due performance of the work, and no pledge is given that the lowest or any Tender will be accepted.

By order,

THOS. PICKERSGILL, City Surveyor.

Guildhall Offices, York, April 24, 1855.

CONTRACTS for PAVING, CURBING, BRICKINGRANITE Gutters, Roads and Aberdeen, FLINTS, KENTISH RAG, GRAVEL, CARTAGE, HORSE HIRE, HIRE of WATERCARTS, SLOP CARTAGE, and SMITHS WORK.—PARISH of ST MARY, NEWINGTON, SURREY.—The Board for Repair of the Highways in the before-mentioned Parish will meet at the Vestry Room of the Parish Church on TUESDAY, the 1st of MAY next, at HALF PAST SIX o'clock in the Evening precisely, to receive TENDERS from Persons willing to CONTRACT for the Supply and Doing of such Paving, Curbing, Flinting, Gravelling, Rag and Aberdeen), Flints, Kentish Rag, Gravel, Carting, Horses on Hire, and Watercarts on Hire, as may be required by the Board, from the 2nd of MAY next, to the 25th of DECEMBER next, both days inclusive; and for Contracting for Performing the whole of the Slop Carting on the Parish Highways during the before-mentioned period. For further particulars and Forms of Tender, apply at the Office of the Clerk to the Board, where a list of the streets at present repaired by the Board may be inspected. By order,

HENRY CHESTER, Clerk to the Board,
1, Church-row, Newington Butts.

TO BUILDERS

PARSONAGE-HOUSE, HYSON-GREEN

Persons desirous of TENDERING for the ERECTION of a PARSONAGE-HOUSE and OFFICES, at Hyson green, Nottingham, may inspect the plans and specification from MONDAY, the 23rd inst. until THURSDAY, the 3rd of MAY next at the Vicarage, Hyson-green, on application to the Rev D. CARVER, the Incumbent, Alfreton-road, Nottingham, to whom the Tenders are to be delivered free, on or before TUESDAY, May 8th, 1855. The lowest Tender not necessarily accepted.

S. S. TEULON, Architect.

London, April 19, 1855.

WILTON LOCAL BOARD of HEALTH.—

To SURVEYORS.—The Local Board of Health for the District of Wilton, are prepared to receive TENDERS from Surveyors and others, willing to undertake the PREPARATION of a Detailed Plan of the TOWN DISTRICT of the District, to a scale of 10 feet to the mile. Such plan to be compiled in accordance with the specification, of the General Board of Health, and will be open to inspection, by them, and will be subject to their approval. The special conditions, and a form of Tender, with any further information required, to be obtained from the Clerk to the Board. Tenders, sealed and addressed to the Chairman, must be sent to the Office of the Local Board, at Wilton, on or before FRIDAY, the 4th of MAY next, accompanied by suitable testimonials of the general experience of the Surveyor tendering, especially with reference to Town Surveys. The Local Board do not bind themselves to accept the lowest or any Tender.

By order of the Local Board,

THOS. THRING, Clerk.

Wilton, near Salisbury, April 13, 1855.

TO BRICKLAYERS, SMITHS, AND OTHERS.

TENDERS are required for CAST-IRON PALISADE FENCING, to erect detached villas at Walthamstow, together with the brick piers, gates, &c. as also eight cast-iron garden pumps. Further particulars may be known on application to Mr. W. E. WILLIAMS, Surveyor, No. 50, Cheapside, between the hours of TWELVE and FOUR, on and after TUESDAY next. Mr. WILLIAMS does not bind himself to accept the lowest or either Tender; but the party whose Tender may be accepted will have the preference given for providing the materials and ranges for the said eight villas.

BUILDERS desirous of TENDERING for the ERECTION of a VILLA, at SUTTON, Surrey, for the City of London Land Society, may inspect the drawings of the Office of Mr. T. E. KNIGHTLY, Architect, 2, Cannon-street, City, to whom the estimates are to be delivered, on or before MONDAY, May 7th, 1855. No pledge is given that the lowest Tender will be accepted.

TO BUILDERS.

SAINT GEORGE (East), MIDDLESEX.—

The Guardians of the Poor of this Parish will, on FRIDAY, the 4th day of MAY next, at NINE o'clock in the forenoon precisely, open TENDERS for ERECTING TWO additional ROOMS, at Plashet-house, East Ham, Essex, plans and specifications of which may be seen at the office of Mr. WINDEYER WILSON, Architect, No. 2, Queen-street-road, until the 2nd day of May, between the hours of TEN and FOUR. The party contracting will be required to enter into a written contract and bond, with two sufficient sureties, to be approved of by the guardians, for the due and punctual performance of the works under the terms, conditions, and stipulations contained in the specification. Tenders must state the names and addresses of the proposed sureties, and be delivered at my office, sealed and endorsed "Tender for Works at Plashet," before TWELVE o'clock on FRIDAY, 4th MAY, and the party Tendering, or some authorised person on his behalf, must be in attendance at the meeting. The guardians do not bind themselves to accept the lowest or any Tender, nor hold themselves liable to any charge connected with the preparation of the estimate.

By order of the Board,

WILLIAM SPONE, Clerk.

Well'st ee square, April 25, 1855.

CONTRACTS.

CONTRACT for TUNNELLING.—URGEL CANAL, CATALONIA, SPAIN, MONCLAR TUNNEL. The shafts of the tunnel of Monclar having reached a depth from which an opinion may be formed of the nature and character of the ground, which will have to be forced in the execution of this tunnel, 3,966 metres in length, the Board of Administration will award the CONTRACT for the execution of the said tunnel in sight of the buildings at the office of the Company at Barcelona No. 2, Rue de Bogueria, first-floor, at TWELVE o'clock precisely, on the 20th JUNE next, according to the conditions contained in the general regulations, which, with the plan of the ground, may be seen in the aforesaid office; and in London, at Mr. G. C. REWS, No. 4, Bank chambers. All proposals must be presented, sealed, in conformity with the Form laid down in the regulations, to the undersigned, two hours at most before the above-mentioned.

(Signed) FRAN. FERRER Y BUSQUETS, Secretary.

Barcelona, April, 1855.

TO BUILDERS

PERSONS desirous of submitting TENDERS for the EXECUTION of the whole or any portion of the Works required in the ERECTION of a HOUSE and SHOP BUILDINGS, at Stowell, in the County of Derby, for Mr. Barber, may inspect the plans and specifications thereof at the rooms of Mr FRANCIS BACON, Queen-street, Derby, from FRIDAY, the 27th day of APRIL, till SATURDAY, the 5th day of MAY, inclusive. The Tenders to be sent to Mr BARBER, Derby, on or before MONDAY, the 7th day of MAY. Drawings to be inclosed, and that the pledge is given to the lowest Tender. Any further information may be obtained on application, personally, or by letter, to Messrs. J. and C. HANSOM, Architects, Clifton, Bristol.

Derby, April, 24, 1855.

BRISTOL LOCAL BOARD of HEALTH.—CLEANSING.—The Committee of the Bristol Local Board of Health have given notice, that they are ready to receive TENDERS for SWEEPING and CLEANSING the CARRIAGEWAYS of all the Streets, Squares, Courts of every description, Yards, Lanes, Passages, and Places in Divisions, Nos. 1 and 3, within the City and County of Bristol (exclusive of turnpike roads), for the term of THREE YEARS, from the 29th SEPTEMBER next. Any person or persons willing to Contract for doing the work in both or either of the said divisions, are requested to deliver sealed Tenders for performing the same on or before TEN o'clock on THURSDAY MORNING, the 10th day of MAY next, addressed "To the Committee of the Local Board of Health, 13, Prince-street, Bristol," where a specification of the work to be done, and the form of Tender, and any other information may be obtained. Each contractor will be required to find two good and sufficient securities for the due performance of the Contract. The Committee will not bind themselves to recommend the acceptance by the Local Board of the lowest or any Tender, nor until inquiry and approval of the proposed sureties.

By order of the Committee,

JAMES HARRIS, Clerk.

Offices, 13, Prince-street, Bristol, 12th April, 1855.

TO BUILDERS AND OTHERS.

PARTIES desirous of submitting TENDERS for ERECTING a VICARAGE-HOUSE, and other Buildings at Yarkhill, near Hereford, can see the plans, specifications, &c. at the Offices of Mr. T. NICHOLSON, Diocesan Architect, Hereford, from the 1st instant, up to the 10th MAY inclusive. The Tenders must be delivered under before the said 10th of MAY. No pledge is given that the lowest Tender will be accepted, and sufficient sureties will be required.

BOROUGH of BIRMINGHAM.—REMOVAL of NIGHT SOIL—CARTING ROAD MATERIALS—CLEANSING STREETS.—WATERING STREETS.—TENDERS.—CONTRACTORS and OTHERS.—The Public Works Committee of the Council of the said borough is prepared to receive TENDERS from persons desirous of contracting, for a term of one, two, or three years, to be computed from the 1st day of July next, for the performance of all, any one, or more, of the following works, namely:

For Emptying the Privies and Ashpits, and removing the night soil, dung, filth, ashes, and rubbish, within the said borough, from all, any one, or more of the four districts into which it is divided for that purpose.

For Carting and Drawing Materials, consisting of broken, vitrastone, pebbles, rough gravel, nuts, small gravel, gravel dust, sand, or other materials, for the purpose of making the Road Materials for the streets, roads, public thoroughfares, and places, in all, any one, or more of the said districts in the said borough.

For Cleansing the Streets, Roads, Public Thoroughfares, and Places, in all, any one, or more, of the said districts in the said borough.

For Watering the Streets, Roads, Public Thoroughfares, and Places, in all, any one, or more, of the said districts in the said borough.

Tenders to be sent, under cover (post paid), addressed to J. PIGOTT SMITH, Esq. Borough Surveyor, Moor-street, Birmingham on or before the 10th day of MAY next, each marked "Tender for

Specifications, with forms of Tender and any necessary information, may be had on application at the Borough Surveyor's Office, on and after the 3rd day of MAY next.

By order,

THOMAS STANDBRIDGE, Town Clerk.

Town Clerk's Office, Temple-street, Birmingham,
April 25th, 1855.

TO BUILDERS

SLANWICK CHURCH, Northamptonshire.—Persons desirous of sending TENDERS for the proposed RESTORING and RESEATING of SLANWICK CHURCH, can inspect the plans and specification after the 7th inst., by application to J. YOUNG, Esq. Churchwarden, Slanwick, Higham Ferrers. Tenders to be sent in on or before MONDAY, the 7th MAY, free of expense, addressed as above. The lowest Tender will not necessarily be accepted. Further particulars may be obtained by application to the Architect, W. SLATER, Esq. 4, Carlton Chambers, Regent-street, London.

April 9, 1855.

DREDGING in DENMARK.—The Royal Danish Ministry for the Interior submits for written TENDER, the DREDGING of the HARBOUR of FREDERICK SHAVN. The sum to be appropriated to this work is 40,000 rix-dollars, including all expenses and the cost of keeping the soil. The dredging is to be effected by means of one or more suitable machines and apparatus, and to be done in such a manner that the number of lasts of 4,000 lbs. shall be to a depth of 15 feet of standing water, and be raised by the expiration of the present year. The conditions are to be obtained at the undermentioned office, where a plan of the harbour of Frederickshavn lies for inspection, showing the area required to be dredged; likewise at the Offices of the Danish Consul-General at Hamburg and London; and of the Consuls in Lubeck, Gothenburg, and Malmo'. The sealed written Tenders, setting forth the payment required per last 4,000 lbs.; or per cubic foot of soil raised, must be addressed to "The Ministry of the Interior, Office of the Third Department, relating to the Proposal for the Dredging of the Harbour of Frederickshavn," and duly to be sent to the said Office, by TWELVE o'clock of the 15th of next month at which time all who have to be present in the presence of the bidders. Ministry of the Interior, Office of the Third Department, Copenhagen, April 14th, 1855.

FREE-TRADE FREEHOLD LAND SOCIETY. To BOARD CONTRACTORS. The Committee of the above Society is prepared to receive TENDERS for MAKING the ROADS on the first half of the Camberwell Estate. Plans and specification may be seen at the Offices of Messrs. DAVIS and VIGERS, 6, Frederick's-place, Old Jewry, between the hours of TEN and FIVE. Tenders indorse, "Tender for Roads, Camberwell Estate," and be received by Messrs. DAVIS and VIGERS, up to TWELVE o'clock, the 8th MAY. The Committee will not be bound to accept the lowest or any Tender.

6, Frederick's-place, Old Jewry.

CONTRACTS.

TO PAVIORS

THE COMMISSIONERS for PAVING the LIBERTY of NORTON-FOLGATE will meet on WEDNESDAY, the 16th day of MAY next, at FOUR o'clock in the afternoon precisely, at the Court-house in White Lion-street, to receive PROPOSALS for RELAYING the CARRIAGE-WAY of White Lion-street, and for doing such other repairs as may be found necessary for twelve months. The commissioners do not bind themselves to accept the lowest or any other Tender unless approved by them. The specification may be seen, and other particulars known, on application to the Surveyor, at the Court-house; or at my office, 7, High-street, Norton-folgate.

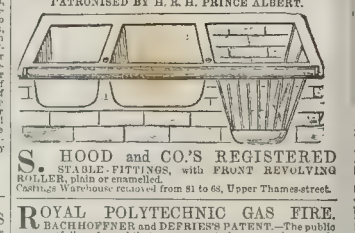
THOMAS MASON, Clerk to the Commissioners.

April 18th, 1855.

COLLINGE'S PATENT HINGES.—Manufactured by CHARLES COLLINGE and Co., 84 and 85, Bridport-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills &c.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years. F. GOLDSMITH, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, fixing and not rising spring, swing, double acting, gate, and other Hinges, Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr J. WALBY, sole Agent, at the Warehouse, 59 Brick-street, Sadler-street, or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse removed from 81 to 68, Upper Thames-street.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arran gements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent-street London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS HADLEY, Leamington, Warwickshire, of whom plans, prices and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected, it having the kitchener, and is effectually cut smoke-chimneys, and is the most perfect cooking range extant.

FIRST PRIZE KITCHEN RANGE.—The only prize ever competed for,—the prize of public approbation,—has been awarded to GRAY and MILNER'S celebrated KITCHEN RANGE, which is pre-eminently the best, most perfect, most useful, and complete apparatus for all cooking operations. It is without exception the best smoke-consuming chimney.—Wholesale agents, R. W. KENNARD and CO. 67, Upper Thames-street, London. Manufactory, Luton, Beds.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the celebrated hot water apparatus of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, foreing-houses, &c can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. It can be seen daily in the Stove and Fender department of Deane, Dray, and Co.'s establishment, where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and CO. opening to the Monument London-bridge. Established A.D. 1700.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42 Poland street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 30 to 5 per cent being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark. Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservatory and Greenhouse Builders, either in wood or iron, respectfully call the attention of the nobility, gentry, and nurserymen to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot doors for the same, hot-water pipes, elbows, tees, &c.; also, malleable valves, stop-cocks, syphon bracket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark or Iron bridge.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation. Heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s 6d. This achievement in heating by hot water is unprecedented.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

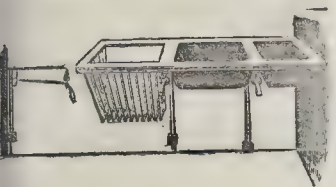
ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

COTTAM'S NEW PATENT FOR STABLE REQUISITES.

COTTAM AND HALLEN,



the original projectors of the above arrangement of MANGER RACK and WATER-TROUGH, AS ONE FIXTURE, which obtained the Great Exhibition Prize Medal, and universally approved of, have added all the latest improvements to their invention (secured by patent), which includes an entirely new method of attaching the halter ball and ring, giving to the horse greater freedom, and being noiseless in operation, add much to its comfort when at rest.

COTTAM'S ENAMELLED MANGERS

are constructed in the best possible manner, both as to form and utility, are cleanly in appearance, durable, and impervious to infection; manufactured PLAIN, GALVANIZED, or ENAMELLED.

Improved Stable Guttering, with Moveable Safety Covers.

Loose Box Fittings, Harness-room Appendages, and every Article in Stable Furniture kept on Show.

IMPROVED PUMPS,

Of the best Workmanship and warranted.

The VALVES and SUCKERS of these Pumps are constructed upon an entire new and SIMPLE principle; they are not likely to get out of order, should they do so, can easily be repaired, as the Pump is so contrived that the valves can readily be got at.

An Improved CAST IRON TRAP strongly recommended by the Sanitary Commissioners, and suitable for Sugar Bakers, Slaughter Houses, &c. &c. It is so formed that the Trap-plate will pass any matter the trap grating will let through, and therefore is not liable to stoppages, and well adapted to Stables and Stable-yards, for saving the best part of Liquid Manure.

Descriptive Catalogues and Estimates on application to

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STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches up to 10 inches each corrugation, in all lengths up to about 11 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS, also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON duto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock, or galvanized to order.

The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters, plain and moulded, Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys; Copper Rope Lightning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, at 1d. per square foot. Dry-hair Felt for Deadening Sound, for Boilers and Steam Pipes, made in rolls 20 yards long, at a greatly reduced cost.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chains, Anchors, &c.

THE TRADE SUPPLIED ON LIBERAL TERMS.

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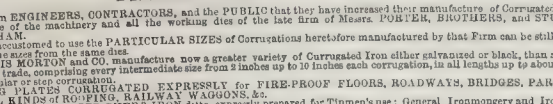
Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. All kinds of Iron and Ironwork Galvanized, and Sheet-iron Corrugated at very moderate prices.



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PATENT WROUGHT-IRON HALF-ROUND EAVES GUTTER.

The following are the advantages possessed by this article over the ordinary Cast-iron Gutter:—

Cheapness.
Greater Facility in Fixing.
Non-liability to Breakage.
Convenience of Packing for Exportation, &c.

JAPANNED—Prices, 3½ inch, 7d. per yard.
4 inch, 7½d. per yard.
4½ inch, 9d. per yard.
5 inch, 1s. per yard.

GALVANIZED. Prices—4 inch, 1s. 1d. per yard.
4 inch, 1s. 1½d. per yard.
4½ inch, 1s. 3d. per yard.
5 inch, 1s. 6d. per yard.

DISCOUNT, FIVE PER CENT.

A. MOREWOOD AND CO.

GALVANIZED TINNED IRON AND PLUMBIC ZINC WAREHOUSE, DOWGATE DOCK, UPPER THAMES STREET, LONDON.

SKAIFE'S GALVANIZING WORKS,

Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form
Sheets planished and corrugated. Roofs fixed complete
J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much

approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station. A large variety of buildings always on view, churches chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and

Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, cheapness of construction, and being fire-proof. Drawings and estimates form stock.

Island Foundry and Ironworks, Millwall, London.
Offices: 19, Fenchurch-street, City.

TUPPER and CARR, Contractors and

Manufacturers of all sorts of
IRON ROOFING
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's)

PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

PATENT GALVANIZED IRON.

(IMPROVED PROCESS.)
JOHN SYMONDS and CO.
WORKS, GLASS HOUSE YARD, opposite the principal Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description, superior in all respects to that produced by any other process, THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

Estimates given for IRON ROOFS, Corrugated Sheds Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c.
Roofs fixed complete

UNDER PATRONAGE of the ENGLISH

and FRENCH GOVERNMENTS

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER.

Builder, Contractor and Ironfounder, Mill-wall, Poplar.

Offices Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

LIGHTNING CONDUCTORS.—

R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
149, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of

GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show, every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—5, and 56, High Holborn.

ESTABLISHED, 1817.

WILLIAM HARMER'S Smith's Work, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster. Builders, contractors, and others, supplied at the lowest wholesale prices, with Improved Self-acting Kitchen Ranges, Elliptic and Register Stoves and Shams; Fire Lumps to suit the same; Cast-iron Rain-pipes, Eaves Gutters, Sash Weights, Air Bricks, Sink Traps, &c.; Sheet Zinc, Perforated Zinc and Tubing; Cut and Wrought Nails, Brads, &c.; Rim, Mortise, Dead, Cupped, and other Locks; Patent Sash Line, Glue, &c.; Bar, Rod, Hoop, and Sheet Iron; Galvanized Iron and Galvanized Iron Coppers. Price lists on application, which will be found equal to all competition. Estimates given for Wrought and Cast Iron Railing, Gates, Balconies, Staircase work, Verandah, and Wrought and Cast Iron Work of every description.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.
"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions, in the present state of the art, picking them would seem to be impracticable."—*Standard.*
Depôt: 181, FLEET-STREET; where also may be had PRICE'S FIREPROOF SAFES, &c.
COPYING PRESSES, CASH AND DEED BOXES.
Lists and Prospectuses free.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnishers of every kind; together with Patent Sliding Sashes; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.
J. H. BOOBBYER (late STITCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.
14, Stanhope-street, Clare-market, London.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.
Messrs. HOBBS, ASHLEY, and CO. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.
EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.
These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.
This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.
The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.
The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a series of artificial arches, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.
Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.
Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 12, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.
COPY OF MESSRS RYLANDS AND SONS' TESTIMONIAL.
"94, High-street, Manchester, March 6th, 1854.
"Messrs. Chubb and Son,
"GENTLEMEN,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge.
"You are at liberty to make what use of this communication you may think proper.
"We are, Gentlemen, yours respectfully,
"RYLANDS and SONS.
CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.
CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsleyfields, Wolverhampton.

IRON METAL and MACHINERY.—The Advt. Corbyn's-hall Company's Bars, Sheet Plates, Angle, Tyre, and Corrugated Iron. Harland's Patent Gas and Water Tubing. W. Collier and Co.'s Machines, Tools, &c. Railway Plant, &c.—GLADSTONE and SON, Agents, 6, John-street, Adelphi, London.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Offices of PUWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING and MOULDING, MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

DR. ARNOTT'S VENTILATING VALVES,

MANUFACTURED BY
HART AND SON,
53, 54, & 55, WYCH-STREET, STRAND.
Price-lists on application.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELE and STEDALL'S,
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler,
20 22 24 26 inch.
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 56s. 58s. 63s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 6d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 6d. per inch.
Best Solar dittto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2	2½	3 inch.	
	1s.	1s. 3d.	1s. 6d. per yard.	
Cast Gutters—4 inch, 10d. per yard.				
O G Gutters		4	4½ inch.	
		1s. 4d.	1s. 6d. per yard.	
Best Out Clasp	1½	2	2½	3 inch, and larger
and Rose	17s.	16s.	15s.	14s. per cwt.
Cut Billed Brads, 13s. 6d. per cwt.				
1 inch Cut Lath, 16s.			Cast Lath, 12s.	

Patent Line	2	3	4	5	6
	5d.	6d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO BE SOLD, a CYLINDRICAL BOILER, between 11 and 12 feet in length, and 3½ feet in diameter. Also, a small OSCILLATING STEAM-ENGINE, of from two to three-horse power, with steam-gauge, regulator, feed pump, and all the accessory cocks and valves complete. They are by one of the first makers in London, and have been in use only six months.—Address, post-paid, D. R. Office of "The Builder."

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.
THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.	4	5	6
	5s. 3d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TO BE SOLD, a small SAW-MILL, one-frame, and a BENCH; engine and boiler, and saws; having everything now in working order.—Inquire for particulars at Mr ALLEN'S, Range Maker, Broadway, Deptford.

HOOD and SON'S CASTINGS WAREHOUSE REMOVED from No. 81 to No. 68, Upper Thames-street.

TO IRONMONGERS, BUILDERS, &c.
PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 85, High Holborn.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron, and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Nails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 15s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 38s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their latest method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

CUT-NAIL WAREHOUSE, 104, UPPER THAMES-STREET.—W. P. BOWMAN respectfully calls the attention of builders, packing-case-makers, and ironmongers to his well-assorted stock of Cut Clasp and Rose Nails, which will be found to be at least 10 per cent. lower than any other house in the trade:—
CUT CLASP AND ROSE NAILS.

3-inch	13s. 6d. per cwt.	1¼-inch	16s. per cwt.
2½-inch	13s. 6d.	1-inch	16s. "
2-inch	14s.	Hoop Floor Brads	11s. 6d. "

N.B. Warehouse, 104, Upper Thames-street, corner of Swan-lane.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

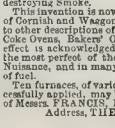
NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Size-lane, London.

FOR SALE, one powerful self-acting PLANING MACHINE. Will plane 15 feet long by 4 feet 3 inches wide, by 3 feet high; also several useful turning-lathes, and a screw-cutting machine by Whitworth.—Inquire at 16 Old-street.

TO BUILDERS, CONTRACTORS, &c.—TO BE SOLD a bargain, a strong FOUR-WHEEL VAN, on springs, in excellent condition.—May be seen at D. and E. BAILEY'S, Ironmongers, 272, Holborn.

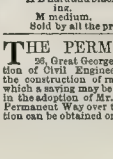
TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE SOLD, a nearly new TWO HORSE TIMBER CARRIAGE. Owner, Potterites, Chemical Works, &c. The effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.



SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTCH'S PATENT WIND-GUARD.—This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.
To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

LARK'S PATENT SMOKE-BURNER, an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention is now in operation upon Steam-engine Furnaces of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. The effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

VENTILATION.



D. and E. BAILEY beg to call the attention of Architects and others to their improved
CIRCULAR ARNOTT VENTILATORS,
which are more sightly than the square ones in general use, much less liable to get out of order, and the flaps, being hung from the top, do not admit any smoke caused by down draught.
Price, bronzed, from 5s. 6d.
D. and E. BAILEY, 272, Holborn.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.
H. MORRELL, LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.
These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
	B B B B ditto ditto.

M medium.
Sold by all the principal Stationers in town or country.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, beg to call the attention of Civil Engineers, Contractors, and others interested in the construction of railways to the present low price of iron, by which a saving may be effected of nearly 300l. per mile, single line, in the adoption of Mr. W. H. BARLOW'S Patent Wrought-iron Permanent Way over that of the ordinary road.—Every information can be obtained on application to
WILLIAM HOWDEN, Secretary.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

CHARLES WM. WATERLOW AND CO.
MANUFACTURING JOINERS,
121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

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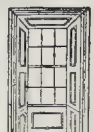
MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.



Lists of Prices and Estimates forwarded on application.

PATENT METALLIC LAVA.

A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1853, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

GENUINE SEYSSEL ASPHALTE.
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THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

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REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

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CHEAP AND DURABLE ROOFING.

By Her Majesty's Royal Letters Patent.

F. McNEILL and CO. of LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON,

Manufacturers and ONLY Patentees of

THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronised by

HER MAJESTY'S WOODS AND FORESTS,
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HONOURABLE EAST-INDIA COMPANY,
HONOURABLE BOARD OF ORDNANCE,
HER MAJESTY'S ESTATE, ISLE OF WIGHT,
ROYAL BOTANICAL GARDENS, REGENT'S PARK,

and by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under plates at the Royal Agricultural Society's House, in Hanover-square. Its advantages are lightness, warmth, durability, and economy. It is impervious to rain, snow, and frost, and a non-conductor of heat and sound. The Felt can be cut to any length, by 30 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its uses and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen, and Gentlemen who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Boilers, &c. is also manufactured, by which a saving of about 25 per cent. in fuel is effected. The TRADE are respectfully enjoined to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their work. They are likewise CAUTIONED AGAINST MISREPRESENTATION, as THE ONLY WORKS in Great Britain where the above roofing is made are F. McNEILL and CO.'s Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW. Roofs covered with the Felt may be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the New Houses of Parliament.—A Liberal Discount allowed to the Trade.

FOREIGN and English Sheet, Crown, Plate,

Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps Water-closet Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 87, Bishopsgate-street, London. Established more than 100 years.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS
COMPANY, 296, Oxford-street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot.

Crown or Sheet Squares, in 100 feet boxes, 3d. per foot.

Sashes Primed and Glazed, 3d. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

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The Builder.

SATURDAY, APRIL 28, 1855.

IN a recent article on the subject of house-painters' work, we perhaps succeeded in showing that serious disadvantages were attendant upon the ordinary process—not only in regard to durability, but with reference to the interests of art. We urged the desirableness of re-examining minutely the nature of painting in oil, with a view to the possibility of improvements which might comply with the conditions, or to the substitution of some new vehicle or process, free from defects, such as seems to be entailed by the use of white of lead. We trust we need say no more about the necessity—if real excellence in general architecture is to be brought about—of causing the element of interior decoration to bear its part. Such progression is not to be effected, except by the production in all art-works, of monumental character. The perishable nature of many of the ordinary pigments is not only inconsistent with such character, on the face of the work,—it checks the exercise of art by the very damp which it throws on the energy of the artist-architect.

If we could have solved the questions connected with the durability of particular vehicles, as easily as would be assumed by certain interested parties, we might have spared ourselves the examination of many minute details of operations, which have come to be used without much regard for the *rationale* of each particular process. But we see no reason for thinking such researches as those of M. Chevreul superfluous. We take it, that however much the ordinary practice of painters' work may have gained the force of habit, somewhere all of us are really "at fault." We can only "try back," and must go to sufficiently early ground, if we would reach the true "game" at last. Therefore, in our last notice, with the aid of M. Chevreul, we considered what were the objects of painting, and the essential conditions of the ordinary process with the ingredients of the compound used, and in what that which is called the *drying* of the work consists. We would not preclude ourselves from pursuing the inquiry on the extended basis required—which might, indeed, touch upon the use of pigments and vehicles, as paint, under whatever circumstances. However, meanwhile, hoping that the objects may be met by some suggestion from our practical readers, we will proceed with the results which are before us.

In his second chapter, M. Chevreul still inquires into the nature of the drying,—and here more especially, whether particular *surfaces* and *substances* have influence upon the duration of the drying of the paint upon them. The greater number of the experiments had reference to the same general subject, though other questions of importance are investigated, or may be found elucidated incidentally.

At the conclusion of the last article, the question of influence of the nature of a surface upon the drying, was referred to; and although few of our practical readers require to be told certain well-known facts which may appear at first examination of the tables,—details of experiments conducted for the special object of comparing the use of different oils and vehicles cannot be examined without the chance of useful deductions. By an ingenious device, opportunity was afforded for comparison of eleven different vehicles in each of three coats on two separate kinds of surface. One kind was the surface of a previously painted coat of brown colour; the other was that of the original bare wood. The experiments were commenced in December, 1849, and lasted till February, and some of them till May, in the next year,—the wood used being oak,—that adopted in the greater number of these experiments. For what reason the choice was made does not appear, but it is to be regretted; and the numbers are valuable mainly for the purposes of comparison with each other.

From the particulars, given at some length, we have compiled the following table and reference. The figures denote the number of days occupied in drying. Each of the eleven headings is divided into two columns, showing the results for the surface painted brown, and for that left plain, each respectively. The letters and figures at the heads of the columns, we have given for reference to particulars appended.

Reference to Notes:—	A 1 | 2		B 1 | 2		C 1 | 2		D 1 | 2		E 1 | 2		F 1 | 2		G 1 | 2		H 1 | 2		I 1 | 2		K 1 | 2		L 1 | 2	
Oil, or Vehicle, &c.:—	Pure Linseed Oil.		Litharged Oil		Manganesed Oil.		Linseed Oil and White of Lead.		Linseed Oil, Litharged Oil, and White of Lead.		Linseed Oil, Manganesed Oil, and White of Lead.		Linseed Oil and White of Zinc.		Linseed Oil, Litharged Oil, and White of Zinc.		Linseed Oil, Manganesed Oil, and White of Zinc.		Linseed Oil and White of Antimony.		Linseed Oil, Litharge (Oil, and White of Antimony.	
Nature of Surface.—	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.	Brown.	Plain.
Days occupied in Drying.—																						
First Coat...	4	22*	2	4	2	3	2	5	2	4	2	2	4	66	3	6	3	5	4	50	4	36
Second Coat	17	113	3	3	3	2	4	3	4	3	2	2	11	6	5	5	3	3	13	9	11	5
Third Coat..	25	24	2	3	2	3	3	3	3	3	2	2	16	6	4	5	2	8	18	7	13	2
Total, Days	46	159	7	10	7	8	9	11	9	10	6	6	31	78	12	16	8	11	35	66	28	43

Notes and Conclusions from the foregoing table.—

Reference.

A. B. C.—Pure linseed oil dries less quickly than the same oil boiled with litharge or manganese, as stated formerly.

A. 2.*—An error in the observation. In fact, the experimentalist had sometimes, difficulty in concluding when a first coat was dry,—for the first coat sinks in, drying at the surface, though not dry in the pores.

A. 1—2.—The first coat of brown (in 1), has favoured the drying of the oil: also, it has acted mechanically in preventing penetration.

A. B. C.—The oils litharged and manganesed are under favourable conditions for drying and taking the aspect of varnish, because they are not imbibed,—whilst the pure oil, other things being equal, was under less favourable conditions, through its greater power of penetration. Thus it may deserve consideration, as said before, whether the *tendency* of admixture of "driers," is not antagonistic to durability, though of course it may not be possible to dispense with them.

D. E. F. 1.—Drying influenced by the previous painting, as far as regards the first coat. The results shown in E and F might be interchanged. That would be the result of varieties in the manufactured substances.

D. E. F. 2.—The white of lead siccative relatively to the pure oil, and the first coat to the others. In short, the drier, or the first coat, as the case may be, seems to act by preventing the absorption. The question is, whether more of this absorption might not be desirable, considering durability

G. H. I. 1.—As before. The influence of the litharge in H, and of the manganese in I, shown as in relation to white of zinc.

G. H. I. 1—2.—The white of zinc siccative with relation to the oil.

K. L. —Possible that the results are modified by impurities in the white of antimony.

With reference to the foregoing experiments, in the course of which it appeared that a coat of oil or paint laid on another which had dried, was influenced by that coat, so as to make the later coat dry more rapidly,—the question occurred whether the material itself (originally prepared for the coats generally) might not, in the interval of applications, have undergone an influence from the atmosphere, rendering it more siccative. Experiments were devised, and tried specially, to ascertain this. It was found that paint kept covered for several days, became more siccative (from the small quantity of air in the vessel) than it had been originally: but the siccative influence of a first coat still operated. At length, it was found that paint of seventy-six days old, on oak, took only five days to dry. It was, therefore, inferred that, then, by the weather or otherwise, the paint had acquired sufficient of a siccative property, to render the influence of a preceding coat comparatively of little value.

The comparison of *surfaces* having tended to show that *substances* have influence upon the duration of drying, experiments were next made, directly with reference to materials which might require to be painted. Experiments were commenced in May, 1850, on certain metals, on plaster, and some kinds of wood. With regard to the metals,—lead was singularly efficacious in promoting the drying of paint. This was shown by the *comparative* slowness of the drying of the second and third coats. The influence of tarnished lead, too, was less than that of lead with a bright surface; but this influence was observable on the first coat only. On new lead, pure oil dried with great rapidity. The oil appeared to take up chemically, a portion of the lead. An argument, we might find, could be adduced from this, as to the present use of white of lead, in contrast to that of white of zinc. But, on the other hand, we see that the oil with white of lead dries more slowly than the pure oil, contrary to what happens on other bodies. The oil with white of zinc dries more quickly than the oil with white of lead, whilst the opposite of that was found by M. Chevreul in the other cases. In the subsequent coats, the white of lead appears to increase the drying properties of the oil, and to be rather more efficacious in that respect than white of zinc. In the case of copper,—in a first coat, the pure oil dries more slowly than the oil with white of lead, or white of zinc, whilst on brass and zinc the oil dries as rapidly as the oil and white of lead, but even more quickly than the oil and white of zinc. Brass, however, seems rather more siccative than zinc. On iron, the results are similar to those on zinc,—excepting that the oil and white of zinc dry more rapidly than they do on zinc. The latter result is analagous to what takes place in the case of lead. As regards second coats, on copper, brass, zinc, and iron, as well as lead, the oil with white of lead dries more quickly than the pure oil, or the oil with white of zinc. "A Tin-Worker," recently asked in our pages, whether white zinc had greater affinity for zinc, than white lead had—as a paint for out-door use. It is not easy to find a better reply than was then given; but the facts as to drying, may be worth mentioning. Thus, whilst as regards a first coat, pure oil, and oil with white of lead, dry in the same length of time—that is to say, as we find it in M. Chevreul's table, about three days in spring—and the oil with white of zinc, takes only a day longer; three coats of pure oil occupied twelve days, and three coats of oil and white of zinc even, as much as ten days; whilst the same number of coats of oil and white of lead, could be finished and dry in seven days.

Proceeding to other materials, we find that

on plaster, a first coat of pure oil dries as quickly as the oil with white of zinc, but not so quickly as the oil with white of lead by one day. In the case of three coats, the oil and white of lead are the soonest dry, the oil and white of zinc requiring three days longer, and the pure oil two days longer than that.

With reference to woods, the disadvantages of oak, we need not repeat, are remarkable. On deal and poplar, the experiments show that pure oil dries much more slowly than the oil with white of lead, or even the oil with white of zinc. Of the two materials, deal has most influence on the pure oil in promoting drying. Applied in three coats, oil with white of lead dries more quickly than the oil with white of zinc, and especially than pure oil. The general results may be tabulated thus:—

On Deal, the three coats of oil and white of lead took 8 days to dry.
" the three coats of oil and white of zinc took 10 days to dry.
" the three coats of pure oil took 28 days to dry.
On Poplar, the three coats of oil and white of lead took 7 days to dry.
" the three coats of oil and white of zinc took 10 days to dry.
" the three coats of pure oil took 34 days to dry.
On Oak, *one* coat of pure oil in 33 days had dried at the surface only.

The results of some experiments specially in reference to the pure oil are worthy of notice. Thus:—

On Lead, a first coat of pure linseed oil dried in 13 *hours*.
" second coat ditto required 4 days.
" third coat ditto required nearly 6 days.

On woods, as we found, the pure oil dries most rapidly on the deal, next on the poplar, and slowest on the oak; and first coats, at least in the case of the deal and poplar, act as siccatives upon the next coats.

M. Chevreul's next subject of investigation has reference to the influence of turpentine.

ANNUAL MEETING OF THE ART-UNION OF LONDON.

THE annual meeting of the members of the Art-Union of London was held on the 24th inst. in the Haymarket Theatre, for the distribution of the prizes, when, in the absence of Lord Monteagle, Henry Thomas Hope, Esq. was called upon to preside.

The Chairman having made some introductory observations,

Mr. Godwin, F.R.S. hon. sec. read the following

REPORT.

IN accordance with the wholesome custom observed from the first establishment of the Art Union of London, and afterwards prescribed in the Royal Charter by which it was incorporated, your Council proceed to lay before the subscribers a full account of their proceedings during the past year, with a statement of the receipts and expenditure. Notwithstanding the additional imposts rendered necessary by the deplorable war we have been forced into, and the extent to which men's minds are drawn by it from other contemplations and pursuits, the subscriptions for the year now ended amount to the sum of 14,304*l.* 3s. Each subscriber has received, or may receive at any time on presentation of the printed "order" in his possession, the engraving in line from "The Water Party," by the late J. J. Chalon, R.A. and is, further, entitled to the volume of wood-engravings by eminent artists, illustrative of "Childe Harold," which will be ready for distribution in August next. It may be useful to mention here, that Mr. Murray has published a quarto edition of the poem, expressly for those subscribers who may desire to bind it with the illustrations.

For the ensuing year, an engraving by Mr. Willmore, A.E.R.A. from the well-known picture, "Harvest in the Highlands," by Sir Edwin Landseer, R.A. and the late Sir Augustus Calcott, R.A. has been prepared, and will be ready for distribution to each subscriber before the close of the lists. This is a fine and costly work; and it is proposed with reference to it, that a subscriber of ten guineas shall be entitled to receive an artist's proof on India paper, before letters (of which only a few will be printed); and a subscriber of five guineas, a proof on India paper, with open letters.

An engraving, after an admirable picture by Turner, is in preparation for the subscribers of a future year.

Further, the Council have commissioned Mr. G. R. Ward to produce an engraving in mezzotinto, from the picture by Mr. A. Johnstone, "Tyndale translating the Bible;" the appropriation of which will be determined hereafter.

Mr. Maguire has completed his lithograph of "The Supper Scene," from the *Bourgeois Gentilhomme*, by Mr. Frith, R.A. in a very excellent manner: impressions will be allotted to-day.

For the satisfactory amount of this year's subscriptions, under existing circumstances, your Council have largely to thank the local honorary secretaries and agents acting throughout the kingdom and the colonies (some in far distant localities, where until now works of art were unknown and unthought of), and they propose to make such an arrangement for the ensuing year, as shall give to a larger number of the local honorary secretaries, some tangible acknowledgment for their services than is now the case. From our agent in Boston, in the United States, we have received 265 names, and from Hobart Town 236.

From Melbourne, the land of gold, we have received from one gentleman fifty guineas, being a subscription of five guineas *per annum* for ten years in advance.

In America, it may be said, in passing, the desire to aid in the encouragement of the fine arts, and to possess beautiful works is greatly and advantageously extending. The council have before them an account of the proceedings at the last annual meeting of a society for the distribution of works of art in the State of Ohio, consisting of 21,576 subscribing members.

"By the annual distribution of our prizes," said the president on that occasion, "a silent but impressive lecture finds its way to the inner temple of many a domestic sanctuary, shedding thence a more genial influence and purer effulgence than that renowned gem, 'The Mountain of Light,' but lately added to the crown jewels of the British Queen. The man who puts a good and true work of art in our dwelling, has given us a teacher of beauty or excellence, to stand by night and by day, and ever with its lesson truth lead us to the contemplation of a higher life." "Art," he continued, echoing what has been said in many of our reports, "is not alone the graceful vine which encircles the granite columns, whose base is grounded upon the rock-ribbed earth, and upon whose capital rests the entablature which spans the whole, but enters into the composition of shaft and cornice, and every other member of the whole edifice; not only for grace and ornament, but equally for strength and endurance. Viewed in this light, Art is eminently utilitarian, and should lead us to study the indissoluble affinity, by which we see the beauty of utility, and the utility of beauty."

The various bronzes, statuettes, medals, and lithographs allotted at the last annual meeting, have been produced and distributed, with the exception of the bronzes, in relief, of "The Duke of Wellington entering Madrid." Delay occurred in the completion of the model, but this has been effected, and the copies are now in course of execution. A further number of these will be allotted to-day.

The various statuettes produced by the Art-Union of London, were exhibited during the last season at Marlborough-house, at the request of the Government Department of Science and Art, and have since been sent to the Universal Exhibition at Paris, where a prominent position has been provided for them. The works in bronze sent were—"Satan Dismayed;" "Her Majesty on Horseback;" "The Eagle Slayer;" "Bust of Her Majesty;" "Michael and Satan;" "The Nymph and Child;" "Iris ascending;" "Hebe," and "Thalia:" and in porcelain—"Solitude;" "The Dancing Girl reposing;" "Innocence;" "Narcissus," and "Clytie." It is a subject of congratulation, that through the operations of the Art-Union, England will make a much better figure in this department of art than would otherwise have been the case. Our engravings and lithographs will also be found in the Exhibition, mostly sent by the engravers who executed them.

The fine-art department of the Paris Exhibition promises to be one of extraordinary interest, presenting, as it will, in juxtaposition, works of the various schools of Europe. If nations would content themselves with such struggles for supremacy as exhibitions of this kind induce, and let their only battles be for progress, how much sorrow, loss, and misery would be spared—how great would be the everlasting gain of all! In the maintenance of the union of France and England now happily subsisting, we see the most promising assurance of a speedy return to a state of peace, so essential to the progress of the arts and the happiness of mankind. It is gratifying to find everywhere evidence of the favour with which the French people regard this union. "I am a foreigner," writes a subscriber in his own language, from the department of the Puy de Dôme,—"but it appears to me that an association like that of which you have the direction should include within it, without distinction of nationality, all who appreciate the noble enjoyments which the cultivation of the fine arts bestows. These sentiments will be responded to, I hope, with the greater eagerness at an epoch, when our two nations, so long rivals, have established a frank and solid alliance for the safety of civilization." Let this public acknowledgment of his letter serve to assure him of the warmth with which we accept his co-operation.

In continuation of our medallic series in honour of English artists, your Council commissioned Mr. Benjamin Wyon to engrave dies for a medal commemorative of Sir John Vanbrugh, architect, the reverse to bear a representation of part of Blenheim. These have been finished satisfactorily, and the right to impressions from them will form part of a future distribution. They have further commissioned the preparation of medals commemorative of Banks, the sculptor, by Mr. B. Wyon; Gainsborough, painter, by Mr. Henry Weigall; and Sir William Chambers, architect, by Mr. Leonard Wyon.

The beautiful bust of "Clytie," mentioned in the last Report, has been carefully reduced by M. Delpech, and produced in porcelain statuary by Mr. Alderman Copeland: copies will be allotted to-day. The Council have in their hands a statuette by Mr. Edward Wyon, called "The Stepping-stones," to be produced in the same material for another year.

The model for the ornamental vase, to be executed in cast-iron, has been made by Mr. Hale, and is now in the hands of the Coalbrookdale Iron Company, to be cast.

Your Council have had their attention directed to the circumstance that some of the earliest subscribers, who have continued to be members of the Art-Union of London up to the present time, have never obtained a prize, and may to some extent feel less personal interest in its maintenance than formerly. Considering it desirable to re-awaken this interest, and to acknowledge the advantage which the Corporation derives from the continuous support of steady friends, it has been resolved that every member who shall have subscribed for ten consecutive years, ending with the year 1856, and shall not have gained a prize of any kind in that period, shall be entitled to one of the porcelain busts of Clytie.

The retiring members of Council are Dominic Colnaghi, esq.; E. W. Field, esq.; the Rev. Dr. Mortimer; and Sir Morton Peto: and in their place, Sydney Smirke, esq. A.R.A. architect; J. A. Hallett, esq.; Jacob Bell, esq.; and William Herbert, esq. have been elected.

The reserve fund now amounts to the sum of 6,413*l.*

The following is a statement of the receipts and expenditure:—

Amount subscribed	£14,304	3	0
Set apart for pictures and other prizes	7,416	0	0
Cost of engraving and volume of designs	3,816	13	2
Printing reports, exhibition, and office expenses, with a reserve of 2½ per cent. required by charter	3,071	9	10
	£14,304	3	0

The accounts have been audited by two members of the general body of subscribers, Mr. Jones and Mr. Nelson, to whom thanks are offered, and three members of the Finance Committee.

The sum set apart for prizes, to be selected by the prizeholders themselves, will thus be allotted, viz.:—

25 works, at	£10	each.
26 "	15	"
30 "	20	"
30 "	25	"
30 "	35	"
12 "	50	"
17 "	60	"
8 "	75	"
5 "	100	"
2 "	150	"
1 "	200	"
1 "	250	"

To these are added:—

8 Bronzes of "Her Majesty on Horseback."
5 Bronzes in Relief of "The Duke of Wellington entering Madrid."
60 Porcelain Statuettes, "The Dancing Girl Reposing."
80 Porcelain Busts of Clytie.
30 Silver Medals of Flaxman; and
30 Silver Medals of the late W. Wyon, R.A.
500 Impressions of the Lithograph, "The Three Bows;" and
100 of "The Supper Scene."
Making in all 1,000 prizes.

The bronzes, porcelain statuettes, and medals, will

be allotted to the first 213 names drawn consecutively at the close of the general distribution. The lithographs will be allotted to the names standing one hundredth in the list preceding and succeeding that of each of the first 400 prizeholders, determined as above stated; with a proviso that a prize has not fallen to that number during the day—in that case the prize will pass to the next succeeding name. Notice will be sent to those entitled to the bronzes, statuettes, medals, and prints, in the course of two or three days. The other prizeholders will be informed of the result by to-night's post.

The works of art (191 in number), purchased by the prizeholders of last year, were exhibited, by the kind permission of the Society of British Artists, in the Suffolk-street Gallery, when large numbers of persons visited the collection without limitation or charge, and, as usual, without the slightest misadventure. The Council take the opportunity of recording their thanks to the members of the National Institution of Fine Arts for an obliging offer of the Portland Gallery for this purpose.

Believing it to be of the utmost importance to the education of the public in art that the greatest facilities should be afforded for the inspection of collections of works of art, and that free admission should be given to our noble cathedrals and other buildings, which not simply cultivate the eye and render it averse to forms less harmonious and beautiful, but

> ——"Rouse the heart and lead the will,
> By a bright ladder to the world above;"

the Council have sought to make evident with the experience of nineteen years, that the English public may be unrestrictedly admitted to the finest galleries, and the choicest structures; and that they will rigorously defend whatever may be confided to their honour. The experiment of throwing open the provincial exhibitions of paintings to the labouring classes, either quite free, or at a very small charge, tried in various parts of the country, has been eminently successful, and if persisted in, is sure to produce excellent effects. Good taste is the result of cultivation. The eye requires to be taught what is good, and then will not be contented with worse. By these steps, enjoyment has been given to thousands; and if you make men happy, you help to make them good. Pictures are the books of the ignorant; by the contemplation of them, they learn to see beauties, and to find elevating pleasures in what before was as nothing. It is not every one, even of the more educated, who can see the beautiful side of common things; who can note the changing glories of a sky, or find constantly recurring pleasure in the study of nature's countless combinations. There are few things from which the eye that sees with the mind may not obtain delight, and the contemplation of works of art, and still more the use of the pencil in the delineation of nature, increase greatly this aptitude for pleasure, and multiply infinitely the sources of enjoyment. Well may we sing,—

> "O let our eyes be ever open,
> And our bosoms wide;
> Beauty is ever on us laving,
> Like an incoming tide.
>
> A flood of beauty is about us,
> Pressing to get in,
> Through cracks and crannies of our senses,
> To the deep cave within."

It will scarcely be questioned by those who agree in these views, that it is very desirable that the Exhibition of the Royal Academy should be thrown open to the people for a certain period, at the end of the season, if not wholly free, at all events with a very small charge for admittance. At first the masses would enter with avidity to gaze and ultimately admire, without much judgment, but in the course of a few years the good results would be evident and undeniable. The money question ought not to be allowed to stand in the way. Should the proposed step lessen the funds of the Academy, the Government should meet that part of the difficulty: the public are increasingly disposed to approve a liberal expenditure for objects such as this.

The establishment of the Crystal Palace at Sydenham is a most important step for the extension of a love and knowledge of art throughout this kingdom; and, although at the present moment the majority of its visitors may neglect the courts, and regard it simply as a lounge, it will gradually disseminate seeds of knowledge on all sides, which will germinate far away from the parent tree, and produce in time an abundant harvest. To those extraordinary courts have been brought, in effect, the temples, the houses, the palaces of the antique world,—the churches and the tombs of the mediæval: sepulchres of ancient thoughts,—and these sepulchres, when rightly commanded by those who know the spell, will give up their tenants. Here you may trace the wonderfully continuous history of the architect's art, in the mysterious piles of Egypt and Nineveh, the sublimely perfect temples of the Greeks, the villas of Rome and its offshoot Pompeii, the glittering works of the Byzantine era, the marvellous Alhambra of the Moors, the symbolic and spiritualized structures of the Middle Ages, and the less thoughtful elegancies of the Renaissance. As regards sculpture, such a collection of casts was never before seen under one roof, bringing together, as it does, the finest works of all periods. In these courts may be fully appreciated the extraordinary works of Grecian art, wherein,—

> "——— are exprest
> All that ideal beauty ever bless'd
> The mind with, in its most unearthly mood,
> When each conception was a heavenly guest—
> A ray of immortality—and stood,
> Starlike around, until they gather'd to a god!

While in other parts we can enter into the deep religious sentiment which animated the Gothic sculptor and suffused his works; or ponder on the wonderful formative power of Michelangelo and his contemporaries of the Revival.

This and other powerful influences now at work have the same important object in view as the Art-Union of London,—namely, to promote the knowledge and love of the fine-arts, and their general advancement in the British empire, and to elevate art and encourage its professors, by creating an improved taste on the part of the public. The future is full of hope for the artistic progress of the country, and the Art-Union of London will continue to play its part in the endeavour to realize it.

GEO. GODWIN, } Honorary
LEWIS POCOCK, } Secretaries.

The Chairman, in moving the adoption of the report, said the object of the association was to popularise art among the general public, and, he believed, the association had done its duty very ably, and worked a great change on the artistic mind of the country. He had himself often complained to shopkeepers of the inelegant and badly-designed wares they offered for sale, but the reply to his remonstrance had invariably been, "We are obliged to work for our customers." The first object, therefore, was to educate these customers, and then the shopkeepers would readily sell a better class of works of art. The general public required educating, so as to discriminate between that which was beautiful and that which was inelegant; and the dissemination of this knowledge had always been the object of the Art-Union of London. He congratulated the meeting on that portion of the report which alluded to the desirability of giving the general public the advantage of the exhibitions of the Royal Academy. He did not know how this suggestion would be received by the authorities of that body; but, for himself, he had always thought that a great institution, occupying a large national building, ought to give an opportunity, either at a very small rate of charge, or without any charge at all, for the general public to view the yearly efforts of our greatest artists.

Major-General Sir William Herries seconded the motion, which was carried without a dissentient voice.

The Houble. Edmund Phipps, in an interesting speech, proposed a vote of thanks to the Council, remarking that, in these days of jobbery, it was a great thing to be able to boast of a body of gentlemen who, in the most disinterested manner, gave their best and constant exertions to furthering the objects of the association.

The motion was seconded by Mr. George Cruikshank, and carried unanimously.

Mr. Auldjo moved, and Mr. Henry Hayward seconded a vote of thanks to the hon. secretaries, which was carried by acclamation.

In returning thanks, Mr. Godwin, after alluding to the services of Mr. Watson, the assistant-secretary, moved a vote of thanks to Mr. Buckstone, for his kindness in granting them the use of the Haymarket theatre.

Mr. Lewis Pocock gracefully acknowledged the kind reception which had been given to his name, and concluded by seconding the vote of thanks to Mr. Buckstone, which, it is needless to add, was unanimously carried.

Miss Suzette Whitehead and Miss Florence Ashton having undertaken to draw the numbers, and Mr. Hooker and Mr. Watts to act as scrutineers, the distribution was proceeded with.

We give the names of a few of the principal prizeholders:—

250*l.*—Brainerd. Mrs. D. F. Boston, U.S.

200*l.*—Rowland, H. Newton.

150*l.*—Barraud, C. D. Wellington, N.Z.; Duncan, W. Liverpool.

100*l.*—Fisher, Mrs. S. Eaton-place; Grice, W. W. North-street; Holloway, Mrs. Marchwood; Knight, G. Scarborough; Swanston, T. Edinburgh.

75*l.*—Butler, W. Manchester; Burdsley, J. Manchester; Crump, W. Rowley Regis: Calthrop, F. D. Whitehall; De Lautour, Mad. Southwark; Hurd, Mrs. King's-cross; Mather, C. W. Bayswater; Strange, J. H. Highbury.

60*l.*—Allen, J. P. Cornhill; Andrew, S. Ashton-under-Lyne; Bailey, G. Lincoln's-inn-fields; Butler, G. Cadiz; Blunt, Rev. W. Stockbridge; Lloyd, W. R. Birmingham; Fahey, Jas. Brompton; Harvey, J. L. Philadelphia; Howes, J. Old Brentford; Jeffrey, W. Charles street; Keyworth, T. M. Lincoln; Miller, J. Grantham; Owthwaite, R. Henley; Pringle, J. Cornhill; Paul, Jno. Glasgow; Walker, J. jun. 40, Upper Harley-street; Yatman, W. H. Warwick.

50*l.*—Clementson, J. Ashton; Chester, Very Rev. Dean of; Coleman, R. Wandsworth; Farmer, Jno. Stourbridge; Fitzgerald, J. B. Portland; Hemming, J. C. Sunderland; Illingworth, M. Harrogate; Ingram, T. Leicester; Morris, Jno. Cardiff; Tatham, H. Liverpool; Tippetts, J. B. Islington; Tisdale, T. E. G. St. John.

38*l.*—Aston, G. H. Capel-court; Barlow, B. J. Bishops' Stortford; Baston, W. Springfield; Bonner, Col. Great Cumberland-street; Browne, G. Dublin; Bennett, W. Pentonville; Cartwright, F. H. Bawtree; Cobbett, R. Northumberland-street; Deans, P. D. Haddington; Edwards, Rev. J. Leominster; Fisher, R. Pall-Mall; Grant, T. Pocklington; Green, Jno. Greenwich; Ingram, W. Midhurst; Laming, J. Paddington; Mawson, J. S. Cockermouth; Merridew, J. H. Birmingham; Miller, W. Inverkeithing; McMullen, W. Twemlow-terrace; Nicholas, A. Hobart Town; Orr, Jas. Liverpool; Parker, T. W. Homerton; Pink, G. H. Hobart Town; Petitt, Rev. J. L. Newsquare; Snow, C. B. Washington; Tilley, T. Pawley; Ward, W. Richmond; Walker, Mrs. N. Shields; Warrick, W. Leith; Wilkinson, ——, Liverpool.

PRESENT CONDITION AND FUTURE PROSPECTS OF ARCHITECTURE.

THE following is the substance of a paper read at a recent meeting of the Liverpool Architectural Society:—

There are perhaps few occupations which at first sight offer so many advantages as architecture. It is no mean ambition to wish to see our names connected with buildings which will be seen daily by all classes of the community, and which in all probability will last for centuries; for while the results of other professions are, generally speaking, appreciable only by a few, the labours of the architect are calculated to give pleasure to almost every capacity with comparatively little effort. The studies also which are necessary for acquiring architectural information are much more agreeable than those connected with any other profession: instead of tedious volumes, or dissecting-rooms, the architectural student spends his time over pleasant books and in pleasant cities, his very work being another man's holiday; and what is a most important consideration, an architect, like all other professors, is from his first commencement entitled to a fixed and a very fair rate of remuneration, which no subsequent fame or standing can alter. An architect also can commence practising without passing through any ordeal or obtaining any diploma, which is necessary in other professions: his only consideration is his own convenience. It would be easy to enumerate other advantages, but something like these, no doubt, which are quite obvious, and to a certain extent true, present themselves to many who are choosing a profession, or perhaps, to speak more accurately, to those who have to choose for others. In all probability, also, the disadvantages and difficulties which are peculiar to architecture are less generally known than those connected with any other profession. For while all people are alive to the difficulties of law and authorship, and have had the straitened circumstances of the unsuccessful in each profession brought before them by various writers, and in the most popular forms, no one has ever done the same office for architecture, and shown the comparatively greater number of architects who have merited success in every way, but have failed to attain it; and the natural consequence of such ignorance is, that latterly the numbers of the profession have increased to an extent that has never been known in history. As a proof of this, we may take some of the advertisements that appear at the end of the *Builder*, and among these we may gather abundant information concerning the present state of the profession: they give us a "sun portrait," it is true, rather unflattering, but there can be little doubt as to its accuracy. In the following short analysis, I have taken the numbers for six months, three in this year and three in the last. It might have been somewhat more satisfactory if I had taken the average of several years; but I have no doubt the following numbers may be considered as a tolerably correct average. The first and most important item I meet with is by no means a pleasant one: it is the number of clerks and draughtsmen advertising for situations. These amount in six months (besides engineers and carpenters, and all manner of decorators) to 151. They commonly describe themselves as proficient in all branches of draw-

ing and colouring, and having a thorough knowledge of the routine of an architect's office; and there is not much reason for believing that they misinform themselves. In fact, the contrary would generally seem to be the case: architects' assistants take as great an interest in their profession, and are as well qualified to practise as those in any other calling: they have started life with very different prospects, and have only found out their mistake when it is too late. The same zeal in many other occupations—in those, for example, connected with the sale or manufacture of such things as we have daily use of, would have placed them in immeasurably better circumstances. How this class of advertisements is responded to, I have no means of knowing, but fear that they bring less numerous applications than those from architects wanting assistance: to the latter it is not uncommon to receive twenty or thirty replies. The next class of advertisements may at first seem rather small: it is from the architects in practice advertising for pupils, and amounts to twenty-three, or rather less than one per week. The smallness, however, may be accounted for by the advertisements in question being generally addressed to parents and guardians, and being pretty generally distributed over the various provincial papers. They are alluded to here to show that in all probability the profession is still swelling its ranks; and though I do not know the names of any who so advertise, it is but due to them to state that I have understood they are generally those who have sufficient time at their disposal to do justice to the pupils. There is in the same paper a somewhat kindred class of advertisements addressed by architects to those who have some knowledge of drawing, and who would be willing to give their services for the benefit of the experience they would acquire in the office. Other numerous advertisements are from architects who are short of employment, and state that they would be willing to help their more fortunate neighbours, and to assist in preparing competition drawings. If they looked a little oftener at the amount of premiums offered in most cases, they would see that but few architects would venture to pay much money for such chances: this class amounts nearly to one per week. The competitions which are advertised for on the first page of the *Builder* are most suggestive and interesting. They have formed the subject of so many letters to the same paper that I should not allude to them here only that the subject would be incomplete without. One letter in a late number says,—"The excessive paltriness of the sums frequently offered by committees for the best design sent in to them, even if it does not accuse them of stinginess and illiberality, throws some degree of discredit upon the profession itself. Those belonging to it must surely be in an exceedingly necessitous condition, if they can be tempted to prepare designs for the mere chance of obtaining what, if they were certain of getting, would be a very miserable pittance. By an advertisement of late date, I see 10*l.* for a design, together with specification and estimate included! Unless there be some typographical error in the figures, architecture, as a profession, is made to cut a very sorry figure indeed. For that similar offers are responded to cannot be doubted, because else they would not continue to be made. . . . To such pass, in fact, has architectural competition now come, that the profession should bestir themselves earnestly as a body to abate at least those evils which they cannot, perhaps, wholly correct." The writer of this letter has certainly not chosen one of the worst instances. In a late number of the *Builder*, I find an advertisement headed "A 10*l.* Prize," and offering that amount to the fortunate architect who shall succeed best in laying out, planting, fencing, and decorating four acres, on which also are to be erected a dwelling-house, a lodge, a set of offices, and stables: a specification and estimate must also accompany the drawings: the architects in this case may have the benefit of inspecting a plan designed by the spirited proprietor himself.

The committee for building a mechanics' institute at Alford ask for plans for a building which shall cost 500*l.* and offered three premiums, of two guineas, one guinea, and half-a-guinea!

In the *Builder* of June 18, 1853, is a letter from an architect stating that his assistant had obtained a premium of 5*l.* for a church, in conjunction with his brother, another assistant, and saying that such practice is very common in London: in this instance he states that upwards of twenty designs were sent in. But there is a somewhat new feature in architectural competition, which, if it continue to be responded to as energetically as it is at present, will soon alter the usual professional charge of five per cent. Committees of all sorts advertise for plans and specifications, and, as a premium, offer a small sum which is to be all the pay the successful architect shall receive. The plans, &c. are to be sufficient for carrying out the building. The following, for example, are a few extracts from the requirements of a workhouse committee in Norfolk. After directions as to the building and its capabilities, which are more than usually tedious and minute, they say, "The architect producing a plan which shall be accepted by the guardians, and approved by the Poor-law Board, will receive a premium of 50*l.* and his plans, &c. will become the absolute property of the guardians, who may, at their discretion, employ the architect producing them to superintend the building or not: if employed, his remuneration will be hereafter agreed on, and will include the premium. The architect must state the cost of completing the work according to his plans, and will be held responsible to complete them for the sum stated, if required, within three months of the 31st day of December next, to do so." Now, this last item must include quantities; and, in addition, the architect must, by some means or other, find out the respectable builders in the neighbourhood, and make the best arrangement he can with them, at very considerable trouble to himself. It is not pretended that all the competing architects have put themselves to this trouble: on the contrary, the usual practice in such cases is to send in a rough guess at the cost, trusting to get it by any means, and then hoping that after they have succeeded, their suavity and the chapter of accidents will see them through the difficulty. But to fulfil the requirements of such stringent conditions as the guardians impose, this system is quite insufficient: probably, however, the following conditions, which emanate from the guardians of a workhouse in the north (and appeared in the *Builder* some time since) are dictated on even more economical principles. The building, they say, is to cost 1,800*l.* and the party whose plans are finally approved of by the guardians and Poor-law Board shall receive 20*l.* for his trouble, which shall include all costs whatever relating to and in preparing the same; and the plans shall become the property of the board. Now, the commission on such a building is 45*l.* without any competition at all; but in this case competition is invited for the chance of less than one-quarter of the usual commission; and, not only so, but competitors are obliged to take out quantities (which would be 20*l.* more) also for their chance; and even then, before the fortunate one can receive his reward, he must find securities for completing a building which others superintend, for the sum he stated in his estimate: the ordinary extras for a building of this size might be 30*l.* without much blame to the architect, and this would swallow up his premium, and leave him 10*l.* out of pocket.

When we consider this as a specimen of the rewards that are held out to architects, and that even this produced nine complete sets of plans and estimates, each set containing at least eight drawings, or seventy-two drawings in all, with quantities, and estimates, and securities besides, we may gather, it is to be feared, a sorry account of the employment which falls to the lot of the really enterprising and industrious. If similar offers were made to any other profession—either law or medicine—*i. e.* if it were possible to invite either lawyers or doctors to put themselves to an equal amount of trouble for the same chance of the same reward, such offers would not meet with a single response; whereas it is believed that no competition was ever advertised for a building, however small the reward or difficult the service, which has not met with more responses than the committee or referee could do justice to, and I doubt if terms could be invented sufficiently hard or sufficiently degrading to prevent competitors from sending in designs. I have seen a premium of half a guinea offered for a public building (a small one certainly in the south); and this was offered in all sincerity and simplicity by the building committee. It would be easy to multiply instances, but this has been done often and elsewhere, and any one who is in the habit of reading competition advertisements will be familiar with many cases quite as bad as I have described.

Various suggestions have been offered for suppressing, or, at any rate, correcting the present system; but it is much to be feared that none of them go to the root of the evil, and the blame is generally laid on wrong shoulders. It has been suggested that architects should try to get themselves incorporated in a similar manner to lawyers and doctors, and that all who have not obtained a diploma should be prevented by law from practising; but as this is simply impossible, and quite contrary to the spirit of the times, it has been modified into a proposal to establish a central metropolitan architectural association, which should have the power of granting diplomas, and that they should decide for the rest of the profession what competitions should be responded to, and what rejected; but the entire success of this scheme depends upon the value that those out of the profession would attach to such diplomas, and if they placed a lower estimate upon them than the profession itself, they would be found rather an incumbrance than otherwise. Another plan that has been suggested is to try to raise public feeling against competitions altogether. The writer of a letter originally quoted, says,—"To such a pass, in fact, has architectural competition now come, that the profession should bestir themselves earnestly as a body to abate at least those evils which they cannot perhaps wholly correct. No doubt, it would be a work of difficulty; therefore, the effort to produce reform should be energetic in proportion, where no real effort has been made at all. A little speaking now and again does no good: a hundred voices or pens are required to protest against the actual system, with any effect, and to rouse the attention of public opinion to it." Another writer says,—"We have one resource as a corrective for the present most objectionable system of competitions, and that is the powerful handle of public opinion, which can always be used to remedy all defects in institutions: let the committee who proposes an unworthy reward, and the architect who responds to such a call, be alike the objects of public indignation."

It is to be feared, however, that notwithstanding the influence of public opinion, it would be found difficult to bring it to bear upon the present instance: architectural competitions are just those things that the public will not be induced to trouble themselves about, and they will naturally ask why architects should themselves support competitions with such remarkable energy, and then ask for public sympathy to assist in putting an end to the system.

In a word, notwithstanding all that has been said and written upon the subject, competitions are not conducted upon any better principles than they ever were, and it is to be feared that they never will be. The reason is obvious. The committees who propose them are quite irresponsible, and independent of any remarks or animadversions to which they may be subject. They are in most cases ignorant of the customs and remunerations of the profession, as may be seen from almost every line of their advertisements; their requiring guarantees, their provisos (a by no means uncommon case), for the architect being also the contractor, and the very inadequate time sometimes allowed for preparing the plans: indeed, such committees are generally composed of the tradesmen of small towns, who for once, and once only, have any dealings at all with architects; and such being the case, of course their only object is to economise their funds. They are the trustees in some shape or other of public money, and they might justly be censured for advertising liberal conditions when they can have such abundant responses to the most penurious terms they can possibly invent. No, the fault, if there be any at all, rests entirely with the profession;

but here again it seems unjust to attach any serious blame, for it is quite certain that if architects were employed on anything that afforded sufficient occupation, they would not spend much time over such unsatisfactory employment as competitions; but when we consider that in two towns in one county in England, there are 128 architects, and in the same county there are ten other towns equally well provided for in proportion to their size; and when we calculate the amount of money which should be spent annually in building, to afford these gentlemen at 5 per cent. a sufficient reward for their labours (of course opinions will differ as to such amount), when we consider also that such sum is more than the whole spent in building in the kingdom, we shall hardly censure architects for the despairing energy with which they follow any chance at all of employment.

This opens a most important point; in fact, the one on which the prospects of the profession may be said to hinge exclusively, namely, the character of an architect's knowledge, its value to the public, or in other words, its convertibility into money.

In a former number of the *Builder*, I find the following paragraph on the subject:—"But the interest of the public is, indeed, the main argument for a more frequent appeal to the services of architects; and it is our object to urge architects to diffuse extensively the knowledge of the full scope of architecture, and its mode of operation, to make it a matter of popular knowledge, as it is of popular importance and economy. Why an architect should not be consulted in many other matters than those for which he is at present employed, we are unable to say: for example, in taking a new house, how often might the advice of a competent person prevent the most serious injury to the health of a family, and great expense to the tenant. In nearly all the cases in which it is now the practice for a householder to send for a builder, we submit, that a direct saving of expense would generally follow the employment of an architect."

Now there may be some truth in this view of the case; but it is pushed rather too far, for a householder will generally suit himself only, and his own requirements, in taking a house, and will be very indifferent what any one else may say on the subject; and in most cases in which he finds it necessary to call in the assistance of a tradesman, he will not experience any great saving of expense if he has to do so through the medium of an architect, in those accidents which commonly occur to the plumbing department of a house: after a severe frost, the plumber is certainly a more suitable person to send for than an architect.

It has often been regretted that architecture has not been reduced to the same routine as other professions, and that in acquiring necessary information it is often requisite for the student to go roundabout ways: if, for example, he wishes to learn the practical part, his course is by no means clear, without working in the shops of the tradesman; nor is this all, for in large towns where trades are separate, a single shop is not sufficient, but he must work at all, and this at present is a difficult matter to remedy; and I would venture to ask, whether the present state of things does not bear marks of the difficulty? Is it not a common error to lay too great stress upon style and design, and too little upon practical matters? If so, such knowledge as this is of comparatively small value to the public, for a building may be erected by any one wholly ignorant of the peculiarities of styles and orders, which shall, nevertheless, answer all ends as if it were perfect. A schoolhouse may be at variance with all style, and ill-proportioned, and yet substantial and convenient; and it is to such qualities as these that the public will attach the greatest value. It would scarcely satisfy them to point out the correct proportions of a window which was insufficient to exclude the weather, nor of a roof that was scarcely water-tight. Again, practical knowledge, and an intimate acquaintance with prices, are just those points on which employers are willing to confess their ignorance: many gentlemen can sketch, and have excellent ideas of style and design; and if builders were always content when they had their own way, with a living profit, and never by any chance used indifferent materials or workmanship, such gentlemen could well dispense with the services of architects. It is for such matters as these that they require professional assistance, and in a general way it is for such knowledge as this employers will value them.

It seems to me that people make mistakes in supposing their profession to be a sealed book to all but themselves, and in laying down the requirements of those who shall practise it.

An essayist in the *Builder*, who insists upon diplomas for architects, requires, as a standard of competency, general history, and the history of architecture, painting, and poetry, together with a knowledge of music, sketching, and the French language; and there is little doubt that some such ideas as these, though perhaps less extravagant, are impressed upon the minds of most students; and though it is not intended to convey that such knowledge as this is altogether unnecessary or useless, still I should like to inquire whether it is not too common a fault to lay before students a too high standard, or, to speak more accurately, to direct their studies to those matters which will profit them but little hereafter. Arithmetic is not taught with a view of enabling the learner to become a Chancellor of the Exchequer, but to fit him for the common duties of life; and as architectural students, from causes which it is easy to understand, are apt to expect that they are going to perform great things, would it not be better to impress upon their minds the same convictions as Todd, the American professor, did upon his scholars, when he said, without any reservation, "Believe me, you are not a genius?" So would it not be better to let students know, at the earliest opportunity, that they were not going to fill the vacancy occasioned by Pugin or Elmes, and that in all probability they would never have 10,000*l.* to lay out upon a single building? that they would have to compete very hard indeed to obtain anything like a livelihood, and that all the visions of cathedrals and mansions would vanish at the first touch of reality? that a knowledge of carpentry and plumbing, and such dry matters as these, would in reality profit them more than if they could draw from memory every palace in Rome? It might be an unpleasant task to explain the realities of things, but how much better to do so at once, than to let them explain themselves.

A student should make himself master of dynamics and mechanics in all their branches, the crushing weight of materials of all descriptions, the quality of bricks, woods, and castings, and, so far as he can, the customs of each trade: he must also be able to measure up artificers' work in all branches, and to take out quantities of the same from drawings: this latter he will find the most saleable branch of his profession, or, at least, he will be enabled by it to turn to good account many an idle hour; and, as measuring is more abundant than designing, he who understands it can make a commencement, when the mere designer is trying in vain.

The colonies now do not afford an opportunity to an architect. Australia, which seems from its resources to promise a fair chance, is not sufficiently settled, and is already as nearly overstocked with architects as England. The London and Liverpool Fire Insurance Company offered a premium for a new building for their branch office out there: the number of competitors was about twelve, and the designs and drawings, I am told, by a gentleman who saw them, all were excellent: some of them, he said, were equal to anything in finish and design he had ever seen in his life. The condition and prospects of those who are unsuccessful in that expensive country, where there is no Architects' Benevolent Society to fall back upon, and where all who cannot labour with their hands meet with so little sympathy from their neighbours, is dreary indeed.

I have thus endeavoured to sketch, however imperfectly, the present condition of architects; and, although the picture is not a pleasing one, it is to be feared that it is only too accurate. Let me indulge a hope that those who have seen more of all these matters than myself may be able to discover some brighter sky, some more cheering prospect for the future.

ALFRED RIMMER.

NEW SOCIETY OF PAINTERS IN WATER-COLOURS.

MR. LOUIS HAGHE contributes the principal features of the Exhibition this year,—"*Le Bénitier* in the Church of St Peter, at Rome" (63), "The Post-office at Albano" (78), "Convivial Meeting of the Brewers' Corporation, Antwerp" (103), "St. Peter's Festa, in the Church of St. Peter" (248), and four smaller, though scarcely less admirable drawings. The left-hand half of the first-named picture, "*Le Bénitier*," is a remarkable piece of work. Mr. Warren's principal picture, "The First Sunset witnessed by our First Parents," is chiefly noticeable for the distance and sky. Mr. E. H. Corbould contributes several large works, especially "Paul and Silas in Prison" (229), and "The Flight of Fair Ellen from Netherby Hall" (266), the latter the most attractive, but yet wanting the aspect of truth. "How the Blacksmith won the rich Painter's Daughter" (52), is the best picture Mr. W. H. Kearney has exhibited for some time. Mr. Wehnert's "Apothecary" (329) gives us more to think about and more pleasure than his "Romeo and Juliet" (88), although a smaller and less pretentious work. Mr. Vacher's principal production, is "Ætna from the Theatre of Taormina, Sicily" (173), and a very charming picture it is. Mr. Bennett, besides several of his charming bits of natural green (which none but English water-colour draughtsmen can produce), has two large pictures, "Belted Will's Tower, Naworth" (207), and "The Upper Lake of Killarney" (233), of which we prefer the former, notwithstanding its more restricted character. Mr. Whymper promises to be a valuable colleague. His "Redhill" (75), and "A Shady Pond, Sussex" (179), are striking performances. The most remarkable landscape, however, in the room is 107, by Mr. Edmund G. Warren, a view of "Berry, Pomeroy Castle, South Devon," displaying with breadth of effect marvellous finish and discriminative power. Mr. Rowbotham's Swiss and Italian scenes (46 and 217, for example), "*Gli Vicini*," by F. Rochard, "The Salmon Pool" (74), by P. Mitchell, "Mount Edgcumbe,—Early Morning," by S. Cook, "St. Germain l'Auxerrois," by J. H. D'Egville, "View at Honfleur" (196), by Geo. Howse, "The Painter's Dream" (230), by Aaron Penley (though a misnomer), "A Highland Fireside," by J. H. Mole, "Going to Market, Crecy" (262), by John Absolon (a capital drawing), John Chase's "Hall of Justice, Bruges" (273), all deserve commendation: nor should Mr. Bouvier's pretty faces, and Mrs. Margetts's admirable flowers, escape commendation.

Sales to the extent of about 600*l.* were effected at the private view.

THE CLOISTERS, WESTMINSTER.

MIND-HARBOURS.

WHEN you pass from the uproar of Westminster-bridge, or Parliament-street, into the Cloisters on the south side of the Abbey, you seem to have changed the century.

There are many quiet spots in this bustling metropolis where the judicious wayfarer may, when the drive and hurry of London life permit, find a sort of harbour for the mind. Amongst these the Temple and its numerous avenues may be prominently cited. Here, escaping from the omnibuses, cabs, carriages, and people of the adjoining Fleet-street, one has a chance to breathe, and enjoy memories of the past which, if properly used, are beneficial. Here one gazes with respect on one of the shady passages at a doorway, the threshold of which has been often crossed by Dr. Johnson and his friends, and has a sort of dim expectation of meeting the eccentric, tender-hearted Goldsmith, gaily attired in cherry-coloured coat and powdered wig. In front of the pleasant garden, which, in spite of London smoke, is decked with flowers, with the faint hum of the City on one side, and the sound of distant music in steamers on the river on the other, the attention is divided between the ancient church of the Templars, with its mediæval associations, and the quaint times described in the "Spectator." There are many other quiet spots, the mention of which, if we were only to glance at them, would make

our journey to Westminster a long one. In passing, however, from the Temple, let us look at a locality, by no means so pleasant, which is hidden from the eyes of the thousands who daily flood the Strand; this is a range of dark, extensive, and dreary vaults, which extend below the Adelphi Buildings, erected by the Adamses. Nothing offers a greater contrast than these dismal shades to the sunny gardens. On entering, the daring adventurer seems lost in an interminable gloom, and it is long before he ventures to tread firmly along this vaulted region. As to the tenant of a dark dungeon, so in this place a glimmering of light gradually becomes visible, and here shows up large and picturesque forms; clanking of chains and strange noises fall upon the ear; lights, that only tend to render the darkness more visible, are hung out here and there, which, however, serve to show that the clanking to which we have alluded comes from long ranges of stables, in which many horses are made to retire from the light of day: these, however, will have an opportunity of getting to the sunshine; not so the numerous cows which here find a habitation, and which, like the horses in the coal mines, probably cast longing and lingering thoughts to meadows, though they cannot "babble of green fields." The policemen now keep a careful and bright *eye* upon this gloom, but a few years since, it used to be a gathering-place and shelter for the houseless and desperate; and we have seen here, collected round blazing fires, groups which would have served Salvator Rosa. However, it is of the cloisters of Westminster Abbey we would speak; not the shades of Adelphi.

Every one is struck on entering the cloisters by the effect of colour produced by the reflection from the grass in the centre upon the silvery grey tints of the stone-work: the stone, by the way, has sadly perished. Notwithstanding this, there is, perhaps, not another spot in London that has greater charms, or will afford more subjects for thought. If you look up at the south transept of the Abbey, you see portions of the Norman building; and in the passages at the east end of the south cloister, there are some massive Romanesque arches, which immediately adjoin the Chapel of the Confessor, referred to in our journal not long ago. There are bits of very early work about the Abbey. That Edward the Confessor rebuilt the Abbey, or church, or both, at Westminster, about the year 1055, on a site which had previously been occupied by similar buildings, raised by Sebert, king of the East Saxons, about 616, is generally admitted. The king appropriated one-tenth part of his entire revenue to carry on and complete his new work; and, according to Sulcardus, the whole was completed with great rapidity by the immense number of hands employed. William of Malmsbury, who lived in the time of Stephen, says that Edward the Confessor erected his church "*in a new mode of building*;" and Matthew Paris, who died 1259, coincides in the same expression. Widmore says it was in the shape of a cross, and was regarded as a pattern for many subsequent churches. However, we are not going into its architectural history, but are here simply for a walk round the cloisters, and this, glancing now at the graves of some of the early abbots of Westminster, and then at the time-honoured walls of the Abbey church, seen through the traceried openings, you may do three or four times with pleasure and profit. The eye is offended when it happens to look up where Wren's towers are visible; but the discrepancy serves to mark an epoch. Affixed to the wall, in the south cloister, is a monument with a bust in memory of Edward Tufnel, architect,—"*Qui latera hujusce Augustissimæ Ædis australe et orientale magnâ ex parte refecit et exornavit*," *&c.* He died on the 2nd of September, 1719, aged 41.

The records on the walls of the cloisters are numerous, many of them so much defaced as not to be easily deciphered. Let us avail ourselves of Master Dart's rendering of some of these, which, in his day, 1742, would be much more visible. There is one touchingly inscribed:

"Jane Lister, *dear child*, died Oct. 7th, 1688."

And another:—

"Here lieth the Body of Katherine Stopes,
The loving Wife of *William Neile*—She was
The kind mother of seven children, whom
She brought up with her own Breasts.
Her life and Behaviour may be a Pattern
For the ages following, She was Pritty
Without Pride—modest without sullenness,
A good Housewife without curtness,
Exquisite at her Needle—courteous of
Behaviour—and right gudly of Conversation,
Whose Soul resteth in *Jesus Christ*,
To whom she committed it at her death.
Ob.—August 24, 1620."

Not far from this is a monument to—

"Sir Edmund Bury Godfrey, Kt.
* * *
being lost on the 4 Id. Octob. 1678
was found five days after
murdered after a most cruel and barbarous manner.
History will inform you further."
* * *

Passing over many monuments of an ordinary character, "in the West Walk, is," says Dart, "on a gravestone, the following:—

'What I gave, I have
What I spent I had
What I left, I lost by not giving it.'"

Various versions of this will be remembered by our readers.

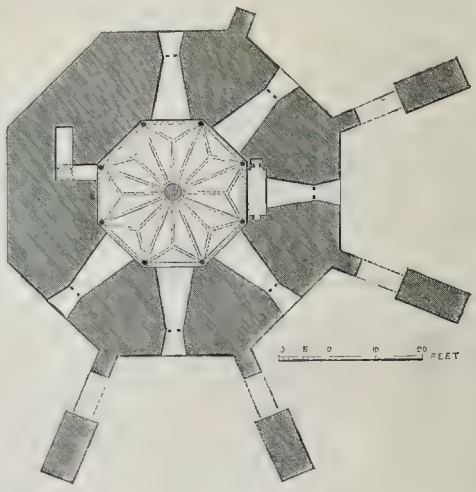
On a freestone fixed in the North Wall is an inscription commemorating William Lawrence, and ending:—

"Short Hand he wrote—his Flower in prime did fade
And hasty Death short hand of him hath made.
Well couth he Numbers, and well measured Land,
Thus doth he now that Ground whereon you stand
Wherein he lyes so Geometricall.
Art maketh some, but thus will Nature all.
Ob. Decemb. 28, 1621 Ætatis Suæ 29."

In addition to these memorials are several more modern. Amongst these is a sculptured monument to the memory of William Woollett, in which the great engraver is represented busily engaged in the pursuit of his art, surrounded by figures of Fame, who are trumpeting forth his praise. There is one also to Vertue, the antiquary and engraver; and here are buried Aphra Behn, the female dramatist, Thomas Betterton, Mrs. Bracegirdle, Samuel Foote, Mrs. Yates, Mrs. Rowe, and Mrs. Cibber, all well-known professors of the dramatic art.

In the wall of the east cloister will be found the entrance to the Chapter-House, which has been recently repaired under the direction of Mr. Scott. We give a view of it. Its beauty is evident, notwithstanding its time-worn condition. In the course of the works, the architect discovered the ancient entrance to the dormitory, which he reopened, and restored as the entrance to the library. This enabled him to get rid of the modern entrance to the library, which was cut through the groining of this passage, leading to the vestibule of the Chapter-House. Several of the bosses in this groining are ancient and untouched; one of them is as fresh as if it were new. It is curious that the two bosses at the east end are *exactly* alike, leading to the supposition that they were in *pairs*. The door on the south side has skin under its internal hinges, which has been proved to be *human*.

PLAN OF CRYPT, WESTMINSTER CHAPTER-HOUSE.



The vestibule has lofty proportions and exquisitely beautiful details, many of them as sharp and perfect as they were at the time they left the sculptor's hands. The general effect of this fine entrance can at present be imperfectly judged of, in consequence of the place being partly filled with staircases, boxes, and partitions. The Chapter-House which is reached through this vestibule, is situated immediately above the crypt, of which we lately gave a view. It is painful to witness the condition of this remarkable chapter-house: the groining of the roof has fallen; the windows and characteristic tracery are filled up and pierced with glazed holes of the most ordinary pattern, and the greater part of the interior is filled with piles of records. The centre shaft of this interior remains very perfect: from this the groins would branch like the leaves of a palm-tree; the marble columns and intermediate decorations remain in good condition. In consequence of the shelves for the records being placed as they are, we could not examine the lower part, but where this is possible the Early English recesses are seen to be in good preservation. The sedilia near the east end is ornamented with paintings, and on lifting up the wooden floor portions of an encaustic pavement may be seen, which is complete, we are told, throughout the whole building, and which, so far as we could judge, must, for completeness, variety of design, and elegance, excel anything of the kind remaining in this country. The present condition of this structure is really disgraceful, and it is to be hoped that when its contents are removed to their proper quarters, endeavours will be made to restore it.

We have engraved a plan of the crypt of the chapter-house, from a drawing made for Mr. Britton some years ago by Mr. Thompson, showing two out of its four flying buttresses.

Coming away, through the open space at the west end of the abbey, on the north side, you will be reminded, when you hear that area still called the "Sanctuary," of the time when it afforded protection to debtors and criminals,—and here Edward V. was born in sorrow.

The Bricklayers of Liverpool struck for and obtained an advance of fourpence per day. They are now paid 5s. instead of 4s. 8d.

ENTRANCE TO THE CHAPTER-HOUSE, WESTMINSTER.

PROVINCIAL NEWS.

Lyme Regis.—Lyme, it is said, is once more to present a fortified appearance. Batteries are to be erected facing the sea. The site of one is at the Cobb, on an eminence.——The stone trade here, which has been rather flat during the winter months, is recovering. Large shipments have taken place.

Dudley.—A new market with townhall for this town has been projected; the lower part as a market-place and the upper for public purposes generally. The project, it seems, was first entertained some two years ago, when 1,000*l.* were promised in shares of 5*l.*; but, owing to party feeling in reference to the Town Improvement Bill, it was abandoned. The subject is now revived, and a site opposite the church is pointed to as eligible.

Kidderminster.—The new railway bridge at Goodness-gate is progressing. Fault, says a Worcester paper, has been found with some of the iron girders, as not being perfect, and they have been returned. One was detected very faulty in the casting, and to save the loss and trouble of recasting the men had filled the place up with lead!

Bath.—The town council are engaged with some considerable improvements in the baths here. Between the pump-room and the Queen's Bath a communication is to be formed. Access to the water has been improved, and several private baths have been so added that persons may bathe at any hour, it is said, at a very cheap rate. The Cross Bath has been in every way improved, and alterations at the other baths are in progress.

Bridgewater.—The local *Times* enumerates various improvements lately effected here. Within the last few years a very large portion of the back streets have been paved. The drainage has been largely increased. The entrance to the cemetery has now an iron rail and gates, forming a marked improvement on the Cannington-road. At High-street, a part of the island has been pulled down, and with a vigorous effort the whole of the corporate property there could be swept away and the street greatly improved. Lamb-lane has been widened. Two new business buildings are immediately to replace three old houses on the Corn-hill. The south gates of the parish church have been removed and improved, and a new vestry is in progress on the north side. We now want a good public reading-room, adds the *Bridgewater Times*, and some public baths and washhouses; the latter of which, it is anticipated, would be much resorted to and pay well.

Holyhead.—Gas-works are proposed to be erected in this place. At a recent meeting of inhabitants, Mr. Walcott, of the Provincial and Continental Consumers' Gas Company, London, was present, and explained his views on the subject. He found, he said, there were in the town forty-six public-houses, eighty shops, ninety private houses, and six or seven churches and chapels, which would consume gas. The new market would also require eighty lights. He calculated that this would amount to 3,200,000 feet yearly: putting it at 3,000,000, at a rate of 7*s.* 6*d.* per thousand, the annual income would be 625*l.* being more than 20*l.* per cent. upon the estimated capital of 3,000*l.* required for the completion of the works. Gas, as at present made, he declared to be neither injurious nor offensive, so as to render gas-works near the town a nuisance. Shares of 5*l.* each were decided on.

Birkenhead.—The new graving docks and shipbuilding-slips here are progressing, under the superintendence of Mr. George Abernethy, C.E. brother of the engineer who planned them. The plans include the doing away with Birkenhead Ferry, and the conversion of Tranmere Pool into a dock.

Liverpool.—The two extensive docks recently made at Wapping will be ready for use in about a month. The central position of these docks, together with the improved warehouses which are being erected on the east side of the larger one, will render them, says the local *Journal*, two of the most useful docks in the port.——The Cornwallis-street Baths have been considerably enlarged and improved, and have been reopened to the public. The baths are within a few yards of the tunnel which communicates with the salt water in the river.

Seacombe and Wallasey.—The Wallasey Board of Health have resolved to apply for powers to borrow for Seacombe, 8,000*l.*; Egremont, 1,200*l.*; New Brighton, 5,000*l.*;—total, 14,200*l.* to be devoted to sewerage and sanitary improvement of the district. Their surveyor was instructed to prepare plans and specifications for the portion of the district which they intended to proceed with, so that on the sanction of the General Board they might commence operations at once. The surveyor was also instructed to prepare detailed plans and estimates of roads along Beaufort-terrace, King-street, and Trafalgar-road.

Preston.—The plans of the new Townhall buildings, except those for the fire-proof portion, have been exhibited in the Townhall, for the inspection of intending contractors and the public. The time for sending in contracts is now extended until 5th May, and the plans for the ironwork were to be ready for inspection on and after Monday last. Some shops on the site of the new Townhall buildings are to be sold by auction, and taken down and removed within one month, to afford a site for the new buildings. It is expected, says the local *Guardian*, that the buildings fronting the Market-place will be purchased for the purpose of using the oak frame fronts in the erection of a country mansion.

Maryport.—Efforts are being made to provide a suitable building to accommodate the Maryport Mechanics' Institution. The amount required for this purpose is estimated at 2,000*l.* towards which about 1,200*l.* have already been raised in 2*l.* shares.

Glasgow.—The works at the West-end Park are advancing. A large number of men are daily employed in levelling the surface, about 3 acres of which are completed on the low ground beside Kelvin-grove House.——The M'Lellan pictures have been opened to public inspection.

CHURCH BUILDING NEWS.

Sompting.—The ancient church of Sompting has been reopened after having undergone a complete restoration. The work was executed by Mr. Smart, of Worthing, and Mr. W. G. H. Smart, of Arundel, under the direction of the late Mr. R. C. Carpenter. The building has been new roofed throughout, the framework being open in the interior and stained. The seating is of deal, stained and varnished, and the floors are new, the chancel being laid with Minton's tiles. The stone work of the building has been repaired and restored where necessary, and the north transept aisle rebuilt. The pulpit, reading-desk, lectern, altar-rail, and chancel-screens, are of wainscot oak. The spire, which is of a form peculiar to this church, has been repaired and reshingled, and the curious Anglo-Saxon stone work of the exterior of the tower repaired.

Huntingdon.—A parishioner, as appears from a circular, has gratuitously offered an eligible site for a new church, which he engages to endow in accordance with the Act of Parliament, and he will also give 1,000*l.* towards the erection of the building, upon condition that the remaining sum, probably another 1,000*l.* be subscribed to complete the work.

Fazeley (Stafford)—The new church in this township was consecrated in Tuesday in last week. The edifice is on the simplest Early English style, with single and double lancet windows combined, at the end of the aisles and tower, with a quatrefoil within a larger arch. There is a triplet at the east end, with weathered base, buttresses, and moulded and shafted doorways. The internal arrangements comprise a nave, side aisles, west tower, and south porch. The entire length of the church is 107 feet 3 inches, breadth 54 feet 2 inches. The nave is prolonged beyond the aisles 16 feet eastwards for the communion, but without separating arch. The constructional division of the nave and aisles is into five bays or compartments, and the piers, bases, and capitals, are of stone. The tower, which is finished off under the nave with a high pitched roof, is 22 feet square internally, and is entirely open to the church, with arch dividing it from nave. The side aisles are longer than the nave westwards, and are open to the tower by lateral arches. The nave has a high pitched roof, springing at the height of 25 feet, the whole height being 50 feet to point of ridge. The timbers of the roof are wrought fir, stained. The sittings are of deal, stained and varnished, and are of the simplest construction: the seats are thought to be rather low for comfort. Funds not being forthcoming for the completion of the tower, an open bell turret has been placed on the apex of the nave gable. The communion is laid with encaustic tiles, the gift of Messrs. Minton and Co. The stone font is the gift of Mrs. Joshua Williams, of Stoke Newington, daughter of the incumbent. The church will accommodate 525 adults and 232 children; the whole of the sittings, except twenty in the organ gallery, being on the ground floor: upwards of 400 of the sittings are free. The church is heated by one of Messrs. Stewart and Smith's gill stoves. The place selected for the church involved an expenditure of about 2,500*l.* Mr. H. J. Stevens, of Derby, was the architect, and the contractors were the Messrs. Lilley, of Measham. The architect in his design was influenced chiefly by economical views. It was intended by the committee, in the first instance, to use the blue brick of the district in the construction, but at the suggestion of the contractors, they allowed an additional 100*l.* for the purchase of Hartshill granite, with which the walls have accordingly been built.

Shrewsbury.—Subscriptions are being got towards a fund now raising for the enlargement of the district church of St. Michael's, Shrewsbury. The rapidly increasing population of Castleforegate and Castlefields renders a corresponding enlargement of this church absolutely necessary.

Dulverton (Somerset).—The parish church recently completed here having been rebuilt, with the exception of the tower, was consecrated on the 18th inst. The style is Perpendicular, and the edifice consists of nave, chancel, and aisles, the dimensions internally being 81 feet by 55 feet. The whole is covered with cradle roofs of oak, the chancel portion being of more ornate character. The vestry at the end of the north aisle is separated by an oak screen. There are in all 721 sittings, and the seating is of wainscot throughout, a few pews only having doors. The pulpit and font are of Caen stone. The building was designed by Mr. Ashworth, of Exeter, and Mr. Shewbrooks, of Taunton, was the contractor; Mr. Chapple the clerk of works. The outlay is about 2,800*l.* The same architect and builder, we may here remark, have nearly completed a workhouse adjacent to the town.

Bala.—The new church here was consecrated by the Bishop of St. Asaph on 10th instant. The building is situate at the south end of the town. It is in the Mediæval style of architecture. The east window is of stained glass, the gift of Lady Williams Wynn, of Wynnstay. The floor of the church is of encaustic tiles, given by Mrs. R. Price, of Rhiwlas.

Cinderhill (Nottingham).—In the mining district of Cinderhill, near Basford, the foundation stone of a new church is to be laid on 3rd May, by the Duke of Newcastle. The building is to cost 2,600*l.* including endowment. Of that sum there is a deficiency still of 700*l.*

Ilkeston.—The foundation stone of the rebuilding of the parish church of Ilkeston was laid on 9th inst. Mr. T. L. Walker is the architect, and the contractors are Messrs. Lindley and Finn, of Leicester.

Doncaster.—The fund for rebuilding the parish church, though it still continues to receive support, falls considerably short of the amount required to enable the committee to carry out the work as desirable. The tenders for the roofing will soon be received by the committee, who will then be able to ascertain the further sum required to complete the undertaking.

Saddleworth.—On Good-Friday, Providence Chapel, Springhead, near Lees, was opened. The new building is placed on a steep hill side, with a class-room and boiler-room on the east or lower side. The old chapel has been pulled down, and the materials partly used in the construction. The plan is cruciform, and a nave, 21 feet wide and 76 feet long, extends the whole length of the building. The width of the building outside the transept is 57 feet 6 inches.;

outside the aisles, 46 feet 6 inches. The four gables terminating the ends of nave and transept, one each, pierced with lofty three-light windows in addition to the other windows, give light to the interior. On each side of the main front are formed the entrances, porches, staircases, &c. to the ground-floor and galleries. The construction of the spire is peculiar: a large buttress projects from the front wall, being a continuation of the staircase wall, and intersects at right angles with the front wall. These four walls or buttresses are continued up to the eaves of the spire, and a belfry with four windows is formed thereon; the whole crowned by a spire and vane, altogether 86 feet high. The cost of the whole will be about 2,000*l*. The chapel is calculated to seat 900 people, inclusive of children. The architect is Mr. R. M. Smith, and the contracts have been executed by Mr. James Mayall, mason, and by Mr. T. George, of Ashton-under-Lyne.

Gateshead.—The contractors, Messrs. Kyle, are making satisfactory progress with the restoration of the parish church of St. Mary. The chancel is already in a forward state. The east window, according to the local *Observer*, will be filled with stained glass.

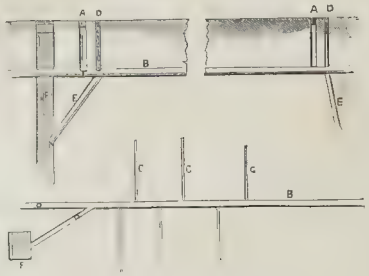
Glasgow.—A "free church" has been opened in Glasgow, erected at the sole expense of Mr. Hugh Tennent. The cost, it is said, was 18,000*l*.

THE INTRODUCER OF THE SCREW IN STEAMERS.

A SUBSCRIPTION list is in course of formation, to provide a suitable testimonial to Mr. Francis Pettit Smith, for his prominent services in bringing into practice the system of screw-navigation. A provisional committee which has been formed includes such names as Brunel, Stephenson, Napier, Rennie, Nasmyth, Scott Russell, and many more, and the subscription list already contains besides these, such names as Mare, James Watt and Co. Penn, Seaward, Carpmael, and many others, including some of the more extensive Steam Navigation Companies, engineers, and patent agents, who ought to know, and do know, what they are about. Nevertheless, there are various claimants, each of whom, doubtless, has his partizans; but we scarcely think it likely that any of these will obtain so many influential votes, as we may call them, in his favour, as those who have already given in their adhesion to Mr. Smith's claims as, at least, the chief introducer of the screw. Perhaps one of his most co-ordinate rivals was Mr. Ericcson, who failed where Mr. Smith, by perseverance, succeeded, in drawing the favourable attention of the Admiralty to the importance of the screw. As regards its origin as an invention applicable to steamers, it is doubtful, perhaps, to whom the palm should be given, unless, indeed, to James Watt, who certainly dashed off *the idea* in connection with the very first of steamers; but not even he is entitled to be regarded as the originator of the idea of applying the screw as a propeller to shipping in general, the Chinese having from time immemorial applied it, though not in connection with steam power. So far as regards modern efforts to introduce the screw in steam navigation, our earliest recollections certainly recur to the names of Smith and Ericcson, but particularly to that of Smith, the Middlesex farmer, and that at a time when no such name as Carpenter, or any other, remains in our memory as publicly identified with the introduction of the screw. Still several gentlemen may be entitled to share in the merit, as well as in the more profitable acknowledgment of that merit in the shape of testimonial. On this principle, indeed, if we mistake not, Mr. Smith's claims have already been acknowledged by a share of the 20,000*l*. granted by the Admiralty, although other claims seem to have been more particularly identified with it in that instance.

ROYAL ITALIAN OPERA HOUSE.—The decoration of the Italian Opera House for the reception of her Majesty and the Prince, in company with the Emperor and Empress of the French, was very successful in effect, and bore out the opinion we have before now expressed of Mr. Gye's ability in such matters. White hangings on each tier of boxes, with gold ornaments and festoons of flowers, a state box fitted up in the centre of the house, additional chandeliers, the accustomed "beef-eaters" beneath the royal party, and a glittering audience, many in uniforms or diamonds, were the elements of the brilliant whole. The royal box had drapery at the sides, and an elaborate characteristic canopy above. The scene from the stage, when the curtain rose for the National Anthem, was as fine as anything we ever beheld. In the Queen's retiring-room, sculpture and flowers, tastefully disposed, played prominent parts.

TO PREVENT THE BURSTING OF PIPES BY FROST.



REFERENCES.
A. Present stop-cock.
B. Water-pipe.
C. Supply-pipes to houses.
D. Proposed stop-cock.
E. Proposed exhausting-pipe.
F. Gully-hole.

TO PREVENT THE BURSTING OF PIPES BY FROST.

SEEING the great necessity for some improvement in respect of preventing the water-pipes being frozen, I would suggest that a junction be formed to the small service-pipes, with a stop-cock, as per annexed sketch, whereby all dead water could be drained off to the nearest gully-hole or sewer, as most convenient. The simplicity of the working of this plan I think will be evident, as it would be entirely in the hands of the water companies' servants to open the stop-cock in the proposed junction, as at times required in winter. And if occasionally opened in summer, it would prevent the noxious effluvia from the gully holes.

Had this suggestion been carried out this winter in connection with the pipes of the Metropolitan Buildings, St. Pancras, nearly 30*l*. would have been saved, and every person living there, and others whose pipes are on the same service, would have had plenty of water.

C. CANDLAND.

RESTORATION OF ST. MARY MAGDALENE'S, NEWARK.

ON Thursday in Easter week, the church of St. Mary Magdalene, Newark-upon-Trent, was re-opened, extensive restorations having been carried out during the last three years that it has been closed.

This church was mainly erected in the reign of Henry VI. on the site of the still more ancient church of Newark, but has parts in the style of other periods. Its founder was Alan Fleming, the prior of one of the numerous Newark monasteries. The edifice is cruciform, but without a central tower.

The wretched condition of the nave, cumbered by lofty galleries and unsightly pews, had long been complained of, and upwards of thirty years ago premiums were offered by the then corporation of Newark for the best plan of re-pewing the church, which plans are still in existence; but the first steps towards its improvement may be said to have been taken about five years ago, when the roofs of the whole of the south aisle, including both nave and chancel, were restored; and this was followed by the exposure of the whole of the west window, by raising the floor of the ringing-chamber. Shortly afterwards, the pillars and arches of the nave and chancel were cleansed from the paint with which they had from time immemorial been coated. On March 2nd, 1852, however, a public meeting was held, when the work of complete restoration was decided on. A subscription was immediately commenced, and was so liberally supported that the committee were able at once to set about the good work; and at a subsequent meeting, Mr. G. G. Scott was selected to carry it into execution.

The restorations consist, in the first place, of clearing out many incongruous obstructions, and repairing the whole interior, cleansing the stone-work from white-wash, and restoring it where mutilated; repairing the oak ceilings, cleaning the thick coatings of paint from the screens and stall-work, restoring them where mutilated, and fitting up the church throughout in a manner suited to such an edifice. The nave is fitted up throughout with open seats, executed in oak: the ends have carved poppy-heads. The western tower and the portions of the aisles along its flanks, are left without any fixed seats, making a kind of narthex across the west end, and in this is placed the font. The fittings of the chancel and its aisles are restored, and a new reredos is erected in the room of the ancient one, displaced by the panelling which recently terminated the choir. The organ has been removed from the rood-loft, and reconstructed on the floor of the south chancel aisle. Its great size renders it somewhat cumbersome, but a new case, designed by Mr. Scott, in the style of many mediæval organ-cases remaining in German and other churches, has been provided for it. The floors are throughout of Minton's tiles, excepting that a large number of sepulchral slabs have been retained. The only defect which now strikes the eye is the want of *colour*. Nearly the whole of the ancient stained glass has perished, and the flood of light, admitted by the innumerable windows, calls loudly for stained glass to tone and enrich it; while the roofs, the reredos, and the walls, are thought to demand some modest and judicious enrichment to relieve their too uniform hue. The amount expended has, it is said, been between 6,000*l*. and 7,000*l*.

The following works remain to be done when the necessary funds can be raised:—Completion of screen, ends left unfinished, and iron works and gates designed by Mr. Scott, to complete enclosure of chancel. External stone staircase and approach to *parvise*, with open oak screen to fill archway from library into nave. Gilding or other decorative works to organ-pipes, and additional works to organ. Brass eagle or lectern. Stained glass in chancel and other windows.

The contractors were,—Mr. W. M. Cooper, of Derby, for the general restoration,—Messrs. Foster and Andrews, of Hull, for the improvements to organ and new organ-case,—Mr. Haden, of Troubridge, for heating apparatus,—Messrs. Skidmore, of Coventry, for gas standards and ornamental fittings,—Mr. W. N. Nicholson, Newark, for mechanical part of gas-fittings, and iron-work for windows,—Mr. E. Bousfield, Newark, for the windows,—Mr. J. Cooper, Newark, for new wood ceiling, and other works in vestry. Mr. J. M. Johnston was the clerk of the works.

THE PANOPTICON PRINCIPLE FOR BARRACKS.

In your observations respecting the camp at Aldershott, you say that previously to the commencement of a permanent structure for that purpose, its plan should be well considered; and it is in the same persuasion that I venture to suggest an examination of the merits of the panopticon principle.

The essential peculiarity of a panopticon is that from a central station all is visible that passes within the structure—a principle first conceived by the late Brigadier-general Sir Samuel Bentham, who, in consequence, first devised a circular edifice having an inspection-chamber in its centre, to which he afterwards added radial wings projecting from that central part, but they also being under inspection from the centre. According to Sir Samuel's plans, and under his immediate direction, a panopticon was erected near St. Petersburg in the year 1807. The central part of it was a duodecagon of 140 feet diameter. Projecting from it were five radial wings, each of them 104 feet long by 40 feet in breadth. This panopticon was destined for a school of arts, and so employed by the Emperor Alexander for receiving youth for the naval service of Russia. The panopticon was five stories in height, but by a due arrangement of its windows and its floors, two stories were at the same time visible from the centre; and by the aid of a counterpoise the inspecting officer could raise himself in his chair to the upper floors. I was permitted, autumn, 1807, to visit this building, when from the inspection-chamber I distinctly saw to the very ends of the five radii, as well as what was passing in the duodecagon. At a subsequent period General Farshaw examined this panopticon, and in consequence wrote home that such a structure was particularly

desirable for barracks. It is evident, that though barracks were panopticons, it need not follow that the doings therein should be watched at all times: orders from a superior authority might determine what persons should be inspectors, and at what times the whole or any portion of the barracks should be under their inspection.

As to separate enclosures for *married* privates, Greenwich Hospital affords an example of the manner in which they might be constructed, namely, partitions run up in the interior of a spacious chamber, but having an avenue between the ranges of dormitories, that avenue being always open to inspection.

Supposing a circular range of buildings to be contrary to received ideas of architectural beauty, the half of a circle might be adopted, as thus a long line of frontage would be required, and would give scope to the employment of any style of architecture, or to the introduction of any amount of ornamentation.

M.

VICTORIA-PARK.

THE public are naturally jealous when public parks, purchased and laid out at the public cost, are invaded and curtailed. This is the intention, in a wholesale manner, with reference to the Victoria-park. Plans are just issued for a belt of houses all round and within the park; in fact, reducing the area of the park (*which is only about* 200 *acres*) perhaps one-sixth or one-seventh, and making the whole affair a *great building speculation*.

This scheme is offensive and antagonistic to the spirit of the times. We have recently had the horrors of pestilence, and the public mind is strongly impressed that our places of recreation need to be increased rather than curtailed.

A royal park at the east-end of the metropolis is a novelty. Do, pray, Mr. Editor, assist in preventing this horrid building scheme from being carried out. This park has been miserably managed as to approaches; there really is not a *respectable* road for a vehicle, *even now*,—*in* 1855. The park is very pretty as to plantations, lakes, &c. but the approaches are a disgrace. Some years since you made some comments on it (1847). I am ashamed to say the approaches from London are in the same state as then.

ARCHI.

THE MARLBOROUGH HOUSE STUDENTS AND THE PARIS EXHIBITION.

WE hear that the system of instruction adopted in the Normal School of Art at Marlborough House is to be represented in the Paris Universal Exhibition by a complete series of the school studies, from the first efforts in freehand drawing of symmetrical curves, through the successive stages of the student's difficulties to the ultimatum of his labours—the power of correctly reproducing the exquisite beauties of the human figure in simple light and shade, colour in various mediums, and modelled in clay.

As the works selected may be supposed to be the best at the command of the masters, the collection will be valuable in many ways, as showing the result of the reformation in the government of the School of Art, as being a set of students' works illustrating in a complete manner a somewhat novel method of art instruction, and as furnishing material for comparison with the result of systems adopted in other institutions in this country and schools of art on the continent.

The works themselves are the production of the scholars and students of Marlborough House, and have been chosen both from the most successful in the semi-annual competitions for the bronze medals, which have superseded the old system of money prizes in the schools, and from the competitions which have been instituted for the express purpose of obtaining the best possible studies for the purpose to which they are applied.

It is the intention of the Marlborough House authorities, sanctioned by the Board of Trade, to award forty prizes, of 8*l*. each, to those students who have most distinguished themselves at the competitions in August last, and the May competition of this year; which prizes are to enable them to see the Paris Exhibition, and those who go will be expected to make a report upon its contents. Much real good to the student may be safely anticipated from this liberal arrangement, and it is an opportunity of education which has been wisely seized upon by Mr. Cole and Mr. Redgrave, the General and Art Superintendants of the Department of Science and Art.

The specimens from the elementary classes of drawing from flat examples and casts, including studies in pencil, chalk, and water-colour, will be selected from the ordinary class drawing, executed under the superintendence of Mr. Herman. Those of the more advanced classes of drawing the human figure from the antique and living model, and of painting in oil from groups and copies, have been executed by Mr. Alfred Morgan, under Mr. Walsh, the Professor of Painting and Anatomy.

The special classes of surface decoration and mechanical drawing will be represented by Messrs. H. Lock and H. Hagreen respectively.

The class of ornament modelling under Mr. Wills, will be illustrated by the works of Messrs. Walter Smith, W. A. Morley, and G. Gates; and that of the study of the human figure, modelled from the antique living model and from drawings, which is presided over by Mr. Hancock, the sculptor, will be represented in the studies of Messrs. S. Ruddock, Walter Smith, C. H. Whitaker, and S. E. Peal.

COMPETITIONS.

Leamington Parish Church.—The committee for the completion of this church have awarded the premium to Mr. James Murray, of Coventry. An architect was called in to assist the committee in the selection.

Sunderland.—The designs of Mr. Thomas Oliver, jun. of Sunderland, have been selected by the Burial Board for the Monkwearmouth Cemetery Chapels.

THE LEWISHAM DISTRICT CASE.

SIR,—However unwilling I may feel to reopen a case that has been judicially determined, I cannot allow the articles on the subject of the dismissal of the Lewisham district-surveyor which have appeared in the two last numbers of the *Builder* to pass unnoticed.

I am not at all surprised at the commotion which that case has raised, because it is, I believe, the only one that has resulted in the dismissal of a surveyor since the passing of the Act; but I certainly have reason to complain that a charge of something like conspiracy has been most groundlessly levelled at my clients, while the statements on which the accusation is founded are altogether suppressed. I can, therefore, only give the charge a general, though most unqualified, denial.

As to the imputations contained in the letter of "Constant Reader," it is utterly untrue that the association in question was formed for the purpose of nullifying the proceedings of the district surveyor in carrying out the rules of the Act, or that any individual member can indulge his pique by a malicious prosecution; and it may perhaps ease his mind, as well as remove an erroneous impression caused by his assertion, if I state that before the rules of the association were published they were submitted to Mr. Tidd Pratt (the barrister appointed by the government to superintend such matters), who unhesitatingly advised on their legality. Its members, smarting as they were under long continued grievances, had no other course to pursue than to unite for self-defence.

It is obviously unfair to bring forward these general accusations while the real merits of the question are cautiously avoided, and to talk of malicious prosecutions because a severe though just sentence has been passed upon the offending party. If, however, your correspondent will make known his statements, so that the true history of the case may be canvassed, I will not shrink from inquiry, and I pledge myself to produce such startling facts as (though they may, perhaps, be unpalatable to him) will, nevertheless, convince the public that the measures recently adopted were loudly called for, and were fully warranted by the circumstances of the case.

Trusting to your sense of justice for the insertion of this letter in the next number of the *Builder*,

I am, &c.

T. MORETON JONES,
Solicitor for the Complainants.

Miscellanea.

COST OF BRICKMAKING.—SLAG.—A correspondent urges that to effect any great diminution of expense, it is necessary to economize the expense of fuel for generating steam used for working the machinery, and also for burning and drying the bricks, by making one fire answer the purpose, thereby not only saving fuel, but also the expense of labour attending the same, to be exemplified by a combination of the common processes of brick, pipe, and tile making, with the system patented by Mr. Elliott, of melting and moulding such clays as are well known to all brickmakers to be very fusible, and so frequently seen to run together, forming one of the hardest and strongest materials capable of being made from slag. This clay may be taken direct from the pit to the furnace (if free from stones), and is found better than when dried and pulverized before it is put into the furnace. The waste heat of the furnace (being about 80 per cent.) will generate steam for the machinery, and also dry and burn common bricks, pipes, and tiles, and by working both processes together, all shapes and forms capable of being moulded or cast from clay, may be quickly made to order.

NEW EXTRA-MURAL CEMETERY.—A deputation from various parishes, in support of the North London Cemetery Company's Bill, for the establishment of an extensive cemetery near Colney Hatch, has waited upon Sir George Grey and Sir B. Hall, at the Home Office, Whitehall. The deputation pointed out the advantages likely to accrue to the public by the present Bill becoming law. The cemetery consisted of 150 acres of land, in a convenient locality about seven miles from town, and readily accessible by direct railway communication, as well as by public roads. The conveyance by railway would not only be cheaper, but more decent and expeditious. Sir George Grey said that with reference to the parishes who had gone to so great an expense in complying with the wishes of the Legislature, it would be unfair to subject them to the competition of a trading company, who, as he understood, proposed to increase the scale of charges for the interment of the poor, and to lower that for the better class of funerals, thereby depriving the parochial cemeteries of their only source of profit.

PROTECTION OF THE NEW PALACE AT WESTMINSTER FROM LIGHTNING.—In the Estimates of Civil Services for the year 1855-56 there is a separate charge, under the head of the "New Houses of Parliament," of 2,314*l*. for works necessary for securing the fabric against danger from lightning, to which a report is appended from the pen of Sir W. Snow Harris. Sir Snow Harris, in his present report, once more refutes the fallacy of the vulgar and unphilosophical assumption that lightning-rods "attract" the lightning, and so act as efficient safeguards. It is proved by an extensive induction of facts, and a large generalization in the application of metallic conductors, that metallic substances have not exclusively in themselves any more attractive influence for the agency of lightning than other kinds of common matter; but that, on the contrary, by confining and restraining the electrical discharge within a very narrow limit, the application of a small rod or wire of metal to a given portion of a building is, in reality, highly objectionable. Besides, the application of an ordinary lightning-rod is of a very partial character: it has small electrical capacity, and is very often knocked to pieces by heavy discharges of lightning. To secure such a building as the New Palace of Westminster against lightning, Sir Snow considers it requisite to complete the general conductibility of the whole mass, and so bring it into that passive or non-resisting state which it would assume in respect of the electrical discharge supposing the whole were a complete mass of metal; by which means a discharge of lightning, in striking upon any given point of the building, would have, through the instrumentality of capacious electrical conductors, unlimited room for expansion, upon the surface of the earth, in all directions to which, by a law of nature, the discharge is determined.

NORWICH SCHOOL OF ART.—At the last meeting of the committee, Mr. Claude L. Nursey, was appointed honorary secretary, in the place of Mr. Williams, resigned. The number of pupils reported was, 145 in-door, and 784 out-door in the public and endowed schools; total 929. A letter has been received from Mr. E. Warner, M.P. to the effect that the Board of Trade is willing to grant the required authority for an Art Union—to be called the Norwich and East Anglian Art Union.

ACCIDENT AT THE CRUMLIN GREAT VIADUCT.—A sad accident has occurred, through a mistake on the part of one of the workmen, at the Crumlin Great Viaduct, South Wales, according to the newspapers. Three of the colossal iron girders, which stretch from the stone pier to the first pier on the opposite side of the valley, had been properly fixed in their places, and a fourth had been raised, and was in progress of being secured like the others, when a workman, misapprehending, it is supposed, the orders of the foreman, knocked away the wooden supporters before the girder had been fastened. The girder, which was of great weight, immediately fell outward, and being fastened by means of chains to the other three, they were also drawn out with it, and the whole fell with a tremendous crash, carrying with it a mass of platform work, and snapping immense bulks as easily as if they were reeds. Both the men were carried with the falling mass, and were killed.

ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.—The usual monthly meeting of this body took place on Saturday evening, 21st of April, Mr. S. Symes in the chair. The chief business of the evening was a discussion respecting the effects of frost on mortar, and the chairman and members generally brought forward examples illustrative of their respective experience in the matter, and of preventives used by their directions. We should be glad to see the local members of the profession coming forward more spiritedly with their literary contributions towards the publication of the volume of "Transactions," some time since promised.

NEW CORN EXCHANGE, HULL.—We have already noticed the proceedings relative to the selection of designs for this new building. Strong statements have since been sent us reflecting on the way in which the builders' tenders have been treated; but at this moment we are unable to do more than mention the circumstance.

THE SURVEY OF WILLENHALL DISTRICT.—The chairman announced that nineteen tenders from surveyors willing to contract for the survey of the district at sums ranging in amount from 75*l.* to 140*l.* had since been received. The committee's report recommended the tenders of three gentlemen for the consideration of the board, namely, Mr. J. Lyon Alexander, of London, 400*l.*; Mr. Jeffery Austin Hall, Dudley, 350*l.*; and Mr. C. Tebbett, 320*l.* The voting upon the subject then took place, and it was found that the board were unanimous in selecting the tender of Mr. Hall.

DISCOVERY IN PERTHSHIRE.—About a fortnight ago, as some persons were clearing and trenching a piece of waste ground for a garden at Tynrich, a small Druidical circle, close upon the highway, was disclosed to the gaze of the stranger by the removal of masses of broom and bramble that had hitherto concealed it. The old temple—if temple it were—is about 18 feet in diameter, and quite entire, each of its huge stones standing erect and in its proper place; but there is an additional interest attached to it from the fact that, while digging and levelling the interior, four huge urns, about 2 feet in height and 1 foot in diameter at the mouth, were exhumed, quite full of calcined bones, besides three or four stone coffins, formed of thin, unshapen slabs, evidently from the adjacent ground, and likewise containing the mortal remains of the ancient Caledonians of a pre-historic period.

SANITARY IMPROVEMENT OF ROTHERHAM. A tract, titled "Facts and Figures concerning Rotherham and Masbrough," in shape of a letter to the ratepayers, has been printed by Barras, of Rotherham. The author appears to be an ex-member of the Local Board of Health, and his object is to enlighten the rather restive and numerous "dirty party" of that town, as to the pecuniary, as well as the sanitary and other advantages to be derived from the drainage and water supply now in progress. The author states that the population is 12,000; that the estimated cost of main sewerage—with extras—is 7,000*l.*; and that the cost of the waterworks is 23,000*l.* For an additional twopence a week, occupiers will have the benefit of these improvements, from want of which the writer calculates, that a money-loss alone of twenty shillings per annum, per individual inhabitant, on the average, has hitherto been sustained, to which the loss of health and life remains to be added, namely, ninety-six deaths per annum, 1,200 cases of preventible sickness, and seven years' average loss of life for all above twenty years of age.

INSTITUTION OF CIVIL ENGINEERS.—On the 17th the paper read was "On the Construction of Railway Switches and Crossings," by Mr. B. Burleigh. The writer said many attempts had been made to introduce improvements in the construction of switches and crossings, which had been more or less successful. Among those chiefly deserving attention were, Wild's system of housing the tongue-rail of the switch beneath the top flange of the fixed rail; Parsons' solid point rail switches and crossings; Baynes' witch, with its deep tongue-rail, intended to clear the sliding chairs of any dirt lodging upon them; and Carr's crossing, in which pieces of metal were welded under those portions of the upper table of the wing and point rails, most exposed to abrasion and compression. These, although advantageous modifications, were still susceptible of improvement, particularly in the weakest parts, which were the outer rails of the switches, and the wing rails of the crossings, in the line where the outer edge of the wheels crossed them in a diagonal direction. A great defect in ordinary switches, was the lateral weakness of the tongue-rail, which was sometimes sprung to such an extent by the leading wheel, as to open the point sufficiently for the next wheel to run on to the wrong line, and cause serious accidents. Observations of the defects, indicated the introduction, by the Author, of a switch with a projecting piece, rolled upon the tongue-rail, for supporting the flange of the wheel, during its transit over the spot; the surface of the projecting piece being sunk to such a depth below the top of the rail, as to correspond with the depth of the flange of a new wheel, which would therefore take a bearing on both the rail and the projecting piece simultaneously. The result, he said, was successful.

MODEL LODGING-HOUSES, GLASGOW.—The Model Lodging-house Association, encouraged by the fact of their present house being more than self-supporting, have purchased property in Carrick-street, to an amount of above 5,000*l.* and are about to erect a large establishment for males, and fit up a smaller one for females.

THE PARIS EXHIBITION.—There will be a ceremony on the 1st of May, and the Fine Arts departments will be ready, but the Industrial arrangements will not be completed for some time. The buildings for the furniture, &c. are not above ground yet.

THE METROPOLIS LOCAL MANAGEMENT BILL.—The committee of the Vestries of St. Margaret and St. John, Westminster, have reported fully to the vestries on the subject of the Metropolis Local Management Bill, and their report has been approved of and printed, and a petition based on it, ordered to be presented to Parliament through Mr. J. W. Henley, M.P. on behalf of the vestries. The committee report, amongst other points, that the District Board of Works to be created under the Bill, would be unsuited to the superintendence of sewerage and drainage, the costs of which would be so materially increased by the formation of thirty-six different district boards, for cleansing, draining, &c. with thirty-six separate staffs of officers for sewerage and drainage, that the saving on paving, lighting, and cleansing would be neutralized, and a system of sewerage and drainage even less convenient and less efficacious than the present introduced;—that the Metropolitan Board of Works would be empowered to throw serious and oppressive burdens on the parishes and districts, by charging them with the most extensive and expensive works for altering streets, and purchasing property, without their consent;—and that the same board would be empowered to apply to Parliament for enlarged powers for effecting other supposed improvements and alterations, and levying rates on the parishes or districts, and to enter into engagements with public companies or speculative persons, to complete undertakings commenced but discontinued or abandoned by them.

THE COPYRIGHT LAW AND THE PRESS.—An essay by Mr. Peter Burke, of the Inner Temple, Barrister-at-Law, has been published by Low and Son, of Ludgate-hill, the purpose of which is to show the necessity of an immediate amendment of the copyright law upon the removal of the stamp duty from newspapers. This is a subject regarding which the author has considerable insight and experience, acquired in copyright jurisprudence, and his suggestions are well worthy of attention, and especially by our legislators, at the present moment. He shows the various difficulties connected with it which ought to be steered clear of in legislating on the subject, and suggests what ought to be done to obviate such difficulties.

TRADE AMALGAMATIONS.—A meeting of delegates representing the various shipwrights' unions in the United Kingdom, has been held in Newcastle-on-Tyne, with the view of amalgamating the whole body. Preliminary measures were agreed upon with this end, and another meeting will be held in Liverpool in June for the purpose of ratifying the amalgamation. This will be a formidable union.

ISLEWORTH, MIDDLESEX.—The inhabitants of this town are about erecting a new church. The money is all subscribed, the Duke of Northumberland heading the list with 1,000*l.* Mr. Deason is the architect. The following tenders we are told, were sent in, and Messrs. Dove's was accepted:—

Smith	£6,750	0	0
Hocken	6,700	0	0
Care	6,677	0	0
Scarbro	6,600	0	0
Thompson	6,500	0	0
Thompson and McLellan	6,400	0	0
Mills, Egham	6,200	0	0
Colls and Co.	5,990	0	0
Dove, Brothers	4,975	0	0

DRAINAGE OF CLIFTON.—The following are some of the total amounts of tenders for the four contracts for the Clifton drainage, as advertised in your paper. Mr. Baker's tender for the whole was accepted on the 19th inst.:—

Goodison, Lewisham	£48,974	0	0
Lea and Lavers, London	48,106	9	8
Streeter, Bath	38,688	0	0
Marriott, Coventry	27,814	14	0
Savage, Northampton	24,796	0	0
Brown, Southampton	22,475	0	0
Baker, Bristol	19,125	0	0

A. B.

TENDERS

For the erection of the Whittington Club-house, Arundel-street, Strand. Mr. H. R. Abraham, architect. Quantities supplied by Mr. Crocker.

Haward and Nixon	£13,597	0	0
Macey	12,847	0	0
Lucas	12,845	0	0
Holland	12,484	0	0

For the new Wesleyan Chapel, Smethwick. Mr. G. B. Nichols, of West Bromwich, architect. Quantities supplied.

Beddoe	£2,506	0	0
Cox	2,250	0	0
Harley	2,195	0	0
Mathews	2,100	0	0

For works at Uxbridge Cemetery. Mr. Charles J. Shoppee, architect.

	No. 1. Roads and Drainage			No. 2. Walls and Iron Railing.			No. 3. Chapels.			No. 4. Sexton's Residence		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Oxford	997	11	0									
Ellis	987	0	0									
O'Bryan	985	0	0									
Reeves and Neale	975	0	0									
Shidds	960	14	9									
Phillips	876	0	0	826	0	0						
Rogers	865	10	0									
Plowman	788	10	0	600	0	0						
Cole	750	10	0									
W. Smith	718	10	0	199	0	0	778	0	0	310	0	0
Milner	735	0	0									
F. Murray	719	0	0									
Strictson and Carter	687	0	0									
Hardy and Son	...			582	0	0	885	0	0	296	0	0
Shoppee	.....			577	18	0	887	15	0	375	14	0
Gerish	.....			510	0	0						
W. Treharne and Son	566	0	0	456	0	0	748	0	0	336	0	0

For finishing the new congregational chapel at Hendon.

Rowland and Evans	£1,430	0	0
Locke and Nesham	1,312	0	0
Piper and Son	1,288	0	0
Tolley	1,200	0	0

For a house, Angel-town North, Brixton, for Mr. J. S. Feltoe. Mr. Frederick Lett, architect.

Soper	£1,363	0	0
Taylor	1,358	0	0
Copland	1,265	0	0
Bowley	1,070	0	0

TO CORRESPONDENTS.

"J. J. P."—"B. M. R." (a railway *is* in course of construction in Spain).—"Mr. C."—"Mr. S."—"J. B."—"C. L. H." (numerous plans have been proposed in our pages and elsewhere; but we are not aware that one has been adopted in earnest by any line).—"W. P."—"W. H."—"Lady B."—"E. A."—"F. A."—"Newcastle."—"C. F. B."—"T. H. B." (must look to the committee for payment. The committee, if they did not exceed their powers, may recover from the ratepayers).—"J. T."—"P. B."—"W. J. C."—"T. O."—"P. B. W."—"A Correspondent."—"T. T."—"Holiday" (usually private arrangements)—"J. G."—"C. L."—"E. and F. C."—"W. C." (our informants persist in the correctness of their statements).

"*Books.*"—Notices of several books are in type.

"*Books and Addresses.*" We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

PARTNERSHIP.—The proprietor of a business connected with the FINE ARTS, is desirous of entering into partnership with a gentleman to join him in extending it. The connection is of the highest class, and the plant, which has been the accumulation of many thousands of pounds during upwards of forty years, affords the means of doing a large and profitable business. The capital required would be from £2,000 to £3,000, according to the share taken by the incoming partner. Address, H. T. care of Mr. Bithray, Optician, Royal Exchange, London.

SCAGLIOLA, done on an improved principle. I refer to the Gothic, by D. DOLDI, in the Great Exhibition of 1851, in Hyde-park, which gained the only prize medal awarded for the manufacture of the above work in the British department. Specimens to be seen at 192, Drury-lane two doors from Holborn. More brilliant than any hitherto offered to the public, at less than half the original expense. Architects and builders can be supplied with a choice collection of ornaments for building purposes, such as shop fronts, &c. &c.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above price, and the work guaranteed.
Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

PAPER-HANGINGS, &c.—W. SHIERS and CO. Manufacturers and Importers. Largest and most magnificent stock in the world (half a million pieces). Prices lower than any other house in the kingdom.—3 to 5, DEANSGATE (old Church-end), Manchester.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSSS WHOLESALE WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

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Enrolled as the "Borough of Lambeth Benefit Building Society."
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TRUSTEES.
George Singer, Esq. James Smee, Esq. S. Litches, Esq.
Offices 211, High-street, Borough.
Open from Ten A.M. till Seven P.M.
Shares, £50
Entrance fee, 1s. Payments, 4s. monthly.
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No Fines—no undivanced Shares. No back payments.
This Society within four years has divided five estates, satisfying 1,814 Shares out of 3,778. The value, as divided amongst members, being £67,
A Bonus of 5 per cent. in addition to 5 per cent. interest, in all 10 per cent. was decared upon all unadvanced Shares at the annual meeting of 30th January last.
211, High-street, March 1, 1855. WM. BANKS, Secretary.

PORTLAND-ROAD, NOTTING-HILL.—*Re* Emmins, a Bankrupt.—To BUILDERS and OTHERS. — Absolute sale by direction of the assignees.

MR. PETER BROAD will SELL by AUCTION, on MONDAY, APRIL 30, at TWELVE, without reserve, on the PREMISES, Portland road, and elsewhere, a large quantity of MATERIALS, comprising scaffold poles, boards, rullogs, 15,000 stock bricks, 300 feet of slates, iron piping, stone coping, several slabs of Portland stone, ladders, ropes, barrows, and a variety of useful builders' effects.—On view SATURDAY prior. Catalogues on the Premises; at the Castle, Notting-hill. J. H. GRAHAM, Esq., Official Assignee, 25, Colemanstreet; Messrs. MAY and SWEETLAND, Solicitors, 14, Queen-square, Bloomsbury; or of the Auctioneers, 29, Tavistock-street, Covent-garden.

In Bankruptcy of WYATT and Others.—To Chimney Piece Makers, Moulders, and Dealers in Cement, Builders, and Others.

MESSRS. BARTON and SON will SELL by AUCTION, at the WORKS, Pilgrim-street, Upper Kennington-lane, near the Licensed Victuallers' School, on TUESDAY, MAY 8, at TWELVE o'Clock, by order of the Assignees, for the benefit of the Creditors, 400 COMPOSITION MANTELS, complete; Working Stages, Benches, Moulds, Tools, Casks of Cement, and a new Cart.—On view three days prior to Sale. Catalogues of J. R. CHIDLEY, Esq. Gresham-street; of H. H. STANSFIELD, Esq. Official Assignee, Basinghall-street; or of the Auctioneers, Lambeth.

MIDDLESEX COUNTY LUNATIC ASYLUM, COLNEY-HATCH. WANTED, as RESIDENT CLERK of the WORKS, at this Asylum, a Person, between the ages of twenty-five and forty, who is practically acquainted with and capable of superintending the making of gas, and who can undertake the management of gas-making and lighting apparatus, warming and ventilating apparatus on Price's principle, stationary steam-engine, water supply, drainage, sewage, and liquid manure works, general building repairs, and carpenters', plumbers', painters', glaziers', bricklayers', and smiths' work. He will have the superintendence of the mechanics and workmen employed in the establishment, and he will be required to perform all such other duties connected with the situation as the Committee of Visitors from time to time may direct him to do. His services will commence at Midsummer next. The salary will be 200*l.* per annum, with an unfurnished house, coals, gas, milk, and vegetables. Each person who may be desirous of becoming a candidate for the appointment must forward to me, at the Asylum, before SATURDAY, the 12th day of MAY next, a letter of application, in his own handwriting, stating his age, present late employment, length of service, present residence, and number of family, together with testimonials of fitness for the situation, and of good character. Candidates must personally attend at the Asylum, on WEDNESDAY, the 18th of MAY next, at one o'clock precisely, when the Committee of Visitors will proceed to the election.—Further information may be obtained by application, personally, to the Steward, at the Asylum, on any MONDAY or FRIDAY, between TEN and FIVE; or printed rules will be sent by post on application by letter to me.

April 13, 1855 JOHN S. SKAIFE, Clerk to the Visitors.

TO PAINTERS.

WANTED, an active and intelligent Man, from 30 to 35 years of age, as FOREMAN, who must be thoroughly acquainted with the practical working of the painting and decorative business, and can measure and abstract the same. References as to character and competency will be required.—Apply to Mr. H. J. BUCHAN, No. 159, High-street, Southampton.

WANTED, a YOUTH, in an ARCHITECT'S OFFICE, who can draw neatly and write a good hand.—Apply, stating salary required, age, &c. to J. P. 4, Serjeants' Inn, Fleet-street.

TO BUILDERS' FOREMEN.

WANTED, a WORKING FOREMAN, thoroughly competent to set out and carry through every description of joiner's work connected with the trade. He must be of high moral character, and a total abstainer would be preferred. Address, enclosing terms and testimonials, to H. Post-office, Darlington.

WANTED, in an Ironworks, a CLERK, experienced at accounts and mechanical drawing.—Address, stating qualifications and salary required, to A. B. C. 121, Crawford-street.

TO PLUMBERS, PAINTERS, AND GLAZIERS.

WANTED, a three-branch MAN, for a constancy. Must be a good workman. A reference required.—Apply, by letter, addressed to A. B. at Mr. Gray's, 14, Fitzroy-street, Fitzroy-square.

TO BUILDERS' FOREMEN AND CONTRACTORS' SUPERINTENDENTS.

WANTED, an experienced, active Person to superintend a large job, comprising brickwork and earthwork. Address, stating age, particulars, and wages required, to T. B. Office of "The Builder."

WANTED, as CLERK to an ARCHITECT and SURVEYOR, in the country, a person capable of taking the management of a small practice in the absence of the principal; he must be competent to prepare finished and staff drawings, specifications, and perspective. If acquainted with drawings and waterworks, preferred. The duties of the situation will be light, and a moderate salary only will be given.—Address, stating qualification, reference, and terms, to M. Office of "The Builder."

TO PARENTS AND GUARDIANS.

WANTED, by a Builder, in the neighbourhood of the City, a well-educated youth as an OUTDOOR APPRENTICE. As unusual facilities will be rendered to the youth for acquiring a general knowledge of the building business in all its branches, a handsome premium will be expected.—Address, A. B. Office of "The Builder."

WANTED, a CLERK, with a thorough knowledge of the Brick, Lime, and Cement trade.—Apply to J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WANTED, by a Draughtsman, a SITUATION in a Civil Engineer's or Architect's Office.—Address, W. B. Brassington's Library, Kensington.

TO CEMENT MERCHANTS AND OTHERS.

WANTED, EMPLOYMENT as WHARF CLERK or FOREMAN. Has held the situation in the above business upwards of five years, and the cause of leaving is the firm having given up the same. Can be highly recommended by his late employers, and the customers are well known to the advertiser.—Address, G. M. Mr. Coombe's, Baker, Waterloo-road, Lambeth.

TO BUILDERS.

WANTED, by the Advertiser, a RE-ENGAGEMENT as SHOP or OUT-DOOR FOREMAN. Address, C. B. 1, Medway-street, Horseferry-road, Westminster.

WANTED, by a person of considerable experience, a SITUATION as FOREMAN of PLASTERERS. Has been accustomed to extensive buildings, and can model, if required. A good reference as to ability, integrity, &c. can be given.—Address, D. E. 36, York-road, Lambeth, London.

TO PLUMBERS AND BUILDERS.

WANTED, a SITUATION, by a sober YOUNG MAN, who thoroughly understands his business, in or near Town.—Address B. R. Office of "The Builder."

TO PLUMBERS, BUILDERS, &c.

WANTED, by a Young Man who thoroughly understands his business, a SITUATION as THREE-BRANCH HAND, either in town or country. A good reference can be given.—Apply, post paid, to C. H. 7, Kenton-street, Brunswick-square.

TO MASTER PAINTERS, BUILDERS, &c.

WANTED, by a first-rate PAINTER, a permanent SITUATION as Walking or Working Foreman of Painters, Glaziers, Decorators, &c. Is a good writer, grainer, &c. specimens of which can be seen; can measure and estimate; can have a 21 years' reference for ability. No objection to the country.—Address, C. P. Mr. Reeves, 76, Shaftesbury-street, New North-road, Hoxton.

TO BUILDERS, &c.

WANTED, by a steady, respectable Young Man, a Bricklayer, a SITUATION as a WORKING FOREMAN. Understands drawings in all branches of buildings, and capable of taking the sole charge of a job. No objection to the country. Good reference can be had.—Address, H. H. 1, Charlton-street, King's-road, Kentish-town.

TO ARCHITECTS AND BUILDERS.

WANTED to ENGAGE, as CLERK of WORKS, or GENERAL FOREMAN, or FOREMAN over BRICKLAYERS, by an experienced Man.—Address, Z. A. Plough-yard, Carey-street, Lincoln's-inn-fields.

TO HOUSE PAINTERS, DECORATORS, &c.

THE Advertiser wants a PERMANENT SITUATION as WORKING FOREMAN, or to conduct a small business, or otherwise; of twenty-five years' experience; can write well, grain, gild, furnitire-japanning, and decorating.—Address, Z. 6, Leather-lane, Holborn.

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FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—

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Rectory Estate, Ealing, Great Western Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
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Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of one acre, can be obtained. On the two first estates, large pleasure-grounds are allotted to the freeholders or tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge for about ten years less in amount than the ground-rent of the same under the usual system. In addition, thereto, the amount to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building leases. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

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TO CONTRACTORS, BUILDERS, CARPENTERS, and OTHERS.—TO LET, EXTENSIVE and COMMODIOUS PREMISES, exceedingly well situate, 15 miles from town, surrounded by a populous and wealthy locality. The premises include two large Dwelling-houses, capital suite of Workshops, other Out buildings, good Yard, Garden, Meadow, &c.—Cards to view, and particulars, to be had of Mr. PETER BROAD, Auctioneer, 29, Tavistock-street, Covent-garden.

THE BURIAL BOARD for the PARISH of ST. LEONARD, SHOREDITCH, in the county of Middlesex, are desirous of receiving particulars of FREEHOLD LAND, situate on the line of Eastern Counties Railway, suitable for the purposes of a Cemetery. Such land must be about twenty acres in extent, and be within ten miles of London.—Address all communications to W. G. DAVIS, Clerk.

37, Hoxton-square, April 23, 1855.

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BUILDING LAND, NORWOOD, Surrey. TO BE LET by AUCTION, in the course of the ensuing month, very valuable BUILDING LAND, situate at Crown-hill, Norwood, Surrey, within a short distance of the Crystal Palace. For plans and particulars, apply at Mr. MARSH's Offices, 2, Charlotte-row, Mansion-house.

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Gnoll Office, April, 1855.

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Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
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BELGRAVE-WHARF,
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THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

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SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

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This Granite is selected for the New Westminster-bridge.

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BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS,
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List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts

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W. THOMPSON begs to inform Consumers of the above articles that after having employed a considerable time in sinking trial holes, he is now in a position to supply them with stone of a decidedly superior quality, and in any quantity, at the shortest notice.—Price and every information may be obtained on application at the Office, Elmer street, Grantham.
April 23th, 1855.

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WILKINSON'S IMPROVED ARTIFICIAL STONE CHIMNEY-PIECES.—Nearly 3,000 of the above have been Sold, although only recently brought to their present state of perfection, and offered to the public. The prices range from 6s. for a neat bedroom set: with jambs, moulded with large ogee on inner edge, set on plinths, Mantel, moulded with ovolo and fillet under shelf, and shelf with hollow on edge, to 50s. for sitting-room patterns of more elaborate character. A liberal discount for quantity.—Address W. B. WILKINSON, Newcastle-on-Tyne.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W. ASPINALL begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potternewton, Newton, Harehill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c.—Park spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curb and Pitching, all at the very lowest prices.
N.B. Estimates given for Masons' Work.

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AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned yellow DEALING and MATCH-BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Planks, Sash Sills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the Docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

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PLANKS, DEALS, BATTENS,
DRY PREPARED FLOOR-BOARDS, AND MATCH-BOARDING.
FOREIGN FIR TIMBER OF ALL KINDS.
English Oak, Elm, Ash, Laths, Mouldings, Sash Sills, always on sale at the lowest prices for cash.—A monthly Price Current forwarded on application.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally that he has enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c. Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

IMMENSE REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Pine Planks, 19 ft. 3 in. by 11 in.....	from 3s. 9d.	each.
Spruce Deals.....	„ 2s. 3d.	„
Yellow ditto.....	„ 4s. 0d.	„
Honduras Mahogany	„ 0s. 6d.	per foot.
Spanish ditto.....	„ 0s. 8d.	„
Oak Staves.....	„ 2s. 0d.	each.

Prepared Flooring, Veneers, &c. at equally low prices.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by let er, enclosing six postage stamps, the cost of postage.—Steam Works, 36, North Wharf-road, Paddington.
N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

TO BUILDERS and OTHERS.—A quantity of strong cast-iron BALLUSTER PANELS for staircases TO BE SOLD at 10s. per cwt.; weight about 18 lbs. each; 3 feet 6 inches high, 3¼ inches wide, &c. at WILLIAM HARMER'S Iron Warehouse, 1, New Peter-street, Horsferry-road, Westminster.

TIMBER CARRIAGE and CHAISE for SALE.—The carriage is new, light, well made for strength, carries two tons. The chaise is modern, with plated handles, and can be arranged in three minutes at pleasure into a convenient dog-cart for four Cash or exchange for old or new iron, timber, &c.—Apply at the Surrey Ironfoundry, Crosby-row, Walworth.

TO TIMBER DEALERS and OTHERS.—WANTED, to Purchase for Cash, about 200,7 by 3 SPRUCE BATTENS; also, about 50 squares of SLATING.—Particulars, with lowest price, to be sent to ZETA, 24, Gerrard-street Islington.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil, also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK—LONDON—PATENT. And if not so marked the Quality is not guaranteed. Full particulars may be had of T. THOMAS HUBBUCK, and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with it the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO. and by the Company's Grindlie Agents. In London, Messrs. CHARLES DEVAUX and CO., Wholesale Agents, 69, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New road. In Manchester and Liverpool by R. CLAY, 8, Mercer-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

SOUTHAM BLUE LIAS LIME WORKS. OLDHAM and TATHAM have the pleasure of announcing to Engineers, Architects, Builders, and Contractors, that they have erected extensive works near Southam, for the manufacture and grinding of BLUE LIAS LIME, the value of which is now so universally admitted, especially for hydraulic purposes, concrete, &c. &c; and they most respectfully solicit orders.

O and T. can deliver by their own boats, or by rail to any part of the kingdom.

CHARLES RICHARDSON, 6, South Wharf, Paddington. Office, Warwick.

SOUTHAM CEMENT WORKS.—OLDHAM and TATHAM respectfully request a trial of their PORTLAND, ROMAN, and LIAS CEMENTS, which they do not hesitate to pronounce as good as any now in the market. Their unvarying cementitious properties will ensure regularity in colour and quality.

CHARLES RICHARDSON, 6, South Wharf, Paddington. Office, Warwick.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement, and are prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by H. GREAVES, Esq., at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method

FULLWOOD THOMPSON and CO will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for the manufacture of above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Seconds of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL. Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Parts White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Firebricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Portzolano

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS' STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1853.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per horse direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1853.

PATENT PERFORATED SUFFOLK BRICKS.—THOMAS FOX and BROTHERS, Sudbury, Suffolk, beg to inform the trade, they can supply any number of their PERFORATED BRICKS, which are allowed to be the best yet produced. They are made of the same material. They can be delivered with the facility of the solid Suffolk Bricks, and produce work nearly equal to them. The present prices (delivered at any London Station on the Eastern Counties Railway), are as under:—

Patent Perforated, No. 1, 38s. No. 2, 32s. No. 3, 28s. per thou.
Solid White Facings, No 1 65s No 2 50s per thousand.
Samples forwarded on application at the Lond n Dep ot Office, 27, Morpeth-street, Mile end.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—I. B PEARSE and CO Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound; well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS.
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE (successors to Mr. Benjamin Gough), 3, ADELAIDE-PLACE, LONDON-BRIDGE.

1,000,000 STOCK, PLACE, and RED KILN BRICKS, FOR SALE, at the WORKS of the CRYSTAL PALACE BRICK and TILE COMPANY, Lordship lane, Dulwich (situated about a mile from Peckham and Brixton, and a mile and a quarter from the Forest-hill Station of the Croydon and Epsom Railway).—Applications to be made to Mr. J. MAYHEW, at the Works; or to Mr. C. DOWELL (the Secretary), at No. 1, George-street, Croydon.

TO BUILDERS AND CONTRACTORS.

A LARGE quantity of superior quality GREY STOCK BRICKS on SALE, from Huggin's Crown Quay Fields Sittingbourne, Kent, delivered alongside in the river Thames, or into vessels for the West Coast, on low terms.—Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 25s per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICK MOULDS (Improved) steel-faced stocks and plates with regulating screw pegs, used three seasons by the leading brickmakers. References where in use. Bowls, Hoes, Cuckholds, Pug Mills, Millwork, &c.—J. LEACH, Millwright and Manufacturer, 26, Critchill-place, New North-road, Hoxton.—N.B. Moulds of various sizes kept on hand.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newingtod-crescent, Newington-butts, will, from MONDAY, the 11th inst. be carried on at 3, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

GLOBE-TOWN BRICKFIELDS, within one minute's walk of Bethnal-green.—A large quantity of light-coloured PIT SAND, of excellent quality, on SALE, reasonable.—Apply to SAM. EMSLEY, for large quantities; or to the Foreman, JOHN SARGENT, on the Premises.

TO BRICKMAKERS, CONTRACTORS, BUILDERS, and OTHERS.—TO BE LET, for a term, or by the year, a BRICKFIELD, in good working order, with excellent brick kearth, where the business has been carried on for several years, in the vicinity of Dorchester, in and near which several building operations on a large scale are in contemplation. An abundant supply of water.—Apply to Messrs. GARLAND and FEAR, Solicitors, Dorchester.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the Trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORT of the JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 52s. 6d. per 1,000; floor bricks and 9-inch pavings, at 25s. per 1,000; 8-inch pavings, at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

THE ASYLUM LIFE ASSURANCE OFFICE, 72, CORNHILL, LONDON.
Established 1824.
Policies on healthy and diseased lives, at home and abroad, for civil, military, and naval employments.
The only Office on purely proprietary principles, involving therefore no partnership among policy-holders.
For prospectuses, proposal papers, &c. apply to
MANLEY HOPKINS, Resident Director.

THE ALBERT ASSURANCE COMPANY.
(Established in 1838.)
MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square. W. S. VARDY, Manager.

HOUSEHOLDERS and GENERAL LIFE ASSURANCE COMPANY, 15 and 16, Adam-street, Adelphi.
Money received at interest at 5 per cent. per annum, payable in April and October.
Agents (with references) may apply.
R. HODSON, Secretary.

SECURITY TO EMPLOYERS.
THE TIMES ASSURANCE COMPANIES.
To Clerks and others guarantees at the lowest rates.
Plate Glass Assurance.—Windows, mirrors, &c. insured against breakage.
Every description of life and fire assurance.
Apply to the Manager, 32, Ludgate-hill.

NATIONAL PROVINCIAL PLATE GLASS INSURANCE COMPANY, 27, LUDGATE-HILL.
THOS. DRAKE, Manager.
AGENTS WANTED.

RAILWAY ACCIDENT INSURANCE.—1s. 223l. 8s have already been paid as compensation for Fatal and other Railway Accidents, by the RAILWAY PASSENGERS' ASSURANCE COMPANY.
Examples.—1,000l. was paid for the Widow of J. G. killed on the 8th February, 1852, secured by a payment of 1l. 3s6d. was paid to H. C. H. J. who had his leg broken on the 31st August, 1853, secured by a payment of 1l.
Periodical Insurances are granted, which now cover the risk of Fatal Accidents while travelling in any class carriage, on any Railway in the United Kingdom or on the Continent of Europe, and insure compensation for Personal Injury in any Railway Accident in the United Kingdom only.
To Insure 1,000l. at an Annual Premium of 20s.
Ditto 200l. ditto 5s.
Insurances can also be effected securing the same advantages for terms of five or ten years, or for the whole of life, at greatly reduced rates, which may be learned from the Company's Prospectus, to be had at the Offices, and at all the principal Railway Stations.
A new class of Insurance has also been established in case of Death by Railway Accident alone, without compensation for Injury.
To Insure 1,000l. at an Annual Premium of ..... 5s.
Ditto any sum not exceeding 1,000l for the whole of life by a single payment of 6s. per cent.: thus one payment of 3l. will secure 1,000l.
The Premiums charged include the Stamp Duty, which is paid by the Company under its Special Act of Parliament to pay a computed Stamp Duty.
WILLIAM J. VIAN, Secretary.
Railway Passengers' Assurance Office, 3, Old Broad-street, London.

THOMAS JOHN and JOSEPH MAYER'S China and Opaque Porcelain Door and Bell Furniture.—Sign board letters, &c. &c. decorated in every style of ornamentation, can be promptly supplied from the extensive stock kept at their Warehouse, No 2, Pancras-lane, Queen-street, London.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and it is therefore valuable for conveying water, chemicals, &c. It is peculiarly valuable for liquid manure, drain, and soil pipes Being a non-conductor, it is not affected by the frost of winter or drought of summer, like metal or leather. Its strength is extraordinary; the small half-inch diameter tubing having resisted a pressure of 250lbs on the square inch, without bursting. The smaller sizes may be had in 100 feet, and the larger in 50 feet lengths. The joints are easily made. As a conductor of sound it is most valuable for conveying messages in lieu of bells. ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA. The GUTTA PERCHA COMPANY, Patentees, 18, Wharf-road, City-road, London.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.
Diving-dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. H. PEARSE and CO. Great Northern Wharf, York-road, King's-cross.

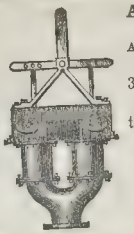
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction,

Wrought-iron Pails, Galvanized or Painted,

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 315, Fore-street City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the accession and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman square, London.

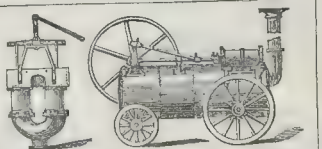
ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. 6d. per square yard. Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 33, Bucklersbury, City.

WOOD'S PORTABLE ASPHALTE CALDRON, highly commended by the Royal Agricultural Society, to prepare a cheap and durable Flooring for every description of Agricultural Buildings, also Malting Floors, Warehouses, Cellars, Workshops, Yards, Paths, &c. &c. The Judges of the Royal Agricultural Society of England, at the Lincoln and Gloucester meeting, highly commended this caldron.

Directions for use, and illustrated circulars, with prices, will be sent post free, on application to JAMES WOODS, Agricultural Engineer, Stowmarket, or Implement Depot, Bury St. Edmund's.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 38s. per ton. Importer of Trinidad Asphalte. Shipping Depôt, Devon Haytor Wharf, Rotherhithe. G. H. CLARK, Agent.

TO CONTRACTORS.
PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 11-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work, at Messrs. MERWIN and HALL'S, Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers.
N.B. Any of these Engines may be purchased.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

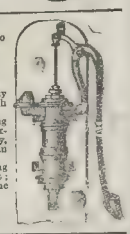
Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to
JOHN WARNER & SONS'
PATENT VIBRATING STANDARD PUMP,
which is recommended for the simplicity of its construction, and the ease with which it works.

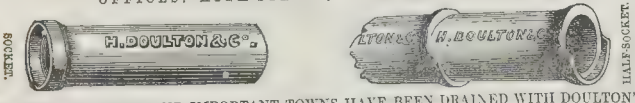
By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London.
Manufacturers and Patentees.



HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—
LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

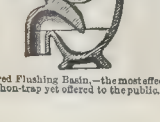
GLASGOW.....J. A. Mathieson, Hope-street.	WIGAN .....James Fairclough, King-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.	KENDAL .....Robt. Thompson
CORK.....J. and J. Harley	CARLISLE .....C. Armstrong, Lowther-street
WATERFORD.....J. Sparrow and Co	WHITEHAVEN ..Hugh Todhunter.
CARNARVON ....Jno. Jackson.	COCKERMOUTH John Hird
PRESTON .....J. Armistead, Hudson-street.	GUERNSEY .....Guerin, Brothers
CHORLEY .....Thomas Saville	LONDONDERRY..W. and A. M'Elwee.
BLACKBURN ....W. Hopwood, Clayton-street.	LIMERICK .....W. Burgess and Sons.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

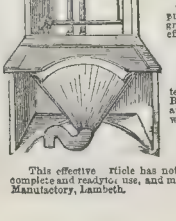
Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.



Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN, I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheels ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

COLLIER'S TERRO-METALLIC and RED BARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

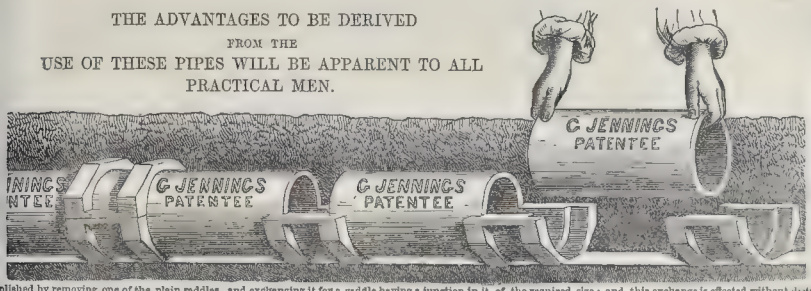
TO ENGINEERS, ARCHITECTS, BUILDERS, AND OTHERS. IMPROVEMENT in SANATORY PIPES, secured by H.M.'s Royal Letters Patent.

MESSRS. A. LIVINGSTON and SON, of the ABERCORN WORKS, PORTOBELLO, beg to intimate that they have INVENTED and PATENTED a NEW CONSTRUCTION of SANATORY PIPE, which admits of the pipe, in the event of any stoppage, being cleaned out by a very simple method, without moving or breaking into the pipe, thereby removing the great obstacle to the use of pipes for sanatory purposes. This improvement also admits of a connexion being made, at any part of the line of pipe, by a method equally simple, which is of great importance, as branch-drains can be connected after the line of pipe has been laid. The Patent Pipe can be seen at the Works, and full information forwarded on application.—Portobello, March 2, 1855.

DRAWINGS WILL APPEAR NEXT WEEK.

JENNINGS'S PATENT DRAIN-PIPES.

THE ADVANTAGES TO BE DERIVED
FROM THE
USE OF THESE PIPES WILL BE APPARENT TO ALL
PRACTICAL MEN.



The Chairs require to be bedded to the required fall and distance apart, and so bedded, that the pipes as well as the chairs take a bearing on the excavation, as here shown. This done, the rebates of the chairs have only to be filled with cement or other material, and the pipe pressed down to the line of chair,—the laying of the pipes and the making of the joints being done at one and the same time. No excavation under the pipes necessary to make these joints, as is the case with the old-fashioned socket or half-socket pipes. Before fixing the saddle pipe, the workman can strike up the ends of the gravel, and the superintendent can see that the work is properly done. In laying these pipes, the SAVING of LABOUR is VERY GREAT, and improper work can be at once detected.

Another important advantage in connection with these Pipes is the facilities they offer for the INTRODUCTION of JUNCTIONS to FINISHED LINES of PIPES. This may be accomplished by removing one of the plain saddles, and exchanging it for a saddle having a junction in it of the required size; and this exchange is effected without disturbing the invert, or even impeding the flow of sewage.

THE IMMENSE DEMAND FOR THESE PIPES, combined with THREE LARGE GOVERNMENT ORDERS, has prevented the Patentee from supplying many works, in which they were specified to be used; but the arrangements now made, and the granting of Licenses throughout the United Kingdom to manufacture, will prevent in future delay or disappointment.

JENNINGS'S IMPERISHABLE AND OTHER CLOSETS

can be seen in every quality, fixed, at his factory. Also JENNINGS'S URINALS and LAVATORIES, as fixed throughout the Crystal Palace, Reform Club, and other public buildings. A Book containing Illustrations, Descriptions, and Prices of all JENNINGS'S Sanitary Inventions, can be had FREE ON APPLICATION, or by post, if two stamps are inclosed to

GEORGE JENNINGS, SANITARY ENGINEER, 29, GREAT CHARLOTTE-STREET, BLACKFRIARS-ROAD.

WHOLE OR HALF-SOCKET PIPES SAME PRICE

HENRY MILLICHAMP,

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,
MANUFACTURER of GLAZED STONE-WARE DRAIN-PIPES, BENDS,
JUNCTIONS, CLAP-TRAPS, &c.
CLOSET-PANS AND TRAPS, 5s. 6d. EACH.
AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

REDUCTION IN THE PRICE OF CLOSET-PANS.

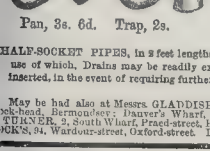
DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

JAMES STIFF,

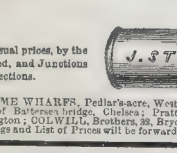
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

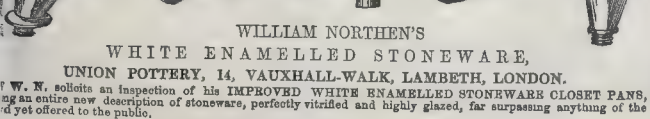
STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Cock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 26, Brydges-street, Covent Garden; and at EDWARD COCK'S, 34, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.



WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

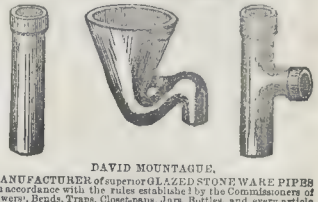
SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.
January, 1855.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

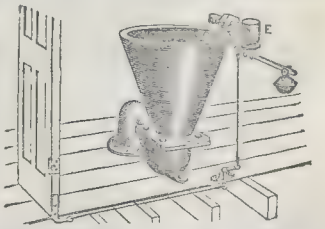


DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules establish'd by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 28, Old Fish-street, near St. Paul's, London.

LAMBERT'S DOOR-ACTION CLOSET.



100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, Wilts County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve-cock, lever, and handle, £4 15s.; Cottage Closet complete, with white wedgwood basin and trap, with 1 inch patent valve-cock, lever, and handle to pull up, 17s. 6d.

THOMAS LAMBERT and SON,
Patentees and Manufacturers, Short-street, New-cut, Lambeth.

SALES BY AUCTION.

Veneer Saws.—By

MESSRS. FULLER and HORSEY, on MONDAY, APRIL 30, 1855, at TWELVE o'clock, at the GRAND JUNCTION DOCK, Wharf-road, City-road, in lots, THREE VENEER SAWS, 6 feet, 10 feet, and 16 feet diameter, in good working order.—May be seen at Mr MEREDITH's Saw-mills, Bankside, three days prior to the sale. Catalogues may be had of Messrs. FULLER and HORSEY, Billiter-street, City.

To Ship and Boat Builders, Engineers, and Others.—By

MESSRS. FULLER and HORSEY, on the PREMISES, Wharf-road, City-road, on MONDAY, APRIL 30, at ELEVEN, by order of the Grand Junction Canal Company, in lots, without reserve, SURPLUS STORES, including 10 tons of nails, spikes, bolts, and nuts, 4 tons of knees, 10 tons of rod and bar iron, 100 gross of screws, washers, and burrs, 100 dozens of iron and brass hinges, 10 tons of patent boiler and boat rivets, 2 dozens of files, 55 cwt. of steel, 1 ton of chain, 2 tons of old iron, 15 cwt. of tyre nails, 2 steam-engines, 12-horse high pressure steam-boiler, 17 feet 8 inches long, 4 feet diameter, one smaller ditto, capital wrought iron cupola, smiths' and engineers' tools, stocks and dies, anvils, swages, 3 forges and troughs, large quantity of useful material, 4 boxes, tin plates, 7 crates of glass, 18 bundles of leather, iron tank, a 12-ton wharf crane (Fox, Henderson, and Co.'s Patent), 20 waggons, carts, and vans, and numerous other effects.—To be viewed on Saturday previous to the sale, when catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, Billiter-street, City.

GREAT GRIMSBY DOCKS.—Two Locomotive Engines, by E. B. Wilson and Co. of Leeds, a Naysmith's Pile driving Machine, valuable Plant and Machinery.

MR. MARSH has the honour to announce that he has been favoured with instructions from the assignees, to SELL by AUCTION, on the PREMISES the Great Grimsby Docks, Great Grimsby, in the ensuing month, without the slightest reserve, the very important and valuable MACHINERY and PLANT, selected with great judgment by Messrs. Thomas Hutchings and Co. including two six wheel coupled locomotive engines, with six-wheel tenders, a contractor's ditto, two 12-horse and a 10-horse power ditto, with shafting, wheels and gearing, an 8 horse power portable ditto, a Naysmith's pile-driving machine, a creosoting apparatus complete with air-pump engine, and a wrought iron cylinder 60 feet long, cylinders and boilers of a powerful dredging machine, costly lathes, screwing, drilling, punching, and shearing machines, a 10-ton railway weighing-machine, by Green, of Doncaster, two Avery's ditto, saw tables, portable ditto, hydraulic ram, capable of lifting 300 tons, fan-blast, capable of working ten forges, single and double purchase crabs, and other valuable machinery, the greater portion new within the last three years, locomotive and other water tanks. Detailed particulars and days of sale will be announced in future advertisements.—Catalogues are preparing, and may be obtained in due time, of Mr MYRING, at the Office of Works, adjoining the Docks; at the principal Hotels in Hull, Liverpool, Manchester, Edinburgh, Glasgow, Berwick, Sheffield, York, Durham, Sunderland, Newcastle, Carlisle, Stockton, Leeds, Halifax, Bradford, Warrington, Derby, Nottingham, Rotherham, Stafford, Wolverhampton, Birmingham, Grantham, and Peterborough; and in London of Messrs. LINKLATER, Solicitors, Sise-lane; of H. H. CANNAN, Esq. Official Assignee, 18, Aldermanbury; and at the Offices of Mr. MARSH, Charlotte-row, Mansion house.

GREAT GRIMSBY DOCKS.—To Railway Contractors, Engineers, Founders, Iron Merchants, Timber Merchants, Builders, Ironmongers, and Others.

MR. MARSH has the honour to announce that he has been favoured with instructions from the Assignees to SELL by AUCTION on the PREMISES, the Great Grimsby Docks, Great Grimsby, in the ensuing month, without the least reserve, the valuable and extensive PLANT and SURPLUS STOCK, a considerable portion new, and the remainder new within the last three years; comprising 400 tons of contractors' rails, 200 earth waggons, 200 tons of bar, round, square, and flat iron, best scrap and sash-bar ditto, 150 tons of scrap iron, 100 made from scrap iron, ten of new hoop, four of bolts, nuts, and washers, one of nails, hinges, &c.; two of blister and sheet steel, circular saws, sheaves, powerful cramps, a 36-feet screw pump, sling chains and blocks, anvils, vices, several tons of timber and iron dogs, sheet, horse-shoe, and nail iron; water-pipe, boiler-plates, pile hoops and shoes, smiths' tools, fly wheels, contractor's waggon, axles, falls, gin and sling chains, about fifty tons of tipping and other pedestals for contractors' waggons, three new 3-inch circular double blast bellows (Langley's patent), blacksmiths' double and single blast ditto, several tons of gagged and other spikes, 16-inch bands and crooks, 12-inch wrought-iron bolts, files, weighing machines, screw jacks, cart bodies and wheels, 300 new barrows, timber carriages, carts, grafting fly and filling tools, shovels, seasoned timber, new ironmongery, consisting of locks, bolts, screws, hinges, &c.; several hundred feet of new lead piping, several thousand feet of gas ditto, &c.; gutta-percha and leather anvil bands, rope varying from 1 to 9 inches, red and white lead, turpentine, oils, pitch, rosin, locomotive and contractors' grease, the brick and timber erections of numerous workshops, sheds, stabling, store houses, and blacksmiths' forges; fencing, Yorkshire paving, sixty sets of new and old harness, several hundred glazed draining tiles, 300 tons of manure, and miscellaneous effects.—The days of sale will be announced in future advertisements. Catalogues are preparing, and may be obtained in due time of Mr. MYRING, at the Office of Works adjoining the Docks; at the Hotels in the various towns specified in the preceding advertisement, and at Mr. MARSH's Offices, 2, Charlotte-row, Mansion House, London.

CHELSEA EMBANKMENT and APPROACHES.—Second Sale of very valuable Building Materials, lying exceedingly well for land and water carriage.

MR. W. R. GLASIER is honoured with instructions from the Commissioners of her Majesty's Works and Public Buildings to SELL by AUCTION, on the PREMISES, on TUESDAY, MAY 1st, at TWELVE for ONE, the very valuable BUILDING MATERIALS of Ranelagh-wharf and Thorne's newly-erected and substantially-built Malt-houses, Commercial-fields, Commercial-road, Pimlico; comprising upwards of 500,000 capital stock bricks, several tons of lead, large brass taps, copper-wire flooring, a large quantity of very excellent timber in girders, joists, rafters, and plates, flooring, gates, doors and sashes, iron columns, furnace-bars, gas-piping, two large cast-iron water-tanks, to hold about 2,000 gallons each, a large quantity of very excellent slating, York and other paving, step ladders, fixtures and fittings. May be viewed the day prior and morning of sale, and catalogues had at the Office of Works, 12, Whitehall-place; of JAMES PENNETHORNE, Esq. 7, Whitehall-yard; at Garraway's, Change-alley, Cornhill; on the Premises; and at the Offices of the Auctioneer, 41, Charing-cross.

The Materials of Crowley-house, fronting the Thames, East Greenwich, and of the Dwelling-house, Lodge, &c. in the Woolwich Old-road. Also, the Garden Trees and Shrubs.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, MAY 8, the BUILDING MATERIALS of the above house and premises, garden wall and greenhouses, comprising several tons of lead, sound brickwork, oak and fir timber, flooring boards, tiled roofs, stone paving, &c. a carved oak staircase, a few pieces of tapestry, lead cisterns and waterclosets, stoves, and other fixtures.—To be viewed the day preceding and morning of sale, when catalogues may be had on the Premises; at the Kentish Mercury-office, Greenwich; Crown and Anchor, at Woolwich; Dover Castle, Deptford; and of Messrs. WINSTANLEY, Paternoster-row.

TO BUILDERS, CARPENTERS, PACKING-CASE MAKERS, CABINETMAKERS, AND OTHERS.

MR. TINDALE will SELL by AUCTION, on the PREMISES, North-street, Whitechapel-road, near the railway, on TUESDAY, 1st MAY, at ELEVEN o'clock, by order of the proprietor, who is retiring from business, and has disposed of the premises, all the dry, well seasoned STOCK of a TIMBER MERCHANT, comprising 1,000 yellow deals, 1,400 dry pine planks, 800 yellow and pine battens, 700 white Christiana deals and battens, 600 spruce battens, Memel and Dantzic timber, cut stuff, &c. &c.—On view the day before sale.—Catalogues may be had on the Premises; at Garraway's; and of the Auctioneer, Portland-place, Commercial-road, Stepney.

SALES BY AUCTION.

CROYDON, SURREY.—Valuable Freehold Plots of Building Land.

MESSRS. PRICKETT and SON will SELL by AUCTION, at the MART, on WEDNESDAY, MAY 2, at TWELVE, in 12 lots, several most desirable FREEHOLD PLOTS of BUILDING LAND, redeemed from land-tax, having frontages upon the High-street, at South-end, Croydon, well adapted for shops, and the back ground for the erection of cottages, likewise giving votes for the eastern division of the county of Surrey.—May be viewed and particulars obtained at the Mart; of Messrs. F. SMITH, STENNING, and CROFT, Solicitors, 3, Basinghall street; and of Messrs PRICKETT and SON, Auctioneers and Surveyors, 34, Southampton-buildings, Chancery-lane.

ON WEDNESDAY, the 16th MAY next, at TWELVE o'clock at noon, in the SHEDS, Brunswick and Toxteth Docks, Liverpool,

301 Logs Baywood
32 Logs Cedar, now landing ex Ellwood Walker.
Apply to Messrs McCALMONT, Bros. and Co. Merchants.
200 Logs Mahogany, now landing ex Felicity, from Jamaica.
On account of the Importers.
150 Planks Italian Walnut, now landing ex May Queen, from Trieste.
On account of the Importers.
486 Planks Bahia Rosewood, now landing ex Orkney Lass, from Bahia.
Apply to EDWARD BENN, Esq. Merchant.
And if not previously sold by private bargain,
956 Pieces, of which 362 are Curls St. Domingo Mahogany, being the cargo just landed ex Mary Marsden.
Apply to Messrs E. LLOYD and Co. and
Messrs MAUNDER, Bros. and Co. Merchants.

To be followed by other cargoes expected to arrive, and the usual variety of Fancy and Furniture Wood, particulars of which may be had from EDWARD CHALONER, Broker.
6, East Side, Queen's Dock, Liverpool.

Capital Stock and Place Bricks.

MR. DANIEL CRONIN will SELL by AUCTION, in about thirty lots, in the FIELD, near to the White Horse Brewery, Shepherds'-bush, on MONDAY, APRIL 30, at TWELVE, about 300,000 STOCK and PLACE BRICKS, in lots suitable to likely purchasers.—Catalogues may be had at the White Horse Tavern; of Mr MORTIMER, Swan, Notting-hill; and of the Auctioneer, 42, Bloomsbury square.

To BUILDERS and OTHERS.—Long Leasehold Investments at the foot of Highgate-hill, which will be SOLD by AUCTION, by

W. and C. PUGH, at the MART, on WEDNESDAY, MAY 2nd, 1855, at TWELVE, by order of the Mortgagees. The property consists of Two private RESIDENCES in carcase in Brunswick road; Six Houses in Brunswick-place; Five Houses, situate Nos 9, 10, 11, 12 and 13, Salisbury-terrace, Salisbury-road, and immediately contiguous to the high road to Highgate—a locality eminent for its salubrity and picturesque vicinity. Advances of money can be had towards the purchase and finishing of the property.—May be viewed till the sale, and particulars had of Messrs. WATSON and SONS, Solicitors, Bouverie-street, Fleet street; at the Red Cap and Archway Tavern, Highgate; at the Mart; and of Messrs. W. and C. PUGH, Auctioneers, 6, Blackman-street, Southwark.

COLLIER'S WATER-LANE, CROYDON, SURREY.

MESSRS. BLAKE will SELL by AUCTION, on the PREMISES, near the White Horse, on TUESDAY, MAY 1, at TWO for THREE o'clock, without reserve, 250,000 BRICKS, consisting of 200,000 sound stocks and 50,000 place, and the remaining portion of the BRICKMAKING PLANT, including crowding, off-bearing, and navvy barrows, tables, moulds and pallet boards, wheeling planks, poles, hurdles, and tools, also, the erection of a timber and tiled stable and shed, 200 sawn larch posts, and 200 pairs of ditto rails. May be viewed six days before the sale, and catalogues had on the Premises, at the Inns in the neighbourhood, at the Artichoke Inn, Newington-causeway, and of Messrs. BLAKE, Croydon.

TO MILL-OWNERS, CONTRACTORS, MINING AND STEAM-BOAT COMPANIES.

MR. B. BARNARD, Practical and Consulting Engineer, 60, White Horse-street, Commercial-road East, undertakes the superintendence of every description of mill-work, pumping engines, and erection of ironwork, iron ships, with their machinery; repairs, &c. giving designs, specifications, and estimates of same; indicating engines, and supplying every class of engineering work. References given as to abilities, &c. if required.

GREAT WESTERN TERMINUS.—Uncleared Lots of Timber, &c.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, at the OLD TERMINUS, Paddington, on MONDAY, APRIL 30, at THREE in the Afternoon, several LOTS, uncleared by Mr. Brumston, consisting of sound timber joists and girders, roofing, stout uprights, with iron shoes, Bath stone, balusters, &c. May be viewed and catalogues had of the Auctioneer, 40, Parliament-street, Westminster, or Coal-Exchange.

Unsold Lots of Builders' materials, fire goods, clinkers, pan-tiles, new carts, barges, &c.

MESSRS. EVERSFIELD and HORNE, are instructed by Mr Ward, to SELL at HONDURAS WHARF, Bankside, on SATURDAY, and following days, any portion of the valuable STOCK remaining unsold, and which will be offered at less than cost price.—Particulars may be had of the Auctioneers, who will attend on the premises, or at their Offices, 40, Parliament street, Westminster. The lease of the valuable Premises to be Sold, or the unoccupied portion to be Let, in one or more lots.

MARBLE.—To Sculptors, Masons, Builders, and Others.

MESSRS. THOMPSON and HOLMES will OFFER by PUBLIC AUCTION, on MONDAY, the 7th day of MAY next, at TWELVE for ONE o'clock, at their WHARF, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge, about 600 TONS of MARBLE, consisting of Statuary, Sicilian, Veined, Black and Gold, Dove, Bardilla, Emperor's Red, and St. Ann's and Irish Black, of the finest quality and sizes. Also, about 6,000 superficial feet of English and Foreign cut Slab. May be viewed previous to the Sale. Catalogues and further particulars had of the Brokers, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge.

WEST PLUMSTEAD, NEAR WOOLWICH, KENT.

MR. G. HUDSON has received instructions from the Executors of the late Mr Jacob James, to SELL by AUCTION, at the AUCTION MART, London, on WEDNESDAY, 9th of MAY, 1855, at TWELVE o'clock, about 40 PLOTS of eligible FREEHOLD BUILDING LAND, situate and being in continuation of Prince's-road, West Plumstead, near to the Royal Artillery Barracks and Woolwich-common, two acres of freehold land near, adapted for building, now let as a brickfield, at a rental of 4l. per annum; the late residence of Mr Jacob James, with coach house, stabling, and large garden, in Prince's road; twenty-two freehold houses, situate in Albert street, Brook hill-road, Shooter's hill road, and Prince's-road, West Plumstead, near Woolwich,—producing an aggregate rental of 330l. per annum. May be viewed.—Particulars may be had at the Auction Mart, London; of Messrs. BULLOCK and CROCKIT, Solicitors, 51, Lincoln's-inn; and of the Auctioneer, Brewer-street, Woolwich.

To Ale Brewers, Plant Brokers, and Others.—The small but very complete and superior Plant of the Atlas Brewery.

MR. JOHN McLACHLAN, will SELL by AUCTION, on the PREMISES, 15, St. John-street-road, Clerkenwell, on MONDAY, APRIL 30, at TWELVE, under a distraint for rent, comprising a seven-barrel and a five-barrel coppers, mash tun, liquor vats, fermenting tuns, copper pump and pipe; slate stillions and tanks; malt mill; about fifty barrels and casks; new malt sacks; and various effects used in the above business. On view morning of sale, and catalogues of the Auctioneer, 2, Spital-square, Bishopsgate.

SALES BY AUCTION.

TO ENGINEERS, SAW-MILL PROPRIETORS, BUILDERS, AND OTHERS.

MR. WM. DOUGLAS will SELL by AUCTION, in lots, without reserve, on the PREMISES, at Cambridge-street, Old St. Pancras-road, on TUESDAY, MAY the 8th, at TWELVE o'clock, a 30-horse high-pressure bright beam-engine, nearly new (by Worssam), of the very best construction; a 12-horse horizontal engine, with gear-wheels; a tubular boiler, 20 feet long by 5 feet diameter; two vertical deal sawing-frames; two planing-machines, with driving riggers; two circular saw tables; a moulding machine, with about 100 pairs of moulding-irons; two grindstones, with riggers; several hundred feet of driving-bands, riggers, shafting, &c. &c., a large number of circular and frame saws, planing and adze irons; also the extensive timber stages, with small travelling crane (all the machinery is in first-rate condition, and may be seen at work up to the day of sale). Also, three horses, two timber carriages, two vans, chaise, harness, &c. office-desk and counting-house fittings, and numerous other effects. The lease of the valuable and commodious water side premises, with the extensive workshops, will be submitted to competition at the same time. Further particulars may be obtained of Mr WM. DOUGLAS, 14, Lowndes street, Belgrave-square; or of Messrs. S. WORSSAM and Co. Engineers, Hortulan-place, King's-road, Chelsea.

PUTNEY and at MERTON.—Extensive Sale of capital newly-built Villa Residences, finished and unfinished, near the Upper Richmond-road, and within three minutes' walk of the Putney Railway Station; and some Shops and Dwelling houses near the Cedars Estate, Putney-bridge, and also at Merton, Surrey.

MR. MOXON will SELL by AUCTION, at the MART, on FRIDAY, MAY 18th, in separate lots, by direction of the mortgagees, several valuable long LEASEHOLD ESTATES, held direct from the freeholder at low ground rents, comprising twenty very tasteful and well-planned villa residences, in the Spencer-road and Clarendon-road, Putney, built in pairs, in a very superior manner, some not quite finished. Also four pairs of smaller dwelling-houses, in an advanced state, and two new and well-built shops, in College-street, Wandsworth-lane, near the beautiful Cedars Estate, both let, and producing a rental of 60l. per annum; and four capital dwelling-houses and shops, very well situate, near the Double-gates, Merton.—Particulars may be obtained of Messrs. HARE and WHITFIELD, Solicitors, Mitre-court, Temple, and at Putney; of Mr. A. C. HOOK, Surveyor, 13A, Great George-street, Westminster; and of the Auctioneer, 455, West Strand, near Charing-cross.

Sixty Acres of Beautiful Freehold Land, about 8 miles west of London, in Plots of about 20 acres each, worthy the attention of speculators, gentlemen desirous of erecting a country-house, with sufficient land for enjoyment, or of Freehold Land Societies.

MR. MOXON will SELL by AUCTION, at the MART, on WEDNESDAY, MAY 30, at TWELVE, unless an acceptable offer be previously made by private contract, 61 acres of very valuable MEADOW and PASTURE LAND, delightfully situate, about half a mile from the railway station of Hanwell, adjoining Hanwell-park and the residence of G. Baillie, esq. forming a portion of the beautiful hilly ground sloping towards the south, and overlooking the elegant church, the windings of the river Brent, and an extensive panorama of rich vale and wooded scenery. The land is remarkably well adapted for the erection of villa residences, having a very excellent frontage to the very beautiful road leading to Greenford, Perivale, and Harrow, but will be divided into only three lots, each lot offering a most inviting spot, giving an opportunity to build a residence with sufficient land for parklike paddocks.—Particulars and Plans may be obtained at the Auction Mart; of ALEXANDER BAYLIS, esq. Solicitor, Redcross-street; and at Mr MOXON's Offices, 455, West Strand, Charing-cross.

IN BANKRUPTCY.—Several Finished and Unfinished LONG LEASEHOLD HOUSES, in ST GEORGE'S-SQUARE, PIMLICO, and at WEST CROYDON.

MR. MOXON will SELL by AUCTION, at the MART on FRIDAY, MAY 18, at TWELVE (by direction of the Assignees of Mr. Jeremiah Cox), THREE well-built and comfortable HOUSES, in St. George's square, Pimlico; two noble Residences, on a larger scale, but not quite finished, forming the corner elevation of the square and Lupus-street, built in a very superior manner, and held on long leases under the Marquis of Westminster and Thomas Cubitt, Esq.; also three very neat SMALL HOUSES, situate in the Tamworth road, close to the West Croydon Railway Station.—Particulars may be obtained at the Mart; of Messrs. MAYHEW and SALMON, Solicitors, Great George-street, Westminster; and of the AUCTIONEER, 455, West Strand.

6,500 Pieces of Paperhangings, 450 Pieces of Gold and Silver Stripe ditto, and 40 Marble and Stone Chimney-pieces.

MR. BRAY, Jun. will SELL, at his ROOMS, 259, High Holborn, on WEDNESDAY, the 2nd of MAY, at TWELVE, upwards of 6,950 PIECES of PAPER-HANGINGS and CHIMNEY-PIECES, suitable for the drawing and dining rooms, parlours and secondary apartments, halls, staircases, &c. May be viewed, and catalogues had.

NEW-CROSS.—To CONTRACTORS, BUILDERS, and OTHERS.—230,000 of good sound Stock, Place, and other Bricks, Kilns, Pug Mills, Barrows, Waggons, Carts, Drying and other Sheds, and Cottages.

MESSRS. KIRKMAN and ENGLEHEART have been favoured with instructions to SELL by AUCTION, at the BRICK-FIELD, near NEW-CROSS, on MONDAY, APRIL 30, at TWELVE precisely, 230,000 of sound Stock, Place, Red, and other BRICKS, the erection of two capital Kilns, containing about 48,000 bricks, wash mill complete, two pug mills, three barrows, erections of drying sheds, 112 feet by 48 feet, containing 80,000 bricks, sheds, cottage, blacksmith's shop, dobby carts, drilling machine, scaffold poles, carts and waggons, and miscellaneous effects. May be viewed ten days prior to sale, and catalogues obtained on the Premises, and at the Offices of Messrs. KIRKMAN and ENGLEHEART, Auctioneers and Estate Agents, 58, King William street, City, and Blackheath, Kent.

Building Plant, Timber Carriage, four Carts, two Crabs, a Traveller, fifty thousand of old Bricks, new and old Stone Paving, Blocks, &c.

MESSRS. BARTON and SON, will SELL by AUCTION, on WEDNESDAY, MAY 2, at TWELVE o'clock, upon the PREMISES, Railway Arch, No. 246, of the South-Western Railway, York-road, at the entrance by the Charing-cross-bridge to the Railway Station, the whole of the PLANT and MATERIALS, consisting of Scaffold Boards, Poles, Putlogs, Wheeling Planks, Ladders, two portable Forges and Bellows, Iron Gas Pipes and Materials of a large Contractor.—May be viewed, and catalogues had at the place of sale, and of the Auctioneers, 7, Cheltenham-place, Westminster-road, Lambeth.

POULTRY.—Capital Building Materials of the King's Head Tavern.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on WEDNESDAY next, MAY 2, at TWELVE, all the excellent BUILDING MATERIALS and FITTINGS-UP of the King's Head Tavern, in the Poultry, comprising sound brickwork, large quantity of plain tiles, several tons of lead in flats, gutters and pipes, capital oak and fir timber, stout girders, breastsummers and iron columns, flooring and lining boards, modern sashes, doors, glazed and panelled partitions, handsome marble chimney-pieces, nearly new skylights, glazed with two large squares of rough plate-glass, stone paving, stoves, cisterns, and useful fittings-up.—May be viewed the day previous, and catalogues had of PULLEN and SON, 80, Fore-street, Cripplegate.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, April 28, 1855.

The Builder.

A JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

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ADVERTISEMENTS.

TO the Worshipful Her Majesty's JUSTICES of the PEACE for the County of KENT.

MY LORDS AND GENTLEMEN,—Having this day been appointed to the Office of District Surveyor for Lewisham, I beg leave most respectfully and sincerely to return my thanks for the honour thus conferred. It will be my study, by a diligent and personal attention to the duties of the Office, faithfully to perform the trust reposed in me.—I have the honour to remain,

My Lords and Gentlemen,
Your faithful and obedient servant,
GEORGE BARNES WILLIAMS, A.R.I.B.A.

4, Frederick's-place, Old Jewry, London: and Woodville, Gravesend.—April 28, 1855.

ROYAL ACADEMY of ARTS, Trafalgar-square.—The Exhibition of the Royal Academy will open on MONDAY next, the 7th instant, at TWELVE o'clock.—Admission, one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A. Sec.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s. Season tickets, 5s.
JAMES FAHEY, Secretary.

TO ARCHITECTS.

EXHIBITION and COMPETITION DRAWINGS, coloured or tinted, and superior LITHOGRAPHY, in its various branches, executed by Mr. T. J. RAWLINS, author of "Elementary Classes," adopted at Marlborough House, &c. &c. 200 Lithographs (including all charges), from 3l. cash.—38, University street, University College, London.

ARCHITECTURAL PUBLICATION SOCIETY.—The ANNUAL GENERAL MEETING of the Subscribers will be held on THURSDAY EVENING, the 10th MAY, to receive the Report of the Committee on the general affairs of the Society; the account of Receipts and Expenditure; and for the Election of Officers for the ensuing year.

The meeting will be held at No. 16, Lower Grosvenor-street. The chair will be taken at EIGHT o'clock precisely, by WILLIAM TITE, Esq. F.R.S.

The receipt-books for the current year, commencing 1st MAY, are now ready.
WYATT PAPWORTH, Hon. Secretary.
14a, Great Marlborough-street.

COMPETITIONS.

BENNETT-PARK ESTATE, BLACKHEATH.—Notice is given, that the TIME for the delivery of the PLANS for laying out the above estate for building purposes is extended to MAY 31st. Lithographs of the ground-plan of the estate can now be had on application to Mr. GEORGE BENNETT, Osborne-place, Blackheath; or of Mr. JOHN BENNETT, 65, Cheapside; from whom any further information can be obtained.

TO ARCHITECTS.

NEW CORN-EXCHANGE and covered MARKETS, at GREAT GRIMSBY.—Notice is hereby given, that the Council of the Borough of Grimsby, are prepared to receive DESIGNS and ESTIMATES for a new CORN-EXCHANGE and COVERED MARKETS, intended to be erected upon the site of property near the present Market-place, and will give a premium of 25l. to the person whose designs and estimates ranging from three to four thousand pounds, shall be approved of. The designs, estimates, &c. receiving the premium, will belong to the corporation, and the successful competitor will not be employed as the architect to carry out the works. A sketch of the site with further particulars, may be obtained on application to the Town Clerk. The designs, &c. to be sent in under seal (without the author's name, but with a motto), before noon, on the 11th day of MAY next, and addressed to the Town Clerk, Great Grimsby, marked "Corn-Exchange and covered Markets." A sealed letter, containing the author's name and address, must accompany each plan which will be opened after the selection has been made.—By order,
GEORGE BABB, Town Clerk.

Town Clerk's Office, Great Grimsby, April 7, 1855.

COMPETITIONS.

TO ARCHITECTS.—£30 PREMIUM.—The Committee of the North Shields Mechanics' Institute are desirous of receiving DESIGNS for a NEW BUILDING, to include a LIBRARY, or LECTURE-ROOM, on the ground floor, about 50 feet by 25 feet; a READING-ROOM and a CLASS-ROOM, of moderate dimensions; also, a small DWELLING-HOUSE, of two or three rooms, attached to the main building. The cost to be limited to about 1,200l. A premium of 30l. will be paid for the best Design. The party receiving the same will be required to prepare working drawings and specifications, and to find a contractor willing to perform the work for the sum named in the report and estimate accompanying the plan. In case the best design sent in shall not be adopted for the construction of the building, and the working drawings, &c. not be required, then 15l. only will be paid as the premium. 2l. will also be paid for the second best Design. The drawings and estimates must be sent to the Secretary on or before MONDAY, the 28th of MAY next.—A plan of the ground, price 2s. 6d. with further information, may be had on application to
JAMES S EDINGTON, Secretary
19, Charlotte street, North Shields, April 28, 1855.

LINCOLN CEMETERY.—To ARCHITECTS, SURVEYORS, LAND-CAPE GARDENERS, and OTHERS.—The Burial Board offer the following PREMIUMS, namely:—

For the BEST SET of PLANS for an EPISCOPAL CHAPEL and a DISSENTERS' CHAPEL, in separate and distinct buildings; a LODGE, with a Waiting-room attached; a HOUSE for the RECEPTION of the DEAD; and BOUNDARY FENCES, accompanied by estimates £10
For the second best ditto 5
For the best Plan and Estimate for LAYING OUT and ORNAMENTING the GROUND 10
For the second best ditto 5

In awarding the premiums, economy of construction in dimensions will be taken into consideration. The site of the new burial-ground is part of the South common, on the east side of and adjoining the turnpike road leading to Canwick. The land must be enclosed to the extent of fifteen acres in a geometrical, ornamental, and tasteful manner; the southern boundary to be the diversion of the turnpike road leading to Washingborough, near to Canwick Lordship, but the exact line of such road, as well as the other boundaries and fences, will be left to the taste of the competitor; the northern boundary not to extend beyond the first hole. Parties may compete both for the buildings and laying out of the ground, in one or more plans, &c.; and it will be competent for one competitor to take both premiums. The plans, &c. must be distinguished by a mark or motto, and delivered or sent post-paid in sealed covers, with a sealed letter, containing a corresponding mark or motto, with the name of the competitor, to the Clerks of the Burial Board, on or before the 8th day of JUNE next. If any name is written on the plans, or any written or verbal communication made, directly or indirectly, to indicate the competitor's name to any member of the board, or the officials, previous to the plans being selected, such plans will be absolutely rejected. The Burial Board reserves the right to adopt the plans approved either wholly or in part, and to employ the party whose plans are selected to superintend the carrying out such plans or not, as it may think fit; and whether such party shall be employed or not, the plans for which the first premiums shall be awarded are to become the property of the Board. It is expressly stipulated that the payment of the premiums shall be withheld until the plans selected shall have been carried out, and the works found to be executed at the estimated costs, or thereabouts. The party whose plans are selected must, if required, be prepared to complete and deliver the working drawings and specifications for the inspection of persons willing to Tender for carrying out and executing the same, within fourteen days after receiving the order for the same. In case none of the plans should be found to have sufficient merit to justify an award, the Burial Board reserves the right to withhold the premiums. A plan of the South common may be seen, and a tracing taken, and further information obtained, at our Offices.

WM ANDREW, } Clerks to the
THURSIAN G. DALE, } Burial Board.

Lincoln, 1st May, 1855.

EXTENSION OF TIME.

THE BURIAL BOARD for the PARISH of BRAINTREE, in the county of Essex, are desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising ground plans, sections, and elevations for LAYING OUT, DRAINING, PLANTING, and FENCING a NEW BURIAL-GROUND, with suitable ENTRANCE-GATES, and for BUILDING a LODGE and TWO CHAPELS thereon. The ground contains about three acres, a plan of which may be seen and further information obtained at the offices of the Board. The party whose plans are approved will, at the option of the Board, either have the superintendence of the works, or be paid the sum of twenty guineas for his design. The plans and estimates must be delivered at the Offices of the Board on or before TWELVE o'clock at noon, on the 23rd day of MAY next. Each plan is to be distinguished by a motto and a sealed letter similarly indorsed, containing the author's name and address, to be sent therewith.

A. CUNNINGTON, Clerk to the Board.

Braintree, April 24, 1855.

CONTRACTS.

TO BUILDERS.

TENDERS are required for ALTERING and ENLARGING the PARISH CHURCH, Ham, Surrey. The drawings and specification may be seen at the Offices of Messrs. BRANDON and RITCHIE, 11, Beaufort-buildings, Strand, after WEDNESDAY, the 9th inst. between the hours of TEN and FOUR o'clock. The Committee do not bind themselves to accept the lowest nor any Tender.

May 3rd, 1855.

BUILDERS desirous of TENDERING for the ERECTION of a PAIR of VILLAS, at Poplar, Middlesex, may inspect the drawings and specification at the Office of Mr. WILLIAM ELLISON, Architect, 18, Stanley-road, Limehouse. Tenders to be delivered on or before WEDNESDAY, the 16th instant. The proprietor does not pledge himself to accept the lowest Tender.

CONTRACTS.

CITY of YORK.—INTERCEPTING SEWERS for the FOSS DISTRICT.—To CONTRACTORS for SEWERS and PUBLIC WORKS. The Sanitary Improvement Act Committee are desirous of receiving TENDERS for the construction of INTERCEPTING SEWERS for the FOSS DISTRICT, the whole being executed with Radiating Bricks and Blue Lias, or Hydraulic Lime, of the following sizes:—

CONTRACT No. 1.
567 yards 9-inch Brick Sewer, 24 inches diameter.
262 do. do. do. 48 do.
430 do. do. do. 36 do.

FISHERGATE DISTRICT.
85 yards 6-inch Egg-shaped Sewer, 30 in. by 21 in.
50 do. 4½ do. do. 30 in. by 18 in.
205 do. do. do. 30 in. by 16 in.
385 do. do. do. 18 in. by 15 in.
80 do. of Drainage Pipes, 12 inches diameter.

CONTRACT No. 2
340 yards 9-inch Brick Sewer, 30 in. by 24 in
85 do. do. do. 30 inches diameter.
425 do. do. do. 27 do.
135 do. do. do. 24 do.
400 do. do. do. 18 in. by 15 in.
145 do. of Drainage Pipes, 12 inches diameter.

The above lengths are exclusive of vertical flues, inspecting shafts, junctions for branch sewers, connexions with existing drains, and other works. A copy of the specification, ten lithographed drawings form of Tender, and schedule for prices, may obtained at the City Surveyor's Offices, upon payment of 1l. from the 9th to the 21st MAY next, between the hours of TEN a.m. and THREE p.m. each day, Sundays excepted. Sealed Tenders, endorsed "Tender for Sewers," are to be delivered at the Surveyor's Offices before HALF PAST NINE in the Forenoon of TUESDAY, the 22nd of MAY. Security will be required for the due performance of the work, and no charge is given that the lowest or any Tender will be accepted.—By order,

THOS. PICKERSGILL, City Surveyor.

Guildhall Offices, York, April 24, 1855.

CONTRACT for TUNNELLING.—URGEL CANAL, CATALONIA, SPAIN.—MONCLAR TUNNEL.—The shafts of the tunnel of Monclar having reached a depth from which an entrance may be formed of the figure and character of the ground, which will have to be bored in the construction of this tunnel, 4,899 metres in length the Board of Administration will award the CONTRACT for the execution of the said tunnel in sight of the buildings at the office of the Company at Barcelona, No. 12, Rue de Boqueria, first floor, at TWELVE o'clock precisely on the 20th JUNE next, according to the conditions contained in the separate regulations, which, with the plan of the ground, may be seen in the said office, and in London, at Mr. G. P. BIDDER'S, No. 4, Bank-buildings. All proposals must be presented, sealed, in conformity with the form contained in the regulations, to the undersigned, two hours at least before the time above mentioned.

(Signed) FRAN. FERRER Y BUSQUETS, Secretary.

Barcelona, April, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.
Viscount Raincagh
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINS on the West Malvern Estate, Worcestershire. The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN, or duplicates of the drawings and specification may be seen on application to Mr. HENRY WEBB, 15, Oak-street, Worcester on and after MONDAY, APRIL 30th, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on FRIDAY, MAY 18th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Malvern Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 19, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.
Viscount Raincleagh
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINAGE on the Alford Estate, Lincolnshire. The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN, or duplicates of the drawings and specification may be seen on application to Mr. GEORGE ATKINSON, Surveyor, Alford, Lincolnshire, on and after MONDAY, APRIL 30, between the hours of TWELVE and FOUR. Tenders are to be sent on or before TWELVE o'clock on FRIDAY, MAY 11th, addressed to the surveyor, and endorsed "Tenders for Roads, &c. Alford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 19, 1855.

CONTRACT for WAGGONS.—Office of Ordnance, May 1, 1855. C.—4170. Notice is hereby given to all persons desirous of CONTRACTING to SUPPLY 201 LIGHT WAGGONS, of a sort that may be seen, and patterns addressed to the Secretary to the Board of Ordnance, sealed up and marked on the outside, "Tender for Waggons," will be received at the Ordnance Office, Pall-mall, on or before TWELVE o'clock on the 11th MAY, 1855. Parties tendering are desired not to use any form but that issued by the Board of Ordnance, which may be obtained by letter, addressed to the Secretary to the Board of Ordnance, or on personal application between the hours of TEN and FOUR, at the Ordnance Office. But as the time for the delivery of these waggons will be very limited, parties who do not possess machinery for the manufacture of these articles need not apply.—By order of the Board,

J. WOOD, Secretary.

[For remainder of Contracts see next page.

CONTRACTS.

ST. GILES-IN-THE-FIELDS and ST. GEORGE BLOOMSBURY To GAS-LIGHT COMPANIES, STONE MERCHANTS, GRAVEL DIGGERS, SCAVENGERS and CONTRACTORS for PAVING.—Notice is hereby given, that the Committee for Paving, Cleansing and Lighting these parishes will meet in the Vestry-room of St. Giles in the-Fields, on THURSDAY the 16th day of MAY, 1855, at TEN o'clock in the forenoon precisely, to receive PROPOSALS from such Gas Company or Companies as may be willing to CONTRACT for one, two, or three years, from Midsummer next, for LIGHTING the public lamps of these parishes (north of Holborn), or any part or parts thereof, with gas; and also for lighting the public lights of those parts both in Holborn, and the parts adjacent thereto, which are now lighted with gas, distinguishing in the Tenders the prices per annum for each burner lower and larger annum for each fish-tail or cock-per burner; also to paint the standards, brackets, and lanterns, and to keep them, together with the glasses, in repair, excepting accidents, at per annum for each lantern. And also to receive proposals from such person or persons as may be willing to contract for all or any of the following materials, pursuant to orders given by the Committee:—viz. for supplying the Committee with the best known sorts of Aberdeen, Mount Sorrell, and other granite, of certain widths and depths, at per lineal foot, each, also best Hard Lime, Yorkshire, and other hard paving, at per yard superficial; and also the best broken Guernsey or Mount Sorrell granite at per cubic yard. A full particular of the several widths and depths and dimensions of the granite and York to be supplied, may be had by applying at the Clerk's Office, 32, Hart-street, Bloomsbury-square; or of Mr Archibald Wilson, surveyor to the Committee, 3, Adelphi-terrace, Strand, Middlesex. Also the best yellow or Reading gravel, Thames sand, and ballast, at per yard cube. The said several last-mentioned articles to be of the several kinds of granites at such times, and in such places within the said parishes, or either of them, as the Committee may direct. Also to receive proposals and contract for the cleansing and sweeping of the squares, streets, lanes, and other places in the parishes (Lincoln's-inn-fields and the Fields and Buildings belonging to the Foundling Hospital excepted), and to dispose of all such dirt, slush, &c. The cart to be used for such purposes not to measure less than seven feet in length, and to carry not more than three separate and distinct Tenders—viz., one Tender for the removal of slop, slush, &c. at per load; and another Tender for the removal of the dust, including ashes; and another distinct Tender for the privilege of taking away the dust and ashes. The scarcities of companies, and persons sending Tenders, are required to attend at the Vestry-room, at the time of the Meeting. The contractors or contractor not to let out any part of their or his contracts and work to be done, or any part or parts thereof respectively, without the special consent of the Committee for the time being, to the satisfaction of the Committee, will be required for the performance of the several Contracts, and the names, places of abode, &c. of the persons to be offered as sureties to be sent with the proposals sealed, to be endorsed as the case may be Drafts of the several Contracts may be seen at the Clerk's Office. The Committee do not bind themselves to accept the Lowest Tender, and will forma the charge for each of the contracts and bonds. Payments to be made quarterly. Printed particulars for the purposes proposals for the supply of stone, gravel, and cartage, may be had of the Clerk or Surveyor as above

By order of the Committee
ROBERT FINNIS, Clerk.

1st May, 1855.

DREDGING in DENMARK.—The Royal Danish Ministry of the Interior offers for written TENDERS for DREDGING at the Island of ROSKILDE-FIORD, between the islands of Zealand and Moen, and the transport and delivery of the spoil. The dredging work is to be effected by means of one or more self-acting dredging machines with apparatus, and to progress so that at least 30,000 lasts of 4,000 lbs. or about 3,000 cubic fathoms of soil, are to be raised before the expiration of the present year. Further conditions are to be obtained at the undermentioned Office, where the detailed plans specifying for the section; also of the Danish Consuls-General at Hamburg and Altona; and the Consuls at Lubeck, Gothenburg, and Malmo. Sealed written Tenders can also at the same time be delivered to the Danish Legation of Foreign Affairs, are to be addressed "To the Ministry of the Interior, Office of the 3rd Department, concerning the proposal for the Dredging of the Roskilde-Fiord," and to be delivered at the said Office by TWELVE o'clock of the 11th of MAY, when and where they will be opened in the presence of the Tenderers.

At the Office, Island Slagelsevaerk, the Ministry of the Interior—Copenhagen, April 14, 1855.

Seeing to enquiry in the *Builder* of Saturday, April 28, on the subject of Dredging in Denmark.

TO BUILDERS

BUILDERS desirous of CONTRACTING for the ERECTION of SCHOOLS and MASTER'S RESIDENCE at CANTON, near Cardiff, may see the plans and specification at our Office as under, from TEN to SIX, where Tenders are to be delivered on or before the 17th inst. The lowest Tender not necessarily accepted

PRICHARD and SEDDON, Diocesan Architects, Llandaff

BOROUGH of BIRMINGHAM.—REMOVAL of NIGHT SOIL, CARTING ROAD MATERIALS, CLEANSING STREETS, WATERING STREETS.—To SCAVENGERS, CONTRACTORS, and OTHERS.—The Public Works Committee of the Council of the said Borough is prepared to receive TENDERS from persons desirous of Contracting, for a term of one, three, or five years, to be accepted from the 1st day of July next, for the performance of all, any one, or more, of the following works, namely:—

For Cleansing the Streets and Public Thoroughfares, during the night from Nine till Six o'clock, and during the day from all and any one, or more of the four districts into which it is divided for that purpose.

For Carting and Drawing Materials, consisting of broken granite, pebbles, ballast, gravel, sand, gravel riddlings, or other materials for the purpose of laying and repairing the streets, public thoroughfares, and places, in all, any one, or more of the said districts in the said Borough.

For Cleansing the Streets, Roads, Public Thoroughfares, Places, and Passages, in all, any one, or more of the said districts in the said Borough.

For Watering the Streets, Roads, Public Thoroughfares, and Places, in all, any one, or more, of the said districts in the said Borough.

Tenders to be sent, under cover (post paid), addressed to J. PIGOTT SMITH, Esq. Borough Surveyor, Moor-street, Birmingham, on or before the 19th day of MAY next, each marked "Tender for

Specifications, with forms of Tender and any necessary information, may be had on application at the Borough Surveyor's Office, on and after the 2nd day of May next.

By order,
THOMAS STANDBRIDGE, Town Clerk.

Town Clerk's Office, Temple-street, Birmingham,
April 30th, 1855.

COUNTY ASYLUM, CHESTER.—TO BUILDERS and CONTRACTORS.—The Visiting Justices of the County Asylum Chester are prepared to receive TENDERS for the ERECTION of a NEW CHAPEL and HOUSE for the Superintendent. The Works and specification may be seen at the Asylum, Chester, from MONDAY, 23rd APRIL, to SATURDAY, 5th MAY, between the hours of TEN and SEVEN each day. Sealed Tenders for the Chapel and House separately, to be addressed "To the Chairman and Visiting Justices, County Asylum, Chester," and marked "Tender for Chapel or House," to be delivered at the Asylum on or before the 14th day of MAY, 1855.—By order of the Magistrates,

ASTLEY HILL HOLME, Architect.

N.B.—The Magistrates do not bind themselves to accept the lowest or any Tender.

Liverpool, April 16th 1855.

CONTRACTS.

BREDE SLUICE.—OAK and FIR TIMBER, CEMENT, LIME, BRICKS, and IRONWORK.—The Commissioners of the Level of Brede and Pett are ready to receive TENDERS for the undermentioned materials:—

OAK TIMBER OF BRITISH GROWTH.—FIRST LOT.

No. of Pieces	Length	Size.		No. of Pieces	Length	Size.	
	Ft. In	In	In		Feet.	In	In.
4	21 6	12½ by	13	4	9	10 by	12½ one end.
4	21 6	9 ..	11			9 ..	11 the other.
2	7 6	11 ..	9	10	9	12½ ..	12 one end
2	7 6	11½ ..	9			10½ ..	11 the other.
2	24 0	12 ..	12	8	9	12½ ..	10 one end.
						11½ ..	8½ the other.

OAK TIMBER OF BRITISH GROWTH.—SECOND LOT.

No of Pieces	Length.	Size	
	Ft. In.	In.	In.
2	28 ..	12 by	12
2	28 ..	15 ..	15
2	9 6	15 ..	15

FIR TIMBER.—THIRD LOT.

No of Pieces	Quality.	—	Length	Size.	
			Ft. In	In	In.
9	Red pine	Balks	25 ..	12	by 12
1	Ditto	Ditto	28 ..	10	.. 15
1	Ditto	Ditto	25 ..	15	.. 15
26	Ditto	Plank	15 ..	4	.. 12
50	Best Dantsic, Riga, or Christiana	Seasoned deals	14 ..	9	.. 3
100	and Quality Sarnia	Deals	12 ..	9	.. 3

The second and third Lots of timber to be delivered by the 30th of JUNE, and the first Lot at such times within the month of JUNE and JULY as the Commissioners may direct. The timber to be cut one square and free from shakes, wane, dead knots, or other imperfections.

CEMENT.—1,000 bushels of the best hydraulic Roman cement, to be delivered in quantities not less than 250 bushels, as required, in 4 equal lots, of JUNE, JULY, and AUGUST.

LIME.—1,000 bushels of the best blue lias Sussex lime, to be delivered in the same manner as the cement.

BRICKS.—300 hard kiln-burnt moulded bricks. The whole or any of the above Tenders may be offered with a like tender to be delivered in each of the first and third weeks in JUNE and JULY. Six bricks as a sample to be delivered with each Tender

IRONWORK.—About 2 cwt. of ironwork to cates, in bolts, nuts, collars, rings, bands, &c. the whole to be of the best mitre iron, at per cwt.

The whole of the materials to be delivered at such places as may be the present Bridge Point, or Beckhouse, at Rye, as the Superintendent surveyor shall from time to time direct to the approval of Mr. MAJOR VIDLER, and he is to be authority to reject any which, in his opinion may not be of proper quality. The materials to be paid for on delivering an order from the performance of the respective contracts. The Commissioners reserve to themselves the right of a copping any Tender, without reference to price, or of rejecting all the Tenders if they think proper. The person whose Tender is accepted to enter into the contract to deliver the said goods at the times specified. Sealed Tenders are to be delivered at the office of Messrs. ELLMAN and WHITMARSH, at Rye, or at their office at Battel, on WEDNESDAY, the 16th of MAY next, marked "Tender for Timber (or as the case may be) for Brede Sluice." Tenders for Timber are also to be at the Rye Harbour Branch of the South Eastern Railway, and the materials may be delivered either by water, or by arrangement with the railway company. Not the slightest attention will be paid to any further particulars may be known on application to Mr. GEORGE LAURENCE, Winchelsea, or to Mr. M. per Battle.

FREDERIC ELLMAN, Clerk to the Commissioners.

Battel, April 28th, 1855.

TO BUILDERS, CONTRACTORS AND OTHERS.

UXBRIDGE, MIDDLESEX.—Notice is hereby given, that the Burial-board for the Township of Uxbridge, in the said county, intend to enter into a CONTRACT, and are prepared to receive PROPOSALS or TENDERS for the FORMATION of the ROADS and FOOTWAYS and for DRAINING and LAYING OUT the new BURIAL GROUND for the said Township containing four acres, or thereabouts, more or less, and in the parish of Uxbridge, Middlesex. The plans, specification, and quantities of the contract may be seen at my Office at Uxbridge aforesaid, any day, between the hours of TEN o'clock in the forenoon and FIVE o'clock in the afternoon, and Tenders of any person desirous to enter into the said contract may be seen at my Office at Uxbridge aforesaid, any day, between the hours of TEN o'clock in the forenoon and FIVE o'clock in the afternoon, and Tenders of any person desirous to enter into the said contract may be delivered sealed up and addressed to me, at my Office at Uxbridge aforesaid. The Commissioners are not expected to accept the lowest or any Tender.

By order of the Board,
HENRY S. HATT, Clerk.

Uxbridge, May 1, 1855.

TO GAS CONTRACTORS

THE Directors of the Richmond Gas Company are prepared to receive TENDERS for the SUPPLY and ERECTION of THREE DRY LIME PURIFIERS. The plans and specification may be seen at the Gas Works, Richmond, Surrey, or, and after the 1st inst. The Directors do not bind themselves to accept the lowest or any Tender. R. P. SPICE, Engineer.

Richmond, 2nd May, 1855.

BRISTOL LOCAL BOARD of HEALTH.—CLEANSING.—The Committee of the Bristol Local Board of Health is ready to receive TENDERS for SWEEPING and CLEANSING the CARRIAGEWAYS of all the Streets, Squares, Courts, of every description, Yards, Lanes, Tramroads, and Places in Divisions, Nos. 1 and 3, within the City and County of Bristol (exclusive of turnpike-roads), three in each week and including watering previous to such sweeping and cleansing, and of taking away the refuse, dirt, &c. to be made by the inhabitants of the said divisions, twice in each week, for the term of THREE YEARS from the 29th SEPTEMBER next. Any person or persons willing to Contract for doing the works in both or either of the said divisions, are required to deliver sealed Tenders for performing the same on or before TWO o'clock on THURSDAY MORNING, the 10th day of MAY next, addressed "To the Committee of the Local Board of Health, 13, Prince-street, Bristol," where a specification of the work to be Tendered for, and the form of Tender, and any other information may be obtained. Each contractor will be required to find two sureties for the due performance of his contract. The Committee will not bind themselves to recommend the acceptance by the Local Board of the lowest or any Tender, nor until inquiry and approval of the proposed sureties.

By order of the Committee,
JAMES HARRIS, Clerk.

Offices, 13, Prince-street, Bristol, 26th April, 1855.

TO BUILDERS AND OTHERS

PARTIES desirous of submitting TENDERS for ERECTING a VICARAGE-HOUSE and other Buildings at Yarkhill, near Hereford, can see the plans, specifications, &c. at the offices of Mr. T. NICHOLSON, Diocesan Architect Hereford, on or before the 10th day next; and five Tenders must be delivered as directed to the said Mr. NICHOLSON. No pledge is given that the lowest Tender will be accepted; and sufficient sureties will be required.

CONTRACTS.

CONTRACT for PACKSADDLES.—Office of Ordnance, May 2, 1855. C—69. Notice is hereby given to all persons desirous of CONTRACTING to SUPPLY 10,000 PACKSADDLES; that proposals in writing addressed to the Secretary to the Board of Ordnance, sealed up and marked on the outside, "Tender for Packsaddles," will be received at the Ordnance Office, Pall-mall, on or before TWELVE o'clock on the 14th instant. Parties tendering are desired not to use any form but that issued by the Board of Ordnance, which may be obtained by letter, addressed to the Secretary to the Board of Ordnance, or at personal application between the hours of TEN and FOUR, at the Ordnance Office. Patterns and specifications may be seen on application to the Inspector, Royal Carriage Department, Woolwich.

KENSINGTON IMPROVEMENT ACT, 1851.—The Kensington Improvement Commissioners will meet at the Vestry-hall, Kensington, on WEDNESDAY, the 9th MAY next, at SEVEN o'clock in the evening, to receive TENDERS and to CONTRACT for the SUPPLY of 60 YARDS of FLINTS, to be delivered at the Wharf, Kensington-basin. The form of Tender may be had together with all particulars, on application to the Surveyor, Mr. JAMES BROADBRIDGE, at his Office, Vestry hall. Tenders to be sealed, and endorsed "Tender for Flints," and to be delivered at my office, on or before FOUR o'clock in the Afternoon of the above named day. The Commissioners do not bind themselves to accept the lowest or any Tender. No contractor to enter into a written contract, and to bear the expense thereof.

REUBEN GREEN, Clerk to the Commissioners.

Vestry-hall, Kensington, April 24, 1855.

TO BUILDERS

NORTH and EAST RIDINGS of YORKSHIRE PAUPER LUNATIC ASYLUM, at CLIFTON, near YORK.—Such Builders or Contractors as are willing to TENDER, wholly or separately, for the ERECTION of NEW WINGS and ADDITIONS to the above Asylum, may inspect the drawings and specification at the Office of Mr. GEORGE FOWLER JONES, the Architect, 8, Blake-street, York, from MONDAY, the 7th, to THURSDAY, the 17th days of MAY inst., both inclusive, between the hours of TEN in the forenoon and FOUR in the afternoon. Security will be required for the due performance of the works, and the Committee of Visitors do not pledge themselves to accept the lowest Tenders; and the contracts will be subject to the approval of the respective Courts of Quarter Sessions for the Ridings. The Tenders are to be delivered on or before NOON of SATURDAY, the 19th instant, to Mr JOHN HOLTBY, Solicitor, Clerk to the Committee of Visitors, at his Office, Low Ousegate, York, endorsed "Tenders for Pauper Lunatic Asylum."—By order,

JOHN HOLTBY, Clerk to the Visitors.

York, 1st May, 1855.

PLYMOUTH CORPORATION WATER-WORKS.—To IRONFOUNDERS and OTHERS.—The Town Council of the Borough of Plymouth will receive TENDERS for supplying 3½ CAST-IRON WATER-PIPES, each pipe to be 9 feet 3 inches long, inclusive of socket, so that it will cover three years when laid, to be 15 inches bore, and 19-16ths inch thick, with Spigot and Faucet joints. The weight is to have not less than 14 cwts. each pipe, but the variation is not to exceed 20 lbs. in any pipe. The pipes to be subject to a test equal to the pressure of water 300 feet in height, and all pipes rejected by the surveyor, shall be turned at the expense of the contractor, who shall cover over and lay in place contracted for, within two months after the acceptance of the tender. The Town Council will pay the contractors the amount of contract in two Installments, the one after one half, and the other six months after delivery. The castings to be of good quality, clean sound, and approved by the surveyor, and to be delivered on the North Quay, at the Sutton Harbour Station. Specification and Tender may be had on application at the Office of the Borough Surveyor, Plymouth, April 24, 1855.

ROBERT HODGE, Surveyor.

NOTICE to CONTRACTORS.—CONTRACT for WORKS.—The Directors of the Bradford, Wakefield, and Leeds Railway will meet at their OFFICES, Observer Office-court, Cheapside, Bradford, on SATURDAY, the 2nd day of JUNE next, at TWELVE o'clock in the forenoon, to LET the CONSTRUCTION of their Railway, at which time and place parties Tendering, or their authorized agents, must be in attendance. Specifications, Conditions of Tender, Forms of Proposition, and forms of Tender may be had, on and after the 12th day of MAY next, at Mr. HAWKSHAW'S Office, 35, Great George-street, Westminster. By order,

JOSEPH BURNSIDE, Secretary.

BOROUGH of SUNDERLAND.—To MASONS, CONTRACTORS, and BUILDERS.—The Corporation are desirous of receiving TENDERS for the several works required in the proposed ADDITIONS to the river bank abutment of the HARBOUR BRIDGE, including masonry, concrete, piling &c. The plans, sections, and specification may be seen at my office MONDAY, the 23rd of APRIL instant, at the Office of the Harbour Bridge Surveyor, 126, High-street, Sunderland. Sealed Tenders, endorsed, "Tender for Works at Bridge," to be left at the Town Clerk's Office, on or before MONDAY, the 14th MAY next. The Corporation do not bind themselves to accept the lowest or any Tender. By order,

WILLIAM SNOWBALL, Town-clerk.

Sunderland, April 19, 1855.

HASLINGDEN and RAWTENSTALL WATERWORKS.—The Directors of the Haslingden and Rawtenstall Waterworks Company are ready to receive TENDERS for the CONSTRUCTION of RESERVOIRS, Culvert, Filter Beds, Embanking Tank, Diversion of Road, Pieces, Cottage, and other Works at Haslingden, situate between Rawtenstall and Burnley, in Lancashire. Specification and Drawings may be seen, and printed bills of quantities obtained, on application at the Office of Mr WILLIAM HARPER, Solicitor, Bury, Lancashire, and of the Engineer, THOMAS HAWKSLEY, Esq., No. 30, Great George-street, Westminster, London, on and after MONDAY, the 9th instant, on payment of the sum of 1l. The lowest Tender will not necessarily be accepted, and the Directors reserve to themselves the power of declining any Tender should they think proper to do so. Sealed Tenders are to be delivered to Mr. WILLIAM HARPER, Bury, or Mr. THOMAS WOODCOCK, Solicitor, Haslingden, or to the Engineer, THOS HAWKSLEY, Esq., 30, Great George-street, Westminster, London.

By order of the Directors, WM HARPER,
Dated 18th April, 1855. THOS WOODCOCK.

TO BUILDERS.

PERSONS desirous of giving TENDERS for the ERECTION of the proposed NEW CHURCH, on Upper-heath, Essex, may see the plans and specification at Mr. CHRISTIAN'S Offices, 10, Whitehall-place, on and after MONDAY, MAY 7. The Committee do not bind themselves to accept the lowest Tender.

TO IRONFOUNDERS, IRON MERCHANTS, AND OTHERS.

GLOUCESTER WATERWORKS.—The Gloucester Board of Health are desirous of receiving TENDERS for the early delivery of about 1000 TONS of CAST-IRON WATER-PIPES. Specifications and Forms of Tender may be had on application at Mr. BALDWIN'S, 11, Bridge-street, Manchester; or Mr. K. H. FRYER, Solicitor, Gloucester, the Clerk to the Board. All Tenders are required to be sent to the Clerk, under a sealed cover, marked "Tender for Cast-Iron Water-Pipes," and addressed to "The Gloucester Board of Health," on or before the 23rd day of MAY next. The Board do not pledge themselves to accept the lowest or any Tender

K. H. FRYER, Clerk to the Board.

10, Berkeley-street, Gloucester, April 24, 1855.

CONTRACTS.

THE PUBLIC HEALTH ACT, 1848.—
To CONTRACTORS and OTHERS.—The Local Board of Health for the District of LEAMINGTON are prepared to receive TENDERS for the EXECUTION of WORKS required in the CONSTRUCTION and SEWERAGE of about 2000 LINEAL YARDS of NEW STREETS, including the Macadamization of the carriage-ways, and flagging and paving of the footways, and the laying of upwards of 2,500 lineal yards of Stoneware Socket-pipes, and a short length of Brick Sewers under and adjacent, and other Works connected therewith, as described in the plans and specifications prepared by their Surveyor, Mr JOSEPH FOX SHARP, which, with samples of the materials to be used, may be seen at the Board-room, Leamington, between the hours of TEN and ONE o'clock, on and after SATURDAY, the 28th day of APRIL instant. Copies of the specifications, schedule of prices, and forms of tender, may be obtained on application to the Clerk, at his office, Town-hall, on payment of 5s. and to whom Tenders must be forwarded, endorsed "Tenders for making New Streets," on or before MONDAY, the 7th day of MAY, at 5.* The Board do not bind themselves to accept the lowest or any Tender. By order,

R. H. DAVIES, Clerk.

Town-hall, Leamington, 17th April, 1855.

* Day for sending in Tenders since extended to SATURDAY, 12th day of MAY, 1855, until which day the plans may be seen and specification obtained as above.

TYNEMOUTH LOCAL BOARD of HEALTH.—SEWERAGE.—To BRICKMAKERS, EARTHENWARE SEWER and DRAIN PIPE MAKERS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:

CONTRACT No. 1.—For the supply of SQUARE and RADIATED BRICKS.

CONTRACT No. 2.—For the supply of EARTHENWARE SEWER and DRAIN PIPES, &c.

Specifications, schedules, bills of quantities, and forms of Tender (five shillings the set), may be obtained, further with any further information required, on application at the Town Surveyor's Office, Tynemouth; or at the Offices of ROBERT RAWLINSON, C.E. 31, Parliament-street, Westminster. Sealed Tender to be delivered at the Town Clerk's Office, Tynemouth, before TWELVE o'clock, on THURSDAY, the 17th day of MAY, endorsed "Tender for Contract No. 1 or 2," as the case may be.

(Signed) THOS. C. LIETCH, Town Clerk.

Tynemouth, 20th April, 1855.

MIDLAND RAILWAY.—The Directors of the Midland Railway are prepared to receive TENDERS for the WORKS necessary to be done in keeping the Stations and Buildings on the undermentioned branches of the Midland Railway in proper and efficient repair for a term of seven years:—

CONTRACT No. 1.—The Leeds and Bradford Branch, including the extension to Colne.

CONTRACT No. 2.—The Ambergate, Mouk's, and Rowsley Branch.

The specification and draft contract may be seen, and form of Tender obtained, for Contract No. 1 upon application at the Engineer's Office, Wellington Station, Leeds; and for Contract No. 2 upon application at the Engineer's Office, Derby Station, on and after the first of MAY next. Peal rate to be paid to the Secretary to the War and Works Committee, Derby Station, by TEN a.m. on TUESDAY, the 15th day of MAY next. The Directors do not bind themselves to accept the lowest or any Tender.—By order,

JOSEPH SANDERS, Secretary.

Derby, April 24th, 1855.

TO BUILDERS.

SEAL CHURCH, near SEVEN OAKS.—Builders wishing to TENDER for the ENLARGEMENT and RE-PITCHING of the above named CHURCH, may see the drawings and specification by applying to the Rev. T. O. BLACKALL, at Seal, any day after MONDAY, the 7th of MAY, and may obtain the further drawings from the Architect, Mr G. G. SCOTT, 24, Spring-gardens, London. Sealed Tenders, endorsed "Tender for Enlargement of Church," to be delivered to the Rev. T. O. BLACKALL, Seal, on or before 10 o'clock, on or before SATURDAY, MAY 26. The lowest Tender will not of necessity be accepted.

TOXTETH-PARK, LIVERPOOL, GENERAL CEMETERY.—To BUILDERS.—Persons willing to CONTRACT with the Burial Board for the ERECTION and COMPLETION of TWO CHAPELS, TWO LODGES, ENTRANCE GATES, FENCE WALLS, LAYING OUT, DRAINING, FORMATION of ROADS, and other works required in the new Cemetery for Toxteth park, may inspect the plans and specifications for the same from SATURDAY, the 5th, to SATURDAY, the 19th day of MAY next inclusive, at the Offices of the Architect, Mr. THOMAS D. BARRY, 37, Bedford-street North, Liverpool, and 16, Lincoln's-inn-fields, London, where bills of quantities may be obtained on payment of one guinea. Tenders, sealed and endorsed "Burial Ground Tender," must be delivered to me before TWELVE o'clock on SATURDAY, the 19th day of MAY next. The Board do not bind themselves to accept the lowest or any other Tender.

By order of the Board,

J. ROWLAND, Clerk

Public Office, Toxteth park, Liverpool, April 23, 1855.

TO BUILDERS AND OTHERS.

PARTIES desirous of submitting TENDERS for ERECTING a VILLA RESIDENCE in the BRAMPTON, Newcastle, Staffordshire, can see the plans and specification, &c. at the Office of Mr JAMES TRUBSHAW, Architect, Woke Villas, St. Leonard's-on-Trent, from the 1st of MAY to the 20th inclusive. The Tenders sealed and endorsed, must be delivered on or before the said 20th instant, and it must be distinctly understood that the lowest Tender will not necessarily be accepted.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. H. BARLETT, manufacturer of Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, sash Weights, Fly and other Wheels, Rigers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Rims, Paws, and other castings, to patterns or drawings.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to meet every description of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be a conquest the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

The furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

MOREWOOD & ROGERS'S PATENT PLUMBIC ZINC,

A SUBSTITUTE FOR SHEET-LEAD FOR

ROOFING, RIDGES, GUTTERS, FLOORING,

AND ALL OTHER PURPOSES TO WHICH SHEET LEAD IS APPLICABLE.

This Metal consists of distinct layers of Lead and Zinc, perfectly united in the process of Manufacture, one side of each sheet being pure Lead and the other pure Zinc; it therefore combines the Stiffness of Zinc with the Durable Quantities of Lead. The Lead side of the sheet being laid outward effectually protects the Zinc below from those atmospheric influences which so rapidly cause its decay, whilst the Zinc so stiffens and supports the Lead as to make a sheet of Plumbic Zinc equal in strength to one of Lead of several times its thickness and weight.

Plumbic Zinc not requiring to be more than one-fourth or one-fifth as thick as Sheet-Lead, is consequently much cheaper than that material.

For covering Terraces, Flats, Floors, Stairs, Passages, &c. it is well suited, being like Lead to the tread, whilst the Zinc on the under side of the sheet prevents it from treading out of shape.

The Size of the Sheets is 7 feet by 2 feet 6 inches.

No. 11 Gauge weighs about	18 oz.	per foot super.		
No. 12	"	"	20 oz.	do. do.
No. 14	"	"	23 oz.	do. do.
No. 16	"	"	26 oz.	do. do.

For further particulars, apply to

A. MOREWOOD and CO. GALVANIZED TINNED IRON WAREHOUSE,
DOWGATE DOCK, UPPER THAMES-STREET, LONDON.

SKAIFE'S GALVANIZING WORKS,
Commercial road, Lime-house, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form
Sheets plain and corrugated. Roofs fixed complete.
J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zink, and Tiles.
An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling houses, farm buildings, and fire-proof stores. Also, railway stations, trusses, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished
Island Foundry and Ironworks, Millwall, London.
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TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimate and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
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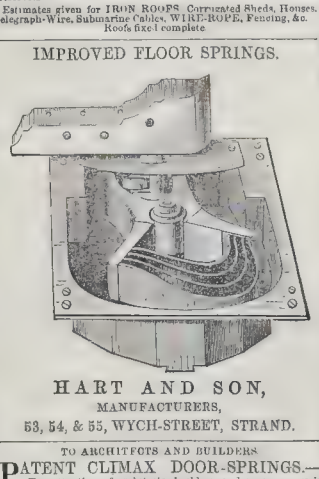
TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c always in Stock.
N.B. An allowance to the trade
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

PATENT GALVANIZED IRON.
(IMPROVED PROCESS.)
JOHN SYMONDS and CO.
WORKS, GLASS-HOUSE YARD, opposite the principal Entrance to the London Docks.
GALVANIZED SHEETS shipped WEEKLY for every description, superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
Estimates given for IRON ROOFS Corrugated Sheds, Houses, Telegraph-Wire, Submarine Cables, WIRE-ROPE, Fencing, &c.
Roofs fixed complete.

IMPROVED FLOOR SPRINGS.



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MANUFACTURERS,
53, 54, & 55, WYCH-STREET, STRAND.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom. Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

CORRUGATED IRON ROOF—TO BE SOLD immediately, about 34 feet span and 32 feet long, with circular skylight, all in good condition.—Apply to Mr. HODGE, Architect, 7, Castle terrace, Kentish-town, or at 29, Soho-square, where it may be inspected.

IRON METAL and MACHINERY.—The Corbyn's hall Company's Bars, Sheet Plates, Angle, Tyre, and Compressed Iron Hardlands Patent Gas and Water Tubing. W. Collier and Co.'s Machines, Tools, &c. Railway Plant, &c.—GLADSTONE and SON, Agents, 6, John-street, Adelphi, London.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's. JONES and BLANDY, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water-closet Work, Area Gratings, Fly and other Wheels, Wrought Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in Stock.

FOUNDRY AND IRON WORKS,
63, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.
GLOVER, BROS.,
solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Sash Bar, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

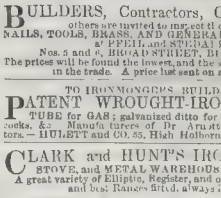
Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,
168, DRURY-LANE, and CHARLES-STREET.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY
SUPPLIED ON SPECIAL TERMS.
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the assortment of the largest in the trade. A price list sent on application

TO IRONMONGERS, BUILDERS, &c.
PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure sacks, &c. Manufacturers of Dr. Arnott's improved Ventilators.—HULETT and CO. 85, High Holborn.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 169, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



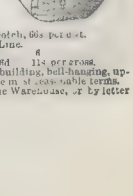
Improved Self acting Cottage Ranges, with Large Oven and Boiler, 30 in. 34 in. 36-inch, 28s. 32s. 38s.
Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars
24 in. 30 38 42-inch.
51s. 56s 58s. 60s.
Strong Elliptic Stoves, with Extra Back and Bright Bars, each 2d.
Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivets, 4½ per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 14s. each.

Cast Hain-water Pipe	2 inch.	2½	3 inch.	
	1d.	1s. 3d.	1s. 4d.	per yard.
Cast Gutters—4 inch, 9d. per yard.				
	4½ inch.			
O G Gutters	1s. 1d.		1s. 3d.	per yard.
Best Cut Clasp Nail	1½	1¾ 2	2½	3 inch, and larger.
and Rose	1½ 8d.	1s.	1s. 3d.	1s. per cwt.
Cut Sheet Rolled Brads, 12s. per cwt.				
1 inch Cut Lath, 15s.			Cast Lath, 12s.	
Patent Line	3	3½ 4	5	6
	4½d.	5d. 7d.	9d.	1s. per knot

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 9d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr Arnott's Ventilators, 4s. 6d. each
An extensive stock of bar, rod, hoop, and sheet Iron
Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of Ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, 4 sizes, 3d. per inch, and upwards.
Register Stoves, 5d. 6d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 15s.
3-feet Cottage Ranges, with ovens and back boilers, 45s. each.
3-feet self-acting ditto, ditto, 60s. each
Air Bricks, 4 per 1d.
Best Town Glue, 8d. Ditto, Scotch, 6d. per lb.
Best Patent Sash Line.

1	2	3	4	5	6	
4s. 6d.	6s.	6s.	7s. 6d.	8s. 6d.	11s.	per cross.

And every material required in the building, hall-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

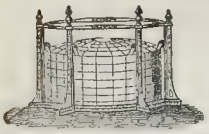
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges, on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

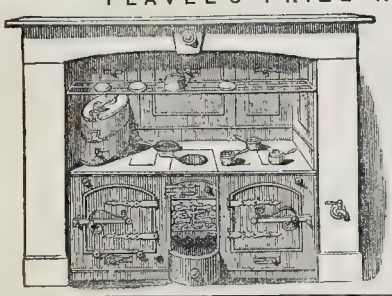
These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

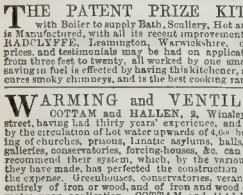
BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

"LORD HARDINGE requests Messrs. BAILEY will be so good as to inform him how much he is in their debt for the stoves which they supplied to him. He is happy to inform them the stoves have proved very good ones in the Camp before Sebastopol.

Horse Guards, 26th Feb. 1855."



Price 50s.

D. & E. BAILEY,
Ironmongers,
372, Holborn.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 6d. This achievement in heating by hot water is unprecedented.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 10s. shilling the foot.

R. S. NEWALL and Co's Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
139, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

ROYAL POLYTECHNIC GAS FIRE, BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. It may be seen in action at DEFRIES'S Office, 145, Regent street, London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having this kitchener, and it effectually cures smoky chimneys, and is the best cooking range extant.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co's establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO (opening to the Monument, London-bridge. Established A.D. 1700.

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D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s. 35 and 36, High Holborn.

ESTABLISHED 1817.

WILLIAM HARMER'S Smith's Work, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster. Builders, contractors, and others, supplied at the lowest wholesale prices, with Improved Self-acting Kitchen Ranges, Elliptic and Register Stoves and Shams; Fire Lumps to suit the same; Cast-iron Rain-pipes, Eaves Gutters, Sash Weights, Air Bricks, Sink Traps, &c.; Sheet Zinc, Perforated Zinc and Tubing; Cut and Wrought Nails, Brads, &c.; Rim, Mortise, Dead, Cupped, and other Locks; Patent Sash Line, Glue, &c.; Bar, Rod, Hoop, and Sheet Iron; Galvanized Iron and Galvanized Iron Coppers.—Price lists on application, which will be found equal to all competition. Estimates given for Wrought and Cast Iron Railing, Gates, Balconies, Staircase work, Verandah, and Wrought and Cast Iron Work of every description.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

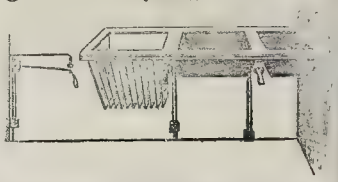
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

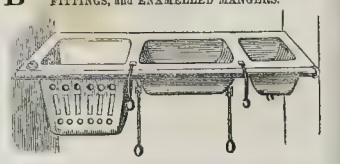
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.



The only Patented Invention of this description constructed so as to prevent considerable waste of Hay and Corn, together with all the recent improvements.

STABLE FITTINGS, FORTY SHILLINGS PER SET, to fill up the whole width of Stalls, and can be had enamelled or galvanized. Every description of Mangers, Racks, and Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c.

Manufacturer of Kite's Patent Noiseless Cast-iron Smoke-curing Chimney Cans 30s. on (Buckingham Palace), price 35s each. Price-lists and illustrated Catalogues forwarded on receipt of two postage-stamps.

JAMES BARTON, Ironfounder, &c. 370, Oxford-street, a few doors east of the Pantheon.

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Messrs. HOBBS, ASHLEY, and CO. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY, LIVERPOOL.

"London and North-Western Railway Company,
"Liverpool, May 17, 1853.

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs. Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"S, Great Vine-street, May 3, 1853.

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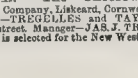
By Her Majesty's  Royal Letters Patent.

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Grantham, April 30th, 1853

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The Builder.

SATURDAY, MAY 5, 1855.

WE should like to know what the endeavour to obtain an efficient Act of Parliament for the regulation of buildings in the metropolis has cost the country. For several years past, each successive chief commissioner of works, after seeking opinions on all sides (and seldom paying the least attention to them) has tried his hand in the preparation of "a Bill to amend" the existing laws, which, after it had been printed, circulated, and to some extent discussed, was in due course withdrawn, and consigned to oblivion.

We opened the new Bill which has been brought in by Sir William Molesworth with fear and trembling; anxious to learn if it looked practicable, and to judge if it was put forth with the intention of carrying it, or was a sham. The present state of things is very bad, the due administration of the existing Act is now scarcely possible, and a new measure is absolutely required. Does, then, the one now before us look practicable? We are compelled to say it does not, and that our hopes of the proper disposal of the question in the present session are very slight indeed. Aiming at simplification, the measure is confused and hard to be understood; in many cases where clear not wise. Some of the clauses seem to us positive nonsense, but we speak with reservation, for the document is so profound that further study of it might put these in a different light. It consists of 46 pages, and comprises 120 clauses, with one short schedule touching the fees payable to district surveyors. It would seem to be the work of a mathematician, rather than of a practical architect, and some of its directions are doubtless the result of much ingenious calculation. Fancy, however, a working builder setting himself to learn how thick the external and party-walls of dwelling-houses must be, and lighting on the following rules:—

"1st. As to such walls in general,—

No such wall as aforesaid, excepting the case hereinafter mentioned,* shall be less than 13 inches thick:"

[But yet,]

"2nd. As to the thickness of such walls at their bases,—

The thickness shall be determined, in cases where the dwelling-house does not contain any story exceeding 12 feet in height, by adding together the following measurements; that is to say,

1. Fifteen times the height of the building;
2. Eight times the breadth; and,
3. Five times the length;

and by taking the thousandth part of this sum for the thickness of the wall at its base; but if the length exceeds twice the breadth, it shall be lawful to take the sixtieth part of the sum of the height and the breadth for the thickness of the wall at its base.

The thickness at the base of the wall, in cases where the dwelling-house does contain any story exceeding 12 feet in height, shall be determined by taking the thickness as before, and adding for every story that exceeds 12 feet in height to such thickness one fortieth part of the excess of such story over 12 feet."

A cleverer fellow than the bricklayer we have in our eye would find difficulties enough in the foregoing, if, for example, his building should be of various heights and breadths, and might be "posed" by the practical result of the last clause; but we will not now stop to deal with this.

Looking a little further, he would find, with respect to "public buildings and buildings of the character of public buildings," Clause XXI. as to the thickness of the external and party walls, that,—

"In cases where such walls are not strengthened by buttresses,—if the roof has a proper tie, the thickness shall be determined by adding together the following measurements; that is to say,—

1. Twenty times the height,
2. Twelve times the breadth,
3. Eight times the length,

And by taking the thousandth part of this sum for the thickness of each wall at the level of the ground floor; but if the length exceeds twice the breadth, it shall be lawful to take one-fortieth part of the sum of the height and the breadth for the thickness of the walls at the level of the ground floor."

This formula gives, of course, thicker walls for public buildings and buildings of that character; and it is right, generally speaking, that it should do so: but let us see what brings a building within the operation of this requirement. The previous clause will tell us, and it says that,—

"Every building shall, for the purposes of this Act, be deemed a public building, or a building of the character of a public building, that has one story only besides the basement story, and, in addition, possesses both or either of the following characteristics; that is to say,—

1. A breadth exceeding 30 feet, such breadth to be irrespective of any support by pillars.
2. A height exceeding 16 feet."

Which, if we read it correctly, would give to the majority of two-storied houses "the character of a public building," with the penalty, whatever it may amount to practically, attaching to that honourable distinction.

In the rules to be observed with respect to the thickness of circular and polygonal walls, it is directed that—

"The thickness having been determined, on the supposition of the wall being straight, the thickness of the circular wall shall be to the thickness of the straight wall as the radius of the circle with 4 feet added is to the same radius with 22 feet added!"

And to conclude our extracts showing the peculiar character of the Bill—to ascertain the fees payable for new buildings, the instruction is,—

"Add together the number of feet in the height, the frontage, and the depth, and divide this sum by three; the product, together with sixteen, will give the amount in shillings; but no such fee shall exceed 10*l*."

The Bill sweeps away the referees, the registrar, and their office altogether, and sends the district-surveyors back, as in the old Act of George III. to the police courts, where, when they have occasion to go now, they are bandied about, made to waste many hours, and get a decision on one day in one court quite different from that given a few days before elsewhere on the same point. This is a most objectionable part of the new Bill, and ought to be strenuously opposed.

Great power is given to the Commissioners of Works: they are to elect all future surveyors (LL.), and "may remove any district-surveyor from his office,"—without reason given. By Clause LXXIII. moreover, they have power to set aside the Act altogether, and to make such orders as they may think fit; and they may, "for the purpose of superintending the district-surveyors, and otherwise aiding in the execution of this Act," appoint some fit person to be called the "Superintending Architect of the Office of Works!"—salary not exceeding 1,200*l*. a-year. The commissioners may pay district-surveyors hereafter appointed, by fixed salary instead of fees.

The hold which the district surveyor has under the present Act upon the *owner*, as well as on the builder, is taken away, the latter being alone made responsible. Amongst the good points in the Bill, it should be mentioned that it recognises the value of "cross walls:" clause XIV. directs that,—

"If any building is subdivided by cross walls of the thickness hereinafter required, the words frontage and depth shall, for the purposes of the rules for determining the thickness of the walls, be deemed to apply to the largest of such subdivisions."

In the interpretation clause, by the way, it is set forth that the term

"'Cross wall' shall apply to every wall used or built in order to be used as a separation of one part of any building from another part of the same building, such building being wholly in one occupation."

But clause XVIII. says that "No wall subdividing any such building shall be deemed to be a cross wall, *unless it is carried up to the roof*." Clause XVI. which shows the rules to be observed with respect to measurements, sets forth that "The area of every building should be deemed to be the superficies of a plan, or *horizontal* section of such building made at the point of its greatest surface,"—but in clause XXIX. the word "area" is made to mean "the area as seen on the *vertical* face, or elevation, of the wall, pier, or recess to which it refers."

Clause VII. exempts from the operation of this Act, amongst other works,—

"All buildings (except warehouses) wholly in one occupation, and distant at least 8 feet from the nearest street or alley, and at the least 30 feet *from the nearest buildings*."

Supposing such buildings (combustible, perhaps), are brought to the verge of the building-owner's land, the adjoining owner may afterwards build up to them. Amongst the works exempted, too, are "all greenhouses and *detached buildings*, if such greenhouses and detached buildings do not exceed in height 12 feet, or in capacity 3,000 cubic feet,"—an exemption fraught with danger. Any building, provided that it be a foot or so from a house, and not 12 feet high, may be of wood or paper: some of our thoroughfares would speedily be lined with such.

The clauses as to projections generally are not sufficiently stringent, and, as touching ruinous buildings, it does not seem that any power of appeal against the district surveyor's condemnation is given to the owner. We will not, however, enter into minor details. We have said sufficient to show the strong objections there are to the Bill, and we would suggest to Sir William Molesworth, that in the emergency, he should at once withdraw it, and fall back, for the groundwork of a substitute for it, on the Bill which was prepared when Lord Seymour was in office.

The Bill now before the House is obscure and insufficient, if not wholly impracticable.

* The exception is that, "In the case of any dwelling-house, if the height does not exceed 40 feet, and the area does not exceed 1,500 square feet, and the breadth does not exceed 25 feet, and the roof has a proper tie, and the height of the topmost story does not exceed 10 feet, a thickness of 8½ inches shall be deemed sufficient for the external and party-walls, and for the cross walls, if any, throughout the topmost story of such house."

ON DESIGNING MEDIÆVAL ORNAMENTS, WITH REFERENCE TO THE NATURAL KINGDOM.*

As in the natural kingdom certain principles are found regulating the most minute growth and the largest forest tree, so in architecture there are principles common to all its productions. In the mediæval period, for example, those contained in the multiples of the equilateral triangle, the square, the pentagon, and the circle, guided the formation of decorations and ornaments in gold, silver, brass, iron, stone, wood, and even the designs upon encaustic tile pavements, as well as the construction of the cathedral or church itself. This system of regulating form by geometrical figures was carried to a remarkable extent: in the services of the church, the candlestick, the lamp, the lamp-stand, the *corona lucis*, the vessel for incense, the censer, the chalice, the flagon, and even the vestments were designed with the aid of geometry.†

The ornamentation of our earliest sacred edifices was not altogether derived from foreign countries, and what was introduced received certain modifications. Through the diligence of

* The following are extracts from the Essay by Mr W. P. Griffith, for which the medal of the Institute was awarded.

† See A. W. Pugin's "Glossary of Ecclesiastical Ornament."

antiquaries, a collection of Roman, Saxon, and Norman remains has been of late years amassed, from an examination of which, a system of decoration, floral and otherwise, can be traced, which may have exercised its influence on mediæval architecture; and it is admitted by all who have devoted their attention to the details of that architecture in this country, that they are less Italianised than those on the continent, and that they possess an indigenous character.

So extensive is the range of art decoration in every civilized country, each of which possesses its own characteristic development, that it would occupy a lifetime to collect, analyze, and study comprehensively, the resources of so widely cultivated a field. It has often been urged that we must look to nature as a source for ornamentation, but when she has been sought, the student has not known what course to follow, nor how to proceed in a natural conventional manner. The difficulties which encompass attempts to design modern ornaments are often referred to: one writer says,—"As a general rule, the less closely the artist attempts to embody nature, the more safe he will be;" and another writer observes that "it is extremely difficult to lay down any rule to say how far nature should be followed, or how far she should not." The difficulties, however, are not so great as they are supposed to be, when a little trouble is taken to comprehend the rules for embodying nature in decorations and ornaments. So many unmeaning designs having been thrust upon the public by those who have not entered deeply into the subject, have created a prejudice against modern performances; and it has therefore been considered "safer" to copy from those sanctioned by antiquity, than to produce new ones. Although it is true that modern designs have to be judged by posterity, to be worthy of lasting approbation; yet, unless efforts are made to create new ornaments, no progress can be anticipated.

One of the objects of this essay is to point out the best way of obtaining plants, and rendering them available for the purposes of design; and another is to guide the student in his attempts to produce ornament in relief, more or less detached, and ornamental surfaces. Though he need not seek to equal Lindley, Hooker, or Balfour, he should know enough of botany to be acquainted with the plants and foliage he selects for adaptation. The scientific botanist recommends his pupil to provide himself with a pocket lens of about half an inch focus, and a few quires of paper; the former to assist him in examining, and the latter in drying the fresh specimens he may collect." The architect, however, requires a greater knowledge of *living* plants than of *dead* ones: leaves and flowers, after they have been flattened, are of little use, as the undulations and the beauty of the forms are lost. Lindley says, "The apparently flat surfaces of leaves and petals are only segments of large circles. This is a necessary consequence of the primitive spheroidal form of vegetable tissue, which, in whatever way it may develop itself, must always be bounded externally by the curved sides of the parenchyma." The form of the leaf, the disposition and projection of the veins, the position of the leaves upon the stem, the form and character of the stem, the flowers, and the fruit, are all of moment, and require to be carefully studied. It is also important that the name of each plant selected, for a capital, for instance, should be given: that of the order will not suffice, because the leaves vary in form; and although the leaves of one plant may be well adapted, those of another belonging to the same order may be entirely unsuited to the purpose.

The plants collected should be kept in a tin case until they have been accurately copied whilst they are fresh, as the forms of their several parts disappear when they are dried. The principles to be followed in imitating nature are those which she herself adopts in the organization or arrangement of her works: no abortions, imperfections, or peculiarities ought to be copied, but the architect's object should be "to make things not as nature makes them, but as she would make them." Perfect foliage, flowers, and vegetable forms copied in decoration, must be distributed and applied in strict accordance with nature's rules. For example, if we have a square panel or space, and desire to decorate it with the leaves and fruit of the oak,—to take a branch from the tree and lay it upon the panel would produce an exact imitation of nature, but would show no design, nor geometrical distribution: if, however, the branch be geometrically disposed, *i.e.* the leaves placed upon the diagonal, and the fruit upon the diametric lines,—the leaves and fruit would be *per se* exact imitations, as they sometimes should be, although the design or arrangement of them in the panel would be conventional.

In Grecian and Roman decorations, the foliage, fruit, and flowers, were varied according to their use and position in the buildings. The panels at the side of the entrance in the exterior of the Pantheon at Rome; the frieze round the exterior of the Temple of Vesta, at Tivoli; St. Paul's Cathedral; and the upper entablature of the Banqueting-house at Whitehall, offer examples of excellent imitations of foliage, fruit, and flowers, arranged in festoons or garlands, with ribands round their stems and stalks. This classic system differs considerably from the mediæval one: in the former, the festoons or garlands are heterogeneously mixed and stuck on the buildings, or sculptured purposely to appear so; and sometimes the ribands are suspended from nails; but in the latter, the foliage and fruit grow out of the stonework with all the regularity of nature, whom the architects endeavoured to imitate truthfully,—the leaves and fruit of the maple, ivy, vine, oak, strawberry, and many others, being exactly copied, and arranged upon natural or geometrical principles. * * * *

In the Middle Ages, the monks rendered their abbey gardens attractive by flowers: they reared an appropriate one for each holy day. Flowers thus became subservient to sacred uses, and useful in imparting instructive and pious lessons to the young. The study of ecclesiastical botany was revived and considerably advanced: herbs and flowers received a special nomenclature: medical botany was also much improved; and the plants named by the classic authors were consulted and compared with native specimens. Flowers were also dedicated to saints, and in honour of the Virgin Mary. In early times, each day had its flower of a particular colour, and the common events of life were marked by floral decorations: the funeral had its cypress and rosemary, and graves, crosses, and tombs were decked with suitable trees and flowers. Altars also at certain times were set out with floral symbols. The idea of perpetuating in stone the beauties of the vegetable kingdom, emblematically expressed, was a happy one of the greatest antiquity, and there is no style of architecture without its flora, more or less conventionalised.

In ecclesiastical decorations, only such trees, plants, foliage, flowers, and fruit are to be selected as symbolise Holy Writ. The Holy Eucharist, the Holy Trinity, the Crucifixion, may be symbolically expressed by vegetable products, either naturally, or by a geometrical arrangement, termed by some writers conventional. Those which do not naturally express by their form symbols, are to be when selected so arranged upon geometrical figures as to form religious emblems. A church ought to be decorated with the greatest care and skill, to present a wonder-work of art, and from the natural and artistic beauty of its decorations vie with nature herself. With Pliny, we ought to be able to exclaim, "Hic in unum coacta rerum naturæ majestas." Here we see Nature in all her majesty developed within a narrow compass.

The ornaments for the several parts,—the tower, the nave and aisles, the transepts, the choir, the chancel and its aisles, should be different both in degree and style. Of flowers, possessing a sacred symbolism, the Ecclesiological Society mention—the lily, the rose, and the marygold (all symbols of the Virgin), the herb Benet (symbol of St. Benedict), the ivy (of immortality), grapes and wheat-ears (of the Holy Eucharist), the oak (of virtue and majesty). The Holy Trinity is symbolised by trefoils, and ternate, bi-ternate, and tri-ternate leaves. The natural symbols of the Crucifixion are the passion-flower (passiflora), and flowers of the cruciferæ order, with sepals four cruciate, petals four cruciate, alternate with the sepals.

Schlegel has observed in an essay on Gothic architecture (translated by Millington), that in the "second-floriated Gothic style (decorated), the same figures of the triangle and the square, the circle and the quatrefoil, form the groundwork of all those (floral) decorations, which, as in the early Christian, are introduced with a more profound attention to the scientific structure of the building. But these no longer appear in naked simplicity and geometrical exactness: they are all veiled with clustering foliage and the luxuriance of vegetable life: as in the enamelled carpet of spring, we cannot, amid its verdant productions, clearly discern the precise geometrical symmetry of each isolated form, but sec all bloom and unfold their beauty together, in one general glow of life and immortality! The very existence of Gothic architecture seems bound up with the luxuriance of its forms and floriation. * * *

When plants are represented in cornices, the stem is usually bent to form a flowing line, and although more or less hidden by the foliage it is still occasionally visible, and sometimes it is a prominent feature. The form should therefore be particularly observed. It is not always cylindrical, but it is often as it were formed of fibrous bundles, having a fluted appearance: in these instances it may be made an ornamental feature, as the undulations produce a variety of light and shade not to be obtained in a simple cylinder. The stems of some plants are triangular, and wedge-shaped with curvilinear sides, and sometimes they are square. Graceful flowing stems and foliage often decorated the pyx (containing the Eucharist), formed of silver, ivory, or "de opere Lemovitico." The foliage was of a pale green, and the general groundwork or field was of a cobalt blue. New College, Oxford, possesses a pax, of silver parcel-gilt, which has an ornamental border with foliage, roses, &c. In sculpturing leaves, great care should be taken to make the veins on the underside in relief, when that part is presented to the eye. Leaves clasping spherical ornaments should have their backs next the eye, and their upper surfaces on the sphere. In many instances, the back of the leaf being laid on the sphere has an unnatural and constrained appearance. It must be recollected that a leaf contains ribs and veins, which branch in different ways, and care should be taken to put those proper to the peculiar kind of leaf. We have already observed, that it is not necessary to represent in detail each stamen in a flower, but roughly to represent the pistil and stamens *en masse:* so also with the leaves, if the margins be toothed, and the toothings be sharp and small, the latter need not be expressed. Sometimes each serrature of a leaf is itself serrated: this second serrature is not to be indicated. The general character and form of the leaves should always be maintained. When all these points have been attended to, a leaf assumes a conventional form.

Among the ornaments prevailing in the later period of the Perpendicular style, are the Tudor flower, and rose. The Tudor flower is a foliated crest set at intervals upon the cornices of screens, or upon tie-beams, transoms, capitals, corbels, &c.: it is said to resemble a strawberry leaf. A small and simple trefoil is frequently placed in the spaces between the leaves. A corbel in Magdalen College, Oxford, is enriched with this flower, which is rarely found in work of the fourteenth century. When used as a crest it is variously formed, but always upon a regular system. Sometimes a row of attached squares (placed lozenge-wise), their bases connected by inverted semicircles, forms the groundwork of the design. A leaf, or a conventionalised form of leaf, is arranged in each square, and often three buds, berries, or other fruit are set up in a pyramidal form in the spaces between the leaves. The squares are sometimes not attached but arranged at certain distances apart.

There are several kinds of architectural roses; the simple five-petaled rose, a conventional form of the dog-rose;* the double five-petaled rose, the triple five-petaled rose; roses with six angle petals, and double and triple six petals. The single rose was used in the reign of Henry VI. and the double rose surrounded by rays is said to be the cognizance of Henry VI. and Ed-

ward IV. It occurs on pulpits in Worcester Cathedral, and Magdalen College, Oxford. The double rose ornaments a pedestal in a niche of Henry VIIth's Chapel, Westminster. It is often used alternating with fleur-de-lys, and it is sometimes enriched by a floral wreath.† The triple rose is beautifully sculptured upon the porch of King's College Chapel, Cambridge: it occurs with the portcullis.‡ * * *

The sculptured representation of flowers, applied to relieve the plain surface of walls, is termed diapering. In selecting flowers for this purpose, care must be taken to choose only those forms which are suited to the geometrical spaces allotted to them. For example, a flower with petals rounded at the apex is not well adapted for a figure with acute angles: the more obtuse the angle the better will a flower with rounded petals fill the space, and *vice versâ*. Upon a monument in the choir of Canterbury Cathedral there is a diaper, the design of which consists of a flower with six petals, slightly raised in relief within a hexagonal compartment: the flower has petals well suited to the angles of the figure. For square forms cruciferous flowers are chosen, as in the nave and choir, and on the tomb of Aylmer de Valence, in Westminster Abbey. If the spaces be triangular, or hexagonal, flowers having a ternary division of parts are the best. For octagonal compartments, those having a cruciferous division should be chosen; and for filling pentagons and decagons, those with a quinary division of parts. In this work, the leaves and fruit of the oak are met with; as on the choir screen of Lincoln Cathedral, and the cornice of the Queen's Cross, Northampton.

Great care and judgment are required in selecting vegetable productions for ecclesiastical decorations and ornaments: many plants are available for this purpose, and very many are not. Something more is required than a simple trefoil, quatrefoil, cinquefoil, &c.: it is absolutely necessary that each leaf selected be suited to the space allotted to it: to twist or distort a leaf in an unnatural manner is not required. An error of this kind occurs in Bloxam's Gothic Architecture, in a modification of the dog-tooth ornament (from Adderbury Church, Oxfordshire), converted into a knot of four ivy leaves. It will be observed, that in each leaf the side ribs branch from a midrib, instead of which the ribs ought to radiate from the stem, palm-like, as in the ivy leaf. Nature must not be misrepresented.

Among other plants adapted for art-purposes we may suggest the following:—Trifolium fragiferum; trifolium subterraneum; medicago polymorpha; fragaria sterilis; rubus; limonia trifoliata; iatropha gossypifolia; panax aculeatum; solanum fuscatum; cynanchum extensum; geranium robertianum; citrullus or auguria; chelidonium majus; adoxa moschatellina; alchemilla; gronovia scandens; atriplex; sorbus torminalis; sorbus sativa; amygdalus; catanutia minor and lathyris; androsæmum; berberis oxyacantha; viola canina; tragopogon porrifolius; and many others. All these may be seen in Curtis's "Flora Londinensis."

In addition to the diagrams accompanying the Essay, there are forty-two drawings arranged in four divisions. In the first division, twenty-four illustrations exhibit an analysis of mediæval ornamentation, and prove that, however diversified in appearance Gothic ornaments may be on the buildings, they are quite as capable of being classified and reduced to system as the ornaments common to any other style of architecture. It will be observed that ornaments are not required to be always symmetrical: their parts must, however, be properly balanced: the quantity of sculptured ornament in each half should be equal. The conclusions to be drawn from an examination of these twenty-four illustrations are—

That mediæval ornaments are designed in conformity with geometrical figures, and are capable and worthy of analysis:—That the great variety of forms does not militate against an analysis being attempted;—That the decorative portions need not be limited to the foliage and flowers selected by our ancestors, but that any others adapted to the geometrical spaces, and properly conventionalized, can be employed;—That geometry is the basis of all true ornament.

In the second division, six designs for double pateræ in decorated cornices are submitted. The foliage is directed by the diagonals of two attached squares, and has been chosen from the vine, wheat, the oak, the Guelder rose, the ivy, the maple, and the lily of the valley. These double pateræ are designed upon the same principles as the ancient mediæval ones: they are set at certain distances apart, as the single pateræ.

When a child is first instructed in writing, diagonal lines are ruled by the tutor to guide his hand, but after a time when the eye and hand have received the proper amount of practice, the lines are no longer required. With the sculptor or artist it is the same: his eye guides his hand in properly proportioning the several parts of each ornament: the course of the stems, leaves, flowers, &c. whether they be curved in a horizontal, perpendicular, or a diagonal direction, are all freely executed by his practised hand, although in the first instance all the geometrical rules had to be demonstrated for his initiation.

In the next series of designs for mediæval ornaments, the following vegetable products have been used, viz.—the water buttercup (for the panel of a font); the ivy-geranium; the plane tree; the rose; the myrtle; the crowfoot; the wood anemone; and the liverwort. A new feature is exhibited by working bosses out of the regular bodies. If we select the dodecahedron, the first process will be to produce a pendant hemisphere, and then to mark the angles or points for the six equal pentagonal faces (as only half of the regular figures is presented to view). Each rose is then wrought out of the space thus allotted. The surface should not be *flat*, but in *spherical relief*, or convex. The central space contains a rose with two rings of petals, and the other flowers are single petaled. The half-faces of the pentagons adjacent to the ribs of the groining are to be filled with two or three rose leaves. The roses are conventionalized; the stamens not individualized, but roughed out *en masse*. Another boss is generated by the icosahedron. Bosses executed in this manner form "knots of reposing flowers."

The fourth series of designs shows enriched cornices. The plants selected are the dog-rose, the white bryony, and the large white bindweed. The stems of these plants are bent to form flowing or wavy lines, which can be produced by uniting a continued series of alternating semi-circles. When the eye has been educated for, and the hand accustomed to, this kind of ornamental work, the design can be marked without mechanical means, which are only required in tuition. The pistils and stamens of the flowers are not to be separately sculptured or individualized, but they are to be roughly worked *en masse*.

In conclusion, it will be found that there are principles conveyed to us through the natural kingdom which man has endeavoured to apply to all he undertakes, and certain it is that in architecture and its concomitant arts, he has followed the working of nature to a great extent,—

> "That Art
> Which you say adds to Nature, is an Art
> That Nature makes." WINTER'S TALE.

The architect is indebted to nature for geometry, which is the true test and foundation of all pure ornament. Without the aid of that science art-combinations would cease to be graceful, and their symmetrical distribution of parts would no longer exist. So long as ornamentation is disposed as designed upon natural laws, so long will it be beautiful and endurable, for

> "A thing of beauty is a joy for ever."

But if, on the contrary, unnatural outlines and fantastic shapes be fostered, the "growth of the spreading boughs and the budding of the clustering foliage will be arrested, and an unhealthy formality mistaken for beauty."

* This flower is very common in Yorkshire, and has the repute being the white rose of the Yorkists.
† This is the Tudor rose.
‡ The rose and portcullis are badges of Henry VII.

THE AMATEUR EXHIBITION IN AID OF THE PATRIOTIC FUND has been removed to Burlington House, Piccadilly.

SOCIETY OF PAINTERS IN WATER-COLOURS.

THE *old* society hold their own: they exhibit on the present occasion 322 pictures of much excellence. Mr. John Lewis has two of his microscopic delineations of Eastern life,—flat and faithful; Mr. Topham an admirable "Andalusian Letter-writer" (141); Mr. Branwhite, a delicious "Pool of the Conway" (26); T. M. Richardson some glowing Italian landscapes; Carl Haag several works not better, but quite as good as those exhibited by him in former years; Hunt some marvels, and Miss Gillies several highly finished works of great merit,—as, for example, "The Past and the Future" (193), and "Waiting for News" (322). "Gatton Park, Surrey" (13) and "Haymaking" (51), both by C. Davidson; "Holdfast," by J. Jenkins (76); Fripp's "Last Days of Harvest" (120); "Haymaking," by Evans, of Eton (126); "A Day in Windsor Park," by W. C. Smith (159); "A Summer Day on the Coast," by S. P. Jackson (186), "The Stag Hunt," by Frederick Tayler (206); and Duncan's "Early Morning" (315), are all charming specimens. The picture by Mr. F. W. Burton, a new associate, "Peasantry of Upper Franconia waiting for Confession" (239), is very admirable—one of the best in the collection: his larger picture, "Pilgrims in the Cathedrals of Bamberg" (181), is less strikingly good.

THE CONDITION AND PROSPECTS OF ARCHITECTURE.

IF not intruding upon your space, I would make a few observations upon certain views set forth in the paper upon the "Present Condition and Future Prospects of Architecture," printed in your last number, which seem to me to convey an erroneous impression,—without wishing to impugn the general tenor of the article, which records indeed a number of professional abuses, most mischievous in their tendency, but, I fear, more easy to deplore than to remedy. Yet, though difficult, time may show that the remedy is by no means impossible. A reaction must, sooner or later, take place, and the overdose of poison at present infused into the architectural system may prove the antidote to its own mischief, and effect its own cure at last.

The difficulties of the young aspirant for fame or fortune, in making way against the strong tide of exclusive patronage, in buffeting the head winds of stupid or arbitrary committees and crushing decisions, in steering clear of those syrens of destruction, starveling invitations to competition, and in effecting an ultimate anchorage in the haven of honourable employment, are known to all who have had to pilot their own barks to competency, but by none so well as the "outsiders" in the great race.

The picture drawn by Mr. Rimmer is a correct representation of professional miseries; and without wishing at all to "touch it up," I would merely call attention to what I humbly opine to be a few trivial errors in its details, which I think have a tendency to make somewhat light of a difficult, arduous, and noble profession.

Granted that an architect's studies are more "pleasant" than those of law or medicine, still they are not one whit the less "difficult." The "pleasant books" of his reading are, I presume, the various treatises upon the art and science, from the Augustan to the present period; including works upon all styles, works of theory, works of practice, treatises upon specifications, strength of timber, strength of iron, foundations, stone, cement, concrete, bricks, carpentry, works on perspective, internal decorations and acoustics, works of history and study of languages, arithmetic, mensuration, geometry, trigonometry, algebra, &c. As regards his residence in "pleasant cities," certainly London or any other capital town is, in fine weather, pleasant enough in the abstract; but why the architectural denizen of a close office, in a narrow street, should derive more pleasure or advantage from his locality than the student of Lincoln's-inn or King's College or Guy's, I am at a loss to see, save in so far as he may be more imaginative.

If an architect's work makes "another man's holiday," all I can say is that other men are gifted indeed; for the reading alone of a portion of the works above alluded to seems to me no light performance; but when, to add to this, the actual practice of designing, planning, scheming, drawing, projecting in perspective, colouring, taking out quantities, squaring, cubing, and abstracting, writing specifications, measuring, valuing, studying Building Act, and all the endless detail of official routine is to be added, I confess it seems to me that "a day's

work" at Greenwich, Richmond, or the Crystal Palace occasionally, would be by no means an unpalatable change to such students in trifles!

Respecting the architect's rate of remuneration, I grant that it is "fixed and fair" (that is, when he can get work to do); but the amount of the commission depends upon the *value* of the work, and as, of course, the most eminent have the best jobs, they of course make most money; and thus it only resembles other professions after all in its remuneration,—and, indeed, the illuminated bull's-eye will ever attract more customers to the medical than the brass-plate to the architectural door.

The question of the obtaining of a diploma previous to practising, I cannot now stop to consider. An architect in time earns his diploma by his reputation, and without a fair amount of talent cannot well practise at all. Anyhow he will, generally speaking, find his level, and obtain a line of practice best suited to his peculiar taste or talent. But for this there is no rule. Anyhow our free institutions would seem to forbid the exclusive system of diplomas for general practice in that profession.

One more point I would allude to; it is upon amateur practice.

The bare idea of any "gentleman," although possessed of "excellent ideas of style and design," or any one else unless educated for it, being able to make a design of real value, is preposterous. The rough sketch upon paper, however spirited and imaginative, bears about as much relation to the real building, when executed, as the pyramid of cards of the child does to its great original in Egypt.

Of what value is the rough sketch in architecture unless it will stand the test of real projection in perspective; and of what value is the perspective drawing without the detail of every portion to a large scale? And who can prepare such detail but the regular practitioner?

It will be a black day for the art when these amateur theories obtain.

But brighter prospects are, I think, before us, and each day exhibits fresh talent in the profession, adds to its strength, and exacts higher appreciation from the public.

Come what may, I myself will not despair, though obliged as yet to acknowledge myself

"AN OUTSIDER."

THE REVISION OF ARCHITECTURE IN CONNECTION WITH THE USEFUL ARTS.

ON the 18th ult. Dr. Reid made a communication to the Society of Arts, connected with the improvement of architecture in connection with a description of the mode of ventilation adopted at St. George's Hall, Liverpool. In the course of the paper the writer said, —

"Few questions, perhaps, have attracted more attention in modern times than the revision of architecture demanded by the general progress of discovery during the last century, and the application of new and more extended resources in ministering to the improvement of public buildings and of the habitations of the people.

Nevertheless, with all these means and appliances, the amount of real progress does not as yet meet the wants of society, and public attention is only now being thoroughly awakened to the fact that architecture is in many respects in a state of transition, and that it never can attain its highest development till this state of transition shall be thoroughly understood and appreciated, and met in a spirit that shall identify it with all the wants and circumstances of that being for whose use it is especially intended.

The right adjustment of the relative claims of the fine and useful arts, where they meet or interfere, forms the very root and basis of all that is most important, more especially in public buildings. Nothing can attain the highest order of beauty that attempts to do so at the expense of an admitted want. In an assembly room, accordingly, for conversation or debate, or in a church, a court of law, or a school-room, a defective acoustic arrangement cannot be compensated by any amount of decoration; and in the same manner, no brilliancy or beauty of any artificial system of illumination can make up for any deficiency that renders it more conspicuous as an object of art than useful as a means of giving that illumination of the countenance which is the best test of a good approximation to the clear and equally diffused light of day."

Having had the opportunity of taking a part in many proceedings connected with the acoustics of public buildings, and the progress of sanitary improvement, he submitted the following notes and propositions:—

"1. That the amount of air supplied in general to crowded buildings, is far below the standard requisite for the preservation of health.

2. That the ingress of air by an extensive system of diffusion is the great desideratum in practical ventilation, and the most difficult to be secured where special provision is not made for this purpose.

3. That a sustained power can alone regulate and maintain proper ventilation in crowded buildings, or preserve it from the influence of external currents.

4. That air entering a crowded public building ought not to be admitted by ordinary windows, but by special apertures and channels, in which it could be tempered to any extent required.

5. That the milder and more extensive the heating surface, the less injurious was the effect on the quality of the air supplied.

6. That the products of combustion from gas, or any other means of artificial illumination, should be removed as directly from the general atmosphere as the products of combustion arising from any fire or furnace, when not necessarily carried off at once by the general movement of the air.

7. That in any system of artificial illumination, the imitation of the diffused light of day is the great and important desideratum, and not the concentration of great power in one or a few lights.

8. That illumination at the cornice, at the ceiling, or above the ceiling, by a special system harmonising with the general architecture and incorporated with it, would lead to important practical results, and admit of the entire exclusion of products of combustion.

9. That a low roof, combined with a powerful reflection of sound there, and a floor highly absorptive of sound, and apertures by which it could escape, tended largely to improve the communication of sound.

10. That ventilation, acoustics, and artificial illumination, should form primary subjects of consideration in public edifices, and can only be put on the most desirable footing when architects shall come generally to take the same interest in them that they do in the style and artistic features of any work in which they may be interested.

11. That the extension of the use of gas and of prepared soft coke, may be advantageously adopted for all ordinary purposes where heat is required, to the total exclusion of raw bituminous coal, and with the entire prevention of soot or visible smoke.

12. That the general progress of architecture and sanitary improvement requires that the public be made more familiar with the nature and properties of the materials that more immediately affect the human frame and influence the health in the habitations in which we dwell, and in the varied engagements with which man is occupied. Without this no proper management can be secured, either in the general preservation of health, or in the combination of those sanitary provisions that require all the united co-operation that can be obtained from the resources of the medical profession, the architect, the engineer, and the agriculturist."

He then adverted more specially to some of the principal topics enumerated.

SOUND.

"There are not many points connected with the practice of architecture, where greater discrepancy exists than in the provisions made for the right communication of sound. In many cases it is obvious that this question has been left to take its chance; in others dependence has been placed on the imitation of examples; and in some specific rules have been pursued with various success.

In different cases to which I have been called, an extreme altitude in the roof was one of the principal sources of evil, and the absence of reflective power on the line of speech and hearing. The voice appeared to be lost, or was sustained with difficulty. By lowering the ceiling, and the introduction of a good reflecting surface, inclined, as much as circumstances permitted, towards the benches occupied, the principal defects were obviated.

In other instances great improvement ensued when a lining of sheet-iron was placed around the wall, and opposite the line or zone of speech, by which I mean the space immediately opposite those who either speak or listen.

In a third series of cases, the great defect having been excessive reverberation, by removing lath and plaster ceilings, and opening them up in every direction, a sufficient escape for superfluous sound was made, and a perpetual noise removed that had previously been equally painful and offensive to those engaged in the apartments.

In a fourth series, the introduction of local reflectors, or absorbers of sound, would often satisfy everything requisite.

But the most important results, in rooms for debate or lecture, were always obtained where a low ceiling, or a great reflecting power from still lower walls, was accompanied with such numerous apertures, or such an amount of absorbing surface, that the sound which had once affected the ear never continued to linger on it, but left the course clear, as it were, for the full effect of each succeeding syllable.

The grand object of the architect is to treat the room as if it were itself a part of a musical instrument, and to bring in all the appliances that will sustain sound to the required point, and discharge or suppress it whenever it has done its duty. And here a wide field is open for the use of glass, metal, and wood, in all those varied conditions in which they conduce most powerfully to sustain and propagate sound, arresting their action when the required intensity is given without producing prolonged reverberation.

With a ceiling or walls softened by drapery or covered by a porous or perforated structure that prevents reflection, any form of building may be adopted, provided sufficient strength of intonation can be secured to fill the requisite area, and sufficient silence maintained to prevent interruption.

VENTILATION.

It would be difficult to give any good reason why ventilation should not form a primary object in architecture. Without the proper renewal of air, life stagnates or becomes depressed in proportion to the amount of deprivation, and in all crowded buildings the quantity required for use is so great, that thin and attenuated as the air may be, it soon exceeds by many times the total weight of all the materials used in their construction. How is so large an expenditure to be maintained without some special provision? How is such a special provision to be secured without a marked effect upon the architecture?

The mere adjustment of apertures, such as doors and windows give, will be sufficient to regulate an imperfect system of ventilation; but wherever the highest degree of certainty and precision are required, there must be a constant force capable of withdrawing any amount required, and for the introduction of as much air as is removed.

But the room or apartment being crowded, where is the air to enter, and how can it be admitted with sufficient gentleness so that it shall fall softly on the person, and not be productive of evils as serious, or even more so, to some constitutions, than the tainted atmosphere they may have been breathing.

In one series of experiments made on this subject, the leading peculiarity was the free admission of air given from a very large space or reservoir on one side of the lecture-room, seated for 300 persons, but containing on many occasions a considerably larger number. The opening in question exceeded 400 feet in area, and gave the room the appearance of the wall on one side having been in a great measure left out. In one point of view, the lecture-room might be regarded as merely part of a much larger apartment, with which it was in free communication by this opening, there being means of renewing the air to any required extent.

When in occupation, a broad wave of

inclined from the reservoir to the seats at a lower level, and a corresponding movement of vitiated air proceeded from a higher level in the opposite direction. Fresh air constantly gained access to the reservoir below, and vitiated air was as constantly carried off above. But there neither was ingress nor egress around or near the person except what ensued by the gentle movement of this broad flowing and returning wave. The result was on the whole very satisfactory; but in summer, as is usually the case, greater assistance was required in securing an adequate discharge than in winter.

In another series of experiments, a chamber was formed between the ceiling and the roof, and the entire ceiling was made of a porous material that arrested any sudden descent of cold air, but permitted any movement dependent on the relative condition of the air above and below the ceiling, and the consumption required for a common fire, or the waste occasioned by a ventilating flue. This arrangement converted the whole ceiling practically into an open window, so far as ventilation came into consideration, freed from all that inequality that usually attends the unguarded action of the external air, and admitting and discharging air according to the ever varying circumstances of the moment.

In a third experiment, the same general principles were observed, but the diffusion of the air was carried to a still greater degree by extending the porous chamber from the ceiling to the walls, and thus carrying the diffusion to the greatest limits practicable, without bringing into operation the use of the floor.

A further series of experiments was then made, in which the floor itself was made of porous materials, supported on a perforated frame, to meet cases where it was impracticable to gain sufficient ingress in any other mode, and proper precautions were taken to use the perpendicular surfaces largely, and to guard against the ingress of dust by an efficient system of cleansing. The direct ingress and passage of air from the floor to the ceiling, by a system of universal diffusion, had many advantages, that counterbalanced in local positions the disadvantages naturally attending it.

In a fifth series of experiments, a small descending power was placed on every portion of the floor which the foot was apt to touch, so as to carry away by a special channel as much air as would make an inclination in that direction, while the ascent took place from all the rising steps and such portions of the floor as were rarely or never touched by the foot.

In a sixth series, the air entered solely by the ceiling, and was discharged principally at the same level, a gentle, limited descent being maintained by the floor.

In a seventh series, complete power was secured in the movement of air from the floor to the ceiling, or from the ceiling to the floor, and the relative effects of an ascending and a descending movement tried upon the same audience, in numbers amounting to 240, the current being reversed from time to time, till clear proof was obtained of the advantages and disadvantages of the ascending and descending movement.

From all these investigations, under circumstances where no style of architecture, decorations, or any other cause limited the inquiries made, it became evident that systematic ventilation in crowded buildings is far too extensive and important a subject to be dealt with economically, except by arrangements incorporated with the original structure.

That the right temperature and diffusion of the entering air are the points on which all difficulties usually turn, when a proper supply and discharge have been secured; that in public buildings with a variable attendance, nothing meets so effectually all contingencies within, and the changing condition of the external air without the walls, as a fixed power capable of moving any required amount of air.

That a shaft, or chimney-tower, is the most manageable and uniform power capable of universal application.

That a mechanical power can be used in conjunction with a shaft in producing a more balanced atmosphere than either can give separately, the one being made to force in just as much as the other withdraws.

That in proportion to the perfection of the structural arrangements by which the utmost freedom of access is given to the air entering any building, and the less it is overcrowded, the more satisfactory will be the results, and the less costly the means required for sustaining adequate ventilation.

That the removal of special sources of injury to the external atmosphere of any building, should be the first step taken in connection with any system of ventilation.

That a vacuum or exhausting power should be placed on all sewers in large cities, especially where tidal rivers or other causes render them liable to temporary obstructions.

That it is vain to conduct any system of ventilation where lobbies, passages, and external doors and windows, are not under sufficient control.

That in ordinary habitations, one great desideratum, still so seldom provided, is a sufficient infusion of air into passages and staircases, so as to admit of the whole supply being obtained from this source in cold weather, and tempered to any required degree.

That the ingress of air in individual apartments comes next in point of importance, where its entrance is generally too much opposed, in consequence of the want of that amount of diffusion that is necessary to break the severity of its impulse.

That an ingress above, around, or in the immediate vicinity of a fire-place or stove, with a proper supply of moisture, removes the most objectionable source of draughts where the air is not previously tempered, and that a discharge from the highest level can alone secure with certainty the most effective removal of vitiated air.

That in the habitations even of the humblest class, the right construction of the window, and an effective system of diffusion of air permitted to enter and escape at the ceiling, is the great desideratum; that the too limited amount of this diffusion, and the consequent local currents of cold air, has hitherto been the practical cause why ventilation has been so much opposed in those apartments that were most in want of it, and that these arrangements, with a proper fire-place, can be executed at a cost that can be more than saved by a slight reduction in altitude, which is more than compensated by the ventilation thus secured."

After some remarks on lighting, Dr. Reid said: "I submit the following propositions to your consideration, as a means of facilitating the revision of architecture in its position as a useful art, and of placing the useful and the beautiful in a more harmonious conjunction than they generally present in public buildings and in the habitations of the people:—

1. No portion of any public building ought to be commenced till a more complete series of models or drawings is provided than has hitherto been customary, and a special grant should be given for this purpose, exclusive of all competition premiums.

2. The present mode of remunerating architects often leads to the too precipitate commencement of foundations before any system of warming, ventilation, acoustics, lighting, or drainage is fully considered and determined, and these valuable opportunities are often irreparably lost, or restored only at great expense.

3. An extended system of instruction should be provided for the future student of architecture at all the principal colleges or universities in this country, such as has been partially commenced of late years, and the curriculum placed on the same footing as to honour and position that is awarded to the members of other learned professions.

4. Acoustics, warming, lighting, ventilation, and drainage should be held as objects of study equally incumbent on the architect as those which have hitherto been found to constitute the more attractive branches of the profession."

Herr Werner's Water Colour Drawings, now on view in Pall-Mall, show both power and versatility, and will well repay a visit. Landscape, architecture, and figures are handled by him with equal facility.

COMPETITIONS.

The Oxford Museums.—Now that the competition for the Oxford University Museum has been brought to a close, and the building contracted for, I may perhaps be allowed, without risk of misconception, to direct your attention (and, through you, that of the University and the public at large) to certain points in its management, of which, I think, the competitors have a right to complain, though at the same time I gladly state my conviction, that every credit is due to the Delegacy for the *desire* for impartiality evinced by them, and that the errors in their proceedings have been the consequence of inadvertence, or some similar cause. It was most unfortunate that, at the outset, no decision was arrived at as to the style to be adopted. Such a decision would have spared the competitors much toil and anxiety, and would seem to have been specially called for in reference to a place like Oxford, where discussions on architecture, and its numerous styles, are apt to assume the semblance of party questions. There is, moreover, reason to fear that matters foreign to the subject were imported into its consideration, and that preferences for particular styles have interfered with the due appreciation of the merits of the various designs. It will be remembered, that before making their final selection the Delegacy chose six designs out of the whole number; and while it is creditable to their taste that five out of these six designs had been favourably reviewed by the *Athenæum* and the *Builder*, it is also a remarkable fact, that the design selected for adoption has, up to the present moment, received no notice whatever from either of these periodicals. It is therefore specially to be regretted that the designs were not submitted to eminent professional judges for a comprehensive report *on their merits*: such a course, with its obvious advantages, was due to the University as the best guarantee for a sound decision, and would have been a mere act of justice to the competitors, who had spared neither thought nor labour in the service of the Delegacy, who cannot be supposed to have possessed the necessary critical judgment for so difficult and complicated a task as the selection of the best design out of the many sent in. When the Delegacy requested the opinion of two distinguished architects whether any of the six designs could be carried out for 30,000*l.* another error was committed, such a question being obviously one rather for a tradesman than a professional man; and this has been practically shown by the fact that, whereas the professional referees expressed the strongest opinion that none of the six designs could be executed for the sum named, a contract has been entered into with a London builder for the execution of the selected design for 29,500*l.* while another of the six has likewise been tendered for at a similar rate. While, therefore, we must regret that such a mere question of £. s. d. should have been *the only one* submitted to professional judges, we have, I think, also much reason to complain of an opinion so discouraging to the competitors, so decided in its condemnation of their labours, and so erroneous in fact.

One of the Selected Six.

Heywood, Lancashire.—The Burial Board has accepted the designs of Mr. Barry, of Liverpool, for their cemetery, chapels, lodges, &c.

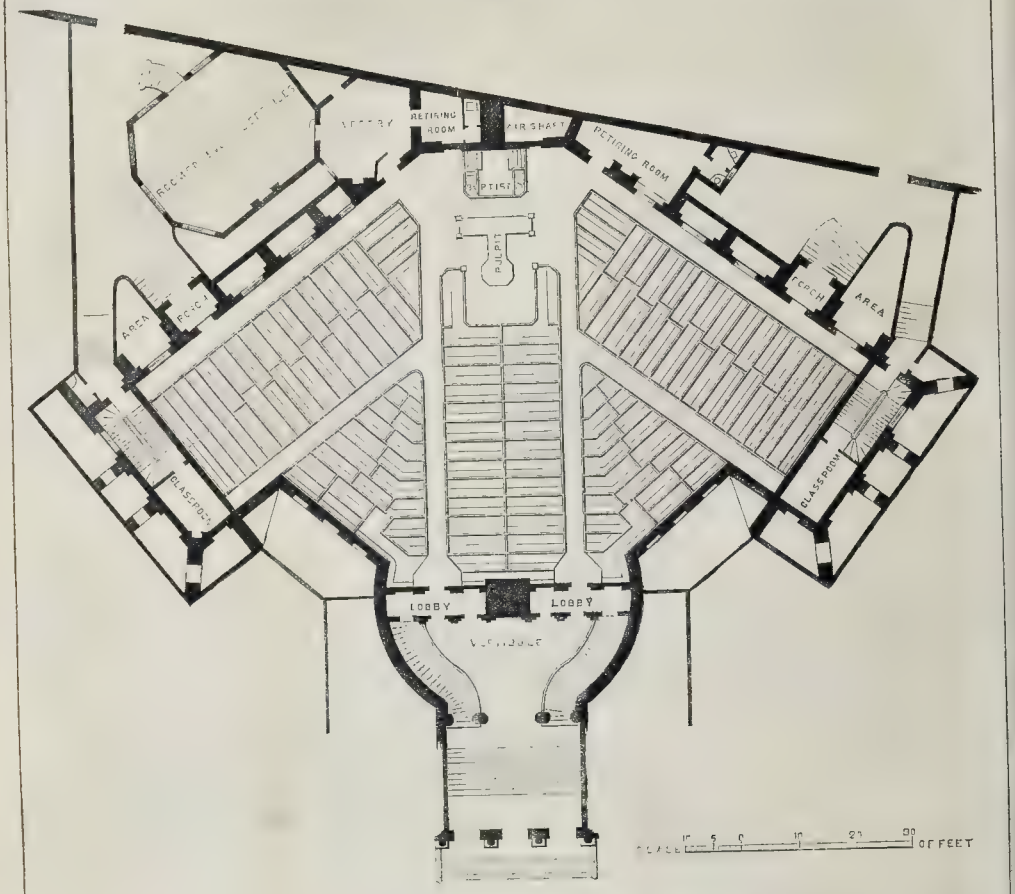
Dudley Workhouse.—A meeting of architects is called for Monday next, at 11 A.M. to consider the insulting offer of the Dudley Board of Guardians in respect to the forthcoming competition, when we trust the "not-exceeding 4 per cent. to include ALL *charges*" clause in their advertisement will be properly dealt with. The meeting is to take place at the Union Inn, Union-street, Birmingham.

IRELAND.

Improvements have been effected in the vicinity of the cathedral at Armagh. The mass of old and ruinous houses, most of them with thatched roofs, at the head of Market-street, have been entirely removed, and two new houses have been erected, with a frontage of 130 feet, extending up Market-street to the Cathedral wall, to harmonize with the Cathedral, having high-pitched roofs, stepped gables, and ornamental chimneys. The houses are built with the fine limestone of the locality, in a substantial manner. One of the houses is intended for Mr. Turle, the organist of the Cathedral. The cost will be about 3,000*l.* arising out of property belonging to the vicars choral. The contractors are Messrs. M'Callough and Ross, of this city, who have carried out the work from the plans and under the superintendence of Mr. Boyd, architect, of Belfast.

Bridge to cross the Ganges.—There is a project to build a bridge across the river at Calcutta, so as to connect the new railway with the city. The expense, nearly 500,000*l.* would be borne by the Government.

PLAN OF REGENT'S-PARK BAPTIST CHAPEL.



REGENT'S PARK CHAPEL, LONDON.

THE building formerly known as the "Diorama," in the Regent's-park, was purchased about two years ago by Mr. now Sir S. M. Peto, and has been converted at his expense into a chapel for the Baptist denomination,—one of many good works which have made the name of Peto respected. The chapel was opened for service a few days ago.

The Diorama was originally planned and erected under the direction of Mr. Morgan and the elder Pugin. It was completed in four months, was opened to the public in October 1823, and cost 9,000*l.* including two houses which assist in forming the façade. An account of it, with illustrations, will be found in *Britton's Public Buildings of London*.

The peculiar plan which was requisite for the purpose for which it was originally built, rendered extensive alterations necessary in order to fit it for its present use. The roof, for instance, which was a forest of complicated timbers, depended in a great measure for support upon framed partitions extending across the building in different directions. All these had of necessity to be removed, and a wrought iron girder, 84 feet span, was substituted. Upon this girder, directly or indirectly, the whole roof is now supported, leaving the area of the chapel unobstructed.

The style of architecture adopted by the architect is the Byzantine. The large old wooden window-frames in the two flank walls were removed by shoring up the superincumbent brickwork, and semi-circular headed windows introduced, with stone dressings, having semi-detached columns inside, with foliated caps. A cornice runs all round the building at the level of springings, and is carried as an archivolt over the windows. From the apex of the archivolt, and between each of the windows, are semi-octagon shafts, with enriched caps, from which spring the ribs of the cove. The ceiling is divided into panels by moulded beams and ribs, so disposed as to form an octagon immediately over the centre of the chapel, 22 feet in diameter, from which is suspended a sun-light. The inner sides of the octagon are coved and filled in with perforated zinc for ventilation, and immediately over it is an extracting shaft, of sufficient area to carry off the vitiated air and products of combustion.

The principal entrance to the chapel is from the Park, where three double doors open into a vestibule, a view from which forms the subject of our engraving. A flight of stone steps leads into a semi-circular hall, which is divided from the vestibule by three semi-circular headed archways, the centre one being the largest, and having its springing carried up higher than the others by double detached shafts, with moulded caps and bases. This archway forms the entrance to the body of the chapel, through two doorways in the arcated screen which forms the diameter side of the semi-circular hall. The two smaller archways lead to the stone staircases, which wind round the curved sides of the hall into the gallery. There are two other entrances into the body of the chapel from the mews, as also two others into the gallery leading to the children's seats, which are so arranged as to have the boys and girls in different parts of the chapel.

The pulpit, designed in the same style, is of Caen stone, octagon on plan, with spiral shafts at the angles, having enriched caps. We will give a sketch of it hereafter. Panels of alabaster are introduced in each of the sides. The stairs and balustrade are of stone.

Behind the pulpit is the "baptistry," lined with Minton's tiles, and surrounded with a neat iron railing.

The chapel contains sittings for 750 adults on the ground-floor, and 500 in the gallery: there are also 200 free seats, and 160 sittings for children.

Attached to the chapel is a large room for week evening services, capable of containing 200 persons. There are also minister's and deacon's vestries, committee-rooms, &c. Under the chapel are schools capable of containing 250 boys and 250 girls.

The works have been executed by Messrs. Wardle and Baker, under the direction of Mr. John Thomas, of Paddington.

NEW CHELSEA BRIDGE.—On Tuesday the second sale, by Mr. Glasier, of buildings necessary to be removed to make way for the embankment and approaches to this bridge, took place.

REGENT'S-PARK BAPTIST CHAPEL: VESTIBULE.—MR. JOHN THOMAS, ARCHITECT.

LONDON IN THE SEVENTEENTH CENTURY.

THE following are copies of two curious papers relating to the local history of London.

The growth, extension, and development of London, is a most interesting subject, and has not, I think, been systematically handled. Undoubtedly the great, if not the first impetus given to the extension of its limits was the calamitous fire of London, in 1666,—calamitous in its amount of individual suffering, but of incalculable benefit in its ultimate results. Down to that period the residences of the principal nobility, the foreign ministers, and gentlemen of fortune, were actually within the walls of the city. The fire devoured all alike, and before the city could be recovered from the vast accumulated *débris*, the demand for present residences became imperative. The whole line of the Strand was at that time dotted with mansions and gardens, which one after the other in quick succession yielded to the march of bricks and mortar westward. It is, however, a curious fact, that none of these properties were so converted without the sanction of the Privy Council. Thus arose, with marvellous rapidity, Cecil-street, Salisbury-street, Arundel-street, Norfolk-street, Southampton-street, Buckingham-street, and all adjacent localities bearing branches of the names of these noble families. Early in the race of speculation, but not the earliest, were the tempting grounds of Essex-house, to which these extracts appertain. Just fancy the squalor of Milford-lane, a blooming orchard, redolent of sweets and fair to look upon, by the students of the Middle Temple, who had "always enjoyed the benefit of a healthfull open ayre westwards." A very different tale would now be told. This might be pursued with great interest: westward and northward the march continued,—is still progressing: where will it stop?

State Paper Office. R. LEMON.

"24th Feb. 1674-5.—Upon the petition of the Society of the Middle Temple, setting forth that the Middle Temple for many ages past hath been a society consisting of diverse of the nobility and principal gentry of his Majtes kingdomes, in which his Majtes lawes are studied, and have alwayes enjoyed the benefit of a healthfull open ayre, westwards, over the orchards and gardens belonging to Essex House, which lye contiguous to the Middle Temple. That the petrs are informed there is a treaty on foot in order to the building upon all the said gardens and orchards, and turning the same into streetes, and setting up houses and wharfes, which, if not prevented, will turne to the great annoyance of the petrs, and decay, if not ruyne of the said society,—and praying his Majte will be pleased to prohibit all persons from erecting any buildings upon the said gardens and orchards.

"It is this day ordered by his Majte in Councill, that the executors of the late Dutchesse of Somerset, or who else may be concerned, have a sight of the petition, and shew cause, if any they can, why the petrs should not be gratified in this their reasonable request."

"12th March, 1674-5.—Upon reading this day at the boord the humble petition of the Lord Mayor and Aldermen of the Citty of London, shewing that his Majte hath alwaies been pleased to expresse his royall sense of the great mischiefs and inconveniencys dayly arising to the said Citty from the multitude of new buildings erected in the outparts thereof, by which means the Citty is deprived of many thousands of her inhabitants, and a vast number of new built houses within the same stand empty and unemployed;—that besides those buildings erected upon new foundations, the houses of many noblemen scituate in the Strand and other places near the said Citty, are now converting into private tenements, and in particular Essex House adjoyning to the Temple, as the petitioners are informed, is now disposing into private hands, and intended to be so employed, which, if permitted, will tend to the ruine of the said Citty, already languishing under the great decay of their retayle trade. And therefore most humbly praying an effectuall stop may be put to the further encrease of new buildings, and that the converting of Essex House, or any other houses of noblemen in and about the Citty may be hindered and prevented;—It was ordered by their lordships, that a copy of this petition be given to the persons who designe to build on the ground belonging to Essex House, who are hereby required to attend this boord with an answer thereunto, as also to the petition of the Society of the Middle Temple touching this matter, a copy whereof hath been already ordered to be delivered unto them, on the first Councill day, next after his Majtes returne to Whitehall, when the same wil be taken into consideration; And it was further ordered, that in the meane time all proceedings towards any new buildings in and about the said place be stopped; whereof the persons concerned are to take notice, and yield obedience accordingly."

PROVINCIAL NEWS.

Kettlewell.—The foundation-stone of a Mechanics' Institution was laid here on the 18th ult.

Tooting (Surrey).—The new schools which have just been erected here were opened on the 24th of April, before a large assembly. These schools have been built by the exertions of the rector, aided by the liberal contributions of the Hon. S. R. Curson, who also purchased the site, and presented it for the schools. The main school-room is 55 feet by 22 feet, with two class-rooms 17 feet by 12 feet and 19 feet by 12 feet, and a residence for the teacher. The cost was about 1,300*l.* The walls of the interior are not plastered, but are relieved by string courses of red brick, with the Great Northern white brick facing diapered at intervals. The roofs are open, and the timbers stained. The architect was Mr. J. Peacock.

Sheerness.—The Admiralty have decided on enlarging No. 1 dry dock at Sheerness to enable ships of war of large dimensions to be docked in it. The conditions of the contract have been issued by the Board.

Lewes.—The erection of a new workhouse for the Lewes union has been proposed by one of the guardians, and the board are shortly to consider of it.

Worcester.—The City of Worcester Association for Building Dwellings for the Labouring Classes is now about to commence operations, and the old pile of buildings in Cooken-street, immediately facing St. Andrew's Church, and through to Warmstry-slip, will shortly be levelled with the ground to make way for model dwellings. The delay that has arisen was caused, says the local *Herald*, from the difficulty of obtaining tenders from builders to carry out the work. Whether the local builders, it adds, were so fully employed as to be unable to enter into further engagements, or were frightened at the architect's plans and specifications, we know not; but this we do know, that the committee, anxious that their buildings should be erected by a local contractor, did, in the first instance, limit their advertisement for tenders to the three Worcester papers. Mr. Ennor, of London, has now contracted with the association for the new erection, designed by Messrs. Reeves and Butcher.

Bristol.—The High Cross in College-green has received into one of its canopies a carved figure of King Edward III. The statue is given by the Freemasons of the Province of Bristol, in honour of their former patron and grand master King Edward III. The carver was Mr. Farmer. It is hoped the other statues will soon follow, and the whole of the niches be occupied, when the Cross will assume the character of the old one now in Sir Hugh Hoare's grounds at Stourton.

Chester.—The new water-work buildings on the Canal side, Boughton, are progressing. The reservoir and three filtering-beds are completed, and the engine-house, on the top of which the tank will lie, appears likely to be finished in a few months.

Bolton.—The restoration of the new market, says a local paper, appears to progress satisfactorily, under the superintendence of Mr. Fairbairn. On Tuesday before last the propping-up of the first row was nearly completed, and the work of removing the piers and rebuilding them will commence forthwith.

Blackburn.—The strike among the mechanics here continues without any change, both parties seeming unwilling to yield. Last week was the seventeenth week of the struggle.——On Monday week the arches supporting the upper floor of the fire-proof mill erecting at Eanam, for Messrs. Yates and Hart, gave way, and the mass of material broke through the arches of the floors beneath until the whole fell into the basement. Two men were precipitated along with the ruins from the third story, but, strange to say, beyond a good shaking, neither of them was injured. Another escaped the fall by holding on to a gas-pipe. Are not some of these Lancashire towns partially undermined by coal-workings?

Huddersfield.—The new waterworks at Longwood were inspected by the local Improvement Commissioners and others on Easter Monday. Bunney Cloughspring has been appropriated all but an inch and quarter aperture for local use. Several borings, too, have recently been commenced, but it is feared they are too near each other, so as to run the risk of tapping one and the same store of water. The whole is to be collected into a large reservoir in the vicinity of the old store reservoir, and about double the size of the latter. The mill-owners' compensation reservoir has been enlarged to nearly the dimensions of the new store reservoir. The old store reservoir when filled holds 25,000,000 gallons, and the new one 45,000,000—70,000,000, or equal to 200,000 gallons per day for a year. The new borings will, on the average, it is estimated, yield 100,000, and the old sources another 100,000; whilst Clough-head and some other springs will make the total supply 600,000 every twenty-four hours, or 20 gallons per head per day, or 100 gallons a day for a family of five. The area of the old store reservoir is 3a. 1r. 34p. 22 feet deep. The outer slope of its embankment is 3 feet horizontal to 1 foot vertical; the greatest width at bottom of embankment being 150 feet, and at top 6 feet. The new store reservoir is 30 feet deep; the embankment built in same ratio as the other; its capacity, when full, 45,000,000 gallons; and the bottom a close rock. The compensation reservoir holds, when full, 40,625,000 gallons: it is 38 feet deep; the embankments 3 feet horizontal to 1 vertical. The Spring-street tank is 12 feet 9 inches deep, and will contain 392,713 gallons. The cost of works at Longwood has been,—the old store reservoir, 5,349*l.* 14s. 2d.; compensation reservoir, including enlarging, 7,019*l.* 8s. 3d.; new store reservoir, 13,792*l.* 19s. 4d.; Clough-head, 236*l.* 9s. 2d.; the Spring-street tank cost 1,120*l.* 8s. The Acts of Parliament cost 2,939*l.* 7s. 9d.; solicitors' bills, 912*l.* 6s. 9d.; engineering ditto, 1,590*l.* 4s. 10d. Total outlay, 55,600*l.* 9s. 1d.

Edinburgh.—In the City Council proceedings last week, the Lord Provost's Committee gave in a report regarding the expediency of filling up with glass the inner windows of the first or principal gallery of the Scott Monument, in Princes-street-gardens, designed by Kemp. The matter was referred to Mr. Cousin, the city architect, who communicated with Mr. D. Roberts, R.A. and Mr. James Ballantine. They were of opinion that the four principal windows should be filled with stained glass in harmony with the architectural character of the structure, and Mr. Roberts supplied designs, embracing effigies of St. Andrew and St. Giles, the tutelar saints of Scotland and Edinburgh, armorial bearings of the kingdom and capital, &c. The whole cost was estimated at 300*l.* The committee, having got the sanction of the trustees, recommended the Council to approve of the proposal, and to advance the money, to be repaid by the admission fee, which it is proposed to reduce from 6d. to 2d. The report was approved of.

CHURCH BUILDING NEWS.

Cold Norton.—The foundation-stone of a new church, to be rebuilt in place of the old parish church, was laid here on Wednesday before last. The rector is about to expend upwards of 2,000*l.* on this good work. The new edifice will be erected on the same site as the old. The design, which was furnished by Mr. Pritchett, of Bishop's Stortford, architect, is in the Decorated style. The foundation will be enlarged to the extent of 18 feet, the length within the walls being 68 feet; the nave measuring 46 feet 6 inches by 20 feet; and the chancel 15 feet by 26 feet. The walls are to be of Kentish rag, with Caen dressings. At the west end will be a bell-turret to receive two bells; and the roof, which is to be an open timber one, will spring from carved corbels, representing the evangelists, angels, &c.; the exterior being covered with green Westmoreland slates. The porch will be of oak, considered characteristic of the county. The font and other fittings it is in-

tended shall be in harmony with the Decorated style of the church. Provision is made for heating the edifice. The builder is Mr. Brown, of King's Lynn, in Norfolk.

Leominster (Surrey).—A new vicarage-house, with offices, is about to be erected here for the Rev. C. R. Drury, at a cost of about 1,200*l.* The walls are to be constructed with the local flint, with courses or bands of coloured brick-work as bond, and tiled roof. Mr. W. White is the architect, and Messrs. Bushly, of Littlehampton, are the builders.

Chippenham.—St. Peter's Church, Kington Langley, near this town, was consecrated on 19th ult. It is situate about the centre of the village. The land was given by Mr. W. Coleman, and the cost of building was raised by voluntary contributions, one of the principal contributors being Mr. Joseph Neeld, to whom we lately alluded in connection with the new church of St. Paul, Chippenham. The new church is an unassuming edifice, with a burial-yard measuring about two roods. The pews are open, and excepting four or five, all free. It has a stone font and stone pulpit. The builder was Mr. Miller, of Seagry, near Chippenham.

Liverpool.—The "Catholic Apostolic" church, in Canning-street, which has for so long a time been standing in an unfinished state, is at length about to be completed, though in a somewhat less elaborate style than was the original intention of the late Rev. John Haughton, from whose sketches of continental churches, and designs based upon the model of Cologne Cathedral, this specimen of Flamboyant architecture, as we are told, has been produced. The design, working drawings, and specifications for the proposed new works have been prepared by Mr. G. B. Nichols, in conjunction with Mr. E. T. Owen, architects. The new works will probably commence early in the ensuing month.

Halifax.—The new Independent Chapel in Square-road, the foundation-stone of which was lately laid, will be in the Decorated Gothic style. The main front, towards Square-road, rises to the height of 72 feet, to apex of gable, and is divided into three stages, the lower appropriated to the principal entrance. Above this entrance there will be a seven-light window, 36 feet in height, the upper part veiled in with tracery. In the third stage of the gable there will be a four-light window. The gable is flanked by two pinnacles, rising 80 feet, and finished at the top by crocketed canopies and spirelets. The side elevations are divided, the north into three and the south into four divisions, in each of which there will be a three-light window, the varied patterns, or tracery, separated by buttresses between each. In the gable of the transept the principal windows are circular, about 10 feet in diameter, and filled in with tracery. The tower and spire will rise to the height of 180 feet, the tower divided into three stages. The plan of the in'ended chapel consists of a nave, 90 feet long by 45 feet wide, and 45 feet high, to the collar of the roof, where it is boarded in. Towards the eastern portion of the nave there will be transepts on each side, each projecting to the width of 18 feet 6 inches, so that the chapel, so far as the transepts extend, will be 84 feet 10 inches wide. The transepts from west to east measure 21 feet 6 inches on the north side, and 18 feet 6 inches on the south. It is proposed to have numerous means of exit, including those in the gallery. The entrances will be inclosed by vestibules and inner doors. There will be a gallery in each transept, brought out so as to form a line with the side walls of the chapel, and a third of larger size will be provided at the end opposite the pulpit. The total accommodation is as follows:—On ground floor, 797 sittings for adults; in the transept galleries, 211 adult sittings; and in the end gallery accommodation for 332 children—total, 1,330 sittings. The architect is Mr. J. James, of London; and the contract for the work has been taken by Messrs. Beanland, at the sum of about 8,000*l.* exclusive of warming, ventilating, lighting, and carving.

Preston.—Progress is still being made with the new stained glass windows at the parish church. In week before last a restoration was made in the old window representing adoration and supplication to the Almighty, in the centre of which, and immediately over the priest's entrance, is the patron saint of the church, St. John, about to partake of the bitter cup: the work is by Mr. Ballantine, of Edinburgh. Forty-four lunettes are in progress; they contain the coats of arms of the borough mayors from the year 1329—twenty in number, and of distinguished visitors from 1306. The work is by Messrs. Forrest and Bromley, of Liverpool.

Oldham.—On Easter Monday the chief stone of the new chapel in course of erection about the corner of Union-street and Queen-street, was laid. The chapel has been designed by Mr. R. M. Smith, Manchester, architect. The general arrangement of the plan is a parallelogram, 86 feet long by 45 feet wide, exclusive of projections of vestry and of gallery staircases. The chapel will be divided longitudinally into three parts, forming a nave and side aisles. The former is 20 feet 6 inches wide, and extends the whole length of the building, and is divided from the aisles by six iron columns with moulded capitals, from which spring timbers, disposed in the form of arches, which span each bay, and loftier arches which span the nave. The arches support a clerestory on each side of nave, formed with a continued series of trefoil headed windows, altogether 63 feet long, which will, it is expected, give ample light, and of the most effective kind, namely, from above. The centre part of the front to Union-street is carried up above the walls of the side aisles and roof of the nave, and, having angle buttresses and battlements, forms a low tower, from the centre of which springs a light open turret, also embattled, which is finished with a crocketted spire; making the entire height 107 feet to the top of the vane. The whole of the exterior will be faced with Yorkshire stone. The windows will be glazed with Hartley's patent glass, in sheets 2 feet 6 inches long. There will be sittings for 800 people, including children; and it is expected that the whole will be completed for about 2,200*l.* The contractor for the works is Mr. T. George, of Ashton-under-Lyne.

West Hartlepool.—The foundation-stone of the new Congregational Church for this town was laid by the Rev. Mr. Binney, of London, on 19th ult. The structure is in the Pointed style, and has a tower, spire, and transepts. Mr. Oliver, jun. is the architect.

Sunderland.—There has lately been placed in St. Thomas's Church, Sunderland, a small memorial window, executed by Mr. Wailes. It consists of a ground of rich quarries, with two shields containing groups representing the Conversion of St. Paul and the Confession of St. Thomas. It also bears memorial inscriptions.

Chichester.—At a meeting of the Cathedral Restoration Committee, held on the 26th ult. at which the Dean presided, it was resolved to appoint Mr. Wm. Slater, of London, their consulting architect, in the room of the late Mr. R. C. Carpenter.

DIMENSIONS OF WESTMINSTER HALL.

THE following are the results of a search to ascertain the true dimensions of Westminster Hall:—

	Width. Feet.	Length. Feet. In.
Nicholson's Dictionary ..... } Stuart's Ditto ..... }	100	300 0
Environs of London ..... } Hughson's London ..... } The Microcosm ..... } Elmes's London in Nineteenth Cent. } Penny Magazine, Vol. I. ..... }	74	270 0
*Britton's Palace of Westminster ...	68	239 3
Weale's London	68	239 0
Pugin's Edifices of London	68	238 8
Britton's Dictionary	68	238 0
Richardson's Plan, made for competition designs of the Houses of Parliament (not figured)	68	238 0
Dallaway's Discourses ..... } Gwilt's Encyclopædia ..... }	66	228 0

W. P.

BEDFORDSHIRE ARCHÆOLOGICAL SOCIETY.—A meeting of the council of this society was held in Bedford on Tuesday before last, when various donations were presented, and an excursion for visiting Ravensden, Wilden, Thurleigh, Bolnhurst, and Colmworth churches, and Bushmead Priory, and taking refreshment at Bolnhurst rectory, was arranged for the 31st May. The secretary having read some correspondence with Mr. Albert Way, was authorized to accept membership of the Archæological Institute for this society.

* These are presumed to be the correct sizes,—although 68 multiplied by 3½ is equal to 238 feet.

THE VANBRUGH CLUB AND THE ARCHITECTURAL EXHIBITION.

THE theatrical representation given by the members of the Vanbrugh Club at the Soho theatre, on the 2nd, in aid of the Architectural Exhibition, passed off very satisfactorily, and will add from 25*l.* to 30*l.* to the treasurer's account. "Love in a Maze," and a new adaptation from the Italian, entitled "Food for Gossip," were the pieces, and all who were engaged played very well. After "Love in a Maze," the following, Occasional Epilogue, written by Mr. Ashpitel, was spoken by Mr. Dudley and another gentleman, who had previously performed:—

LORD MINIVER AND COLONEL BUCKETHORNE.

Lord Miniver.

Par la sembleu! from bad to worse one fares:
I brave your verdict now instead of theirs.

Colonel Buckethorne.

Yes, 'tis our art all folly to pursue,
And hold up character in mirror'd view;
To watch each feature as the shadows fall,
And give a laughing photograph of all.
So may each hearer, as our scenes they scan,
Become a merrier and a wiser man.
But more! to-night the histrionic band
Lend to another art a helping hand.
That art, which lifts the mighty dome on high;
Points the tall spire towards its kindred sky;
Marshals the colonnade in long array;
Bends the proud arch across the victor's way;
Twines the rich tracery in the storied pane;
Spreads the broad transept in the holy fane;
Extends the nave, and vaults the length'ning aisle;
And crowns with mighty tow'rs the noble pile.

Lord Miniver.

To all the sister arts in other lands,
Kings or Republics held their helping hands;
Doges and Emperors offered aid to all,
The church, the palace, lent its friendly wall;
But here, our niggard State will scarcely spare
Half that abortion in Trafalgar-square.
Think of the statues huddled up in gloom—
Think of the horrors of the little room—
And wonder not, that of the Sisters three,
Who sing, alas! around *no golden tree*,
The weakest gets the smallest, scantiest due,
And comes to-night to crave support of you.

Colonel Buckethorne.

Give her attention: every art must be
Seen, or it pines in cold obscurity.
Like tender flow'rs, she needs of light the aid,
And cannot flourish in a chilly shade.

Lord Miniver.

Yes, talk of Popes or Emperors as you will,
The best of patrons is the Public still;
While manly minds and gen'rous hearts abound,
And brilliant eyes—like those I see around—

Colonel Buckethorne.

All arts their true protectors here may view;
All hearts may place their confidence in you.

Lord Miniver.

Ours, tried by true and yet most gen'rous laws,
Still hope to gain your favour and applause.

Notices of Books.

Commentaries on the Productive Forces of Russia. By M. L. DE TEGOBORSKI, Privy Councillor and Member of the Council of the Russian Empire. In two volumes. Vol. 1. London: Longman and Co. 1855.

FROM the position of its author, as well as from the way in which the subject appears in general to be treated, this would seem to be a trustworthy work, though probably biased by the national feeling of its author. This first volume relates chiefly to the physical and material productive forces and to the agriculture and industry of the empire. Perhaps no stronger proof of the condition in which Russia still is could be adduced than that which this author gives as to the relative proportion of forest on the face of the country, namely, 36 per cent. at the least estimation, while only 18 per cent. of the surface has been cultivated. In France, on the other hand, 49·4 per cent. has been cultivated, and only 9 per cent. according to a Prussian authority (but 16 according to this author) remains in the shape of forest. That there is an abundance of timber for building in Russia, then, may readily be conceived, and, indeed, its houses are chiefly built of wood. M. Tegoborski estimates the average value of timber exported from Russia in 1849 to 1851, at 3,301,000 silver rubles, of 3s. 2d. sterling each in value. For fuel, besides wood, attention has of late been turned to peat mosses, and to a few coal mines discovered in different parts of the empire. The book will be read with interest at the present moment.

VARIORUM.

MESSRS. LONGMAN and Co. have now issued the second part of a little treatise on "The Ele-

ments of Geometry and Mensuration, with easy Exercises, designed for Schools and adult Classes," by the Rev. T. Lund, the editor of "Wood's Algebra." The present part treats of geometry as an art, and comprises useful information as to tools or instruments, constructions, T square, drawing-board, pantagraph, architectural mouldings, arches, ovals, inlaid work, &c. and indeed forms an elementary work on geometry in practice.——The first part of the fourth volume of Mr. R. C. Smith's "Collectanea Antiqua" has just been issued to the subscribers (not published). This volume will be completed in four parts, if not in three. The present part mainly relates to antiquities at Thésée, Larçay, Cinq-Mars, Doué, Saumur, Orleans, Amiens, La Chapelle, Saint Eloi (Eure), &c. and to the altar inscribed to the Deæ Matres found at Winchester, and is fully illustrated by engravings.——A treatise on "Practical Meteorology," by Dr. J. Drew, has been published by Van Voorst, of Paternoster-row. It will be found useful to all who possess either barometer, thermometer, or hygrometer, as well as interesting to the general reader, who will here learn what progress has of late been made or appliances brought to bear on the laws which regulate atmospheric changes.——An eighteen-penny pamphlet on the Charter-house, in form of a report on its reconstruction, by a charity *non*-commissioner, has been published by Messrs. Longman. It estimates the value of Charter-house property at a million sterling, and treats of the past and future disposal of this valuable property much in the spirit of our own articles on this subject, which, indeed, are quoted to some extent as an appendix.——"A Word on the Coal Trade," is a twopenny tract issued by Strange and Co. of Amen Corner, Paternoster-row, in which the formation of a Co-operative Coal Consumers' company on a great scale is advocated, in order to enable the metropolitan coal consumers to obviate the selfish and oppressive principles on which their necessities are taken advantage of by merchants and other sellers of coal, in running up their prices to exorbitant and uncalled-for amounts. The writer proposes the purchase of a coal mine, and a railway contract, by a "London Coal League Company," to be formed with 300,000 shares, of 10s. each, whereby he calculates (from personal experience in coal getting) that 300,000 tons of coal and upwards may be *annually* delivered at a cost price to the shareholders not exceeding 12s. 6d. a ton, in place of one to three pounds, as of late has been charged to metropolitan coal consumers. This the proposer suggests as a fair trial of the co-operative or associative principle, and which, if successful, could readily be extended to the delivery of double or triple the quantity on a like principle. Such companies ought to be restricted in their purposes as much as possible to the merely economical principle of providing articles of necessity, or of general consumption, at the lowest practicable wholesale prices. To extend these purposes to the making of surplus profits out of others than the consuming shareholders, would be like the conversion of the economical club-houses into common hotels or taverns. It would destroy the integrity of the purpose primarily in view, without adequate compensation in the shape of other advantages.

Miscellanea.

STATE OF ROTHERHITHE.—The sketches of Bermondsey which appeared lately in the *Builder*, are most accurately drawn, and you are most correct in describing the state of the ditches in Blue Anchor-lane as being in a filthy state, disgusting to the sight, offensive to the smell, and producing those deleterious vapours that have caused so much disease and death in this locality. But these are comparatively clean and wholesome to what I could show you if you would extend your journey into Rotherhithe. Jamaica Level is at the present time the most filthy place in the metropolis, and although we had such a severe visitation of cholera last year, nothing whatever has been done to remedy the evil, and the parties who have the power to get rid of these abominable nuisances, treat all our applications with the greatest indifference. I could show such scenes of filth arising entirely through negligence, as would startle even the readers of the *Builder*.—S.

IRON-TRADE PROFITS.—The following estates, says the *Glasgow Citizen*, have been purchased by the Messrs. Baird, of Gartsherrie Ironworks, within the last five years:—The late Mr. Douglas Baird, Closeburn and Shaw's estate, 225,000*l.*; Mr. William Baird, Elie, 145,000*l.*; ditto, Rosemount and Whitefield, 50,000*l.*; Mr. Alex. Baird, Ury, 120,000*l.*, Mr. James Baird, Cambusdoon, &c., 50,000*l.*; Mr. George Baird, Strichen, 140,000*l.*; Mr. David Baird, Stitchel, 165,000*l.*; Mr. Robert Baird, Auchmaden, 60,000*l.*; total, 955,000*l.*

THE ARCHITECTURAL PUBLICATION SOCIETY.—The annual general meeting of the subscribers will be held on Thursday evening, the 10th May, to receive the report of the committee on the general affairs of the society, and transact other business. The meeting will take place at No. 16, Lower Grosvenor-street, the Council of the Royal Institute of British Architects having granted the use of their rooms for this purpose, and Mr. Tite, F.R.S. will preside. Part IV. of "The Dictionary of Architecture," which has been issued, contains, amongst other valuable matter, an interesting account of Baalbec, by Sir Charles Barry. A new part of "Illustrations" will be issued shortly.

WHOLESALE DESTRUCTION OF BRICKS.—The brick yards of Mr. Peter Bailey, in Heaton Mersey, were lately visited by a large body of men, and about 35,000 newly-made bricks were trampled upon and destroyed, and the wheelbarrows, moulds, tables, &c. used in the trade were sawn, broken, and rendered useless. The same night, the brick-yards of Mr. John Potts, in Adswood, about two miles from Heaton Mersey, were entered, and similar destruction effected. For some time past considerable dissension has existed between the master brickmakers and union operatives, which has led to repeated outrages of this description against masters who employ other persons than those connected with the union. Several men have been apprehended for brutal conduct of this kind.

ARCHÆOLOGICAL DISCOVERY AT PAS-DE-CALAIS.—A discovery interesting to archæologists and historians has just been made in the village of St. Leger. M. Dussillon, architect, while having a well bored near a chateau he is building on the estate of the Count d'Aoust, discovered, at a depth of about twenty yards below the surface, a large excavation, which led to a long and extensive gallery, on either side of which was a range of twenty-six rooms, paved with a kind of hard cement. According to a work published in 1815, by General de Lachaise, prefect of Pas-de-Calais, these vast subterranean passages are not less than one thousand yards in length; but since 1789 the entrance to them was lost, and it is only now that by chance the excavations have been again discovered. During the long wars of the League, they served as a place of refuge.

THE FRENCH INSTITUTE.—The political manifestations of late years in the Institute of France appear to have led to modifications of its laws and regulations. An infusion of new blood has reversed the majority of the hitherto self-elected literary and scientific body; and it is officially declared that its statutes must be made to harmonise with the order established in the State. The annual meeting is henceforth to be held on St. Napoleon's Day, Aug. 15, when "a new prize of 10,000*f.* per annum" will be awarded every three years in the Emperor's name. All functionaries employed in the Institute will be nominated by the Minister of Public Instruction; and ten members "pitchforked," as the *Daily News* expresses it, into academic chairs, as a new section of the academy of moral and political sciences, to be called the section of "politics, administration, and finance," are proclaimed to be entitled to the same salary, rights, and privileges, as the members of the other sections. The Academy will now cease, therefore, to be an *imperium in imperio*. In its origin indeed it was a royal institution, and it is still supported by public funds.

TENDERS FOR SEWERS.—The following is a list of tenders delivered at the Metropolitan Sewers Office, on Tuesday, 24th of April, for works under the Commission, as headed:—

	New Victoria Street. The Fleet.	Tottenham-court Road. New-road, &c.	Gospel Oak Fields.
	£.	£.	£.
Batterbury (Messrs.)	5,927	4,586	557
Monday	5,728		
Yeoman	5,629	4,313	656
Johnson	5,390	4,990	700
Carlysle	5,223	4,296	
Thirst	4,929	3,827	593
Friend and Hammill	4,827	4,047	
Robson	4,953		
Lee and Lavers	4,639	3,879	534
Dethie	4 600	3,749	
Hill	4,590	4,229	642
Phillips	4,389	4,153	569
Clark	...	...	548

BROMPTON-SQUARE.—It is now nearly a year since the inhabitants of Brompton met in vestry to consider what was to be done to prevent the contemplated closing of the end of Brompton-square. They were unsuccessful in their praiseworthy exertions, and excavations are now in progress for buildings (said to be two houses, with coach-houses and stables) about to be erected, which will effectually block up the end of the square, and at the same time put an extinguisher upon the bright hopes which have been from time to time entertained, that a road, or at any rate a footpath, would have been made. It is much to be regretted that this expectation of an access from Brompton to the Park, which could at one time have been readily obtained, and which would have been so desirable to the public generally, is decisively thwarted. It is now too late, I suppose, to entertain the hope of a footpath being granted by Mr. Elgar; and it will be well if his coach-houses and stables are ornamental at the end of Brompton-square. It is right the public should know how opportunities for improvements pass away.—T. B.

THE FLOATING BATTERIES AND MORTAR SHIPS.—Three of the floating iron-cased batteries are now afloat. As was to be expected, they sail very slowly under the influence even of steam and screw, but most unreasonable expectations appear to have been entertained in this and other respects as to what they ought to have done. They are stigmatized as mere logs in the water, but what else were they desired or required to be but heavy and resistive structures? Yet the draught of water they take is actually so small (6 to 8 feet it is said), that only 6-feet screws could be applied to them. That these, however, are deemed sufficient, Sir C. Wood, the first Lord of the Admiralty, explicitly declares. A contemporary, who is much interested in naval affairs, is of opinion that these batteries are so capable of exercising their "tremendous power," that they will "tell a tale in connection with the destruction of Sweaborg or Cronstadt (and why not of Sebastopol?), little thought or even dreamed of." It is said, however, that the iron casing only extends one foot below the water line: is this as it ought to be for invulnerability? May not this be the vulnerable heel of the Achilles which will expose the whole to destruction, even in spite of the power of the water to divert the course of shot? Other objections are started, especially as to their capability of carrying the armament of 68 pounder Lancaster guns, &c. intended, without sinking too deeply into the water, but we feel more confidence in the abilities of such builders as Scott Russell, or Mare and Co. than to suppose that they would have any hand in building such vessels on false calculations as to their capability of swimming so as to be at least creditable as far as they are concerned, whoever designed them. We are not a little surprised, however, now to learn that they have no iron-cased deck covering whatever, so that shells thrown into them may at once destroy the vessel and kill all on board!—— Five of the mortar ships fitted on Captain Roberts's plan are, it is now said, to be despatched to Sebastopol, to be set to work there. Surely so will some of the floating batteries, if they be really anything like what they were expected to be.

ANTIQUARIAN EXCAVATIONS.—Mr. P. R. Mynors, of Treago, St. Weonard's, Herefordshire, has caused the immense tumulus situated on his estate in that parish to be excavated under the directions of Mr. Thomas Wright, F.S.A. who was on a visit at Treago. The mound is about 30 feet in elevation, by 50 yards in diameter at the base. The cutting was made on the south-western side, 14 feet deep by 8½ feet wide, and carried a little beyond the centre of the mound, where there was found a mass of ashes, intermixed with fragments of burnt wood and of calcined human bones, forming a layer of about 1½ foot thick and 9 feet or 10 feet in diameter, which left no room for further doubt of the sepulchral character of the tumulus. A small mound of sand appeared to have been raised over these remains of the funeral pile, over which large rough stones were built, so as to form a kind of rude vault. It is ascribed to the British period at the commencement of the Roman domination.

"LIGHT AT A FIRE."—Seeing a paragraph in your paper thus entitled, in which "J. B." suggests the plan of having a gas-light to the fire-plugs or hydrants, to mark their position, and give light for fixing the hose, let me say that an apparatus has been recently patented by Mr. Crozier, the borough engineer at Sunderland, for a contrivance called the "Lamp Pillar Hydrant." By this plan the water main is branched into the base of the lamp pillar, and consequently no stand-pipe is required. The cost, with valves, &c. complete, has been found to be only a few shillings more than the ordinary hydrants, and they are now being adopted in several large towns. Thus the same objects are gained as wished for by "J. B." The hose can be fixed and the water in full play in about forty seconds.—VERITAS.

ELECTRO-TELEGRAPHIC PROGRESS.—Perhaps a more striking step in the progress of the electric telegraph was never recorded than that now effected by the throwing of the longest submarine cable ever yet made, across the Black Sea, from near Varna to Balaklava, whence it has been farther laid down not only to the head quarters of our army, but to the very trenches before Sebastopol; and it would not now be difficult, by some little farther novelty of invention, to cause the reverberation of the very cannons themselves as it were to be transmitted, in the shape of electric vibration, through the 3,000 miles of intervening wire, and *heard*, in still continuous vibrations, finally communicated to some acoustic apparatus in the British Houses of Parliament! Such is the close co-relationship of forces, that this is literally perfectly possible; and although it would not be precisely the *sound* of the cannons which our legislators would hear, it would actually be the vibratory reverberations of that very sound itself; for all sounds are vibratory forces, which reverberate into the electric interiors of material substances; and some recent experiments have curiously illustrated this very point in physical science. At all events, now, we are practically and at farthest only a trifle of *time* distant from Sebastopol, and there is no physical reason why the public should not know every morning, noon, and night, what is at these very times going on at the seat of war. Strange to say, however, the "divine calm" with which Lord John Russell endeavoured to elevate our ideas to a just appreciation of the merits of the British Commander-in-Chief at Sebastopol, appears to be so intense in the midst of the iron storm, that he is as far *above* the pitiful vanity of desiring to gratify our curiosity in that respect as any Indian Fakeer or German mystic that was ever "wrapped up into the holy Sabbath," and looked down upon mere ordinary humanity, and its interests and anxieties, with supreme contempt. Repeated messages, it seems, have been transmitted, but, for several days at least, not a word was telegraphed "on that topic," as Lord Palmerston expressed it. Can the report be true, that the people at home lost the key to the cipher in which the message was sent?

GLASS AXLE BOXES.—Mr. Campbell, of Columbia, Ohio, has made application at Washington, for a patent, for making a bond of union between cast-iron at a very high temperature and glass in a state of fusion, and designed for boxes in which the axles of wheels revolve. The glass is for the interior of the box, and, causing but little friction, it requires but little lubrication, and is, therefore, maintained to be economical, costing less than cast-iron.

DECK ENGINES OF ALL WORK.—The large American ship *Monarch of the Seas*, recently arrived at Liverpool, has on deck a small steam-engine of eight-horse power, made in New York, at a cost of 450*l*. The space it occupies is scarcely a speck on her ample deck, and yet it saves the crew an immensity of labour, and can be applied to a variety of uses. It is attached to the pumps, and might keep the vessel afloat if she sprang a leak, while her crew were at full liberty to attend to her working. In port, it discharges the cargo, raising a ton weight in four seconds, and it could, in fact, within the working hours, discharge 2,500 bales of cotton a-day, if they could be received. It is strange to observe how long the *vis inertia* of things as they are resists the advent of things as they ought to be. An engine of all work on the deck of a ship is a very obvious improvement; yet how slowly such improvement has made way. The weighing of anchors and the setting of sails, as well as the pumping and the shipping and unshipping of cargo, might all be thus greatly expedited, and so the whole working of the ship economised. In war ships, too, how useful such a willing servant might be in moving cannon, carrying shot, and many other services. Thus, in times when men are scarce, as at present, our marine force, naval as well as mercantile, might, if necessary, be virtually tripled or quadrupled without much trouble or expense. Even boats now requiring many hands to row them, might have small engines of a single-horse power each to impel their little screws in moving to and fro.

VICTORIA PARK.—As an inhabitant of Bethnal-green, I feel you have conferred a favour on us in proclaiming against the building scheme in this park. For the tens of thousands of this district, we need every rood of land within the park to be kept free and open: it would be a scandal on the "powers that be," if buildings were to be spoked all round the edge of this little park. I hope our members for the Tower Hamlets will raise the question in the House of Commons, as I cannot think that for a few paltry pounds of ground rent, the commissioners of Woods and Forests will persist in the attempt, if an outcry is made.—W. A.

*** We have received several other letters on the same subject.

NORTH OXFORDSHIRE ARCHÆOLOGICAL SOCIETY.—A quarterly meeting of the members of this society was held at Banbury, on Tuesday before last, when papers were read,—by the Rev. W. S. Miller, one of the secretaries, for the Rev. J. W. Hewett, of Bloxham, "On the Formation of Monumentarium, Attention to Parish Registers, and the Collection of Books and Pamphlets having reference to the History of the Neighbourhood," by the Rev. T. W. D. Brooks, "On Monumental Brasses;" by Mr. C. Faulkner, "On Parish Registers;" and by the Rev. P. Hoskins, "On Bells." The three latter papers are to be continued; and the substance of all will probably appear in the society's annual report. Several objects of interest were exhibited.

THE LATE ALFRED B. CLAYTON, ARCHITECT.—The *Liverpool Journal* mentions the death of this gentleman, on the 19th inst., at his residence at Everton Village. In January last, while superintending some additions to the West Derby workhouse, he fell from a considerable height, and fractured his right arm, when his nervous system sustained a shock, from the effects of which, after lingering four months, he expired, in the 60th year of his age. Mr. Clayton, in his early years, studied with the intention of practising as an historical painter, under Etty, who always expressed a high opinion of his powers. He ultimately determined, however, to follow the profession of an architect, and, as is stated by the journal quoted, designed and executed the Corn Exchange in Mark-lane.

LECTURE ON ORNAMENTAL ART.—At Chester, on the 17th ult. Mr. Ellis Davidson, the master of the Government School of Art there, gave an interesting lecture on the history of ornamental art In the course of it he said that even the people of the present day, who lived in an age of manufactures, of commerce, and of utilitarianism, were much more guided by ornament than they generally admitted, and they judged with some degree of precision of a person's tendency of mind and feeling, not only by the manner in which he furnished or embellished the interior or exterior of his house, but also by the ornaments or absence of them in his attire, as showy or sober, tawdry or tasteful: even the very carpet on the floor of the room told its tale of the taste and habits of mind of the occupant. He defined "ornament" as the handmaid of architecture. The longing after the beautiful and the ornamental was, and had been, he believed, to a great degree inherent in every mind: in all ages, and in every climate, had the members of the human family used some means of making that which was at first only useful become ornamental as well.

DIGGING BY STEAM.—A steam digging-machine has been invented in Germany. The power required for all its motions, says the *Agricultural Gazette*, has been ascertained from experiments, and every detail corrected by calculation; and the patentee estimates that the strongest engine which can be efficiently employed in spite of its weight will dig to the depth of one foot 1¼ acre per day on the average quality of cultivated land. Mr. Usher's steam-plough, in 1852, according to Professor Wilson, broke up no less than seven acres per day, the cost of working being only 2*s*. 6*d*. an acre; and though the style and depth of its work may have been inferior to that made by the German engine, this rapid rate of labour is more likely to get the farmer's patronage.

THE WOOD TRADE.—The transactions in wood during March have been very unimportant in the wholesale market. By auction sales, larger quantities than usual have been thrown on the trade, with indications of weakness in prices, scarcely sustaining the improvement which was apparent in the sales of January, and the quotations of February, for those leading articles of which the stock is in excess of our former average. The dock stock of deals on the 1st of April, 1855, was 2,898,000 pieces. At the same period in 1154 it was 875,000 pieces, and two years preceding the average was 884,000 pieces. It is some satisfaction to observe that in six weeks the diminution has been 400,000 against 200,000 last year. *Windsor Express.*

TENDERS FOR THE CORN EXCHANGE, HULL.—A correspondent, Mr. W. Hall, says he believes the following list of the tenders to be a correct one, as far as it goes:—

Simpson and Malone	£5 430
Hutchinson	5,300
Margison	5 259
Teale	5,255
Jackson	5,212
Musgrave	5,200
Hall	5,113

And he complains that his tender was rejected on the ground "that his schedule price for concrete was higher than in the case of the accepted tender!" although there will be very little concrete required extra. He attributes motives, into which we cannot safely enter, but must content ourselves with recording his complaint.

TENDERS

For houses in Grosvenor-square. Messrs. T. and T. Cundy, architects.

	No. 19.	No. 19a.	Total.
Holland	£13,276	£7,420	£20,696
Wilkinson	13,207	7,321	20,528
Higgs and Cullingford	13,235	7,250	20,485
Kelk (accepted)	12,845	7,137	19,982

For the new Congregational Chapel at Hitchen. Messrs. Bidlake and Lovett, Architects. Quantities not supplied.

	All new work	With part old materials.
French, Melbourne	£1,864 0 0	£1,589 0 0
Smith, London	1,560 0 0	...
Jeeves, Hitchin	...	1,442 0 0
Lawrance, Barnet	1,475 0 0	1,396 10 0
Butterfield, Hitchin	1,417 0 0	1,344 0 0

For erecting a corn-exchange in the market-place, Watford, Herts, and certain alterations and additions to the Essex Arms Hotel, adjoining. Mr. James Murray, architect. Quantities not supplied.

	Exchange.	Hotel.	Raising roof of hotel.	Cementing front of hotel.
Parker	£1,165 0	£730 0	£432	£32
Carter and Ellis	1,136 0	675 0	96	28
Thompson and Crosswell	1,057 16	686 4	...	25
Pratt (accepted)	1,030 0	690 0	57	23

For alterations, No. 2, Laurence-Pountney-hill, Mr. E. Woodthorpe, architect.

Myers	£3,275 0 0
Wilson	3,287 0 0
Brown	2,837 0 0
Haynes and Eyre	2,832 0 0
Brass and Son	2,767 0 0
Ashby and Sons	2,751 0 0

For building a villa at Sydenham. Messrs. Banks and Barry, architects.

Oliver	£3,350 0 0
Laurence and Son	3,340 0 0
Wardle and Baker	3,300 0 0
Locke and Nesham	3,297 0 0
Lucas, Brothers	3,291 0 0
Gammon	3,271 0 0
W. Hill	3,165 0 0
Piper	2,992 0 0

For Ecclesiastical Commissioners' Office, Whitehall. Mr. Ewan Christian, architect.

Locke and Nesham	£3,150 0 0
Holland	3,085 0 0
Cubitt	2,780 0 0
Higgs and Cullingford	2,651 0 0

Isleworth Church.—Mr. Smith wishes us to mention that his tender for Isleworth Church was 6,120*l*. and not 6,780*l*., as stated.

TO CORRESPONDENTS.

"A. G. M." (apply to the Society for Improving Dwellings, &c. Exeter Hall.)—"J. H. H."—"J. B."—"Query."—"T. L. E." (next week. Such an incident did occur)—"Mr. C."—"Messrs. L."—"G. A. B."—"W. H. B."—"Subscriber."—"F. B. W." (declined with thanks).—"G. L."—"N. G. P."—"W. H."—"H. and C."—"F. A. D."—"N. W. L."—"G. W." (we shall be glad to hear).—"Constant Reader."—"Mr. T."—"Christ's Hospital."—"One of the Public."—"G. and H."—"T. L. D."—"J. T."—"T. G."—"An Agricultural Chemist" (should try as to the foot. His theory does not seem quite correct).—"W. H."

ADVERTISEMENTS.

TO ENGINEERS, CONTRACTORS, &c.

LEVELS of first-class work, price 6*l*. to be had of the Maker, JOHN DAVIS, Optician, Derby. The Level consists of a 10-inch telescope, focus adjusted by rack; fitted in an excellent case. The legs either tripod or jointed, for use in a pit.

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instruments, and considerably cheaper. Apply to Mr. H. BARLOW, 2, Thavies-inn, Holborn (between 1 and 3½ p.m.); or to Mr. H. B. BARLOW Office for Patents, Dacie-place Exchange, Manchester

MATHEMATICAL DRAWING INSTRUMENTS. JOHN ARCHBUTT, 20, Westminster Bridge-road, Lambeth (near Astley's Theatre), begs to call attention to the Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. An illustrated price-list will be immediately forwarded, free on application.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 1*s*. per foot super, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 3, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and Co. 80 New Bond-street.

TO STOVE GRATE MANUFACTURERS, FOUNDERS, ENGINEERS, BUILDERS, SMITHS, and OTHERS.—TO BE DISPOSED OF, a Business MANUFACTURING PREMISES, most desirably situate in a central part of London, and in a leading thoroughfare. The freehold may be purchased if desired. The tools and stock may be reduced to about 300*l*.—For further particulars apply to Messrs. FULLER and HODGSEY, Bloomsbury-street, Paris.

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TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place. For particulars, address, S. S. 9, Southley-terrace, Larkhall-lane, Stockwell, Surrey.

MIDDLESEX COUNTY LUNATIC ASYLUM, COLNEY-HATCH.—WANTED, as RESIDENT CLERK of the WORKS, at this Asylum, a Person, between the ages of twenty-five and forty, who is practically acquainted with and capable of superintending the making of gas, and who can undertake the management of gas-making and lighting apparatus warming and ventilating apparatus on Price's principle, stationary steam-engine, water supply, drainage, sewage, and quid manure works, general building repairs, and carpenters', plumbers', painters', glaziers', bricklayers', and smiths' work. He will have the superintendence of the mechanics and workmen employed in the establishment, and he will be required to perform all such other duties connected with the situation as the Committee of Visitors from time to time may direct him to do. His services will commence at Midsummer next. The salary will be £80 per annum, with an unfurnished house, coals, gas, milk, and vegetables. Each person who may be desirous of becoming a candidate for this appointment must forward to me at the Asylum, before SATURDAY, the 19th day of MAY next, a letter of application, in his own handwriting, stating his age, present or late employment, length of service, present residence, and number of family, together with testimonials of fitness for the situation, and of good character. Candidates must personally attend at the Asylum, on WEDNESDAY, the 16th of MAY next, at one o'clock precisely, when the Committee of Visitors will proceed to the election.—Further information may be obtained by application, personally, to the Steward, at the Asylum, on any MONDAY or FRIDAY, between TEN and FIVE; or printed rules will be sent by post on application by letter to me.

April 13 1855 JOHN S. SKAIFE, Clerk to the Visitors.

WANTED, a young active Man, as Jobbing Carpenter.—For particulars, apply to Messrs. HULETT and Co., 75, High Holborn.

WANTED, as CLERK and SHOPMAN, a respectable middle-aged man, who understands the General Furnishing and Black Ironmongery business. None need apply who cannot furnish respectable references for industry and honesty. Apply by letter, prepaid, stating qualifications and where last employed, to A. B. 89, Albany-street, Regent's-park.

WANTED, one or two good DESIGNERS and MODELLERS, thoroughly conversant with Gothic and ornamental details.—Apply by letter, prepaid, stating terms, qualifications, and references, to Mr. FREDERICK RANSOME, Patent Stone Works, Ipswich.

WANTED, in a Surveyor's Office, a JUNIOR ASSISTANT, who writes a good and expeditious hand; can trace drawings neatly, and square dim nsions.—Address, in own handwriting, stating age, terms, and references, to Mr. CHARLES J. SHOPPEE, No. 61, Doughty-street, Mecklenburgh-square, London.

TO BUILDERS' CLERKS.

WANTED, in the Office of a Builder, a PERSON capable of KEEPING the DAY-BOOKS and LEDGER. As no further knowledge will be required, a small salary only will be given. Apply, by letter only, stating age, reference, where last employed, and what salary expected), addressed G. O. 5, George-terrace, West-street, Croydon.

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WANTED, an experienced JOBBING HAND; one who understands the bell-hanging and gas-fitting preferred. Apply at 33, Brook-street, New-road, near Tottenham-court-road

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WANTED, by a London firm, a respectable Young Man as ASSISTANT CLERK. Any knowledge of drawing is unnecessary, but he must write a good and expeditious hand.—Address, stating age and salary required, to N. O. Office of "The Builder."

WANTED, by a PLUMBER, PAINTER, and GLAZIER, in the country, a THREE-BRANCH HAND. Liberal wages and constant employment will be given. Apply by letter to CHUCK and CO. Leigh Chas Warehouse, Bishopsgate-street, or to Mr. DANNETT, Great Waltham, Essex.

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WANTED, by a persevering Young Man, a SITUATION as CLERK, where he will sometimes be employed out-doors at measuring, superintending work, or otherwise engaged. He can take out quantities, make finished and working drawings, measure up work, keep books, and work at the bench. Has a knowledge of perspective; writes a good hand, and well understands the routine of a Builder's Office. He was with his late employer six years.—Address, R. T. N. 25, Swinton-street, Gray's-inn-road.

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WANTED, a SITUATION as CLEAK of WORKS or GENERAL FOREMAN, by a person who has long been engaged in carrying out extensive works. Can furnish the first of testimonials for ability, &c.—Address, Y. Z. No. 1, Bruce Villas, Richmond-road, Hackney.

TO PLUMBERS, PAINTERS, AND OTHERS.

WANTED, by a Widower, aged 33, a SITUATION as FOREMAN; he is capable of undertaking the management of a business, is a good tradesman, and can give good references. Country no objection.—Apply to C. T. L. Metropolitan-buildings, Albert-street, Mile-end New Town.

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WANTED to APPRENTICE (in-door), a stout active YOUTH, aged 17, to the above business, where he can obtain a thorough practical knowledge of the trade. A moderate premium will be given.—Address, A. B. 1, Portland-terrace, Brownlow-road Dalston

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TO BUILDERS, HOUSE AGENTS, AND OTHERS.

WANTED, by a respectable Young Man, a SITUATION as BRICKLAYER; is used to the jobbing trade. Respectable reference can be given.—Address, A. B. 5, Doris-street, Prince's-road, Lambeth, London

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WANTED, to place a youth 14 years of age, as an INDOOR APPRENTICE to the above trade, with respectable and pious master.—Apply, by letter prepaid, stating full particulars to A. B 40, Parliament-street, Westminster.

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WANTED, a SITUATION for a Youth, who can write a good plain hand. Has been in a Surveyor's and Builder's Office.—Address, H. H. No. 5, Argyle-street, King's-road, 1855.

WANTED, by an experienced Joiner, aged 34, a SITUATION as Working, Shop, or Out-door Foreman, having filled both situations, and can produce satisfactory testimonials as to ability, &c. Address to J. U. 23, Park-street, Islington.

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WANTED, by a respectable Young Man, a SITUATION as good PLUMBER, and will fill his time up in Painting if required. Good references can be given.—Address, post-paid to J. G. 23, North-street, Manchester-square, London

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A YOUNG MAN, who can keep a SET of BOOKS, WANTS a SITUATION in town or country. Wages not so much an object as a permanency and improvement. Direct, HENRY, at Brown's Office, 3, Holborn-bars, London.

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A QUALIFIED SUPERINTENDENT of WORKS is desirous of an ENGAGEMENT. Good measurer and accountant. References ample.—Address, Y. Post-office, Leigh-street, Burton-crescent.

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Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of One acre, can be obtained. On the two first estates, large pleasure-gardens are allotted to the freeholders or tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge for about ten years less in amount than the ground-rent of the same under the usual system. In addition, therefore, to the amount to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building lease. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

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FERDINAND BRAND, Comptroller.

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.
Enrolled as the "Borough of Lambeth Benefit Building Society."

PRESIDENT.
The Hon. John Locke King, M.P.

TRUSTEES.
George Singer, Esq. James Sinee, Esq. S. Etches, Esq.

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Open from Ten A.M. till Seven P.M.
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WM. BANKS, Secretary.

211, High-street, March 1, 1855.

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CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantities, by wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

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LIME.—To BUILDERS, BRICKLAYERS, and PAVIORS.—A large quantity of CHALK LIME (small) TO BE DISPOSED OF, price very moderate; suitable for concrete and other purposes.—Apply, 39, Prince-street, Lambeth.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The qualities expressly required by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 29, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Vessels for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 13, UPPER GROUND-STREET, Blackfriars (Surrey side), NORTH-END, HARE ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works on the Medway, near Rochester, March 31, 1855.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-waxed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

STONE-COLOUR BRICKS, moulded to any pattern, for cornices, copings, labels, &c. at about one-third the cost of stone; also ornamental ridge and other tiles; may be had to order of Messrs HOUGHTON and CO. 2, Portland-street, Southampton.—Illustrated list of prices or samples forwarded on application.

TO BUILDERS AND CONTRACTORS.

A LARGE quantity of superior quality GREY STOCK BRICKS on SALE, from Huggin's Crown Quay Fields Slittingcourse, Kent, delivered alongside in the river Thames, or into vessels for the West Coast, on low terms.—Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

BRICK MOULDS (Improved) steel-faced stocks and plates with regulating screw pegs, used three seasons by the leading brickmakers. References where in use Bowls, Hoes, Cuckholds, Pug Mills, Millwork, &c.—J. LEACH, Millwright and Manufacturer, 28, Critchill-place, New North-road, Hoxton.—N.B. Moulds of various sizes kept on hand

BRICKS.—3,000,000.—BEST STOCKS &c. de livered, by Eastern Counties Railway, at London or any station, by the Manager of the Railway Brickworks, Squirrel's-heath Romford Address the Post-office, Squirrel's-heath.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto conducted at 37, Newnand-crescent, Newington-butts, will, from MONDAY, the 11th inst. be carried on at 5, ADELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

TO BUILDERS and OTHERS.—BRICKS delivered at say part of the River up to Battersea-rridge, at the following prices, viz.:—Grey stocks, 25s. per thousand; Grizzles, 20s. per thousand; Hough Stocks, 20s.; Place, 16s.—Terms cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICK-MAKING MACHINES TO CONTRACTORS, BRICKLAYERS, AND TILE MAKERS, AND EXPORTERS.

ATLAS WORKS.

CLAYTON'S PATENTS, patronized by H.R.H. Prince Albert.

CLAYTON'S PATENT BRICK-MAKING MACHINES offer a most important and profitable investment.

CLAYTON'S PATENT BRICK MACHINE for which there are now upwards of 600 in use is worked by one horse, by steam or water power, and completes the whole process of pugging the clay and making the bricks at one time Awarded the prize medal at the Great Exhibition at Amsterdam, Nov. 1853.

CLAYTON'S PATENT CLAY SCREENS, for cleansing clay from stones, roots &c.

CLAYTON'S PATENT TILE, PIPE, and HOLLOW-BRICK MACHINES of various sizes and construction.

CLAYTON'S PATENT BRICK or TILE PRESSING or MOULDING MACHINE for the manufacture of socketing sewerage pipes

CLAYTON'S PUGGING MILLS, of various sizes and construction, for tile clay, brick earth, mortar, &c.

And every article connected with the brick, tile, and pottery trades.

The above machines may be inspected, and illustrated catalogues obtained, at the Manufactory, Atlas Works, Upper Park-place, Dorset-square, London.

TESTIMONIAL.

"Heaingden, near Manchester, Dec. 2, 1854.

"Sir,—Several kilns of bricks made by your machines have been burnt, and I have great pleasure in informing you that they are as good as can be desired. They are in all respects superior to hand made bricks, and command a much better price. Your machines are simple and efficient implements. I have sent you a few bricks for a sample, which I hope you have received.—I remain, your very truly,

"Mr. Clayton, London." "J RAWSTHORNE."

TO MANUFACTURERS of EARTHENWARE, FIRE BRICKS ENCAUSTIC TILES, &c.—TO BE LET, a FIELD, eleven miles from London, having water carriage to Paddington and the Thames, and also adjoins on the Great Western Railway. This eligible locality is well worthy the attention of the trade It contains two varieties of clay, which together are well adapted for the manufacture of all or any of the articles above enumerated, requires also, as it does, the best water-carriage to all parts of the metropolis. It offers unusual advantages for the make of earthenware, which from hence could be transported without breakage, and also free from the heavy freight charges now borne by firebricks, earthenware, &c. manufactured in the northern districts for the London market. A considerable sum has already been laid out in improving the field, which has an extensive drying ground, and also a private dock or branch communicating with the Grand Junction Canal.—For terms, apply to Mr. BLEEKING, Danley court, Uxbridge; or Mr. STRANSOM, Uxbridge, or to Mr. PETER BROAD, Auctioneer and Estate Agent, 23, Poultry.

GLOBE-TOWN BRICKFIELDS, within one minute's walk of Bethnal-green.—A large quantity of light-coloured PIT SAND, of excellent quality, on SALE, reasonable.—Apply to S. M. EMSLEY, for large quantities; or to the Foreman, JOHN SARGENT, on the Premises.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactured of the highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths; Coynas for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Rauges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PEAKE'S TERRO-METALLIC TILES PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield street North, City-road Basin. Secondly that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietors, and, thirdly, that the "REASONS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 32s. 6d. per 1,000; floor bricks and 6 inch pavings, at 40s. per 1,000; 8 inch pavings, at 60s. per 1,000; 9 inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London or Eastern Counties Railway.

CLAY ROLLERS,—Wanted to Purchase NEW or SECOND-HAND TWO-PAIR CLAY ROLLERS; one over the other, with 3 pipes, scrapers, &c. complete. They should be fixed on a strong iron frame, and adapted for working an engine of six or eight-horse power Address, stating cash price and particulars, to R. W. F. B. Crosfor, Leicestershire.

TYLOR'S improved METAL-BOUND PAINTING BRUSHES.—These are the lightest metal-bound painting brushes hitherto introduced, the bristles are perfectly secure against the action of all kinds of varnishes and colours, the caps will not burst or rust when the brushes are placed in water, and the handles cannot come loose.—Price lists forwarded, post free, on application to the Manufacturer, J. B. TYLOR 2, Bury-court, St. Mary-axe, London.

ELECTRIC CLOCKS and TELEGRAPHS CERTIFICATES of the perfection of SHEPHERD'S CLOCKS sent free, by post, on application to Mr. PHYSICK, 12 Throgmorton-street, London, where they may be seen in action. Counting-house clocks and all kinds of telegraph. Stores and instruments supplied on moderate terms.

ROYAL POLYTECHNIC INSTITUTION PATRON: H.R.H. PRINCE ALBERT.—Monday Evening, Lecture on the Comparative Anatomy of the Eye, by George Pilcher, Esq.—Thursday Evening, the 10th inst. Dramatic Reading, by Mrs. Chatterley; "Much Ado about Nothing."—Explanation of the Art of Potich manie, by Mrs. Makepeace.—Lectures by George Buckland, Esq. on Songs and Song Writers.—Lecture by J. H. Pepper, Esq. and by Dr. Bachhoffner—New Dissolving Views of the Late Battles; and of Sinbad the Sailor. Splendid Moving Dioramas, depicting the Passage from Liverpool across the Atlantic, and embracing Views of the Cities in the United States Steam Gun, Cosmoramas, &c. &c.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

g to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice The Company also beg to ate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee aintenance of these essential requirements They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

or the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

e Works, Sutton, St. Helen's, January, 1855.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only ription of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and ROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS NECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

LOOKER'S PATENT VENTILATORS,

OR FACTORIES, WORKSHOPS, GREENHOUSES, STABLES, FARM BUILDINGS, &c. &c.

he Inventor solicits an inspection of the above at his POTTERY and DRAIN-PIPE WORKS, Kingston-Hill, where orders to xtent can now be received. The Ventilators are extremely simple in construction, and can be made of any size or shape, in Pottery l, or other Material. They admit fresh air without the slightest draught, can be regulated with perfect ease, and are not a third ost of any other arrangement for the purpose hitherto introduced.

Full particulars, with prices, forwarded to any part of the United Kingdom, on application to the Inventor, Patentee, and Manufacturer, BENJAMIN LOOKER, JUN. Kingston-on-Thames.

CHEAP, LIGHT, AND DURABLE ROOFING.

ROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and

pronounced efficient, and particularly applicable for warm climates.

st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage. -3rd. It effects a saving lf the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only 32 lbs. to the square of 100 feet, the cost of carriage is small.—6th Under slate, metal, or tiles, it is a most effective non-conductor ODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'S PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

and W. H. JACKSON beg to call the
e attention of Builders and the Trade to the LOW PRICES
ir PATENT PLATE GLASS, BRITISH PLATE, silvered
or glazing, of unrivalled quality and finish; ROUGH
TE, CROWN, SHEET, COLOURED, and ORNAMENTAL
SS, in every variety, of the best manufacture, at the lowest
. Designs and estimates furnished for ornamental windows,
r for house or church decoration —All applications for esti-
s and lists of prices to be made at their warehouse,
OXFORD-STREET.

By Royal Letters Patent.

HE COSMOPOLITAN GLASS

COMPANY, 256, Oxford street.

te Managers acquaint Architects, Builders, Glaziers, &c. that
Tariff for BRITISH PLATE, PATENT PLATE, CROWN
SHEET WINDOW GLASS, PARTRIDGE'S PATENT
GH PLATE, COLOURED and ORNAMENTAL GLASS,
be had, free, on application at the Company's Depôt.
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ches Primed and Glazed, 3d. per foot.
kinds of Agricultural, Horticultural, Architectural, Domes-
Scientific, and Ornamental Glass, at wholesale prices.

OOD FOREIGN SHEET-GLASS.—

Thirds, 40s.; common thirds, 26s.; fourths, 20s.; in cases feet each, average size 40 by 30. English or foreign ground 9½ per foot. Crown and sheet squares, in 100 feet boxes, from r 10 to 22 by 14, 9d. per foot. ½ inch rough British plate tiles, per dozen. Also, crown and sheet glass in crates; British and ch plate, fluted, and stained glass; glass slates, &c. Sheet pipe, white-lead, oils, turpentine, colours, &c.
FARMILOE and SON, 118, St. John-street, West Smithfield, London.

OREIGN and English Sheet, Crown, Plate,

Patent Plate, Patent Rolled, and Cast Glass of all sorts. d lead, Pipe, White-lead, Lead, Iron and Brass Pumps, Water- & Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and centines of the finest quality, at wholesale prices Lists on cation at TIOS. MILLINGTON'S Warehouse, 37, Bishopsstreet, London. Established more than 100 years.

UPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY

s having recently completed very considerable improvements additions to their works, take the opportunity of informing r friends that they will now be able to supply orders without ay; and respectfully invite the attention of the trade generally he low rates at which their now much esteemed manufacture d.

Lists of prices may be obtained on application at

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UCH PLATE-GLASS from ¼ to ½ in. thick, suitable for the

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autiful and highly-finished POLISHED PLATE GLASS, for rcoats and all superior glazing purposes, and for silvering.

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WHOLESALE BRITISH and FOREIGN

WINDOW GLASS WAREHOUSE, established upwards
rty Years —ROBERT METTAM begs to call the attention
Builders and the trade in general to his prices of British and
int Plate, Rough Plate, Crown, Sheet, and Ornamental Win-
Glass of every description. Good 15-oz. Sheet Glass, in crates,
½d. per foot; G G C Crown, 18 tables, 32s. per crate; Foreign
d Glass, in cases of 300 feet each, large sizes, 28s. 36s. and 40s.
ase; Ground ditto, 4d. per foot. Extra size sheet glass of all
tities for shop-fronts, &c.—Estimates and price-lists forwarded,
free, on application at the Warehouse, 30, Princes-street,
ester-square, London.

CRYSTAL WHITE GLASS, first, second,

and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate In cases of 200 and 300 feet each, at 4d. 6d and 8d. per foot; sizes varying from 24 by 16 to 40 by 28. Also Foreign Glass of various tints made expressly for GATHEDRAL and CHURCH purposes —G FARMILOE and SON, 118, St. John-street, West Smithfield, London.

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first, second, and third quality, in cases of 200 feet, at 4d 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

STAINED GLASS WORKS, 32, Allsop-

terrace, New-road, near Baker-street, London. — Messrs. GIBBS beg to announce to Architects and Builders, that they have removed their old-established Stained Glass Works, from No. 3, Harwood-place, Camden town, to the above address, where business will be continued the same as usual.—N B. Stained Glass Designs and Estimates given for Ecclesiastical and Domestic purposes.

ATHEA and WALKER, Manufacturing

Joiners, Cropper-lane, Westgate, Bradford, Yorkshire, Sash, Shop-front, and Door Makers to the trade, and for exportation — Price List and Estimates forwarded, on application, inclosing a postage-stamp

J. FISHER, 70, YORK-ROAD, LAMBETH,

formerly shop foreman to Messrs Lawrence. Shop-front Builder and Manufacturing Joiner. 1¼ and 1½ four-panel doors from 6s. each; 1½ sashes and frames from 7d. per foot; 2 inch ditto from 8d. Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c All kinds of joiners' work estimated for according to design -A List of Prices sent on application.

J. MILLS (late Shop Foreman to Messrs.

Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned.—Workshops, 1-0, Broadwall.

JAMES RHODES, No. 6, Macclesfield-

street North, City-road, London, Manufacturer of Sashes, and Frames, Doors, &c. and every description of House Joinery. Glass goods securely packed for the country. Prices on application at the Counting-house, as above.—N.B. This is the cheapest manufactory in London, and well deserving the attention of all engaged in building

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Architectural Stone and Wood Carver, 38, Homer-street, Hercules Buildings, Lambeth Altars, Reredos, Fonts, Pulpits, Screens, Cabinets, Chimney-pieces, Monuments, &c. Churches and other Buildings carved in Gothic, Elizabethan, and Italian styles

CHINA and OPAQUE PORCELAIN DOOR and BELL FURNITURE, SIGN-BOARD LETTERS, &c. &c.

Decorated in every style of ornamentation, can be promptly supplied from the extensive stock kept at THOMAS JOHN and JOS. MAYERS'S Warehouse, No. 2, Pancras-lane, Queen-street, London.

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Maker, Northampton —Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts apply as above.

LOANS from 25l. to 1,000l. upon approved

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CHARLES JAMES THICKE, Resident Secretary.

ALFRED ROSLING begs to inform his

Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

TIMBER and DEAL YARD.—A large

CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

ACORN TIMBER WHARF and SAW-

MILLS,

GRAND SURREY CANAL, OLD KENT-ROAD. — The extensive Waterside Premises Improved Sawing Machinery and Drying Warehouses, with a supply of all kinds of Foreign Wood direct from the importers, enable consumers to select from one of the largest stocks in London, at the lowest prices, for cash.

The Monthly Price Current forwarded on application — RICHARD MAY informs the building public that American Pine and Spruce are cheaper, and Baltic goods are scarce.

REDUCED PRICES.—EDWARD SIMMS

(late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1 inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Bills, Mouldings prepared by Machinery, Laths, &c —Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

FURTHER REDUCTION of PRICES.—

SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Pine Planks, 12 ft. 3 in. by 11 in.....	from 3s. 6d.	each.
Spruce Deals.....	" 2s. 9d.	"
Yellow ditto.....	" 4s. 0d.	"
Honduras Mahogany	" 0s. 6d.	per foot.
Spanish ditto.....	" 0s. 8d.	"
Oak Staves	" 2s. 0d.	each.

Prepared Flooring, Veneers, &c. at equally low prices.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

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J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will secure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 20, North Wharf-road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

STAINING DEAL TO IMITATE ALL

KINDS of WOODS it requires NO SIZING, and will stand the exposure to the weather. Price 8s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

VARNISH.—BEST OAK, 8s. 6d. per Gallon,

in quantities not less than two gallons, at CHEFTWIKK'S Lead, Glass, and Colour Warehouse, 31, Munster-street, Regent's-park. A large quantity of Paperhangings, cheap. 18s. per cwt. given for old lead.

PURE WATER, for manufacturing purposes,

may be obtained at very moderate cost by RANSOME'S FILTERED STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 20,000 gallons per diem, may be obtained on application at the depôt, 71, Baker-street, Portman-square, London.

TERRA-COTTA.—Statues, Statuettes,

Vases, Tazzae, Busts, Consoles, Bas-reliefs, &c. by J. M. BLASHFIELD, of Millwall, near the West-India Docks Station, and sold at No. 1, Pread-street, Paddington-basin, where prices and designs can be obtained. Examples of Terra-cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Mineral Court. The statues of Australia, Venus di Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra-cotta, so are the fountains at the Renaissance Court, and the roof of the Alhambra Court. The Pompeian roof is of Terra-cotta and red cement combined. Since the execution of these works, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

HONDURAS-WHARF, BANKSIDE,

LONDON.—Mr. WILLIAM WARD'S old established and extensive Fire Goods, Bricks, Tiles, &c. with the LEASES of the extensive WHARF and PREMISES, are TO BE DISPOSED OF on most advantageous terms, and as immediate possession can be given, the opportunity is a desirable one for any young man seeking a business, or an old firm wishing to extend their connection.—Further information may be obtained of Messrs. EVERSFIELD and HORNE, Auctioneers and Estate Agents, 40, Parliament-street, Westminster.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors. &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE AND HIRE,

SINGLE AND DOUBLE

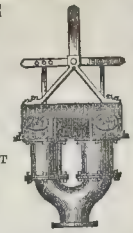
PUMPS, 3 in. to 15 in.

BARRELS to any depth,

AT SHORTEST NOTICE,

FOR HAND OR

STEAM POWER.

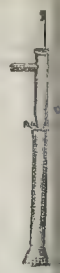


FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



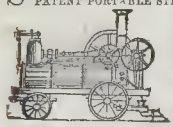
BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8 horse, 10 horse, 12-horse, 14-horse, 20-horse, and 30-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors and are ready for delivery at a day's notice; several may be seen at work at Messrs MEDWIN and HALL'S, Engineers, 92, Blackfriars road, Sole Patentees and only Manufacturers.

N.B Any of these Engines may be purchased.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c &c.



Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's place, Holland-street,
Southwark, London.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, breweries, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c adapted for any depth. Hydraulic rams for deep wells.

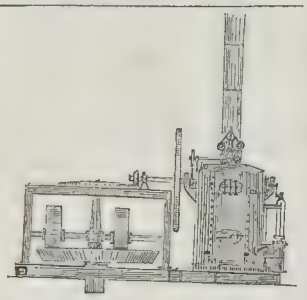
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 3os. per doz. painted.
Ditto ... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



A SAVING of TIME and MATERIALS, with Solidity of Building.

HENRY GODDIN'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving pugs, circular-saws, pumps, &c &c. Albert-street, Manchester.

"Railway Contractor's Office, Wellington, Salop.

"December 1, 1853.

"DEAR SIR,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the two rails on the Buntp Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and lifting our machinery up to the present time, during which period, although for weeks the fire has never been out, we have not stopped for repairs.

"We remain, dear sir, yours most faithfully,

"Mr Goddin" "DICKSON and McKENZIE."

FARM AND COTTAGE PUMPS

WARNER'S PATENT CAST IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump ... £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing ... 2 12 0
Larger sizes if required.

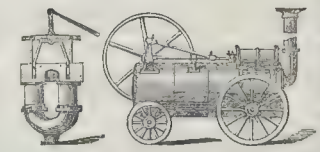
The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

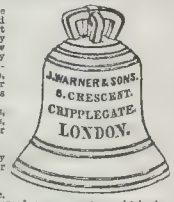
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.



Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 3/4 inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 5s. per square yard. Railway Arches made waterproof, 2s per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1838. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 35s per ton

Importer of Trinidad Asphalte

Shipping Depôt, Devon Haytor Wharf, Rotherhithe.

C. H. CLARK, Agent.

PAVING, 2s. 9d. per SQUARE YA... Basements, Foot-walks, Malt-houses, Corn Stores, E... Warehouses and every description of Pavement laid dow... above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, 8, FOLDNEAU'S BIT... PAVEMENT OFFICE, MONUMENT CHAMBERS, 24, ... STREET-HILL.

N.B Country Agents and Railway Engines sand Con... supplied with the best Bitumen for covering Bridges and ...

GUTTA PERCHA TUBING.—Ma... quiries having been made as to the durability of thi... the Gutta Percha Company have pleasure in drawing atte... the following letter received from Mr. C. Hacker, surveyo... Duke of Bedford:—"Office of Works, Woburn-park, Jan...

In answer to your inquiries respecting the gutta percha... for pump suctions, I find that the water has not affected ... least, although it will eat lead through in two years, ... adopted it largely, both on account of being cheaper th... much easier fixed and a more perfect job. Yours, &c. C. H...

N.B The Company's Illustrated Circulars, containing inst... to plumbers for joining tubes, lining tanks, &c. will be fo... on the receipt of three postage stamps. The Gutta Perc... pany, Patentees, 18, Wharf-road, City-road, London.

TO GUTTA PERCHA, COMPOSIT... and PAPIER MACHE WORKERS.—WANT... Purchaser, for a NEW METHOD of making MOULD... FRAMES, &c. by which process 50 to 1,000 feet per hour ... turned out by one hand. Address, P.P. to B. Tucks, 6a... Park-place, Dorset square

ONE THOUSAND BEDSTEAD... CHOOSE FROM.—HEAL & SON have just erec... tensive Premises, which enable them to keep upwards ... Thousand Bedsteads in stock. One Hundred and Fifty o... are fixed for inspection, comprising every variety of Brass, ... and Iron with Chintz and Damask Furnitures, complete, ... new warerooms also contain an assortment of BED ROO... NITURE, which comprises every requisite, from the ... Japanese Dwarf Servants' Rooms, to the newest and mo... ful designs in Mahogany and other Woods. The whole is w... of the soundest and best manufacture. HEAL & SONS ... TRATED CATALOGUE of BEDSTEADS and PRICED ... of BEDDING, sent free by post. HEAL & SON, 196, Tot... Court-road.

PAPER-HANGINGS, &c.—W. SH... and CO. Manufacturers and Importers. Large and s... magnificent stock in the world (half a million pieces), ... lower than any other house in the kingdom.—3 to 5, L... GATE Old Church-end, Manchester.

PAPER-HANGINGS.—The CHEAP... HOUSE in London for every description of P... HANGINGS is GROSSES WHOLESALE WAREHOU... GREAT PORTLAND-STREET, Oxford-street, where ... select from the LARGEST and MOST EXTENSIVE ... ment in the Kingdom, THIRTY PER CENT. CHE... than any other house in the trade. Builders, Dec... Dealers, and large consumers will do well to visit this ... lishment

COLLIER'S TERRO-METALLIC... RED EARTHENWARE SOCKET DRAIN P... BENDS, JUNCTIONS, and SYPHONS.—This ware, also ... all to be of the best manufacture, by the unparalleled qualit... bined with cheapness, will be found to meet the approba... consumers.—Sole Agents, L. B. PEARSE and Co. Great Nor... wharf, York-road, King's-cross.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-... MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEA...

E. and W. STURGE invite special atte... to their reduced LIST of PRICES of Drain... Junctions, Pans, Traps, &c.; also, to their Paving, Sink... Slate of the best quality, wholesale and retail. Country b... and others supplied with all information, on application to ... WHARF, Bridge-wharf, Gloucester.

N.B—The wharf is well situated for carriage by canal bo... to the railways, to which but a small charge for cartage is r... January, 1855

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVER... BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

IMPROVED YARD-SINK...

STRAIGHT PIPES IN TWO-FEET LENGTHS.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which. Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City-... Dock, Lead Bermondsey; Hanover's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden; New ... J. TURNER, 2, South Wharf, Paddington-street, Paddington; COLWELL, Brothers, 52, Hyde-street, Covent-garden, and at EDW... COCK'S, 24, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

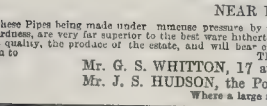
THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL.—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW .....J. A. Matheson, Hope-street.	WIGAN .....James Fairclough, King-street.
DUBLIN .....Robt. Lovely, Poolbeg-street.	KENDAL .....Robt. Thompson.
CORK .....J. and J. Harley	CARLISLE .....C. Armstrong, Lowther-street
WATERFORD....J. Sparrow and Co	CAERNARVON ....Jno. Jackson.
PRESTON .....J. Armistead, Hudson-street.	WHITEHAVEN...Hugh Todhunter.
CHORLEY .....Thomas Saville	COCKERMOUTH...John Bird
BLACKBURN .. W. Hopwood, Clayton-street.	GUERNSEY .....Guerin, Brothers.
	LONDONDERRY...W. and A. M'Elwee.
	LIMERICK .....W. Barden and Sons.

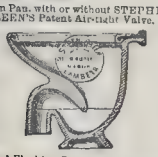
STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

Superior glazed Stoneware Pipes, Bends Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

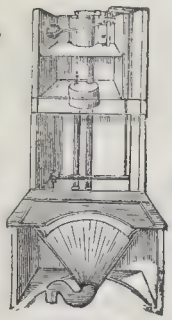
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN,—Sixteen of your closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGARD, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.

CLOSET-PANS AND TRAPS, 5s. 6d. EACH.

AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,

LAMBETH POTTERY, HIGH-STREET, LAMBETH,

Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works.

DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

GEORGE JENNINGS, Inventor of the IMPROVED DRAIN PIPES, EARTHENWARE, and OTHER CLOSETS, SLUICE VALVES, TIRE, and all kinds of CocKS, Shop-Shutter Sloe and Fastener, &c. 29, Great Charlotte street, Blackfriars-road. A book containing illustrations and particulars free on application, or by post, if two stamps are enclosed.

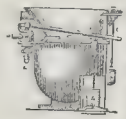
SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.



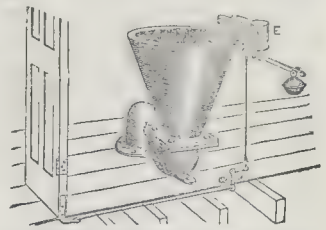
UNDERHAY'S PATENT REGULATOR CLOSETS, for constant or intermittent supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water of tank is used.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stool-valves are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of

Manufactured by
CHARLES BOTTEN and SON,
Brass Foundists, Crawford passage,
Clerkenwell, London.

LAMBERT'S DOOR-ACTION CLOSET.



100 of these Closets have been four years in use at Colney Hatch Asylum. They are also in use at St. Mary's Hospital, White County Asylum, &c. Price, complete with enamelled iron basin and trap, and 1½ inch patent valve-cock, lever, weights, &c. £1 18s.; Cottage Closet complete, with white wedgewood basin and trap, with 1 inch patent valve-cock, lever, and handle to pull up, 17s. 6d.

THOMAS LAMBERT and SON,
Patentees and Manufacturers, Short-street, New-cut, Lambeth.

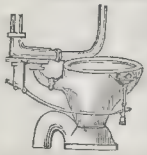
AGRICULTURAL LAND DRAIN-PIPES of all sizes, and in any quantities, may be obtained of L. B. PLARSE and CO. Great Northern Wharf, York-road, Kings-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers, Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cocks, valves, cranks, wire, lead traps, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S imported powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and descriptions of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

SALES BY AUCTION.

PUTNEY and at MERTON Extensive Sale of capital newly-built Villa Residences, finished and unfinished, near the Upper Richmond-road, and within three minutes' walk of the Putney Railway-station, and of some Shops and Dwelling-houses near the Cedars Estate, Putney-bridge, and also at Merton-street.

MR. MOXON will SELL by AUCTION, on FRIDAY, MAY 19th, in separate lots, by direction of the mortgagees, several valuable long LEASEHOLD ESTATES, held direct from the freeholder at low ground rents, comprising twenty very tasteful and well-planned villa residences, in the Upper-road and Clarendon-road, Putney, built in pairs, in a very superior manner, some not quite finished, and four pairs of small detached houses, also in Merton-street, two new and nearly-built shops, in College-street, Wandsworth-lane, near the Imperial Cedars Estate, both let, and producing a rental of 64l per annum; and four capital dwelling-houses and shops, very well situate, near the Double-gates, Merton.—Particulars may be obtained of Messrs. HARE and WHITFIELD, Solicitors, Mitre-court, Temple, and at Putney; of Mr. A. C. HOOK, Surveyor, The Great George-street, Westminster; and of the Auctioneer, 7, West Strand, near Charing-cross.

Sixty Acres of Beautiful Freehold Land, about 8 miles west of London, in Lots of about 2 or 3 acres each, worthy the attention of speculators, gentlemen desirous of erecting a country-house, or with sufficient land for enjoyment, or of Free-hold Land Societies

MR. MOXON will SELL by AUCTION, at the MART, on WEDNESDAY, MAY 30, at TWELVE, unless an acceptable offer be previously made by private contract, 60 acres, of very valuable MEADOW and PASTURE LAND, delightfully situate, all but half a mile from the railway station of Hanwell-park, and the residence of Sir G. Baillie, Bart., forming a part of the beautiful hills around Sir G. Baillie's estate to the south, and overlooking the elegant church, sloping towards the south, and overlooking the elegant church, the windings of the river Brent, and an extensive panorama of the windings of the river Brent, and an extensive panorama of the richest vale and wooded scenery. The land is remarkably well adapted for the erection of villa residences, having a very excellent frontage to the very beautiful road leading to Greenford, Perivale, and Harrow, but will be divided into only three lots. Each lot offers the most inviting spot, giving an opportunity to build a residence with sufficient land for parklike grounds.—Particulars and Plans may be obtained at the Auction Mart, of ALEXANDER BAILLIE, Esq., Bucnt. r, Red-rose street, and at Mr. MOXON'S Offices, 458, West Strand, Charing-cross.

LEWISHAM, KENT.—Plots of Building Ground, at nominal ground rents close to the Railway Station and Hatcham

MR. MOXON will SELL by AUCTION, at the GRANVILLE HOTEL, Lewisham, on TUESDAY, MAY 19, FIFTEEN PLOTS of valuable BUILDING GROUND, with frontages of 50 feet, situated on the high-road close to the Railway station at Lewisham; leases of which will be granted for eighty years, at almost nominal ground rents. Also, a quantity of STOCK and PLACE BRICKS, stacked on the land. Particulars and plan may be obtained at the Place of sale, at the Auction Mart, of Mr. WHITMORE, Solicitor, 36, Lincoln's-inn-fields; and of the Auctioneer, 458, West Strand

The Furnore Park Estate, comprising about Thirty-three Acres of Building Land, beautifully situate, at Woodside, between Norwood and Addington in the county of Surrey.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the MART, in the month of JUNE, in one parcel (a valuable FREEHOLD PROPERTY), land-tax redeemed, and free of rent tithe, consisting of about thirty-three acres of most eligible building land, commanding very extensive views of the distant and immediate picturesque scenery, the Crystal Palace, &c. It is approached from the high road from the Norwood Station, from which it is only a short distance. The principal roads (40 feet wide) have already been formed, extending the whole length of the estate, on which there is a very considerable frontage, but there is full scope for the formation of others to create frontages to a much greater extent. The farm cottages, which are of brick, will be included in the sale. There are two churches in the vicinity. A plentiful supply of spring water is already on the premises, and the pipes of the Thames Ditton Water Company are laid within 200 yards of the estate. In the hands of a building society or capitalist this property offers attractions of no ordinary character.

Can be viewed upon application at the cottage. Printed particulars, with plans annexed, may be obtained twenty-one days before the day of sale, which will be shortly announced, of previous to the day of sale, which will be shortly announced, of Messrs. DUNSFORD, JONES, and TILL, Solicitors; Messrs. BLAKE, Auctioneers; and at the Greyhound Inn, in Croydon; at the Jolly Sailor, the Windmill Inn, St. James's-road, Croydon; the Jolly Sailor Inn, and White Lion Inn, Norwood; the Crooked Billet, Penge; the Greyhound, Dulwich; and, in London, at the Place of Sale; of Mr. HARRIS, Globe Tavern, Hatton-garden; and of Messrs. WINSTANLEY, Land and Estate Agents, 10, Paternoster-row.

The Materials of Crowley house, fronting the Thames, East Greenwich, and of the Dwelling-house, Lodge, &c. in the Woolwich Old Road. Also, the Garden Trees and Shrub.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, on the PREMISES, on THURSDAY, 10th MAY, and following day, the BUILDING MATERIALS of the above house and premises, garden wall and greenhouses, comprising upwards of 100 lots of lead, in slabs, of sinks, gutters, pipes, &c.; sound brickwork, oak and fir timber, fir, ornamental, tiled roofs, stone paving, &c.; carved oak staircase, and pilasters with capitals &c.; a few pieces of tapestry, kitchen ranges, iron stoves, and other articles. To be viewed five days preceding and morning of sale, when catalogues may be had on the Premises; at the Kentish Mercury Office, Greenwich; Crown and Anchor, at Woolwich; Tower Castle, Deptford; and of Messrs. WINSTANLEY, Paternoster-row.

TO ENGINEERS, SAW-MILL PROPRIETORS, BUILDERS, AND OTHERS

MR. WM. DOUGLAS will SELL by AUCTION, in lots, without reserve, on the PREMISES, at Cambridge-road, St. Peter's-road, on TUESDAY, MAY 24th, at TWELVE o'clock, a 30-horse high-pressure bright beam-engine, nearly new (by Worssam), of the very best construction; 12-horse horizontal engine, with tubular boiler, 20 feet long by 5 feet diameter; two vertical deal sawing-frames; two planing-machines, with driving rigging; two circular saw tables; a moulding machine, with about 100 pairs of moulding-irons; two grindstones, with riggers; several hundred feet of driving-bands, riggers, shafting, &c.; a large wheel of circular and frame saws, planing and adze irons; also the extensive timber stages, with small travelling crane all the machinery is in first-rate condition, and may be seen at work up to the time of sale). Also, horses, two timber carriages, two carts, chaff-cutter, harness, &c. office desk and counting-house fittings, and numerous other effects. The lease of the valuable and commodious premises, with the extensive workshops, will be submitted to competition at the same time. Further particulars may be obtained of Mr. WM. DOUGLAS, 14, Leader-street, Belgrave-square; or of Messrs. WILKINSON and Co. Engineers, Hortulan-place, King's-road, Chelsea.

AT GARRAWAY'S COFFEE-HOUSE, Cornhill, FRIDAY, MAY 18, at FOUR, TIMBER, 300 loads, foreign and colonial; deals and battens, 50,000 pieces, ditto, ditto; with other wood goods.—H. FREEMAN, Broker, 3, Crooked-lane, London-bridge.

WEST PLUMSTEAD, NEAR WOOLWICH, KENT.

MR. G. HUDSON has received instructions from the Executors of the late Mr. Jacob James, to SELL by AUCTION, at the AUCTION MART, London, on WEDNESDAY, 8th of MAY, 1855, at TWELVE o'clock, in FIFTY LOTS of and in the THREE BUILDING LAND, situate and being in continuation of Prince's-rd. West Plumstead, near to the Royal Artillery Barracks and Woolwich-common, two acres of freehold land near, adapted for building, now let as a brickfield, at a rental of 40l. per annum; the late residence of Mr. Jacob James, with coachhouse, stabling, and large garden, in Prince's-road; twenty-two freehold houses, situate in Albert-street, Brook-hill-road, Shooter's-hill-road, and Prince's-road, West Plumstead, near Woolwich, producing an aggregate rental of 240l. per annum. May be viewed.—Particulars may be had at the Auction Mart, London; of Messrs. BUTTON and CROSLEY, Solicitors, 51, Lincoln's-inn; and of the Auctioneer, Brewer-street, Woolwich.

SALES BY AUCTION.

EAST-HILL WANDSWORTH, SURREY. Valuable and Sound Building Materials of a Family Residence, situate near the French Horn fronting Clapham common, close to Railway and Water Carriage.

MESSRS. CRAWTER will SELL by AUCTION, on the PREMISES, on THURSDAY, MAY 10, 1855, at TEN o'clock precisely, on account of the number of the Family, the very valuable STOCK BRICKS, a quantity of slates and tiles, prime oak and fir timber, in rafters, joists, girder, and quartering; capital moulded mantels and dados, marble chimney-pieces, excellent glazed sashes, hearing and sliding shutters, doors, partitions, gas pipes, burners, and sundry other fittings; sound floor boards, stone paving, good lead, internal fittings; sound floor boards, stone paving, good lead, iron gutters, flues, pipes, firegrate and other pumps, grates, stoves, gutters, flues, pipes, firegrate and other pumps, grates, stoves, ranges, copper iron fence hurdles, conservatory, and a variety of other useful materials and fittings up.—May be viewed four days previous and the morning of sale. Catalogues may be had at the premises and the principal Inns, viz., Prince's Head, Plough Inn, Spread Eagle and French Horn, Wandsworth; Plough Inn, Clapham; Swan Inn, Battersea-bridge; White Lion, Putney; Clapham; Swan Inn, Battersea-bridge; White Lion, Putney; Castle and Mitre Griffin, Kingston; Castle and Mitre, Mitcham; Castle and Mitre Griffin, Kingston; Castle and Mitre, Mitcham; Castle and Mitre, Tooting; of Mr. WM. MEARES, Builder, &c. Wandsworth; and of Messrs. CRAWTER, 5, Bedford-row, and Cobham, Surrey.

MARBLE.—To Sculptors, Masons, Builders, and Others

MESSRS. THOMPSON and HOLMES will OFFER by PUBLIC AUCTION, on MONDAY, the 7th day of MAY next, at TWELVE for ONE o'clock, at their WHARF, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge, about 600 TONS of MARBLE, consisting of Statuary, Sicilian, Veined, Black and Gold, Dove, Rance, Egyptian, Red and St. Anne's and Irish Black, of the finest quality in slabs. Also, about 400 superficial feet of English and Foreign Slate.—May be viewed, and Catalogues had at the Sale. Catalogues and further particulars had of the Brokers, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge.

New Building Materials.—Surbiton-hill, Kingston

MR. JOHN DAWSON will SELL by AUCTION, on the HERRYLANDS ESTATE, by order of the Trustees, on TUESDAY, MAY 8, THIRTY-FOUR STACKS of SQUARE BALTIC TIMBER, a large number of prepared doors, sashes staircases, and other joiners' work, prepared for the unfinished carcasses; also three handsome statuary marble chimney pieces, several lots of stock bricks, mortar, fine stuff, small lead pipes, and various other things. To be viewed on Monday, the 7th inst.—Catalogues on the Premises; and at Mr. John Dawson's Auction and Land Agency Offices, Kingston-on-Thames, and 49, Pall mall

BATTERSEA NEW PARK. Nine Leasehold Residences.

MR. W. F. HAMMOND is instructed to SELL by AUCTION, at GARRAWAY'S, on FRIDAY, JUNE 1, at TWELVE for ONE, in nine lots, the above valuable and improving PROPERTY, situate and being Nos. 5, 6, 7, 8, 9 and 10, having been sold 11, 12, 13, and 14, Eden-terrace, in the Bridge-road, and adjoining the New Park, held for a term of eighty years from Michaelmas, 1852, at a ground-rent of 8l. per annum. A plan and elevation of the property can be seen, and further particulars, with conditions of sale, to be had of W. F. Sayers, Esq. Solicitor, 3, Lincoln's-inn-fields; at Garraway's; and at the Auctioneer's Offices, 3, Carey-street, Lincoln's-inn.

BARKING, ESSEX.—Freehold Dwelling-house and Business Premises.

MR. W. F. HAMMOND is instructed by peremptory order of the proprietor to SELL by AUCTION, at GARRAWAY'S, on FRIDAY, JUNE 1, at TWELVE for ONE, in one lot, a valuable FREEHOLD DWELLING-HOUSE and CHINA and GLASS SHOP, also Two Warehouses adjoining, situate in Heath-street, Barking, near the town quay. A plan and elevation of the property can be seen, and further particulars had of Messrs. Sole and Son, Solicitors, 64, Mark-lane; at Garraway's; and 1 at the Auctioneer's Offices, 3, Carey-street, Lincoln's-inn.

OAK TIMBER. 92 Trees lying on Reams Farm, near Stock's green, and 1 ditto on Hollanden Farm, Hildenborough, Tonbridge, for SALE by AUCTION.

MESSRS. CHARLTON, at the ANGEL INN, Tonbridge, on FRIDAY, the 25th of MAY, 1855, at THREE for FOUR o'clock, in lots varying from five to thirteen trees. Particulars and conditions of Sale of the Property of the Tenants at the respective Farms; of Mr. WHEATLEY LEIGH; or of Messrs. CHARLTON, Auctioneers, Surveyors, and Estate Agents, Tonbridge

To Potters, Brick-makers, Earthenware Dealers, Gardeners, Contractors, and others.—South-Ockendon Potteries, Marden, Kent, one mile from the railway station

MESSRS. CHARLTON have received instructions from the Assignees of Mr. Henry Bowra, a bankrupt, to SELL by AUCTION, on the PREMISES, Mount Pleasant, Marden, on TUESDAY and WEDNESDAY, the 15th and 16th of MAY, 1855, commencing at TEN for ELEVEN o'clock, the whole of the STOCK-IN-TRADE, tools, moulds, cart, pipe and brick machines, spinning-wheels, lathes, benches, mills, barrows, planks, and effects used in the above extensive works, also a large quantity of pottery, sacket and butt pipes varying from 4 to 12 in. bes in diameter, flower, kail and chimney pots, closet pans, filterers, mugs, jugs, pots, bottles, crocks, tenpens, and milk pans, dishes, bowls, pipkins, bread crocks, and various pottery ware, 15,000 drain pipes, 20,000 plain tiles, quantity of building materials, sash-frames, doors, &c. Chaise-cart, timber, patent cart, dung-cart, dill's butch, liquid manure barrel, hop sidget, roll, harrows, hop-bins, oast to tile, chain and chill harnesses, patent chaff-cutting box, 5,000 old hop-poles, quantity of new ditto, four poles and face to about two tons of hay, quantity of dung in mixen, garden forcing frames, 150 gallons of cider, 15 dozen ditto in bottle, and various effects, which may be viewed two days previous to the sale, and catalogues (at ten days previously) on the Premises; principal Inns at Marden; Star, Maidstone; Sussex Hotel, Tunbridge Wells; Crown, Tonbridge and Sevenoaks; or of Messrs. CHARLTON, Auctioneers, Surveyors, and Valuers, Tonbridge.

TO BUILDERS, PIANOFORTE MAKERS, COACH BUILDERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 43, Union-street, Somers-town, on MONDAY, MAY 21, at ELEVEN for TWELVE o'clock, on account of the number of lots, 2,000 yellow, white, and pine PLANKS, DEALS, and BATTENS; 10,000 ft. wide pine and pat. boards; 1,000 pieces of prepared pine, mahogany, and rosewood; mahogany, in hand-rail planks, and boards; 25 four-panel doors, new green-house, 15 feet long, dry cut stuff, scaff.ld poles, uncleared logs, &c. Auction Offices, Cardington-street, Hampstead-road, near the Euston Station.

TO BUILDERS AND OTHERS

BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON-ROAD, Belmont, Lee, Kent, close by the church. This is the most attractive, picturesque, and respectable locality on any side of London, from which it is by 10 minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men.—For particulars, apply to Messrs. J. and C. W. TODD, Milner-street, Brompton; or at their Office in Church-lane, Lee; or to Messrs. NELSON and INNES, 8, Whitehall; or to Mr. TYERMAN, Wellington-chambers, Strand.

TO ENGINEERS.—Light, eligible, and commodious OFFICES TO BE LET, with Furniture.—Apply to J. W. 7, Duke-street, Adelphi.

BUILDING LAND TO BE LET in the Gloucester-road and Princes-terrace, Regent's-park, and on the foot of Primrose-hill; a first-rate situation for third-rate eight-roomed houses, which are much in request in this locality for purchase or letting. The ground-rent very low. Term, ninety-eight years. Some money will be advanced if required. Inquire of F. ELLIART, No 9, Harrington-square.

CAMDEN TOWN CEMETERY BUILDING ESTATE.—TO BE LET on Building Leases for nine or twelve years, very eligible SITES upon the above estate, having good frontages into Camden street, Pratt-street, and Bayham street. There is a great demand for shops and shops of the first rate in this locality which is enhanced by its near proximity to the North-Western and North London railway stations, and the Hampstead road.—Plans may be had and particulars obtained by application to H. E. KENDALL, Esq. Architect, 17, Suffolk-street, Pall mall East; or to JOHN DANGERFIELD, Esq. Solicitor, 24, Craven-street, Charing-cross.

CROWN LANDS, WINDSOR.—By order of the Commissioner in charge of Her Majesty's Land Revenue. TO BE LET, for the erection of villas and lose rows of houses, BUILDING LAND, eligibly situate in Windsor near the Great-park, having frontage to new roads, with ample provision for good drainage. For particulars apply to Mr JOHN CLUTTON, 8, Whitehall-place, Westminster.

£55 RENT MANUFACTURING PREMISES to LET at Uxbridge.—These premises were built for engineering purposes, and are well lighted. The shop is about 80 feet long by 30 feet wide, with a large yard in front, and an eight-roomed dwelling-house adjoining. The railway station is behind, and the canal from Birmingham to London passes within about 300 yards, presenting an excellent opening for an engineer or agricultural implement maker. For further particulars, apply to Messrs. RICHES, WOODBRIDGE, and SON, Uxbridge; or to the Proprietor, Mr JOHN GORDON, 5, Railway place, Fenchurch-street.

BUCKINGHAM HOUSE, PALL-MALL, TO LET. The tenantry of the Carlton Club, will terminate at Midsummer next. Parties wishing to purchase or rent, are requested to apply to BANNING and SON, 4, James-street; or to RICKARDS and SON, 3, Bloomfield-terrace, Broad street, City; or the Secretary of the Union Assurance Company, 81, Cornhill.

FREEHOLD BUILDING LAND TO LET, abutting on the Barking station of the Tilbury line, twenty-minutes from Fenchurch-street, where moderate-sized houses are greatly in demand, and a first-class public-house urgently wanted for the accommodation of the town and neighbourhood.—Apply to H. WILLIAMS, Esq Architect, 54, Great Ormond-street, Queen-square.

CASSLAND ESTATE, South Hackney.—FREEHOLD LAND TO BE LET, on Build ng Leases, in Victoria-park-road, Gascoyne-road, Kenton-road, &c for second, third, or fourth rate houses. The roads are well formed and sewered.—For particulars apply to Mr. WALES, at the Estate Office, Cassland-road, or at 8 Great St. Helen's, City.

TO BUILDERS.—Three Plots of FREEHOLD LAND, opposite the Park Gates, at Reigate 80 feet frontage each, TO BE LET, on lease, at 4l. per plot, well adapted for cottage villas of the value of 300l. each. Thirty-one plots on the Camden Hill Estate (close to the Crystal Palace), for semi-detached villas of the like value, 25 feet frontage, at ground rents of 7l. 7s.; roads and sewers now being formed. Also eight front plots for shops on the same estate, of the value of 550l. each.—Apply to Mr. EDWARDS, 19, Great Carter-lane, Doctors' Commons

RIVER-SIDE PREMISES TO BE LET, with use of 30 and 10 ton cranes and drawing dock.—Apply at Lett's Wharf, Waterloo-bridge

TO BUILDERS or OTHERS desiring RESIDENCES TO BE LET, on building lease, or sold together or separately, the CARCASES of two pairs of semi-detached VILLAS, Nos. 9, 10, 11, and 12, Clarence Villas, within the pleasure ground in the village of the Battel Station of the South-Eastern Railway, very eligibly situate, and commanding beautiful views of Battel Abbey, park, and extensive scenery. Other building sites to be had. For particulars, apply to Messrs. ELLMAN and WHITMARSH, Solicitors, Battel.

BUILDING LAND TO BE LET.—Liberal advances made to builders. Also, several Sums of Money to be Lent, as mortgage upon good security. Apply to Mr. FATMAN, Surveyor, 4, Serjeant's-inn, Fleet-street.

TO BE LET, large and convenient PREMISES, situate in Baker-street, Bazinge Wells-road, containing yard, workshops, stabling, sheds, sand-pit, &c. together or separately, very handy and every convenience for a manufacturer or others requiring roomy premises.

TO BE LET or SOLD, several Plots of FREEHOLD BUILDING LAND, extending upwards of 1,400 feet frontage, eligibly situated at Peckham, Surrey, on the hill adjoining the Rye, with a commanding view of the surrounding country, and within sight of the Crystal Palace. The same to be Let on Building Lease, or Sold, together or separate, on most reasonable terms.—Plans of operation may be seen, and further particulars obtained at the King's Arms Tavern, Peckham Rye; of JOHN WELLS, Esq. 23, Percy-street, Bedford-square; or of Mr. S. SPONG, 3, Grove-street, Camden-town.

FREEHOLD BUILDING GROUND, at Old Ford, near the Victoria Park, TO LET, with liberal Cash advances, on Lease, in Lesson-road, and well suited for shops. Property in this rapidly-improving locality, let and sell as soon as completed. Omnibuses run from the Bank continually.—For further particulars apply to Mr. CLARKSON, Surveyor, 18, Penton-street, Pentonville.

TWO PLOTS of FREEHOLD GROUND, for Public Houses, TO LET, with liberal Advances, both in rapidly-improving neighbourhoods, and being portions especially adapted for Public Houses on large estates, and where building will rapidly progress—one near Camberwell, and the other near Victoria-park.—For further particulars apply to Mr. GEORGE CLARKSON, Surveyor, 18, Penton-street, Pentonville.

VALUABLE BUILDING SITE TO BE LET on LEASE, situate in the High-street, Camberwell, with two frontages, making together about 200 feet, having large quantity of old materials in buildings on the ground. For particulars, apply to W. C. REED, 64, Old Broad-street, City, where a plan of the site may be seen.

73, GREAT RUSSELL-STREET, corner of Bloomsbury-square.—TWO excellent light and roomy OFFICES TO BE LET, well calculated for a surveyor, or any other profession, the situation being very central.—Address or apply to Mr. DRIVER, 73, Great Russell-street, Bloomsbury

SOMERSET.—TO BE LET, with immediate possession, a remarkably compact and convenient DWELLING-HOUSE, recently fitted throughout, with all suitable offices and excellent garden and shrubbery, situated in the midst of the beautiful scenery of Stourhead, within easy distances of the towns of Wincanton, Mere, and Bruton, at which last place there will be a station of the Wilts, Somerset, and Weymouth Railway.—Further particulars may be obtained of JOHN SWAYNE, Esq. Wilton, near Salisbury; or FM COOPER, Sheriff, Wincanton.

BUILDING SPECULATION.—TO BE SOLD, all the INTEREST under a most advantageous BUILDING AGREEMENT for valuable BUILDING LAND near London, partly Let, and by which a large improved Ground-rent can be realised.—Apply by letter to Mr. BOND, 188, Strand.

LONDON: Printed by CHARLES WYMAN, of 33, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing office of COX (late) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields, and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, May 5, 1855.

The Builder.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square.—The Exhibition of the Royal Academy IS NOW OPEN.—Admission from Eight to Seven o'clock, one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A. Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at the Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s.
JAMES FAHEY, Secretary.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, MAY 18, Mr. CHAMBERLAIN will read a Paper on the subject of "Architectural Diplomas."
The Class of Design will meet on MAY 26; subject for Sketch, "A Lamp-post."
ARTHUR CATES, } Hon.
Lyon's-Inn-Hall, Strand. T. W GOUDMAN, } Secs.

COMPETITIONS.

LINCOLN CEMETERY.—TO ARCHITECTS, SURVEYORS, LANDSCAPE GARDENERS, and OTHERS.—The Burial Board offer the following PREMIUMS, namely:—

For the BEST SET of PLANS for an EPISCOPAL CHAPEL and a DISSENTERS' CHAPEL, in separate and distinct buildings; a LODGE, with a Waiting-room attached; a HOUSE for the RECEPTION of the DEAD; and BOUNDARY FENCES, accompanied by estimates £10
For the second best ditto 5
For the best Plan and Estimate for LAYING OUT and ORNAMENTING the GROUND 10
For the second best ditto 5

At a monthly meeting of the Burial Board, held the 8th day of May, instant, it was ordered—That the costs of the chapels are not to exceed 5,0*l*. each, and that the costs of the lodge and other buildings be left to the discretion of the architects, having due regard to economy. A lithographed plan of the site may be had on application at our Office, on and after the 14th instant.—For general instructions and conditions, see previous advertisement in this paper of the 5th of May, instant.

WM. ANDREW, } Clerks to the
THURSTON G. DALE, } Burial Board.

Lincoln, 10th May, 1855.

BOROUGH of WARRINGTON.—TO ARCHITECTS.—The Corporation of Warrington are desirous of obtaining PLANS, ELEVATIONS, SECTIONS, and GENERAL SPECIFICATION, for the ERECTION of a MARKET HALL and MARKET SHED, at a cost not exceeding 5,000*l.* and will give a PREMIUM of 25*l.* to the party whose design shall, in the opinion of the Council, be considered the best for the purpose required. Lithographic plans of the site, with printed suggestions prepared by the Market Committee, may be had postage free, on payment of 5*s.* and any further information obtained from Mr. B. P. COXON, the Borough Surveyor. The plans for which the premium is given will be considered the property of the Corporation. The parties furnishing the plans are required to guarantee the execution of the work within the above limits of cost; and to accompany their designs with Tenders for the furnishing of working drawings and specifications. All plans, &c. must be sent in, addressed to the Borough Surveyor, under cover, sealed, and endorsed "Designs for Warrington Market Hall," on or before the 8th of JUNE. Each design must be marked with a motto, and a sealed letter containing a similar motto, and the name and address of the Author must accompany the same. By order of the Corporation.

JOHN FITCHETT MARSH, Town Clerk.

Warrington, 30th April, 1855.

COMPETITIONS.

TO ARCHITECTS.

NEW CORN-EXCHANGE and covered MARKETS, at GREAT GRIMSBY.—Notice is hereby given, that the Council of the Borough of Grimsby, are prepared to receive DESIGNS and ESTIMATES for a new CORN-EXCHANGE and COVERED MARKETS, intended to be erected upon the site of property near the present Market-place, and will give a premium of 25*l.* to the person whose designs and estimates ranging from three to four thousand pounds, shall be approved of. The designs, estimates, &c. receiving the premium, will belong to the corporation, and the successful competitor will not be employed as the architect to carry out the works. A sketch of the site, with further particulars, may be obtained on application to the Town Clerk. The designs, &c to be sent in under seal without the author's name, but with a motto, before noon, on the 14th day of MAY next, and addressed to the Town Clerk, Great Grimsby, marked "Corn-Exchange and covered Markets." A sealed letter, containing the author's name and address, must accompany each plan, which will be opened after the selection has been made.—By order.

GEORGE BARB, Town Clerk.

Town Clerk's Office, Great Grimsby, April 7, 1855.

CONTRACTS.

CITY of YORK.—INTERCEPTING SEWERS for the FOSS DISTRICT.—To CONTRACTORS for SEWERS and PUBLIC WORKS.—The Sanitary Improvement Act Committee are desirous of receiving TENDERS for the construction of INTERCEPTING SEWERS for the FOSS DISTRICT, the whole being executed with Radiating Bricks and Blue Lias, or Hydraulic Lime, of the following sizes:—

CONTRACT No. 1.

567 yards 9-inch Brick Sewer, 54 inches diameter.
503 do. do. do. 48 do.
439 do. do. do. 15 do.

FISHERGATE DISTRICT.

85 yards 6-inch Egg-shaped Sewer, 30 in. by 21 in.
50 do. 4 do. do. 24 in. by 16 in.
275 do. do. do. 20 in. by 16 in.
386 do. do. do. 18 in. by 15 in.
80 do. of Drainage Pipes, 12 inches diameter.

CONTRACT No. 2.

340 yards 9-inch Brick Sewer, 36 in. by 24 in.
55 do. do. do. 20 inches diameter.
420 do. do. do. 27 do.
136 do. do. do. 24 do.
400 do. do. do. 18 in. by 15 in.
145 do. of Drainage Pipes, 12 inches diameter.

The above lengths are exclusive of vertical flues, inspecting shafts, junctions for branch sewers, connexions with existing drains, and other works. A copy of the specification, ten lithographed drawings, form of Tender, and schedule for prices, may be obtained at the City Surveyor's Offices, upon payment of 1*l.* from the 9th to the 21st MAY next, between the hours of TEN a.m. and THREE p.m. each day, Sundays excepted. Sealed Tenders, endorsed "Tender for Sewers," are to be delivered at the Surveyor's Offices before HALF-PAST NINE in the Forenoon of TUESDAY, the 22nd of MAY. Security will be required for the due performance of the work, and no pledge is given that the lowest or any Tender will be accepted.—By order,

THOS PICKERSGILL, City Surveyor.

Guildhall Offices, York, April 24, 1855.

TOXTETH-PARK, LIVERPOOL, GENERAL CEMETERY. To BUILDERS.—Persons willing to CONTRACT with the Burial Board for the ERECTION and COMPLETION of TWO CHAPELS, TWO LODGES, ENTRANCE GATES, FENCE WALLS, LAYING OUT, DRAINING, FORMATION of ROADS, and other works required in the new Cemetery for Toxteth-park, may inspect the plans and specifications for the same, from SATURDAY, the 5th, to SATURDAY, the 19th day of MAY next, inclusive, at the Offices of the Architect, Mr. THOMAS D. BARRY, 47, Bedford-street North, Liverpool, and 15, Lincoln's-inn-fields, London, where bills of quantities may be obtained on payment of two guinea. Tenders, sealed and endorsed "Burial Ground Tender," must be delivered to me before TWELVE o'clock on SATURDAY, the 19th day of MAY next. The Board do not bind themselves to accept the lowest or any other Tender.

By order of the Board,

T. ROWLAND, Clerk.

Public Office, Toxteth-park, Liverpool, April 26, 1855.

TO ARCHITECTS AND OTHERS.

THE BURIAL BOARD for the Parish of Camberwell are desirous of receiving Plans, Designs, and Estimates, comprising Gothic Plans, Sections, and Elevations, for ERECTING TWO CHAPELS, a LODGE, LAYING OUT, DRAINING, PLANTING, and ENCLOSING a PARISH CEMETERY, with ENTRANCE GATE (railing in front). A separate and fully detailed estimate of the costs must be furnished. The land contains about 32 acres. The party or parties whose plans are approved, will, at the option of the Board, either have the superintendence of the Works, or be paid a sum not exceeding 3*l.* per cent. to be at the discretion of the Board. The Board, however, reserve the right to adopt the plans wholly, or in part; and they do not pledge themselves to accept any of the plans or designs which, with the estimates, must be delivered on or before the 11th JUNE next at FIVE o'clock in the afternoon, at the Vestry Clerk's Office, Camberwell. Each plan is to be distinguished by a motto, and a sealed letter similarly endorsed, containing the competitor's name and address, is to be sent therewith. The plan of the land may be seen, the limit of the expenditure, and further information obtained, at my Office, Vestry-hall, Camberwell; or at 37, Queen-street, Cheapside.

GEO. W. MARSDEN, Clerk to the Board.

TO BUILDERS AND OTHERS.

PERSONS willing to CONTRACT for the ERECTION of a PARSONAGE-HOUSE and OFFICES, at Wisbech St Mary, are requested to deliver Tenders for the same at my Office, in the town of Wisbech (where the drawings and specification may be seen), on or before SATURDAY, the 9th day of MAY next, at TWELVE o'clock at noon. The Incumbent does not pledge himself to accept the lowest or any Tender, unless approved.

WM. ADAMS, Wisbech.

CONTRACTS.

NOTICE to BUILDERS.—Such persons as may be desirous of CONTRACTING with the Hon. Board of Ordnance for CONSTRUCTING TEMPORARY BARRACKS for 5,000 MEN at SHORNCLIFF, are requested to send in sealed Tenders, addressed to the Secretary to the Board of Ordnance, Office of Ordnance, Pall Mall, on or before WEDNESDAY, 9th MAY, 1855. The words "Tender for Constructing Temporary Barracks for 5,000 Men at Shorncliff" to be written on one corner of the envelope. Specifications of the above work, with the form of Tender, and all other information relating thereto, may be obtained at the Royal Engineer Office at Hythe, any day Sundays excepted) from MONDAY, 21st MAY, 1855, till MONDAY, 28th MAY, inst., between the hours of Ten and Four o'clock.

N.B.—The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders; and no offer will be accepted but from such person or persons as may be considered competent to perform the work.

Royal Engineer Office, Hythe, 1st May, 1855.

ORDNANCE CONTRACTS for BUILDER'S WORK.—The principal officers of her Majesty's Ordnance do hereby give notice, that they will receive TENDERS from such persons as may be desirous of CONTRACTING for the PERFORMANCE of CARPENTER'S, MASON'S, PLASTERER'S, SLATER'S, and SMITH'S WORK, at BIRMINGHAM, Slater's work at Coventry; Carpenter's, Slater's, and Smith's work at Northampton. All in the Midland and South Wales district, from the present period until the 1st APRIL, 1857. Schedules and particulars of the contracts may be obtained at the Office of the Commanding Royal Engineer, Birmingham; or at the Offices of the respective Barrack Masters, any day (Sundays excepted), before the 18th MAY, 1855.—The Tenders to be delivered at the Ordnance Office in London, on or before the 21st MAY, 1855, addressed and endorsed agreeably to the directions prefixed to the printed schedules. A deposit of 5*l.* will be taken from each person applying for schedules, and the person whose Tender may be accepted will be required to provide eligible securities for the due performance of the contract.

Commanding Royal Engineer's Office, 90, Belmont-row, Birmingham, May 7, 1855.

DOVER GAS WORKS EXTENSION.—The Directors of the Dover Gas Company are prepared to receive TENDERS for the WORK required to be done at their New Station, St. James's-street, Dover, under the following Contracts.

CONTRACT No. 1, for BRICK TANK.—For the construction of a brick gasholder tank, 61 ft. 6 in. diameter by 20 ft. 3 in. deep. Plans and specifications to be seen at the Gas Office, in Castle-street, Dover.

CONTRACT No. 2, GASHOLDER.—For a gasholder 60 ft. diameter by 20 ft. deep. Plans and specifications to be seen at the office of Messrs. Stevens and Son, Gas Engineers, Darlington Works, Southwark Bridge road, London.

CONTRACT No. 3, for CASTINGS, &c.—For the castings, wrought-iron girders, bolts, &c. for 12 columns, guide-pintles, guide-rollers, 9 in. inlet, and 18 in. outlet, syphons, &c. Plans and specifications to be seen at the office of Messrs. Stevens and Son, Gas Engineers, Darlington Works, Southwark. Tenders for the above are to be sent on or before the 19th MAY, to the Secretary, R. H. JONES, Esq. Gas Office, 32, Castle-street, Dover, endorsed respectively, "Tender No. 1, for Brick Tank. Tender No. 2, for Gasholder; and Tender No. 3, for Castings, &c. The Directors do not in any case bind themselves to accept the lowest or any Tender.

TO BRICKMAKERS.—TENDERS are required for the MAKING of FIVE MILLIONS of BRICKS, at CATERHAM, near Croydon, Surrey.—Tenders to be sent to Mr. A. SMITH, Caterham, Croydon, Surrey.

VALUABLE BUILDING MATERIALS. EARL'S COURT, TUNBRIDGE WELLS.—To BUILDERS and OTHERS.—TENDERS for the purchase of the whole or portions of the BUILDING MATERIALS on the above Premises will be received at the Office of Mr. N. E. STEVENS, Architect, High-street, Tunbridge Wells, at TEN o'clock on WEDNESDAY, the 23rd day of MAY, 1855. The materials comprise bricks, tiles, ornamental and plain tiles, slates, sheet lead and lead pipe, timber, floor-boards, doors, sashes, and shutters, wood and iron fencing, large greenhouse, stable fittings, stairs, and other ironmongery, grates, cupboards, and other fixtures, stone paving, &c. &c. Specifications of the manner in which the materials will be divided in the event of there being any in portions, together with the time of payment, removal, &c. may be seen at the Office as above, or will be forwarded to parties applying for the same on the receipt of two postage stamps. Admission to the premises may be obtained from TUESDAY, the 15th, to TUESDAY, the 22nd of MAY, inclusive, between the hours of NINE a.m. and TWO p.m. on application at the Office of the Architect for an order.

May 9th, 1855.

HASLINGDEN and RAWTENSTALL WATERWORKS.—The Directors of the Haslingden and Rawtenstall Waterworks Company are ready to receive TENDERS for the CONSTRUCTION of a RESERVOIR, Conduit, Filter Beds, Equalising Tank, Diversion of Road, Fences, Cottages, and other Works, at Haslingden, Rawtenstall, Rawtenstall and Stanley, in Lancashire. Specifications and working drawings may be seen, and printed bills of quantities obtained, on application at the Office of Mr. WILLIAM HARPER, Solicitor, Burnley, Lancashire, and of the Engineer, THOMAS HAWKSLEY, Esq. M.I.C.E. Great George-street, Westminster, London, on and after MONDAY, the 14th inst., upon payment of 2*l.* 2*s.* each. The lowest Tender will not necessarily be accepted, and the Directors reserve to themselves the power of rejecting any Tender, a deposit of 5 per cent. on the amount of Tenders accepted will be required. Further information may be obtained upon application to Mr. WILLIAM HARPER, Solicitor, Burnley, Lancashire, or to Mr. THOMAS WOODCOCK, Solicitor, Haslingden, Lancashire, or to Messrs. DAVIS HAWKSLEY, Esq. C.E. 39, Great George-street, Westminster, London.

By order of the Directors,

WM. HARPER,
THOS. WOODCOCK

David Smith, Secretary.

[For remainder of Contracts see next page.

CONTRACTS.

ST. GILES-IN-THE-FIELDS and ST. GEORGE, BLOOMSBURY.—To GAS-LIGHT COMPANIES, STONE MERCHANTS, CARTAGE CONTRACTORS, SCAVENGERS, and CONTRACTORS for CARTAGE.—Notice is hereby given, that the Committee for Paving, Cleansing, and Lighting the respective parishes will meet at the Vestry-room for St. Giles-in-the-Fields, on THURSDAY, the 17th day of MAY, next, at TEN o'clock, the following proposals for such of the Contracts for which each Gas Company or Contractor as may be willing to CONTRACT for one, two, or three years, from Midsummer next, for LIGHTING the public lamps of these parishes, and also for lighting the out-lying districts of these parishes in Holborn, and the parts south and east of Holborn, with gas, instead of continuing on the Tenders at the prices at per annum for each burning burner and at per annum for each double or single burner; also to paint the standards, brackets, and lanterns, and to keep the same, together with all necessary repairs, windows, and materials, at a certain price for each lamp.

And also to receive proposals from such persons or persons as may be willing to contract for all or any of the following sorts of stone, viz. for supplying the Commissioners with the best new Scotch Aberdeen, Mansfield, and other granite of return blocks and Cornish, Guernsey, Portland, Bath, best Purbeck, Kentish rag, and other such paving, at per yard superficial; and also the best to be kept in repair. Mountjoy-street and Bainbridge-street, Ashby-street, and to the several Rise and Fall Lamps in the Vestry-room of the parish, at the Clerk's Office, Bloomsbury-square; or at the Clerk's Office, Hart-street, Bloomsbury-square; or of Mr. Archibald Wilson, Surveyor to the Committee, at the Stone Yard, Tichborne-street, Haymarket, and at the Paving-yard, Thames-yard, Millbank, Westminster.

Specifications to be delivered to such persons as may require them, and Forms of Tenders to be had at the Vestry-room aforesaid, at such time and days as may be directed by the Committee without charge.

Each Tender to express the sum per annum for which the party tendering will undertake the same, and to be delivered at the Vestry-room aforesaid, before TEN o'clock on the forenoon of the day of meeting, sealed up, and addressed to the Chairman of the Committee for Paving, Cleansing, and Lighting the parishes of St. Giles-in-the-Fields and St. George, Bloomsbury, and endorsed with the name of the party tendering, and the nature of the Contract to which the Tender relates.

The Committee will not be bound to accept the lowest or any Tender, but will deny the charge for such of these items as may be objected to, and will require the proposed Contractors to enter into sufficient sureties for the performance of the several Contracts, and the prices, rates of charge, &c. of the persons to be chosen as sureties to be settled with the Surveyor, and in case any Tender shall be accepted, the Clerks will give notice thereof to the Contractor.

The Committee will not limit the number to accept the lowest Tender, and will deny the charge for such of these items as may be objected to. Tenders to be sent to the Clerks of the parishes for the persons proposed for the supply of stone, and carriage, marked as of the Clerk's surveyors aforesaid.

By order of the Committee,

1st May, 1855. ROBT. G. FINNIS, Clerk.

BOROUGH of BIRMINGHAM.—REMOVAL of NIGHT SOIL, CARTING, ROAD and PRIVATE CLEANSING, SWEEPING, WATERING STREETS.—To SCAVENGERS, CONTRACTORS, and others.—The Public Works Committee of the Council of the said Borough is prepared to receive TENDERS from persons desirous of Contracting, for a term of one, three, or five years, to be accepted from 1st day of July next, for the performance of the whole, or some, of the following services, namely:—

For Emptying the Privies and Cesspools, and removing the night soil and ashes, rubbish, and dust, at least once a week from every one or more of the four districts into which it is divided for that purpose.

For Cleansing and Draining Materials, consisting of broken granite, flints, and gravel nuts, small gravel, crate, riddlings, or other materials, for expense of manure and repairing the roads, streets, and footpaths and paving in the said districts in the said Borough.

For watering the Streets, Roads, Public Thoroughfares, and Places in all, any one, or more, of the said districts in the said Borough.

Tenders to be sent, under cover (post paid), addressed to J. PHOLOTT SMITH, Esq., Borough Surveyor, Moor-street, Birmingham, on or before the 19th day of MAY next, each marked "Tender for Scavenging."

Specifications, with forms of Tender and any necessary information, may be had on application at the Borough Surveyor's Office, on and after the 1st day of MAY next.—By order,

THOMAS STANDRING, Town Clerk.

Town Clerk's Office, Temple-street, Birmingham,
April 30th, 1855.

TO BUILDERS

NORTH and EAST RIDINGS of YORKSHIRE ASYLUM, at CLIFTON, near YORK.—Such Builders only as are resident within the City of York will be responsible for the ERECTION of NEW WINGS and ADDITIONS to the above Asylum, according to the plans and specifications at present in the hands of Mr. GEORGE FOWLER JONES, the Architect, 8, Bedford-row, London, from whom Tenders will be received, addressed to the Chairman of the Committee of Visitors, at the Asylum, Clifton, near York, between the hours of TEN and FOUR o'clock, on THURSDAY, the 17th day of MAY next, and endorsed "Tenders for Asylum Additions."

The Committee will not be bound to accept the lowest or any Tender.

Plans and specifications can be seen at the Asylum, and at the Office of the Clerk to the Visitors, Mr. JOHN HOLTBY, Coney-street, York, on and after the 10th day of May next, by whom Tenders will be received up to the above-mentioned time.

By order of the Committee of Visitors,

JOHN HOLTBY, Clerk to the Visitors.

York, 1st May, 1855.

NOTICE to CONTRACTORS.—CONTRACTS for WORKS—To Directors of the Bradford, Wakefield, and Leeds Railway will meet at the Company's Office, Commercial-street, Cleckheaton, on SATURDAY, the 9th day of JUNE next, at ELEVEN o'clock in the forenoon, to receive TENDERS for the following WORKS, namely, the Masonry, Brickwork, and Tunnelling, of the Bridges and Viaducts, and the Earthworks and Permanent Way of the Railway; and plans and specifications will be ready for inspection, and forms of Tender may be had, on and after TUESDAY, the 15th day of MAY next, at Mr. HAWKSLAW'S Office, 33, Great George-street, Westminster.—By order,

JOSEPH BURNSIDE, Secretary.

TO WHITENING MANUFACTURERS, COLOUR MAKERS, AND OTHERS.

THE Directors of the Plumstead, Woolwich, and Charlton Consumers' Pure Water Company are desirous of receiving TENDERS for the PURCHASE of the superior Drift SILT deposited from the Company's pure water, which is now at the works of the above Company. The Silt will be found entirely free from grit, and is naturally adapted for the above purpose, or for polishing. Further particulars may be obtained from the Secretary, at the Office of the Company, Broad-street, Woolwich, and at the Works, Anslow's Plumstead, where the deposit may be seen.

A. J. BLACK, Secretary.

CONTRACTS.

BOROUGH of SUNDERLAND.—To MASONS CONTRACTORS and OTHERS.—The Corporation are desirous of receiving TENDERS for the several works required in the proposed ADDITIONS to the southern abutment of WEARMOUTH BRIDGE, including masonry, concrete, piling, &c. The plans, sections, and specification may be seen on or after MONDAY, the 23rd of APRIL instant, at the Office of Mr. THOMAS MORTLEY, Bridge-street, Sunderland. Sealed Tenders, endorsed "Tender for Work at Bridge," to be left at the Town Clerk's Office, on or before MONDAY, the 14th of MAY next. The Corporation do not bind themselves to accept the lowest or any Tender.—By order,

WILLIAM SNOWBALL, Town-clerk.

Sunderland, April 23, 1855.

TO IRONFOUNDERS, IRON MERCHANTS, AND OTHERS.

GLOUCESTER WATERWORKS.—The Gloucester Board of Health are desirous of receiving TENDERS for the sale of about 1,100 TONS of CAST-IRON WATER-PIPES. A specification and form of Tender may be had on application to Mr. BATEMAN, C.E. John Dalton-street, Manchester; or Mr. K. H. FRYER, Solicitor, Gloucester, the Clerk to the Board. All Tenders must be delivered to the Clerk under a sealed cover marked "Tender for Cast-Iron Water-Pipes," on or before the hour of TWO o'clock on MONDAY, the 14th day of MAY next, at the Council Chamber, Shire-hall, Gloucester, at which time the Board of Health, or their Committee, will attend to open the Tenders, and proceed thereon to accept the most eligible Tender.

K. H. FRYER, Clerk to the Board.

13, Berkeley-street, Gloucester, May 1st, 1855.

TYNEMOUTH LOCAL BOARD of HEALTH.—SEWERAGE.—To BRICKMAKERS, PARTNERSHIPS, SEWER and DRAIN PIPE MAKERS, and OTHERS.—The Local Board hereby give Notice that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:

CONTRACT No. 1.—For the supply of SQUARE and RADIATED BRICKS.

CONTRACT No. 2.—For the supply of EARTHENWARE SEWER and DRAIN PIPES, &c.

Specifications, schedules, bills of quantities, and forms of Tender may be had gratuitously, on application at the Local Board Office, Tynemouth; or at the Offices of ROBERT RAWLINSON, C.E. 34, Parliament-street, London. Sealed Tenders must be delivered at the said Clerk's Office, Tynemouth, before TWELVE o'clock on THURSDAY the 17th day of MAY, endorsed "Tender for Contract No. 1 (or 2) as the case may be."

(Signed) THOS. C. LIETCH, Town Clerk.

Tynemouth, 27th April, 1855.

TO BUILDERS AND OTHERS

PARTIES desirous of submitting TENDERS for ERECTING a VILLA RESIDENCE in the BRAMPTON, Newcastle Staffordshire, can see the plans and specification, &c. at the Office of Mr. JAMES TRUBSHAW, Architect, Stoke Vale Studio, Stoke-upon-Trent, from the 10th of MAY to the 20th, inclusive. The Tenders sealed and endorsed, must be delivered on or before the said 24th instant, and it must be distinctly understood that the lowest Tender will not necessarily be accepted.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh
Right Hon. R. M. Christopher, M.P.
Hon. C. L. Wynne, M.P.
Hon. Col. Cobbold, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINS on the West Malvern Estate, Worcestershire. The Estate is situate on the road leading from the village of Malvern to Mr. GEORGE MORGAN'S or publishers' office, where a printed specification may be seen on application to Mr. JEFFREY WEBB, Road Agent, Worcester, on or before MONDAY, APRIL 30th, between the hours of TWELVE and FOUR. Tenders are to be sent in, signed by two of the Trustees, on FRIDAY, MAY 18th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c., Malvern Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 18, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh
Right Hon. R. M. Christopher, M.P.
Hon. Col. Cobbold, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINS on the Alford Estate, Lincolnshire. The Estate is situate at and near the village of Alford, and the Surveyor, Mr. GEORGE MORGAN, or duplicates of the drawings and specification may be seen on application to Mr. GEORGE ATKINSON, Surveyor, Alford, on or before MONDAY, APRIL 30, between the hours of TWELVE and FOUR. Tenders are to be sent in before TWELVE o'clock on FRIDAY, MAY 18th, addressed to the Surveyor, and endorsed "Tenders for Roads, &c. Alford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, London, April 18, 1855.

CONTRACT for TUNNELLING.—PUIGCERDA CANAL, CATALONIA, SPAIN.—MONCLAR TUNNEL.—The Junta of the Canal of Moncluar are invited to settle from which station each is to be formed of the nature and character of the ground which will have to be bored in the contract. The Tunnel is 2,400 metres in length, and the Canal 14 metres wide. Specifications and all the CONTRACT for the execution of the said tunnel may be seen at the office of the Company at Barcelona, No. 13, Rue de Ferreria, first floor, at TWELVE o'clock precisely, on the 20th JUNE next, according to the conditions contained in the general regulations, which may be had in London, at Mr. G. C. LEWIS'S, No. 4, Bush-chambers. All proposals must be presented, sealed, in conformity with the form contained in the regulations, to the undersigned, two hours at least before the time above mentioned.

Signed FRAN. FERRER Y BUSQUETS, Secretary.

Puigcerda, April 1855.

BUILDERS desirous of TENDERING for the ERECTION of a PAIR of VILLAS, at Poplar, Middlesex, may inspect the drawings and specification at the office of Mr. WILLIAM ELLISON, Greatrex, 17, Stamford-road, Limehouse. Tenders to be delivered on or before WEDNESDAY, the 16th inst. The proprietor does not pledge himself to accept the Lowest Tender.

TO BUILDERS

KINGSGATE, late EAGLE STREET CHAPEL, HOLBORN.—ESTIMATES are required for REBUILDING the same and the HOUSES adjoining. The plans & specifications may be seen at the Office, on SATURDAY, the 5th of MAY, by applying at the Office of CHARLES G. SEARLE, Esq. the Architect, 20, Bedford-row, of whom full particulars can be had. The Committee will not bind themselves to accept the lowest or any Tender unless satisfactory.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of a DWELLING-HOUSE, at Gad's-hill, not much above a mile from Gravesend and Rochester, Kent, can see the drawings and specification at the Offices of Mr. JOHN TOWNSEND, 14, Nelson-street, Greenwich, any day between the hours of NINE and SIX o'clock. Sealed Tenders are to be addressed to Mr. JOHN TOWNSEND and delivered at his offices as above, on or before the 24th of MAY inst. at TWELVE o'clock, and to be endorsed "Tender for Building, at Gad's-hill, Kent." The Proprietor does not bind himself to accept the lowest or any other Tender.

CONTRACTS.

CONTRACT for BASS and HEATH BROOMS.—The Trustees for Repairing, Lighting, &c. Grosvenor-place, and the squares and streets adjacent, do hereby give Notice that they will be ready on FRIDAY, the 25th instant, at THREE o'clock in the afternoon, at the Office, 43, Lower Belgrave-place, Pimlico, to receive TENDERS from, and to CONTRACT with, any person or persons who may be willing to contract with them for supplying the said Trustees with such a number of BASS and HEATH BROOMS as may be required of them for twelve months. The brooms to be delivered at the office of the Trustees in such numbers and at such time as may be ordered by the surveyor. Further particulars and form of Tender may be had on application at the office of the Trustees, where samples of the brooms required may be seen any morning between the hours of NINE and TEN. All Tenders must be in writing sealed up, and delivered at the office of the Trustees before THREE o'clock on FRIDAY, the 25th instant. The Trustees do not bind themselves to accept the lowest Tender.

GEORGE A. WALMISLEY, Clerk to the Trustees.

Dated the 4th day of May, 1855.

TO CONTRACTORS.

THE Trustees for Repairing, Lighting, &c. Grosvenor-place, and the squares and streets adjacent, do hereby give Notice that they will be ready on FRIDAY, the 25th instant, at THREE o'clock in the afternoon, at their office, 43, Lower Belgrave-place, Pimlico, to receive TENDERS from, and to CONTRACT with, any person or persons who may be willing to Contract with them for supplying the said Trustees with such quantities of BROKEN GUERNSEY GRANITE as may be required by them for a term of years, from Lower Wharf, Grosvenor Canal, in such manner as may be directed by the Surveyor. Further particulars and the form of Tender may be had of Mr. THOMAS WEBB, at the Office of the Trustees, where samples of the material required may be seen any morning, between the hours of NINE and TEN, till the 25th instant. All Tenders must be in writing sealed up, signed by the party making the same, and delivered at the office of the Trustees, before THREE o'clock, on FRIDAY, the 25th instant. The material is furnished will be paid for quarterly, and the look and wharfing will be paid by the Trustees.

GEORGE A. WALMISLEY, Clerk to the Trustees.

Dated the 4th day of May, 1855.

TO BUILDERS

THE GUARDIANS of the POOR of the KING'S LYNN UNION are desirous of receiving TENDERS for the ERECTION of their proposed NEW WORKHOUSE. The drawings, specifications, and forms of contract may be seen at the Old Museum, Lynn-street, South Lynn, and at the offices of the Architects Messrs. MILLARD and MABERLY, 9, Buckingham-street, Adelphi, London, on and after TUESDAY, MAY 22nd, 1855. Tenders to be delivered (or addressed to the Clerk to the Guardians, St. James's Workhouse, Lynn, Norfolk, and endorsed "Tender for Erection of New Workhouse," on or before SATURDAY, JUNE 23rd, 1855, at TEN a.m. Tenders received after that hour will not be opened. The Guardians do not pledge themselves to accept the lowest or any Tender.

By order,

JNO. JAS. COULTON, Clerk to the Guardians.

Lynn, 8th May, 1855.

COOKHAM UNION WORKHOUSE, near Maidenhead, Berks.—To BUILDERS.—The Guardians of this Union are prepared to receive TENDERS for the ERECTION of an HOSPITAL; the plans and specification for which may be seen at the Workhouse on application to the Master, and may further information may be obtained of Mr. WM. BOND, Surveyor, Great Marlow, Bucks. Sealed Tenders are to be sent on or before TUESDAY, the 29th day of MAY, 1855, addressed to "The Chairman of the Board of Guardians of the Cookham Union, care of James Smith, Esq. Clerk to the said Guardians, at Maidenhead," and endorsed "Tender for Works." The party whose Tender is accepted, must be prepared, if required, at his own expense, to enter into a Contract, with sufficient surety for the due performance of the same. The Guardians do not pledge themselves to accept the lowest or any Tender. By order of the Board,

JAMES SMITH, Clerk.

Maidenhead, May 5, 1855.

SHIPLEY LOCAL BOARD of HEALTH.—WATERWORKS.—CONTRACTS 4 and 5.—The Local Board hereby give Notice that they are prepared to receive TENDERS for the following WORKS:—

CONTRACT No. 4.—For MAKING a SERVICE RESERVOIR, near West-lane, in the township of Baildon.

CONTRACT No. 5.—For EXCAVATING the GROUND, LAYING, and JOINING CAST-IRON MAINS, also for FIXING SLUICE COCKS, HYDRANTS, &c.

Plans, sections, letter of instructions, and specifications may be inspected on and after the 10th inst. at the Offices of Mr. J. M'LANDSBOROUGH, Civil Engineer, 21, Queen-gate, Bradford, from whom forms of Tender may be had, or the same may be obtained. Sealed Tenders to be delivered to me, at my Offices, in Bradford, Yorkshire, on or before MONDAY, the 28th inst. endorsed "Shipley Waterworks.—Tender for Contract No. 4" or 5, as the case may be. The Local Board do not bind themselves to accept the lowest or any Tender.

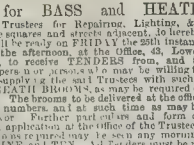
JOHN THOMPSON, Clerk to the Local Board.

Bradford, May 3rd, 1855.

PARTIES willing to CONTRACT for PAINTING SEVERAL HOUSES, may have the particulars by applying at the Office, 13, Princess-terrace, Maldon-road, Haverstock-hill, Kentish-town.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any House in London.



Elliptic Stoves, double backs,
3d. per inch, and upwards.

Register Stoves, 3id. 4id. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
2 ft. 3l. 18s.; 2 ft. 6 in. 4l. 5s.; 4 ft., 3l. 18s.

3 feet Cottage Ranges, with ovens and back boilers, 2l. 5s. each.

3-feet self-acting ditto, ditto, 9l. each.

Air Bricks, 4s. per cwt. Ditto, Scotch, 6s. per cwt.

Best Town Glue, 5d. Ditto, Scotch, 6d. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6	
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s.	per gross.

And every material required in the building, bell hanging, upholstery, and brass-founding trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	5	6	
6s. 3d.	8s. 6d.	9s. 9d.	per gross.

At JOHN YOUNGS, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article in detail, plain figures. Patentees and manufacturers of the Meteorial Gas Regulator. Complete pattern-book and price list, 10s. 55 and 56, High Holborn.

MOREWOOD AND ROGERS'S

PATENT WROUGHT-IRON HALF-ROUND EAVES GUTTER.

The following are the advantages possessed by this article over the ordinary Cast-iron Gutter:—

Cheapness.
Greater Facility in Fixing.
Non-liability to Breakage
Convenience of Packing for Exportation, &c.

JAPANNED—Prices, 3½ inch, 7d. per yard.
4 inch, 7½d. per yard.
4½ inch, 9d. per yard.
5 inch, 1s. per yard.

GALVANIZED. Prices—3½ inch, 8½d per yard.
4 inch, 9½d per yard.
4½ inch, 10d per yard.
5 inch, 1s. 3d per yard.

A. MOREWOOD AND CO.

GALVANIZED TINNED IRON AND PLUMBIC ZINC WAREHOUSE, DOWGATE DOCK, UPPER THAMES STREET, LONDON.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and Co. are now manufacturing the celebrated American and English Locks, on the premises, No. 9, Chandos-street, at Lawrence-lane, London; where, by the great economy of labour consequent upon their extensive business, they are enabled to execute a superior work to any other in point of security, combined with moderate price, than in any locks produced either in town or country.

EVERY LOCK to be MADE and FINISHED at the MANUFACTORY, as warranted, and bears their OWN STAMP, without which it cannot be genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER PROOF LOCKS, form the strongest Safeguard against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and Co. Wholesale and Retail Warehouses, 57, Cheapside, and 33, Lawrence lane, London.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions in the present state of the art, making them would seem this impracticable." *Mechanics' Magazine*, Sept. 16th.

FIREPROOF SAFES, DEEDS, and COPYING PRESSES CASH AND DEED BOXES.

Lists and Prospectuses free.

PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOODBYER at the Great Exhibition of 1851, which was the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and Cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilators, and the new registered Venetian Ventilator, so much admired, &c. &c. &c.

J. H. BOODBYER late STURCH and BOODBYER), established nearly 150 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fireproof construction has been most extensively adopted, and the approval it has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the whole structure possessing great strength and rigidity, and forming a fireproof foundation adapted and Conservatories, and Hothouses, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which recommends it to the notice of all who are interested in Buildings, both as superseding the necessity for cast-iron girders and pillars, and as insuring the great desideratum of fireproof structure, even for ordinary dwelling-houses and domestic buildings, without the aid of cement.

Further information may be obtained of the Proprietor of the patent, Mr. BARRETT, 12, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Ryland and Sons' Papers and Bank notes preserved in one of CHUBB'S SAFES, after it had been exposed to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"Gentlemen,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased of you 12 years ago, for our late offices in New Brown-street, had from the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' very fierce heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the property contained therein (after excepted) was that only some of the books were slightly singed at the edges.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horseley-fields, Wolverhampton.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed by the combination of hot water upwards of 1,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the working. Greenhouses, conservatories, vaults, &c. constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and Co. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is upon the best, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and Co. opposite the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE.

BACHOFFNER and DEFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and unpleasant fumes are effected, presents to the eye, while it preserves all the comfort and appearance of an open coal fire, seeming, at the same time, perfect ventilation. To be seen in action at DEFRIES'S office, 145, Regent-street, London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, views and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having the whole under, and it effectually cures smoky chimneys, and is the best cooking range extant.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, stove doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron Merchant, No. 9, Bankside, London, near the Southwark-iron-bridge.

GAS COOKING-STOVES, for large or small establishments. DEANE, DRAY, and Co., Arthur-street East, London-bridge.

Testimonial respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and Co.

8, Richmond-place, Hampstead, March 9th, 1855.

Gentlemen,—I have great pleasure in bearing testimony to the capabilities of your extraordinary Gas Cooking Apparatus, being the largest and most perfect yet in use. Suitable for hotels, mansions, club-houses, private houses, and the army; having cooked in one day 1,000 fowls, and many ovens of beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 3 cwt. in nine hours, fifty three minutes, presented by J. Bannister, esq. Trinquine-street, to the directors, for the banquet given to the foreign ministers. They have been in full operation for ten months, and are now in as perfect order as when first finished. "They have not cost one shilling for repairs."

I am, Gentlemen, yours respectfully,

EDWARD HORNE.

Messrs. Deane, Dray, and Co.

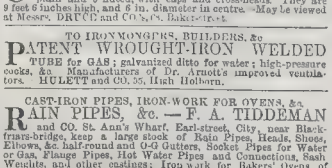
DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and Co. 42, Poland-street, Oxford-street, where one may be seen in use. The advantages of this grate consist in there being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservative and Hothouses, together with wood or iron, respectfully call the attention of nobility, gentry, and nurserymen to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, & 55, WYCH-STREET, STRAND.



Illustrated Price-lists on receipt of six postage-stamps.

RAILWAY CHAIRS (wrought-iron) and Railway Spikes, Crane and Incline Chains, Ships' Cables, and Anchors, can be had at first-hand, and of the best quality, on application, with particulars, to Mr. ELI PHILPOT, Netherton, near Dudley, who will and make the inspection and despatch of all goods of this class. References given.

CAST-IRON COLUMNS for SALE, 13 plain and 3 fluted, with caps and cross-heads. They are 9 feet 6 inches high, and 6 in. diameter in centre.—May be viewed at Messrs. DRUCE and COLES's, Baker-street.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators. HULETT and CO. 55, High Holborn.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN and CO. 88, Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O-G Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other castings; Iron work for Bakers' Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

20	32	34	36 inch.
28s.	30s.	32s.	34s.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

44	36	38	42-inch.
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 6d.

Improved New Patent Circular Check Register, with strong bars and Trivets, 1 per inch

Best Solar ditto, with Fine Brick Back, per inch, 10d.

Bright Stoves, with Two Bars, 15s. to 30s. each.

Cast Iron water Pipe { 2 3 inch. 1½d 2½d. per yard.

Cast Gutters—4 inch, 8d. per yard.

O G Gutters ..... { 4 4½ inch. 1s. 1d. 1s. 3d. per yard

Best Cut Clasp and Rose { 1½ 2 2½ 3 inch, and larger. 1s. 3d. 1s. 6d. 1s. 9d. 2s. per cwt.

Cast Sheet Rolled Brick, 12s. per cwt.

1 Inch Cast Lath, 15s. Cast Lath, 12s.

Patent Lute { 3 4 5 6 4½d 6d. 7d 9d. 1s. per knot.

Scotch Red Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr Arnott's Ventilators, 4s. 6d. each

An extensive stock of bar, rod, hoop, and sheet iron

Brick Moulds kept in stock. Any size made to order.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gasfitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tubs for Picture Rods, Dish Rods, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD LYDDELL'S Brass and Bell Foundry and Metal Warehouses Nos. 10, 11, and 12, Charles-street, Long-acre, London.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES. Gateshead-on-Tyne.
16, Strand, London.
67, Hyde-park-street, Glasgow.
37, Dale-street, Manchester.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patent, by means of which doors open and shut perfectly easy and noiseless, and are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had on application to Messrs. WEBB and GREENWAY, Scotch-house-lane, Birmingham.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Timber and Cabinet Makers, Ironmongery Establishment, 21, Wellington-street, City, and see this "Not the very simple, powerful, and exquisite machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-acting, it does not require any skill, or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery constructed for.

SAWING, PLANING and MOULDING, MACHINERY.—SAMUEL WORSSAM and COMPANY have much pleasure in announcing that they have greatly enlarged their Premises in the Kings-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Morticing, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times execute short notice supplies. S. W. and Co. are also desirous that they examine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished Companies and Contractors in the world with their Machinery for home and foreign use.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety of Hinges are on view for church, park, field-rail, cradle-use, and other gates and doors of large and small dimensions, that will work moving with their hinges, and a wicket or small hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior trade fan-lights, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought-iron work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES,

will be forwarded upon application.

FREDERICK RICHARDS,
Nail Manufacturer and General Factor,
Receiving-house, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, and GENERAL IRONMONGERY at PEELL and SPEDALL'S,

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

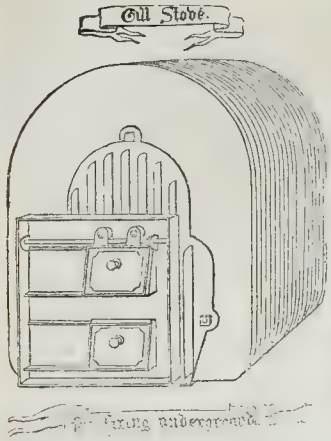
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbrack's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.



STUART AND SMITH'S

PATENT GILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

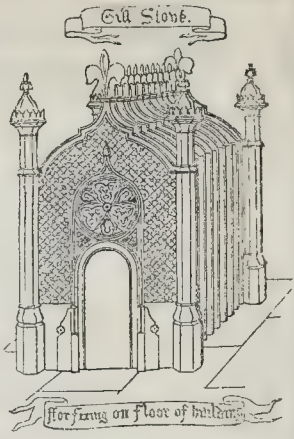
STUART AND SMITH,

ROSCOE-PLACE, SHEFFIELD,

confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings :—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

Prospectuses, and every information, sent on application.



ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges, on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices : 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches up to 10 inches each corrugation, in all lengths up to about 11 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock, or galvanized to order.

The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters (plain and moulded), Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys; Copper Rope Lightning Conductors, with Points and Attachments, complete.

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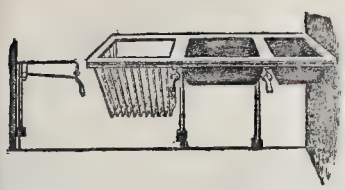

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The Builder.

SATURDAY, MAY 12, 1855.

THROUGH strong feeling on the subject, we have fallen into giving a sort of annual exhortation to one section of our readers to make a holiday now and then, and appropriate it to the architectural relics of our forefathers, scattered over the face of the country,—to get into the fresh air, to seek communion with Nature in her varying phases, and to give point and practical purpose to their trips, by selecting those places where pages of England's history are written in brick and stone:—

> "Go forth into the country,
> From a world of care and guile,—
> Go forth to the untainted air,
> And the sunshine's open smile:
> It shall clear thy clouded brow,—
> It shall loose the wordly coil
> That binds thy heart too closely up,
> Thou man of care and toil!
>
> Go forth into the country,
> Where gladsome sights and sounds
> Make the heart's pulses thrill and leap
> With fresher, quicker bounds.
> They shall wake fresh life within
> The mind's enchanted bower:
> Go, student of the midnight lamp,
> And try their magic power."

It is an old weakness of ours to want to see people enjoying themselves. Health is not a small matter, nor is happiness; and we would gladly aid in leading some of our younger readers (our older ones, too, for the matter of that), to find both, in courses not simply innocent but instructive and useful. By the study of Nature's works the mind is both purified and developed. But go not forth unprepared: it is the taught already that profit most by the teacher: it is the educated eye that sees most, the cultivated mind that finds the greatest delight in applying what is seen and heard:—

> "Sweet is the joy when science flings
> Her light o'er philosophic thought;
> And genius with keen ardour springs
> To seize the lovely truth she sought."

And then, by the contemplation of these old buildings,—say it be one of our noble cathedrals, sprinkled with memories and full of beauty, or but a morsel of wall left us by the Romans,—what increase of general knowledge, to say nothing of professional education, may be obtained!—how largely may we add to the circle of our acquaintances! Those who confine themselves wholly to the present and the practical (the first point nevertheless), lose much:—

> "Dabbling, in their noisy way,
> In the puddles of to-day,
> Little know they of that vast
> Solemn ocean of the past;
> On whose margin, wreck-bespread
> Thou art walking with the dead,
> Questioning the stranded years,
> Waking smiles, by turns, and tears,
> As thou callest up again
> Shapes the dust has long o'erlain."

And now the time is coming for such expeditions as we advocate.

May, with its flowers of promise, is here: the lime, the lilac, the pear, and the hawthorn, have put on their summer coats: it is warm enough to loiter, and the days are lengthening; so take your note-book, and be off. If you have not determined on a place,—though we have indicated many from time to time, easier of access,—go to ST. ALBAN'S, and in the Abbey Church there, if you do not already know it, you will find a store of profitable pleasure. Should your point of departure be London, and you use the Great Northern line, you will stop at Hatfield,—the *haeth-field* of the Saxon kings,—and by arrangement may see Lord Salisbury's fine Elizabethan and Jacobean mansion, founded by a previous Earl of Salisbury. Old John Thorpe appears to have had something to do with it, although not recognised as the architect of the building, and it was finished about 1611. The ride from Hatfield to St. Alban's is not particularly full of beauties just now, but there is enough to interest those who know how to see: some of the plantations are literally carpetted with primroses, and you get a glimpse of the river, sparkling in the sun light. "Water," as Gough apostrophised in one of his extraordinary orations last year,—"Water, blessed water! Everywhere a beautiful thing,—glistening in the dew-drop, dancing in the hailstorm, hanging in ice-drops like jewels on the trees,—a thing of beauty everywhere!"

The Abbey Church of St. Alban's is one of the most ancient and interesting structures in the kingdom. There was a church on its site in the fourth century, in honour of the first British martyr, whose name has superseded the title of *Verulam*, given to the place by the Romans. The earliest part of the present structure was commenced in 1077, and, through the writings of Matthew Paris and other chroniclers, we get a very clear view of the proceedings. We see Abbot Ealdred, in Saxon times, knocking down the walls of Verulam, and sorting all the old Roman bricks and stones ready for use in a new building; and then we find Abbot Paul, from Caen, putting these together between 1077 and 1088, and granting land and a house in the town to "Robert the builder and his heirs, for his skill and labour in which he excelled all the builders of his time." It was a noble work this church, with its three towers, two western and one in the centre, while around it were the various buildings forming the abbey, the only part of which that has escaped is the great gateway. Then, in 1195, comes the abbot John de Cella, and re-edifies the western arches of the nave, between that time and 1214, in the Early English style. At the end of the same century the eastern portion of the nave on the south side took the impress of the geometrical or Early Decorated period. In the lady-chapel, now a school, we have some beautiful Decorated work, executed between 1308 and 1326, and the fifteenth century left a specimen of the Perpendicular style, in the shape of a sepulchral chapel, in memory of Abbot Wheathampsted, and the altar screen, now woefully defaced. Without pretending to describe the church, we will give our readers the advantage of a plan, with its references, which accompanies a superior little hand-book drawn up by Dr. Nicholson, M.A. the present rector, who feels a deep interest in the structure, and has done very much, with small resources, to maintain it, and to pave the way for more complete restoration hereafter. The darker shade on the plan shows the Anglo-Norman portions. Beyond those so marked, there are remains, at the extreme west end of the nave, of western towers, appertaining to the Norman building: the present porches at this end, of Early English work, with their Purbeck marble shafts and sculptured capitals, are particularly interesting. The extreme length of the church externally is very great, no less than 548 feet 4 inches; and the views in the nave and its aisles are very striking in consequence. Midway down the nave, looking west, you have the grace and elegance of the Early English style; but, turning round when on the south side of the nave, and looking towards the north-east, the view is entirely changed, the Norman work, simple and dignified, alone coming into sight.

The Early Decorated triforium of the south side of the nave is particularly beautiful, and the manner in which it is made to assimilate with the Early English triforium, to which it adjoins farther west, will repay observation.

In the triforium of the transept, north and south, on the east side, will be seen a series of baluster columns, very various in design: above is the outline of one of them.

It has been assumed, and not unreasonably, that these formed part of the Saxon Church which was superseded by the present structure.

The history and peculiar construction of the church have been very fully and ably set forth by Messrs. Buckler, in a volume published in 1847.* Great part of the old building is formed with bricks—the bricks of old Verulam—cased with cement. The annexed diagram (Fig. 2), shows one of the cornices thus formed, and we also give a sketch of one of the capitals from the

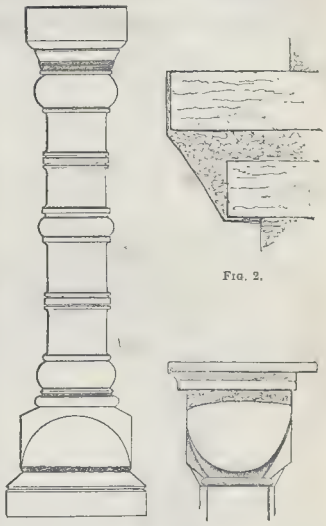


FIG. 1.

FIG. 2.

FIG. 3.

arcade around the upper part of the tower inside, partly of brick and partly stone (Fig. 3). The interior of the bell-chamber never having been covered with cement, exhibits fully the construction of its walls: a view of it will be found in a previous volume.† The staircase, with its newel of brick and arched headway, is a very curious and interesting piece of construction. Fig. 4 shows the outside of one of the windows in the north transept, and fig. 5 is the end elevation of the north transept, showing the conical roof with which the staircase turret was probably terminated.

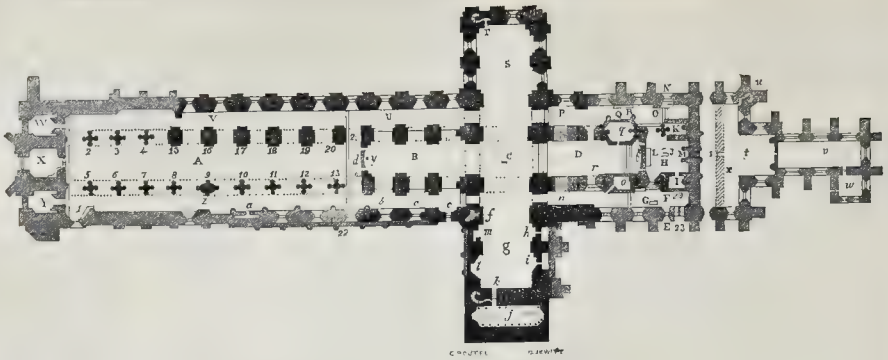
Amongst the most interesting remnants of the early buildings, must be placed the small chamber or passage-way to cloisters, at the south end of the south transept (shown on the plan), the walls on either side of which display interlaced semi-circular arches terminating on carved capitals. The arches are formed of banded, or rather reel-shaped mouldings, something similar in character to the baluster columns, in the transepts, already mentioned.

There are many interesting records and peculiarities in the church which should not be overlooked. The visitor without being condemned "to dine with Duke Humphery," may see his remains in the Saints' Chapel, and will notice in the duke's elaborate monument the daisy (*marguerite*) the punning device selected by Queen Margaret. On Ramryge's chantry tomb, too, punning devices will be found. On the east wall of the Saints' Chapel is a painting of an archbishop, which, through the care of Dr. Nicholson, has been covered with glass. Another wall painting in the north transept should be looked at; and throughout the church, vestiges of the ancient colourings may be found. The painting of the ceiling of the nave is ascribed to Wheathampsted, but has a later aspect.

We ought not to omit mention of some

* A History of the Architecture of the Abbey Church of St. Alban, with especial reference to the Norman structure. By J. C. Buckler and C. A. Buckler.

† VOL. V. page 343.



GROUND PLAN OF THE ABBEY CHURCH OF ST. ALBAN'S.

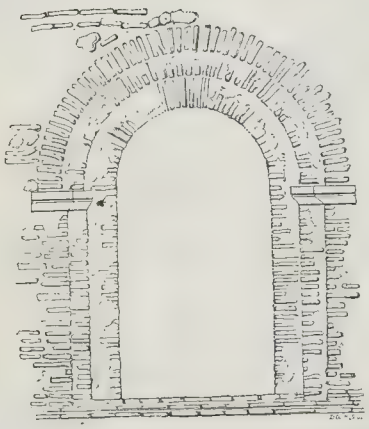


Fig. 4.—EXTERNAL ELEVATION, WINDOW IN NORTH TRANSEPT.

Fig. 5.—ELEVATION OF NORTH TRANSEPT.

ancient ironwork in the church, the grating between the south aisle and the saints' chapel, where formerly stood the shrine (its position is still marked on the pavement), and various hinges; but if we stop longer in the church we shall have no time to see what there is outside it: we have said enough to show how many generations have left their impress within its walls, and that—

> "Long worked the head, and toiled the hand,
> Ere stood the stones as now they stand."

Casts from many of the details of the church, will be found in the Architectural Museum, Canon-street, Westminster. The building was illustrated by the late John Carter (1813); and Dr. Nicholson, in his Hand-book, has given a valuable list of original MSS. in the British Museum, and elsewhere, from which the history of the Abbey has been chiefly drawn, and might receive further interesting additions. A wise ancient has told us, that to know where to go for what we want is a chief part of learning. Caxton, by the way, printed several works at St. Alban's, doubtless within the walls of the abbey.

Half a mile eastward from the church, on the river Ver, are the ruins of Sopwell Nunnery. At a meeting of the St. Alban's Architectural Society in April last, Mr. William Donaldson read a pleasant paper on this establishment, in the course of which he referred to a circumstance recorded of this nunnery whilst it flourished, which is mentioned by Camden and some other writers, namely, "that Henry VIII. was privately married there to Anne Boleyn. Other historians assign another place for this—and there is no doubt a private marriage did take place between them, and it is stated that the ceremony was performed at Whitehall, by Dr. Rowland Lee, one of the royal chaplains, afterwards the Bishop of Chester, who made some opposition, as the divorce of Queen Catherine had not been pronounced, but Henry calmed his scruples with the assurance that Clement had pronounced in his favour, and that the papal instrument was safely deposited in his closet. It is not unlikely that there were some grounds for the report of the private marriage at Sopwell, for the matter of the divorce was five years in progress, and Henry and Anne Boleyn might have visited Sopwell, particularly as the favourite Wolsey, amongst his pluralities, was Abbot of St. Alban's."

The remains of the Roman walls of Verulamium are of flint, bonded together with layers of thin bricks at regular intervals. The ancient Watling-street passes near, and leads on to the ruins of the house in which Lord Bacon lived. His portrait statue, "as he was sitting," will be found in the adjacent church of St. Michael, where he was buried.

Singularly suggestive indeed is St. Alban's. It has been the scene of stirring events at all periods of our history; and as we pace its

ancient moat, Boadicea with her wild army, Ostorius and his Roman legions, the soldiers of the opposed "Roses," the monk Matthew, and the wonderful philosopher whose monument we have seen,—the greatest, yet the meanest of mankind, —flit again across the scene, and lend voices to the air!

References to Ground Plan.

A. Nave.
B. Ante-choir, or baptistery.
C. Central tower.
D. Retro-choir.
E. South door.
F. South-aisle of the Saints' chapel.
G. An Altar-stone.
H. The Saint's chapel.
I. Sepulchral chapel and vault of Humphrey, Duke of Gloucester.
J. The spot where St. Alban is said to have been buried, and over which the shrine was erected.
K. Watch-gallery.
L. Balustrade, with votive inscription.
M. Arches leading eastward, closed subsequent to the dissolution.
N. North door.
O. North aisle of the Saints' chapel.
P. North aisle of Retro-choir.
Q. Back of Abbot Ramryge's chantry.
R. Early pointed arcade.
S. North transept, supposed site of the martyrdom.
T. Tower-stairs; early arch, and masonry.
U. North aisle of ante-choir, or baptistery.
V. North aisle of nave.
W. North-western porch, now closed externally.
X. Central-western porch, showing original level of floor, and basement mouldings.
Y. South-western porch, now closed externally.
Z. South aisle of nave.
a. Recess in main wall, originally open to the cloisters.
b. South aisle of ante-choir, or baptistery.
c. Sepulchral heptafoil arch; a piscina within.
d. St. Cuthbert's screen, with position of two altars.
e. Abbot's entrance.
f. Recess in main wall.
g. South transept.
h. Chapel of St. Mary.
i. Chapel of St. Simeon.
j. Passage between Church and Chapter-house.
k. Stairs to triforia.
l. Arch to chapel of abbot Delamare.
m. Entrance from the cloisters.
n. South aisle of retro-choir.
o. Chantry, or sepulchral chapel of Abbot Wheathamsted, now containing brass of Abbot Delamare.
p. Screen between retro-choir and shrine of St. Alban
q. Chantry, or sepulchral chapel of Abbot Ramryge.
r. Brass of Sir Anthony de Grey.
s. Now a public thoroughfare, but formerly forming, with
t. The ambulatory, or ante-chapel to lady-chapel.
u. Turret with stairs.
v. Lady-chapel, now a school-room.
w. Vestry.
x. Modern partition-wall.
1. Excavation, showing basement and original floor.
2, 3, 4, 5, 6, 7, 8, 9. Early pointed compartments of nave.
9, 10, 11, 12, 13, 14. Decorated or middle pointed compartments of nave.
15, 16, 17, 18, 19, 20, 21. Anglo-Norman compartments.
22. Remains of cloisters.
23. Windows between Church and destroyed chapel. These windows had been built up in the main wall, but have recently been discovered.

THE ROYAL ACADEMY EXHIBITION.

MAY, so sadly behindhand with her engagements on the turf, at least keeps faith in producing the Royal Academy Exhibition,—spite of the east wind.

This, the eighty-seventh annual gathering, may, on the whole, be considered of an average degree of excellence, although we miss the contributions of many of the strong men. If, however, Messrs. Landseer, Mulready, E. M. Ward, and Frith (almost) are absent, Messrs. Herbert, Maclise, Dyce, and Egg, help to fill up the void, and Messrs. Stanfield, Roberts, Creswick, with others, are in extraordinary force. Both Mr. Herbert, R.A. and Mr. Maclise, R.A. illustrate "The immortal Bard." "Lear recovering his Reason at the Sight of Cordelia" (149), has furnished the former with an impressive theme, which he has treated with a simplicity approaching grandeur. Poor imbecile Lear, still "every inch a king," is invested with the true spirit of the text: the "foolish fond old man, fourscore and upward," not yet thoroughly awakened to his present position, is a masterpiece of depicted natural sentiment. None but a great artist could so convey the flitting light of reason, and represent transient delusion. Cordelia is less admirable; but the whole work is imbued with an exalted feeling for Art and its intention. Mr. Maclise has selected a scene from "As you like it" (78), and interpreted it with all that dramatic power for which he is remarkable. The incident, "Orlando about to engage with Charles, the duke's wrestler," affords, perhaps, a wider scope for variety of expression than the actual contest would: the malicious faith of Oliver in the cool confidence of the athlete champion, so distinct from the hopeless pity of Rosalind and Celia, or the contemptuous astonishment of the duke, is a successful study of character. The heroine and her sympathising cousin are as lovely as Shakspere himself could have imagined them to be; and if Orlando's proportions more than necessarily promise total annihilation at the hands of his burly antagonist, the disparity lends to the interest of the story, if it detract from its probability. The most perfect of the impersonations is, doutless, Touchstone, realising the notion of his being more philosopher than fool, wise though in motley. This picture, in addition to the qualities that distinguish the painter, is richer in colour than usual, and may justly be considered an admirable specimen. A view of Sir S. M. Peto's house in the background suggests its destination. Mr. A. Egg, A. adapts one of Moore's melodies (136), "Come rest in this bosom, my own stricken deer;" and applies the verses as words of consolation to an imprisoned rebel from his wife, who nobly determines to share the horrors of his fate. With such a subject, and so many of the innate and acquired requisites essential to the production of a fine picture, he has been thoroughly successful in extending his fame. We prefer it to (349), "The Life and Death of Buckingham;" though, as examples of manipulative power, few excel the two pictures included in this number: they teach a lesson, too, but it is dangerous ground. (181, "Christabel;" W. Dyce, R.A. his only contribution, is an exquisite imaginative portrait, and one of the great attractions of the large room. Few could overlook it, unassuming as it is in dimensions as well as appearance. Mr. J. C. Hook, A. has turned landscape painter, and (9), "Market Morning," so charmingly fresh and true to nature, almost persuades us to believe it his natural bent. If his well established name as a figure painter deny this imputation, he at least possesses the rare advantage of being well qualified for either path. (16), "Britomart unarming," F. R. Pickersgill, A. is a large composition from a favourite source, beautifully painted, and more highly finished than preceding emanations. There is always a peculiar grace in the arrangement and pose of this artist's *dramatis personæ*, combined with nice feeling for colour, in this instance particularly so; as well as in (324), "Christian conducted by Charity, Prudence, Piety, and Discretion, into the Valley of Humiliation. (69), "Consolation," C. W. Cope, R.A. wherein a little girl is attempting to assuage the grief of her mother, evidently a victim to the cruel fortunes of the present war, is a favourable specimen of its author's skill in that class of art termed domestic. (161), "Royal Pensioners (?) at Carisbrook Castle, 1650," representing the death of the Princess Elizabeth, second daughter of Charles I. is more pretentious, exhibiting great skill in the management of light introduced from the centre of the picture. The unhappy princess, of incomparable abilities and rare virtues, expires alone in her apartment, her fair cheek resting on her Bible, and is discovered dead by her brother Prince Henry and the guard. (201), "Penserosa," a very sweet study of a young girl reading, is a third contribution, amply sustaining his reputation.

(65), "Morning—the Mouth of an English River." Mr. Creswick still treats us with English scenery, in which he excels: witness this and all his transcripts, how faithfully he follows nature, and depicts with photographic exactness her every change and mood. (94), "Afternoon, the River's Bank;" (302), "Common-scene in Surrey;" (415), "A Welsh Hill;" and (440) "The nearest Way in Summer-time," (in which Mr. R. Ansdell fairly divides the honours for his admirably-painted horses and figures), are alike superlative in execution. (95), "Sancho Panza and Dr. Pedro Rezio," C. R. Leslie, R.A. The constancy and success with which this artist adheres to one author are remarkable. The episode selected on this occasion is poor Sancho's tantalization and disappointment at the substitution of "some hundred of little hollow wafers, with a slice or two of marmalade," for the *olla podrida* forbidden him by his physician, the steams of which are regaling his olfactories. The work abounds in the quiet humour and appropriate character that distinguished former productions, and is equally vigorous in manual dexterity. (103), "Spring, the first of a Series of the Seasons," T. Webster, R.A., is a refined bit of every-day life, showing to what extent artistic treatment can render the most commonplace incident interesting. (182), "A Race," is another felicitous delineation of childhood, by the same. (108), "Maria," W. P. Frith, R.A., is not "the little villain—the nettle of India," Sir Toby described. (126), "Lovers," are treated with delicacy and discrimination; but (305) "At the Opera," a graceful portrait, brilliant and natural, contains more of the qualities that have made the artist famous. (120), "Beatrice," C. L. Eastlake, P.R.A., is elaborated almost to weakness, and injured much by the glare of colour that surrounds it. (141), "The Mitherless Bairn" of Mr. T. Faed affects the spectator by its touching narrative: he may justly be proud of such a picture, proving, as it does, that with great command over the material, he has higher claims to consideration,—the thought and feeling displayed in this exquisite work. The position of this picture is not creditable to the hangers. Mr. S. A. Hart, R.A. has not been fortunate in his choice of subject: (225), "The Captivity of eccelius, the Tyrant of Padua," is not of general interest. Although, as a work of art, it has many very fine points to recommend it, it fails to attract that attention the accomplishment of such an undertaking deserves. (87), "Ilfracombe, North Devon," and (142), "Dutch Boats Entering Harbour, Zuider Zee," C. Stanfield, R.A. are covetable specimens, painted with the well-known precision of our great sea-scape professor. (545), A grand representation of "The Siege of St. Sebastian, under Field-Marshal the Duke of Wellington, July, 1813," forcibly illustrates the circumstance. The immediate incident depicted is that of the British troops taking possession of the heights and convent of St. Bartolomeo. The difficulties attendant on delineations of such historical events are innumerable, and few succeed in combating them: to allow that these obstacles are overcome, is praise, and praise enough. Mr. Millais, A. has likewise had difficulties to contend with, and, insuperable as they were, bravely faced them: if in (282), "The Rescue," he has not accomplished all that he proposed to himself, he has produced a very extraordinary painting, and further established himself as an original thinker, with immense facility of imitation. In composition and propriety of expression it is unexceptionable. The collected composure of the fireman, the terror of the children, and hysterical joy of the mother, are conveyed with great truth; but the colour induces one to believe them illumined by the red fire used for theatrical purposes rather than light derived from burning timber, which is always more yellow than red; and the probability of the effect being true, is denied by so much of the picture remaining uninfluenced by the light at all. (298), "Collecting the Offering in a Scotch Kirk," is by J. Phillip. Whether in Spain or Scotland, Mr. Phillip is just as faithful and free from mannerism, and here we are amongst veritable Scotch people, so truthfully portrayed as to excite astonishment at the ease and celerity with which he can forget one country in typifying the other. This is one of his best

productions, and although not so large as the renowned Spanish composition of 1853, is a desirable specimen of his versatile talent. (68), "El Pasco," offers an opportunity of comparing and proving how thoroughly he has studied both races. (355), "A Contrast,"

"Will Fortune never come with both hands full?"

by A. Solomon, deserves a better place: there is much sentiment embodied in this very simple but clever performance. A delicate aristocratic lady, reclining in a bath-chair, envies the robust health of two Boulogne fisher-wives. "Such are the poor, in health; such are the rich, that have abundance and enjoy it not." The contrast is sufficiently perspicuous, the *invalide* so interesting that one can but participate in the anxiety of the lover husband, and hope for her speedy recovery. We have so often seen Mr. Solomon in "bag-wig and brocade" *on the line*, that we regret he has been discouraged by a worse position in turning his academical proficiency to new account. (361), "The Abdication of Mary Queen of Scots," A. Johnston, is executed with that facility for which the artist is known: the heads throughout are especially well painted, but lack earnestness. (379), "The Alms Deeds of Dorcas," W. C. T. Dobson; a second edition of last year's subject, and as fine in its very high feeling: the arrangement is a little too crowded in this instance, which leads us to give the preference to its antecedent; nevertheless the extra episodes introduced here are valuable points, well disposed in relation to each other. In (393), "The Return of the Wanderer," Mr. H. O'Neil has left his beaten path, and relates an affecting tale forcibly and gracefully. We must look in again.

THE ARCHITECTURAL ROOM AT THE ROYAL ACADEMY.

THE very best that the Royal Academy has done in any year, for the most important of the fine arts, has been only a slender instalment of the duty which it seems to assume whilst claiming the title of an "Academy of Arts." Perhaps it is not to be disregarded, that the study of architecture has, within the last few years, had certain opportunities afforded within the walls of other institutions, —so that the student, if he happen to be rightly directed, can, at some pains and loss of time, collect from scattered sources, that which in every other chief country of Europe, is of sufficient moment to be afforded, with the aid of several classes and professors, at one central college. However, the great want in England, with reference to our art, is that of an educated and appreciating *public*; and this step towards the realization of good art in architecture, the Royal Academy does exactly nothing to supply. For, what importance can we attach to space, now reduced to half of the small room, and to the departed heading from the catalogue?

We said the same thing lately, in urging the claims of the Architectural Exhibition upon our professional friends,—argument which in that quarter should hardly have been needed,—and, since we had a voice, we have spoken in the same strain, as every month of May came round. We have no mind for the disagreeable duty of this annual protest,—yet it is one not to be omitted.

That which is done by the Academy, as a body, for architecture, and even for sculpture,—not to mention decorative and ornamental art,—is the mere "cold obstruction," instead of fostering care. What was said by Earl de Grey at the last dinner, namely, that there was a natural connection between the Royal Academy and the architects, expressed rather what ought to be, than what seems to be felt by Academicians. Amongst the oil paintings of the present year, errors in perspective and in the drawing of architectural forms are as glaring as ever; synchronism is often wholly disregarded; and the philosophy of general art, which architectural writers have done much to elucidate, seems to have afforded no principles,—where they are of just the same value as in architecture. Your English painter, with all his merits, (and they are great in Europe), in regard to architecture and general art, must belong to the *Know-Nothings*. The ministers of the Cabinet in Trafalgar-square, conduct the national business on the routine of the pre-architectural period of their early institution. During late years, they have been like Rip Van Winkle, fast asleep; or they are wilfully blind to what moves the hearts of men now, even in the direction of architecture. Of the architect—members of the Academy, we see this year, as little as before,—Mr. Sydney Smirke being the only one who has himself sent a drawing. With the like indifference of other leading men, our profession will bring on one or other of us, a French sally,—not architect, *not even academician*.

We have before urged that success of the Architectural Exhibition would not justify indifference in relation to the Academy. Such as the show of drawings is this season, it leads us to regret that some who have taken great pains to present their works favourably, could not be induced to devote similar pains on the recent occasion. We are, indeed, glad to observe a growing attention to the proper representation of designs, by giving plans and explanatory sketches of subordinate parts, together with the principal drawing. Mr. E. M. Barry's works from this cause, and having regard to their merits, it is really a great advantage to be able to examine so readily. In No. 1218, Mr. Barry exhibits two designs (to one of which "the first premium was awarded"), for the West of England and South Wales Banking Company's Bank at Bristol. In both, the principal room is lighted from square apertures in an arched roof, the arch being in one case supported by an order, and in the other case by a cove and brackets from the side walls,—the latter arrangement of course demanding some skill in construction. There is good design about the ends of the apartment. The elevations in the two designs, are in the Italian style. In Mr Barry's "Design for the Oxford University Museum, which obtained the second place in the late competition, under the motto Fiat Justitia," &c. (1236 and 1272), the museum, with its arched roof in iron and glass, occupies the centre of the site, the cases being ranged transversely, with the galleries above, along them. The exterior is designed in the Italian columnar style, with angular masses of the building enriched with three-quarter columns and clustered pilasters, and crowned by an enriched attic. The centre of the main front has a colonnade. The same architect also exhibits (1173) "Interior of a Library, recently fitted up at the Reform Club:" a Corinthian order, coved and enriched ceiling, with ornament in white and gold, are the features of it. It is scarcely a step in advance. The academic contribution above referred to, and for which we are duly thankful, is (1172) "A View of the Garden-front of the Carlton Club." This front, as our London readers know, has a central feature in the form of an additional story, the main cornice there projecting on bold cantilevers, as a balcony. The merits of Sansovino's buildings will, we hope, in future, not interfere with the addition of original genius, to the merits of the works of architects in and about Pall-mall. Committees are themselves mainly, to blame, if the expression of this wish be suggested by any recent structures. The name of Elmes is not appended to Mr. J. E. Goodchild's large view of the Interior of St. George's hall, Liverpool (1284), nor is that of the Professor of Architecture at the Academy; the latter omission being one which, after our opening remarks, we do right to supply. The drawing is a very artist-like work,—though materially injured in effect by the endeavour to show the construction of the building—by portions in section which do not sufficiently attain their own object. If the colouring of the ceiling be correctly shown, we must admit we did not realize the force of Mr. Huggins's objections to what Mr. Cockerell has done. The violent contrasts of coloured marbles in the balustrades, however, seem objectionable.—Mr. G. G. Scott exhibits (1235) the design for the Hôtel de Ville, at Hamburgh, which he is carrying out. We confess we cannot altogether like it. We only hope we may take it as evidence, that the well-worn path of Mediæval precedent is being abandoned by those who are best acquainted with the works themselves. All artists are, now and then, for a while in this transition state,—feeling the necessity of a new direction,—yet not having had the means of determining the proper use of accumulated stores. What we may call the back of the building, is that which we like the best; here there is pleasing grouping of the several blocks of buildings, and of the openings and projections in each. The fountain court with ascending staircase, and open galleries in the upper floor, also is *piquant* and clever. But the main front is tame and blank. The open work battlement trenches upon the time-honoured style of gingerbread, and the angle turrets corbelled out on slender shafts, seem to our crude opinion, top-heavy and meaningless. There is a lofty central tower, square on the plan, and crowned by a lofty roof, terminated by a crocketted spirelet. A piazza projects on the ground story. The windows have pointed arches, and are of similar character in the different stories, and coloured materials are introduced. We doubt not, the building has been designed with especial regard to what is deemed characteristic of the Hotel-de-Ville on the Continent; and what such characteristics are, no one knows better than the present architect. Here, however, we touch upon the whole question of style,—one of the most knotty of points which the architect has to solve, and without waiting the result of our speculations.—The masters' and scholars' residences, Rugby School, lately built from Mr. Scott's designs, are exhibited by Mr. J. D. Wyatt (1180).—Mr. C. J. Richardson has a "View of the New Prince's-road," &c. (1206), at Kensington Gore, showing the position the proposed National Gallery and other buildings will take (when?), together with the houses now being erected on the Earl of Barrington's estate. Mr. S. W. Daukes exhibits (1,222 and 1,240) two views of Witley Court, Worcestershire, the residence of Lord Ward,—the details are a little commonplace.

We have found more grounds of objection than we like to find, and we fear we cannot discharge our present duty with pleasure to ourselves. Mr. W. J. Smith's "Building at Constantinople, now used as the French Hospital" (1,225), appears to take the form of a large quadrangle, with masses at the angles; and with a two-storied portico and dome in the main front. Supercolumniation is adopted for the general decorative treatment of the angles, and in other parts, the windows have Italian dressings. There is, we fear, sad want of life in the works of English architects, in the very homes of styles which are of striking character in form and colour; and we are afraid that the Sultan's palace, produced by a native architect, and lately illustrated in our pages, whatever its impurities of detail, has merits which learning and refinement have sometimes escaped. In the present building, the hipping down of the principal roof, to admit of the *tambour* of the dome, is a mistake, such as we should now not have presented to us.—Mr. G. S. Clarke's "New business Premises of Mant, Brown, and Co. in Wood-street, Cheapside" (1,279), exemplifies the improved character of design which the warehouse architecture of the City is beginning to present—especially about the principal doorway,—but like such works, contrasts disadvantageously with architecture of similar character in certain towns of the northern and midland counties—especially in regard to attention to the grouping of the several stories. Something is required beyond a bold cornice, and in place of uniformity of heights and of design in string courses and window dressings.

To what extent unity of style is required, both to render possible, and to incite to, original efforts, in place of the use of transcripts of models, is a question which has been often put in these pages; yet so long as buildings of the most opposite character, like Windsor Castle and Blenheim Palace, have, for some reason, *both* claims to admiration, it is hard to see how or which way the desired bent is to be given, which has for its object progress in art. However, there are evidences of a lessening desire to follow the mere fantastical features of styles, such as those of the Elizabethan, which could never have gained prevalence had the difficulty of confining the judgment to mere æsthetic merits not existed. Messrs. Banks and Barry,

however, in their "Design for a Mansion" (1252), have not avoided such character as we refer to in the upper features in their Elizabethan design, giving the appearance of a story in ruins. Messrs. Weightman, Hadfield, and Goldie, in the "Design for a House at Boreatton, Shropshire" (1243), have adopted an Elizabethan character of style which at least is free from eccentricities, and the entrance gateway is indeed very successful. In several minor works, of semi-domestic character, Mr. Teulon uses the Gothic style with good effect, as in 1175, "Wheelwright's and other Shops, designed to be erected at Thorney Abbey," for the Duke of Bedford, and 1197, "The Post-office, Relieving Officer's House, and Cottage for the same Place." Messrs. Coe and Goodwin, in the "Proposed Mansion for the Hon. W. H. Yelverton, Whitland Abbey, Caermarthen" (1203), appear to go to the half-timbered style of Lancashire and Cheshire; whilst Mr. J. Turner, in such works as "The Entrance Front of Bourne-place Farm, Tunbridge," erected for Wm. Lawson, esq. (1292), adheres to the charms of the Tudor red brick. In the last-named design there is a picturesque octagonal turret. The "Villas now erecting near the Crystal Palace, Sydenham," for the Godstone Stone Company (1285), are still Gothic, and, of course, of stone,—whilst the architects of designs for the laying out of building-ground appear to seek as much opposition of style and form, and colour in materials, as a site will admit. Mr. C. Laws has such a design for "Proposed Villas at Harrow" (1229), which, however, may possess merit. Messrs. Wehnert and Ashdown exhibit a large drawing, showing the "Improvements of the Town of Llandudno, North Wales, now being carried out" (1237). Mr. H. Williams has a "Design for Proposed Schools for Orphan Girls," with residence and offices (1283), with a high-pitched roof to the centre buildings, and an octagonal centre tower.

We have not noticed all the drawings which call forth remark; but shall have another opportunity.

THE NEW METROPOLITAN BUILDINGS' BILL.

THE following gentlemen have been nominated to form the Parliamentary committee on the Metropolitan Buildings Bill:—Sir William Molesworth, Lord John Manners, Lord Robert Grosvenor, Mr. Brand, Sir John Shelley, Sir William Clay, Sir Joseph Paxton, Mr. William Williams, Mr. Alderman Cubitt, Mr. Jackson, and Mr. Locke,—five to be the quorum.

There seems to be but one opinion on the subject out of doors, and that is in accordance with the views we expressed last week. The following letter will serve to represent several received by us:—

Your strictures on this Bill have found an echo wherever the matter is *practically* understood. Seriously to criticise it, were an unprofitable matter. Much that is good and desirable, clear and well defined, in the present Act, is swept away. The language of the Bill is obscure, and the whole indeterminate in point of law, while elements of the greatest possible confusion are needlessly introduced. All persons conversant with the matter know that what has been recommended with the fewest dissentient voices is "Lord Seymour's Bill" and a "Metropolitan Buildings Court."

A DISTRICT SURVEYOR.

The new Metropolitan Buildings Bill, on which you gave some judicious comments in your last number, is still less entitled to respect when we come to the investigation of its provisions in detail. I will only instance one case. Sec. 14, par. 5, rule 1, is as follows:—"Draw the smallest parallelogram that contains the ground plot, and the length of such parallelogram shall be taken for the frontage, and the breadth for the depth of the building." Now, I will take the simplest case which can occur of a plot which is not a parallelogram, and you will find it contain two equal parallelograms, whereof the length "to be taken for the frontage" would differ.

[The demonstration would require a diagram.]

I will only mention further, that the anomalies which appear in applying the rules as to thicknesses of walls, are incredible. A SURVEYOR.

THE WALL OF OLD LONDON.

WHETHER we inquire into particulars of the romantic and ancient times of this wonderful metropolis, when the obscurity of the past, like the grey tints of a picture throw out in good relief a few strong points of colour; or into those of the modern days, when more than two millions of human beings are collected within it,—the interest never flags. While we especially concern ourselves with matters of the present day, we have sought to record the architectural features of ancient London, which are now rapidly giving way before modern wants and improvements.

Our series of papers and illustrations on the Houses and Shops of Old London surprised many: they were not aware that so much of the old place still remained. Since the publication of those articles many of the buildings have been destroyed, and exist only in the pages of our journal: so rapidly is change going on, that in a short time all the domestic features of Old London will have passed away.

To add to our records of matters of former days, we have lately made sketches of several of the fragments of the City wall still remaining, and these, with a few particulars, we will, without preface, put before our readers. It would be wasting space to inquire into the uncertain and probably fabulous accounts of the origin of the metropolis, or to what extent stone walls were used for the defences of the City at the time of the Roman invasion. It is most likely that until the arrival of those conquerors the fortifications consisted of earth-works alone; and that during the 500 years of Roman occupation, London, under the skilled hands of the foreign legions, became stronger and more extensive.

Mr. Roach Smith has shown* that the extent of London, when first colonized by the Romans, was of very circumscribed bounds, and that it gradually was extended to meet the requirements of increased population and trade. Recent discoveries throw much light on the gradual growth of the Romano-British metropolis. They indicate the localities of walls and buildings of great strength and solidity,—now at a considerable distance from the banks of the Thames, but formerly nearer its bounds, which were less defined, and subject to overflowings: from the unembanked and undrained state of the adjacent country, it must have been the work of a long and prosperous settlement to extend the City from Blackfriars to the Tower in length, and from the Thames to Moorfields in breadth. That this was accomplished by degrees is proved by the strong evidence of funeral interments. The well-known prudence of the Romans, forbade the inhumation of the dead, near the abodes of the living.

Fitzstephen informs us that London was bounded by a wall along the banks of the Thames from the Tower westward, and, although the truth of this has been questioned, discoveries, described by Mr. Smith, show that the present Thames-street follows the line of the Roman wall. In 1841 an excavation for sewerage was commenced at Blackfriars, and the workmen having advanced without impediment to the foot of Lambeth-hill, were there stopped by a wall of extraordinary strength. "Upon this wall the contractor for the sewers was obliged to open his course to a depth of about 20 feet, so that the greater portion of the structure had to be overthrown, to the great consumption of time and labour. The delay occasioned by the solidity and thickness of this wall, gave me an opportunity of making careful notes as to its construction and course.

It extends, as far as I had the means of observing, from Lambeth-hill to Queenhithe, with occasional breaks. In thickness it measured from 8 feet to 10 feet. The height from the bottom of the sewer was about 8 feet, in some places, more or less, it reached to within 9 feet from the present street, and 3 feet from that which indicates the period of the Fire of London—in this district easily recognised. In some places the groundwork of the houses destroyed by the Fire of 1666 abuts upon the wall.

The foundation was made in the following manner:—Oaken piles were first used, and these were laid in a stratum of chalk and stones, and then a course of hewn sand-stones, from 3 feet to 4 feet by 2 feet and 2½ feet, firmly cemented with the well-known compound of quick-lime, sand, and pounded tile. Upon this solid superstructure was built the wall—composed of rag and flint, with layers of red and yellow plain and curved-edged tiles, from which it could not be separated by force."

Many of the large stones which were worked into this ancient wall, evidently had formed portions of buildings of still greater antiquity, being sculptured and ornamented with mouldings, which denote their prior use in a frieze or entablature of an edifice; the magnitude of which may be conceived from the fact of these stones weighing in many instances upwards of half a ton. "Whatever might have been the nature of this structure, its site, or cause of its overthrow, we have no means of determining. The probability of its destruction by the insurgent Britons, under Boadicea, suggests itself. I observed also, that fragments of sculptured marble had been worked into the wall; and also a portion of stone, carved with an elegant ornament of the trellis-work pattern—the compartments being filled alternately with leaves and fruit. This has apparently belonged to an altar. In Thames-street, opposite Queen-street, about two years ago (1839), a wall, precisely similar in general character, was met with, and there is little doubt of its having originally formed part of the same."

In the "Archæologia," vol. viii. p. 132, Sir John Henniker describes the underground formation of a part of Old London, as follows:—

"A large trench has been excavated in Lombard-street, for the first time since the memory of man, which is sunk about 16 feet deep. The soil is almost uniformly divided into four strata, the uppermost 13 feet 6 inches thick, of factitious earth; the second, 2 feet thick of brick, apparently the ruins of buildings; the third, 3 inches thick of wood ashes, apparently the remains of a town built of wood, and destroyed by fire; the fourth, of Roman pavement, common and tesselated. On this pavement the coin in question (a gold coin of Galba) was discovered, together with several other coins, and many articles of pottery. Below the pavement the workmen find virgin earth." We have thus evidence of four conditions of London, viz.,—the Roman city on the virgin soil; a city of wood destroyed by fire; a third city of more substantial materials, and 13 feet 6 inches of miscellaneous deposits.

In the year 1707, Dr. Woodward had an opportunity of noting the composition of the City wall by the pulling down of a part of it near Bishopsgate, to make way for new buildings. "From the foundation (says he), which lay 8 feet below the present surface, quite up to the top of the oldest part, which was in all near 10 feet, it was compiled alternately of layers of broad flat bricks and rag stones. The bricks lay in double ranges, and each brick being but 1 inch and 3-10ths in thickness, the whole layer with the mortar exceeded not 3 inches. The layers of stone were not 3 feet thick of our measure. To this height the workmanship was after the Roman manner, and these were the remains of the ancient wall. In this it was very observable that the mortar was so very firm and hard, that the stone itself as easily broke. It was thus far, from the foundation upwards, 9 feet in thickness. The above broad thin bricks were all of Roman make, and of the very sort we learn from Pliny that were in common use among the Romans: measuring some of these I found them 17$\frac{9}{10}$ inches in breadth.

The old wall, on its being repaired, was carried up of the same thickness to 8 or 9 feet in height; or if higher, there was no more of that work now standing. All this was apparently additional, and of a date later than the other part underneath it, which was levelled and brought to a plane for the raising of this new work upon it. The outside, or that towards the suburbs, was faced with a coarse sort of stone, not compiled with any great care or skill, nor disposed into a regular method, but on the inside there appeared more marks of workmanship and art.

* "Archæologia," vol. 29, p. 146.

At the bottom were five layers composed of flint and freestone, though they were not so in all parts; yet in some the squares were near equal, about 5 inches diameter, and ranged in a quincunx order.

Over these were a layer of brick, then of hewn freestone, and so on alternately, brick and stone, to the top. These bricks, of which there were four courses, were of the shape of those now in use, but much larger, being near 11 inches in breadth, and somewhat above 2½ in thickness.

There was not one of the Roman bricks above mentioned in all this part, nor was the mortar here near so hard as in that below, but from the description, it may be easily collected, that this part, when first made, with so various and orderly disposition of the materials, flint, stone, and brick, could not but carry a very handsome aspect.

Upon the additional work now described was raised a wall wholly of brick, only that it terminated in battlements. These were topped with copings of stone. It was 2 feet 4 inches in thickness, and somewhat above 8 feet in height. The bricks of these were of the same model and size with those of the part underneath."

There is a passage in Stowe, which seems to allude to the burnt City, the remains of which are mentioned by Sir John Henniker:—

The historian says that "about the year of Christ DCCCXXXIX. this city of London (having been destroyed and burnt by the Danes) was repaired and honourably restored, and made again habitable, by Alfred, who also committed the custody thereof unto his son-in-law Ethelred, earl of Mercia, unto whom he had before given Ethelfled; and that this city was strongly walled, may appear by divers accidents, whereof I have read some, viz. [Stowe then quotes from William of Malmsbury the particulars of the Londoners shutting their gates against the Danes, in order to protect King Ethelred].

In MXVI. Edmund Ironsides reigning over the West Saxons, Canute the Dane bringing his navy near London by a trench, which he had caused to be cut for that purpose, was enabled to cast a trench about the city, and then attempted to have won it by assault. But the citizens repulsed him, and drove him from the walls.

In 1215, the 6 of King John, the barons entering the city by *Ealdgate*, first took assurance of the citizens, and then they brake into the houses of the Jews, and searched their coffers to fill their own purses, and after, with great diligence, repaired the walls and the gates of the city with the stones taken from the Jews' broken houses.

A.D. 1257, Henry III. caused the walls of London, which were sore decayed and destitute of towers, to be repaired in more seemly wise than before, at the common charge of the City.

In 1282, King Edward I. having granted some years before to Robert Kilworly, Archbishop of Canterbury, licence for the enlarging of the Blackfriars church, to break and take down a part of the wall of the City from Ludgate to the River Thames, he also granted to Henrey Walleis, mayor, and citizens of London, the favour to take towards the making of the wall and inclosure of the City certain customs or toll, as appeareth by his grant. This wall was then to be made from Ludgate West to Fleet-bridge, along behind the houses, and along by the water of the Fleet unto the River Thames.

In 1310 (Edward II.), the citizens were commanded to complete the wall.*

In 1316, the kingdom being threatened with a French invasion, when the best of the English troops were in Spain, the king issued a writ for the repair of the city-wall, of which the following is a translation:—

"The King to his beloved the Mayor and Aldermen, and the rest of the citizens of London, sendeth health. Know ye that the walls and other defences or forts of the said city be old and weak, and, for want of repair, are fallen down in some places, as also the ditches of the said city are exceedingly filled with dirt, dung-hills, and other filth, and with grass growing in the same,—not only to the evident danger of the said city and inhabitants thereof (and chiefly at this present time of war), but also to the manifest disgrace and scandal of the whole city," &c. His Majesty then gives the Mayor and citizens a license to take a toll on all kinds of victuals and merchandize brought into the city for the space of ten years, in order to defray the expense of the intended repairs.

Anno 1477, by the diligence of Ralph Josceline, mayor of London, the wall about London was made new betwixt Aldgate and Cripplegate. He caused the Moorfields to be searched for clay, and brick to be made, and burnt there. He caused, also, chalk to be brought out of Kent, and in the same Moorfield to be burnt into lime.

In Strype's "Stowe," published in 1720, we are told that the gates of the City "of old time" were four, viz.:—Aldgate, for the east; Aldersgate, for the north; Ludgate, for the west; and the Bridge-gate, over the River Thames, for the south.

In the reign of Henry II. Fitzstephen says,—"There are seven double gates in the wall of this city;" and although he does not name them, they may be supposed to be as follows:—Gate next the Tower, called the Tower-postern, Aldgate, Bishopsgate, Cripplegate, Aldersgate, and the Bridge-gate; since this time were built Newgate; the Postern, Moregate; a Postern from Christ's Hospital, towards St. Bartholomew's Hospital, in Smithfield.

Stowe says that the water-gates on the banks of the River Thames have been many, which, being purchased by private men, are also put to private use, and the old names of them forgotten. But of such as remain, from the west towards the east, he gives a list as follows:—

"The Blackfriars stairs and free landing-place; then a water-gate at Puddle-wharf, of one *Puddle* that kept a wharf on the west side thereof, and now of Puddle water;" then Paul's-wharf; then Broken-wharf, Queenhithe; Downgate, Wolfsgate, Ebgate, Oister-gate, Bridge-gate, Buttolph's-gate; "then you have a water-gate on the west side of Wool-wharf, or Customers'-key:" and another water-gate by the Bulwark of the Tower.

If our readers will refer to the bird's-eye view of London here published, and look with us at the south-west extremity of the ancient City fortification abutting upon the Thames, we will proceed upon our pilgrimage, noting, before starting, that as near as possible to the site now occupied by the stairs leading to the steam-packet landing from Blackfriars-bridge, was formerly a strong tower. From this the wall ran northward a little to the east of the River Fleet, to the south-west corner of Ludgate-hill, where there formerly was another tower. The whole of this portion of the wall has long since disappeared, about 60 feet south of the street abovementioned; several of the houses, in fact, being built upon the wall. It was here that the basement of the tower which we have already described was discovered. At the eastern extremity of this street is still remaining a portion of Ludgate (see engraving). From here the wall stretches to the north a little beyond Newgate-street. The little ground-plan (Fig. 2), will show this part very clearly:—

A. is Newgate.
B. Remains of wall in Green Arbour-court.
C. Tower on the premises of Mr. Farmer, builder.
D. Remains of wall behind Stationers' Hall and Amen-corner.
E. St. Margaret's Church, Ludgate-hill.
F. Ludgate-hill.
G. Ludgate.
H. Fleet-ditch, a few yards west of the wall.
I. The dotted line shows the former position of the wall, which was demolished about the time of Edward II.
J. *Times* printing-office.
K. Newgate prison, courts, &c.

It will be seen that the wall was some distance to the east of the Old Bailey, and that from Ludgate to Newgate were formerly two bastions (shown in the plan). The interior of one of these marked C, was discovered by the circumstance of a dog frequently vanishing through a small hole, and remaining a considerable time hidden from view. This caused the parties who had possession of the place to make an examination, and led to the discovery of the interior of the tower, which, on being cleared out, afforded enough stable-room for two horses. The upper room is shown in the engraving. This tower is built of solid masonry. The openings, probably of more recent date than the structure, are turned with brickwork. This, with the part nearly adjoining beside the Stationers' Hall, and which may be reached through a gate at the end of Amen-corner, is all that remains of the wall, so far as we have been able to discover, between Ludgate and Cripplegate churchyard, except a small piece in St. Ann's churchyard, near the Post-office.

The accompanying engravings will be referred to hereafter.

Fig. 1. Sketch—Plan of the City, showing the course of the wall, with the following references:—

A. Tower formerly at the Thames near the north portion of Blackfriars Bridge.
B. Tower at the angle of the wall near Newgate-street and Farringdon-street. (The wall was continued from hence eastward to Ludgate.)
C. Portion of wall discovered under the Milton Club—described in a recent number of the *Builder*.
D. Continuation of the wall from Ludgate to Newgate—at D. portions remaining. (See engraving of wall east of the Old Bailey and behind the Stationers' Hall.)
E. Christ's Hospital.
F. Newgate.
G. Tower.
H. Cripplegate.
I. Moorgate.
J. Postern.
K. Bishopsgate.
L. Postern.
M. Aldgate.
N. Tower Postern.
O. Tower of London.
P. Tower-hill.
Q. Custom-house.
R. Cheapside.
S. Old St. Paul's.
T. Queenhithe.
V. Old London Bridge and St. Saviour's Church.
W. The Globe Theatre in the Borough.

Fig. 2. Plan showing position of wall from Newgate-street to the Thames.

Fig. 3. Portion of the wall in St. Martin's-court, Ludgate-hill.

Fig. 4. Wall under the *Times* Printing-office.

Fig. 5. Interior of Tower east of the Old Bailey.

Fig. 6. Behind Stationers' Hall.

* See account of fragment of this wall recently discovered, pp. 98, 99, ante.

GENERAL MEETING OF ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE following members of Council and other officers were elected at the General Meeting held on the 7th inst.:—President: Earl de Grey. Vice-Presidents: Messrs. B. Ferrey, F. C. Penrose, and W. Tite. Honorary Secretaries: Messrs. J. J. Scoles, and C. C. Nelson. Ordinary Members of Council: Messrs. E. Christian, H. Clutton, J. H. Hakewill, P. C. Hardwick, G. O. Leicester, C. Barry, G. Godwin, J. J. Cole, J. Gibson, and J. Whichcord. Hon. Sec. Foreign Correspondence, Mr. T. L. Donaldson. Hon. Solicitor, Mr. W. L. Donaldson. Auditors: Messrs. W. G. Habershon, Fellow, and A. J. Baker, Associate. Treasurer, Sir W. R. Farquhar.

THE LATE MR. J. E. GREGAN, ARCHITECT.

WE have heard with much regret of the premature death of Mr. John Edgar Gregan, of Manchester, on the 29th of April, in the forty-second year of his age. It seems that over-exertion had caused a prostration of strength, and a severe cold succeeding, had produced a low nervous fever, which, after a fortnight's confinement, terminated rather suddenly by effusion of water on the brain. Mr. Gregan went to an architect's office in Manchester as draughtsman nineteen years ago. By ability and honourable exertion, without influential connection, he had raised himself to a high rank in his profession. Several of his works at Manchester are illustrated in our pages—a large warehouse (vol. VIII. p. 414), Sir Benjamin Heywood's Bank, and others. His last public work was the design for the new Mechanics' Institution in David-street, Manchester, the foundations of which were only lately dug out. He has been for several years honorary secretary of the Royal Institution, at Manchester, and took a deep interest in the prosperity of the Local School of Design, in the formation of the Manchester Free Library, and in various societies for the cultivation of literature and music. He was a fellow of the Royal Institute of British Architects. In all the more private relations of life he was greatly beloved.

THE WALL OF OLD LONDON.

FIG. 1.

FIG. 3.

FIG. 2.

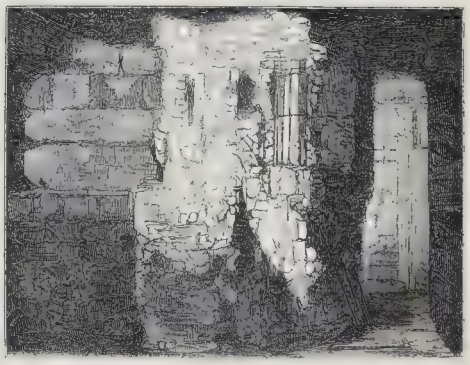


FIG. 4.

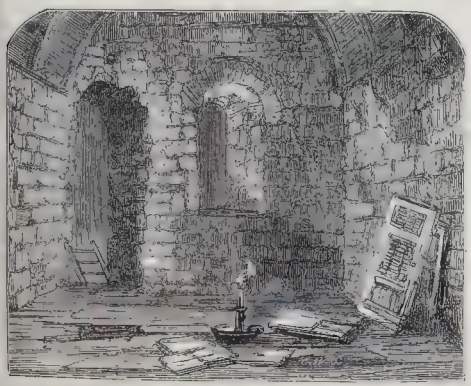


FIG. 5.

FIG. 6.

PROVINCIAL NEWS.

Ipswich.—The local Baths and Washhouses Committee, according to the *Norfolk Chronicle*, have resolved to adhere to their original plan of erecting baths alone upon the site offered by the corporation, on Common Staithe Quay.

Romsey (Hampshire).—The restorations of the old Abbey Church are just being commenced. A new carved oak roof is to be put in the nave, and covered with lead. The works are under the direction of Mr. Ferrey, architect; Messrs. Gover, Brothers, of Winchester, contractors.

Dover.—Among the sums voted for harbours of refuge for the year 1855-6, we find that 34,000*l.* have been voted for the continuation of the works now in course of construction at Dover. The subsequent vote required to complete the work will be 278,000*l.* It is stated that the works here have been delayed in consequence of the chalk foundation at the site of the present works not proving so good as is the portion nearer the shore. They do certainly get on very slowly, like some other great public works on the coast.

Weston-super-Mare.—A company has been formed here for the erection of a new town-hall, including an assembly-room, post-office, &c. The cost is estimated at 5,000*l.* which sum it is proposed to raise by shares of 10*l.* each.

Gloucester.—At the City Council Board last week, the tenders for the erection of the new market in Eastgate-street were brought forward for consideration. The tenders were read, and were as follows:—Mr. G. Taylor, 4,466*l.* the contractor explaining that a fall in the price of iron enabled him to make this reduced offer; Mr. J. Walker, 4,415*l.* 14*s.*; Messrs. W. Jones and Son, Gloucester, 4,250*l.* (and to give credit for the old materials); Messrs. T. Pratt and J. Williamson, 4,500*l.*; Mr. M. Cholerton, 4,580*l.* (and to give credit for the old materials); and Mr. C. Niblett, 4,405*l.* (and to allow 100*l.* for the old materials). [Mr. Cholerton's tender, according to a Gloucester paper, was read by mistake 5,580*l.*] It was then observed that the main bulk of the market would cost 4,250*l.* according to the lowest tender; and supposing that the extra work as scheduled would amount to 1,000*l.* more, it was desirable that the council should know which of the lowest contractors gave the lowest estimates for the extras. The mayor said this was open to the remark that the unfortunate committee had been sadly belaboured for not accepting the lowest tender. It was then stated that, with regard to extras, upon the most important items Mr. Jones was the lowest contractor. Mr. Jones's tender for the works was accepted.

Bristol.—Workmen have been actively employed in preparations for the new iron bridge on the Bath road, the contract for the iron-work of which was entered into with Mr. Finch, of Chepstow, who erected the tubular bridge across the river Wye. The Dock Committee have thought it desirable to have the masonry under the immediate control of their engineer, Mr. Blackwell; and, instead of its being entrusted to one contractor, it has been subdivided into small contracts.

Usk.—Tenders for Llansoy parsonage-house and offices near Usk, in Monmouthshire, Messrs. Prichard and Seddon, architects, have been lodged; the highest, that of Mr. Jackson, of Monmouth, being 1,023*l.* 8*s.* for the house and offices, under deduction of 80*l.* for old buildings; and the lowest, that of Mr. Brown, of Bristol, being 630*l.* less 50*l.* 5*s.* for old materials. Mr. Brown's tender was accepted.

Evesham.—The new bridge over the Avon, the erection of which has been undertaken by Mr. J. Taylor, of London, contractor, is progressing. The work has been impeded by water in the coffer-dams, out of one of which 900 gallons per minute were raised for about a fortnight. The main difficulties are now said to be overcome.

Ardwick.—On Friday before last a sepulchral monument was placed over the remains of the celebrated Dr. Dalton, the discoverer of the law of atomic proportions in chemistry, who was buried in the Ardwick Cemetery, where hitherto nothing indicated his last resting-place, although he died nearly eleven years ago. The monument is very simple and unostentatious. It is made of polished Aberdeen granite, from the establishment of Mr. Macdonald, of Aberdeen, and consists of a plinth 10 feet long by 7 feet wide, from which rise sloping sides and ends supporting a monumental stone, 7 feet by 4 feet 4 inches; the shape of the raised part assimilating much to that of a truncated pyramid. On the top stone there is the inscription, in large characters, "John Dalton," on one side, "Born 5th April, 1766," and on the opposite side, "Died the 27th July, 1844."

Oldham.—The foundation stone of a Lyceum is to be laid here about Whitsuntide. The site selected is at the junction of Union-street with Clegg-street, near the public baths, and embraces a frontage of about 30 yards towards Union-street, and 20 yards to Clegg-street, with an addition of 7 yards, upon which to erect a house for the master. Besides the basement—whose windows have their tops a little above the ground level—the building will be of three stories, but the fenestration of the upper one will not be visible externally, being lighted from the roof. In the basement there will be a boys' schoolroom, 42 feet long by 28 feet wide; a girls' schoolroom of same dimensions; and a class-room, 15 feet square. These will be 12 feet high, and lighted from an area at the front. On the ground floor, in the principal front towards Union-street, is the main entrance, the hall of which is 15 feet square. The vestibule (at the further end of which is a staircase) is 15 feet wide and 32 feet long. This gives access, on the left, to the newsroom, which is 42 feet by 28 feet; and, on the right, to the reading-room, 28 feet by 26 feet 6 inches. These are 15 feet high. Behind the reading-room is the library, 28 feet by 15 feet. In Clegg-street there are two entrances, one for boys and the other for girls, leading to the class-rooms, and to small open yards. Adjoining this portion is the master's house. Above the newsroom and entrance for boys is the lecture-hall, 48 feet by 28 feet, and 22 feet high, lighted by three windows towards Union-street, and six toward Clegg-street. On the same story, over the entrance-hall, is a class-room, 15 feet square; and over the reading-room is a committee-room, 28 feet by 18 feet. There are also two class-rooms over the library, each 15 feet by 13 feet 6 inches. The upper story contains several class-rooms, and a small flight of stairs leading to a flat, upon which it is proposed to construct an observatory. The general style of the building externally is Italian,—fenestration and arcuation being depended upon for obtaining the chief effect. The basement is of "picked" masonry, then follows a course of smooth stone. Heating and ventilation will be specially provided for. The entire cost, including some alterations and additions not originally contemplated, is estimated at 4,350*l.* The designs for the erection are by Mr. N. G. Pennington, of Manchester; and Mr. Whittaker, of Oldham, is the contractor.

Barnsley.—A large building as a bleach work has just been erected in the locality of Cudworth, about 3½ miles from Barnsley. The building is 126 feet long by 100 feet internally. The roof is on the principle of a laminated arch, and consists of five main ribs or arches, each 100 feet clear span. The ridge of the roof rises to the height of 40 feet above the floor of the building. Each of the main ribs is calculated to carry 3 tons 14 cwt. exclusive of the iron-work. The building is thus in one room, without any pillar to interrupt the working operations below. The design is by Mr. W. J. Hindle, of Barnsley, architect. The several artificers employed in the building are Messrs. G. Moxon, stonemason; H. Harrison, carpenter; W. Brown, plumber and glazier; C. Rogers, painter; and Inns and Co. engineers. The workmen employed in constructing the works had a supper given them by the proprietor, at the Star Inn, Cudworth, on Friday week, when a party of seventy-four persons met and spent the evening together.

Edinburgh.—A great part of the old city wall of Edinburgh has been demolished in front of the addition lately made to the Royal Infirmary; but in the small portion of it which yet remains there is preserved an interesting relic—the arched top of the garden-door of the old Kirk of Field, through which the murderers of Darnley, in 1567, made their temporary escape after igniting the train which blew up the house in which his strangled body lay.——The *Scotsman* complains of a renewed attempt to whitewash one of the most ancient and picturesque portions of the Castle, and suggests that at all events the effect should be softened by some darkening colour in the pigment. The idea of converting the venerable old Castle of Edinburgh into a spick and span new one by a flare-up of whitewash is indeed "an artistic barbarity."

CHURCH-BUILDING NEWS.

Boston.—There is a probability, it appears, of a restoration of the West Chapel, in Boston parish, to be effected by several friends in America. An application was made some months ago to the Hon. E. Everett, of Boston, U.S. as the representative of the descendants of John Cotton, reminding him that no memorial of Cotton existed in the church which was the scene of his labours, and suggesting the restoration of the chapel. A letter from Mr. Everett has been received stating that a subscription has been set on foot which without doubt would soon amount to 300*l.* and requesting the vicar and churchwardens to give designs of the intended restoration, and the probable cost of the same. It is proposed (should the funds be sufficient) to complete the interior of this chapel, and to place a stained-glass window in the west end, with suitable inscription.

Aylesbury.—A stained-glass window has been fitted up in the north chapel of St. Mary's Church, Aylesbury, by the lady of Sir Astley P. Cooper, in memory of her deceased parents. The three compartments are filled with figures of St. John, the Redeemer, and St. Paul. Mr. J. G. Waller is the artist who has been engaged on the work, which has been executed by Messrs. Baillies, of Wardour-street.

Bristol.—St. Clement's Church was consecrated on Tuesday in week before last. This edifice stands at the extreme end of Newfoundland-street, and is situated in the out-district of St. James and St. Paul. It owes its erection to the exertion of the incumbent of the parish. It is of the English style of thirteenth century, and contains a clerestoried nave, chancel, and north aisle, the total length within the walls, including chancel, being 113 feet, and the width of nave and north aisle, 41 feet, with sacristy on south side of chancel. Provision has likewise been made for a south aisle when required. The west front, facing Holten-street, presents the gable of nave, and leans to the roof of the aisle with open octagonal bell-turret, 65 feet high at north-west angle of the nave, surmounted by a spirelet and supported by flying buttresses; a deeply-recessed moulded doorway forming the principal entrance, and a light lancet trefoil-headed window over with triplet to aisle. The north front, facing Gideon Chapel, is divided into six bays, with coupled trefoil-headed windows to aisle and clerestory porch. A triple trefoil-headed window, with a continuous gable and quatrefoil over, is placed in the east front, and plain cushion-headed two-light windows in south front of nave. The exterior is of Stapleton stone, with Bath stone dressings. Interiorly the nave is divided into six bays, with attenuated octangular and circular piers and chamfered arches over; the height to apex of nave roof being 46 feet, and to chancel roof, 34 feet. The fittings are of stained deal of plain character. The church contains about 300 closed and 400 free sittings. The expenditure on the building has been about 2,000*l.* The architects were Messrs. Gabriel and Hirst, and the contractors, Messrs. Foster and Wood, of that city.

Mawnan (Cornwall).—The interesting parish church here is to be thoroughly renovated. The chancel is to be done first. There will be new traceried windows, copings and gable crosses, open timbered roofs, and new fittings generally. The nave, aisles, and north porch are to be re-roofed, with open timbered roof, and the nave to be rearranged with open benches. Mr. William White is the architect.

Hawkesbury.—On Wednesday before last the Bishop of Gloucester and Bristol consecrated the new chapel of Tresham, in the parish of Hawkesbury, in his diocese. The old chapel

having become dilapidated it was taken down, and the present chapel has been erected on the site of the old one. It is in the Norman style, capable of holding eighty persons, and all the sittings are free.

Rugby.—Many Rugbeians are about to subscribe for a memorial window, in the school chapel at Rugby, to the memory of those of their old schoolfellows who have fallen in the Crimea.

Wolverhampton.—On Tuesday before last, the new (R.C.) church dedicated to St. Maric and St. John, which has been in course of erection for upwards of three years, was opened for service. It stands on Snow-hill, almost close to the Congregational Church. The edifice has been built according to the designs of Mr. Hansom, of architect, by Mr. Wallon, of Wolverhampton, builder. The design includes a chancel and spire, which, as yet, have not been erected, and the consecration is delayed until the whole is finished. At present the church consists of a nave, with two side aisles and transepts. The present extreme length is 110 feet from the west entrance to the altar, and the transepts, from one extremity to the other, are 96 feet. The nave, including the side aisles, is, in width, 66 feet. The total cost is said to be about 10,000*l.*

Dronfield.—The old church here having been under restoration for the last nine months, was reopened on 26th ult. All the dilapidated and irregular old pews have been removed, and open benches of plain pattern substituted. The whole has been re-floored. New roofs have been placed on the aisles, and the ceiling of the nave is removed, so as to expose the timbers of the old oak roof, which have been cleaned and varnished. The large western gallery has been cleared away, and the tower thrown open to the church. The building is warmed by hot-water pipes, fitted up by Messrs. Ellis, of Sheffield. The expenditure, it is said, has been considerable, and additional subscriptions, to the amount of 300*l.* are yet required. Messrs. Flockton and Son, of Sheffield, were the architects employed. Mr. T. E. Mycock, and Messrs. Ash and Clayton, of Sheffiled, were the contractors.

West Hallam.—On Wednesday in week before last, West Hallam church was re-opened, after having undergone a restoration under the superintendence of Mr. G. G. Place, of Nottingham, architect. Mr. Thomas Brown of West Hallam, was the contractor; Mr. Richard Evans supplying new benches and other woodwork. An aisle on the south side has been built entirely new; the floors of nave and aisles lowered to their former level; the nave fitted with open benches of English oak, with square-headed ends, and not fixed to the floors; all the walls cleared of many coats of whitewash, and the native stonework brought out. A timbered high-pitch open roof takes the place of the late flat ceiling. A similar new roof has been put up on the chancel, and its east and south walls have been re-built. Additions of stained glass have been made. The east window of the chancel is one, having for its subject the crucifixion, painted by O'Conner, of London, and the gift of Mr. F. Newdegate. The first window on the south side of chancel is also filled with stained glass, partly old. It represents saints (including St. Wilfred, the patron saint of the church, St. Michael, St. George, and others), of small size, under tabernacle niches, and quarried ground with leafwork borders. The next window on same side is the gift of the Rev. Charles Rawlins, of Chaddesden, by whom, according to the *Derbyshire Advertiser*, it has been executed, even to the fixing of it. The subject is the Evangelists' symbols. On the opposite side in the chancel is a window of stained glass, containing the armorial bearings of the different patrons of the church. All the windows of the new south aisle are filled with stained glass, being gifts. That at the west end is a memorial to the Rev. John Seargill, who about 1660 founded the Free School. This was erected at the expense of Mr. T. Brown. All the glass is by Mr. O'Connor.

Darley Dale.—The dilapidated state of the church here, and an increasing population, rendered it expedient to suspend the services in June last, in order that the required enlargement, repairs, and decorations, might be commenced, and these having been in progress up to the present time, the edifice was re-opened on Tuesday before last. The enlargement, improvements, and restoration have been effected under the superintendence of Mr. H. I. Stevens, of Derby, architect. The outlay (amounting to about 1,300*l.*) was raised chiefly by voluntary subscriptions: a deficiency of 150*l.* still exists. The seats are all open, uniform, and low backed. With the area gained by the new portion of the building, 250 extra sittings have been obtained. Among the improvements introduced is some stone tracery in the east window, which is to be filled with stained glass. The design of the window is from the church of Boston, in Lincolnshire. Beneath this window is a new stone screen, carved. The church contains a chapel enclosed by a stone screen, now restored. The edifice has been fitted up with a steam-pipe apparatus for warming, at a cost of over 50*l.*

Liverpool.—The ceremony of laying the foundation-stone of a new church (St. Aidan's) at the north of the Liverpool dock range, and near Great Howard-street, was performed on Monday before last. The church will be erected by Messrs. Burrows and Glaister, from designs by Mr. A. H. Holme, and is to cost 4,000*l.* There will be accommodation for 800 people. Mr. J. S. Leigh has given the land for the edifice. The local *Times* mentions that 300*l.* of the subscriptions already raised have been received in single contributions of 1d. and 2d.

Thorne.—A stained-glass window by Mr. Wailes, has just been placed in the west end of the parish church of Hatfield. There are three compartments in the window, one of which is appropriated to the memory of the late Rev. Thomas Fox, A.M. a former incumbent of that parish.

GLASS ROOFING; AND HOW TO GET GOOD OF IT.

WHEN buildings are well filled with people, or that the weather is genial and mild, a single roof, though of glass, is sufficient on dry days: on wet days, however, even in summer, the evaporation makes these great glass-covered halls somewhat chilly; and this fact the unpleasant experience of many observers can verify.

But in wintry weather the coldness of a single roof is very trying and disagreeable: people look up, and though they do not see the cold streams of air precipitated on them from the refrigeratory above, they are compelled to apostrophize the cause of the chill which reaches them, in the words of Shakspeare's objurgation, viz.—

> "A breath thou art,
> Subject to all the skyey influences
> That do this habitation where thou keep'st
> Hourly effect."

The present cheapness of glass, and the very clever methods of adapting it to roofs, make it important to get rid of any very notable drawbacks against its general use for this purpose. The invitations to this consideration are, then, very strong indeed; telling us of great and useful improvements in our architectural social economy; that is, if this mode of covering buildings could, at a reasonable expense, be adapted to our climate.

A plan is this,—that every glass roof should be aided by a hollow ceiling within the building, which should also be of glass.

In Russia, wherever comfort is studied, the glass sashes in living-rooms are double; and thus there is not only the protection of the doubled glass, but the interspace is filled with a body of air, which substance we know to be a most admirable non-conductor of heat, when it (the air) is not in motion. This resistance to cold I would apply as a medium between the outside glass roofs of buildings and the interior glass ceilings.

If double glass-roofs were placed over greenhouses and conservatories, so as to contain a certain thickness of air between the roofs, it might also mitigate a mischief which has been much complained of; that is, the scorching of parts of plants by sunlight through the single glass. The interior body of air would, by refraction, cause some amount of dispersion in the light, and the burning-glass effects—except from direct rays—would be apt to become less troublesome.

Glass roofs, if properly managed, would have a very extensive application. In many places, buildings lie so closely together that windows in the side walls cannot be commanded in all directions: here the glass cupola comes in as a help and an ornament. Now, if we had to roof such a place with slate, and hollow ceil it smoothly and well, it would cost perhaps two-thirds at least of what an outside glass cupola, with a semi-cupola of glass under it within, would come to. Say this glass cover was simply laid on to light a staircase, why the family on leaving the parlour to go up-stairs to the bedrooms, would be cooled down as they now often are, on what is perhaps at times a *winding*, but is always a *windy* staircase: if double covered, this chill would be avoided. There is also a great facility in building the outside glass-roof if you may have an inside one to help it: you may adopt high, pointed, and peaked roofs for your outside form; for this style, seen through a more dome-formed glass ceiling within, would, I imagine, be very handsome. It would of course be necessary to have tubes for permitting the atmosphere between the two firmaments of glass to expand and contract; but this ventage should not go so far as to permit the air to change its place too rapidly, and thus to cool the air under it. RICHARD DOWDEN.

COMPETITIONS.

Newcastle-upon-Tyne.—Of the three new cemeteries proposed for Newcastle-upon-Tyne, and advertised for competition, the first yet decided, viz. for the parish of St. Nicholas, has been awarded by the committee to Mr. Archibald M. Dunn, Architect, of that town. The buildings consist of two chapels and superintendent's house, with necessary gateways and enclosures.

Meeting of Architects as to Dudley Workhouse Competition.—A meeting of architects practising in the Midland Counties (convened by advertisement, and alluded to by us last week), was held at the Union Hotel, Union-street, Birmingham, on Monday last, "to consider the injurious offer of the Dudley Board of Guardians, in respect to the remuneration of the successful candidate." After some conversation, it was suggested that no resolutions condemnatory of the proceedings of the Dudley Board should then be passed, it being better to bring them out under the auspices of the Birmingham Architectural Association; and it was resolved, "that the chairman be requested to communicate with the secretary of the Birmingham Architectural Association, with respect to the subject matter of the meeting," the chairman being empowered to call another meeting should the results of the conference with the Association render it necessary.

THE SCULPTURE AT ST. GEORGE'S HALL, LIVERPOOL.

THE architectural writer in the *Critic* makes some observations in reply to our correspondent who objected to the admission of the image of the Mercury as an important feature of the group. "We do not see," says the commentator, "that any 'faith' in Mercury, as a god, is necessary to admit his sculptured figure as the mere symbol of a commercial idea. The child, having asked the question referred to ['what it may mean'] might be thus answered. 'My dear, the figure you point to represents an imagined universal messenger, who brings into communication the various countries of the world, and thus promotes the commerce of nations and mutual goodwill between the people of the earth. He was the god Mercury with the ignorant pagans; but we merely receive the representation of his figure as a symbol or sign of that spirit which has made England, through its commerce, and Liverpool in particular, famous in the four quarters of the globe. His name is derived *a mercibus*, because he was regarded as the patron of merchandise; and St. George's Hall is the witness of the celebrity of Liverpool as a mercantile city. The Roman merchants used annually to sacrifice to him as a god of power: we merely adopt his form as a figure of speech. That figure is further applicable as a symbol in the building before you, because it includes among its purposes the display of declamation and oratory, in the public meetings, and in the judicial proceedings which are held within its walls—declamation and oratory being among the especial attributes of Mercury. Thus you are to look upon that figure as a mere classic expression, uttered in the same language as that which appears in the building generally. The 'dead languages,' as they are termed, are the only ones in which all living countries can make themselves understood to each

other; and the artist, instead of employing a symbol which might be understood only by an English beholder, has adopted a sign which will speak to the educated of the world at large.' We cannot but think that the scrupulous propriety which would discard Mercury from the vocabulary of Christian art, should in consistency prohibit the study of the heathen poets from our universities, and regard with horror the retention of the names of Thor and Woden in our Thursday and Wednesday. In short, we do not see where a revolution in art, begun on such a principle, can end. We wish that the mischiefs of *Mercury* were the only ones now threatening our Christian community in England; but it may be we stand in greater peril than that of being too *sensuously* affected by the spiritless exhibition of *abstract beauty*. We would repeat our respect for the *Builder's* correspondent, nor do we by any means assume that he cannot satisfactorily reply to us, should he be condescending enough to do so. It appears to us that he has too hastily confounded a conventional sign with a superstitious sentiment, and refused to admit that which even St. Paul has sanctioned, viz. a heathen quotation for a Christian purpose."

WROUGHT-IRON BEAMS.

INSTITUTION OF CIVIL ENGINEERS.

AT the meeting, on April 24, Mr. James Simpson, president, in the chair, the paper read was "On the Economic Distribution of Material in the Sides, or Vertical Portion, of Wrought-iron Beams," by Mr. J. Barton.

It was stated, that, in the various investigations upon wrought-iron beams which had been submitted to the profession, comparatively little attention had been given to the part which the vertical portion of the beam had to perform, or to the elimination of the laws governing the strains in the sides, or the mode by which, on the application of a weight at one point of the vertical portion, the strain was resolved into a variety of strains, of known direction and intensity, in the top and bottom webs.

The systems of construction, most generally used, were shown to be the tubular, or plate beam, the "Warren" girder, and the lattice bridge, the latter being the least represented on a large scale, until the recent construction of the Boyne Viaduct.

An investigation was then made of the direction of the strains in plate beams, with and without vertical stiffening pieces, with the object of showing, that the only supposition which could give true results, as to the horizontal strains in the top and bottom, was that the strains were diagonal through the vertical portion, and alternately tensile and compressive.

A comparison was entered into of the three systems,—1st, as to the amount of material required under each; and, 2ndly, as to the comparative practical advantages of construction in each case. The amount of material theoretically required in each of the three systems was shown by diagrams, in which, by a geometric representation, the area of material was given, and the results arrived at appeared to be, that if the material in a theoretically perfect plate beam was represented by 100, the "Warren" girder would only require 73, and the lattice 67; or, in other words, that the lattice saved 33 per cent. of material, as compared to that of the plate, or tubular beam, and the "Warren" saved 27 per cent.; the lattice requiring 6 per cent. less than the "Warren," chiefly from the fact of the angle of 45 deg. being employed instead of 60 deg. in the inclination of the bracing.

Among the practical considerations, the price per ton was stated to be in favour of the lattice beam. The facilities which each system gave for so arranging the parts, in compression, that they would resist flexure, were examined, and an explanation was given of a mode, devised and adopted by the author, in the Boyne and other bridges, by which the struts themselves became lattice beams, instead of mere bars, so that great rigidity was obtained. The author contended, that intersecting systems of bracing, set at an angle of 45 deg. to the horizon, formed the most economic mode of constructing the sides of wrought-iron beams, and that both theoretical and practical considerations pointed to this conclusion. But whilst urging the subject on the attentive consideration of the profession, he felt bound to acknowledge, that it was only from the advanced ground already occupied by those who had investigated the question of the tubular and the "Warren" girders, that he endeavoured to go somewhat forward in the present investigation.

In an appendix to the paper, an account was given of the principal features of the Boyne Viaduct, at Drogheda, on the line of the Dublin and Belfast Railway, a work of about one-third of a mile in length, composed of twelve arches of blue limestone, of 61 feet span each, on the south bank, and of three similar arches on the north bank, resting on slender piers, the tideway being crossed by three lattice beams, a centre span of 264 feet, and two side spans of 138 feet 8 inches each, in the clear, at a height of 90 feet above high-water of spring tides. These lattice girders, forming a continuous beam throughout their entire and combined length, were 22 feet 6 inches deep, the intersections of the lattice bars at an angle of 45 deg. forming squares of 7 feet 5 inches diagonally. The tension bars in the lattice were severally proportioned to the strain to which they were liable, whilst those which acted as struts were in themselves lattice beams, made after the experience derived from a series of trials on the compressive force that might safely be applied, and of which the details were given. The sectional area of the piles of plates forming the top and bottom webs of the centre span was 113·5 inches at the centre of the top, and 127 inches in the bottom: over the piers towards the side spans it was 132·6 inches on the top, and 127 inches in the bottom: at the point of inflection, 45 feet from the piers towards the centre, the area both in the top and in the bottom was only 68·5 inches, and in the side spans the areas diminished to 41·3 inches at 80 feet from the piers, continuing thence with a uniform area to the abutments.

The roadway was 24 feet 6 inches wide, supported by transverse lattice beams, laid at the level of the under side of the main beams, and formed of Memel planking 6 inches thick, carrying two lines of rails, a third temporary line being laid for the purposes of testing.

The three spans had been calculated to bear a pressure of 5,500 tons spread over them, or about five times the weight under which they were tested, whilst the ordinary duty of the bridge could scarcely bring upon it more than 350 tons,—less than one-third of the testing weight, and about one-fifteenth of the load that it was calculated to bear. Under a load of 5,500 tons, there would be 15 tons per inch of tensible, and 13½ tons per inch of compressive strain.

The weight of wrought-iron was in the centre span 361 tons, and in the two side spans 151 tons each,—in the pillars over the piers 76 tons,—total weight, 739 tons of wrought-iron, besides 15 tons of cast-iron in the plates, rollers, &c.

THE ARCHITECTURAL MUSEUM, WESTMINSTER.

THE following Lectures are to be delivered at the Rooms of the Museum:—

Monday, May 21 (8 o'clock). On the Employment of Stained Glass, by Mr. C. Winston.—May 28 (3 o'clock, P.M.). On Curves applicable to Architectural Constructions, by Mr. Joseph Jopling.—June 4 (8 o'clock). On Incised Pavements, by Mr. Wm. Burges.—June 18. On Tile Pavements, by Lord Alwyn Compton.—June 25. Conversazione, Rev. Fred. D. Maurice.—July 2. On Wrought-Iron Work, by Mr. Henry Clutton.—July 16. On Mural Decoration from the Twelfth to the Fourteenth Century, by Mr. Octavius Hudson; and July 30. On the progressive Changes in Ornament in the successive Styles of Mediæval Architecture (continued), by Mr. G. G. Scott.

A classified catalogue of the works in the Museum has been published, and will be found very useful. It was edited by Mr. J. L. Pearson, one of the committee. The Museum now contains 3,500 casts, besides original specimens in wood, stone, and iron. Some valuable additions have been made recently.

DR. GAVIN, THE SANITARY COMMISSIONER AT BALAKLAVA.

AFTER escaping pestilence in various forms, Dr. Hector Gavin, who went out, it will be remembered, as one of the three Sanitary Commissioners sent to the East, has fallen by the accidental discharge of a revolver by his own brother. He was a man of great perseverance as regarded sanitary matters. He was one of the founders of the Metropolitan Sanitary Association, in which the writer worked with him for some time. In 1849, during the prevalence of cholera, he was employed as medical superintending inspector under the General Board of Health. On the epidemic proving so fatal in the West Indies, he was sent out by Lord Grey to institute preventive measures. He was in the West Indies for two years, and by his exertions, induced the Colonial Governments of Barbadoes, Trinidad, and British Guiana, to pass Public Health Acts, somewhat similar to the one in force in England. Soon after his return to this country, cholera broke out fearfully at Newcastle. Dr. Gavin was sent down, and was there during the whole of that fatal period. During the epidemic of 1854, he was appointed, by Lord Canning, physician to the Post-office, which position he held until he was sent on his last fatal mission. He was but thirty-nine when he was unhappily cut off.

NEW CEMETERIES.

THE Episcopal chapel on the ground of the new cemetery at Rochdale, consecrated week before last, will be in the Norman style, and consist of a parallelogram 65 feet long by 29 feet wide, from the centre of which, supported on two semi-circular arches, will spring a broad, low Norman tower, 29 feet square, pierced with twelve windows: on each angle of the tower there will be pinnacles, and the roof will rise into the form of a spire, or rather pyramid surmounted by a vane, altogether 90 feet high. The interior will of course be divided into three parts by the arches and stone columns, the former all ornamented with the characteristic dog-tooth moulding. The entrance will be through a deeply-recessed doorway, and over it there will be a wheel window. The eastern compartment will be divided from the rest of the chapel with an open screen, and will again be divided into a vestry, and mourners' pew. The height of the tower in the interior will be 44 feet, and there will be accommodation for 150 persons. The architect is Mr. R. M. Smith, of Manchester. The chapel for the unconsecrated ground will be in the form of a parallelogram, being terminated at each end with an Ionic portico, adapted from the temple of the Erectheum, at Athens. The interior will contain seats for 150 people, and a vestry and mourners' pew. The whole length will be 53 feet, and the breadth 26 feet. The architect is Mr. Fowles, of Rochdale. The cost of both chapels is not to exceed 1,800*l*.——The new cemetery at Copthill, Dover, was consecrated on Saturday in week before last. The ground comprises in all about 5 acres, consecrated and not consecrated. It is divided into two parts, one for Conformists, and the other for Nonconformists, and two mortuary chapels have been erected. Mr. R. Rees was the engineer employed, and Mr. Moxon the contractor.——Land for a cemetery for St. Nicholas's parish, Rochester, has been offered by the bridge-wardens to the Burial Board at 300*l*. an acre. Five acres are required, but the price appears to be considered too high.——Ground for a new cemetery for Dorking has been purchased, and the following tenders for the building of the chapels, &c. were lodged:—Messrs. Carruthers, 2,857*l*.; Killick, 3,200*l*.; Bothwell, 3,383*l*.; J. and A. Moon, 3,686*l*.; Batchelor, 3,891*l*. The tender of Mr. Carruthers has been accepted.——The new cemetery on the Nottingham-road, Derby, was consecrated on Friday before last.

THE IRON TRADE.

IT is stated in *Aris's Birmingham Gazette*, that "this trade continues in a very languishing condition, marked by an unusual want of confidence. The announcement of further disasters is daily dreaded, and the most sinister suspicions are indulged, though in many cases without the slightest foundation. Hence the tendency is still further retrogressive, although iron for some purposes, such as the manufacture of tubes and chains, has been in considerably increased demand; and also, for various sorts of plates and sheets for home use, orders have been rather more easily given. The export trade, however, particularly with the United States, remains without the slightest animation; and as our heavy consumption is so intimately dependent upon that market, but few of the works in this district are employed more than half-time, and very many not to that extent."——Mons. Amouroux-Lafarge, of Dordogne, France, ironmaster, has just patented a new process for the manufacture of malleable iron with charcoal, by which the cost of production is said to be considerably reduced, although the metal manufactured is of a superior quality. Charcoal iron has always been known to be superior to that made with mineral coal; and it is on this account mainly that Swedish and Russian iron is often so superior to our own. This has been sadly proved at Sebastopol, in the relative merits of the ordnance used. On this account, if charcoal (as from peat?) could be cheaply got, it would be of immense importance in the improvement of British iron. In the north-west corner of England we believe there is still some iron prepared with wood charcoal.——Amongst recent patents is one for Mr. James Nasmyth, the celebrated engineer, for an improvement in puddling iron, by the injection of steam or water beneath the surface of the molten metal, the heat of which resolves the steam or water, in contact with the metal, into its elements, and a slight explosion of the gases ensues, sufficient to upheave the metal, and disturb its surface. The steam or water may be introduced from a boiler or cistern to the furnace by means of a pipe, bent into the form of a rake or puddling rod, and capable of being worked, like the ordinary puddling rod, by the attendant, or, if required, by mechanical means.——Mr. E. J. Payne, of Birmingham, has lately introduced a new manufacture of compound metallic rods and bars, round, square, or rectangular, with cores of

vitrified sand, &c. By this plan an economic substitute is said to be produced, which can be employed with advantage in the manufacture of fencing, railing, hurdles, metallic chairs, bedsteads, and other articles.

——At a recent meeting of the Institution of Mechanical Engineers at Birmingham, a paper was read on an "Improved Tuyere and Smith's Hearth," by Mr. John Fernie, of Derby, showing the mode of construction adopted at the Britannia Foundry, Derby, for an improved water tuyere, or tue iron, which was found to be more durable and economical than the ordinary tuyeres, in consequence of the water being entirely open to the cistern, instead of communicating only by small pipes, as in the ordinary tuyeres. A smith's double cast-iron hearth was also described, which was arranged with the improved tuyere, and was considered advantageous in its compactness, and the small space that was occupied.

WORKING-CLASS MUSEUMS.

THE plan of Mr. T. Twining, jun. first proposed to the council of the Society of Arts, in 1852, for a collection of specimens, models, diagrams, &c. illustrative of the improvement of working-class dwellings, furniture, household utensils, clothing, food, industrial pursuits, &c. has now, at the suggestion of the council, been elaborated more completely in the form of a "Memorandum on means for enabling the working classes of Great Britain and other countries to improve their physical condition and domestic comforts," addressed to the chairman of the council, and printed for distribution under the society's sanction. An outline of the scheme was very favourably regarded by the French Emperor, approved by the Imperial Commission for the Exhibition of 1855, and even obtained personal attention from the Empress; and Mr. Twining proposes to bring forward his plan in detail at certain conferences, of a kindred nature, convened by the Paris Society of Philanthropic Economy in connection with the International Exhibition, which are to take place in July. Mr. Twining's special purpose may best be gathered from the following passage, in a summary appended to his "Memorandum:"—"It is contemplated that in every country where an earnest desire exists for the improvement of the domestic and sanitary condition of the industrial population, steps be taken by committees already existing for benevolent purposes, or to be specially constituted, for gradually forming, with reciprocal assistance, collections of the nature described in this 'Memorandum;' and that the international agreement required for the purpose be concerted by practical economists from the several countries, assembled for the purpose at Paris."

Notices of Books.

Lectures on Gothic Architecture, chiefly in relation to St. George's Church, at Doncaster. By E. B. DENISON, M.A. one of her Majesty's Counsel. London: Bell and Daldy, Fleet-street.

THE Lectures of Mr. Denison, delivered in the Town-hall of Doncaster, at Christmas, 1854, were noticed by us at the time, but we may mention that they have been published, at the request of the committee for rebuilding St. George's Church there. Mr. Denison is an amateur architect, and a lover of Gothic architecture. St. George's, Doncaster, was his "own parish church," in his school-life, and he speaks affectionately of the old church, boasting, indeed, that he was "one of the bell-ringers," and, for all that we know, may have had some hand in keeping the clock in trim, for Mr. Denison appears to have been a clockmaker no less than a bell-ringer, if we may judge from the fact that he has not only lectured on the construction of clocks, but is the author of almost the only modern book on that subject. As a specimen of the style and matter of the present little volume, we may quote what the author says on the subject of Geometrical windows, with reference to the great east window of St. George's, which he assisted Mr. Scott in designing, having, as he intimates, "contended strongly for high arches and a large wheel."

After pointing out other peculiarities of this window, such as the subarcuation principle in the smaller arches, he remarks that "there are some other things to be attended to, before you need expect to find a modern geometrical window produce the effect of the old ones of 500 years ago. First of all, the proper mechanical conditions should be observed, and *appear* to be observed also, that the arches of stone be not left apparently thrusting upwards, or downwards, or sideways, with nothing to counteract them, though I am aware that even some old windows are rather defective in this respect. The tracery may be divided into all kinds of regular geometrical figures—such as circles, plain, foliated, and spoked, and with arches and other small figures between the ends of the spokes when they spread out wide enough to allow it—triangles, simple and intersecting—stars with three, four, five, and six points—trefoils, cinquefoils, &c.,—and all these intermixed in an infinite variety, but always forming figures of some definite and regular form, except the small pieces sometimes inevitably left in the corners of the leading patterns."

Miscellanea.

THE SCREW PROPELLER QUESTION.—Whatever be the merits of the question as to who was the chief *introducer* of the Screw, there appears to be some direct and pretty clear evidence, that on 8th September, 1832, a model was prepared by Mr. E. Bailey, of 272, Holborn, for Mr. W. Batten, R.N., who has since been for many years agent to the Marquis of Westminster. Mr. Batten states that the idea was suggested to him by watching the action of the dorsal fin of a fish in the Adelaide Gallery, and that after employing Mr. Bailey to make the model, it was submitted to the Navy Board, at Somerset House, and also explained personally to William the Fourth. This model was afterwards deposited in the Adelaide Gallery (for the very purpose, of course, of leading others to assist in all the more effectually working out the suggested idea). The gallery changed hands and purposes, and what became of his model Mr. Batten does not know; but it would be an interesting circumstance were it once more to turn up. Mr. Batten, as he says, from happening to look at a drawing of the Archimedean Screw in "Emerson's Mechanics," was induced, from mere whim, to name his model "The Archimedean Screw Propellor." Now, it is notable that the very first vessel afterwards fitted with the screw was named the Archimedes. Mr. Batten's claim as the originator of the idea of applying the screw to steamers, as a substitute for the paddle, seems worthy of notice.

THE SOUTHAMPTON SCHOOL OF ART.—The opening of the new school of art at Southampton was inaugurated at the Victoria Rooms on Wednesday before last, according to the *Hampshire Advertiser*, under exceedingly favourable auspices. The Mayor presided. After the reading of the report by the Secretary Mr. Crichlow, the chairman introduced Mr. G. Scharf, who delivered the opening address, which was a general review of the advantages of a knowledge of art, with especial reference to Greek and early Christian art and architecture, and illustrated by diagrams. The meeting afterwards adjourned to the school-room, to examine the casts and models arranged for the occasion by Mr. Baker, the master of the school, who explained the purpose and meaning of each object or article of interest. According to the report, the school is intended to be self-supporting. The master is to receive 100*l.* a year, to be paid by half the fees received from pupils. The whole yearly outlay will be 150*l.* The master, by his engagement with the Government Department of Science and Art, is bound to teach four parochial schools, each school to pay 5*l.* a year: this (20*l.* a year) will help to liquidate the expenses.

A MUSEUM OF INDUSTRY AT EDINBURGH.—A Bill, introduced by Sir W. Molesworth and the Lord Advocate of Scotland, proposes to ratify conditional agreements entered into by the Commissioners of Works and Public Buildings, and to vest in them certain property near the College of Edinburgh, to form a site for a National Museum of Industry for Scotland.

THE SCENE OF THE POPE'S LATE PERIL.—The object of the Pope was to visit certain excavations, comprising an Alexandrine basilica and catacombs recently discovered about seven miles from Rome, on the Coazza estate, belonging to the Propaganda College. He was accompanied by various cardinals, archbishops, and bishops, generals and diplomatists, and while all were assembled in a large hall on the first floor of the cloister of the Monastery of St. Agnes, after dinner, when the pupils of the college were about to be admitted to kiss the Pope's toe, the whole assemblage, about 150 in number, were suddenly precipitated, together with the floor, into the lower story, where, however, the Pope was left sitting still in his papal chair, a fortunate issue, which was immediately declared to be *miraculo!* His Holiness had previously assured those around him that the cracking or vibration felt before the descent was made to the lower regions, arose from an earthquake. Not many escaped so easily as the Pope did.

LANERCOST PRIORY—DAMAGE TO THE TOMBS.—Some persons having been admitted into the ruins of Lanercost Priory, without any one to overlook them, are said to have committed shameful depredation upon the Dacre tombs in the monastery. The two carved monuments have been broken and defaced in various places. Three or four stones were found lying close to the tombs, with marks upon them showing them to have been used for the purpose of chipping off pieces of the carving, with the intention probably of carrying them away as geological specimens of the red sandstone of the district, or memorials of antiquarian research. Such wretches ought to have pieces chipped, shall we say, off their own thick skulls.

ECONOMIZATION OF THE COST OF BRICKMAKING.—In reference to what was said on 28th ult. on this subject, our attention has been drawn to the fact of Mr. William Hickson having letters patent for a system having for its object the accomplishment of some such economy as that suggested. Mr. Hickson's patent is said to be "For improvements in the application of heat for baking and drying purposes, and in the generation of steam, adapted for the manufacture of all descriptions of bricks and other similar articles, effectuating a saving therein, of say 4*s.* per thousand, viz.—in carrying clay to tables, 6*d.*; carrying to, and turning on the flats, 7*d.*; putting into racks, 3*d.*; fuel in drying and burning, 2*s.* 6*d.*; and wheeling to the kilns, 7*d.*: total, 4*s.* 5*d.*" The description the patentee gives of his invention is illustrated with diagrams, without which it would not be easy to give anything like a clear idea of his patented arrangements, which, however, appear to comprise a centralized congeries of kilns or ovens, supplied with heat from the centre, and conducted in shape of hot air through galleries, hollow walls, and flues. Arrangements are also provided for the consumption of smoke from the central fire, and for re-heating the warm air to the proper temperature.

LECTURE ON SMOKE CONSUMPTION.—A lecture was delivered in the Council Hall, Sheffield, on Monday evening before last, by Mr. Cashin, C.E. and architect, "On heat in relation to the combustion of fuel, and the perfect combustion of smoke." The schemes introduced for the consumption of smoke under a system of rapid combustion were classed by the lecturer under three heads:—1. Those which cause the smoke from the fresh coal to pass through or over the more perfectly-ignited fuel. 2. Those which provide for the admission of a supply of air to the gases. 3. Those which have a jet of steam thrown into the furnace or chimney. A number of the smoke preventing contrivances belonging to each of these classes were described and their several advantages and defects pointed out. In reference to a plan by Mr. Ashberry, of Sheffield, he stated that posterior to the bridge Mr. Ashberry introduces a combustion chamber the full width of the space between the boiler seating. The second bridge or wall of this chamber is built close up to the boiler, within an aperture in the centre, reaching to within about nine inches of the boiler. Through this aperture the flame and gases from the fire must pass. In passing over the first bridge the gases are checked in the centre and directed towards the sides of the furnace, so as to cause them to impinge against the part of the second bridge farthest from the aperture. In rushing to and through this aperture the flame and gases are commingled and the gases thoroughly mixed, and if sufficient uncombined oxygen be present they necessarily inflame. Mr. Ashberry's plan, the lecturer added, had this advantage—that a constant supply of air is admitted through slots in the furnace door.

GAS AND WATER FOR COPENHAGEN.—After years of deliberation, it is at length decided to introduce gaslights and waterworks into Copenhagen.

STAINED GLASS.—Mr. Holland, of Warwick, has recently executed a large east (subscription) window in the chancel of Stratford-on-Avon Church, containing twenty-one subjects, illustrating the principal events in the life of Christ. The tracery is filled with the four Evangelists, angels with texts of Scripture, Gothic foliage, &c.; richly coloured in the Perpendicular style. The same painter has also put up the following:—A monumental window in St. George's Church, Ramsgate, containing two subjects, "Christ Healing the Sick," and "The Raising of Lazarus," with appropriate canopies, pedestals, &c.; a large east window for St. James's Church, Wolverhampton,—the tracery filled with the rose and lily, with texts of Scripture upon ribbons, &c. in the Perpendicular style: a monumental window for Forest-hill Church, near Oxford, containing two subjects, "Christ Knocking at the Door," and "Christ appearing to Mary Magdalene,—angels bearing texts of Scripture, &c.; east chancel window for Welton Church, near Daventry, Northamptonshire, containing four subjects, and a side window, containing the subject of "Christ Healing the Sick."

SURREY ARCHÆOLOGICAL SOCIETY.—A general meeting of this society took place on Friday week before last at the Town Hall, Chertsey. It was numerously attended, and comprised a great display of ladies. The contributions appeared smaller than at the inaugural meeting of the society, or at the first general annual meeting, but the exhibition was not deficient in any other respect. Among those articles which possessed local interest were a quantity of architectural fragments of Chertsey Abbey, found during the recent excavations, several encaustic tiles found at the same time and place on a floor of concrete (in connection with these a number of drawings from the designs on the encaustic tiles, by Mr. Shurlock, were exhibited), a transcript of the inscription round the Saxon or curfew bell in Chertsey church, and a pen and ink drawing of Chertsey church (both presented to the society by Miss Bartrop). Colonel Challoner presided. A paper on Chertsey Abbey was read by Mr. W. W. Pocock. At the close of the historical details connected with the abbey the reader, after observing that among the most remarkable objects in connection with it were the stone coffins which had been found, concluded by suggesting the probable form of construction of the now razed building. After some other procedure the meeting separated, and numerous groups proceeded to the site of the abbey, which presents few indications of its former importance, the excavations, as yet, having only elicited the encaustic tiles before remarked on, a few stone coffins, supposed to be the coffins of the Abbots, and a few skulls. The coffins are generally about six feet long. The Rev. C. Boutell read a paper on some ornamental tiles recently discovered on the site of the Abbey; and Mr. G. R. Corner, one on an Anglo-Saxon grant of land to the Abbey. Cowley House, the residence of the Rev. J. C. Clarke, was thrown open to the visitors, who wound up the proceedings by a cold collation at the Crown Hotel, where about 120 were present, one half of them ladies. The *Sussex Express* of last Saturday gives a pretty full report of the whole proceedings.

PHOTOGRAPHIC SOCIETY.—A meeting of this society was held on 3rd inst. at their rooms, in Regent-street, Sir W. Newton in the chair. Mr. Mayall read a paper descriptive of his new plan of producing pictures by a "dry" collodion process. The reader went into the chemistry of the subject, and explained the law of substitution of organic compounds. His new process was founded upon this law. As the ether in the collodion evaporated from the plate, albuminate of silver was substituted, and the plate continued for weeks as sensitive as when humid. A dry tablet could now be used for all meteorological registrations by light, astronomical registrations, and the copying of plants for surgical and other observation where the vital parts soon change: to this was to be added the facility afforded to travellers, who could now prepare their plates at home.

ELECTRO-TELEGRAPHIC PROGRESS.—Messrs. Fenton, Hyde, and Co. have just completed two cables for the Electric Telegraph Company, which are to be laid down between Holyhead and Howth in Ireland. The wire is protected by four coverings, to preserve it from injury. The weight of the two cables is 290 tons, and their joint length 140 miles. The company's steamer *Monarch* will lay both cables at same time. This, with the cable already in use, will make three Irish channel lines in connection with the Electric Telegraph Company.

THE LIVERPOOL TIMBER TRADE.—In their last monthly circular, Messrs. Holme, Slater, and Crooksay.—The arrivals from British North America, containing timber, into the docks of the Mersey, during the month, are—six vessels, 6,525 tons, against four vessels, 3,513 tons for the corresponding period last year. The consumptive demand has been good, owing to the extremely low price of all descriptions of wood, but the resident dealers do not feel inclined to increase their stocks even at the present low rates.

A SELF-TAUGHT ARCHITECT.—The last report of the Christian Knowledge Society gives the following extract from a letter by the Bishop of Colombo:—"The fittings of the nave and choir (of the cathedral at Colombo) are completed: those of the chancel are now in progress. They will all be of ebony, as I wished them to be made wholly of the productions of the country, and as far as possible by native workmen. One single European has directed and superintended the work, and he is a corporal in the 15th regiment, a most expert and skilful mechanic, whose value was undiscovered till he built, under Colonel Brunker, our church at Nuwara Eliya. His taste, moreover, is equal to his skill; and, with Bloxham and the Glossary of Architecture in his hand, this carpenter from Greenwich (for such he was when he enlisted fifteen or twenty years ago) has built a church and a cathedral in my diocese, which surpass every structure raised before or since the tenure of Ceylon by the British."

THE PARIS EXHIBITION.—The intimation we gave in our last number but one, that part of the Exhibition *would* be opened on the 1st of May, came from head quarters: the ceremony was, nevertheless, put off, at the last moment, till the 15th, and for anything we can tell it may be again postponed. It is said that the arrangement of the goods has been retarded by the architect not providing adequate ventilation; that the floor has had to be lifted from end to end to enable air drifts to be formed; and that the roof has had also to be cut at the ridge to put in ventilators.

EATON HALL.—The mansion of the Marquis of Westminster, near Chester, will be shown to the public this summer during June, July, and August, on Monday, Tuesday, and Wednesday in each week, between ten and four, by tickets—to be procured in Chester at the Royal and Albion Hotels, &c. Foreigners and travellers from a distance will be also admitted on Thursdays in the same months. Parties wishing to visit the gardens only, will be admitted with their tickets by the Lodge, near Eccleston Village.

NOTICES TO WORKMEN.—The owner of a colliery near Wednesbury, appeared lately to answer summonses preferred by six of his men, for sixpence a day deducted from their wages without notice. The defence was, that it was a custom always acted upon at the defendant's colliery, for the wages to be raised or lowered without notice, according to any alteration which took place at some other works in the neighbourhood; but the magistrate said no custom could do away with the men's right to have notice, and ordered payment in each case.

STRIKE AMONG IRON-WORKERS AT LIVERPOOL.—The riveters in the employ of Mr. Laird, of Liverpool, according to the local *Journal*, turned out lately in consequence of an alleged reduction of wages. It appears that the men have been paid 26s a week for doing a certain prescribed amount of work. Finding that the same work could be well done by some of the men in nearly one-half the time Mr. Laird offered to advance the wages to 28s. per week if each man would finish thirty more rivets in a day. This the men looked upon as a decrease of 8s. per week in the wages, and they consequently turned out. They offered to go back at half the stipulated amount of work and 28s. per week, but the offer was refused. The plate labourers, who struck for an advance of wages from 16s. to 20s. have been taken back at the advance sought.

COVERED STREET FOR LONDON.—We hear of a scheme now in process of incubation, under distinguished auspices, for the formation of a road through London, eight miles long, roofed in with glass, with houses and shops on each side and beyond these, also on each side, two lines of rails, one above the other, the lower for trains stopping at every mile, the upper for expresses.

SALE OF PROPERTY IN THE STRAND.—Some property in Exeter-street, Wellington-street, Exeter-change, &c. has been sold by auction by Messrs. Farebrother. The *Civil Service Gazette* gives the following particulars. The first lot was "eleven houses in the Exeter-change, only one of which was let, the remainder being on hand, the whole of the Arcade (which runs from Catherine-street to Wellington-street North), being of the estimated annual value of 361*l.*; a dwelling, No. 17, Wellington-street, and forming No. 12, Exeter-change, producing 110*l.* per annum; dwelling and shop, No. 4, Catherine-street, and forming No. 7, Exeter-change, in hand, annual value 100*l.*; No. 5, Catherine-street, value, 60*l.*; Exeter-change Coffee-house, No. 6, same street, let at 70*l.*; the Fountain Tavern, let for 150*l.* (this includes the White Hart Tavern); No. 40, Exeter-street, let at 45*l.* and Nos. 36 and 37, ground rent 20*l.* and No. 345, Strand, being the Engineers, &c. Life Office, annual value 375*l.* together with the reversions, estimated in all to produce 1,850*l.* This lot was knocked down, after a spirited competition, at 21,800*l.* The second lot comprised 16, Wellington-street, let at 100*l.*, No. 2, Exeter-street, let at 62*l.* 10*s.*; the Bell Tavern, at the corner, annual value 200*l.*; Nos. 3, 4, 5, 6, 7, 10, and 11, Exeter-street, producing 213*l.* 7*s*; and the Boar's Head Tavern, at the top of Burleigh-street, annual value 150*l.* This lot was sold for 10,500*l.* The third and last lot comprised Nos. 343 and 344, Strand, of the annual value (and nearly all let) of 310*l.*; No. 1, Catherine-street, let at 90*l.*; No. 2 (office of the *Courier de l'Europe* newspaper), let at 75*l.*; and No. 3 (office of the *Era* newspaper), let at 125*l.* 4*s.* 10*d.* per annum. This lot was sold for 10,500*l.* It will be seen that this important freehold property, worth nearly 3,000*l.* a-year, realised under the hammer 51,800*l.*"

STATUE OF THE POET CAMPBELL.—Mr. Calder Marshall's statue of the poet Campbell has at last been erected in "Poet's Corner," Westminster Abbey.

RAILWAY MATTERS.—The foundation-stone of the Barnardcastle station of the Darlington and Barnardcastle Railway, was laid on Thursday week. This appears to have been regarded as a very important event by the inhabitants of Barnardcastle, who made a regular holiday of it, with processions, flags, and music.——The *Boulogne Gazette* says,—"There is once more a serious intention of uniting France and England by a submarine railway. The latest project is that of Dr. Payerne, who, with forty subaqueous boats, of which he is the inventor, fifteen hundred sailors and navvies, 4,340,000 cubic yards of material, and 10,000,000*l.* sterling expense, would undertake to construct a tunnel by means of which the strait that separates the two countries would be crossed in thirty-three minutes. The position of this tunnel would be no doubt nearly parallel with that of the electric telegraph, and contiguous to it, as being the narrowest part of the channel, as well as that where the depth of water is the least." Could not Dr. Payerne, by the way, make some use of his subaqueous boats in clearing the way for the allied fleets into Sebastopol?——The engineers who are now occupied in the surveys for the new lines of railway which are to cross the Swiss Alps, have estimated the expense of the different passages as follows:—Passage of the Splugen, 160,750,000*f.*; St. Bernard, 185,275,000*f.*; Lukmanier, 183,125,000*f.*; St. Gothard, 160,425,000*f.*; Grimsell and Albrunn, 191,500,000*f.*; and Grimsell and Simplon, 205,550,000*f.* The St. Gothard will be crossed by the line from Lucerne to Locarne, which is the most difficult of all, and where avalanches are dreaded. The line of Rorschach will cross the Lukmanier to proceed to the Lago Maggiore and the Mediterranean. The St. Bernard will be crossed by the line from Lausanne to Aoste by Vevey, which line is the most direct between Paris and Geneva.

A GLASGOW WAREHOUSE.—Messrs. Wylie and Lochhead have of late years acquired the properties from Buchanan-street, directly opposite the Argyle Arcade to Union-street, crossing Mitchell-street, which lies between; and have erected very extensive premises on the Buchanan-street and Mitchell-street portions. The part between these two streets is of a striking character, presenting a well-designed front to the former, with three lofty shops, the central forming a capacious entrance to the premises behind. The basement, which is of great extent, is devoted to stowage and packing purposes. The ground-story is entirely open, countered, and affording a thoroughfare to Mitchell-street, to be extended to Union-street. The three succeeding stories are broad galleries surrounding a central well, from which they receive their light. This is covered with a hemi-cylindrical glass roof, after the manner of the Crystal Palace transepts, the crown being 70 feet from the ground-floor. There is, in connection with the lifts, which are worked by steam-power, a *rising-room*, as was at the Colosseum, for the convenience of those who may object to climbing the stairs. Mr. Lochhead (brought up, as I understood, to the profession in early life) is the architect. Messrs. W. and L. are the Shillibeers of Glasgow, in the undertaking line, and are also extensive omnibus proprietors.

TENDERS FOR THE DRAINAGE OF LUTON.—The following is a list of the tenders delivered for pipe-sewage for the township of Luton. Mr. T. L. Evans, surveyor. Quantities supplied.

Wright and Brown, London.....	£1,861	0	0!!
Brewster and Speller, London ...	1,493	0	0
Sheil and Manning, London ...	1,465	0	0
Yeoman, London.....	1,382	0	0
Pedley, London	1,374	0	0
Culverhouse and Co. Finchley...	1,196	0	0
Pound, London	1,161	0	0
Carlyle, London	1,153	0	0
Williams, Luton	1,082	0	0
Smart, Luton	1,077	0	0
Brown, West Redford.....	1,010	0	0
Plowman, Finchley.....	961	0	0
Rogers, London	944	0	0
Rowe, London	861	0	0
Coker and Oakes, Ware	808	0	0!

How are these things to be explained? It cannot be altogether attributed to the difference in price charged by different manufacturers; for in this list, those who sent in the highest tender and the lowest but two (one exactly double the other in amount), proposed to use the pipes of the same manufacturer.

TENDERS

For proposed work in Richmond-road, Dalston, for Mr. C. Benfield; Mr. G. Wales, architect. Quantities supplied:—

Ashby and Son.....	£1,259	0	0
Little and Son	1,158	0	0
Fox	1,120	0	0
Norris.....	1,077	0	0
Kebble	1,046	0	0

THE BUILDER.

For building a new house for Messrs. Steeds, Frome, Somerset; Mr. Stent, of Warminster, surveyor:—

Chapman, Frome	£1,479	17	0
H. Stent, ditto	1,456	0	0
Davis, ditto	1,441	0	0
Browne, ditto (accepted)	1,375	0	0

For new markets at Gloucester; Messrs. Medland and Maberly, architects:—

Chollerton, Quedgley	£4,580	0	0
Pratt, Coventry	4,500	0	0
Taylor, ditto	4,406	0	0
Walker, London	4,415	14	0
Niblett, Gloucester	4,305	0	0
Jones and Son, ditto (accepted)	4,250	0	0

TO CORRESPONDENTS.

"C. I." (under our mark).—"B. F." (ditto).—"W. S. W."—"T. and Sons."—"J. and R. M."—"G. W."—"W. W." (there have been such observations, &c. but we are unable to refer).—"One of the Public."—"Bridgewater."—"W. B."—"J. T."—"Mr. H."—"J. W. P."—"W. B."—"P. and D. C."—"J. C."—"R. L."—"J. N. E."—"E. L." (thanks).—"W. W."—"P. and N."—"B. H." (too late).—"W. G. D."—"B. and L."—"E. L."—"W. S." (apply to the architects as to the amount of tender).—"A. M. D."—"C. C. N."—"J. B."—"G. and Co."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

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April13 1855 JOHN S. SKAIFE, Clerk to the Visitors.

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A GENTLEMAN, thoroughly versed in Italian Architecture, is desirous of a RE ENGAGEMENT in town.—Address, EXCELSIOR, Mr. Elmslie's, Post-office, Brixton road.

A LAND SURVEYOR wishes to meet with an ENGAGEMENT. References given. Address, H. Mechanics' Institution, Derby.

TO ARCHITECTS AND SURVEYORS.
A YOUNG GENTLEMAN having just completed his Articles, wishes for a SITUATION in town in either of the above offices. A moderate salary only will be required.—Address S. S. S. Mr. Dyer's, 25, Jonson's-place, Harrow-road.

TO SURVEYORS, BUILDERS, &c.
AN experienced practical Man, thoroughly acquainted with the building business, is in WANT of a SITUATION, in a Surveyor's or Builder's Office. He is proficient in measuring, estimating, taking out quantities, bookkeeping, drawing, superintending works, and all office duties.—Address, W. H. 61, Coleman-street, City.

TO BUILDERS.
A YOUNG MAN, aged 19, who has been four years in the trade, wishes for IMPROVEMENT in a shop; town preferred.—Address, S. W 21, Edward-street, Wenlock-road, City-road.

TO CARPENTERS AND BUILDERS.
A YOUNG MAN, aged 21, is desirous of meeting with EMPLOYMENT, as a JOINER, where he could improve himself. Beach preferred. Address A. D 3, Old North-street, Red Lion-square.

A LAND, &c. SURVEYOR, DRAUGHTSMAN (Engineering or Architectural), &c. requires a SITUATION for any term, in Town or Country. Testimonials for some years past, and references of respectability. Terms at rate of 7*s.* per day.—Address, prepaid, A. Z. 23, Bridge-street, Blackfriars, London.

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TO ARCHITECTS AND SURVEYORS.
TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place.—For particulars, address, S. S. 8, Studley-terrace, Larkhall-lane, Stockwell, Surrey.

FREEHOLD BUILDING GROUND for SALE, Votes for the County of Herts. This offers advantages for investment of capital that cannot be surpassed, being near to the Free Grammar School, Great Berkhampstead, at which an education is given to each boy equal in value to about 40*l.* per annum. It is close to the station on the London and North Western Railway, which now gives one free pass to and from London for twenty-one years to occupiers of houses valued at a rental of 35*l.* per annum. The Ashridge estate also joins. The views are very extensive and beautiful, is near to the common, and very healthy, lying high and dry, and central for Lord Dacre's, Lord Lonsdale's, and Baron Rothschild's hounds, and in a neighbourhood where houses of a good class are much sought after. For particulars apply to Mr. J. HARRIS, Builder, Great Berkhampstead, Herts.

WEYBRIDGE and PUTNEY, SURREY, and FOREST HILL, SYDENHAM.—Several PLOTS of FREEHOLD BUILD NG LAND, close to these railway stations. To BE SOLD, subject to a small chief rent, instead of purchase-money, for private villas. Also, a Plot for an Inn. Moderate advances made. For further particulars, apply to Mr. A. C. HOOK, Land Agent, 13a, Great George-street, Westminster. The railway companies issue season tickets to these places at reduced rates.

TWICKENHAM.—TO BE SOLD, two semi-detached COTTAGE RESIDENCES, newly and substantially built, with small Gardens in the front and rear, held for an unexpired term of ninety-eight years, at a ground rent of 16*l.* per annum. They are let to highly respectable tenants for a term, of 23*l.* per annum each, thus producing an improved rent of 46*l.* per annum.—For further particulars, apply to M. ADAMS and SON, Auctioneers and Surveyors, Isleworth.

WORKSHOP and WHARF.—TO BE SOLD, convenient MANUFACTURING PREMISES, adjoining the Creek-bridge, Deptford, consisting of a substantial brick Building, Yard and Wharf, fronting Deptford Creek, and having direct communication with the Thames. Apply to W. DELBRIDGE, at the Creek Bridge House, Deptford.

TO BE SOLD, within a few minutes' walk of the Kilburn Station, on the North-western Railway, and immediately adjacent to the intended line of the Hampstead Junction Railway, about EIGHTEEN ACRES of COPYHOLD LAND, having a frontage next West-end-lane of more than 800 feet. The estate, which is beautifully situate, is at present let to a yearly tenant, and immediate possession may be had. The soil is capable of being made into bricks, and a specimen of the earth may be seen at the Office of Mr. BOWNALL, 67, Bloomsbury-square, where lot arranged plans and further particulars may be obtained; or of R. B. ARMSTRONG, Esq. 8, Staple-inn.

CAMDEN TOWN.—To BUILDERS, CARMEN, CAB, or OMNIBUS PROPRIETORS and OTHERS.—FOR SALE, a Bargain, valuable and roomy BUSINESS PREMISES, comprising Dwelling-House and two Cottages, large Yard, with Gateway entrance, and Stabling, the whole held on Lease at a Ground Rent of only 8*l.* per annum.—Apply to Mr. MOORE, Auctioneer and Estate Agent, 16, Melton-street, Euston square.

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.
Enrolled as the "Borough of Lambeth Benefit Building Society."
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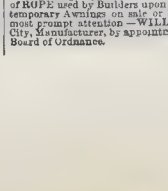
Open from Ten A.M. till Seven P.M.
Shares, 50*l.*
Entrance fee, 1*s.* Payments, 4*s.* monthly.
Allotments distributed by rotation, ballot, and to completed Shares in the order of their completion.
No Fines on undivided Shares. No back payments.
The Society within four years has divided five estates, satisfying 1,814 Shares out of 3,756. The value, as divided amongst members, being 87,797*l.*
A Bonus of 5 per cent. in addition to 5 per cent. interest, in all 10 per cent was declared upon all undivided Shares at the annual meeting of 30th January last.
WM. BANKS, Secretary.
211, High-street, March 1, 1855.

ILLUMINATED FURNITURE.—Will open to public view To-morrow, SATURDAY.—B. HURWITZ, sole Agent, begs respectfully to inform the nobility, gentry, and the public, that F. Barnett's PATENT ILLUMINATED FURNITURE may be seen in daily operation on and after the 24th inst. at his Establishment, 9, Southampton-street, Strand, between the hours of TWO p.m. and SIX o'clock.

ROYAL POLYTECHNIC INSTITUTION.
PATRON: H.R.H. PRINCE ALBERT.—The Lectures and Exhibitions as delivered before her Most Gracious Majesty and the Royal Highness Prince Albert, will be continued during the week, consisting of the Telephone Concert Dissolving Views of Sind and the Sailor, Dobbsey's Illuminated Cascade, the Diorama illustrating the Voyage across the Atlantic, and the Cities in the United States; and in addition on Thursday Evening, the 17th, Dramatic Reading, by Mrs Chatterley "Much Ado about Nothing." Lectures on Songs and Song Writers, by George Buckland, esq. Dissolving Views of the War, &c. &c.

VENTILATION.



D. and E. BAILEY beg to call the attention of Architects and others to their improved
CIRCULAR ARNOTT VENTILATORS,
which are more sightly than the square ones in general use, much less liable to get out of order, and the flaps, being hung from the top, do not admit any smoke caused by down draught.
Price, bronzed, from 6*s.* 6*d.*
D. and E. BAILEY, 272, Holborn.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

CHARLES WM. WATERLOW AND CO.

MANUFACTURING JOINERS,

121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

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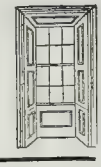
MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

Lists of Prices and Estimates forwarded on application.



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A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

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THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

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REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

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ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 35s. per ton. Importer of Trinidad Asphalte.

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PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, PORTONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

By Royal Letters Patent.

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The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3d.; Enamelled, 8d. per foot. Crown or Sheet Squares, in 100 feet boxes, 2d. per foot.

Sashes Primed and Glazed, 3d. per foot.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps Water closet Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 87, Bishopsgate-street, London. Established more than 100 years.

E and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 315, OXFORD-STREET.

CRYSTAL WHITE SHEET GLASS, of first, second, and third quality, in cases of 200 feet, at 4d. 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.

The Warehouse, 99, Hatton-garden, London.

" 45, Piccadilly, Manchester.

Messrs. C. and J. Malloch, 30, Turner's-court, Glasgow.

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ROUGH PLATE-GLASS from ¼ to ½ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz. Sheet Glass, 10 crates, from 21d. per foot; C C C Crown, 18 tables, 32s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 32s. 6d. and 40s. per case; Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

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CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and this best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 4d, 6d and 8d. per foot; sizes varying from 24 by 16 to 40 by 32. Also Foreign Glass of various tints made expressly for CATHEDRAL and CHURCH purposes.—G. FARMILOE and SON, 118, St. John-street, West Smithfield, London.

PATENT and BRITISH PLATE GLASS.—JAMES HETLEY and CO beg to inform Architects, Builders, and the Trade generally, that their new Tariff of Prices for the above will be sent on application; they will also on receipt of particulars, furnish estimates for any description of Glass now manufactured—Patent Plate, Sheet, Crown, and Ornamental Window Glass Warehouse, 35, Soho-square, London

FOREIGN SHEET GLASS.—Third quality, 200 feet cases, average sizes, 16-oz. 36s.; fourth ditto ditto, 20s.; ditto, ditto, 18 to 20 oz. 30s. and 32s. Ground, 3d. per foot. Cash.—At HICKSON'S, 46, Long-acre

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence. Shop-front Builder and Manufacturing Joiner. 1¼ and 1½ four-panel doors from 6s each; 1½ sashes and frames from 7d. per foot; 2 inch ditto from 8d. Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned. Workshops, 100, Broadwall.

THOMAS EARP, Figure and General Architectural Stone and Wood Carver, 28, Homer-street, Hercules-buildings, Lambeth.—Altars, Reredos, Fonts, Pulpits, Screens, Cabinets, Chimneypieces, Monuments, &c. Churches and other Buildings carved in Gothic, Elizabethan, and Italian styles.

CHINA and OPAQUE PORCELAIN DOOR and BELL FURNITURE, SIGN-BOARD LETTERS, &c. Decorated in every style of ornamentation, can be promptly supplied from the extensive stock kept at THOMAS, JOHN, and JOS. MAYERS'S Warehouse, No. 2, Pancras-lane, Queen-street, London.

TO ARCHITECTS AND PROPRIETORS OF THEATRES.

R. J. STRACHAN, Contractor for all kinds of Theatrical Machinery, on the most improved principle, and on the most reasonable terms, having constructed the Machinery of several of the London Theatres, as also the Provinces.—Address to 24, Bow-street, Long-acre, London.

TO BUILDERS, JOINERS, and OTHERS. For SALE (in consequence of intending alterations not being carried out), TWO BAY WINDOWS, each opening 14 feet by 11 feet inch, 24-inch Wainscot Sash Fittings, and British Plate Glass, with Boxing Shutters, &c. complete. No reasonable offer will be refused.—For price, &c. address THOMAS JACKSON, New-street, St. Neots, Hunts.

TO BUILDERS, PUBLICANS, AND OTHERS. THREE HANDSOME PEDESTAL GAS-LAMPS, with pipes and fittings complete, suitable for the front of an hotel, public-house, or other public building; 12 feet in height. To be sold cheap.—Apply to Mr. ARBELL, Auctioneer, &c 1A, Mount-street, Berkeley-square.

MONEY on LOAN, at 3½ per Cent. per Annum.—ARNEWAY'S CHARITY.—NOTICE IS HEREBY GIVEN, that the Trustees of this Charity are enabled to lend out the Trust Moneys to poor occupiers of Tradesmen resident within the City and Liberty of Westminster, that is to say, within the parishes of St. Margaret and St. John the Evangelist, St. Anne, Soho, St. Clement Danes, St. George, Hanover-square, St. James, St. Martin-in-the Fields, St. Mary-le-Strand, and St. Paul, Covent-garden. The amount of each loan is not to exceed 10£, is to clear interest after the rate of 3£. per cent. per annum, and is to be secured by the bond of the borrower, with two sureties. Printed Forms of Application, and all necessary information, may be obtained by applying personally, between the hours of Ten and Three o'clock in the day, at the office of the Clerk and Solicitor to the Trustees, No. 14, Great Queen-street, St. James's Park.

By order, EDWARD S. STEPHENSON, Clerk and Solicitor to the Trustees.

NOTE.—The Trustees meet on the second Wednesday in every month, to consider such applications for loans as have been sent in one clear week at the least before the first day of the month.—The sureties must be unexceptionable.

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10£ to 1,000£ advanced on personal or other security. Bills of exchange cashed. Five per cent. interest on deposits payable in January and July. Forms forwarded on receipt of twelve postage stamps.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK'S LONDON PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the dispersed painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO. and by the Company's Grinding Agents, in London, Messrs. CHARLES DEVEY and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 6, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland-yard, and at the Works.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on a larger scale than Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by R. CREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used in process will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly exceeds them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement as manufactured at these works with especial reference to its destination, whether for concrete-work, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

KENNARD, BROTHERS, beg to submit to Builders and others, their cash prices for Lime of best quality:—Grey Stone Lime, 9s. per yard; Do. delivered four miles, 11s. do.; Chalk lime, 8s. do.; Do. delivered one mile, 9s. do.; Do. delivered four miles, 10s. do.; White Flare Lime, very superior for plastering and gas works, 9s. do.; Do. delivered one mile, 10s. do.; Do. four miles, 11s. do. A fresh supply by London and Brighton Railway daily. Office, Swan-place, Old Kent road.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL. Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Magic, Hair, Lias Lime, Tiles, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, No. 1, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

FRONTS of HOUSES.—GREENE and CO.'s PORTLAND CEMENT WASH, equal to oil paint for durability; in casks, 1 cwt. for 10s.

DAMP WALLS.—GREENE and CO.'S OXIDE SOLUTION PAINT, for damp, salt, or spotted walls; price 12s. per gallon, which will cover 200 square feet.—Prepared only by GREENE and CO. Original Inventors, 32, Norfolk-street, Islington.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAT NORTHERN WHARF, York-road, King's cross.—WHITE BRICK and TILE DEPOT.—L. B. PRICE and CO. Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

STONE-COLOUR BRICKS, moulded to any pattern, for cornices, copings, labels, &c. at about one-third the cost of cone; also ornamental ridge and other tiles; may be had to order of Messrs. HOOPER and CO. 3, Portland-street, Southampton.—Illustrated list of prices or samples forwarded on application.

TO BUILDERS AND CONTRACTORS.

A LARGE quantity of superior quality GREY STOCK BRICKS on SALE, from Huggin's Crown Quay Fields, Sittingbourne, Kent, delivered alongside in the river Thames, or into vessels for the West Coast, on low terms.—Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

TO BUILDERS, CONTRACTORS, &c.

THE LONDON PATENT BRICK COMPANY have a STOCK of BRICKS for SALE.—For price and particulars apply at the Office, No. 8, Old Jewry.

JOHN A. F. DUFF, Secretary.

Contracts entered into for a regular supply of Bricks.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 23s. per thousand; Grizzles, 24s. per thousand; Rough Stocks, 28s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SNEED, Sittingbourne, Kent.

350,000 hard-burnt, RED TUBULAR BRICKS, TO BE SOLD, in one or more lots. They are stronger than the ordinary bricks, and for fire-proof or other buildings requiring strong and dry walls, they will be found worthy of early attention. Price very moderate. Apply to J. S. NORTON, Brick and Tile Machine Maker, &c. Union Works, New Park-street, near Southwark bridge.

FIRE-BRICKS, BLOCKS, TILES, and CLAY!! Shippers and consumers will find our stock of these goods unsurpassed for quality and price. Illustrated circulars with prices, free on application.—TRAGAIR and MORGAN, Southwark bridge Wharf, 7, Banks de, Southwark.

MILLS and PRICE, Brick and Stone Merchants and Agents, very respectfully announce, that their business, hitherto carried on at 7, New Cut, Lambeth, Newington-butts, will from MONDAY, the 11th inst. be carried on at 5, APELAIDE-PLACE, LONDON-BRIDGE.—Dec. 8, 1854.

BRICK MOULDS (Improved) steel-faced stocks and plates with regulating screw pegs, used three seasons by the leading Brickmakers. References where in use, Bowls, Hoes, Cuckholds, Pug Mills, Millwork, &c.—J. LEACH, Millwright and Manufacturer, 26, Crutchi l place, New North-road, Hoxton.—N.B. Moulds of various sizes kept on hand.

Depôt, Agar Wharf, King's road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59, Nelson square, Blackfriars-road.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BUILDERS AND OTHERS.

30,000*l.* to be ADVANCED on BUILDINGS, well finished, and tenanted at rentals not less than 80*l.* or 90*l.* per annum.—Principals may address to F. S. care of G. J. Rhodes, Esq. Architect, Lincoln's-Inn-Fields' Chambers.

GAS BREEZE for SALE.—About 300 CHALDRONS, lying at Bankside, Southwark, to be cleared by 8th MAY. Tenders, stating price at per chaldron, of forty bushels on board, to be sent to the Phœnix Gas Works, Bankside, and to be endorsed, "Breeze Tender." The company do not bind themselves to accept the lowest or any Tender.

TO MANUFACTURERS of EARTHENWARE, FIRE BRICKS, ENCAUSTIC TILES, &c.—TO BE LET, a FIELD, eleven miles from London, having water-carriage to Paddington and the Thames, and also situate on the Great Western Railway. This eligible locality is well worthy the attention of the trade. It contains two varieties of clay, which together are well adapted for the manufacture of all or any of the articles above enumerated, enjoying also, as it does, the best water-carriage to all parts of the metropolis. It offers unequalled advantages for the make of earthenware, which, from hence could be transported without breakage, and also free from the heavy freight charges now borne by brickmakers, earthenware, &c. manufactured in the northern districts for the London market. A considerable sum has recently been laid out in improving the field, which has an extensive drying ground, and also a private dock or branch communicating with the Grand Junction Canal.—For terms, apply to Mr MEEKINS, Dauley-court, Uxbridge; Mr. STRANSOM, Uxbridge; or to Mr. PETER BROAD, Auctioneer and Estate Agent, 38, Poultry.

GLOBE-TOWN BRICKFIELDS, within one minute's walk of Bethnal green.—A large quantity of light-coloured PIT SAND, of excellent quality, on SALE, reasonable.—Apply to SAM. EMSLEY, for large quantities; or to the Foreman, JOHN SARGENT, on the Premises.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 27, WHARF, Macclesfield street North, City-road Basin. Secondly, that this trade term, "Terro-Metallic," is the exclusive right of the Proprietor, and, thirdly, that the "Reports of the Jurors," page 581, of the Great Exhibition, rank the Manufactories known as the "Tile Pineries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 22s. 6d. per 1,000; floor bricks and 6-inch paving, at 40s. per 1,000; 8-inch pavings, at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hose Pumps. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.

Also the same Patentee's make, and improved Vulcanized Rubber Supply-pipes for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Mineral Valves and Cushions for Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

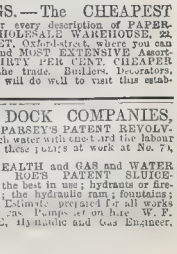
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and less costly than heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, ready or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with covered Clappers, hanged on a new system, which gives a superior tone and facility for ringing.



PAPER-HANGINGS, &c.—W. SHIERS and CO. Manufacturers and Importers. Largest and most magnificent stock in the world (half a million pieces). Prices lower than any other house in the kingdom.—3 to 8, DEANSGATE (old Church-end), Manchester.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSSS WHOLESALE WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

TO WATER and DOCK COMPANIES, CONTRACTORS, &c.—PARSEY'S PATENT REVOLVING PUMP will throw as much water with one hand the labour as any other pump. One of these pumps at work at No. 74, Strand.

TO LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all Works connected with hydraulic or gas. Pumps for sale. W. P. R. E. late FREEMAN ROE, Hydraulic and Gas Engineer, 74, Strand, London.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 19s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks, and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and it is therefore valuable for conveying water, chemicals, &c. It is peculiarly valuable for liquid manure, drain, and soil pipes. Being a non-conductor, it is not affected by the frost; neither does it, in any manner, lie metal or leather. Its strength is extraordinary; the small half-inch diameter tubing having resisted a pressure of 350 lbs. on the square inch, without bursting. The smaller sizes may be had in 100 feet, and the larger in 50 feet lengths. The joints are easily made. As a conductor of electricity it is peculiarly valuable for long passages in long fields. ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA. The GUTTA PERCHA COMPANY, Patentees, 18, Wharf-road, City-road, London.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.

These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.
H H H for architectural use.
H H for exact lines.
H for setting.
H B hard and black for drawing.
M medium.
F F light and shading.
F for general use.
B black for shading
B B ditto ditto.
B B B ditto ditto.
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Sold by all the principal Stationers in town or country.

GUEST and CHRIMES, ROTHERHAM, and 7, SOUTHAMPTON-STREET, STRAND, London, Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS

Bateman and Moore's, and Chrimes'
Patent Hydrants, or Fire Cocks. Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.
Siemens' Patent Balance Water Meter.
Hibbon's Patent Water Waste Preventer.
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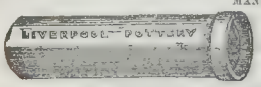
Rawlin on's Patent Self-acting Brass Valves.
Bingham's Patent Slide Stop Cocks.
Lowe's Patent Stench Trap, Begg's Improved.
And all other Articles required for Water-Works Purposes, &c.
LONDON HOUSE,

Mr. THOMAS BEGGS, at, 360, Oxford-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying certain Closets and Urinals, and to Thomas's Improved Urinal, of marble and Italian, as fitted at the King's College Hospital, and other Public Institutions.

Plumbers' Brass Work of every description.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—SPOKES, 70, SOHO STREET, LIVERPOOL.

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CARLISLE.....C. Armstrong, Lowther-street
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COCKERMOUTH.....John Bird
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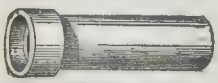


Superior glazed Stone-ware Pipes, Bends Junctions, Traps, &c. Hoppers and other Pans with best White Glaze inside.

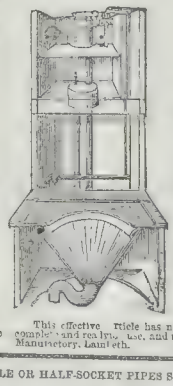
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin, the most effective syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.
CLOSET-PANS AND TRAPS, 5s. 6d. EACH.
AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

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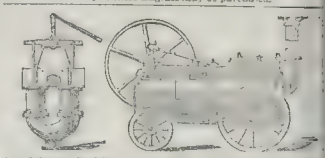
PORTABLE STEAM ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of Seven, Ten, Fifteen, Twenty, Twenty-five, and Thirty Horse Power, adapted for Contractors, Railways, Mines, Quarries, Brick-fields, Collieries, Farmers, and all the principal Contractors; and are ready for letter, a day's notice. Several may be seen at work at Messrs. MILLWIN and HALLS, Engineers, 93, Blackfriars-road, Sole Patentees and only Manufacturers.

N.B Any of these Engines may be purchased.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, for mines, machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, purses, waterworks, &c. Adapted for any depth. Diagraph Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 18s. per doz. painted.
Ditto .... 18s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey side.

TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to JOHN WARNER & SONS'

PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

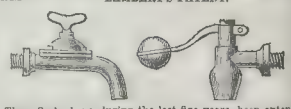
By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the prove considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.

PRIZE MEDAL, CLASS 22.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is everywhere established.

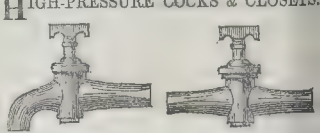
The Equilibrium Balance-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economical arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.



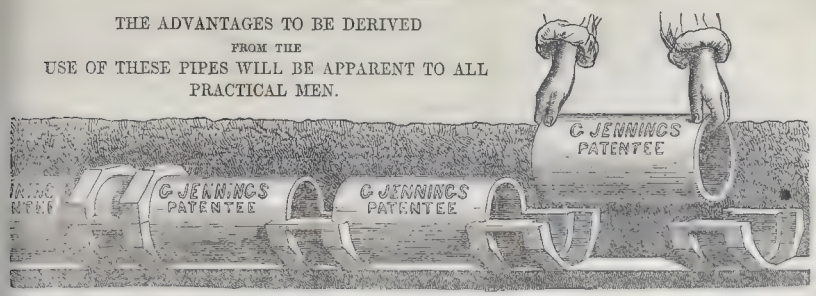
The Health of Towns Commissioners having recommended the adoption of the high pressure principle in all towns, WARNER'S HIGH PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

JENNINGS'S PATENT DRAIN-PIPES.

THE ADVANTAGES TO BE DERIVED
FROM THE
USE OF THESE PIPES WILL BE APPARENT TO ALL
PRACTICAL MEN.



The Chairs require to be bedded to the required fall and distance apart, and so bedded, that the pipes as well as the chairs take a bearing on the excavation, as here shown. This done, the remainder of the chairs have only to be filled with cement or other material, and the pipe pressed down to the line of chair,—the laying of the pipes and the making of the joints being all done at one and the same time. No excavation under the pipe is necessary to make these joints, as is the case with the old-fashioned socket or half-socket pipes. Before fixing the saddle piece, the workman can strike up the bottom of the invert, and the subsequent operations of the work in properly connecting, laying these PIPES, the SAVING of LABOUR in EVERY RESPECT, and improper work can be at once detected.

Another important advantage in connection with these Pipes is the facilities they offer for the INTRODUCTION of JUNCTIONS to FINISHED LINES of PIPES. This may be accomplished by removing one of the plain saddles, and exchanging it for a saddle having a junction in it of the required size; and this exchange is effected without disturbing the invert, or even impeding the flow of sewage.

THE IMMENSE DEMAND FOR THESE PIPES, combined with THREE LARGE GOVERNMENT ORDERS, has prevented the Patentee from supplying many works, in which they were specified to be used; but the arrangements now made, and the granting of Licenses throughout the United Kingdom to manufacture, will prevent in future delay or disappointment.

JENNINGS'S IMPERISHABLE AND OTHER CLOSETS

can be seen in every quality, fixed, at his factory. Also JENNINGS'S URINALS and LAVATORIES, as fixed throughout the Crystal Palace, Reform Club, and other public buildings.
A Book containing Illustrations, Descriptions, and Prices of all JENNINGS'S Sanitary Inventions, can be had FREE ON APPLICATION, or by post, if two stamps are enclosed to

GEORGE JENNINGS, SANITARY ENGINEER, 29, GREAT CHARLOTTE-STREET, BLACKFRIARS-ROAD.

JAMES STIFF,

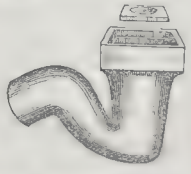
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES.
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's Acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Vermondsey; Danver's Wharf, Foot of Battersea-bridge, Chelsea; Pratt Wharf, Kingsroad, Camden New Town, J. STRINER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 34, Bryd.s-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford street. Drawings and List of Prices will be forwarded free on application.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF CLOSET-PANS.

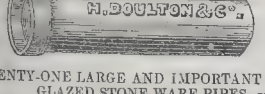
DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.

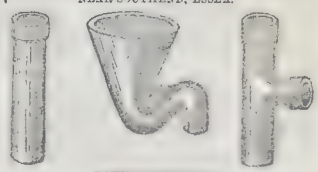
SOCKET



HALF-SOCKET

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*
Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

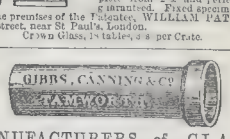


DAVID MONTAGUE.

MANUFACTURER of superior GLAZED STONEWARE PIPES on accordance with the rules established by the Commissioners of Sewers, Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Rochford; orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Prices for Closet and Apparatus complete from £3s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish street, near St. Paul's, London.
Crown Glass, 18 tables, 4s. per Crate.



MANUFACTURERS of GLAZED
STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c., &c. Agents.—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

E. and W. STURGE invite special attention
to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; slates of the best quality, chalk-lime and cement. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.
N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1855.

COLLIER'S TERRO-METALLIC and
RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be the best manufactured, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY.
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

PURE WATER, for manufacturing purposes,
may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the cassumon and other Filters at trade prices. These Boards, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

SALES BY AUCTION.

AT GARRAWAY'S COFFEE-HOUSE, Cornhill, FRIDAY, MAY 13, at FOUR, TIMBER, 500 loads, foreign and colonial; deals and battens, 50,000 pieces, ditto, ditto; with other wood goods.—H. FREEMAN, Broker, 3, Crooked-lane, Lombard-street.

Valuable Building Materials, Cowcross-street.

MR. ALFRED DAY has received instructions from the Masters, Fellows, and Scholars of Saint John's College, Cambridge, to SELL by AUCTION, on the PREMISES Nos. 75, 76, and 77, Cowcross street, Clerkenwell, on TUESDAY, MAY 16, 1855, at TWELVE o'clock, without reserve, valuable BUILDING MATERIALS of THREE HOUSES, comprising the brickwork, timber in long lengths, girders, bressummers, Memel timber, tiles, slates, joists, rafters, flooring-boards, panel-door and frames, quantity of lead, iron work, sashes and frames, cast-iron steps, paving, partitions, and other items May be viewed until the Sale; catalogues may be had of John Brown, Solicitor, Finsbury-place, Finsbury; Star Tavern, City-road, and of the Auctioneer, City-terrace City-road.

PUTNEY and at MERTON Extensive Sale of capital newly-built Villa Residences, finished and unfinished, near the Upper Richmond-road, and within three minutes' walk of the Putney Railway Station; and some Shops and Dwelling-houses near the Cedars Estate, Putney bridge, and also at Merton, Surrey.

MR. MOXON will SELL by AUCTION, at the MART, on FRIDAY, MAY 18th, in separate lots, by direction of the trustees, several valuable long LEASEHOLD ESTATES, held direct from the freeholder at low ground rents, comprising twenty very tasteful and well-planned villa residences, in the Queen's-road and Clarence's-road, Putney, built in pairs, in a very superior manner, some not quite finished. Also four pairs of smaller dwelling houses, in an advanced state, and two new and substantial shops, in College-street, Putney, a desirable-leasehold, near the beautiful Cedars Estate, both let, and producing a rental of 60l. per annum; and four capital dwelling-houses and shops, very well situate, near the Doublegates, Merton.—Particulars may be obtained of Messrs. HARE and WHITFIELD, Solicitors, Mitre-court, Temple, and at Putney; of Mr. A. C. HOOK, Surveyor, 15a, Great George-street, Westminster, and of the Auctioneer, 470, West Strand, near Charing cross.

LEWISHAM, NEAR LEE, KENT. Plots of Building Ground, at nominal ground rents, close to the Railway Station and Blackheath

MR. MOXON will SELL by AUCTION, without reserve, at the GRANVILLE HOTEL, Lewisham, on TUESDAY, MAY 15, FIFTEEN PLOTS of valuable BUILDING GROUND, with fronts, each of 25 feet, situated on the high-road, close to the Railway station at Lewisham; leases of which will be granted for eighty years, at almost nominal ground-rents Also, a quantity of STOCK and PLACE BRICKS, stacked on the land. Particulars and plans may be obtained at the Place of Sale; at the Auction Mart; of Mr. WHITE, Solicitor, 36, Lincoln's-inn-fields, and of the Auctioneer, 470, West Strand.

Bricks, Tiles, &c.—Grays, Essex.

MESSRS. ROBERTS and ROBY will SELL by AUCTION, upon the PREMISES, Gray's-hall Brick-field, on TUESDAY, MAY 15th, at TWELVE, by order of the proprietors, the old-established firm of Messrs. Moss's and Co.'s CLAMPED BRICKS, comprising stocks, pressings, place, and bats, red bricks, plain and other tiles, and every description of pipes, in convenient lots, to suit all classes of purchasers.

N.B. Approved bills at three months will be taken for half the purchase money, exceeding 5l. On view the Saturday and morning previous to the Sale; and catalogues to be had on the field; and at the Auctioneers' Offices, 24, Moorgate-street, and 9, Adam-street, Adelphi

Sale of Building Materials at Stratford, opposite the Church.

MR. RICHARDS will SELL by AUCTION, on THURSDAY, MAY 17th, at TWELVE o'clock, the whole of the MATERIALS of the Dwelling house, Workshops, and Yard-walls, also in the occupation of Mr Buntock, Builder, comprising sound stock bricks, oak and fir timber, floor-board, joist rafters, rough and fir beams, door sashes and frame, pan and plain tiles, and other materials of materials May be viewed on the day previous to sale; catalogues on the premises at the King of Prussia, Stratford; Bants, Ilford; Axtell, Woodford; King's Head, Layton; and of the Auctioneer, Tottenham.

ON WEDNESDAY next, 16th instant, at TWELVE o'clock at noon, in the BROKER'S SHEDS, Brunswick and Toxteth Docks, Liverpool,

301 Logs Teak,
28 Logs Cedar, just landed ex Ellwood Walter
Apply to Messrs. M'CLASKEY Bros. and Co. Merchants.
220 Logs Mahogany, just landed ex Felicity.
On account of the Importers.
623 Logs and Cuts St. Domingo Mahogany, just landed ex Mary Marsden
Apply to Messrs. T. GABRIEL and Son, Merchants.
36 Logs and Cuts St. Domingo Mahogany, ex Isaac Webb.
Apply to Messrs. GRAHAME and TOMLINSON, Merchants.
23 Logs St. Domingo Cedar, ex Ibian
Apply to Messrs. ROSS, SCANNEN, and Co. Merchants.
511 Planks Bahia Rosewood, just landed ex Orkney, Lass.
Apply to Messrs. EDWARDS BENN, Ex., Merchant.
150 Planks Italian Walnut Wood, just landed ex Ida May Queen.
On account of the importers.
700 Lancewood Spars, ex Glengarrie.
Apply to Messrs. J. R. HEARLE and Co. Merchants.
278 Lancewood Spars, ex Felicity.
And without reserve,
2,224 Pieces City of St. Domingo Lignum Vitæ ex sundry vessels.
On account of the Importers

To which will be added the usual variety of Fancy and Furniture Woods, in parcels or slabs, with detailed catalogue, having the same privilege as a newspaper, may be seen at the Office of "The Builder," or may be had on application to

EDWARD CHALONER, Broker.

6, East Side, Queen's Dock, Liverpool.

BRENTWOOD, ESSEX. Eligible Freehold Building Land; Land-tax Redeemed.

MR. PONSFORD is instructed to SELL by AUCTION, at the ESSEX ARMS HOTEL, BRENTWOOD, on TUESDAY, MAY 15, at THREE o'clock in the afternoon, THIRTY-ONE PLOTS of FREEHOLD BUILDING LAND, near the Brentwood Station of the Eastern Counties Railway, and within a few minutes' walk of houses in the vicinity of Brentwood, and the site is well adapted for building upon them, with a supply of the railway station, and having frontages of the high road leading from Brentwood to Warley, and other eligible positions. Particulars, with lithographic plans, may be had of Messrs. BOLTON, MERCHANT, and DENNIS, Solicitors, Gray's-inn; at the Company's Station on the premises; at the neighbourhood; and at the Offices of Mr. PONSFORD, Brentwood, and 21, Moorgate-street, London.

CHELSEA EMBANKMENT AND APPROACHES. — Third Sale of very valuable Building Materials, lying exceedingly well for Land or Water carriage.

MR. W. R. GLASIER is honoured with instructions from the Commissioners of her Majesty's Works and Public Buildings, to SELL by AUCTION on the PREMISES, on FRIDAY, MAY 25, at TWELVE PRECISELY, the very valuable BUILDING MATERIALS of the remainder portion of THORNE'S newly erected and substantially built MALTHOUSES, Commercial-road, Pimlico, comprising fields a substantially built and newly-erected DETACHED HOUSE, near the above, comprising upwards of seven capital stock bricks, several tons of lead, large brass cocks, excellent timber and joists, rafters, slates, tiles, cisterns, iron sashes, iron-work, furnace bars, fire-proof, capital large cast-iron water-tank, to hold about 2,000 gallons, a large quantity of excellent slating, York and other paving, chimney-pots, excellent fixtures and effects, and the wood-block pitching in the roadway, and the gas and water fittings and other effects. Now on view, and further particulars of JAMES PENNETHORNE, Esq. 7, Whitehall-yard; at GARRAWAY'S, Change-alley, Cornhill; on the Premises; and at the Offices, The Auctioneer, 4, Change-alley.

SALES BY AUCTION.

HOUNSLOW.—Within Three Minutes' Walk of the Station.

MESSRS. M. ADAMS and SON will SUBMIT by AUCTION, at the RAILWAY STATION INN, Hounslow, on TUESDAY, JUNE 12, 1855, at, TWO for THREE o'clock precisely, in two lots, TWO very desirable PIECES of FREEHOLD and COPYHOLD BUILDING LAND, the one containing 5a. 1r. 8p. and the other 1a. 3r. 34p. They are in excellent situations for the erection of first and second class residences, and offer a certain opportunity for investment, as they may each be re-divided into plots as to insure a very considerable return.—Particulars, with plan, may be had, four ten days prior to the day of sale, at the Railway Station Inn and Bell Lion Inn, Hounslow; the Norfolk Island Arms Inn, Isleworth; of Messrs. TYRER, BLAKE, and TYLEE, Solicitors 14, Essex-street, Strand; of Messrs. POOLE and GOMER, Solicitors, Gray's Inn; or of Messrs. ADAMS and SON, Auctioneers and Surveyors, Isleworth.

TO TIMBER MERCHANTS, BUILDERS, Cabinet-makers, Pianoforte Manufacturers, Coach Builders, Organ Builders, Carpenters, &c. &c.—For SALE by AUCTION on the PREMISES, Waterloo-bridge Wharf, Lambeth, on MONDAY and TUESDAY, 21st and 22nd MAY, at TEN for ELEVEN each day precisely, the very superior and well-seasoned STOCK of Messrs. T. R. and W. Browning and Co. consisting of about 14,000 Quebec and Sarpenay yellow pine planks.
1,700 St. John pine planks.
1,000 Red pine planks.
6,000 Spruce deals and battens.
1,000 Onega and Archangel deals.
7,500 Christiana yellow and white deals and battens.
2,000 Gothenburg and Swedish deals and battens.
1,300 squares prepared flooring and match boards.
300 Pieces Riga, Dantzic, and Memel timber.
400 Pieces Norway spars and timber.
100 Pieces birch timber.
34 Pieces Quebec oak timber.
40 Norway poles
500 Riga and Memel wainscot cut logs.
With sundry birch, ash, and pine boards, lathwood, Memel staves, pailings, &c. also Spanish, Honduras, and Cuba MAHOGANY in logs, planks, and boards; cedar, walnut wood, &c. &c.

To be viewed two days previous to and on the mornings of Sale Catalogues may be had on the Premises, and of CHURCHYARD and SIM, 39, Old Broad-street; C. LEARY and Co. 75, Old Broad-street, London, Brokers.

In Bankruptcy.—*Re* Churchyard To Builders &c.

MR. DANIEL CRONIN will SELL by AUCTION, on the PREMISES, 5, Lothian-terrace, Loughborough-road, Brixton, and on the PREMISES, Millbrook road, adjacent, on MONDAY, MAY 21, at TWELVE, the sound and useful STOCK of a BUILDER, comprising bauk, battens, deals, and other timber of various sorts, 40,000 stock bricks, large quantity of York paving, prepared kerbs for iron railings, ironmongery in nails, screws, &c.; scaffold poles, ropes, putlogs, mortar boards, stone piping, carpenters' benches, ladders, two iron dogs, and various paper hangings. May be viewed on the SATURDAY prior, and Catalogues had on the Premises; at the Sussex Arms Tavern, Sussex-road; and at the White Horse, Brixton Wadway; and of the Auctioneer, 42, Bloomsbury-square

KNIGHTSBRIDGE, adjoining the Barracks.—Building Materials of several Houses

PULLEN and SON respectfully announce that they are directed to SELL by AUCTION, on the PREMISES, on MONDAY, MAY 21, at TWELVE, the whole of the valuable BUILDING MATERIALS of Five Houses, situate in the High Road, Knightsbridge, adjoining the Barracks, with garden walls and outbuildings in the rear, extending to Hyde Park; comprising about 200,000 sound stock bricks, a large quantity of paving and paving tiles, useful timber in roofs and floors, slate slabs, floors, partitions, floor boards, stone paving, iron railing and fencing, lead gutters and pipes, and various useful fixtures and fittings-up. May be viewed on the Saturday previous Catalogues had at Mr. HARVEY'S Office, 31, Cornhill-square; and of PULLEN and SON, 80, Fore-street, Cripplegate.

SALVAGE MACHINERY.—By

MR. MASON, on THURSDAY, MAY 17, on the PREMISES, 38a, Skinner-street, Bishopsgate, an EIGHT-HORSE HIGH-PRESSURE STEAM-ENGINE, with pump and fittings, capital nearly-new egg-shaped boiler 32-horse power with fixing, three lathes, with overhead motions, benches, shafting, steam-pipe, and other machinery, battens &c. Catalogues of Messrs. JONES and BETTEN, Solicitors, 48, New Bridge-street, Blackfriars, and of the Auctioneer, Northfolgate.

BUILDING LAND, situate in the best part of ST. JOHN'S WOOD, about FIVE ACRES TO BE LET or DISPOSED OF, in one or more plots Apply to Messrs. HOLD and HUGHES, 33, Manchester-street, Manchester-square

FREEHOLD LAND To Builders or Parties wishing to Build Suburban Residences.

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—
Forest-hill, Croydon Railway.
St. Margaret's, near Richmond, South-western Railway.
Oatlands Grange, Weybridge, Sur ey, ditto.
Tottenham-green, Eastern Counties Railway.
Putney, South-Western Railway.
Rectory Estate, Ealing, Great Western Railway
The Waddington Estate, Enfield, Eastern Counties Railway.
Woodgreen, Green-lanes, Harnsey, Great Northern Railway.
Old Ford Estate, Eastern Counties Railway.

Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of One sore, can be obtained. On the two first estates, large pleasure-gardens are allotted to the freeholders tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge (for about ten years) less in amount than the ground-rent of the same under the usual system. Plans, Estimates, &c. furnished, and the money to be raised on the building by mortgage, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building leases for terms of 99 years, to responsible parties Apply to Mr. GEORGE MORGAN, Architect, 8, Chancery-lane.

BUILDING GROUND.—Desirable PLOTS TO BE LET, for Cattle-rate Houses, Four and Six Rooms, facing the Kentish Town Road, now being built. Bricks supplied Apply to Mr KELLY 1, Tower-place, or Mr. LAWFORD, Slate Works, 15 New-road, St. Pancras.

Freehold Building Land, Twickenham, within ten minutes' walk of the Twickenham or Richmond Stations, near the beautiful estate of Sir R. Harvey's, and Adsh Park Villas.

TO BE LET, as a whole, for a term of twenty-nine years, upon very advantageous terms, 2a. 3r. 26p. of very desirable BUILDING LAND, with entrances and frontages to Hyde Park, a commanding view of the surrounding well-wooded country, and within a few minutes' walk of the Railway Station. For further particulars apply to M. ADAMS and SON, Auctioneers and Surveyors, Isleworth.

TO BE LET or SOLD, several Plots of FREEHOLD BUILDING LAND, extending upwards of [illegible] chiefly detached villas, each with the first [illegible] adjoining the Ryc, with a commanding view of the surrounding country, and within sight of the Crystal Palace. The same to be let on Building Leases, if desired, together or separate on moderate terms. Plans of elevation may be seen, and further particulars obtained of Mr. ADAMS, Tavern, Peckham Rye; of JOHN WELLS, Esq. 23, Percy-street, Bedford-square, or of Mr. SPONG, 5, Grove-street, Camberwell.

TO BUILDERS.

BRICKS ADVANCED.—Eligible GROUND! TO BE LET, on long building leases, direct from the freeholder, at low ground-rents. The land is situate near the Kentroad, and in the locality of a station on the intended line of railway from the west-end.—Apply to Mr. R. J. WOODCOCK, Architect and Surveyor, Adelaide chambers, Gracechurch-street, City.

TO BUILDERS. — TO BE LET, the BUILDING of a WESLEYAN CHAPEL, at WREXHAM. Plans and specifications may be seen in the Vestry of the Old Chapel, Salop-road, Wrexham, from the 7th until the 21st of MAY.—Sealed Tenders to be sent to Mr. P. C. JONES, Church-street, Wrexham, on or before the 1st of JUNE.

May 1, 1855.

FREEHOLD BUILDING LAND TO BE LET, at BATH-ROAD, in large or small plots, where bricks will be advanced. It fronts a parish road, with good sewer, plenty of sand and water may be easily obtained on the ground, and every probability of a railway crossing the land, notices having been given.—Apply, personally, to the Owner, at Chesterfield House, Bath-road, Peckham, before TEN o'clock am.

BUILDING LAND TO BE LET.—Liberal advances made to builders. Also, several Sums of Money to be Lent, as mortgage upon good security. Apply to Mr. PATMAN, surveyor, 4, Serjeant's-inn, Fleet-street.

TO BUILDERS AND OTHERS.

BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON-ROAD, Belmont, Lee, Kent, close to the church. This is the most attractive, picturesque, and respectable locality on any side of London, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men.—For particulars, apply to Messrs. J. and C. W. TODD, Milner-street, Brompton; or at their Offices in the Church, lane, Lee; or to Messrs. NELSON and INNES, 6, Whitehall; or to Mr. TIERMAN, Wellington-chambers, Strand.

MARK LANE.—TO BE LET by TENDER, at a Court of Assistants of the Drapers' Company, to be held at their HALL, on THURSDAY, the 7th JUNE next, the SITE of the HOUSES, Nos. 37 to 41, Mark-Lane, both inclusive, which will be let on a building lease or leases, for 80 years, from Michaelmas next. A plan of the ground may be seen at the Clerk's Office, Drapers' Hall, where, on personal application, further particulars may be had. Persons desirous of treating for the same must send in written Tenders, sealed up, and attend the Court at ONE o'clock on the day mentioned.

CROWN LANDS, WINDSOR.—By order of the Commissioner in charge of Her Majesty's Land Revenue, TO BE LET, for the erection of villas and close rows of houses, BUILDING LAND, eligibly situate in Windsor near the Great-park, having frontage to new roads, with ample provision for good drainage. For particulars apply to Mr. JOHN CLUTTON, 8, Whitehall-place, Westminster.

CASSLAND ESTATE, South Hackney.—FREEHOLD LAND TO BE LET, on Building Leases, in Victoria-park-road, Kenton-road, &c. for second, third, or fourth-rate houses. The roads are well formed and sewered.—For particulars, apply to Mr. WALES, at the Estate Office, Cassland-road, or at 8, Great St. Helen's, City.

AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 295, Blackfriars-road, near the bridge, is specially instructed to dispose of, by AUCTION, Engine, Machinery, Foundries, Plant, or Ironmongery businesses to dispose of, to forward the particulars thereof for insertion in his HANDBOOK, for which NO CHARGE will be made unless sales be effected.

TO FOUNDRY PROPRIETORS and OTHERS.—TO BE LET, and may be entered upon immediately, a convenient FOUNDRY, with Stock, Plant, and other effects in good condition, and in full work. As satisfactory reasons will be given for the present proprietor leaving. Coming in very low to purchase.—For view and treaty, apply to AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 295, Blackfriars-road, near the bridge.

TO ENGINEERS, MACHINISTS, and OTHERS.—A first-rate PREMISES in the above line, on the Surrey side, TO LET, fitted up with an excellent 8-horse engine boiler, 3 furnaces and flues, screw cutting and other lathes, benches, anvils, blocks, tools, &c. The foregoing spacious premises are in full work, and will be supplied, as may be had on application to AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 295, Blackfriars-road, near the bridge.

BRICKFIELD TO BE LET, at a Royalty. About Seven Acres, near Uxbridge, the best Cowley earth, 6 feet 6 in. in depth, close to the Canal and Railway.

N.B.—The Field has still recently been in full season, commanding a large local connection, and stools, mills, and implements of all kinds are on the spot, together with a large quantity of earth quite ready to be immediately made up, so that one can begin to commence directly, and with all the advantages of established trade and a ready demand. Samples may be seen, and particulars obtained at MITCHELL'S, 14, Brecknock-street; Mr. LODDIDGE, Jun. 5, Crown-court, Old Broad-street; or of Messrs. ASHPITEL and WHICHCORD, 2, Poet's-corner, Westminster Abbey.

WHARF and PREMISES on the THAMES. To Boiler Makers, Manufacturing Chemists, and Parties requiring Waterside Premises.—TO BE LET, with immediate possession, an excellent WHARF and DRAWING DOCK, with a frontage, from 50 to 60 feet, on the Thames, by a depth of 180 feet, with about 25 squares of brick buildings as workshops.—Inquire at the Premises, Borden Wharf, East Greenwich; or at the Sea Kitch Tavern adjoining.

TO STOVE GRATE MANUFACTURERS, FOUNDERS, ENGINEERS, BUILDERS, SMITHS, and OTHERS.—TO BE LET or SOLD, spacious MANUFACTURING PREMISES, most desirably situate in a central part of London, and in a leading thoroughfare. The freehold may be purchased. Immediate possession will be given. Rent required to about £40.—For further particulars, apply to Messrs. FULLER and HORSEY, Billiter-street, City.

TO BUILDERS, WHOLESALE CHEESEMONGERS, CIGAR MANUFACTURERS, and OTHERS REQUIRING EXTENSIVE BUSINESS PREMISES TO BE LET, PREMISES, at Southampton, of the largest description, consisting of a Warehouse, 100 feet by 40, with Counting-house, Basement Cellarage, Lift, Dry Warehouse, stabling for four horses, double coach-house, three dwelling-houses, and other conveniences, all in good repair, and covering a superficial area of about 7,500 feet. For particulars apply to Mr. ELLIS, Estate Agent, 13, Minories, City.

TO BRICK, TIMBER, and other MERCHANTS, in connection with the BUILDING TRADES WANTED, a BARTER, a first-rate Freehold Property for Building Materials. The property consists of a Wharf, Drawing Dock, and Premises, with Workshops, &c. and a fine tenantable House, with Garden attached, in the Parish of Hackney. Inquire, for further particulars, of Mr. ROBERT GRAY, Estate Agent, &c. 9, Southampton-street, Strand.

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The Builder.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square.—The Exhibition of the Royal Academy IS NOW OPEN.—Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 53, PALL MALL, near St James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s.
JAMES FAHEY, Secretary.

THE CHALON EXHIBITION, Society of Arts.—This collection of the Paintings, Drawings, and Sketches of the late JOHN CHALON, Esq. R.A. with a selection from the works of ALFRED E. CHALON, Esq. R.A. will be OPENED at the Society's House, Adelphi, on THURSDAY, JUNE 7th. Admission, 1s.

SOCIETY of PAINTERS in WATER-COLOURS.—The FIFTY-FIRST ANNUAL EXHIBITION is now OPEN at their Gallery, 5, PALL-MALL EAST, close to Trafalgar-square.—Admittance, 1s Catalogues, 6d.
JOSEPH J. JENKINS, Secretary.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855.—The first Lecture will be delivered on MONDAY NEXT, MAY 21st, "On the Employment of Stained Glass," by CHARLES WINSTON, Esq.—Hour of admission Seven o'clock, the Chair to be taken at Eight. Cards for the Course, 2s. 6d.; Single Lectures, 6d.; Catalogues of the Collection, 6d each. To be had at the Museum, and at the Office of "The Builder." Subscribers can have their copies of the Catalogue on application at the Museum.
HENRY CLUTTON, Hon. Sec.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE BURIAL BOARD for the Parishes of ST. THOMAS, ST EDMUND, and ST. MARTIN, Salisbury, in the county of Wilts, is desirous of receiving DESIGNS, to comprise Plans, Elevations, Sections, and Specifications, with Estimates for laying out a NEW BURIAL-GROUND of Eight Acres, enclosing the Ground, building a Lodge with Entrance-gates, and building TWO CHAPELS, one consecrated, and the other not. The party whose plans, &c. may be approved will be paid a premium of 50*l.* for the plans, designs, estimates, and specifications, which must be delivered at my office, High street, Salisbury, free of expense, without the author's name, but with a motto, on or before the 4th day of JUNE next. A sealed letter, containing name and address, should accompany each design, which will be opened after selection made, and the plans not approved will be returned.—Further particulars, together with a plan of the site, may be obtained, on application to me,
G. SMITH, Clerk of the Board.

Salisbury, May 11, 1855.

TO ARCHITECTS, BUILDERS, AND OTHERS.

THE BURIAL BOARD for the PARISH of HALSTEAD, in the county of Essex, are desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising ground plans, sections, and elevations for laying out, surfacedraining, planting, and fencing a NEW BURIAL GROUND, with suitable entrance gates, and for building a LODGE and TWO CHAPELS thereon. The ground contains five acres, a plan of which may be seen, and further information obtained, at the Office of the Clerk to the Board. The party whose plans are approved will, at the option of the Board, either have the superintendence of the works, or be paid the sum of Twenty guineas for his designs. The plans and estimates must be delivered at the Office of the Clerk to the Board, on or before the 14th day of JUNE next. Each plan is to be distinguished by a motto and a sealed letter similarly inscribed, containing the author's name and address, to be sent therewith. The Board do not pledge itself to accept any plan.
C. F. ARDEN, Clerk to the Board.

Halstead, May 16, 1855.

COMPETITIONS.

PREMIUMS for DESIGNS.—The Berwick-upon-Tweed Burial Board offers a PREMIUM of 15*l.* to the Architect or other person whose DESIGNS shall be accepted for Two Chapels, an entrance Lodge and Gates, and for fencing, laying out, planting, and draining, under the Burials beyond the Metropolis Act, 8½ acres of land for a new BURIAL-GROUND at Berwick upon-Tweed, the cost of the whole not to exceed 1,150*l.* The Premium will be increased to 25*l.* if the approved designs be accompanied by a guaranteed estimate of the expense, and by detailed working plans and specifications sufficiently extensive as to enable the Board forthwith to enter into contracts for the works. The Designs, Plans, &c. to be sent to me (prepaid) on or before the 6th JUNE next.
By order, JAMES C. WEDDELL, Clerk to the Board.
Berwick-upon-Tweed, 14th May, 1855.
N B.—The Burial Board does not pledge itself to employ as Architect the party whose designs may be accepted.

TO ARCHITECTS.—PLANS, &c. are required for the ERECTION of a NEW CHURCH, on the Lincoln-road, Peterborough, to contain 700 sittings, without galleries. Architects desirous of submitting designs, may obtain full particulars by applying to H. P. GATES, Esq Secretary, Cathedral Precincts, Peterborough The plans to be delivered within a month. Peterborough, May 9, 1855.

CONTRACTS.

SHOREDITCH CONTRACTS.—Notice is hereby given, that the Trustees for the better repairing the Highways, &c. within the Parish of St. Leonard, Shoreditch, Middlesex, will meet in the Vestry-room of the Parish Church on THURSDAY, the 24th day of MAY, 1855, at SIX o'clock in the EVENING precisely, to receive PROPOSALS and CONTRACT with any person or persons for the FOLLOWING ARTICLES and WORKS for One Year, from the 24th day of JUNE next, viz.—

DUSTING and SCAVENGING.—For the removing, carting, and carrying away all the Soil, Ashes, Cinders, Rubbish, Dust and Dirt from the Houses, Pelisa, and Yards of the Inhabitants, within the Parish (without fee or reward), three times in every week, or oftener if required Also, for the sweeping, cleansing, removing, carting, and carrying away all the Soil, Dirt, Rubbish, and Filth, from the WHOLE of the Paved streets, Squares, Lanes, Courts Alleys, Roads, Passages, and other Places in the said Parish THREE TIMES IN EVERY WEEK, viz. Mondays, Wednesdays, and Fridays And also, to remove, cart, and carry away all the Drift and Rubbish from the Sweepings and Scrapings of the Ballast and Gravel Roads, Streets, &c. directly the same shall have been laid in heaps by the parish labourers

MASONS and PAVIORS.—Also for Paving, Repairing, and Relaying the Foot and Carriage Pavements of the several Squares, Streets, Lanes, and Alleys, and Public Places within the said Parish.

BALLAST.—Also for the supply of Pit Ballast (to be delivered on the roads free of expense), properly screened through a sieve of not less than three quarters of an inch square in the mesh, and to the satisfaction of the Surveyor, samples of which must be presented.

FLINTS.—Also, for the supply of clean Kentish Flints (to be delivered on the roads free of expense), properly broken to pass through a 2-inch ring, to the satisfaction of the Surveyor, samples of which must be presented.

GRANITE.—Also, for the supply of Blue Guernsey Granite (to be delivered on the roads in the Parish free of expense) properly broken and screened, to the satisfaction of the Surveyor.

STREET BROOM HEADS.—Also, for supplying Street Broom Heads, as per samples to be seen at the Stone-yard.

PRINTING.—Also, for the Printing, as per samples kept at the Clerk's Office.

STATIONERY.—Also, for the Stationery, as per samples kept at the Clerk's Office.

PUMPS.—Also, for Repairing and keeping in Repair, and Painting the several Pumps belonging to the said Trustees, including the Ironwork, Pipes, and all other things appertaining thereto.

PAINTERS and WHITERS' WORK.—Also, for Painter's and Writer's Work.

PLUMBER'S WORK.—Also, for Plumber's Work.

SMITH'S WORK.—Also, for Smith's Work.

GAS-LIGHTS.—Also, for Lighting all the Public Gas-lamps of the Parish. Supplying New Burners, Service-pipes, and Fittings for the same complete, including Painting, Repairing, and all removals which may be required by the Trustees or their Surveyor

GAS-LAMPS.—Also, for Supplying Bracket-irons, Ladder-irons, and Lanthorns, complete.

GAS LAMP POSTS and COLUMNS, and GRATINGS.—Also, for supplying Gas Lamp-posts and Columns, and Gratings, as per samples to be seen at the Stone-yard.

Tenders to be sent to the Clerk, at his Office, as under, up to HALF-PAST FIVE o'clock on the EVENING of the Contracts, from which time to HALF-PAST SIX, they will be received at the Vestry-room, at Shoreditch Church; after that time no Tenders can be received. The Trustees will require for the due performance of the several Contracts. The Trustees do not bind themselves to accept the lowest or any other Tender. None but printed specifications will be issued, which, with any farther information, may be had of Mr. WILLIAM MEGGS, Surveyor, or of W. G. DAVIS, Clerk to the said Trustees.
Clerk's and Surveyor's Office, 37, Horton-square, May, 1855.

TO BUILDERS.

THE GUARDIANS of the POOR of the KING'S LYNN UNION are desirous of receiving TENDERS for the ERECTION of their proposed NEW WORKHOUSE. The drawings, specifications, and conditions of contract may be seen at the Old Museum, Union-street, South Lynn, and at the offices of the Architects, Messrs. MEDLAND and MAKERLY, 10, Buckingham-street, Adelphi, London, on and after TUESDAY, MAY 22nd, 1855. Tenders to be delivered (free) addressed to the Clerk to the Guardians, St. James's Workhouse, Lynn, Norfolk, and endorsed "Tender for the Erection of New Workhouse," on or before SATURDAY, JUNE 2nd, 1855, at TEN a.m. Tenders received after that hour will not be opened. The Guardians do not pledge themselves to accept the lowest or any Tender.
By order,
JNO JAS. COULTON, Clerk to the Guardians.

Lynn, 8th May, 1855.

CONTRACTS.

NOTICE.—To BUILDERS.—Such competent persons as may be desirous of CONTRACTING with the Honourable Board of Ordnance for the ERECTION of a CHAPEL SCHOOL, Schoolmaster's Quarters, Rain water Tank, and Laying on Gas to Chapel School, at CANTERBURY, are requested to send in sealed Tenders, addressed "To the Secretary of the Board of Ordnance, Pall-mall," on or before ELEVEN o'clock, a.m. on SATURDAY, the 2nd of JUNE, 1855.

N B The words "Tender for Chapel School, &c. at Canterbury," must be written on one corner of the envelope

Printed schedules and every particular relating thereto may be had on application at the Royal Engineer Office, Canterbury, any day Sunday excepted) between the hours of TEN and FOUR o'clock, from the 21st of MAY to the 1st of JUNE, inclusive, after which time none can be issued N Tender will be entertained to which is not filled up strictly in conformity to the Honourable Board's regulations, nor will any offer be accepted but from such person or persons as may be considered competent to perform the work.

Royal Engineer Office, Dover, 7th of May, 1855.

Royal Engineer Office, Portsmouth, 14th May, 1855.

TO CONTRACTORS.—Notice is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall-mall, London, on WEDNESDAY, the 30th day of MAY, 1855, from such persons as may be willing to undertake the DREDGING, &c. in DEEPENING the BED of the GUN-WHARF CAMBER.—The specification and conditions of contract may be seen, and every information obtained, on application to Mr. KIRTON, Clerk of Works, at this Office, between the hours of TEN and FOUR each day, Sundays excepted. "Tenders to be endorsed, "Tender for Deepening the Bed of the Gun-wharf Camber, at Portsmouth, in the County of Hants."

Royal Engineer Office, Portsmouth, 14th May, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall Mall, London, on WEDNESDAY, the 23rd day of MAY, 1855, from such persons as may be willing to undertake the BUILDING of a SEWER in Fishmonger's-road, Landport, from Lion Gate-road to the Sea Beach; and also for connecting existing Sewer with the new line of Sewer. The plans, specification, and conditions of Contract may be seen, and every information obtained, on application to Mr KIRTON, Clerk of Works, at this office, between the hours of TEN and FOUR each day, SUNDAYS excepted Tenders to be ordered—"Tender for Building a Sewer in Fishmonger's-road, Landport, in the County of Hants."

TO IRONFOUNDERS, IRON MERCHANTS, AND OTHERS.

GLOUCESTER WATERWORKS.—The Gloucester Board of Health are desirous of receiving TENDERS for the early delivery of about 1,000 TONS of CAST-IRON WATER-PIPES Specifications and forms of Tender may be had on application to Mr HAVELOCK, C.E. John Watt and Co. Manchester; or Mr. R. H. FRYER, Solicitor, Gloucester, the Clerk to the Board. All Tenders are required to be sent in to the Clerk, under a sealed cover, marked "Tender for Cast-Iron Water-Pipes," and addressed to "The Gloucester Board of Health," on or before the 23rd day of MAY next The Board do not pledge themselves to accept the lowest or any Tender
R. H. FRYER, Clerk to the Board.

10, Berkeley-street, Gloucester, April 23, 1855

WIGAN LOCAL BOARD of HEALTH.

WATERWORKS.—To ENGINEERS, IRON-FOUNDERS, BRASS-FOUNDERS, CONTRACTORS, EXCAVATORS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from persons willing to undertake either of the following CONTRACTS:—

CONTRACT No. 1.—For the supply of about 1,500 tons of CAST IRON WATER-PIPES, and other CASTINGS.

CONTRACT No. 2. For the supply of SLUICE VALVES, HYDRANTS, and STREET FITTINGS.

CONTRACT No. 3.—For the supply and erection of Double-cut STEAM-ENGINES, BOILERS, PUMPS, and RISING MAIN Each Engine to be capable of raising ONE MILLION GALLONS of Water, ONE HUNDRED FEET high, in TWELVE hours.

CONTRACT No. 4.—For the construction of a COVERED SERVICE RESERVOIR.

CONTRACT No. 5.—For the formation of a TUNNEL about 50 yards in length, and 18 feet 6 inches in diameter, with SHAFTS, and TUNNEL ENTRANCES.

CONTRACT No. 6. For Masonry and other work in STONE IMPOUNDING WALL for STORAGE RESERVOIR

CONTRACT No. 7.—For EARTHWORK, PUDDLING, &c. in EMBANKMENT for SERVICE RESERVOIR, including MASONRY, BRICKWORK, &c. in VALVE and OUTLET WELLS, GAUGE BASINS, and RETAINING WALLS, and a TUNNEL under site of Embankment

The drawings and specifications may be seen, and (if that information may be obtained on and after the 26th day of MAY, on application at the Office of the Local Board of Health, Wigan; or at the Offices of ROBERT RAWLINSON, C.E. 21 Parliament-street, Westminster. Specifications and duplicate forms of Tender, Schedules, and Bills of Quantities, for Contracts Nos. 1 and 2, may be had on payment of 1*l.* 1*s.* each for Contracts 3, 4, 5, 6, and 7, on payment of 2*l.* 2*s.* each. Quantities supplied for Contracts 3, 4, 5, 6, and 7, to be delivered at the Office of the Local Board, Wigan, before TWELVE o'clock, on MONDAY, the 18th day of JUNE next, and "Tender for Contract No. 1, 2, 3, 4, 5, 6, or 7," as the case may be. The Local Board do not bind themselves to accept the lowest or any Tender.

Signed WILLIAM ACKERLEY,
Wigan, 14th May, 1855. Clerk to the Local Board.

[*For remainder of Contracts see next page.*

CONTRACTS.

TO GAS ENGINEERS and CAPITALISTS. Notice is hereby given, that the town of Harrow-on-the-Hill, being in want of a supply of Gas, the Local Board of Health are prepared to give every facility in their power to persons coming forward to provide the necessary works.
By order of the Board,
Harrow, May 10, 1855. WM. WINKLEY, Jun. Clerk.

TO BUILDERS.
THE GUARDIANS of the GRAVESEND and MILTON UNION, in Kent, are ready to receive TENDERS for the ERECTION of an INFIRMARY, at the Workhouse of the Union, situate in the parish of Gravesend, according to the plans and specification thereof, which may be seen at the Board-room at the said Workhouse; and all further information may be had of Mr. JOHN GOULD, Jun. Architect and Surveyor, in Parrock-street, in Milton, next Gravesend. Tenders sealed, and marked "Tender for Infirmary," must be delivered at my Office, in King-street, in Milton next Gravesend aforesaid, on or before WEDNESDAY, the 30th day of MAY instant. The person whose Tender may be accepted will be required to enter into a contract and also a bond with two sureties, to be approved by the Guardians, in the sum of 500l. for the due performance of the contract. The contract and bond will be prepared by the Clerk to the Guardians, to be paid for by the contractor, but the Guardians do not bind themselves to accept the lowest or any Tender. By order of the Guardians,
Gravesend, May 16, 1855. FRAS. SOUTHGATE, Clerk.

TO SCAVENGERS and OTHERS.—Sewers' Office, Guildhall, May 17th, 1855. The Commissioners of Sewers of the City of London, hereby give notice, that they will meet in the GUILDHALL of the said City, on TUESDAY, the 5th day of JUNE next, at TWELVE o'clock at noon precisely, to receive PROPOSALS for CLEANSING the Streets, and REMOVING DUST, &c. from the houses of this City, for the term of one year from Midsummer-day next, agreeably to the provisions of a specification, a copy of which may be had upon application to this Office. The City is divided for the purpose of this Contract into six divisions. Each Contractor will be required to enter into bond, with two approved sureties, for the due performance of his contract. The Commissioners do not pledge themselves to accept the lowest Tender, nor any, unless deemed satisfactory. No Tender will be received after TWELVE o'clock on the day of treaty, nor will any Tender be read which does not contain an enclosure, of a bank note as an evidence that the same is made bonâ fide, which sum will be immediately returned to each person whose Tender is not accepted, and will be retained in the other cases until the contract and bond are duly executed.
JOSEPH DAW, Principal Clerk.

LONDON and NORTH-WESTERN RAILWAY.—CONTRACTS for STORES for the Year ending JUNE, 1856. The Directors are prepared to receive TENDERS for the SUPPLY of the undermentioned STORES, viz.:—

No. of Contract—		No. of Contract—	
1.	Brass Sheet and Tubes, for Locomotives.	20.	Iron, Yorkshire.
		20a.	Iron, Staffordshire.
3.	Copper.	21.	Iron Castings.
4.	Canvas.	22.	Iron Work.
7.	Axles.	23.	Wheels.
9.	Crucibles.	24.	Oil, Burning, &c.
12a.	Drysaltery.	25.	Oils, Various, Tallow, and Turpentine.
14.	Cotton Waste.	27.	Steel.
15.	Flags, Rope, Hemp, &c.	28.	Steel Springs and Files.
16a.	Glass, various.	29.	Tin Bloc.
17.	Nails and Locks.	31.	Tin Sheet and Spelter.
19.	Lead, White and Red.		
19a.	Lead, Sheet and Pipe.		

Specifications and Forms of Tender may be had on and after WEDNESDAY, MAY 23, on application in writing to the Secretary, Euston Station, London. Forms of Tender for each contract are printed separately, and parties applying should state the particular contract or contracts for which they propose to tender. Patterns may also be inspected on and after WEDNESDAY, MAY 23, from TEN till FOUR o'clock, at the Company's Pattern Room, Euston Station, and any further information required may be obtained on application to the heads of the several departments. Tenders to be sent in on or before TEN o'clock on MONDAY, JUNE 4.
By order of the Directors, CHAS. E. STEWART.
Euston Station, May 11, 1855.

MORTUARY CHAPELS and LODGE, BOUNDARY WALLS, ENTRANCE GATES, and IRON RAILING round same, at SOHAM, CAMBRIDGESHIRE. Notice is hereby given, that the Burial Board for the parish of Soham will be prepared at their meeting, to be held at the Court House in Soham, on WEDNESDAY, the 30th day of MAY instant, at HALF-PAST ELEVEN o'clock in the forenoon, to receive TENDERS for erecting BOUNDARY WALLS, ENTRANCE GATES, and IRON RAILING, enclosing the new Burial Ground, and for erecting TWO MORTUARY CHAPELS and LODGE, with BEARSE HOUSE therein. The plans and specifications for the respective contracts may be seen at the office of Mr. ROBERT WHEELER, Architect, Bedford-chambers, Southampton-street, Strand, London, from SATURDAY, the 12th day of MAY instant, to SATURDAY, the 26th day of MAY instant, both inclusive, and at my Office in Soham, from MONDAY, the 21st day of MAY instant, to MONDAY, the 28th day of MAY instant, both inclusive. The boundary walls, entrance gates, and iron railing must be Tendered for apart from the Chapels and Lodge.—Sealed Tenders to be sent, addressed to me, on or before the morning of WEDNESDAY, the said 30th day of MAY, at TEN o'clock, endorsed "Tenders for Works." The Contractors will be required to give such security for the due performance of the Contracts as the Board may require, but the Board do not pledge themselves to accept the lowest or any of the Tenders. By order of the Board,
THOMAS HUSTWICK, Clerk to the Board.
Soham, May 10th, 1855.

VALUABLE BUILDING MATERIALS. EARL'S COURT, TUNBRIDGE WELLS. TO BUILDERS and OTHERS. TENDERS for the purchase of the whole or portions of the BUILDING MATERIALS on the above premises will be received at the Office of Mr. N. E. STEVENS, Architect, High street, Tunbridge Wells, at TEN o'clock on WEDNESDAY, the 23rd day of MAY, 1855. The materials comprise stone, bricks, ornamental and plain tiles, slates, sheet lead and lead pipe, timber, floor boards, doors, sashes, and shutters, wood and iron fencing, large greenhouse, stable fittings, statuary and other chimney-pieces, grates, cupboards and other fixtures, stone paving, &c. &c. Specifications of the manner in which the materials will be divided in the event of their being sold in portions, together with the time of payment, removal, &c. may be seen at the Office as above, or will be forwarded to parties applying for the same on the receipt of six postage stamps. Admission to the Premises may be obtained from TUESDAY, the 15th, to TUESDAY, the 22nd of MAY, inclusive, between the hours of NINE a.m. and TWO p.m. on applying at the Office of the Architect for an order.
May 4th, 1855.

TO BUILDERS.
PERSONS desirous of submitting TENDERS for BUILDING NATIONAL SCHOOLS and RESIDENCES for Masters and Mistresses, at Ludlow, in the county of Salop, on the Shrewsbury and Hereford Railway, can see the Plans and Specifications at the Offices of Mr. T. NICHOLSON, Diocesan Architect, Hereford. The Tenders are required to be delivered to the Architect, on or before the 12th day of JUNE, 1855. Sufficient and approved securities will be required; and no pledge is given that the lowest Tender will be accepted.

TO BUILDERS.
KINGSGATE, late EAGLE STREET CHAPEL, HOLBORN. ESTIMATES are required for REBUILDING the same and the HOUSES adjoining. The plans, &c. can be seen, and the quantities obtained up to SATURDAY, the 26th of MAY, by applying at the Office of CHARLES G. SEARLE, Esq. the Architect, 26, Poultry, of whom full particulars can be had. The Committee will not bind themselves to accept the lowest or any Tender unless satisfactory.

CONTRACTS.

TO CONTRACTORS.
THE Trustees for Repairing, Lighting, &c. Grosvenor-place, and the squares and streets adjacent, do hereby give Notice that they will be ready on FRIDAY, the 25th instant, at THREE o'clock in the afternoon at their Office, 43, Lower Belgrave place, Pimlico, to receive TENDERS from and to CONTRACT with, any person or persons who may be willing to Contract with them for supplying the said Trustees with such quantities of BROKEN GUERNSEY GRANITE as may be required by them to be delivered alongside their Wharf, Grosvenor Canal, in such manner as may be directed by the Surveyor. Further particulars and the form of Tender may be had of Mr. THOMAS CUNDY, the Surveyor, at the Office of the Trustees, where samples of the materials required may be seen any morning, between the hours of NINE and TEN, till the 25th instant. All Tenders to be in writing (sealed up) signed by the party making the same, and delivered at the Office of the Trustees, before THREE o'clock, on FRIDAY, the 25th instant. The materials furnished will be paid for quarterly, and the lock and wharf dues will be paid by the Trustees.
GEORGE A. WALMISLEY, Clerk to the Trustees.
Dated the 4th day of May, 1855.

TO BUILDERS, BRASS AND IRON FOUNDERS.
SEALED TENDERS, for a specific sum, will be received at the Ordnance Office, Pall-mall, London, on or before the 28th of MAY next, for the following SERVICES, viz.:—Taking up Old, Supplying and Laying New Pipes and Fitments to the Waterworks at the Gunwharf, Devonport.—The detailed plan may be seen, and specification of contract together with every requisite information may be obtained daily (Sundays excepted), at the Royal Engineer Office, Devonport, between the hours of TEN and FOUR o'clock, from the 16th to the 26th instant, both days inclusive.
Royal Engineer Office, Devonport, 10th May, 1855.

TO BUILDERS AND IRONFOUNDERS.
THE BURIAL BOARD for TAUNTON, ST. MARY MAGDALEN, and BISHOP'S HULL, in the county of Somerset, are prepared to receive TENDERS for a CAST IRON PALISADE FENCING, CURB, and GATES, to the Burial-ground at Mountway, Taunton. The drawings and specifications may be seen from the 21st day of MAY to the 9th day of JUNE next, at the Office of Mr. PINCHARD, Solicitor, Clerk to the Board, to whom Tenders must be forwarded, endorsed "Tender for Fencing," on or before the said 9th day of JUNE, 1855. Further information may be obtained on applying to Mr. ASHWORTH, the Architect, 70, St. Sidwell's, Exeter.—The Board do not bind themselves to accept the lowest or any Tender.
Dated, the Mount, Taunton, May 14, 1855.

TO BUILDERS.
TENDERS are required for the ERECTION of a VILLA and OFFICES, at DUDLEY.—Plans and specification may be seen, and further information obtained, at the Offices of Mr. W. WIGGINTON, Architect, Wolverhampton-street, Dudley, to whom Tenders (sealed and endorsed) are to be delivered by noon, on SATURDAY, the 27th inst.—May 16, 1855.

TO BUILDERS.
PERSONS desirous of TENDERING for the ALTERATIONS to the VICARAGE-HOUSE of MILTON, by Sittingbourne, can inspect the plans, either upon the Premises, or at 8, Argyll place, London, where sealed Tenders will be received on SATURDAY, JUNE 9th, by WILLIAM WHITE, Architect.

IPSWICH CEMETERY.—To BUILDERS and CONTRACTORS.—The Ipswich Burial Board are prepared to receive TENDERS for the ERECTION of TWO CHAPELS, LODGE, RECEIVING HOUSE, and LABOURER'S COTTAGE, on the proposed Burial Ground. The plans and specifications, with the quantities of the several works, may be seen at the Town Clerk's Office, Ipswich, or at the Office of Messrs. COOPER and PECK, Architects, 1, Furnival's Inn, London. Tenders to be delivered at the Town Clerk's Office, Ipswich, on or before MONDAY, the 28th instant, under seal, addressed to the "Cemetery Committee." Contractors to give such security for the performance of their Contracts as the Board may require, but the Board are not to be bound to accept the lowest or any Tender.—Ipswich, May 11, 1855.

CONTRACT for TUNNELLING.— URGEL CANAL, CATALONIA, SPAIN. MONCLAR TUNNEL.—The shafts of the tunnel of Monclar having reached a depth from which an opinion may be formed of the nature and character of the ground, which will have to be bored in the construction of this tunnel, 4,800 metres in length, the Board of Administration will award the CONTRACT for the execution of the said tunnel in sight of the biddings, at the office of the Company at Barcelona, No. 12, Rue de Boqueria, first-floor, at TWELVE o'clock precisely, on the 20th JUNE next, according to the conditions contained in the separate regulations, which, with the plan of the ground, may be seen in the aforesaid office, and in London, at Mr. G. C. REW'S, No. 4, Bank-chambers. All proposals must be presented, sealed, in conformity with the form contained in the regulations, to the undersigned, two hours at least before the time above mentioned.
(Signed), FRAN. FERRER Y BUSQUETS, Secretary.
Barcelona, April, 1855.

CONTRACT for BASS and HEATH BROOMS.—The Trustees for Repairing, Lighting, &c. Grosvenor-place, and the squares and streets adjacent, do hereby give Notice, that they will be ready on FRIDAY the 25th instant, at THREE o'clock in the afternoon, at the Office, 43, Lower Belgrave place, Pimlico, to receive TENDERS from, and to CONTRACT with, any person or persons who may be willing to contract with them for supplying the said Trustees with such a number of BASS and HEATH BROOMS, as may be required of them for twelve months. The brooms to be delivered at the office of the Trustees in such numbers, and at such time as may be ordered by the surveyor. Further particulars and form of Tender may be had on application at the Office of the Trustees, where samples of the brooms required may be seen any morning between the hours of NINE and TEN. All Tenders must be in writing, sealed up, and delivered at the Office of the Trustees before THREE o'clock on FRIDAY, the 25th instant. The Trustees do not bind themselves to accept the lowest Tender.
GEORGE A. WALMISLEY, Clerk to the Trustees.
Dated the 4th day of May, 1855.

SHIPLEY LOCAL BOARD of HEALTH. WATERWORKS.—CONTRACTS 4 and 5.—The Local Board hereby give Notice, that they are prepared to receive TENDERS for the following Works:—

CONTRACT No. 4.—For MAKING a SERVICE RESERVOIR, near West-lane, in the township of Baildon.

CONTRACT No. 5.—For EXCAVATING the GROUND, LAYING and JOINTING CAST-IRON MAINS, also for FIXING SLUICE COCKS, HYDRANTS, &c.

Plans, sections, detail drawings, and specifications may be inspected on and after the 10th inst. at the Offices of Mr. J. M'LANDSBOROUGH, Civil Engineer, 21, Queensgate, Bradford, from whom forms of Tender and any further information may be obtained. Sealed Tenders to be delivered to me, at my Offices, in Bradford, Yorkshire, on or before MONDAY, the 28th inst. endorsed "Shipley Waterworks, Tender for Contract No. 4," or 5, as the case may be. The Local Board do not bind themselves to accept the lowest or other Tender.
JO. THOMPSON, Clerk to the Local Board.
Bradford, May 3rd, 1855.

TO BUILDERS AND OTHERS.
PERSONS willing to CONTRACT for the ERECTION of a PARSONAGE HOUSE and OFFICES, at Wisbech St. Mary, are requested to deliver Tenders for the same at my Office, in the town of Wisbech (where the drawings and specifications may be seen), on or before SATURDAY, the 26th day of MAY inst. at TWELVE o'clock at noon. The Incumbent does not pledge himself to accept the lowest or any Tender, unless approved.
WM. ADAMS, Wisbech.

CONTRACTS.

TO BUILDERS.
TENDERS are required for the ERECTION of a PAIR of SEMI-DETACHED RESIDENCES, at CROYDON, SURREY; the plans and specification of which may be seen at the Office of Mr. G. S. TEMPLE, Architect and Surveyor, 28, Clement's-lane, Lombard-street.—The lowest Tender will not necessarily be accepted.

TO BUILDERS.
PERSONS desirous of CONTRACTING for the REPAIR of the CHANCEL of UPTON CHURCH, near Leamington, are requested to communicate their names to Mr. CHRISTIAN, 10, Whitehall-place, London, on or before WEDNESDAY, 23rd inst.

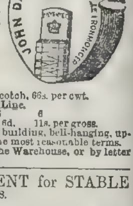
NOTICE to CONTRACTORS.— CONTRACT for WORKS.—The Directors of the Bradford, Wakefield, and Leeds Railway will meet at their OFFICES, Observer Office-court, Cheapside, Bradford, on SATURDAY, the 2nd day of JUNE next, at ELEVEN o'clock in the forenoon, to LET the CONSTRUCTION of their Railway, at which time and place parties Tendering or their authorized agents, must be in attendance. Drawings and specifications will be ready for inspection, and forms of Tender may be had, on and after the 12th day of MAY next, at Mr. HAWKSHAW'S Office, 33, Great George-street, Westminster. By order,
JOSEPH BURNSIDE, Secretary.

TO BUILDERS AND OTHERS.
UXBRIDGE, Middlesex.—Notice is hereby given that the Burial Board for the Township of Uxbridge, in the county of Middlesex, are prepared to receive PROPOSALS or TENDERS for the ERECTION of BOUNDARY-WALL and OAK FENCES, and ENTRANCE GATES, and IRON RAILING, for the new Burial Ground for the said township containing four acres situate adjoining Kingston-lane, in the parish of Hillingdon, in the county of Middlesex. The drawings, specification, and conditions of Contract, may be seen at my Office, at Uxbridge aforesaid, any day between the hours of TEN o'clock in the forenoon, and FIVE o'clock in the afternoon, until the fourth day of JUNE next, on or before which day sealed Proposals or Tenders for the said works are to be offered to the said Burial Board, and delivered to me at my Office at Uxbridge aforesaid. The drawings and specification may also be seen at the Office of the Architect and Surveyor to the Board, Mr. C. J. SHOPPEE, of 61, Doughty-street, London. The Board does not pledge itself to accept the lowest or any Tender. By order of the Board,
Uxbridge, May 17, 1855. HENRY S. BATT, Clerk.

TO BUILDERS.
TENDERS are invited for certain ALTERATIONS and ADDITIONS to the HOUSE at CROWHURST-PARK, near BATTLE, SUSSEX.—The plans and specification may be seen there, on and after the 21st instant, and the Tenders must be delivered on or before WEDNESDAY, the 6th of JUNE, at TWELVE o'clock at noon, addressed to the Architect, Mr. Wm. MILFORD TEULON, Crowhurst-park, Battle, where they will be opened in the presence of those Builders who wish to be present.—The lowest Tender will not necessarily be accepted.—Particulars may be obtained at the Architect's Office, 42, Guildford-street, Russell-square, London.

HOUSE to be REPAIRED, No. 24, MORNINGTON-ROAD, Regent's-park. Specification to be seen on the Premises. Not to accept the lowest Tender necessarily. G. GORDON STANHAM, Surveyor, St. Alban's Cottage, North-end, Hammersmith.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

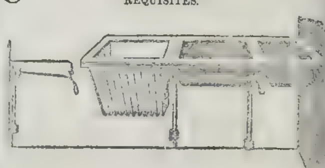


Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

WILLIAM BATLEY, Engineer and Boiler Maker, Northampton.—Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts apply as above.

TO IRONMONGERS AND THE TRADE GENERALLY.
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show: every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

MOREWOOD & ROGERS'S PATENT PLUMBIC ZINC,

A SUBSTITUTE FOR SHEET-LEAD FOR

ROOFING, RIDGES, GUTTERS, FLOORING,

AND ALL OTHER PURPOSES TO WHICH SHEET LEAD IS APPLICABLE.

This Metal consists of distinct layers of Lead and Zinc, perfectly united in the process of Manufacture one side of each sheet being pure Lead and the other pure Zinc; it therefore combines the Stiffness of Zinc with the Durable Qualities of Lead. The Lead side of the sheet being laid upward, effectually protects the Zinc but when from these atmospheric influences whilst, so rapidly, cause its decay, whilst the Zinc so renders the Lead as to make a sheet of Plumbic Zinc equal in strength to one of Lead of several times its thickness and weight.

Plumbic Zinc not requiring to be more than one fourth or one-fifth as thick as Sheet Lead, is consequently much cheaper than that material.

For covering Terraces, Flats, Floors, Stairs, Passages, &c. it is well suited, being like Lead to the tread, whilst the Zinc on the under side of the sheet prevents it from treading out of shape.

The Size of the Sheets is 7 feet by 2 feet 8 inches.

No. 11	Gauge weighs about	18 oz.	per foot super.		
No. 12	"	"	"	24 oz.	do. do.
No. 13	"	"	"	22 oz.	do. do.
No. 14	"	"	"	20 oz.	do. do.

For further particulars, apply to

A. MOREWOOD and CO. GALVANIZED TINNED IRON WAREHOUSE,

DOWGATE DOCK, UPPER THAMES-STREET, LONDON.

FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

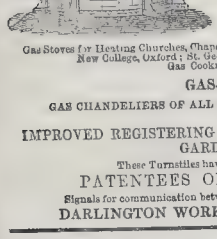
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges, on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Gorge-poles, Rings and Lacquered Case Tube for Picture Rods Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Pine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 6d. per shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world

OFFICES.—Gateshead-on-Tyne.

13a, Strand, London.

67, Hyde-park-street, Glasgow.

27, Dale-street, Manchester.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers. Ironmongery Establishment, 26, Watling-street, City and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING and MOULDING, MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kingsroad, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:

No. 3	4	5	6
5s. 6d.	6s. 6d.	8s.	9s. 6d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 38, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. &c. 6d. each.

J. H. BOOBBYER (late STUBBS and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices

11, Stanhope-street, Clare-market, London.

No. 17-4, British Section, Hardware Department, Paris Exhibition, 1855.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT FROM THE STRONG ROOM OF THE LONDON AND SOUTH WESTERN RAILWAY, to break open a

"London and North Western Railway Company,

"Liverpool, May 17, 1851

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door. I am, gentlemen, your obedient servant,

"GEORGE PALMER.

"Messrs. Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"3, Great Vine street, May 3, 1838.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant,

"C. OTWAY.

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 18, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsfield-road, Wolverhampton.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Wimpole-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction, and economized the expense of such apparatuses, conservatories to maintain constantly and entirely of iron or wood, and of iron and wire fencing. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Wimpole-street, Oxford-street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE, the result of long experience. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is so constructed as to be very suitable for large or small families. In operation daily in the stove and fender department of DEANE, DRAY, and Co.'s establishment, where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and CO. opposite the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEPRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and cinders from fire are effectually prevented by its use, while it presents all the comforts and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEPRIES'S Office, 145 Regent-street, London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hand and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having the whole oven and effectually cures smoky chimneys, and is the best cooking range extant.

THE COTTAGERS' STOVES.

Testimonial.

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This invention is now in operation upon Steam engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant, combining the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

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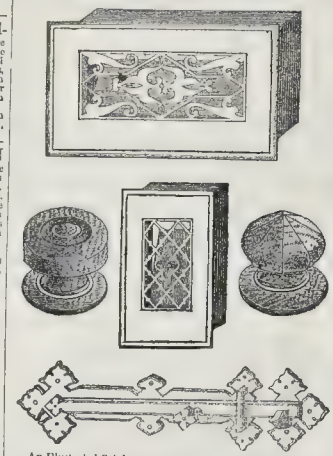

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PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

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By Her Majesty's Royal Letters Patent.
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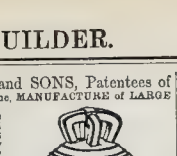

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MAINE LAW.—A Public preliminary MEETING will be held, by the United Kingdom Alliance, on MONDAY EVENING next, MAY 21, in St. Martin's Hall, Long Acre. Chair taken at SEVEN o'clock. Admission free.

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The Builder.

SATURDAY, MAY 19, 1855.

LEAVING the "difficulty" between the Royal Academy, the architect-members of that body, and the general architectural "interest," to be adjusted as opportunity may admit, we proceed to notice such of the drawings as may still deserve attention, in the room once the "Architectural."

In interior decoration there are some evidences of the advance which is being made. The "Design for a Ceiling," (1217), C. Kuckuck, we are glad to quote as an example of this. It contains some excellent ornament, and is for the most part free from defects in principle, such as are too often met with. The compartments supply several different designs, and the drawing deserves praise. We might say much the same of the design for the boudoir ceiling, Harewood House, Yorkshire (1263), by R. Beavis, to be executed by Trollope and Sons; though we must take exception to the use of the fan-shaped fillings of semicircular spaces, so much loved of the Adam school of architects.——"The Staircase Saloon at the Earl of Harrington's new Mansion, Queen's Palace Gardens, Kensington" (1183), is far better in the arrangement of the plan than in the decorative features, where it seems to us that the architect cannot have had fair play.——"The Principal Staircase, Falconhurst Lodge, Kent, erected for the Hon. J. C. Talbot" (1245), is a plain Elizabethan interior, by Mr. D. Brandon.——Messrs. Banks and Barry's "Claudet's Photographic Gallery" (1209) is worth looking at for the pleasing, though simple, arrangement of the light in the ceiling. Such forms for top lights are an introduction of late years,—having their own advantages in effect as compared with the old lantern light.

We see less than might have been expected, of the recent designs for cemetery chapels. Mr. R. H. Potter has a design for the entrance of such a building,—a well-grouped low tower with spire—with boldly projecting buttresses, and archway under (1196). Messrs. Barnett and Birch show what they have done at Finchley, for the parishes of St. Pancras, and St. Mary Islington (1204 and 1220); and for St. Marylebone (1224), in the same neighbourhood; and Messrs. Bidlake and Lovatt exhibit their chapels at Bilston, Staffordshire (1266).

We have said nothing of ordinary ecclesiastical architecture; and, indeed, of late years, there has been less and less (as to design, at all events), for illustration. We should, however, notice the "Interior of Doncaster Church, as now being rebuilt" (1189), by Mr. G. G. Scott,—a large outline drawing, showing architecture of the Decorated style, with a lofty nave, covered by an open-timbered roof with curved braces, and tracery-work filling in the spandrils.——Mr. R. W. Billings adopts the Norman style in the Garrison Church of Edinburgh Castle, about to be erected from his designs. The view (1192) shows part of the interior. The chancel arch springs from moulded corbels of great projection, and similar corbels support the braces of the roof. The timbers are hatched at the angles in the character of the style.——The "Interior of a Church" (1269), by Messrs. Brown and Blackall, has the end arranged with two large and two narrow arches—filled in with a screen of woodwork, supporting the organ,—the pulpit, with steps on each side, being at the same end of the church.——Mr. Colling's "Interior of the Chapel at Hooton Hall, Cheshire" (1198) is noticeable for its use of a style which has lately been avoided, but whether with due reason, or from the prejudices of those to whom architects are subservient, this is hardly the place for us to examine. The present work has a coved ceiling, groining in with the arches over the heads of the windows, with a narrow *plafond* for the centre. The chapel is decorated with numerous emblematic figures; but is not free from the fault of such attempts, in regard to excess of the positives in the colouring,—recent arguments for which style of treatment we may perhaps trace to restricted study of examples belonging to the infantine, or savage period of chromatic art.——Mr. J. F. Wadmore's view and sketches of his church at Sutton-Coldfield, Warwickshire (1208), should be referred to in our encomiums upon those who take the trouble to supply us with proper means of judging of their works.——To the drawings of others, we may mention, that plans are more frequently attached than formerly; and if all the advantages of public exhibitions are to be gained, the same simple but useful system must be continued.

We have heretofore looked at the tendency towards originality of treatment in modern Gothic architecture, seen in designs for the "Congregational" and other Dissenters' churches. The same hopeful tendency continues; modified, however, by the use, in certain cases, of ill-proportioned and tasteless details. It is necessary to have studied, and to know what exists in, ancient models: but, few there are who use them aright. Mr. J. James, in his Congregational Churches at Halifax (1178) and Barnsley (1228), is not free from both the merits and demerits referred to. In the former, the plan and perspective view do not seem explanatory of each other.——"The New Congregational Church, Queen-square, Brighton" (1280), by J. James and R. Brown, is better—though the window of flowing tracery, for such a building, may be deemed by some too elaborate. The drawing is catalogued as by T. James. Such drawings, however, help to show that some novelty of character is being worked out,—through the necessity of new forms of combination of the church with the school-room.

On the other hand, it is the fear of challenging objections from persons who have very little real love of ART, which makes our architects ecclesiastical take up such forms as could never have been *designed* by them, simply because these have somewhere or other a precedent. Mr. S. S. Teulon, so ready when his pencil can have play, would never have chosen the gabled tower,—supporting a tabernacle and spirelet on the back of the roof, as in the "Chapel to St. Andrew, Watford" (1215)—had something of the sort not been done before.

Mr. E. W. Pugin contributes "An Elevation of St. Michael's and All Angels' Abbey Church, now erecting at Belmont, near Hereford, for F. R. Wegg Prosser, Esq." (1227). The heaviness of effect in the tabernacle niches, or lucarne lights, at the springing of the spire, would perhaps not be so striking in a perspective view.——The same architect shows (1182), "A rough Sketch of the Interior of a Chantry Chapel about to be erected at St. Mary's Church, Greenwich, for Stuart Knill, Esq."

The principal views of churches now, or lately, undergoing "restoration"—a process which, as not always productive of very satisfactory results, has lately called forth a protest from the Society of Antiquaries—are contributed by Mr. E. Christian and Mr. J. H. Hakewill. The former gentleman has (1242) an "Interior view of the choir, Carlisle Cathedral, showing the restoration of the ancient wood ceiling," &c. and with stained glass in the east window, from a sketch by Mr. Wailes. The large brackets having all the appearance of the braces and spandrils under a tie-beam—but which here are used merely to hang the *coronæ* from, the ceiling being raised above—are very curious. There is a good reredos. Drawings of this class should be always accompanied by a section, or sketches, showing the exact extent of the restorations, executed and proposed. Mr. Christian's "View of the Collegiate Church at Wolverhampton" (1214), shows the restored clerestory and south aisle of nave, and his proposal for the rebuilding of the chancel. The building is worthy of attention as an example of its style,—late Perpendicular. Mr. Hakewill's work is (1262), the "Interior of Nicholas Church, Great Yarmouth," where polychromatic embellishment has been used to a considerable extent in the ceiling. The exceeding depth of blue colour in such situations, would hardly ever be imitated in modern works;—æsthetic objections would surely prevail against it.

Mr. E. Falkener's views of portions of the houses of Pompeii are artist-like and scholarly as ever. The series which this gentleman has now produced, must be considered as forming a contribution of some value to our knowledge of the domestic life of the ancients. The drawings also give curious information, as to details of architecture little known in works of Roman date. One drawing (1230) represents one of the shops of Pompeii (which invariably consisted of two stories), with a dwelling above. There is more external decoration in the latter than might have been expected. The view of the Lararium of the peristyle, in the house of the Faun (1244), is one of the drawings illustrating a remark just made,—the Doric columns being without bases, and generally agreeing rather with the description of Vitruvius than with statements by writers who should have known better, who appear to have confounded the Roman with the late Italian Doric. The third drawing (1267), is the Sacrarium in the house of the Quæstor.

Amongst the views of old buildings generally Mr. A. E. Everett's "Queen Elizabeth's Room at Coombe Abbey," is well, though sketchily coloured, and the drawing is accurate in perspective and truthful in details. Such merits, though of the slightest *comparative* moment in an exhibition of architects' designs, should be singled out here,—where, annually, so much valuable wall-space is filled by productions of school-boy character. What makes the matter worse is, that dabblers in architectural drawing generally select buildings that are most elaborate in detail. A high standard of skill in delineation has usually been required from the competitors for the Academy medals: why, then, should a different practice prevail in the Exhibition—as to works, where a little show of colour, or elaboration without accuracy, are allowed to stand before the public eye, necessarily in most cases beside those which, though correctly drawn, have been produced with peculiar limitations as regards the objects represented? Misconception, both as to delineation and as to what constitutes architectural character, must result. At the top of the room we detected an outline drawing of "St. Peter's at Rome" (1258), by Mr. F. Oliver, which, without the aid of the telescope—useful at the Academy—appeared to be both minute and careful in its workmanship. That any such drawing should have been "pitchforked" where we descried this one, whilst some of the worst views of existing buildings that we ever had the ill-fortune to be offended with, are "on the line;" and oil pictures, not even of buildings (unless we except the wretched representation of St. Mark's, at Venice), usurp the place of architectural designs,—can only arise from that sort of Balaklava of notions amongst Academicians and hanging committees, which packs the right things in the wrong places—the square peg into the round hole. We would not have views of old buildings excluded, and such drawings as those by Mr. Aitchison it is a

pleasure to examine,—but the originative architectural talent of the country requires to be cared for in chief.

So far as we can now concern ourselves with works not of the class just referred to, we must say that the oil painters' delineative talent in architecture, the present exhibition shows to be itself questionable.

We should not conclude our remarks without noticing that an effort has been made to improve the ventilation of the rooms, by large openings in the ceiling. Whether the clouds of dust, which this year encircle the visitors more than ever, have any connection with the difficulty which appears to be still found in ventilating rooms, or whether they are the necessary result of the narrow space to which the Academy is restricted (and will be till the settlement of the National Gallery question)—we are unable just now to decide. The system adopted is Mr. Watson's of Halifax, and certainly appears to give plenty of air.

THE ROYAL ACADEMY EXHIBITION.

We resume our remarks on the general collection, with unqualified praise of (269) "A North Sea-breeze on the Dutch Coast—Scheveling Fisherman hauling the 'Pinck' out of the Surf;" wherein the illusion is so perfect, that you are prompted to seek your handkerchief to wipe the salt spray from your eyes. Mr. E. W. Cooke, A. must have been a very close observer, to render so faithfully the motive water in this exquisite picture. (287) "Evening," F. Danby, A. one of the customary sunsets we year after year find and admire, not the less for their frequency: in this, as in (46) "A Party of Pleasure, on the Lake of Wallenstadt, in Switzerland;" (563) "Dead Calm—Sunset at the Bight of Exmouth;" Danby is quite equal to himself. Mr. T. Danby's (527), "The Poet's Hour," might, with credit, have claimed his parentage too. Mr. P. F. Poole possesses the ability of transferring sunshine to canvass, and exults in bathing his Decameron in a golden flood. (457) "The Seventh Day of the Decameron—Philomena's Song by the Side of the beautiful Lake, in the Ladies' Valley," breathes such an air of languid luxurious indolence, irresistibly charming, that you *must* throw yourself at length upon the emerald turf, there's no help for it, and listen to syren strains to which the gnats are buzzing a symphony. With Brittany, as with Ireland, are associated the earliest successes of Mr. F. Goodall, A. The artist, more at home in depicting the peasantry in natural domestic phases, falls short in (402) "The Arrest of a Royalist, 1793," of elucidating history. The principal figure has little indication of his being a political offender, either in lineament or situation; and although expression and action have been carefully studied in others, there is an absence of the life and bustle inseparable from so exciting an event, for which nice painting hardly atones. F. R. Lee, R.A., and T. S. Cooper, A. affectionately testify each to the other's excellence: side by side they conspicuously shine, as in (422) "Cattle on the Banks of a River." Not but what they can independently assert their respective greatness—the former in (154) "A Devonshire Mill;" (219) "Trees, on the Banks of the River Taw, North Devon;" (356) and "The River Awe, Argyleshire;" while Mr. Cooper's (75) "Cooling the Hoof;" (172) "A Group in an Interior;" (310) "Autumn Showers:" (525) "A Way over the Fells;" and (565) "Haymaking Season," are eloquent sentences in his behalf. Mr. J. C. Horsley has exerted himself to some purpose. (476) "A Scene from Don Quixote," where the officious zeal of the curate, barber, and the erratic hero's old housekeeper, are condemning his library to destruction, on the plea that the books on knight-errantry had set the Don beside himself, and executing their verdict whilst he is dozing off the effects of his first adventure, abounds in first-rate qualities. (497) "Rivalry," Mr. W. C. Thomas, is original in a certain severity of style that characterises it, but Mr. Thomas can more satisfactorily cope with higher themes. (506) "The Apothecary," Mr. J. Grant, elaborates the information respecting him which we glean from the play of "Romeo and Juliet," without much advantage in the result. (520) "English Gamekeeper," comprises a conscientious study of pointers and game, touched in with that clean, decided execution by which Mr. R. Ansdell is recognised: the dogs are exceedingly life-like. In the companion (468), he pictures with similar truth a "Scotch Gamekeeper," substituting indigenous dogs and still life. (526) "Hark! hark! the Lark at Heaven's Gate sings," is very gracefully illustrated by Mr. G. E. Hicks; and with (268) "Haymaking," betokens a stride in advance. (288) "Columbus in Chains," C. A. Duval, is recondite in intention, and imperfectly presents the great discoverer. (378) "The Fortune-teller," of Mr. J. Sant, suggests Reynolds in its juicy execution and masterly freedom. (638) "Eda," still more so. (396) "Bacchante and young Faun dancing," do not fairly represent Mr. W. E. Frost, A.: their attitudes are quaint, if not awkward. (170) "Wood Nymphs," though so small, is preferable. (111) "Il Penseroso," by the same, is disagreeably cold and slaty. Mr. H. W. Phillips portrays the situation of a mother contemplating suicide and child-murder (409): "The modern Hagar" appeals in extenuation of her crime in this darkest scene of a dark story. (432) "Harold," instead of the Saxon king, renowned for bravery and simple majesty,—

"Now reigns here, a very very peacock,"

with such a splendid train, as only Mr. Lance could have given him: the fruit, flowers, and accessories are as autographic as usual. An event from the career of Cimabue has provided Mr. Leighton with an opportunity of displaying to what extent devoted attention to the practices of a particular school will influence the student, and how far he may succeed in imitating its distinctive features. (569) "Cimabue's celebrated Madonna is carried in procession through the streets of Florence: in front of the Madonna, and crowned with laurels, walks Cimabue himself, with his pupil Giotto; behind it, Arnolfo di Lapo, Gaddo Gaddi, Andrea Tafi, Nicola Pisano, Buffalmacco, and Simone Memmi; in the corner, Dante." The treatment of this remarkable production completely identifies its author with the Venetians: availing himself of extant examples, and appreciating that which constitutes their excellence, he adapts their arrangement of colours, and enhances brilliancy by the silvery hue of greys and half tones, so remarkable in the works of Paul Veronese. The chief interest of the subject is derived from the portraits of contemporaries with Cimabue introduced, though not in every case so perfectly executed as their well-arranged draperies are. Study of realities will overcome some apparent weaknesses, lessen adherence to precedent, and ripen the promise of this very favourable *début*. Too close an adherence to an individual style is decidedly reprehensible: if painters studied nature with a conviction of her unquestionable transcendency of all attempts at imitation, and contented themselves by depicting, with as much integrity as possible, only what they really see and know of her, mannerism would become extinct in universal truth. This theory is the ring that proves true metal, and however imperfectly expressed at first, will and does force itself upon the perception of those who recognise art's principles and purposes. (594) "Rome," D. Roberts, R.A. appertains to the panorama, so vast in the comprehension of the "eternal city:" the sunset effect imparts extra grandeur to the mass of architectural monuments, enveloping them in melancholy shadow,—a shroud for departing glory:—

"Rome, thou art no more as thou hast been;"

but still rich in thy dower of "sunset glow," remaining to the last, when but a lurid funereal memento. Great skill, the fruit of long experience, has enabled the artist to accomplish what few would be justified in attempting. (640) "Griselda expelled from the House of the Marquis," W. Gale, has merits of high class, being well composed, and exhibiting general care in performance throughout. (666) "John Evelyn's First Meeting with Grinling Gibbon," F. S. Cary, deserves attention for its power and true effect. (682) "A Vessel under Conduct of an Angel, coming over the Waves with Spirits to Purgatory," W. F. Woodington, is sufficiently unearthly to commend itself to those who feel the unreal,—with clever passages to repay the observation of those who do not. (683) "Summer-hill,—time of Charles II."—T. D. Wingfield, is a pleasant costume picture, but devoid of narrative. Amongst those few who combine the author with the painter, Mr. A. Rankley may be classed; his (1141) "Old Schoolfellows" relates in the simplest language a biography: who can doubt that the suffering brother, "born for adversity," has struggled long and hard, endeavouring to turn to the best account a college education, dearly bought, but how slightly valued by those who would buy again; that his generous friend has just discovered him, prostrated by sickness, and promptly succours at the right time and in the right way? We read further that he is not the sole victim of "hopes deferred:" he has a wife of course, and "encumbrances" are hinted at by the rattle introduced. The lesson the picture inculcates is so salutary, and has so much purpose seldom inheld, that it deserves special commendation.

In turning over the catalogue, there are many calls for notices of admiration. (29) "Anxiety," R. Carrick. (63) "The See-saw," H. Le Jeune (so delightful that we regret his unusual absence in the more ambitious category). (90) "An Armenian Lady, Cairo," J. F. Lewis (a marvel of finish and delicacy). (121) "Flitting Shadows," H. Jutsum. (162) "The Coast, at Fairlight," J. Thorpe. (228) "In Betchworth Park," W. F. Witherington, R.A. (240) "The Bird-Keeper," and other transcripts as sweet and as true; R. Redgrave, R.A. (239) "The Broken Window—Who threw the Stone?" W. H. Knight. (267), "The Wedding Morning," J. H. S. Mann. (286) "On Wimbledon Common," A. W. Williams. (304) "Primula and Rhododendron," Miss Mutrie. (309) "A Hearty Welcome," G. B. O'Neill. (319) "The Temple of Bassæ or Phigaleia, in Arcadia," E. Lear. (337) "Ruins of the Castellum of the Julian Aqueduct, Rome," W. Linton. (357) "Scottish Presbyterians, in a Country Parish Church—the Sermon," J. Stirling. (437) "Interior of an Irish Cabin," J. J. Hill. (686) "Trout Stream in Wales," J. Dearle; with others that have an equal right to consideration. Neither must Mr. T. F. Marshall's (1335) "Reduced to Servitude;" (1346) "The Anxious Moment," J. Danby; (1401) "Lalla Rookh," F. Wyburd; or (1405), "The London Gazette, 1854," J. B. Barwell, be lost sight of in the darkness of the Octagon Room.

In the portrait department, Sir John Watson Gordon, Messrs. Grant, Knight, Pickersgill, and Boxall, all members of the Academy, still lead the van, if Messrs. Sant, Desanges, Richmond, Dicksee, Middleton, and one or two others, tread very closely on their heels.

THE NEW METROPOLITAN BUILDINGS BILL.

The select committee of the House of Commons, named in our last, have met two or three times. So fully have the objections we named been felt, and the opinion we acted on (that it was quite useless to discuss its minor details), justified, that we believe the Bill as originally drawn, *never came before the committee at all*. An amended Bill, remedying many of the objections we had pointed out, was printed for the committee, and this it is that the committee have been working upon. The dangerous exemptions alluded to have been modified; the complicated mode of ascertaining the required thickness of wall has been changed; and various other steps have been taken towards improving the measure. The regulations for determining the thickness of walls have been taken out of the body of the Bill, and made to form a schedule. What shape the rules will take cannot yet be known. Amongst other determinations arrived at is, that the election of district surveyors shall remain in the hands of the justices. The required distance of a wooden story-post from the centre of party-wall has been changed from 11 inches to 6½ inches; the thickness for chimney-backs has been lessened; and the

regulations as to chimneys modified. Mr. Braidwood, Mr. Gwilt, and Mr. Tite have given evidence, and the committee have fixed to meet again on Tuesday next, to proceed with the Bill.

It is to be hoped that the committee will alter the clauses referring the enforcement of the provisions of the Bill to the police magistrates. As they now stand, irrespective of the tribunal, they would be altogether inoperative in just those cases where the necessity of applying them would the oftenest occur, namely, where the builder was of bad character and devoid of means,—the exceptional cases. The Bill provides, that the *builder*, alone, if the justice's order be not complied with, shall incur a penalty of 20*l.* a day during such non-compliance; and in addition thereto, "the district surveyor may, if he think fit," proceed to do what may be necessary, and then recover the outlay from the said builder. "May, if he thinks fit," means, according to the reading given of certain parts of the present Act, "must, whether he is willing or not," and then he would have to find his remedy against a man of straw. The owner should, as in the present Act, incur the same liability as the builder.

For the sake of builders, surveyors, and the public at large, we must urge again, as we have often before, the formation of a "Court of Metropolitan Buildings," presided over by an architect, with a legal clerk or assistant, to give effect by summary decisions, except in specified cases where a jury might be considered necessary, to the provisions and requirements of the Act. We would seriously commend this proposition to the consideration of the Parliamentary committee.

The Institute of British Architects have appointed a committee with reference to the Bill, with authority to take such steps as may seem to be expedient to oppose any objectionable provisions; and the Builders' Society have appointed a committee, with the same object in view.

PICTURES PURCHASED BY THE ART-UNION OF LONDON.

THE following are some of the works already selected by prizeholders in the Art-Union of London:—

From the Royal Academy.—The Silence of pure Innocence, &c. T. Brooks, 250*l.*; In Betchworth Park, W. F. Witherington, R.A. 100*l.*; Summerhill, J. D. Wingfield, 100*l.*; from Vicar of Wakefield, J. Absolon, 70*l.*; The Truant, J. Smith, 70*l.*; The Firth of Forth, J. Wilson, jun. 60*l.*; San Giulio, G. Stanfield, 52*l.* 10*s.*; Haymaking, G. E. Hicks, 42*l.*; Near Ceuta, W. Welby, 35*l.*; Robinson Crusoe, J. D. Watson, 30*l.*; The Mountain Rambles, J. Thompson, 25*l.*; A Misty Morning — Connemara, W. Luker, 25*l.*; Sunday in the Highlands, J. A. Houston, 21*l.*; The Shades of Evening, A. Gilbert, 20*l.*; Uncertain about the Weather, H. P. Parker, 20*l.*

From the British Institution.—Waiting for the Laird, G. W. Harlor, 75*l.*; L'Innamorato, H. O'Neil, 52*l.* 10*s.*; The Village Carrier, G. Chester, 52*l.* 10*s.*; A Woodland Scene, H. Jutsum, 50*l.*; The Simplon, G. Stansfield, 50*l.*; Highland Scene, H. Jutsum, 40*l.*; Brockham, Surrey, J. Stark, 35*l.*; Fruit, Miss Stannard, 31*l.* 10*s.*; On the Hills, J. D. Wingfield, 25*l.*; The First of September, H. Hall, 20*l.*

From the Society of British Artists.—Dante begging his Bread, F. Y. Hurlstone, 100*l.*; Family at Saragnesco, R. Buckner, 80*l.*; Market Morning, J. Tennant, 70*l.*; Pevensey Castle, C. Davidson, 63*l.*; On the Yorkshire Coast, G. Cole, 60*l.*; Windsor Castle, G. Cole, 60*l.*; Golden Morning, North Wales, H. J. Boddington, 60*l.*; Road over a Heath, J. Tennant, 50*l.*; Sheep and Figures, G. Cole, 50*l.*; Kilman, P. C. Auld, 50*l.*; Exultation, T. Clater, 35*l.*; Lane Scene, G. Cole, 26*l.* 5*s.*; Near Glassriff, G. Shalders, 25*l.*; Salmon Fishing, A. F. Rolfe, 25*l.*; Richmond Hill, A. F. Rolfe, 25*l.*; St. Peter, G. P. Green, 21*l.*; Fishing Lugger, A. Webb, 20*l.*

From the National Institution.—Autumn in the Highlands, S. Percy, 150*l.*; Evening, Lights and Shadows, H. B. Willis, 100*l.*; Scene in Surrey, A. F. Rolfe, 50*l.*; Kilchurn Castle, J. Danby, 50*l.*; A Walk by the Conway, F. W. Hulme, 50*l.*; Village Musicians, J. W. Haynes, 50*l.*; Margate Old Pier, H. P. Parker, 35*l.*; Rest by the Way, Bell Smith, 35*l.*; Close of a Sultry Day, E. Williams, 35*l.*; Contentment, H. P. Parker, 31*l.* 10*s.*; Ferreting Rabbits, H. P. Parker, 31*l.* 10*s.*; Nant Mill, J. Steeple, 25*l.*; Summer Flowers, H. Barraud, 25*l.*; Lane Scene with Gipsies, J. E. Meadows, 25*l.*; Cader Idris, W. Williams, 25*l.*; The Fortune-teller, D. Passmore, 25*l.*; A Footbridge, F. W. Hulme, 20*l.*; A Weedy Part of the Thames, E. Boddington, jun. 20*l.*

From the Water-Colour Society.—Tintagel Castle, S. P. Jackson, 60*l.*; Sidmouth (South Devon), John Callow, 31*l.*; Dinas, H. Gastineau, 21*l.*; Clearing away a Wreck, F. Nash, 21*l.*; Vraiking Time, J. P. Naftel, 20*l.*

From the New Water-Colour Society.—The Trysting Time, J. H. Mole, 35*l.*; On the Wharfe, Bolton Abbey, J. W. Whymper, 30*l.*; The Gleaner, A. Bouvier, 21*l.*

NEW CHURCH AT NORWOOD.—The foundation-stone of Holy Trinity Church, Tulse-hill, Norwood, was laid on Thursday before last, by Sir C. D. Crosley, Knt. sheriff of London and Middlesex.

THE PARIS UNIVERSAL EXHIBITION.

THE opening of the Exhibition—postponed from the 1st of this month—took place on Tuesday last, the emperor being present, and a ceremony being performed somewhat after the manner of that of 1851 in Hyde-park. The arrangements were, of course, very far from complete,—and, indeed, the prospects of the undertaking, we regret to say, seem to be in some measure imperilled by the alterations made from time to time in the plans of the buildings, and the absence generally of the limitation of effort necessary to success in any such case. Of the heterogeneous group of buildings,—the Palais de l'Industrie, the "Annex" (a shed 4,000 feet long, by the Seine, for machinery, materials, and produce), the gallery across the Champs Elysées, joining these two, with its central space, formerly the Panorama, an extra shed in course of construction, and the separate building for the Fine Arts department at the west end of the "Annex," the latter is the only portion where the works are really arranged for exhibition. There, indeed, the display of works of art is of great extent, and in value and interest altogether unprecedented.

The Sèvres china, and other national productions, for which the Panorama is appropriated, are not yet open to inspection; and elaborate arrangements for refreshment in the galleries adjacent are merely in progress. The machinery department is in great confusion. The British exhibitors, however, appear to have arranged all their productions, except where the building remained in a state unfitted for their reception.

The collection of works of art comprises 5,028 works, in the several classes of painting, sculpture, engraving, lithography, and architecture, contributed by 2,004 living artists, of France and foreign countries. The greatest number of artists, and of works, are French, the numbers being, besides those in the other classes,—in painting, artists, 690, and works, 1832;—and in architecture,—artists, 69, and works, 156. From Great Britain there are in painting, 99 artists, and 231 works, besides what are under the head of water-colours, where we find 49 artists and 143 works. In architecture, our country has 51 artists and 126 works. We also remark separate headings for engraving on wood, and chromo-lithography, which do not appear in the French list. The United States of America have nine artists and 36 works in painting, but none in architecture. From Prussia, in painting there are 78 artists and 154 works; whilst in architecture, marvellous to state, there is but one architect, and he exhibits but one work. Exactly the same numerical contribution proceeds from even the architects of Bavaria; the painters in that State, however, having 65 works from 31 artists. From Austria, there are 107 paintings sent by 50 artists, whilst three architects send five works. From Belgium, 108 painters send 206 works, and one architect sends two works; and from the Netherlands, 57 artists send 95 works in painting, besides three artists who send four works in water-colours,—the architects being three in number, and sending four works. The contributions of Italy seem most insignificant; and neither Tuscany, the States of the Church, nor the Two Sicilies, show a single work of architecture.

Our own country, therefore, if not represented as it should have been, stands in advantageous contrast to other countries.

ANNUAL REPORT OF THE INSTITUTE OF BRITISH ARCHITECTS.

THE report of the council read to the annual general meeting, on the 7th inst. contained the following passages:—

"The very remarkable view of the masterpiece of Sir Christopher Wren (the Cathedral Church of St. Paul), which was developed by the improvements in progress at the west end of Cannon-street, and in St. Paul's Churchyard, excited much interest in the minds of architects and men of taste in the early part of last year. As it was understood that the arrangements of the City authorities would cause much of the land then vacant to be built upon, and that this magnificent *coup d'œil* would be thus lost for ever, some of the principal architects thought it incumbent on them to take up the question, with a view to inducing public consideration of the matter. A committee, of which Mr. Tite was elected chairman, appointed by the Institute, presented a memorial to the Improvement Committee of the City of London (with whom they subsequently had a conference), at which the chairman, Mr. T. H. Hall, stated that they could not afford to give up so valuable a site without some adequate compensation. A memorial from the Institute to her Majesty's Government, requesting their aid, was kindly forwarded by our president to the Prime Minister; at whose recommendation application was made to Sir W. Molesworth, the Chief Commissioner of Public Works, by a deputation, who subsequently waited on Lord Palmerston, then Home Secretary. By his lordship's request, Mr. Tite forwarded to him a full statement of the whole case, with a plan; and a copy was also sent to Sir William Molesworth. Lord Palmerston promised to use his best endeavours to interest the Chancellor of the Exchequer and the Lords of the Treasury in the matter. The committee suggested that the duty of 4*d.* per ton on coal, granted to the City by ancient charters (which duty, it is said, may be abolished in 1862), should be continued for one year beyond that term, by which means the cost of the land could be repaid to the City. The committee of the Institute, however, subsequently received, with great regret, a communication from Lord Palmerston, stating that the Government declined to entertain the suggestion, or to give any assistance towards this most desirable object. The communication, indeed, showed no sympathy or interest whatever in the subject. The committee had again an interview with the City authorities, when they repeated their former opinions, and requested further delay until the meeting of Parliament. This was granted; and as soon as Parliament assembled, questions relating to the subject were asked by the late governor of the Bank, and Mr. Labouchere; and the committee still hope that, notwithstanding the indifference of the Government, this opportunity for carrying out a great public improvement, ornamental to the metropolis and advantageous to the citizens, may still be secured.

In conformity with the report of Mr. G. G. Scott, made to her Majesty's Chief Commissioner of Works and Public Buildings, a certain sum of the public money has been voted for the purpose of preserving the royal monuments in Westminster Abbey. No restoration has been attempted; but it is understood that measures will be taken to arrest their further decay, and that records of the monuments in their present state will be kept by means of drawings and models

The attention of the Institute having been called to an omission in the Public Statue Bill, application was made, through our president, to Earl Granville (who had charge of the Bill in the Upper House), and a clause was inserted, on the suggestion of the Institute, giving power to the Commissioners of her Majesty's Works and Public Buildings, should they think fit, to take charge of such statues as the owners might be willing to make over to them for that purpose. A list of the statues omitted in the Bill was forwarded with the application. Another addition to the comparatively speaking few public statues which relieve the monotony of our streets, will shortly be erected under the skilful superintendence of our fellow, Mr. Tite, at the western extremity of Cheapside."

"The strong expression of feeling against the Public Health Bill, 1855, which was evinced at the special meeting called in these rooms to consider it, induced the committee then appointed to use their best endeavours to obtain some satisfactory alteration in the Bill, to which they set forth their objections in a petition presented to the House of Commons by Lord Seymour. A deputation had a special interview with the First Commissioner of the Board of Health; and our honorary secretary, Mr. Scoles, appeared as a witness in support of the petition before the select committee of the House of Commons. . . . The statement made by the First Commissioner, that the objectionable building clauses would be omitted, but that power would be given to local boards to frame bye-laws for the same purpose, has not improved the opinion which the council entertain of the proposed enactment; and should the measure pass the Lower House in its present form, they have the satisfactory promise of aid, from a leading member of the profession, in supporting the petition against the Bill before a committee of the House of Lords."

"It is not in their power to report anything respecting the process of MM. Rochas and D'Allemayne, for preventing the decay of calcareous stones. The committee, to whom the subject was referred, had several interviews with the patentees, and arrangements were made, by which permission was obtained to apply the process to certain buildings in and near London; but, since June last, nothing has been heard of them or their process."

The Institute now consists of 128 fellows, 125 associates, 17 honorary fellows, 16 honorary

members, 83 honorary and corresponding members, and 5 contributing visitors.

The financial statement shows the balance of 636*l.* 19s. in hand. Further additions to the annual income may be expected when the existence of the class of contributing visitors becomes more generally known and appreciated.

It is a curious and melancholy circumstance that of the four members lost to the Institute by death during the past year, namely, Messrs. Carpenter, Christopher, Martyn, and A. Dobson, all in the prime of life, three were taken away by a sudden dispensation of Providence.

CASH ADVANCES FOR THE POOR.

WHEN, two years back, this subject was first treated in the *Builder*, trade was prosperous, for the country was at peace,—and the working classes were better off. Since that period employment has diminished, and wages for those in work have not increased; the necessaries of life are dearer, and, in addition thereto, a winter of unexampled length and severity has tried the reins and endurance of the multitude. Arts and manufactures advanced, and commerce increased in a progressive ratio since the peace of 1816; all that increase arose from labour, yet it is very doubtful whether there has been any improvement effected in the condition of the sons of toil, who were the producers of all this prosperity—in education, none, save what arose from combinations amongst intellectual operatives—in their dwellings; a little in the form of a few model lodging-houses; but so infinitesimal as affects the *twelve millions* depending on the product of manual labour, that it may be set down at the lowest cypher. Where the poor by coalition try to help themselves, they succeed: in forming reading societies and schools (in which they have certainly been aided by the benevolent rich, and a *little* by Government) their success has been signal, but their Burial Societies, and their Freehold Land Societies, have to this period been more hurtful than beneficial; and their combinations to support sections of operatives on strike for high wages, have been utter failures in all cases—utter ruin in many. How different is the result of combination for mutual support when out of work? This is the true application of combined action for the purpose of genuine charity; and in this, however short it may fall of complete support in distress, the good that arises is incalculable.

Thus, when well directed, the means of the working classes are adequate to extend a feeble relief to the indigent of their body; but without aid from Government or municipalities, or from benevolent persons in a private sphere, little can be done to improve the general condition of the class, intellectual, moral, or physical; whatever good is done through the generous sacrifice of workmen, by small weekly or monthly contributions from their pay, can, in reality, do nothing more than assuage in a trifling degree the extremest wants in the extremest cases.

It is for the wealthy who hold the stake in property—the product of labour, to come forward, and to sustain that on which the country thrives and flourishes; but it is more especially for the Government, whose office is to protect the multitude, to omit no occasion that may present itself for their improvement and advantage.

There is no institution in the land that presses for attention upon the Legislature, more urgently at this crisis of general distress, than the old, unreformed, and grinding system of money accommodation to the *humble indigent*.

The phrase may be thought a solecism—it is not so—there are *needy rich*—men of large income always in distress,—always short of money, always borrowing, and always paying 60 per cent. per annum; a sure way to perpetuate difficulties. This is a class who rarely apply to pawnbrokers, and who, perhaps, never would apply to a public or great national establishment, such as a *Mont de Piété*, for loans of money on deposits.

While any one has credit and property he parts not with his personal ornaments, much less his furniture or clothing—the poor only, having no credit, when in extreme distress, make these sacrifices.

Their only alternative is to pawn their effects, whatsoever they may be; and their only resort is to the caterers to misery at 25 per cent. for money, loaned, redeemable at twelve months, *then to become forfeit*. This is the provision made for labour by our paternal Government, that the artisan, dependent (*with his family*) on the labour of his hands, shall pay 25 per cent. for advances on real security (that security being commonly double the value of the loan), whilst the merchant or trader can obtain it at 5 per cent. on credit, or even at 3½ on real security.

The smallness of the amount lent is no argument for the excessive cost; on the contrary, poverty can spare less.

Hitherto our municipalities have attempted nothing to correct the evil complained of—our Government nothing; and yet we were wont to consider ourselves the most civilized and the most humanized, because the richest of nations! Yes, and the origin of the evil consists in this assumed quality—we do not like to interfere with the progress of money-making, nor with the free action of private enterprise. Trades go on as hitherto; we (that is, the few) prosper, but the multitude labours as it has laboured, and there is little sympathy for them—though in the midst of wealth we are in poverty.

When the pledge depôts for the poor were before recommended, no injury was intended to existing interest, nor interference meditated with any trade, except only so far as the necessitous poor should be guarded against usurious charges. If private companies or governmental institutes were established to advance money (in small or large amounts, on goods left in deposit, no injury could be alleged as an outrage upon trade, or as a confiscation of commercial rights; yet the pawnbrokers rose *en masse*, proclaiming that 15 per cent. was their charge, and that the ticket fee (1d. 1½d. or 2d. as the case may be) but ill requited the trouble, the cost of store, and the *skilled experience* requisite in the administration of their complicate calling.

Now the great bulk of their business is transacted in amounts not exceeding 2*l.* and on these an interest of 25 per cent. (4d. per pound per month) is levied, the ticket being also charged for and deducted in the first instance. There are many houses in London doing a business of 100*l.* a day, in this fashion; the operations of some extending even to a 1,000*l.* a day on all transactions. This is, in fact, a money bank on the most secure of all commercial bases, because the material capital is taken in pledge,—that capital not being the less real whether it is a child's pinafore, or a service of gold plate.

France, which in fiscal regulations far excels our commercial state, has well guarded the poor against such extortion. With true paternal solicitude that government has long established *Monts de Piété*, or pledge depôts, for the advance of money on valid deposits. The scale of charges has been fixed by that Government at 5 per cent. together with an additional 5 per cent. to commissioners, and some other very trifling expenses. The depositing is wholly under the protection and control of the executive, and particularly under the supervision of the Mayor of Paris, and of the Prefet of the Seine.

Large central depôts are established for the reception of the goods in pawn, but as applicants for assistance in this kind, would be loth to make personal application, much less to carry their offerings to the public charity, a very wise provision is made in the appointment of agents on commission, who being located in various parts of the city, negotiate all transactions of business between the borrower and the central establishment: thus security is attained by the public against extortion, and by the *Mont de Piété* for the fulfilment of the office, without further trouble than is imposed by acceptance and storage of pledges. If an agent were to charge more than his just due, he would at once lose his position; and the *employés* at the Grand Bureau have no interest in the matter beyond the performance of their duties at fixed salaries.

Every Government since the Republic of 1794, when the *Mont de Piété* was founded under authoritative auspices, has recognised the charity (for charity it truly is—"charity that vaunteth not itself, and that seeketh *only* its own"); and the present Emperor of the French, Napoleon III. has by especial decrees, fostered and encouraged this most beneficent institution.

In Paris the poor are not poorer than those of London; nor is there any more occasion for such resources in cases of extreme distress; but most certainly the Government has shown itself more solicitous for the multitude, and as throughout France, the municipality is more solicitous for the commonweal.

The establishment in this great metropolis of similar institutions, would be productive of immense benefit, and would be, if it were only for the storage of furniture, a source of redemption not only to the utterly necessitous, but a saving *even at* 12 *per cent.* for persons of moderate means, wishing temporarily to store away effects, and at the same time to have the use of and fair value for the deposit.

Examples can be given of the usage now current in such cases, where 25 per cent. is charged for the usance of the loan, and as much as 40 per cent. for the storage of the pledge! It is palpable that in such cases the whole value of the moveables must be eaten up altogether in one year and a half; and yet there is in the greatest commercial city of the world no other alternative but to sell off at once: this sacrifice, although the more summary, is yet the better.

THE PRESENT STATE OF ARCHITECTURE.

I PERCEIVE in the very able leader of the 14th ult. the following paragraph:—"Why, with professors of our art by the thousand—academies and societies—knowledge of examples such as the cinque-centisti did not dream of—and similarly with powers of delineation perhaps unattained till the late period of a Pozzi and a Piranesi—why, with our modern science of æsthetics and observation of every work of Nature—and, finally, our accumulated resources of mechanism and chemistry, and of material products from every corner of the globe,—why, with all these things, an opening should be left for those who may have been ready to detract from the real merits of the architects of the nineteenth century, is still to us the modern riddle of the sphinx."

I have myself expressed so strongly in your columns and elsewhere my opinions with respect to their "real merits," that I, too, may possibly be accused of an attempt to "detract" from them. Sorry, indeed, should I be to do this; but, surely, sir, in the name of that right of free discussion which you, I am thoroughly convinced, would be the first to promote, is no one to be allowed to give utterance to his sincere and calm conviction that the present state of architecture is a degradation, deep and foul, to our civilization?* When mention is made of the *real* merits of the architects of the nineteenth century,—that century which has seen the steam-engine perfected so highly, and thought communicated with the rapidity of lightning through the waves, whose undying roar would fain separate "that pale, that white-faced shore," from other lands,—that century in which science has struck so many of her thrilling chords, and has taught so much of the subtler power of chemical affinities and magnetic relations, of the constituents of the stars above, and of the earth under one's feet, of the past history of the globe, and of the future which is to come,—when we muse on these high things, and next look to that art of which you are the public orator, I blush for its professors, and echo asks again, what *are* their real merits? Things are so bad,—so low and miserable a copyism prevails, and is deemed by many absolutely meritorious,—that half measures will never remedy it. No courtly compliments to this man, no misplaced efforts to spare the feelings and prop up the reputation of that,—no mincing whatever of the matter should be for one moment allowed. The plain, naked facts of the continuous eclipse of the glories of architecture—be that eclipse partial or total—must be proclaimed and fully acknowledged before its sun can again shine out in its noon-day splendour. The startling solitudes of Egypt's temples spread, like a dreamy vision, their lights and shadows over my imagination: the stately fanes of Greece rise up

* The writer, it will be seen, draws an erroneous inference from the remark in question, but we pass this over.—ED.

before my eyes: the ruined glories of Rome, in their immensity, expand the mind. I see before me St. Peter's rise—"the most august temple which the human genius, inspired by a divine idea, has ever erected here below,"—and then I return to the streets of London, with their busy, active, wondrous life, and contemplate its architectural nonentities. Sir, the comparison is a degradation to us. This Augean stable must be thoroughly cleansed—not by hints here, and innuendoes there, but by turning a torrent upon it: it might carry it away entirely: far better this than that it should continue for ages to spread its infectious influence over the life to come. "Truth is strong next to the Almighty," and "there is nothing good anywhere in untruth,"—nothing manly, simple, and noble in the untruths we are piling in brick and stone, and graving them with olden symbols of fabled mythologies and monkish traditions,—always archaic, never truthful, original, and appropriate. Even the Rev. Mr. Petit, one of the lights of the school of church restorers, has at length found out that the revival of Gothic art "does not seem favourable to the development of the full powers of the architect." "Does not *seem* favourable! Why, sir, there can be no doubt about it. The writers on ecclesiastical architecture are centuries behindhand in their ideas. Had it not been for the date of your paper containing the quotation, I should have imagined that the sentiment came from some pious monk who had never quitted his cloistered cell, and who was unaware that Protestantism and the steam-engine existed. True, "it is not expected of every original architect that he should strike out a new style;" but he cannot be original, in these days, without going far towards doing so. To say that a modern architect "*cannot* escape the trammels of imitation, however lightly he may contrive to bear them," is to crush the hope within him, and to forbid all future efforts to cast off the shroud which envelops his art. But that "the architect who aims at novelty must combine it with truth, purpose, and order," is a sentiment to be impressed on all who would endeavour to rescue architecture from the slough of despond into which she has fallen.

E. L. TARBUCK.

PROVINCIAL NEWS.

Horncastle.—A design for a new Corn-exchange, prepared by Messrs. Maughan and Fowler, of Louth, architects, has been submitted to the shareholders, and approved of. The Exchange will be a hall lighted from the roof, and in front, on one side of the entrance, will be a subscribers' room, and a shop on the other, over which, occupying the whole length of the front, will be two large public rooms, adapted for the purposes of the Mechanics' Institution, could an arrangement be effected. The elevation is to be executed in red stock bricks, with stone dressings, and the works, according to the *Lincolnshire Chronicle*, are to be proceeded with as soon as contracts for carrying them out can be entered into.

Lynn.—A meeting of subscribers towards the proposed public baths was lately held, at which a scheme (differing from that adopted by the committee) for the erection of baths and wash-houses on a central site, at a cost of 3,000*l.* one-half to be borrowed by the Corporation from the Exchequer Loan Commissioners, and repaid out of the Borough fund, and the other half raised by subscription, was brought under consideration. On a division, however, the numbers were—for the new scheme, 25; for that of the committee, 30. The latter was, therefore, finally adopted and confirmed.

Norwich.—Last year, Mr. P. Squires, of Mulbarton, presented the Norfolk and Norwich Hospital with a stained glass window, as an ornament to the entrance-hall. This gentleman has now substituted one of higher artistic pretensions. The subjects are—Christ Healing the Sick, Christ Restoring Sight to the Blind, Peter and John Healing the Lame, and the Good Samaritan. The work was done by Messrs. J. and J. King, of Norwich.

Oxford.—The tender of Messrs. Lucas to erect the new museum for 29,041*l.* has been accepted.

Shorncliff.—The notices for tenders for the erection of temporary barracks at Shorncliff for 5,000 men have been issued. Orders have already been received for the erection of barracks for 1,000 men, and the work has commenced. Messrs. Myers, of Lambeth, are the contractors, who are to complete that portion of the work within a month.

Hunton.—The new bridge over the river Beult, near Hunton Mill (to connect the parishes of Yalding, Hunton, &c.) is commenced, and the whole is to be finished in six weeks. The cost will be about 200*l.* realized by subscription.

Pontesbury.—On 10th inst. the ceremony of opening a school, in connection with the Established Church, took place at Pontesbury. The school is situated near the church, on the north side. The designs for the building were executed by Mr. E. Haycock, jun. architect; and the contract was taken by Mr. Thomas, builder, both of this town. The school-room is 78 feet 6 inches, by 19 feet 4 inches, and it has an open-timbered roof, stained. It is capable of accommodating about 150 children. Provision is made for separating the sexes by means of a curtain drawn across the centre of the room. There is also a class room, 15 feet by 16 feet. A residence for the master has been built at the south-west end of the building, and the school is approached by two porches, one at the south-east, and the other at the south-west corner. The total cost of the erection, including the master's residence, is about 800*l.*

Birmingham.—Mr. Joseph Sturge has presented the Corporation of Birmingham with eight acres of grass land for a public recreation-ground.

Boston Spa.—The erection of an enlarged National School connected with St. Mary's, Boston Spa, is about to be commenced. The tenders were opened on Monday before last, when Mr. Nettleton, of Thorner, was the lowest for the masons' work; Mr. John Gray, of Leeds, for the joiners' work; painter, Mr. John Bradley, Boston Spa; plumber, Mr. Smith, Wetherby. The buildings have to be completed in five months. Mr. T. W. Atkinson, of York, is the architect.

Doncaster.—Tenders for the new purifiers, centre valve, scrubber, &c. for the local gas-works, have been opened, and that of Messrs. Chambers and Newton, of Thorncliffe Iron Works, accepted. Mr. Matthew Chambers, on behalf of the firm, signed the plans and specifications, and Mr. Gore, the engineer, on the part of the gas company.

Newcastle.—The contract for the construction of the All Saints' cemetery at the Minories has been let to Messrs. Gibson and Wilson, builders. There were twenty tenders, five of which were very close in amount; and the successful competitors obtained the contract for the sum of 3,200*l.*

Glasgow.—A considerable number of applications for leave to build came before the dean of Guild Court on Thursday before last, but few had reference to very extensive operations. The case of the Edinburgh and Glasgow Railway Company's new station was postponed. As regards the churches in progress, or about to be built,—see *Church Building News*. In the Great Western-road, opposite the Botanic Gardens, a range of self-contained tenements of three flats is being built by Mr. Robertson. The height of the buildings is between 50 and 60 feet. The lower flat presents a long succession of Doric columns, placed in couples. On the second flat the arrangement is the same, but the pillars, entablature, &c. are Ionic; and on the third flat the arrangement is also the same, but the style, Corinthian. The architect is Mr. Rochead, and the builder, Mr. Waddell, of Dunoon. A good many buildings are going forward in different parts of the city, but they are almost entirely dwelling-houses or small factories. In many cases unsightly gaps of feuing ground in the line of streets already formed are now being covered over. Several building speculations on a scale of some magnitude have been in contemplation for nearly a year, but have been delayed by the high rate of wages and material. Now that building material is cheaper than it has been, a resumption of the activity which so long characterised the building trade in Glasgow is expected.

Rockabill (C. Louth).—The Board of Trade are about erecting on the Island of Rockabill (Co. Louth), a lighthouse, the plans, sections, &c. of which have been prepared in the office of Messrs. Louch and Sons, of Dublin, architects.

CHURCH-BUILDING NEWS.

Spalding.—Contracts have been entered into to remove the flat roof of Pinchbeck church, repair the external walls, and place a new pointed roof thereon. In addition, it is said that the whole of the exterior is to be restored at the expense of the incumbent, who caused to be erected, about four years since, the new church and school-house at Pinchbeck West.

Cinderhill (Nottingham).—The foundation-stone of Christ's Church, Cinderhill, was laid on the 3rd inst. Mr. T. C. Hine is the architect, and Mr. J. Fisher the builder.

Tetsworth (Oxon).—The parish church here, which has been recently rebuilt, was consecrated by the Bishop of Oxford on the 12th ult. It is in the Early English style, of Wheatley and Headington stone, and consists of a nave 62 feet by 25 feet; south aisle, of similar length; chancel, 25 feet by 18 feet; and at the west end of the aisle, the tower and spire 80 feet high. Under the vestry is the warming apparatus. The church provides accommodation in appropriated seats for 164 persons; free seats, 153; children, 105, at a cost of 1,950*l.* Mr. John Bellamy was the architect, and Mr. Giles Holland, of Thame, the contractor.

Broughton.—On Wednesday before last, the parish church of St. Andrew, Broughton, was formally re-opened, after having been repaired and restored; the works conducted under the superintendence of Mr. E. F. Law, of Northampton, architect. The unsightly square pews, which occupied the area of the church, have been replaced by low open seats, plainly wrought. The large west gallery has been removed, the tower arch thrown open, and the area made available for free sittings. A modern buttress has also been taken away, and the tower strengthened with masonry. The whitewash and plaster have been removed from the piers and arches, and the whole re-worked and restored. The old glazing of the windows has been replaced by quarries of tinted glass, and two new decorated windows have been inserted in south aisle of chancel. The east window is of painted glass, representing our Saviour as the "Good Shepherd." The prayer-desk and lectern are of oak, as are also the fittings of chancel, all of which are new, but the carvings appear antique. The chancel roof has been thrown open by the removal of the ceiling, and new timber added: it is to be decorated, and the remainder of the west window filled with stained glass, as soon as the funds will permit. The number of sittings gained is 130, but there is still want of accommodation. The east window was executed by Messrs. Powell and Sons, the other windows by Mr. T. Nixon, of Kettering, the traceries of stained glass by Messrs. Webb and Nixon, the wood-work and carving by Mr. S. R. Brown, of Kettering, and the masonry by Mr. G. Dawkins, of Broughton. The funds to meet the expenses have been raised almost entirely by voluntary subscription, and the sum so raised (including 75*l.* granted by the Church Building Society) is 615*l.*; but as the cost is 860*l.* a deficiency has to be made up amounting to 245*l.*

Luton.—The Luton cemetery is now almost complete, and is open for burials. Just inside the gates a lodge and chapel have been erected: these buildings are in the Early English style. They are designed and built under the superintendence of Mr. John Cumberland, of Luton, architect, to whom the entire management of the cemetery, laying out of the grounds, &c. has been entrusted, and under whose superintendence the works have been executed. The buildings are faced with black flint, with red brick quoins, &c. and Bath stone dressings. The chapel has an open roof, the timber of which, as also the boards on the top of rafters, seat, desk, and chair, are stained and varnished. It is plainly fitted up in the interior. The lodge has a sitting-room, kitchen, registrar's room, staircase, and entrance, with octagonal bell tower over; also three sleeping rooms on the upper story. The cost of chapel, lodge, and entrance piers is about 450*l.*

The cost of land was 1,200*l.* and with buildings, planting of ground, and all incidental expenses, will be about 2,700*l.* which has been raised by a joint stock company.

Stafford.—The first stone of the enlargement of the parish church of Colwick was laid on the 8th inst. by the Countess of Lichfield.

Llanrhaiadr.—The Rev. John Luxmoore, the rector, has placed a memorial window in the east end of the chancel of the church of this parish. The painting has been executed by Mr. Wailes, under the direction of Mr. Penson, of Oswestry, from whose designs the new church was built, in 1843. The window consists of five compartments, the subjects for the principal painting in each being the Nativity, the Baptism, the Crucifixion, the Resurrection, and the Ascension. The subjects in the several lower portions of each compartment represent Adam and Eve after the Fall, the Flood, Abraham about to offer up Isaac, Jonah, and the Translation of Elijah. In the upper portion of each compartment are the "Agnus Dei," and the Symbols of the Four Evangelists. The subjects were suggested by Mr. Luxmoore.

Farnworth.—This church, says the *Liverpool Journal*, has been recently re-opened, after having been closed since last August. At a vestry meeting held in that month, Mr. H. Hoghton, of Bold-hall, offered to bear the expense of the restoration of his own private chapel in the church, and also one-half of the cost of restoring the body of the edifice, provided they would undertake to raise the other half. A committee was formed, and the requisite amount was subscribed in a few days. The total expenses of the restoration will be very little short of 3,000*l.*

Holderness.—On 12th ult. the village church of Withernwick, in Holderness, East Riding of Yorkshire, was re-opened, having been restored, or partly rebuilt. The inhabitants of this little agricultural village (about 500), commenced the work by granting a rate of 8d. in the pound, *nem. dis.* They also subscribed 65*l.* and again 15*l.* towards the east window, which is of stained glass, from Messrs. Powell's manufactory. The church, which is dedicated to St. Peter, consists of a nave and south aisle, and a chancel. It is furnished with stalls, those in the chancel being of oak. The chancel floor is paved with Minton's encaustic tiles, more elaborate in pattern than elsewhere around the altar. The architects were Messrs. Mallinson and Healy, of Bradford; and the contractor, Mr. C. Stewart.

Newcastle-upon-Tyne.—All Saints' Church has at length had its last portion of repairs finished by the restoration of the two chancel windows of stained glass, which were destroyed by the explosion in Gateshead in October last. They were originally executed by Mr. Wailes, who has also replaced them. The windows have been restored by private subscription, one window being patronised by the corporation, and the other by the master and brethren of the Trinity House, while the arms of each body, together with the arms and names of private subscribers, fill up the ornamental portions of them. The north window contains the figure of St. Peter in the centre, standing on a pedestal with Agnus Dei. Around the figure is a rich ornamental scroll ground, and on the scroll the arms of several members of the corporation and other subscribers. At the top of the window is the Newcastle arms; the whole surrounded by an ornamental border. The south window contains, in the centre, the figure of St. Paul, holding the Scriptures laid open. The apostle is standing on a pedestal similar to the other but with the emblems of the Passion, the Crown of Thorns, and Nails. Above the figure in a medallion is, "I. H. S.;" and around it scroll work similar to the other window, with the arms of several of the brethren of the Trinity House and other subscribers.——The foundation stone of a new Wesleyan Chapel was laid at Shotley-bridge, on the 2nd inst. The style of architecture to be adopted is Gothic. The entrance will be from the east end, which is to be ornamented with a tracery window above the door, and four octagon turrets built from the basement. All the sittings, including free seats, are to be pews without doors. The size of the building will be 60 feet by 40 feet. A school-room will be built under the west end, which may be used as a library and class-room, in which the Sabbath school will meet, and there will be a vestry at the south-west corner of the building. Mr. John Smith, of Medomsley, is the architect.—During the year a chapel has also been built at Annfield Plain.

Glasgow.—The West George-street Independent congregation, whose church has been sold to the Edinburgh and Glasgow Railway Company, have at last procured a site for a new church at the head of Pitt-street. The Unitarian congregation is now nearly ready to set about the erection of a new meeting-house in the triangular piece of ground bounded by Bothwell-street, Terrace-street, St. Vincent-street, and Pitt-street. The new United Presbyterian church in Pollock-street is progressing. There will not now be much longer delay, it is said, with the West End Park Church, to be erected by members of the Establishment. At the east end of the city, in Barrack-street, the foundation-stone of a new church for Dr. Graham, was laid week before last.

FALL OF THE ATLAS IRON WORKS, BOROUGH-ROAD.

ON Monday, the 14th, the premises belonging to the Atlas Iron Works Company, facing the Racket-ground of the Queen's Bench Prison, in the Borough-road, fell to the ground, and buried a large number of persons in the ruins: happily, however, no lives have been lost yet. The building was of considerable extent, and was four stories in height. In explanation of this very serious accident, Mr. Thomas Polgase has stated that his brother, the proprietor of the works, had been some time back proceeded against by the Crown, for not complying with the recent Act of Parliament, making it compulsory for furnaces to consume their own smoke. Having government work on hand, such as the casting of bombshells for the East, and knowing the importance to the country of getting the same finished as soon as possible, the proprietor made the necessary inquiries as to whether the alterations that were required, to conform with the Act of Parliament, could be carried out with perfect safety, so as not to jeopardise either the several workmen or even the building. The advice he then received was to this effect, that a new and a larger boiler was required, but that an iron pillar standing on a turned arch which covered the former boiler used, would have to be removed, but providing a temporary wooden column, sufficiently strong, was used during the removal of the iron one, no danger need be apprehended. Consequently, a piece of timber, of twelve inches square, was placed on the old arch, and which ran as high as to support the main wooden girder that ran the extreme length of the premises. The great heat of the adjoining furnace, or from some other unexplained cause, made the timber shrink, and at the moment of the accident Mr. Thomas Polgase, who was within a foot or so of the prop, saw it fall out of the perpendicular, and, as may be supposed, made a hasty retreat, giving as he proceeded a general alarm. Before, however, he had time to accomplish his object, the girder, which was 99 feet long, snapped short in the centre, which caused floor after floor to fall to the ground in rapid succession, making the walls on each side swing previously like a ship upon troubled waters.

COMPETITIONS.

Burnley Cemetery.—The first premium, 25*l.* has been awarded to a design by Mr. Thomas Worthington, architect, Manchester.—The second premium, 15*l.* has been awarded to a design by Mr. Thomas Adams, of Grimsby. There were twenty-two competitors.

Chester Market Hall.—The architect, to whom as mentioned in our pages recently the second premium was awarded, having declined to comply with certain requests made by the directors, it has been awarded, we are informed, to Messrs. Bidlake and Lovatt.

Drainage Plans for Blackburn. — Twenty-two plans were submitted for the sewerage and drainage of the borough of Blackburn, and were submitted to Mr. J. F. Bateman, of Manchester, for examination. In accordance with his report (which has been printed), the first premium of 350*l.* has been awarded to Messrs. Morgan and Horne, Huddersfield,—motto, "Nil sine labore;" the second premium of 150*l.* to Mr. P. M. Coogan, Engineer's Department, Public Offices, Liverpool,—motto—"Utile;" and the third premium of 50*l.* to Mr. Hamilton H. Fulton, Westminster—motto, "Abidus."

Taunton Assize Courts.—In consequence of letters asking as to the offered second premium in this matter, we have inquired, and are informed that it was awarded to Mr. Giles, of Taunton.

Newcastle.—The Burial Board of St. Nicholas have decided upon a design for erecting two chapels and a superintendent's house, with gateways, at the new cemetery. According to the local papers, there were several competitors, and the designs of Mr. A. M. Dunn, architect, Newcastle (Early Decorated), were accepted. The buildings are to be of stone.

Cambridge: Hobson's Conduit.—It is stated that seventeen designs have been received, and that a committee has been appointed, consisting of four members of the council, four Improvement Commissioners, and four of the Feoffees of Hobson's Charity, to select three plans from amongst the number; these three plans to be again submitted to the council for their approval of *one*.

Dudley Workhouse.—Upwards of twelve designs were lodged with the clerk to the guardians, on the 8th of May, including two from Dudley.

Shabby Competitions.—A correspondent urges that "since, however low the premium, and however impossible the conditions, there are men found to lend themselves to this disgraceful and humiliating business, the best remedy would be to publish in every case the *names* of the competitors. By a little watchfulness on the part of the profession, this could be done, and then perhaps such an announcement as that Mr. Christopher Crowquill had received the premium of thirty shillings from the Hookey-cum-Snivey Burial Board, would tend in some measure to show who are the men who keep alive a practice which is daily lowering the profession in the estimation of the unprofessional public."

NEW RIVER WATER WORKS.

EXTENSIVE reservoirs in Maiden-lane are now progressing, and will be completed, it is said, by the end of this year. They are covered in by arching over, in 15 feet spans, soiled on top, and seeded, so as to form a lawn. The outer side walls, which batter, are faced with Staffordshire blue bricks. The arching and cross walls are built of stock brick, in Portland cement: the arching or inverts are of malm bricks. The size of each reservoir is 273 feet long by 209 feet wide, and 24 feet deep. The division walls between the reservoirs are 20 feet wide, filled with clay puddle between. Behind the walls, at 6 to 8 feet deep from the surface, was found a bed of cement stone and fossils, which the company are selling at 16*s.* per ton or load to the cement manufacturers. More than 200 tons have been already obtained. The water will be forced from Newington in 4-feet pipes, a distance of from four to five miles from the filter beds. The contractors are Messrs. G. Mansfield and Son.

CAMPANILE, TRINITY COLLEGE, DUBLIN.

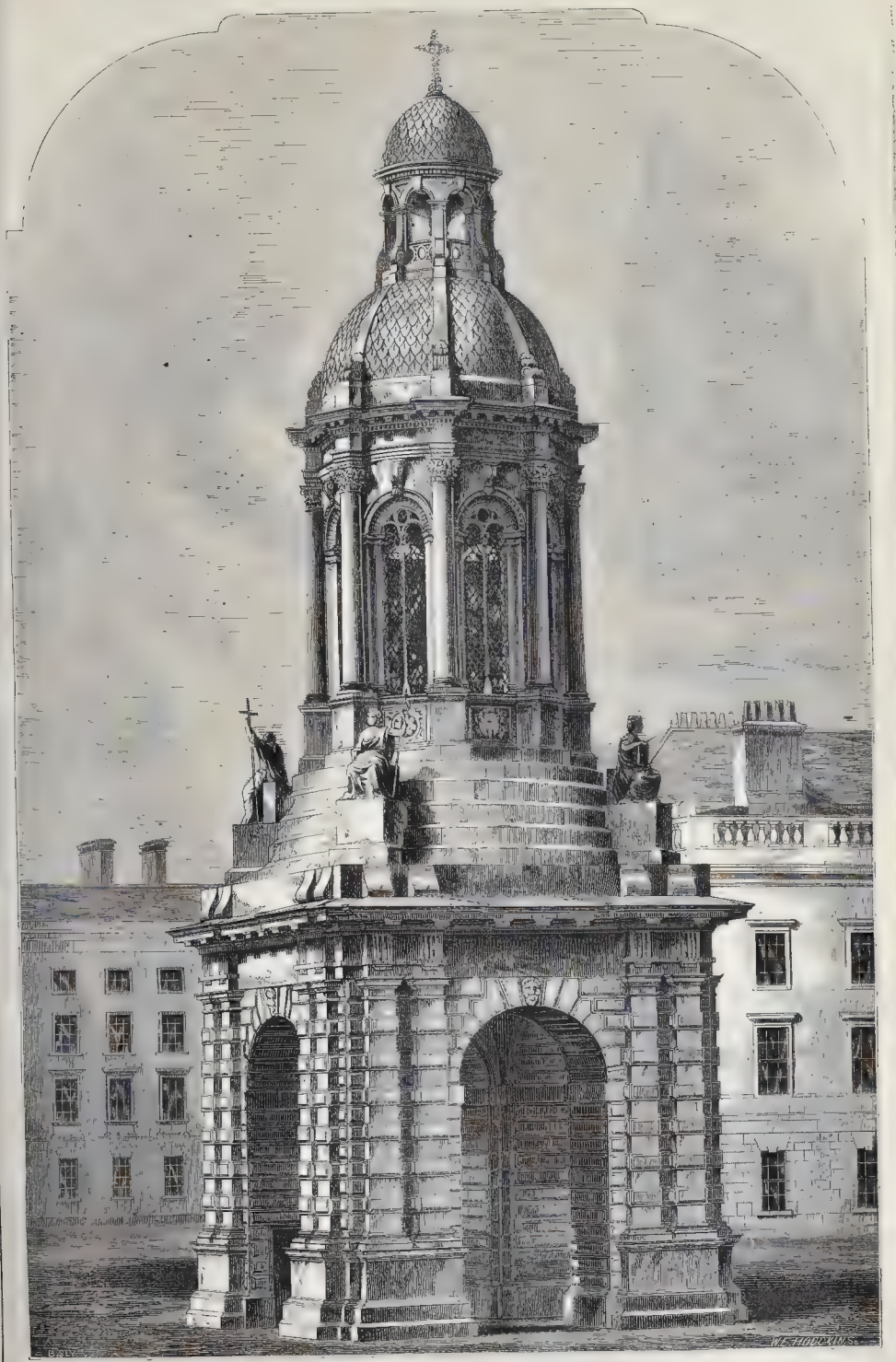
OUR view represents the Campanile which has been put up at Trinity College, Dublin. The complete design comprehended the connection of this by an arched open cloister, with the arcade under present library, and with proposed new buildings on the other two sides of the square, thus forming a continuous cloister round the ground. The Campanile itself is, however, the only portion of the design at present carried out.

The lower portion as high as the top of the circular steps, is executed in Wicklow granite: all the rest of the building is of Portland stone. The height from the ground to the top of the cross is about 100 feet. It was erected at the sole expense of his grace the Archbishop of Armagh, Lord Primate of Ireland, and Chancellor of the University of Dublin, and the total cost was about 3,500*l.* The four figures on pedestals represent respectively—Divinity, Physic, Science, and Law.

The openings in the bell chamber are to be filled in as shown, with ornamental iron work, to conceal the framing for the bell. The stones of the cupola are dowelled together; and there are iron tie-bars at the springing of the cupola secured to a circular cramp running all the way round in the walls.

Mr. Charles Lanyon, of Belfast, was the architect; and Mr. Kingsmill, of Dublin, the contractor. Mr. Robert Kirke, of Dublin, designed and executed the figures on the pedestals.

THE FINE ARTS AT BRIGHTON.—It has been resolved to hold an Exhibition of the Fine Arts at Brighton in the autumn.



NEW CAMPANILE, TRINITY COLLEGE, DUBLIN.—Mr. Lanyon, Architect.

"HENRY THE EIGHTH" AT THE PRINCESS'S THEATRE.

THE production on Wednesday night at the Princess's theatre, of Shakspeare's "King Henry the Eighth," may be said, almost, to have inaugurated a new era in the history of dramatic decoration; not only as regards strict adherence generally to style and period, but more especially to the observance of that detail, which after all constitutes the great value of every work of art, be its ease what it may. Particular attention to propriety and correctness of costume, has long marked the managerial career of Mr. Kean, and conferred a value upon his productions, independent of their intrinsic merits as vehicles for the portraiture of character, which may be said to have become a proverb amongst the patrons of the stage.

But although well aware of the general adherence to architectural correctness which has long distinguished the historical representations consecutively presented to the public at this theatre, the public were scarcely prepared for the gorgeous display of scenic illustration, the strict observance of style to period, and the still more valuable addition of studied detail to style, which characterised the production on Wednesday night of this favourite effort of our great dramatist.

The events of this "ower true tale," ranging from 1521 to 1533, gave great scope for elaborate ornament both of costume and architectural decoration, and this opportunity has been amply embraced by the spirited manager. A handsome expression of acknowledgment to the authors of the "Ancient Costume of Great Britain and Ireland," the "Dresses and Decoration of the Middle Ages," and the heraldic devices employed, is paid by Mr. Kean in his introductory address.

For the architectural portion of the undertaking, and which is more within the province of this journal to comment upon, the thanks of Mr. Kean are accorded to Mr. George Godwin, F.R.S. a reason why this notice may find a place in your columns, in lieu of the ordinary editorial comment. Expense seems not to have been considered in the undertaking, for in some of the principal scenes, as the Festival, and the Christening, the blaze of gold, jewels, velvet, and satin, enhanced by the most elaborate arrangement and detail of architecture, brought out by gold and rich colours, and lit by innumerable chandeliers, was such as to dazzle and astonish with the magnificent profusion.

The house was a bumper, in its most extended sense, for every nook whence a view could by possibility be obtained was crowded, whilst the passages were filled with disappointed applicants, and the reception of Mr. and Mrs. Kean (the latter after a retirement of eighteen months) was such as must have satisfied to their hearts' content those eminent performers, and convince them how well the public can appreciate efforts such as theirs to amuse and instruct. Their acting was admirable. The remorse of Wolsey, on learning the discovery of his ambitious schemes, and its fatal results to himself, was masterly to a degree, and the audience were alternately fettered in breathless and tearful interest by his agonised soliloquies, and roused to excitement by the vehemence of his retorts to his time-serving accusers.

The great points of Mrs. Kean's acting were of course the defence at her trial, her angry rejection of the proffered comfort of the two cardinals, and her deeply affecting death; but, throughout, her impersonation was marked by a noble appreciation of the character, and was deservedly received with enthusiasm by the audience.

Good use has been made of such authorities as could be procured, in the design of the scenes, arranging the points of views, altering the groupings, and making good the deficiencies with great judgment, and antiquarian knowledge. The first scene, Old Palace-yard, for instance, is from an old drawing, by Wynyrede, A.D. 1543, in the Bodleian Library, Oxford. The gabled half-timbered houses, with their projecting one-pairs and eaves, introduce you at once to the *genius loci* of the play; while the gateway on the right, and the old abbey in subdued tints in the background, respectively initiate you in the mysteries of Tudor and Pointed.

Scene 2, "The Council Chamber," by Fenton, is remarkable as a restoration of the "Painted Chamber," from the "*Vetusta Monumenta*." The walls are covered with paintings, in rows. The tapestry, which covers the lower part of the room, passing behind the throne in centre, increases the apparent size of the room.

The fourth scene, "Presence Chamber in York-place," admirably painted by Lloyds, is the most elaborate scene in the piece. The great distance shown by the perspective, the rich mouldings and tracery of the piers and windows, the panelled ceiling, with its elaborate ornaments, mouldings, roses, pendants, and chandeliers—the whole enriched with gold and polychromatic adornments, would form a perfect study of style were the eye allowed to rest upon it; but the enactment of a pageant of unexampled brilliancy within the walls of this right regal apartment, allows no time for study at all, but leads eye and sense captive to the intoxication produced by such a *tout ensemble*.

In Act 2, the Hall at Blackfriars, where the trial takes place, demands notice for its open roof and general proportions, which give due solemnity to the sad scene enacted in it. In Act 3 is a room in the Palace of Bridewell, painted by Fenton, and introducing a magnificent Revival Chimneypieee, designed by Holland,—a fine specimen of the style.

Scene 2, that of Wolsey's downfall, shows a staircase leading from the apartment, with paintings on each side, wherein the receding steps are excellently expressed by judicious effect of light and shade. Scene 2 of Act 4 shows the room in Kimbolton Castle, where Katherine sees the vision and dies. The management of this beautiful scene is beyond all praise: the apparently opaque walls liquidizing, as it were, to disclose the seraphic forms that claim the dying queen for their own.

Act 5, and last, after the display of an admirable panorama of the Thames from Bridewell to Greenwich, ends with the brilliant "spectacle" of the Christening of the Princess Elizabeth in the church of the Grey Friars, an Early English interior with Purbeck columns, and a carved screen, most cleverly painted and built by Gordon.

Great praise for the general superintendence is due to Mr. T. Grieve, who has himself painted the panorama. A. F. ASHTON.

FORM OF WROUGHT-IRON BEAMS.

INSTITUTION OF CIVIL ENGINEERS.

ON May 1st, the discussion was renewed on Mr. Barton's paper "On the Economic Distribution of Material in the Sides, or Vertical Portion, of Wrought-Iron Beams." Attention was directed to the recent erection of a suspension bridge for carrying railway trains across the river, immediately above the Falls, at Niagara, already described in our pages.

Allusion was made to a paper recently read before the Royal Society by Mr. W. H. Barlow, wherein it was shown, that under the existing theory of beams, in which only two elements of resistance,—tension and compression,—were recognised, the strength of a beam of cast-iron could not be reconciled with the results of experiments on the direct tensile strength, if the neutral axis was in the centre of the beam. A series of experiments had been made, with the view of determining the position of the neutral axis, and the results showed that the extensions and compressions proceeded in an arithmetical ratio, from the centre to the upper and the lower sides of the beam; and that at any given distance on either side of the centre, the amount of extension was equal to the amount of compression.

The position of the neutral axis being thus ascertained to be in the centre, it was shown, that not only the ultimate strength, but also the amount of extension and compression with a given strain, indicated the existence of another element of resistance, in addition to the resistances to extension and compression. Further consideration of these results, and investigation of the action of the fibres under different degrees of extension and compression, induced the conviction, that the affect of the lateral action, tending to modify the affect of the unequal and opposite strains in a beam, constituted, in effect, a "resistance to flexure" acting in addition to the resistances of tension and compression.

The questions raised by Mr. Barton's paper were shown to be, the practical value of different modes of constructing the middle rib of any beam, and the mathematical principles upon which its proportions depended.

It was contended, that the simplest mode of ascertaining the amount of strain on the middle rib of any form of beam, was to ascertain that which was acting in compression and in tension at the top and the bottom, and then to consider, that exactly the same was transmitted through the rib, from the centre to each end, tending to tear through the connection of it with the top and the bottom. This aggregate amount of strain, as compared with that on the top and the bottom, never varied; but the distribution of it, over the length of the rib, varied according to the position of the load.

For a beam supported at the ends and loaded between, the formulæ, $S = \frac{W L}{4 D}$ and $S = \frac{W L}{8 D}$ gave the horizontal strain, at the centre of the top and the bottom, for a central, and an uniform load respectively: where W = total load, L = clear bearing, and D = effective depth, these also gave the horizontal strains upon one-half of the middle rib, which in the former were uniform throughout the length, and in the latter increasing from zero, at the centre, in the ratio of the ordinate of two diverging lines, to the points of support, where they were greatest.

Both these formulæ, applied to the same beam, also included every case of a moving load.

In ordinary cast-iron beams, where there was, of necessity, a great excess of material in the middle rib, beyond the theoretical amount, the additional strength supplied by it was frequently so important that it could not be omitted from the calculation

Particular attention was called to this by some experiments, made in 1847, upon large beams, having a clear bearing of 19 feet, a bottom flange of 9 inches by 1¼ inch,—a middle rib of 19¾ inches by 1¼ inch, and a top flange of 3¼ inches by 1¼ inch.: these two girders broke with 50 and 54 tons respectively, laid on the centre. The ordinary rule then in use, which did not take the middle rib into the calculation of strength, gave as the breaking weight of these beams 26 tons on the centre.

A long investigation, and a great number of experiments induced the following conclusions:—That when the top flange was not of a less section than one-seventh that of the whole beam, the middle rib affected the strength, to the extent of one-half the value of its material, as if placed in the bottom flange; that when a beam was loaded on one side of the bottom flange only, it became necessary to increase the section of the top flange to about one-third the whole section of the beam; and, that when these proportions were attended to, the following rule would be found correct:—

Area of bottom flange.
\+ Half the area of the middle rib.
× Depth between the centres of the top and bottom flanges.
× Constant number 28.
÷ Length of bearing (all in inches).
= Breaking weight on the centre, in tons.

This rule gave 54 tons for the beams above mentioned, and it would be found to apply, with equal correctness, to any other proportion of beam, provided the top flange was large enough.

Investigations of the principle of the "Warren" girder, with a view of adapting it to positions, similar to the Conway and Britannia bridges, demonstrated the inapplicability of the system, beyond a certain span. Such beams did not present greater facilities for transport, or for construction, than plate girders; and, so far as might be judged from the information laid before the meeting, if the same official rules had been adhered to as had for so long prevented the use of the Torksey-bridge, the Boyne girders would have required considerable strengthening, and the bow and string trussed beam bridge, which had a deflection of 3 inches, would never have been permitted to be used at all. Still it was contended, that by employing the proper system for the various situations and spans, and adopting proper proportions for the material, excellent bridges had been and could be constructed, both on the "Warren" and the trellis principles, but better than either by using the plate system.

In reply to objections urged against the positions assumed in the paper, respecting a saving of 33 per cent. in the sides of trellis beams, the statements in the paper, were not in any way modified, or withdrawn, and the angle of 45 deg. which was assumed for the investigation of the plate beam, had been so assumed, because it was the angle which gave the plate beam most advantage; and it was contended that the saving, in practice, was over that per centage.

It was contended, that the tubular beams, now being constructed for the "Victoria" bridge, over

the St. Lawrence, which had been adduced as examples of excellent proportions of material, might be used, for demonstrating the saving which would have been effected by the adoption of trellis sides.

THE CAMP AT ALDERSHOTT.

I WENT to the camp last Tuesday, and I had much conversation with working men, foremen of works, and some who live close to it. No one had a good word to say of either the huts or other management: in fact, the people seem to be working without heart, feeling that what they are doing can neither be creditable nor useful. The low ceiling has been left without any grating, or other means of ventilation, except a small orifice round the chimney of the stove. The windows and sides of the huts are left without any perforated zinc or glass, very low, as you have already said.

In the kitchen for the use of a general officer, the stove is so large as to occupy a considerable portion of this apartment. A gentleman who is connected with one of the contracts, said, "*This is the cooking stove;* but whether it is intended to roast the beef or to roast the cook I cannot say."

In one of the ordinary cooking-houses for the men, which has a roof exactly the same as the other huts, I counted nine stoves and other apparatus, which will generate both heat and steam. This, together with the assistance of the heated cock-loft, will be trying to the cooks, who, no doubt, will, before July is past, be seen following their avocations in a similar costume, and with as much difficulty, as some of the workmen seen in glass manufactories and other warm places.

The combustible nature of the camp causes great danger from fire: even already some of the pitched felt roofs have become blistered by the sun; and in two or three weeks' time it is likely that the camp will be as dry as touchwood; and yet at the present moment no provision has been made against fire.

It is true that the canal supplies water in one direction, but I cannot see how that can be made available over the great extent of the camp.

They are now sinking wells, and have got to a depth of about twenty-five feet, and have not yet come to spring water, or any adequate supply of water of even an indifferent description, and it seems very uncertain when they may reach the springs.

I asked an engineer if they had consulted any practical geologist as to the depth of the clay and chalk in the district, and he assured me such a thing had not been thought of, but that it was an idea worth considering.

In the hard frost of winter, unskilled men, such as you have described, were set to work, some of whom would complete a *yard a day* of the necessary preparation for planting the huts. Some of the huts were put in their place, when the ground was as hard as a stone with the frost, without any brick or concrete foundation—when the thaw came the consequence may be judged—and many of them have been raised since by machinery, until a brick foundation could be put below. Most of the huts are now placed upon a thin wall of brickwork, two or three courses high, which the workmen think will be a snug retreat for the adders at certain seasons, and at others will be a stagnant pool.

The canal proprietors have refused to allow anything except the surface drainage to pass into their stream; and, in consequence, conveniences on a large scale have been put up: one, for a battalion of men, contains accommodation for fifty-three persons. It is proposed to deodorise these places with charcoal. This is an important experiment: for, if this can be effectually done, and at a moderate cost, it might be usefully employed in the Borough and other ill-drained places. VIDI.

OLD BUILDINGS.

Leominster Town-hall.—The old market-house at Leominster, though sold by auction for removal, to make way for the new building, will not be destroyed, as Mr. J. Arkwright has purchased it from the local druggist who had it knocked down to him for 95*l.* and intends to have it re-erected at Hampton Court.

Cromwell's old Guardhouse, in the market-place of Carlisle, which was constructed out of the ruins of the nave of Carlisle cathedral, and which has been long used as a fish-market, is now, according to the *Gateshead Observer*, in process of demolition.

Old House at Greenwich.—Our attention has been drawn to an interesting old house (the materials of which have been advertised for sale at Greenwich, facing the river, and near the College, beyond the "Crown and Sceptre." It is a capital example of an old merchant's house, and some say it is the work of *Inigo Jones*. It has reverted to Morden College, and they are clearing the ground, either to add it to the adjoining establishment, or for building.

ECCLESIOLOGICAL SOCIETY.

IN the annual report, read on May 2, it was stated that "a committee of Mr. Carpenter's friends has been formed to raise a fund for commemorating him, by filling with stained glass the west window of S. Mary Magdalene, Munster-square, London,—a church, it is needless to observe, built from his designs, and under his superintendence. So warm has been the response which has been already made to their appeal, that we understand that the committee in question entertain a confident hope that a surplus will remain—after the accomplishment of the immediate object—for the foundation of a periodical architectural prize." It announced, too, "that some ladies, already known for their remarkable success in ecclesiastical embroidery, have united themselves for the purpose of executing church needlework, from ancient examples, or from good modern designs, on terms sufficient merely to pay for the expense of the materials. The cost is thus rendered exceedingly trifling when compared with the charges made by the ordinary church-decorators." Speaking of European competitions, the report said,—"It may be in the recollection of the society, that it was decided to devote the large sums raised in Austria to commemorate the escape of the emperor from assassination to the erection of a magnificent church in Pointed architecture, open (your committee think) to competition: it regrets not being in possession of later and more detailed particulars of this interesting undertaking." "To the coming Paris Exhibition the committee look with great interest, as being likely to have vast influence on the prospects of art in every branch. But they fear greatly, from the list of English architectural drawings (lately published in the *Builder*), that the architecture of our country, and especially that of the revived Pointed school, will be but inadequately represented. This is a matter deeply to be regretted, for many reasons." The committee report "with satisfaction that a national encouragement has at length been given to mediæval art by the establishment of the Marlborough House Museum, the opening of a distinct mediæval department in the British Museum, already enriched by several valuable specimens, and by the purchase on the part of the trustees of the National Gallery, under the judicious advice of Mr. Dyce, of an important collection of early German paintings."

Notices of Books.

VARIORUM.

The "Reports and Papers read at the meetings of the Architectural Societies of the Archdeaconry of Northampton, the county of York, the dioceses of Lincoln and Worcester, and the Architectural and Archæological Society of the county of Bedford, during the year 1854," have just been printed for distribution amongst the members of these societies. The volume, however, is also sold by Masters, of New Bond-street, and other publishers. It contains, besides reports, illustrations, &c. papers on "The Churches of Leicester," "The Repairing and Refitting of Old Churches," "The Churches in North Craven," "The Priory of St. Mary, at Bridlington," "The Excavation at Fountains Abbey," on "Monumental Sculpture," "The Churches of East and West Retford," "The Church and College of Sibthorpe," in Notts, "The Church of the Blessed Mary the Virgin, of Southwell," on "Babington Church," on "The Ecclesiastical Architecture of England," on "The Guesten Hall at Worcester," on "Risinghoe Castle in Goldington, and Howbury in Renhold;" also "Suggestions for a more beautiful Period of Gothic Architecture than any preceding," by Mr. W. P. Griffith; and other interesting matter.——"Velasquez and his Works," is one of those charming books which one feels inclined to congratulate oneself on having got hold of. To say that Mr. Wm. Stirling is the author, is to say enough in its favour. Parker, of West Strand, is the publisher. —— Messrs. Longman's "Travellers' Library," gets on as steadily as ever. No. 78 is "The Autobiography of Francis Arago," a good shilling translation from the French, by the Rev. Baden Powell, V.P.R.S. No. 82 is another shilling treatise, and relates to "Printing, its Antecedents, Origin, and Results," by Adam Stark. N.B. Why does Mr. Stark, in treating of polytype, stereotype, &c. say nothing of the very promising gutta-percha-type, exhibited in the Crystal Palace of 1851?——"A Treatise on the Calculus of Operations, designed to facilitate the processes of the differential and integral calculus, and the calculus of finite differences, by the Rev. R. Carmichael, of Trinity College, Dublin, will be useful to a select few. The want of a text-book on the calculus of operations has long been felt by mathematicians. Messrs. Longman and Co. are the publishers.——Bogue, of Fleet-street, has brought out a very good railway companion, and substitute for intelligent and topographic old "Coachee,"—now vanished like a dream, "osses," whip cracks, and all. The title of the volume alluded to, is "Sharpe's Road-book for the Rail," and it forms a Guide-book or Gazeteer of the rail, as well as a compendium of stations, mileage, &c. The volume now before us is that for the "Western Division, including the lines south of the Thames."

Miscellanea.

PATENT BARREL BOLT. — This improvement, patented by John Phillips, and manufactured by the Patent Bolt and Latch Company, Birmingham, differs from the ordinary bolt in its being manufactured without a single rivet. The barrel is pressed to the form of the bolt itself from the plate, by which means the whole is made from one piece of metal. A great increase over the strength of the riveted bolt is thus secured, and it is not necessary to cut away the wood for fixing the bolt.

ORDNANCE COMMITTEE ON INVENTIONS. — It is not generally known that the public are indebted to the late War Minister, the Duke of Newcastle, for having remodelled and popularized the old and objectionable *ex officio* Committee of the Ordnance, on war appliances, inventions, and suggestions. The committee has been greatly increased in number, and now includes many civilians of eminence, in mechanical, mathematical, chemical, and other science. It meets twice a week, and there is a sub-committee, whose duty it is to select from the enormous mass of inventions and suggestions sent in, and prepare them for further consideration by the general committee.

PEST-HOUSE, NEAR GOLDEN-SQUARE.—I have not forgotten the letter signed "Inhabitant," that appeared in your excellent paper last autumn, while the cholera raged so fearfully in and around Broad-street, Golden-square. That witness was true, and every person thanked their unknown friend for thus bringing before your attention and the public such a "pest-house" as that in Marshall-street. As the nuisance still exists, I wish to add my testimony. There are two cow-sheds, two bullock-pounds, where dung lies until it is "rich," one large and two small slaughterhouses, three stables, one blood-hole, one grain-pit, and one dung-hole. The dung is taken away daily from ten to twelve, and the blood much less frequently: grains are allowed to remain until they become sour; and when these three things are being removed, the stench is terrible, and the very atmosphere becomes poisoned. But this is not all: nearly contiguous to it is a tripe-house, where feet, intestines, &c. are boiled, and the effluvium from this place also is very bad. People whose back windows overlook these places very rarely are enabled to open them, to get a change of atmosphere in their overcrowded dwellings. It may seem a stretch of expression, but it is a fact, we are scarcely ever without some smell from these places, and during the last few days it has been overpowering. Complaint has been loud and general. The authorities have had removed the sour grains that were the main cause: a fresh supply has arrived, and when the bottom of the pit is nearly reached again, the same pestilential breath will again have to be inhaled, producing loss of appetite, pains in the stomach, &c. It is certainly very creditable to one of the owners to say, he laughs at and treats with contempt all complainants, and asserts that tripe boiling, sour grains, &c. never yet did any one harm, but tended to health. It may perhaps console that "gentleman" to know, the neighbours are moving in this matter, really to ascertain if some steps cannot be taken to put a stop to that which produces sickness, and sends many a worthy individual to a premature grave. Looking to the coming summer, the inhabitants feel alarmed, and, where they can, intend removing from the neighbourhood, much to the annoyance of housekeepers, who pay around here heavy rents, rates, and taxes. I have been living in the midst of it all some years, and I confess I never saw my neighbours' indignation rise so high before. Something, sir, ought to be done, and something must be done, to rid us of this fearful place, which has been and still is bringing in its train desolation, misery, and death.—TRUTH.

*** A clause in the Act to abate nuisance from smoke (16 and 17 Vict. cap. 128), gives a remedy against "noxious or offensive effluvia."

THE OFFICERS OF THE NATIONAL GALLERY.—A paragraph has taken its course through the various papers of the day, to the effect that "no appointments will be made, nor has Lord Palmerston any desire to fill up the appointments to the National Gallery, &c." We are informed, by one who professes to know, that the appointments alluded to (Sir Chas. Eastlake and Mr. R. N. Wornum, to the offices of director and secretary) have been for some time ratified by Lord Palmerston, and through him sanctioned by her Majesty, and that the delays of the routine of office alone bar the entrance of those gentlemen on their onerous duties.

TESTIMONIALS.—A correspondent complains, and with justice, that having sent his testimonials to an architect who had replied to an advertisement inserted by the complainant, he is unable to get them back. We have often warned applicants that they should send copies only. Persons advertising for assistants, sometimes receive a very large number of replies, and it would be a hardship if they were to be forced to return testimonials to each. In the case, however, at this moment complained of, no such excuse for retaining the papers can be urged.

THE LATE DISTRICT SURVEYOR OF LEWISHAM.—On Tuesday last, in the Bail Court, before Mr. Justice Coleridge, Mr. Horn moved for a rule calling upon the justices of Kent to show cause why a *certiorari* should not be issued to bring up the order, made by them at Quarter Sessions, dismissing Mr. Badger from his office of district surveyor for Lewisham, under the Building Act. By the 7th and 8th Vict. c. 84, s. 79, it was enacted that if any surveyor should demand and receive a fee for any act or omission in respect of which he was not entitled to receive any fee, the magistrates might fine or dismiss. The offence for which they were entitled to dismiss was his receiving a fee for an act in respect of which he was not entitled to receive any remuneration. They had dismissed him on the ground that he had wilfully received a fee to which he was not entitled under the Act. For all that appeared he had received a fee to which he would have been entitled after the expiration of a certain time, and that would not be an offence. There was another objection, which he submitted was perfectly decisive. It was necessary there should be a complaint in writing, which was to state the particulars and nature of the offence. The complaint was that Mr. Badger delivered another account, claiming a fee of 10s. in respect of each of the buildings, and did wilfully receive the same, not being entitled thereto—it did not state knowingly.—Rule granted.—*South-Eastern Gazette.*

VICTORIA-PARK.—The work of preparation for reducing the area of this park is beginning, notwithstanding the remonstrances that have been made on the subject. These are not times to give the lower classes a handle for the Chartist outcry, "The rich have no sympathy with the sons of labour,"—"The West end, in its luxury, has no sympathy with the East end." Such phrases as these were rife in 1848, and such cases as the diminution of the only park at the East end of London would really give a colouring to such complaints. The last census showed 260,275 inhabitants in three adjacent parishes, viz. Bethnal-green, Mile-end, and Shoreditch, and out of this vast number what a large proportion are confined to factories, and the like, all day. The simple question is,—Ought the present area of the park to be reduced (merely to save some ground-rents) considering the vast population of the immediately surrounding parishes?

LONDON THOROUGHFARES.—Any one passing over London-bridge and proceeding thence to Bishopsgate-street, must be struck by the very bad approach to the bridge from the north side of London, and also may be very often jammed in among the carts and swarm of standing and moving omnibuses in Grace-church-street and the junction with Bishopsgate-street, Cornhill, and Leadenhall-street. The proper approach it is obvious would be direct from London-bride by George-yard and St. Michael's Church, and on through Threadneedle-street, by an easy bend into Bishopsgate-street, which would relieve many over-crowded streets, throw open a handsome church, and, by a short street, the eastern end of the Exchange, and make a noble and proper approach to London-bridge. Houses are being pulled down by St. Michael's, Cornhill, also by Threadneedle-street, opposite to the South Sea House, which is also being demolished, so that the time to speak is most opportune. If any very strong recommendation is wanted for the improvement, say that the glorious old Duke of Wellington is reported to have proposed this opening, and let it be a fit offering to his memory, and to the convenience and comfort of many. Pray urge them to put the clock higher than is proposed in the tower at the south end of London Bridge, or we poor railway travellers, who would profit by it most, will have no benefit. It is hardly seen thirty yards off.

ONE OF THE PUBLIC.

THE PROPER USE OF BUILDING MATERIALS.—Various writers on the above subject remark on the praiseworthy manner in which our forefathers adapted their materials to their wants, and, by force of intellect, compelled them to serve their purpose. Thus, where stone or marble abounded, it was invariably employed; but in situations less favoured by nature, clay was moulded with considerable skill into ornamental bricks, for string courses, cornices, diapers, &c. The brick house, at Trèport, illustrated in your number for the 14th inst. is no doubt a clever modern adaptation of this principle; but I would respectfully inquire why architects and builders of the present day are to be compelled to ignore the possession of valuable materials unknown to our ancestors. Can any one doubt that if the builders of the brick palaces of Verona, or of the cathedral of Bruges, had been supplied with good Portland cement, they would have employed so durable and useful a material for some portions of the ornamental detail of their works, in preference to moulded bricks? I am not an architect nor a builder, nor yet a cement manufacturer, and may therefore be allowed to give what appears to me a common-sense opinion on this subject. There is a general tendency with architectural critics to condemn the use of *compo*, and justly so, in many instances we could all point out: it is no doubt a sham, and is too often used to conceal bad work and worse materials. But in combination with good bricklayers' work, and as a relief to its excessive plainness, the use of sound cement for string courses, cornices, &c. appears to me as worthy of praise now-a-days as was the employment of moulded bricks in similar situations formerly. The outline of a moulded brick cornice, or moulding of any kind, is, and never can be, perfectly true, from the nature of the material; the contraction and distortion of each brick in the baking, and the numerous joints, breaking up into small portions what should be a continuous line,—a defect from which cement is free. These opinions are sadly heterodox, I know, but appear to me not altogether devoid of reason.—A. S.

SCULPTORS' REWARDS. — The widely informed writer of the pleasant column of "Town Talk," in the *Illustrated News*, says:—"The poor pay which Mr. Marshall has received for his statue of the poet Campbell, to which we directed attention last week, will be better understood by the public when the price is contrasted with the sums received by other sculptors for statues of the same size and material. Chantrey's usual charge for a standing statue, a little larger than life, was two thousand guineas. For the large Watt, in Westminster Abbey, he received six thousand pounds. The elder Bacon had thirteen hundred guineas for his statue of John Howard, and the late Mr. Joseph had eighteen hundred pounds for his statue of Wilkie in the National Gallery. The smallest sum ever given for a statue in marble of any excellence—before this unexpected small pay to Mr. Marshall—was six hundred guineas, the sum (minus a few pounds we believe) which the elder Bacon received for his fine statue of Dr. Johnson. Only the other day, Mr. Gibson received five thousand pounds for the statue of Sir Robert Peel, in Westminster Abbey. But the Peel pay was a vote of the House, while the Campbell pay was the poor produce of a starved subscription.

ERICCSON AND THE CALORIC SHIP.—The Ericcson experiment appears to be not only at an end, but poor Ericcson, it is said, has spent all his fortune and that of his wife on it, and is ruined. Ericcson had a noble object in view, and that he is a man of really inventive mind, we believe, is not doubted. Had he been successful, his name would have stood side by side with that of Watt; and, even as it is, the world is indebted to him for his endeavours in its behalf, not only in this instance, but in others, and particularly in regard to the adaptation of the screw to steamers. Ericcson, if we mistake not, was even before Smith in inducing our Admiralty to give their attention to the subject; and had he persevered a little longer he might have superseded all other claimants; for, if we recollect rightly, one opportunity was actually afforded him of trying the screw in presence of an Admiralty agent, but being dissatisfied with the treatment he received, he was said to have left this country in disgust, and went to America, where all his caloric ship experiments were tried.

CHURCHES STRUCK BY LIGHTNING.—On the 11th inst. the cupola which surmounts the steeple of Trinity church, Trinity-square, Southwark, was struck by lightning, and a piece of masonry of at least 1 cwt. thrown against the north-east angle of the church. ——About three o'clock on the same day, St. Mark's, Myddleton-square, was struck by lightning during the thunder-storm. The electricity struck first the vane, and rending off the upper portion of the flagstaff, passed down it to the lead on the roof of the tower, and by it the water-pipe to the earth, which it entered at the base of the tower, breaking and throwing up a flag-stone.

IRON SHIP-BUILDING IN THE CLYDE.—There are now, it is said, thirty iron ship-building establishments on the Clyde, employing an aggregate capital of about two millions, and about 50,000 skilled workmen. There are at present thirty-five iron vessels in course of construction, and only three of wood. Recently, as we have before noted, an iron steamer was lengthened thirty feet, and her capacity for carrying increased 200 tons in fourteen days. Another steamer was cut open in two places to avoid removing the engines and boilers, and thirty-five feet added to her length in twenty-one days.

PUBLIC WORKS IN INDIA.—A paper, by Colonel Cotton, on this subject, was lately read at the Society of Arts, and was followed by a discussion, which was continued at an extra-ordinary meeting held on the 7th inst. when Mr. W. Bridges Adams opened the proceedings by reading a paper on canals and railways in India. Colonel Cotton appears to have maintained that no railways should be made till canal power was exhausted. Mr. Adams urged the advantages of carrying out both simultaneously, the one in aid of the other.

KILKENNY ARCHÆOLOGICAL SOICETY.—The May meeting of the Kilkenny and South-east of Ireland Archæological Society was held in the Assembly-rooms, Tholsel, on Wednesday before last, the Mayor in the chair. The secretary exhibited copies of the proceedings of the Society, in continuation of the January Part, and stated that the March Part was now nearly ready for delivery. He also reported that the last sheet of the Volume of Transactions for 1853, was now in the press, so that all arrears in the Society's publications would be immediately cleared off. Twenty-five new members were elected, and various donations were announced. Several papers on subjects of archæological and historical interest were then read, including one on the Irish Inscriptions at Lismore, by Mr. E. Fitzgerald; another on Sepulchral Vestiges in a Stone Circle, by Mr. Hitchcock; and a continuation of one on the Ecclesiastical Antiquities of Youghal, by the Rev. Samuel Hayman.

PREPARED PEAT AS A SMELTING FUEL.—A week or two since we incidentally expressed a wish that the quality of British iron could be improved, as it would probably be by the use of vegetable fuel instead of mineral, to which the superiority of Swedish and Russian iron is in great measure attributed. Our attention has since been drawn to the importance of the peat bogs of Ireland and Britain, and the compressed fuel thence preparable. Messrs. Gwynne have constructed a powerful turf-pressing machine, which is now at work in their engineering and patent centrifugal pump works at Essex Wharf, Strand. The peat, it appears, can now be taken from the bog, instantly operated on in the drying cylinders, passed to the compressing machine, and turned out a thoroughly dry and perfected fuel of great specific gravity, in the form of a brick, by one continuous and rapid process. This fuel is believed to be effective and economical not only for metallurgic but for steam-engine, domestic, and other uses.

MANCHESTER SCHOOL OF ART.—The annual meeting of the subscribers to this school was held at the Royal Institution, Manchester, on Monday before last. Mr. Thomas Bazley, the president, occupied the chair. The chairman said he had the satisfaction of stating that during the past year the proceedings of the school had been exceedingly gratifying. Differences continued to exist between the Department of Art in London and the committee of this school, but at present were in abeyance. The committee were endeavouring to carry out the suggestions of the Department, being perfectly willing, if any improvement in the affairs of the school could be effected, such should be the result of these suggestions. He could not avoid expressing a wish that instead of requiring elementary knowledge to be given immediately by this school, the Department in London had required that elementary knowledge should be inculcated in other and inferior schools. From the report they would perceive that the school was in a state of financial embarrassment, arising from the changes effected in improving its general state, and consequent, very much, on having removed from unsafe and inadequate premises to that commodious and elegant building. They should require some effort to be made for the purpose of reducing the debt, which now amounted to something like 400*l.* as the prospect of the Government funds which they had been in the habit of receiving was diminished, and they should be dependent much more upon voluntary support than they had hitherto been. The total of the receipts for the past year was 1,309*l.* odd. The total number of students entered on the books had been 721, among whom were 19 architects and builders, 30 house-decorators, 24 artists, 86 designers, &c.; 155 schoolmasters and pupil-teachers, 199 schoolboys and girls, &c. The number of works of art produced had been 3,725, or about six for each pupil.

THE SCOTTISH NATIONAL GALLERIES.—A correspondent of the *Warder* says of the new galleries in Edinburgh,—"There are two suites of rooms internally, with porticoes at either end. The saloons are all of an octagonal form, the central one, which is rather larger than the others, being 43 feet diameter. They are lighted wholly from the roof by cupolas in plain coved ceilings, and communicate with each other by lofty arched openings; so that from the entrance the *coup d'œil* is very striking. Externally, the Ionic order is employed in the four end porticoes of four columns each, and also in the two lateral porticoes of six columns each. There is of course an almost total absence of windows, the bareness of the walls being relieved by antæ, resting on a stylobate of steps, and crowned with a balustrade." The architect is Mr. Playfair. The cost has been about 40,000*l.* exclusive of the site, which the town council of Edinburgh gave gratuitously. The position on the mound, immediately behind the Royal Institution, is not a good one, as we said at the time it was selected. "Looking westward from the North-bridge and the eastern half of Prince's-street, the building in question does interfere very considerably with the view of the rugged Castle-rock, and the vista beyond it, over the west Prince's-street Gardens. And the site is not only objectionable in this respect, but the building itself appears to advantage upon it only from one or two points of view, from the high ground at the head of the Mound it appears quite buried, and its fine southern porticoes are all but unrecognisable."

HYDROSTATIC RAILWAY BREAK.—This invention has been tested on the Hereford and Shrewsbury Railway. To every carriage in the train was appended ordinary breaks. Under each carriage and van was placed a small cylinder, of 4½ inches diameter, with a solid plug or piston, having a stroke of 3 inches. Under the carriage a tube, of one-inch bore, was securely fixed, one end of which entered one side of the cylinder beneath the piston, and the other end the opposite side, so that the cylinder and tube formed one continuous chamber. The termination of the tube at each end of every carriage was enlarged so as to form the matrix of a joint for connecting the separate vehicles. The necessary power for moving the pistons attached to the break-levers is obtained by a tube connected with the boiler. The train was stopped, it is said, when going at the rate of forty miles an hour, in 300 yards; the distance required when the common break apparatus is used being 1,600 yards. It was thought that, by increasing the area of the cylinder under the tender, any train going forty miles an hour might be stopped in 120 yards.

SUBMARINE EXPLORATIONS. — Some long-headed Yankees have been literally shovelling dollars from the bottom of the sea! They have formed an association called the "Nautilus Submarine Company," with machines for submarine exploration, and are now engaged in exploring the wreck of a ship on the coast of Venezuela, where some two to three millions of dollars were lost. The "Nautilus Submarine Company" has a vast and profitable field to work upon. The wreck alluded to lies in 66 feet depth of water, and near it are two other wrecks of vessels, which contained one 50,000 dollars and the other 15,000.

A PANORAMA OF CREATION. — Mr. Atkins, of Oxford, C.E. has prepared for exhibition in the Town Hall, Oxford, a "Panorama of Creation," the materials of which he has long been collecting, and indeed to which allusion, if we mistake not, was some years since made in the journals of the day. Mr. Atkins is said to have taken great care to have the numerous representations of celestial and terrestrial objects faithfully represented, according to the works of the most eminent astronomers, geologists, zoologists, botanists, travellers, and circumnavigators of every age and country. The projector of this new idea was originally, it seems, a factory boy, but by force of character he has elevated himself most meritoriously to a respectable position in society. After acquiring a general knowledge of mechanics, chemistry, and other branches of science, he appears to have chosen the profession of a gas engineer, and is said to have lighted upwards of thirty towns with gas.

INTERCOMMUNICATION IN RAILWAY TRAINS.—On Saturday week a trial of Wickens's invention for effecting a communication between the driver and the guard on a railway train was made on the Windsor train of the South-Western line, in the presence of Lieutenant-Colonel Wynne, railway inspector from the Board of Trade, Mr. E. R. Williams, of the Board of Trade, Mr. J. Beattie, engineer of the line, Dr. Spurgin, Mr. Wickens, and others. The invention is remarkable for its simplicity. The result of the trial was entirely satisfactory. The public will learn with satisfaction that the Government are about to bring in a Bill compelling railway companies to adopt a communication along the trains, by which security from danger may in future be afforded to passengers.

JOINT MEETING OF ARCHITECTURAL AND ARCHÆOLOGICAL SOCIETIES.—The Architectural and Archæological Societies of the Archdeaconry of Northampton, the Diocese of Lincoln, the County of Leicester, and the University of Cambridge, are to hold a public meeting at Peterborough, on Wednesday, May 23rd, when papers will be read "On the History of Croyland Abbey, Saxon Period," by the Ven. Archdeacon Churton; "On Peterborough Cathedral," by the Rev. G. A. Poole; and "On the West Fronts of English Churches, with especial reference to that of Peterborough," by the Rev. Owen W. Davys. Mr. Poole will illustrate his paper within the cathedral. At an evening meeting will be read a paper "On Photography, as applicable to Architecture," by the Rev. F. A. S. Marshall. On Thursday, the 24th, an excursion party will proceed to Peterborough, Thorney, Croyland, &c. and a public meeting will be held at Peterborough in the evening.

SANITARY NOTIFICATION.—Sir Benjamin Hall has very properly issued a circular to the various local authorities, reminding them of the powers they have for the removal of nuisances, and earnestly impresses upon them "that sanitary measures can be more beneficially and more effectually taken now than in the heat of summer, when, perhaps, the epidemic may have reached this country."

THE MANCHESTER WELLINGTON STATUE.—The casting of Mr. Noble's colossal statue of the late Duke of Wellington, to be erected at Manchester, took place lately in London, in the presence of many patrons of art and scientific persons. The weight of metal used was about four tons, and the casting was successfully performed.

ECONOMY IN STREET PAVEMENT.—The Hartlepool Board of Health are about to try artificial stone blocks for stones, prepared under the direction of Mr. F. Morris, the borough surveyor. The composition is the same as that of the blocks used in building the new pier at Hartlepool, the cement being that of Messrs. Aspdin, Ord, and Co. of Gateshead. The blocks are made nine inches in depth by six in thickness. They are chiefly composed of cement and gravel.

THE STUDY OF MOULDINGS.—At a meeting of the Oxford Architectural Society last week, the Hon. H. C. Forbes, M.A. of Oriel College, read a paper "On the Study of Mouldings," in which, after acknowledging the improvement that has recently taken place in church building and restorations, when compared with the churches built twenty or thirty years ago, he desired to impress upon all present the great importance of acquiring a correct knowledge of the details of ecclesiastical workmanship, and urged upon those who were beginning this study to make themselves familiar in the first place with the mouldings of the different styles, inasmuch as they have been rightly called "The Grammar of Architecture," and are by far the most certain, and frequently the only guides in ascertaining the date of a building. Mouldings in use in church architecture are of two kinds,—first, those which are usually called *ornamental* mouldings, as the zig-zag and cable mouldings of Norman churches, the dog-tooth of early English, or the ball flower of decorated; and secondly, those which were alone alluded to in this paper, which also become ornamental from the circumstance of their being used to relieve flat surfaces of masonry by contrasts of light and shade, and were formed by chamfering or cutting off sharp edges, by sinking hollows and so leaving other portions of the stone-work standing out in relief.

"HOME-MADE CHLORIDE OF LIME."— In reference to a paragraph on this subject describing a composition recommended by Professor Nash, "an analytic chemist," states that he has tried the mixture recommended by Professor Nash, but has found that "it is of less value than quicklime alone for sanitary purposes," remarking, that "when lime and chloride of sodium (common salt) are brought together in the presence of water, the chlorine of the latter and the oxygen of the lime mutually change places, with the production of chloride of calcium and caustic soda (Na. O.), the latter immediately attracting water, to form hydrate of soda (H. O. Na. O.), in an equation, thus—Na. Cl. + Ca. O. + H. O. = Ca. Cl. + H. O. Na. O. Neither soda nor chloride of calcium," he adds, "are of the slightest use for deodorising or disinfecting purposes, nor is a mixture of the two of any more value. If sulphuric acid be added to the 'home-made chloride of lime,' it neutralizes the soda, combines with the lime, and disengages hydrochloric acid, which *alone* will not answer the purpose required."

NEW VENTILATOR.—A simple invention by a Mr. Locker, has been placed in the Panopticon of Science, Leicester-square, for regulating the supply of pure air in dwelling-houses. It consists of a double, or telescopic tube, the inner perforated with small apertures, and the external end closed, so that the amount of air is regulated by partially increasing or diminishing the length of the slide.

LINLITHGOW PALACE IMPROVEMENTS.—The plans of Mr. M'Nab, curator of the Edinburgh Botanic Gardens, for the improvement of the grounds belonging to Linlithgow Palace, are now in progress of being carried out under the superintendence of Mr. Smith, a gentleman who, according to the *Falkirk Herald*, is said to have had great experience in such works. Walks have been formed, or are in course of formation, to afford a comfortable promenade to the inhabitants of the town or to visitors. Unsightly hollows have been filled up. A portion of the lake has been cleared of its weeds, thus converting an unsightly marsh into clear water. The margin of the loch, which was irregular without being picturesque, has been smoothed down, and a harbour formed for the boats. A broad walk is being formed round the palace, and a portion of the basement of the most recent wing of the building has been unearthed. A considerable breadth of ground in the south-west corner of the palace park has been trenched and is to be planted, and a broad belt of planting is to be formed round the south-east side of the palace, with the view of ultimately shutting out unsightly backlying portions of the town. Several relics, although none of very great importance, have been discovered in the course of the trenching and excavations which have been made.

A WORD AT THE RIGHT MOMENT. — It is said that when the siege of Sebastopol was commenced, Prince Menschikoff asked the then head engineer how long it would take to put the place in a state of defence? He answered, "Two months." A young captain, named Todleben, whose parents are poor shopkeepers, stepped forward, and said he would undertake to do it, if he had as many men as he required, in two weeks. He did it in twelve days, and is now general, and aide-de-camp to the emperor.

IMPROVEMENTS IN SHIPBUILDING.—There is now upon the stocks at the Navy Yard, Brooklyn, U.S. the frame of a war frigate, the *Niagara*, intended by her builder, Mr. George Steers, to be the strongest and the fleetest of her size and class afloat. She is sharp at the bows, and it is expected that she will sail seventeen miles an hour, under an ordinary press of canvass. Her extreme length is 345 feet, breadth 56 feet, and 31 feet depth of hold from the floor to the under side of spar deck. She is diagonally braced on the outside of her timbers, instead of the inside, with iron, which mode Mr. Steers says will add fifty per cent. to her strength. This way of bracing is said to be entirely new, and the idea original with the builder of the *Niagara*, who says, that inasmuch as a barrel iron-hooped inside is not so strong as one hooped upon the outside, it occurred to him that a vessel upon the principle acting in the case of a barrel must be stronger braced upon the outside of her timbers. The iron braces are 5 inches wide, and ⅝ of an inch thick, running diagonally at an angle of 45° each way, from the port sill over the hull down to within 5 feet of the keel, with all the crossings bolted through and through with large iron bolts. All the clamps, ceilings, and bilge-streaks are coned and bolted edgewise between every timber of the frame.

SLIPPERY PAVEMENT.—Would we, while opportunity admits, use forethought, the public paths of our capital would be without the reproach of being here and there dangerous. Departure from plane where continuousness should be is among the neglects that beset the pedestrian. It may arise from unequal wear of varying species; say, granite and York flag. Dressings of basement windows, or their grated areas, cellars, &c. formed of granite, wear not equally with the less hard York. Attention should timely be paid to the inequality. As example, the finger of warning is pointed to the western exit from the groined passage out of Lincoln's-inn-fields into Great Queen-street, and to some curves in Bow-street, near Long-acre. In winter these little differences, with rounded edges, are frequently the cause of sprain, fall, and fracture. —VINDEX VIARUM.

TENDERS

For the People's Institute, Belper; Mr. W. Wigginton, architect. Quantities supplied:—

Nelson, Dudley	£1,870 0 0
Freeman, Belper (accepted)	1,346 0 0

TO CORRESPONDENTS.

"C. E."—"R. L. S." (thanks)—"C. B."—"J. T."—"B. S. S."—"T. G."—"Messrs. D."—"S. B. H."—"Ratepayer."—"C. P. R."—"J. H."—"Excelsior."—"H. J. B. N."—"S. F."—"B. B."—"W. P."—"Holders of Small Houses."—"R. S."—"C. M."—"A. F. A."—"J. S." (the charge must depend on circumstances: above a certain amount, five per cent is not an unusual charge).

ERRATUM. By an accident at press, the engraving of one of the baluster columns in St. Alban's Abbey Church, in our last, p. 217, was reversed, as the majority of our readers have doubtless observed for themselves.

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE. — All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO BUILDERS, CARPENTERS, COACH BUILDERS, PIANOFORTE MAKERS, and Others.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 42, Union-street, Somers Town, on MONDAY, MAY 22, at TWELVE precisely, about 3,000 PLANKS, DEALS, and BATTENS, 12feet wide pine board, mahogany in planks and board, prepared flooring, scantling, dry cut stuff, scaffolding, folders, harrows, and other useful stock. May be viewed on Saturday prior to the sale, and catalogues had on the Premises, and of the Auctioneer, Cardington-street, Hampstead-road, near the Euston-station.

TO BUILDERS AND OTHERS—FINSBURY.

MR. F. G. DEBENHAM will SELL by AUCTION, on the PREMISES Crown-street, Finsbury, on TUESDAY next, MAY 23rd, at TWELVE o'clock, in lots, the MATERIALS of FIVE HOUSES, known as the "Parish Almshouses," including good stock bricks, plain tiles, timber in roofs and floors, lead gutters and pipes, doors and sashes, wainscot panelling, and valuable oak carving in the hall; a large quantity of excellent Purbeck squares, 170 feet run of ornamental iron palisading with Portland-stone coping, and numerous useful lots. May be viewed, and Catalogues had on the Premises, and at Mr. DEBENHAM'S Auction and Estate Agency Offices, 90, Cheapside.

Superior Chimney-pieces of Statuary Marble; some richly sculptured, and of Dove and Vein Marble, in great variety.

MESSRS. ROBINS will SELL by AUCTION at their ROOMS, Great Pierrepoint, Covent Garden, on TUESDAY next, MAY 23, at TWELVE, STATUARY MARBLE CHIMNEY-PIECES, some richly sculptured, suitable for first-class drawing rooms; others of a less expensive character, with trusses, Black and Sicily Marble, for dining-rooms and libraries. Several of Dove and Sienna Marble, and a great variety of Vein Marble, of smaller size. Now on view, at the Auction Rooms in Covent Garden.

CAMP, ALDERSHOTT.—Freehold and Tithe-free valuable Building Land, intersecting the Camping Ground, in the parish of Ash, in the county of Surrey, will be SOLD by AUCTION, by

MR. BOULTER, at the ROW-BARGE INN, Aldershott, on THURSDAY, the 7th day of JUNE, 1855, at THREE o'clock in the Afternoon, in Forty-two Lots. The lots have frontages to good roads, are situate within two miles of the Farnborough station, and a mile of the Ash station of the Reading and Reigate Railway, and of the Guildford, Farnham, and Alton Branch of the London and South-Western Railway, and abutting upon the Basingstoke-canal.—Printed particulars, with Lithographic plans, may be obtained on application to Mr. BOULTER, 4, Beaufort buildings, Strand, and of the Auctioneer, at Frimley, and the British Flag Refreshment Hut, the Camp, Aldershott.

TO WORKING ENGINEERS AND MACHINISTS, SMITHS, AND OTHERS.

MR. SITGRAVE will SELL by AUCTION, on TUESDAY, MAY 22, at TWELVE, at his Rooms, 28, Lendenhall-street, the TOOLS, IMPLEMENTS, &c. of a WORKING ENGINEER and MACHINIST, comprising one four-feet six-inch and one two-feet six-inch iron-bed lathes, a twelve-feet and a six-feet wood-bed ditto, boring-machine and bits, four feet slide-rest, stocks and dies, screw-in-block, portable forge, pair of bellows, grindstone, in iron frame, vices, anvils, forge tools, and a variety of other useful tools and effects.—May be viewed on Monday, and Catalogues had at the Rooms.

A CIVIL ENGINEER in the country, with an extensive practice in Engineering and Architectural Works, consisting of railways, water-works, sewerage, public buildings, large surveys, valuations, &c. &c. has a VACANCY for TWO PUPILS. Young gentlemen having a knowledge of architectural or engineering drawing, will be taken on very moderate terms.—Applications to be addressed to F. B. L. care of Mr. Baker, 244, High Holborn.

AN ARCHITECT wishes for an ASSISTANT who is acquainted with Church Details and Practical Architecture. References are required on these points, and none need apply who are not prepared to give them.—Address, stating terms and references, to V. N. care of Messrs. Cartwright, Law Stationers, Brownlow-street, Bedford-row.

TO PARENTS AND GUARDIANS.

AN opportunity presents itself of apprenticing a YOUTH (outdoor), to a Grainer. A moderate premium required.—Address, C. WILLIAMS, 8, Palace-row, St Pancras.

TO PARENTS AND GUARDIANS.

A VACANCY occurs in a Surveyor's Office for a well-educated YOUTH as PUPIL (if required, he could board with the family). A moderate premium required.—Apply, J. S at Mr Benetfink's, 89, Cheapside, City.

PUPIL WANTED.—A Sculptor and Carver in Marble, Stone, and Wood, in the country. Author of Two Works on Design, is desirous of taking a respectable Youth as an APPRENTICE. Premium moderate, and progressive salary after the second year.—Apply to ALPHA, care of Mr. Batsford, 52, High Holborn, London.

STOVE-GRATE TRADE.—WANTED, a SALESMAN of first-rate ability, who has had experience with and to call upon respectable builders and ironmongers. Good salary will be paid to a gentlemanly man of sterling character and ability; preference given to one who knows the trade.—Address, post paid, stating age and previous employers, to R F. and CO. care of Mr. Jones, 17, Clement's-lane, City.

TO PLUMBERS AND GRAINERS.

WANTED, for a constant situation, a THREE-BRANCH HAND. One who can undertake graining preferred Also wanted, a Grainer and Writer.—Address R. L. care of Mr. Canburn, 4, Essex-place, Camberwell.

TO CLERKS OF WORKS.

WANTED, immediately, a CLERK of the WORKS, to Superintend the Erection of Spring Hill College, Birmingham None need apply who are not thoroughly conversant with Gothic detail.—Apply, by letter only, to the Architect, Mr. JOSEPH JAMES, 15, Furnival's-inn, London.

WANTED, by a Builder in the Country, a WORKING FOREMAN, who can make plain and working drawings, and take out quantities. Apply to Mr. BUSH, Architect and Surveyor, 13, Clifford-street, Bond-street.

TO GRAINERS AND WRITERS.

WANTED for a permanency, a superior WORKMAN in the above branches, a married man preferred; good references required.—Apply to A. Z. Post-office, Warminster.

TO ARCHITECTURAL DRAUGHTSMEN.

WANTED, an experienced ASSISTANT, for a permanency, one with a good knowledge of design, perspective, and the general routine of provincial practice. State salary expected, reference, and address, THOMAS W. PENSON, The Bars, Chester.

BOROUGH OF BOLTON.—TO PAVIORS.

WANTED immediately, a WORKING FOREMAN of PAVIORS None but a first rate, steady workman, who can read and write, need apply. Wages, five shillings per diem.—Address, in applicant's own writing, to HENRY HAYLIS, Borough Surveyor, Bolton. May 12-b, 1855.

WANTED immediately, a Practical Shop FOREMAN. Unexceptionable references required.—Address, stating full particulars, and salary expected, to D. C. Office of "The Builder." No applications received after TUESDAY, the 22nd instant.

WANTED, a FOREMAN, in a Plumbing, Glazing, and Gas-Fitting establishment. None need apply unless they are practically acquainted with the trade.—Apply, by letter, or personally, to Mr. W. F. GIBSON, Long-row No. Ilngham.

TO BUILDERS AND PLUMBERS.

WANTED, by the Advertiser, a Permanent SITUATION as PLUMBER and GASFITTER, who also has a good knowledge of fixing up hot-water apparatus for heating baths and houses.—Direct to C. W. Office of "The Builder."

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WANTED, by a middle-aged person, a SITUATION as SUPERINTENDENT of WORKS, or GENERAL FOREMAN, who has been many years engaged in carving out ex ensive works: no objection to the country; can furnish the first of testimonials, &c.—Address, X. Y. Post-office, Stoke Newington.

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WANTED, by a Man of experience, a SITUATION as FOREMAN to a CARPENTER. Address, A. S. 11, Draycott-street, Chelsea.

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WANTED, by a Respectable Young Man, who has been some years in a Builder's Office, a SITUATION as CLERK in a Builder's, or any other office connected with the building trade. Can be well recommended by his late employers. Salary not so much an object as a benefitting engagement.—Address, D. E. No. 35, Felix-terrace, Liverpool-road, Islington.

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A YOUTH, aged 16, strong and healthy; has been two years in the above line; his parents wish to put him to a master for four or five years, to perfect him in all the branches of the building trade, as an IN-DOOR APPRENTICE. A small premium only will be given. The country preferred.—Address, A. B. Lovelace's Library, New Bexley, Kent.

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A YOUNG MAN, a good writer, with a knowledge of builders' accounts, and who has served his time with an architect and surveyor, is desirous of obtaining EMPLOYMENT in a Builder's Office.—Apply to A. C. 5, Nottingham-street, New-road.

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Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

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1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

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Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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FOR FACTORIES, WORKSHOPS, GREENHOUSES, STABLES, FARM BUILDINGS, &c. &c.

The Inventor solicits an inspection of the above at his POTTERY and DRAIN PIPE WORKS, Kingston-Hill, where orders to any extent can now be received. The Ventilators are extremely simple in construction, and can be made of any size or shape, in Pottery, Metal, or other Material. They admit fresh air without the slightest draught, can be regulated with perfect ease, and are not a third the cost of any other arrangement for the purpose hitherto introduced.

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In order to supply the deficiency which has hitherto existed in Furniture suitable for the many Mansions that have been erected or restored in the MEDIÆVAL STYLES, Messrs. CRACE have directed their particular attention to this subject, in addition to their other works, and have prepared appropriate specimens in the various branches of Furnishing.

STUFFS for HANGINGS, in simple Worsted Damask, in Silk; also in Tapestry of Bauderkin.
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PAPER HANGINGS of various kinds.
OAK CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and appropriate Furniture

The whole of the above-mentioned Furniture, &c is designed by the late Mr A. W. PUGIN, Architect.

To render this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with it ancient character.

14, Wigmore-street, January, 1855.

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INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths Price ONE PENNY per Square Foot.

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CHEAP AND DURABLE ROOFING.

By Her Majesty's Royal Letters Patent.

F. McNEILL and CO. of LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON, Manufacturers and only Patentees of

THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronized by

HER MAJESTY'S WOODS AND FORESTS,
HER MAJESTY'S COMMISSION OF CUSTOMS,
HONOURABLE EAST-INDIA COMPANY,
HONOURABLE BOARD OF ORDNANCE,
HER MAJESTY'S ESTATE, ISLE OF WIGHT,
ROYAL BOTANICAL GARDENS, REGENT'S PARK,

And by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under slates at the Royal Agricultural Society's House, in Hanover-square. Its advantages are lightness, warmth, durability, and economy It is impervious to rain, snow, and frost, and a non-conductor of heat and sound The Felt can be cut to any length, by 22 inches wide. The price is only ONE PENNY PER SQUARE FOOT Samples, with full directions as to its use and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen and Gentlemen who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Boilers, &c. is also manufactured, by which a saving of about 25 per cent in fuel is effected The TRADE are respectfully enjoined to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their roofs They are likewise CAUTIONED AGAINST MISREPRESENTATION as to their works in Great Britain where the above roofing is made are F. McNEILL and Co.'s Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW. Roofs covered with the Felt to be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and others leading to Westminster Hall, and other buildings at the New Houses of Parliament. A Liberal Discount allowed to the Trade

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now-much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.
The Warehouse, 99, Hatton-garden, London.
" 45, Piccadilly, Manchester.
Messrs. C. and J. Malloch, 30, Turner's-court, Glasgow.
" John Dix and Co. Bath-street, Bristol.
" Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ⅜ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe Waste, Zinc, Lead, Iron and Brass Pumps Water closet Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 37, Bishopsgate-street, London. Established more than 100 years.

STAINED GLASS WORKS, 32, Allsop-terrace, New-road, near Baker-street, London. — Messrs. GIBBS beg to announce to Architects and Builders that they have removed their old established Stained Glass Works, from No. 2, Harmood-place, Camden-town, to the above address, where business will be continued the same as usual. N.B. Stained Glass Designs and Estimates given for Ecclesiastical and Domestic purposes.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 296, Oxford street.

The Managers respectfully Architects, Builders, Glaziers, &c that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS HARTLEY'S PATENT ROUGH PLATE COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen
Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.
Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot.
Crown or Sheet Squares, in 100 feet boxes, 2½. per foot
Sashes Painted and Glazed, 1d. per foot
All kinds of Ancient, Horticultural Architectural, Domestic, Sculptured and Ornamental Glass, at wholesale prices.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 16 oz. Sheet Glass, imported, from 2½ per foot; CCC Crown, 18 tables, 32s per case; Foreign Sheet Glass, in cases of 200 feet each, large sizes 38s. 6s and 42s per case; Rough ditto, 4½ per foot. Extensive stock of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Prince's street, Leicester-square London

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 315, OXFORD-STREET.

CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d. 6d. and 8½. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate In cases of 200 and 400 feet each, at 4d. 6d and 8d. per foot; sizes varying from 24 by 16 to 40 by 28 Also Foreign Glass of various tints made expressly for CATHEDRAL and CHURCH purposes G FARMILOE and SON, 118, St. John-street, West Smithfield, London.

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence, Shop-front Builder and Manufacturing Joiner. 1¼ and 1½ four-panel doors from 6s. each; 1½ sashes and frames from 7d. per foot; 2 inch ditto from 8d Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

JAMES RHODES, No. 6, Macclesfield-street North, City-road, London, Manufacturer of Sashes, and Frames, Doors, &c. and every description of House Joinery. Glazed goods securely packed for the country. Prices on application at the Counting-house, as above N.B. This is the cheapest manufactory in London, and well deserving the attention of all engaged in building.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned. Workshops, 100, Broadwall.

THOMAS EARP, Figure and General Architectural Stone and Wood Carver, 28, Homer-street, Hercules-buildings, Lambeth.—Altars, Reredos, Fonts, Pulpits, Screens, Cabinets, Chimneypieces, Monuments, &c. Churches and other Buildings carved in Gothic, Elizabethan, and Italian styles.

CHINA and OPAQUE PORCELAIN DOOR and BELL FURNITURE, SIGN-BOARD LETTERS, &c. &c Decorated in every style of ornamentation, can be promptly supplied from the extensive stock kept at THOMAS, JOHN, and JOS. MAYER'S Warehouse, No. 2, Pancras-lane, Queen-street, London.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 6s. per square yard Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed. Apply to Messrs. WRIGHT and BROWN, 33, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834 Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 3s. per ton. Importer of Trinidad Asphalte.

Shipping Depôt, Devon Raytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PICKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

THE ALBERT ASSURANCE COMPANY.
Established in 1838.

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square. W. S. VARDY, Manager.

HOUSEHOLDERS and GENERAL LIFE ASSURANCE COMPANY, 15 and 16, Adam-street, Adelphi.

Money received at interest at 5 per cent. per annum, payable in April and October.

Agents (with references) may apply.
R. HODSON, Secretary.

SECURITY TO EMPLOYERS.

THE TIMES ASSURANCE COMPANIES.
To Clerks and others guarantees at the lowest rates.
Plate Glass Assurance.—Windows, mirrors, &c. insured against breakage.
Every description of life and fire assurance.
Apply to the Manager, 32, Ludgate-hill.

LOANS GRANTED.

LONDON EXCHANGE ADVANCE FUND, 2, Adelphi-terrace, Strand, facing the river.
TRUSTEES.
The Hon. R. Rowley. Sir E. Graham, Bart.

10l. to 1,000l. advanced on personal or other security. Bills of exchange cashed. Five per cent. interest on deposits payable in January and July. Forms forwarded on receipt of twelve postage stamps.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in oil; also for Plaster Decorations, and where it is used with PATENT. And if not so married, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and Co.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham court, New-road. In Manchester and Liverpool by R. CLAY, S, Merrey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting shins, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and Co. Timber-bush; and in Southampton, by Mr. H J. BUCHAN. Dry OXIDES & d PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—6, South Wharf, Paddington. CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its unrivalled hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. This Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Plastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. ACCURATE COMPARATIVE EXPERIMENTS on the strength of this and other Cements to be seen at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no coloring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seed-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days, FRANCIS, BROTHERS, Manufacturers of Roman, Parian under patent, and all other Cements in use for building purposes, Pine Rims, London.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland Cement is manufactured at these works with special reference to its destination, whether for stuccoing, brick work, blocks for breakwaters, tidal work, or otherwise. London Wharf, Belvedere-road, Lambeth.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Baths, Slates and Slate Slabs Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

FRONTS of HOUSES.—GREENE and CO.'S PORTLAND CEMENT WASH, equal to oil paint for durability in stucks, 1 cwt. for 10s.

DAMP WALLS.—GREENE and CO.'S OXIDE SOLUTION PAINT, a sure and effectual remedy for damp, salt, or spotted walls, 1 gallon per gallon, which will cover 200 square feet.—Prepared only by GREENE and CO Original Inventors, 22, Norfolk-street, Islington.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. D. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent—N B. These Cements supplied for shipment, on advantageous terms.

ROMAN and PORTLAND CEMENT of the first quality manufactured at the ELMLEY CEMENT WORKS, Isle of Sheppey, Kent; also, STOCK and KILN BURNT BRICKS, hand-moulded, and machine, made for shipping or otherwise.—Apply to G. BOOTH, Agent, 11, George-yard, Lombard-street, City.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.

CHARLES RICHARDSON, 6 South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire floors.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, TAVERS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855. CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or along-side rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns Woulfham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

KENNARD, BROTHERS, beg to submit to Builders and Others, their cash prices for Lime of best quality:—Grey Stone Lime, 9s. per yard; Do. delivered four miles, 11s. do.; Chalk Lime, 8s. do.; Do. delivered one mile, 9s. do.; Do. delivered four miles, 10s. do.; White Flare Lime, very superior for plastering and gas works, 9s. do.; Do. delivered one mile, 10s. do.; Do. four miles, 11s. do.—A fresh supply by London and Brighton Railway daily. Office, Swan-place, Old Kent-road.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT. L. B PEARSE and CO Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D earnestly requests purchasers to favour him with a visit, in order to inspect his stock and to judge for themselves

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton

N.B. Light-coloured Pitband of approved quality, constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

STONE-COLOUR BRICKS, moulded to any pattern, for cornices, copings, labels, &c.; at about one third the cost of stone; also ornamental ridge and other tiles; may be had to order of Messrs. HOOPER and CO. 2, Portland-street, Southampton.—Illustrated list of prices or samples forwarded on application.

TO BUILDERS AND CONTRACTORS.

A LARGE quantity of superior quality GREY STOCK BRICKS on SALE, from Higgin's Crown Quay Fields Sittingbourne, Kent, delivered alongside in the river Thames, or into vessels for the West Coast, on low terms. Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Rise Tiles, Sanitary Pipes, & Staffordshire Fire Bricks, &c. of all descriptions, and of best quality.—Would and Nash, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59, Nelson square, Blackfriars-road.

BRICK MOULDS (Improved) steel-faced stocks and plates with regulating screw pegs, used three seasons by the leading brickmakers. References where in use. Bowls, Hoes, Curkholds, Pug Mills, Millwork, &c.—J LEACH, Millwright and Manufacturer, 26, Critchill-place, New North-road, Hoxton—N B. Moulds of various sizes kept on hand.

WHITE SUFFOLK and RED FACING BRICKS COWLEY, KENT, and ESSEX BRICKS. Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c. KENTISH RAG-STONE of the FINEST QUALITY. MILLS and PRICE (successors to Mr. Benjamin Gough), 3, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.: Grey Stocks, 24s. per thousand; Gravesies, 28s. per thousand; Rough Stocks, 20s.; Place, 16s. Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

600,000 BRICKS.—For SALE, a first-rate quantity of kiln-made BRICKS.—For price, &c apply to Mr. CHANDLER, North Brick Yard, Turner's-hill, near Crawley, Sussex.

350,000 hard-burnt, RED TUBULAR BRICKS, in one or more lots. They are stronger than the ordinary bricks, and for fire-proof or other buildings requiring strong and dry walls, they will be found worthy of early attention. To be SOLD at a very moderate price. Apply to J. S NORTON, Brick and Tile Machine Maker, Union-Works, New Park street, near Southwark-bridge.

PERFORATED SUFFOLK BRICKS.—THOMAS FOX and BROTHERS, Brick Depôt, Devonshire-street Station, Eastern Counties Railway.—Perforated Bricks, mixed, 30s.; best White, 38s. per thousand. Solid White and Cutters, 45s. to 60s. per thousand. T. F. and Brothers direct particular attention to their Patent Perforated Bricks, which are full sized (9x4½x3 inches), perfectly sound, and allowed to be the best in the London market.

TO BRICKLAYERS, GAS COMPANIES, WORKING CHEMISTS, AND OTHERS.

FIRE BRICKS, LUMP, TILE, CLAYS, &c. in Stourbridge, Welsh, Newcastle, &c. at COST PRICES; the remaining Stock at Hondurus Wharf, Bankside, Southwark, WILL BE SOLD, to clear the premises by Midsummer.

A large quantity of Best Dutch Clinkers.

TO BUILDERS, SPECULATORS, and OTHERS.—TO BE SOLD for cash or approved bills, ONE MILLION of STOCK BRICKS. They are situate three miles west of the Marble Arch.—Apply to Mr. JAMES TOLEMAN, 170, Goswell street.

TO BUILDERS, CONTRACTORS, &c.

THE LONDON PATENT BRICK COMPANY have a STOCK of BRICKS for SALE.—For price and particulars apply at the Office, No. 8, Old Jewry.

JOHN A F. DUFF, Secretary.

Contracts entered into for a regular supply of Bricks.

GLOBE-TOWN BRICKFIELDS, within one minute's walk of Bethnal-green.—A large quantity of light coloured PIT SAND, of excellent quality, on SALE, ready for use. Apply to SAM EMSLEY, for large quantities; or to the Foreman, JOHN SARGENT, on the Premises.

BRICK-MAKING MACHINES.—TO CONTRACTORS, BRICK AND TILE MAKERS, AND EXPORTERS.

ATLAS WORKS.

CLAYTON'S PATENTS, patronized by H.R.H. Prince Albert.

CLAYTON'S PATENT BRICK-MAKING MACHINES offer a most important and profitable investment.

CLAYTON'S PATENT BRICK MACHINE (of which there are now upwards of forty in use) is worked by one horse, by steam or water power, and combines the whole process of pugging the clay and making the bricks at one time. Awarded the prize medal at the Great Exhibition at Amsterdam, Nov. 1853.

CLAYTON'S PATENT CLAY SCREENS, for cleansing clay from stones, roots, &c.

CLAYTON'S PATENT TILE, PIPE, and HOLLOW-BRICK MACHINES, of various sizes and construction.

CLAYTON'S PATENT BRICK or TILE-PRESSING or MOULDING MACHINES.

CLAYTON'S PATENT DIES, for the manufacture of socketing sewerage pipes

CLAYTON'S PUGGING MILLS, of various sizes and construction, for tile clay, brick earth, mortar, &c.

And every article connected with the brick, tile, and pottery trades.

The above machines may be inspected, and illustrated catalogues obtained, at the Manufactory, Atlas Works, Upper Park-place, Dorset-square, London.

TESTIMONIAL.

"Haslingden, near Manchester, Dec. 8, 1854.

"SIR,—Several kilns of bricks made by your machines have been burnt, and I have great pleasure in informing you that they are as good as can be desired. They are in all respects superior to hand-made bricks, and command a much better price. Your machines are simple and efficient implements. I have sent you a few bricks for a sample, which I hope you have received.—I remain, yours very truly,

"Mr Clayton, London." "RAWSTHORNE."

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Cornices for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at the Warehouses, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES" of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 65s. 6d. per 1,000; 9-inch paving, at 60s. per 1,000; 8-inch paving, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

ONE THOUSAND BEDSTEADS to CHOOSE FROM.—HEAL & SON have just erected extensive Premises, which enable them to keep upwards of One Thousand Bedsteads in stock. One Hundred and Fifty of which are fitted for fireproof, comprise every variety of Brass, Wood, and Iron, with Chintz and Damask Furnitures, complete. Their new warerooms also contain an assortment of BED-ROOM FURNITURE, which comprises every requisite, from the plainest Japanned Deal for Servants' Rooms, to the newest and most tasteful designs in Mahogany and other Woods. The whole warranted of the soundest and best manufacture. HEAL & SON'S ILLUSTRATED CATALOGUE of BEDSTEADS and PRICED LIST of BEDDING, sent free by post.—HEAL & SON, 196, Tottenham Court-road.

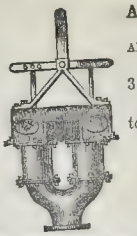
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11, 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, large, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



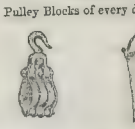
AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

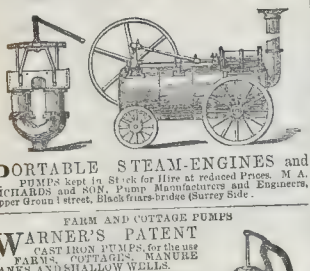
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.



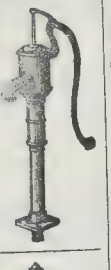
PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground Street, Blackfriars-bridge (Surrey Side.

FARM AND COTTAGE PUMPS

WARNER'S PATENT

CAST IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump..... £1 12 0
Patent Pump, with 16 feet of lead pipe attached, and bolts and nuts ready for fixing..... 2 12 0
Larger sizes if required.



The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET,
LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, fitted by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

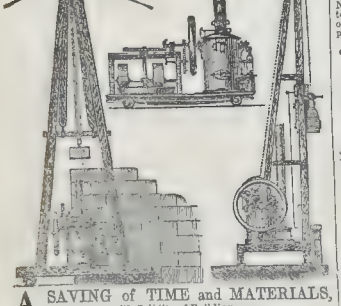
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



A SAVING of TIME and MATERIALS, with Solidity of Building.

HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

"Railway Contractor's Office, Wellington, Salop.
"December 1, 1853.

"DEAR SIR,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Pacific Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although for weeks the fire has never been out, we have no stoppage for repairs.

"We remain, dear sir, yours most faithfully.

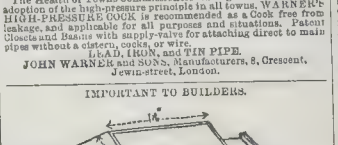
"Mr. Gough." "DICKSON and McKENZIE."

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20 horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work. Apply to Messrs. MEDWIN, HALL, and Co. Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

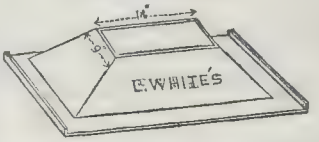


The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

IMPORTANT TO BUILDERS.



REGISTERED CAST-IRON CHIMNEY-HOPPER and CHIMNEY-BAR COMBINED, ensuring a perfect formation of the Flue, and rendering smoky chimneys impossible. One trial will cause their adoption in every building. Price from 8s. 6d. each, according to size.

IRON GIRDERS and COLUMNS to MODEL or DRAWING.

IRON PIPES and connections for gas, water, and liquid manure.

RAIN-WATER PIPE and EAVE GUTTERS, at wholesale prices. Also, O G Gutters, Sash-weights, STABLE FITTINGS, pumps, tomb railing, cattle and pig troughs, and COLUMNS with caps and bases, and every kind of Iron for castings, in stock, at LYNCH WHITE'S Iron Wharf, Upper Ground street, London, near Blackfriars-bridge.

GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of this tubing, the Gutta Percha Company have pleasure in drawing attention to the following letter received from Mr. C. Hacker, surveyor to the Duke of Bedford:—"Office of Works, Woburn-park, Jan. 1, 1852.—In answer to your inquiries respecting the gutta percha tubing for pump suctions, I find that the water has not affected it in the least, although it will eat lead through in two years; we have adopted it largely, both on account of being cheaper than lead, much easier fixed, and a more perfect job. Yours, &c. C. Hacker." N.B. The Company's Illustrated Circulars, containing instructions to plumbers for joining tubes, lining tanks, &c. will be forwarded on the receipt of three postage stamps.—The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

REDUCED PRICES.—EDWARD SIMM(late William Cleaver), of Wilton road, Pimlico Basin, b to acquaint Builders and the Trade that he has now on hand at his Manufactory (the first of its kind ever established), a ver large Assortment of Dry and well-seasoned OAK and DEA PREPARED FLOORING BOARDS and MATCH BOARDIN of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel widt and thickness, and at greatly Reduced Prices. Also, Timbe Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared b Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave Flooring Manufactory, Wilton-road, Pimlico Basin.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention o buyers to the still further reduction, owing to the recent flu tuations.

Pine Planks, 12 ft. 3 in. by 11 in.....	from	3s. 6d. each.
Spruce Deals.....	"	2s. 9d. "
Yellow ditto.....	"	4s. 0d. "
Honduras Mahogany.....	"	0s. 6d. per foot.
Spanish ditto.....	"	0s. 7d. "
Oak Staves.....	"	2s. 0d. each.

Prepared Flooring, Veneers, &c. at equally low prices. Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

IMPROVEMENT in WOOD MOULDING J. SIMMONS'S improved Wood MOULDINGS acknowledged by all who have tried them to be the best ever p duced by machinery. J. S. in returning thanks to his friends a customers for the liberal patronage already bestowed upon hi begs to call their attention to his large stock of Mouldings now hand, feeling assured that one trial will insure a continuance their favours. Price lists can be obtained on personal applicatio or by letter, enclosing six postage stamps, the cost of postage Steam Works, 20, North Wharf-road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stee Chimney-pieces, at prices lower than any House in London.

ALFRED ROSLING begs to inform Customers and the Building Trade generally, that he enabled to allow a discount of 15 per cent. upon his flat prices Mouldings—A large stock of dry Boards at low prices.—Sou wark-bridge Wharf, Bankside.

TIMBER and DEAL YARD.—A lar CONSIGNMENT of PREPARED FLOORS DEALS, BATTENS, &c. for SALE on COMMISSION, at v low prices for cash. Timber Deals, &c. received for Sale on C mission. THOMPSON and HOLMES, W. 3 and 4 Stone Brok the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxh bridge.

ACORN TIMBER WHARF and SAW MILLS.

GRAND SURREY CANAL, OLD KENT-ROAD.—The extensive Waterside Premises Improved Sawing Machinery Drying Warehouses, with a supply of all kinds of Foreign W direct from the importers, enable engagements to select from on the largest stocks in London, at the lowest prices for cash.

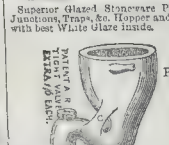
The Monthly Price Current forwarded on application RICHARD MAY informs building public that Americ Pine and Spruce are cheaper, and Baltic goods are scarce.

VENEER SAWS.—For SALE by PRIVA CONTRACT, 6 feet, 10 feet, and 12 feet diameter.—A to Messrs. FULLER and HORSEY, Billiter-street, City.

STAINING DEAL TO IMITATE A KINDS of WOODS. It requires NO SIZING, and will st the exposure to the weather. Price 8s. per gallon. Varnishe W. NAYLOR'S Stains may be had at the Factory, 4a, Ja street, Oxford-street; also Manufacturer of Improved Knot and Decorative Varnishes.

VARNISH.—BEST OAK, 8s. 6d. per Gall in quantities not less than two gallons, at C. LEFTWIC Lead, Glass, and Colour Warehouse, 31, Munster-street, Regen park.—A large quantity of PAPER-HANGINGS, CHE 13s. per cwt given for old lead.

Superior Glazed Stoneware Pipes, Bends Junctions, Traps, &c. Hopper and other Pans with best White Glaze inside.



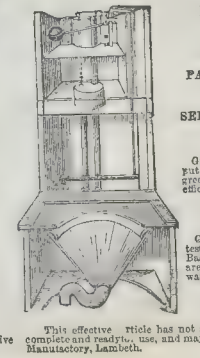
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin, the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective Article has not any Crank or Wire to get out of order, and complete and ready to use, and may be seen in operation at STEPHEN GRE Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BAS

AND

SELF-ACTING CLOSET CONNECTI

Oxford, November,

GENTLEMEN,—Sixteen of your Closets havin put into operation at Christ Church Colleges, great pleasure in giving you my testimony as t efficiency and simplicity.

HENRY J. UNDERWOOD, Archit
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24,

GENTLEMEN, I have much pleasure in giv testimony in favour of your Patent Syphon Flu Basin, with Self-acting Closet Connections. are several fixed here, which have been in use wards of twelve months, giving perfect satisfac

I am, Gentlemen,
Your obedient Servant
WILLIAM CARTWRIG

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

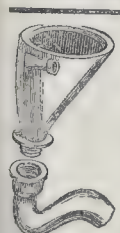
STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kings-road, Camden New Town; J. TURNER, 3, South Wharf, Paddington; COLWILL, Brothers, 33, Bryanston-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

REDUCTION IN THE PRICE OF CLOSET-PANS.



DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

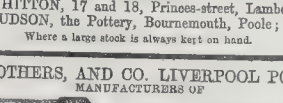
Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.
CLOSET-PANS AND TRAPS, 5s. 6d. EACH.
AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW	J. A. Mathieson, Hope-street.	WIGAN	James Fairclough, King-street.
DUBLIN	Robt. Lovell, Poolbeg-street.	KENDAL	Robt. Thompson.
CORK	J. and J. Harley	CARLISLE	C. Armstrong, Lowther-street
WATERFORD	J. Sparrow and Co	WHITEHAVEN	Hugh Todhunter.
CARNARVON	Jno. Jackson.	COCKERMOUTH	John Bird.
PRESTON	J. Armstead, Hudson-street.	GUERNSEY	Guerin, Brothers.
CHORLEY	Thomas Saville	LONDONDERRY	W. and A. M'Elwee.
BLACKBURN	W. Hopwood, Clayton-street.	LIMERICK	W. Burgess and Sons.

ISAAC PARRY'S

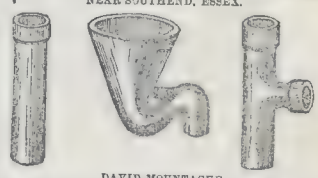
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT,
ESTABLISHED UPWARDS OF 100 YEARS.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 23, Old Fish-street, near St Paul's, London.
Crown Glass, 18 tables, 30s. per Crate.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. The wares allowed by all to be of the best manufacture, by the unparalled quality, combined with cheapness, as will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co, Great Northern-wharf, York-road, Kings-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet pans, Jars, Bottles, and every article in fine Ware on advantageous terms. Also MANUFACTURER of Portland Roman Cement and Plaster of Paris at Orchard House, Bishopsgate-street. Orders executed from the above places, from Falcon-wharf, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stepney.

SUPERIOR GLAZED STONEWARE

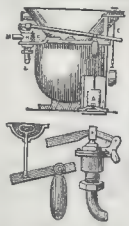
DRAIN PIPES, as wanted and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14,
VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has competed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering it impossible in the drains to absorb.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse shoe Wharf, No. 6, Upper Thames-street. Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith. —J. Corbet's Depôt, Britten-street, Chelsea: and at the Pottery.



UNDERHAY'S PATENT REGULATOR CLOSETS, for constant or intermitting supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stool-valves are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

Manufactured by
CHARLES BOTTEN and SON,
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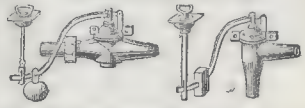
LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 50 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured (solely by the Patentees,
THOS. LAMBERT and SON,
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PURE WATER, for manufacturing purposes,

May be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the stone and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

SALES BY AUCTION.

The Enmore Park Estate, comprising about Thirty-three Acres of Building Land, beautifully situate, at Woodside, between Norwood and Addington in the county of Surrey

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the MART, in the month of JUNE, in one or more lots, a valuable FREEHOLD PROPERTY, land tax redeemed, and free of great tithe, consisting of about thirty-three acres of most eligible building land, commanding very extensive views of the distant and immediate picturesque scenery, the Crystal Palace, &c. It is approached from the high road from the Norwood Station, from which it is only a short distance. Three principal roads (40 feet wide) have already been formed, extending through the land to Woodside green on which there is a very considerable frontage, but there is full scope for the formation of others to create frontages to a much greater extent. The farm cottage, stabling, &c. fronting the green will be included in the sale. There are two churches in the vicinity. A plentiful supply of spring water is already on the premises, and the pipes of the Thames Ditton Water Company are laid within 300 yards of the estate. In the hands of a building society or capitalist this property offers attractions of no ordinary character. The estate can be viewed upon application at the cottage. Printed particulars, with plans annexed, may be obtained twenty one days previous to the day of sale, which will be shortly announced, of Messrs. DRUMMOND, ROBINSON, and TILL, Solicitors, Messrs. BLAKE, Auctioneers; and at the Greyhound Inn, in Croydon; at the Windmill Inn, St. James's-road, Croydon; the Jolly Sailor and White Lion Inns, at Norwood; the Crooked Billet, Penge; the Greyhound, Dulwich; and, in London, at the Place of Sale; of Mr. DRAPER, Globe Tavern, Hatton-garden; and of Messrs WINSTANLEY, Land and Estate Agents, 10, Paternoster-row.

SURREY, about four miles from the City.—An important Tract of Freehold Building Land, comprising about 100 acres. Also, 66 Freehold Houses and Cottages, Nursery Ground, Public-house, &c. of the value of 1,800*l.* per annum, the principal portion of which will come into possession in about ten years.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the MART, near the Bank of England, on WEDNESDAY, the 20th day of JUNE, in numerous lots, unless sold in three lots, about 100 acres of eligible FREEHOLD BUILDING LAND, beautifully situate at East Dulwich, in the parish of St. Giles, Camberwell, in the county of Surrey, possessing a frontage of 4,000 feet to the high road from Goose-green to Forest-hill, Sydenham, and the Crystal Palace, and opposite to lands belonging to Dulwich College. There are besides very extensive frontages on the private roads which have been formed and extend through the property for nearly three quarters of a mile. The lots will vary from three to ten acres, offering many eligible and attractive sites for the erection of gentlemen's villas and other purposes. About six acres are at present let on lease as a brickfield, at 6*l.* per annum. Also, the Plough public house, which adjoins the land, and a valuable freehold house property in the Camberwell High-road and neighbourhood, situate in Windmill-place, Brett's buildings, Bowyer place, Carpenter's-place, Clarence-place, Southampton-place, and Park street, and in High street, Peckham. The greater portion will come into possession in about ten years' time and the remainder in twenty-nine years at the expiration of the existing leases. Printed particulars may be obtained twenty one days previously, of Messrs. DENTON, KINDERLEY, and Co. New-square, Lincoln's-inn; or Mr. BYGRAVE, Surveyor, 46, Lincoln's-inn fields; the Plough, adjoining the property; the Inns at Peckham rye, Camberwell, and Denmark hill, the Place of Sale; and of Messrs. WINSTANLEY, Paternoster-row.

The commodious Family Residence known as Leyton-house, surrounded by its own Pleasure Grounds, and conveniently situate about five miles from London, and less than one mile from the Lea-bridge Station; also about 20 acres of beautifully timbered park like Land; a few acres of Building Ground adjoining the house, and Land in Leyton marsh, the whole comprising about 45 acres.

MESSRS. WINSTANLEY are instructed by Mr. Alderman Sidney to SELL by AUCTION, at the MART, near the Bank of England, on WEDNESDAY, the 13th day of JUNE, in six lots, the following important FREEHOLD and PART COPYHOLD PROPERTY (the latter subject only to a small fine certain), viz.

Lot 1.—Leyton house, adapted in every respect for the requirements of a large establishment, the reception rooms being of excellent proportions, the principal and secondary bed chambers numerous and well arranged, and the offices are convenient and abundantly supplied with water. The approach is through a quadrangle, on the north and south sides of which is capital stabling, servants' rooms, brewhouse, wash house, and other domestic offices. The pleasure grounds are beautifully laid out, and ornamented with choice American and other shrubs, lawn, terrace walks, fish pond, &c. comprising altogether about six acres.

Lot 2.—About three acres of land, suitable for building, having a very considerable frontage to the high-road, and adjoining lot 1.

Lot 3.—The farmyard and buildings, and about twenty acres of productive meadow land, of park-like appearance, ornamented with fine timber-trees, in the rear of lots 1 and 2.

Lots 4, 5, and 6, will comprise about sixteen acres of land in Leyton-marsh.

To be viewed by cards, which, with printed particulars, may be obtained of Mr. TAYLOR, Surveyor, Parliament-street; Mr. MURRAY, Solicitor, London-street, Fenchurch-street; and of Messrs. WINSTANLEY, 10, Paternoster-row. Particulars also at the Inns at Leyton, Woodford, Woodford-wells, Snaresbrook, Hackney, and Place of Sale.

BRENTWOOD, ESSEX.—Eligible Freehold Building Land; Land tax Redeemed.

MR. PONSFORD is instructed to SELL by AUCTION, at the ESSEX ARMS HOTEL, BRENTWOOD, on THURSDAY, the 24th day of MAY, 1855, at TWO for THREE o'clock in the afternoon, THIRTY-ONE PLOTS of FREEHOLD BUILDING LAND, near the Brentwood Station of the Eastern Counties Railway. There is a great demand for houses in the vicinity of Brentwood, and this land is well adapted for building upon, being within 300 yards of the railway station, and having frontages to the high road leading from Brentwood to Warley, and other good roads. Particulars, with lithographic plans may be had of Messrs. BOLTON, MERRIMAN, and DENNIS, Solicitors, 25, Austinfriars, London; at the principal Inns in the neighbourhood; and at the Offices of Mr. PONSFORD, Brentwood, and 21, Moorgate-street, London.

SUTTON, SURREY.—Highly attractive Freehold Land, nearly adjoining the Railway Station.

MESSRS. BLAKE will SELL by AUCTION, at GARRAWAY'S COFFEE-HOUSE, Change-alley, on TUESDAY, MAY 29th, at TWELVE o'clock, in one lot, THIRTY-THREE ACRES of valuable FREEHOLD BUILDING LAND, most eligibly situate on the west side of the turnpike road leading from London to Brighton, and having an important frontage thereto of about [illegible] feet. The situation of the land is picturesque and salubrious; it has a substratum of chalk, and is at present in [illegible], but possession of it will be given on the completion of the purchase. Particulars may be had at the Inns at Sutton, Reigate, and Epsom; at Garraway's Coffee-house; of Mr. RUSSELL, Solicitor, 59, Coleman-street, London; and of Messrs. BLAKE, Croydon.

THORNCLIFF, near SANDGATE.—To Contractors, Builders, Carpenters, and others.

MESSRS. RONALDS and SON have received instructions to SELL by PUBLIC COMPETITION, on MONDAY, the 21st day of MAY, 1855, a quantity of excellent TIMBER, consisting of [illegible] loads of superior fir timber, 250 large scaffold poles, from 2[illegible] feet to [illegible] feet long, [illegible] 1½ inch scaffold-boards, 350 putlogs, 11 ladders, from 15 feet to 60 feet long, 10 carpenters' benches, large quantity of oak and fir girders, large grindstone, 5 feet by 6 inches, 2 granary ladders, 5 crates of window glass, quantity of York window-sills and steps, 2 large mahogany planks, [illegible] of 1 inch prepared flooring, 4[illegible] terra cotta chimney pots, [illegible], plasterers' trestles, [illegible] [illegible] quantity of [illegible], 2 wheel [illegible] and other barrows, large corn chest, [illegible] builders' [illegible] timber tug, timber carriage, large [illegible] [illegible] feet by [illegible] feet, [illegible] feet by [illegible] feet, [illegible] other articles, which will be specified in catalogues, [illegible] of the Auctioneer, Hythe. Sale to commence at TWELVE o'clock.

SALES BY AUCTION.

REDHILL, REIGATE.—Secure Leasehold Investment, in a first-rate situation, adjoining the Brighton-road, and near to the Railway Station.

MR. WM. THORNTON is instructed by the Assignees of Mr. H. W. Hunt, with the concurrence of the Mortgagee, to SELL by AUCTION, at the WARWICK ARMS INN, Station-road, Reigate, on THURSDAY, 31st of May, 1855, at TWO for THREE o'clock precisely, TWO newly-erected and well built semi-detached VILLAS, unfinished, very cheerfully situate at Redhill, in the Foreign of Reigate, a remarkably healthy, improving, and attractive locality. Held for a long term, at a very moderate ground-rent. These residences present a pleasing elevation, with stuccoed fronts, they are approached by stone steps from the fore court, and the front is fitted with handsome and spacious French casements. Each house contains capital offices on the basement, on the ground floor, large entrance hall, three well proportioned reception rooms, handsomely finished with marble mantelpieces and enriched cornices. The first floor comprises four principal chambers and W. C. and the attic floor two for servants. The frontage to the road is 60 feet, by a depth of 150; one house is nearly finished, and now tenanted by Mr. Hunt, the other is fast approaching completion, and by a small outlay both may be rendered fit for immediate occupation and will then be of the estimated yearly value of 140*l.* A portion of the purchase-money may remain on mortgage if desired. Particulars, with conditions of sale, will be ready in due time, and may be then obtained at the Warwick Arms and Junction Hotels, Redhill; White Hart Inns, Blechingley and Godstone; Greyhound, Croydon; of Messrs. LAURANCE, PLEWS, and BOYER, Solicitors, Old Jewry, London; Mr. HENRY RICHARDS, Solicitor, Croydon; Mr. G. C. MORRISON, Solicitor, Reigate; and of Mr. Wm. THORNTON, Land Agent, Surveyor, and Auctioneer, Reigate.

HORNE, SURREY.—Valuable Building Land, in a picturesque and beautiful district, near to a railway station.

MR. WM. THORNTON is directed to offer for SALE, by AUCTION, at the MART, London, on WEDNESDAY 30th MAY, 1855, at TWELVE o'clock, in one lot, unless an acceptable offer should be previously made by private contract, of which due notice will be given, a very desirable PLOT of BUILDING GROUND, containing 12 acres, 1 rood, and 34 perches, singularly well placed at right angles with the London and Brighton turnpike road, through Godstone, and that leading from Horley to East Grinstead, in the district now popularly known as "Effingham Park," a remarkably inviting spot for any building operations, commanding extensive and beautiful panoramic views, in the vicinity of excellent roads, and within about one mile and a half of the projected station at Crawleysdown, on the East Grinstead Branch of the South Coast Railway, now approaching completion, and four from the three bridges and Horley stations. Many detached villas have recently been erected near to the above property, and the facilities of access by railway render it eminently adapted for the site of a public institution, or any building operations of magnitude. The above property is distant from East Grinstead four miles, Crawley five and Godstone seven, and from a brick yard less than one mile. Particulars with conditions of sale may be obtained in due time, at the Junction Hotel, Reigate; George Inn, Crawley; Crown, East Grinstead; White Hart, Blechingley and Godstone; Duke's Head Inn, Worth; at the Place of Sale, and Offices of the Journal of Auctions, Strand, London; of HENRY NORRIS, Esq. Solicitor, 12, Southampton-buildings, Chancery-lane, London; and of Mr. WILLIAM THORNTON, Land Agent, Surveyor, and Auctioneer, Reigate.

REDHILL, REIGATE.—Valuable Freehold Building Ground, occupying a most advantageous position in this highly-favoured and improving locality.

MR. WM. THORNTON is favoured with instructions from the owner, C. H. Stedman, Esq. to SELL by AUCTION, at the AUCTION MART, London, on WEDNESDAY, 30th MAY, 1855, at TWELVE o'clock, in two lots, a valuable enclosure of FREEHOLD MEADOW LAND, possessing an important frontage to the high road, and delightfully placed at Hooley, opposite to the Water house, containing nearly Three Acres, presenting a most favoured spot for the erection of detached villas, with ample space for pleasure grounds. The soil is rich and fertile, and the situation eminently retired and beautiful, adjoining the grounds of The Lady Mostyn, from which it is separated only by a trout-stream, and within little more than half a mile of the Redhill railway station. Particulars with conditions of sale may be obtained, in due time, at the Junction Hotel, Redhill; White Hart Inns, Blechingley and Godstone; Greyhound, Croydon; Red Lion, Dorking; of C. H. STEDMAN, Esq. Solicitor, 160 High-street, Guildford; at the Place of Sale, and Office of Journal of Auctions, Strand, London; and of Mr. WM. THORNTON, Land-agent, Surveyor, and Auctioneer, Reigate.

Valuable Freehold Property, close to the town of Reigate, comprising a Gentleman's Residence, detached, in a much-admired part of the Foreign of Reigate, commanding magnificent views, with a superior Garden, Coachhouse, Two-stall Stable, and other convenient Out-buildings, together with an important Area of Building Land, partly enclosed by ornamental timber, a Cottage, Barn, &c. &c. very pleasantly removed from the town, but within a few minutes' walk of the railway station.

MR. WM. THORNTON will submit to PUBLIC AUCTION, at the AUCTION MART, London, on WEDNESDAY, the [illegible]th of MAY, 1855, at TWELVE o'clock, unless an acceptable offer for the whole should be previously made by private contract, of which notice will be given, in several Lots, a desirable and improvable FREEHOLD ESTATE, now held on lease, determinable at Midsummer next. Lot 1 will consist of a detached Villa, known as Nutley House, substantially built, and containing ample accommodation, on a moderate scale, for a family of respectability. The garden (of a rich light soil, and partly walled in) has been disposed with much taste, and the lawn and flower beds embellished by ornamental shrubs, adjoining and completely enclosed by a brick wall, is a detached kitchen, with man's room over, coach house, and two stall stable, with loft over, manure yard, &c. &c. Lot 2, a small Cottage, with Garden, and a large boarded Barn, occupying a valuable site for any building purpose; south-west and north-east, and immediately contiguous to, and adjoining the before described properties, are two valuable closes of meadow land, containing together about two acres; that on the south side, approached and enclosed by folding entrance gates from South-street, is embellished by a line of singularly ornamental and picturesque fir and other trees, of mature growth, interspersed by evergreens. This land will be subdivided into six lots, giving to each an important frontage, and offering to the enterprising builder, or small capitalist, the opportunity not before presented for a long series of years, of acquiring small freehold plots of building ground, close to the town, in a retired and healthful spot eligible for small respectable dwellings, with ample space for gardens, returning a highly remunerative rate of interest on the capital invested. The property may be viewed after the issue of the particulars of sale, and then by cards only, to be obtained of the Auctioneer. Particulars, with plans and conditions of sale, are in course of preparation, and may be obtained, in due time, at the principal Inns in all the adjacent Towns and Villages; at the Auction Mart, Bartholomew-lane, London; of Mr. G. C. MORRISON, Solicitor; and of Mr. WM. THORNTON, Land Agent, Auctioneer, and Surveyor, Reigate.

KENT.—Edenbridge, in the far-famed Garden of England.

MR. WM. THORNTON is favoured with instructions from the Proprietor to SELL by AUCTION, at the AUCTION MART, London, on WEDNESDAY, the [illegible]th day of MAY, 1855, at TWELVE o'clock, unless an acceptable offer should be previously made by private contract, in which case due notice will be given, a very valuable and important tract of rich PASTURE, HOP, and ORCHARD GROUND, freehold, and free from land tax, of park like appearance, studded with remarkably ornamental timber, and commanding a fine expanse of scenery, advantageously placed, adjoining the road near to the station; in extent upwards of thirty-four acres, and lying within the range of distance on the South-Eastern line entitling occupiers to a large annual reduction in railway fares, this property presents a most attractive opportunity to capitalists of enterprise for a safe and lucrative investment. Together with a capital family residence, with garden and grounds, known as "The Stangrove Academy," and an enclosure of valuable orchard ground. Full particulars, with plans, will shortly appear, and, in the mean time, any information readily afforded by HENRY MARSHALL, Esq. Solicitor, Godalming; or by Mr. WM. THORNTON, Land Agent, Auctioneer, and Valuer, Reigate.

SALES BY AUCTION.

KNIGHTSBRIDGE, adjoining the Barracks.—Building Materials of several Houses.

PULLEN and SON respectfully announce that they are directed to SELL by AUCTION, on the PREMISES, on MONDAY, MAY 21, at TWELVE, in Lots, all the valuable BUILDING MATERIALS of Five Houses, situate in the High Road, Knightsbridge, adjoining the Barracks, with garden walls and outbuildings in the rear, extending to the Park; comprising about 2[illegible] sound stock bricks, a large quantity of plain and pan tiles, useful timber in roofs and floors, glazed sashes, doors, partitions, floor boards, stone paving, iron railing and fencing, lead gutters and pipes, and various useful fixtures and fittings-up. May be viewed on the Saturday previous. Catalogues had at Mr. HARDWICK'S Office, 21, Cavendish-square; and of PULLEN and SON, 80, Fore-street, Cripplegate.

CANNON STREET, WEST.—BUILDING MATERIALS OF AN EXTENSIVE STACK OF WAREHOUSES.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on MONDAY, June 4, at TWELVE, the whole of the capital BUILDING MATERIALS and FITTINGS UP of an extensive Stack of Warehouses, situate at the corner of Distaff lane and Cannon street West, St. Paul's; comprising about [illegible] excellent stock bricks, prime oak and fir timber, capital rafters, joists, girders and bressummers, iron columns, a large quantity of plain tiles, glazed sashes, loop-hole and other doors, sound floor boards, glazed and panelled partitions, stone copings and sills, several tons of lead in gutters, cisterns, and pipes, iron crane and jib, and a variety of useful warehouse fixtures and fittings-up.—May be viewed on Saturday previous. Catalogues had of PULLEN and SON, 80, Fore-street, Cripplegate.

TO MANUFACTURERS AND BALLAST BURNERS.—North London Railway Coal Department, Highbury and Kingsland Depôts.

MESSRS. LEA and CO. are prepared to receive TENDERS for SUPPLYING CONSUMERS with SMALL COAL, they having for disposal during the year, about 15,000 tons from Hettons Wallsend. Parties tendering are desired to state the quantity required, and for what period, if for six or twelve months, and whether to be loaded into their carts at either of the depôts, or delivered by waggon, barge, or railway.—Tenders received on or before MAY 23rd inst.—Address LEA and CO. Chief Offices, Railway Station, Highbury or Kingsland.

TO IRONMONGERS, STOVE GRATE MAKERS, BUILDERS AND OTHERS.—By

MESSRS. FULLER and HORSEY, on the PREMISES, 130, Fleet-street, on THURSDAY, MAY 31, at ELEVEN, in lots, without reserve, the STOCK of STOVES and RANGES, BLACK FURNISHING IRONMONGERY, principally manufactured by Messrs. Burbidge and Healy, who are relinquishing the retail branch of their business, including seventy register stoves, fine cast, ground, and polished steel, many of elegant designs, and richly mounted in or-moulu; seven Sylvester's patent enclosed kitchen ranges, from 3 feet 2 to 6 feet in width, hall, shop, and coach stoves, 100 polished steel and bronzed iron fenders, many of the most expensive description; fifty sets of polished steel fire-irons, bronzed and metal goods, lamps, cutlery, tin and black hollow ware, fifty sets japanned trays and waiters, japanned toilet services, 100 dozen files and rasps, an assortment of builders' and cabinet ironmongery and brass work, ten bags wrought and cut nails, six printers' iron imposing tables, with planed surfaces; thirty Sylvester's patent fire and fire doors, shop fixtures, counting house fittings, iron repository, fittings in show-room, and numerous other effects. To be viewed on Wednesday previous to the Sale, when catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, Billiter-street, City.

5,000 pieces of Paper-hangings, quantity of rich French Flocks and Gold Satin, and Vein Marble Chimney Pieces.

MR. BRAY, Jun. will SELL at his ROOMS, 259, High Holborn, on WEDNESDAY, JUNE 23, at TWELVE, a stock of PAPER-HANGINGS, suitable for the Drawing and Dining Rooms, Parlour, Secondary Apartments, Halls, and Staircases.—May be viewed, and Catalogues had.

TO ENGINEERS, SAW-MILL PROPRIETORS, BUILDERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on WEDNESDAY, MAY [illegible], at TWELVE, at the SAW-MILL, Charles-street, Blackfriars road, in lots without reserve, by order of the Trustee, a double-cylinder STEAM ENGINE, of 12 horse power, nearly new, an ELEPHANT BOILER, by Cater (nearly new), 50 feet turned wrought-iron shafting, 9 feet mortise driving wheel and pinion, five riggers, from 2 feet to 5 feet diameter, three circular saw benches and saws, two large wrought iron tanks, sixteen work-benches, quantity quartering and laths, 11 cwt. nails, pony-cart, and other effects.—To be viewed (the engine in motion), on the morning of sale, when catalogues may be had on the Premises, of Messrs. INGLE and GOODAY, Solicitors, Hibernia-chambers, London-bridge; and of Messrs. FULLER and HORSEY, Billiter street, City.

CHELSEA EMBANKMENT AND APPROACHES.—Third Sale of very valuable Building Materials, lying exceedingly well for land and water carriage.

MR. W. R. GLASIER is honoured with instructions from the Commissioners of her Majesty's Works and Public Buildings, to SELL by AUCTION, on the PREMISES, on TUESDAY, MAY 22, at TWELVE for ONE, the very valuable BUILDING MATERIALS of the remaining portion of THORNE'S newly erected and substantially built MALT-HOUSES, Commercial fields, Commercial-road, Pimlico; and a substantially built and newly-erected DETACHED HOUSE, near the above, comprising upwards of 500,000 capital stock bricks, several tons of lead, large brass taps, excellent timber and joists, rafters, and plates, flooring, gates, doors and sashes, iron columns, furnace bars, gas piping, capital large cast-iron water-tank, to hold about 2,000 gallons, a large quantity of excellent slating, York and other paving, 200 tons of pebbles, and 1,000 feet of capital wharf wall curbing, step ladders, fixtures and fittings.—May be viewed the day prior and morning of sale, and catalogues had at the Office of Works, 12, Whitehall-place; of JAMES PENNETHORNE, Esq. 7, Whitehall-yard; at GARRAWAY'S, Change-alley, Cornhill; on the Premises; and at the Offices of the Auctioneer, 41, Charing-cross.

TO TIMBER MERCHANTS, BUILDERS, Cabinet-makers, Pianoforte Manufacturers, Coach Builders, Organ Builders, Carpenters, &c. &c.—For SALE by AUCTION on the PREMISES, Waterloo bridge Wharf, Lambeth, on MONDAY and TUESDAY, 4th and [illegible]th JUNE, at TEN for ELEVEN each day precisely, the very superior and well-seasoned STOCK of Messrs. T. R. and W. Browning and Co. consisting of about

14,000 Quebec and Sa[illegible] yellow pine plank.
1,[illegible] St. John pine plank.
1,[illegible] Red pine plank.
5,[illegible] Spruce deals and battens.
1,000 Onega and Archangel deals.
7,000 Christiana yellow and white deals and battens.
[illegible] Gothenburg and Swedish deals and battens.
1,[illegible] Squares prepared flooring and match boards.
200 Pieces Riga, Dantzic, and Swede timber.
2[illegible] Pieces Norway die square timber.
400 Norway poles.
5[illegible] Riga and Memel wainscot logs.

With sundry birch, ash, and pine boards, put-logs, &c. also Spanish, Honduras, and Cuba MAHOGANY in logs, planks, and boards; cedar, walnut wood, &c. &c.

To be viewed two days previous to and on the mornings of Sale. Catalogues may be had on the Premises, and of CHURCHILL and SIM, [illegible], Old Broad street; C. LEWIS and Co. 7[illegible], Old Broad-street, London, Brokers.

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The Builder,

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square. The Exhibition of the Royal Academy IS NOW OPEN Admission from Eight to Seven o'clock, one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A. Secretary.

SOCIETY of PAINTERS in WATER-COLOURS.—The FIFTY-FIRST ANNUAL EXHIBITION is now OPEN at their Gallery, 5, PALL-MALL EAST, close to Trafalgar-square.—Admittance, 1s. Catalogues, 6d.
JOSEPH J. JENKINS, Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS. -The Twenty-first Annual Exhibition of the Society is NOW OPEN at their Gallery, 53, PALL MALL, near St James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s.
JAMES FAHEY, Secretary.

BUILDERS' BENEVOLENT INSTITUTION.—THURSDAY next,—An ELECTION of FOUR PENSIONERS, two males and two females, will take place on THURSDAY, the 31st inst. at the LONDON TAVERN, Bishopsgate-street. WILLIAM LEE, Esq. M.P. President, has kindly consented to preside. Polling will commence at Twelve, and close at Three o'clock precisely.
A. G. HARRIS, Secretary.
May 25, 1855.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855.
The Second Lecture will be delivered on MONDAY next, at THREE o'clock p.m. "On Curves Applicable to Architectural Construction," by JOSEPH JOPLING, Esq.
Cards for the Course, 2s. 6d.; Single Lectures, 6d.; Catalogues 6d. each. To be had at the Museum, and at the Office of "The Builder." Subscribers can have their copies of the Catalogue on application at the Museum.
HENRY CLUTTON, Hon. Sec.
May 24 1855

ARCHITECTURAL ASSOCIATION.—At the next ordinary meeting, June 1, Mr. Bailey will read a paper "On the Glazing of Windows and Skylights."
The Class of Design will meet on June 8, Subject for sketch: "A Street Letter-box."
ARTHUR CATES, } Hon Secs.
Lyon's-inn Hall, Strand. T. W. GOODMAN, }

ARCHITECTS' BENEVOLENT SOCIETY.
PATRONS.
Sir Robert Smirke, R.A. | George Stanley Repton, Esq.
PRESIDENT—Sydney Smirke, A.R.A.
TRUSTEES.
Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq.
Philip Hardwick, Esq. R.A. | R.A.
TREASURER—William Tite, Esq. F.R.S.
The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 6, Tavistock-court, Chancery-lane.
J. TURNER, Hon. Secretary, 15, Wilton-street.

COMPETITIONS.

PREMIUMS for DESIGNS.—The Berwick-upon-Tweed Burial Board offers a PREMIUM of 15l. to the Architect or other person whose DESIGNS shall be accepted for Two Chapels, an entrance Lodge and Gates, and for fencing, turning, planting, and draining, under the Burials Beyond the Metropolis Act, 20 acres of land for a new BURIAL-GROUND at Berwick-upon-Tweed, the cost of the whole not to exceed 1,500l. The Premium will be increased to 25l. if the approved designs be accompanied by a guaranteed estimate of the expense and by detailed working plans and specifications sufficiently comprehensive as to enable the Board forthwith to enter into contracts for the works. The Designs Plans, &c to be sent to me prepaid on or before the 6th JUNE next.
By order, JAMES C. WEDDELL, Clerk to the Board.
Berwick-upon-Tweed, 14th May, 1855.
N.B.—The Burial Board does not pledge itself to employ as Architect the party whose designs may be accepted.

COMPETITIONS.

TO ARCHITECTS.—LEAMINGTON NATIONAL SCHOOLS.—The Trustees are desirous of receiving DESIGNS and GUARANTEED ESTIMATES with a view to Contract for the ERECTION of the above SCHOOLS, together with separate Dwellings for the Master and Mistress, each house to contain not less than four rooms. The Schools to be of sufficient dimensions to accommodate at least 250 boys and 150 girls. The cost of the whole not to exceed 1,350l. All designs are required to be on the same scale of 1/8 of an inch to a foot. A Premium of Ten Guineas will be given for the most approved plans, such plans to become the property of the Trustees, but the Committee do not bind themselves to employ the successful competitor. The designs to be sent in under seal, on or before MONDAY, JUNE 11th, and directed to the Trustees of the Leamington National Schools. Any further information as to site, &c. may be obtained, on application to the Churchwardens, and a Plan of the Ground had, if required, on payment of 2s. 6d.—Signed, by order of the Committee,
WALTER WATSON, Chairman.
Leamington, May 22nd, 1855.

TO ARCHITECTS AND OTHERS.
THE BURIAL BOARD for the Parishes of ST. THOMAS, ST. EDMUND, and ST. MARTIN, Salisbury, in the county of Wilts, is desirous of receiving DESIGNS, to comprise Plans, Elevations, Sections, and Specifications, with Estimates for laying out a New BURIAL GROUND of Eight Acres, enclosing the Ground, building a Lodge with Entrance-gates, and building TWO CHAPELS, one consecrated, and the other not. The party whose plans, &c. may be approved will be paid a premium of 5l. for the plans, designs, estimates, and specifications, which must be delivered at my office, High-street, Salisbury, free of expense, without the author's name, but with a motto, on or before the 4th day of JUNE next. A sealed letter, containing name and address, should accompany each design, which will be opened after selection made, and the plans not approved will be returned.
Further particulars, together with a plan of the site, may be obtained, on application to me,
G. SMITH, Clerk of the Board.
Salisbury, May 11, 1855

BENNETT-PARK ESTATE, BLACKHEATH.—TO SURVEYORS—The Proprietors beg to give notice that the Plans for laying out the above Park WILL BE RECEIVABLE up TO THE 14th JUNE. The lithograph of the new survey, showing levels, &c. can now be obtained from Mr. JOHN BENNETT, Watchmaker, &c. Cheapside; or of Mr. GEORGE BENNETT, Osborne-place, Blackheath N.B.—Surveyors cannot obtain admission to the Park grounds after the 31st instant.

CONTRACTS.

NOTICE.—To BUILDERS.—Such competent persons as may be desirous of CONTRACTING with the Honourable Board of Ordnance for the ERECTION of a CHAPEL SCHOOL, Schoolmaster's Quarters, Rain-water Tank, and laying on Gas to Chapel School, at CANTERBURY, are requested to send in sealed Tenders, addressed "To the Secretary of the Board of Ordnance, Pall-mall," on or before ELEVEN o'clock a.m. on SATURDAY, the 2nd of JUNE, 1855.
N.B. The words "Tender for Chapel School, &c. at Canterbury," must be written on one corner of the envelope.
Printed schedules and every particular relating thereto may be had on application at the Royal Engineer Office, Canterbury, any day Sunday excepted) between the hours of TEN and FOUR o'clock, from the 21st of MAY to the 1st of JUNE, 1855, inclusive, after which time none can be issued. No Tender will be attended to which is not filled up strictly in conformity to the Honourable Board's regulations, nor will any offer be accepted but from such person or persons as may be considered competent to perform the work.
Royal Engineer Office, Dover, 7th of May, 1855.

Royal Engineer Office, Portsmouth, 14th May, 1855.
TO CONTRACTORS.—Notice is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall-mall, London, on WEDNESDAY, the 30th day of MAY, 1855, from such persons as may be willing to undertake the DREDGING, &c. in DEEPENING the BED of the GUN-WHARF CAMBER.—The specification and conditions of contract may be seen, and every information obtained, on application to Mr. KIRTON, Clerk of Works, at this Office, between the hours of TEN and FOUR each day, Sundays excepted. Tenders to be endorsed, "Tender for Deepening the Bed of the Gun-wharf Camber, at Portsmouth, in the County of Hants."

Royal Engineer Office, Portsmouth, 14th May, 1855.
TO BUILDERS.—Notice is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall Mall, London, on WEDNESDAY, the 30th day of MAY, 1855, from such persons as may be willing to undertake the BUILDING of a SEWER in Flathouse-road, Landport, from Lion Gate-road to the Sea Beach; and also for connecting existing Drains with the new line of Sewer. The plans, specification, and conditions of Contract may be seen, and every information obtained, on application to Mr. KIRTON, Clerk of Works, at this Office, between the hours of TEN and FOUR each day, SUNDAYS excepted. Tenders to be endorsed "Tender for Building a Sewer in Flathouse-road, Landport, in the County of Hants."

NOTICE to BUILDERS.—Sealed TENDERS, addressed to the "Secretary of the Board of Ordnance," will be received at the Ordnance Office, Pall-mall, on or before the 16th JUNE next, for the CONSERUCTION of certain WORKS and BUILDINGS, at West Block House Point, Milford Haven. The specifications and plans for the above service may be seen and the form of Tender to be obtained, with every information at the Royal Engineer's Office, Pembroke Dock. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders
Royal Engineer Office, Pembroke Dock, May 12, 1855.

CONTRACTS.

TO BUILDERS AND IRONMONGERS.
Royal Engineer Office, Portsmouth, 22nd May, 1855.
NOTICE is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall mall, London, on TUESDAY, the 5th day of JUNE next, from such persons as may be willing to undertake the ERECTION of THIRTY FOUR IRON COOKING-HOUSES at the Encampment on Aldershot heath, in the county of Hants. Persons desirous of Tendering will be shown a pattern hut on the ground, and be furnished with every necessary information, on application at the Royal Engineer Office, at Aldershot, on and after MONDAY next, the 28th instant. Tenders to be sealed up and endorsed "Tender for Iron Cooking-houses at the Encampment at Aldershot."

Commanding Royal Engineer's Office, Dublin, 16th May, 1855.
NOTICE to BUILDERS.—ORDNANCE CONTRACTS.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive proposals for the following Contracts, viz.:—For the CONSTRUCTION and ERECTION of WOODEN BUILDINGS to accommodate Troops, at Armagh, Belfast, and Londonderry, in the Belfast district; Buttevant, Cork, Kinsale, Charles Fort, and Tralee, in the Cork district. Persons desirous of Tendering for the same, will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin, and at the Royal Engineer's Office, at Belfast, Londonderry, Cork, and Fermoy, or to the Barrack Masters at the different Barracks. Copies of Certain Specifications, with the terms of Contract, upon which a deposit will be required for the same, which deposit will be repaid when the specifications are returned unmutilated. The Tender will be required to be open within thirty to sixty days after the acceptance of the Tender, according to station mentioned for. The letters of Tender to be sealed, and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before the 30th day of MAY, 1855; and to be marked on the outside "Tender for Work at Belfast, Cork, &c." as the case may be. It is to be understood that parties desirous of undertaking the above work, have the option of Tendering for the Buildings at one or more of the stations, or for the whole

Commanding Royal Engineer's Office, Dublin, May 21, 1855
NOTICE to BUILDERS and FELT MANUFACTURERS.—ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland hereby gives Notice that he will receive PROPOSALS for the following CONTRACT, viz.:—For COVERING with ASPHALTED FELT the ROOFS of about SIX HUNDRED WOODEN BUILDINGS, consisting from Ten Squares in each, erecting at the CURRAGH of KILDARE, in the Dublin District. Persons desirous of Tendering for the same, will receive Letters of Tender and every information, on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin. The whole of the work to be completed within twenty five days after the acceptance of the Tender, or notification of the buildings being ready for covering. Proper securities, under legal bonds, will be required in a sum equal to 10 per cent. on the amount of Tender accepted, for the due performance of the Contract. The letters of Tender to be sealed, and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before the 8th day of JUNE, 1855, and to be marked on the outside, "Tender for Work at the Curragh of Kildare." The buildings are arranged in ten squares or blocks, and it is to be understood that parties have the option of tendering for one or more, or for the whole.

TO CONTRACTORS.
Royal Engineer Office, Chatham, 24th May 1855.
NOTICE is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, Pall-mall, London, on or before MONDAY, the 18th day of JUNE next, from persons desirous of contracting with the Honourable Board of Ordnance, for ERECTING a BUILDING for the reception of Invalids of the Army, at Fort Pitt, near Chatham. Plans and specification of the Work are to be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 5th of JUNE next. Sundays excepted. The person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and separately to be bound, under a penalty of 1,000l for the due performance of the Contract. Tenders to be addressed to the Secretary to the Board of Ordnance, Ordnance Office, Pall-mall, London, and to be delivered free, endorsed, "Tender for Works at Chatham" No Tender can be admitted after the said 18th day of JUNE, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Ordnance Office, Pall mall, London, on or before the 29th day of JUNE, 1855, from persons desirous of CONTRACTING with the Honourable Board of Ordnance for WORKS and REPAIRS at the CITADEL, DOVER. Plans and specifications of the works may be seen, and forms of Tender obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 11th to the 25th JUNE, Sundays excepted. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately to be bound, under a penalty of 2,000l. for the due performance of the contract. Tenders for the above works to be addressed to the "Secretary to the Board of Ordnance, Ordnance Office, Pall-mall, London, and endorsed "Tender for Works at the Citadel, Dover."
N.B. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.
Royal Engineer Office, Dover, May 4, 1855.

TO BUILDERS.
PERSONS desirous of TENDERING for the ALTERATIONS to the VICARAGE-HOUSE of MILTON, by Sittingbourne, can inspect the plans, either upon the Premises or at Mr. Hall's Office, London, where sealed Tenders will be received on SATURDAY, JUNE 9th, by WILLIAM WHITE, Architect.

[For remainder of Contracts see next page.

CONTRACTS.

WIGAN LOCAL BOARD of HEALTH.—WATERWORKS.—To ENGINEERS, IRONFOUNDERS, BRASS-FOUNDERS, CONTRACTORS, EXCAVATORS, and OTHERS.—The Local Board hereby give Notice that they are prepared to receive TENDERS from parties willing to undertake the following CONTRACTS.

CONTRACT No. 1.—For the supply of about 1,500 tons of CAST IRON WATER-PIPES, and other CASTINGS.

CONTRACT No. 2.—For the supply of SLUICE VALVES, HYDRANTS, and STREET FITTINGS.

CONTRACT No. 3.—For the supply and erection of Duplicate STEAM-ENGINES, BOILERS, PUMPS, and RISING MAIN from the Engine-house to the Service Reservoir, ONE MILLION GALLONS of Water, ONE HUNDRED FEET high, at TWELFTH, &c.

CONTRACT No. 4.—For the construction of a COVERED SERVICE RESERVOIR.

CONTRACT No. 5.—For the Formation of a TUNNEL, about 500 yards in length, and 18 feet internal diameter, with SHAFTS, and TUNNEL ENTRANCES.

CONTRACT No. 6.—For Masonry and other work in STONE IMPOUNDING WALL for STORAGE RESERVOIR.

CONTRACT No. 7.—For EARTHWORK, PUDDLING, &c. EMBANKMENT for STORAGE RESERVOIR, including MASONRY, BRICKWORK, &c. in VALVE and OUTLET WELLS, CATCH BASINS, and RETAINING WALLS; also a TUNNEL under side of Piston-road.

The Drawings and Specifications may be seen and after the 4th day of JUNE, on application at the Office of the Local Board (Heath, Wigan); or at the Offices of ROBERT HAWKSLEY, C.E. of Parliament-street, Westminster.

Specifications and Duplicates of Forms of Tender, Schedules, and Bills of Quantities, for Contracts Nos. 1 and 2, may be had on payment of the cost, and for Contracts 3, 5, 6, and 7, on payment of £1 each. Quantities supplied to Tenders for the above, at the Office of the Local Board, Wigan, before TWELVE o'clock on MONDAY, the 20th day of JUNE next.

Tenders for Contract No. 1, 2, 3, 4, 5, 6, or 7, to the amount to be stated therein, must be delivered at the Office of the Local Board on or before TEN o'clock on MONDAY, the 27th day of JUNE next, and the Local Board do not bind themselves to accept the lowest or any Tender.

Signed WILLIAM ACKERLEY,
Wigan, 14th May, 1855. Solicitor to the Local Board.

WOOLWICH BURIAL-GROUND.—Notice is hereby given, that the WOOLWICH BURIAL BOARD are prepared to receive TENDERS for PERFORMING the ROADS and PATHS, and PLANTING the LAND, in lots of the new Burial-Ground contiguous to Shooter's-hill-road, in the PARISH of CHARLTON, and POBJECTS DUE thereon. Further particulars may be obtained on application to the Architects, Messrs. CHURCH and SON, Woolwich; and Tenders addressed to the Board, and endorsed "Tender for Planting and Roads," and directed to Mr. H. BLAND, Clerk to the Board, at the Vestry-room, Town-hall, Woolwich, on WEDNESDAY, the 13th day of JUNE, 1855. The Board do not bind themselves to accept the lowest or any Tender.

Woolwich, May 24, 1855. HENRY BLAND, Clerk.

WOOLWICH BURIAL-GROUND.—Notice is hereby given, that the WOOLWICH BURIAL BOARD are prepared to receive TENDERS for the ERECTION of about 80 feet of PALISADE and 80 feet of IRON RAILING, with CARRIAGE and FOOT ENTRANCE GATES thereto, to form the front enclosure of the land selected for the New Burial-ground.

Further particulars may be obtained on application to the Architects, Messrs. CHURCH and SON, Woolwich; and Tenders addressed to the Board, and endorsed "Tender for Iron Palisading and Entrance Gates," to be delivered at the Vestry-room, Town-hall, Woolwich, on WEDNESDAY, the 13th day of JUNE, 1855.—The Board do not bind themselves to accept the lowest or any Tender.

By order of the Board,
Woolwich, 24th May, 1855. HENRY BLAND, Clerk.

WOOLWICH BURIAL-GROUND.—Notice is hereby given, that the WOOLWICH BURIAL BOARD are prepared to receive TENDERS for the LAYING out and PLANTING the last Portion of the Land selected for the new Burial-Ground, on Plumstead-common near Woolwich. The enclosure will consist of upwards of 800 feet of Oak post and rail fencing, with oak rails, 4 feet high, and about 1,050 feet of ditto, 6 feet high. Further particulars may be obtained on application to the Architects, Messrs. CHURCH and SON, Woolwich, where a plan of the land and specifications may be seen on and after MONDAY next, the 28th instant. Sealed Tenders, addressed to Mr. H. BLAND, Clerk to the Board, and endorsed "Tender for the Land to be delivered at the Town-hall, Woolwich, on WEDNESDAY, the 13th day of JUNE, 1855. The Board do not bind themselves to accept the lowest or any Tender.

By order of the Board,
Woolwich, 24th May, 1855. HENRY BLAND, Clerk.

WHITTLESEA GAS-WORKS.—The Directors of the above Company are desirous of receiving TENDERS for the following ALTERATIONS required to be executed at their Works, viz.—

For new BRICK HOLDER and COLUMNS, about 90 feet in diameter, and 8 feet deep, with the necessary Tie-rods, &c. and all Brickwork required and to ALTER the present GAS HOLDER.

For new WORK of EIGHT IRON RETORTS, including Brickwork, &c. and the requisite Mouth-pieces, Ascension, Dip, and other Pipe-connexions.

For a CAST-IRON CONDENSER, and fixing of same, complete.

Specifications and plans of the above works may be seen, on application to the Secretary, Mr. JOHN BAKER, Jun. Whittlesea, of whom also the Tenders are to be sent not later than MONDAY, the 4th of JUNE. The Directors do not in any case bind themselves to accept the lowest or any Tenders.

Whittlesea, May 23, 1855.

TO BUILDERS.

PERSONS desirous of giving in TENDERS for the proposed new SCHOOL ROOMS, CLASS-ROOMS, and LECTURE ROOM, adjoining Manvers Congregational Church, Stocksport, may see the plans and specifications on application to Mr. JOHN ANDREW of Stockport, on and after MONDAY, the 28th of MAY next, between the hours of TEN a.m. and SIX p.m. until further notice. The Committee do not pledge themselves to accept the lowest Tender.

Nottingham, May 23, 1855. J. C. GILBERT, Architect.

SHIPLEY LOCAL BOARD of HEALTH.—WATERWORKS.—CONTRACTS 4 and 5.—The Local Board hereby give Notice, that they are prepared to receive TENDERS for the following Works:—

CONTRACT No. 4.—For MAKING a SERVICE RESERVOIR, near West-lane, in the township of Baildon.

CONTRACT No. 5.—For EXCAVATING the GROUND, LAYING and JOINING CAST-IRON MAINS, also for FIXING SLUICE COCKS, HYDRANTS, &c.

Plans, sections, detail drawings, and specifications may be inspected on and after the 10th inst. at the Offices of Mr. J. M'LANDSBOROUGH, Civil Engineer, 24, Queen-gate, Bradford, from whom forms of Tender and any further information may be obtained. Sealed Tenders to be delivered to me, at my Offices, in Bradford, Yorkshire, on or before MONDAY, the 28th inst. endorsed "Shipley Waterworks—Tender for Contract No. 4," or 5, as the case may be. The Local Board do not bind themselves to accept the lowest or other Tender.

JOHN THOMPSON, Clerk to the Local Board.

Bradford, May 3rd, 1855.

CONTRACTS.

TO SCAVENGERS and OTHERS.—Sewers' Office, Guildhall, May 18th, 1855. The Commissioners of Sewers of the City of London hereby give notice, that they will meet at the GUILDHALL aforesaid, on TUESDAY, the 5th day of JUNE next, at TWELVE o'clock at noon precisely, to receive PROPOSALS for CLEANSING the Streets, and REMOVING the INDUST from the Houses therein, for the term of one year from Midsummer-day next, according to the provisions of a specification, a copy of which may be had upon application to the Office. The City solicitor will be attended at the Office on Tuesday, Each Contractor will be required to enter into six sufficient sureties, for the due performance of his bond, with two approved sureties, for the due performance of his contract. The Commissioners do not pledge themselves to accept the lowest Tender, nor any unless deemed satisfactory. No Tender will be received after TWELVE o'clock on the day aforesaid, nor will more than Tender be received from one person, nor a Tender of a joint note as an evidence that the same is made bona fide; which sum will be immediately returned to the other cases Tenders is not accepted, and will be returned in the other cases until the contract and bond are duly executed.

JOSEPH DAW, Principal Clerk.

LONDON and NORTH-WESTERN RAILWAY.—CONTRACTS for STORES for the Year ending JUNE 1856.—The Directors are prepared to receive TENDERS for the SUPPLY of the under-mentioned STORES, viz.—

No. of Contract.		No. of Contract.	
1.	Brass Sheet and Tubes, for Locomotives.	20.	Iron, Yorkshire.
		20a.	Iron, Staffordshire.
3	Copper	21	Iron Castings.
4.	Canvas.	23.	Iron Work.
5.	Axles	24.	Wheels
6	Crucibles.	24.	Oil, Burning, &c.
13a.	Dry-altery.	25.	Oil, Lubricating, Tallow, and Turpentine.
14.	Cotton Waste.	27.	Steel
15.	Rags, Rope, Hemp, &c.	28.	Steel Springs and Files.
16.	Glass various.	29.	Tin, Block.
17.	Nails and Locks.	30.	Tin, Sheet and Spelter.
18.	Lead, White and Red.		
19.	Tea, Sheet & Pipe.		

See Forms and Terms of Tender may be had on and after WEDNESDAY, MAY 23, on application at the Secretary's Office, Euston Station, London Forms of Tender for each contract are printed separately, and parties applying should state the particular contract or contracts for which they propose to tender. Patterns may also be inspected on and after WEDNESDAY, MAY 23 from TEN till FOUR o'clock, at the Company's Pattern Room, Euston Station, and any further information required may be obtained on application to the Clerk of the Stores at the above Station.

Tenders to be sent in on or before TEN o'clock on MONDAY, JUNE 4.

By order of the Directors,
Euston Station, May 14, 1855. CHAS. E. STEWART.

CONTRACT for TUNNELLING.—THE CREGE CANAL, CATALONIA, SPAIN.—MONCLAR TUNNEL.—The shafts of the tunnel of Moncla having reached a depth from wheel, an opinion may be formed of the nature and character of the ground, which will have to be bored in the construction of the tunnel, 4,000 metres in length. The Board of Administration will award the CONTRACT for the execution of the said tunnel at a meeting of the Board, at the office of the Company, at Barcelona, No. 2, Rue de la Boveria, first floor, at TWELVE o'clock precisely, on the 20th JUNE next, according to the plan and model in the possession of the Board, which may be seen in the aforesaid office; and in London, at Mr. G. C. REWS's, No. 4, Bank-chambers. All proposals must be presented, sealed, in conformity with the form contained in the regulations, to the undersigned, two hours at least before the time above mentioned.

(Signed) FRAY FERRER Y BUSQUETS, Secretary.

Barcelona, April 1855.

TO BUILDERS.

TENDERS are invited for certain ALTERATIONS and ADDITIONS to the HOUSE at CROW HURST PARK, near BATTLE, Sussex. Plans and specifications may be seen there, on and after the 28th instant, and the Tenders must be delivered on or before WEDNESDAY, the 6th of JUNE, at TWELVE o'clock, addressed to the Architect, Mr. WILFORD TEULON, Crowhurst-park, Battle, where they will be opened in the presence of those Builders who wish to be present. The lowest Tender will not necessarily be accepted. Particulars may be obtained at the Architect's, 32, Guildford-street, Russell-square, London.

MERTHYR TYDFIL LOCAL BOARD of HEALTH WATERWORKS.—TO IRONFOUNDERS. Parties desirous of TENDERING for the Manufacture and Delivery of the whole or any portion of the CAST-IRON SERVICE PIPES, are to be furnished with particulars on application to J. W. RUSSELL, Esq., Merthyr Tydfil, the Clerk to the Local Board; or to J. G. LYNDE, Esq., the Engineer, 27, Great Ormond-street, London. Tenders to be delivered on or before MONDAY, the 4th JUNE next, at ELEVEN o'clock in the forenoon.

Merthyr Tydfil, 21st May, 1855.

THE MERTHYR TYDFIL LOCAL BOARD of HEALTH are desirous of BORROWING the sum of EIGHT THOUSAND POUNDS, on the security of the Rates of the District, under the powers of the Health of Towns Act, 1848, and with the sanction of the General Board of Health. Persons willing to advance the same, or any portion thereof, are requested to send sealed Tenders, addressed to the Chairman of the said Local Board, and endorsed "Tender for Pipes," to or before the 4th day of JUNE next, stating the amount they are prepared to advance, the rate of interest they require, and the terms of repayment.

Merthyr Tydfil, 21st May, 1855.

TO BUILDERS.—STRATFORD-UPON-AVON CORN EXCHANGE.—Persons desirous of CONTRACTING for the ERECTION of the same, are informed that the Drawings, Specification, and Form of Tender will be ready for inspection on and after THURSDAY, the 31st inst. at the Office of EDWARD GUEST, Architect, Edgware, and Surveyor, of Corn Exchange, Stratford-upon-Avon. The Tenders are required to be delivered to the Architect on or before the 14th day of JUNE, 1855. The Directors do not bind themselves to accept the lowest or any Tender.—By order, HENRY BEST SOWDON, Solicitor.

WORTHING LOCAL BOARD of HEALTH, WATERWORKS.—To IRONFOUNDERS, BUILDERS, CONTRACTORS, and OTHERS.—The LOCAL BOARD hereby give NOTICE, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:—

CONTRACT No. 11.—For the supply and erection of a CAST-IRON WATER-TANK, 40 feet square, and 12 feet deep.

CONTRACT No. 12.—For the construction of a WATER TOWER.

CONTRACT No. 13.—For the construction of an ENGINE and BOILER HOUSE, CHIMNEY, and other works connected therewith.

The drawings and specifications may be examined on and after the 31st instant; and any further information may be obtained on application, at the Office of the Local Board, Worthing; or at the Offices of ROBERT HAWKSLEY, C.E. 24, Parliament-street, Westminster. Sealed Tenders to be delivered at the Office of the Local Board, Worthing, before TWELVE o'clock, on TUESDAY, the 12th day of JUNE next, endorsed "Tender for Contract No. 11, 12, or 13, as the case may be.

Signed WM. HUGH BENNETT,
Worthing, May 22, 1855. Clerk to the Local Board.

TO CARPENTERS AND OTHERS.

MR. JOSEPH COOKE, Inventor of the REGISTERED DOUBLE-ACTING EXHIBITION PEN, is desirous to receive TENDERS for making a LARGE NUMBER of them. A model of the pen may be seen at Mr. J. BAILEY'S, 113, Mount-street, Grosvenor-square; and particulars as to sizes (three) may be obtained of Mr. JOSEPH COOKE, Head-street, Colchester, who will not undertake to accept the lowest or any Tender.

Colchester, May 17, 1855.

CONTRACTS.

TO GAS CONTRACTORS.

THE DIRECTORS of the RICHMOND GAS COMPANY, in consequence of a misconception on the part of the person whose Tender was accepted for the ERECTION of THREE DRY LIME PURIFIERS, according to drawings and specifications, which may be seen at the Gas-works, Richmond, a copy of the specification may be had, by application to me, on payment of half-a-crown. Tenders to be delivered on or before MONDAY, the 11th of JUNE next.

JAMES DARNELL, Secretary.

4, Castle-terrace, Richmond, Surrey.

TO BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for the BUILDING of TEN ALMSHOUSES for the Worshipful Company of Mercers, at Stepney, in the county of Middlesex, may see the plans and specifications, on application to Mr. GEO. SMITH, at the Surveyor's Office, Poplar Dock-place, Old Jewry, between the hours of TEN and FIVE. Tenders must be delivered at Mercers'-Hall, Cheapside, on or before TEN o'clock, the 14th day of JUNE next, addressed to H. E. BARNES, Esq. endorsed "Tender for Almshouses." No Tender will be received, nor any charge for the use thereof. The Company do not pledge themselves to accept the lowest or any Tender.

Surveyor's Office, Mercers'-Hall.

TO BUILDERS, ENGINEERS, AND IRONFOUNDERS.

THE DIRECTORS of the BANBURY WATER COMPANY require TENDERS for the following WORKS:—W. Reservoir; B. Mains, Sluice Cocks, and Hydrants; C. two Filter Beds and Boundary Fence; D. Engine-house and Residence; E. Steam Engines and Pumps. The Drawings and Specifications can be seen at the Offices of Mr. J. HODGSON JONES, the Company's Engineer, No. 1, Poet's corner, Westminster; or at the Secretary's Office, Waterworks, Bath-yard, between the hours of TEN and THREE. Tenders are to be delivered endorsed "Tenders for Waterworks," on or before FRIDAY, the 15th day of JUNE next.—The Directors do not bind themselves to accept the lowest or any Tender. By order of the Directors,

T. A. HEDLEY, Sec.

Banbury, May 19, 1855.

TO MASONS AND PAVIORS.

THE COMMISSIONERS of the Dover-road and Trinity District, Newington, Surrey, give notice, that they are ready to receive TENDERS for the PAVING and MASONRY WORK required in the Terms of Tender may be had of H. JARVIS, Esq. Surveyor, 88, Trinity-square, Southwark. Tenders to be delivered on or before MONDAY next, by SIX p.m. to THOMAS B. FLEMING, Esq. Clerk to the Commissioners, 1, Trinity square, Southwark.

TO BUILDERS AND CONTRACTORS.

PERSONS desirous of TENDERING for supplying NEW CAB-ROOFS, and further RESTORATION to ARKESDEN CHURCH, Essex; also for RESTORING the CHANCEL, may see the plans and specifications at the office of G. & T. PETCHEY, Architects, Bishop's Stortford, Herts, on SATURDAY, the 26th to JUNE the 2th, on which day the Tenders are to be delivered to the Architect. The Churchwardens do not pledge themselves necessarily to except the lowest or any Tender.

KING'S LYNN UNION.—TO BUILDERS.—The GUARDIANS of the POOR of the KING'S LYNN UNION are desirous of receiving TENDERS for the ERECTION of their proposed NEW WORK-HOUSE. The drawings, specifications, and conditions of contract may be seen at the Guardians' Room, Town-street, South Lynn, and at the Offices of the Architects, Messrs. MEDLAND and MABERLY, 10, Buckingham-street, Adelphi, London, on and after TUESDAY, MAY 22nd to SATURDAY, JUNE 23rd, 1855, at TEN a.m. Tenders received after the hour will not be opened. The Guardians do not pledge themselves to accept the lowest or any Tender.

By her,
JNO. JAS. COULTON, Clerk to the Guardians.

Lynn, 8th May, 1855.

BOROUGH of BIRMINGHAM.—The Birmingham Improvement Act, 1851.—BIRMINGHAM SEWERS' CONTRACT, No. 36.—TO CONTRACTORS for Public Works.—The Public Works' Committee of the Council of the said Borough will meet at the Council House, on MONDAY, the 3rd day of JUNE next, at TEN o'clock precisely, they will meet at the Committee Room, Borough Surveyor's Office, to receive and open sealed TENDERS from persons willing to contract with them for the construction of the following WORKS, viz.—

Main Brick and Pipe Sewers, 36-inch to 9-inch in length, in the undermentioned streets and places, viz.:—Bloomsbury-place, Ashted-row, Henege-street, Little Francis-street, Great Barr-street, Little Barr-street, Palmer-street, High-street, Duddeston-road, Oxford-street, Arthur-street, Parkfield, Park-street, Elizabeth-street, Gloucester-street, Hurst-street, Pershore-road. From the junction of Charlotte-road with New Summer-street, along Charlotte-road, and across Building-land, Pakenham-road, and Wheeley's-road, and across land to Cattell-street. Lower Woodlane, Timble-street, Ledsam-street, Granville-street, Broad-street, St. Martin's-place, Bennett's-hill, Waterloo-street, Prince-street, Loveday-street, and New Town-row. Together with junctions for Branch Sewers, Lamp-holes, Gullies, and also Side Entrances, Manholes, Flushing Apparatus and Shafts, Ventilating Necks, Gullies, and other Works connected therewith. Forms of Tender, together with general conditions, plans, sections, and specifications of the works, may be seen at the undermentioned Offices daily, between the hours of TEN and FOUR on and after MONDAY, the 28th instant. No party whose Tender may be accepted shall enter into a bond jointly and severally with two responsible sureties in a sum equal to one-fourth the amount of his Tender for the due performance of the contract. Any Tender or schedule which is not strictly in accordance with the printed forms of the council, will be rejected, and no Tender will be received after TEN o'clock on MONDAY, the 3rd day of JUNE next. The council do not bind themselves to accept the lowest or any Tender.

J. PRIDMORE SMITH, Borough Surveyor.

Borough Surveyor's Office, Moor street,
May 23, 1855.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors complete with the point and all staples complete for fixing, at on. shilling the foot.

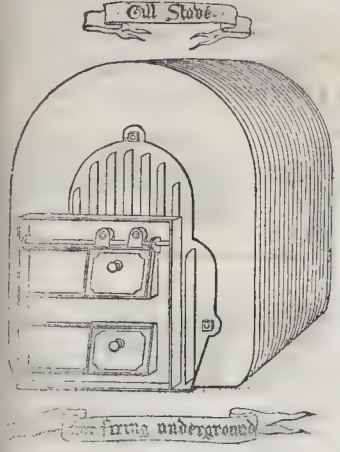
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
193, Shoe-lane, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 85, High Holborn.

TO ARCHITECTS, BUILDERS, and OTHERS.—TO BE SOLD, a Bargain, TWO PAIRS of WROUGHT IRON, PANELLED DOUBLE DOORS and FRAMES. One 7 feet high by 4 feet wide; the other, 7 feet high by 3 feet 8 inches wide, clear; fitted with strong bolts and patent detector locks, &c. suitable for strong rooms, or for connecting buildings. Made by one of the first houses in the trade.—Apply at 29a, City-road, Finsbury, where they may be inspected.



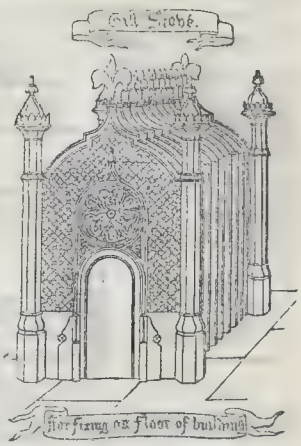
STUART AND SMITH'S
PATENT GILL STOVE,
FOR
HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

STUART AND SMITH,
ROSCOE-PLACE, SHEFFIELD,

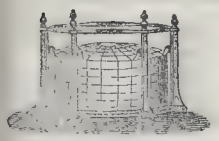
confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.
Prospectuses, and every information, sent on application.



ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,
IS AS
CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.
Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to
THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.
ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.
Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,
ENGINEERS,
IRON AND BRASS FOUNDERS AND MANUFACTURERS;
CONTRACTORS
FOR THE
ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,
With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings
WATERWORKS FOR THE SUPPLY OF TOWNS,
WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.
These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.
Signals for communication between Guard and Engine Driver Railway Stores and Library of every description
DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

MOREWOOD & ROGERS'S PATENT PLUMBIC ZINC,
A SUBSTITUTE FOR SHEET-LEAD FOR
ROOFING, RIDGES, GUTTERS, FLOORING,
AND ALL OTHER PURPOSES TO WHICH SHEET LEAD IS APPLICABLE.

This Metal consists of distinct layers of Lead and Zinc, perfectly united in the process of Manufacture, one side of each sheet being pure Lead and the other pure Zinc; it therefore combines the Stiffness of Zinc with the Durable Qualities of Lead. The Lead side of the sheet being laid outward, effectually protects the Zinc below from those atmospheric influences which so rapidly cause its destruction; the Zinc so stiffens and supports the Lead as to make a sheet of Plumbic Zinc equal in strength to one of Lead of several times its thickness and weight.

Plumbic Zinc not requiring to be more than one-fourth or one-fifth as thick as Sheet-Lead, is consequently much cheaper than that material.

For covering Terraces, Flats, Floors, Stairs, Passages, &c. it is well suited, being like Lead to the tread, whilst the Zinc on the under side of the sheet prevents it from treading out of shape.

The Size of the Sheets is 7 feet by 2 feet 8 inches.

No. 11 Gauge weighs about	18 oz.	per foot-super.		
No. 12	"	"	20 oz.	do. do.
No. 13	"	"	23 oz.	do. do.
No. 14	"	"	26 oz.	do. do.

For further particulars, apply to
A. MOREWOOD and CO. GALVANIZED TINNED IRON WAREHOUSE,
DOWGATE DOCK, UPPER THAMES-STREET, LONDON.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.
RAIN PIPES, &c.—F. A. TIDDEMAN & Co., St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large Stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O-G Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other castings; Iron work for Bakers' ovens of every description, fitted complete, to be had in sets or in parts—Prices low, to all competition. Contracts taken to any extent Goods landed. A powerful crane.

TO BELL-HANGERS, GAS-FITTERS,
IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornices, Rings and Lacquered Case Tube for Picture Rods. Desk Mats, &c. &c.
Superior Ruled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

NAILS and IRONMONGERY,
from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES,
a complete LIST of which
will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.
THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
5s. 9d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNG'S, Birmingham, and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TUPPER and CARR, Contractors and Manufacturers of all sorts of
IRON ROOFING,
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's)
PATENT GALVANIZED IRON,
For Roofs, Flats, Uniform Gas Tanks, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON, or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c
Engineers' and Builders' Castings of all kinds manufactured by
JOHN WALKER,
Builder, Contractor, and Ironfounder, Millwall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SKAIFE'S GALVANIZING WORKS,
Commercial-road, Limehouse, London
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated.—Roofs fixed complete.
J. Skaife is also agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zink, and Tubes.
An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station. A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire proof stores. Also, railway stations, trunks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 13, Fenchurch-street, City.

TO ARCHITECTS AND BUILDERS.
PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

LOSH, WILSON, and BELL,
NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST IRON GAS and WATER PIPES.
Office, No. 7, Sise-lane, London.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and CO. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of inventions; in the present state of the art, picking them would seem to be impracticable."—*Standard*.

Depôt: 181, FLEET-STREET; where also may be had PRICE'S FIREPROOF SAFES, &c.

COPYING PRESSES, CASH AND DEED BOXES.

Lists and Prospectuses free.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; Chuns, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles, Dr. Arnott's Ventilator, and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER late STURCH and BOOBBYER), established nearly 300 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1704, BRITISH SECTION, HARDWARE DEPARTMENT, PARIS EXHIBITION, 1855.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 13, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"84, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, for our late offices in New High street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (after excepted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Hornsey-fields, Wolverhampton.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

SASH AND MOULDING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and railway makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders: and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost. Sold only by WILLIAM FURNESS, Patentee, 24, Lawton street, Liverpool, from whom full particulars may be obtained.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinet Makers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongers' Establishment, 38, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing by three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

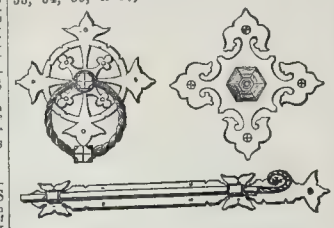
P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING and MOULDING, MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in York-road, Lambeth, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.



An Illustrated Catalogue on receipt of six postage-stamps.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5d. 6d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

3-feet self-acting ditto, ditto, 30s. each.

Air Bricks, 4s. per doz.

Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservatory and Hot-house Builders, either in wood or iron, respectfully call the attention of the nobility, gentry, and nurserymen to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had many years' experience, and having warmed by the circulation of hot water upwards of 4 000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense. Gre.ahouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application. COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co's establishment; where may also be obtained engravings with prices, or forwarded free by post. -DEANE, DRAY, and CO. opening to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 143, Regent-street, London.

THE PATENT PRIZE KITCHENER, with Boiler to supply Bath, Scullery, Hot and Steam Closet, is Manufactured, with all its recent improvements, by THOMAS RADCLYFFE, Leamington, Warwickshire, of whom plans, prices, and testimonials may be had on application. It is made from three feet to twenty, all worked by one small fire. A great saving in fuel is effected by having this kitchener, and it effectually cures smoky chimneys, and is the best cooking range extant.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with the boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

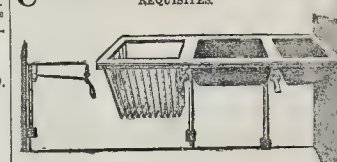
DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and Co. 42 Poland street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 t. 50 per cent. being effected in the cost of fuel. Prospectuses, with testimonials, sent on application.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron-bridge.

TO IRONMONGERS AND THE TRADE GENERALLY.

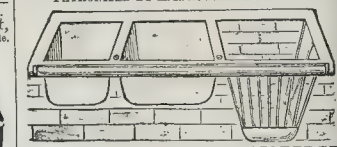
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse removed from 81 to 68, Upper Thames-street.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in abolishing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS' BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.

W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Back Plates, Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and not rising spring, swing, double acting, gate, and other Hinges, Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 59, Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in stock.

Improved Self acting Cottage Ranges, with Large Oven and Boiler,

30	32	34	36-inch.
28s.	30s.	32s.	34s.

Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars

34	36	38	42-inch.
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Frames, 6d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe { 2 | 3 | 3½ | 4 inch. 11d. | 1s. 3d. | 1s. 4d. per yard.

Cast Gutters—4 inch, 9d. per yard.

4½ inch.

O G Gutters..... { 1s. 1d. 1s. 3d. per yard.

Best Cut Clasp and Rose	1½	1¾	2	2½	3 inch, and larger.
	10s.	14s.	13s. 6d.	17s.	19s. 6d. per cwt.

Cut Sheet Rifled Brads, 18s. per cwt.

1 inch Cut Lath, 14s. 6d. Cast Lath, 11s. 6d.

Patent Line	2	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

THE BUILDER.

FOR SALE, TWO TURNING LATHES, viz.; One TURNING LATHE, Heads 4½ inches high; one TURNING LATHE, Heads 5½ inches high; in first-rate condition. Town made, suitable for brass, iron, or wood turning. Price very moderate. For particulars, apply at No. 13, Salisbury-place, New-road, St. Marylebone.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEEIL and STEDALLS, Nos. 5 and 6, BROAD-STREET, BLOOMSBURY. The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

TO CARPENTERS, CABINET MAKERS, &c.

SAMUEL BLYTHE, Saw Manufacturer (late Howell), King's-road, Chelsea, London, the only foreman Mr. Joseph Howell ever had, will serve the BEST LONDON MANUFACTURED SAWS at 20 per cent. off List Prices, warranted.—May 18, 1853.

FOR SALE, a five-ton WHARF-CRANE, cast-iron post, oak jib and brace, treble purchase gear, with chain, complete. Terms very reasonable. Also, a powerful cast-iron TALLOW-PRESS and B-X, 4½ inch wrought-iron screw and gun-metal nut, complete, equal to new.—Apply to H. FILLINER, 4, Harold-street, Blackfriars-road.

WANTED, for a fire-proof room, a PAIR of strong second-hand IRON DOORS, in a frame 7 feet 1 inch high, 5 feet 6½ inches wide, with fastenings complete (hinges preferred to sliding).—Particulars and price addressed, A B Post-office, Chipping Norton.

SERPENTINE.—THE LIZARD SERPENTINE COMPANY manufacture Chimney-pieces, Tables, and all Architectural, Ecclesiastical, and Ornamental Works, from their beautiful stone, at prices in competition with coil ored marbles. The stone from the lower beds of their quarries is superior to any hitherto brought into the market. Stone supplied in block or slab. Offices and Show Rooms, 3*, Surrey-street, Strand.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, his own extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Sicilian, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Harehill, Park Spring, and other stone, in the slab. Landings, and hearthstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent terrace, Millbank, to his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.

Mr. B Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quicker than any one else.

N B The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.

SAMUEL CUNDY,

THE STOCK OF LOW PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL,

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mantels, Vases, &c; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE WORKS.—In consequence of a DISSOLUTION OF PARTNERSHIP at Midsummer next, the whole of the superior manufactured and well selected Stock of Marble Chimney-pieces, Monuments, Pedestals, Tombs, &c. will be sold at very reduced prices. HOUKES and PEARCE, 1 and 2, South-row, New-road, St. Pancras.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORKSHIRE STONE of the very best quality direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms. GEO. VINT and BROTHERS will quickly forward prices by post on application.—Addi ess, Hunslet, near Leeds.

By Her Majesty's — Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Tazzas, Vases, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter.—London Agent, C. HOAR, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar-square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

TO FURNACE, OVEN BUILDERS AND OTHERS.

THE GODSTONE STONE COMPANY will supply the best description of FIRE STONE in large or small blocks, Oven Tiles, Backs of Grates, and all descriptions of Furnace work, at prices lower than those quoted for other goods of the same description offered to the public. The price of this Fire Stone is erroneously stated in Builders' Price Books for 1853, at 5s. per foot cube, whereas any quantity can be supplied at the Brickmayer's Arms Station, at 1s. 2d. per foot cube.—Apply at the Offices of the Company, 21, New Bridge-street, Blackfriars.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

Lists of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEEDHAM, and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to deliver from their Wharf and Depôts CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, GODSTONE IN, BUILDING, BLOCK, and RUBBLE STONE; BLOCK and BURR HEARTH STONE; also RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the prices of Brickwork.—For information, direct to Caen Wharf, Rotherhithe; or to Hibernia-chambers, London-bridge, Borough.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Waterloo-bridge. Offices: 345, High-street, Southwark, near the Townhall.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents, TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

BATH STONE DEPOT, BOX STATION. ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Box Ground Stone, Scalleit Block, Ashlar, Rangework, &c. &c. supplied direct from the Quarries; also every description of Stone-work for Building purposes, both plain and ornamental, prepared ready for fixing, and forwarded to any part of the kingdom. Vases in an elegant variety always on view; Urns, Fountains, Chimney-pieces, Tombs, &c. &c.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave place, Pimlico

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prisons, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Ashtoon, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLAB WORK are NOW READY, and can be had on application, inclosing a postage-stamp.
N.B. A liberal discount to the trade.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W. ASPINALL begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potternewton, Newton, Harehill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curb and Pitching, all at the very lowest prices.
N B. Estimates given for Masons' Work.

IMPORTANT to ARCHITECTS, BUILDERS, and OTHERS.—E. ROBBINS, Scagliolist, Modeller, and Plasterer, 31, Camden-street, Islington, invites the attention of Architects, Builders, Decorators, and others, to his New and Improved system of Manufacturing SCAGLIOLA, whereby he produces a more marble-like appearance than can be obtained by any other system; the great obstacle in the execution of INLAID WORK is completely obviated, and the simplicity of his system enables him to produce it at a greatly reduced scale of charges. E. R. having a thorough knowledge of its nature, use, and application, as well as of Cements and Plaster Compositions, is content to execute the most elaborate designs in every variety of marble, which for softness and brilliancy of colours, cannot possibly be surpassed

First-class specimens of the old and new systems can be seen on application as above.

TO BUILDERS AND OTHERS

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH-BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Panel Ends, Oak Plank, Scantlings, &c. Number of Planing Machines, Deals, and Battens, fetched from the Docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Bills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Fine Planks, 19 ft. 3 in. by 11 in.	from 3s. 6d.	each.
Spruce Deals	„ 2s. 9d.	„
Yellow ditto	„ 4s. 0d.	„
Honduras Mahogany	„ 0s. 6d.	per foot.
Spanish ditto	„ 0s. 7d.	„
Oak Staves	„ 2s. 0d.	each.

Prepared Flooring, Veneers, &c. at equally low prices.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 30, North Wharf-road, Paddington.
N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

ACORN TIMBER WHARF and SAW-MILLS,
GRAND SURREY CANAL, OLD KENT-ROAD.—The extensive Waterside Premises Improved Sawing Machinery and Drying Warehouses, with a supply of all kinds of Foreign Wood direct from the importers, enable consumers to select from one of the largest stocks in London, at the lowest prices, for cash.
The Monthly Price Current forwarded on application.—RICHARD MAY informs the building public that American Pine and Spruce are cheaper, and Baltic goods are scarce.

VENEER SAWS.—For SALE by PRIVATE CONTRACT, 6 feet, 10 feet, and 16 feet diameter.—Apply to Messrs. FULLER and HORSEY, Bulter-street, City.

TO THE CLERGY, AND TO ARCHITECTS, BUILDERS, &c.

STEPHENS'S WOOD STAINS as a SUBSTITUTE for PAINT, and at less than half the cost, and without the disagreeable smell and deleterious consequences of paint, well adapted for Churches, Chapels, Schools, or other public buildings, as well as private dwellings, giving the effect of Oak, Mahogany, or Satin Wood. Those who noticed the Entrance Doors of the Crystal Palace of 1851, which were coloured with these stains, would be struck with their beautiful effect.—Prospectuses, giving full particulars, and specimens sent free to any part of the kingdom.
HENRY STEPHENS, 54, Stamford-street, London.

STEPHENS'S STAINS for WOOD. Testimonial to the value of:—
"Northgate, Colchester, February 5, 1855.
"Sir,—I have just finished a new church with your oak stain, and I consider it the best adapted for the purpose, being the nearest approach to the real rich wood of any I have ever used.
"I am, sir, your obedient servant,
"SAMUEL GRIMES, Builder.
"To Mr. Hy. Stephens, 54, Stamford-street, London."

THE LONDON PARQUETRY beg to inform Architects, that having just completed five extensive orders at

Hillingdon—P. HARDWICK, Esq. Architect;
Colesbourne—D. BRANDON, Esq. Architect;

which have kept them incessantly engaged during the last four months; they are now again prepared to accept and execute orders for PARQUET FLOORS or BORDERS to any extent.
The LONDON PARQUETRY have recently added to their works machinery, by the aid of which they can execute the most elaborate designs in spiral lines, at the prices of ordinary geometrical patterns, and will be glad to forward sketches and estimates, on application to
The LONDON PARQUETRY, 8 Whitehart-street.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross.
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The Builder.

SATURDAY, MAY 26, 1855.

SOME of our metropolitan readers express themselves as anxious to be kept informed of the proceedings in respect of the proposed Bill to amend the Laws relating to the Construction of Buildings in the metropolis and its neighbourhood: nor is it strange that they should be so, seeing how much depends on obtaining a clear, sufficient, reasonable, and workable Act. The Builders' Society, at a special meeting on the 17th inst. came to the following resolutions:—

"1. That the duties of the district surveyor could not be as well fulfilled by any but competent professional men, and that the interests of the public could not be protected efficiently by any arrangement which would throw these duties on a less educated class of men.

2. That in the opinion of this society, the Court of Official Referees divested of any legal member, would be the best tribunal for appeal in such cases as could not be settled with the district surveyor.

3. That inasmuch as the only public matters that have to be regarded are *the safety of the public, as against insecure construction, and the spread of fire*, it is desirable that the stipulations of the Bill should be as few and short as possible, and avoid as far as may be all interference with internal structure and arrangement.

4. That the payment by fees to be paid by the person building is the most equitable method of meeting the expense of their superintendence.

5. That the scale of fees requires revision, as it appears that under the existing Act, 7 and 8 Vict. cap. 84, as well as by the new Bill, that the smaller classes of buildings pay a much higher rate in proportion as compared with those of a larger class; and

6. That the districts should be equalised so as to make them worth the attention of competent professional men."

In discussing the fifth resolution it was shown, by an analysis of the last Parliamentary Report (No. 83), "Metropolitan Buildings Bill," that out of every 100 buildings, seven were of the first rate, fourteen of the second, twenty-seven of the third, and fifty-two of the fourth rate; and that the fee chargeable under the existing Act on fourth-rate houses, viewed as a per centage on the value, was much greater than that chargeable on a first-rate. It ought not to be forgotten, however, in discussing this question, that the district surveyor has often more trouble in dealing with small houses than with large.

As to the payment of the district surveyor *by fees*, the Select Committee of the Commons have decided that it is to be so, and there is much to be said in favour of the mode. It is very desirable, nevertheless, that arrangements should be made in the Bill for the collection of these fees by a proper officer, so as to avoid bringing the builder and the surveyor into collision on that point. The difficulty of obtaining payment under the present Act is very great in many cases, and much time and attention is thus wasted, which should be otherwise employed.

Amongst the movements on the subject out of doors, we must mention that a deputation from the parish of St. Pancras had an interview with Sir William Molesworth on Saturday last, to point out certain clauses in the Bill as requiring revision, but found, as we said last week, that so many alterations had been made in the Bill, and were still pending, that discussion would be useless: they would be fighting giants already slain. Sir William Molesworth said the whole of the original clauses with respect to construction had been struck out of the Bill; that no decision had yet been come to by the select committee, and that it was impossible for him to state what rules would be inserted in the schedule of the Bill in the place of those which had been struck out. The deputation suggested, amongst other things, the propriety of introducing some limitation as to the time in which penalties might be recovered under the provisions of the Bill, and called attention to the annoyances which frequently arose in consequence of the Act rendering it necessary to call in the assistance and advice of a surveyor for trifling and immaterial improvements. Sir W. Molesworth stated, in reply, that there was considerable difficulty in drawing the line between various descriptions of works, and it would be necessary to have examiners to decide in some form as to what was really a material alteration. If the deputation would send him any amendments to the clause, he would give them his best consideration.

At Blackheath a meeting has been held, whereat it was resolved to lodge a petition against the Bill, and to oppose it by counsel if practicable. Until the amended Bill is printed, however, it is impossible to say what there is to object to.

The select committee did not meet on Tuesday, as at first arranged, but on Thursday, the 24th, when they determined on various other alterations, and adjourned till the next day. They will then probably adjourn over the holidays, so as to give time for the discussion out of doors of the Bill as it now stands.

In lieu of the recondite rules for determining the thickness of external and party walls, proposed in the original Bill, and set forth by us p. 205, *ante*, the following was at first substituted:—

"In cases where neither the height nor the length exceeds 36 feet, the thickness of every such wall at its base shall be 13 inches.

In cases where either the height or the length exceeds 36 feet, the thickness of every such wall at its base shall be determined by multiplying together the length and height of the wall, and dividing the product by 22 times the length of a diagonal line drawn from the top of the footings at one end to the top of the wall at the other end thereof; but if the length of any wall is less than one-half of its height, the thickness of such wall at its base shall be one-fiftieth part of the height of the wall; and no such wall as aforesaid shall at its base be less than 13 inches thick," &c.

Other suggestions were made, but what the committee will ultimately decide on we cannot yet say. It is proposed that the Bill, if passed, shall come into operation on the 1st of January, 1856. Nine-inch walls will probably be permitted for buildings covering a less area than 5 squares.

ON THE EMPLOYMENT OF PAINTED GLASS.*

IT is not my intention to enter into any antiquarian disquisition respecting the subject of glass painting, but, as briefly as I can, to call your attention to certain points connected with the practical application of the art. In so doing, it will be necessary for me to repeat much that I have often already repeated, but which I have less hesitation in doing since I find my views are now pretty generally sanctioned by persons to whose opinions I, as an amateur, feel bound to defer. Indeed, were it worth my while to inquire, it would be difficult to discover why the enunciation of such views should have exposed me to the wrath of a certain set of critics possessing unbounded admiration for the thirteenth century, and for everything connected with it. For if any one more than another has striven to vindicate the common sense of the mediæval artists, and those of this period in particular, it is myself. But as I know that these gentlemen are always ready to come round to views which have become popular, even in spite of their own opposition, and to claim them as their own, I shall not be deterred from again submitting my views to the judgment of practical men.

But there is another class of writers whose opinions are not to be so lightly passed over; for by the mere effect of reaction, if from no other cause, they certainly will gather strength as people get tired of mediævalism. I mean those, principally foreigners, who advocate the Munich school of glass painting.

It must be admitted that the German glass painters, as a body, surpass ours in nearly every artistic quality. This was painfully apparent to all unprejudiced eyes in the Exhibition of 1851. And I doubt if we could even now reckon half a dozen glass paintings, by native artists, which, in point of drawing and composition, can compare with the works at Munich or Cologne. I apprehend that this is attributable less to our present fondness for mediæval pursuits, than to the spirit in which we conduct them, though both no doubt have their influence.

Whether it is that the Gothic style of architecture is incapable of being adapted to the wants of modern civilization, or that we have been unable to find out its principles, certain it is, that the most successful specimens of modern Gothic are those which are the most faithful copies of old work,—a reflection which, united to the abundance of mediæval examples, has tended to reduce the practice of modern Gothic architecture, and of its accessorial arts, to a simple system of copying. I do not pretend to deny that, in this country, architecture, during the last 100 years, has been, for the most part, a system of copying. But there is this difference in copying the Classical and the Gothic styles,—that the one is the style of a sculptor, even in its most purely architectural parts, and is associated with ideas of the utmost perfection in all branches of accessorial embellishment, whilst the other is the style of a stonemason, even in its statues and reliefs, and is associated with ideas of art in its infancy, rather than in its mature development. Hence, the imitation of Classical architecture has always necessitated a degree of excellence in its accessories, such as pictures and the like, demanding from the critic some knowledge of the ordinary rules of art, and requiring artistic qualities in the designer; whilst the imitation of Gothic architecture has been the raising up of critics, to whom, knowing the men, we should hardly think of entrusting the selection of a tea-pot, and the conversion into artists of persons who, forty years ago, would have been laughed at for venturing to assume that title.

The Germans, on the contrary, at least as regards glass painting, under the able guidance of the late King of Bavaria, a man of refined and matured taste, seem to have regarded the art of the Middle Age in the same spirit as Sir Walter Scott regarded its literature,—as a mine full of ore, rich indeed, but which before it could be rendered available, required to be purged of its dross,—"the repulsive dryness of mere antiquity." A German writer thus expresses himself:—"How it is possible even to name the works of the old glass painters beside those of modern artists, far less to give them the preference, is to me inconceivable. That we should take all possible care of the old painted windows of our churches—that we should attribute to them a certain historical value as specimens of the beginnings of art—that the antiquary should rejoice over them,—all this I understand. But, when I hear of people falling into ecstasies at their beauty, it is really impossible for me to give them credit for candour. Form is entirely wanting in these old glass paintings: the drawing is monstrous, and composition, grouping, and perspective, cannot be looked for at all. Go and look at a window in the Cathedral of Ulm, or the Sebald's Church at Nuremberg, and you will not, for a quarter of an hour, be able even to make out the subject of the picture, or the relation of parts to each other. But it has been decreed, once for all, that the old glass paintings are very admirable. So, out of twenty visitors to the cathedral, nineteen make it a point of conscience to brighten up at the sight of them, and give utterance to half-suppressed exclamations of emotion and admiration. It is one of the many

* The following paper was read by Mr. Charles Winston, at the Architectural Museum, on the 21st inst.

conventional lies which we are accustomed nowadays to impose on ourselves and others, from various motives,—sometimes for the justification of our claims to refinement—sometimes from mere habit—sometimes from politeness—and sometimes (Heaven save the mark!) for the sake of morality and religion." I have heard precisely similar sentiments expressed at Munich. And there is no question but that there is a good deal of truth in them, and that it is to the practical carrying out of such sentiments, that the Munich school of glass painting owes much of its well-deserved popularity.

After this panegyric it may seem almost ungracious to except to the practice of the Munich school; and, indeed, such is my respect for the artists of that school, that I should not do so if I did not feel very sure of my ground.

The practice of this school to which I object is, the profuse employment of enamel colours.

I need hardly remind you, that there are three ways of producing a painting on glass;—the first, in which the local colours are obtained by using glass coloured in its manufacture, and by means of the yellow stain; the outlines and shadows only being painted with an enamel colour;—the second, in which the local colours are produced on white glass, by the application of enamel colours, and the yellow stain;—the third, in which both the former methods are combined.

This last is the method pursued by the Munich school. It has over the first method the advantage of affording greater facilities for the application of colour, and of largely increasing the power of graduating the colour, which, in glass painting, with every help, has not nearly so wide a range as that of fresco painting! and, of course, is very limited indeed, in comparison with the scale of colouring in oil painting, or water-colour painting. But it is attended with this advantage, that all glass paintings so executed have a deadness of effect, proportionate to the extent to which the glass has been overlaid with the enamel. Hence it is that the Munich glass paintings, collectively, want that brilliant vivacity which all old glass paintings, up to the middle of the sixteenth century, possess, and which often makes these old works superior in general effect to the modern, though they are in many other respects so inferior to them. This defect is still more apparent in the works of those artists who have exaggerated the practice of the German school. I have noticed that interiors, lighted by such works, as the church of St. Germain l'Auxerrois, at Paris, have none of that dim, subdued light which is so charming at Chartres and elsewhere, but a sort of dull obscurity, as if they were filled with smoke or dust; the impression produced upon the eye by the glass, no doubt, being the cause of the apparent difference in the gloom.

The German artists, I am aware, justify the use of enamel colours, as an expedient to make up for the flimsiness of the ordinary material, and which in this respect, as they assert, contrasts unfavourably with the old, even with that of the fifteenth and sixteenth centuries; a discovery which, being perfectly true, is perhaps, on that very account, as yet unrecognised by our critics; for, only the other day, I saw it asserted, as a profound personal conviction, that there was no difference whatever between the texture of old glass and new. But, I cannot help thinking that the ease with which enamel colour can be applied has tempted the Germans rather to transgress the limits of glass painting, and to seek to impart to their works a degree of finish and refinement which contrasts but unfavourably with the harsh lines produced by the lead work and saddle-bars, without which, as you all know, no glass painting, except it be of very small dimensions, can be constructed. I think that this was exemplified in the "Dante window," in the Exhibition of 1851, a work which certainly eclipsed everything else there. It is true that, with some other really fine things, it escaped all notice in the jury's report; but then, as a foreign artist remarked to me, considering the way in which they accorded their medals and praises, this was the greatest compliment that they could have conferred. I repeatedly examined this window, which was executed in the manner of the German school, with feelings of admiration at the masterly way in which technical difficulties, of no ordinary nature, had been overcome; but I felt, more strongly than I can now express, the contrast between the exquisite softness and finish of the painting and the cutting harsh lines to which I have alluded.

It would be well perhaps if the glass-painters of this country could succeed in painting glass as badly as the Germans do. But as we are beginners, and certainly have nothing to unlearn in the way of art, there seems no reason why we should not at least endeavour to avoid some of the errors into which they have fallen, by adopting a different practice in the outset; especially as a difficulty with which they have had to contend has been overcome, by reviving the manufacture of the ancient material. As I have had something to do with this revival, I shall not allude to it further than to state, that if Mr. Powell, to whom the receipts have been given in consideration of the great facilities he afforded of carrying on the experiments at his works, does not continue to make glass like the old, of all dates, it is his own fault entirely, since he has made from the receipts glass exactly like the old, and which, it is only fair to tell you, is very different from the spurious imitations of it which, now that the example has been set them, other glass-makers have brought into the market.

I would strongly advocate the universal adoption of the mosaic method of glass-painting, in which, as I have said before, coloured glass is used instead of enamel. And I certainly would not advise any attempt to be made to render glass-paintings much, if at all, more pictorial than the best glass-paintings of the sixteenth century are. And when I speak of the best works of that period, I will put first and foremost the windows of the Chapel of the Miraculous Sacrament, in Brussels Cathedral; which for power and effect, and as evincing a thorough knowledge of the material in its treatment, far surpass any other glass-paintings of the period that I have seen; though some of these may be more picturesque, or exhibit better figure-drawing. Nor am I singular in my liking, for though some persons, not very conversant with the subject, have sought to decry these windows, I have heard them awarded the highest praise by some of our best artists and architects. Yet these windows, though apparently not wanting in finish, are extremely coarse in execution, compared with a specimen of the modern German school. I have been told that, technically speaking, they are not more highly finished than a finished cartoon. But, however this may be, there is here no unpleasing contrast between shading and lead lines. The paint and lead unite, and form one harmonious whole: even the saddle-bars are forgotten in the sharp, crisp, brilliant effect of the window. This seems the perfection of glass-painting.

If, therefore, designs of the nature of the Brussels windows are capable of being represented in this comparatively simple manner, without the aid of an enamel colour, except for the purpose of shading, it follows that the same style of execution will apply easily to less complicated pictures.

Many additional reasons for preferring the mosaic style of glass painting to any other could be adduced, but the limits, and the nature of an address such as the present, preclude my going fully into details; and I embrace this opportunity to apologize for having elsewhere, for the sake of brevity, omitted certain qualifications,—immaterial, it is true, but which would have rendered some of my statements more strictly accurate.

I now propose to offer a few remarks on the composition and execution of painted windows, assuming the adoption of the mosaic system to be conceded. And here I would impress upon your minds, as practical men, the paramount necessity for carefully studying the remains of ancient painted glass, from the earliest period to the middle of the sixteenth century. These remains constitute our best guides for the future: the vast majority of them are by no means objects to be copied or re-produced, but they all demand such an examination as those only can make whose eyes have been educated by the habit of drawing and colouring. It is, I believe, from not possessing this essential qualification that our critics fall into such otherwise inconceivable blunders whenever they attempt to enlighten the world on the subject of glass-painting, and that they are so readily cajoled by those whose interest it is to cajole them. And I am sure that, when you shall have completed such an examination as I have recommended, and compared the results of your own experience with the precepts and practices of our friends, you will find that my animadversions on them are fully made out.

I shall not dwell on the variety of texture in glass of different dates, the existence of which, by the way, was to be inferred from the sense of vision; because this fact has been established, beyond dispute, by recent chemical research. But you will find it equally true that the execution of ancient glass paintings varied with the nature of their material. When the glass was rich and solid, the execution of the painting was simple: when the glass was thinner and poorer in appearance, the execution of the painting became more elaborate. And, to a certain extent, their composition follows the same law,—a circumstance which affords the best proof of the common sense and originality of the mediæval artists, and a significant commentary on the opposite practice of our critics, who, up to the present day, have sanctioned works executed in the flimsiest possible material, without any greater pictorial manipulation than is to be seen in ancient works composed of the richest possible material.

These considerations should never be lost sight of in designing a painted window.*

THE PALACE OF THE FINE ARTS, PARIS.

The Palace of the Fine Arts, constructed for the Universal Exhibition of 1855, is situated between the *Avenue Montaigne* and the *Rue Marbeuf*, and covers a large extent of ground. We have engraved a plan of the building, which first appeared in the *Revue des Beaux Arts*, and our readers will thus get a better idea of the arrangement than could be conveyed in words. It will be seen that some of the principal masters of the French school have each an apartment to themselves. The number of works sent in by French artists was very large, much larger than the jury could have found room for, even if they had deserved it. Many of the artists consider themselves greatly injured by the decision of the jury against the admission of their pictures. The ordinary annual exhibition has not been held, and they find themselves without the means of bringing their works before the public. The gallery where the refused works, not already reclaimed, are placed, has acquired the title of the Necropolis, or Field of the Dead!

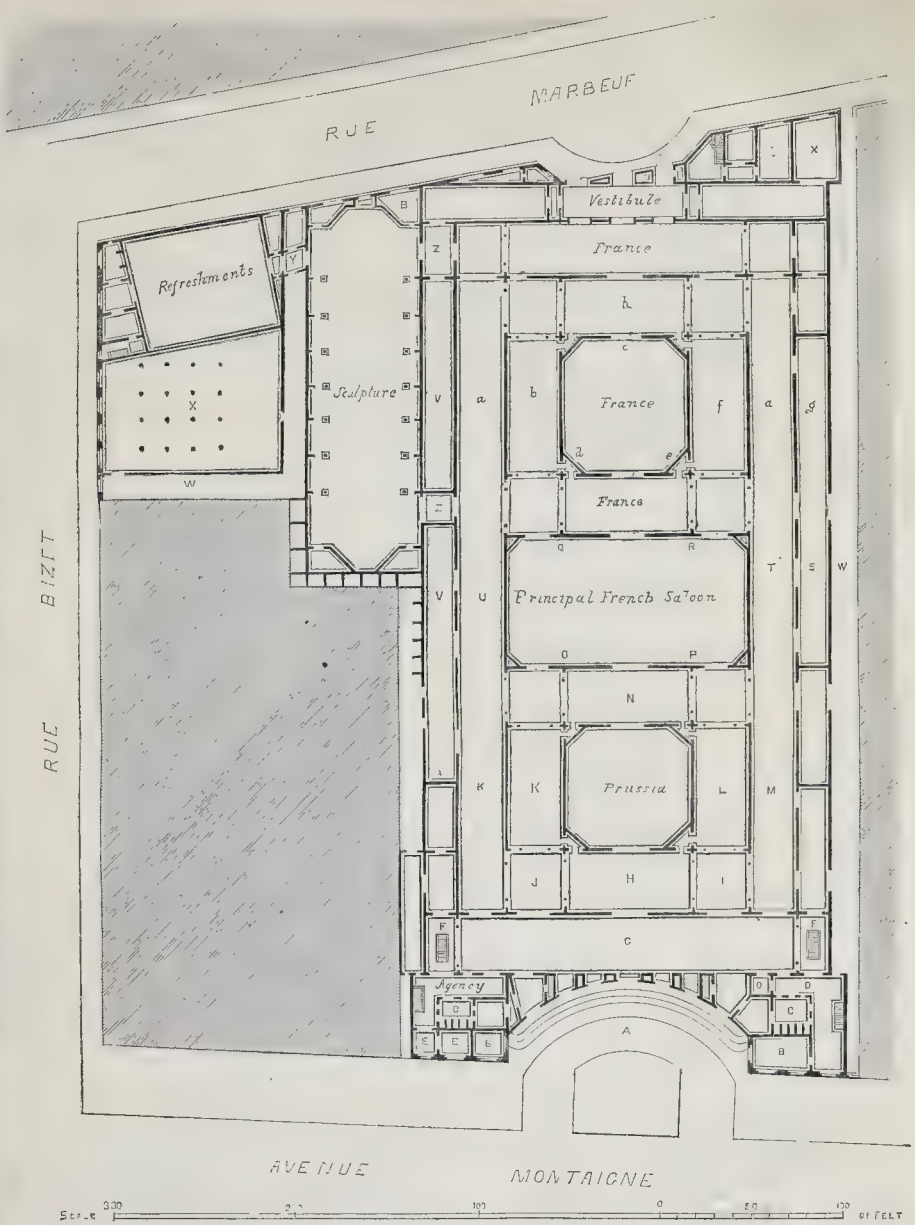
A statement of the number of works contributed by the different countries will be found in our last number (p. 231).

The postponement and other causes have acted very prejudicially against the Exhibition up to this time. It will need a strong effort on the part of the management to reawaken that enthusiasm which has been quenched.

REFERENCES.

A. Carriage-way.
B Office.
C. Court.
D Managers.
E. Catalogues.
F Principal stairs.
G. Denmark department.
H. Swiss department.
I. Baden.
J. Italy.
K. Belgium.
L Austria.
M. Great Britain.
N. Spain.
O. M. Yvon's works.
P. M Gérôme's works.
Q. M. Couture's works.
R. M. Muller's works.
S. English sculpture.
T. Great Britain.
U. Holland.
V. Depôt for refused works.
W. Area.
X. Store-house.
Y. Lobby.
Z. Lobby.
a. France.
b M. Horace Vernet's works.
c. M. Delacroix's works.
d. M. Lehmann's works.
e. M. Flandrin's works.
f. M. Ingres's works.
h. M. Decamp's works.
i. Guard-house.

* To be continued.



PLAN OF THE PALACE OF THE FINE ARTS, FOR THE PARIS UNIVERSAL EXHIBITION.

NOTES ON THE USE OF TURPENTINE IN HOUSE-PAINTERS' WORK.

IF we have not found means to *remove* obstacles to improvement in methods for the preservation and embellishment of buildings, our pages have already presented to English readers,* in as few words as were necessary, a portion of the groundwork to the discovery of any process calculated to ensure durability, and to raise the standard of art in interior decoration. Definite knowledge of the materials and operations with which the house-painter is concerned—simple as these may be deemed by some—can scarcely be considered as having been established, prior to the elaborate experiments of which we have given some results.

M. Chevreul's next subject of inquiry—though not undertaken with all the objects referred to in the opening remarks of our first article—is by no means to be disconnected from the desired end of durability, and that of deadness of surface. The question proposed is,—Does the essence of turpentine augment the siccative property of pure linseed oil, and of the same oi mixed with white of zinc?

The relative proportions of oil and turpentine employed in painting, will vary according to the nature of the surface, the desired solidity of the coat of paint, the colours, and the character of brilliancy, or deadness, desired. The difficulty of our own object of inquiry will shortly be seen.—The chief uses that our author discovers in the turpentine are these. It facilitates the application, by diminishing the

* See pp. 109 and 193.

viscidity of the oily mixture; and it allows the appearance of the surface as to deadness or otherwise, to be regulated. It is also of importance when the work has to be varnished, in preventing cracks which would otherwise be seen; and in such cases, it is said the proportion of turpentine can hardly be too great. But, if the work is to have the *maximum* of durability, and be neither "dead" nor varnished, then the turpentine should be reduced to the smallest possible quantity,—because, as we have tried to keep in view throughout, in the oil is the principle of stability. The *rationale* is this:—the work *without* turpentine dries by absorbing oxygen, but without losing anything; the work with turpentine dries, indeed, partly in a similar manner—but, also by evaporation—losing nearly all the turpentine. The less the turpentine, the more oil will be retained after drying, and consequently the greater will be the durability. The greater also will be the time required for the drying. As regards the prevention of cracks in future varnishing by previous addition of turpentine to the paint, the turpentine is required because it is essential that first coats should be perfectly dry to work upon. For, if the work be merely dry on the surface, the drying of the varnish will separate the outer surface of the paint from the inner,—producing the result that has been mentioned.

Our author endeavours to ascertain whether, independent of the effects already alluded to, turpentine has siccative properties of the ordinary kind—or those of absorbing oxygen,—and he compares also those of some other substances. The latter are first considered. In experiments commenced in January, 1850, on oils and vehicles, laid on surfaces of oak, he finds the white of zinc siccative relatively to the manganesed oil. Thus, in one case, we find results as here stated:—

	Manganesed Oil.
First coat dried in	18 days.
Second ditto	7 ,,
Third ditto	8 ,,
Total	33 ,,

whilst, admixture of white of zinc added to the properties of the oil, thus:—

	Manganesed Oil, 34 Parts by Weight; White of Zinc ... 40 ditto
First coat dried in	12 days.
Second ditto	3 ,,
Third ditto	3 ,,
Total	18 ,,

The same effects are produced upon a mixture of pure oil and manganesed oil. Thus, whilst in the following case,—

	Pure Linseed Oil, 36 Grammes; Manganesed Oil, 16 ditto.
First coat dried in	37 days.
Second ditto	3 ,,
Third ditto	3 ,,
Total	43 ,,

the addition of white of zinc gave these results:—

	Linseed Oil, Pure, 36 Grammes; Manganesed Oil... 16 ditto; White of Zinc ... 56 ditto.
First coat dried in	25 days.
Second ditto	4 ,,
Third ditto	4 ,,
Total	33 ,,

The white of zinc, again, is siccative relatively to the linseed oil pure, mixed with the manganesed oil and turpentine. Thus, with—

	Pure Linseed Oil, 1 Part by Measure; Turpentine..... 1 ditto; Manganesed Oil, 0½ ditto.
First coat dried in	36 days.
Second ditto	3 ,,
Third ditto	2 ,,
Total	41 ,,

but, with—

	Linseed Oil, Pure, 1 Part by Measure; Turpentine ..... 1 ditto; Manganesed Oil... 0½ ditto; White of Zinc..... 2½ ditto.
First coat dried in	27 days.
Second ditto	3 ,,
Third ditto	1 ,,
Total	29 ,,

He then proceeds with the question of the influence of turpentine on the drying of pure linseed oil, and on a mixture of that oil with white of zinc. The experiments were tried in April and May, 1850, and were now on glass. They showed that whilst three coats of pure oil required 25 days, the same oil, mixed with half its volume of turpentine, would dry in 20 days. Linseed oil dried more quickly mixed with white of zinc, than the same oil with turpentine,—in the proportion of 11 to the number 20 just mentioned. It may here be remarked that whilst a single coat of the oil, with its weight of white of zinc, required 3 days for drying on glass, 30 days were required on oak. But whether on glass or on oak, the mixture of linseed oil and white of zinc is rendered more siccative by the addition of turpentine. Thus, the record of experiments is as under:—

	Linseed Oil and White of Zinc.
First coat required to dry (on glass)	3 days.
Second ditto	4 ,,
Third ditto	4 ,,
Total	11 ,,

whilst, in the case of—

	Linseed Oil, Turpentine, and White of Zinc.
First coat required to dry (on glass)	2 days.
Second ditto	3 ,,
Third ditto	2 ,,
Total	6 ,,

It might be thought unnecessary to inquire further into the question whether pure oil—or rather, oil mixed with turpentine—would become more siccative by time. M. Chevreul, however, thought a number of experiments necessary. As to pure linseed oil, he found that exposure to the air was of more importance than mere lapse of time, in developing the siccative properties. For, oil that had been exposed forty-four days to the air, would dry in half the time of that which had been kept from the air. On the other hand, after turpentine has been exposed to the air, the residue, if applied, may be said not to dry at all: whilst the turpentine which has been kept from the air, dries rapidly, leaving the slight residue as before.—He proceeds to test the value of exposure to the air, as regards a mixture of oil and turpentine. As to the separate liquids, the advantage and disadvantage of exposure had been what might have been inferred. The experimentalist did not, however, try, as might have been expected, with a mixture of oil that had been exposed, and turpentine that had been kept close; but he mixed liquids which had been under the same circumstances. As it was, he did find that the influence of the air was very sensible on his mixtures.—Would not this, then, manifest the existence of siccative properties, from exposure to the air, as regards the oil in the mixture, greater than what are to be derived from addition of turpentine in such cases? For, results of experiments in May to July, 1850, on the drying of portions of the mixtures applied, were as under:—

	Oil which had been kept close 44 days, 2 Parts by Measure; Turpentine ditto, 1 ditto.
First coat required to dry	8 days.
Second ditto	8 ,,
Third ditto	6 ,,
Total	22 ,,

whilst, the result of exposure was the following:—

	Oil which had been exposed 44 days, 20* Parts by Measure; Turpentine ditto, 1 ditto.
First coat required to dry	4 days.
Second ditto	5 ,,
Third ditto	6 ,,
Total	15 ,,

Similar results were observed on the liquids mixed, thus:—

	Oil..... 2 Parts by Measure; Turpentine, 1 ditto. The Mixture kept close; not the Liquids separately.
First coat required to dry	4 days.
Second ditto	5 ,,
Third ditto	7 ,,
Total	16 ,,

whilst,—

	Oil..... 2 Parts; Turpentine, 1 ditto. The Mixture exposed.
First coat required to dry	3 days.
Second ditto	2½ ,,
Third ditto	4 ,,
Total	9½ ,,

The influence of the air was found to be of equal importance in the case of combination with the white of zinc. Thus:—

	Oil, kept close 44 days, 1 Part by Weight; White of Zinc, 1 ditto.
First coat required to dry	3 days.
Second ditto	6 ,,
Third ditto	4 ,,
Total	13 ,,

whilst,—

	Oil, exposed 44 days, 1 Part by Weight; White of Zinc, 1 ditto.
First coat required to dry	2 days.
Second ditto	2 ,,
Third ditto	3 ,,
Total	7 ,,

Again, with turpentine,—

	Oil ..... 2 } { The mixture kept Turpentine..... 1 } { close 44 days. White of Zinc... 3
First coat required to dry	3 days.
Second ditto	2½ ,,
Third ditto	2 ,,
Total	7½ ,,

whilst the time was lessened, where the mixture had been previously exposed, thus:—

	Oil ..... 2 } { The mixture Turpentine..... 1 } { exposed 44 days. White of Zinc... 3
First coat required to dry	1½ days.
Second ditto	2 ,,
Third ditto	2 ,,
Total	5½ ,,

The influence of the essence upon oil which had not been exposed to the air, in hastening the drying, is therefore matter of fact. But, since the drying is more rapid when the mixture had been made, and then exposed,—whilst the author regards the turpentine as a siccative, he finds that it acts so, feebly. The following *résumé* shows what may be expected from the use of oil which has been exposed to the air, whether pure, or previously mingled with half its volume of turpentine. The experiments were made from May to July, 1850, and the coats were applied on glass:—

Oil, or Vehicle, &c.:—	Linseed Oil, Pure.	Parts by Weight. Linseed Oil, Pure..... 100 White of Zinc 100	Parts by Weight. Linseed Oil..... 90 White of Zinc ..... 100 Linseed Oil, exposed to the air 60 days..... 10	Parts by Weight. Linseed Oil..... 90 White of Zinc ..... 100 Linseed Oil, 2 Turpentine, 1 } Exposed to the air (60 days..... 10	Parts by Weight. Linseed Oil..... 90 White of Zinc ..... 100 Oil kept uncovered 10	Parts by Weight. Linseed Oil..... 90 White of Zinc ..... 100 Manganesed Oil 10	Parts by Weight. Linseed Oil, exposed to the air..... 100 White of Zinc 100	Parts by Weight. Oil, 2 Turpentine, 1 } Exposed to the air. White of Zinc..... 100
Days occupied in Drying, &c.:—								
First coat	5	3	3	3	3	1½	1½	1¼
Second coat	6	3	2	2	2	1	1	1
Third coat	5	3	2	2	2	1	1	1
Total,—Days...	16	9	7	7	7	3½	3½	3¼

It is thus shown that white of zinc is siccative relatively to the pure oil, or to the mixture of oil and white of zinc, applied on glass; that oil exposed to the air, pure or mixed with turpentine, becomes decidedly siccative; and that manganesed oil has the properties in a still higher degree. But, if the ordinary oil be exposed to the air until a pellicle begins to form upon it, ten parts of it will be found as effectual as ten of the manganesed oil.

M. Chevreul found that the work executed wholly with the white of zinc and oil exposed to the air, had the appearance of a varnish, in contradistinction to that where marks of the

* This number in M. Chevreul's large table is perhaps a misprint for the number 2.

brush are left. The pigments of the two last columns of the table showed none of those marks. Hence, it is suggested that effect might be gained in work, by the contrast of different kinds of oils. The absence of the marks would be an argument in favour of the white of zinc. Yet, in the course of inquiries into which we have been led by the direction that this subject has taken, an impression has been conveyed to us, somewhat different from that which would be inferred from the statements of M. Chevreul,—although these may be not incorrect. On the authority of an experienced foreman—in the employ of painters who are recommended by some of the chief parties interested in the article—we might say, that roughness at least, of the surface is so considerable, at all events in English works, as to interfere much with the chances of durability,—having regard to the frequent cleansing which the best kind of surface will require. Were we to judge from such attempts as happen to have come before us, we could not make exception even as to marks of the brush. It is right, however, to state that the use of white of zinc over previous coats, especially where little labour is given in "rubbing down," does not give the material a fair chance in any respect. That kind of work of course forms the greater part of what is at at any time being done. Another practical man declares that the roughness can be due only to improper mixing, or want of skill in laying. It should further be understood—and it may perhaps assist in explaining these marks of the brush,—that it is a mistake to say that zinc "covers" better than any other pigment, in the sense in which the words would be generally understood. The specific gravity of the white of zinc is less than that of the white of lead; therefore, where there are equal quantities by weight, the zinc will suffice for more work than the lead. It is also said to take up a larger quantity of oil. This property, notwithstanding the injunction of some manufacturers,—to use even more of white of zinc than white of lead,—no doubt leads to the common fault of transparency in the coats. We apprehend, however, that under the best conditions, four coats of white of zinc colour would not be worth more than three coats of white of lead. Of course there might be, and no doubt are, some great advantages in the zinc. But, should there be inevitably, great roughness of surface, that will go far to explain the prejudice against the paint,—the accumulation of dirt being sufficient to give the appearance, though possibly removable, which on the white of lead, would result from chemical action.

Though M. Chevreul's attention, at the date of our latest information, was still directed to the question as to white of zinc, it does not appear that he has had the opportunity of considering the desirableness of a substitute for turpentine. The poisonous effects of white of lead are chiefly operative in the process of manufacture; though serious injury also results in the "rubbing down" of old work. Many workmen, indeed, suffer from inattention to personal cleanliness at meal times,—and were we to consider the nature of some of the colouring substances used, such as the arseniate of copper, this alone would be found to be no trifling matter. But the chief source of inconvenience, if not of injury to health, to the inhabitants of a newly-painted house, we really believe, arises from the turpentine. One invention at least has been put forward, professing to obviate this; but it has not been generally adopted.

We took up the present subject, rather with the view of showing *for what* objects progress was needed, and to present *a few steps* for our practical readers to make the advance, than with the idea of accomplishing a perfect system ourselves. The experiments on turpentine, and other "vehicles," of which we have compiled an abstract, cannot but prove of value to those who would pursue the subject; and it is only to be regretted, that the help which they afford in regard to the question of durability, is to be deduced from them, instead of being directly given. Such assistance, however—as will have been apparent—they may afford, and the next branch of inquiry, which bears upon the use and manufacture of "driers," will, we think, be perhaps even more important to our readers.

AN ARCHITECTURAL SCAMPER IN FLANDERS AND BRABANT.*

LIEGE—MALINES.

OUR attention will now be directed to the city of Liége, one of the most ancient and attractive of the many interesting places in the kingdom of Belgium. Long the metropolis of the dominions of its prince-bishop, the fruits of its ecclesiastical wealth have descended to us in the many venerable churches which remain after many have been destroyed, whilst its mineral riches worked up in its iron foundries, its manufactories of cutlery and firearms, have upheld its prosperity through every revolution and change of government.

The site of the town is picturesque. The lower portion is situated on a level flat, occupying both sides of the rapid Meuse at its junction with the Ourthe. Between this and the higher town extends a boulevard planted with trees, above which rise terraces of houses intermixed with trees, overtopping each other, crowned on the summit by the venerable churches of St. Martin and St. Croix.

The ecclesiastical architecture of Liége differs in many essential points from that of Western Flanders, which latter has much in common with the architecture of Northern France and England. That of Liége approaches nearer the German Gothic, particularly that application of the Lombardic type which prevails at Cologne and along the Rhine.

St. Jacques is the most celebrated of its churches. Its architecture has been greatly admired and praised, much more, I conceive, than it deserves; but it is curious, as giving, perhaps, the best illustration extant of the latest period of Continental Gothic just before it was swamped by the Renaissance. Its date is said to be 1513-28, or about the same period as our Henry VII.'s Chapel. The general character of the building is that of richness, but when more closely examined, the details appear flat and poor.

The construction is in many respects singular. The nave has a narrow gallery below the clerestory windows, faced with an open tracery parapet, but there is no proper triforium. The tracery of the windows has flowing lines, but possesses notwithstanding something of the English perpendicular character.

The vaulting appears complicated, but is in reality poor and crippled, showing a decline in the geometrical knowledge which distinguished the best age of mediæval art. The springers built in the wall, and the ribs arising from them, do not abut fairly, or correspond the one with the other; the original design probably having been changed. The awkward junction between the two is attempted to be hidden by the introduction of shields to cover them. The bosses, at the intersections of the vaulting, are almost Italian in character. The pictorial ornamentation of this vaulting is somewhat celebrated, and probably furnished the idea for the similar style of decoration at the Templa church of London. The forms of the ornaments are graceful, and cover the spaces well, but the prevailing tone is too grey: the general effect lacks brilliancy.

There is a magnificent entrance porch on the north side of the nave, lighted by three large windows on each side, with wall shafts and rich groined vaulting.

Externally the aspect of the building is somewhat flat, with thin meagre details. A curious external open gallery, with arcaded front, runs along the clerestory walls under the eaves, apparently a reminiscence of the arcaded galleries which abound in the Lombardic churches on the Rhine. The west end exhibits the remains of a much older building in the Romanesque style.

The cathedral of St. Paul is a large cross church. The piers and arches of the nave appear early thirteenth-century work; the remainder probably fourteenth-century. This church contains a beautiful modern pulpit richly carved in the Gothic style, with marble statues of life-size by Geefs.

St. John's is a church in the modern Italian style built on an old site. The nave is octagonal, with side aisles carried round, and is covered by a dome. The choir extends eastward the width of one plane of the octagon, with apsidal end. Adjoining this church are the dilapidated remains of the ancient cloisters, which have been vaulted with fan-groining; the ribs stone filled in with brick. These are now undergoing reparation.

The church of Sainte Croix, standing on an eminence overlooking the town, is highly interesting, from its admixture of styles, its peculiarities of construction, and its excellence of workmanship. The part west of the transept is Lombardo-Romanesque of early date.* The plan of this portion is very complicated. From the four massive piers which carry the superstructure, radiate three semicircular lobes, north, south, and west, forming when carried up *une figure trilobée*, as the French would call it. These are ornamented externally with arcaded galleries. Above the centre piers rises an octagonal tower, with subordinate circular turrets at the angles. This part of the building is now undergoing restoration. The building immediately eastward of this is a parallelogram, having three aisles of equal height with two small transepts at the *west* end. This is properly the body of the church, and is of late thirteenth or early fourteenth century work. The chancel is a prolongation of the centre aisle, with apsidal termination, and appears of earlier date than the nave. The window tracery is geometrical. The form of the aisle windows is the spherical triangle. The chancel walls are covered with blank arcades. Similar arcades are worked under the windows of the aisles and transepts. The spandrels of these are sunk in panels, filled with sculptures of great beauty of execution. For grace, expression, and delicacy, these are most remarkable works. I know of nothing in England, except it may be the Percy shrine, in Beverley Minster, at all to compare with them. The undercutting of the figures in the complicated groups is most remarkable. There are a few remains in these panels of polychromic decoration. This interior has undergone most careful restoration. There is some good modern stained glass in the chancel windows.

St. Martin's is a large cross church. The greater part of the edifice is of late thirteenth-century work, but portions are of much later date, approximating to that of St. Jacques. The choir vaulting is painted and ornamented in bright colours. This part is of late workmanship, and, by numerous indications, it would seem that about the same time there has been an interference with the older work in many parts, modifying it to the taste of the period.

St. Servais presents nothing remarkable externally, except some good early fourteenth-century tracery in the windows.

The Redemptorist Church, in the Rue Hors Château, has a west front of Florid Renaissance architecture. This and the previous one were closed at the time of my visit, and I did not attempt to procure admission.

The Church of St. Barthélemy is very ancient, the date of its erection being ascribed to the year 1000, with which its style of architecture corresponds. It is a cross church, the choir rather short, with multangular apse.

The nave has double side aisles. The exterior is frayed by the weather to such an extent that great part of its detail is destroyed, though it never appears to have been very rich. The west front has three heights of round arches, and is flanked by twin towers, carried up two stages above the roof, where the old work terminates with the remains of a corbel table. The part above this is brick, finished with a truncated pyramidal slated spire.

The clerestory of the nave retains its original small Romanesque windows, flat buttresses, and corbel table. The side aisles have been modernised.

Contrary to what is usually found, the interest attaching to this church is confined to the outside. The interior has been completely modernised, and every vestige of antiquity destroyed. The solid Romanesque piers have been transformed into Ionic columns, with straight entablature over the arches.

An inscription on the ceiling gives the date

* See p. 181, *ante*.

* M. Schayes, quoting Anselm and the *Chronicon Episcop* ascribes it to the year 979 A.D. with which its style appears to correspond.

of this transformation as the year of grace 1705.

St. Denis is of Romanesque foundation, but contains at present a mixture of styles. It is a cross church in plan. The nave has double aisles. This part of the building has been transformed into the Renaissance style, and presents nothing remarkable. The choir is probably of fifteenth-century architecture. It is very lofty in itself, and its height is much increased by the floor being elevated above that of the nave, from which it is approached by two flights of steps. The east end is multangular. The vaulting is elaborate, the ribs meeting in a sort of coronal in the centre. The choir and transepts have recently been carefully restored, and the vaulting ornamented in the style of St. Jacques, but in brighter tints. The choir windows have been filled with modern stained glass, of good design and colour. The north transept contains a most elaborate piece of sculpture in wood, of Late Gothic design, in eleven compartments, representing passages from the life of Christ and the saints. The figures are in alto relievo, and display a wonderful amount of patient elaboration.

Of the secular buildings, the most remarkable is the ancient palace of the bishop, now the Palais de Justice, public offices, &c. It is a very large building, containing two interior quadrangles, surrounded with cloisters. The largest of these is occupied as a market-place. The date of the building is the early part of the sixteenth century, and it contains the usual admixture of Gothic and Italian, peculiar to the period.

The pillars of the cloisters are baluster-shaped, grotesquely carved in different designs, supporting pointed arches, with panelling and pointed windows in the walls above.

The university buildings are extensive, occupying three sides of two open quadrangles: these are of brick. A central building within the larger quadrangle is of stone, with an Ionic portico in front; but the design is low, squat, and clumsy. In front stands a recent statue of Grétry, the composer, who was a native of the town.

The street architecture of Liége is worthy of notice. Although the town is much modernized, yet a good deal that is curious and interesting still remains. Many of the houses on the Quai de la Batte and the adjacent streets, remain in all the original quaintness of their wood-carving and grotesque enrichments, and in other parts of the town fragments may be sketched here and there which will well repay the trouble. The Rue de la Regence and the Rue de l'Université, are modern; and several buildings on the Place Verte and the central parts, are large and handsome, and display some originality of design, with many of the features before remarked on, as peculiar to the Flemish school. Although a manufacturing town, Liége is remarkable for the number of its open places and the intermixture of verdure and foliage with its buildings and streets.

We will now shift the scene to the ancient city of Mechlin or Malines, which, though passed on the railway by multitudes of travellers, is not visited as frequently as it deserves. Its ecclesiastical architecture is fine, and its streets and quays present many rich morsels for the sketcher's pencil. The great architectural feature of Mechlin is its noble cathedral church, dedicated to St. Rombaut. In the boldness of its design, the magnificence of its proportions, and the excellence of its workmanship, it ranks in the very first class of Flemish churches. Its plan is the usual Latin cross, with apsidal east end, the aisles continued round, with octagonal chapels projected out between the buttresses. Octagonal chapels are also thrown out on the north side of the nave. The perspective of the interior is very fine, owing to the clear, uninterrupted view from the west wall of the tower to the extreme east end.

The style of the architecture is somewhat mixed, and has the appearance of a carcase of thirteenth or early fourteenth century building raised upon, decorated, and completed, in the fifteenth century. The side chapels of the nave are evidently a subsequent addition, being later in style and more highly enriched. The vaulting especially is more complex in design with bosses at the intersections. In one of the chapels, which is larger than the rest, the old buttresses have been cut away, carved into bosses and worked into the vaulting in a very ingenious manner.

The tracery of the choir windows and the finish of the choir generally is of a somewhat later date than the finish of the nave. The mullions and tracery are more delicate with the *fleur-de-lys* pattern in the window-heads of the apse. The walls are covered with light panelling. The piers of the side chapels of choir are shafted, the mouldings running round the arches without capitals.

The tower is at the west end,—a splendid specimen of late fifteenth-century architecture. Its height is stated by one authority to be 348 feet, by another, 316 feet. The original design is said to have included an open work spire, which would have raised the entire height to 600 feet. The inside of the tower, with a noble daring, is entirely thrown open to the church, the east wall being carried on an arch about 100 feet high and 30 feet wide. The design of the exterior of the tower is very fine, and the workmanship admirable. The plan of the structure, as in most similar cases, is very simple. Massive square set buttresses rise from the ground, diminishing as they ascend, and break at each stage into finials, crockets, and tabernacle work. The deep recesses are occupied by richly traceried windows still further recessed. Semi-octagonal stair-turrets are projected on the north and south sides. The depth of the shadow and the massiveness thus obtained, are finely relieved by the grace and elegance of the decorations. Had the spire been erected on its summit, it would have been the finest thing of its kind in the world. As it exists, its beautiful proportions, and the judicious tempering of verticality by occasional horizontal lines, bring it as near perfection as can be conceived. In this particular, I consider it superior to the west end of either Antwerp or Cologne Minster.

The whole of the exterior is characteristic and fine, the east end being the richest in panelling, open parapets, gables, and decorations. The gables of the transepts have recessed galleries, faced with a pierced arcade of long slender arches following the slopes of the roof. The pulpit of this church, representing the Conversion of St. Paul, displays boldness and action, and is very effective.

Notre Dame is a large cross church, with the usual Flemish arrangements,—the east end apsidal with the aisles continued round and side chapels to choir. The aisles of the choir have been modernised. The general style of the work is late fourteenth century, running into the fifteenth. This church contains a fine carved pulpit, supported by statues of the four evangelists, with their emblems. The balustrade consists of rich scroll-work, with statues of Moses and John the Baptist at the foot of the stairs. The organ is a good Renaissance composition, placed on the east side of the south transept, opposite the south aisle of the nave. Externally, the boldly projecting buttresses and the deeply recessed windows present more of the character of English Pointed than is usual on the continent. The tower is at the west end, lofty and massive, with enormous angle buttresses (12 feet projection), and two stair turrets. It is surmounted by a low wooden slated spire. The principal entrance to the church is under the tower, which is a more usual arrangement in England than on the continent.

St. John's church is rather a rude construction of early date, with a plain solid tower. The interior is spoiled by modern alterations of the seventeenth or eighteenth century. The pulpit consists of a group illustrative of Christ's Charge to Peter, the figures very good; some carving under the organ at each side of the western entrance of Christ Feeding the Multitudes, and an allegorical subject are very beautifully executed.

The Grande Place and Market-place are lined with quaint and characteristic specimens of Flemish architecture. The buildings on the Quais also present some fine specimens, both in wood and stone. One of these, at the corner of Kraam Straat, has curious painted bas-reliefs in the tympana of the windows, exhibiting our first parents *in puris naturalibus*, with the tree of knowledge, and in another part the angel driving them out of Paradise. Adjoining this is a curious wooden gable, with finely-carved brackets and figures.

Our architectural notes for the present must terminate here. I will close with a single remark. If any one wishes to enjoy travelling, let him sally forth with a definite object in view: I do not much care what the object is, whether geological, antiquarian, artistic, botanic, or what not, provided it be innocent. Ignorant people might suppose that it would be a sort of slavery and constraint, and might prefer a listless vacancy, or a break-neck scamper, but they are greatly mistaken. It is wonderful, when you set up an idea as a central one, how everything else groups around it, and falls into its proper place, and how it adds ever-increasing interest to everything which is seen.

A little labour spent in the study of architecture and archæology would be repaid a hundred-fold, in these railway days, by the additional zest and interest communicated to the scenes passed through by the traveller. Every "Grande Place" contains a history in itself.

"Could we observantly but seek it out," every venerable church preaches "sermons" from its "stones" to those who can rightly understand their language. Add to this a little facility in sketching, which may be easily acquired, and there are few modes of spending a few weeks agreeably and instructively at the time, and which will be looked back upon with greater satisfaction, than an architectural and archæological tour. J. A. PICTON.

ARCHITECTURAL PUBLICATION SOCIETY.

THE annual meeting of this society was held on Thursday evening, the 10th instant; Mr. Ashpitel, F.S.A. in the chair. The report of the committee was read, setting forth the progress which had been made, and calling on the profession for such an addition of members as might enable the committee to complete the Dictionary forthwith.

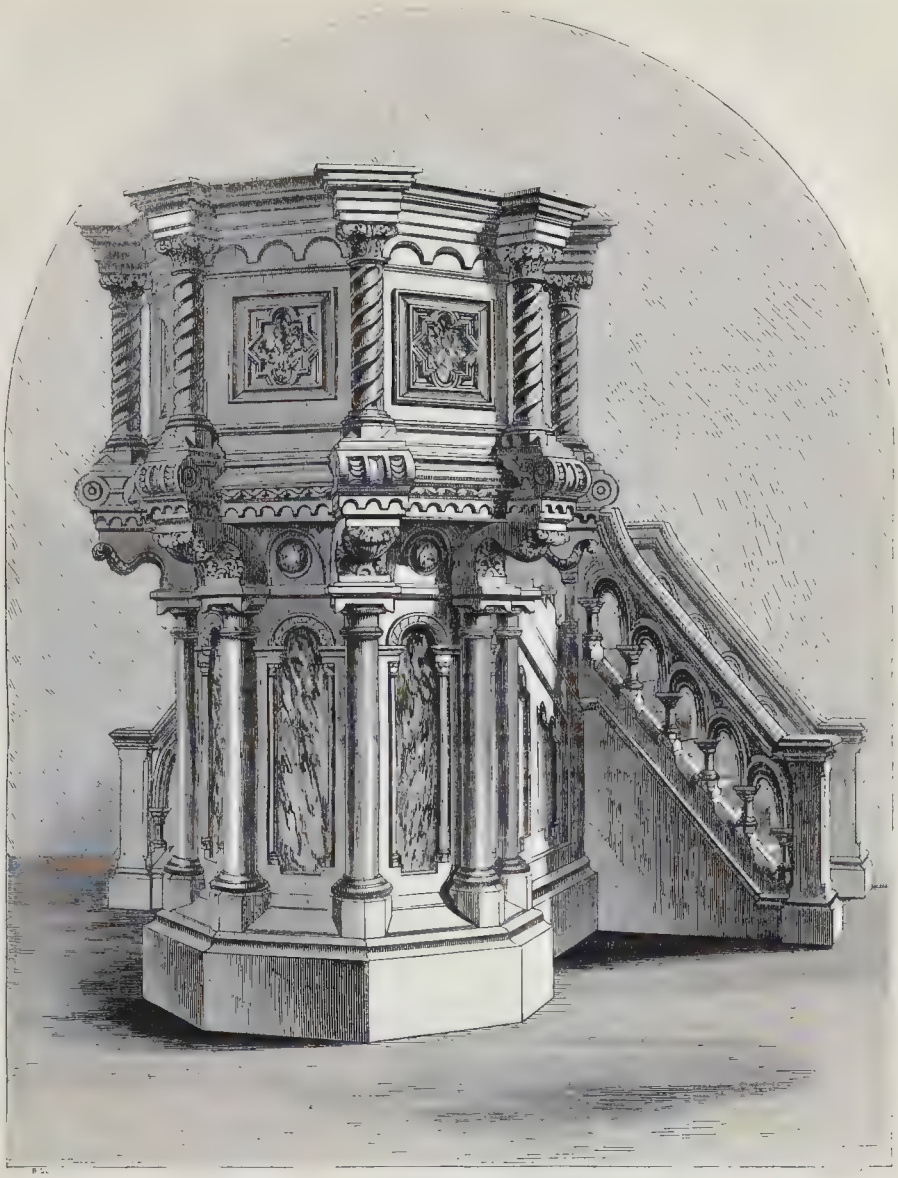
From the year 1852-53, there is a balance of 26*l.* 15s. 10d. which, added to the total income, amounts to 470*l.* 8s. 4d. for the year 1853-54: of this sum 237*l.* 19s. 8d. only is expended, leaving a balance of 232*l.* 8s. 8d. for further publications. The probable income for the year 1854-55, is anticipated to be at least 420*l.* for which the Works consisting of illustrations are now in hand.

The chairman drew the attention of the meeting to the various subjects of the report, more especially adverting to the greater number of illustrations given in the last part; and to the quantity of matter for the year's proportion of which double could be given if there were twice the number of subscribers, and urged upon the members to use their best efforts in increasing the list. He was pleased to find that there was great difficulty in obtaining copies of the early numbers of the publications, which were now being purchased by the secretary for the purpose of supplying complete sets to new members.

The usual votes of thanks were prefaced by remarks in favour of the society's operations, by Messrs. C. Mayhew, C. C. Nelson, G. B. Williams, H. B. Garling, &c. Messrs. G. Aitchison, jun. Octavius Hansard, and H. R. Newton, were elected new members of the committee. The meeting then adjourned.

We would remind the profession of the great importance of completing properly the dictionary in question; and again urge those of our brethren who do not at present belong to the society, to help the committee in this (no ordinary) undertaking, not only by themselves subscribing, but by obtaining the assistance of their friends practising engineering and building, so that a successful termination may be given to a work which promises to be honourable and useful to us all. Our readers in the colonies, and other distant parts of the British dominions who interest themselves in architecture should support this work, as one which will be of great practical benefit to themselves.

BURNING OF A CONTINENTAL CHURCH.—A letter from Lille reports the burning of the church of La Basée, remarkable for the magnificence of its spire.



PULPIT, REGENT'S-PARK CHAPEL.

PULPIT, REGENT'S-PARK CHAPEL.

We add to our illustrations of the chapel recently fitted up on the site of the Diorama, in the Regent's-park (p. 210, *ante*), under the direction of Mr. John Thomas, a view of the pulpit. It is constructed of Caen stone, and has a panel of alabaster in each of the sides.

Reward for Smoke Prevention.—The Steam Collieries Association, at Newcastle-upon-Tyne, advertise, in the *Newcastle Chronicle*, their offer of a premium of 500*l.* upon certain conditions, for the invention of an effectual method of preventing the emission of smoke from the chimneys of multitubular boilers.

THE UNITED STATES AND CANADA.

About fifty-five years since a remarkable book was published by a gentleman still in life, and titled "Weld's Travels in America." These travels extended over a large portion of the United States and Canada, and the book was translated into various European languages, and not only was it looked on at the time, it appears, as a great authority on American subjects, but to its influence the promotion of colonization in Canada has been mainly attributed. We have a volume now before us,* written by a half-brother of the preceding author, the esteemed assistant secretary of the Royal Society,—and the contrast between the two books is a very curious one in many respects, as every reader may readily conceive. The present volume may be regarded as a sort of cursory report of progress made since the visit in 1795-7. It is pleasantly written, though light and tripping, as a mere vacation tour must necessarily be, however observant or reflective the author.

Mr. Weld's recent route, from Boston, where he landed from one of the magnificent Cunard steamers, ran through Massachusetts northwards by Montpellier to the Lakes, through which, after a trip down the river to Montreal and Quebec, he took his course as far as Detroit, New Buffalo and Chicago, whence he passed southward by Cincinnati and Cambridge to

* "A Vacation Tour in the United States and Canada." By C. R. Weld, Barrister-at-Law. London: Longman and Co. 1855.

Washington and Gosport, his southern extreme point, thence returning to Boston by Baltimore, Philadelphia, and New York. A better route for a three months' trip, perhaps, could not well be devised for seeing as much as possible of both the United States and Canada in so short a time. We shall follow the author through his own pages, noting any little particulars as to buildings or other objects of interest to our readers which our limits may allow of.

Speaking of the new theatre at Boston as a magnificent structure, capable of containing 4,000 persons, Mr. Weld says,—"I examined this building in detail, and was much struck by the method employed to render it as perfect as possible. The seats are disposed in such a manner that each commands the stage; and the latter embraces all modern improvements, including a curtain of sheet-iron to cut off communication with the audience."

He gives an interesting account of one of the gigantic backwoods lumber-trade saw-mills, near Peterborough, in Canada:—

"The machinery is on a gigantic scale. 136 saws were working with tremendous velocity, reducing huge logs to planks at the rate of nearly fifty an hour. Instead of using files to sharpen the saws, a powerful punching-machine is employed, which cuts fresh faces on the teeth; a process combining greater efficiency with saving of time.

A portion of the machinery is employed for making laths, besides plank-sawing. This mill, in common with others in Canada, works day and night, devouring 70,000 logs in the season of nine months; but, though the quantity of planks produced is prodigious, the demand generally exceeds the supply. Indeed, such is the increase of the lumber trade, that new mills on a gigantic scale are being erected, not only on the Ottonabee, but on other rivers favourably situated for the purpose.

During last summer a block of mills was completed on the St. Francis river, in Canada East, exclusively for the lumber trade. At a low estimate, these mills will saw in a season 20,000,000 feet of long lumber, and two trains will be in requisition to carry the planks to Portland, from whence they will be shipped to all parts of the world.

To feed such establishments from the northern forests involves an enormous amount of capital and labour. The firm of Egan and Co. who are at the head of the lumber trade on the Ottawa, employ in the forests through which that noble river passes, 1,700 horses, 200 bullocks, besides 400 double teams on the road, engaged in the conveyance of food and forage. During the winter 1854-5 (the timber is cut in this season), they had 3,800 men in their service, and 100 lumbering establishments in various parts of the country. Their consumption of pork amounts to 1,000 barrels annually, with other provisions in proportion. The cash transactions to keep this enormous machinery in motion exceed 2,000,000 dollars a year.

The returns of the exports of white pine alone from Quebec during the last six years show a vast increase; 17,400,000 cubic feet having been exported in 1853, and only 9,626,000 cubic feet in 1847.

The question naturally arises, how long will the Canadian forests continue to meet the enormous demand for timber. With a view of obtaining some information on this point, Government recently instituted an inquiry as to the probable duration of the supply in various districts; and it was ascertained that in the Ottawa forest-region alone there was timber sufficient to feed the mills on that noble river, at their present rate of consumption, for 600 years."

Mr. Weld paid a visit to the Victoria Railway-bridge works, at Montreal, of which Mr. R. Stephenson is the engineer. The bridge, as our readers already know, is to be on the plan of the Britannia-bridge in Wales.

"It will be constructed on twenty-four piers, with spaces for navigation exclusive of the two abutments, whence the tubes spring on either side. The centre span will be 330 feet, and each of the others 220 feet wide. The length of the bridge will be 10,284 feet, or about 50 yards less than two English miles. The clear distance between the under surface of the centre tube and the average summer level of the river will be 60 feet, diminishing towards each side. 210,000 tons of stone will be used in the construction of the piers, and 10,400 tons of iron on the tube, girders, &c. It is proposed to complete the bridge in 1860. At the present rate of progress, the expenditure will average 250,000*l.* annually. The Colossus of Rhodes, under which the pigmy shallops of former ages sailed, was esteemed a wonder of the Old World. But an iron bridge, spanning a river two miles in width, giving safe passage to burdens of hundreds of tons on its rivetted floor, and permitting ships of large tonnage to sail beneath it, is an achievement still more remarkable for the New World, and is worthy of the young giant rising in the West."

Perhaps no greater contrast between the state of things in Canada at the present day, and that at the opening of the present century exists than that which relates to the respective means of traversing the lakes at these different epochs. The author of the new volume took the lake route to Detroit, in one of the mammoth steam-ships, which now regularly traverse the lakes of Canada, and gives an account of it.

Between Cambridge and Wheeling, in the Western United State of Ohio, the author, strolling about after dinner, came upon a kind of van inscribed, "Daguerrean Car," in which really very good daguerreotyped portraits were produced, at the rate of 25 cents each; and he observed such cars in many small towns. There must be some truth in the gossip as to the fancy of the United States fashionables in favour of daguerreotyped visiting cards, since they are such "great patronizers of daguerreotypes," as Mr. Weld intimates they are.

At Washington the tourist visited the Smithsonian Institute, where, amongst other interesting matters, he saw "Mr. Warner's invention of gutta-percha stereotype, employed in carrying out Professor Jewett's method for printing catalogues by means of separate titles." The titles of the books being set up, a matrix is made therefrom, and a stereotype plate cast in gutta-percha. This is sawn into the number of titles of which it is composed, and the alphabetising is accomplished by the simple assortment and arrangement of these titles, which are fixed together in the requisite pages. By this means the books added to any library may be inserted in their proper places, and an annual catalogue published at a comparatively small cost. The catalogue of the Congress Library is printed in this manner.

The bold attempt which is being made at Washington to raise a monument to its founder that shall surpass all others in the magnitude of its dimensions, is of course alluded to:—

"According to the printed description, it will be 'the loftiest monument on earth to a nation's greatest benefactor,' and it gives the following measurements:—Base of the Pantheon, 250 feet diameter; height, 100 feet; height of the obelisk, 500 feet. The original plan contemplated the erection of a vast Pantheon temple, surmounted by a colossal statue of Washington, 30 feet high, standing in a chariot drawn by six horses, driven by Victory. But, as the funds drawn from voluntary contributions are not equal to defray the cost of this portion of the proposed structure, the works are at present confined to the obelisk, which has attained a height of 150 feet. It stands in the centre of the mall, opposite the President's house. Various states, public bodies, and individuals, have contributed blocks of stone bearing their names and emblematic devices. It is intended that the entire monument shall be cased with white marble. The blocks, which are very large, are raised to the summit by steam power."

At the Crystal Palace in New York, the first thing the author beheld on entering was "a huge mountain-like object swelling beneath the dome. It proved to be a balloon in a semi-collapsed state, typical of the fortunes of the Exhibition." Having already said enough as to the Exhibition itself, however, we shall pass on to the Astor Library, recently completed.

"The building is of Byzantine architecture. The interior consists of a noble apartment 100 feet long, 64 feet wide, and 50 feet high, at present containing 80,000 volumes. This number will soon be increased to 100,000. The books are very accessible. Any person above fourteen years of age is allowed to visit the library daily (excepting Sundays) between ten and five. There are other public libraries, but that founded by the munificence of Mr. Astor bids fair to become the largest in the city."

Mr. Weld has produced a very entertaining volume.

CAMBRIDGE ARCHITECTURAL SOCIETY. — At a meeting held on Wednesday, May 9th, Mr. A. Hallen read a paper on Deerhurst Church, accompanied by plans and drawings; and the Rev. A. Hutchinson exhibited a singular brass from Nivelles, in Brabant, and read a short account of it.

PROVINCIAL NEWS.

Grantham.—The subscriptions now in hand for the Newton monument amount to 1,335*l.* and there is talk of commencing proceedings at once towards the realization of the monument.

Colchester.—The district commanding-officer of engineers has made a minute inspection of the Government ground in the vicinity of this town (similarly employed during the last war), with a view to the erection of barracks for 5,000 men. The Ordnance field, about 30 acres in extent, will, it is believed, be occupied by wood huts in blocks, each calculated to accommodate a battalion of 500, and will thus provide for 3,000 of the total force. The huts for the remainder will occupy the old barrack ground, about 14 acres, which is still surrounded by the high oak pale fence as when the site of the barracks. The contracts for the erection of the huts will, it is said, be offered to the tradesmen of the town.

Dudley.—The contracts in connection with the South-Staffordshire Water-works Company for conveying water through the entire district from Lichfield to Dudley, were let on Tuesday week, it is said, several thousand pounds below the engineer's estimate. The Lichfield reservoir was let to Mr. Welton, of London; the Walsall reservoir to Mr. J. Boys, also of London; and the pipes and laying to Messrs. Cochrane and Co. of Dudley. The works will be commenced as speedily as possible.

Liverpool.—The pile of buildings in High-street, formerly used for the post-offices, having been purchased by the Liverpool Assurance Company, says the *Journal*, a handsome structure, of which Mr. Cockerell is to furnish the designs, will shortly, it is understood, be reared on that site.

Weston.—On the 10th inst. the schools recently erected at Weston were opened by the Bishop of Lichfield. The building consists of one room, about 60 feet long, to be used jointly by boys and girls, and divided by curtains. This opens into a class-room, furnished with a gallery. The infant school is beyond, and is adapted to the use of 100 children. There are residences for the master and mistress, slightly detached. The whole, with play-ground and gardens, occupies one acre. Mr. R. Hesketh was the architect, and the work has been executed by Mr. Jervis, of Hitchin. The entire cost of the erection was 1,800*l.* of which sum the committee of council contributed 680*l.*

Shorncliff.—The erection of the huts for the encampment progresses rapidly, under the direction of the contractors, Messrs. Myers, and Messrs. Lucas and J. Edwards. Upwards of forty are in the course of completion. The wells formerly used have been found to be nearly dry; but near the camp, at Black-rocks, an abundant supply can be obtained.

Manchester.—Various improvements are in progress in this city. The most important are the alterations in front of the Infirmary, which are being carried out under the combined efforts of the corporation and a committee appointed by the trustees of the charity. The fountain basins have been ready some time, and all the iron railings in front of Piccadilly removed. The improvement also contemplated by the extension of Portland-street to Oxford-road is in progress. The new line of street from Oxford-road commences nearly opposite the end of Chepstow-street, through the site of the timber-yard of Messrs. Hay, Nish, and M'Kean, builders: in its course it crosses the small branch of the Rochdale Canal, which will be filled up, passing the ends of Bond-street and David-street, on the site of Mr. Clegg's old saw-mill, where it joins Portland-street. There is now a clear view from Oxford-road to the bottom of Portland-street. It will be a broad street, to correspond in width to Portland-street. The Lancashire and Yorkshire Railway Company are now engaged in making extensive alterations at the Victoria station, on the Ducie-bridge side, with the view of forming a branch line of rails for further passenger station accommodation. To carry out this object it has been found necessary to erect a bridge of considerable span over the river Irk, and an arched way beneath Cheetham-hill-road. The company have also erected a large stable for the horses employed at

the station. Amongst the new buildings in course of erection in this city, is the new Public-hall, on the site of the Free-Trade-hall, in Peter-street. A large number of men are now engaged in the work, but it is not likely to be completed in less time than eighteen months. Messrs. S. and J. Watts, of Fountain-street, according to the local *Courier*, are about to erect a warehouse, of immense proportions, on a site bounded by Portland-street, Minshull-street, Silver-street, and Chorlton-street. It will have a frontage of ninety-eight yards to Portland-street, and will be one of the largest warehouses in Manchester.

Preston. — On Thursday before last, the Town-hall committee met to receive the tenders for the re-erection of the Town-hall property. There were four tenders sent in for the whole work, and several for the different branches of it. It was agreed to recommend to the council to accept Mr. Armstead, as the contractor for the whole. His estimate for the entire work was 11,715*l*. Messrs. Cooper and Tullis's for the whole was 11,723*l*. 11s. 6d.

Blackburn.—On Thursday before last, a meeting of the local Highway and General Drainage Committee was held, for the purpose of appointing a borough surveyor. The number of applications was thirty-eight. The committee reduced the number to five, as follows:—Mr. P. M. Coogan, C.E. of Liverpool; Mr. W. Smith, of Buxton; Mr. John M'Manus, of St. Helen's; Mr. John Hanney, resident engineer, of Penrith; and Mr. Hugh Wilson, formerly of Liverpool, and latterly provisional engineer at Caraccas, Venezuela, South America. The committee then reduced the number to two, viz. Mr. Wilson and Mr. Hanney. These gentlemen having been examined, it was unanimously resolved that Mr. Wilson be recommended to the council to fill the office of corporation surveyor. The committee determined to defer the appointment of an assistant-surveyor until the sanction of the council had been given to the appointment of surveyor. Mr. Wilson has been for a short time in the service of Mr. Hopwood, of Blackburn, surveyor.

Leeds.—The ceremony of laying the foundation-stone of the Arthington Extension Scheme, for supplying Leeds with water, was performed on Friday before last. The scheme will cost 40,000*l*. and is intended to convey water from the river Wharf, across the estates of Lord Harewood and Mr. W. Sheepshanks, to the Eccup reservoir of the Leeds corporation. The 3½ miles of 23-inch iron tubing have been contracted for by Messrs. Stuart, of Glasgow, for 11,200*l*. The engines for pumping the water, 2,500,000 gallons daily, are to be supplied by Messrs. Witham, of Leeds, the cost being 10,000*l*. The engine-house and buildings are undertaken by Mr. Buxton, of Leeds, at 6,000*l*.; and the land (11¼ acres) for the engine-houses and filtering beds, and the right of way across Lord Harewood's estate to the reservoir, are agreed for, the sum paid being about 7,000*l*. with 50*l*. per annum. The water will have to be lifted 275 feet. Mr. Hawksley is the engineer.

Jarrow.—The contract for the execution of Jarrow Docks, says the *Gateshead Observer*, has been let—the directors of the North-Eastern Railway having accepted the tender of Messrs. Jackson, Bean, and Gow, of London, who will execute the whole of the works. The sum is believed to be somewhere about 400,000*l*. The area of the dock is forty-eight acres, and of the basin nine. The principal entrance will be 80 feet wide, and the dock-gates 60. The gates will be wholly of malleable iron.

Glasgow.—An ironfounder has recently contracted to put up a cast-iron building in one of the principal streets of this city—to be four stories high, and to be used as shops and warehouses.

HOME FOR INDIGENT GENTLEWOMEN.—In aid of this very excellent object, Mr. Henry Leslie's oratorio will be presented, by first-rate artists, on Wednesday, the 30th, at St. Martin's-hall, the able composer himself conducting. Those of our readers who are fond of fine music may aid an excellent charity, and give themselves pleasure at the same time, by attending this performance.

TO MAKE A DRAWING-BOARD.

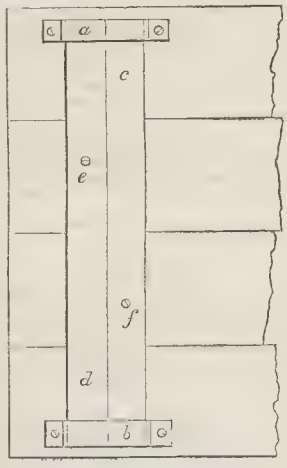
I KNOW nothing about carpentry; but having many years ago been called upon to supply some drawing-boards for Africa, I found myself in a difficulty, as the demand was accompanied by a remark that all the boards that had been sent out or made there soon split and warped, and became useless.

As wood will shrink laterally, I set myself the task of making with my own hands a model board that should leave the wood free to contract or expand in the hottest climate, and at the same time be firmly held down to clamps of wood across the back.

To prove this board, I all but burnt it before a fire for many days; and being sure that the principle of construction was good, I ordered boards to be made like it, and was informed years after that they kept their figure perfectly, in defiance of the torrid zone.

Within the last few months I have, in like manner, been called upon to supply eight boards the sizes of large drawing-paper, upon which are now being schemed works of great importance; and as these are found to be all that can be desired as drawing-boards, probably a description of the principle upon which they are made may be worth the notice of some of the readers of the *Builder*.

The board itself is of good seasoned pine, without knots, planed smooth and true, as usual, and the joints may be either simply glued together, or they may be grooved and tongued with cross stuff. The diagram shows one end of the back of the board, and of course the other end is similar.



a and *b* are iron straps (which I made out of hoop-iron), and these are screwed to the board very securely, at about one-third inch from the edge. The straps should be smooth on the corners, so as not to cut the table.

c and *d* are two pieces of straight wood, made so as to slide rather tight through the straps, but not so tight as that they will not move freely with a little pressure.

Now, at the points *e* and *f*, the cross-pieces *c* and *d*, are screwed immovably to the board, at distances obtained by dividing the length of the pieces into three equal parts.

All this is very simple indeed, but simple as it is, we see that the board at each end is held to the cross clamps at four points; and yet it is left free to shrink or expand, just as was wanted.

I have just examined one of these eight boards, and, though made of good dry wood, its state, after only a few weeks is this:—it has shrunk half an inch in the whole width, causing the upper end of the piece *c* to obtrude, two-thirds of this half-inch, beyond the strap *a*, and the lower end to obtrude the other third beyond the strap *b*; and, in like manner, the ends of the cross-piece, *d*, obtrude beyond the straps, only in contrary directions to the other piece.

Notwithstanding all this shrinking, the board is accurately true, as proved by placing a straight edge across it in any direction, and trying it by a square.

S. B. HOWLETT.

CHURCH-BUILDING NEWS.

Groton (*Suffolk*).—Some memorial windows are about to be placed in the church of Groton, by the Hon. R. C. Winthrop, of Massachusetts, U.S. one of the descendants of John Winthrop, the first governor of New England, who went from Groton, where his ancestors had long been lords of the soil.

Tetsworth (*Oxon*).—The architect of the rebuilding of the parish church here was Mr. John Billing, and not as stated.

Mereworth.—A monument has just been erected in the old church here, in memory of a child of Viscount Torrington. The work was executed by a London firm, and the cost estimated at 200*l*.

Bromsgrove.—In the Lickey district a new church is in course of erection, not far from the new school and the Lickey Obelisk. The chief stone of the new church was laid on Wednesday before last, by Mr. R. Clive, M.P. The site and 400*l*. were given by Lady Harriet Clive. The whole cost of the building will, it is said, be about 1,600*l*. The dimensions of the edifice are:—Nave: length, 58 feet 9 inches; width, 33 feet; height, 20 feet to wall-plate. Chancel: length, 26 feet; width, 15 feet; height, 18 feet. Aisles: 9 feet high. The materials are Alvechurch grey stone, drawn chiefly by the farmers gratuitously, and bricks for the lining. The architect is Mr. H. Day, of Worcester; the builder, Mr. G. Robinson, of Redditch. The building is in the early English style, and consists of chancel, nave, vestry, and porch. In place of tower it has at the west an ornamental gable, fitted with two bells. The walls are rubble, and the windows and dressings generally, of rubbed stone. The west end has a window divided into five lancet lights; the east a three-light window with cusped heads. The side walls of the aisles and chancel are perforated with two-light lancet windows, and buttresses between. The clerestory has five trefoil windows on each side. The roof is tiled. In the interior the nave is divided from the aisles by four pointed arches which support the clerestory, whilst the arches themselves are supported by circular columns with moulded capitals and bases. The roof is open, and the timbers are shaped and ornamentally disposed. The seats are open benches with square ends; those in the nave of deal, stained; those in the chancel, of oak. Beneath the chancel is a crypt. Near the church is a residence for the curate in charge of the district.

Devonport.—The foundation-stone of a new Congregational Church at Morice Town, Devonport, was laid on Monday before last. The church, which it is calculated will seat 580 persons, will be in the Early Decorated style, and will consist of a nave and side aisles, with entrance porch at the north; the length of building within the walls being 65 feet, and the width 44 feet. There will be a vestry at the south, from which the pulpit will be approached; and in front of the pulpit (agreeably to the rites of the denomination) will be the communion inclosure, raised 2 feet above the floor of passages, and surrounded with a rail and ornamental ironwork. A small end gallery will be provided for children. The roofs will be open, of stained red pine; the walls of dark limestone, with freestone doorways, windows, pillars, and arches. It is proposed to fill the two south windows with stained glass. Below the church there will be a large school-room, two class-rooms, rooms for the church-keepers, &c.; and adjoining the main building a parsonage will be erected to contain ten rooms. The total cost, including boundary-walls, railing, and drains, will be rather less than 2,000*l*. The architect is Mr. James Hine, of Plymouth.

Handley.—The church here, which has been nearly rebuilt, was opened on Ascension-day. The original church was built in the Norman period. The tower is of the Perpendicular date, of large proportion to the size of the church, and contains four bells. The tower archway, which was blocked up with unsightly boarding,

has been opened to the nave, bringing into view the western window. The walls of the nave have been entirely rebuilt. The roof of oak, renewed in 1611, has been preserved, by taking one side wall down, and rebuilding it before the other was disturbed. The whole of the work has been carried out in the Decorated style of church architecture. The nave has been rebuilt with faced stone inside, the roof decorated and new slated, the porch erected, the chancel new roofed and raised, new windows and door inserted, all the seats new (open), with framed ends and moulded capping, the floors new, the tower repaired, the pulpit, &c. carved, the whole, including the furnishing and architect's commission, at an expenditure of about 500*l*. The tradesmen employed resided in the neighbourhood: they were, Mr. J. Dutton, carpenter, Coddington; Mr. W. Faulkner, mason, Handley; Mr. Spencer, plumber, glazier, and painter, Tattenhall. The chairs, furniture, and fittings were by Mr. Gardner, of Chester; and the whole of the works have been carried out from designs and by direction of Mr. Harrison, of Chester, architect. A stained glass window of three lights, by Mr. Wailes, has been placed in one of the north windows, to the memory of the late Mr. S. Sandbach, erected by his widow: the subject is Samuel brought before Eli, and his ministry.

Coventry.—The bells of Trinity Church, in this city, are now in process of removal from the tower, several architects having pronounced an opinion that the bells could not be rung without endangering the tower and spire. They are about to be removed to a temporary bell-tower, to be erected in the new burial-ground adjoining the church-yard, which will allow of the whole peal being rung when recast. The groined stone roof in the church tower, which has been cut away, will now be rebuilt.

Willenhall.—The foundation-stone of the new episcopal chapel of St. Ann, in the parish of Holy Trinity, Willenhall, was laid by Miss Thorneycroft, of Wolverhampton, on Tuesday before last. The site is given, and the expense of erecting the structure guaranteed, by Mr. H. Jevons.

Leeds.—On Tuesday before last, the foundation-stone of a Presbyterian church, to be called Saint Columba's, was laid. A considerable portion of the edifice, which is situated near Woodhouse-lane, is already erected.

ENGRAVINGS AND ILLUSTRATIONS.

The Britannia-bridge.—An interesting picture by Mr. Lucas of the conference previous to the floating of one of the tubes of the Britannia-bridge, about to be engraved, is now on view at Messrs. Graves's, Pall-mall. It includes portraits of Mr. Stephenson, Mr. C. H. Wild (both good likenesses), Admiral Moorson, Mr. Latimer Clark, Mr. Edwin Clark, Mr. Frank Forster, Mr. G. P. Bidder, Mr. Hemingway, contractor for the masonry, and others concerned in the erection of the bridge. Mr. Joseph Locke, M.P.; and Mr. I. K. Brunel, friendly volunteer assistants on the occasion, are also introduced.

The Royal Gallery of Art.—The sixth part of this interesting work, now issued,* contains a characteristic picture by W. Collins, R. A. "Fisher-boys, Coast of Norfolk;" with Mr. A. Willmore's name to it as the engraver; Sir Thomas Lawrence's "Princess Amelia," very cleverly translated by R. Graves, A.R.A.; and the well-known Canaletti, "The Dogana, Venice," engraved by J. B. Allen. We know of no finer collection of Canaletti's works than that at Windsor. His industry, with due allowance for the counterfeits palmed off on an "enlightened British public," must have been continuous. Mr. S. C. Hall, in his notice of this engraving, mentions a house still standing at Richmond, "which, scarcely twenty years ago, was known to us, and to many more, as the 'Canaletti manufactory;' scores, we may almost say hundreds, of copies were circulated from its workshops; some of which reappear even now in the auction-rooms of the metropolis and of the provinces, where counterfeits are as highly 'valued as genuine copies.'" Every Canaletti in private hands may be looked at with suspicion. "The Royal Gallery of Art" will be a beautiful work.

* P. and D. Colnaghi and Son.

The Seat of War in the East.—Colnaghi's "authentic series" of lithographs, from drawings taken on the spot by Mr. William Simpson, will serve to recall hereafter many of the minutest incidents of the siege. Sixteen additional views are now before us, including "Commissariat Difficulties" (the road from Balaklava!); "The Embarkation of the Sick at Balaklava;" "Sebastopol, from the 26-gun Battery;" "The Charge of the Light Cavalry on the 25th of October," which gives a very clear notion of that extraordinary act; and "A Quiet Day in the Diamond Battery, with a monster Lancaster for a play-thing."

Mulready's Vicar of Wakefield.—Mr. Van Voorst has just now issued a beautiful edition of a beautiful book, "The Vicar of Wakefield, with Thirty-two Illustrations by W. Mulready, R.A." These illustrations, on wood, are too well known to need praise. Although not amongst those who pronounced them perfect on the first appearance of the work, we must consider the series the finest work of its kind as a whole that has been produced in our times. Fine paper, good printing, and a handsome cover, concur to render this a "luxurious" edition.

HINTS ON STYLE.

I WAS reading last Sunday an interesting memoir by the late Mr. Jay, of Bath, and some remarks of his on composition and style in preaching seemed to bear almost with equal force on Architecture and Architectural Design; and although it may have been often said before, we cannot, I think, dwell upon sound principles too frequently, and if you will give them currency through the length and breadth of the land by means of your widely read Journal,—some of the Compo decorators may take a hint. R. S.

"If we follow what is natural, though it may not render us popular, it will keep us from being ridiculous. It is better to effect well what is within our grasp, than to beckon people together to see us fall into a ditch by reaching after fruit that requires longer arms.

'Elegance is minute beauty pleasing propriety: simplicity is essential to it.

Hence Cowper's line—

——'Elegant as is simplicity.'

"It is the same in style as what is called chasteness in painting, and which is the opposite to exuberance and glare. An indiscriminate and usurping application of florid colours may daub a signpost, but will not be admitted into a gallery. It is the same as gracefulness in apparel, which is inconsistent not only with slovenliness, but also with gaudery. A well-dressed gentleman is very distinguishable from an harlequin. See a lady of taste enter a garden: from the profusion of the borders she seeks an assortment of beauty: her eye guides her hand: she gathers, but not all that comes in her way: she selects, and the choice discovers her taste: she arranges, and the order equally displays it.

"The several parts aid each other by their hue and by their position: though brought together there is no crowding: though diverse, there is no confusion; though adjusted, no formality: they open and wave, and retain a natural appearance, even in this artificial state. But another runs on—gathers—and because they are flowers, thinks she can never have enough; and only leaves off, because the hand can squeeze no more: she binds it—it is a *bundle* of flowers—but the other's is a *nosegay*."

"RESTORATIONS" AND THE SOCIETY OF ANTIQUARIES.

SOME time ago Mr. Ruskin proposed that the Society of Antiquaries should undertake the management and disposal of a fund to be subscribed for the preservation of Mediæval Buildings, offering himself to contribute the annual sum of 25*l*. towards the proposed object, and expressing his belief that his friends would be likely to subscribe a considerable further amount.

Ultimately the Society undertook the management of a fund to be raised for such a purpose; and recently the council have circulated the following memorandum:—

"The numerous instances of the destruction of the character of ancient monuments which are taking place under the pretence of restoration, induce the executive committee, to which the Society of Antiquaries has entrusted the management of its 'conservation fund,' to call the special attention of the Society to the subject, in the hope that its influence may be exerted to stop, or at least moderate, the pernicious practice.

The evil is an increasing one; and it is to be feared that, unless a strong and immediate protest be made against it, the monumental remains of England will, before long, cease to exist as truthful records of the past.

Much as these monuments have necessarily suffered from time, and much as their decay is to be attributed to the neglect of their owners, the members of the committee have no hesitation in expressing their conviction that these two causes combined have inflicted less injury than the indiscreet zeal for restoration.

Though time and neglect may impair, and eventually destroy, they do not add to a building; nor do they pervert the truthfulness of monuments. Restoration may possibly, indeed, produce a good imitation of an ancient work of art; but the original is thus falsified, and in its renovated state it is no longer an example of the art of the period to which it belonged. Unfortunately, too, the more exact the imitation, the more it is adapted to mislead posterity; and even the best imitation must unavoidably impair the historical interest and artistic value of the prototype, so that, in truth, a monument restored is frequently a monument destroyed.

Did the public at large really know how imperfectly, the principle and practice of ancient art are understood, and how very few of the so-called restorations have any just pretensions to fidelity, or could they appreciate the rash presumption of those who in general recommend and undertake such work, much less would be heard of money being lavishly spent in thus perpetrating irreparable mischief with the best intentions.

The committee strongly urge that, except where restoration is called for in churches, by the requirements of Divine service, or in other cases of manifest public utility, no restoration should ever be attempted, otherwise than as the word 'restoration' may be understood in the sense of preservation from further injuries by time or negligence: they contend that anything beyond this is untrue in art, unjustifiable in taste, destructive in practice, and wholly opposed to the judgment of the best archæologists.

(Signed) STANHOPE, President.
J. Y. AKERMAN, Secretary."

AN ARTISTIC OLIO.

As the upholders of art, in whatever shape it appear, so as it be genuine, we feel we should scarcely fulfil our conditions, still less satisfy our inclinations, did we not devote a few lines of approbation to Mr. Woodin's "Olio of Oddities."

Mr. Woodin is no common artist: his sketches are neither the startling crudities of ultra-originality, nor a series of *rifacimenti* of well-known portraits, touched up and redressed to suit modern tastes; but there is a freshness of conception and vigour of execution about them which indicate undoubted ability, and effectually disarm the slightest suspicion of plagiarism.

Apart from the individual merits, more or less, of the numerous portraitures which constitute the structure of this very entertaining monologue, the number of the characters and extreme rapidity of their changes are something quite marvellous to witness.

In the space of two hours, he presents you with thirty or forty portraits, all drawn from the life, and some of them so true to their originals that the most obstinate stickler for likeness cannot fail to recognise their strong resemblance to the type whence they are derived.

The first character, "An Animated Sandwich," makes his audience as completely "at home" as himself, and proves his touch to be masterly; and his subsequent impersonations more and more illustrate the value of first impressions.

A piece of comic vocalisation introduces a "Chapter of Critics," from the sententious and pouderous Dr. Johnson to the off-hand, fragmentary, ejaculatory critic of the shilling gallery.

"Travelling and Travellers" next introduce you to Mr. Woodin's Sketch-book, a series of well-painted views of the Lakes of Cumberland. The numerous characters encountered in this tour form the staple of the entertainment, allowing no breathing time to the versatile actor, and scarcely more to the beholder.

Some accurate impersonations of a few of our best known evening entertainers conclude the performance with *éclat*. Evidence of good taste pervades the whole arrangements. The stage is separated from the audience by a refreshing mass of green rock-work, lit by coloured lamps, and the fittings are very elegant. It is, as we said before, an artistic exhibition, and as such we warmly recommend it to the patrons of art in general.

"WANTED! A WASH."—I have some small houses that I want to do up, but what am I to do to the walls? Paint is expensive: paper is also dear, easily soiled and torn, and harbours insects: colouring looks very beggarly, and rubs off. What I consider is wanted is a new material, combining in some degree the cheapness of whitewash, and the durability of paint, the following qualities being essential;—easily laid on with a stock brush, good body, bear washing, and take any cheerful tinge.

A HOLDER OF HOUSES.

ROTHERHITHE AND ITS NUISANCE.

A CORRESPONDENT, B. S. S. writes again on the subject of the large tidal ditch which divides the parishes of Rotherhithe and Bermondsey. He says it is in reality an enormous elongated cesspool, nearly a mile in length, and varying in width from 6 feet to 30 feet; is the receptacle of every description of filth and refuse, both animal and vegetable; and is as offensive to the sight as it is injurious to the health.

It is now twenty-five years since this ditch was used as a mill-stream; and since that period the mud and filth have been allowed so to accumulate that they are above the surface of the adjoining ground, and during last summer it frequently occurred that the tides were not high enough to flow into these ditches for days, so that this vast surface of putrefaction and decay lay rotting and festering, exposed to the full action of the sun, generating those poisonous gases and noxious effluvia which have destroyed so many valuable lives, and have caused such an indescribable and incredible amount of misery and suffering throughout the neighbourhood.

When the cholera raged in Rotherhithe in 1849, its first appearance was in Gilham's-court, adjoining this ditch, where it proved fatal to three persons in one house; and its ravages along its course are but too well known.

Lord Palmerston was memorialised to use his influence to get these places filled in. Mr. Rawlinson and Dr. Milroy inspected them, and were both horrified.

The cholera came, and I hope, says our correspondent, I shall never again be an eye-witness to such scenes of grief and misery as came so suddenly and unexpectedly upon these unfortunate people. The Commissioners of Sewers filled in similar ditches in Bermondsey, and why should not they do the same in this instance, and that speedily, before cholera again commits such frightful ravages as on two previous occasions?

COMPETITIONS.

Dudley.—The first premium for the Dudley Workhouse has fallen to Mr. G. B. Nicholls, of Westbromwich. The second to Messrs. Bidlake and Lovatt. The Architectural Society of Birmingham met on Friday in last week, when the Dudley workhouse business was discussed. It was considered too late, however, to do anything in the matter, but they resolved to open the society to the Midland Counties, and try by that means to counteract any future proposition of "not exceeding 4 per cent." in competitions.

Edinburgh Meadows.—We are informed that at a meeting of the committee held on Saturday last, the first premium (50*l.*) was awarded to the plan No. 8, bearing the motto "Dum Vivimus Vivamus," and the second to that marked No. 1, with the superscription "Auld Callan." Upon opening the sealed envelopes which accompanied the plans, it was found that the successful competitors were Mr. Thomas Davies, Edinburgh, and Mr. Geo. M'Ewen, gardener, Arundel Castle, Sussex.

ST. ALBAN'S ABBEY.

IN the notice of the plan of St. Alban's abbey in the *Builder*, p. 217, *ante*, it is stated that "there are remains at the extreme west end of the nave of western towers *appertaining to the Norman building*." It is true that the foundations of the Early English work at the west end are of Roman brick: as the Norman walling throughout is of the same material, it has led to the supposition that the extreme western foundations must have been part of Abbot Paul's original plan, and that consequently the Early English portion of the nave is but a *re-edification* upon a Norman substructure. The mere presence of Roman brick discoverable below the surface at the west end hardly warrants the inference that the foundations are therefore Norman; for the adjacent city of Verulam continued to furnish this material for several centuries later, as may be seen in those portions of the church contiguous to the Lady Chapel, these being of Decorated date. An attentive examination of the Abbey Church would lead to the conclusion that the western termination of the original nave fell short of the existing one; that it was taken down during the abbacy of John de Cella; and that the Early English work was an entirely new addition—a lengthening of the old nave, in fact—by that abbot. For this supposition the following reason may be given, but it is not the only one that might be adduced. If we suppose the lines of the original Norman plan to be continued westward, they would not fall upon those of the later work at the west end: in other words, the Early English walling stands rather obliquely to the Norman. Now, although it is easy to conceive that an aberration of this nature might arise in the lengthening of a building (and several examples could be referred to in which the like sort of obliquity exists between later and more ancient work); yet, if the foundations of any separate division of a church, such as the Norman nave of St. Alban's Abbey, had been cast simultaneously, there is no apparent cause for such irregularity in the lines. If the extreme western foundations are parts of the original plan, we shall have to suppose that the Norman builders carried their walling in unbroken lines from the transept to the points at which the Early English work begins, and gave the remaining length of the plan a turn to the northward. I should be disposed to think that the Norman nave extended no farther west than one compartment beyond the last pillar of that date on the north side, and that the bricks forming the Early English foundations are the materials of the original west front, pulled down when Abbot John de Cella made his addition.

G. E. LAING.

FORM OF WROUGHT-IRON BEAMS.

INSTITUTION OF CIVIL ENGINEERS.

ON the 8th the discussion was renewed on Mr. Barton's Paper "On the Economic Distribution of Material in the Sides, or Vertical Portion, of Wrought Iron Beams." The opinions expressed were very various. Reported without the names of the speakers they would simply serve to mislead. By one speaker, after recapitulating the leading features of the paper submitted to the Royal Society by Mr. W. H. Barlow, and which had been quoted from at the last meeting, it was argued, that the actual position of the neutral axis being there established, the resistance at the outer fibre of a beam could be estimated, from the weight required to break it, when applied transversely. In cast iron, the resistance at the outer fibre was 40,000 lbs. while the tensile strength was only 17,000 lbs. A bar broken by direct tensile strain was broken without flexure; whilst a bar broken by transverse strain must first be bent.

The experiments showed, that of the 40,000 lbs. total resistance at the outer fibre, 23,000 lbs. were required to bend the beam, and 17,000 lbs. to overcome the tensile strength of the metal. In open girders the ultimate resistance was between 17,000 lbs. and 40,000 lbs. and it was found by experiment to increase as the ratio of the depth of metal to the total depth of the beam increased.

In an open girder, in which the depth of the metal was half the depth of the beam, the resistance at the outer fibre was 28,000 lbs. and the experiments traced the resistance gradually up to 40,000 lbs. in the solid beam.

In wrought iron, the resistance to flexure was less in proportion to tensile strength than in cast iron. Nevertheless it was an important element of strength, even in wrought iron; the resistance at the outer fibres in a solid beam being 50 per cent. greater than in an open girder, depending for its strength solely on the resistance to extension and compression.

Mathematicians had applied the axiom, "ut tensio sic vis," in the case of transverse strains, in which continuous fibres were unequally strained, without considering the lateral action arising from the cohesion of the particles: this, it was argued, required modification.

Drawings were exhibited of the bridge designed in 1850, by Captain Moorsom, and for which he obtained the engineering prize, from the Prussian Government, for the proposed great bridge intended to have been erected over the Rhine, at Cologne.

The bridge was intended to have been on the lattice principle and constructed of wrought iron,—with three openings, two of 600 feet span each, and one, an opening arch, of 100 feet span.

The total length of the beams was about 1,380 feet, and that of the bridge, from end to end of the arched approaches, was upwards of 2,000 feet. The width was to be 50 feet, and the soffits of the beams were to be 45 feet above the high-water line, and about 65 feet above the bottom of the river. The ultimate strength of the large beams, of 600 feet span, was calculated at 11,500 tons, distributed over the two. The quantity of metal in each of the large beams was 13,514 cubic feet of wrought iron, or about 2,865 tons, being about 4·83 tons per running foot, for a width of 50 feet.

It was contended, that this trellis bridge, would have been a more advantageous employment of the material, than if disposed as tubular beams for the same span.

The rule for calculating the strength of cast iron beams, given at the last meeting, was taken exception to, as not being so correct as the old rule, known as Professor Barlow's formula:—

7,600 constant for cast iron,
× sectional area,
× 4 times the depth,
÷ the clear span,
} all in inches,

gave the breaking weight on the centre in lbs. By this rule the breaking weight of the beams, stated to have been 26 tons, would have been 47 tons.

In reply it was stated, that the rule referred to was in effect nearly the same as that which had been given previously: both would give nearly the same results, provided the top flange was sufficiently large to act as the fulcrum upon which the remainder of the beam must be broken in tension.

Another edition of the rule referred to was,—

Total area of beam;

× Depth from top of beam to centre of gravity of the section;

× Constant number of 25;

÷ Length of bearing (in inches), gave the breaking weight on the centre, in tons, when supported at each end. This rule was approximately correct, but would be found to give sometimes too low and at others too high a result, whereas the rule given at the last meeting would be found correct for all cases.

It was contended, in closing the discussion, that the question resolved itself entirely into the relative value of the vertical middle rib, whether of the trellis form, the "Warren" truss, or the plate beam,—the top and bottom remaining the same in all cases. Practically the principal saving, in using the trellis system, must arise from the opportunity of employing merchant bars instead of plates, and in the truss, in introducing a certain quantity of cast iron; against which, independent of all other advantages, must be put the facility of construction and of being raised entire to its position possessed by the plate beam.

As to the so-called neutral axis, if by that term was meant a portion of material not performing any duty, it must be admitted that though there might be a point of reduced action, yet that all the particles in a plate beam were doing more or less duty at all times, and in that sense there was no neutral axis.

Many practical considerations, it was argued, induced the employment of the tubular plate beams, and the result had shown, on all the occasions of their use, their peculiar efficiency, especially as they had chiefly been employed in situations where it would have been impracticable to have established the scaffolding indispensable for the construction of the trellis beams; therefore any attempt to draw comparisons between the systems failed in the essential point of identity of situation and circumstances.

Miscellanea.

BRIDGEWATER CHURCH AND THE ARCHITECT'S CHARGES.—The architect's charges for the works done in the restoration of Bridgewater Church have been the subject of local animadversion, and we have been invited by the *Bridgewater Times*, and by private letters, to express an opinion on the subject. The charges amount to 570*l.* 7s. 4d. on an outlay of, according to the architect, 3,946*l.* and on the face, certainly, look larger than architects usually have the good fortune to obtain. There is this peculiarity about the matter, that the architect, by special arrangement, acted also as clerk of the works, at a weekly salary, by which means, as he sets forth, the parish were saved a large sum of money through the re-use of the old materials. There may have been other special circumstances, and we might commit an injustice if we made any adverse observations.

PROPOSED WIDENING OF HUNGERFORD-BRIDGE, AND NEW LONDON RAILWAY.—At a meeting of the Parliamentary Committee on Metropolitan Communications last week, plans were produced for the purpose of forming a tunnel railway from the London and North-Western Railway to effect a junction with Hungerford-bridge, over which it would pass on to the South-Western Railway. From this point it was proposed to carry on arches a branch line of railway to London-bridge, which would completely unite all the railways on the south side of the river with those of the north. It was proposed to widen Hungerford-bridge 50 feet, and by two girders in the centre to strengthen the bridge.

REMOVAL OF AN OLD MANSION IN THE MARKET-PLACE AT PRESTON.—Almost the last relic in Preston of a bygone age is now being rapidly dismantled. It is the last of a cluster, built in the reign of the first Charles, and bearing the date 1629. They were wooden ones, known by the name of "postern painted," and rose in successive tiers of curiously carved projections, that made each house appear like the stern of a modern ship of the line. The various projections were supported by grotesque figures, carved *in alto*. Many of the houses facing Cheapside, Preston, and connected with these buildings, were after the same style, and had points supported by wooden maintainers, under which the old dames of Preston were wont to spin linen with their distaffs.

THE IRON TRADE.—Collapse has entirely superseded the past high-price fever in this trade. Depression and heavy failures are the chief subjects of talk in the midland districts of the trade; and in South Wales also many of the works are said to be making iron at a loss.

Ancient Obelisk or Cross in Leek Churchyard.—At the last "Chapter of the Order of Rosicrucians" (a society of antiquarians in Manchester), one of the members gave an oral communication on the subject of a reputed Danish and mortuary cross, in the churchyard of Leek, in Staffordshire. This stone was described, and a drawing of it compared with others in Staffordshire and Cheshire, especially Clulow Cross, near Winkle; a cross between Upton and Fallibroome; a similar cross in the yard of the old (fourteenth century) grange of the Monks of Combermere Abbey, at Winkle; the Bow Stones near Lyme Park; and the Jordan Law Crosses, now deposited in the chapel at Lyme Hall. The chief features of resemblance in these various old obelisks (for they have no cross-arms, like the Calvary cross, but are simply pillars of stone) are, 1st, that at about two-thirds of their total height, they are encircled by a fillet; 2nd, that they have the upper third squared; and, 3rd, that those (too few) which do remain in their entirety, like the Leek cross, have a small ornamental head, like the pomegranate terminal of church stalls and seats. The opinion of the speaker was, that the cross at Leek was neither Danish nor Saxon (as some had supposed from its rope or chain tracery), but Norman. He believed these "crosses" chiefly (perhaps all) to be mere boundary stones, erected by the monks of Combermere and other religious houses, to indicate the extent and limits of their lands.

White Lead obtained by Precipitation.—Mr. Richard Baker, of Newark, New Jersey, has patented an improved method of producing the white carbonate of lead of commerce, consisting of a combined arrangement of apparatus, constructed so as to produce the carbonate by precipitation, more expeditiously and economically than by the usual methods. The apparatus consists in connecting with an air-pump a series of a great number of distribution pipes, descending vertically from a main horizontal tube, and passing down through the head of the precipitating vessel into a solution of sub-acetate of lead,—one pipe at least for every square foot of surface of the top of the vessel, thereby traversing the solution with a great number of small jets of carbonic acid gas, causing a rapid decomposition of the sub-acetate in solution, and a deposition of carbonate of lead, and as the vertical tubes cannot choke up with the ponderous precipitate, a constant blast is secured.

Waterproof Mineral Paint.—A peculiar substance was, a few years since, discovered in the Bridgewater Mountains, New Jersey (U.S.), composed of silica, alumina, and peroxide of iron, in chemical combination, which is stated by the proprietors to form a valuable and perfectly fire and water-proof mineral paint, and has recently been introduced into England. Its properties are said to be adhesiveness, flexibility, and great durability, being an effectual protection against rain, sea-water, and damp, becoming, after a few months' exposure, hard and lasting as stone, and perfectly fire-proof, its dark red colour never changing, even in the hottest climate, and neither cracking, blistering, nor decaying. It is said to require a smaller quantity of oil, too, than other paint, to cover well, work easily, and emit no unhealthy effluvium.

Originality in Architecture.—The regret expressed by yourself and your correspondent, Mr. Tarbuck, respecting the present state of architecture, may be almost as deeply appreciated by your non-professional as by your professional readers; and we, who want to be taught by the earnest and the truthful, feel that we must look to your pages for the visible action of that spirit which is to teach. But what are the errors which have to be swept away before truth can come? Each department of life possesses its own Augean stable. If we commence with that error which inspired the Egyptian, the Greek, the Roman, in the erection of their stately temples, where, we may ask, shall we find it now? Fortunately for the future, past errors are being swept away; and we cannot resuscitate the dry bones of dead religions; and the time is coming when metaphysics and philosophy will have completed their work for the present cycle, and when architects will be duly inspired with their truthful teaching. Then, and not till then, shall we have architects worthy to be compared with those of Egypt, Greece, and Rome. In domestic architecture no improvement of any importance can take place till those who design and build are more fully impressed with the importance of their profession in relation to the health and lives of their fellow-men. But this age may claim to itself a new mode of architecture for public buildings, although it be not applicable to many purposes, and the same kind of genius which inspired it would, if it had scope, suggest more graceful structures, for the more permanent wants of the time. Let architects continue to write and talk and then the public may hope to see some of the good results from such as your obedient servant,

Tyro.

Dover Harbour and the New Concrete Machine.—In connection with the works for the harbour of refuge and new pier at Dover, a correspondent informs us that a machine has been made by Messrs. Gilbert, for Messrs. Lee, the contractors, which mixes a large quantity of concrete almost instantaneously. It consists of an iron cistern, which is half-filled overhead from a hopper: the cistern revolves diagonally on an iron shaft, and the contents are then shot out ready mixed.

The Sewer Question at Brecon.—The Local Board of Health at Brecon, after a long and learned discussion, have come to the conclusion that there is nothing like an open sewer for sanitary welfare, a conclusion up to which they have, in fact, resolved practically to act, inasmuch as they have decided that an offensive open sewer called the Madrel shall *not* be covered over, as covered sewers concentrate the offensive effluvia, and render them more pernicious. It seems pretty clear that the Brecon sanitarians calculate discreetly on stagnation in their sewers; but we fear that even then they have overlooked the slight circumstance that the summer sun (or even sometimes the winter one) beaming all along an open sewer will convert it into something scarcely so delicious as a bed of roses. As it is, we should like to know whether the Central Board of Health has given its sanction to the new principle in sanitary science thus evolved by certain of the natives of that picturesque province to which the president of the Board belongs, and as it were under his very nose, considering the proximity of Brecon to Llanover. It is but justice to the minority of the Brecon board to state that such a minority has an actual existence, although the medical authority who voted for the open sewer plainly does not belong to it.

The Paris Lodging-houses.—From a letter in "The Labourer's Friend," written by Mr. G. Clark, of Paris, director of an Anglo-French Association for the erection of model lodging-houses in Paris, under the patronage of the French Government, it appears that the habit of unmarried French workmen of depending on their landlords for cooking their victuals, together with the desirability of adhering as much as possible to such habits, where otherwise unobjectionable, suggested to Mr. Clark the advantage of so disposing of the model lodging-houses, that, in place of paid managers and servants, occupying unrentable spaces, there would be one chief tenant, paying rent for the street floor as a shop suitable for a "traiteur," a "restaurant," or a coffee-housekeeper, baker, or other tradesman, depending much on the consumption of the working-classes, and who should engage to provide cooked meals for the other tenants, besides carrying on a more general business. Thus, the lodgers and the ground-floor tenant are mutually useful, while otherwise independent of each other, and the speculation is not burdened with expenses of management, as in salaries for housekeepers and servants, or curtailed in available profits from rents for the spaces so occupied. Mr. Clark suggests the adoption of some such plan in London, especially with the street floor let as a coffee-house to the principal tenant, as affording the speculation a better prospect of success in a good return on the capital laid out in the erection.

New Heating Apparatus, by means of Fluids.—General H. Dembinski, of Paris, has patented in this country, as well as in France and Belgium, new arrangements for heating rooms, large buildings, and hothouses, and for cooking and other purposes. The general principle is such an arrangement of fluted or plain tubes, with tufts of wire passing through them, to be heated in any convenient manner, as, while hot, can have water continually to flow over or through them. This heated surface being extensive, in proportion to the water to be heated, keeps the latter in a constant state of ebullition, and by passing it in that state through other pipes, so as to re-circulate over the heated surface, great economy of fuel is estimated to be the result. Ornamental vases, pillars, plinths, and other architectural and fanciful designs, may be made the heating medium in halls, staircases, single apartments, &c. One peculiar arrangement is adapted to camp purposes, combining a heating apparatus with a large cauldron for cooking the mess for the troops.

Smokeless Furnace.—In a steam-boiler furnace in action, on a 25-horse power boiler, at granaries and flour-mills at Winchester-wharf, Southwark, every alternate bar is so connected with a cross-piece at each end as to form one entire moveable frame, which is connected by gearing with the motive-power. The motion given to it is angular. What are termed the stationary bars are not fixed as usual, but hung so as to balance the vibrating frame with the load of fuel which it has to move. The fuel is fed through a hopper and regulating incline plane, and the whole is self-acting, requiring, it is said, but little attention from the stoker. The saving of fuel is estimated at about 10 per cent.

Scottish Society of Antiquaries.—At the seventh meeting of the session, held at Edinburgh, on Monday before last, Mr. A. H. Rhind read a paper on "British Primeval Antiquities; their present Treatment and their real Claims." Mr. Rhind concluded his paper by urging on the society the propriety of impressing on landowners the value of existing remains. Mr. Stuart entered into details as to the destruction going on, more especially of the sculptured stone monuments of Scotland. It was resolved that steps be taken for impressing on landowners the desirableness of taking better care of these interesting remains.

Sand Drainage.—By observing and imitating nature, says a Fife correspondent of the Notts *Guardian*, a drain can be formed cheaply to last for ever, that roots of any description shall not choke. Where natural drainage takes place it is by seams of sand or gravel: now, by cutting a drain in the usual fashion, and filling in six or eight inches of pure sand, river sand if possible, and covering in over this, you have a drain that is permanent—in fact, everlasting if undisturbed; for although tree or other roots may run through it, the sand can never be so displaced as to affect the drainage in any sensible degree. I have often wondered why sand-drainage is never used, being so cheap and so permanent.

Rancid Oil.—Dr. Griseler, a French gentleman, has discovered that by adding a few drops of nitric ether (known as spirits of nitre) to the most rancid oils, all the disagreeable smell is removed, and that by afterwards warming the oil, to separate the spirit from it, it becomes as clear and limpid as though it had never been otherwise than sweet. He says that a few drops of ether in a bottle of oil will prevent it from ever becoming rancid. The ether is based on hydrogen, which doubtless neutralizes the oxygen to which the rancidity of the oil may be attributed. Would not naphtha or turpentine act in a similar way on rancid oil?

Iron Beams.—With reference to a question raised during the recent discussion on wrought-iron beams, I have tried some experiments, and find that on the upper surface of a loaded beam the longitudinal lines are *compressed*, and the transverse lines *extended*: at the same time on the under surface the longitudinal lines are *extended*, and the transverse lines *compressed*. In my experiments the beam was loaded on the upper side, and the vertical lines became *compressed*. It is probable that in a compound or trussed and framed beam, loaded on the *lower* part, the vertical lines may be subject to extension and diagonal lines to compression.—Robt. Sheppard.

Chloride of Lime.—The "Analytical Chemist" who lately addressed us on the subject of "home-made chloride of lime," writes again to state that the following mixture will be found about the best for disinfecting purposes:—Commercial chloride of lime, 4 lbs.; peroxide of manganese, 1 lb.; powdered charcoal, 5 lbs. The whole cost of 10 lbs. of this mixture will, he says, be 1s. 3d. retail. In cases of cholera, fever, &c. he fills, with this mixture, a large flower-pot (the hole stopped with the porous plaster of Paris), and sets it in a vessel containing vinegar and water. In reference to his previous communications, our correspondent states that in practice he finds that the chloride of sodium and lime of the "home-made chloride," mixed with water in the way indicated, do not even produce chloride of calcium until the lime gradually absorbs carbonic acid from the air.

"Highbury,—Return."—Dear Mr. Editor,—I beg to call your attention to the bad policy on the part of the directors of the North London Railway, who have ceased issuing return day tickets on this line since the 1st of April. The sixpenny return tickets for the short journeys—say from Hackney to Highbury—were all very well, but the extra twopence few will pay, but will prefer either walking one way or taking the omnibus. There are many who have taken houses on this line, and travel to Fenchurch-street and back daily: the extra twopence a day would be 2*l.* 12*s.* 2*d.* a year, which a poor clerk with a family could ill afford; and, moreover, it is well known to all that this line of rail has paid better than any in London. Myself and many of my friends, not liking to be imposed upon, now walk twice a week from Hackney to Highbury: no doubt many do the same, and the directors will find, if they have not found it already, that they will lose instead of gain by the change.

Marie.

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A GENTLEMAN who is the owner of a Cone, with twelve workmen's Cottages, at Newcastle, is desirous of taking a PARTNER who can command Capital and will personally exert himself in the trade Further particulars may be learned on application to Mr. WOODMAN Solicitor, Morpeth

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A SITUATION WANTED, by a Young Man, practically acquainted with the Building business, Drawing, Measuring, Book keeping, &c. No objection to fill up time at the bench, if required. Terms moderate; good references.—E. B. Post-office, Slough, Bucks.

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A DRAUGHTSMAN, who has been seven years in the profession, and can get out perspective, finished, and working drawings, and has a knowledge of Gothic detail, and the usual routine of an office, wishes for an ENGAGEMENT.—Address S. J. 6, George-street, Old Kent-road

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LAND opposite the Elephant and Castle.—50 feet frontage of LAND, by 123 deep, TO BE LET, on lease, for about 33 years.—Apply to Mr. TRIMEN, 9, Adam-street, Adelphi

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AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 285, Blackfriars-road, near the bridge, respectfully invites all persons having Engines, Machinery, Foundries, Plant or Ironmongery Business to dispose of, to forward the particulars thereof for insertion in his REGISTRY-BOOK, for which NO CHARGE will be made unless sale be effected.

TO ENGINEERS, MACHINISTS, and OTHERS. A first-rate PREMISES in the above line, on the Surrey side, TO LET, fitted up with an excellent 8-horse engine boiler, 3 furnaces and fans, screw-cutting and other lathes, benches, blocks, tools, &c. The forgoing spacious premises are in full work, and will be sought, and may be had on advantageous terms Apply to AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 285, Blackfriars-road, near the bridge.

BUILDING LAND TO BE LET, at HALLSVILLE, Term, 1,000 years, for small cottages.
CANNING TOWN " 1,000 " for small cottages.
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POPLAR " 60 " for forth-rate houses.
Advances, 7d. to 10d. on each cottage Apply to Mr. WM. ELLISON, Architect, Stainsby road, Limehouse.

VALUABLE BUILDING SITE TO BE LET on Lease, situate in the High-street, Camberwell, having two frontages, making together about 468, having a large quantity of old materials in buildings on the ground —For particulars apply to W. C REED, Architect and Surveyor, 64, Old Broad-street, City, where a plan of the estate can be seen.

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BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON-ROAD, Belmont, Lee, Kent, close by the church. This is the most attractive, picturesque, and respectable locality on any side of London, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men For particulars, apply to Messrs J. and C. W. TODD, Milner-street, Brompton; or at their Office in Church lane, Lee; or to Messrs NELSON and INNES, 6, Whitehall; or to Mr. TYERMAN, Wellington-chambers, Strand.

CROWN LANDS, WINDSOR.—By order of the Commissioner in charge of Her Majesty's Land Revenue, TO BE LET, for the erection of villas and detached rows of houses, BUILDING LAND, most eligibly situate in Windsor-park, near the Great-park, having frontage to new roads, with ample provision for good drainage.—For particular apply to Mr. JOHN CLUTTON, 5, Whitehall-place, Westminster.

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GREENWICH.—BUILDING GROUND TO LET, in the most commanding part of the town, nearly opposite the Railway Station, adjoining the Blue Coat Boy Institutions, suitable either for public institutions, first-class shops (much wanted), or dwellings. There is a great depth, and a frontage of nearly 100 feet. A part or the whole may be taken on a long lease.—Further particulars of Mr. DOWSON, Auctioneer, London-street; or at the Portland Hotel, Greenwich.

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MAITLAND-PARK, HAVERSTOCK-HILL, Hampstead road.—LAND TAX REDEEMED.—TO BE LET, upon Building Leases, for ninety-nine years, desirable BUILDING SITES upon the above Estate. The continued demand for houses in this locality, and the picturesque portion of the property adjoining the grounds of the Orphan Working School, render this a desirable opportunity for builders or gentlemen wishing to erect villas for themselves.—For terms and to view plans, apply to the Secretary of the Orphan Working School, 32, Ludgate-hill; Messrs. TERRELL and CHAMBERLAIN, 30a, Basinghall-street; the Architects, Messrs. WEHNERT and ASHDOWN, 42, Charing cross; or at the Porter's Lodge, on the Premises.

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

SOMERSET.—TO BE LET, with immediate possession, a remarkably compact and convenient DWELLING-HOUSE, called Brook House with all suitable Offices and excellent garden and shrubbery, situated in the midst of the beautiful scenery of Stourhead, within easy distances of the towns of Wincanton, Mere, and Bruton, at which last place there will be a station of the Wilts, Somerset, and Weymouth Railway.—Further particulars may be obtained of JOHN SWAYNE Esq. Wilton, near Salisbury; or of Mr. COOPER, Solicitor, Wincanton.

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The Hon. JOHN LOCKE KING, M.P.
TRUSTEES.
George Singer, Esq., James Smee, Esq., S. Etches, Esq.
Offices, 311, High-street, Borough.
Open from Ten A.M. till Seven P.M.
Shares, 30l.
Entrance fee, 1s. Payments, 4s. monthly.
Allotments distributed by rotation, ballot, and to completed Shares in the order of their completion.
No Fines on unadvanced Shares. No back payments.
This Society within four years has divided five estates, satisfying 1,914 Shares out of 5,756. The value, as divided amongst members, being 67,767l.
A Bonus of 5 per cent. in addition to 5 per cent. interest, in all 10 per cent. was declared upon all unadvanced Shares at the Annual meeting of 30th January last.
WM. BANKS, Secretary.

211, High-street, March 1, 1853.

BELGRAVIA.—For SALE, a MORTGAGE DEBT, in the nature of a further charge for 700l. upon five first class unfinished houses on the Marquis of Westminster's Estate, or would be exchanged for a Freehold Cottage Residence and Garden on a line of rail within twenty miles south or west of London. This property would suit a builder.—Further particulars may be had of A. B. care of Mr. West, 1, St. James-street, Westminster.

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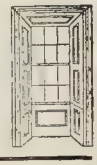

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Hartley's Patent Rough Plate Tiles from 8s. per dozen.
Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.
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All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

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Having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much esteemed manufacture is sold.
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PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cements, now manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parret.

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FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or at Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

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FRONTS of HOUSES.—GREENE and CO.'s PORTLAND CEMENT WASH, equal to oil paint for durability: in casks, 1 cwt. for 10s.

DAMP WALLS. GREENE and CO.'S OXIDE SOLUTION PAINT, a sure and effectual remedy for damp, salt, or spotted walls, 10s. 6d. per gallon, which will cover 25 square feet.—Prepared only by GREENE and CO. Original Inventors, &c., Norfolk-street, Islington.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied for shipment, on advantageous terms.

ROMAN and PORTLAND CEMENT of the first quality, manufactured at the ELMLEY CEMENT WORKS, Isle of Sheppey, Kent; also, STOCK and KILN BURNT BRICKS, hand-moulded and machine, made for shipping or otherwise.—Apply to G. BOOTH, Agent, 11, George-yard, Lombard-street, City.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Path stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.
CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfactory quantity expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.
CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken on their Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND STREET, Blackfriars (Surrey side), and NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Woodham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

KENNARD, BROTHERS, beg to submit to Builders and others, their cash prices for Lime of best quality:—Grey Stone Lime, 2s. per yard; Do. delivered four miles, 11s. do.; Chalk Lime, 8s. do.; Do. delivered one mile, 9s. do.; Do. delivered four miles, 11s. do.; Hydraulic Lime, very superior for plastering and gas works, 9s. do.; Do. delivered one mile, 10s. do.; Do. four miles, 11s. do.—A fresh supply by London and Brighton Railway daily. Office, Swan-place, Old Kent-road.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for the WARE is REMOVED to No. 2, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietors; and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 32s. 6d. per 1,000; floor bricks and 4 inch pavings, at 40s. per 1,000; 3-inch pavings, at 60s. per 1,000; 2½-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

GREAT NORTHERN WHARF, York-road, King's cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brick-fields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Lias-ground Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

STONE-COLOUR BRICKS, moulded to any pattern, for cornices, copings, labels, &c. at about one-third the cost of stone; also ornamental ridge and other tiles; may be had to order of Messrs. HOUPER and CO. 2, Portland-street, Southampton.—Illustrated list of prices or samples forwarded on application.

TO BUILDERS AND CONTRACTORS.

A LARGE quantity of superior quality GREY STOCK BRICKS on SALE, from Hoggrin's Crown Quay Fields Sittingbourne, Kent, delivered alongside in the river Thames, or into vessels for the West Coast, on low terms.—Apply to Mr. W. ALLAWAY, 4, Catherine-court, Tower-hill.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG STONE of the FINEST QUALITY.
MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BRICKLAYERS, GAS COMPANIES, WORKING CHEMISTS, AND OTHERS.

FIRE BRICKS, LUMP, TILE, CLAYS, &c. in Stourbridge, Welch, Newcastle, &c. at COST PRICES; the remaining Stock at Honduras Wharf, Bankside, Southwark, WILL BE SOLD, to clear the premises by Midsummer.
A large quantity of Best Dutch Clinkers.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 25s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

Depôt, Acar Wharf, King's road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59 Nelson-square, Blackfriars-road.

TO BUILDERS, CONTRACTORS, &c.

THE LONDON PATENT BRICK COMPANY have a STOCK of BRICKS for SALE.—For price and particulars apply at the Office, No. 8, Old Jewry.
JOHN A. F. DUFF, Secretary.
Contracts entered into for a regular supply of Bricks.

TO BUILDERS, GARDENERS, &c. requiring DRY RUBBISH from a Concreted Foundation, principally Lime and Sand, any quantity can be obtained by applying at 37, Museum street.

BRICK-MAKING.—A PATENT TO BE SOLD, or a share in it, for manufacturing BRICKS.—For particulars, apply to Mr. RICHARD CARTER, Surveyor, No. 42, Fish-street-hill, near the Monument, London, where a model of the machine may be seen.

THE ASYLUM LIFE ASSURANCE OFFICE, 73, CORNHILL, LONDON.
Established 1834.
Policies on healthy and diseased lives, at home and abroad, for civil, military, and naval employments.
The only Office on purely proprietary principles, involving therefore no partnership among policy-holders.
For prospectuses, proposal papers, &c. apply to
MANLEY HOPKINS, Resident Director.

LAW LIFE ASSURANCE OFFICE.—Fleet-street, London, 21st May, 1855.—Notice is hereby given, that in conformity with the provisions of the Deed of Settlement, a GENERAL MEETING of PROPRIETORS will be held at the SOCIETY'S OFFICE, Fleet-street, London, on SATURDAY the 23rd day of JUNE next, at TWELVE o'clock at noon, precisely, to ELECT a DIRECTOR in lieu of John Parkinson, Esq. deceased; to ELECT five other DIRECTORS and one AUDITOR, when those who go out of Office by rotation will be proposed for re-election; and also for general purposes. The Director to be chosen in the room of John Parkinson, Esq. will remain in office until the 24th day of JUNE, 1859.
By order of the Directors,
WILLIAM SAMUEL DOWNES, Actuary.

LAW LIFE ASSURANCE SOCIETY, 1, Fleet-street, London, May 10th, 1855.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the Proprietors of this Society will be held at the Office, Fleet-street, London, on FRIDAY, the 8th day of JUNE next, at TWELVE o'clock at noon precisely, for the purpose of declaring a Division of the Surplus of the Assurance Fund of the Society, in respect of the seven years ending on the 31st of December last.

And notice is hereby further given, that a second Special General Meeting will be held at the like hour and place on the following Friday, the 15th day of June, for the purpose of confirming the resolution which shall have been entered to at such first meeting, in pursuance of the provisions contained in the Deed of Settlement.

And notice is hereby further given, that any person who shall have been assured by the Society for two whole years may, on the production of his policy and of the last receipt for the premium thereon, be present at such meetings, and the Chairman of the Board of Directors shall take the chair will be taken at TWELVE o'clock precisely.—By order of the Directors,
WILLIAM SAMUEL DOWNES, Actuary.

THE ALBERT ASSURANCE COMPANY.
(Established in 1838.)
MORTGAGE and other LOANS in connexion with life assurance are granted by this office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square.
W. S. VARDY, Manager.

HOUSEHOLDERS and GENERAL LIFE ASSURANCE COMPANY, 13 and 14, Adam-street, Adelphi.
Money received at interest at 5 per cent. per annum, payable in April and October.
Agents (with references) may apply.
R. HUDSON, Secretary.

SECURITY TO EMPLOYERS.

THE TIMES ASSURANCE COMPANIES.
To Clerks and others guarantees at the lowest rates.
Plate Glass Assurance. Windows, mirrors, &c. insured against breakage.
Every description of life and fire assurance.
Apply to the Manager, 32, Ludgate-hill.

LOANS GRANTED.

LONDON EXCHANGE ADVANCE FUND, 2, Adelphi-terrace, Strand, facing the river.
TRUSTEES.
The Hon. R. Rowley. | Sir E. Graham, Bart.
10l. to 1,000l. advanced on personal or other security. Bills of exchange discounted. Five per cents. interest on deposits payable in January and July. Forms forwarded on receipt of twelve postage stamps.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, fetched away and paid for at the time, at C. LEETWICH'S Lead, Oil, and Colour Warehouse, 21, Munster street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 18s. per cwt. given for old lead.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Lumes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the necessary tools and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11. 13s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, corn tractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM.

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

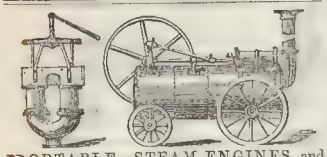
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanised or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

WANTED to PURCHASE, a Good SECOND-HAND WATERPROOF TENT, capable of dining not less than forty persons.—Apply at Mr. SCOLES' Office, 35, Pall-Mall.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground street, Blackfriars bridge (Surrey Side)

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

FARM AND COTTAGE PUMPS

WARNER'S PATENT CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing 2 19 0
Larger sizes if required.

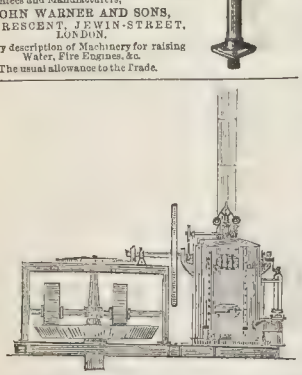
The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.



A SAVING of TIME and MATERIALS, with Solidity of Building.

HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

"Railway Contractor's Office, Wellington, Salop.
"December 1, 1853

"DEAR SIR,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Bacup Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although for weeks the fire has never been out, we have no stoppage for repairs.

"We remain, dear sir, yours most faithfully.

"Mr. Gough." "DICKSON and McKENZIE."

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work Apply to Messrs. MEDWIN, HALL, and CO., Engineers, 98, Blackfriars-road, Sole Patentees and only Manufacturers N.B Any of these Engines may be purchased.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads, 3s. to 6s. per square yard. Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 32s. per ton Importer of Trinidad Asphalte.
Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn-Stores, Floors of Warehouses and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN HETHERINGTON, PATENTEE of BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 11, FISH-STREET-HILL.
N.B. Country Agents and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS

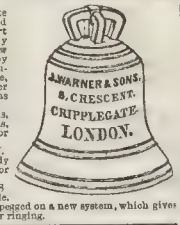
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, cast, hung, and pegged on a new system, which gives a superior tone and facility for ringing.



PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSSS'S WHOLESALE WAREHOUSE, 22 GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, beg to call the attention of Civil Engineers, Contractors, and others interested in the construction of railways, to their patent rails, sleepers, fish-joints, and other important improvements now in use on upwards of 2,500 miles of railways.—Every information can be obtained on application to CHARLES MAY, F.R.S. Manager; or WILLIAM ROWDEN, Secretary.

HOSE PIPING.—To ENGINEERS, AGRICULTURISTS, GARDENERS, SHIP CHANDLERS, and FIRE BRIGADES.—WAITHMAN'S PATENT FLAX TUBING (1 inch to 3 inches in diameter) will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 50 per cent. cheaper than the leather hose-pipe. Manufactured only by WAITHMAN and CO. Benthall, Lancaster.

Inches in diameter and price per yard :—						
¾	1	1½	2	2½	3
1l. 1s 1l	1s. 3l	1s. 7l	1s. 9l.	2s.	2s 3d.	2s. 6d.	2s. 9d.

Testimonial from Mr. WRIGHT, Lancaster:—

"I beg to inform you that I yesterday tested your piece of 2½-inch Patent Flax Tubing, connected with the Lancaster Waterworks, in the presence of the Mayor, Mr Rawlinson, Government Inspector, Professor Owen, &c. The column of water at which the Tubing was tried, was equal to 240 feet in height, or about 106 pounds on the square inch, and I have pleasure in stating that the hose sustained this pressure most admirably."

Testimonial of Capt. MARTIN, of the Great Britain Steam-ship:—

"I have much pleasure in being able to tell you that your hose supplied to the Great Britain and other ships, is well worth the attention of shipowners. It gives us great satisfaction."

Testimonial from FAIRBAIRN and Co., Leeds:—

"We have tested your hose, 2½ inches in diameter, with the pressure of the Leeds Waterworks, and found it highly satisfactory."

VENTILATION.

D. and E. BAILEY beg to call the attention of Architects and others to their improved CIRCULAR ARNOTT VENTILATORS, which are more sightly than the square ones in general use, much less liable to get out of order, as the flaps, being hung from the top, do not admit any smoke caused by down draught.

Price, bronzed, from 6s. 6d.

D and E. BAILEY, 373, Holborn.

SMOKE CONSUMER.—A Patent Smoke Consuming Apparatus supplied for 2l. 2s. and upwards, by Mr JAMES CARTER, 21, New Bridge-street, Blackfriars.

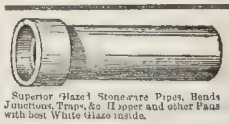
HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Springs, and Solid Round Rubber Cord of all sizes of length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle nets.

Driving dresses of superior make, and improved Vulcanized Rubber soles, for damp feet.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell mews, Goswell-road, London.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and it is therefore valuable for conveying water, chemicals, &c. It is peculiarly valuable for liquid manure, drain, and soil pipes. Being a non-conductor, it is not affected by the heat or wonter or drought of summer, like metal or leather. Its strength is extraordinary; the small half-inch diameter tubing having resisted a pressure of 30 cwts. on the square inch, without bursting. The smaller sizes may be had in 100 feet, and the larger in 50 feet lengths. The joints are easily made. As a conductor of sound it is most valuable for conveying messages in bells. ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA. The GUTTA PERCHA COMPANY, Patentees, 18, Wharf-road, City-road, London.



Superior Glazed Stoneware Pipes, Bends Junctions, Trays, &c. Hopper and other Pans with best White Glaze inside.

Pan, 3s. 6d.

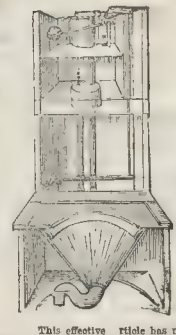
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin, the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.



Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

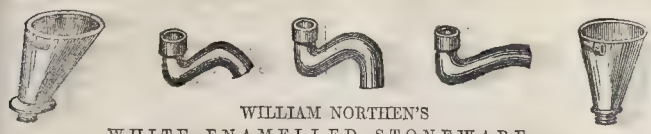
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective Article has not any Crank or Wire to get out of order, and is all complete and ready to use, as I may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.



WILLIAM NORTHEN'S

WHITE ENAMELLED STONEWARE,

UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,

LAMBETH POTTERY, HIGH-STREET, LAMBETH,

Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.

CLOSET-PANS AND TRAPS, 5s. 6d. EACH.

AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW	J. A. Mathieson, Hope-street.	WIGAN	James Fairclough, King-street.
DUBLIN	Robt. Lovely, Poolbeg-street.	KENDAL	Robt. Thompson.
CORK	J. and J. Harley	CARLISLE	C. Armstrong, Lowther-street
WATERFORD	J. Sparrow and Co	WHITEHAVEN	Hugh Todhunter.
CARNARVON	Jno. Jackson.	COCKERMOUTH	John Hird.
PRESTON	J. Armistead, Hudson-street.	GUERNSEY	Guerin, Brothers.
CHORLEY	Thomas Saville	LONDONDERRY	W. and A. M'Elwee.
BLACKBURN	W. Hopwood, Clayton-street.	LIMERICK	W. Burgess and Sons.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

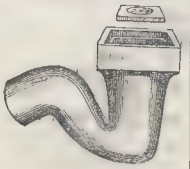
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey, Denyer's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 9, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryde-street, Covent Garden; and at EDWARD COCK'S, 34, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

GEORGE JENNINGS, Inventor of the IMPROVED DRAIN PIPES EARTHENWARE and OTHER CLOSETS, SLUICE VALVES, FIRE, and all kinds of COCKS, Shop Shutter Shoe and Fastener, &c. 29, Great Charlotte-street, Blackfriars-road. A book containing illustrations and particulars free on application, or by post, if two stamps are enclosed.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c; also, to their Patent Sinks, &c.; Slabs of the best quality, whole-sale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1858.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c. &c. Agents,—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

ISAAC PARRY'S

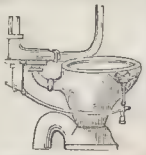
GLAZED STONE SEWER PIPES,

RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,

CHURCH-STREET, DEPTFORD, KENT.

ESTABLISHED UPWARDS OF 100 YEARS.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in and near to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 2l. 2s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish-street, near St. Paul's, London.

Crown Glass, 15 tables, 30s per Crate.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by its unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co. Great Northern-wharf, York-road, King's-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 70, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 22.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c

THOMAS LAMBERT and SON,

Brass and Iron Founders, Short-street, New-cut, Lambeth.

THE BUILDER.

SALES BY AUCTION.

The commodious Family Residence known as Leyton-house, surrounded by its own Pleasure Grounds, and conveniently situate about five miles from London, and less than one mile from the Leabridge Station, also about 20 acres of beautifully timbered park like land; a few acres of Building Ground adjoining the house, and Land in Leyton marsh; the whole comprising about 45 acres.

MESSRS. WINSTANLEY are instructed by Mr. Alderman Sidney to SELL, by AUCTION, at the MART, near the Bank of England, on WEDNESDAY, the 19th day of JUNE, in six lots, the following important FREEHOLD and PART COPYHOLD PROPERTY (the latter subject only to a small fine certain), viz.:—

Lot 1.—Leyton-house, adapted in every respect for the requirements of a large establishment, the reception rooms being of excellent proportions, the principal and secondary bed chambers numerous and well arranged, and the offices are convenient and abundantly supplied with water. The approach is through a quadrangle, on the north and south sides of which is capital stabling, servants' rooms, harness-house, and other domestic offices. The pleasure grounds are beautifully laid out, and ornamented with choice American and other shrubs, lawn, terrace walks, fish pond, &c. comprising also, other about six acres.

Lot 2.—About three acres of land, suitable for building, having a very considerable frontage to the high-road, and adjoining lot 1.

Lot 3. The farmyard and buildings, and about twenty acres of productive meadow land, of parklike appearance, ornamented with fine timber-trees, in the rear of lots 1 and 2.

Lots 4, 5, and 6, will comprise about sixteen acres of land in Leyton-marsh.

To be viewed by cards, which, with printed particulars, may be obtained of Mr. Taylor, Surveyor, Parliament-street; Mr. Winstanley, Solicitor, London-street, Fenchurch-street; and of Messrs. Winstanley, 10, Paternoster-row.—Particular also at the Inns at Leyton, Woodford, Woodford-wells, Snaresbrook, Hackney, and Place of Sale.

TO IRONMONGERS, STOVE GRATE MAKERS, BUILDERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on the PREMISES, 130, Fleet-street, on THURSDAY, MAY 31, at ELEVEN, in lots, without reserve, the STOCK of STOVES and RANGES, IRONMONGERY, and BRASS-FOUNDERY, principally manufactured by Messrs. Burbidge and Healy, who are relinquishing the retail branch of their business, including seventy register stoves, fine cast, bright, and polished steel, many of elegant designs, and richly mounted in or-moulu; seven Sylvester's patent enclosed kitchen ranges, from 3 feet 2 to 6 feet in width, hot-plate, and oven-flues; 100 polished steel and bronzed iron fenders, many of the most expensive description; fifty sets of polished steel fire-irons, bronzed and metal goods, lamps, cutlery, tin and BLACK hollow ware; fifty sets japanned trays and waiters, japanned toilet services, 100 dozen files and rasps, an assortment of builders' and cabinet ironmongery and brass work, ten logs wrought and cut nails, six printers' iron imposing tables, with planed surfaces; thirty Sylvester's patent fire and fine doors, shop fixtures, counting-house fittings, iron repository, fixtures, and other useful effects. To be viewed on Wednesday previous to the Sale, when catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, Billiter-street, City.

TO ENGINEERS, SAW-MILL PROPRIETORS, BUILDERS AND OTHERS.—By

MESSRS. FULLER and HORSEY, on WEDNESDAY, MAY 30, at TWELVE, at the SAW-MILL, Charles-street, Blackfriars-road, in lots, without reserve, by order of the Trustee, a double-cylinder STEAM-ENGINE, of 12-horse power in early new, an ELEPHANT BOILER, by Cater nearly new; 30 feet turn of wrought-iron shafting, 6 feet mortise driving-wheel and pinion, five riggers, from 2 feet to 6 feet diameter, three circular saw-benches and saws, two large wrought iron tanks, sixteen work benches, quantity quartering and laths, 2 cwt. nails, iron safes, and other effects.—To be viewed (the engine in motion), on the morning of sale, when catalogues may be had on the Premises; of Messrs. Jones and Lovell, Solicitors, Albernia-chambers, London-bridge; and of Messrs. FULLER and HORSEY, Billiter-street, City.

TO TIMBER MERCHANTS, BUILDERS, Cabinet-makers, Pianoforte Manufacturers, Coach Builders, Organ Builders, Carpenters, &c. &c.—For SALE by AUCTION on the PREMISES, Waterloo-bridge Wharf, Lambeth, on MONDAY and TUESDAY, the 2nd and 3rd of JUNE, at TEN for ELEVEN each day precisely, the very superior and well-seasoned STOCK of Messrs. T. R. and W. Browning and Co. consisting of about

14,000 Quebec and Sequenay yellow pine planks.
12,000 St. John pine planks.
1,000 Red pine planks
5,000 Spruce deals and battens.
1,000 Oregon and Archangel deals
7,000 Christiania white and white deals and battens.
5,000 Gothenberg and Swedish deals and battens.
1,000 squares prepared flooring and match boards.
2 & 3 Pieces Rice, Baltic, and Swede timber.
200 Pieces Norway die square timber.
400 Norway poles.
50+ Riga and Memel wainey-cut logs.

With sundry birch, ash and pine boards, put-logs, &c. also Spanish, Honduras, and Cuba MAHOGANY in logs, planks, and boards, cedar, walnut wood, &c. &c.

To be viewed two days previous to and on the mornings of Sale. Catalogues may be had on the Premises, and of Cruickshank and Son, 38, Old Broad-street; C. Leary and Co. 75, Old Broad-street, London, Brokers.

SUTTON, SURREY.—Highly attractive Freehold Land, nearly adjoining the Railway Station.

MESSRS. BLAKE will SELL by AUCTION, at GARRAWAY'S COFFEE-HOUSE, Change-alley, on TUESDAY, MAY 29th, at TWELVE precisely, in one lot, THIRTY-THREE ACRES of valuable FREEHOLD BUILDING LAND, most delightfully situate on the west side of the turnpike road leading from London to Brighton, and having a most desirable frontage thereto of about 630 feet. The situation of the land is picturesque and salubrious; it has a substratum of chalk, and is at present in occupation, but possession of a small portion will be given on the completion of the purchase. Particulars may be had at the Inns at Sutton, Reigate, and Epsom; at Garraway's Coffee-house; of Mr. Russell, Solicitor, 69, Coleman-street, London; and of Messrs. Blake, Croydon.

Sixty Acres of Beautiful Freehold Land, about 3 miles west of London, in 21 lots of about 2½ acres each, worthy the attention of speculators, gentlemen desirous of erecting a country-house, with sufficient land for enjoyment, or of Freehold Land Societies.

MR. MOXON will SELL by AUCTION, at the MART, on WEDNESDAY, MAY 30, at TWELVE, unless an acceptable offer be previously made by private contract, 60 acres of very valuable MEADOW and PASTURE LAND, delightfully situate, about half a mile from the railway station of Hanwell, adjoining Hanwell park and the residence of G. Baillie, esq. forming a portion of the beautiful hilly ground sloping towards the valley of the river Brent, and an extensive panorama of rich vale and wooded scenery. The land is remarkably well adapted for the erection of villa residences, having a very excellent frontage to the very beautiful road leading to Greenford, Perivale, and Harrow, but will be divided into only three lots, each lot offering a most desirable opportunity for any person to build a residence with sufficient land for parklike paddocks.—Particulars and Plans may be obtained at the Auction Mart; of Alexander Bassett, Esq. Solicitor, Bedford-street; and at Mr. Moxon's Offices, 5, West Strand, Charing-cross.

A very old established Plumbing, Painting, Glazing, and Gas-Fitting Business, situated in the suburbs.

MR. LEMM is directed to SELL this profitable business. A sacrifice, on account of ill health. The returns have been 1,000*l.* There is a capital house moderately rented, and part let off. Showy shop and spacious light and convenient premises in the rear. The situation is both commanding for business, and remarkably healthy.—Satisfactory particulars of Mr. LEMM, 4, St. George's-circus, near the Surrey Theatre.

SALES BY AUCTION.

WEST PLUMSTEAD, near Woolwich, Kent.—Valuable FREEHOLD BUILDING LAND (Eleven Acres), adjoining the grounds of Bramley-bury House, and situated between the Barrage and Park Estates, where extensive building operations are now in progress, and a detached RESIDENCE, with gravel subsoil, and studded with ornamental timber; it commands a splendid view of the Thames, county of Essex, Royal Arsenal &c. and is within a short distance of the Arsenal Station of the North and Kent Railway, with access from Broad-lane-alone on the North, and Plumstead-common on the South. The COTTAGE RESIDENCE, known as Bramley-bury Cottage, pleasantly situated on Plumstead-common, and at the southern extremity of the grounds of Bramley-bury House, surrounded by about two acres of ornamental land and garden ground, one and a half acre of which are freehold, and the residue held of the Lords of the Manor at a rental of 8*l.* per annum. Particulars and plans will shortly be published, and may be had at the Auction Mart; Long Lane; of W. H. Parrenas, Esq. Solicitor, 4, New Bridge-street, Blackfriars; and of the Auctioneer, Brewer-street, Woolwich.

REIGATE, SURREY, close to the Red-hill Station, on the London and Brighton and South Eastern Railways.

MESSRS. DAVIS and VIGERS are directed by the executors of the late Thomas Neale, Jun. Esq. to SELL by AUCTION, at the ANGEL INN, REIGATE, on FRIDAY, JUNE 1st, at TWELVE for ONE, desirable BUILDING LAND, suitable for the erection of mansions, villas, and shops, comprising nearly 30 acres, and embracing the most eligible spots of the high ground close to Wray-common, commanding extensive views of scenery, remarkable for its great beauty; also several TOWN PLOTS, on the station-road, suitable for the erection of cottage residences and business premises; and three valuable CLOSES of ARABLE, MEADOW, and WOOD LAND, fronting up the turnpike-road from London to Brighton. The whole property lately formed part of the Gatton Estate, and is held by leases from Lady Warwick, for sixteen years, from Midsummer, 1846, at nominal ground rents.—To be viewed by permission, with plans and conditions of sale, may be had of Messrs. Druce and Son, Solicitors, Billiter-square, London; at the Railway Junction Hotel, Reigate; the Crown Inn, Croydon; at the Railway Auctioneers' Offices, 3, Frederick's-place, Old Jewry, London.

TO BUILDERS, CARPENTERS, COACH-BUILDERS, PIANOFORTE-MAKERS, and Others.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 49, Union-street, Somers-town, on MONDAY, MAY 30, at TWELVE for ONE, about 250 PLANKS, DEALS, and BATTENS, 12,000 feet wide pine board, 500 feet American Ash, Spanish mahogany in planks and boards, cedar, oak, 150 pieces of prepared flooring, 5,000 feet seasoning, dry cut stuff, moulding, ladders, barrows, and other useful items. May be viewed on Saturday prior to the sale, when catalogues may be had on the Premises, and of the Auctioneer, Carlington-street, Hampstead-road, near the Euston-station.

To Ironmongers, Builders, Shippers, Smiths, and Others.

MR. BILLINGAY is instructed by Messrs. Cole and Co. of 8, Aldgate (in consequence of dissolution of their partnership), to SELL by AUCTION, at the Royal Mart, 28, Leadenhall-street, on WEDNESDAY, JUNE 8, and following days, at TWELVE, without the least reserve, all the STOCK in TRADE, comprising cabin-furniture, iron and other locks, latches, bolts, hinges, brass foundry goods, wrought, cut, and horse nails, carpenters' and other tools, screws, files, chain, register stoves, wire netting, desks and safes, fender trim, hollow ware, and numerous articles, forming the usual assortment of a general ironmongery stock. The whole will be removed to the above rooms for convenience of sale. May be viewed two days prior to the sale; and catalogues (which will be shortly ready) may be had at the Offices of J. W. Jewitt, Esq. Solicitor, 45, Lime-street; at the Premises, 8, Aldgate; and of the Auctioneer to the Metal Trades, 21, Coleman-street, City.

POPLAR, MIDDLESEX. TO STONEMASONS, BUILDERS, AND OTHERS.

MR. J. Y. GIBBS is favoured with instructions to offer for SALE by PUBLIC AUCTION, on WEDNESDAY, MAY 30, 1855, at ONE for TWO o'clock precisely, on the PREMISES, No. 243, East India-road, Poplar, corner of Spotted Dog, the valuable STOCK of a Stonemason, consisting of Portland scantlings, landings, steps, and curbs, window sills, slabs, &c. marble and Yorkstone chimney-pieces, black and veined marble grindstones, set of corn stock stones, tomb, head, foot, and grave stones, powerful jacks, saw-screws, blacksmith's tools, heavy purchase blocks and falls, a quantity of old iron, and various other effects.—May be viewed two days prior to sale, and catalogues had at the Britannia Tavern, Limehouse; the Green-gate, Plaistow; at the Place of Sale; and the Auctioneer's Offices, High-street, Poplar.

First portion of the valuable Stock of ARCHITECTURAL and SCIENTIFIC BOOKS and COPYRIGHTS of Mr. JOHN WEALE, of High Holborn, declining the retail trade.

SOUTHGATE and BARRETT will SELL by AUCTION, at their ROOMS, 29, Fleet-street, on MONDAY, JUNE 4, and two following days, at TWELVE, the first portion of the valuable stock of ANCIENT and MODERN BOOKS, consisting of the best standard works, in architecture and engineering, the fine arts, and other sciences, and a great variety in miscellaneous literature, together with the entire remaining stocks and copyrights of several important publications, including the Architectural Papers, edited and published by Mr. Weale, 4 vols.; Wood's various Works on Designs of Furniture; the copies and copyright of Chambers's Civil Architecture, by Gwilt, 2 vols.; Sydney Smirke's Architectural History; Acts of the Temple Church; Ancient Specimens of Goldsmith's Iron and Metal Work; Fergusson's "Principles of Beauty and Art;" Fergusson's "Rock-cut Temples of India;" the coloured, proof, and plain copies of the Ayasophia, Constantinople, most beautifully lithographed by Louis Haghe, &c. together with the author's copy of Welby Pugin's "Principles of Gothic Architecture," containing his numerous MS. additions and the original drawings; a superb and unique copy of all the original designs in manuscript and all the works of Albert Durer, with other drawings, and much additional manuscript correspondence, elegantly bound in 4 large vols. &c. &c.—Catalogues will be forwarded on receipt of six postage stamps.

TO BE SOLD by AUCTION, on WEDNESDAY, the 6th of JUNE, 1855, at TWELVE o'clock at noon, precisely, in the BROKERS' SALES ROOMS, Jesse's-walk and Toxteth Docks, Liverpool.

243 Logs, measuring 58340 feet Baywood, now landing, ex Be Whittington.
Apply to Messrs. M'Calmont, Bros. and Co. Merchants.
502 Logs and Curls St. Domingo Mahogany; being the cargo just landed, ex Kenner, from St. Domingo direct.
Apply to Messrs. Edward Bleasdale and Co. Merchants.
132 Planks Rio Rosewood; now landing, ex Sceptre, from Rio direct.
Apply to Messrs. C. S. Middleton and Co. Merchants.
485 Planks Rio Rosewood, just landed, ex Orkney Lass, from Bahia direct.
Apply to Edward Bass, Peg. Merchant.
400 Planks Rio Rosewood, now landing, ex
On account of the Importers.
162 Planks Rio Grabwood, ex Emilie
570 Lancewood Spars, now loading, ex Ada.
Apply to Messrs. B Hall and Co Merchants.
150 Lancewood Spars just landed, ex Gilgarth.
Apply to Messrs. J. R. Dealy and Co. Merchants.
And expected to arrive,
A quantity of Italian Walnut Wood, ex Tiber.
On account of the Importers.
To which will be added quantities of Pencil Lignumvitæ, &c.
For further particulars, if sold, apply to
EDWARD CHALONER, Broker, Liverpool.

SALES BY AUCTION.

METROPOLIS IMPROVEMENTS.—Spitalfields Extension—Eighteenth Sale.—Materials of Twelve Houses.

MESSRS. EVERSFIELD and HORNE have received instructions from the Commissioners of her Majesty's Public Works and Buildings, to SELL by AUCTION, on the PREMISES, on WEDNESDAY, MAY 30th, 1855, at TEN for ELEVEN, the MATERIALS and FITTINGS, of the usual description, of TWELVE HOUSES, being 1, 2, 3, and 4, Brown's-lane; 4, 5, 7, and 8, Wheeler-street; and 1, 2, 3, and 4, small dwellings in Hatfield-place, Wheeler-street, Spitalfields.—May be viewed one day previous, and catalogues had on the Premises; at the Office of Messrs. Jones, Esq. 7, Whitehall-yard; of Mr. Bunn, Clerk of the Works, corner of Fashion-street, Spitalfields; and of the Auctioneers, 40, Parliament-street, Westminster.

EXTRA SALE.—An entire new Stock of upwards of 8,000 pieces of Paperhangings, and Veni Marble Chimney-pieces.

MR. BRAY, Jun. will SELL, at his ROOMS, 8, High Holborn, on WEDNESDAY, MAY 30th, at ONE for TWO, an entire new STOCK of PAPERHANGINGS, suitable for the drawing and dining rooms, parlours, secondary apartments, halls, and staircases.—May be viewed, and catalogues had

MARBLE.—To Sculptors, Masons, Builders, and Others.

MESSRS. THOMPSON and HOLMES will OFFER, by PUBLIC AUCTION, on MONDAY, the 4th day of JUNE next, at TWELVE for ONE o'clock, at their WHARF, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge, about 600 SUPERFICIAL FEET of MARBLE, consisting of Statuary, Sicilian, Veined, Black and Gold, Dove, Berdilla, Emperor's Red, and St. Ann's and Irish Black, of the finest quality and shades. Also about 400 superficial feet of English and Foreign cut slab. May be viewed previous to the Sale. Catalogues and further particulars had of the Brokers, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge.

GUILDHALL, London, 24th May, 1855.

BUILDING LEASES, NEWGATE-STREET. The Committee for letting the Bridge-House Estates, will meet at Guildhall, on FRIDAY, the 22nd day of JUNE next, at TWELVE precisely, to receive TENDERS for BUILDING LEASES of THREE PLOTS of GROUND, on the north side of Newgate-street, in the City of London, adjoining Christ Church-passage.—A plan of the ground and conditions for letting may be seen at the Architect's Office, Guildhall.

FERDINAND BRAND, Comptroller.

FREEHOLD LAND.—To Builders or Parties wishing to Build—Sydenham Residences.

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.:—

Forest-hill, Croydon Railway.
St. Margaret's, near Richmond and South-western Railway.
Gattan's Grange, Weybridge, Surrey, ditto.
Tottenham-green, Eastern Counties Railway.
Putney, South-western Railway.
Rectory Estate, Ealing, Great Western Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
Wood-green, Green-lanes, Great Northern Railway.
Old Ford, Stratford, Eastern Counties Railway.

Each of the above estates offers its own peculiar advantages. Plots of land of any size, or for any class of houses, to the extent of One acre, can be obtained. On the two first estates, large pleasure gardens are allotted to the freehold lers or tenants of houses. Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money remain, with other facilities, for a small charge (for about ten years' less in amount than the ground-rent of the same on the usual system. In addition, therefore, to the annual saving to be effected on the land by moderate purchase, they can sell the ground-rent created by themselves at a large profit. Several plots to be let on building lease. Money advanced to respectable parties. Apply to Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

WEYBRIDGE and PUTNEY, SURREY, and FOREST-HILL, SYDENHAM.—Several PLOTS of FREEHOLD LAND, close to these railway stations, TO BE SOLD, subject to a small chief rent, instead of purchase-money, for private villas. Also, a Plot for an Inn. Moderate advances if required. For further particulars apply to Mr. A. C. HOOK, Land Agent, 13A, Great George-street, Westminster. The railway companies issue season tickets to these places at reduced rates.

MANUFACTURING PREMISES.—Mr. JOS. SMITH, 48, Worship-street, Finsbury, has to DISPOSE OF the LEASE of some extensive PREMISES, comprising large room, 30 feet square, about 20 feet high; larger room over; house of four rooms at back; cellarage, and back entrance; in a good business thoroughfare.—For particulars and cards to view apply as above.

KENSINGTON GORE.—Valuable SITES for first-class MANSIONS, in the new (Prince Albert's) road, Kensington Gore; with frontages to the Park like property purchased by the Royal Commissioners for the Exhibition of 1851, as a site for institutions connected with science and art; may be obtained on 50 years' lease, by application at Mr. W. JACKSON'S Office, 10, Kensington Gore.

TO BE SOLD, within a few minutes' walk of the Kilburn Station, on the North-western Railway, and immediately adjacent to the intended line of the Hampstead Junction Railway, about EIGHT ACRES of COPYHOLD LAND, having a frontage next West-end-lane of more than 800 feet. The estate, which is beautifully situated, is at present let to a yearly tenant, and immediate possession may be had. The soil is capable of being made extremely productive, and a specimen of the earth may be seen at the Office of Mr. POWNALL, 3, Bloomsbury-square, where lithographed plans and further particulars may be obtained; or of R. R. ARMSTRONG, Esq. 8, Staple-inn.

HARGRAVE-PARK ESTATE, UPPER HOLLOWAY, commanding beautiful views of the surrounding country.—TO BE SOLD, or LET on LEASE for ninety-nine years, valuable PLOTS of FREEHOLD BUILDING GROUND, land-tax redeemed, on the east side of Highgate-hill, and the road from Upper Holloway to Kentish-town, in large or small plots, suitable for detached or semi-detached villas. A great variety of sites for houses, same in plots as small as 25 feet frontage by 80 feet deep. For further particulars and plans apply to R. L. ROUMIEU, Esq. Architect, 10, Lancaster-place, Waterloo-bridge; or to P. A. HANROTT, Jun. Esq. Solicitor, 20, Queen square, Bloomsbury.

PARTNERSHIP.—Wanted, a Gentleman, with about 3,000*l.* to 4,000*l.* to take a SHARE in a Builder's Business of long standing, and excellent connection. He will be necessary for the incoming partner to have a thorough knowledge of the business, and he will be required to take an active part in the management.—Principals or their solicitors may obtain particulars, by applying to Messrs. J. and G. BARNARD, Solicitors, 14, York-road, Lambeth.

PARTNER WANTED.—A MANAGING PARTNER is WANTED, in a Sculpture and Marble-cutting establishment in Scotland. The business is one of long standing, and presents an excellent opening for any qualified party.—Apply to T. and R. LANDALE, 18, Forth-street, Edinburgh.

LONDON: Printed by CHARLES WYMAN, of 14, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing office of COX Bros. & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the Fields, and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, May 26, 1855.

The Builder,

AND

Architect, Engineer, Operative & Artist.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square. The Exhibition of the Royal Academy IS NOW OPEN.—Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling.

JOHN PRE-COTT KNIGHT, R.A. Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s.

JAMES FAHEY, Secretary

TO the GOVERNORS of the LONDON HOSPITAL.

MY LORDS, LADIES, AND GENTLEMEN,—In announcing to you the result of this day's ELECTION, I beg to thank you for the kindness which has secured me so large an amount of support in the discharge of my duties as your surveyor it will be my humble endeavour to follow in the steps of my beloved father, and to promote by all the means in my power the interests of the London Hospital.—I have the honour to be, my Lords, Ladies, and Gentlemen, Your obliged and faithful servant,

3, Great St. Helen's, May 30, 1855.† WILLIAM A. MASON.

RESULT OF BALLOT.

W. A. Mason	438
J. W. Papworth	14
J. S. Scott	Resigned

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster.—Midsummer Session, 1855.—The THIRD LECTURE will be delivered on MONDAY next, JUNE 4th, at Eight o'clock P.M. on Incised Pavements: by William Burges, Esq.—Cards for the Course, 2s. 6d.; Single Lectures, 6d. Catalogue, 1d. each. To be had at the Museum, and at the Office of "The Builder."

HENRY CLUTTON, Hon. Secretary.

1st June, 1855.

CONTRACTS.

GREAT WESTERN RAILWAY.—CONTRACT for STATION BUILDINGS. The Directors of the Great Western Railway Company will receive TENDERS for the ERECTION of STATION BUILDINGS at Frampton, Maiden Newton, Evershot, Yeovil, Sparkford Bruton, and several intermediate places, on the Wilts, Somerset, and Weymouth line of this railway. Drawings and specifications may be seen, and forms of Tender with any further information obtained, at the Engineer's Office, Paddington, on and after THURSDAY, 31st instant, and Tenders are to be addressed to the Secretary, on or before WEDNESDAY, 13th JUNE. The Directors do not bind themselves to accept the lowest Tender.—May 26, 1855.

TO BUILDERS.

PARTIES willing to TENDER for the ERECTION of TWO HOUSES at Forest-hill, can see the drawings and specifications at the Offices of Mr. MATHEWS, Surveyor, 309, Upper Thames-street, City.—The lowest Tender will not necessarily be accepted.

TO BUILDERS.

PERSONS wishing to TENDER for the ERECTION of a NEW WESLEYAN CHAPEL, at Ilkeston, may see the plans and specifications from SATURDAY, JUNE 2nd, to WEDNESDAY, the 6th, at the house of the Rev. A. WAZMOUGH, Wesleyan Minister, Ilkeston, and from the following day to TUESDAY, 12th, at the house of the Rev. J. P. HASWELL, Wesleyan Minister, Nottingham. Tenders to be sent in, on or before THURSDAY, 14th of JUNE, to J. B. N. HASWELL, Architect, 1, Short-hill, Nottingham.

CONTRACTS.

TO BUILDERS.

PERSONS desirous of giving in TENDERS for the proposed new SCHOOL ROOMS, CLASS-ROOMS, and LECTURE ROOM, adjoining Hanover Congregational Church, Stockport, may see the plans and specifications on application to Mr. JOHN ANDREW, of Stockport, on and after MONDAY, the 4th of JUNE next, between the hours of TEN a.m. and SIX p.m. until further notice.—The Committee do not pledge themselves to accept the lowest Tender

Nottingham, May 23, 1855. J. C. GILBERT, Architect.

WIGAN LOCAL BOARD of HEALTH. WATERWORKS.—To ENGINEERS, IRONFOUNDERS, BRASS FOUNDERS, CONTRACTORS, EXCAVATORS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:—

CONTRACT No. 1.—For the supply of about 1,500 tons of CAST IRON WATER-PIPES, and other CASTINGS.

CONTRACT No. 2.—For the supply of SLUICE VALVES, HYDRANTS, and STREET FITTINGS.

CONTRACT No. 3.—For the supply and erection of Duplicate STEAM-ENGINES, BOILERS, PUMPS, and RISING MAIN. Each Engine to be capable of raising ONE MILLION GALLONS of Water, ONE HUNDRED FEET high, in TWELVE hours.

CONTRACT No. 4.—For the construction of a COVERED SERVICE RESERVOIR.

CONTRACT No. 5.—For the formation of a TUNNEL about 500 yards in length, and 18 feet internal diameter, with SHAFTS, and TUNNEL ENTRANCES.

CONTRACT No. 6.—For Masonry and other work in STONE IMPOUNDING WALL for STORAGE RESERVOIR.

CONTRACT No. 7.—For EARTHWORK, PUDDLING, &c. in EMBANKMENT for STORAGE RESERVOIR, including MASONRY, BRICKWORK, &c. in VALVE and OUTLET WELLS, GAUGE BASINS, and RETAINING WALLS; also a TUNNEL under side of Embankment.

The drawings and specifications may be seen, and any further information may be obtained on and after the 4th day of JUNE, on application at the Office of the Local Board of Health, Wigan; or at the Office of ROBERT RAWLINSON, C.E. 31, Parliament-street, Westminster. Specifications and duplicate forms of Tender, Schedules, and Bills of Quantities, for Contracts Nos. 1 and 3, may be had on payment of 10s. each; and for Contracts 4, 5, 6, and 7, on payment of 1l. 1s. each. Quantities supplied. Sealed Tenders to be delivered at the Office of the Local Board, Wigan, before TWELVE o'clock, on MONDAY, the 18th day of JUNE, endorsed "Tender for Contract No. 1, 2, 3, 4, 5, 6, or 7," as the case may be. The Local Board do not bind themselves to accept the lowest or any Tender.

(Signed) WILLIAM ACKERLEY,
Wigan, 14th May, 1855. Solicitor to the Local Board.

WORTHING LOCAL BOARD of HEALTH.—WATERWORKS.—To IRONFOUNDERS, BUILDERS, CONTRACTORS, and OTHERS. The LOCAL BOARD hereby give NOTICE, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:—

CONTRACT No. 11.—For the supply and erection of a CAST-IRON WATER-TANK, 42 feet square, and 17 feet deep.

CONTRACT No. 12.—For the construction of a WATER TOWER.

CONTRACT No. 13.—For the construction of an ENGINE and BOILER-HOUSE, CHIMNEY, and other works connected therewith.

The drawings and specifications may be examined on and after the 31st instant; and any further information may be obtained on application, at the Office of the Local Board, Worthing; or at the Offices of ROBERT RAWLINSON, C.E. 31, Parliament-street, Westminster.—Sealed Tenders to be delivered at the Office of the Local Board, Worthing, before TWELVE o'clock, on TUESDAY, the 12th day of JUNE next, endorsed "Tender for Contract No. 11, 12, or 13," as the case may be.

(Signed) WM. HUGH DENNETT,
Worthing, May 22, 1855. Clerk to the Local Board.

TO BUILDERS.

PERSONS willing to CONTRACT for the ERECTION of the CHURCH of St. MICHAEL'S, in the Coldfield, are informed that the Plans and Specifications may be seen, on application, on and after the 5th day of JUNE next, at the Town-hall or School-room, Sutton Coldfield, Warwickshire, or at the Office of Mr. J. F. WADMORE, Architect, 32, Great St. Helen's, Bishopsgate-street, London; of whom, also, quantities may be obtained. Tenders to be sent to the Church-Building Committee, at the Town-hall, on or before the 11th day of JUNE next.

SAINT ANNE, WESTMINSTER.—To PAVIORS, STONE MERCHANTS, SCAVENGERS, and OTHERS.—Notice is hereby given, that the Committee for Paving and Cleansing this Parish will meet in the Vestry-room, Dean street, Soho-square, on FRIDAY, the 8th day of JUNE next, at ELEVEN o'clock in the forenoon, to consider TENDERS from persons willing to CONTRACT for CARTING AWAY DAILY the SLOP, &c. from the streets in this parish; for CARRYING AWAY the DUST and ASHES; for REPAIRING the CARRIAGEWAYS; for SUPPLYING STONE for the FOOTWAYS, and for SUPPLYING GUERNSEY GRANITE, either broken, or as blown from the rock, for the Macadamized roads of this parish, for one year, from Midsummer next. Tenders will not be received after TEN o'clock on the said 8th of JUNE, nor unless they are in the printed form, which may be had at my Office, 17, Carlisle-street, Soho; and of Mr. EDMUND WARNE, 4, Lisle street, Leicester-square, the Surveyor of Pavements, where any further information may be obtained.—The Committee do not bind themselves to accept the lowest or any Tender.

May, 1855. [J. W. ALLEN, Clerk to the Committee.

CONTRACTS.

NOTICE to BUILDERS.—Sealed TENDERS, addressed to the "Secretary of the Board of Ordnance," will be received at the Ordnance Office, Pall-mall, on or before the 16th JUNE next, for the CONSTRUCTION of certain WORKS and BUILDINGS, at West Block Long's Point, Milford Haven. The specifications and plans for the above service may be seen, and the form of Tender to obtained, with every information, at the Royal Engineer's Office, Pembroke Dock. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Pembroke Dock, May 19, 1855.

TO BUILDERS AND IRONMONGERS.

Royal Engineer Office, Portsmouth, 23rd May, 1855.

NOTICE is hereby given, that TENDERS will be received by the Honourable Board of Ordnance, at their Office, Pall-mall, London, on TUESDAY, the 5th day of JUNE next, from such persons as may be willing to undertake the ERECTION of THIRTY FOUR IRON COOKING-HOUSES at the Encampment on Aldershott-heath, in the county of Hants Persons desirous of Tendering will be shown a pattern button on the ground, and be furnished with every necessary information, on application at the Royal Engineer Office, at Aldershott, on and after MONDAY next, the 28th instant. Tenders to be sealed up and endorsed "Tender for Iron Cooking-houses at the Encampment at Aldershott."

Commanding Royal Engineer's Office, Dublin, May 21, 1855.

NOTICE to BUILDERS and FELT MANUFACTURERS.—ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive PROPOSALS for the following CONTRACT, viz.:—For COVERING with ASPHALTED FELT the ROOFS of about SIX HUNDRED WOODEN BUILDINGS, averaging from Ten Squares in each, erecting at the CURRAGH of KILDARE, in the Dublin District. Persons desirous of Tendering for the same, will receive Letters of Tender and every information on application at the Command or Royal Engineer's Office, Lower Castle-yard, Dublin. The whole of the work to be completed within twenty five days after the acceptance of Tender, or notification of the buildings being ready for covering. Proper securities, under legal bond, will be required in a sum equal to 10 per cent. on the amount of Tender accepted, for the due performance of the Contract. The letter of Tender to be sealed and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before the 6th day of JUNE, 1855, and to be marked on the outside, "Tender for Work at the Curragh of Kildare." The buildings are to be in the square, or blocks, and it is to be understood that parties have the option of tendering for one or more, or for the whole.

TO CONTRACTORS.

Royal Engineer Office, Chatham, 24th May, 1855.

NOTICE is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, Pall-mall, London, on or before MONDAY, the 18th day of JUNE next, from persons desirous of CONTRACTING with the Board of Ordnance, for ERECTING a BUILDING for the reception of lunatics of the Army, at Fort Pitt, near Chatham. Plans and specifications of the Work are to be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 16th of JUNE next, and not after. The person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and separately to be bound, under a penalty of 1,000l. for the due performance of the Contract. Tenders to be addressed to the Secretary to the Board of Ordnance, Ordnance Office, Pall-mall, London, and to be delivered free, endorsed "Tender for Works at Chatham." No Tender can be admitted after the said 18th day of JUNE, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice that Sealed TENDERS will be received at the Ordnance Office, Pall mall, London, on or before the 25th day of JUNE, 1855, from persons desirous of CONTRACTING with the Honourable Board of Ordnance for the WORKS and REPAIRS at the CITADEL, DOVER. Plans and specifications of the works may be seen, and forms of Tender obtained, at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 14th to the 23rd JUNE, 1855, Sunday excepted. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately to be bound, under a penalty of 2,000l. for the due performance of the contract. Tenders for the above works to be addressed to the "Secretary to the Board of Ordnance, Ordnance Office, Pall-mall, London," and endorsed "Tender for Works at the Citadel, Dover."

N.B. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, May 23, 1855.

Commanding Royal Engineer's Office, Dublin, 23th May, 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACTS.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive proposals for the following CONTRACTS, viz.:—For the CONSTRUCTION and ERECTION of TWENTY WOODEN BUILDINGS to accommodate Troops, at Armagh, in the Belfast district. Persons desirous of Tendering for the same, will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin, and at the Royal Engineer's Office at Belfast; or at the Barrack Master's Office at Armagh; and may obtain specifications, with the terms of Contract, upon making a deposit of 1l. for the same, which deposit will be repaid when the specifications are returned unsoiled. The whole of the Buildings to be completed within fifty days after the acceptance of the Tender. The letters of Tender to be sealed, and transmitted under cover, to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before the 5th day of JUNE, 1855; and to be marked on the outside "Tender for Work at Armagh."

[For remainder of Contracts see next page.

CONTRACTS.

TO BUILDERS.

PARTIES desirous of submitting TENDERS for the performance of certain Works connected with the DRAINAGE and VENTILATION of the BUCKINGHAM-SHIRE INFIRMARY, may see the Plans and Specification, by application at the Infirmary, on and after the 1st of MAY, and obtain the same on payment of 5s. Sealed Tenders to be sent in on or before Wednesday, the 6th SEPTEMBER, at Eleven o'clock, addressed to the Secretary. The Committee do not pledge themselves to accept the lowest or any Tender.

By order,
D. PRATCHARD, Secretary.

May 1, 1855.

BOROUGH of LEEDS.—To ENGINEERS, IRONFOUNDERS, SMITHS, JOINERS, MASONS, PLUMBERS, GLAZIERS, and PLASTERERS.—Persons qualified to execute the following WORKS required in the CONSTRUCTION of a COVERED MARKET proposed to be erected in the Kirkgate, Leeds, are desired to send in their Tenders, sealed and addressed to the Mayor, Leeds, on or before TUESDAY, the 15th day of MAY next, at which time and day the Tenders will be opened by the Mayor, in the presence of such Persons as may attend, at the Council Chamber, Leeds.

Tenders are to be delivered at the Town Clerk's Office, not later than ELEVEN o'clock, a.m., on MONDAY, the 14th day of MAY, and addressed to the "Chairman of the Market Committee." The Market Committee do not pledge themselves to accept the lowest or any Tender, and no Tender will be received after the time specified.

JOHN A. IRVIN, Town Clerk.

Town Clerk's Office, Leeds, May 1st, 1855.

TO PAINTERS AND OTHERS.

THE TRUSTEES for BUILDING NEW CHURCHES in the Parish of Saint Mary, Newington, Surrey, will meet in the COMMITTEE ROOM of the CHURCH HOUSE, in the Parish, on TUESDAY, the 15th day of JUNE next, at SEVEN o'clock in the Evening precisely, to receive SEALED TENDERS from any Person or Persons willing to undertake the PAINTING and other Works to be done at St. Matthew's, Kennington, according to the specifications and conditions of contract now lying at the office of the Architect, HENRY JARVIS, Esq., 29, Trinity-square, Newington-butts. The Trustees do not bind themselves to accept the lowest or any other Tender, but recommend every Tender to state the lowest price at which he will undertake the Works.

JOHN COLLETT, Clerk to the Trustees.

48, High-street, Southwark, 2nd May, 1855.

KING'S LYNN UNION.—NEW WORKHOUSE. To CONTRACTORS.—Notice is hereby given that the TIME for sending in TENDERS is EXTENDED from SATURDAY, JUNE 2nd, to SATURDAY, JUNE 9th, 1855, at TEN o'clock, Before.

JOHN JAMES COULTON, Clerk.

Lynn, May 1, 1855.

TO SCAVENGERS and OTHERS.—Sewers' Office, Guildhall, May 19th, 1855.—The Commissioners of Sewers of the City of London, hereby give notice that they will meet in the GUILDHALL aforesaid, on TUESDAY, the 6th day of JUNE next, at TWELVE o'clock at noon precisely, to receive PROPOSALS for CLEANSING the Streets, and REMOVING DUST & from the Houses of the City, for the term of one year from Midsummer next, according to the printed form of the specification, a copy of which may be had upon application to this office. The Committee do not pledge themselves to accept the lowest Tender, but the Contractor will be required to enter into bond, with two approved sureties, for the due performance of his contract. The Commissioners do not pledge themselves to accept the lowest Tender, but only such as they deem satisfactory. No Tender will be received after TWELVE o'clock on the day thereby noticed, and no Tender be read which does not contain an undertaking, as required by the specification, to enter into bond as aforesaid; which sum will be immediately returned to each person whose Tender is not accepted, and will be retained in the other cases until the contract and bond have been executed.

JOSEPH PAW, Principal Clerk.

CONTRACT for TUNNELLING.—ARGELL CANAL, CATALONIA, SPAIN. MONCLAR TUNNEL.—The shafts of the tunnel of Monclar, now reached a depth from which an opinion may be formed of the nature and consistency of the rock, have been ordered to be sunk the open section of the tunnel, two metres in length. The Board of Administration would direct the CONTRACT for the execution of the said tunnel to the right of the Bidder, at the office of the Company at Barcelona, No. 2, Rambla Bonanova, first-floor, at TWELVE o'clock precisely, on the 20th JUNE next, according to the conditions contained in the separate regulations, which, with the plan of the said tunnel, may be seen in the aforesaid offices, and in London, at Mr. G. F. BERWS' Nord, Rue Bourdon. All proposals must be presented sealed, in conformity with the form annexed to the regulations, to the undersigned, two hours at least before the time specified.

Signed FRAN. FERRER Y BUSQUETS, Secretary.

Barcelona, April 30, 1855.

TO BUILDERS.—STRATFORD-UPON-AVON CORN EXCHANGE.—Persons desirous of CONTRACTING for the ERECTION of the above, are invited to see the Drawings, Specification, and Form of Tender, on and after SATURDAY next, at the Office of EDWARD GIBBS, Architect, Leamington, and Surveyor, 1, Stratford-on-Avon. The Tenders are required to be delivered in the Architect on or before the 15th day of JUNE. The Directors do not bind themselves to accept the lowest or any Tender. By order,

HENRY BEST SOWDON, Solicitor.

TO BUILDERS, ENGINEERS, AND IRONFOUNDERS.

THE DIRECTORS of the BANBURY WATER COMPANY require TENDERS for the following WORKS.—Contract A, a covered Brick Reservoir; B, Mains, Sluice Cocks, and Hydrants; C, two Filter Beds and Boundary Fence; D, Engine-house and Residence; E, Steam Engines and Pumps. The drawings, specification, and forms of Tender may be seen at the Offices of Mr. J. HODGSON JONES, the Company's Engineer, No. 1, Bow-street, Westminster; at the Secretary's Office, Warwick Bank, Banbury, between the hours of 12 and 3 o'clock; and Tenders are to be delivered addressed "Tenders for Waterworks," on or before FRIDAY, the 15th day of JUNE next. The Directors do not bind themselves to accept the lowest or any Tender. By order of the Directors,

Banbury, May 19, 1855.

T. A. HEDLEY, Sec.

BROKEN GRANITE.—To BUILDERS, SURVEYORS of HIGHWAYS, &c.—The Trustees of the Southend Road, Leytonstone, are desirous of receiving TENDERS for the PURCHASE of about 1,000 YARDS of best GUERNSEY GRANITE Broken, to be paid for on delivery, and carted away from the Steyning Union Workhouse, Middle-row, High-street, Hackney-road, by and at the expense of the purchaser. Tenders to be addressed to JAMES J. BLAKE, Clerk to the Guardians, 9, Bucklersbury, Southwark.

TO BUILDERS AND CONTRACTORS.

CHESTERFIELD MARKET HALL.—The Directors of the Chesterfield Market Company are prepared to receive TENDERS for the ERECTION of a MARKET-HALL and other Buildings on the Market Place, pursuant to Plans, Specifications, and Quantities prepared by Mr. HENRY DAVIES, Architect, of the Offices of Messrs. SHIPTON and ELLIS-WELL, Solicitors, Chesterfield; and any further particulars may be had on application to the Architect. Tenders will be received by TEN o'clock, a.m. on MONDAY, the 28th JUNE.

GEORGE WALLIS, Secretary.

Chesterfield, May 1, 1855.

LLANDOVERY TOWN-HALL.—TO BUILDERS and OTHERS.—TENDERS for the ERECTION of a new TOWN-HALL at Llandovery, according to the above plans, may be sent in to the undersigned, addressed to the above town, on or after the 31st instant, are requested to be sent in on or before MONDAY, the 11th day of JUNE next.

By order of the Town Council,
WILLIAM REES, Town Clerk.

Llandovery, May 22nd, 1855.

CONTRACTS.

THE BURIAL BOARD for the Parishes of the Borough of Chipping Wycombe and Chepping Wycombe, are desirous of having PLANS, comprising grounds, elevations, and Specifications for a CHAPEL to be built in the Gothic style for a new BURIAL GROUND, at a cost not exceeding £1,000. Drawings to include two Chapel-rooms, a sitting-room, a vestry, and other offices. The ground contains about four acres, and a plan of which may be seen at the Vestry-room, Church Lane, Chipping Wycombe, and further information obtained upon application to the Rev. J. MILLARD, Clerk to the Burial Board. The successful Architect will be paid the sum of 5l for the same. Plans to be sent in to the Board before FRIDAY, the 15th day of JUNE next, and read, "Plans for Consecration Ground," addressed to the Chairman of the Board, at the Porte's Lodge.—THOMAS J. REYNOLDS, Clerk to the Burial Board.

Chipping Wycombe, May 24th, 1855.

TO BUILDERS.

HUNTINGDON UNION WORKHOUSE.—Persons willing to CONTRACT for the ERECTION of the WORKS in the ENGLEMENT of the HUNTINGDON UNION WORKHOUSE, are desired to send in their Tenders, sealed and addressed, on or before the 4th day of JUNE next, at the office of Mr. LEWIS CUBITT, Architect, 52, Bedford-square, London, Tenders, which are to be delivered at the office in Huntingdon, addressed to the Chairman of the Board of Guardians by TWELVE o'clock on THURSDAY the 14th day of JUNE next. The Contractor will be required to enter into the usual bonds in the sum of £500 for the due performance of the contract. Plans, specifications, and forms of Tender may be seen at the office of the Clerk to the Guardians, on and after the 1st day of JUNE next. The Board do not bind themselves to accept the lowest or any Tender.

J. and C. HANSOM, Architects.

Clifton, Bristol, May 21, 1855.

CROWHURST HOUSE ALTERATIONS.—NOTICE to BUILDERS.—The time for receiving the TENDERS for the above WORKS is fixed for next Friday, Mr. CHARLES POLAND, 75, Margaret-street, Cavendish-square, from whom the quantity and specification may be obtained on application, upon payment of one guinea, after THURSDAY, the 7th of JUNE, which will be returned to the unsuccessful competitors, for the sending of the Tenders.

WM. WILDORED TELDON, Architect,
42, Guildford-street, Russell-square, London.

TO IRONFOUNDERS.

THE LOCAL BOARD of HEALTH at TOTTENHAM are prepared to receive TENDERS for a small quantity of 3 and 2½ width CAST IRON WATER PIPES. Further particulars may be obtained by application at the offices of the Board, High-cross, Tottenham.—To JOHN PILBROW, Esq., C.E. (Engineer to the said Board, Tottenham.—Tenders, properly sealed, and to be sent on or before FRIDAY morning, the 8th JUNE next. By order of the said Board,

WILLIAM HEATH, Clerk.

PARISH of ST. JOHN, at HACKNEY.—CONTRACT for GRANITE CURBING, YORK PAVING, &c.—Notice is hereby given, that the Board for Repair of the Highways, in this Parish, will, at their Meeting to be held at the PARISH-HOUSE, on TOWN HALL, in Church-street, Hackney, on THURSDAY, the 7th day of JUNE, 1855, at SEVEN o'clock in the Evening, CONTRACT for the SUPPLY of about 18,000 feet run, or more, of GRANITE CURBING, ABERDEEN, DEVON, GUERNSEY, or other GRANITE CURBING, as may be selected and ordered, of the following dimensions, or as near thereto as may be determined with the Surveyor, viz. 12 by 6 inches, squared and dressed on the working square), and be not less than 3 feet 6 inches in length, to be laid down and fixed in a proper and workmanlike manner, and to be of such lengths as may make the most advantageous use of the stone, and to be delivered at such places, or parts as the Board or Assistant-surveyor may require, by an order in writing only, prior to the last Board Meeting next, previous to such delivery.

Also for CIRCULAR CURBING, viz. 12 by 6 inches, and 3 feet 0 inches in length, quarry worked, of different radii, at per foot run.

Also for RELAYING OLD CURBING, at per foot run.

Also to receive Tenders for PAVING certain of the FOOTPATHS of this Parish with YORK PAVING, of the best quality, not less than 3 inches in thickness, as and where may be directed, at 1s. per superficial foot. The stone to be squared the usual and best manner, and to be laid upon a bed of concrete, composed of proportions of lime and sand. To be laid down in the several parts of the Parish, as and when may be directed.

Also for RELAYING UP, SQUARING, and RELAYING OLD YORK PAVING, at per foot super. for which a Tender is also to be set in.

Also for NEW 4 INCH ABERDEEN GRANITE PAVING, at per yard superficial.

Also for NEW HALF-SOVEREIGN ABERDEEN GRANITE PAVING, at per yard.

Also for RELAYING OLD PEBBLE PAVING at per yard.

The whole of the above-specified works to be done to the entire satisfaction of the Committee of the District and the Assistant Surveyor; and the work to be measured up in each district, and to be paid for as it is done and completed in such districts, at the end of the month, by the Committee of the District and the Assistant Surveyor of the Board; and the whole of the districts to be completed on or before the 1st day of SEPTEMBER next.

The Tenders, addressed to the Clerk, must be sealed and marked "Tender for Curbing," and "Tender for Paving," as the case may be, and state in words at length the prices, both in all respects as required to the Surveyor's specification, and be delivered to the Clerk the day before the meeting. The parties tendering, or their representatives, must attend at the time and place of meeting. The Board will not accept any Tender that is not on one of these printed forms, and in all respects in conformity therewith; nor will they bind themselves to accept the lowest or any Tender.

I, the undersigned, a surveyor, do hereby propose to the Board of Surveyors of the Highways of the Parish of St. John at Hackney, in the County of Middlesex, to supply, lay down, and fix, in a proper and workmanlike manner, the following granite Curbing and Paving, and relay old Curbing and Paving, in all respects and conformably to the foregoing terms and conditions, as follows, viz.—

Here set out the Tender and describe the works intended to be contracted for.)

Signed .....
Place of Abode .....
Date .....

A bond, in a penalty of 500l. with approved securities, to be entered into by the Contractor, for the performance of his Contract, and those named will have to be given with the Tender. Further particulars, if required, may be had of Mr. WOODWARD, the Assistant Surveyor, 19, Dalston-rise, Hackney; and at the Vestry House in Church-street, Hackney.

By order of the Board,
CHARLES HORTON PULLEY, Clerk.

Upper Homerton, May 25th, 1855.

TO BUILDERS AND OTHERS.

TENDERS will be received at the Steward's House, Knebworth, on or before WEDNESDAY the 20th of JUNE, from persons willing to CONTRACT for FARM BUILDINGS, at Knebworth Lodge, between Woolwyn and Stevenage. Plans and Specifications may be seen at the Golden Arms Public House, Knebworth, on and after THURSDAY, the 7th of JUNE next. The lowest Tender not necessarily accepted.

TO CARPENTERS, CABINET MAKERS, &c.

SAMUEL BLYTHE, Saw Manufacturer (late Howell), King's-road, Chelsea, London, begs to inform Mr. Joseph Howell's former friends, that he will serve them with BEST LONDON MANUFACTURED SAWS at 2d. per cent. off List Prices, warranted. May 18, 1855.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers and Patentees of the Improved Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Lead Chambers, or any leaden vessels made or repaired by their process, insuring them soundness, without the intervention of any solder.

PLUMBERS and BUILDERS can be supplied with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

CONTRACTS.

NEW METROPOLITAN CATTLE-MARKET.—The Markets Improvement Committee of the Corporation of London will meet at Guildhall on TUESDAY, the 5th of JUNE next, at ONE o'clock precisely, to receive PROPOSALS from parties willing to TAKE AWAY the MANURE and SOIL from the Market-place, and Sweep and Cleanse the Roadways and Footways thereof, and keep them so clean. The Contractor will be required to enter into bonds for the due performance of his Contract. Plans may be seen and further particulars obtained by applying personally at the Architect's Office, Guildhall, on any (Sundays excepted) between the hours of TEN and FOUR o'clock.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of the NEW CONVENT, CHAPEL, SCHOOLS, &c., at Forest Gate, Essex, are requested to see the plans and specification at the Central Buildings, or at our Office at Catton, on application to us personally, or by letter, from THURSDAY, the 31st inst. to SATURDAY, the 9th of JUNE inclusive. No pledge is given to accept the lowest or any other Tender, and it is requested that those who tender be inside.

J. and C. HANSOM, Architects.

Clifton, Bristol, May 21, 1855.

CROWHURST HOUSE ALTERATIONS.—NOTICE to BUILDERS.—The time for receiving the TENDERS for the above WORKS is fixed for next Friday, Mr. CHARLES POLAND, 75, Margaret-street, Cavendish-square, from whom the quantity and specification may be obtained on application, upon payment of one guinea, after THURSDAY, the 7th of JUNE, which will be returned to the unsuccessful competitors, for the sending of the Tenders.

WM. WILDORED TELDON, Architect,
42, Guildford-street, Russell-square, London.

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The whole of the above-specified works to be done to the entire satisfaction of the Committee of the District and the Assistant Surveyor; and the work to be measured up in each district, and to be paid for as it is done and completed in such districts, at the end of the month, by the Committee of the District and the Assistant Surveyor of the Board; and the whole of the districts to be completed on or before the 1st day of SEPTEMBER next.

The Tenders, addressed to the Clerk, must be sealed and marked "Tender for Curbing," and "Tender for Paving," as the case may be, and state in words at length the prices, both in all respects as required to the Surveyor's specification, and be delivered to the Clerk the day before the meeting. The parties tendering, or their representatives, must attend at the time and place of meeting. The Board will not accept any Tender that is not on one of these printed forms, and in all respects in conformity therewith; nor will they bind themselves to accept the lowest or any Tender.

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Here set out the Tender and describe the works intended to be contracted for.)

Signed .....
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Date .....

A bond, in a penalty of 500l. with approved securities, to be entered into by the Contractor, for the performance of his Contract, and those named will have to be given with the Tender. Further particulars, if required, may be had of Mr. WOODWARD, the Assistant Surveyor, 19, Dalston-rise, Hackney; and at the Vestry House in Church-street, Hackney.

By order of the Board,
CHARLES HORTON PULLEY, Clerk.

Upper Homerton, May 25th, 1855.

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PLUMBERS and BUILDERS can be supplied with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

CONTRACTS.

TO BUILDERS.

PARTIES desirous of submitting TENDERS for the performance of certain Works connected with the DRAINAGE and VENTILATION of the BUCKINGHAMSHIRE INFIRMARY, may see the Plans and Specification, by application at the Infirmary, on and after the 1st of MAY, and obtain the same on payment of 5s. Sealed Tenders to be sent in on or before Wednesday, the 6th SEPTEMBER, at Eleven o'clock, addressed to the Secretary. The Committee do not pledge themselves to accept the lowest or any Tender nor to bind themselves to accept the lowest or any Tender.

D. PRATCHARD, Secretary.

May 1, 1855.

BOROUGH of LEEDS.—To ENGINEERS, IRONFOUNDERS, SMITHS, JOINERS, MASONS, PLUMBERS, GLAZIERS, and PLASTERERS.—Persons qualified to execute the following WORKS required in the CONSTRUCTION of a COVERED MARKET proposed to be erected in the Kirkgate, Leeds, are desired to send in their Tenders, sealed and addressed to the Mayor, Leeds, on or before TUESDAY, the 15th day of MAY next, at which time and day the Tenders will be opened by the Mayor, in the presence of such Persons as may attend, at the Council Chamber, Leeds.

Tenders are to be delivered at the Town Clerk's Office, not later than ELEVEN o'clock, a.m., on MONDAY, the 14th day of MAY, and addressed to the "Chairman of the Market Committee." The Market Committee do not pledge themselves to accept the lowest or any Tender, and no Tender will be received after the time specified.

JOHN A. IRVIN, Town Clerk.

Town Clerk's Office, Leeds, May 1st, 1855.

TO PAINTERS AND OTHERS.

THE TRUSTEES for BUILDING NEW CHURCHES in the Parish of Saint Mary, Newington, Surrey, will meet in the COMMITTEE ROOM of the CHURCH HOUSE, in the Parish, on TUESDAY, the 15th day of JUNE next, at SEVEN o'clock in the Evening precisely, to receive SEALED TENDERS from any Person or Persons willing to undertake the PAINTING and other Works to be done at St. Matthew's, Kennington, according to the specifications and conditions of contract now lying at the office of the Architect, HENRY JARVIS, Esq., 29, Trinity-square, Newington-butts. The Trustees do not bind themselves to accept the lowest or any other Tender, but recommend every Tender to state the lowest price at which he will undertake the Works.

JOHN COLLETT, Clerk to the Trustees.

48, High-street, Southwark, 2nd May, 1855.

KING'S LYNN UNION.—NEW WORKHOUSE. To CONTRACTORS.—Notice is hereby given that the TIME for sending in TENDERS is EXTENDED from SATURDAY, JUNE 2nd, to SATURDAY, JUNE 9th, 1855, at TEN o'clock, Before.

JOHN JAMES COULTON, Clerk.

Lynn, May 1, 1855.

TO SCAVENGERS and OTHERS.—Sewers' Office, Guildhall, May 19th, 1855.—The Commissioners of Sewers of the City of London, hereby give notice that they will meet in the GUILDHALL aforesaid, on TUESDAY, the 6th day of JUNE next, at TWELVE o'clock at noon precisely, to receive PROPOSALS for CLEANSING the Streets, and REMOVING DUST & from the Houses of the City, for the term of one year from Midsummer next, according to the printed form of the specification, a copy of which may be had upon application to this office. The Committee do not pledge themselves to accept the lowest Tender, but the Contractor will be required to enter into bond, with two approved sureties, for the due performance of his contract. The Commissioners do not pledge themselves to accept the lowest Tender, but only such as they deem satisfactory. No Tender will be received after TWELVE o'clock on the day thereby noticed, and no Tender be read which does not contain an undertaking, as required by the specification, to enter into bond as aforesaid; which sum will be immediately returned to each person whose Tender is not accepted, and will be retained in the other cases until the contract and bond have been executed.

JOSEPH PAW, Principal Clerk.

CONTRACT for TUNNELLING.—ARGELL CANAL, CATALONIA, SPAIN. MONCLAR TUNNEL.—The shafts of the tunnel of Monclar, now reached a depth from which an opinion may be formed of the nature and consistency of the rock, have been ordered to be sunk the open section of the tunnel, two metres in length. The Board of Administration would direct the CONTRACT for the execution of the said tunnel to the right of the Bidder, at the office of the Company at Barcelona, No. 2, Rambla Bonanova, first-floor, at TWELVE o'clock precisely, on the 20th JUNE next, according to the conditions contained in the separate regulations, which, with the plan of the said tunnel, may be seen in the aforesaid offices, and in London, at Mr. G. F. BERWS' Nord, Rue Bourdon. All proposals must be presented sealed, in conformity with the form annexed to the regulations, to the undersigned, two hours at least before the time specified.

Signed FRAN. FERRER Y BUSQUETS, Secretary.

Barcelona, April 30, 1855.

TO BUILDERS.—STRATFORD-UPON-AVON CORN EXCHANGE.—Persons desirous of CONTRACTING for the ERECTION of the above, are invited to see the Drawings, Specification, and Form of Tender, on and after SATURDAY next, at the Office of EDWARD GIBBS, Architect, Leamington, and Surveyor, 1, Stratford-on-Avon. The Tenders are required to be delivered in the Architect on or before the 15th day of JUNE. The Directors do not bind themselves to accept the lowest or any Tender. By order,

HENRY BEST SOWDON, Solicitor.

TO BUILDERS, ENGINEERS, AND IRONFOUNDERS.

THE DIRECTORS of the BANBURY WATER COMPANY require TENDERS for the following WORKS.—Contract A, a covered Brick Reservoir; B, Mains, Sluice Cocks, and Hydrants; C, two Filter Beds and Boundary Fence; D, Engine-house and Residence; E, Steam Engines and Pumps. The drawings, specification, and forms of Tender may be seen at the Offices of Mr. J. HODGSON JONES, the Company's Engineer, No. 1, Bow-street, Westminster; at the Secretary's Office, Warwick Bank, Banbury, between the hours of 12 and 3 o'clock; and Tenders are to be delivered addressed "Tenders for Waterworks," on or before FRIDAY, the 15th day of JUNE next. The Directors do not bind themselves to accept the lowest or any Tender. By order of the Directors,

Banbury, May 19, 1855.

T. A. HEDLEY, Sec.

BROKEN GRANITE.—To BUILDERS, SURVEYORS of HIGHWAYS, &c.—The Trustees of the Southend Road, Leytonstone, are desirous of receiving TENDERS for the PURCHASE of about 1,000 YARDS of best GUERNSEY GRANITE Broken, to be paid for on delivery, and carted away from the Steyning Union Workhouse, Middle-row, High-street, Hackney-road, by and at the expense of the purchaser. Tenders to be addressed to JAMES J. BLAKE, Clerk to the Guardians, 9, Bucklersbury, Southwark.

TO BUILDERS AND CONTRACTORS.

CHESTERFIELD MARKET HALL.—The Directors of the Chesterfield Market Company are prepared to receive TENDERS for the ERECTION of a MARKET-HALL and other Buildings on the Market Place, pursuant to Plans, Specifications, and Quantities prepared by Mr. HENRY DAVIES, Architect, of the Offices of Messrs. SHIPTON and ELLISWELL, Solicitors, Chesterfield; and any further particulars may be had on application to the Architect. Tenders will be received by TEN o'clock, a.m. on MONDAY, the 28th JUNE.

GEORGE WALLIS, Secretary.

Chesterfield, May 1, 1855.

LLANDOVERY TOWN-HALL.—TO BUILDERS and OTHERS.—TENDERS for the ERECTION of a new TOWN-HALL at Llandovery, according to the above plans, may be sent in to the undersigned, addressed to the above town, on or after the 31st instant, are requested to be sent in on or before MONDAY, the 11th day of JUNE next.

By order of the Town Council,
WILLIAM REES, Town Clerk.

Llandovery, May 22nd, 1855.

CONTRACTS.

THE BURIAL BOARD for the Parishes of the Borough of Chipping Wycombe and Chepping Wycombe, are desirous of having PLANS, comprising grounds, elevations, and Specifications for a CHAPEL to be built in the Gothic style for a new BURIAL GROUND, at a cost not exceeding £1,000. Drawings to include two Chapel-rooms, a sitting-room, a vestry, and other offices. The ground contains about four acres, and a plan of which may be seen at the Vestry-room, Church Lane, Chipping Wycombe, and further information obtained upon application to the Rev. J. MILLARD, Clerk to the Burial Board. The successful Architect will be paid the sum of 5l for the same. Plans to be sent in to the Board before FRIDAY, the 15th day of JUNE next, and read, "Plans for Consecration Ground," addressed to the Chairman of the Board, at the Porte's Lodge.—THOMAS J. REYNOLDS, Clerk to the Burial Board.

Chipping Wycombe, May 24th, 1855.

TO BUILDERS.

HUNTINGDON UNION WORKHOUSE.—Persons willing to CONTRACT for the ERECTION of the WORKS in the ENGLEMENT of the HUNTINGDON UNION WORKHOUSE, are desired to send in their Tenders, sealed and addressed, on or before the 4th day of JUNE next, at the office of Mr. LEWIS CUBITT, Architect, 52, Bedford-square, London, Tenders, which are to be delivered at the office in Huntingdon, addressed to the Chairman of the Board of Guardians by TWELVE o'clock on THURSDAY the 14th day of JUNE next. The Contractor will be required to enter into the usual bonds in the sum of £500 for the due performance of the contract. Plans, specifications, and forms of Tender may be seen at the office of the Clerk to the Guardians, on and after the 1st day of JUNE next. The Board do not bind themselves to accept the lowest or any Tender.

J. and C. HANSOM, Architects.

Clifton, Bristol, May 21, 1855.

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WM. WILDORED TELDON, Architect,
42, Guildford-street, Russell-square, London.

TO IRONFOUNDERS.

THE LOCAL BOARD of HEALTH at TOTTENHAM are prepared to receive TENDERS for a small quantity of 3 and 2½ width CAST IRON WATER PIPES. Further particulars may be obtained by application at the offices of the Board, High-cross, Tottenham.—To JOHN PILBROW, Esq., C.E. (Engineer to the said Board, Tottenham.—Tenders, properly sealed, and to be sent on or before FRIDAY morning, the 8th JUNE next. By order of the said Board,

WILLIAM HEATH, Clerk.

PARISH of ST. JOHN, at HACKNEY.—CONTRACT for GRANITE CURBING, YORK PAVING, &c.—Notice is hereby given, that the Board for Repair of the Highways, in this Parish, will, at their Meeting to be held at the PARISH-HOUSE, or TOWN HALL, in Church-street, Hackney, on THURSDAY, the 7th day of JUNE, 1855, at SEVEN o'clock in the Evening, CONTRACT for the SUPPLY of about 18,000 feet run, or more, of GRANITE CURBING, ABERDEEN, DEVON, GUERNSEY, or other GRANITE CURBING, as may be selected and ordered, of the following dimensions, or as near thereto as may be determined with the Surveyor, viz. 12 by 6 inches, squared and dressed on the working square), and be not less than 3 feet 6 inches in length, to be laid down and fixed in a proper and workmanlike manner, and to be of such lengths as may make the most advantageous use of the stone, and to be delivered at such places, or parts as the Board or Assistant-surveyor may require, by an order in writing only, prior to the last Board Meeting next, previous to such delivery.

Also for CIRCULAR CURBING, viz. 12 by 6 inches, and 3 feet 0 inches in length, quarry worked, of different radii, at per foot run.

Also for RELAYING OLD CURBING, at per foot run.

Also to receive Tenders for PAVING certain of the FOOTPATHS of this Parish with YORK PAVING, of the best quality, not less than 3 inches in thickness, as and where may be directed, at 1s. per superficial foot. The stone to be squared the usual and best manner, and to be laid upon a bed of concrete, composed of proportions of lime and sand. To be laid down in the several parts of the Parish, as and when may be directed.

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Also for NEW 4 INCH ABERDEEN GRANITE PAVING, at per yard superficial.

Also for NEW HALF-SOVEREIGN ABERDEEN GRANITE PAVING, at per yard.

Also for RELAYING OLD PEBBLE PAVING at per yard.

The whole of the above-specified works to be done to the entire satisfaction of the Committee of the District and the Assistant Surveyor; and the work to be measured up in each district, and to be paid for as it is done and completed in such districts, at the end of the month, by the Committee of the District and the Assistant Surveyor of the Board; and the whole of the districts to be completed on or before the 1st day of SEPTEMBER next.

The Tenders, addressed to the Clerk, must be sealed and marked "Tender for Curbing," and "Tender for Paving," as the case may be, and state in words at length the prices, both in all respects as required to the Surveyor's specification, and be delivered to the Clerk the day before the meeting. The parties tendering, or their representatives, must attend at the time and place of meeting. The Board will not accept any Tender that is not on one of these printed forms, and in all respects in conformity therewith; nor will they bind themselves to accept the lowest or any Tender.

I, the undersigned, a surveyor, do hereby propose to the Board of Surveyors of the Highways of the Parish of St. John at Hackney, in the County of Middlesex, to supply, lay down, and fix, in a proper and workmanlike manner, the following granite Curbing and Paving, and relay old Curbing and Paving, in all respects and conformably to the foregoing terms and conditions, as follows, viz.—

Here set out the Tender and describe the works intended to be contracted for.)

Signed .....
Place of Abode .....
Date .....

A bond, in a penalty of 500l. with approved securities, to be entered into by the Contractor, for the performance of his Contract, and those named will have to be given with the Tender. Further particulars, if required, may be had of Mr. WOODWARD, the Assistant Surveyor, 19, Dalston-rise, Hackney; and at the Vestry House in Church-street, Hackney.

By order of the Board,
CHARLES HORTON PULLEY, Clerk.

Upper Homerton, May 25th, 1855.

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TENDERS will be received at the Steward's House, Knebworth, on or before WEDNESDAY the 20th of JUNE, from persons willing to CONTRACT for FARM BUILDINGS, at Knebworth Lodge, between Woolwyn and Stevenage. Plans and Specifications may be seen at the Golden Arms Public House, Knebworth, on and after THURSDAY, the 7th of JUNE next. The lowest Tender not necessarily accepted.

TO CARPENTERS, CABINET MAKERS, &c.

SAMUEL BLYTHE, Saw Manufacturer (late Howell), King's-road, Chelsea, London, begs to inform Mr. Joseph Howell's former friends, that he will serve them with BEST LONDON MANUFACTURED SAWS at 2d. per cent. off List Prices, warranted. May 18, 1855.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers and Patentees of the Improved Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Lead Chambers, or any leaden vessels made or repaired by their process, insuring them soundness, without the intervention of any solder.

PLUMBERS and BUILDERS can be supplied with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

CONTRACTS.

TO BUILDERS AND LEAD MAK

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

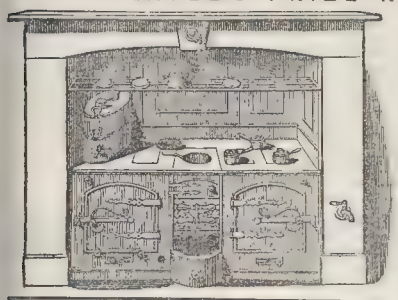
THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

MOREWOOD & ROGERS'S PATENT PLUMBIC ZINC,

A SUBSTITUTE FOR SHEET-LEAD FOR

ROOFING, RIDGES, GUTTERS, FLOORING,

AND ALL OTHER PURPOSES TO WHICH SHEET LEAD IS APPLICABLE.

This Metal consists of six inel layers of Lead and Zinc, perfectly united in the process of Manufacture, one side of each sheet being pure Lead and the other pure Zinc; it therefore combines the Stiffness of Zinc with the Flexible Qualities of Lead. The Lead side of the sheet being outward effectually protects the Zinc below from those atmospheric influences which so rapidly cause its crimes its thickness and weight.

Plumbic Zinc not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently much cheaper than that material

For covering Terraces, Flats, Floors, Stairs, Passages, &c. it is well suited, being like Lead to the tread, whilst the Zinc on the under side of the sheet prevents it from treading out of shape.

The Size of the Sheets is 7 feet by 2 feet 8 inches.

No. 11 Gauge weighs about	18 oz.	per foot super.	
No. 13	"	"	20 oz. do. do.
No. 13	"	"	23 oz. do. do
No. 14	"	"	26 oz. do. do.

For further particulars, apply to

A. MOREWOOD and CO. GALVANIZED TINNED IRON WAREHOUSE,

DOWGATE DOCK, UPPER THAMES-STREET, LONDON.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

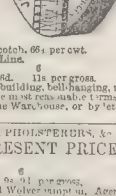
PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of Ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Ellipse Stoves, 4 cubic feet, 3d. per inch, and upwards.

Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

2 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

Best Cottage Ranges, with ovens and back boilers, 35s. each.

3-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 4s. per doz.

Best Town Grate, 5s. Ditto, Scotch, 6s.; per cwt.

Best Patent Stock Locks:

1s 6d.	2 5s.	3 6s.	4 7s. 6d.	5 9s. 6d.	6 11s per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices sent on application at the Warehouse, or by letter if required.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
4s. 6d.	5s.	6s. 9d.	per gross.

JOHN YOUNGS, Birmingham and Wolverhampton Agent, Assay, and Gilder on Pewter, 69, 18, Oxford-street, Manchester-square, 1 minute out of Baker-street, Portman-square. Every article equally reasonable.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', DOWIS, JAMES, and Co. Wholesale Builders' and Cabinet Ironmongery Establishment, 26, Wellington-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine, and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have very greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for sawing, planing, tenoning, and Moulding Wood. They have constantly in hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they conduct the fitting up to the use of the machinery, and are justified in bringing under the notice of Ironmongers and Builders the most distinguished Companies and Contractors in the world with their Machines for home and foreign use.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with Hose Pipe, Zinc, Lube, and Copper Wire, Gas Pendants, Brackets, and Jointed and downpieces for gas fitting, Brass and Iron, Tin, Composition, Iron and Brass Tubing, Corrugated Hose and Lacquered Cocks. Price for Picture Rods Desk Rods, &c. &c.

Solder, Round Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.

RICHARD EVERED'S Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London

GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO. 1, Arthur-street East, London-bridge.

Testimonial respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and CO.

8, Ridgmount-place, Hampstead, March 9th, 1853.

Gentlemen, I have great pleasure in leaving testimony to the capabilities of your admirable Gas Cooking Apparatus, being the largest and most perfect yet in use. Sunday last it was applied to public houses, private houses, and theatres, having cooked in one oven fowls and many cwts. of ham, beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 35 lbs. in nine hours, together with the presented by J. Bannister, esq. Tyrwhitt-street, to the directors, for the banquet given to the foreign bandsmen. They have been in full operation for ten months, and have now in use several orders which must be finished. I have leave to test one shilling per week.

I am, Gentlemen, yours respectfully,

EDWARD HORNE.

Messrs. Deane, Dray, and Co.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always in show-rooms, every article marked in plain figures. Patentees and Manufacturers of the Universal Gas Regulator. Complete pattern book and price list, 10s.—Southampton-street, Holborn.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea solicit the attention of architects, &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating 1,000 linear measure of 2-inch pipe in length, at the small expense per day of 1s. 6d. fuel and labour; 1s. 8d. This achievement in heating by hot water is unprecedented.

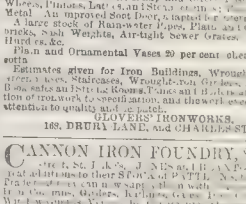
WARMING and VENTILATING.—COTTAM and HALLEN, 2, Wine-street, Oxford-street, having had thirty years' experience, and having warmed by the circulation of hot water upwards of 1,000 churches, conventual establishments, private, lunatic asylums, halls, and staircases, galleries, conservatories, forcing houses, &c. can with confidence recommend their system, which, by the recent improvements they have made, has perfected the construction and economised the expense. Greenhouses, conservatories, verandahs warmed by the circulation of hot or wood-air, of the most approved principle. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Wine-street, Oxford-street.

ECONOMIC GAS-COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is made of varied sizes suitable for large or small families. In operation daily in the stove and broiler department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO., pertaining to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. No smoke, dust, ashes, or dirt whatever from use, a great saving in coals, while it presents all the comfort and appearance of an open coal fire, seeming, at the same time, perfect ventilation. To be seen in action at DEFRIES'S office, 143, Regent-street, London.

THE COTTAGERS' STOVES.

Testimonial.



"Lord Hardinge requests Messrs. BAILEY will be so good as to inform him how much he is in their debt for the stoves which they supplied to him. He is happy to inform them that from the stoves the proved VERY GOOD ones in the Camp before SEBASTOPOL.

Horse Guards, 20th Feb. 1855."

D. and E. BAILEY, Ironmongers, 272, Holborn. Price 25s.

FOUNDRY AND IRON WORKS,

68, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Gutters, Shoes, Angles, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Valves, Pintles, Latts, and Stock Castings; Wrought Flat-plate Metal. An improved Soot Door, adapted for external work.

A large stock of Rain-water Pipes, Plain and Ornamental, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terracotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Girders, Staircases, Wrought-iron Gardens, Fireproof Doors, Safes and Strong Rooms. Plans and Estimates of every description of ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,

68, DRURY LANE, and CHARLES-STREET.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's, J. JESSOP and SON, ... respectfully call attention to their STOCK of PATTERNS, which comprises an extensive assortment of new and useful Iron Castings, Gutters, Railing, Gates, Lamp Posts, Brackets, Weathercocks, Vases, &c. Cottage Stoves, Hall Stoves, Cook's Kitchen Ranges, Sash Pulleys, Weights, and other Castings; Cast-iron Sashes, Casements, Sewer Gratings, Fly and other Wheels, Wheel Plates, &c.

Wrought Iron Work, Tanks, Pipes, Rain Water Pipes and Gutters, Sash Weights, Fanlight Bars, Stove-Backs, &c. always in stock.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure boilers, &c. Manufacturers of the Archimedean Screw ventilators.—HULETT and Co. 80, High-street, ...

SKAIFE'S GALVANIZING WORKS,
COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.—Sheets plain and corrugated.—Roofs fixed complete.

J. SKAIFE is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

AN ALLOWANCE TO THE TRADE.

LIVERPOOL and MANCHESTER PATENT GALVANIZED IRON WORKS.—FRANCIS MORTON and CO.—Galvanized Sheet Iron of the best quality; ditto, expressly prepared for Tinmen and Braziers, Corrugated Sheets, Painted or Galvanized, of all sizes, for Roofing, Fire-proof Partitions, Ceilings, &c always kept in Stock. Gas and Water Tubing, Rain-water Gutters and Pipes; Wire of all numbers, Nails, Screws, Spikes, Hoops, &c.; Wrought Iron Hurdles, Field Gates, &c.—An allowance to Shippers and the Trade. Head Offices, 13, James-street (late Coalbrookdale Company's Premises), Liverpool, and at 16, St. Mary's gate, Manchester.
N.B. Parties are particularly requested to note the address, LIVERPOOL.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to ROW, near London, close to the New Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 13, Fenchurch-street, City.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-Iron, principal, Glass and Slated Roofs, to any span.
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor, and Ironfounder, Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Founding, Nails wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds; with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 8s. 6d. each.
J. H. BOOBBYER (late SPENCE and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.
14, Stanhope-street, Clare-market, London.
No. 1764, BRITISH SECTION, HARDWARE DEPARTMENT, PARIS EXHIBITION, 1855.

CHUBB'S LOCKS & FIREPROOF SAFES.
INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH-WESTERN RAILWAY, LIVERPOOL.
"London and North-Western Railway Company,
"Liverpool, May 17, 1853
"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.
"Messrs. Chubb and Son."
FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.
"3, Great Vine-street, May 3, 1853.
"Gentlemen,—I have the pleasure to inform you, that having one of your iron doors and the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall be obliged if you will have it repaired.—I am, gentlemen, your obedient servant, "C. OTWAY.
"Superintendent C Division of Police.
"Messrs. Chubb and Son."
CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.
Complete Illustrated Lists, with prices and sizes, will be sent on application.
CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS
Messrs HOBBS, ASHLEY, and Co. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence lane, London; where, by the introduction of their patent steam machinery, they are enabled to introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.
EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.
These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents. Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

TO ARCHITECTS AND BUILDERS.
PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any busk. public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Blue-lane, London.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.

An Illustrated Catalogue on receipt of six postage-stamps.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 169, Shoreditch.
A great variety of Elliptic, Two Plate, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler,
30 32 34 36-inch.
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 56s. 58s. 80s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 3½d.
Register Stoves, with Solid Bars, per inch, 6d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Ditto, with Two Flues, 40s. to 100s. each.

Cast Rain-water Pipe {	2	3	4 inch.	
	1½d.	1s. 3d.	1s. 4d. per yard.	
Cast Gutters—4 inch, 9d. per yard.				
	4	4½ inch.		
O G Gutters ..... {	1s. 1d.	1s. 3d. per yard.		
Best Cut Clasp }	1½	2	2½	3 inch, and larger.
and Rose {	7½d.	1s3.	1s. 6d	1s2. 6d. per cwt.

Cut Sheet Billed Brads, 12s. per cwt.
1 inch Cut Lath, 14s. 6d. Cast Lath, 11s. 6d.

Patent Line {	3	4	5	6	
	4½d.	5d.	7d.	9d.	1s. per knot

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantievers, Newel and Railing Bars, Pavers, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 9d. shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
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57, Hyde-park-street, Glasgow.
97, Dale-street, Manchester.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and not rising spring, swing, double acting, gate, and other Hinges, Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr. J. WEBB, sole Agent, at the Warehouse, 59, Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

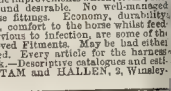
COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for bunding and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PFEIL and STEDALL'S,
Nos. 8 and 9, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

COTTAM'S NEW PATENT for STABLE REQUISITES.

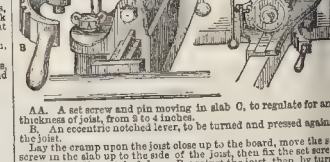
COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's improved Fixments. May be had either plain, galvanized, or enamelled. Every article for the harness room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.



This is the original Patent for important improvements in stable-fittings, including a method surpassing all others for conveying the straps and halter-weights to the back of the fittings, to prevent the horse being cast in the stall. Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c &c. Manufacturer of Kite's Patent Noiseless Cast-Iron Smoke Curing Chimney Cans.—Show on Buckingham-palace.—Price List sent on receipt of two postage-stamps.
JAMES BARTON, Iron Founder, &c. 370, Oxford-street, a few doors East of the Pantheon.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES.
W. BISSELL, PATENTEE, WOLVERHAMPTON, Manufacturer of Rein and Mortise Locks and Builders' Ironmongery.



AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 2 to 4 inches.
B. An eccentric notched lever, to be turned and pressed against the joist.
Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist, then fix the set screw firm. Turn the notched lever B against the joist, then, by turning the handle D, the lever will gradually fix itself and hold the cramp firm: the greater the strain, the more tightly, by its eccentric action, will the lever hold. The Patentee, in asking the attention of Builders and others, assures them that his cramp possesses great advantages. It is a nascni cramp of the best kind, and well suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be more quickly and safely used than any yet brought out, and at the same time it is light and portable.

ESTABLISHED 1817.
WILLIAM HARMER'S SMITH WORK, STOVE and RANGE MANUFACTORY and IRONMONGERY, METAL, and ZINC WAREHOUSE, Horserferry-road, and 1, New Peter-street, Westminster. Contractors, Builders, &c. supplied with general Ironmongery, at the lowest wholesale prices.
Cottage Ranges, with Oven or Boiler complete, 22s. each.
Self-acting ditto, with ditto, from 33s.
Self-acting Oven and Boiler Ranges, with Wrought Fittings Brass Tap, &c. complete, from 45s.
Register Stoves, from 6d. per inch.
Elliptic Stoves, with double Backs, from 3½d. per inch

Rain Pipes {	2	2½	3 inch.	
	1½d.	1s. 3d.	1s. 4d. per yard.	

4-inch Eaves' Gutters, 9d. per yard.

O. G. Gutters {	3½	4	4½	5 inch.	
	1s.	1s. 1d.	1s. 3d.	1s. 6d.	per yard.
Best Cut Clasp }	1½	2	2½	3 inch, and larger.	
and Rose {	15s.	12s. 6d.	13s.	12s. 6d.	per cwt.

1-inch best Cut Lath, 14s. 6d. Sheet Floor Brads, 12s. per cwt.
Sash Weights, 7s. 6d. per cwt. 3-inch Air Bricks, 3s. 6d. per doz.
6-inch Sink Traps, 9s. per doz. Strong Coal Plates, with hook 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing.—Estimates given for Iron Railing, Gates, Balconies, and ironwork of every description.

NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES,
a complete LIST of which will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

SMOKE CONSUMER.—A Patent Smoke Consuming Apparatus supplied for 3l. 3s. and upwards, by Mr. JAMES CARTER, 21, New Bridge-street, Blackfriars.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

YORKSHIRE STONE.
GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORK STONE of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.—GEO. VINT and BROTHERS will give prompt forward prices by post on application.—Address, Idle, near Leeds.

SERPENTINE.—THE LIZARD SERPENTINE COMPANY manufacture Chimney-pieces, Tables, and all Architectural, Ecclesiastical, and Ornamental Works, from their beautiful stone, at prices in competition with coloured marbles. The stone from the lower beds of their quarries is superior to any hitherto brought into the market. Stone supplied in block or slab.—Offices and Show Rooms, 20, Surrey-street, Strand.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.
THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble, bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter.—London Agent, C. HOAR, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar-square; the William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

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THE GODSTONE STONE COMPANY will supply the best description of FIRE STONE in large or small blocks, Oven Tiles, Backs of Grates, and all descriptions of Furnace work, at prices about half those charged for other goods of the same description offered to the public. The price of this Fire Stone is erroneously stated in Builders' Price Books for 1853, at 5s. per foot cube, whereas any quantity can be supplied at the Bricklayer's Arms Station, at 1s. 2d.—Apply at the Offices of the Company, 21, New Bridge-street, Blackfriars.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS,
QUARRYMEN AND STONE-MERCHANTS,
BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

BRAMLEY-FALL STONE and LARGE LANDINGS.—Mrs. ANN HUSLER can supply any quantity of BRAMLEY-FALL STONE, large landings, flags, steps, sills, copings, sinks, &c. &c. at the lowest wholesale prices. Note.—No charge made for supplying to dimensions. Apply for price, &c. to S. TRICKETT, Stone Wharf, Isle of Dogs.

DOCK WORKS.—STONE NOTICE.—To CONTRACTORS.—TO BE SOLD, 3,000 feet more or less, of ANSTON STONE, being the remainder of that which was got and scappelled three years since, for the Great Grimsby Dock Works.—Apply, by letter, to Mr. DUNCAN LIDDLE, 67, Princes street, Leicester-square.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEEDHAM, and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to deliver from their Wharf and Depôts CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, GODSTONE IN BUILDING, BLOCK, and RUBBLE STONE, BLOCK and BURR HEARTH STONE; also RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For information, direct to Caen Wharf, Rotherhithe; or to Hibernia-chambers, London-bridge, Borough.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Waterloo-bridge. Offices: 245, High-street, Southwark, near the Townhall.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLES and TAYLOR, 3, Pinner's court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's-park.

FREESTONE.—Architects and Others are reminded that they can obtain the CASTERTON FREESTONE, in Blocks of any portable size, at the Quarries, or at the Railway Stations of Stamford, Essendine, or Tallington, and which, from its price, and the facility with which it is wrought, offers immense advantage to the purchasers.—Apply to FRAS. and OCTS. N. SIMPSON, Stamford.
N.B. Specimens in plain blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the Offices of Messrs. PINDER, SIMPSON, and SONS, 29, Saville-row, Burlington-gardens, London.—May, 1853.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W. ASPINALL begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potternewton, Newton, Harebill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curb and Pitching, all at the very lowest prices.
N.B. Estimates given for Masons' Work.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.
ENAMELLED SLATE CHIMNEYS, of elegant designs and superior workmanship, in great variety, at prices from 9s. to 10 guineas. Slate Cisterns made to any size.—H. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 30 and 40, Upper Belgrave place, Pimlico.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Buckingham Palace, Portman Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLAB WORK for 1855 are NOW READY, and can be had on application, inclosing a postage-stamp.
N.B. A liberal discount to the trade.

SUPERB SCAGLIOLA.—Important to Architects, Builders, Decorators, and others.
E. ROBBINS'S new system of producing this beautiful material affords an opportunity never before offered for the display of Taste and Talent in the Ornamental and Decorative department of building. Inlaid work of the most elaborate designs, and in imitation of any marble, executed in a finished and workman-like manner, at prices considerably lower than are usually charged for work of a much inferior quality; this description of work can by this system not only be better executed, but in less than half the time required by the old system. The great simplicity of manufacturing Scagliola by this system enables E. R. to supply plain or face work, such as Panelling, Skirting, Chimney-pieces, &c. at one third of the ordinary Trade Tariff.—Specimens can be seen, and orders taken, at 31, Camden-street, Islington-green.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazze, Busts, Consoles, Bas-relievi, &c. by J. M. BLASHFIELD, of Millwall, near the West-India Docks Station, and sold at No. 1, Frazer-street, Edmund's-town, where prices and designs can be obtained. Examples of Terra-cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Nereid Court. The statues of Australia, Venus de Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra-cotta, so are the fountains at the Renaissance Court, and the roof of the Alhambra Court. The Pompeian roofs is of Terra-cotta and red cement combined. Since the execution of these works, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

MARBLE EDGE STONE RUNNER.—Any person having one to dispose of, about 4 feet 6 inches diameter, and 14 to 15 inches on the face, may hear of a purchaser on application to Mr. PAVETT, 6, Garlick-hill, City.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the asceusion and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with upwards of 3000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

IMPROVED WINDOW BLINDS.—SANDYS'S PATENT EXCENTRIC CLEAT, manufactured solely by THOMAS PEMBERTON and SONS, and may be had of all ironmongers. It is the only perfect method yet introduced of sustaining a Venetian blind, on releasing the cord, and avoiding winding on hooks. For calico blinds its action is perfectly noiseless, as it works on centre pins, and the blind is raised and lowered by a single line without a centre cord.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.
Diving-dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 8d.; gauze wire blinds, in mahogany frames, 3s.; perforated zinc blinds, in ditto, 4s. 10d.; outside blinds of striped cloth, 3s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at is per foot super. together with every particular of its cost and application, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

WOOD-CARVING and FRET-CUTTING. T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Iron-founders, Cabinet and Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch. T. H. particularly solicits the attention of Ironfounders, having had many years experience in ornamental pattern making. Estimates furnished.

BUILDING MATERIALS.
BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate.

TO IRONFOUNDERS, ENGINEERS, MANUFACTURERS, &c. requiring strong roomy Premises, with powerful Cranes, Steam-engine, &c. TO BE LET or SOLD, by PRIVATE CONTRACT, the LEASE of an IRON-FOUNDRY (in work), sixty-six years unexpired, situate in Kingston-street, Gibson street, near the South-Western Railway Station, Waterloo-road, London. A plan and particulars may be had of WM. ELKIN, Lessee, on the Premises. The Premises are well adapted for a warehouse; three waggons could be loading or unloading under cover at the same time; the distance from the bridges convenient.

TO ARCHITECTS AND SURVEYORS.
TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place.—For particulars, address, S. S. 9, Studley-terrace, Larkhill-lane, Stockwell, Surrey.

TO ARCHITECTS, BUILDERS, and SURVEYORS.—TO BE DISPOSED OF, an old-established COUNTRY PRACTICE, having the building connection, which has been successfully carried on for a long period, and the reasons for wishing to relinquish it can be satisfactorily explained. For further particulars, apply to Messrs. EVERSFIELD and HORNE, Auctioneers and Estate Agents, 40, Parliament-street, Westminster.

PREMISES WANTED for a MANUFACTORY of a light nature, without nuisance. Buildings to have from 10,000 to 20,000 superficies of floor, in two or three stories. A high-pressure steam-engine of 25 horse power will be required. An eligible place within ten miles of St. Paul's will be leased by the parties.—Address, C. M. Messrs. Shanks and Co. Adelphi, Strand.

PREMISES WANTED, in the London or Borough roads, or Newington-causeway, or within half-a-mile of either, consisting of a large yard, with shed or workshop, either with or without dwelling-house; as it would be for a term the rent must be moderate.—Address, stating particulars, to A. B. 21, Admiral-terrace, Vauxhall-bridge road.

KILBURN.—Valuable Investment.—FIVE HOUSES; term, eighty-nine years; ground-rent, each 6l.; all well let at each 32l. Price, each 285l.; a reduction if sold altogether. For cards to view apply to Mr. W. F. HAMMOND, Auctioneer and Surveyor, No. 3, Carey-street, Lincoln's-inn.

GUILDHALL, London, 24th May, 1853.
BUILDING LEASES, NEWGATE-STREET.—The Committee for letting the Bridge-House Estates, will meet at Guildhall, on FRIDAY, the 22nd day of JUNE next, at TWELVE o'clock precisely, to receive TENDERS for BUILDING LEASES of THREE PLOTS of GROUND, on the north side of Newgate-street, in the City of London, and lying between Church-passage and Giltspur-street Compter, where prices and designs can be obtained. Examples of Terra-cotta, by letting may be seen at the Architect's Office, Guildhall.
FERDINAND BRAND, Comptroller.

TO BUILDERS AND OTHERS.
THE KINGSTON HALL ESTATE is now OPEN for BUILDING PURPOSES.—Particulars and plans of which may be obtained of R. F. BARTHOP, Esq. or Messrs. PHILLIPSON, Kingston-on-Thames. The Estate opens into the centre of the town; the first part offers fine sites for business houses, and the other (leading direct to the railway station) suitable for villas.

KENTISH-TOWN.—TO BE SOLD, several well-built six-roomed CARCASES, with garde-ground, in a first-rate situation, and low ground-rents.—For particulars apply to S. TAYLOR, Plumber, &c. 2, Albany-place, Kentish-town-road.

EAST BARNET.—FOR SALE by PRIVATE CONTRACT, Twelve and a Half Acres of FREEHOLD LAND, with good frontage, and eligibly situated not far from the Railway Station. It commands a very direct and the most delightful views of this highly picturesque locality. Brick Earth and Gravel on the estate.—Apply to Mr. BICKELL, 70 and 71, Goswell-road, Islington.

SECURE INVESTMENTS in the City of London.—TO BE SOLD, on advantageous terms, a FREEHOLD ESTATE, (the free, land-tax redeemed, and producing a net annual rental of 86l. Also, a LEASEHOLD ESTATE, (unexpired seven years unexpired, held direct from the freeholder, who insures; producing a net annual rental of 62l.; both recently erected in a very eligible position, and let principally on lease to merchants of the first character.—For further particulars apply to Messrs. JENKINSON, SWEETING, and JENKINSON, Solicitors, 29, Lombard-street.—Principals or their solicitors will alone be treated with.

PAPIER MACHE AND CARTON PIERRE ENRICHMENTS MANUFACTORY,

49 & 50, RATHBONE-PLACE.

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Beg the attention of Architects, Builders, Decorators, and others, to their large assortment of ENRICHMENTS in every style executed in the highest class of art. Eirle rent for ceilings, cornices, &c. either Elizabethan, pendentive or flat, Louis XIV in round, various other Italian and Greek, Renaissance, and many modified characters, executed for the first houses after the designs of architects of the highest eminence, wall dressings, rich panels of every period, rich Elizabethan and Gothic Dados, in many designs. Door caps, mouldings, and dressings.

A large assortment of Gothic Bosses to many varied intersections of all sizes, tracery and panel headings for church works, organ dressings, of most periods, and faithfully executed to the taste of each. The general decorations of Drawing and Dining Rooms, Libraries, &c. of very considerable extent, as furniture, glass frames, tables, window cornices, screens, candelabra, and the whole range of accompaniments thereto, the rooms of the first class, as well as in residences.

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SATURDAY, JUNE 2, 1855.

THE profound observation with which Sterne commences his "Sentimental Journey," to the general justice of which much of our military and transport organization has of late borne a perhaps reluctant testimony, has scarcely held good with respect to the arrangements made by the executive of the Great Exhibition. "Matters" have certainly not been "better managed in France" than they were with us; and, as a consequence, those inevitable grumbles, of discontented exhibitors, and worried public, which with us only now and then made themselves audible through the storm of plaudits, in Paris have swelled into such a growl, that the voice of those who would timidly assert, what is perfectly true, that the Exhibition, taken as a whole, will be one of the most delightful and interesting collections of illustrations of art and industry ever brought together, is at once drowned by the chorus of malcontents.

Too many of the sources of this general irritation, so far as the building for manufactures is concerned, must be recognized in the extremely deficient provisions made for the physical comfort of those who are likely to be its principal occupants during the summer months. It will scarcely be believed that up to within two months of the opening, scarcely any provision whatever was made either for the admission of fresh air into the ground level of the building, or for getting rid of the vitiated atmosphere at the apex of the roof. The consequence of this want of forethought was, that during the busy time, in which exhibitors ought to have been unpacking and arranging their goods, workmen were busy beneath their feet, and over their heads, in cutting great drains right through the building for the fresh air channels, and in raising a portion of the glass roofing along the whole length of the summit of each semi-cylindrical vault for the escape of the heated gases. From the one operation arose constant clouds of dust, besprinkling everything with a fine white powder; and, from the other, every now and then descended fragments of broken glass, and other equally dangerous missiles.

The worst of all is, that up to the present time, neither of these palliatives is entirely completed or successful; the truth being, that the areas of the apertures are still insufficient for spontaneous ventilation, while the building is ill adapted for the introduction of any artificial stimulants to a rapid circulation of air.

It is to be regretted that the authorities have neglected to become wiser by the past. Almost every defect pointed out in the last French Exhibition, of 1849, by Mr. Digby Wyatt, in his report on the display of that year,* is perpetuated, and even aggravated, in the present arrangements. This is especially the case in respect to the exits and entrances, the catalogue, the want of system in the disposal of the currents of visitors, the classification of goods, &c. On the day of the opening there were provided neither refreshment nor retiring rooms, and the inconvenience and shifts to which the workmen and all engaged in the preliminary labours were subjected in consequence of such deficiencies, can be better imagined than described.

Happily, however, there is something in the specific gravity of any really great national work, and in the momentum it acquires when once fairly started, which carries away before it swarms of those petty impediments which would effectually bar the progress of any less weighty enterprise. It is the interest of so many that it should succeed, that the barriers interposed by the mismanagement of a few are soon removed and their mistakes rectified. Ballasted by such heavy interests, however much it may have heeled over, a good ship always rights itself; and once righted, the breath of success soon swells its sails, and carries it proudly forward in the current of progress. Such, let us hope, may be the case with the Paris Exhibition: it would be a thousand pities to see it wrecked through bad steering and seamanship.

The whole enterprise, as is doubtless known to the majority of our readers, is divided into three distinct sections,—raw produce and machinery, the basis of manufactures,—manufactures proper,—and fine arts. The first section is by far the most incomplete, and will scarcely be in satisfactory working order by the end of June. It will occupy an enormously long building adjacent to the principal structure, and running parallel to the bank of the Seine, for a distance of nearly two-thirds of a mile.

It is about 100 feet wide, and has a gallery on each side of the centre running along a considerable portion of its length. It is simple and clever in construction, and but for its closely-boarded floor, and deficiency of ventilation, would appear admirably adapted for the duty it has to perform. The arrangements for driving the machinery in motion are of the most extravagant kind, and elicited anything but complimentary remarks from the practical engineers, foreign as well as British, by whom their merits were discussed. One of the consequences of this cumbrous design most to be regretted is the delay which its carrying out has involved. Large combinations of mechanism are very costly to transport and erect, and the loss of the services of a valuable machine falls heavily on its proprietor: thus every day's delay in setting them in motion increases the expenses of their exhibitors, while it proportionally contracts the extent of good their exhibition might do, either to the general public, or to the producers and consumers. It was in this building that the celebrated chaos of packing-cases reigned which was generally nicknamed Balaklava; and in spite of the energies of the all-energetic Mr. Cole, and his indefatigable assistants, Captain Fowke and Mr. Owen, to vindicate the ascendency of mind over matter, and to rescue the English cases from the *mêlée*, it was long before order could be established. Mr. Wallis, the well known master of the Birmingham School of Design, worked hard in the same good cause. To describe the general confusion of the "*Annexe*," as the great building on the "Cours la Reine" is called, on the day of opening, would require the pen of an Ovid. Let us hope that such a description of chaos might, like his, prove only a preface to a series of "metamorphoses" at least of a demi-god-like character; and that when "order" may, at last, come "out of chaos," the darkness of the past may but enhance the brightness of the present.

It was in the main building—that destined for the reception of manufactured goods—that the inaugurative ceremony took place; and as the *Times* has already graphically described the scene, we shall not recapitulate such self-evident circumstances as that the Empress looked lovely, and the Emperor rather bowed down by that inevitable burden of care a crown seems doomed now-a-days to entail upon its wearer. We cannot but remark, however, in vindication of the justice of the strictures we have felt it our duty to make upon the imperfection of the building and general arrangements, that the same want of a wise governing power was no less perceptible in the impromptu ordering of the procession and spectacle, than it had been in all that had been done, and left undone, by the authorities, previous to the opening.

The building may be described, concisely, as composed of a great nave, entirely surrounded by an aisle; the nave being about 650 feet long, by a clear span of about 160 feet; and the aisle being of a uniform span of about 85 feet.* Both nave and aisle are covered with semi-cylindrical roofs of glass The whole of the construction is in iron, encased on the exterior in stone walling, divided into two stories, with two ranges of round-headed windows, about 10 feet wide. The whole of the aisle is divided by a gallery into two floors, to which these ranges of windows respectively give light—that is to say, give light on the ground floor, where it is too much needed, and fail, of course, to give it on the gallery level, which is one blaze of light from the glass overhead. Externally the architecture of these stone enclosures is agreeable enough, excepting in the centre mass, where regular columns are introduced, so stumpy as to appear completely crushed down by the heavy entablature and attic they support, or appear to support. The most satisfactory feature in the whole design is the treatment of the staircases, and of the pavilions in which they are inclosed. In these both the stone and plasterer's work is well composed and admirably executed.

The skill shown in the design of these pavilions, so far as the treatment of stonework is concerned, has not been extended to the arrangement of the forms of the constructive ironwork, which is heavy and altogether wanting in the Metallic style: the mouldings and ornaments are all borrowed from masonry, even to the marking of the keystones of semi-circular arches, while the proportions of the columns and girders are exceedingly cumbrous. To such an extent has iron been used in positions where its mass was a superfluity, that we were assured by the head of a well-known firm, largely engaged in the execution of works of a similar character in this country, that he had deliberately proposed covering double the area, in the same spans, with precisely the same amount of metal. It is not on the shoulders of Mr. York, the contractor for the whole of the works, that blame should be laid for such profusion, but rather on those of the authorities, who, in grasping after the same architectural effect of detail to which they were accustomed in stone, failed to attain its true scale of proportion; and, of course, altogether missed that refinement and lightness which the allotment to iron of its just economy of substance rarely fails to secure. The whole of the internal construction is painted of a light-grey colour—somewhat similar to that Mr. Brunel and Mr. D. Wyatt have adopted for the metal work of the Paddington station,—a treatment of colour which, in its extreme quietude of tone, may be suitable enough for a railway station, but makes a dowdy garnish to a building destined to contain the most brilliant products of the whole globe. This appears to have been strongly felt, for various attempts have been made to impart a more lively appearance to the interior of the great nave than this universal and almost unbroken grey permitted it to assume. In the first place the great semi-circular windows at each end have been filled with stained glass; and, in the second, flags and pendant banners of the most brilliant colours have been suspended from every practicable point. The stained-glass, which is made to embody vast allegorical compositions, is creditable to the executive abilities of the well-known M. Marechal, by whom it has been supplied, but is

* Prepared by the direction of H. R. H. Prince Albert, and the Council of the Society of Arts.

* A section will be found in a previous number of our journal, Vol. XII. p. 389.

unhappily faulty in its composition. Instead of dividing the subject into such groups as would allow the heavy vertical lines of the structural ironwork to pass free of all essential features, no attention whatever has been paid to them, and figures are cut into halves and quarters without compunction, whilst Commerce and such like are summarily "knocked on the head." How easily this might have been avoided is shown by an admirable design for the same subject exhibited in the architectural department of the fine-art building. Had it been carried out, the architect and stained-glass painter would have appeared to have worked in concert, whereas now it appears hard to distinguish which has most despised the other's work. Unfortunately, the amount of light admitted all round these great stained-glass windows makes them appear opaque and heavy; and, indeed, the conclusion is forced upon the mind of the spectator, either that the architect did not foresee the introduction of the stained glass, and that it formed no part of his original design,—or that if it did he was ignorant of, or failed to provide for, the most obvious conditions necessary to its satisfactory display. The flags and banners have a very gay effect, and relieve much of the monotony felt previously to their being put up.

On the ground-floor, the galleries produce rather an unsatisfactory and dull impression, but on the upper level the scene is very elegant: the lines of ironwork in the roofing fall most agreeably together, and the centre span is a truly noble one: it is a pity, however, that its springing was not higher from the ground.

Our comments on the preliminary arrangements and on the building have run to such a length that we must fain postpone our first impressions of the internal fittings, and goods exhibited.

ON THE ARCHITECTURE OF THE PRE-GOTHIC AGE IN GERMANY, OR THE ROMANESQUE DEVELOPMENT OF THE RHINE AND CENTRAL EUROPE.*

THE position which the architecture of the tenth, eleventh, twelfth, and thirteenth centuries—generally known by the comprehensive term Romanesque—holds midway between the classic severity of earlier ages and the aspiring freedom of Gothic construction, gives it the peculiar interest of being a link of the great chain which connects the old with the new civilization of Europe—the close of Roman splendour with the early dawn of Mediæval art. From the Romanesque buildings of the twelfth and preceding centuries, we learn how the great transition took place from the classic characteristics of breadth, horizontality, and repose, to the airiness and upper tendency exhibited in the Early Gothic structures; a change which, from first to last, occupied the space of nearly a thousand years in its accomplishment. Though extensively practised in these islands by our Norman conquerors, the Romanesque style received such an impress from their hands, and was so deeply imbued with their spirit, that it has retained their name among us as a distinctive appellation. It is to the Continent, therefore, that we must rather look for the purest characteristics of the Romanesque, and especially to Germany, which, though borrowing its original ideas from its subjected Italian estates, was amongst the first to carry them out with individual design, and the last to forsake the cherished forms, and yield up its sturdy "Rundbogen" for the novel and more graceful "Spitzbogen," or pointed arch.

Along that great highway, the Rhine, many a flourishing city was planted by the enterprising sons of the mistress of the world. And now on its banks stand clustered those venerable creations of Christian art, which far excel the few traces remaining of Pagan work and classic decline. Not only, however, on this spot, but throughout Central Europe, are to be seen traces of this once popular style, modified in accordance with local circumstances and individual feeling.* Distinct from, though closely allied to the Lombard edifices of the same date, and the examples of Byzantine influence exhibited at Venice and Ravenna, these Romanesque buildings claim equal kindred with the rival forms adopted in the buildings of the early Christian Church, the flat-roofed Basilica, and the domed temple of Byzantium. And it need excite no astonishment to find such clear traces of the chief features of each, when we remember that both were founded at the same time, for the same object, on the ruins of the same development of art.

Greece perfected the trabeated system of support. It was adopted at Rome, with the addition of a new, and, apparently, antagonistic principle—arcuation. Timidly at first, though boldly afterwards, the two were blended, till confusion became the result. Order succeeded under the artistic hands of the Lombards; and the style, further improved and developed by their German conquerors, became the great and noble Romanesque, which, extending its influence from Central Germany towards the north and the west, in after ages returned to invigorate the productions of its original country, the south. But, independently of their prominent position in the pre-Gothic age, and of their connection with Rome and Byzantium itself, constructively, artistically, and historically, these Romanesque edifices have a grandeur and a character of their own, and a strong claim on our attention by reason of their independent majesty and truth—a claim which has, indeed, been duly acknowledged in the well-known works of our countrymen, Hope, Whewell, Willis, and Pettit.

Although the types of many parts of these Romanesque buildings may be found in Byzantium—in the works of Greek artists, who had studied the arch and column at Rome itself—yet some particulars of their arrangement and construction may be derived from the early Basilicas of Rome. To the former may be referred the vaultings, the apsidal† terminations at the end of the nave and transepts, the semi-domed roofs, the piers, the open cupolas and windows, as well as some peculiarity of detail. To the latter may be attributed the Latin cross shown in the longitudinal and transverse arrangement of the piers and arches—corresponding to the marble avenues of the Basilica, some arrangements of the apses, and many examples of flat roofs, carried by plain walls, pierced with small round-headed windows. Indeed the campanile of Santa Francesca Romana‡ (Rome, A.D. 836), may serve as a type of those subsequently erected on the borders of the Rhine. The connection with the Byzantine types can be directly traced through the relation of Ravenna to that city. In 802 Charlemagne erected the cathedral at Aix-la-Chapelle (on the spot where a previous church was built in 543), in imitation of San Vitale, at Ravenna; and although this cathedral was altered in 983 by Otho III. yet enough remains of the base of the central cupola to indicate the style of the rest of the church. At this time in England, St. Paul's, Canterbury, Peterborough, and St. Albans, had been founded. Did the various edifices still exist which were successively erected on the site now occupied by the cathedral of Cologne, we should have a complete series, commencing from the year 94 of our era. Here Charlemagne built a church in 814 (a little later than that at Aix): another was erected in 873, and destroyed in 1248, in which year the present edifice was commenced.

It is through the works of the Lombards, in the church of S. Michele, at Pavia,§ and elsewhere, that we must trace the connection with the *Basilican* type. In Italy this form is naturally reproduced in most of the ecclesiastical edifices of this period. The church at Pavia dates from 720 to 750; and St. Castor, at Coblenz,* was consecrated in 836, by one who lived much at the former city. Not to mention that curious example at Lorsch (of which only a fragment now remains), consecrated in 774, in the presence of Charlemagne himself, we have, in the above-quoted instances, sufficient proof of the origin of the architecture of the Rhine. We shall see how it flourished for the next three centuries, and how, at the close of the twelfth and commencement of the thirteenth century, it attained its full growth under the protecting care of Frederick Barbarossa, at the very time when he was burning and laying waste the rebellious cities of Lombardy.

The less disturbed times in Germany, producing fewer warlike or palatial buildings, gave opportunity to its artists to lavish their talents on the ecclesiastical edifices of prince-bishops, and the results can be traced even as far as Liege, in the Netherlands.

Proceeding now to examine the particular arrangements which the three great cathedrals of Maintz, Worms, and Spires exhibit, we find that the grand central nave was universally adopted, generally vaulted in a semicircular form; though pointed vaulting was very early introduced. The nave-piers are large and plain, and the arches round. Sometimes there is a triforium, but always a clerestory, with windows as in the aisles, narrow and round-headed. There are transepts at both ends, often with apsidal terminations, which are also seen at the east and west ends of the nave. Over the junction of the nave and transepts, we find a light, open cupola, generally polygonal, *not domical*. There are towers on each side of the apse. If only four, they are very nearly alike in size; though the eastern pair are somewhat smaller. If each transept also has towers, they become little more than turrets, though still of bulk and elevation enough to assist in the grand effect of grouping,—as may be seen at Cologne, Maintz, Worms, Spires, Andernach, Laach, Boppart, and Coblenz. The high altar is approached by many steps, being raised over a crypt, half sunk in the ground, and generally supported by vaults on columns, exhibiting the best details. The entrance is sometimes through a cloister,† surrounding a square court. At Laach Abbey this exists entire. * * * * *

The constructive requirements for carrying the flat roofs, peculiar to the Italian and Basilican type, were simple; but in vaulting such spans as that of Spires (45 feet), more care was requisite. Large piers, generally square, with pilasters or semi-shafts attached in front to carry the vaulting, bear the arches of the nave,—but between these great pillars a smaller one is often placed, which, with the corresponding halves attached to the sides of the great piers, carries subordinate arches, and is continued upwards to form clerestory compartments beneath the great arch of the nave. This arrangement permits the sub-division of the vaulting of the aisles (which are generally half the width of the nave) into two squares; and so long as only the semicircular arch was used, the square was necessarily the plan of every compartment or vault of the nave. When the pointed arch was introduced, greater freedom in this respect was obtained, and we see it used in the *transverse* arch at Maintz, and both longitudinally and transversely at Worms and Bamberg. The square vaulting of the aisles, and the intermediate piers, were continued, however, long after this improvement, and I consider this subordination of arches to be a feature which, like the orders of tracery at a later period, gives great effect and lines of shadow, hardly to be expected in buildings with mouldings of so plain a character. The caps of these vaulting shafts are often boldly carved, as at Spires and Laach, and the latter even now retain some remnants of the colour with which they were originally covered. The impost mouldings of the arch piers are large and plain: those of the subordinate ones are often not carried round the face

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* The following are extracts from the Essay by Mr. C. F. Hayward, for which the Medal of Merit was awarded in 1854, and which was read at the Meeting of the Institute of British Architects, April 9, 1855.

* See Puttrich's Work on the Architecture of Upper Saxony, from the tenth to the fifteenth century. See also the Works of Moller and Boisserée for illustrations of the buildings described in this paper.

† Yet we have in the majestic ruin of the Basilica of Constantine at Rome two apses—not opposite to each other, one being towards the Forum, and one towards the Coliseum—but this is of an age just preceding the birth of Byzantine art.

‡ Itself copied from an earlier one, by Adrian I. A.D. 772.

§ "It is impossible not to see in Pavia the origin of the Rhine churches."—*Gally Knight.*

* Louis the Pious consecrated St. Castor in 836: it was rebuilt in the latter part of the twelfth century, but some parts were preserved.

† Compare the Atrium at San Clemente, Rome; at San Ambrogio, Milan, A.D. 801; and at the Cathedral at Salerno.

GATEWAY OF KNOSTHORP HALL, YORKSHIRE.

in front. Most of these great churches have only a plain wall above the nave arches, or they sometimes exhibit smaller decorative arches beneath the clerestory. A gallery, called "männerchor," or "mannhaus,"* formed with large openings and a floor over the vaulting of the aisles, has a decided correspondence with the triforium,—a great feature of the later styles. England has many examples of the triforium, but Boppart, Andernach, Sinzig, and a few other smaller churches, are all the examples in Germany; and it is decidedly a Byzantine feature, as is also the vaulting of the apses by semi-cupolas, instead of the groined vaults which succeeded. The position of the apse has been already mentioned, but it remains to state that smaller ones were occasionally built in the east wall of the eastern transepts, as at Laach and Sinzig,—(like the Basilican tribunals), and in this case there are no north and south apses. The towers vary much in form, being square, polygonal, or round, and occasionally passing from one form to the other at the dividing stages; but their construction, or constructional ornamentation, is always the same. At the angle of the square, a strip of wall projects very slightly from the face. These flat pilaster strips, or incipient buttresses, are united several times in the height of the tower by flat bands, or a series of mouldings, carried on corbel tables of small round arches. In the panels thus formed, round-headed openings, single, double, or united under one common arch head, are inserted. Sometimes, in the centre of the wall, a flat strip, corresponding to the projection at the angle, is carried up to join the horizontal string, and is often continued above it to the very top of the tower. The two series of panels thus formed are pierced by windows.

This system (a decided Lombard importation, and seen later in our own Norman and Early English), is carried out in every wall. Cornices and eaves courses are supported on corbel tables of round arches. The apses, whether round, semi-octagonal, or semi-decagonal, are decorated in the same manner, the aisle and clerestory windows occupying the panels. Occasionally modified and varied round rolls are carried up the walls, and tied by horizontal rings of mouldings round the tower itself. A series of larger arches is sometimes carried round the walls on corbels only, without any vertical lines of support from below.* When it was required to cover a round tower with a roof of a polygonal form, the transition was easily accomplished by one or more of these projecting arches on corbels, and in this arrangement we sometimes observe a point in the arch coinciding with the face of the wall, exactly as the Byzantine pendentive. The system was carried out even further by the introduction of the trefoil-round arches and multifoils of pointed as well as round forms, in later examples. Wherever we meet with a building of the Romanesque period we have this characteristic, common enough with us under the term cornel table. The Normans used small carved blocks, as well as corbel arches, and their successors carried out the principle. But in Germany these corbel arches seem to have been so highly appreciated that many complete Gothic towers are formed in this manner, which seems to be peculiarly applicable to brick constructions. The two towers of the Frauenkirche (cathedral) at Munich, 318 feet high (built 1488), and other churches of the same city, have bands of ornaments of this character in carved or moulded brick. The Lombard churches, of course, show this system more or less, and even in the revival we see it carried out in unmatched boldness in the cornice of Florence Cathedral, and in the Campanile of Giotto, to say nothing of the extent to which it was employed in Italian brickwork.

In almost all the modern buildings in the neighbourhood of these early examples this feature is reproduced. In the towers or walls of Laach Abbey,* nearly all the peculiarities above mentioned are to be seen, and the little detached tower in the grounds adjoining may serve as a model to illustrate these remarks.

Exceptions prove the rule, and the church at Boppart, which is peculiar in many other points, has no vertical strip in the two towers, but one immense horizontal one, in the shape of a gallery, connecting them at the base of the spires.†

* Whewell, "Architectura' Notes on German Churches," pp. 91, 92.

* Compare the tower of the isolated chapel at Laach with the tower of the church of Sompting, Sussex, of about equal proportions.

GATEWAY OF KNOSTHORP HALL, YORKSHIRE.

The gateway engraved above is attached to an old hall in the neighbourhood of Leeds, built, I believe, in the former part of the seventeenth century. It belonged to Adam Baynes, who represented Leeds in Parliament at the time of the Commonwealth—the only time it was so represented before the Reform Bill was passed. The stone chairs outside the gate are a singular feature, which I have not remarked elsewhere.

G. C.

* Damaged by fire within the last few months.

† To be continued.

ON THE EMPLOYMENT OF PAINTED GLASS.*

IF all buildings sought to be decorated with painted glass were of one character, or even in one style of architecture, much of the difficulty with which the modern glass-painter has to contend would have no existence. But, since he has to design works for buildings differing in their character or architectural style,—and as no glass paintings are likely to be very satisfactory which do not in some degree harmonize with the architecture with which they are associated,—it is necessary to give up a few minutes to the consideration of the principles which should guide us in designing windows for buildings of any particular character.

It is difficult, owing to the vagueness of language, to find a term by which the difference in the character of buildings can be compendiously expressed. And when I use the term "severity," to express my meaning, I am aware that it is sometimes used to convey the idea of rudeness,—sometimes that refined degree of simplicity which suggests no want or imperfection. But, if I use it in the popular sense, it will be sufficient for my argument. All buildings, then, and sometimes different parts of the same building, are more or less severe in their character. Thus, Norman buildings are more severe than any Gothic buildings, their architecture being a species of the Byzantine, itself derived indirectly from the Roman, but directly from the Greek, which is the severest style of all. So, again, Norman buildings are more severe than Roman ones, and much more severe than Palladian ones. And, again, buildings in the Early English style of architecture are more severe than those in the Decorated or Perpendicular. Moreover, buildings in the same architectural style may be more or less severe than others. And all these buildings require corresponding differences in the glass paintings designed for them.

I have noticed that the glass paintings which seem to harmonize best with Norman and Early English buildings are those displaying a certain degree of severity in the figure-drawing and ornament, and which are executed in a certain severity of manner, necessitating the employment, in these works, of glass of the richest tinture and most powerful hue. I believe that this severity, or roughness of execution, is demanded by the peculiar species of severity which characterises Norman and Early English architecture,—the severity of rudeness as distinguished from the severity of perfect refinement. But, if adopted, it requires, to carry it off and prevent offence to the eye, that it should be disguised by the richest and deepest colouring To take a familiar example: what can be more crude, or poverty-stricken, than a design of Early English pattern-work, executed on ordinary pellucid white glass?—what a miserable contrast does it present to the real thing, which is painted upon a material something between porcelain and glass in texture, and possessing a rich sea-green hue. A copy of fifteenth-century quarry-work, upon the same glass, would look fifty times as well,—simply on account of the more finished and elaborate character of the pattern. And so it is with the figures.

The thirteenth-century figures, executed with simple black lines, and smear shadow, and broad high lights, tell admirably (bad drawing, and so forth, excepted), when painted on the rich solid-looking material of the period. But their modern representations, done in the same manner on ordinary glass, appear not only very weak, but as if they were absolutely unfinished. Moved to pity by the sight of some of these wretched objects, and at that time not dreaming that the ancient manufacture of glass could be revived, I once took upon myself to recommend the adoption of a more elaborate style of execution than that of the thirteenth century for glass paintings intended for Early English buildings, as being better calculated than it to counteract the flimsiness of the material. Our critics loudly abused what they were too ignorant to understand; and not content with the grossest misrepresentations of my language, they have lately actually had the assurance to taunt me with abandoning my principles, because, having obtained the ancient material, I have advocated a return to the ancient mode of using it. Really I am at a loss which to admire most, their simplicity, their courtesy, or their candour. But, in truth, it will be found not only that a rich solid material is best suited to a simple mode of execution, but that a simple mode of execution is best adapted to the use of a rich solid material. None but a bold dashing style of painting would tell upon a material so powerful in colour as that of the thirteenth century. Fine shading and finish would be absorbed in the intensity of the local tint, and lost. And it would seem that if such a material is to be used with effect, the design should consist either of a pattern or of a picture in which no attempt is made at representing greater depth than we see in a well-sculptured relief. To represent a greater degree of depth or distance than this between the foreground and background of the picture would necessitate the employment of a good deal of glass lighter in tint than what is usually met with in thirteenth-century work. And I do not think that anything could compensate for the consequential loss or diminution of that breadth of deep, intense, vivid colouring which is the characteristic of a twelfth or thirteenth century window, and which of itself appears to harmonize with the severity and gloom of a Norman or Early English interior.

The existing thirteenth-century window appears therefore to be the best type to be followed in designing a window for a Norman or early English building, and it is probable would be found to be the best type for a window intended for a purely Greek building, though, of course, many modifications would be necessary to make the design and execution harmonize with the refinement of the architecture. But I wish to guard myself against being supposed to adduce the old thirteenth-century window for anything else than as a type. Its colouring, both in arrangement, and more particularly in tone, cannot be too highly praised. But its composition is too often crowded and confused; and not only are the figures badly drawn, but their attitudes are, in general, forced and affected. These ancient remains are subjects for study only. They suggest the representation of groups arranged, as in a bas-relief, in a single line; the figures cut out, and rendered distinct, by the ground of the panel, and unaccompanied with any accessories in the background; of draperies, having the sculpturesque character of the antique; of heads, significant and powerful as those of Raffaelle, touched in with a few bold strokes; and of an architectural style of ornament redolent of Greek art. In short, I know of no style containing more of the germs of true art, or so suggestive, as that of the twelfth and thirteenth centuries; nor one, in the hands of a man possessing artistic feeling and skill enough to derive his inspiration from the same pure and exalted source whence the Byzantine school undoubtedly drew theirs,—so capable of being worked out in a manner alike satisfactory to the antiquary and the connoisseur. I have alluded to the colouring of these early windows in terms of praise. The excellence of that colouring depends principally on the excellence of the individual tints. Arrange the twelfth or thirteenth century glass as you like, still the colouring will not cease to be harmonious. The secret lies in the fact, that not one of these tints is a pure colour: all are more or less modified. The white is a sea green, or a greenish blue: the blue is a neutralised purple: the yellow has green in it: the purple has yellow in it: and the green and the red have brown in them, besides other colours. Chemistry can account for some of these things. Age, to a certain extent, improves the effect of painted glass, by neutralising the colour of a bit here and there. This is particularly the case with the blue. It is well, therefore, to glaze up a good deal of subdued blue along with the more positive blue. I am not averse to the "antiquating," as it is called, of bad modern glass, as it serves to make that tolerable which otherwise would be intolerable. But, however judiciously done, it is but a clumsy and imperfect expedient. The best course is to use a material made like the old, and to anticipate the effect of age, by the partial introduction of glass the tint of which has been modified, in the glass-house, without any loss of brilliancy.

In like manner, hints for the glazing of fourteenth-century windows may be derived from the remains of glass belonging to the Decorated period, though not to the same extent; for nearly all that is worthy of being studied in the works of the artists of the fourteenth century seems borrowed from their predecessors in the twelfth and thirteenth. Their white pattern windows,—their groups of figures in panels—their stems of Jesse,—differ from those of the twelfth and thirteenth centuries only in matters of detail,—not in principle; and from these, no doubt, useful hints may be derived. But canopies executed, as theirs are, without the slightest attempt at perspective, and without showing the recess of the niche in which the figure is supposed to stand, seem to set at naught every rule of art and even of propriety. Their use is sometimes attempted to be justified on account of the facility which the spire-ground is said to offer for the introduction of colour. But this argument is at once met by the remark, that precisely the same effect of colour could be given in a variety of ways, each artistic in itself. But the drollest defence is thus set up by our critics. They say, that the representation of depth should never be attempted in a glass painting, because it is part of the church, and therefore flat in reality; and that the ancient artists purposely selected objects, such as canopies, which, it is admitted, cannot, without an effect of doubt, be intelligibly represented,—and represented them, as we see them,—flat,—as if they had been "ironed out" against the glass,—not indeed from ignorance of the rules of perspective, but intentionally, in order to vindicate the principle for which these gentlemen are contending.

This process of reasoning is certainly very comical, and reminds me of a remark I once heard made by a Master of Arts of the University of Oxford, and who must, therefore, be presumed to have gone through a course of logic. He maintained that the mediæval artists drew their figures incorrectly, not from any inability to draw them correctly,—but purposely, and in order that their works might not be confounded with the more perfect works of the heathen. It is perhaps fortunate for us, that a man with a mind so constituted is not likely to win his way to the judicial bench; otherwise, we might hear of some unhappy wretch convicted of having possession of stolen goods, upon an irresistible inference of his guilt, drawn from the circumstance of the evidence having utterly failed to establish the fact of possession.

So much for our critics' argumentative powers;—now for their taste. All great artists, and all great writers upon art, from Phidias down to Sir Charles Eastlake, whatever their difference of opinion may be on other points, are agreed on this, that, though the existence of certain conditions may impose on the artist the necessity of adopting a flat method of representation, even when the object to be represented is not naturally flat, he fails as an artist if, under such circumstances, he does not contrive to convey to the spectator's mind the idea that the object is as rotund as he knows it to be in nature; the perfection of artistic conventionality being, that it should suggest no defect. In other words, an object like a canopy should not be represented at all, unless it can be represented in relief; and whether it can, depends a good deal on the effect of colour that it may be desirable to produce. The circumstance that the glass forms part of the church wall makes no sort of difference: it has really nothing whatever to do with the question, as any clear-headed person must at once perceive.

Still less does the painted glass of the fifteenth century supply hints for the glazing of perpendicular windows. The pattern-work of that period is well enough; but the appearance of an inartistic flatness and confusion in all the pictures is greater than in the remains of any former period. This is not surprising, when we not unfrequently find that the groups are arranged on a principle of relief. The figures are drawn up on the arc of a circle, not on its chord, as in a twelfth or thirteenth century example. Neither are they, as in the latter instance, sufficiently insulated by means of the ground, nor are any other means adopted to

* See p. 241, *ante*.

ensure distinctness. Hence a perpendicular picture window most resembles a collection of court cards.

It was not until the middle of the sixteenth century that the art of producing a picture, in glass, capable of conveying an adequate idea of depth, was discovered. I have already mentioned the windows at Brussels as most favourable specimens of this art; and I attribute their great power, and completeness of effect, to their extreme simplicity. In one of these windows, of which I have here a drawing, the group is placed in front of an arcade. The whole picture is seen under the influence of bright sunshine, and the shadows throughout are consequently sharp and decided. The blue firmament appears through the opening of the arches, and being contrasted with the dark shadows in the soffits, and on the figures, seems to recede, and this apparent distance gives a peculiar charm to the composition. A window like this bears the stamp of the master's hand, like the cartoons. And in many respects, the principle of its composition is analogous to that of the cartoons. In both cases the artist has had to work with reference to a mode of execution limited in its means, as compared with oil, or fresco painting. And in these windows we recognize the skill of the artist in the manner in which the excellencies of glass painting are displayed to the best advantage, and its defects concealed. And this, to borrow Sir Charles Eastlake's words, in speaking of the cartoons,—"without any sacrifice of such of the proper attributes of painting as were compatible with the means employed; and without any violation of probability."

It is manifest that this style, modified in its details according to circumstances, suggests the type for windows proper for Perpendicular and Palladian buildings. The east window of St. James's, Piccadilly, is, indeed, a sufficient warning against introducing the Byzantine principle of composition into a building in the latter style.

The result of the foregoing remarks is, that there are, in truth, but two styles of composition that need be attended to in painted glass,—the one, in which the picture is arranged on an artistically flat principle, like a bas relief, the figures of course being given a proper degree of roundness,—the other, in which such a degree of depth, or distance, is represented in the picture, as we see in the Brussels glass, or the cartoons,—that the first style is the best whenever the object is to produce a mosaic of rich intense hues, and which will suit only buildings of a certain character;—and that the second is the most appropriate for buildiugs in a less severe style;—the extent to which the artist should avail himself of the power of producing the effect of depth, being, of course, a point dependant on circumstances. A violent outcry has, no doubt, been raised against the second style; but its authors are, I am happy to say, only our logical critics, or a small fry of glass painters dependant on them for patronage, and who are sagacious enough to see their own interest in decrying a style which, being far more artistical than any of its predecessors, demands some artistic qualities in those who should attempt to carry it out. I shall, therefore, trouble you with no defence of such a style. To say that it is impossible to represent depth or distance in painted glass, even with the limited means afforded by the Mosaic system, is simply to deny the existence of those glass paintings in which this object has been successfully achieved with such means.

Our critics, who, though great sticklers for authority, are always ready to give it up whenever it clashes with their own preconceived notions, are loud in their condemnation of all those glass paintings which, in their opinion, are not in "strict subordination to the architecture." I do not quite understand what they mean by this phrase: perhaps they don't know themselves. But, as those compositions in painted glass which, in a mullioned window, extend beyond the limits of a single light, are especially subjects of their denunciation, and as such alleged solecisms in taste do occur pretty frequently, even in the golden age of the thirteenth century, it becomes a question whether greater credit for sound views is to be given to our critics or to the old artists themselves, whose works, it is admitted, have never yet been surpassed, nor even equalled. That a perfect harmony exists between old glass paintings and the architecture with which they are associated, is what I have asserted in this very paper; but this harmony I hope I have shown depends on something deeper than the confinement of a design between two mullions of a window. Indeed, the harmony between the glass and the architecture is sometimes ensured by a violation of this alleged principle.

To take a familiar instance: a fine thirteenth-century rose window owes its plenitude of effect to the circumstance that the lines of the glass composition are concentric, and therefore in direct opposition to the lines of the stone-work, which diverge, as rays, from the centre to the circumference of the window. And, as if it were that there should be no mistake about this, there is generally found, in some part of the window, a broad concentric border, which is ruthlessly cut through by every one of the mullions of the window.

I do not mean by this to lay down as a rule that all designs in glass should be independent of the mullions of a window,—but only to show that cases may exist—not confined to those windows, by the bye,—in which the general effect of an interior may be improved by carrying one entire design over the whole window; and in such case we may depend upon it that the glass is in harmony with the architecture. Indeed, if the object be to show off the shape of the window tracery, it is even better, when the glass is dark, that its lines should not conform to those of the tracery,—as is shown in one of the diagrams. Though, as a general rule, I think that for a mullioned window, a design of rich mosaic work, like the glass in the Ste. Chapelle, at Paris, is not so appropriate as a white pattern design, such as we see in many English windows of the same date.

In conclusion, I would impress upon you, that originality of design is essential in composing a window. The artist must study the building he is employed to decorate, and make his design to suit its character; instead of merely looking out for some old example to copy,—the design of which can be easily made to fit the size and shape of the window to be filled. Above all, recollect that the ordinary rules of art are as applicable to glass painting as to any other species of painting. It is true that the violation of these rules may be, and often is, overlooked, and even applauded, by persons who set themselves up for critics, without possessing any knowledge of these rules themselves. But, beneath all the accumulated rubbish that is said and written on the subject, runs the deep still current of public opinion, whose real course may not coincide with that of the straws that float on its surface. The English people may be confused by clamour, but not convinced; and, though ours may not be an artistic nation, its innate good sense will eventually vindicate itself in matters of art, as in other matters. Therefore be warned in time; and be guided rather by the works of experienced writers upon art,—such as Eastlake's "Literature of the Fine Arts," which is perhaps the best of all,—or, Leslie's "Lectures," which I mention, as it contains a good *exposé* of modern art-criticism,—than by what appears in the pages of ephemeral publications. There is no royal road to any branch of knowledge. A knowledge of the ordinary principles of art is not necessarily given by a University education, nor, I fear, common sense either, if the works of some of our critics can be taken as a criterion. I have felt it my duty to expose a few of the dogmas, because they are apt to gain a sort of currency by mere repetition, and because I do feel that the currency of these, and similar dogmas, has in great measure been the cause that the art of glass-painting, notwithstanding the very large sums that have been expended on painted windows during the last twenty-five years, is still, at this moment, in a more degraded state, in England than it is in any other country in Europe in which it is practised.

It might have been dangerous for any of you to have questioned these dogmas of our critics; but my case is different, as I want none of their patronage, and despise their praise.

C. WINSTON.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

AT the meeting held on the 21st ult. Mr. F. C. Penrose, in the chair, Mr. F. W. Porter was elected as Fellow, and Mr. Joseph Woods, of Lewes, as honorary member.

A communication from Mr. W. L. Donaldson, the honorary solicitor, was read, being "a summary of a report made by Mons. Remont, Architect of the City of Liége, on the Sanitary measures adopted in London." Models of Z. Round's patent bricks to supersede the use of wood bricks, were exhibited and explained by Mr. Wigginton.

The next meeting will be held on the 4th of June, when the Rev. J. L. Petit, M.A. will read "A few Remarks on Italian Architecture."

A committee has been appointed to consider the subject of premises for the Institute with reference to finance, and to report to a general meeting. It is much to be hoped that more commodious premises may be obtained. If Burlington-house is to be appropriated for the use of scientific societies, surely architecture may prefer a strong claim. The State has done little enough for her yet.

On Friday, the 25th, Earl de Grey, president, received the members of the Institute, together with a large number of persons distinguished by position or attainments, at his house in St. James's-square, to the ordinary attractions of which were added numerous folios of drawings and other works of art.

BELGRAVIA.

THIS aristocratic domain, as it may be called, has from accidental circumstances been exalted to its present distinction; for it was originally, and indeed until lately, mere fields, and of a common description. It is the district generally called "Pimlico," of which name there is no correct etymology. In the earliest accounts it is described as the Manor of Eye, situated between the Monastery of Westminster (to whom it belonged) and Chelsea. There is something said about it in Widmore; but, still, its precise situation seemed doubtful, until derivations became useful; thus the Manor of Eye had its Bury, next appeared Eye-bury—the present Ebury.

From Ellis's "Domesday," p. 42, "among the lands of Geoffrey de Mandeville, in Middlesex, in the Hundred of Ossulton, we find Eia entered in 'Domesday,' tom. i. fol. 129: our topographers have omitted to say where this property stood." From the "Chartulary of Westminster Abbey," however, we learn that close upon the time when "Domesday" was taken, Geoffrey de Mandeville gave this Manor of Eye, described as at no great distance from St. Peter's church, to the abbot and convent of that place.—See the "Chartulary of Westminster," Cotton Faust. A. III. fol. 281 b. King William the Conqueror's confirmation of the grant occurs in fol. 576. The same manor, with various other lands, was exchanged by the name of Eyebury with King Henry the Eighth, in the twenty-eighth year of his reign, for the Priory of Hurley, Berks, and some other possessions, by the abbot and convent.—See stat. 28 Henry VIII. cap. 29. It now belongs to the Marquis of Westminster, It is in the parish of St. George's, Hanover-square, although formerly in that of St. Martin-in-the-Fields. The lands taken from the convent were 100 acres, which Henry the Eighth formed into St. James's-park, opposite his palace, Whitehall, and the Convent-garden property, since of very increased value. The church of Westminster, as well as I recollect, is now only possessed of Hurley-wood. The Manor-house there, since erected, occupied the site of the Benedictine Monastery, founded in the reign of William the Conqueror by the fair Cecelina, "to which the monks of Westminster resorted as to their Tusculanum."

The Manor-house, since called Lady-place, had for some centuries been the residence of the Lovelace family, who have left donations to the poor. In the reign of James the Second, private meetings of the leading nobles of the kingdom were held in the subterraneous vault, formerly the burial cavern of the monastery, for calling in the Prince of Orange; and it is said that the principal papers which brought about the Revo-

lution of 1688 were signed there; and on that account William the Third and George the Third visited the vault, which was formed at the great Norman Revolution, and in this place, 600 years afterwards, the Revolution of 1688 was begun. On the last occasion, the house was in the possession of Lord Lovelace, by whom private meetings of the nobility were assembled in the vault. With the extinction of the family of Lovelace, the glory of Lady-place appears to have departed, and one tomb in the little church, although crumbling in decay, attests something of the former magnificence of the Lovelaces, lords of Hurley.

"Dust and ashes,
Mortality and vicissitude to all."

T. H.

PROVINCIAL NEWS.

Frating.—A school-room has just been built at the expense of the Rev. R. Duffield, the rector, in Frating parish, on the borders of the parish of Thorington, for the instruction of the children of both parishes. The school-room was opened on the 10th ult.

Godstone.—A new National and Infant School was opened here on Tuesday before last, with 200 children.

Tenbury.—The foundation-stone of a National School was laid here on Saturday before last.

Liverpool.—We are asked to say that the Liverpool Assurance Company mentioned in our last, as contemplating a new building, is "the Liverpool and London Insurance Company."

Manchester.—On Monday before last, the Town-hall was on fire. The fire was happily soon extinguished, and it was then ascertained how it originated. A zinc speaking-tube had been inserted into a flue, to communicate with the town-clerk's offices and that of the clerk of committees. This flue has in front of it a wooden casing, and the workmen when inserting the tube, according to the local *Courier*, had not replaced the bricks removed, thus allowing soot, which had accumulated in the flue, to fall down beside the wooden casing. About one o'clock on the Sunday morning, the chimney of the A division station, communicating with this flue, had been on fire, and some of the burning soot having got in among that in front of the casing, ignited it also, extending in a short time to the woodwork and flooring, and thence by a wooden pilaster to the roof.

Blackburn.—Mr. Chadwick, of Manchester, the contractor for the making of the roads in the public park here, has commenced operations with about thirty men.

Halifax.—Several engineers, together with the workmen in the employ of Mr. G. Thomson, railway contractor (now engaged upon the Halifax Station), lately resolved to erect a monument to the memory of Mr. W. Watts, jun. of Manchester, civil engineer, who was drowned while bathing near Wakefield, on the 20th of last July. The monument has been constructed at the Halifax Station during its erection. It is in the Gothic style. A moulded base has been prepared, 6 feet 5 inches long, by 2 feet wide, whereon the tablet is placed. On each side of the tablet stand clustered columns, with carved capitals, and rising from each capital is a moulded and carved canopy with crockets and finial. The spandrils are carved. The covering is in the Decorated English style of fourteenth century. The monument is carved from Ringby stone, and executed by Mr. George Shaw, of Halifax. It will be shortly removed to Newton Heath churchyard, where the remains of Mr. Watts are interred.

Darwen.—The foundation-stone of Sunday-schools, in connection with the lower chapel, Darwen, was laid on Saturday week.

Jarrow.—The amount of the accepted tender (that of Messrs. Jackson, Bean, and Gow, of London) for the execution of the entire of the Jarrow-dock works, is stated to have been 358,000*l.* There were fourteen tenders in all, two of which were below the above figures; but there is said to have been only a difference of 7,000*l.* out of seven of the tenders. The tender offered by Mr. Hutchinson, of Hartlepool, was 386,200*l.*; while that of Mr. Cail was 386,000*l.*; and Mr. Lawton, 380,000*l.* The ground, it is stated, is already staked out at Jarrow, as well as the branch railway for the trunk line near to Brockley Whins.

South Shields.—There was a proposal before the town-council of South Shields, some short time ago, to enclose the open area under the town-hall of that borough, by way of effecting a "public improvement." But plans of a new building altogether, to occupy the same (or rather an extended) area, and to accommodate, not only the town-council, but the post-office, custom-house, and other public establishments of the place, with also several tradesmen, were subsequently submitted, by Mr. Matthew Thompson, of Newcastle, architect, to the local authorities, with a statement showing that such a structure might prove a source of revenue to the corporation. The council very commendably paused in their patchwork enterprise; and we trust that so good a site as the centre of Shields market-place will be devoted to Mr. Thompson's Gothic edifice.—*Gateshead Observer.*

THE LAND OF THE '51 COMMISSIONERS.

WE are often asked as to the progress which is being made on the estate at Kensington, purchased for the "Industrial University," but have had little to say. Now, however, there appears to be again a movement on the land: the roads are advancing, and negociations with circumjacent owners and tenants are being revived. There is a little scandal current, but we must have something more than anonymous assertions. The road from Brompton Church and the "Bell and Horns," is to be opened westward, we are told, very soon. The wall, enclosing the ground of the Oratorians at a distance back from the present line, has been built some time. The opening should make a great improvement in that part of Brompton. The road thence for half a mile towards Hyde-park-corner, offers great facilities for improvement.

THE METROPOLITAN BUILDINGS BILL.

WE are still wholly in the dark as to the condition into which the proposed Buildings Bill has actually been brought by the Commons' committee. Comment is therefore out of the question. When the committee broke up last week, it was determined that the Bill, as altered, should be reprinted; but up to the moment before going to press, we were informed that this had not been done.

Since our last we have had an example of the want of uniformity in practice, and the injurious uncertainty which will result from leaving the enforcement of the Act with the police-magistrates. By the direction of the official referees, the district surveyor for South Islington summoned to the Clerkenwell Police Court the builder of a greenhouse (22 feet square, and erected close to the high road, to serve as a florist's shop), for having built the same without giving the notice required by the Act. The Act states that *every* building, "of what nature soever" (except the buildings comprised in a given schedule, and sewers), shall be built in conformity with the rules of the Act; and that notice shall be given "before *any* building shall be begun to be built:" and the referees decided immediately after the Act was passed,—

"That inasmuch as all buildings (except buildings comprised in Schedule B), are by section 5 of the said Act, brought within its operation, the greenhouse or building in question must be deemed to be within the provisions of the said Act.

That the exception in Schedule C, part 7, must be deemed to apply only to the mode of determining the rate of such greenhouses or buildings, and the thickness of the walls and any other matter dependent upon the rate of building.

That greenhouses, vineries, aviaries, or such like buildings are within the jurisdiction of the district surveyor. And further,

That such buildings are under the direction of the district surveyor, under Section 8 of the said Act."

But notwithstanding this, and that last week a magistrate at another court had re-affirmed that notice was unquestionably necessary, the sitting magistrate at Clerkenwell decided, after two hearings, that notice was *not* necessary. The exception in Schedule C, part 7, refers simply and specifically "as to the rates and walls:" it does not exempt "greenhouses, vineries, aviaries, or such-like *buildings*," from the requirements as to footings where walls are used, as to height of chimney, if a chimney be built, or as to the necessity of covering every roof "with slates, tiles, metal, glass, artificial stone, or cement;" and how can the surveyor see that these and other requirements are attended to, without which the public safety is endangered, if notice be not given to him?

The solicitor for the owner threw out the *gentlemanly* imputation that it was simply a question of *fee*, although the surveyor had sought to show his own feeling in the matter by relinquishing, at the commencement of the proceedings, any claim which he might have, in favour of the "poor-box."

One of the great difficulties the surveyor has to contend with in causing the rules and regulations of the Act to be properly observed, is from that class of small builders vibrating between workman and master, possessed of little or no means, but of considerable assurance; who undertake work often without notice, execute it improperly, and plead that it does not come under the Act, which, by the way, if able to decipher, they are unable or unwilling to understand: many of them are unable to affix their names to a notice. Surely as well for the sake of the public as of the surveyor, the owner and occupier should be made responsible as well as the builder. With those who set all law at defiance it is extremely difficult to deal.

ONE OF THE PUBLIC.

On Monday, the 11th of June, Mr. Hesketh will read a paper at the Royal Institute of British Architects, as to "What are the methods which it is most advisable to adopt in the Metropolitan Buildings Bill for regulating the thicknesses of walls." Builders, as well as architects and others interested in the subject, who have any opinions to express, should attend.

FOUNTAIN IN THE CRYSTAL PALACE, SYDENHAM.

ON Saturday, June 2, the date of our present number, when there will be a flower show in the gardens of the Crystal Palace, the fountains in the building, namely, the crystal fountain, one of Monti's, and probably the Lions fountain in the Alhambra, will play during the afternoon. The waterworks, out of door, which are to make their first appearance on Saturday, are the fountains of the six basins on the terrace-garden, the two small circular basins just below the terrace, and the large round basin in the centre walk. These nine basins are called the *upper range*, to distinguish them from the great cascades and the immense double series of circular jets with centre spires 250 feet high, which lie lower down in the grounds, and which will not be ready till some time in July.

The *upper range* is played from the large lake at the Sydenham end of the building: its high jets are played from two square tanks just erected on the edge of the lake. The two high towers are for the high jets of the lower fountains.

We have engraved a view of the fountain in the nave designed by Mr. Monti. If we understand the intention rightly, the figures supporting the large shells typify by their colour four races of men,—white, the Caucasian; black, the Nubian; red, the North American Indian; and olive, the Australian. The smaller figures above these bear various appropriate fruits.

While we write the rain is coming down in the quiet, steady manner which indicates a firm determination to persevere. If, however, by Saturday the sun should gain the mastery, and it is much to be hoped he may, the scene at the Crystal Palace will be a fine one.

The fountains will all play on Monday between the parts of a concert, at which Alboni is to make her first appearance.

SEWERS (DRAINAGE) BILL.—On the motion of the Earl of Shaftesbury in the House of Lords, this Bill was last week read a second time. The standing orders having then been suspended, the Bill was passed through all its remaining stages.

FOUNTAIN IN THE NAVE OF THE CRYSTAL PALACE.

ARCHITECTS' CHARGES AND BRIDGEWATER CHURCH.

Mr. Editor,—In your brief paragraph upon this matter, there seems something so contrary to the practice of the profession, that it is necessary, for the justification of the members, that further particulars should be given in order to show the grounds upon which the charge of 570*l.* 7s. 4d. on an outlay of 3,946*l.* or nearly 15 per cent. could arise. It may be presumed, that a certain per-centage may have been fairly chargeable upon old materials; but the profession have yet to learn how it can be reconcileable for an architect to act in more than one capacity. If as an architect, it is inconsistent to be paid as clerk of the works. If as clerk of the works, he has no title to remuneration as an architect. I do not know even the name of the individual; consequently, in requesting further explanation, I am only influenced by the desire of vindicating the profession; to protect it from impropriety of practice if such exist; or to justify a charge however large, if fairly earned by legitimate professional services. Will you be pleased to procure the other special circumstances, for the matter must be cleared up.

Thomas L. Donaldson.

*** Thus called on, we give the heads of the account as we find them in the columns of the *Bridgewater Times*:—

"Architect's Account.

	£.	s.	d.
To furnishing all necessary designs working drawings and specifications, with professional supervision rendered, in carrying into effect the several works enumerated in statement of expenditure, amount being 3,946*l.* 3s. at a commission of 7½ per cent.	295	19	2
To furnishing a report of the state of dilapidation of the church, with rough estimate of repairs	2	2	0
To surveying and reporting to you the condition of tower	2	2	0
To furnishing a detail drawing and estimate of repairs of roof over chancel and chapel, amount of estimate 282*l.*	7	14	0
To furnishing a large revised plan of the church, for the Incorporated Society	5	5	0
To furnishing a detail coloured design for staining glass window	2	4	0
To furnishing designs for organ case and chancel screens	3	3	0
To travelling and incidental expenses incurred during the progress of these works	7	2	0
	325	11	2

Surveyor's Account.

To taking out quantities of work in the new chancel roof for the use of contractor's estimate, being 188*l.* 6s. 6d.	3	15	4
To estimating the value of works proposed, and measuring up and valuing works performed, as shown by accompanying statement, amount being 1,234*l.* 12s. 8d.	24	13	10
	28	9	2

Clerk of Works' Account.

To personal supervision of works from June, 1849, to April 25th, 1850	33	13	0
To personal supervision of works from April 25th, 1850, to December 25th, 1851, at 2 guineas per week	182	14	0
	216	7	0"

Total ... 570*l.* 7s. 4d.

The architect states, in a published letter, that there was a special arrangement for the payment of 7½ per cent. commission, and that his "personal superintendence saved the parish, in the re-use of old materials, at least twice the amount of his [my] full claims."

The O'Connell Monument.—Mr. Patrick Costelloe, one of the committee, has addressed a letter to the *Dublin Evening Post*, in which he states that there are 69 feet of the O'Connell monument already erected, and that the work "is progressing with as little delay as its vast extent and altitude will admit." The directors of the Glasnevin Cemetery have devoted a quarter of an acre of their most elevated ground for the monument and ornamented garden. When completed, the tower will be 30 feet higher than Nelson's pillar, in Sackville-street, Dublin.

BURIAL BOARDS.

The *furor* for obtaining cheap cemetery chapels and economic boundaries, and plantations of a growth exceeding all vegetative power, and drains of less value than the converted clay composing them, seems to rage with undiminished strength. We read of a chapel, lodge (containing several rooms), also entrance-piers, at Luton, that have been actually built for 450*l.*! and architects must have found, by painful experience, how often their designs for chapels—perfect marvels of economic construction—are thrown by, by the clerk to the Burial Board, proud man!—

> "Drest in a little brief authority;
> Most ignorant of what he's most assured;"

with, "Oh! your chapels are far too expensive for us!" How sad it is to see a cathedral city offering, for designs for its cemetery, a set of paltry premiums, and putting forth a farrago of threatening would-be-tyrannical conditions, to the medley of "Landscape Gardeners, Surveyors, and Others," who are to scramble for the next-to-nominal rewards, which, it may be observed, cannot be adjudged to merit so much as to a power which sharp practitioners possess of making their perspectives show more *materia architectonica* than the plans really afford. The "wolfish, ——, starved, and ravenous" desires of these managers of burial-grounds (for such they do appear), are justified in their exercise by the complaint. The parish cannot and will not grant us more. Why not then individuals? How many hundreds are yearly spent in inserting splendid memorial windows in churches too modest to merit them! Why cannot the Burial Acts secure a respectable fund—a loan—gradually to be liquidated by a tax upon the more costly interments? How ridiculous it is to see, as one may now-a-days, a chapel of starved, pigmy proportions, reared at a contract price of 250*l.* and close beside it a vulgar, vain-glorious tomb, dazzling with white paint and red letters, and iron-work, which has cost half as much as the chapel.

Spectator.

CHURCH BUILDING NEWS.

Ringwood.—The new church here was consecrated on Tuesday before last. A partial rebuilding of the old edifice was originally contemplated, but the progress of the works disclosed so much constructive weakness, that one part after another had to be taken down, and at last the failure of the tower necessitated the reconstruction of the whole. The estimate, which was originally 3,789*l.* was thus increased to 5,659*l.* No part, therefore, of the old church remains, but the new edifice, though enlarged in width, represents the original church. Care, it appears, has been taken by the architects, Messrs. Francis, of London, to re-produce the ancient details. The church consists of nave, north and south aisles, transepts, tower at the intersection of the cross, and chancel. The style is Early Pointed, of the thirteenth century. The necessities of the parish have led to the erection of galleries, which mar the effect of the interior. The seats are all low, and for the most part without doors. The chancel has been rebuilt by the patrons of the living, King's College, Cambridge. The contractors for the work were Messrs. Cottman, of Poole. The consecration day was kept as a holiday, and ushered in by the ringing of bells, and the somewhat incongruous firing of cannon. The contractors, churchwardens, &c. dined together at the White Hart, and the workmen were not forgotten by the contractors, who "dined" them at the New Inn on the auspicious occasion.

Shrewsbury.—St. Michael's Church is at present undergoing a considerable enlargement, from plans by Mr. S. P. Smith, the carrying out of which has been entrusted to Mr. Dodson, of this town, builder.

Cwmavon.—The foundation-stone of a church, dedicated to "All Saints," was laid on 15th ult. at Ty Maen, near the Cwmavon Works, and at the instance of the Governor and Company of Copper Miners in England, and for behoof of the workmen employed at the Cwmavon Works, of which they are the proprietors. The style of the building is Early English, and, when completed, it will contain nearly 700 people. It will consist of a nave, two side aisles, two porches, chancel, organ chapel, vestry, and tower and spire 160 feet high, the whole of which will cost, probably, little less than 4,000*l.* The church is intended to be built out of funds provided, with a few exceptions, by the voluntary contributions of the individual shareholders in the corporation.

Weaverham.—The parish church of Weaverham, Cheshire, which has been undergoing extensive restoration for the last ten months, under the direction of Mr. Salvin, has been re-opened for divine service.

Wolverhampton.—The churchwardens of St. John's Church are appealing to the inhabitants for subscriptions to put the interior and exterior in repair, for which purpose upwards of 2,000*l.* are required. More than 300*l.* are announced as already subscribed by nine subscribers.

COMPETITIONS.

The Oxford Museums.—Premiums have just now been awarded to three of the designs submitted, irrespective of the design selected for execution. The Delegacy submitted six designs out of the whole number to Messrs. Hardwick and Son, with the sole question, can they be executed for 30,000*l.*? The answer was, decidedly not: none of them can be executed for that sum. Thereupon the Delegacy decided that the prizes could not be given. Now, however, the successful design has been contracted for at 29,000*l.* and one of the other designs has also been tendered for at 30,000*l.* Under these circumstances, the Delegacy determined that, as the report had been disproved, they must proceed to award the prizes as originally intended, and they have been given as follow:—

Fiat justitia ruat cœlum	£100
A. Z.	50
Compasses	50

The first-named is the design of Mr. Edward M. Barry, the last of Mr. John Thomas, the sculptor at the Houses of Parliament.

Grimsby.—We are informed that Messrs. Bellamy and Hardy, architects, have obtained the premium of 25*l.* for their designs for a corn exchange and covered market, to be erected at Grimsby. Their estimate of the cost is 3,500*l.*

Braintree.—The Braintree Burial Board having offered a premium for designs, &c. for laying out, planting, &c. their new cemetery, and for building two chapels and a lodge, met on the 29th ult. and examined the plans which they had received from twenty-two different parties. They ultimately awarded the premium of twenty guineas for the plans marked "Spere," and the author was found to be Mr. J. Johnson, of Bury St. Edmund's. The Board also awarded a second premium, of five guineas, for the plans marked "Excelsior," they being, in the opinion of the Board, plans which deserved some mark of their approbation. They also expressed a high opinion of the plans marked "Q. E. D."

ARCHITECTURAL SOCIETY OF ARCHDEACONRY OF NORTHAMPTON.

The public spring meeting of this society, in conjunction with the Architectural Societies of the diocese of Lincoln and the University of Cambridge, and the Architectural and Archæological Society of the county of Leicester, was held at Peterborough on Wednesday before last. There were a large number of visitors from the neighbourhood. The room (attached to the recently-erected Wentworth Hotel) in which the meeting was held was adorned as usual with various specimens of art.

It was announced that the chair would be taken by the Marquis of Huntly, but the Marquis was unable to attend, and the Ven. Archdeacon Davys was called to the chair.

The Archdeacon, in his opening address, said he had reason to feel very grateful to the society for the improvements that had been effected through its means in the Churches of Northamptonshire.

A paper on Peterborough Cathedral was read by the Rev. G. A. Pool, who entered fully into the history of the cathedral, from its erection in 1118, and noticed the various architectural improvements by William de Waterville and others. He also combatted opinions entertained by Dr. Paley and others, as to the date of subsequent additions, and intimated that in the afternoon he should illustrate his paper within the cathedral.

The Rev. O. W. Davys then read a paper on the west fronts of English churches, with especial reference to that at Peterborough, in course of which he made the following remarks on its west porch:—

"It must ever be a cause of regret that what would elsewhere have been regarded as one of the most beautiful third pointed porches existing, should now be looked upon as an unworthy intruder when found placed within the centre arch of the façade. Nevertheless it will be evident, upon further examination, that this porch is a very valuable piece of architectural mechanism, and that it stands where it does

simply to form a buttress for the preservation of the whole structure, which early began to show signs of weakness, and to cause fear as to its approaching decay. The piers supporting the great arches, unable to bear the superincumbent weight of the gables and the outward thrust of the vaulting beneath, were beginning to lean outwards; and therefore, to prevent the fatal consequences which might arise if they were not kept from a further settlement, the library porch was constructed, and not without reflecting the greatest mechanical credit on its designer. Therefore we must not quarrel with this perpendicular innovation, as we are indebted to it, in all probability, for the preservation of the earlier portions of the front which are so much admired. We must not dwell longer on the consideration of the merits of the west front of Peterborough," added the reader, "but simply conclude what we have said with the remark, that if ever a perfect entrance to a church could be conceived, the design seems to be found here."

The Rev. T. James afterwards called attention to the drawings, rubbings, &c., with which the room was decorated. He pointed out a collection of photographs, brought by Rev. F. A. Marshall, to illustrate a paper which he had promised.

Several objects of archæological interest were also exhibited.

An evening meeting was held at the Wentworth Assembly Rooms, after about 70 gentlemen of the party had dined at the Angel Hotel. At the evening meeting, Archdeacon Churton read a paper on Croyland Abbey, and Sir Henry Dryden created considerable amusement on being called upon by the Chairman to read a paper, by announcing his intention to recount the chief architectural mistakes of his life,—an amusement to which all of us might well contribute at architectural meetings, for all have made mistakes who have had any architectural experience. A brief but interesting discussion followed Sir Henry's unreserved communication of what he conceived to be his various architectural blunders.

The following day was pleasantly occupied by a party of gentlemen in an excursion to Thorney and Croyland Abbeys, Northborough, Peakirk, &c., and the proceedings terminated with a second evening meeting at the Wentworth Rooms, at which papers were read by Mr. Bloxam, Rev. F. A. Marshall, &c. to an attentive audience.

THE GRAND TRUNK RAILWAY OF CANADA.

REPORTS to the London Board of Directors of the Grand Trunk Railway Company of Canada, by Sir Cusack Roney, Mr. A. M. Ross, and Mr. S. P. Bidder, have been issued in a printed form. These reports show the present state of progress of the various connected sections of this important line of railway, which is to traverse the colony westwards from Trois Pistoles at the mouth of the St. Lawrence, *viâ* the river itself and its towns Quebec, Montreal, Toronto, &c. to Port Sarnia at Lake Huron, while another section runs to the Atlantic at Portland, through the United States, from Montreal by one fork, and from Quebec by another; this section lying nearly at right angles with the other. Portions of the line were already imperfectly formed in 1853, when the system was amalgamated into the Grand Trunk; and now rapid progress is being made in different parts of the line, and especially between Montreal and Toronto on the one hand, and Montreal and St. Thomas, to seaward of Quebec, on the other: indeed, the Atlantic line from Quebec to the junction of the fork at Richmond, and thence to Montreal, is already open, though not fully completed, and the remainder of the Atlantic line to Portland has been open since 1853. In the autumn of the present year a continuous line also will be opened in the main trunk, from St. Thomas and Quebec to Brockville, between Montreal and Toronto, a length of 325 miles, making, with the other sections now available, a total mileage of 643 out of the 1,100 miles composing the whole line. The country through which the Atlantic section runs, though forming part of the United States Atlantic sea-board, was an uninhabited and even unexplored forest in 1853. In the heart of this country there are now 3,000 active contributors to the railway traffic, and large clearances have been made. Twenty-eight sawmills have been erected, and others are in progress. Those now at work saw 500,000 feet a day, and it will take at least seventy years to exhaust this primary traffic, and then cleared lands will succeed with traffic equally profitable. All the other lines which approach the grand trunk, whether in Canada or from the States, come towards it at right angles, so as to form feeders, and not competing lines; and there is a large mileage of such lines already at work. In fact, this trunk line has taken possession, as it were, of the Canadas, and forms or will form the great route through which all its riches will be carried, in connection with the whole system of Canadian railways; and, as Mr. Stephenson says, in one of his reports, "the great object of the Canadian system of railways is to bring their rich provinces into direct and easy connection with all the ports of the east coast of the Atlantic, consequently to bring them nearer to Europe."—and nearer to *home*, he might have added. Of the nature and extent of these riches an excellent abstract is given by Sir Cusack Roney, in his report, an abstract drawn much more from personal investigation in the various districts referred to, than from mere previous report. Sir Cusack is a most useful public servant. His peculiar forte appears to be the organization of great works. To him the English and Irish public were indebted for the organization of the Irish and connected British lines into a system by means of which tourists have greatly profited. He it was who may be said to have organized the Great Irish Exhibition; and now we find him engaged in what we may really call the commercial, agricultural, and manufacturing organization of the Canadas, by means of railway connection. There is a bright future in immediate prospect for Canada. Its resources will be suddenly opened up and immensely magnified, so soon as its railway system is developed. As it is, it is perhaps not generally known that immigration into the Canadas last year was greater than the whole of that into the United States,—a sort of cosmopolitan ballot in favour of limited monarchy and against republicanism. The reports on which our present remarks are based contain a great deal of interesting and valuable information as to the Canadas.

THE BUILDERS' BENEVOLENT INSTITUTION.

ON Thursday, 31st ult. a special general meeting of the friends and supporters of this valuable institution, founded in 1847, for allowing pensions to decayed master-builders, including all engaged in that business, and their widows, as well as to give temporary relief to deserving workmen in cases of accident, was held at the London Tavern, for the election of four pensioners; the president, W. Lee, Esq. M.P. in the chair.

The Chairman, in opening the proceedings, congratulated the meeting upon the state of the institution, and remarked that, notwithstanding the war and its depressing tendencies, this charity had continued its onward progress towards success. The funded stock now amounted to 4,750*l.*; divided as follows: relief fund, 3,250*l.*; and the building fund, 1,500*l.* To show the necessity of such an institution as this, he need only state that there were at the present time fourteen males and eleven females receiving its benefits, and that they had met there that day for the purpose of electing two males and two females, from a list of fourteen candidates, all of them, he had no doubt, very distressing cases, but who from the want of necessary funds, could not then be taken in. When they considered with what aching hearts those who were unsuccessful would depart, he trusted that all connected with the building trade would be induced to come forward, and by placing sufficient means at the disposal of the directors, enable them to admit all that might apply. In conclusion, the chairman called upon the friends of the institution never to cease their exertions on behalf of this society,—a society which he trusted ere long to see take its stand in the foremost rank with those noble charities of which England and Englishmen were justly proud.

The meeting then proceeded to the election, after which votes of thanks were passed to Mr. Lee, to Mr. George Bird, the treasurer, who afterwards took the chair, and to the scrutineers.

ELECTRICITY AND CHEMISTRY AT THE PANOPTICON.

WE witnessed some experiments with the great machine at the Panopticon the other day. It is a noble instrument. The charge is excited by steam power, and a lightning flash, *six or seven feet long*, is sent through an exhausted glass tube, and otherwise displays its peculiarities and its powers in various interesting vagaries, such as annihilating long lengths of wire, or dispersing them in smoke; lighting up a series of eminent names, such as those of Franklin and Faraday, in large illuminated letters, through points along which the flash is passed, &c. Some interesting galvanic or electro-chemical experiments have lately been made at the Panopticon. On Wednesday evening in last week, in the course of a lecture on the application of chemistry to science, Mr. G. F. Ansell made an experiment of singular interest, though not the first of the kind. After referring to hydrogen as the perfect type of the metals, and to compound bodies behaving like metals, he proceeded to pass a powerful galvanic current through a solution of ammonia over mercury, one pole of the battery being beneath the surface of the mercury, which swelled up rapidly, its physical appearance changing completely by the formation of an amalgam, it is believed, with the compound body termed ammonium. The nature of this compound the lecturer further illustrated by the formation of the amalgam of potassium, by means of the process first discovered by Sir H. Davy, and pointed out the analogy between these two amalgams; thence arguing the existence of a compound consisting of four equivalents of hydrogen, and one equivalent of nitrogen, comporting itself like a simple metal, and so forming an amalgam with mercury. Numerous as the gaslights are of an evening in the Panopticon, by the way, they do not seem to fill the expanse of the interior well, so that many attractive objects are almost lost sight of in the haze. Could not the managers get up some grand exhibition of electric light in the ceiling or cupola by means of which to do justice to their evening display?

OPENING OF THE GREAT YARMOUTH WATERWORKS.

ON Thursday in last week, the ceremony of opening the Great Yarmouth Waterworks took place, in the presence of a large assembly, in the Market-place. The scheme originated with the present chief magistrate, Mr. C. J. Palmer. The works were designed by Mr. J. G. Lynde, C.E. of Westminster, and have been carried out under his superintendence. They consist of, first, works at Ormesby, viz. two filter beds, with steam-engines, tanks, wells, conduit pipes, and other apparatus for raising the water from the broad, filtering, and lifting it to the high-service reservoir for distribution; secondly, a high-service reservoir and stand pipe at Caister, with tanks, pipes, sluices, and apparatus for supplying and regulating the supply to the town, and for draining and cleansing the reservoir; and lastly, the main and service pipes, with hydrants, &c. The main is of cast-iron, 12 inches in diameter, and about 4½ miles long to the high-service reservoir at Caister, which will hold 600,000 gallons. This reservoir is about 50 feet above the Market-place, so that a constant supply of pure water is always at hand, and ready to flow to the highest houses in Yarmouth. The cast-iron main, from the reservoir to the town is 2½ miles long, and 12 inches in diameter. About 13 miles of mains and service pipes, varying from 12 inches to 3 inches in diameter, have been laid in the town. The works provide about 100 gallons of water per house, or 20 gallons per individual, per day. The filter beds at Ormesby are each capable of filtering 1,152,000 gallons in twenty-four hours. The engines can raise from the broad, into the high reservoir at Caister, 800 gallons in a minute. The works have been constructed by Messrs. Lucas (Brothers), of Lowestoft, the contractors, and the machinery and pipes by Messrs. Cochrane and Co. of Dudley.

THE OLD TOWN-HALL AT LEOMINSTER.

AN enthusiastic and excellent lady urges us to induce the inhabitants of Leominster to keep their old Town-hall for themselves. "What!" writes our fair correspondent, in the most vigorous and elegant of "hands,"—"What! Is the town so overcrowded that no other plot of ground can be found on which to erect 'a more commodious and spacious hall,' than that occupied by Mr. John Abel's picturesque half-timber building? Is it to be lost to the town for 95*l.*?—322 years' associations all knocked down by the auctioneer's hammer! A great shame is coming upon Leominster." We are glad to be able to calm the virtuous indignation with which our correspondent heaves. Mr. Arkwright, who purchased the old Town-hall at Leominster, intending to re-erect it near his own seat at Hampton-court, has generously presented the ancient structure to the inhabitants of Leominster, on condition of its being appropriated to some purpose of general utility, such as a public reading-room or museum. A public meeting has been held, and a subscription opened, for the purpose of carrying out the proposal. There is still virtue in the land.

GOVERNMENTAL BLUNDERS.—For the last three months the daily and weekly metropolitan papers have been crying out against the abortions, in the shape of monster egg-boxes, being put up at Aldershott, for the use of the army. From the descriptions we have read in the *Builder*, and from views which have been published, we feel confident any Fell or Fylde country wheelwright's apprentice could erect equal if not superior to those put up at Aldershott. The waste of public money at Aldershott is most disgraceful to Government, but it is only a part and parcel of what is going on in every department. Last week's *Builder* confirms the previous statements which that journal had published.—*Preston Guardian*.

Notices of Books.

The Theory and Practice of Horticulture. Second Edition, much enlarged. By John Lindley, F.R.S. &c. Longman and Co. London. 1855.

If we ever realise a grand development of horticulture and agriculture, as branches of manufacture, such as was the development of our cotton and other manufactures from the distaff and the spinning-wheel in the humble cottage, into the steam-urged loom and spinning Jenny in the extensive factory, it must be by the aid of such enlightened minds as shall show the way to convert the empirical complication of mere practical experience, with its often no less narrow and mistaken than peremptory and obstinate code of precepts, into enlarged and intelligent views of the physiology or the general laws of the vegetable creation, and its terrestrial and atmospheric correlations. And to this end, so far as regards one branch at least of vegetable manufacture, there is no more hopeful aid, we believe, as yet in existence, than Lindley's "Theory and Practice of Horticulture." The first edition of this valuable work was issued in 1840, since which time it has had an extensive circulation, and has been translated into the German, Dutch, and even Russian languages. Being more particularly restricted to principles, however, the author at length resolved to render the work more generally interesting and useful, by a more extensive illustration from examples and a more frequent reference to practical operations: he has thus greatly extended the matter, by supporting the physiological doctrines with an appeal to facts familiar to cultivators, or which ought to be; and the result is a still more interesting and popular compendium of the principles and practice, or the science and art, of horticulture than before. The new work is dedicated "To the Right Hon. T. F. Kennedy, lately one of her Majesty's Commissioners of Woods, Forests, and Land Revenues, who endeavoured to reform a public department in which unskilful management has been most disastrous," and "as a mark of respect for high official character and ill requited public service." The interest we have ourselves taken in the reform of the Forest department of the administration, induces us thus to quote Dr. Lindley's dedication; and if Mr. Kennedy was a reformer of such abuses as those the *Builder* has done more than any other publication to expose, it is right the public should know the reason why he was not regarded, *ab intra*, as the right man in the right place.

Dr. Lindley, in the discussion of his subject, adopts a very natural and simple order of sequence, his whole book being divided into disquisitions on,—1. Vital Force; 2. Germination; 3. Growth of the Root; 4. Growth of the Stem; 5. Action of the Leaves; 6. Action of the Flowers; and 7. Maturation of the Fruit. By these means the life of a plant is traced through all its principal changes, and opportunities afforded for the introduction of all correlative information useful or interesting to the cultivator.

Under the head of Growth by the Root, the author, we observe, gives some interesting details as to the mode in which roots may insinuate themselves into drains, and even pipes, so as to choke them up. That roots will do so is very well known, but perhaps few are aware of the extent of the power or capabilities of roots, or the pertinacity and subtlety with which they will insinuate themselves through even the slightest cracks in a pipe drain, accommodating their form and size to the dimensions, the peculiarities, and the windings, of the crack until their *object*, we may almost say, be effected, namely, that of reaching the moisture and the nutriment within. In this respect a root seems to display all the eagerness and the subtlety of a rat, with far more than its pliability and adaptability of form. The matter which really insinuates itself, is not solid, but, in fact, fluid, as it issues from the root point, attracted as it positively appears to be (by diamagnetic agency?) towards the moisture of which it is in search. The fluid matter thus enters and spreads in the crack, however thin, so that a thick root will at once assume a thin and flattened form like that of even paper; and so soon as it finds its way fairly into the interior of the tube, it thickens at once again, and then divides and subdivides with the most astonishing multiplicity till a mass of fibres accumulate, all dependant on the one thin papery fibre, that will completely choke up the pipe, however wide almost it may be. From a knowledge of these facts, we may judge of the care requisite in securing the perfect integrity of drains and pipes wherever there is any possibility of roots reaching them, as from the front plots of streets. A tree or shrub will send a shoot off for many yards in length towards a hopeful source of moisture and nutriment if it be much in need of it, and even such trifling little plants as the mignonnette, growing accidentally in a crack of an old pavement, has been known to send shoots down into a wine-cellar 5 or 6 feet below in search of moisture: whether it mistook the contents of the wine casks for the real "mountain dew," or had a special liking for the article itself, we shall not pretend to decide.

The amateur horticulturist, no less than the practical gardener, will find much curious and interesting information in Dr. Lindley's volume. Even the love-lorn damsel may here learn the way to perpetuate the single fragile leaf which may happen to accompany some prized though fleeting flower, presented her by one whom she still more prizes; for often a single leaf can be made to strike root, and send forth buds and shoots, and so become itself a plant or tree. Horticulture is indeed a most interesting and curious pursuit, and many wonderful metamorphoses might be effected that few think of as yet. Thus, flowers such as the hollyhock, might by degrees be dwarfed till they became as tiny and as delicate as the Forget-me-not; while on the other hand, a useful article, such as the pea, might be magnified by successive culture and repeated restriction to, and selection of, the largest produce, till it became a perfect giant by comparison. The Japanese are known to be able to dwarf even trees into plants (of full growth) an inch or two in height; and probably the only secret here, as in the case of the hollyhock, which we have ourselves dwarfed to a certain small extent, is to check the growth successively by transplanting, fructifying, replanting the diminished seed, and again checking the growth by transplanting or by setting slips which may yield still smaller flowers and seed. On the other hand, the large and luscious apple has doubtless been got from the small wild "crab" by some such process as that of the enlargement of the pea, combined with grafting; and so in many other instances ameliorations have been and may yet be effected to a wonderful extent, as indeed is now being done in this very way in the case of wheat and other corns. Gardeners can rear a salad in a single night. A French horticulturist recently discovered a way of forcing flower-buds into full bloom in course of a few minutes. In short, we anticipate *almost* as great things from the future study of horticulture as the Indian magician *appears* to effect in planting a mango-seed in presence of a surrounding multitude, and causing it to spring up into a plant, yielding its flower and fruit before their eyes, and in course of a few short hours of a single day. But this is looking *rather* far perhaps into the future. Meantime, with more moderate and realizable expectations, much *may* be done, by the study of such books as this of Dr. Lindley's, towards the attainment of that German paradise, for example, where the children amuse themselves by sowing flower-seeds, and reaping the flowers, all in the noon hours of a single sunny day.

Miscellanea.

Model Dwelling-Houses at Hampstead.—It is proposed to erect three model dwelling-houses at Hampstead, for the accommodation of thirty families, from the designs of Mr. Charles Lee, architect; each family to have three rooms, with scullery, water-closet, and coal cellar. The following tenders have been delivered:—

Locke and Nesham	£5,475
Myers	5,460
Styche and Grey	5,220
Hopkins and Roberts	5,080
Patrick and Son	5,050
Clowser	4,930

The works will be commenced immediately.

Fall of Arches, South Lambeth Waterworks.—On Wednesday, 30th ult. an accident took place at the reservoirs of the South Lambeth Waterworks, adjoining the old House of Correction on Brixton-hill, by which, unhappily, four unfortunate men lost their lives. It appears that within the last few days one of the reservoirs had been covered in by a series of brick arches, the surface or crown of the arches being covered with a layer of clay two feet thick. It is stated that a number of the centres, on which the arches had been turned, had been removed, and no appearance of danger was observable. The men were employed removing others, when several of the arches gave way, and fell to the bottom of the reservoir with a loud crash, burying beneath them the unfortunate men who were at work below, the labourers who were engaged on the top falling with the mass. Messrs. Locke and Nesham are the contractors.

The Whittington Club.—On Monday in last week a public meeting was held at the Freemasons' Tavern, Great Queen-street, to concert measures for restoring the building of the unfortunate Whittington Club. Mr. Mechi (in the chair) stated that the expense of rebuilding the club-house was estimated at 12,400*l.*; but the committee had resolved upon raising, if possible, 13,000*l.* to cover extra expenditure, and pay rent whilst rebuilding. The Duke of Norfolk had come forward with 10,000*l.* and it was for the club to raise the additional 3,000*l.* Already 950 shares of 1*l.* each had been subscribed for by 157 members; and as there were, when the club was burnt down, 1,000 members on the roll, there should be no difficulty in raising the remainder. Resolutions were agreed to, recognising the necessity of such a club for the middle classes, and approving of the plan proposed for raising 3,000*l.* for rebuilding and decorating the premises.

Dwellings of the Labouring Classes in Ireland.—In the House of Commons last week, Sir W. Somerville obtained leave to introduce a Bill to encourage the providing of improved dwellings for the labouring classes in Ireland.

Holyhead New Harbour.—The large harbour of refuge constructing by Government at Holyhead, from plans by Mr. J. M. Rendel, is making great progress. The northern (or great) breakwater is at present 5,000 feet in length, and is to be extended 2,000 feet farther in a north-east direction, by which it will give shelter to upwards of 500 additional acres of Holyhead-bay. The works are carried on with great activity, there being employed at present about 1,200 men, eight locomotives, four stationary engines, upwards of sixty travelling-cranes (some of them with steam power), and forty horses. In the quarries, upwards of five or six tons of powder are sometimes ignited at once, for blasting, and often from 40,000 to 50,000 tons of stone are obtained at a single explosion. Holyhead mountain is the quarry; and, literally, this mountain is being cast into the sea. At the timber-stageing there are fifty to sixty carpenters suspended 40 feet above the level of the sea, employed in throwing out new lengths of timber-stageing, consisting of five roads, over which the stone is tipped into the breakwater, averaging 4,500 to 5,000 tons of stone daily, or upwards of 1,000,000 annually. The works are superintended by Mr. G. C. Dobson, the resident engineer (formerly one of the superintendents of the breakwater at Plymouth), and are carried out by the Messrs. J. and C. Rigby, of Westminster.

Value of Ground-rents.—A large number of freehold ground-rents at Prince's-gate, Hyde-park, were sold by Messrs. Foster and Son, on the 21st of May. The prices fetched varied very singularly. We give some of the items. The existing leases have about ninety years to run:—

	Ground-rent.	Sold for.
The Ennismore Arms ...	£2 0 0	£150 0 0
No. 1, Princes-terrace...	5 0 0	285 0 0
„ 2, Ditto	18 0 0	545 0 0
„ 3, Ditto	3 0 0	120 0 0
„ 4, Ditto	3 0 0	120 0 0
„ 5, Ditto	2 0 0	135 0 0
„ 6, Ditto	2 0 0	125 0 0
„ 8, Ditto	2 0 0	245 0 0
„ 9, Ditto	2 0 0	105 0 0
„ 16, Ditto	3 0 0	210 0 0
„ 17, Ditto	3 0 0	120 0 0
„ 18, Ditto	26 0 0	780 0 0
„ 1, Ennismore-place	5 0 0	285 0 0
„ 2, Ditto	5 0 0	185 0 0
„ 4, Ditto	5 0 0	285 0 0
„ 2, Prince's-gate ...	60 0 0	1,800 0 0
„ 3, Ditto	42 0 0	1,260 0 0
„ 4, Ditto	6 0 0	230 0 0
„ 5, Ditto	75 0 0	2,250 0 0
„ 9, Ditto	52 0 0	1,560 0 0
„ 16, Ditto	105 0 0	3,200 0 0
„ 19, Ditto .....Peppercorn.....		250 0 0
„ 23, Ditto	10 0 0	410 0 0

THE HOSPITAL OF ST. CROSS FOR CRIPPLED SOLDIERS AND SAILORS.—A printed address has been issued to the trustees and subscribers to the Patriotic Fund and the public in general by Mr. H. Holloway, churchwarden of the parish and parish church of St. Faith with the parish of the Holy Cross, at Winchester, called, in which he suggests that the now celebrated Hospital of St. Cross, lately wrenched, as it were, out of the clutches of the reverend earl who had therefore appropriated its splendid revenues, should be converted into a permanent asylum for 400 crippled and disabled soldiers and sailors of our army and navy. This, Mr. Holloway remarks, might be done without encroachment on the original purposes of the charity, or rather in fulfilment of its ultimate objects, after providing for the comparatively few "poor impotent men" for whose behoof it was originally intended. The Hospital of St. Cross was founded by Henry de Blois, Bishop of Winchester, and brother to King Stephen, in 1133, within the walls of Winchester, and founded anew without the walls, in 1157, as a curative hospital, for "a prior and thirteen poor impotent men." A subsequent foundation, by Cardinal Beaufort, in the time of Henry VI. provided for thirty-five decayed gentlemen, two chaplains, and three nurses. The means of the hospital are said to have increased from 250*l.* a year to no less than 22,000*l.* Besides the current revenues, moreover, there is a sum of 90,000*l.* which the Master of the Rolls, in recent proceedings against the Rev. Earl of Guilford, declared his "inability to compel his lordship to refund," on account, however, of a mere informality, which her Majesty has been petitioned to direct the Attorney-General to obviate or amend. It is farther suggested, that Prince Albert, as the soldiers' friend, should nominate the inmates.

ARCHÆOLOGICAL.—During the past week, at the parish church of Culford, near Bury, the workmen, in removing one of the monuments from against the east wall of the chancel, exposed to view a curious relic of church decoration of an early period. It would appear from this discovery that the chancel was part of a Norman church, and had been lighted not only by the great east window, as it is commonly termed, but by two small loop lights, one on either side of it, deeply splaying in the interior. The recesses or niches thus formed, and now re-opened, had been decorated by paintings on the plaster and stone work, representing in roundels or medals various incidents from the legendary history of the Romish Church.

BARRACKS.—Mr. G A. Burn, architect, has submitted a plan for barracks, something on the principle of the "model prisons," having a central area, open to the top, and galleries, one above the other, at each side. The projector sets forth that good ventilation is thus obtained, the amount of internal walling greatly reduced, and that the division of the area into three moderate spans allows of roofs and floors of a light and simple construction, the result of which is a saving in cost.

WORKMEN'S PASSPORTS TO THE PARIS INDUSTRIAL EXHIBITION.—The Earl of Clarendon having received an assurance from the French Government that all British workmen desirous of visiting the Exhibition, and furnished with Foreign-office passports, shall be allowed to land in France and proceed to Paris without any hindrance whatever; our own Government have decided upon granting such passports without payment of the usual stamp duty and fee.

OPENING OF A NEW COAL DISTRICT FOR BIRMINGHAM.—The Birmingham Canal Company propose to construct a large tunnel under the Rowley Hills, to connect the South Staffordshire mining district with East Worcestershire, thus bringing into the network of canals converging in Birmingham a coal-field, with which it has hitherto had scarcely any connection. The expense of construction is expected to amount to 230,000*l.*

TRINITY COLLEGE CHURCH, EDINBURGH.—At the city council last week, a letter was read from Mr. Gourlay, offering to rebuild Trinity College Church within two years, if the council would hand him over the sum received from the railway company for that purpose. It was agreed to inform Mr. Gourlay that his proposal could not be entertained. On this occasion the Lord Provost said they were all most anxious to rebuild this church if a good site could be procured. There were one or two sites at present under consideration.

LAW OF PARTNERSHIP.—Mr. Bouverie has obtained leave of the Commons to bring in a Bill on the limitation of liability.

THE ARCHITECTURAL MUSEUM.—On Monday, 28th ult. Mr. Jopling gave a lecture on Curves applicable to architectural purposes, when the curve of the top step of the Parthenon was shown full size, 101 feet long, and the method of its setting out in the original temple described. The model will remain until after the meeting on the 25th.

LORD LONDESBOROUGH'S CONVERSAZIONE.—On the 28th ult. Lord Londesborough opened his house in Carlton House-terrace to a large circle of friends, including the Numismatic Society, and gave them an opportunity of examining part of his very extraordinary collection of antiquities and objects of beauty, —Greek, Saxon, Mediæval, and *Cinquecento*. The latest addition to the collection, namely, the Saxon relics recently exhumed from graves in the Isle of Wight, excited considerable interest. These consist of large and small fibulæ, the gilding on some of them as bright and fresh as if modern work, two curious crystals supposed to represent the sun and moon, rings and beads of all sizes and forms.

FALL OF A WAREHOUSE AT LEITH.—On Monday week, a warehouse, consisting of a ground-floor and a loft, in Coatfield-lane, occupied by a slater, fell, burying two men and a woman under the ruins, who were at the time engaged in storing a cargo of roofing-tiles.

REMOVAL OF CITY CHURCHES.—The third report of the Parochial Commissioners, just published, relates to the City churches. The commissioners report that it would be highly advisable to remove twelve or sixteen of these churches, and to raise at least an equal number in other adjacent parishes; and they express their entire concurrence in the design and general purposes of the Bill of 1854, which the House of Commons rejected. The report is dated 14th March, 1855.

STREET INSCRIPTIONS.—A glass painter, W. Grant, is bringing into use a mode of displaying the names of streets, so that they can be read at night as well as day. The name is painted and burnt in on a slip of glass, and is suspended to the upper rim of the street lamps. He has received orders, we are told, to hang the plates in two metropolitan parishes.

MR. THOMAS BARCLAY, who has filled the office of county surveyor, in the King's County, Ireland, for sixteen years, expired suddenly on Thursday in last week, when about to attend a presentment session.

THE INFLUENCE OF THE FINE ARTS.—At the M'Lellan Rooms, Glasgow, on Tuesday in last week, Mr. Sheriff Bell delivered a lecture "On the Influence of the Fine Arts." The rooms were brilliantly lighted up, and the centre hall, ample as it is, did not nearly accommodate the whole assemblage. For half-an-hour previous to the lecture, opportunity was afforded of examining the pictures, under the quickening influence of music. Bailie Mitchell took the chair, in the absence of the Lord Provost from illness. In course of his lecture, Sheriff Bell said that what he predicated of the fine arts was, that they were extended to all classes in all ages and countries; that they afforded scope for new and varied manifestations of intellect; and that, above all, they had exercised a moral power in conjunction with the noblest efforts of the legislator, the philosopher, and the poet. Mere imitation, though necessary in its place, was not the end or aim of art. The thing to be imitated must previously be understood. If imitation were everything, the work of the engraver or photographer might rank with that of the highest artists. It was in selecting and combining outlines that the genius of the artist became apparent. He pointed out the connection which exists between the fine and the useful arts; enlarged on the gratitude due to cultivators and encouragers of the fine arts; paid an eloquent tribute to the memory of Mr. M'Lellan, and concluded by expressing a hope that others would contribute to the enlargement of the collection, and that the citizens would encourage it by their frequent and studious attendance. The lecture was attentively listened to, and enthusiastically applauded.

KIDDERMINSTER BATHS, &c.—The Baths and Washhouse in Mill-street are drawing towards completion. The front elevation consists of a centre portion in two stories, with a wing of one story on each side. The materials are of red bricks, with a whitish stone from Ombersley for the dressings, and with terra-cotta ornaments. There are two entrances in the front, with a window between. The eaves project considerably and are supported by ornamental brackets in terra-cotta. Beneath the eaves is a frieze with terra-cotta decorations. The windows have stone pediments, and the flights of steps at the front doors are finished with stone piers. The swimming-bath is immediately at the back of the centre building. Its dimensions are 38 feet by 30 in area, and 4 feet 9 inches in depth at one side to 5 feet 9 inches at the other. It has a platform provided with dressing-boxes. The washhouse is on a small scale. The floors of the bath-rooms and washhouse stand upon brick piers, enabling a mechanic to get beneath to attend to the tubing and apparatus. The chimney from the boiler-house is 57 feet high, is square outside, and does not taper: it is ornamented with a coping. The water used for the establishment is taken from the Stour in the rear of the building.

M. GAUTHIER, of the French Institute, and an architect of merit, died at Paris a few days ago. He was a corresponding member of the Institute of British Architects.

CHURCH VENTILATION.—The ventilation of St. Thomas's Church, Newcastle-upon-Tyne, has been effected under the direction of Mr. C. Burnup, by a simple adaptation of the common method of ventilating coal mines. No want of fresh air was felt: what was wanted was the removal of vitiated air. The tower is at the west end, and openings have been made into it through the ceiling above the organ, and through the wall behind it. These openings communicate with a sheet-iron tube, 12 inches in diameter, which is carried a considerable distance up the tower. Inside the tube, near the bottom, is fixed a copper gas pipe, ¾ inch in diameter, in the form of a ring, perforated for jets of gas. The flame is steadied and increased in heat by being enclosed between two copper cylinders, one inside the other outside, the ring. A draught is thus obtained, which carries off the vitiated air. The local *journal* urges that the Music-hall, the Lecture-room in Nelson-street, the Lecture-room of the Literary and Philosophical Society, and in fact all public rooms and buildings in the town, frequented by crowded audiences, ought to undergo similar ventilation.

"HOME FOR INDIGENT GENTLEWOMEN."—The performance on Wednesday night of Mr. H. Leslie's oratorio of "Immanuel," at St. Martin's-hall, must have produced a considerable addition to the funds of the above excellent institution, if we may judge from the crowded audience who were collected together, and amongst whom we observed many celebrated in literature and art. We may be excused departing a little out of our usual course in commenting upon this clever work of musical science: it illustrates once again, how the strong love of art may conduct an enthusiastic amateur into a veritable artist. Considerable novelty of melody, masterly scoring, and skilful orchestral instrumentation give the stamp of profound scholarship to this production, and deservedly rank it amongst the best efforts of native talent. Madame Novello, Miss Dolby, and Mr Weiss exerted themselves with excellent effect. Mr. Sims Reeves suffered from a cold.

CAST-IRON STAIRCASES.—Sir,—Can any of your readers inform me of the best mode of executing a cast-iron staircase, in such manner as to prevent the slipperiness which is generally the result after a few years wear with the ordinary modes of construction when the treads are made solid—that is, when circumstances will not allow of their being *perforated*: which is the case with reference to two staircases now about to be erected in a public building. In the ordinary mode of construction a portion of the tread is raised, and the surface indented with diagonal lines, but as this is found to wear down, a different mode of attaining a lasting, yet not slippery, surface is required. Casing in part with wood is objected to.

G. L.

TENDERS

For Ercall Vicarage and stabling, Salop, for the Rev. R. T. Forester. Messrs. Wehnert and Ashdown, architects:—

Preen (Ludlow)	£2,651	0	0
Barratt (Market Drayton)	2,388	16	8
Dodson (Shrewsbury)	1,850	0	0
McKenzie (Wellington)	1,825	0	0
Large (Wellington)	1,597	0	0
Nevetts, Brothers (Ironbridge)	1,519	0	0

For a villa at Sutton. Mr. T. E. Knightley, architect:—

Curry	£1,725	0	0
Howlison and M'Clymont	1,343	0	0
Smith	1,325	0	0
Chapman	1,263	0	0
Walbutton (accepted)	1,253	0	0
Gosling and Clard (Woolwich)	921	0	0

For building six cottages at Isleworth. Mr. R. W. Wright, architect. Quantities supplied:—

Perman (Hounslow)	£1,400	0	0
Lawrence and Sons (London)	1,344	0	0
Burchett (Isleworth)	1,324	0	0
Biscock (Hounslow)	1,262	0	0

For building fourteen houses at Kingston, for Mr. M Wall. Mr. Blenkarn, architect. Quantities supplied by Mr. Crocker:—

Macrostic	£5,190	0	0
Macey	4,995	0	0
Colls and Co	4,760	0	0
Mason	4,186	0	0

TO CORRESPONDENTS.

"An Amateur Reader."—"A Compositor."—"E. F."—"W. W."—"B. L."—"Mr. C."—"B. H."—"D. C."—"R. H."—"Bardi" (in type).—"W. H. H."—"J. S."—"F. and H. F."—"C. F. D."—"W. H. T."—"W. L. S."—"E. K. D."—we will look to any description that may be sent)—"Aberystwith Clock Tower" (see p. 190, *ante*.)—"R. M. S."—"S. S."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor;" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

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CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

STAINED GLASS WORKS, 32, Allsop-terrace, New-road, near Baker-street, London.—Messrs. GIBBS beg to announce to Architects and Builders, that they have removed their old-established Stained Glass Works, from No. 3, Harmood-place, Camden town, to the above address, where business will be continued the same as usual. N.B. Stained Glass Designs and Estimates given for Ecclesiastical and Domestic purposes.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 298, Oxford street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN and SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, is 6d per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot. Crown or Sheet Squares, in 100 feet boxes, 2d. per foot.

Sashes Primed and Glazed, 3s. per dozen.

All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-extended manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.

The Warehouse, 99, Hatton-garden, London.

" 45, Piccadilly, Manchester.

Messrs. C. and J. Malloch, 30, Turner's-court, Glasgow.

" John Dix and Co. Bath-street, Bristol.

" H. Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from 4 to 1 in thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description, stock of 16 oz. Sheet Glass, in crates, from 21d. per foot; C C C Crown, 18 tables, 32s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 32s. 6d. and 42s. per case: Ground Glass, 24d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps Water-closet Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentine of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 87, Bishopsgate-street, London. Established more than 100 years.

CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d 6d and 5d per foot. Price-lists for 4 quare cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes street, Leicester square, London

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 4d, 6d, and 7½d. per foot; sizes varying from 24 by 16 to 40 by 28. Also Foreign Glass of various tints made expressly for CATHEDRAL and CHURCH purposes. G. FARMILOE and SON, 148, St. John street, West Smithfield, London.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 115, OXFORD-STREET

PLATE GLASS.—The Thames Plate-Glass Company's Works, Blackwall, manufacture Polished Plate-Glass, ¼ inch to 4th thick, 18 feet to 10 feet long, by 10 feet to 11 feet wide, and any other proportionable smaller size. The tariff of prices just issued by the Thames Plate-Glass Company, is a great reduction of former prices. Contracts for the supply of large quantities are accepted by the Thames Plate-Glass Company, on the lowest terms of the day.—Address, the Secretary, Thames Plate-Glass Company's Warehouse, Savoy Wharf, Strand.

OSLER'S TABLE GLASS, CHANDELIERS, LUSTRES, &c. 44, OXFORD STREET, LONDON, conducted in connection with their manufactory, Broad-street, Birmingham, established 1807.—Richly cut and engraved Decanters, in great variety, Wine Glasses, Water-Jugs, Goblets, and all kinds of Table Glass, at exceedingly low prices. Crystal Glass Drawing-room Chandeliers for candles and gas. A large stock of foreign ornamental glass always on view

TO WINDOW-GLASS CUTTERS, &c.—TO BE LET OFF, a SHOP, WAREROOM, and WORKSHOP in the above line, in one of the best situations in London, with a good connection. A small capitalist will find this an opportunity seldom to be met with.—Apply by letter, prepaid, to A. B 14, Bath-place, New-road, London

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock. By enclosing a postage-stamp, a full list of prices will be returned. Workshops, 1 to, Broadwall

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence, Shop-front Builder and Manufacturing Joiner, 13 and 14 four-panel doors from 6s. each; 14 sash and frames from 7d. per foot; 12 inch ditto from 8d. Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to lesign.—A List of Prices sent on application.

JAMES RHODES, No. 6, Macclesfield-street North, City-road, London, Manufacturer of Sashes, and Frames, Doors, &c. and every description of House Joinery. Glazed goods securely packed for the country. Prices on application at the Counting-house, as above. N.B. This is the cheapest manufactory in London, and well deserving the attention of all engaged in building.

PELICAN LIFE INSURANCE COMPANY, established in 1797.
70, Lombard-street, City, and 57, Charing cross, Westminster.

DIRECTORS.

Robert Gurney Barclay, esq. — Thomas Hodgson, esq.
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The Company offers—
Complete Security—
Moderate Rates of Premium with Participation in Profits—
Low Rates without Participation.

BONUS.—Four-fifths or Eighty per Cent. of the Profits are divided amongst the Policy holders.

LOANS in connection with Life Assurance on approved security.

ANNUAL PREMIUM required for the Assurance of 100l. for the whole term of life:—

Age	Without Profits.	With Profits.	Age.	Without Profits.	With Profits.
15	£1 11 4	£1 15 0	40	£2 18 10	£3 6 5
20	1 13 10	1 19 3	50	4 0 9	4 10 7
30	2 4 6	2 10 4	60	6 1 0	6 7 4

For Prospectuses and Forms of Proposal, apply at the Offices as above, or to any of the Company's Agents.

ROBERT TUCKER, Secretary.

IMPERIAL LIFE INSURANCE COMPANY, 1, OLD BROAD-STREET, LONDON. Instituted in 1820.

WILLIAM R. ROBINSON, Esq. Chairman.
HENRY DAVIDSON, Esq. Deputy-Chairman.

The SCALE of PREMIUMS adopted by this Office will be found of a very moderate character, but at the same time quite adequate to the risk incurred.

FOUR-FIFTHS, or 80 per cent. of the profits, are assigned to policies every fifth year, and may be applied to increase the sum insured, to an immediate payment in cash, or to the reduction and ultimate extinction of future premiums.

ONE-THIRD of the premium on insurances of 500l. and upwards, for the whole term of life, may remain as a debt upon the policy, to be paid off at convenience; or the Directors will lend sums of 50l. and upwards, on the security of policies effected with this Company for the whole term of life, when they have acquired an adequate value.

SECURITY.—Those who effect insurances with this Company are protected by its subscribed capital of 750,000l. of which 140,000l. is invested, from the risk incurred by members of Mutual Societies.

The satisfactory financial condition of the Company, exclusive of the subscribed and invested capital, will be seen by the following statement:—

At the close of the last financial year, the sums assured, including bonus added, amounted to	£3,500,000
The premium fund to more than	800,000
And the annual income from the same source, to	120,000

Insurances, without participation in profits, may be effected at reduced rates. SAMUEL INGALL, Actuary.

LEASEHOLDS RENDERED AS MARKETABLE AND MORTGAGEABLE AS FREEHOLDS BY THE LAW PROPERTY and LIFE ASSURANCE SOCIETY.

*** Healthy and Diseased Lives Assured, Redemption of Mortgages and Loans, &c.

EDWARD S. BARNES, Secretary.

30, Essex-street, Strand, London.

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THE LAW PROPERTY LIFE ASSURANCE SOCIETY will assure, for a very moderate annual premium, the PAYMENT of all future SUBSCRIPTIONS in the event of the Death of a Member, before the property is redeemed.—Every information forwarded on application.

EDWARD S. BARNES, Secretary, 30, Essex-street, Strand.

SECURITY TO EMPLOYERS.

THE TIMES ASSURANCE COMPANIES.

To Clerks and others guarantees at the lowest rates.

Plate Glass Assurance.—Windows, mirrors, &c. insured against breakage.

Every description of life and fire assurance.

Apply to the Manager, 33, Ludgate hill.

THE ALBERT ASSURANCE COMPANY.

(Established in 1838.)

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square. W. S. VARDY, Manager.

LOANS GRANTED.

LONDON EXCHANGE ADVANCE FUND, 2, Adelphi-terrace, Strand, facing the river.

TRUSTEES.

The Hon. R. Rowley. Sir E. Graham. Bart.

10l to 1,000l advanced on personal or other security. Bills of exchange cashed. Five per cent. interest on deposits payable in January and July. Forms forwarded on receipt of twelve postage stamps.

HOUSEHOLDERS and GENERAL LIFE ASSURANCE COMPANY, 15 and 16, Adam-street, Adelphi.

Money received at interest at 5 per cent. per annum, payable in April and October.

Agents (with references) may apply.

R. HODGSON, Secretary.

UNION ASSURANCE SOCIETY (FIRE, LIFE, and ANNUITIES).

Offices, Cornhill, and 70, Baker-street, London; College-green, Dublin; Grosvenor-street, Hanover-street, Exchange-street West, and Tithebarn-street, Liverpool; North Nelson street, Edinburgh.

Instituted in the reign of Queen Anne, A.D. 1714.

CHAIRMAN—James Bentley, esq.
DEPUTY CHAIRMAN—Stephen Wilson, Esq.

Thomas Bodley, esq.	John Paynter, esq.
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Thomas Mills, esq. M.P.	Richard Horsman Solly, esq.
J. Remington Mills, esq.	William Foster White, esq.
John Morley, esq.	Samuel Wilson, esq. ald.

Notice is hereby given, that an additional dividend of one pound ten shillings per share will be paid on the shares of this Society, with the usual half-yearly dividend of 3l per share, on and after the 2nd day of July, 1855 (excepting on Saturdays), between the hours of Eleven and Three.

THOMAS LEWIS, Secretary.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding fifty months, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 1s. per post.

CHARLES JAMES THICKE, Resident Secretary.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in original Packages, each cask stamped—HUBBUCK and SON, PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 48, Mary-street, Dublin.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO., Wholesale Agents, 93, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company's Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Yarmouth, Isle of Wight, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with ZINC Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above named CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the best Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cements, which are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, 8c, Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Testimonials of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of the Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also of, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

ROMAN and PORTLAND CEMENT of the first quality, manufactured at the ELMLEY CEMENT WORKS, Isle of Sheppey, Kent; also, STOCK and KILN BURNT BRICKS, hand-moulded and machine, made for shipping or otherwise.—Apply to G. BOOTH, Agent, 11, George-yard, Lombard-street, City.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

FRONTS of HOUSES.—GREENE and CO.'S PORTLAND CEMENT WASH, equal to oil paint for durability; in casks, 1 cwt. for 10s.

DAMP WALLS.—GREENE and CO.'S OXIDE SOLUTION PAINT, a sure and effectual remedy for damp, salt, or spotted walls; price 12s. per gallon, which will cover 200 square feet.—Prepared only by GREENE and CO. Original Inventors, 29, Norfolk-street, Islington.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 781, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 35s. 6d. per 1,000; floor bricks and 6-inch pavings, at 40s. per 1,000; 8-inch pavings, at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

STONE-COLOUR BRICKS, moulded to any pattern, for cornices, copings, labels, &c. at about one-third the cost of stone; also ornamental ridge and other tiles; may be had to order of Messrs. HOOPER and CO. 2, Portland-street, Southampton.—Illustrated list of prices or samples forwarded on application.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 26s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Faviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BRICKMAKERS, BUILDERS, and BUILDING SOCIETIES.—To be immediately DISPOSED OF, entirely from want of capital, a first rate BRICK and TILE WORKS, licensed under Beart's Patent, in new and full operation, worked by steam-power, producing sixth thousand bricks per week, from the finest bed of white clay in England.—For particulars, apply to Mr. GLENN, Cambridge-terrace, Liverpool-road, Islington.

TO BUILDERS, CONTRACTORS, AND OTHERS.

MESSRS. BARRETT and SHARP beg to inform the trade that they are prepared to LAND STONE, BRICKS, SAND, &c. &c. at their Wharf, at the usual rates. The trains after will land any blocks of stone, timber, or engineering work not weighing more than fifteen tons. BARRETT and SHARP, "Patent Stone Preserving Works," Holdenerus Wharf, 46, Bridge-place, Harrow-road, Paddington.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambresque Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Copings for Gates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Pine Planks, 12 ft. 3 in. by 11 in.....	from 3s. 6d.	each.
Spruce Deals.....	„ 3s. 9d.	„
Yellow ditto.....	„ 4s. 0d.	„
Honduras Mahogany	„ 0s. 6d.	per foot.
Spanish ditto.....	„ 0s. 7d.	„
Oak Staves	„ 2s. 0d.	each.

Prepared Flooring, Veneers, &c. at equally low prices.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 5 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices. Southwark-bridge Wharf, Bankside.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 50, North Wharf road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

ACORN TIMBER WHARF and SAW-MILLS,

GRAND SURREY CANAL, OLD KENT-ROAD.—The extensive Waterside Premises Improved Sawing Machinery and Drying Warehouses, with a supply of all kinds of Foreign Wood direct from the importers, enable consumers to select from one of the largest stocks in London, at the lowest prices, for cash.

The Monthly Price Current forwarded on application.—RICHARD MAY informs the building public that American Pine and Spruce are cheaper, and Baltic goods are scarce.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross.

GEORGE NUKES and CO. (late Nuchbur and Atkinson) beg to acquaint architects, builders, carpenters, and others, that they have opened the above premises with superior machinery for manufacturing architrave mouldings of any size and design, sash-bars, match-boarding, skirtings, flooring, &c. and have always on hand a large stock of seasoned flooring at reduced prices; also, timber, deals, scantling, sash sills, mahogany waincot, &c. Goods sawn at the mills fetched and delivered free of charge.

May 19, 1855.

TO ENGINEERS, SAW-MILL PROPRIETORS, &c.—WANTED, a Second-hand DEAL SAW-FRAME.—Address, stating full particulars and lowest price, to A. Z. care of Mr. Allingham, 22, Blackfriars-road.—A NEW ONE not objected to, if price sufficiently moderate.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, fetched away and paid for at the time, at C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 31, Munster-street, Regent's-park. A large quantity of PAPER-HANGINGS, CHEAP. 18s. per cwt. given for old lead.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 11b, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted to the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 13-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

FARM AND COTTAGE PUMPS

WARNER'S PATENT CAST IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump..... £1 12 0
Patent Pump, with 16 feet of lead pipe attached, and bolts and nuts ready for fixing..... 2 12 0

Larger sizes if required.

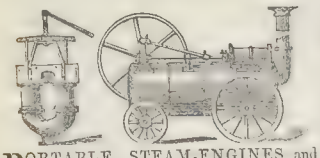
The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work. Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Any of these Engines may be purchased.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, suitable for all purposes and climates. Patent Closets and Basins with screw-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of this tubing, the following letter received from Mr. C. Hacker, surveyor to the Duke of Bedford:—"Office of Works, Woburn-park, Jan. 10, 1852.—In answer to my inquiries respecting the Gutta Percha Tubing for pumping water, I find that the water has not affected it in the least, although it will eat lead through in two years; we have adopted it instead, both on account of being cheaper than lead, much easier laid down, and a great part of job. Yours &c. C. Hacker." Mr. Thomas Hancock, Manufacturer of Caoutchouc, Gutta Percha, and Elastic Compositions, 24, Parkside, Knightsbridge, Sole Proprietor of the Patent for Vulcanizing India Rubber, Sheets, Solutions, &c. Also Manufacturer of the Patent Gutta Percha Stamps. The Gutta Percha Company, Patentees, 18, Wharf-road, City-road, London.

ONE THOUSAND BEDSTEADS to CHOOSE FROM.—HEAL & SON have just erected extensive Premises, which enable them to keep upwards of One Thousand Bedsteads in stock. One Hundred and Fifty of which are fixed for inspection, comprising every variety of Brass, Wood, and Iron, with Chintz and Damask Furnitures, complete. Their new warerooms also contain an assortment of BED-ROOM FURNITURE, which cannot be equalled, for quality, in the country. Japanned Dressing Tables, Washstands, Chests of Drawers, Bedsteads, Mattresses, Feather Beds, Bolsters, and Pillows, Blankets, Quilts, and Counterpanes, Carpets, Floor Cloths, Rugs, Fenders, Fire-irons, Kitchen Utensils, Tin Ware, Turnery, Brushes, Mats, &c. &c. Persons furnishing will find it to their advantage to visit this Establishment, as they have the largest stock to select from, and the prices are marked in plain figures at the lowest possible profit for ready money. Purchasers are respectfully requested to compare the articles and prices with those of other houses. Heal & Son's Illustrated Catalogue of Bedsteads and Prices of Bedding, sent free by post. Heal & Son, 196, Tottenham Court-road.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2 inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 4s. per square yard. Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed. Apply to Messrs. WRIGHT and BROWN, 52, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 25s per ton. Importer of Trinidad Asphalte.

Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Footways, Multi-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

TYLOR'S improved METAL-BOUND PAINTING BRUSHES.—These are the lightest metal-bound painting brushes hitherto introduced; the bristles are perfectly secure against the action of all kinds of varnishes and colours, the cramp will not rust or rust when the brushes are placed in water, and the handles cannot come loose.—Price lists forwarded, post free, on application to the Manufacturer, J. B. TYLOR, 3, Bury-court, St. Mary-axe, London.

KENT'S PAINTING-BRUSHES are of the best quality, and may be obtained at all the first houses in the trade, and of the Manufacturers,
G. R. KENT and CO. 11, Great Marlborough-street, London.
Established 1777.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheels ready for hang. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSSE'S WHOLESALE WAREHOUSE, 92, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT CHEAPER than any other House in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, beg to call the attention of Civil Engineers, Contractors, and others interested in the construction of railways, to their patent rails, sleepers, fish-joints, and other important improvements now in use on upwards of 250 miles of railways.—Every information can be obtained on application to CHARLES MAY, F.R.S. Manager; or WILLIAM HOWDEN, Secretary.

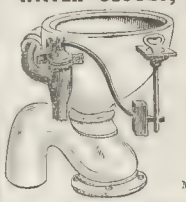
TO WATER and DOCK COMPANIES, CONTRACTORS, &c.—PARSEY'S PATENT REVOLVING PUMP will throw as much water with one third the labour as any other pump. One of these pumps at work at No. 70, Strand.

To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLIDE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with the above branches. Pumps let on hire.—W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.

DOULTON & WATTS,

LAMBETH POTTERY, LONDON.



DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

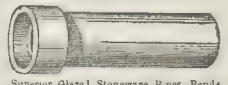
AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

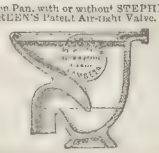


Superior Glazed Stoneware Pipes, Bends Junctions, Traps, &c. Hopper and other Pans with best White Glaze inside.

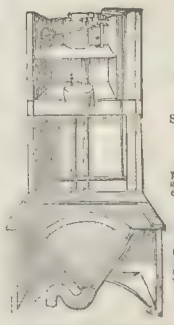
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin—the most effective syphon-trap yet offered to the public.



This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, as it may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving (in my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

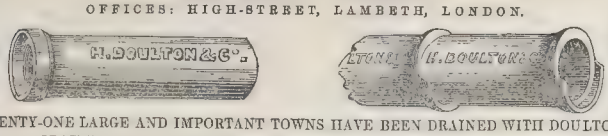
GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,

MANUFACTURER OF

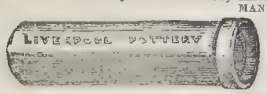
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.

CLOSET-PANS AND TRAPS, 5s. 6d. EACH.

AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Matheson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD.....J. Sparrow and Co
CARNARVON.....Jno Jackson.
PRESTON.....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN.....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.
CARLISLE.....C. Armstrong, Lowther-street
WHITEHAVEN.....Hugh Tolhunter.
COCKERMOUTH.....John Hird.
GUERNSEY.....Guerin Brothers.
LONDONDERRY.....W. and A. M'Llwee.
LIMERICK.....W. Burgess and Sons.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES.

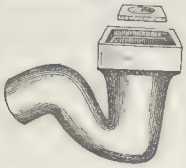
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

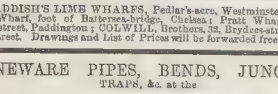
IMPROVED YARD-SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danvers Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. SUNNER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryden-street, Covent Garden; and at EDWARD COOKS, 34, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

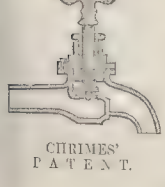
SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.



CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM,

and 37, SOUTHAMPTON-STREET, STRAND, London
Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOCKED VALVE COCKS.

Bateman and Moore's, and Chrimes'
Patent Hydrants, or Fire Cocks, Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets
Siemens' Patent Balance Water Meter
Pillrow's Patent Water-Waste Preventer
Morris's Patent Water Supply Regulator
Rawlinson's Patent Self-acting Drainage Valves.
Hassall Thomas Patent Stop Cocks.
Lowe's Patent Stench Trap, Beggs's Improved.
And all other Articles required for Water-Works Purposes, &c.
LONDON HOUSE.

Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wrought and Cast Basins, Hopper Urinals, &c. The Trade and Architects in the Metropolis is particularly requested to the above, as they will find it to their Comfort and Advantage to have their Orders executed by Beggs's Improved Cast Iron Soil Pipes, and to Thomas's Improved Cast Iron Lavatory Basin, as fitted at the King's College Hospital, and other Public Institutions.
Plumbers' Brass Work of every description.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead pipe, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER CLOSETS patronised by the Board of Health, Government, and other large public establishments, and adopted in numerous private houses and mansions. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish street, near St. Paul's, London.
Crown Glass, 8 tables, 9s per Crate.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,

BENDS, JUNCTIONS, and SYPHONS.—These are allowed by all to be of the best manufacture, of the most unparalleled quality, combined with cheapness, will be found to merit the approbation of consumers.—Sole Agents, E. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

E. and W. STURGE invite special attention

to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Patent Sinks, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all kinds of goods on application to E. and W. STURGE, Bridge-wharf, City Road.

N.B. The wharf is well situated for carriage by canal boats, or to the railways, to which, but a small charge for cartage is made.

January, 1853.

SUPERIOR GLAZED STONEWARE

DRAIN PIPES, recently laid manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

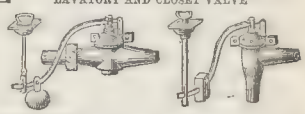
W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHONS, TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipe and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in the manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

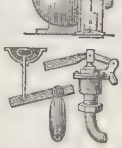
Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharf, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

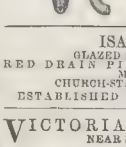
LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under a constant pressure of 100 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured and fixed by the Inventors,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short street, New Cut, Lambeth.





UNDERHAY'S PATENT REGULATOR CLOSETS,

for constant or intermittent supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred

These Stoneware are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

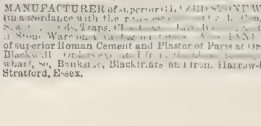
Manufactured by
CHARLES BOTTEN and SON,
Brass Founders, Crawford passage, Clerkenwell, London.

ISAAC PARRY'S

GLAZED STONEWARE PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

VICTORIA POTTERY, LEIGH,

NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE.

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers, Bends, Traps, Channels, Junctions, and every article of Stone-Ware and Earthenware connected therewith. ALSO, ASTRIDGE of superior Roman Cement and Plaster of Paris for Orchard Houses, Blackwall Colonnades, Fronts, Balconies, Pedestals, Pavilion-wharf, No. 2, Brunswick, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

SALES BY AUCTION.

TO TIMBER MERCHANTS, BUILDERS, Cabinet-makers, Pianoforte Manufacturers, Coach Builders, Carpenters &c.—For SALE by AUCTION on the PREMISES, Waterloo-road, Lambeth, on MONDAY and TUESDAY, the 16th and 17th JUNE, at TEN for ELEVEN each day precisely, the very superior and well-seasoned STOCK of Messrs. T. R. and W. Brown and Co. consisting of about
14,000 Quebec and sundry yellow pine plank.
1,700 St. John pine plank.
1,000 Red pine plank
5,000 Spruce deals and battens.
1,000 Spruce and Archangel deals.
7,000 Christiania yellow and white deals and battens.
5,000 Gothenburg and Swedish deals and battens.
1,300 Square and prepared flooring and match boards.
200 Pieces Rich Dantzic and Swedish timber.
200 Pieces New Brunswick square timber.
400 Norway poles.
Rough and Planed mahogany cut logs.
With a large stock, ash and pine boards, cut logs, &c also Spanish, Honduras, and Cuba MAHOGANY in logs, planks, and boards, cedars, lignum vitæ wood, &c.
To be viewed two days previous to and on the mornings of Sale. Catalogues may be had on the Premises, and of CHURCHILL and SIM, 69, Old Broad-street; C. LEARY and Co. 7, Old Broad-street, London, Brokers.

BARK.—250 Tons — To TANNERS and OAK BARK MERCHANTS Thirteen Stacks of Super-or OAK COPPICE BARK, estimated contents, 250 tons, the produce of 1854, also 250 tons, or any part, of the present year, 1855, in the following lots, to be SOLD by AUCTION, by

MESSRS. RICHARDSON, on THURSDAY, the 7th day of JUNE, 1855, at the GEORGE INN, Stamford
No. 1. STACK in MORTON WOOD, near Bourn, at about 11 miles north east of Stamford
No. 2. STACK in BOURN WOOD, about 10 miles north-east of Stamford. Also about 50 tons of NEW BARK, in Bourn Wood.
To view the same, apply to Mr. JAMES HEATH STONE, of Bourn.
No. 3. STACK in PICKWORTH GREAT WOOD, about 7 Miles north of Stamford.
No. 4. STACK in Mr. TYRE'S SPINNEY, in the parish of Great Casterton, about 5 miles north of Stamford.
No. 5. STACK in Mr. SAMUELS' SPINNEY, about 4 miles north of Stamford. Also about 20 tons of NEW BARK, in Pickworth Great Wood.
Apply to Mr. JOHN CUNNINGTON, of Great Casterton.
Nos. 6 and 7. STACKS in WITTERING SPINNEY, about 3 miles south of Stamford.
Nos. 8 and 9 STACKS in EASTON HORNSTOCKS WOOD, about 4 miles south of Stamford. Also about 25 tons of NEW BARK, in and near Easton Vigo Wood; about 3 miles south of Stamford.
Apply to Mr. JAMES, or Mr. HENRY SHARP, at Burghley Park.
No. 10. STACK in COLLYWESTON GREAT WOOD, about 4 miles south-west of Stamford Also about 8 tons of NEW BARK, in the same Wood.
No. 11. STACK in WEST HAYWOOD, near KING'S Cliffe, about 7 miles south-west of Stamford Also about 65 tons of NEW BARK in the same Wood.
Apply to Mr. SPENCER SHARP, West Hay Cottage, near King's Cliffe.
No. 12. STACK in WARREN SPINNEY, in the county of Northampton, about 8 miles south-west of Stamford.
No. 13. STACK in WAKERLEY WOOD, near to the last lot.
Also about 60 tons of NEW BARK, in the same Wood.
Apply to Mr. WILLIAM PEPPER, of Wakerley.
About 6 tons of NEW BARK, at BEAUMONT CHASE, 3 miles from Stamford.
Apply to Mr. CORNELIUS PRICE, residing at Stoke Dry.
N.B. The above Stocks of superior Old Oak Bark were well harvested and prepared, excellent colour, and will be found strictly and early attention has and will be paid to the new materials secured. The whole is consequently deserving of attention from the Receptive of Henry IV. and leather trades.—Sale to commence at PUBLIC Stock in the Afternoon
N.B. The Agent will be in attendance and may be consulted on business one hour prior to the sale.
Burghley Park, May 25, 1855.

TOTTENHAM.—200,000 new Bricks (principally stocks), three capital Pug Mills, crowding and off-bearing Barrows, Moulders Tables, various Brickmaking Implements, Good Brick Cart, and effects, by

MR. RICHARDS, at the BULL INN, Tottenham High-cross, on FRIDAY, JUNE 8, at ONE o'clock. The above Lots are lying at the Mount of Brickfield, Pareen, being the property of Mr. Hayward, who having altered his arrangements, does not now require them.—May be viewed two days prior to sale; catalogues on the Premises, Place of Sale, and of the Auctioneer, Tottenham.

REIGATE, SURREY, close to the Reigate Station, on the Road from London to Brighton, South Eastern Railways

MESSRS. DAVIS and VIGERS are directed by the executors of the late Thomas Neale, Jun. Esq. to SELL by AUCTION, at the MART, on THURSDAY, JUNE 7th, at TWELVE for ONE, desirable BUILDING LAND, suitable for the erection of mansions, villas, and shops, comprising nearly 30 acres, and embracing the most eligible spots of the high ground close to Wray-common, commanding extensive views of scenery, remarkable for its great beauty; also several TOWN PLOTS, on the Station-road, suitable for the erection of cottage residences and business sites; and three valuable CLOSES of ARABLE, MEADOW, and WOOD LAND, fronting upon the turnpike-road from London to Brighton. The whole property lately formed part of the Bufton Estate, is held by lease from Lady Warwick, for 99 years, from Midsummer, 1868, at a small ground rent.—To be viewed, and particulars, with plans and conditions of sale, may be had of Messrs. Pepys and Dyne, Solicitors, Billiter-square, London; at the Railway Junction Hotel, Reigate, the Crown Inn, Croydon; at the Mart; and Auctioneers' Offices, 3, Frederick's-place, Old Jewry, London.

To Timber Merchants, Cabinet Makers, Pianoforte Manufacturers, Builders, &c.

MESSRS. LEARY and CO. have been favoured with instructions from Mr. HENRY BATEMAN, of 35, Sun-street, Bishopsgate, to OFFER by PUBLIC AUCTION, on the PREMISES, on MONDAY and TUESDAY, the 11th and 12th DAYS of JUNE, at TWELVE for ONE precisely, the valuable STOCK of WOOD, comprising prime dry wainscot, in every thickness; Spanish and Honduras mahogany, in logs, planks, boards, and veneers; dry wide panel board; rosewood and walnut wood, in planks and veneers; dry pine plank and board, &c. &c. &c. To be viewed two days previous to and on the morning of sale. Catalogues to be had on the Premises; and at the Office of the Auctioneers, 75, Old Broad-street, City.

TO IRONMONGERS, STOVE-GRATE MAKERS, BUILDERS, AND OTHERS. By

MESSRS. FULLER and HORSEY, on the PREMISES, 130, Fleet-street, on MONDAY, JUNE 11, and following day, at ELEVEN, in lots, without reserve, the STOCK of STOVES and RANGES, BLACK FURNISHING IRONMONGERY, principally manufactured by Messrs Burlidge and Healy, who are declined the retail branch of their business, including seventy register stoves, fine cast, ground, and polished steel, many of elegant design, and richly mounted in or-molu; fifty Mystery patent enclosed kitchen ranges, from 3 feet 2 to 6 feet in width; hall, shop, and church stoves; 100 polished steel and bronzed iron fenders, many of the most expensive description; fifty sets of polished steel fire-irons, bronzed and metal goods, lamps, cutlery, tin and black hollow ware; fifty sets japanned trays and waiters, japanned toilet services, low dresser files and ranges, an assortment of builders' and cabinet ironmongery and brass work, ten tons wrought and cut nails, six printers' iron imposing tables, with planed surfaces; thirty Sylvester's patent fire and fine doors, shop fixtures, counting-house fittings, iron repository, fittings in show-room, and numerous other effects.—To be viewed on Saturday previous to the Sale, when catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, Billiter-street, City.

SALES BY AUCTION.

CAPITAL OAK TIMBER.—Broom Wood, Rickling, and Oakley, Essex. TO BE SOLD by AUCTION, by

MESSRS. NOCKOLDS and KING, upon the PREMISES, on FRIDAY, the 15th JUNE, 1855, at ELEVEN o'clock, in 1,800 EIGHTY capital TIMBER TREES, the Twenty ditto Saplings, and a quantity of good Topwood. The above Timber has been felled this season, and is lying contiguous to the turnpike road, about equal distant from the Stansted and Newport Stations on the Eastern Counties line of railway, and will be found worthy the attention of builders, contractors, coopers, and others, many of the trees being of long lengths, good dimensions, and all of excellent quality. Six months' credit will be given, subject to the usual conditions.—May be viewed by application to Messrs. Hurd, the Woolpit at Rickling-green, of whom catalogues may be had; also at the Inns in the neighbourhood; and of Messrs. NOCKOLDS and KING, Land Agents, &c Saffron Walden, Essex.

RUISLIP, MIDDLESEX. Oak, Elm, and Ash Timber.—For SALE by AUCTION By

MESSRS. COBB, on FRIDAY, JUNE 22, 1855, at ELEVEN o'clock, in lots, on the LAND, 250 OAK TIMBER TREES, 95 ELMS, and 11 ASH TREES, chiefly of large dimensions some of them extraordinarily large, and of excellent quality, felled and lying in Young Wood, and on lands occupied by Messrs. Saich, Ives, Churchill, and Woodman, of Ruislip, about five miles from the Harrow and Pinner Station, four from Uxbridge, and within a short distance of water-carriage. CHARLES CHURCHILL, of Duck's-hill, near Young Wood, where the Sale will commence, will show the Timber ten days before the sale; and catalogues may be had of him; at the George Inn, Ruislip; the Inns at Uxbridge and Rickmansworth; and of Messrs. Coun, Surveyors and Land Agents, 18, Lincoln's-inn-fields, London.

SPLENDID BOOKS OF PRINTS, ARCHITECTURAL BOOKS, &c.

MR. L. A. LEWIS will SELL BY AUCTION on TUESDAY, 5th, WEDNESDAY, 6th, THURSDAY, 7th, FRIDAY, 8th, and MONDAY, 11th of JUNE, in the HALL of COMMERCE, Threadneedle-street the PROFESSIONAL and MISCELLANEOUS LIBRARY of an EMINENT ARCHITECT, including Architectural Works by Adam, Boiler, Bullet, Brandon, Britton, Carter, Cotman, Knight, Pugin, Robinson, Stuart and Revett, Vullimy, and many others—Stow's London, by Strype, best edition, 2 vols. and numerous Works relating to London—Drake's York—Hasted's Kent, 4 vols.—Hutchin's Dorset, 2 vols.—Manning and Bray's Surrey, 3 vols. Monath's Essex, 2 vols.—Dugdale's Warwickshire, 2 vols.—Archæologia, 33 vols.—Gullim's Display of Heraldry, best edition, and other Heraldic Works Lord Kingsborough's Mexican Antiquities, 9 vols.—Roberts's Sacred Holy Land, 4 vols. Magna Græcia, 2 vols. Musei Pio-Clementini, 8 vols.—Silvestre Paleographie Universelle, 4 vols—Macklin's Edition of the Bible, 8 vols.—Bowyer's Hume's England, 10 vols Russell's Pictures de Vierge Round Great Britain, 2 vols Shaw's various Illuminated Works Owen Jones's Alhambra, and his other Works—Dibdin's Bibliographical Works, 12 vols.—Lavater's Physiognomy, by Hunter, 5 vols.—Bewick's Birds Quadrupeds, and Fables, 4 vols. large paper—Yarrell's Birds and Fishes, 3 vols—Cuvier's Animal Kingdom, 16 vols.—Loudon's Various Works Walton and Cotton's Angler, by Nicolls, 2 vols Ireland's proofs—Voltaire, Œuvres, 72 vols best edition, with proofs—Rees's Cyclopædia, 39 vols. 2 vols. Chalmers' Biographical Dictionary, 32 vols. Rees's Biographical Dictionary, 12 vols. Aldine Edition of the British Poets, 51 vols.—Chalmer's English Poets, 21 vols.—Despatches of the Duke of Wellington, Lord Wellesley, &c. &c. &c.—Brewster Treatises, 12 vols.—Library of Useful Knowledge, 70 vols. Lardner's Cabinet Cyclopædia, 130 vols. Family Library, 50 vols. Illustrated Exhibitor, 3 vols Complete Sets of Blackwood, Fraser, and United Service Journal —Quarterly and Edinburgh Reviews—Annual Register complete 100 vols. Annual Biography and Obituary, 40 vols. Metropolitans Standard Works by Allison, Burke, Byron, Gibbon, Grote, Hallam, Johnson, Lingard, Scott, Smith, Strickland, Thirlwall, &c. many upon large paper, and in fine condition, most in morocco, russia, and calf extra bindings.

Also a beautifully executed Drawing by Cottingham, of the Reception of Henry IV. at the Gate of the Monastery of St. Bridget, Isleworth, in 1403. Fine Gallery Painting, Judith striking off the Head of Holofernes, by Gentileschi, and others, from the Collection of the late Alderman Thorpe, &c. Catalogues will be sent on application; if in the country, six postage stamps required. 125, Fleet street, June 1st.

Valuable Freehold Building Land, fronting the High-road, Holloway; also an old-established Public-house, and other Premises, TO BE SOLD, pursuant to an order of the High Court of Chancery, in a cause Bird v. Charrington, with the approbation of Vice Chancellor Sir John Stuart, the judge, to whose Court the said cause is attached, at the ARTICLE, in the City of LONDON, on WEDNESDAY, the 20th of JUNE, at TWELVE o'clock, in One Lot by

MR. BARNES, an important FREEHOLD ESTATE, comprising 6 acres, 2 roods, and 14 perches of very valuable land of the most eligible description, a site rarely to be procured so close to the metropolis, possessing an extended frontage to the High-road, Holloway, with roads in the rear, also a very handy square, every foot of which is available for building purposes, for which there are several additional avenues, brick earth, excellent spring water, about the best in several districts a fine prospect of Highgate and Hornsey, and the land itself, on a slight acclivity, with public sewers completed on both the back and side roads. It will be sold in one lot, together with sundry Tenements, and possession given of the whole. The estate is freehold, and exonerated from land tax. It originally formed part of the Manor of St. John of Jerusalem, and has been recently enfranchised Printed particulars and plans will be published three weeks prior to the Sale, and may be obtained of Messrs. Cooper, Solicitors, 10, Bucklersbury; at the Temple; Mr. Marquis, Solicitor, 136, Fenchurch-street; Messrs. Fry and Lovell, Solicitors, 80, Cheapside; and of Mr. Barnes, the Auctioneer, 19, Birchin-lane, Lombard-street.

STEPNEY CHURCHYARD.—Building Materials of Lady Mico's Almshouses.

PULLEN and SON are favoured with instructions from the Worshipful Company of Mercers, to SELL by AUCTION, on the PREMISES, on FRIDAY, JUNE 8, at TWELVE, the valuable BUILDING MATERIALS of Lady Mico's Almshouses then in numbers, situate in Stepney Churchyard, comprising 120 feet sound stock bricks, 200 plain tiles, useful oak and fir timber, sashes, casements, doors, flooring and lining boards, lead gutters, pump and pipe, stoves and other fixtures May be viewed the day previous, catalogues had of the Beadle, Mr. Mercers' Hall; and of PULLEN and SON, 96, Fore-street, Cripplegate.

CANNON-STREET, WEST.—Building Materials of an Extensive Stock of Warehouses, and all the Counters, Fittings, and Appendages of Show-rooms.

PULLEN and SON are directed to SELL by AUCTION on the PREMISES, on MONDAY, JUNE 18, at TWELVE, the whole of the capital BUILDING MATERIALS and FITTINGS-UP of an extensive Stack of Warehouses and Show-rooms, at the corner of Distaff-lane and Cannon-street West, St. Paul's; comprising about 200,000 excellent stock bricks, 100 squares of stout boarded and timber floors, a large quantity of plain tiles, iron framed sashes, hoop-hole and other doors, iron columns, large skylight with rough plate glass, stone paving, coping, and cills, several tons of lead in gutters and pipes, iron crane and jib, 250 feet super. of counters and show tables, 500 feet run of shelving, office desks and partitions, counter cases, and a great variety of fixtures and fittings up.—May be viewed the day previous, and catalogues had of PULLEN and SON, 96, Fore-street, Cripplegate.

CAMP, ALDERSHOTT.—Valuable FREEHOLD BUILDING LAND, intersecting the Camping-Ground, will be SOLD by AUCTION, by Mr. ALDRIDGE, at the ROW-BARGE INN, Aldershott, on THURSDAY, the 7th day of JUNE, 1855, at THREE o'clock in the afternoon, in 49 lots.—Printed particulars may be had on application to Mr. HUGGETT, 4, Beaufort-buildings, Strand; Row-Barge Inn, Aldershott; and of the Auctioneer, 11, Poultry.

SALES BY AUCTION.

MARBLE.—To Sculptors, Masons, Builders, and Others.

MESSRS. THOMPSON and HOLMES will OFFER, by PUBLIC AUCTION, on MONDAY, the 11th day of JUNE next, at TWELVE for ONE o'clock, at their WHARF, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge, about 600 tons of MARBLE, consisting of Statuary, Sicilian, Veined, Black and Gold, Dove, Bardilla, Emperor's Red, and St. Ann's and Irish Black, of the finest quality and sizes. Also, about 4,000 superficial feet of English and Foreign cut Slab May be viewed previous to the Sale. Catalogues and further particulars had of the Brokers, the Marble Wharf, Thames Bank, Pimlico, at the foot of Vauxhall-bridge.

MARBLE.—POSTPONEMENT OF SALE.

MESSRS. THOMPSON and HOLMES beg to inform the trade that their PUBLIC SALE, advertised to take place on the 11th, is unavoidably POSTPONED till the 18th inst. on which day they request the attendance of their friends, the greater portion of the stock to be offered having been just landed. The MARBLE WHARF, Thames Bank, Pimlico, at the foot of Vauxhall-bridge.

TO BUILDERS, STONEMASONS, PAVIORS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE have received instructions from the Proprietor, to SELL by AUCTION, without reserve, in JUNE, at the GOODS DEPARTMENT of the MARLBOROUGH and CREEN RAILWAY, Paddington, several thousand feet of Paving, Landings, Steps, Kerb, Sinks, and Coping of the Forest of Dean Stone, which will be arranged into suitable Lots for public sale. Catalogues, when ready, will be forwarded by post, on application, or may be had at the Auctioneers', 41, Parliament-street, Westminster, or Coal Exchange.—Approved bills at three months from purchasers above £5.

To Statuary Marble Masons, Builders, and Others.

MESSRS. EVERSFIELD and HORNE have received instructions from the Proprietor, to SELL by AUCTION, on the PREMISES, Garratt-wharf, Thames-bank, near Vauxhall-bridge, on TUESDAY, JUNE 12, a valuable Stock of MARBLE; consisting of about 200 tons of very superior Statuary, Sicilian, Dove, Bricia, and Black and Gold in Block and Scantling, and about 3,000 feet Slab of various thickness; also, several pieces of Italian sculptured Figures and Monuments. Approved bills at four months will be taken in payment. May be viewed two days previous to sale, and catalogues had on the Premises, and of the Auctioneers, 41, Parliament-street, Westminster, or Coal-exchange

On MONDAY next, JUNE 4 and two following days, at TWELVE, by

SOUTHGATE and BARRETT, at their ROOMS, 23, Fleet-street, Mr. WEALE'S Stock of Ancient and Modern Books, consisting of the best standard works in Architecture and Engineering, the Fine Arts, and other Sciences; and a great variety in miscellaneous literature; together with the entire remaining Stocks and Copyrights of several important publications May be viewed, and catalogues had.

The remaining copies of Louis Haghe's last illustrated book.

SOUTHGATE and BARRETT will SELL by AUCTION, at their ROOMS, 23, Fleet-street, on TUESDAY, JUNE 5, and following day, the whole of the coloured proof, and plain copies of AYA SOPHIA, CONSTANTINOPLE, recently published, by H. M. the Sultan Abdul Majid, 25 plates in the very best style of available tinted lithography, by LOUIS HAGHE, from the original drawings by the Architect Thomas Gaspey a series of Twenty-five Interior and Exterior Views of the Mosque of St. Sophia, and four Panoramic Views of Constantinople.

*** Apart from the interest at all time to the subject here illustrated, associated as it is with the events now passing in the East, this work recommends itself by its artistic merits, the Plates supply one of the highest class, and the very last from the pencil of Mr Haghe.

TO BUILDERS AND OTHERS

TO BE LET, on LEASE, for a term of Sixty-one Years, a most desirable PLOT of FREEHOLD BUILDING LAND, containing about 1 acre, situate at Holloway, in the vicinity of the Metropolitan cattle market and the New City Prison For particulars and plan, apply at the King's Head Tavern, Holloway and of Mr. JAMES HARRISON, Architect, 10, Margate-street.

FREEHOLD LAND.—To Builders or Parties wishing to Build Suburban Residences

FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the neighbourhood of London, viz.
Forest Hill, Croydon Railway.
St. Margaret's, near Richmond, South-western Railway.
Oatlands Grange, Weybridge, Surrey, ditto.
Hertford Estate, Eastern Counties Railway.
Putney, South-Western Railway.
Rectory Estate, Edmonton, Eastern Counties Railway.
The Waddington Estate, Enfield, Eastern Counties Railway.
Wood-green, Green-lanes, Hornsey, Great Northern Railway.
Old Ford, Stratford, Eastern Counties Railway.
Each of the above estates offers its own peculiar advantages
Plots of land of any size, or for any class of houses, to the extent of One acre, may be obtained. In the two first estates, large pleasure grounds are allotted to the freeholders or tenants of houses Part of the purchase-money may remain at 5 per cent, interest. Parties assisted in the erection of their residences Builders may obtain the freeholds of plots of land to build upon, and the greater portion of purchase-money may remain at an annual charge for about ten years less than the ground-rent of the same under the usual system. In addition, therefore, to the amount to be raised on the building by mortgage, they can sell the ground-rent reserved to themselves at a large profit. Several plots to be let on building lease. Money advanced to responsible parties.—Apply to Mr. GEORGE MORGAN, Architect, 8, Chancery-lane.

BUILDING LAND TO BE LET for 300 Years.—Lease Sites for Villas, commanding views of great extent and beauty, within a hundred yards of the Carshalton Station of the Epsom Railway. Trains to and from London in half an hour.—Apply to Mr. FOWLER, Architect, 4, Gardencourt, Temple.

VALUABLE BUILDING SITE TO BE LET on Lease, situate in the High-street, Camberwell, having two frontages making together about 168 feet, having a large quantity of old materials in buildings on the ground.—For particulars apply to W. CREED, Architect and Surveyor, 64, Old Broad street, City, where a plan of the estate can be seen

TO BUILDERS AND OTHERS.

BUILDING FRONTAGES TO BE LET, for detached or semi-detached VILLAS, in BLESSINGTON ROAD, Belmont, Lee, Kent, close by the church. This is the most attractive, picturesque, and respectable locality on any side of London, from which it is only distant one quarter of an hour by railway, and five minutes' walk from the Blackheath Station of the North Kent Railway. Accommodation will be afforded to respectable men.—For particulars, apply to Messrs J. and C. W. TODD, Miner-street, Brompton; or at their office in Church lane, Lee; or to Messrs. NELSON and INNESS, 9, Whitehall; or to Mr. WELLINGTON, Wellington-chambers, Strand.

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The Builder.

Architect, Engineer, Operative & Artist.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square. The Exhibition of the Royal Academy IS NOW OPEN—Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A. Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s.
JAMES FAHEY, Secretary.

THE CHALON EXHIBITION, SOCIETY of ARTS. This Collection of the Paintings, Drawings, and Sketches of the late John Chalon, esq. R.A. with a Selection from the Works of Alfred E. Chalon, esq. R.A. is NOW OPEN, at the Society's House, Adelphi. Admission, 1s.

MONTI'S LECTURES on ANCIENT and MODERN SCULPTURE.—The Third of these LECTURES will be delivered on WEDNESDAY, JUNE 13th.—Subscribers' and Single Night Tickets, to be had at Messrs. COLNAGHI'S, Pall-mall East.

TO the MAGISTRATES of the COUNTY of MIDDLESEX.
MY LORDS AND GENTLEMEN,—Allow me respectfully to return you my sincere thanks for the honour of the support with which you have this day favoured me in electing me Surveyor for the district of East Islington, and I trust you will find me fulfil the duties of the office with diligence and integrity.
I have the honour to be, my Lords and Gentlemen, your very obedient servant. JOHN TURNER.
15, Wilton-street, Grosvenor-place, May 31, 1855.

BUILDERS' BENEVOLENT INSTITUTION.—An ELECTION of FOUR PENSIONERS—TWO MALES and TWO FEMALES, was held on THURSDAY last, MAY 31, at the LONDON TAVERN, Bishopsgate-street;
WILLIAM LEE, Esq. M.P. President, in the Chair.
The result of the poll was as follows:—

SUCCESSFUL CANDIDATES.			
Thomas Simmons	1,877	Mary Smith	2,110
Jno. Chapman	1,803	Sarah Larner	1,931
The others were			
W. S. Evans	1,284	W. Weston	36
W. Liddiard	1,099	J. St. George	32
J. Miller	80	Jane Sanders	1,730
H. Charmside	68	Phebe Pardon	1,430
W. Goodfellow	40	Ann Buckingham	344

A. G. HARRIS, Secretary.
Offices, 19, Southampton street, Bloomsbury, June 4, 1855.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster.—Midsummer Session, 1855.
A LECTURE will be delivered on MONDAY, JUNE 18th, at Eight o'clock, on Tile Pavements, by the Rev. Lord Alwyne Compton. Cards for the Course or Single Lecture may be had at the Museum, and at the Office of "The Builder." Catalogues, 6d. each. HENRY CLUTTON, Hon. Secretary.
June 8, 1855.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster.
The Committee of the Architectural Museum are desirous of ENCOURAGING and IMPROVING the practice of Fine-Art Workmanship in Stone, Wood, and Metal, and Decorative Painting. They have determined during the present year to offer a PRIZE of FIVE GUINEAS for the best SPECIMEN of WOOD CARVING which shall be exhibited in the present year in the Rooms of the Museum during the month of November. In addition to this, a Prize of Five Guineas, Three Guineas, in money, and Two Guineas, in books, will be given by Mr. RUSKIN, for the three most successful SPECIMEN exhibited at the same time in the Rooms of the Museum, of STONE CARVING.
Prospectuses, containing particulars of the competitions, may be obtained at the Rooms of the Museum, between TEN and FOUR o'clock.
June 1, 1855. GEORGE GILBERT SCOTT, Treasurer. JOHN RUSKIN.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE BURIAL-BOARD for the Parish of GREENWICH is desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising Grand Plans, Sections, Elevations, and Specifications, for LAYING OUT, PLANTING, and ENCLOSING a NEW BURIAL-GROUND, with suitable Entrance gates, and for ERECTING TWO CHAPELS, LODGE, and SEXTON'S HOUSE thereon. A separate and fully detailed estimate of the cost must be furnished. The land contains sixteen acres, a plan of which may be seen, and further information obtained, at the Office of the Clerk to the Board. The party whose designs shall be accepted will, at the option of the Board, either have the superintendence of the works, or be paid the sum of 25*l.* for his designs, but the Board does not pledge itself to accept any of the designs. All plans, &c. will, the estimates, must be delivered in on or before the 25th day of JUNE next, at FIVE o'clock in the Afternoon, at the Clerk's Office, No. 1a, Burney-street, Greenwich. Each plan must be distinguished by a motto, and be accompanied by a sealed letter, and sealed with the like motto, and containing the competitor's name and address.
E. W. JAMES, Clerk to the Board.
Greenwich, 30th May, 1855.

CONTRACTS.

WIGAN LOCAL BOARD of HEALTH.
WATERWORKS.—To ENGINEERS, IRON-FOUNDERS, BRASS-FOUNDERS, CONTRACTORS, EXCAVATORS, and OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:—
CONTRACT No. 1.—For the supply of about 1,000 tons of CAST-IRON WATER-PIPES, and other CASTINGS.
CONTRACT No. 2.—For the supply of SLUICE VALVES, HYDRANTS, and STREET FITTINGS.
CONTRACT No. 3.—For the supply and erection of Duplicate STEAM-ENGINES, BOILERS, PUMPS, and RISING MAIN. Each Engine to be capable of raising ONE MILLION GALLONS of Water, ONE HUNDRED FEET high, in TWELVE hours.
CONTRACT No. 4.—For the construction of a COVERED SERVICE RESERVOIR.
CONTRACT No. 5.—For the formation of a TUNNEL about 500 yards in length, and 15 feet internal diameter, with SHAFTS, and TUNNEL ENTRANCES.
CONTRACT No. 6.—For Masonry and other work in STONE IMPOUNDING WALL for STORAGE RESERVOIR.
CONTRACT No. 7.—For EARTHWORK, PUDDLING, &c. in EMBANKMENT for STORAGE RESERVOIR, including MASONRY, BRICKWORK, &c. in VALVE and OUTLET WELLS, GAUGE BASINS, and RETAINING WALLS; also a TUNNEL under site of Embankment.
The drawings and specifications may be seen, and any further information may be obtained on and after the 4th day of JUNE, on application at the Office of the Local Board of Health, Wigan; or at the Offices of ROBERT RAWLINSON, C.E. 24 Parliament-street, Westminster. Specifications and duplicate forms of Tender, Schedules, and Bills of Quantities, for Contracts Nos. 1 and 2, may be had on payment of 10*s.* each; and for Contracts 4, 5, 6, and 7, on payment of 1*l.* 1*s.* each. Quantities supplied. Sealed Tenders to be lodged at the Office of the Local Board, Wigan, before TWELVE o'clock, on MONDAY, the 18th day of JUNE, endorsed "Tender for Contract No. 1, 2, 3, 4, 5, 6, or 7," as the case may be. The Local Board do not bind themselves to accept the lowest or any Tender.
(Signed) WILLIAM ACKERLEY,
Wigan, 14th May, 1855. Solicitor to the Local Board.

WORTHING LOCAL BOARD of HEALTH.—WATERWORKS. To IRONFOUNDERS, BUILDERS, CONTRACTORS, and OTHERS.—The LOCAL BOARD hereby give NOTICE, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:—
CONTRACT No. 11.—For the supply and erection of a CAST-IRON WATER-TANK, 40 feet square, and 17 feet deep.
CONTRACT No. 12.—For the construction of a WATER TOWER.
CONTRACT No. 13.—For the construction of an ENGINE and BOILER HOUSE, CHIMNEY, and other works connected therewith.
The drawings and specifications may be examined on and after the 23rd instant; and any further information may be obtained on application, at the Office of the Local Board, Worthing; or at the Offices of ROBERT RAWLINSON, C.E. 24, Parliament-street, Westminster.—Sealed Tenders to be delivered at the Office of the Local Board, Worthing, before TWELVE o'clock, on TUESDAY, the 12th day of JUNE next, endorsed "Tender for Contract No. 11, 12, or 13," as the case may be.
(Signed) WM. HUGH DENNETT.
Worthing, May 22, 1855. Clerk to the Local Board.

BOROUGH of LEEDS.—To ENGINEERS, IRONFOUNDERS, SMITHS, JOINERS, MASONS, PLUMBERS, GLAZIERS, and PAINTERS.—Persons desirous of ESTIMATE for the various WORKS required in the CONSTRUCTION of a COVERED MARKET, proposed to be erected by the mayor, aldermen, and burgesses of the said borough, in the Kirkgate Market-place, in the town of Leeds, may see the plans, sections, and specifications, on and after MONDAY, the 4th day of JUNE next, at the Office of Mr. CHARLES TILNEY, C.E. 10, Greek-street, Leeds. Sealed Tenders for the said works are to be delivered at the Town Clerk's Office, not later than ELEVEN o'clock, a.m. on MONDAY, the 2nd day of JULY next, addressed to "The Chairman of the Market Committee." The Market Committee do not pledge themselves to accept the lowest or any Tender, and no allowance whatever will be made for estimates.
By order. JOHN A. IKIN, Town Clerk.
Town Clerk's Office, Leeds, May 24, 1855.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before the 26th day of JUNE, 1855, from persons desirous of CONTRACTING with the Honourable Board of Ordnance for WORKS and REPAIRS at the CITADEL, DOVER. Plans and specifications of the works may be seen, and forms of Tender obtained, at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 11th to the 26th JUNE, 1855, Sundays excepted. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately to be bound, under a penalty of 2,000*l.* for the due performance of the contract. Tenders for the above works to be addressed to the "Secretary to the Board of Ordnance, Ordnance Office, Pall-mall, London," and endorsed "Tender for Works at the Citadel, Dover."
N.B. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.
Royal Engineer Office, Dover, May 24, 1855.

CONTRACTS.—NOTICE to BUILDERS.
Such persons as may be desirous of CONTRACTING with the Honourable Board of Ordnance for CONSTRUCTING TEMPORARY BARRACKS for 3,000 men, at COLCHESTER, are requested to send in sealed Tenders, addressed to the Secretary to the Board of Ordnance, Office of Ordnance, Pall-mall, on or before MONDAY, 25th JUNE, 1855. The party whose Tender for constructing Temporary Barracks for 3,000 men at Colchester, "to be written on one corner of the envelope. Specifications of the above work, with the form of Tender, may be obtained at the Royal Engineer Office, Harwich, any day (Sundays excepted), from THURSDAY, 14th JUNE, till THURSDAY, 21st JUNE, 1855, between the hours of TEN and FOUR o'clock.
N B The Board of Ordnance reserve to themselves the right of rejecting the whole or any part of the Tenders, and no offer will be accepted but from such person or persons as may be considered competents to perform the work.
Royal Engineer Office, Harwich, May 31, 1855

TO BUILDERS.
SEALED TENDERS, for a specific sum, will be received at the Ordnance Office, Pall-mall, London, on or before the 26th instant, for the following SERVICES, viz.: REMOVING LIME-STONE ROCK in the GOVERNMENT QUARRIES, and BUILDING ESCARP and RETAINING WALLS of the NEW BASTION and EXTREME RIGHT of the LINES, Devonport. The detailed plans may be seen, and specification of contract, together with every requisite information, may be obtained daily (Sundays excepted), at the Royal Engineer Office, Devonport, between the hours of TEN and FOUR o'clock, from the 11th to the 19th inst. both days inclusive
Royal Engineer Office, Devonport, June 6, 1855.

NOTICE to BUILDERS.—ORDNANCE WORKS.—SEALED TENDERS, addressed to the Inspector General of Fortifications, Office of Ordnance, Pall-mall, London will be received on or before the 18th JUNE next, for the CONSTRUCTION and ERECTION of HUT BARRACKS at Hilsea, near Portsmouth. Plans and specifications and plans for the above service may be seen, and the form of Tender obtained, with every information, at the Royal Engineer Office, Pembroke Dock. The Inspector General reserves to himself the right of rejecting the whole or any of the Tenders.
Royal Engineer Office, Pembroke Dock, 31st May, 1855.

Royal Engineer Office, Chatham, June 7, 1855.
TO CONTRACTORS. — Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 25th day of JUNE, 1855, from persons desirous of CONTRACTING with the Honourable Board of Ordnance, for providing TWELVE additional WATER CLOSETS, at the rear of the Officers' Quarters, CHATHAM BARRACKS. Plans and specifications of the works to be executed, forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 23rd of JUNE, 1855, Sundays excepted. Any person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and separately to be bound under a penalty of 300*l.* for the due performance of the Contract. Tenders (to be addressed to the Secretary to the Board of Ordnance, Ordnance Office, Pall-mall, London, and to be delivered free, endorsed "Tender for Works at Chatham") of Tender can be admitted after the 25th day of JUNE, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house No. 1, Greek-street, Soho-square, on TUESDAY, the 19th day of JUNE instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intercepted BRICK and PIPE SEWERS, altogether in length or thereabouts, with other Works in connection therewith, in Lower Mortlake-road and Marsh Gate-road, Richmond, in the County of Surrey, and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender may be inspected, and blank forms obtained at the principal Office of the Commissioners, No. 1, Greek-street, Soho square, between the hours of NINE A.M. and FOUR P.M. until the 18th inst. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.
E. H. WOOLRYCH, Secretary.
No. 1, Greek-street, Soho square.
Dated this 7th day of June, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

THE BURIAL BOARD for the Parishes of the Borough of Chepping Wycombe and Chepping Wycombe, are desirous of receiving DESIGNS, comprising sound plans, estimates, and specifications for a PORTICO [Doubtful] in the Gothic style for a new BURIAL GROUND, at a cost not exceeding 200l. Designs to include two bed-rooms, a sitting-room, scullery, and a coal-cellar. The plans to exhibit the different parts of which it may be composed, and further information obtained at the office of the Clerk to the Board. The party whose design is selected shall be paid the sum of 5l. for the same. Designs to be sent to the Clerk to the Board before ELLEVEN o'clock in the Forenoon of the 16th day of JUNE next, endorsed, "Design for Porter's Lodge." THOMAS J. REYNOLDS, Clerk to the Board.

Chepping Wycombe, May 24th, 1855.

TO GASHOLDER MAKERS

THE DIRECTORS of the CHELMSFORD GASLIGHT and COKE COMPANY are prepared to receive TENDERS for the SUPPLY and ERECTION of an additional GAS-HOLDER, with guide-frame, connections, &c. Copies of plans and specification can be seen, either at the Company's Offices, Chelmsford, or by application to Mr CHURCH, Phœnix Gas-Works, Gravesend, at which latter place information required may be obtained of the Engineer, Mr JABEZ CHURCH, Chelmsford, to whom Tenders are to be sent not later than the 31st day of JUNE next.

June 1st 1855.

NORTH-EASTERN RAILWAY.—The Directors of the North Eastern Railway Company are prepared to receive TENDERS for the undermentioned Articles, in such quantities as they may require, from the 1st of JULY to the 31st of DECEMBER, 1855, to be delivered into the Company's Storehouses, at Newcastle, Gateshead, York Leeds, or Hull. Payment for each month's delivery at the end of three months, or cash, deducting the usual.

1 Timber Deals, &c.	12. Tallow Grease, Candles, Oils, and Turpentine
2. Best English Oak Waggon Wood	13 Varnish, Paints, and Sundries
3. Sleepers, Keys, Fence Railing and Posts.	14 Brushes
4. Chairs, Switches, &c.	15 Ropes, Hemp, and Spunyarn.
5 Nails and Chains.	16. Cotton Waste and Lamp Wick.
6 Hardware.	17. Carriage Cloths, Linings, &c
7. Steel Files and Springs.	18 Leather
8. Tire Hoops.	19. Coke Baskets.
9 Locomotive Tubes and Brass	20. Glass.
10 Copper and Tin.	
11. Lamps and Tin Work.	

Forms of Tenders may be had on application to Mr BARNES, Stores, Gateshead, on and after MONDAY, the 11th of JUNE; and Tenders must be sent in, addressed to the Secretary at York, sealed, and marked "Tender for Stores," on or before MONDAY the 25th JUNE The Directors do not bind themselves to accept the Lowest Tender -By order,

W. O'BRIEN, Secretary.

York, June 1, 1855.

NOTICE to CONTRACTORS.—SWANSEA HARBOUR.—The Swansea Harbour Trustees are, by "The Swansea Harbour Act, 1854," authorised to construct and execute the following Works:

1st A Dam across the Old Channel of the River Tawe, opposite the Pottery Mill, with a Lock therein, to excavate the Pottery Mill Pool, and convert the same into a Basin for Barges.

3rd To construct on both sides of the existing new Ship Cut, certain portions of Quay Walls, to be completed by the owner of the adjoining lands.

4th. A Dam across the River Tawe outside the existing Float, and to form the old part of the river from that point to the Float into a Half-tide Basin of an area about 21 acres, and deepen the same to a level of 25 feet below the high-water mark, ordinary spring tides.

7th. To construct on the East side of such Half-tide Basin, certain portions of Quay Walls, to be completed by the owner of the adjoining lands.

8th. To excavate and deepen the present navigable Channel from the Town Float to the Sea.

7th. To alter and extend the West Pier of Swansea Harbour to the extent of about 600 feet, and erect a New Lighthouse on such Pier, and to remove a portion of the East Pier, and construct a New Head to that Pier

8th. A Railway diverging out of the line of the Swansea Vale Railway for the purpose of removing the ballast of vessels frequenting the harbour.

The Trustees are also empowered to make all necessary Bridges, Roads, Quays, Landing places, and other conveniences connected with the above works. The Trustees have under considerable progress with the deepening of the Channel from the Floating Harbour to the Sea, and are now exercising no Powers or Powers for executing the following portions of the remaining Works, viz

First The construction of certain portions of quay walls on each side of the New Ship Cut below the present bridges, 1,450 feet in length, or thereabouts.

2nd. For the construction of a Lock, with all the necessary gates, coffer-dam, walls, and embankments in the bed of the River Tawe, near the north end of the Town Float.

3rd. The construction of a Canal Lock between the Swansea Canal and the Harbour, together with the formation of certain walls and embankments.

4th. The deepening of the bed of the Harbour between the proposed Lock and the Town Float.

Plans, Sections, Estimates, and conditions of the foregoing Works may be seen at the Offices of JAMES ABERNETHY, Esq C.E. Engineer of the Trustees, at 3, Parliament-street, Westminster; and at the Offices of the Trustees, at Swansea, on and after the 1st MAY inst. Tenders for the whole or part of the works as described in the conditions) to be forwarded to me by the 14th day of JUNE next. LEWIS THOMAS, Clerk to the Trustees.

Harbour Offices, Swansea, 15th May, 1855.

NEW METROPOLITAN CATTLE-MARKET.—The Markets Improvement Committee of the Corporation of London meet at Guildhall, on TUESDAY, the 5th of JUNE next, at ONE o'clock, precisely, to receive PROPOSALS from parties willing to TAKE AWAY the MANURE and SOIL from the Market-place, and Sweep and Cleanse the Roadways and Footways therein, and thereto and from the same. The conditions may be seen and further particulars obtained by applying personally at the Markets Office, Guildhall, any day (Sundays excepted) between the hours of TEN and FOUR o'clock.

TO BUILDERS

PERSONS desirous of CONTRACTING for the REBUILDING of the PARISH CHURCH of LLANDUGWYDD, about three miles east of Cardigan, may inspect the plans and specification at the office of THOMAS MORGAN, Esq. Solicitor, Cardigan, on and after the 11th instant; and any further particulars may be obtained on application to the Architect, Mr. E. J. WITHERS, 7, John-street, Adelphi, London. The Tenders to be delivered, free of expense, on or before the 30th inst. and addressed to the Rev. D. EVANS, the Rectory, Llandugwydd, Cardigan. - Llandugwydd, Cardigan-shire, 3rd June, 1855

TO BUILDERS AND OTHERS.

THE TRUSTEES of SAINT THOMAS'S HOSPITAL, in SANDWICH, Kent, are desirous of receiving plans and estimates for the ERECTION of an ALMS-HOUSE, to contain twelve living-rooms, of dimensions not less than 14 feet by 12 feet, with auxiliary pantry, 8 feet by 5 feet, adjoining to each, and all other requisite conveniences, such building to be divided into two compartments, for the use of eight brothers and four sisters, and with or without a common dining hall. The proposed site contains by admeasurement, 160 feet towards the north, 140 feet towards the east, 210 feet towards the south, and 165 feet towards the west, contiguous to the town of Sandwich. The plans for the above are required to be on the most improved and sanitary principles, and of Mediæval, plain domestic architecture. Tenders, with drawings and estimates, from persons willing to plan and construct the above, to be sent to us, the undersigned, on or before the 21st day of JUNE instant. The trustees do not bind themselves to accept the lowest Tender.

SURRAGE and EMMERSON.

Sandwich, June 4, 1855.

CONTRACTS.

TO BUILDERS AND CONTRACTORS.

BUILDERS desirous of CONTRACTING for the ERECTION of the VESTRY-HALL and OFFICES, for the parish of Halstead, are informed that the plans, specification, and general conditions, may be seen at the Offices of Mr FREDERICK W FIDDI N, Architect, 10, Bucklersbury, Cheapside, London, and at the Vestry-hall, Halstead, on and after MONDAY next. Remuneration Twenty-guineas each and proposed "O SMART and R MOLE, Esqrs. the Churchwardens," and delivered at the office of the Architect, not later than the 14th day of JUNE next. The Churchwardens do not bind themselves to accept the lowest Tender -14, Bennett's hill, Birmingham, May 28, 1855.

TO BUILDERS

NEW CHURCH, PARSONAGE SCHOOL, MASTER'S HOUSE, and SCHOOLS, at Sambrook, near Newport, Shropshire.—Wanted, TENDERS for the ERECTION of the above Buildings. Plans and specification may be seen at the Office of Mr. REES, Relieving Officer, Newport. Sealed Tenders addressed "Building Committee," to be sent to Mr. REES, on or before the 26th of JUNE. Further information will be given by BENJAMIN PERRY (late Architect), Trinity-place, London, or by Mr. EDWIN BEATON, Land Agent, Leek. The Committee do not bind themselves to accept the lowest Tender.

TO BUILDERS.

HUNTINGDON UNION WORKHOUSE. Persons willing to TENDER for the EXECUTION of the WORKS in the ENLARGEMENT of the HUNTINGDON UNION WORKHOUSE, may see the drawings, examination, and obtain further particulars at the office of Mr. LEWIS CURTIS, Architect, 23, Bedford-square, London, between the hours of TEN and THREE. Tenders to be delivered at my Office, in Huntingdon, addressed to the Chairman of the Board of Guardians by ONE o'clock on THURSDAY, the 14th day of JUNE next. The Tenders will be taken into consideration by the Guardians on the SATURDAY following, at TWELVE o'clock at noon. The lowest Tender will not necessarily be accepted.

W. M. KELLOR, Clerk to the Guardians.

Huntingdon, May 23, 1855.

TO BUILDERS AND CONTRACTORS.

CHESTERFIELD MARKET-HALL.—EXTENSION of TIME for TENDERS. The Directors of the Chesterfield Market Company are prepared to receive TENDERS for the ERECTION of a MARKET-HALL and other Buildings in the Market-place, Chesterfield. Drawings and specifications may be seen, on and after MONDAY, the 11th day of JUNE, at the Office of Messrs SHIPTON and HADDELL, Solicitors, Chesterfield, and any further particulars may be obtained on application to the Architects, Messrs EDEN and FEW, Chesterfield. Tenders must be sent in to the Secretary by TEN o'clock, a.m. on MONDAY, the 2nd of JULY. Bills of quantities may be obtained on payment of 1l. for each copy, from the Secretary, or from Messrs BATSTONE and HUNT, Surveyors 11, Park-street, Westminster, on and after MONDAY, the 25th JUNE The Directors do not bind themselves to accept the Lowest or any Tender.

By order,

GEORGE WALLIS, Secretary.

Chesterfield, June 5, 1855.

SEWAGE MANURE.—The Chelmsford Local Board of Health are willing to receive TENDERS for the PURCHASE of the LIQUID MANURE arising from the Houses in their district. They will be prepared to provide the requisite engine power, and also to pump the manure; but all pipes from the mains and all pumps to be provided and laid by the contractor. All persons tendering must state 1st. The probable distance from at the point above the engine house to which they will undertake to pump d. 2 The size and kind of pipes they propose to lay from the yard of the Local Board to any reservoir they may construct. 3 The process of filtration, precipitation, or distribution they may propose to adopt; and, 4. The term of years for which they will require the contract to be entered into, and the annual sum they will engage to pay. The quantity of liquid manure arising when the houses are connected will be from 150 to 200 gallons per minute during the ten working hours The engine house being at the extremity of the closely-inhabited part of the district, a process of filtration or precipitation may be placed within a short distance, provided no nuisance is thereby occasioned. Tenders, endorsed, "Tenders for Sewage Manure," to be delivered to ANDREW MEGGY, Clerk to the said Local Board, on or before TWELVE o'clock at noon on WEDNESDAY, the 27th JUNE next; and any inquiries for further information in the meantime to be addressed to Mr J. PLENTON, Engineer and Surveyor to the Local Board, Chelmsford, Essex. The Local Board do not bind themselves to accept the lowest or any Tender.

ANDREW MEGGY, Clerk to the said Local Board.

Chelmsford, May 24, 1855.

TO BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for the Building of TEN ALMS-HOUSES, for the Worshipful Company of Mercers at Stepney, in the County of Middlesex, may see the plans and specification on application to Mr. GEORGE SMITH, at the Surveyor's Office, Fredericks-place, Old Jewry, between the hours of TEN and FIVE Tenders must be delivered at Mercers'-Hall, Ironmonger-lane, on or before TEN o'clock, the 16th day of JUNE next, directed to H. E. BARNES, Esq. and endorsed. Security for the due performance of the Contract will be required The Company do not pledge themselves to accept the lowest or any Tender.

Surveyor's Office, Mercers'-Hall.

GREAT WESTERN RAILWAY.—CONTRACT for STATION BUILDINGS.—The Directors of the Great Western Railway Company will receive TENDERS for the ERECTION of STATION BUILDINGS at Frampton, Maiden Newton, Evershot, Yeovil, Sparkford Bratton, and several intermediate places, on the Wilts, Somerset, and Weymouth line of this railway Drawings and specifications may be seen, and forms of Tender with any further information obtained, at the Engineer's office, Paddington, on and after THURSDAY, 31st instant, and Tenders are to be addressed to the Secretary, on or before WEDNESDAY, the 13th JUNE. The Directors do not bind themselves to accept the lowest Tender.— May 25, 1855.

TO BUILDERS.—STRATFORD-UPON-AVON CORN EXCHANGE.—Persons desirous of CONTRACTING for the ERECTION of the same, are informed that the Drawings, Specification, and form of Tender will be ready for inspection on and after THURSDAY, the 31st inst. at the Office of EDWARD GIBBS, Architect, Engineer, and Surveyor, of Stratford-upon-Avon. The Tenders are required to be delivered to the Architect on or before the 15th day of JUNE, 1855 The Directors do not bind themselves to accept the lowest or any Tender — By order,

HENRY BES. SOWTON, Solicitor.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Corn and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

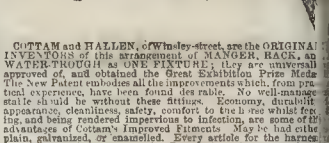
No. 3	4	5	6
5s. 4d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNGS, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

COTTAM'S NEW PATENT for STABL... REQUISITES.

COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLERS, plain or enamelled.

Castings Warehouse removed from 81 to 48, Upper Thames-street.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON and CO. 42, Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel. Prospectuses, with testimonials, sent on application.

HEATING by HOT WATER.—J. JONES Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars ornamental and plain supply cisterns, double doors and frames furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron bridge.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS, at Messrs. Weeks' establishment, at which with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense of 1d. per day in fuel and labour of 3s. 6d. This achievement in heating by hot water is unprecedented.

WARMING and VENTILATING.—COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having thirty years' experience, and having warmed by the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, galleries, conservatories, and private houses, do can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense of the conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment, where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and CO opening to the Monument, London-bridge Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE, BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and soot are entirely effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 165, Regent-street, London.

STEPHENSON and PEILL, 61, Gracechurch-street, London, and 17, New Park-street, Southwark, Manufacturers of COPPER CYLINDRICAL and improved CONICAL IRON BOILERS, and Conservatory and Hot-house Builders, either in wood or iron, respectfully call the attention of the nobility, gentry, and surveyors to their simple but efficacious method of warming horticultural and other buildings by Hot Water. From the extensive works they have executed, references of the highest respectability can be given, and full particulars furnished on application.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, Grey-road, near the Canal-bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and noiseless spring, swing, double acting, cast, and other Hinges, Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 69, Greek-street, Soho, or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent articles, sugar-mills, &c.

A. MOREWOOD and CO. (late Morewood and Rogers), Dowgate Dock, Upper Thames-street, London, and Backerville Works, Birmingham. Patent Galvanized Tinned Iron, and Galvanized Iron in Sheets, plain or corrugated, and curved, of all gauges. Manufactured articles always kept in stock. Pails, scoops bowls, riddle-, skips, &c. of all sizes. Also the Patent Galvanized Tinned Iron Tiles, Patent Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c. Estimates given for every description of Galvanized Works Roofs, &c.—MOREWOOD and ROGERS' Patent Plumbic Zinc, a substitute for Sheet Lead. Plumbic Zinc is a perfect combination of lead and zinc, and not requiring to be more than one-fourth or one fifth as thick as sheet lead, is consequently much cheaper than that material. The Patent Stamped Black Wrought-Iron Eaves Gutter, in four sizes, kept in stock, 7½d. per yard, for 4-inch, and other sizes in proportion.—Discount to the trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,
Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor, and Ironfounder, Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of Buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch-street, City.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated.—Roofs fixed complete.
J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
An Allowance to the Trade.

HOSE PIPING.—To ENGINEERS, AGRICULTURISTS, GARDENERS, SHIP CHANDLERS, and FIRE BRIGADES.—WAITHMAN'S PATENT FLAX TUBING (Linen to 3 inches in diameter) will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 60 per cent. cheaper than the leather hose-pipe. Manufactured only by WAITHMAN and CO. Bentham, Lancaster.

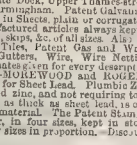
Inches in diameter and price per yard:—

½	¾	1	1¼	1½	2	2½	3
11d.	1s. 1d.	1s. 3d.	1s. 7d.	1s. 9d.	2s.	2s. 3d.	2s. 9d.

Testimonial from Mr. WRIGHT, Lancaster:—
"I beg to inform you that I yesterday tested your piece of 2½-inch Patent Flax Tubing, connected with the Lancaster Waterworks, in the presence of the Mayor, Mr. Rawlinson, Government Inspector, Professor Owen, &c. The column of water at which the Tubing sustained, was equal to 346 feet in height, or about 150 pounds on the square inch, and I have pleasure in stating that the hose sustained this pressure most admirably."
Testimonial of Capt. MARTIN, of the Great Britain Steam-ship:—
"I have much pleasure in being able to tell you that your hose supplied to the Great Britain and other ships, is well worth the attention of shipowners. It gives us much satisfaction."
Testimonial from FAIRBAIRN and CO. of Leeds:—
"We have tested your hose, 3½ inches in diameter, with the pressure of the Leeds Waterworks, and found it highly satisfactory."

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.
Manufacturers of the Iron Railway Chair, Forge and Engine Work, Cast-Iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Bite-lane, London.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

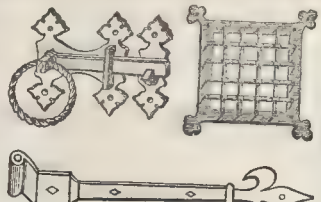


Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 8d. 6d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
2ft., 2l. 18s.; 3 ft. 6 in., 3l. 8s.; 4 ft., 3l. 18s.
Cottage Ranges, with ovens and back boilers, 30s. each.
Best self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 6s. Ditto, Scotch, 8s. per cwt.
Best Patent Sash Line.

1.	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

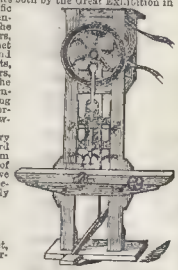
And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter (paid).

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.



An Illustrated Catalogue on receipt of six postage-stamps.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.
PRIZE MEDALS have been awarded to these celebrated Machines both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom by joiners, contractors, coach and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring.
Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.



POWER MORTISING MACHINE.

Sold only by
WILLIAM FURNESS,
Atcutter, No. 20, Lawton-street, Liverpool, from whom full particulars may be obtained.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinet-makers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they combine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

ESTABLISHED 1817.
WILLIAM HARMER'S SMITH'S WORK, STOVE and RANGE MANUFACTORY and IRONMONGERY, METAL, and ZINC WAREHOUSE, 19, Horseferry-road, and 1, New Peter-street, Westminster. Contractors, Builders, &c. supplied with general Ironmongery, at the lowest wholesale prices.
Cottage Ranges, with Oven or Boiler complete, 22s. each.
Self-acting ditto, with ditto, from 30s.
Self-acting Oven and Boiler Ranges, with Wrought Fittings, Brass Tap, &c. complete, from 45s.
Register Stoves, from 5d. per inch
Elliptic ditto, with double Backs, from 2½d. per inch
Rain Pipes { 2 2½ 3 inch.
{ 11d. 1s. 2d. 1s. 3d. per yard.
4-inch Eaves' Gutters, 9d. per yard.

O. G. Gutters {	3½	4	4½	5 inch.
	1s. 1s. 1d.	1s 3d.	1s. 6d.	per yard.
Best Cut Clasp }	1½	2	2½	3 inch, and larger
and Rose. }	10s.	12s. 6d.	13s.	13s. 6d. per cwt.

1-inch best Cut Lath, 1s. 6d. Sheet Floor Brads, 12s. per cwt.
Sash Weights, 7s. 6d. per cwt. 9-inch Air Bricks, 4s. 6d. per doz.
6-inch Sink Traps, 9s. per doz. Strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing.—Estimates given for Iron Raining, Gates, Balconies, and Ironwork of every description.

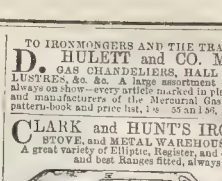
TO IRON MANUFACTURERS, Founders, and Shipping Merchants in want of OLD IRON.—Apply at JACOBS and HYMAN'S Wharf, Thornhill Bridge, Caledonian-road, King's-cross, where they can be supplied with from 1 to 200 tons, at the lowest market price.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

TO IRONMONGERS AND THE TRADE GENERALLY.
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 1 s. 35 and 36, High Holborn.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

30	32	34	36-inch,
28s.	29s.	32s.	34s.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch,
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 6d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe {	2	2½	3 inch.
	11d.	1s. 2d.	1s. 4d. per yard.
Cast Gutters—4-inch, 9d. per yard.			
O G Gutters {	4	4½ inch.
---	---	---
	1s. 1d.	1s. 3d. per yard.
Best Cut Clasp }	1½	2	2½	3 inch, and larger.
and Rose }	13s.	14s	15s. 6d	13s. 12s 6d. per cwt.

Cut Sheet Rolled Brads, 12s. per cwt.
1 inch Cut Lath, 14s. 6d. Cast Lath, 11s. 6d.

Patent Line {	3	4	5	6
	4½d.	6d.	7d.	9d. 1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R BARTLEET, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 6s. 6d. shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
13a, Strand, London.
67, 68, le-park-street, Glasgow.
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TO IRONMONGERS, BUILDERS, &c.
PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 35, High Holborn.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEELE and STEDALL'S,
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES,
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Nail Manufacturer and General Factor,
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CIRCULAR IRON STAIRCASE for SALE.—TO BE SOLD, an ornamental CIRCULAR IRON STAIRCASE, occupying a space of 84 inches, with iron hand-rail cased with brass, and iron balusters complete. Made by Cottam and Halleo. May be seen at Messrs. SPALDING and HODGES, 147, Drury-lane.

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EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL, Manufacturer of Wrought Iron Tubing for Gas, Steam, and Water; Stocks, Taps, and Dies, and all kinds of Gas Fittings.

TO BE SOLD, by PRIVATE CONTRACT, a variety of SMITH and ENGINEERS' TOOLS, &c. comprising 6-horse Engine, 10½-inch Centre Lathe, with 6-feet Iron Bed, capital Pattern-maker's Lathe, Hand-power Wheel, Forges, Bellows, Smiths' Tools, Grindstones, and Vice Benches; also, an excellent Cooking Range, suitable for a Club or Hotel. Apply at 30, Marlborough Mews.

TYLOR'S improved METAL-BOUND PAINTING BRUSHES.—These are the lightest metal-bound painting brushes hitherto introduced; the ferules are perfectly secure against the action of all kinds of varnishes and colours, the caps will not burst or rust when the brushes are placed in water, and the handles cannot come loose.—Price lists forwarded, post free, on application to the Manufacturer, J. B. TYLOR, 3, Bury-court, St. Mary-axe, London.

KENT'S PAINTING-BRUSHES are of the best quality, and may be obtained at all the first houses in the trade, and of the Manufacturers,
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VASES, STATUARY, CHIMNEY-TOPS, &c. in PORTLAND CEMENT.—A quantity of IRON and PLASTER MOULDS for the same TO BE DISPOSED OF; they are modern designs, in good condition, and will be sold much below cost price. For particulars apply to FULLWOOD, THOMPSON, and CO. Bridgewater.

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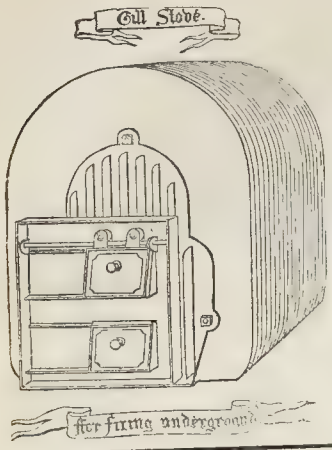

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PATENT GILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

STUART AND SMITH,

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confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

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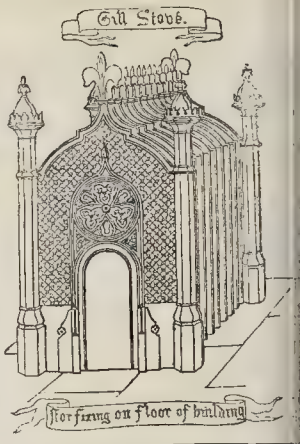

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CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

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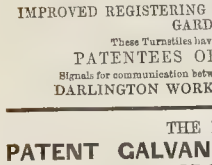

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With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings.

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Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 3 inches up to 10 inches each corrugation, in all lengths up to about 11 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock, or galvanized to order.

The Trade supplied wholesale with Galvanized Water buckets, Wire, Poultry, and other Nettings, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters plain and moulded, Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pullers; Copper Rope Lightning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, at 1d. per square foot. Dry-hair Felt for Deadening Sound, for Boilers and Steam Pipes, made in rolls 20 yards long, at a greatly reduced cost.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chains, Anchors, &c.

THE TRADE SUPPLIED ON LIBERAL TERMS.

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Also 18, ST. MARY'S-GATE, MANCHESTER.

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PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

TUCKER and REEVE'S LOCKS afford absolute security at a moderate price.

"The novel and evidently effective principle of security on which these locks are constructed, places them at once in the foremost rank of such inventions; in the present state of the art, picking them would seem to be impracticable."—*Standard.*

Depôt: 181, FLEET-STREET; where also may be had PRICE'S FIREPROOF SAFES, &c.

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HOBBS'S PATENT AMERICAN AN... ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and CO. are now manufacturin... their celebrated American and English Locks, on the premise... 97, Cheapside, and 33, Lawrence-lane, London; where, by t... introduction of their patent steam machinery, they are enabled ... guarantee superior workmanship, combined with greater securit... at a moderate price, than in any locks produced either in town ... country.

EVERY LOCK being MADE and FINISHED at the MAN... FACTORY, is warranted, and bears their OWN STAMP, witho... which none are genuine.

These Locks can be procured by order through any respectab... Ironmonger in the United Kingdom; or at the Warehouse, ... above, Wholesale and Retail.

PATENT FIRE and BURGLAR-PROO... SAFES MILNER'S PATENT), fitted with HOBBS'... PATENT POWDER-PROOF LOCKS, form the strongest Sa... guards against Fire and Robbery; they are made of vario... dimensions, adapted for the security of Money, Plate, and impo... tant Documents, Parish Registers, &c. Lists of prices and dime... sions can be had on application to HOBBS, ASHLEY, and CO., ... Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence... lane, London.

A PRIZE MEDAL for SUPERIOR LOCK... was awarded to J. H. BOODBYER at the Great Exhibition ... of 1851, who invites the attention of Builders, &c. to his Stock ... Ironmongery, Brass Foundry, Nails (wrought and cut), Copp... and Zinc; Patent Locks of all descriptions; China, Glass, a... Wood Furnitures of all kinds, with Patent Shifting Spindles; ... Arnott's Ventilator, 4s.; and the new registered Venetian Ve... tilator, so much admired, &c. &c. 6s. 6d. each.

J. H. BOODBYER (late STURCH and BOODBYER), estab... lished nearly 200 years, for the supply of Goods from the be... Manufactories, at the lowest prices.

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No. 1704, BRITISH SECTION, HARDWARE DEPARTMENT, ... PARIS EXHIBITION, 1855.

FIRE-PROOF CONSTRUCTION.—... FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been m... extensively adopted, and its application has been extended ... nearly EVERY DESCRIPTION OF BUILDING, whether pub... or private.

The system combines ECONOMY, with great simplicity ... construction, perfect security from fire, increased durability, a... many other important advantages.

The floors and roofs are formed by a combination of joists ... wrought or rolled iron with concrete; so constructed that ea... floor becomes in effect a beam of artificial stone, with ribs of iron ... the structure possessing great strength and rigidity, and forms ... a fire-proof foundation adapted to receive a finished surfa... either of the ordinary flooring-boards, or of cement, asphal... tiles, slate, or other material.

Some of the largest and most important buildings in t... kingdom are now in course of erection upon this principl... which is recommended to the notice of all who are interested ... building, both as superseding the necessity for cast-iron gird... and brick arches, and as bringing the great desideratum of fi... proof construction, even for ordinary dwelling-houses and lomes... buildings, within the reach of every one.

Further information may be obtained of the Proprietor of t... patent,—Mr. BARRETT, 12, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES ... MANCHESTER, by FIRE.—Messrs. Rylands and So... SAFES, after fourteen hours' exposure to intense heat. ... COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIA...

"34, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating ... you, that the large 'Patent Fire-proof Safe' that we purcha... from you 12 years ago, for our late offices in New High-street, ... been the means of preserving our books, cash, notes, &c., enclo... therein, on the evening of the 1st of March, when our entire p... mises were destroyed by fire. The safe, after being subject to fo... teen hours' intense heat, was unlocked on the morning of the ... of March; the locks all answered to their respective keys, and ... the damage the contents received (water excepted) was that o... some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communicat... you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS.

CHUBB'S LOCKS, with all the recent improvements; C... Deed, and Paper Boxes, of all sizes; Fireproof Safes and Ches... Iron Doors and Frames for Strong Rooms; all fitted with ... Detector Lock. Complete illustrated Lists, with prices and a... will be sent on application.

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BELGRAVE-WHARF,
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SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

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TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.

Mr. B Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

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THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Harehill, Park Spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England.—THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

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GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORK STONE of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.—GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

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BANGOR WHARF, King's-road-bridge, Camden-town.—WRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cement, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials landed, wharfed, and carted.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Chimney-shafts, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter.—London Agent, C. HOAR, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar-square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

TO FURNACE, OVEN BUILDERS, AND OTHERS.

THE GODSTONE STONE COMPANY will supply the best description of FIRE STONE in large or small blocks, Oven Tiles, Backs of Grates, and all descriptions of furnace work, at prices about half those quoted for other goods of the same description offered to the public. The price of this Fire Stone is erroneously stated in Builders' Price Books for 1855, at 5s. per foot cube; whereas any quantity can be supplied at the Bricklayer's Arms Station, at 1s. 9d.—Apply at the Offices of the Company, 31, New Bridge-street, Blackfriars.

BATH STONE OF BEST QUALITY.

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Mast of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEEDHAM, and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to deliver from their Wharf and Steam Mills CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, GODSTONE IN BLOCKING, BLOCK, and RUBBLE STONE, BLOCK and BURR HEARTH STONE, also RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For information, direct to Caen Wharf, Rotherhithe; or to Albemarle-chambers, London-bridge, Borough.

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MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Scotland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. COLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—J. S. J. PRATHAN, Liskeard
This Granite is selected for the New Westminster-bridge

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

FREESTONE.—Architects and Others are reminded that they can obtain the CASTERTON FREESTONE, in Blocks of any portable size, at the Quarries, or at the Railway Stations of Stamford, Essendine, or Tallington, and which, from its price, and the facility with which it is wrought, offers immense advantage to the purchasers.—Apply to FRAS. and OCTS. N. SIMPSON, Stamford.

N.B. Specimens in plan blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the Offices of Messrs. PINDER, SIMPSON, and SONS, 23, Saville-row, Burlington-gardens, London.—May, 1855.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W. ASPINALL, begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potternewton, Newton, Harehill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curb and Pitching, all at the very lowest prices.

N.B. Estimates given for Masons' Work.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEYS, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size.—J. HOWELLS, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE. — REDUCTION IN PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave place, Pimlico.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Maltins Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLAB WORK for 1855 are NOW READY, and can be had on application, inclosing a postage-stamp.
N.B. A liberal discount to the trade.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

IMPROVED WINDOW BLINDS.—SAXBY'S PATENT ECCENTRIC CLEAT, manufactured solely by THOMAS PEMBERTON and SONS, and may be had of all ironmongers. It is the only perfect method yet introduced of suiting a Venetian blind, on releasing the cord, and avoiding winding on hooks. For calico blinds its action is perfectly noiseless, as it works on centre pins, and the blind is raised and lowered by a single line without a centre cord.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

GUTTA PERCHA TUBING.—May be buried for years, without injury, and it is therefore valuable for conveying water, chemicals, &c. It is peculiarly valuable for liquid manure, drain, and soil pipes. Being a non-conductor, it is not affected by the frost of winter or drought of summer, like metal or leaden pipes. Its strength is extraordinary; the small half-inch diameter tubing having resisted a pressure of 250 lbs. on the square inch, without bursting. The smaller sizes may be had in 100 feet. lengths, and larger in 50 feet lengths. The joints are easily made. As a conductor of sound it is most valuable for conveying messages in lieu of bells. ELECTRIC TELEGRAPH WIRES INSULATED WITH GUTTA PERCHA. The GUTTA PERCHA COMPANY, Patentees, 18, Wharf-road, City-road, London.

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The Builder.

SATURDAY, JUNE 9, 1855.

THE return to the Universal Exhibition at Paris. The area of the great nave being 100,000 feet, and the whole area of the main building but little exceeding 300,000 feet, it is obvious, that the difficulties of their position drove the authorities into an arrangement of glass-cases and counters, which greatly encroaches upon the amount of space covered by the noble central roof. That they were bound to sacrifice artistic effect to the demands made upon them for exhibiting area, is unquestionable, and the intrusion, into what would otherwise have been a magnificent apartment of about 160 feet by 600 feet, of a 50-feet depth of counters and stalls all round it, is therefore to be overlooked; but, for the overpowering height and bulk of those stalls which project farthest into the main area, we can find no possible excuse. It is, indeed, to be doubly regretted that the regulations of the Imperial Commission, through its officers, should have imposed as an absolute condition upon the occupants of these prominent situations, that their glass-cases should rise to their present unnecessary height; since not only did it entail very serious additional expense upon such exhibitors, for no end really useful to them, but it blocked up and lessened the apparent dimensions of the building to a most serious extent. The really judicious policy would have been to have kept the most prominent objects low, and to have risen gradually to the greatest height (which should have been limited except in a few cases to 15 feet) on a face with the gallery frontage. In that way the same amount of space might have been utilized, and those obstructions avoided which on the day of opening deprived a large proportion of the visitors of any possibility of enjoying what should have been a great national spectacle, but what really degenerated into a fête enjoyed only by a comparatively limited number of invited guests.

A rough approximate idea may be formed of the way in which the space has been divided and allotted by assuming that the building is separated by its longitudinal axis into two halves, of which one has been given to foreign countries and the other retained for France itself. Supposing the foreign half to be equally divided by the transverse axis, one portion is occupied by Great Britain and its colonies, and the remainder is subdivided among the other contributing countries,—the relative order of importance of whose displays stands about as follows;—the Zollverein, including Prussia, Bavaria, Saxony, Wurtemburg, Hanover, &c. first; Belgium, second; Austria, third; Spain and Portugal, fourth; Tuscany, fifth; and several others, including China, America, Turkey, Sweden and Norway, &c. at present nowhere.

The visitor, entering by the great central doorway from the Champs Elysées, finds himself at once among the French goods. Advancing into the nave he will see, directly opposite him, the efforts America will doubtless make to vindicate her manufacturing and commercial reputation, which, large assumption, and comparatively small performance, in 1851, and the unsatisfactory results of her own Industrial Exhibition, have combined to tarnish in the eyes of at least the superficial observers of Europe. We regret to be obliged to use the future tense advisedly; nor are we likely to be among those by whom this regret must be most poignantly felt, for the protracted nonentity of America in this great gathering of the nations cannot but be mortifying to the multitude of her intelligent citizens, who now absolutely throng the great highways of the Old World. On the left of America, stretch away to the end of the building the British possessions, with India itself in the far east. On the ground-floor of that side of the building, England allies itself with France, while, in the gallery, India fraternises with Turkey, which, in its turn, stands near, and yet aloof from Tuscany. America has, as neighbours on her right, Belgium, Austria, and the Zollverein, which completely fill up the remainder of the southern half of the building as far as the western wall. On that side, Spain and Portugal, and some other countries, the geographical features of which are as yet scarcely defined, occupy corresponding positions to those held by Turkey and Tuscany at the eastern end of the structure.

Of the staircase Pavilions, of which there are one at each of the four angles of the building and one in the centre of each of its too long sides, that is to say, six in all—one is appropriated to English stained glass, and a selection of colonial produce; one to artistic objects, principally Prussian; and the remainder almost entirely to French stained glass, of which there is a goodly show. Each country is allowed an amount of frontage to the central area, and of space in it for the exhibition of isolated objects, proportionate to the number of its exhibitors and the total space granted to it. At the date of the opening, the central hall was by no means unpleasantly filled, and low and high objects were so happily placed, as rather to assist than interfere with the effect of one another. Since then the tendency has of course been to rather agglomerate; but it is earnestly to be hoped that a judicious rigour will be enforced, and that no more will be admitted than can be efficiently and agreeably displayed.

Whilst upon this subject, we cannot but remark the gross injustice which is now being shown to those who have really made sacrifices to comply with the regulations of the commissioners as to time. At the present moment numerous houses of great commercial importance are holding back their goods, obtaining thereby an opportunity of modifying the character of their exhibition, so as to more successfully compete with and overpower their more punctual and straightforward rivals. Why, for instance, should the Imperial Manufactory of Sèvres be allowed some five or six weeks longer than Mr. Minton, to prepare its goods for exhibition. If the international jury only does its duty, one of its first acts should be to exclude from competition all objects not publicly exhibited within some very limited period after the date fixed for the opening of the Exhibition. It is in the department of machinery that the lax administration of definite rules will give rise to the most serious difficulties, and the position of those is by no means to be envied who, sensitively anxious to do strict justice to each, will have to listen to the complaints of A, who will declare that B was allowed two months more time to complete and finish off his machinery than he was;—of C, who will urge that his original idea was uncovered six weeks before D's, and has been pirated in the interval by the latter;—of B, who will declare that A is taking advantage of his having been first, to endeavour to make out that his clumsy work is as good and as worthy of reward as B's beautifully-finished engine;—of D, who will declare that his application of power, or mechanical combination, is just as original as C's, and even more perfect, and so on, *ad infinitum*. No one who ever took an interest in an honourable race will deny "that with a false start no running can be fair." It is only by a determined adherence to just conditions that the juries can hope to escape a very painful series of recriminations.

It is a relief to turn from this subject, pregnant with apprehensions for the future, to the very delightful present furnished us by the beauties of much that is exhibited by our distinguished allies, for whose land art as well as nature may have fairly earned the title of "*La belle.*" As yet it is true her strength is not fully put out: we miss her Lyons, Sèvres, Gobelins, Aubusson, Beauvais, and other great manufacturing establishments: still, much of what we have is eminently distinguished by the same good qualities which have won for her artist-workmen their world-wide reputation. Conspicuous in the great nave are the bronzes of Collas and Barbedienne, the furniture of Tahan, the Carton pierre of the Maison Hubert; the laces, "Point d'Alençon" and "Chantilly" of the *fournisseurs de l'impératrice*; the military trophy of the national ordnance departments, bristling with mischief; glass rivalling Osler's, and china not quite equal to Copeland's, Minton's, and Daniell's. Among the isolated objects in the nave are several illustrating the progress which has been made lately in France in elaborate revivals of the technical arts of the Middle Ages. The most important is a gilt altar designed by M. Viollet le Duc, and executed by M. Ponssielgue-Rusand, of Paris. The reputation possessed by both has been well maintained, but will not be materially advanced by this work, which, though wrought out with extreme care, and enriched with enamels of perfect execution, yet lacks spirit and that crispness of handling which characterises ancient work. It is to be regretted that Messrs. Hardman have not yet attempted a work in metal of an equally ambitious character: it would have been interesting to have had an opportunity of comparing their work with that of M. Rusand. In all small objects Messrs. Hardman have always hitherto had the best of it; and we cannot but fancy that they would do so also in such a specimen as M. Viollet le Duc's altar. Of stone and wood carving as applicable to church fittings, there are several samples, but most of them show that the French artists in relinquishing the antique have lost much of their strength, and that they have substituted for it rather the caricature than the grace of nature, as seen through mediæval spectacles. In point of bulk the great lighthouse, one of the central objects in the nave, attracts most attention. Its glass and apparatus are said by those learned in such matters to be first-rate; but what most attracts the artist's eye are the paintings by Gerome, of French maritime towns, which surround the pedestal upon which the "pharos" has been erected. They are agreeable and dignified, and in their subdued and bas-relief treatment of shadow and colour, show how well the French apprehend the true conditions of mural painting, as no doubt adopted by the Greeks. Among the other leading French objects in the nave are some pretty fountains in cast-iron; and two which are amenable to criticism as tainted by two rather prevalent distempers in Gallic art. In M. Ferrat's Falling Angel we have an instance of the graspings after extravagance in pose, by which too many modern artists endeavour to make their laboured academic treatment of the figure appear bold and original. In this instance the spectator has to judge of the angel upside down, and the desire naturally felt to turn it up the other way is so strong, that it is really exceedingly difficult to fix the attention upon the merits of modelling which the figure certainly possesses. In M. Cain's Eagle and Vulture destroying a Crocodile, we have one of those painful subjects in which agony and savage nature are all the stimulants offered to the imagination. Whether in their literary, pictorial, or plastic productions, our brilliant friends have often a little too much relish for this very strong excitement. True tragedy may justifiably give you the distant groan of the sacrifice,

but it is careful to keep the garbage off the stage.

When we turn from the outside of the French space to its inside, we feel how sadly behind-hand matters really were at the date of the opening, since, although considerable exertions have been made to whip in the exhibitors, but few parts can be said to wear an aspect even approaching completion. The most advanced and satisfactory are the fine art publication courts, which contain beautiful specimens of photography, engraving, chromolithography, &c.: in the first and last, Bissou and Lemercier may be expected to shine conspicuous over their fellows. One of the most important exhibitions, as affecting architecture, is that of terra cotta. A large Byzantine doorway, with complicated details thoroughly worked out, and a window and cornice burnt with almost every line in it as true as if it had been wrought in stone, attest the capabilities of the material in skilful hands.

The British display is eminently satisfactory, its lions being India, Minton, Australia, and Hunt and Roskell. Over the first Dr. Royle presides as representing the East-India Company, who have done themselves great credit by the way in which they have caused the continent over which they rule to be represented. The architectural and artistic arrangements were entrusted by the Company to Mr. Digby Wyatt, who, although very late in the field, so put his shoulder to the same wheel with Dr. Royle that, on the day of opening, the East-Indian Court was generally pronounced by the press to be the success of the day. In his arrangement advantage was taken of four considerable openings in the floor, so as to obtain the effect of a large open area; and in that way was gained for India an appearance of spaciousness no other portion of the Exhibition is calculated to present. The centre feature is a gorgeous tent made up with Indian fabrics, and arranged with the most costly furniture, as for a Durbar, or native reception of foreigners of distinction. Around the tent, and at some distance from it, a complete bazaar in the Hindoo style has been erected, and the goods are displayed in their respective shops, so as to give, as far as possible, a real Oriental aspect to the scene. Gay cases for the brilliant fabrics and jewellery complete the picture, and the style of the whole has come upon the Parisians as an entire novelty. To point out the lessons in industrial design which are to be picked up from the objects exhibited were to open on an almost endless theme: it may suffice to call the student's especial attention to the subject.

Mr. Minton sustains his well-earned reputation for the highest class of table and ornamental china, as well as for every variety of encaustic and tesselated paving: it is, however, in Majolica, and Luca della Robbia ware, that his great stride has been made. The goods he exhibits of these classes are both admirably designed and executed, and are especially suggestive to the architect who would endeavour to enrich his art by the introduction of elegant and legitimate novelty.

Australia shows her monster nuggets, which seem continual loadstones to the "*flaneurs*" of the palace, in the British Pavilion at the head of the stairs. The windows in this gallery are filled with very clever windows by Hardman; some exceedingly well but a little over painted, by Ballantine; and some which are not quite what might have been expected from so important a firm as that of Chance, Brothers, of Birmingham. On the whole, the English stained glass furnishes but an inadequate idea of our national powers in this department. This deficiency is by no means to be attributed to any apathy on the part of the officers of the Board of Trade, as we have reason to know that considerable exertions were made to obtain a more fitting display. Restrictive, and, indeed, prohibitory duties no doubt damped the energies of many whose hands are happily now so full of work as really to be indifferent to a further extension of business.

Messrs. Hunt and Roskell are only one out of many exhibitors of metal-work who have done themselves great credit. Messrs. Elkington's, Garrard's, and Hancock's cases all show excellent manufacture, and often excellent design as well. Vechte, of course, stands out from all others, and his wonderful beauty and dexterity enrich Messrs. Hunt and Roskell's display, so as to make it constantly thronged.

We have singled out some few salient points from the British Exhibition, and could dwell on many more did our limits permit it. Necessity, however, bids us generalize, and restrict ourselves to complimenting London, Glasgow, Manchester, Birmingham, Sheffield, the Potteries, Bradford, and, indeed, most of the great manufacturing centres of the country, upon the zeal and ability with which they have caused their respective localities to be represented.

The Zollverein shines much as it did in Hyde-park. A marked improvement has, however, taken place in the Prussian terra-cotta work. The large fountain in the nave in this material is an exceedingly graceful affair. Architects will also be interested in the Cologne stone carving, which includes a Brobdignagian finial from the Cathedral.

Belgium maintains its old superiority in wood carving, lace, and embroidery: the position it has more lately acquired as a great carriage-building, and typographic, country is also worthily vindicated. D'Hoy, of Ghent, shows by his excellent photographs, that her citizens are keenly alive to the progress of the application of science to art, and by and by we may expect great things from her display of arms and machinery.

Austria does not appear to have changed much since 1851. Most of her ornament is in the florid style of her furniture, and her manufactured goods, such as textile fabrics, are for the most part neither as good as the English, nor as tasteful as the French. The exclusion of regular sculpture from this building isolates her from the Milanese school, and materially diminishes the attraction of her present display as compared with that of 1851. Her strong point appears to be her Bohemian glass, of which Count Harrach makes an abundant show.

Tuscany is rich in straw bonnets, and *pietra dura* tables: her exhibition this time is rather commercial and industrial than redolent of the fine arts.

To allude to any of the other countries of the world in their present inchoate state, would be to be little less unjust to them than they have been by their tardiness to themselves. Enough is, however, "looming in the future," to make us feel confident that, at some later date, the "Universal Exhibition at Paris" will justify its title, and offer lessons of paramount importance at once to the philanthropist, the politician, the men of science and of commerce, the artist, and, last not least, the artizan.

OFFICIAL ARCHITECTURE.

THE just published number of the "Council of Education," contains in the report of the Rev. Mr. Kennedy, a suggestive commentary on the growing practice of superseding local knowledge, talent, and all individual responsibility by "*office plans.*"

It is high time that professional men, whether architects or engineers, should resist the encroachments of irresponsible "commissions," and "boards" issuing arbitrary regulations, founded on purely theoretical data.

Mr. Kennedy observes that, some time since, the plans of schools sent out of the Council-office were "very much too large: now they are in the other extreme too small,"—first vast halls, now hovels. Then it appears that the office of the Privy Council have taken up "some theory about the points for obtaining light in a school." The result is, that schools are frequently dark. "Local obstructions in towns will often render it necessary to get light from some point theory will condemn." "But even in an open country district, in the Isle of Man, a plan sent from the Council-office is ridiculously dark. I was compelled to make a new window, which I fear may theoretically be incorrect in every respect, but which, practically," (that means if the children are to see their letters), "cannot be dispensed with."

I must compliment the committee of the Privy Council for their candour in printing this sly hit at the stereotyped despotism of their architect, probably a *dilettante* amateur behind the scenes. There are official bodies who profess to treat matters of practical science, and take care to admit no evidence into their Blue Books that does not square with their fixed theories.

But Mr. Kennedy is a plain-speaking man, with some courage: he passes from windows to floors, and dares to question one of the theories of the Board of Health.

In Lancashire the country people wear wooden-soled clogs, and live in houses with stone floors: as a Lancashire clergyman neatly expresses it, "every child stands on a couple of little wooden floors of its own." Coals, it must be remembered, are cheap in that part of the world: fires are kept burning night and day; so stone floors are not so likely to be cold as they are in a southern county.

The Board of Health, which has theories about everything, has two which affect Lancashire—against wooden-clogs and stone floors. Of course, they have a large body of medical evidence to support their objections: that sort of evidence is not hard to find against many habits and customs incident to the life of those who live on weekly wages: we cannot all indulge in broughams and cork-soled boots. In order to put down Lancashire prejudices, the Board of Health have induced the Council Committee to issue an order withholding assistance from those Lancashire schools that have stone or tile floors until they are changed to wood.

As Lancashire is a county where large populations have gathered together round mining or manufacturing districts within the century, without the advantage of wealthy landowners to support schools for them; this peremptory order will close many schools now with difficulty supported by the exertions of a few zealous individuals—and that without putting down clogs—(it would be just as easy to put down tobacco-pipes, or cigars, or long speeches)—or encouraging wooden floors, because, "nice tiled floors are cheaper, neater, cleaner, and less noisy than wood in a clog-wearing district." The local architect or builder settles to have a tiled floor in his plan, because he has an eye to economy in construction, as well as to the ordinary feet coverings and deep muddy lanes of his county; but his plans are upset by a gentleman whose notions are founded on Paris boots, American over-shoes, and London pavement.

Mr. Kennedy says very decidedly,—"There is no prospect whatever of abolishing clogs in Lancashire. The people are very much annoyed at the order from your lordship to substitute wood for tile floors, which will be and are kept cleaner than wooden floors. The plan of dry-rubbing, suggested by the secretary of the Board of Health, for schools, is found useless and impracticable. It may suit the clean oak planks on the staircase of a private mansion, but is not precisely adapted to the deal floor of a Lancashire National School!"

And he quotes letters from the patrons of schools to the same effect, couched in very amusing terms.

We used to be considered an eminently practical people, able to learn by experience; but if the present retail meddling of boards, commissioners, and official *dilettante* officers is to spread, we shall end in being rocked and dandled, clothed, fed, lodged, apprenticed, and buried, under rules issued annually in a Blue Book, framed by gentlemen who learn the business they teach and regulate, "one lesson daily in advance." Boards, if not closely watched and early checked, fall into the track of the old order of thief-catchers, who improved their income by creating crimes, and then earned the reward for catching the criminals.

A SCHOOL SUPPORTER.

PROPOSED SCHOOL OF ART IN SHREWSBURY.—On Friday before last a meeting was held in the Town-hall, Shrewsbury, to consider the best means of establishing a School of Art and Design there, in accordance with the government plan, a suite of rooms having already been provided for that purpose. The chair was taken by the mayor, and appropriate resolutions, as to formation of committee, &c. were passed.

THE LANDORE VIADUCT, SOUTH WALES RAILWAY.

INSTITUTION OF CIVIL ENGINEERS.

ON the 15th May the paper read was a "Description of the Landore Viaduct, on the line of the South Wales Railway," by Mr. L. E. Fletcher.

The viaduct was described as a timber structure, erected for the purpose of carrying the line of the South Wales Railway across the valley of the Tawe, about three miles above the spot where that river fell into Swansea Bay. The entire length of the viaduct was one third of a mile, or 1,760 feet: the opening in the clear of the span crossing the river, measured between the piers, was 100 feet; and the span of the truss itself, from centre to centre, of 107 feet: the spans of the remaining trusses were 73 feet, 64 feet, 50 feet, 42 feet, and 36 feet respectively. The height from the surface of the river, at low water, to the line of rails, was 88 feet six inches; and from the bed of the river to the top of the structure, 110 feet 6 inches. The transverse width, from out to out of the truss of 107 feet span, was 35 feet; and that of the other trusses was 29 feet 2 inches, the clear width between the parapets being 28 feet.

Some of the local causes rendering the erection of the viaduct necessary were,—the number of openings required; the height of the line of rails enforced by the Act of Parliament; the marshy character of a considerable portion of the ground, which rendered it unfit for the foundation of a high railway bank; and the high rate of compensation demanded for the land. Piles were used for the foundations of the supports in the marsh, and also for that of the truss crossing the river, as the construction of masonry piers in that position would have rendered coffer-dams necessary. The viaduct terminated at both ends in masonry abutments, the intermediate supports or legs being all of timber, with the exception of five masonry piers, which, from local considerations, were found desirable.

The roadway was generally carried on the top of the trusses, but in the case of the span over the river, on account of the headway required, the trusses rose above the roadway, which passed between them.

It was pointed out that, in the structure, the timbers on which the transverse rigidity depended were not subject to the alternate strain of compression and extension, all the tensile strains being taken by wrought iron tie-bolts, and timber only being employed for the struts.

In considering the strains and stability of the structure, together with the cost of construction and maintenance, it was shown that the viaduct was calculated to carry one ton per lineal foot on each rail; the wrought iron tie-bars to bear a strain of five tons per square inch; and the compressive strain upon the timber was about one-sixth of a ton per square inch.

Without supports or planking, the weight of the truss of 107 feet span was 24 cwt. per foot run, and the cost 23*l.* per foot run.

Ditto of 73 feet span was 8 cwt. per foot run, and the cost 9*l.* 15*s.* per foot run.

Ditto of 64 feet span was 6 cwt. per foot run, and the cost 9*l.* 2*s.* 6*d.* per foot run.

Ditto of 42 feet span was 9 cwt. per foot run, and the cost 2*l.* per foot run.

The trusses of 107 feet span deflected about half an inch under the weight of a luggage engine, and immediately regained their normal position. Those of 73 feet span deflected about one and a half inch under a load of 125 tons, laid over 36 feet 6 inches, at the centre of the span, on the south line of rails only. Those of 42 feet span deflected about half an inch under a load of 110 tons, laid on one line of rails only, and dispersed from the centre of one span to the centre of the next span, so that the centre of gravity of the load was directly over the legs or supports.

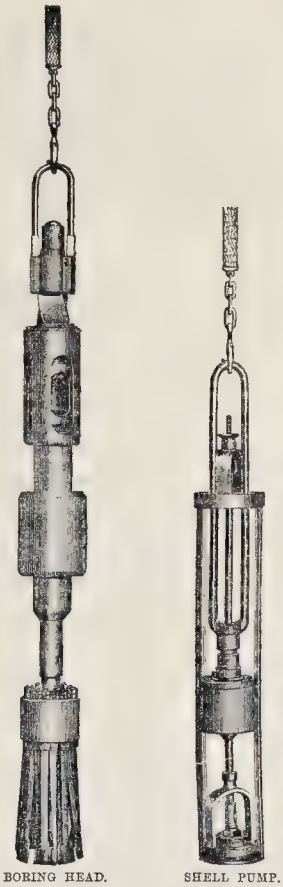
The expenditure upon the structure was 28,720*l.*; the cost per foot run (the average height from the surface of the ground to the line of rails being 55 feet) was 16*l.* 6*s.*: the cost per square foot on plan, in the clear between the parapets, was 12*s.*: that of the entire structure, per superficial foot of area of elevation, measuring from the surface of the ground to the line of rails, the area being 103,600 square feet, was 5*s.* 6*d.* per square foot of the area; and the cost per cubic foot of the entire structure was 2*s.* 3*d.*

The direction of the portion of the line in which the viaduct was situated was confided, during its construction by Mr. Brunel, the engineer-in-chief of the line, to Mr. Robert Brodie, assisted by Mr. Samuel Jones, of Neath, and the whole of the drawings and details of construction were worked out by Mr. Fletcher, the author of the paper, who set out the work and superintended its execution from the commencement of the contract to its close.

EARTH-BORING MACHINERY.

A PAPER on this subject, by Mr. Colin Mather, was read at the Society of Arts on the 30th ult. in the course of which various modes of boring artesian wells were described, and especially a new plan now being brought into operation by Messrs. Mather and Platt.

The construction of the boring head and shell pump, and the mode of acquiring the percussive motion, constitute the chief novelties of the system and machine. The couple-cylinder engine, with the reversing or link motion, is used for winding and lowering apparatus, but an ordinary winding-engine, similar to those used in collieries, may be applied.



BORING HEAD. SHELL PUMP.

The boring-head consists of a wrought-iron bar, about 8 feet long, on the lower part of which is fitted a block of cast iron, in which the chisels or cutters are firmly secured. Above the chisels an iron casting is fixed to the bar, by which the boring-head is kept steady and perpendicular in the hole. A mechanical arrangement is provided, by which the boring-head is compelled to move round a part of a revolution at each stroke. The loop or link by which the boring apparatus is attached to the rope is secured to a loose casting on the wrought-iron bar, with liberty to move up and down about 6 inches. A part of this casting is of square section, but twisted about one-fourth of the circumference. This twisted part moves through a socket of corresponding form on the upper part of a box, in which is placed a series of ratchets and catches, by which the rotary motion is produced. Two objects are here accomplished—one the rotary motion given to the boring-head, the other a facility for the rope to descend after the boring-head has struck, and so prevent any slack taking place, which would cause the rope to dangle against the side of the hole, and become seriously injured by chafing.

The shell-pump is a cylinder of cast-iron, to the top of which is attached a wrought-iron guide. The cylinder is fitted with a bucket similar to that of a common lifting-pump, with an India-rubber valve. At the bottom of the cylinder is a clack, which also acts on the same principle as that in a common lifting-pump, but it is slightly modified to suit the particular purpose to which it is here applied. The bottom clack is not fastened to the cylinder, but works in a frame attached to a rod which passes through the bucket, and through a wrought-iron guide at the top of the cylinder, and is kept in its place by a cotter, which passes through a proper slot at the top of the rod. The pump-rod, or that by which the bucket is worked, is made of a forked form, for the twofold purpose of allowing the rod to which the bottom clack is attached to pass through the bucket, and also to serve as the link or loop by which the whole is suspended.

The wrought-iron guide is secured to the top of the cylinder, and prevents the bucket from being drawn out when the whole is so suspended. The bottom clack also is so arranged that it is at liberty to rise about six inches from its seating, so as to allow large fragments of rock, or other material, to have free access to the interior of the cylinder when a partial vacuum is formed there by the up-stroke of the pump.

The percussive motion is produced by means of a steam cylinder, which is fitted with a piston of 15 inches diameter, having a rod of cast-iron 7 inches square branching off to a fork, in which is a pulley of about 3 feet in diameter, of sufficient breadth for the rope to pass over, and with flanges to keep it in its place. As the boring-head and piston will both fall by their own weight when the steam is shut off, and the exhaust-valve opened, the steam is admitted only at the bottom of the cylinder: the exhaust-port is a few inches higher than the steam-port, so that there is always an elastic cushion of steam of that thickness for the piston to fall upon.

The valves are opened and shut by a self-acting motion derived from the action of the piston itself, and as it is of course necessary that motion should be given to it before such a result can ensue, a small jet of steam is allowed to be constantly blowing into the bottom of the cylinder: this causes the piston to move slowly at first, so as to take up the rope, and allow it to receive the weight of the boring-rod by degrees, and without a jerk. An arm which is attached to the piston-rod then comes in contact with a cam, which opens the steam-valve, and the piston moves quickly to the top of the stroke. Another cam, worked by the same arm, then shuts off the steam, and the exhaust-valve is opened by a corresponding arrangement on the other side of the piston-rod. By moving the cams the length of the stroke can be varied at the will of the operator, according to the material to be bored through. The fall of the boring-head and piston can also be regulated by a weighted valve on the exhaust-pipe, so as to descend slowly or quickly, as may be required.

The general arrangement of the new machine may be described as follows:—

The winding-drum is 10 feet in diameter, and is capable of holding 3,000 feet of rope, 4½ inches broad and half an inch thick: from the drum the rope passes under a guide pulley, through a clam and over the pulley which is supported on the fork end of the piston rod, and so to the end which receives the boring head, which being hooked on and lowered to the bottom, the rope is gripped by the clam. A small jet of steam is then turned on, causing the piston to rise slowly until the arm moves the clam, and gives the full charge of steam: an accelerated motion is then given to the piston, raising the boring-head the required height, when the steam is shut off, and the exhaust opened in the way described, thus effecting one stroke of the boring-head as regulated by a back pressure valve in the exhaust pipe. The exhaust port is 6 inches from the bottom of the cylinder: when the piston descends to this point it rests on a cushion of steam, which prevents any concussion. To increase the lift of the boring-head or compensate for the elasticity of the rope, which is found to be 1 inch

in 100 feet, it is simply necessary to raise the cams on the cam shaft whilst the percussive motion is in operation. The clam which grips the rope is fixed to a slide and screw, by which means the rope can be given out as required. When this operation is completed, and the strata cut up by a succession of strokes thus effected, the steam is shut off from the percussive cylinder, the rope unclamped, the winding-engine put in motion, and the boring-head brought up and slung from an overhead suspension-bar by a hook fitted with a roller to traverse the bar. The shell-pump is then lowered, the *débris* pumped into it, by lowering and raising the bucket about three times, which the reversing motion of the winding engine readily admits of. It is then brought to the surface and emptied by the following very simple arrangement. At a point in the suspension-bar a hook is fixed perpendicularly over a small table in the waste tank, which table is raised and lowered by a screw. The pump being suspended from the hook hangs directly over the table, which is then raised by the screw till it receives the weight of the pump. A cotter, which keeps the clack in its place, is then knocked out, and the table screwed down. The bottom clack and the frame descending with it, the contents of the pump are washed out by the rush of water contained in the pump cylinder. The table is again raised by the screw, and the clack resumes its proper position: the cotter is then driven into the slot, and the pump is again ready to be lowered into the hole as before. It is generally necessary for the pump to descend three times in order to remove all the *débris* broken up by the boring head at one operation.

The following facts, obtained from the use of the machine in boring in the new red sandstone at Manchester, will show its actual performance, and enable us to compare it with the other systems mentioned in this paper. The boring-head is lowered at the rate of 500 feet a minute: the percussive motion is performed at the rate of twenty-four blows a minute; and, being continued for ten minutes, the cutters in that time penetrate from 5 to 6 inches: it is then wound up at 300 feet a minute. The shell-pump is then lowered at the rate of 500 feet a minute, the pumping continued for one minute and a half, and being charged, the pump is wound up at 300 feet a minute. It is then emptied, and the operation repeated, which can be accomplished three times in ten minutes, at a depth of 200 feet. The whole of one operation, resulting in the deepening of the hole 5 to 6 inches, and cleansing it of the *débris* ready for the cutters or boring-head being again introduced, is seen to occupy an interval of twenty minutes only. The value of these facts will be best shown by comparing them with the results by the old method.

At Highgate the boring has occupied two years in attaining a depth of 680 feet from the bottom of a well 500 feet deep from the surface. Their progress at present is at the rate of 6 inches per week, working night and day. At Warwick, thirteen months were occupied in boring 400 feet through red marl; at Saltaire, two years in going 80 yards.

Some of the more important public uses to which the new machine can be applied may now be briefly enumerated.

Sanitary questions deservedly occupy at the present time a large share of public attention. Water, as is well known, is the chief agent in sanitary reform. It is necessary for flushing sewers, for supplying baths and washhouses, as well as for meeting the domestic wants of all classes of the community. The importance of cleanliness cannot be overrated, as a means of promoting the general health, and it imposes the necessity for a much more copious supply of pure water than is as yet enjoyed in most towns. Many small towns which are so situated that they cannot command a supply of water from natural sources, are prevented from obtaining it by boring, on account of the great expense, and still more the vexatious uncertainty of the process. The corporation of Manchester have expended upwards of a million sterling in supplying that city and its neighbourhood with water, and they sell it to the corporation of Salford at the rate of threepence per thousand gallons. It is confidently believed that by the new method of boring an abundant supply of water could be procured on the spot at half that price. Thus, in a sanitary point of view, the new machine is of the utmost value, since it enables us to procure a much greater supply of water in far less time, and from depths which were all but inaccessible on the old method of boring. For example, the work at Highgate, which has occupied two years, could have been done in thirty-three days. That at Warwick, which has occupied thirteen months, could have been done in twenty days. That at Saltaire, to supply the workpeople with drinking water, which has occupied two years, could have been done in twenty-nine days.

MR. RUSKIN'S REVIEW OF THE ACADEMICIANS.

THE author of "Modern Painters" has issued a circular letter on some of the principal works in the present Exhibition of the Royal Academy, and proposes doing so on subsequent occasions.* He has fallen foul of the Academicians in unmeasured terms, and has not discovered a redeeming work proceeding from any member of the body. The review is abusive and uncandid, but contains, nevertheless, useful teaching. We extract those portions which relate to the Academicians:—

(78) "The Wrestling" in *As you like it*, D. Maclise, R.A.—Very bad pictures may be divided into two principal classes—those which are weakly or passively bad, and which are to be pitied and passed by; and those which are energetically or actively bad, and which demand severe reprobation, as wilful transgressions of the laws of all good art. The picture before us is of the last class. Mr. Maclise has keen sight, a steady hand, good anatomical knowledge of the human form, and good experience of the ways of the world. If he draws ill, or imagines ungracefully, it is because he is resolved to do so. He has seen enough of society to know how a duke generally sits—how a young lady generally looks at a strange youth who interests her; and it is by vulgar choice, not vulgar ignorance, that he makes the enthroned duke straddle like a village actor, and the young lady express her interest by a cool, unrestrained, and steady stare. It is not worth while to analyse the picture thoroughly, but let us glance at the two opponent figures—Charles and Orlando. The spectator can certainly see nothing in this "Charles," but a grim, sinister, sinewy monster, wholly devoid of all gentleness or humanity. Was Shakspeare's Charles such an one? So far from it, that into his mouth is put the first description of the love of Rosalind and Celia—"The duke's daughter, her cousin, so loves her, being ever from their cradles bred together, that she would have followed her exile, or have died to stay behind her: never two ladies loved as they do." So far from it, that he comes to Oliver especially to warn him against allowing his brother to wrestle with him. "Your brother is but young and tender; for your love, I would be loth to foil him." Then, on Oliver's execrable slander of Orlando, poor honest Charles is "heartily glad I came hither: if he come to-morrow, I'll give him his payment;" this being not in cruelty, but in honest indignation at Orlando's ascribed villany: nevertheless, when the trial comes, although flushed with victory, and haughty in his supposed strength, there is no bitterness in his question —"Where is this young gallant?" Poor Charles is as much slandered here by the painter as Orlando was by his brother. Well, but what of Orlando himself? He folds his hands, and turns up his eyes like a lover in his last appeal to his lady's mercy. What was the actual fact? Orlando had been but that instant called before the princesses: he had never seen them before in his life. He is a man of firm, calm, and gloomy character—the sadness having been induced by injustice: he has no hope, no thought of Rosalind or her love, at this moment: he has challenged the wrestler in quiet resolve to try with him the strength of his youth—little caring what comes of it. He answers the princesses with deep and grateful courtesy, but with a despairing carelessness of his fate—"If I be foiled, there is but one shamed that was never gracious; if killed, but one dead that is willing to be so. I shall do my friends no wrong, for I have none to lament me—the world no injury, for in it I have nothing." Imagine the calmness and steady melancholy of the man who would speak thus, and then compare the sentimental grimace (as of a fashionable tenor in a favourite aria) of the Orlando in the picture. Next to pass from imagination of character to realisation of detail. Mr. Maclise is supposed to draw well, and realise minute features accurately. Now, the fact is, that this work has every fault usually attributed to the pre-Raphaelites, without one of their excellences. The details are all so sharp and hard that the patterns on the dresses force the eye away from the faces; and the leaves on the boughs call to us to count them. But not only are they all drawn distinctly, they are all drawn *wrong*. Take a single instance in a simple thing. On the part of the hem of the duke's robe, which crosses his right leg, are seven circular golden ornaments, and two halves, Mr. Maclise being evidently unable to draw them as *turning* away *round* the side of the dress. Now observe, wherever there is a depression or fold in the dress, these circles ought to contract into narrow upright ovals. There *is* such a depression at the first next the half one on the left, and that circle ought to have become narrowed. Instead of which it actually widens itself! The second is right. Then the third, reaching the turn to the shade, and all those beyond it, ought to have been in narrowed perspective—but they all remain full circles! And so throughout the ornament. Imagine the errors which a draughtsman who could make such a childish mistake as this must commit in matters that really need refined drawing, turns of leaves, and so on! But to pass from drawing to light and shade. Observe, the light falls from the left, on all the figures but that of the two on the extreme left. These two, for the sake of effect, are in "accidental shadow." Good; but why then has Oliver, in the brown, a sharp light on the left side of his nose! and on his brown mantle? Reflected lights, says the apologist. From what? Not from the red Charles, who is five paces at least in advance of Oliver; and if from the golden dress of the courtier, how comes it that the nearer and brighter golden dress of the Duke casts *no reflected light* whatever on the yellow furs and red hose of the wrestler, infinitely more susceptible of such a reflex than the dress of Oliver?

(94) "The River's Bank;" T. Creswick, R.A.—This, like most other of the landscapes hung on the line, is one of those works so characteristic of the English school, and so little creditable to them, in which everything is carelessly or ill painted—because it is in a landscape. Nothing is really *done*. The cows have imperfect horns and hides: the girl has an imperfect face, and imperfect hands: the trees have imperfect leaves; the sky imperfect clouds; the water imperfect waves. The colour, of a heavy yellow with dim green, is worse than imperfect; for colour must either be right—that is, infinitely beautiful; or wrong—that is, *less* than beautiful. All tame and dead colour is *false* colour.

(120) "Beatrice;" C. L. Eastlake, P.R.A.—An imitation of the Venetians, on the supposition that the essence of Venetian painting consisted in method: issuing, as trusts in method instead of fact always must issue,—in mere negation. Sir Charles Eastlake has power of rendering expression, if he would watch it in human beings,—and power of drawing form, if he would look at the form to be drawn. But when, because Giorgione and Titian draw broadly, and sometimes make their colours look broken, he supposes that all he has to do is to get a broken breadth; he ends, as all imitators must end, in a rich inheritance of the errors of his original, without its virtues. Titian and Giorgione have a slight tendency to flatness; but Giorgione's G Flat has accompaniments, Sir Charles's C Flat stands alone. The real source of the error may be sufficiently seen in the distance: Titian paints his distances in pure colour,—but at least indicates what is grass, and what is stone. The distant ground here, with its white spot for a castle, is a mere space of dim brownish-green paint, which can by no possibility stand for grass, or moss, or any other natural thing. It seems to me, however, that there are some points in the execution of the picture, considered as an example of certain textures, which are instructive. The whole is careful, and the draperies well cast. But who is the lady? Dante's Beatrice, or Benedict's? She can hardly be either: her face indicates little piety, and less wit.

(149) "Lear recovering his Reason at the Sight of Cordelia;" J. R. Herbert, R.A.—As No. 78 furnished us with an instance of the class of picture which is actively bad, we have here an equally important instance of the passively bad; which, had it been in a less prominent place, might kindly have been passed without notice; but, since it is thus recommended to the public by its position, it must needs be examined. In the whole compass of Shakspeare's conceptions, the two women whom he has gifted with the deepest souls are Cordelia and Virgilia. All his other women can speak what is in them. These two cannot. The "Nothing, my lord," of Cordelia, and the "gracious silence" of Virgilia, are the everlasting seals by the master of the human heart upon the most sacred writing of its folded and golden leaves. Shakspeare himself could not find

* "Notes on some of the Principal Pictures exhibited in the Rooms of the Royal Academy, 1855." By the Author of "Modern Painters." London: Smith, Elder, and Co. 65, Cornhill. 1855.

words to d what was in these women. And now, cast dow at her father's feet, the alabaster vase is broken—he house of life is filled with the odour of the oin ment—all Cordelia is poured forth in that infinite "am" of fulfilled love.* Do but think of it for o quiet instant. Think of the rejected creature, so l g disallowed from daughter's word and act; unsig ed also—all her sisterhood changed into pale fla e of indignation—now at last, in consummation , all sorrow, and pity, and shame, and thankfulness, nd horror, and hope long delayed, watching the veil grow thin, that in those eyes, wasted with grief, was still drawn between her father's soul and hers. Think of it! As for imagining it—perhaps Danté might have imagined it, with the winds of paradise yet upon his brow. As for painting it——. And yet, in the midst of the Royal Academy Rooms of England, and in the midst of the nineteenth century, that profile of firwood, painted buff, with a white spot in the corner of the eye, does verily profess to be a painting of it. It is a thing not a little to be pondered upon, that the men who attempt these highest things are always those who cannot even do the least things well. Around the brow of this firwood figure there is a coronet, and in the coronet four jewels. I thought that, according to Royal Academy principles, in a "high art" picture, this Rundell and Bridge portion of it should have been a little less conspicuous. However, as we find these unideal emeralds and rubies thus condescendingly touched, let us see *how* they are touched. Each stone has a white spot, or high light, upon it. Now, that flash is always the reflection of the highest light to which the jewel is turned; and here, in a tent, it must be of an opening in the tent on the left-hand side. Now, as the jewels are set round the brow, each in a different position, each would reflect this tent door from a different spot of its surface. This change in the position of the reflection would be one of the principal means by which nature would indicate the curve of the coronet. Now, look at the painting. Every gem has actually the high light in the same spot, on the left hand side, all round the brow! The dimness of pictorial capacity indicated by such a blunder as this is very marvellous. For a painter of the slightest power, even though he had not drawn the gems from nature, would infallibly have varied the flash, for his own pleasure, and in an instinctive fulfilment of the eternal law of change. It is nevertheless a fact that, although from some peculiar idiosyncracy, not comprehending the passage in *King Lear*, Mr. Herbert has feeling; and if he would limit his work to subjects of the more symbolic and quietly religious class, which truly move him, and would consider himself by no means a great master, but a very incipient student, and paint everything from the fact and life, faithfully, he would be able to produce works of some value.

(201) "Penserosa;" C. W. Cope, R.A.—The young lady appears to be reading, may possibly be thinking, is certainly passing under a Norman arch, and is very pretty. This *ensemble* is interesting, but had better have been put into the architectural room, as it may materially promote the erection of Norman arches in the gardens of the metropolis, for the better performance of pensive appearances to morning visitors.

(228) "In Betchworth Park;" W. F. Witherington, R.A. (240) "The Bird Keeper;" R. Redgrave, R.A.—We have here two interesting examples of another fallacious condition of landscape—that which pretends to pre-Raphaelite distinctness of detail; but is in all detail, industriously wrong. In Creswick's work the touches represent nothing: here they represent perpetual error, assuming that all leaves of trees may be represented by oval, sharp-pointed touches of yellow or green,—as if leaves had not their perspectives, shadows, and changes of hue, like everything else! There is great appearance of fidelity to nature in these works, but there is none in reality: they are mere mechanical accumulations of similar touches, as a sempstress mechanically accumulates similar stitches. If the spectator desires to know the difference between right and wrong in this matter, let him first examine Mr. Witherington's oval touches, and then cross the room to No. 321, in which the flowers in the window are truly and properly painted, and look at the way the leaves are set and worked there; and if it be supposed that this is only to be done in a cabinet picture, the question is well worth settling at once by merely walking out of the Academy into the National Gallery next door, and looking at the leaves which crown the Bacchus, and the little dancing faun, in Titian's "Bacchus and Ariadne," in which every turn of the most subtle perspective, and every gradation of colour, is given with the colossal ease and power of the consummate master. Examine further, the vine-leaves above on the right, and the flowers in the foreground, and you will return to the Academy with an eye so instructed, as hardly thenceforward to accept, in such matters, fallacies for facts.

(594) "Rome;" D. Roberts, R.A.—This is a large architectural diagram, with the outlines executed sharply in black, the upper half being then painted brick-red, and the lower green-grey. (Note the distinctness of the mannerism in the *outlined* statues and pillars of the chapel in shade upon the right.) I can hardly understand how any man, devoting his time to painting, ever comes to suppose that a picture can be right which is painted in two colours! or by what reasoning he persuades himself that, because seen under the red light of sunset, the purple trunk of a stone pine, the white stucco of house walls, the scarlet of tiles, and the green of foliage, may all be of the same colour. Imagine a painting of a beautiful blue-eyed female face, by sunset, which represented its blue eyes, its nose, its cheeks, and its lips, all of the same brick-red! Mr. Roberts was once in the habit of painting carefully finished cabinet pictures, which were well composed (in the common sense), and fairly executed in the details. Had he continued these, painting more and more, instead of less and less, from nature, he might by this time have been a serviceable painter. Is it altogether too late to warn him that he is fast becoming nothing more than an Academician?

Mr. Ruskin's opinion of the Academicians, as a body, is further conveyed by his concluding remark, touching a picture mentioned to him by a friend, but which he had not himself seen:—

"My friend says it contains the 'unity of perfect truth with invention.' I cannot answer for its doing this, which would place it in the first rank of works of art; but, as it is hung in a place where it is not easily caught sight of, I have little doubt it must be a work of merit."

* "——— I think this lady
To be my child, Cordelia.
Cordelia.—And so I am; *I am.*"

ON BOILER EXPLOSIONS.

WILL you permit me, through the medium of your pages, to call the attention of scientific men to the subject of boiler explosions, their cause, and method of prevention, as not a month passes which does not give us some new instance of their fatal effects; and as almost in all cases the explosion occurs when the steam is comparatively at a low pressure, it must be the effect of a strange force that has by some means or other introduced itself into the boiler, and which instantaneously raises the pressure from several atmospheres to several hundreds, and against which force the safety-valve is nothing. My firm conviction is, Mr. Editor, that this force is electricity.

It is a well-known fact, that boilers contain more or less of the electric fluid, and that the maximum is formed with a low pressure, which fact tends to verify my hypothesis. Now, whatever may be the cause which makes it fulminant, if it could be conducted safely out of the boiler the explosion would not take place, and I see no reason why the application of the lightning-conductor could not be made with success. For example, if several insulated *conductors*, terminating with points made of a metal inoxidable, were introduced into the boiler, the electricity could be carried through the sides of the boiler (as fast as it developed itself) with safety, into the tank or elsewhere.

EDWARD COMBES.

THE CRYSTAL PALACE.

THE flower-show here on Saturday, the 2nd inst. was a great success: the day was fine, the flowers splendid, and the visitors numerous and well-dressed—better dressed, we should say,—more artistically, than we ever saw the same number of English people together before. This opinion may be mere fancy or the result of a particularly easy frame of mind at the moment, but certainly the impression exists. Amongst the flowers there was a perfect blaze of azaleas, gigantic in size and dazzling in colour. The upper range of fountains played for the first time, as we announced would be the case, to the perfect satisfaction, we believe, of those concerned. We must endeavour before long to give some detailed information as to the water-works generally. The concert on Monday was to some extent less successful than the flower-show, insomuch as the music could not be perfectly heard: nevertheless there was enough to delight any reasonable being. On a future similar occasion it might be worth while to try the effect of a properly constructed canopy, or other arrangement, at some height above the heads of the performers.

Mr. Owen Jones has completed his restoration of the Hall of the Abencerages, in the Alhambra Court, and has produced one of the most extraordinary effects of colour ever seen. The ceiling, "scooped into ten thousand cells," and illuminated only through small openings filled with stained glass, is like one enormous jewel.

ARCHITECTS' CHARGES AND BRIDGEWATER CHURCH.

SIR,—The charges in this case, which you have given, must cause great concern to the profession; and, as they are calculated to reflect discreditably upon the body, I shall take the liberty of stating what I conceive should have been the proper charges, and my reasons, leaving it to the architect employed to adduce the grounds upon which he justifies his departure from the usual practice of, at all events, London practitioners, whether for provincial or London jobs.

The largest charge for design, drawings, specification, and professional supervision is 5 per cent. which would have made the first item 197*l.* 10s. instead of 259*l.* 19s. 2d.

But there appears to be an anomalous combination, in one and the same individual, of architect and clerk of the works,—*a course perhaps necessary in provincial parts*, but most irregular. However, if accepted, the party in question must abide by the consequence; and, in consideration of his two guineas weekly salary for *personal* supervision as clerk of the works, forego his claim for remuneration for *professional* supervision as architect; consequently 2 per cent. more should be deducted from the first item, equalling 79*l.* The account, therefore, should have stood thus:—

For necessary designs, drawings, and specification, 3 per cent.....	£118 10 0
For personal superintendence as clerk of the works	216 7 0
I presume that the small subsequent items of surveys, reports, and estimates had no reference to the works previously stated as amounting to 3,946*l.* 3s. and charged for; consequently they may be considered genuine	29 11 0
	£364 8 0

The charge for taking out quantities for builders for new chancel roof was met by previous charge of 7*l.* 14s. for drawing and estimate of repairs of the same; and the sum of 24*l.* 13s. 10d. charged for estimating value of works proposed, and measuring up works performed, appears already included in the first item at the head of the bill.

Consequently, judging from the face of the account, and with one further explanation, the charge for the architect and clerk of the works, as combined, should seemingly have been 364*l.* 8s. instead of 570*l.* 7s. 4d.

If, on such occasions, the parties who feel themselves aggrieved would only agree to refer such matters to the council of the Royal Institute of British Architects, the employer would be protected from any irregularity of practice, and the professional man upheld in every legitimate charge for "*bonâ-fide*" services; for that Body are too deeply sensible that the true interests of the profession consist in that which is fair, equitable, and high-minded, to protect oppression, or to justify extortion.

T. L. DONALDSON.

THE WALL OF OLD LONDON.*

BEFORE the reign of Edward IV. the City wall was continued in a straight line from the angle a little north of Newgate to the Thames. Leave was, however, given for the removal of it from Ludgate to the river, in order to afford space for the erection of portions of the Blackfriars monastery. The engraving, fig. 4, p. 223, shows an interesting fragment of the old wall, and parts of the monastic buildings erected upon it, which are still preserved below the offices of the *Times* newspaper.

The whole of this neighbourhood was destroyed by the Great Fire of 1666, and afterwards, on part of the site of the Blackfriars, the King's printing-house was erected. Here the first *Gazette* and the royal proclamations were printed in the reign of Charles II. In 1688 the King's printing-house was attacked by a mob, which had risen against the Papists, and a large quantity of printed and other materials destroyed. In 1738, the printing-house was burnt almost to the ground, but soon afterwards rebuilt. On the removal of the King's printer, these now well-known premises came into the possession of the proprietors of the *Times*, and here, on November 29, 1814, was produced the first newspaper ever printed by a mechanical apparatus, and the first newspaper printed by steam. While making some of the alterations which from time to time have been required to

* See p. 221, *ante*.

meet the extraordinary increase in the circulation of the *Times*, the piece of old wall just mentioned was found. One part of this interesting relic is evidently much older than the other, and the most ancient was found to be so hard, as to set at defiance the tools of the workmen. During the alterations, several encaustic tiles, two finials of the fleur-de-lis shape, a Roman tile, and in the neighbourhood of the printing-office, several melting-pots and pieces of glass, mostly in a half-manufactured state, were found. These are carefully preserved at the *Times* office,—the parties having charge of them considering it a duty to do so: doubtless, however, they would gladly deposit them in some public place, provided they would be properly cared for. An ancient drain formed of the materials of the old wall, was also discovered. The melting-pots and pieces of glass are worthy of notice, for in Glass-house-alley, close by, James Verselyn, stranger, a Venetian, about the year 1580, or perhaps somewhat before, was the first that set up a glass-house in London for making Venice glasses, for which the queen granted him a privilege under the Great Seal. But the glass-sellers in London were much aggrieved at this, and showed the Lords of the Privy Council that it was the overthrow of fifty householders, using only the trade of selling glasses. There was a prohibition in the patent, that none should sell such glasses but the said Verselyn alone.

Let us, however, now retrace our steps to the Old Bailey; and having seen that in a plan of Farringdon Ward (without), engraved in Strype's edition of Stowe, published in 1720, there is a street called the Little Old Bailey, which branches from the Old Bailey towards St. Sepulchre's Church, and from which the *Green Arbour* runs (this street is now removed), we will, from the Old Bailey, enter Green Arbour-court, and at the bottom we come to a steep flight of steps, which in a small way serves to remind us of Edinburgh and Newcastle-upon-Tyne. These are the "Break-neck Steps," mentioned by Ward in his "London Spy."

Oliver Goldsmith lived for two years at not a long distance from the steps: the house has for some time past been removed, and the site occupied by stables and waggon offices. During the time he resided here, he wrote the "Inquiry into the State of Polite Learning in Europe;" and here Bishop Percy, who was then collecting materials for his "Reliques," called upon Goldsmith, whom he found in "a wretchedly dirty room, in which there was but one chair;" and when, says Percy, "from civility he resigned it to me,—he was himself obliged to sit on the window. While we were conversing some person gently tapped at the door; and being desired to 'come in,' a poor ragged little girl, of very decent behaviour, entered the room, who, dropping a curtsey, said,—'My mamma sends her compliments, and begs the favour of you to lend her a potful of coals.'"

At the bottom of Breakneck-stairs, is a portion of old masonry, marked in the plan. This has been supposed to be a portion of some outward defence: it seems, however, to be more like the remains of a building formerly connected with the Chancery, which in old times stood somewhere about this spot. Before leaving the Old Bailey, it may be worth while to mention that in Ship-court, three doors from Newgate-street, on the west side, Hogarth's father kept a school; and at No. 68, the second door south of Ship-court, the notorious Jonathan Wylde for some time resided.

From the bastion, a little to the north of Newgate, the wall continued in a north-east direction through St. Ann's Churchyard to Noble-street. On this were, including the above, five half-circular bastions, or towers. A part of the wall is left in the churchyard: it does not, however, present any remarkable features: from the angle at Noble-street, the wall runs nearly north to Cripplegate Churchyard, where the most perfect portion still remains. Nothing can be more picturesque than these venerable remains of former times. There were three towers on this part of the wall; and our engravings show that two of these remain,—that to the south forming part of Barber Surgeons' Hall: the wall stretching along the churchyard shows the peculiarity of the construction, and the various repairs and additions which have from time to time been made.

The interior of the principal tower which overlooks Cripplegate Churchyard, can be easily reached by passing along Monkwell-street, and then through the gate of Lamb's Chapel.

In former times, the site of the parish of St. Giles, Cripplegate, was a fen or moor; and the houses and gardens thereupon were accounted a village without the wall of London, called Mora; which in process of time increased in number of buildings, and was constituted a prebend of St. Paul's Cathedral of that appellation; "and now," says Chamberlain, "this village is totally swallowed up by London and the prebendary of Mora, or Mora without the wall of London, which hath the ninth stall on the right side of the choir in St. Paul's Cathedral, of whom it is said Nigellus Medicus was the first prebendary."

After leaving Cripplegate, the next fragment is a portion of Aldermanbury postern (see engraving). Here, behind the gate of the White Horse-yard, the groove in which the hinges of the old gate formerly worked are distinctly visible. The wall can be traced for some distance along this yard, wherein is the part engraved which, by showing the section, gives a good idea of the thickness and additions at different times.

At a short distance from Aldermanbury postern, in New Basinghall-street, was a second postern.

The next visible part of the wall is that, also engraved, in the churchyard of St. Alphage, on the wall. Here the outward stonework is much decayed, and crumbles to dust in large quantities to the wind and weather. A gentleman, living near the spot, says that the inner work of the wall is extremely hard, and that, in making an incision into the wall, for the purpose of fixing a safe, it cost 30s. to sharpen and repair the tools of the workmen.

From hence past Moorgate-street, Bishopsgate, Bevis Marks, Duke's-place, Houndsditch, to near the Tower, no appearance of the wall is to be discovered, until we come to that in the flax warehouses and mews; and the part, also engraved, which immediately adjoined the Tower postern: the engraving shows the west side, which, until lately, was one of the most perfect and extensive fragments of the wall, but it is now hidden by stables, &c. At the base of this the Roman work was distinctly visible. In passing from Tower-hill to the east, the narrow passage, in which are still the posts, was formerly the site of the Tower postern: this, some centuries ago, fell down, and was never replaced, except by a strong barrier of timber.

Chamberlain, in his "History of London," published about 1770, mentions that at that time there remained opposite the end of Gravel-lane, on the west side of Houndsditch, a tower 26 feet high, much decayed, and of similar construction to that mentioned by Dr. Woodward. Within the wall of this tower was a door in Shoemakers'-row, fronting the passage into Duke's-place.

Maitland says, that in searching for this tower, about 80 paces south-east towards Aldgate, he discovered another of the same construction, 21 feet high, perfectly sound and much more beautiful than the former, the bricks being as sound as if but newly laid, "while the stones in some parts have fallen a sacrifice to time:" that tower stood at the top of Rose and Crown-court, in Houndsditch.

Maitland also informs us that on the south of Aldgate, at the lower end of a street called the Vineyard, is the basis of "another Roman tower," about 8 feet high, which supports a new building of 3 stories in height, in the wall of which is fixed a large stone, with the following inscription:—

"Glory be to God on high, who was graciously pleased in a wonderful manner to preserve the lives of all the people in this house, 12 in number, when the ould wall of this bulwark fell down, 3 stories high, and so broad, as two carts might enter abreast, and yet without anie harm to any of their persons. The Lord sanctify this his great providence unto them. Amen, and amen."

"It was Tuesday, the 23rd September, 1651."

In Chamberlain's time the inscription was quite legible.

Exclusive of the city of London within the wall, there is a large space of ground without the wall, and this is encompassed by an irregular line, called the line of separation, by which the City is divided from the county of Middlesex. This line begins at Temple-bar, where it abuts westward, upon the liberty of the Duchy of Lancaster, which is without Temple-bar. It extends itself by many turnings and windings through parts of Shire-lane, Bell-yard, Chancery-lane, by the liberty of the Rolls, &c. into Holborn, almost opposite Gray's-Inn-lane, where there was a bar—that is, two posts with rails and a chain to fix across, on any emergency.

From Holborn-bars the line continues, with various windings, by Brook-street, Furnival's-inn, Leather-lane, Hatton-garden, Ely-place, Field-lane, and Chick-lane, and so on to Smithfield-bars. It runs between Long-lane and Charter-house-lane to Goswell-street, and up that street to the *Bars*.

From the bars in Goswell-street (where the manor of Finsbury begins) it extends itself, by windings, across Golden-lane to Whitecross-street, and Milton-street. In each of the above streets were bars. From Milton-street it is continued through Ropemaker's-alley to where the posts and chains were, in the high road from Moorgate, and thence by the north side of Moorfields, where it turns northward up to Norton Folgate, and there meets the bars in Bishopsgate-street, whence it runs eastward into Spitalfields, all abutting upon Norton Folgate. From Norton Folgate it runs southward by Spitalfields, and thence south-east, by Wentworth-street, to the bars in Whitechapel.

From Whitechapel-bars it winds southerly, by the Little Minories and Goodman's-fields, whence it returns westward to the Minories, and thence inclines more to the west until it comes to London-wall, when it abuts upon the Tower Liberty, and there it ends.

The whole length of this line of separation is called 21,370 feet, and yet the ground comprehended between the line of the City wall and this line of separation is only about 300 acres.

The circumference of the wall of London is stated to be as follows:—From the Thames, along Fleet-ditch, to the first north angle, 270 yards; 140 yards east to Ludgate; 330 yards to the angle north of Newgate; then eastward 390 yards, to 55 yards eastward of Aldersgate: thence it runs northward 240 yards, to Cripplegate-churchyard; from thence to Cripplegate; and so continuing eastwardly 1,000 yards, to Bishopsgate; and thence south-eastwardly 480 yards, to Aldgate; whence it runs still south-eastwards 465 yards, to within 20 yards of the middle of the north part of the Tower-ditch; in the whole 3,315 yards; to which adding the distance from the Tower to the Fleet-ditch, which is 2,170 yards, the whole circumference of the City within the walls appears to be 5,485 yards, or 3 miles and 205 yards.

The whole ground within the walls of the city of London amounts to 373 acres and four-fifths of an acre.

Fig. 7. Wall in Cripplegate Churchyard; part of Barber Surgeons' Hall in the distance.
Fig. 8. Bastion in Cripplegate Churchyard.
Fig. 9. Wall in Cripplegate Churchyard.
Fig. 10. Section of wall in White Horse-yard, London-wall.
Fig. 11. Remains of Aldermanbury postern.
Fig. 12. Ditto in Norton Folgate.
Fig. 13. The Churchyard of St. Alphage.
Fig. 14. Remains of the wall near the Tower Postern.
Fig. 15. West view of the London-wall, near the Tower.

MODEL DWELLINGS FOR WORCESTER.—The committee of the new association for the erection of improved dwellings at Worcester have decided that the laying of the first stone of their model dwellings in Copenhagen-street shall take place on the 18th of June instant, and that Mr. John Dent will lay the stone. Among the public bodies invited are the mayor and corporation, the Company of Clothiers, the fraternity of Freemasons, and the clergy of all denominations in the city. The assistance of the cathedral choir has been promised, and the band of the Worcestershire Militia will be in attendance.

THE WALL OF OLD LONDON.

Fig. 7

Fig. 8.

Fig. 9.

Fig. 10.

Fig. 11.

Fig. 12.

Fig. 13

Fig. 14.

Fig. 15.

CHURCH-BUILDING NEWS.

Colchester.—A new church, in the rural parish of Myland, was consecrated week before last. The edifice, which is dedicated to St. Michael and All Angels, was erected according to plans supplied by Mr. Hakewill, the builders being, for the stone and brick work, Mr. White, of London; and for the wood-work, Mr. S. Grimes, builder, Colchester. The church is in the Early English style of the thirteenth century, and comprises chancel, nave, and aisle, with broached spire of oak shingles. The body and tower are of Kentish rag-stone, with Caen stone dressings for the windows and porch. The width of nave and aisle is 37 feet, and length 61 feet; height from floor to pitch of open-timbered roof 39 feet. The chancel—in length, 32 feet—in width, 21 feet—is elevated one step above the nave, and on each side are the chancel stalls, formed of stained wood, with benches surmounted by carved angels; the back bench on each side being crowned with a group of angelic figures, executed in stone. The tower, containing one bell, is 40 feet high, and from it springs a broached spire 50 feet in height, to the summit of the cross. The church is fitted up for 400 persons, mostly free. The internal arrangements are very simple. All the seats are open, and formed of polish-stained wood. On either side of the chancel are six stained windows, three being memorials erected by the widow of the late Rev. P. T. Strong, thirty-two years rector of the parish, but the donor of the remaining three is unknown. Miss Strong has also contributed a stone baptismal font, erected by Mr. Crisp, of this town. The former rector, the Rev. A. Æ. Julius, presented a stained-glass window for the eastern end of the church. It consists of five compartments, the centre containing a figure of our Saviour, to whom on the right and left the Law and the Prophets do homage, and the remainder is filled up with incidents illustrative of the ministry of angels. The necessity for the erection of a new edifice had long been felt in this parish, the old church being in a most dilapidated condition; and when this matter was brought under the notice of Earl de Grey, the patron, his lordship most liberally offered to provide a site for the erection, and to contribute 500*l.* towards the requisite funds. This formed the nucleus of the subscription. Upwards of 2,000*l.* were accumulated, and in the early part of last year the building was commenced.

Treswell.—The reopening of the parish church of Treswell, near Retford, took place on Tuesday in week before last. This church, which is dedicated to St. John the Baptist, has been undergoing restoration, and is now completed. The tower remains in a bad state of repair. The interior of the church is furnished with about forty benches, capable of holding 200 people. There was originally a mixture of style of windows, but the Early Decorated has been fully carried out in the restoration of the church. The whole has been new roofed; and the old brick porch has been replaced by one of stone of Perpendicular character. Mr. A. Wilson, of Peterborough, was the architect, and Mr. Lees, of Retford, the contractor, for the restoration.

Tiptree.—The Tiptree Church Committee opened the following tenders on Monday week:—

B. Wells	£1,897
Cubitt	1,996
W. Higgs	2,112
Wilson	2,269
R. Banham	2,270
Gardener	2,287
Battesbury	2,367
Scarborough	2,436
G. Day	2,468
Cooper	2,511
Wardle and Baker	2,630

The tender of Mr. Wells, of Bermondsey, was accepted. The church is to be roofed in about October, and completed before the last day of June, 1856. Mr. Christian is the architect.

Braintree.—An attempt is now being made to obtain a fund by voluntary contributions, wherewith to restore the parish church here. The estimated expense will be 4,000*l.* The patron, Mr. R. Lindsay, has subscribed 100*l.*

Romsey.—The contracts for the construction of the nave of the Abbey Church have been taken by Messrs. Gover, of Winchester, and R. Huder, of Romsey.

Weymouth.—The foundation-stone of the chapels belonging to the cemetery here was laid on Wednesday week.

Birmingham.—The foundation-stone of the new church of St. Matthias, in the parish of St. George, at the junction of Wheeler-street and Farm-street, was laid on Wednesday week. The contractor is Mr. James Wilson, of Handsworth. The estimated cost of the building, with endowment, &c. was 6,430*l.* The plan of the church is rectangular, and it consists of nave, aisles, chancel, north and south chapels, with sacristy. It will accommodate 1,151 adults, 741 free. The style is Middle Pointed, with clerestory. It is to be constructed of brick, with Bath stone dressings, from the design of Mr. J. L. Pedley, of Birmingham, architect.

Smethwick.—The foundation of the new Wesleyan Chapel, Smethwick, was laid on Monday in week before last, by Alderman Ratcliff, of Edgbaston. The building is designed in the Italian style, to be of brickwork, with stone and Portland cement dressings. The gallery is constructed at one end; the other end recessed for the orchestra. The accommodation is for 960 sittings, 350 free. Mr. G. B. Nicholls, of Westbromwich, is the architect, and Mr. J. Hanley, of Smethwick, the contractor for the whole of the works. The total cost of the erection will be about 2,500*l.*

Liverpool.—The Hanover Independent Chapel, at the corner of Warwick and Mill-streets, Toxteth-park, was destroyed by fire on Friday last. The building was in course of repainting and repairing; and a plumber who was repairing a gas-pipe immediately under the organ, in order to test the soundness of the pipe, turned on the gas at the meter, applying a light at same time to the pipe, when an explosion underneath the organ took place, and the flame ignited the woodwork in proximity to it. The dryness of the wood caused the flame to spread rapidly, and, instead of turning off the gas at the meter, the plumber tried to extinguish the flame itself, but finding his efforts unavailing, he gave the alarm, but the whole building was gutted by the fire, the outside walls alone remaining standing. The loss is estimated at 800*l.* to 1,000*l.* but the building is said to be insured for 1,500*l.*

Hartlepool.—The repairs of Greatham Church have been contracted for by Mr. M. Proud, of Stranton, and were commenced week before last. The amount of Mr. Proud's tender is said to have been 500*l.*

Hull.—The organ of Holy Trinity Church here has been restored by Messrs. Forster and Andrews, of this town. The instrument, indeed, appears to be mostly new, although all the old pipes that were not really past restoration have been retained and carefully restored, and the new pipes "voiced" to correspond in tone.

PROVINCIAL NEWS.

Norwich.—The new workhouse question remains very much *in statu quo*. The guardians have re-affirmed that a new house is necessary, and nothing more.——The new building for the Free Library is rapidly progressing, and will be finished, probably, according to contract, in October. A meeting of the committee was held last week, and a proposal considered for raising the building a story higher, in order to afford accommodation for the School of Art. The surveyor submitted a plan and estimate, showing that this could easily be accomplished for a comparatively small expenditure.

Chelmsford.—A trial of the waterworks connected with the Chelmsford Board of Health has been made, to ascertain the nature of the supply in the event of a fire occurring in this town. A stand pipe was affixed to two of the fire-plugs near the Shire-hall, and hose being attached to one, a stream was thrown up higher than that building; and a trial of two jets playing at the same time showed but little diminution in the height and force.

Kempston.—The completion of the new school at Upend, in this parish, with residence for a mistress, at the cost of upwards of 900*l.* was celebrated, on Wednesday before last, by an entertainment given in the old National School-room by Mr. Talbot Barnard, of the Hoo, to the contractor, Mr. John Conquest, and the workmen employed in its erection, to the number of forty. The plans were by Mr. Horsford, of Bedford. The village bells rang throughout the evening.

Dudley.—The Bill for the construction of the new Dudley tunnel on the Old Birmingham Canal Company's line, recently passed through the House of Commons. The tunnel is to commence near Dudley Fort, and be carried under the Rowley Hills nearly to Tividale. The expense of construction will amount to about 230,000*l.* including a double towing-path. The length of the tunnel will be 2,567 yards, and its width 28 feet.

Taunton.—The foundation-stone of the new Assize Court, at Taunton, will shortly be laid by Lord Portman.

Birmingham.—The decoration of the Town-hall, under the superintendence and from the designs of Mr. Ingram, is in progress. The ceiling is now covered with a series of designs in accordance with the architecture of the Hall. On the ribs of the ceiling arabesques are already painted, and the gilding of the cornice has made considerable progress.

Coventry.—The new schools for St. Michael's parish were opened on 31st ult. by the Bishop of Worcester.

Lichfield.—The foundation-stone of new parochial schools at Alrewas, was laid by Mrs. Levett, of Wichnor Lodge, on 29th ult. Mr. Christian is the architect, and Mr. T. Andrews, of Barton, the builder.

Liverpool.—The new borough jail at Walton is nearly completed. It comprises all the modern improvements, and no expense has been spared to render it complete in all its departments. "Viewed from Walton," says the local *Times*, in describing its general appearance, "the gaol has the appearance of a strong and powerful fortress, begirt with lofty walls, loop-holed towers, and commanding turrets, surmounted by a flagstaff." Approaching by the new street, on the east and west sides of the entrance, are two mansions, the governor's and the chaplain's, each approached by flights of steps, with ornamental gardens around; the boundary wall being depressed so as to place the houses on the exterior of the prison. This arrangement gives an improved aspect to the entrance. Between these houses is the central entrance, in the Norman style of architecture.—Here is lodged the deputy-governor, whose residence is built of red brick and Bath stone, and flanked with massive castellated towers. The Bath stone, however, according to the paper just quoted, does not give good promise of a lasting reputation in these northern climes. The base is of red sandstone, from Runcorn, which material is also used in the main structure. The entrance is spanned by a Norman archway, leading to a courtyard and groined vestibule. The corridors of the prison are commanded from central halls, in four directions. These corridors diverge from one another at right angles, are open from the floor to the roof, lighted by skylights, and bay windows terminate the extremities of the corridors. The junction corridor runs the entire length of the building, from east to west, and from it branch off nine wings, as well as the debtors' two divisions: in the centre, however, are doors to separate the males from the females. Flights of stairs at the ends, of iron and slate, and circular stairs, of the same material, in the central-halls, communicate with three tiers of galleries running round the interior, and communicating with the cells, a fourth gallery reaching the cisterns and other appliances for sanitary purposes, above. The central halls are two in number,—the east and the west: they are covered with lantern-lights of iron and rough plate-glass. A balustrade of iron encircles the galleries on either side of the corridors, along which food for the prisoners is conveyed to the respective cells, having previously been hoisted on trays from the kitchen in the basement. Each gallery possesses a traversing railway, working on the balustrades, and, in addition, is furnished with bell and tube for instantly communicating with the kitchen. At the angles of the central-halls are the officers' day-rooms, where, by stepping

outside the door, they can command the whole of their department, almost at a glance. The corridors are lighted at night by gas sunlights, placed in the ceiling, one in each corridor. The flooring is laid with blue Caithness flags, and the ceiling, where skylights do not intervene, is varnished, and the woodwork displayed. Binding arches, placed in the roof at intervals, add strength to the building, and support the extraction shafts for carrying off foul air. The margins of the doors are of a deep red; the floors laid with slates; the arched brick ceiling whitewashed; the walls of stone-colour. The dimensions of the cells are 13 feet 7 inches by 10 feet high. The cells, with their gong wires and indicators, and their various conveniences, are more like studios than felons' prisons. The cells in the debtors' wings are dismal and cheerless in comparison, these being, it seems, an afterthought. The visiting stalls for felons are strongly-barred cages, friends and relatives communicating across a passage 3 or 4 feet wide, which an officer meantime perambulates. The separate system prevails throughout the entire establishment. The chapel is in the centre of the main building, and at the back of the grand entrance. The Norman style has been carried out in the decoration, which is very plain. The four angles of the prison are flanked by towers, tenanted by warders, and the whole is encircled by two walls, the inner 18 feet high, and the outer 7 feet. Ventilation is effected by immense air shafts, which surmount the summit of the building and communicate with the flues. The cells are warmed and made comfortable in winter by hot air. The locks, gates, hinges, and other appliances, of that class, have been furnished by Mr. C. Smith, jun. of Birmingham; the brickwork, masonry, and joinery, by Messrs. Furniss and Kilpin; the plumbing by Messrs. Knight and Son; the carpenters' work, by Mr. Burroughs; ironwork, by Messrs. Pearson and Co.; gas, by the United Gas Company; and some of the lamp-posts by Mr. Rankin; the clockwork, by Mr. Condliff; and the cooking and heating apparatus, by Mr. Haden, of Trowbridge. —— The estimated cost of the proposed great Landing Stage, the largest of the kind ever erected, will be from 110,000*l.* to 115,000*l.* The area of deck space, according to the local *Journal*, will amount to nearly two acres, affording room for the erection of light buildings of wood and corrugated iron, to any extent that may be required. It is to be moored in the river opposite the Prince's Pier, and will be 1,000 feet long by 82 feet wide, supported chiefly by pontoons.

Preston.—The market-place and new town-hall building committee report to the council that "the following may be considered an estimate of the probable cost of the buildings:—

Mr. Armstead's tender	£11,715
Iron-work for fire-proof portion of building	1,100
Warming and ventilating	130
Iron shutters	491
Grates, gas-pipes, and other fixtures and contingencies, as stated by Mr. Hill, say	1,200
Architect's charges, say	800
Clerk of the Works, say	100
Total	£15,536."

CASH ADVANCES FOR THE POOR.

SOME years ago a correspondence on this subject appeared in your columns in which I had the honour to bear a part. I observe that the subject is re-opened, apparently by the same writer as on the former occasion. * * * In this country the *Mont de Piété* system is an impossibility, for every man of business knows that the red tape and routine of a Government establishment can never successfully stand its ground against private enterprise. For the service of the public such institutions are peculiarly inefficient: departments are multiplied, and the system of check and counter-check carried to such an extent, that the time of the pawner is occupied to a degree exceeding by four or five times the space occupied in pledging and redeeming an article in London,—and time is money. Besides this, its charges, although apparently lower, are in practice higher than the English rate. The writer of "Cash Advances" evidently does not observe the distinction between per cent. *per annum* and per cent. upon the sum lent, yet between the two there is a very important difference. As most of his figures are mis-stated, I will here describe what the charges of the London pawnbrokers and of the Paris *Monts de Piété* really are. By the 39 & 40 Geo. 3, c. 99, the English pawnbroker is, under a very heavy penalty, limited to the following rate of profit upon his loans:—Not exceeding 2*l.* 2s. it is 20 per cent. per annum, or 4d. per pound per month: above 2*l.* 2s. and not exceeding 10*l.* it is 15 per cent. or 3d. per pound per month. Beyond 10*l.* the severe restrictions of the Pawnbrokers' Act do not apply;—one reason why, "the merchant and trader can obtain money at 5 or even at 3½ per cent." The charges of the *Monts de Piété* are not what is stated in your paper of the 19th ult. but 9 per cent. per annum (nearly 2d. per pound per month), while the commissioner's fees are three per cent. upon the sum advanced, without regard to the duration of the loan. In order to understand the working of the two systems, it must be borne in mind that a very large majority of the pledges in London are redeemed within the first month, and not more than 15 per cent. remain over the fourth month. The following are the charges:—

	One Month.	One Year.
LONDON.—A loan of 4*l.* Interest at 15 per cent. ...	s. d. 1 0	s. d. 12 0
Ticket money	0 2	0 2
	1 2	12 2
PARIS.—A loan of 100 fr. (4*l.*)	fr. c.	fr. c.
Interest at 9 per cent....	0 75	9 0
Commission fees	3 0	3 0
	3 75	12 0
LONDON.—A loan of 2s. 6d. Interest at 20 per cent. (no ticket money under 5s.)	s. d. 0 0½	s. d. 0 6
PARIS.—A loan of 3fr. (2s. 6d.)	fr. c.	fr. c.
Interest at 9 per cent....	0 2½	0 27
Commission fees	0 9	0 9
	0 11½ (about 1½d.)	0 36 (3½d.)

From this it will be seen that while there is a saving on the French system in transactions for long dates; upon the short periods, which form the bulk of the English trade, the *Mont de Piété* charges much more than the pawnbroker.

There is another point upon which the writer of "Cash Advances" does not give a perfectly correct statement; that is, in describing the pledge as "redeemable at twelve months, *then to become forfeit.*" Now the pawner is entitled to an additional three months' grace if he chooses to demand it, while in the case of pledges for more than 10s. the pawnbroker is bound to sell them by public auction, duly advertised, and to keep a record of the result; the pledger being entitled at any time within three years to claim whatever surplus may have been realized beyond the amount of the loan and interest. The reason why this rule is not applied to pledges of lower value is this, that it does not answer to sell pledges of such small worth by public auction, and the enforcement of the rule would only have the effect of preventing small loans altogether.

With respect to the storage of furniture, to which the writer alludes towards the close of the article, I can assure him that there are very few pawnbrokers in London who will take in furniture at all, unless of a very costly description; and this because the rate of interest which the law allows them is *less* than the value of warehouse-room. Suppose a chest of drawers pawned for 1*l.* the interest would be 4d. per month, less than 1d. per week; and who would *warehouse* it at that rate?

So far from the rate of interest allowed by the Pawnbrokers' Act upon small loans being exorbitant, the reverse is the case. The working cost of every pledge received by a London pawnbroker averages about 1½d. to 2d. The Irish *Monts de Piété* found their average expense per pledge nearly 4d.; and as their trade lay in goods of a low value—their loans averaging only 3s. 3½d. per pledge—they were ruined by the excess of their expenditure over their income, although charging interest at 25 per cent. per annum (their expenses being 30 per cent.). In the Paris *Monts de Piété*, the expenditure—including interest upon a portion of its capital borrowed at 3½ per cent. —is about 9d. per pledge. Now the English Act restricts the pawnbroker to a charge of only 0½d. for loans of 2s. 6d. and under, if redeemed (as most of them are) within the first month. The natural effect of this limitation is, that the pawnbrokers, to a great extent, decline the business of small loans, which philanthropists deem so profitable, but which experience proves to be ruinous. Let us now glance at the result.

The poor must have money: if the pawnbroker refuses an advance, they will obtain it elsewhere. In London and the great manufacturing towns there is a swarm of shops—generally marine-stores, or chandlers',—wherein an illicit system of pawnbroking is practised. They are called "dolly-shops," "leaving-shops," &c. and their system of trade is this:—they profess to *buy* the article which it is sought to pledge, upon the understanding that they will *resell* it to the original owner within a certain time—ordinarily one month—and at an increase of price equal to the profit that it is desired to make. The details of this bargain are tacitly understood: no ticket or acknowledgment is given; and pains are taken to render the transaction as distinct as possible from pawnbroking, in order to avoid coming under the regulations of the Pawnbrokers' Act. In practice the system amounts to this, that money is advanced to the poor, under pretence of a fictitious sale and resale, at the rate of one penny *per week* for each shilling; and this without any security that the dealer will fulfil the implied contract of resale at all. In London, Glasgow, and other towns, this illicit traffic exceeds in number—though of course not in value—the operations of legitimate pawnbroking, and the law is practically powerless to interfere, for it cannot restrict the right of buying and selling. It is a remarkable fact that these illicit pawnshops are unknown in Ireland, the reason being, that there, in addition to the interest, the pawnbroker is allowed "ticket money" upon small pledges, while in England and Scotland he is not allowed any fee of this kind, unless the loan is of 5s. and upwards.

I believe the only remedy for these very crying evils would be the abolition of the restriction on the pawnbroker's rate of interest, which, like all laws against usury, are only productive of disaster to those whom they were intended to benefit. The English pawnbrokers would be very glad to receive small pawns upon the terms allowed to their Irish brethren, but the law does not allow this; and as a consequence we have the "dolly-shop," charging at the rate of 400 per cent. per annum on transactions which the pawnbroker would be happy to execute at 40. The reason of this is obvious: as a large capitalist employing from 4,000*l.* to 10,000*l.* he would be satisfied with a smaller profit than the dollyman, who has to live and keep a house over his head upon the profits realized on a capital of 50*l.* or 100*l.*

BARDI.

FALL OF ARCHES, LAMBETH WATER-WORKS.

AT the inquest on the bodies of the unfortunate men who lost their lives by the fall of twelve arches at the Lambeth Waterworks, Brixton (p. 263, *ante*), Samuel Burgess, a carpenter, said he saw the whole of the arches go down in a mass, and the men go down with them. He first saw the concrete in the spandrill move up 2 or 3 inches, and then the arch fell, and the others followed. Some of the centres had been struck, and some had been eased in the twelve arches that fell. The concrete had been placed between each spandrill. To the best of his knowledge, no one was doing anything in removing the centres when the arches fell. The width of each arch was about 18 feet between the walls. They were 4 feet wide from the spring, and from 16 to 17 feet in the centre. The centres had been eased last Saturday, after the concrete had been put in, and removed on Monday. The labourers were putting clay on the top of the arches to protect them, and prevent the water from penetrating. The materials were good. The arches were 9 inches thick.

Mr. James Simpson said, that he was the engineer to the Lambeth Water Company, and had been so for many years. The works were at Ditton, but the company had reservoirs at Brixton for the reception of water. In consequence of the Act of Parliament the company are compelled to cover the reservoirs over. For that purpose he was consulted, and a variety of plans were laid before the company, but nothing seemed so desirable as bricked arches. Witness prepared a plan and specification, and it was agreed that the works should be carried out by Messrs. Locke and Nesham. The area of water is nearly three acres, comprised in four compartments. To carry out the covering, walls were to be erected across the reservoirs, and arches sprung over the tops, at the height of 16 feet in the middle of the reservoir, and 14 at the side. He had from time to time inspected the works as they were progressing, and he was quite satisfied with them. He considered the works were sufficiently strong for the arches. He had had great experience in water-works for different companies. He had had formed two reservoirs in Cambridge, covered over in the same way, and another at Malvern.

By the Coroner.—I cannot form any opinion as to what gave rise to the fall. The reservoirs had been built many years, and were cut out of the solid clay.

None of the witnesses examined could offer any explanation of the cause of the occurrence.

The verdict was,—"That the deceased persons were accidentally killed by the fall of certain arches at the Brixton reservoirs of the Lambeth Water-works, and the jury are of opinion that the cause of the fall of the arches arose from the fact of the centres being

removed before the wheeling and placing the earth had been completed, and we (the jury) would suggest that a half-brick course more of brickwork should in future be used in the formation of the arches."

COMPETITIONS.

The Meadows, Edinburgh.—The first prize, 50*l.* has been awarded to the design of Mr. Thomas Davies, of that city, for laying out the meadows as a public park, and the Police Commissioners have approved of the report by the joint committee recommending the adoption of the general features of that design. A reduced copy of the plan has been published by its author.

Dudley Workhouse. — We have received seven letters on this subject, condemning the course pursued by the guardians, and asserting, unhesitatingly, that the plans of some of the competitors were voted for by name, although supposed to be anonymous.

Newcastle Cemeteries.—The competition for the third of the cemeteries proposed, that for the parish of St. Andrew and Jesmond, has been decided in favour of Messrs. Middleton and Pritchett, of Darlington.

Bridport.—The Burial Board have accepted the designs of Mr. H. Hall for the cemetery, chapels, and lodge, and have awarded the second premium to Mr. Boyce, of Tiverton.

Sherborne.—The plans of Mr. H. Hall, we are told, have been accepted for the National Schools here. The competition was in this case confined to a limited number.

Peterborough.—It is said with reference to the proposed new church here, that 106 architects had applied for the particulars!

Soham Cemetery.—In response to the advertisement issued by the Burial-board, thirteen designs were sent in, and the Board selected one by a London architect, at a restricted outlay of 950*l.* The builder's tender, however, amounts to 1,852*l.* One of the designs exhibited quite a new feature in architectural arrangement, and, to a certain extent, appropriate, the windows and doors throughout being coffin shaped, and the spire formed of skeleton persiatides in acrobatic position, the vane representing a ten-pound note, the liberal premium offered by the Board to the successful candidate! "ANIMO NON ASTUTIA."

Miscellanea.

ROMAN CATHOLIC SCHOOLS IN LIVERPOOL.—The report for 1854, by a Government inspector, on Roman Catholic schools in the north-western division of England, appended to the minutes of the Committee of Council on Education, just issued, contains some interesting information on the present condition of the schools of that kind under inspection in Liverpool. Among the new schools, those of Holy Cross, and St. Thomas and St. William, are said to be fine and even costly buildings, spacious in extent, and constructed with the best materials. But, with regard to plan and organization, they cannot, in the opinion of the inspector, be considered as proper models for schools of the largest class. "Indeed, it would appear," he says, "that architects, if they would not force the promoters of schools into an abandonment of the Gothic style, must prove its suitability by an exercise of greater ingenuity than they have yet displayed, and must conceive of a school some more exact idea than that of a church with one or two floors introduced into it. A better model," he adds, "will be afforded by the Liverpool St. Francis Schools, now completed; but I consider that even in this case the omission of class-rooms renders the plan imperfect."

NORMAN FONT IN NEWENDEN CHURCH, KENT.—The picturesque but dilapidated little church of Newenden, with its village of half a dozen cottages, a toll-bar, and the never-failing alehouse, stands, half hidden in a hollow, scarce a stone's throw from the Rother, which divides alike the parish of Newenden and the county of Kent from Sussex. Curtailed of its chancel and the spire of its tower, some century and a half ago, it presents little worthy of notice. It has, however, a font, the relic of a more ancient church than the one it now stands in, which will repay the traveller for his visit. It is of the Norman period, raised on three steps, and has some characteristic sculptures on the four sides of the upper part.—G. C.

THAMES TUNNEL.—In the week ending 2nd of June, 23,269 passengers passed through, and paid 96*l.* 19s. 1d.

SCHOOLS, HACKNEY.—Schools are about to be erected for the Committee of the New Gravel Pit Chapel, Hackney. The tenders delivered showed a strange difference. They were as follows:—

Fox (Hackney)	£700	0	0
Lwrence (London).....	642	0	0
Harwood (Hackney) accepted...	438	10	0

TRADE MUSEUM AT SOCIETY OF ARTS.—An interesting selection of Samples of Animal Produce and Manufactures is now exhibiting in the Model-room of the Society of Arts. It is designed as the commencement of a general Trade Museum, or collection in illustration of the productions, industrial resources, manufactures and commerce of all countries, and comprises—1. Wool Series; 2. Silk Series (including the silk-worm and its economy; the wild silk-worms of India, allied moths, cocoons, manufacture of waste silk — silk-hat making); 3. Skin Series; 4. Horn and Bone Series; 5. Fur Series; 6. Bristle Series; 7. Feather Series; 8. Horsehair Series; 9. Lac Series; 10. Wax Series; 11. Oil Series; 12. Shell Series; and 13. Refuse Matters, derived from the previously illustrated arts, and showing the uses to which they are applied.

CHURCH BELL-HANGING.—Messrs. Hooper, of Boston, U.S. write touching an article in a recent number of the *Builder*, on some alterations in bells and bell-machinery, as follows:—It is a great while since the bell-founders of England have made improvements in bells, or mode of suspending them: hence it is gratifying to learn that their ingenuity is now exercised to overcome some of their clumsy contrivances in this branch of mechanics. Over twenty years ago our firm introduced a change in the style of suspending bells, and at that time adopted substantially the same method as that alluded to in the *Builder*. We did not think it expedient to construct the apparatus, in ordinary cases, so as to admit the clapper to strike the sounding bow of the bell at different points, although we made a bell for the City of New York, some years since, which weighed eleven tons, and was suspended so as to produce that result. We enclose a rude cut of a bell and hanging apparatus, which conveys some idea of the method adopted by us. The yoke is of cast iron, fitted with wrought iron gudgeons cast into the yoke, and accurately turned. The yoke is fitted to the bell crown with flat surface, and securely bolted through. Our firm invariably fit relieving springs, which remove the clapper from the sounding-bow of the bell when inverted, thus leaving it free to vibrate while at the set."

A "STEAM HORSE," CARRYING ITS OWN RAILWAY.—Messrs. Boydell and Glazier, of Camden Works, Camden-town, have been exhibiting their "Steam horse" performing various feats of strength. "On Saturday," says the *Morning Chronicle*, "we saw it draw, on a very rough and uneven road, eight tons of fire-brick with ease." The engine is a seven-horse common portable one reversed, the wheels being furnished with Boydell's "endless railway." On one of the last wheels, 6 feet high, a driving-wheel 5 feet in diameter is fixed, into which a small pinion on the end of the fly-wheel crank-shaft works, while the "endless railway" prevents the wheels either from slipping or sinking in soft ground. The fore-wheels are steered by means of a pole with wheel, chain, and pulleys, the same as a steam-boat; and a man at this wheel has entire control over the engine, turning, without the tender, in the narrow circle of 40 feet in diameter. At Carlisle, Mr. Boydell, the patentee, proposes showing its capability of drawing or working ploughs, diggers, grubbers, wagons, thrashing machines, &c.

APPOINTMENT OF SUPERINTENDENT OF STREETS AND BUILDINGS AT EDINBURGH.—In accordance with an intention which we have already noted, the Edinburgh Police Commission, at a recent meeting, elected a superintendent of streets and buildings, for which office there were twenty-three candidates. The following names were formally proposed by members of the Commission;—Mr. W. A. Jardine; Mr. C. M'Pherson, of Egremont, Cheshire; Mr. J. T. Thomson, Berwick; Mr. T. Knox, Holyrood, and Mr. R. Kirkwood, Edinburgh. No other candidates having been proposed, the vote was taken. Mr. Thomson and Mr. Kirkwood had the fewest votes at the first division, their numbers being four each. The latter was struck off the roll. The next vote excluded Mr. Thomson, and the third Mr. Jardine. The final division was betwixt Mr. M'Pherson and Mr. Knox, when seventeen members voted for Mr. M'Pherson, and fourteen for Mr. Knox.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.—The closing meeting of the session will take place on Monday evening, the 18th instant, when a paper by Mr. G. R. Burnell, C.E. will be read, entitled "Practical Observations on Pile Foundations." Mr. Tite, M.P. will take the chair as Vice-president, and bring the proceedings of the present session to a close.

MR. TITE, THE ARCHITECT OF THE ROYAL EXCHANGE.—Our readers will have seen, many of them with great satisfaction, that Mr. Tite has been returned to serve in Parliament for Bath, and has taken his seat. With great determination and courage, a clear head, and large information, he is well adapted for the honourable position which he has attained. Good health to him!

ELECTRO-TELEGRAPHIC PROGRESS.—The following account of the successful inauguration of Chevalier Bonelli's invention — the locomotive telegraph — has been received from Piedmont:—"The inauguration of the electric telegraph, acting between engines in motion, took place on May 24, between Turin and Montcalieri, in the presence of the ambassadors of France and England. A long and animated conversation was held between two locomotives going at full speed, and also between these locomotives and the telegraph-office."——Lord Palmerston, to show the uselessness of employing spies in an age of telegraphs and newspapers, said lately in the House of Commons, that he believed every column of the *Times* was reprinted at St. Petersburgh, by means of the electric telegraph, within twelve hours of the time when it appears in London.

LECTURE ON ART AT WREXHAM.—On Thursday evening before last, Mr. Davidson, head master of the Government School of Art in Chester, gave a lecture at Wrexham, on the History of Ornamental Art in connection with Drawing, preparatory to establishing a School of Art in that town. The lecture was respectably attended, and was listened to throughout with the most marked attention. In the course of his lecture Mr. Davidson said,—Let a workman be taught to understand that building is not simply piling stones, bricks, and timber on each other: let him understand the principles of construction, give him a knowledge of practical geometry, and he will become interested in the proportion which one part bears to another. Give him a knowledge of perspective, and he will enter with a much greater degree of intelligence into the forms of the building he is engaged upon. Give him a knowledge of colour, and I feel convinced that not only will the interior and exterior of our buildings improve architecturally, but the spirit of the beautiful will shed her lovely influence over the dress, deportment, and manner of the artizan. Raise the workman's intellectual position, and he will soon work with you in his own elevation. The lecturer then proceeded with the history of Ornamental Art, dividing the subject into ancient, middle age, and modern—explained the characteristics of the various styles, illustrating each by drawings; and, in conclusion, said,—As in a literary point of view, every one can be taught to write his thoughts in a manner sufficiently plain to be understood, and also to read and understand the writing of others, so I have found that every one can be taught to express his ideas by drawing in an intelligible manner, and to understand a drawing when placed before him; and experience has shown me that the first manual difficulty once overcome, the cords which, as it were, bound the fingers, severed, the mind flows forth in a manner truly surprising—and each success, however small, nerves the industrious student to future trials, each to be crowned with similar victories. Let no one say drawing is unnecessary to him or to his children, because people have until now done without it. Unfortunately, the people of this country have done without it too long by far, until they have been often called "a people without taste."

CLERKENWELL POLICE-COURT: GREENHOUSES.—What is there to prevent (as the building is decided by the police magistrate not to be within the jurisdiction of the district surveyor,—in other words, not amenable to the rules and regulations of the Buildings' Act),—what is there, I beg to ask, to prevent the builder next week boarding over the whole of this building,—making a wooden erection of it? The decision of the magistrate is so manifestly absurd, and against the law, as to render comment superfluous, and affords one more practical illustration of the folly of asking police magistrates to decide on building matters,—or matters involving a certain amount of professional knowledge as a *sine qud non* for their proper jurisdiction.—SPES.

IMPROVEMENTS ON THE BLACKWALL RAILWAY.—The extensive improvements on the Blackwall line are progressing towards completion. At the Stepney station, the carriage-way has been enlarged. The whole of the railway arches, from Crutched Friars, Minories, to the station at Limehouse, and from thence to the extent of the line, will be widened. These improvements will cost the company about 100,000*l.*

AN ARCHÆOLOGICAL CURIOSITY.—On the farm of Knockiebay, in Galloway, there is to be seen a ponderous stone block, with these words cut out on its upper side:—

"Lift me up, and I'll tell you more."

Obeying the enticing injunction, strangers and simple people, unsuspicious of practical jokes in archæology, have, at various periods, exerted their strength with the view of revealing the hidden mystery, when they find a cooler to their stimulated curiosity and their accelerated circulation, in the dry request to—

"Lay me down as I was before."

THE METROPOLITAN COMMISSION OF SEWERS.—A return moved for by Mr. Williams, M.P. shows that the gross total amount of rates levied by the Metropolitan Commissioners of Sewers in the several parishes of the borough of Lambeth, from 1848 to 1854, both inclusive, was 91,368*l.* making, together with loans, contributions, and other receipts, a gross total receipt of 152,844*l.* in the seven years. Of the rates levied, 50,238*l.* were collected in St. Mary's, Lambeth; 20,373*l.* in St. Giles's, Camberwell; and 20,755*l.* in St. Mary's, Newington. The grand total expenditure in the seven years amounted to 129,372*l.* of which 43,366*l.* was appropriated to the cost of new works executed; 4,230*l.* to repairs; 20,907*l.* to cleansing; 4,440*l.* to surveys; 20,253*l.* to management, including local supervision; and 31,351*l.* to the repayment of loans and interest. In the seven years already mentioned, 72,283*l.* were expended in St. Mary's, Lambeth; 27,595*l.* in St. Giles's Camberwell; and 29,493*l.* in St. Mary's, Newington. In 1854 the total receipts in St. Mary's, Lambeth, were 35,692*l.* and the expenditure 26,754*l.*: in St. Giles's, Camberwell, the receipts amounted to 12,854*l.* and the expenditure to 8,827*l.*; and in St. Mary's, Newington, the receipts amounted to 13,065*l.* and the expenditure to 11,000*l.* The rates varied from 3d. to 8d. in the pound.

LOW LEVEL STATION AT WOLVERHAMPTON.—This structure is now approaching completion. It has been built at the joint expense of the Great Western, Oxford, Worcester and Wolverhampton, and Shrewsbury and Birmingham Railway Companies; but since the amalgamation of the latter with the Great Western, this company possesses two-thirds of the station. The design is the joint production of the three engineers of these companies; Mr. Brunel, who we believe designed the roof; Mr. Fowler, engineer of the Oxford and Worcester line, who is understood to have designed the station buildings; and Mr. Robertson, engineer of the Shrewsbury and Birmingham Railway. The range of buildings is 380 feet in length, and consists, in its front elevation, of a central block projecting towards the front, in which is the vestibule for booking,—a hall, 45 feet by 36 feet, and 32 feet in height, lighted both by side windows and a skylight,—and the booking offices on each side, by means of which passengers may book for different trains at four distinct places. On the south side of this central block are the second and third-class waiting room, 36 feet long by 22 feet broad,—an arched gateway for exit, the kitchen, first-class refreshment-room, ladies' waiting-rooms, offices, &c. Another block of building projects to a less extent than the centre one at each end. On the north side of the booking offices are inspectors' office, telegraph and station masters' offices, arched gateway for exit, parcel office and cloak-room, lamp-rooms, porters' rooms, &c. The building is of blue Tipton brick, with stone dressings for entrances, windows quoins, &c. The contractor for the station is Mr. Jerram, of Leicester.

MR. MONTI'S LECTURES ON SCULPTURE.—The course was commenced on the 30th ult. Mr. Monti pointed out at starting that the aim of the lectures was to further a just appreciation of the works of sculpture by the internal evidence presented by the works themselves. To do this efficiently, it was necessary to discard,—First, the idea that sculpture is only the result of an instinct for imitation, and a desire to produce decoration and pleasure: these are only the means by which sculpture is made to exist,—Secondly, the standard of *beauty*, taken in a literal sense, applied indiscriminately to judge of art: rather have the standard of *truth*, as leading to a more just result;—Thirdly, the prevalent habit of applying in the judgment of works of different ages and nations the same and only standard of individual sympathy or predilection: being the expression of different conditions, every one of them must be judged according to those conditions that have originated them. Egyptian and Assyrian art were discussed. The second lecture treated in a very interesting manner of the Indian, Mexican, and Pelasgian-Greek sculptures, and was well illustrated by drawings.

NEW DISTRICT SURVEYORS.—On the 31st ult. Mr. John Turner was elected surveyor for the district of East Islington; and Mr. Charles Fowler, jun. surveyor for the district of Bloomsbury and St. Giles.

ILLUMINATING GAS FROM PEAT.—Messrs. Campbell, of Mary-street, Dublin, says the local *Express*, have been for some time past engaged in solving a very important problem as regards this country—the production of illuminating gas from peat: the difficulties are at length surmounted, and a quality of gas can be produced which will burn with sufficient brilliancy for all useful purposes: with half a pound of ordinary turf peat about a cubic foot of gas was made in the space of a few seconds, while all the ordinary deposits remained, such as charcoal, gas tar, &c.

PAINTINGS IN CULFORD CHURCH.—Some ancient medallions have been discovered in Culford Church, on the splays of two narrow round-headed lights in the east end, which formed the extremes of the original range, the rest of which had been removed to make way for a larger window, at which time it is supposed the extreme lights were built up. There are three medallions in each window. The chief characters seem to be, a king, a "persecutor" in dark red, a bishop in light red, and a saint in white, with the tonsure. A gridiron appears in one, with the saint laid out on it; but the whole, it is said, does not suit the story of St. Lawrence.

FIRE AT MESSRS. PENN AND SONS'.—On 1st inst. the pattern-stores of Messrs. Penn and Sons, the Government Engineers, at Deptford Pier, were destroyed by fire, the origin of which has not been ascertained. No Government work will be hindered on account of this fire, as all the business on hand for the Government is carried on at the Greenwich factory. Every one has noted the certainly "curious coincidence" of several fires having broken out of late in factories belonging to firms employed in the fabrication of war material. It is to be hoped that special watchmen will be employed to keep a constant look-out in such establishments. Had this been the case in a recent instance, it is not easy to see how it could have occurred. In the present case, however, it is imagined that "oily wipings" may have been the *spontaneous* cause of the conflagration; and the present season certainly seems to be one in which a more than ordinary tendency to such fires may be expected in London, if there be any relation of sequence in those great fires which have repeatedly occurred *after* great pestilence, as if from compensatory excess of ozone, or active oxygen, in the atmosphere, after a season of unusual deficiency; and already ozone appears to be rising into average excess, compared with its state some months since.

TO SOFTEN AND PURIFY WATER.—"An analytical chemist" recommends the following:—Mix well, 40 grains of dry oxalate of ammonia with 90 grains of peroxide of manganese, adding thereto, 350 grains of powdered charcoal. Agitate one imperial gallon of the water with one ounce of the above mixture: allow it to settle, and (after an hour or two) pour off the clear liquid. The first-named ingredient throws down all the lime present, as oxalate, which carries with it the mechanically-suspended organic matter. The oxide of manganese oxidizes and destroys the organic matter in solution, the deleterious gases from which are entirely absorbed by the charcoal. Water treated in this manner, he adds, becomes sweet, wholesome, and soft as rain-water, without the use of a filter, and even (what are called) "permanently hard" waters, can be made by this process beautifully soft, and adapted alike for lavatory or culinary uses,—economising soap in washing, and fuel and time in cooking. Last year, he states, a relation of his in the country, on changing her residence, found herself and child constantly attacked with a violent diarrhœa, the cause of which he at last traced to the impurity of the water used, and since his process has been employed (July last), nothing of the kind has been experienced.

RATEABLE VALUE, ETC. OF THE METROPOLITAN DISTRICTS.—A return moved for by Sir Benjamin Hall, M.P. shows that with a population (in 1851) of 2,363,405, and inhabited houses to the number of 306,088, the rateable value of the property assessed in the metropolitan districts to the property-tax (Schedule A) amounts to 13,462,067*l.* In the City of London the population is 127,869, inhabited houses 14,590, rateable value 1,584,351*l.* In Westminster the population is 241,611, houses 24,755, rateable value 2,420,116*l.* In Marylebone the population is 370,957, houses 40,513, rateable value to income-tax 2,510,167*l.* In Finsbury the population is 323,330, houses 37,353, rateable value 1,687,763*l.* In the Tower Hamlets the population is 539,111, houses 75,710, rateable value 1,665,429*l.* In Southwark the population is 172,863, houses 23,751, rateable value 677,826*l.* In Lambeth the population is 258,808, houses 40,317, rateable value 1,170,222*l.* In Greenwich the population is 99,365, houses 14,383, rateable value 353,609*l.* In sundry other places in Middlesex, Kent, and Surrey, not included in any city or borough, and comprising Chelsea, Kensington, Fulham, Hampstead, Clapham, Tooting, Streatham, Battersea, Putney, Charlton, Lee, Eltham, Lewisham, &c. the population in 1851 was 228,991, houses 34,714, rateable value 1,392,582*l.*

NEW CHURCH IN LAMBETH.—On 30th ult. the foundation-stone of St. Andrew's District Church, Lambeth, was laid by Admiral Lord Radstock (in the absence of the Earl of Shaftesbury). The new church, which is to be situate in Princes-street, leading out of Stamford-street, will be in the Pointed style, from designs by Mr. Teulon, and will accommodate about 1,100 persons, a large proportion free.

THE CHALON EXHIBITION, SOCIETY OF ARTS.—The Society of Arts have done so many good things that they must be pardoned one mistake: we shall, therefore, say nothing more of this "Exhibition" than to advise the council to close it at the earliest possible opportunity.

MEANS OF LOWERING SHIPS' BOATS.—Mr. C. Clifford, in a recent letter to the *Times*, draws public attention to the difficulties attending the plan of lowering ships' boats at present in use in the mercantile marine, and even in the navy, and refers to the Parliamentary report of the committee on the loss of the *Amazon* as bearing out his assertions, that the indifference of sailors to keeping their boats on board ship in a fit state for use in case of emergency, arises mainly from these difficulties. Mr. Clifford, who declares himself to be a landsman, states, that his plan, which he says has been favourably reported on by a number of nautical and scientific men, is so simple and effectual that he unhesitatingly challenges any six sailors, by the present system of blocks, tackles, and hooks, to a trial against him, single-handed, to lower and entirely free from the ship a boat laden with any freight varying in weight from 10 cwt. to four tons, either from two davits or a single yard or spar, and from any height, with the vessel going at any speed. The whole operation, he adds, is performed by one man only in the boat, who by simply paying off a rope, unlashes and frees the boat from the ship's gripes, lowers her levelly into the water, and entirely disengages her as well, whatever her weight or the number of her crew; and in such a way that it is impossible for her to cant or turn over in her descent, or for a rope to tangle or catch in its passage through the block he uses. For the sake of humanity, it is to be hoped that some opportunity will be afforded to test the efficiency of this as well as other systems that have been at different times devised for the same purpose. Government has published the necessity for some remedy for this national want: surely it is bound to take some steps to effect it without any further delay.

[ADVERTISEMENT.]

To the Editor of "The Builder."

SIR,—Numerous inquiries having been made of us daily respecting the Revolving Shutters adapted to our Premises by the Patentees, Messrs. CLARK & CO. 15, Gate-street, Lincoln's-inn-fields, we feel but too happy in having the opportunity of doing them the justice their novel and useful invention deserves. In consequence of the magnitude of our frontage, which embraces about 30 feet of Oxford-street, one entire quarter of Regent-circus, and between 40 and 50 feet of Regent-street, the process of closing with the old wooden shutters was not only a tedious, but also a very laborious task—five porters requiring forty minutes to effect that object. All this loss in time and trouble is now obviated by the above-mentioned invention,—an entire establishment being closed in every evening by one porter, in the incredibly short space of three minutes. In order to lead others to a just estimate of the superiority of this patent, it may be requisite to state that one of our shutters alone is 700 feet in superficial measurement, composed of 27,345 pieces, united by 2,900 hinges, weighing somewhat over two tons, and yet obedient to the hand of one porter! Messrs. CLARK & CO. having also executed other work for us, such as Brass Sashes, &c. &c. we feel much pleasure in recommending them: the lowness of their charges, and rigid punctuality, entitling them to the support of all those with whom durability is economy, and time saved money made. Our shutters may be seen in active revolution, nightly, at Half-past Eight o'clock.

SOWERY, TATTON, and COMPANY,
Regent-circus, Oxford-street. Linen Drapers.

TENDERS

For two houses, at Croydon. Mr. Temple, architect.

Laurence	£1,397	0	0
Todd	1,277	0	0
Wills	1,189	0	0
Ward	1,010	0	0
Simmons	975	0	0
Howlsson and Co.	925	0	0

For pulling down old shop and premises at Hanwell, Middlesex, and rebuilding on the same site two shops and dwellings. Mr. James Harris, architect. Quantities supplied:—

Myers, G. (London)	£2,300	0	0
Hancock, Thomas (Ealing)	1,897	0	0
Nye, Thomas (Ealing)	1,689	0	0
Abbott, J. M. (Hanwell)	1,672	10	0
Batley, Charles (Hanwell)	1,432	0	0

For erecting a terrace of six houses, and a separate private residence, at Leighton Buzzard, Beds. Mr. William C. Reed, architect. Quantities supplied:—

Piper, William	£14,104	0	0
Locke and Nesham	13,867	0	0
Lucas, Brothers	13,475	0	0
Patrick and Son	13,100	0	0
Ashby and Sons	12,794	0	0
Brass and Son (accepted)	12,721	0	0

TO CORRESPONDENTS.

"J. F. C."—"H. H." (Mr. Page)—"*Pro Bono Publico*."—"B. L."—"An Observer"—"Justitia."—"Sedgley."—"J. W."—"J. B."—"J. F."—"Q. F. H."—"E. R. R."—"C. R."—"J. W."—"J. P."—"E. A. D."—"J. P." (we cannot advocate in the dark)."—"*Veritas*."—"R. M. P."—"Beccles."—"R."—"E. K. D."—"C. G."

"*Books and Addresses*."—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO PARENTS AND GUARDIANS.

AN Eminent Architectural Firm, in a large manufacturing district, in one of the midland counties, have now a VACANCY in their Offices for an OUT-DOOR ARTICLED PUPIL, possessing a good address, and having a taste for drawing; to whom will be afforded peculiar opportunities and advantages.—Address to A. & B. Office of "The Builder."

A CIVIL ENGINEER, Contractor, Architect, Builder, Decorator, or Railway Locomotive Engineer having a VACANCY for an educated YOUTH, with a taste for drawing, with whom a liberal premium will be given, would be treated with immediately. No objection to the continent or the colonies.—Direct full particulars and premium to L. E. 91, Piccadilly.

TO PARENTS AND OTHERS.

A VACANCY for an APPRENTICE, in a Builder's Office.—For particulars, apply, by letter, to the Office of "The Builder."—Premium required.

LEICESTER UNION.—APPOINTMENT of SCHOOLMASTER.—The Guardians of the Poor of this Union will, at their Meeting to be holden on TUESDAY, the 26th instant, at HALF-PAST SIX o'clock in the Evening, proceed to ELECT a SCHOOLMASTER for the Workhouse of this Union, who will be required to perform the duties connected with that office, as set forth in the General Consolidated Order of the Poor-law Commissioners. Candidates must be single persons, or widowers, without incumbrance. The salary will be 40*l.* per annum, with an allowance of 8*s.* per week in lieu of rations, or such further sum as the Committee of Council on Education may direct in their certificate.—Applications and testimonials to be sent to my Office on or before THURSDAY, the 21st instant, and only those candidates who are written to for the purpose need attend on the day of election.—By order,

B. G. CHAMBERLAIN, Clerk.

Leicester, June 8th, 1855

TO SURVEYORS AND ENGINEERS.

WANTED, a Person to discharge the duties of SURVEYOR and INSPECTOR under the Gloucester Board of Health, including the management of the roads and streets, and the overlooking of the Public Sewerage Works, now nearly completed, and the superintendence of the private junction drains to be made in connection therewith, and the performance of other duties under the local Board, and also the superintendence of the existing waterworks, and the new waterworks when completed. Also to fulfil the duties of CHAMBERLAIN of the city, and generally to take charge of, and manage the corporate estates subject to the directions of the Town Council and their committees. Two surcties in 500*l.* will be required. Salary for the two offices combined, 300*l.* per annum. An assistant will be provided at the expense of the Board. Particulars as to the duties required may be had on application by letter to Mr. A. H. JENKINS, Town Clerk, or Mr. R. S. FRYER, Clerk to the Local Board of Health, Gloucester, to whose office written applications from candidates must be sent on or before the 23rd day of JULY next, under cover, addressed to "The Gloucester Board of Health," marked "Surveyor's Tender." An intimation will be given at a future time to such candidates whom the Board may desire to attend personally.

TO POTTERS.

WANTED, a thoroughly experienced and practical POTTER, to take the Management of a Pottery in the south-west of England for the manufacture of pipes, pans, and other articles of common ware. He must be well acquainted with the trade, have a thorough knowledge of clays, must be a fair accountant, and in other respects be quite competent to the entire superintendence and management of the manufactory. To such a person a liberal remuneration, with other advantages, would be given.—Address, stating age, number of years' experience in the trade, and other particulars and references, to B. & Co. Mr. Smyth, 31, Parliament-street, London.

TO JOURNEYMEN CARPENTERS.

WANTED IMMEDIATELY, FORTY GOOD HANDS.—Application to be made at the Royal Small Arms Factory, Enfield Lock.

TO ARCHITECTURAL DRAUGHTSMEN.

WANTED, a DRAUGHTSMAN, who is thoroughly conversant with exterior and interior perspective, and the preparation of working and detail drawings. Address, with references, and stating age and salary required, to O. W. S. care of Mr. Steel, News-agent, Spring-gardens, Charing-cross.

TO GLASS PAINTERS.

WANTED, a FIRST-CLASS HAND; one accustomed to figure painting; who can grow tolerably, and understands light and shade—Apply, if from the country, by letter, stating qualifications and experience; if in London, personally, at 14, Salisbury-place, Newcastl.—Room for an Apprentice; some proficiency in drawing indispensable.

WANTED, a CLERK in a Surveyor's Office, a young MAN who has been educated to the profession, and has a general knowledge of building, and the routine business. Address, with particulars, to M. care of Mr. Buck, Stationer, Mount-place, Westminster-bridge-road, Lambeth.

TO FOREMEN.

WANTED, an active and experienced MAN, to superintend about twenty men of all trades, engaged in jobbing repairs. Answers to state age, how long a similar situation has been filled, what trade by apprenticeship, and the salary expected for a permanency.—Address, S. Office of "The Builder."

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WANTED, an experienced WORKING FOREMAN. One used to Gothic work would be preferred.—Apply by letter to Q. P. Post-office, Nottingham, stating qualifications, age, and salary required, with reference.

WANTED, a STEAM-MILL SAWYER, capable of managing and working a country Saw-mills, both frame and circular bench.—Apply by letter, pre-paid, F. STIFF and CO. 64, Beggin-street, Dover.

TIMBER TRADE.

WANTED, in a Wholesale Timber-Yard, a MAN, capable of undertaking the duties of FOREMAN. None need apply but those who are well acquainted with the trade, and whose character will bear the strictest investigation.—Apply by letter, prepaid, to Box 436, Post-office, Bristol.

WANTED, an ASPHALTE SPREADER. Apply to Messrs. GOGGS, Swaffham.

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WANTED, by a first-rate Painter, a permanent SITUATION as FOREMAN. Is thoroughly acquainted with the details of the trade. Can measure and abstract accurately, and can have good references for ability, &c.; or, as Grainer and Writer, specimens can be seen. No objection to the country.—Address, A. B. Z. 2, Old Gravel-lane, St. George's-street, East.

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WANTED, a constant SITUATION by a Painter. Can turn his hand to the graining. Wages not so much an object.—Apply to J. W. Office of "The Builder."

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WANTED, by a Young Man (a Joiner), a SITUATION in either of the above offices. Can make out working and finished drawings; understands taking out quantities. Salary not so much an object.—Address, A. D. Post-office, High-street, Camden-town.

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WANTED, an ENGAGEMENT, as CLERK of the WORKS, by an experienced Person. Is quite capable of making fair and working drawings, and can produce excellent testimonials.—Apply to X. Y. Post-office, High-street, St. John's-wood.

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WANTED, by a respectable, persevering, married Young Man, of good abilities, possessing a thorough practical knowledge of bookkeeping by double entry, is extremely quick and correct in all calculations of measurement, &c. the management of an office, or to keep the books of an estate. Can produce satisfactory and pleasing testimonials, and has no objections to the country.—Address, O. S. Post-office, King William-street, City.

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WANTED, a SITUATION as CLERK, by a person of experience in pricing, and the general office duties of the building trades and material firms, wharfs, &c. Terms moderate. No objection to the country, or temporary employment.—Address, L. P. Office of "The Builder."

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AN experienced Man, who will leave his present situation at Midsummer, wishes for a RE-ENGAGEMENT, as CLERK of WORKS, or BUILDER'S FOREMAN. Salary moderate, and good reference.—Address, J. D. S. Post-office, Ruardean, Gloucestershire.

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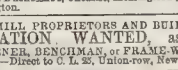

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The Annual Exhibition of Modern Pictures in Oil and Water Colours, and Sculpture, Casts, &c. will open immediately after the close of the Royal Academy. The Council beg to notify that they have an accumulated fund of upwards of 50*l.* applicable to the purchase of approved Works of Art, which may be exhibited at the Institution.

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By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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January 1, 1855.

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CHARLES WM. WATERLOW AND CO.

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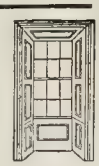

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Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

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Notice is hereby given, that an additional dividend of one pound ten shillings per share will be paid on the shares of this Society, with the usual half-yearly dividend of 3l. per share, on and after the 2nd day of July, 1855 (excepting on Saturdays), between the hours of Eleven and Three.

THOMAS LEWIS, Secretary.

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THE ALBERT ASSURANCE COMPANY. (Established in 1838.)

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and leasehold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square. W. S. VARDY, Manager.

LONDON EXCHANGE ADVANCE LOANS GRANTED. FUND, 2, Adelphi-terrace, Strand, facing the river.

TRUSTEES.

The Hon. R. Rowley. | Sir E. Graham, Bart.

10l. to 1,000l. advanced on personal or other security. Bills of exchange cashed. Five per cent. interest on deposits payable in January and July. Forms forwarded on receipt of twelve postage stamps.

HOUSEHOLDERS and GENERAL LIFE ASSURANCE COMPANY, 15 and 16, Adam-street, Adelphi.

Money received at interest at 5 per cent. per annum, payable in April and October.

Agents (with references) may apply.

R. HUDSON, Secretary.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSS'S WHOLESALE WAREHOUSE, 23, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

NOTICE to BUILDERS.—BED-ROOM PAPER-HANGINGS, 4d. for 12 yards; good Satin Drawing-room Papers, 11½d. for 12 yards.—at W. ROBINSON'S Wholesale Paper-hanging Warehouse, 23, High-street, Islington.

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c.—The nobility, gentry, water-companies, towns, baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 10, Cumming-street, Pentonville. Pumps and machinery for raising water from deep wells, boring-tools, and well-pipes for exportation. Men and tools supplied to bore for railroads, minerals, &c.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK LONDON PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIELLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of producing it, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark on Hull by Messrs. ALSOP, JELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents, In London, Messrs. CHARLES DEVAUX and CO., Wholesale Agents, 82, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool, by R. CLAY, 8, Merrey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-merchants, and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 13, Manchester-buildings, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their Works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before obtained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. CREAVES, Sen. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Asphalte Cements, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured by the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brick work, Blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

ROMAN and PORTLAND CEMENT of the first quality, manufactured at the ELMLEY CEMENT WORKS, Isle of Sheppey, Kent; also, STOCK and KILN BURNT BRICKS, hand-moulded and machine, made for shipping or otherwise.—Apply to G. BOOTH, Agent, 11, George-yard, Lombard-street, City.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a reddish and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

FRONTS of HOUSES.—GREENE and CO.'S PORTLAND CEMENT WASH, equal to oil paint for durability in coats, less cost.

DAMP WALLS.—GREENE and CO.'S OXIDE SOLUTION PAINT, a sure and effectual remedy for damp, salt, or rotted walls, price 12s. per gallon, which will cover 2s square feet.—Prepared only by GREENE and CO. Original Inventors, 22, Norfolk-street, Islington.

SOUTHAM. — BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfactio n constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 30, 1855.

CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 13, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street (City)-road Basin, Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor, and, thirdly, that the "REPORTS OF THE JURIES," page 70, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 35s. 6d. per 1,000; floor bricks and 6-inch pavings, at 28s. per 1,000; 6-inch pavings, at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

GREAT NORTHERN WHARF, York-road, King's-cross. WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants and Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his Stock and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

Depôt, Acar Wharf, Kingsland, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent — Mr. J. UNWIN, Private Residence, 99, Nelson-square, Blackfriars-road.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, fancemongers to Mr. Benjamin Gough 5, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.—Grey Stocks, 23s. per thousand; Grizzles, 28s. per thousand; Rough Stocks, 30s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

RED BRICKS.—WANTED to PURCHASE, about 80,000 of good kiln-burnt RED BRICKS, delivered at either of the undermentioned places—Paddington Station, Paddington Basin, Great Northern Station, Chalk-farm Station, Regent's Canal, Camden-town.—Address full particulars and price, and where samples may be seen, to A. B. A. post paid, Seale's Library, Portland-place, St. John's Wood.

TO BUILDERS, CONTRACTORS, AND OTHERS.

MESSRS. BARRETT and SHARP beg to inform the trade that they are prepared to LAND STONE, BRICKS, SAND, &c. &c. at their Wharf, at the usual rates. The traveller will land any blocks of stone, timber, or engineering work not weighing more than fifteen tons.—BARRETT and SHARP, "Patent Stone Preserving Works," Holdernesse Wharf, 40, Bridge-place, Harrow-road, Paddington.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at exceedingly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Fir ring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

IMPROVEMENT in WOOD MOULDINGS: J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attent on to his large stock of Moulding now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 20, North Wharf-road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent duc-tuations.

Pine Planks, 12 ft. 3 in. by 11 in.....	from	3s. 6d. each.
Spruce Deals 3 in. by 9 in.....	"	2s. 9d. "
Yellow ditto	"	4s. 0d. "
Honduras Mahogany, in logs	"	0s. 4½d. per foot.
Ditto ditto, in planks and boards	"	0s. 6d. "
Spanish ditto	"	0s. 7d. "

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH-BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Lathe, Oak Plank, Sash Cills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the Docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

TO CHURCH BUILDERS, SHIP and BOAT BUILDERS.—Seasoned English Oak, in Planks and Boards TO BE SOLD by PRIVATE CONTRACT, about 1,050 feet superficial 2-inch PLANKING, averaging 18 feet in length and 13 inches wide, cut down two or three years, and very suitable for Ship and Boat Builders. Also, upwards of 2,400 feet superficial inch BOARDING, averaging in length 16 feet and 7 inches in width, most of which has been cut seven years; and about 400 feet superficial of 3 ditto, averaging 18 feet in length and 7 inches in width.—Apply to Mr. R. BEAVOR, 17, Churchstreet, St. George's, Leicester.

ACORN TIMBER WHARF and SAW-MILLS, GRAND SURREY CANAL, OLD KENT-ROAD. — The extensive Waterside Premises Improved Sawing Machinery and Drying Warehouses, with a supply of all kinds of Foreign Wood direct from the importers, enable the consumer to buy from one of the largest stocks in London, at the lowest prices, for cash.

The Monthly Price Current forwarded on application.—RICHARD D. MAY invites the building public that American Pine and Spruce are cheaper, and Baltic goods are scarce.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross.

GEORGE NOKES and CO. (late Archbutt and Atkinson) beg to acquaint architects, builders, carpenters, and others, that they have opened the above premises with superior machinery for manufacturing architrave mouldings of any size and design, sashbars, match-boarding, skirtings, flooring, &c. and have always on hand a large stock of seasoned deals at reduced prices; also, timber, deals, scantling, sash sills, mahogany wainscot, &c. Goods sawn at the mills fetched and delivered free of charge.

May 19, 1855.

MACHINE CARVING, JOINERY, and MOULDED WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading Desks, Altar Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, fetched away and paid for at the time, at C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 21, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 18s. per cwt. given for old lead.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 315, Bore street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London. These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
M medium.	B B B B ditto ditto.

Sold by all the principal Stationers in town or country.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country in an extensive assortment of specimens and patterns commencing at 1s. per foot super. together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 50, New Bond-street.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, it 17s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS,

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

FARM AND COTTAGE PUMPS

WARNER'S PATENT CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW-WELLS.

Patent Pump..... £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing..... 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Feeding, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

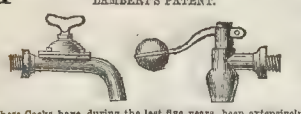
JOHN WARNER AND SONS,
6, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.

PRIZE MEDAL, CLASS 2.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

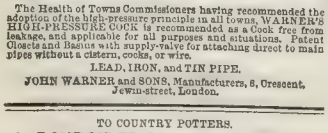
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS,



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 6, Crescent, Jewin-street, London.

TO COUNTRY POTTERS.

A LONDON FIRM are willing to ENTER into an ENGAGEMENT for a REGULAR QUANTITY of STONE-GLAZED PIPES, of the best quality and of the required thickness by the Commissioners of Sewers; the said goods to be delivered free of all charges, and to be paid for in cash on delivery. The price must be stated at per cent. off the London printed list.—Address, M. P. 17, Lower Calthorpe-street, Gray's-inn-road.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 5s. per square yard. Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 22, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 30s. per ton. Importer of Trinidad Asphalte.

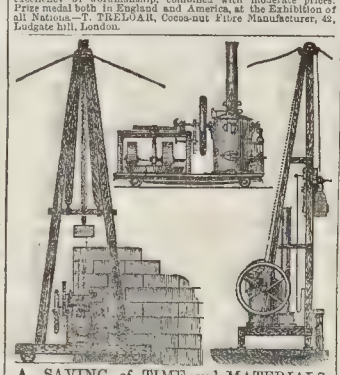
Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES, consisting of Matting, Mats, Mattresses, Brushes, Netting, &c are distinguished for superiority and excellency of workmanship, combined with moderate prices. Prize medal both in England and America, at the Exhibition of all Nations.—T. TRELOAR, Cocoa-nut Fibre Manufacturer, 42, Ludgate hill, London.



A SAVING of TIME and MATERIALS, with Solidity of Building.

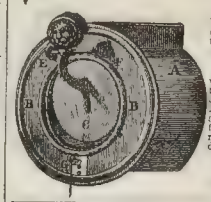
HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

"Railway Contractor's Office, Wellington, Salop.
"December 1, 1853.

"DEAR SIR,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Bacup Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although for weeks the fire has never been out, we have no stoppage for repairs.

"We remain, dear sir, yours most faithfully,
"Mr. Gough." "DICKSON and McKENZIE."

VENTILATION.



D. and E. BAILEY beg to call the attention of Architects and others to their improved

CIRCULAR ARNOTT VENTILATORS,

which are more sightly than the square ones in general use, much less liable to get out of order, and the flaps, being hung from the top, do not admit any smoke caused by down draught.

Price, bronzed, from 6s. 6d.

D. and E. BAILEY,
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SMOKE CONSUMER.—A Patent Smoke Consuming Apparatus supplied for 3l. 3s. and upwards, by Mr. JAMES CARTER, 31, New Bridge-street, Blackfriars.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

BY HER MAJESTY'S ROYAL LETTERS PATENT, APRIL 27, 1853.

JAS. LEWIS'S PATENT STENCH-TRAP.

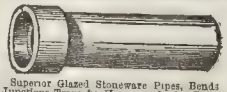
FOR STREET USE.
Price, with Gutter Plate, 18 inches by 12 inches, each 25s.; weight, about 2 cwt.
Larger sizes made, if required.

FOR AREAS, &c.
Price, with Back Plate, 6 inches by 7 inches, each 6s.

FOR COURTS, YARDS, &c.
10 inches by 8 inches, each 10s.

The above articles are protected for the Patentee by the British Government, on account of their construction, for the advantages they possess, being a perfect trap for preventing smell proceeding from itself or the drain, should there be water or not in the pan. When stench-traps are put down (generally speaking) no attention is ever paid to them afterwards, this renders them useless. The above, therefore, are a desideratum, as they require no attention. It is well known when cholera has visited this country, it commences and leaves last those places where the air is vitiated by obnoxious gases proceeding from drains, &c.

Any inhabitant suffering any inconvenience, is entitled, by the Sanitary Act to lay complaint before the public or private authorities of the property, to lay down stench-traps where they are required. Any persons interested in this advertisement will be kind enough to write to the patentee for drawings, and if wishful, testimonials. Please order from any respectable ironmonger, contractor, or the Patentee, JAMES LEWIS, Ironfounder, Abergavenny.

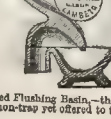


Superior Glazed Stoneware Pipes, Bends Junctions, Traps, &c. Hopper and other Pans with best White Glaze inside.

Pan, 3s. 6d.

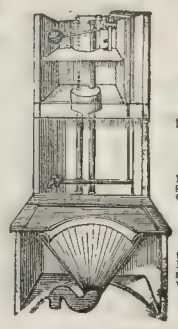
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective Plate has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

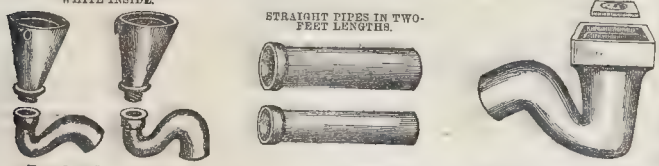
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES, LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

IMPROVED YARD-SINK.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



Pan, 3s. 6d. Trap, 2s.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 9, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryddes-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.

CLOSET-PANS AND TRAPS, 5s. 6d. EACH.

AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

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May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.	WIGAN.....James Fairclough, King-street.
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CORK.....J. and J. Harley	CARLISLE.....C. Armstrong, Lowther-street.
WATERFORD.....J. Sparrow and Co	WHITEHAVEN.....Hugh Todhunter.
CARNARVON.....Jno. Jackson.	COCKERMOUTH.....John Hird.
PRESTON.....J. Armstead, Hudson-street.	GUERNSEY.....Gucrin, Brothers.
CHORLEY.....Thomas Saville	LONDONDERRY.....W. and A. M'Elwee.
BLACKBURN.....W. Hopwood, Clayton-street.	LIMERICK.....W. Burgess and Sons.

WILLIAM NORTHEN'S

WHITE ENAMELLED STONEWARE,

UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,

LAMBETH POTTERY, HIGH-STREET, LAMBETH,

Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

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These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1853.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE

No. 7

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be far exceed ingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a Doulton's Pan and Trap, is the cheapest Cottage Closet yet produced. Price, complete, 13s. 6d. each.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

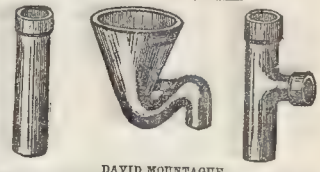
Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

Crown Glass, 18 tables, 30s. per Crate.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,

BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.



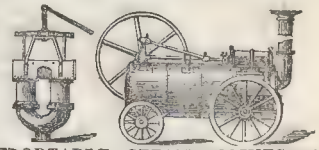
DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks (as used by her Majesty's Commissioners of Sewers), White Fire Clay, Facing Bricks, &c., &c. Agents.—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

TO BUILDERS and others in want of SECOND-HAND STEAM-ENGINES, Boilers, Lathes, Pumps, Presses, Iron Girders, &c. &c.—Apply at JACOBS and HYMAN'S Repository, Thornhill-bridge, Caledonian-road, King's-cross.

N.B. All kinds of Machinery, Old Iron, Zinc, Lead, and all kinds of Metal bought. Cash paid on delivery.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 6-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 99, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

SALES BY AUCTION.

TO IRONMONGERS, STOVE GRATE MAKERS, BUILDERS, AND OTHERS By

MESSRS. FULLER and HORSEY, on the PREMISES 13, Fleet-street, on MONDAY, JUNE 12, and following day, at ELEVEN, in lots, with or without reserve, the STOCK of STOVE and RANGE, BLACK FURNISHING IRONMONGERY, principally manufactured by Messrs Burbidge and Healy, who are relinquishing the retail branch of their business, including seventy register stoves, fine cast, ground, and polished steel, many of elegant designs, and richly mounted in ormolu; seven Sylvester's patent enclosed kitchen ranges, from 2 feet 9 to 6 feet in width; hall, shop, and church stoves; 100 sets japanned trays and waiters, japanned tea services, 100 dozen sets ivory-handled table and dessert knives, fine steel fire irons, bronzed and metal goods, lamps, cutlery, tin and black hollow ware; fifty files and rasps, an assortment of builders' ant cabinet ironmongery and brass work, ten tons wrought and cut nails, six printers' iron imposing tables, with planed surfaces; thirty Sylvester's patent fire and flue doors, shop fixtures, counting-house fittings, iron safes, two lorry, horse, shop-room, and 1 hundredweights, other effects.—To be viewed on Saturday previous to the Sale, when catalogues may be had on the Premises, and of Messrs. Fuller and Horsey, Billiter-street, City.

CAPITAL OAK TIMBER. Broom Wood, Rickling, and Quickley, Essex.—TO BE SOLD by AUCTION, by

MESSRS. NOCKOLDS and KING, upon the PREMISES, on FRIDAY, the 17th JUNE, 1853, at ELEVEN o'clock, in lots, EIGHTY OAK TIMBER TREES, Twenty ditto Saplings, and a quantity of good Topwood. The above Timber has been felled this season, and is lying contiguous to the turnpike road, about equi-distant from the Stansted and Newport Stations on the Eastern Counties line of railway, and will be found worthy the attention of builders, contractors, coopers, and others, many of the trees being of long lengths, good dimensions, and all of excellent quality. Six months' credit will be given, on part to the usual conditions.—May be viewed by applying to George Reed, the Woodward at Rickling-green, of whom catalogues may be had. Also at the Inns in the neighbourhood; and of Messrs. Nockolds and King, Land Agents, &c Saffron Walden, Essex.

Valuable Freehold Building Land, fronting the High-road, Holloway, also an old-established Public House, and other Premises, situate at No. 1, Seven Sisters-road, Holloway.

TO BE SOLD, pursuant to an order of the High Court of Chancery, in a cause Byrd v. Charrington, with the approbation of Vice Chancellor Sir John Stuart, by public auction in that Court (the said cause is attached), at the AUCTION MART, LONDON, on WEDNESDAY, the 24th of JUNE, at TWELVE o'clock, in One Lot, by

MR. BARNES, an important FREEHOLD ESTATE, comprising 6 acres, 2 roods, and 14 perches of very valuable land of the most eligible description, a site ready to be procured so close to the market as possessing an extended frontage to the High-road, Holloway, with roads in the rear, and being nearly square, every foot is available for building purposes, for which there are several additional advantages of the earth, road gravel, good water, abutting roads in several directions, a fine prospect of Highgate and Hornsey, and the land itself, an slight acclivity, with pathways completed on both the back and front sides. It will be sold in one lot, together with an old-established Inn, known as the Crown Public-house, with sundry Tenements, and possessing area of the whole, the estate is freehold, and possesses area of the whole, the estate is freehold, and consecrated from time immemorial. It originally formed part of the Manor of St John of Jerusalem, but has been recently enfranchised.—Printed particulars and plans will be published three weeks prior to the Sale, and may be obtained of Messrs. Clowes Solicitors, 1, King's-bench walk, Temple; Mr Middleton, Solicitor, 28, Fenchurch-street; Messrs. Fry and Lovell, Solicitors, 38, Chapside; and of Mr. Barnes, the Auctioneer, 19, Birchin-lane, Lombard-street.

Very valuable and beautifully-situate Freehold Building Land, at Lewisham, with an approach from the High-street, and also from the Road and Eltham Turnpike-road.

MESSRS. DANIEL SMITH and SON will submit to SALE by AUCTION, on TUESDAY, JUNE 28, unless previously sold by private treaty, about FOURTEEN ACRES of very valuable FREEHOLD LAND, of a rich dry gravelly soil, well watered. It is of a most delightful and picturesque scenery, and offers a singularly-beautiful spot for building, within a few minutes' walk of the railway station.—Particulars and plans may be had at the Mart; at their Offices in Waterloo-place, Pall-mall; or of Messrs. Druce and Sons, Solicitors, Billiter-square.

Freehold Building Land, in Surrey, near the station and village of Weybridge, and between Hersey, Oatlands Park, and Walton

MESSRS. DANIEL SMITH and SON will SELL by AUCTION, unless an acceptable offer shall be previously made, at the MART, on TUESDAY, JUNE 28, about SIX ACRES of valuable LAND, free from all encumbrance, and land-tax, in a most eligible, elevated spot, with an extensive frontage upon the roads leading from the station to the village of Weybridge, and upon the Oatlands drive, capable of being subdivided for the erection of five or six villas. There is good brick loam on part of the ground.—Particulars and plans may be had at the Mart; at the chief Inns in the neighbourhood; of Mr. Hooker, Builder, Weybridge; of Mr. Gutteridge, Solicitor, Angel-court, Throgmorton-street; and of Messrs. Daniel Smith and Son, Land Agents, in Waterloo-place, Pall-mall.

HANWELL, MIDDLESEX. Very valuable Freehold Building Land, in parts ornamentally wooded, and sloping southward and westward to a picturesque sheet of water, with a dock and access to the Grand Junction Canal, affording water carriage to Paddington and the Thames; well worthy the attention of any public company.

MESSRS. DANIEL SMITH and SON will OFFER for SALE by AUCTION, at the MART, at the end of JUNE (unless an acceptable offer shall previously be made), together or in lots, a valuable and highly improvable ESTATE of ROSE BANK, comprising about twenty acres of ruminental building-ground, with extensive frontages upon the road to Brentford, near the railway station at Hanwell. It offers a choice site for any public institution or cemetery, and contains a vein of particularly fine brick earth, and a gravel pit, with the great advantage of a dock and canal bounding the lower side of the property. It can only be viewed by special written order.—Particulars and plans may be had, three weeks prior to the Sale, at the Chief Baths, Builder, Hanwell; at the Auction Mart; of Messrs. Colley, Smith, Hunter, and Gwatkin, Solicitors, Lincoln's-inn; and of Messrs. Daniel Smith and Son, Land Agents, in Waterloo-place, Pall-mall.

TWICKENHAM, near Sir William Clay's Park.—Freehold Building Plots, on the Staines-road.

MESSRS. FOSTER and SON will SELL by AUCTION, at the MART, on THURSDAY, JUNE 23rd, at TWELVE, in the afternoon, in lots, PREHOLD BUILDING PLOTS, having shrubbery, and forming the most eligible opposite to houses of importance, which have been built here many years, besides frontage to two cross-roads, within ten minutes' walk of the station. May be viewed, and particulars had ten days before the sale, at the Prince Blucher; of W. P. Padmore, Esq. Architect, 16, Great Marlborough-street; of — Stacey, Esq. Solicitor, 17, Bloomsbury-square, and (Two days preceding) of Paul-mall.

TO BUILDERS. - Five Freehold unfinished Residences, the corner of Lansdowne-road North, and Ladbroke-road; also Two Freehold Plots of Freehold Building Land, on the best part of the Kensington-park Estate, at Notting-hill.

MR. ROBINS is directed to SELL by AUCTION, at the MART, on THURSDAY, JUNE 23rd, at TWELVE, in seven lots, FIVE FREEHOLD RESIDENCES, uniform of handsome stone elevation, three storied bich, stuccoed fronts, being Nos. 52, 54, 56, 58, and 60, the corner of Lansdowne-road North, and the Ladbroke-road, the most beautiful part of the Kensington-park Estate, at Notting-hill. The position of the houses, and their attractive appearance, at once recommend them for completion as a profitable investment; also two corner Plots of Freehold Building Land close by, upon which three villas on each may be erected; the situation most excellent. Particulars, with plans, may be had at the Clarendon Hotel, on the estate; of Messrs. Roy and Cooper-night, Solicitors, 4, Lothbury, at the Auction Mart; and at Mr. Robins's Offices, Covent-garden.

SALES BY AUCTION.

The Enmore Park Estate, comprising about thirty-three Acres of Building Land, beautifully situate at Woodside, between Norwood and Addington, in the county of Surrey

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the AUCTION MART, in a short time, in one or more lots, a valuable FREEHOLD ESTATE, land-tax redeemed, and free from all tithe, consisting of PERTY, land-tax redeemed, and free from all tithe, consisting of about thirty-three acres of most eligible building land, commanding very extensive views of the distant and immediate picturesque scenery, the Crystal Palace, &c. It is approached from the high road from the Norwood Station, from which it is only a short distance. Three principal roads (40 feet wide) have already been formed, extending through the land, on two of which the farm cottages, stabling, &c., fronting the green will be included. The farm cottages, stabling, &c., fronting the green will be included in the sale. There are two churches in the vicinity. A plentiful supply of spring water is already in the premises, and the pipes of the Thames Ditton Water Company are laid within a few yards of the estate. In the hands of a building society or capitalist this property offers attractions of no ordinary character. The estate may be viewed upon application at the cottage.—Printed particulars, with plans annexed, may be obtained twenty-one days previous to the day of sale, which will be shortly announced, of Messrs. Dickinson, Brenton, and True, Solicitors; Messrs. Blake, Auctioneers; and at the Greyhound Inn, in Croydon; at the Windmill Inn, St James's-road, Croydon, the Jolly Sailor and White Lion Inns, at Norwood; the Crooked Billet, Penge; the Greyhound, Dulwich; and, in London, at the Place of Sale; of Mr. Draper, Globe Tavern, Hatton-garden; and of Messrs. Winstanley, Land and Estate Agents, 10, Paternoster-row

An important Tract of Freehold Building Land, tithe-free and land-tax redeemed, comprising about 100 acres, in a beautiful situation, about four miles from the City, in the county of Surrey.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the MART, on WEDNESDAY, JUNE 29th, in numerous lots, unless previously sold in three lots, about 100 acres of eligible FREEHOLD BUILDING LAND, commanding extensive and beautiful views, situate at East Dulwich, in the parish of St. Giles, Camberwell, in the county of Surrey, and possessing a frontage of 4,000 feet to the high road from Gosecrross to Forest hill, Sydenham, and the Crystal Palace, and ample site to lands belonging to Dulwich College. Also, very extensive frontages on the same road to the north have been formed and extend through the property for nearly three-quarters of a mile. The water is already laid on, both by the South Lambeth and Vauxhall Water Companies, and through large parts of the property, the Inns at Peckham rye, Camberwell, and Denmark-hill, the Place of Sale; and of Messrs. Winstanley, Patern sterrow.

Freehold Building Land, near the City.

MR. ALFRED PECK, on JUNE 27, will SELL a very valuable PLOT of GROUND, between Whitecross-street and Golden lane, upwards of HALF an ACRE in extent, and capable of containing from Twenty-five to Fifty Houses. Neighbourhood tolerably populated.—Particulars and admission tickets from the Auctioneer's Offices, 68, New Broadstreet. Fo 3,5+3

To Stationary Marble-Masons, Builders, and Others.

MESSRS. EVERSFIELD and HORNE have received instructions from the Proprietor, to SELL by AUCTION, on the PREMISES, Curzon-wharf, Thames-bank near Vauxhall-bridge, on SATURDAY, JUNE 18, a valuable STOCK of MARBLE; consisting of about 350 tons of very superior Statuary, Veined, Sicilian, Dove, Breccy, and Black, and Gilt in Bl ck Veined, Sicilian, Dove, Breccy, and Black, and Gilt in Bl ck and Sanding; and about 2,000 feet in Slab of various thickness; also, several pieces of Ital ar, sculptured Figures and Monuments Approved bills at four months for sums over £10, or five per cent. May be viewed two days previous to the sale; and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, Westminster, or Coal exchange.

ARUNDEL-STREET, STRAND. Building Materials.

MESSRS. EVERSFIELD and HORNE are instructed by H. R. Abraham, Esq. Assignee of the Aruvelt Estate, to SELL by AUCTION, on the PREMISES, late the Whitebait Club House, Arundel street, Strand, on SATURDAY, JUNE 9th, at TEN for ELEVEN, about 1,000 loads of Old Bricks, paving, Purbeck steps, sash lifts, hole-ay-rading, &c.—May be viewed one day previous, and catalogues had on the Premises; of H. R. Abraham, Esq. 11, Howard-street; and of the Auctioneers, 40, Parliament-street, Westminster.

NEW-ROAD.—The excellent Manufactured Stock of Messrs. Nokes and Morse, Builders, Mason, in consequence of the retirement of the Senior Partner.

MESSRS. EVERSFIELD and HORNE have received instructions to prepare for SALE by AUCTION, on the PREMISES, No. 9, near St. Pancras, during the month, the excellent manufactured STOCK of CHIMNEY PIECES, Monuments, Vases, Pedestals, &c.; a detailed notice of which will shortly appear.—66, Parliament-street, June 7th, 1853.

WIMBLEDON HOUSE SURREY, with beautiful gardens grounds, and park, For many years the residence of the late Mrs Marryat, deceased, and long known as one of the most delightful and desirable retreats in the neighbourhood of the metropolis, a portion of the land having been most attractive and eligible sites for the erection of detached villas and other residences, without interfering with the present reclusion of the mansion and grounds.

MESSRS. RUSHWORTH and JARVIS beg to announce that that they will SELL by AUCTION, at GARRAWAYS, on FRIDAY, JUNE 29th, at TWELVE o'clock, in one lot, the above much-admired and truly important FREEHOLD ESTATE, consisting of a capital and elegant spacious mansion, with offices, stabling, and buildings, combining every requisite accommodation for a large establishment, extensive and beautiful pleasure grounds, with lawns and shrubberies choice flower and kitchen gardens, conservatory, orangery, fountains, and fish-ponds, a small but beautifully undulated and well-timbered park, with a large sheet of ornamental water, alcove, grotto, summer houses, ice house, gate lodge, cottage, farmyard, lodge-entrances, &c. comprising altogether about eighty-six acres, bounded on three sides by a lofty brick wall. The property is suited to the residence of a minister of state or family of distinction, a merchant prince, or it offers to a speculative capitalist a very eligible opportunity for a safe and profitable investment, as from the extent of frontage to the common a portion of the land might be most advantageously appropriated for building.—May be viewed by cards, to be obtained of Messrs. Smith and Co. 27, Albemarle-street; or of Messrs. Farnworth and Jarvis, Sawbow, Accountants, Bedford-street, and 19, Change-alley, Cornhill, and printed particulars, with plans may be had fourteen days previous to the sale, as above; also of W. E. Oliver, Esq. Solicitor, 16, New Bridge-street, Blackfriars; and on the Premises.

TO SHIPBUILDERS, GOVERNMENT CONTRACTORS, TIMBER MERCHANTS, AND OTHERS.—GREAT BILLING, near Northampton.—Important Sale of Oak Timber.—To be SOLD by AUCTION, by

FREEMAN and SON, on TUESDAY, JUNE 12, 1853, without reserve, on the estate of C. C. Elwes, Esq. at Great Billing, about SIXTY very large OAKS, of fine quality, and amongst which will be found trees of sizes, varying from 100 to 300 feet measurement. Also, a number of large OAK ARMS, from the above trees. Great Billing is about three miles from Northampton; one mile from the Billing-road Station, on the Northampton and Peterborough Branch of the London and North-Western Railway, and there is also water carriage within the same distance.—Catalogues may be had on application to the Auctioneers, Market-square, Northampton.—A train stops at Billing Station at 11h. 30m. a.m.

SALES BY AUCTION.

TO BUILDERS and OTHERS.—Building Materials, belonging to the South-Eastern Railway Company, adjoining the Bricklayers' Arms Station.

MR. MARSH has received instructions from the Directors of the South Eastern Railway Company, to SELL by AUCTION, on the PREMISES, 6, GREYHOUND-PLACE, old Kent-road, on FRIDAY next, 13th JUNE, at TWELVE o'clock, in lots, the MATERIALS and FITTINGS of the House and Premises as above, comprising about 650 bricks, a quantity of timber, in roof joists, quartering, &c.; plain and pan tiling, stone-coping, paving, &c.; iron-railings, fixtures, &c., the ground being required for use by the South Eastern Railway Company.—May be viewed the Thursday and Friday previous to the sale, and catalogues had on the Premises; of Mr. Lowe, 19, Rupert-street, Haymarket; at his Offices, London-bridge Terminus; and at Mr. Marsh's Offices, 2, Charlotte-row, Mansion-house.

Valuable Building Materials, York-crescent, Lower Norwood, Surrey.

MESSRS. NORTON, HOGGART, and TRIST have received instructions from the Crystal Palace Company to OFFER for SALE, on the PREMISES, on WEDNESDAY, JUNE 15th, at TWELVE, without the slightest reserve, the valuable BUILDING MATERIALS of SIX COTTAGE RESIDENCES, situate in York-crescent, Lower Norwood, Surrey, with wall and other fences, consisting of good sound bricks, slated roofs, principal rafters, joists, and girders, lead and iron work, stone coping, panelled and other doors, window frames and sashes, partitions, pipes, sinks, and a variety of useful materials.—Catalogues may be had at the Horse Tavern, Norwood; and of Messrs. Norton, Hoggart, and Trist, 62, Old Broad-street, Royal Exchange

JOHN'S-MEWS, LEDBURY-ROAD, WESTBOURNE-GROVE. TO BUILDERS, BRICKMAKERS, AND OTHERS.

MR. BIAS, MAIDLOW is instructed to SELL by AUCTION, on TUESDAY, JUNE 12, at ELEVEN for TWELVE, the STOCK of a BUILDER, consisting of brick and spring carts, a quantity of brickmakers' barrows, ironmongery, carpenters' handles, ladders, a quantity of old iron, nails, and various effects. Catalogues of the Auctioneer, 10, Adelaide-terrace, Westbourne-grove

8,700 pieces of rich French and English Papershangings.

MR. BRAY, Jun. will SELL, at his ROOMS, 25, High Holborn, on WEDNESDAY, JUNE 13, at ONE for TWO, 8,700 PIECES of PAPERHANGINGS, suitable for the drawing and dining rooms, parlours, secondary apartments, halls, and staircases.—May be viewed and catalogues had

VALUABLE BUILDING MATERIALS of a good house at Milk-street, Bromley, Bromley, Kent, and only two miles from Lee, to be SOLD by AUCTION, by

MR. T. BAXTER, on WEDNESDAY, JUNE 15, 1853, at ELEVEN o'clock, on the PREMISES, comprising good slating and tilings, a circular bow of fine stock bricks, with arches, and three sash-frames and sashes, good brickwork, excellent fir batten, weather boarding and quarters, and other timbers, in rafters, plates, joists, partitions, &c. good sashes and frames, panelled doors and closet fronts, marble chimney jambs, floor-boards, staircase, a quantity of stout lead, a pump, brewing copper, stoves, ranges, &c. and a small greenhouse. —May be viewed two days before the sale, and catalogues had at the Tiger's Head, Lee; Dover Castle, Deptford; and of the Auctioneer, Bromley, Kent.

TO PAPER-HANGERS, STAINERS, DECORATORS, CABINETMAKERS, AND OTHERS.

MESSRS. DEW, MATTHEWS, and KEYSELL will SELL by AUCTION, by order of the Trustees of Mr. C. A. Norwood, on the PREMISES, Rosemary-branch Bridge, Hoxton, on TUESDAY, JUNE 14, and THREE following days, the whole of the valuable TRADE, PLANT, and MATERIALS of this well-known manufacturer, consisting of 50,000 pieces of rich decorative and artistic paper-hangings, oak borders, and panels, drawings, pencillings, fancy papers, 5,000 sets of blocks, utensils of trade, vans, carts, &c.—Catalogues to be had of Messrs. Jacob and Forster, 4, Crosby-square; and of the Auctioneers, 35, Clement's-inn-passage, Strand.

To Timber Merchants, Cabinet Makers, Pianoforte Manufacturers, Coach Builders, &c. &c.

MESSRS. C. LEARY and CO. have been favoured with instructions from Mr. Henry Bateman, of 55, Sun-street, Bishopsgate-street, to SELL by PUBLIC AUCTION, on the PREMISES, on TUESDAY, WEDNESDAY, and THURSDAY, the 14th, 15th, and 16th of JUNE, the THIRD PORTION of his unequalled and highly valuable STOCK of WOOD; comprising primest dry mahogany, dry Honduras, Spanish and Honduras mahogany, in logs, planks, boards, and veneers; dry wide panel board; rose wood and walnut wood, in planks and veneers; dry ash, plank, board, &c. &c. To be viewed two days previous to and on the mornings of sale. Catalogues to be had on the Premises; and at the Office of the Auctioneers, 73, Old Broad-street.

TO TIMBER MERCHANTS, BUILDERS, CABINETMAKERS, PIANOFORTE MANUFACTURERS, COACH BUILDERS, ORGAN BUILDERS, CHAIR MANUFACTURERS, CARPENTERS, AND OTHERS.

FOR SALE by AUCTION, without reserve, on the PREMISES, 37, Curtain road, Shoreditch, by order of Mr. William Smith, who is about retiring from the trade of business, the whole of the valuable well-seasoned STOCK of WOOD, which will be SOLD by C. LEARY and CO. on MONDAY and TUESDAY, the 13th and 14th, JUNE, 1853.

HAMPTON COURT.—BUILDING LAND

TO BE LET, for ninety-nine years, with option of purchase, near the above station, and close to East Moulsey Church. A portion of the estate has been laid out for villa residences (some erected), with gardens running down to the river Mole. There is also a plot containing about 3 acres, very eligible for a first-class house, and a very moderate price. The plots vary in depth from about 180 feet to 400 feet; and in price from about 2s. 8d. to 3s. per foot frontage. A small portion has been devoted to cottages (which are much required in this locality), at extraordinarily low rates. The residue of the estate is remarkably adapted for shops or small houses.—Apply to Mr. FREDERIC LETT, Architect, 59, Essex-street, Strand, London.

BUILDING LAND TO BE LET, at HALLSVILLE.... Term 1,000 years, for small cottages.
CANNING-TOWN .... " 1,000 " for small cottages.
NORWOOD .... " 100 " for villa residences.
STRATFORD .... " 100 " for small cottages.
POPLAR .... " 98 " for fourth-rate houses.
Advances 70l. to 100l. at 5 per cent. on each cottage.—Mr. WM. ELLISON, Architect, Stainsby-row, Limehouse.

SOMERSET.—TO BE LET, with immediate possession, a remarkably compact and convenient DWELLING-HOUSE, called Brook House, with all suitable offices and excellent garden and shrubbery, situated in the midst of the beautiful scenery of Stourhead, within easy distances of the towns of Wincanton, Mere, and Bruton, at which last place there will be a station of the Wilts, Somerset, and Weymouth Railway.—Further particulars may be obtained of JOHN WAYNE, Esq. Wilton, near Salisbury; or of Mr. COOPER, Solicitor, Wincanton.

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The Builder.

Architect, Engineer, Operative & Artist.

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ADVERTISEMENTS.

SAINT LUKE, MIDDLESEX.—ELECTION of a SURVEYOR.—The Guardians of the Poor of th s Parish, at an adjourned General Monthly Meeting, to be held in the BOARD-ROOM of the Workhouse, on WEDNESDAY, the 20th day of JUNE instant, at SIX o'clock in the evening precisely, will proceed to the ELECTION of a duly qualified person to act as SURVEYOR to the Gift Estates of this parish The remuneration will be by fees. Any further information may be obtained upon application to me

JOHN PARSON, Clerk to Guardians.

Board-room, Workhouse, Saint Luke, Middlesex,

June 14, 1855.

ROYAL ACADEMY of ARTS, Trafalgar-square.—The Exhibition of the Royal Academy is NOW OPEN —Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling.

JOHN PRESCOTT KNIGHT, R.A Secretary.

SOCIETY of PAINTERS in WATER-COLOURS.—The FIFTY-FIRST ANNUAL EXHIBITION is now open at their Gallery, 5, Pall-mall East (close to Trafalgar-square). Admittance, 1s. Catalog ue, 6d.

JOSEPH J JENKINS, Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s. Season tickets, 5s.

JAMES FAHEY, Secretary

GORE HOUSE, KENSINGTON.—The ANNUAL SPRING EXHIBITION of advanced Works, by Students in Metropolitan and Provincial Schools of Art, is NOW OPEN daily, from TEN a.m. to SIX p.m. Admission free.

ADAM and EVE.—This great original work, by JOSEPH VAN LERIUS, is now on View at 57, Pall-mall, opposite Marlborough House, from eleven to six daily. Admission, 1s.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster.

The ANNUAL CONVERSAZIONE will be held on MONDAY, the 25th of JUNE, at EIGHT o'clock. The Right Hon. the Earl De GREY, President, K.G., in the Chair. The entrance to the Museum is from Parliament-street, near Richmond-terrace.

HENRY CLUTTON, Hon. Secretary.

June 14, 1855.

MONTI'S LECTURES on ANCIENT and MODERN SCULPTURE.—The Fourth of these LECTURES will be delivered on WEDNESDAY, JUNE 20th.—Subscribers' and Single Night Tickets, to be had at Messrs. COLNAGHI'S, Pall-mall East.

PROFESSOR DONALDSON'S CLASSES at UNIVERSITY COLLEGE.—FINE ART and CONSTRUCTION.—The Sessional Prize Examinations for 1854-55 will take places on FRIDAY, the 22nd inst. from NINE to TWELVE, and from ONE to FOUR.

CONTRACTS.

TO ROAD CONTRACTORS.

THE DIRECTORS of the LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY are prepared to receive TENDERS for the formation of ROADS and other WORKS on their estate at Potter's Bar, Middlesex. Plans and specifications may be seen each day, between the hours of TEN and SEVEN o'clock, at the Offices of the Society, up to the 18th inst. Tenders to be sent in addressed to the Secretary, on or before FOUR o'clock, on the 19th inst. endorsed "Tenders for forming Roads, &c. Potter's Bar." Security will be required for the due completion of the contract. The Directors do not bind themselves to accept the lowest or any Tender.

WM. BANKS, Secretary.

Offices, 211, High-street, Borough, June 13, 1855.

CONTRACTS.

BIRKBECK FREEHOLD LAND SOCIETY. Lower Norwood Estate, near Tulse hill Persons desirous of TENDERING for the FORMATION of the ROADS, &c. on this estate, can see the plans, sections, and specifications at the Offices of Messrs. BROOKS and Co. Surveyors, 29, Piccadilly, on and after WEDNESDAY, 6th inst. The Tenders must be sent in by THURSDAY, 21st inst addressed as under: "Tender for Norwood Roads, Mr FRANCIS RIVINGTON, Birkbeck Freehold Land Society, London Mechanics' Institution, Southampton-buildings, Holborn."

SAINT COLUMB MAJOR BURIAL BOARD.—To BUILDERS.—The Burial Board of St. Columb Major, Cornwall, are prepared to receive TENDERS from Builders for the ERECTION of the BOUNDARY WALLS, IRON RAILING, and ENTRANCE-GATES, a LODGE, and TWO CHAPELS, on the site selected for their cemetery Plans, sections, specifications, and form of Tender, may be inspected until the 22th day of JUNE instant, at the Offices of the Clerk to the Board, in St. Columb; and further particulars may be known at the Offices of Mr. WHITEHEAD, Surveyor to the Board, 4, Dix field, Exeter. The Tenders must be delivered at the Offices of the Clerk to the Board, before noon on the 30th day of JUNE instant. The Board do not bind themselves to accept the lowest or any Tender. Security will be required for the due performance of the contract.—By order of the Board,

JAMES WHITEFIELD, Clerk.

St. Colomb, June 13th, 1855

TO BUILDERS

MR. WILLIAM ROSCOE being about to ENLARGE his OFFICES, will receive TENDERS for the execution of the necessary WORKS up to TWELVE o'clock at Noon on the 21st JUNE instant. The Tenders to be addressed to W. ROSCOE, Esq Solicitor, 14, King-street, Finsbury-square," where the drawings and specifications may be seen every day between the hours of TEN a.m and FOUR p.m.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court house No. 1, Greek-street Soho square, on TUESDAY, the 19th day of JUNE instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK and PIPE SEWERS, as follows, viz.—In the Lower Mortlake-road and Marsh Gate road, Richmond, in the county of Surrey, and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and specification of the above works, together with the form of Tender may be inspected, and other particulars obtained at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 18th inst. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho square.

Dated this 7th day of June, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 19th day of JUNE instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK SEWERS, as follows, viz.—In the lengths or thereabouts, with other works in connection therewith, near Webb's-lane, New-road, Stratford-green, Askew-road, and the Victoria-road, in the parish of Hammersmith, and county of Middlesex, and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender may be inspected, and other particulars obtained at the principal office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 18th inst. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.

Dated this 8th day of June, 1855.

TO BUILDERS.

PERSONS willing to CONTRACT for the ERECTION of a PAIR of SEMI-DETACHED VILLAS, on the St. Margaret's Estate, at Twickenham, can see the drawings and specification at the Office of the Architect, GEORGE MORGAN, Esq 5, Chancery-lane, on and after MONDAY, JUNE 18th. Tenders to be delivered JULY 2nd. No pledge given to accept the Lowest Tender.

TO BUILDERS AND CONTRACTORS.

CHESTERFIELD MARKET-HALL.—EXTENSION of TIME for TENDERS.—The Directors of the Chesterfield Market Company are prepared to receive TENDERS for the ERECTION of a MARKET-HALL and other Buildings, in the Market-place, Chesterfield. Drawings and specifications may be seen, on and after MONDAY, the 11th day of JUNE, at the Office of Messrs. SHIPTON and HALLEWELL, Solicitors, Chesterfield; and any further particulars may be obtained on application to the Architects, Messrs. DAVIES and TEW, Chesterfield. Tenders must be sent in to the Secretary by TEN o'clock, a.m. on MONDAY, the 2nd of JULY Bills of quantities may be obtained on payment of 1l. for each copy, from the Secretary, or from Messrs BATSTONE and HUNT, Surveyors, 11, Park-street, Westminster, on and after MONDAY, the 25th JUNE. The Directors do not bind themselves to accept the lowest or any Tender.

By order, GEORGE WALLIS, Secretary.

Chesterfield, June 5, 1855.

CONTRACTS.

CONTRACTS.—NOTICE to BUILDERS. Such persons as may be desirous of CONTRACTING with the Honourable Board of Ordnance for CONSTRUCTING TEMPORARY BARRACKS for 3,000 men, at COLCHESTER, are requested to send in sealed Tenders, addressed to the Secretary to the Board of Ordnance, Office of Ordnance, Pall-mall, on or before MONDAY, 25th JUNE, 1855. The words, "Tender for constructing Temporary Barracks for 3,000 men at Colchester," to be written on one corner of the envelope. Specifications of the above work, with the form of Tender, may be obtained at the Royal Engineer Office, Harwich, any day (Sundays excepted), from THURSDAY, 14th JUNE, till THURSDAY, 21st JUNE, 1855, between the hours of TEN and FOUR o'clock.

N.B. The Board of Ordnance reserve to themselves the right of rejecting the whole or any part of the Tenders; and no offer will be accepted unless from such person or persons as may be considered competent to perform the work.

Royal Engineer Office, Harwich May 31, 1855.

NOTICE to BUILDERS.—ORDNANCE WORKS.—SEALED TENDERS, addressed to the Inspector General of Fortifications, Office of Ordnance, Pall-mall, London will be received on or before the 26th JUNE next, for the CONSTRUCTION and ERECTION of HUT BARRACKS, at the Dock Point, Pembroke Dock. The specifications and plans for the above service may be seen, and the form of Tender be obtained, with every information, at the Royal Engineer office, Pembroke Dock The Inspector General reserves to himself the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Pembroke Dock, 31st May, 1855

Royal Engineer Office, Chatham, June 7, 1855.

TO CONTRACTORS. — Notice is hereby given, that TENDERS will be received at the Ordnance Office (Pall-mall, London, on or before MONDAY, 18th day of JUNE, 1855, from persons desirous of CONTRACTING with the Honourable Board of Ordnance, for providing TWELVE additional WATER-CLOSETS, at the rear of the Officers' Quarters, CHATHAM BARRACKS. Plans and specifications of the Work are to be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 23rd of JUNE, 1855 Sundays excepted. The person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and separately to be bound under a penalty of 300l. for the due performance of the Contract. Tenders to be addressed to the Secretary to the Board (for ordnance Office, Pall-mall, London), and to be delivered free, endorsed "Tender for Works at Chatham" No Tender can be admitted after the said 23rd day of JUNE, 1855.—The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

ORDNANCE CONTRACT.—TO BUILDERS and IRONMONGERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before FRIDAY, the 22nd inst. from parties willing to CONTRACT for the COMPLETION and ERECTION of TWO IRON BUILDINGS for BARRACK STORES at Aldershot, within one month from the date of the order for their commencement Plans and specifications for the work may be seen, and forms of Tender obtained, on application at the Royal Engineer's Office, Aldershot The Tenders to be addressed to J. J. WOOD, Esq Ordnance Office, Pall-mall, London, and endorsed "Tenders for Iron Buildings for Barrack Stores at Aldershot."

Royal Engineer's Office, Aldershot, June 11, 1855.

Royal Engineer Office, Chatham, June 13, 1855.

TO CONTRACTORS. — Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before THURSDAY, the 28th instant, from persons desirous of CONTRACTING with the Honourable Board of Ordnance, for ERECTING a NEW STORE, at the north side of Brompton Barracks, near Chatham Plans and specifications of the work are to be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 27th of JUNE next, sundays excepted The person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and separately to be bound under a penalty of 100l. for the due performance of the contract. Tenders to be addressed to the Secretary to the Board of Ordnance, Ordnance Office, Pall-mall, London, and to be delivered free, endorsed "Tender for Works at Chatham" No Tender can be admitted after the said 28th day of JUNE, 1855 The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

TO GAS-HOLDER MAKERS.

THE RADCLIFFE and PILKINGTON GAS COMPANY are desirous to receive TENDERS for MAKING, ERECTING, and SATISFACTORILY COMPLETING a SINGLE-LIFT GAS-HOLDER, of 75 feet diameter and 30 feet in depth. The specification and drawings may be seen at the office of the Company, on Mount Sion road, Radcliffe, near Manchester, on and after SATURDAY, the 9th day of JUNE instant. Tenders are to be sent in at or before NOON on THURSDAY, the 21st day of JUNE instant. The lowest Tender will not necessarily be accepted.—By order,

JESSE HAWORTH, Secretary.

Radcliffe, near Manchester, June 8, 1855.

TO CONTRACTORS

THE RADCLIFFE and PILKINGTON GAS COMPANY are prepared to receive TENDERS for the immediate excavation and building of a TANK to hold a Gas-Holder 75 feet diameter and 30 feet in depth, on the land near the present gas-works. Plans and specifications may be seen at the Company's Office, Radcliffe, near Manchester, on and after the 12th JUNE inst. Sealed Tenders, endorsed "Tender for Tank," to be sent in on or before noon on THURSDAY, the 21st JUNE inst. The Directors do not bind themselves to accept the lowest Tender.

By order, JESSE HAWORTH, Secretary.

Radcliffe, near Manchester, June 8th, 1855.

[*For remainder of Contracts see next page.*

CONTRACTS.

TO SCAVENGERS, CONTRACTORS, AND OTHERS.

THE Commissioners for Paving, &c. the East Division of Southwark meet on THURSDAY, the 31st day of JUNE next, at Two o'clock, at their Board-room, to CONTRACT for the CLEANSING and CARTING AWAY from all the streets, lanes, and places within the said Division all DUST, SOIL, DIRT, SOOT, rubbish and other matter, rubbish for filth, straw, and ashes; and to empty and cart away the soil or dirt from and out of the several cesspools of the street gratings within the division; and also to collect and remove from the premises of the inhabitants all ashes, dust, clinkers, vegetable and other matter to which he will be entitled, that is to say, from Duke-street, Doyle-street, Johnson-street, so much of Bermondsey-street as is within the division, Friesh-street, Bank-street, Horsleydown, Gainsford-street, Shad Thames, and Thurlston-street, three times a week in every week, and oftener when required; and the remainder of the streets, lanes, and places four at least in every week, and oftener when required, from Michaelmas-day, 1855, to Michaelmas-day, 1856. Proposals to be sent, directed to the Commissioners, before FOUR o'clock on the day of meeting, when the parties tendering may personally attend. Two securities for 100 each, for the due performance of the contract will be required, and the penalties for the non-performance of the contract will be rigidly enforced. The expenses of the contract and bond to be paid by the person contracting.—By order of the Commissioners.

ROBERT SLEE, Clerk.

28, Back-street, St. John's, Southwark, June 12th 1855.

The Commissioners do not find a vestal, and they will not be bound to accept the lowest or any Tender. The form of Contract may be obtained at the Clerk's Office, where the draft of the contract may be seen. A sheet of the waterside in the division has been provided, but the Commissioners do not bind themselves to find one.

POOLE GASWORKS.—The Directors of this Company are willing to receive TENDERS for the ERECTION of an additional GAS-HOLDER and CAST IRON TANK at their works. The gas-holder to be not more than 54 feet in diameter, and to contain from 15,000 to 20,000 cubic feet of gas. The above to be fitted with 6 inch inlet and outlet, with syphons and valves, and connected in working order with the existing works. Persons desirous are required to send in sealed specifications to the Office of the Company, on or before SATURDAY, the 23rd of JUNE. The Directors do not bind themselves to accept the lowest or any Tender.

By order of the Directors,

Poole June 8, 1855. JOHN BUDDEN, Clerk and Engineer.

HATFIELD FOREST INCLOSURE, ESSEX. To ROAD CONTRACTORS and OTHERS.—The Commissioners of CONTRACTING I. MAKE certain PUBLIC CARRIAGE ROADS, OPEN DRAINS, and other WORKS, to be made under the Inclosure Act, may inspect the plans of the work required, at the Office of Mr JOHN CLUTTON, at No. 8, Whitehall-place, Westminster, to whom Tenders must be sent on or before TWELVE o'clock at noon, of SATURDAY, the 23rd day of JUNE, 1855.—Printed specifications may be obtained on application.

JOHN CLUTTON.

June 7, 1855.

TO BUILDERS AND CONTRACTORS.

BUILDERS desirous of CONTRACTING for the ERECTION of the VESTRY-HALL and OFFICES, for the parish of Edmonton, are informed that the plans, specifications, and general conditions, may be seen at the Offices of Mr FREDERICK W. FIDLER, Architect, 4, Bennett's-hill, Birmingham. Tenders must be sealed, and addressed "G. SMART and H. MOSS, Esqrs., the Churchwardens," and delivered at the Office of the Architect, on or before the 25th day of JUNE next. The Churchwardens do not bind themselves to accept the lowest Tender.—4, Bennett's-hill, Birmingham, May 28, 1855.

GRIMSBY LOCAL BOARD of HEALTH. WATERWORKS and DRAINAGE To CONTRACTORS, ENGINEERS, IRONFOUNDERS, and OTHERS. The Great Grimsby Local Board of Health give notice, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:

CONTRACT No. 1.—For the supply of about 2,500 tons of CAST IRON WATER-PIPES, and other CASTINGS.

CONTRACT No. 2.—For the supply of SLUICES, HYDRANTS, GRATINGS, and other STREET FITTINGS.

CONTRACT No. 3.—For the excavation of a WELL and ADITS, and for BORING into the CHALK STRATA for the SUPPLY of WATER.

Drawings, specifications, and forms of Tender, may be seen, and also obtained, on and after the 1st of JULY next, at the Offices of Mr. SYMONDS, Town Clerk, Dorchester; or at the Offices of Mr. A. WHITEHEAD, Engineer to the Board, 4, Dyke-field, Hexter. Duplicate specifications, and forms of Tender for each of the Contracts, may be had on payment of 1s. each. Sealed Tenders are to be delivered at the Town Clerk's Office, Dorchester, before TEN o'clock on the 16th day of JULY next. The Local Board do not bind themselves to accept the lowest, or any Tender.

C. SYMONDS, Town Clerk.

Dorchester, June 11, 1855.

TO BUILDERS AND OTHERS.

THE TRUSTEES of SAINT THOMAS'S HOSPITAL, in SANDWICH, Kent, are desirous of receiving plans and estimates for the ERECTION of an ALMS-HOUSE, to contain twelve rooms, of dimensions not less than 14 feet by 12 feet, with outer room, or pantry, to feet by 8 ft. 6 in. to each, and all other requisite conveniences, such building to be divided into two compartments, for the use of eight brothers and four sisters, and with or without a common hall. The proposed site contains by admeasurement 100 feet towards the north, 120 feet towards the east, 70 feet towards the south, and 105 feet towards the west, contiguous to the town of Sandwich. The plans for the above are required to be on the most improved and sanitary principles, and of Materials, and to scale of 8 inch to a foot. Tenders, with estimates, to be sent, free of carriage, to the undersigned, on or before the 31st day of JUNE instant. The trustees do not bind themselves to accept the lowest Tender.

SURRAGE and EMMERSON.

Sandwich, June 4, 1855.

TO IRONFOUNDERS, &c.—The Town Council of Tenby intend to lay down CAST IRON WATER PIPES, to be delivered on Tenby quay. Persons desirous of tendering must send in sealed tenders at my office, on and after MONDAY, the 4th JUNE instant, and not after that day. The tenders will be opened in the Council Chamber, on MONDAY morning, the 11th JUNE instant.

GEO. THOMAS, Town Clerk.

Carmarthen, 1st June, 1855.

CONTRACTS.

WIGAN LOCAL BOARD of HEALTH. WATERWORKS.—To ENGINEERS, IRONFOUNDERS, BRASSFOUNDERS, CONTRACTORS, EXCAVATORS, and OTHERS. The Local Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to undertake either of the following CONTRACTS:

CONTRACT No. 1.—For the supply of about 1,500 tons of CAST IRON WATER-PIPES, and other CASTINGS.

CONTRACT No. 2.—For the supply of SLUICE VALVES, HYDRANTS, and STREET FITTINGS.

CONTRACT No. 3.—For the supply and erection of Duplicate STEAM ENGINES, BOILERS, PUMPS, and RISING MAIN. Each Engine to be capable of raising ONE MILLION GALLONS of Water, ONE HUNDRED FEET high, in TWELVE hours.

CONTRACT No. 4.—For the construction of a COVERED SERVICE RESERVOIR.

CONTRACT No. 5.—For the formation of a TUNNEL about 500 yards in length, and 18 feet internal diameter with SHAFTS, and TUNNEL ENTRANCES.

CONTRACT No. 6.—For Masonry and other work in STONE IMPOUNDING WALL for STORAGE RESERVOIR.

CONTRACT No. 7.—For EARTHWORK, PUDDLING, &c. in EMBANKMENT for STORAGE RESERVOIR, including MASONRY, BRICKWORK, &c. in VALVE and OUTLET WELLS, GAUGE BASINS, and RETAINING WALLS; also a TUNNEL under site of Embankment.

The drawings and specifications may be seen, and any further information may be obtained on and after the 4th day of JUNE, on application at the office of the Local Board of Health, Wigan, or at the offices of ROBERT RAWLINSON, C.E. 31 Parliament street, Westminster. Specifications and duplicate forms of Tender, Schedules, and Bills of Quantities, for Contracts Nos. 1 and 2, may be had on payment of 10s. each; and for Contracts 4, 5, 6, and 7, on payment of 1l. 1s. each. Quantities supplied. Sealed Tenders to be delivered at the Office of the Local Board, Wigan, before TWELVE o'clock, on MONDAY, the 18th day of JUNE, endorsed "Tender for Contract No. 1, 2, 3, 4, 5, 6, or 7," as the case may be. The Local Board do not bind themselves to accept the lowest or any Tender.

(Signed) WILLIAM ACKERLEY,
Wigan, 14th May, 1855. Solicitor to the Local Board.

TO GASHOLDER MAKERS.

THE DIRECTORS of the CHELMSFORD GASLIGHT and COKE COMPANY are prepared to receive TENDERS for the SUPPLY and ERECTION of an additional GASHOLDER, with guide-frame, connections, &c. Copies of plans and specification can be seen at the Company's Office, Chelmsford, or by application to Mr. CHURCH, Phœnix Gasworks, Vauxhall, London. Any further information required may be obtained of the Engineer, Mr JAMES CHURCH, Chelmsford, to whom Tenders are to be sent not later than the 21st day of JUNE inst.

June 1st, 1855.

TENDERS are required for the ERECTION of FIVE FOURTH-RATE HOUSES, in Bethnal-green.—Plans and specifications may be seen on and after the 18th inst. between the hours of TEN and FIVE daily, at the office of Mr W. E. WILLIAMS, Architect, 75, Coleman-street, City. Mr. W. does not bind himself to accept the lowest or either of the Tenders.

STEAM PILE-ENGINES.—WANTED, One or Two Second-hand STEAM PILE-ENGINES.—Address, by letter, to Mr. MORRIS, 3, Bridge-street, Westminster.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.

An Illustrated Catalogue on receipt of six postage-stamps.

WANTED to RENT, a small FOUNDRY, ready fitted up.—Apply by letter, stating particulars, at No 6, Carlton-place, Stoke Newington.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's. JONES and BLANTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Copes, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Ends, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS,
69, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.
GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either street or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Gates, and Park Palisades, Lamp and Street Posts, Brackets, Pipes Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 30 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Girders, Joists, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes, Iron Bedsteads, Mangles, and Bedsteads of every description. Drawings made to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,
168, DRURY-LANE, and CHARLES-STREET.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.—W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Spurgers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply fabricating Conductors, with the point and all staples complete for fixing, at 2s. 6d. shilling the foot.

If S. NEWALL and CO's Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne, 13a, Strand, London,
67, Hyde-park-street, Glasgow.
27, Duke-street, Manchester.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of NAILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PEILE and SEDALL'S.

Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.

The prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, and BORING WOOD or IRON.—House and Coach Builders, Joiners, Planemakers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

TO BE DISPOSED OF, cheap, a 10-feet IRON WINDING STAIRCASE.—For cards to view apply to J. FOWLETT, Builder, 3, Northumberland-place, Bow-street Bishopsgate.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and Co. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNERS PATENT), fitted with HOBBS'S PATENT TUMBLER PROOF LOCKS form the strongest Safeguards against Fire and Robbery, they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and CO.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH-WESTERN RAILWAY, LIVERPOOL.

"London and North Western Railway Company,
"Liverpool, May 7, 1855.

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door. I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"5, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but succeeding in the manner described that I have sent it to you for inspection, and shall feel obliged if you will have it repaired. I am, gentlemen, your obedient servant, "O. OTWAY

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

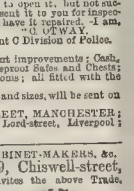
CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Packet Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 8d., 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and brightened fronts.

3 ft., 9l. 10s.; 3 ft. 6 in., 8l. 5s.; 4 ft., 8l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 38s. each.

3-feet self-acting ditto, 4 ditto, 46s. each.

Air Bricks, 1s. per doz.

Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

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CONTRACTORS

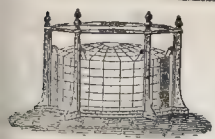
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Castings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

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FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

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BENHAM AND SONS,

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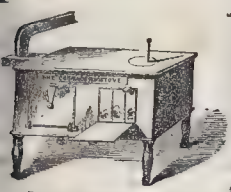
THE COTTAGERS' STOVES.



Testimonial.

"Lord Hardinge presents Messrs. BAILEY will be so good as to inform him how much he is in their debt for the stoves which they supplied to him. He is happy to inform them the stoves have proved VERY GOOD ones in the Camp before SEBASTOPOL

Horse Guards, 26th Feb. 1855."

D. and E. BAILEY, Ironmongers, 372, Holborn.

Price 30s.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road,

Chelsea, solicit the attention of architects, &c. &c. to their APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense of 1s. 3d. per hour and labour of 3s 3d. This achievement in heating by hot water is unprecedented.

WARMING and VENTILATING.—

COTTAM and HALLEN, 2, Winsley-street, Oxford-street, having had thirty years' experience, and having warmed the circulation of hot water upwards of 4,000 buildings, consisting of churches, prisons, lunatic asylums, halls, and staircases, conservatories, forcing-houses, &c. can with confidence recommend their system, which, by the various improvements they have made, has perfected the construction and economised the expense of Greenhouses, conservatories, verandahs constructed entirely of iron or wood, and of iron and wood combined. Estimates upon application.—COTTAM and HALLEN, Engineers and Ironfounders, 2, Winsley-street, Oxford-street.

ECONOMIC COOKING-STOVE.—

DEANE, DRAY, and CO. recommend with confidence the IMPROVED COOKING-STOVE to the notice of the public as cheap in first cost, simple in construction, easy of management, capable of using a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the kitchen and fender department of Deane, Dray, and Co's establishment, where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO. opposite the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE.

BACHHOFFNER and DEFRIESS'S PATENT.—The public are respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming churches, shops, public buildings, &c. Smoke, dust, ashes, and sulphurous fumes are effectually prevented by its use, while securing all the comfort and appearance of an open coal fire, and at the same time perfect ventilation. To be seen in action at DEFRIESS'S Office, 142, Regent-street, London.

COLLINGE'S PATENT HINGES.—

Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, removed and replaced in an instant. Rising and double-acting spring Hinges and superior gate fastenings, at moderate prices. Beware Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

PATENT IRON ROOFING and IRON BUILDING MANUFACTORY (late the Coalbrookdale Company's premises), 13, James-street, Liverpool.—N.B. Parties are particularly requested to note the address. LIVERPOOL.

FRANCIS MORTON and Co. will supply estimates, plans, &c. for Iron Roofs and Iron Buildings, painted or galvanized, to be erected in any part of the United Kingdom. Roofs and buildings prepared for shipment abroad. F. M. and Co. possess advantages from their long experience, and are enabled to execute work on the most moderate terms consistent with good materials and workmanship.

N.B.—The attention of Agriculturists and Landed Proprietors is particularly invited to their Corrugated Iron Farm Buildings, Sheds, Roofs, &c.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by

JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station. A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, banqueting rooms, ornamental villas, dwelling houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, to their Patent Corrugated Roofing, to the simplicity of its construction, its durability, and to the fact that purchasers, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Lland Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

SKAIFE'S GALVANIZING WORKS,

Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated.—Roofs fixed complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

An Allowance to the Trade.

A. MOREWOOD and CO. (late Morewood and Rogers),

Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets

Plain or Corrugated, and Cut to all Gauges.

Manufactured articles always kept in stock, such as pails, scoops, bowls, trunks, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Tube, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

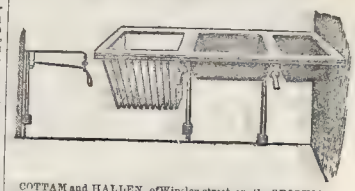
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No 11 gauge weighs about	18	oz.	per foot	super.
12	"	"	20	"
13	"	"	24	"
14	"	"	28	"

Full particulars and the reduced price sent by post on application to

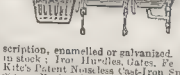
A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FITTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being removed impervious to infection, are some of the advantages of Cottam's improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.



This the original Patent for important improvements in stable fittings, including a more safe and pleasing all others for conveying the straps and halter-weights to the back of the fittings, to prevent the horse biting cast in the stall. Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock; Iron Hurdles, Gates, Fe ces, &c. &c. Manufacturer of Kite's Patent Noiseless Cast-Iron Smoke-Curing Chimney Cans.—Post-office-square.

JAMES BARTON, Iron Founder, &c. 320, Oxford-street, a few doors East of the Pantheon.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.				
3	4	5	6	
8s. 3d.	6s. 6d.	8s.	9s. 9d.	per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton Agent, Factor, and General Ironmonger, 18, Bloomfield-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-Iron Girders, and STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

Office, No. 7, Size-lane, London.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any busy public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelh use-lane, Birmingham

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spandles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1704, BRITISH SECTION, HARDWARE DEPARTMENT, PARIS EXHIBITION, 1855.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its efficacy is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.

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TO IRONMONGERS AND THE TRADE GENERALLY.

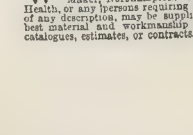
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete and pattern-book and price list, 1s. 55 and 56, High Holborn.

ESTABLISHED 1817.

WILLIAM HARMER'S SMITH'S WORK, STOVE and RANGE MANUFACTORY and IRONMONGERY, ZINCATA and ZINC WAREHOUSE, 19, Horseferry-road, and 1, New Peter-street, Westminster. Contractors, Builders, &c. supplied with general Ironmongery, at the lowest wholesale prices.

Cottage Ranges, with Oven or Boiler complete, 22s. each.
Self-acting ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with Wrought Fittings, Brass Tap, &c. complete, from 40s.
Register Stoves, from 5d. per inch.
Elliptic ditto, with double Backs, from 24d. per inch
Rain Pipes { 2 2½ 3 inch.
11d. 1s. 2d. 1s. 4d. per yard.
4-inch Eaves' Gutters, 9d. per yard.
4 5 inch.
O. G. Gutters { 9½ 1s. 1s. 1d. 1s. 3d. 1s. 6d. per yard.
Best Cut Clasp } 1½ 2 2½ 3 inch, and larger
and Rose } 10d. 13d. 6d. 1s. 1s. 6d. per cwt.
4-inch best Cast Lath, 14s. 6d. Sheet Floor Brads, 12s. per cwt.
Sash Weights, 7s. 6d. per cwt. 9-inch Air Bricks, 3s. 6d. per doz.
6-inch Sink Traps, 8s. per doz. Strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing.—Estimates given for Iron Hatting, Gates, Balconies, and Ironwork of every description

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,
24 30 34 36-inch.
28s. 30s. 32s. 34s.
Best Self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars
24 36 38 42-inch.
54s. 56s. 58s. 60s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 6d.
Improved New Pattern Circular Check Register, with strong Bars and Trunks, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Best Kitchen ditto, with Two Fires, 40s. to 100s. each.
Cast Rain-water Pipe { 2 3 3½ 4 4½ inch.
11d. 1s. 2d. 1s. 4d. per yard.
Cast Gutters—4 inch, 9d. per yard.
O G Gutters ..... { 1s. 1d. 1s. 3d. per yard.
Best Cut Clasp } 1½ 2 2½ 3 inch, and larger,
and Rose } 10d. 14d. 12s. 6d 13s. 6d. per cwt.
Cut Sheet Billed Brads, 12s. per cwt.
1 inch Cut Lath, 14s. 6d. Cast Lath, 11s. 6d.
5 6 6
Patent Line { 4½d. 5d. 7d. 9d. 1s. per knot.
5-inch Rd. Ward Mortise, with best Furniture, and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES,
for which
will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

WILLIAM BATLEY, Engineer and Boiler Maker, Northampton.—Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts, apply as above.

EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL, Manufacturer of Wrought Iron Tubing for Gas, Steam, and Water; Stocks, Taps, and Dies, and all kinds of Gas Fittings.

SERPENTINE.—The LIZARD SERPENTINE COMPANY MANUFACTURE and also SELL STONE in BLOCK or SLAB. The Serpentine now raised is from the lower beds, and as sound as the coloured marbles, with which it competes in price.—Offices and Show Rooms, 20, Surrey-street, Strand

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black Marbles, at CARRARA WHARF, THAMES BANK, and Gold Marbles, at the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the Marble trade solely on his own account.

Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.

SAMUEL CUNDY,

THE STOCK OF LOW PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIALS,

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.

THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a general variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast Rooms, best and second-story Bed-Room, &c. Also, Monuments, Tombs, Tablets, and Bed-stals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORK STONE of the very best quality direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms. GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Yard, Cannon-row, Westminster.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter.—London Agent, C. HOAR, 4, Millbank-row, Westminster. This Granite was used exclusively in the Nelson Monument, Trafalgar square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

VALUABLE SANDSTONE for PIER and DOCK PURPOSES.—TO STONE MERCHANTS and CONTRACTORS.—To be SOLD, by PRIVATE CONTRACT, about 300,000 CUBIC FEET of SANDSTONE of the best quality. The quarry is situated at Golden Bank, Horsforth, near Leeds. The quarry is situated at Golden Bank, Horsforth, near Leeds, half a mile from the North-Eastern Railway Station. The stone has been extensively used in the construction of Government dock and harbour works. The barrug is not above 5 feet in depth, and as the quarry has been wrought upwards of twenty years, the entire breadth and depth of the bed of stone is open for working. Blocks of from one to twenty tons may be cut, and can be carted from the lowest level of the quarry. A purchaser at a distance would readily meet with competent and trustworthy persons near the spot, who would contract to get and deliver the stone.—To learn the time allowed for removing the stone, and other particulars, apply to Mr. C. L. DRESSER, Land Surveyor, Leeds; or to Mr. EDWARD BUTLER, Solicitor, Leeds.

4, Park-row, 7th June, 1855.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEEDHAM, and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to deliver from their Wharf and Depôts CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, GODMANCHESTER, BUILDING, BLOCK, and RUBBLE STONE IN BUILDING, BLOCK, and RUBBLE BUILDING, and BURR HEATH STONE; also RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For information, direct to Caen Wharf, Rotherhithe; or to Hibernia-chambers, London-bridge, Borough.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Waterloo-bridge. Offices: 246, High-street, Southwark, near the Townhall.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents of TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard.

This Granite is selected for the New Westminster-bridge

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS for SLATES and SLAB WORK for 1855 are NOW READY, and can be had on application, inclosing a postage-stamp.

N.B. A liberal discount to the trade.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEYS, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave-place, Pimlico.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

SLATE PAVING, 4½d. per foot superficial, averaging 5 feet, in a slab planed well one side, squared, fitted to lay without additional labour, warranted stronger and more durable than 3-inch York. The above has only to be seen to ensure its active sale. Bangor slate paving, 2 inches thick, planed both sides, 9d. per foot. Roofing slates at extremely low prices.—HANNAFORD'S WHARF, Radcliff cross.

FREESTONE.—Architects and Others are reminded that they can obtain the CASTERTON FREESTONE, in Blocks of any portable size, at the Quarries, or at the Railway Stations of Stamford, Essendine, or Wansington, and which, from its quality, and the facility with which it is wrought, are of immense advantage to the purchasers. Apply to FRAS. and UCTS. N SIMPSON, Stamford.

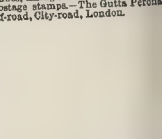
N B Specimens in plain blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the Offices of Messrs. HINDER, SIMPSON, and SONS, 20, Saville-row, Burlington-gardens, London.—May, 1855.

IMPERISHABLE STONE.—TRICKETT and PERKINS having erected new and powerful machinery at their extensive quarries, are now able to execute orders to any extent with that much esteemed RAWDON-HILL STONE which, from its strength and durability, together with its beautiful colour and readiness of conversion, renders it one of the most desirable stones used, being at once useful and ornamental Architects and others are requested to test its qualities for strength and durability, either for external, internal, or ornamental purposes. Samples and prices furnished by SAMUEL TRICKETT, Stone Wharf, Isle of Dogs.

NOTE.—Can be got any size, or delivered to any part by rail or water carriage.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazze, Busts, Consoles, Bas-reliefs, &c. by J. M. BLASHFIELD, of Millwall, near the West-India Docks Station, and 1, Pine-street, Paddington-basin, where prices and designs can be obtained. Examples of Terra cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham; in the Mint; C. ...the Statues of Australia, Venus di Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra cotta, so are the fountains at the Renaissance Court, and the Fountain of the Athenian Court. The Pompeian roof is of Terra-cotta and red cement combined. Since the execution of these works J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

JOHN WARNER and SONS, Patentees and IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.



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TARPAULINS for COVERING ROOFS during Repairs, SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive immediate attention.—WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

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The Works, Sutton, St. Helen's, January, 1855.

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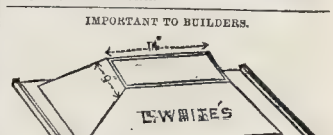

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AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 285, Blackfriars-road, near the bridge, respectfully invites all persons having Engines, Machinery, Foundries, Plant, or Ironmongery businesses to dispose of, to forward the particulars thereof for insertion in his REGISTRY-BOOK, for which NO CHARGE will be made unless sales be effected

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MAITLAND-PARK, HAVERSTOCK-HILL, Hamp tead-road. -LAND TAX REDEEMED—TO BE LET, upon Building Leases, for ninety nine years, desirable BUILDING SITES upon the above Estate The continued demand for houses in this locality, and the picturesque position of the property adjoining the grounds of the Orphan Working School, render this a desirable opportunity for builders or gentlemen wishing to erect villas for themselves.—For terms and to view plans, apply to the Secretary of the Orphan Working School, 32, Ludgate-hill; Messrs. TERRELL and CHAMBERLAIN, 30, Basinghall-street; the Architects, Messrs WEHNERT and ASHDOWN, 42, Charing cross, or at the Porter's Lodge, on the Premises.

GUILDHALL, London, 24th May, 1855.

BUILDING LEASES, NEWGATE-STREET.—The Committee for letting the Bridge-House Estates, will meet at Guildhall, on FRIDAY the 22nd day of JUNE next, at TWELVE o'clock precisely, to receive TENDERS for BUILDING LEASES of THREE PLOTS of GROUND, on the north side of Newgate-street, in the City of London, adjoining Christ Church-passage.—A plan of the ground and conditions for letting may be seen at the Architect's Office, Guildhall.

FERDINAND BRAND, Comptroller.

GUILDHALL, June 11, 1855.—The Committee for Letting the City's Lands will meet at Guildhall on WEDNESDAY the 20th day of JUNE instant, at ONE o'clock precisely, to receive PROPOSALS for LEASES of a HOUSE, No. 3, on the east side of Broad street buildings; a House, No. 28, on the south side of New Broad-street; a House, No. 2, on the north side of Southampton-place; Four Houses, Nos. 58, 59, 60, and 61, on the south side of Banner-square; and a House No. 7, on the west side of Milton-street, Finsbury. Further particulars and plans may be seen, and forms of Tender obtained, at the Architect's Office, Guildhall. FERDINAND BRAND, Comptroller

BUILDING LAND TO BE LET, in the GLOUCESTER-ROAD and PRINCES-TERRACE, Regent's-park, and on the East of Primrose-hill, a first rate situation for third-rate 8 roomed houses, which are much in request in that locality, for purchase or hire The ground rent very low Term, 99 years. Money advanced if required.—Inquire of F. ELLIART, Esq No 9, Harrington-square

BUILDING GROUND TO BE LET, in the best part of Euston-square, with a frontage of 170 feet; a populous and respectable neighbourhood; suitable for a church, chapel, public building, or dwelling-houses.—For particulars apply to Mr. GRAHAM, No. 23, Taviton-street, Euston-square.

BUILDING FRONTAGE.—TO BE LET, on a Building Lease, a frontage to the Kingsland-road near Shore ditch Church), having a depth of 57 feet, and having a right of a side entrance; it is deemed to be exceedingly adapted for a pawnbroker, or any other trade for which manufacturing premises are required For terms, apply to Mr. W. F. BRAY, Jun. 15a, King's road, Bedf rd row.

NEWBURY, BERKSHIRE.—TO BE LET, all those capital BUSINESS PREMISES, for many years in the occupation of Mr. Wm. Bowyer, deceased, whose lease expires at Midsummer next. The premises are well adapted for the business, and will be let at a moderate rent.—Apply to Mr. KING, Globe Inn, Newbury.

KENSINGTON GORE.—Valuable SITES for first-class MANSIONS, in the new (Prince Albert's) road, Kensington Gore; with frontages to the park-like property purchased by the Royal Commissioners for the Exhibition of 1851, as a site for institutions connected with science and art, may be obtained upon 99 years' lease, by application at Mr. W. JACKSON'S Office, 10, Kensington Gore

FREEHOLD BUILDING LAND, at Redhill, Surrey, Land-tax redeemed

MR. CHARLES J. BAKER has received instructions to DISPOSE OF a valuable PLOT of FREEHOLD LAND, containing an area of 7 acres, most eligibly situated on a rising ground three quarters of a mile from the Redhill Station, having a frontage to the road from Reigate to Bletchingley of 330 feet, and a mean depth of 1,000 feet. The site commands an extensive prospect of the beautiful scenery for which the neighbourhood is so justly famed, and is admirably adapted for the erection of a gentleman's residence of the first class, or semi-detached villas.—Further particulars to be obtained, and plans seen, at the Office of Mr. CHARLES J. BAKER, Auctioneer and land Agent, 31, Moorgate-street, Belgrave-square.

WANTED, for about a Twelvemonth, in the vicinity of London, near a railway station preferred, PREMISES for a scholastic establishment, consisting of about Fifty children, Others' pupils, &c.—Address, S. S. Messrs. Faudell and Phillips's 49, Newgate-street.

TO ENGINEERS and OTHERS.—TO BE SOLD by PRIVATE CONTRACT, the valuable BUSINESS PREMISES, held under lease for 98 years, from the 24th of June, 1851, and the GOODWILL of the BUILDING BUSINESS carried on at, and known as the West London Iron-works, Latimer-road, Notting-hill, by the side of the West London Railway, now in operation, and which connects the great Western and London and North Western railways. The works consist of offices, storehouses, fitting and tool shops, with good assortment of tools, erecting shop and sheds, smiths' shop, pattern-makers' shop, and pattern loft, engine and boilers, stable for two horses, large yards, with five-ton crane, the whole in good condition and repair. There is a good connection to the business, and there is a foundry next door. Further particulars may be obtained of, and Tenders made to Messrs. TREHERN and WHITE, Solicitors, 15, Bargo-yard Chambers, Bucklersbury, London, who will also give an order to view the premises if required.

KENTISH-TOWN.—TO BE SOLD, several well built six-roomed CARCASES, with garden ground, in a best rate situation, and low ground-rents. For particulars apply to S. TAYLOR, Plumber, &c. 4, Albany-place, Kentish-town-road.

CARCASES at DULWICH.—TO BE LET. FOUR HOUSES and TWO SHOPS, intended as a butcher's and baker's, partly built, on advantageous terms. Bricks, &c. may be advanced, if required for finishing.—Apply to Messrs. W. G. and E. HABERSHON, Architects, 38, Bloomsbury-square.

TO ARCHITECTS.

COMPETITION and other DRAWINGS.—Mr. THOMAS S. BOYS, Member of the New Society of Painters in Water Colours, and author of "The Picturesque Architecture of Paris, Ghent, Rouen, &c and of "London a. it is," offers his services in Tinting Backgrounds, Landscape Perspective Views, Interiors, &c. From the long experience he has had in such subjects, he is fully aware of the points essentially necessary to be attended to. Drawings and designs lithographed in a superior manner.—Address, Mr BOYS, 33, Albany-street Regent's-park.

TO ENGINEERS, CONTRACTORS, &c.

LEVELS of first-class work, price 6l. to be had of the Maker, JOHN DAVIS, upticians, Derby. The Levels consists of a 5 inch telescope, focus adjusted by rack; fitted in an excellent case. The legs either tripod or jointed, for use in a pit.

SWISS DRAWING INSTRUMENTS equal in quality to the very best London-made instruments and considerably cheaper.—Apply to Mr. S. BARLOW, 3, Thayer-um, Hollborn (between 2 and 3 p.m.); or to Mr. H. B. BARLOW, Office for Patents, Ducie-place, Exchange, Manchester.

MATHEMATICAL DRAWING INSTRUMENTS.—JOHN ARCHBUTT, 39, Westminster Bridge-road, Lambeth (near Astley's Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. An illustrated price-list will be immediately forwarded, free, on application.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. DAVIDS, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Drawing, and Colouring Maps Finished and Working Drawings Preparing Specifications, Taking out Quantities, Estimating, &c. &c. Terms—Day Pupils Three Guineas per Quarter; Evening Pupils One Guinea per Quarter, which includes Drawing Boards, T Squ res, Plans, Drawings, Models, &c. For Prospectuses apply at the Offices, 24 Guilford-street, Russell-square

TO BRICKMAKERS, BUILDERS, and BUILDING SOCIETIES.—To be immediately DISPOSED OF, entirely from want of capital, a first rate BRICK and TILE WORKS, licensed under Beart's Patent, now in full operation, worked by steam-power, producing sixty thousand bricks a week, from the finest bed of white clay in England.—For particulars apply to Mr. GLENN, Cambridge-terrace, Liverpool-road, Islington.

The Builder.

SATURDAY, JUNE 16, 1855.

THE Parliamentary Committee on the new Metropolitan Buildings Bill have again met, and the measure is beginning to assume a more practicable shape, although it still contains many objectionable provisions, amongst which we must continue to place the reference of matters in dispute under the Act to the police courts. So many alterations, too, are made from time to time, that we cannot venture to say what its provisions actually are at this moment. One great question still under discussion is the mode to be adopted for determining the thickness of walls, and we shall best bring this before our readers by giving a full report of the discussion of this point at the Royal Institute of Architects on Monday evening last, when Mr. Hesketh read a paper "As to the method which it is most advisable to adopt in the Metropolitan Buildings Bill for regulating the thickness of walls."

The reader said, together with other district surveyors, I feel deeply anxious that the Bill for the regulation of the buildings of this vast metropolis should be efficient, and, at the same time, acceptable to the respectable part of the public immediately interested in it, and yet, from the shape in which it has been brought forward, I entertain great doubts whether it will prove either the one or the other. If not, the officers under the Act will bear, as they now do, the odium as well of its deficiencies as of its oppressive enactments.

These officers have been accused, in high quarters, of neglect and apathy in the discharge of their duties with regard to certain sanitary regulations; and, though they have disproved the facts alleged against them, and though, if these facts were admitted, they have clearly pointed out that the law does not enable them to interfere, or even to enter upon premises, for the purpose of inquiry, yet the accusation remains recorded against them with the following special recommendation:—"Should any amendment of the (Buildings) Act be in contemplation, this general neglect of duty on the part of the surveyors, and this apparent apathy of all concerned in the administration of the measure with relation to the only provisions of it directly bearing on sanitary matters, ought not to be lost sight of." To any one at all cognizant of the Act, the accusation confutes itself, and I cannot help quoting, with gratification, one of the resolutions just passed by the Builders' Society, to show that it does not weigh much with them, viz.—"That the duties of the district surveyor could not be as well fulfilled by any but competent professional men, and that the interests of the public could not be protected efficiently by any arrangement which would throw these duties on a less educated class of men."

This is the gratuitous testimony of that class which has most concern in the operation of the act; those on the other hand who have had the charge of the new Bill, have thoroughly carried out the *former* recommendation, for not one of the officers serving under the present Act has been consulted in the preparation of this measure. The result of this unmerited distrust is, I submit, that we have in the new measure not a reform of what is faulty and oppressive (which is greatly needed), but many totally new regulations subverting even the very things most approved by those who are cognizant of the working of the Act. These are my reasons for seeking this opportunity of entering upon that subject, which is amongst the most important to have properly settled, namely, the rules for determining the thickness of the walls of buildings.

The story of the Bill and its changes on the subject before us, since its first appearance about six weeks ago, seems to me sufficient of itself to occasion some diffidence in the minds of those who do not profess to judge of its scientific and practical merits. It was printed at the end of April, read a second time, and referred to a select committee. Previously, however, to its coming before the committee in the middle of May, all the rules relating to the thickness of walls had been struck out, and new ones *on totally different principles* were substituted, in order to meet the outcry against their being complex, and giving erroneous results. The district surveyors, however, and perhaps others, pointed out to the framers of the Bill, that besides the difficulties of working out such complicated rules, they were seriously defective in many points which they particularized. The consequence was, that before any discussion on them took place in committee, a third edition was printed, in which these defects were thought to be remedied by means of special rules intended to meet the objections. This not being the case in the minds of the objectors, at the request of one of the framers of the measure, I discussed the subject with him, and afterwards with him recast the schedule in a new form, to which I at first thought he agreed, though (it appears) in error. This recast was put in by the district surveyors, and is now printed by order of the committee, as well as the framers' schedule, which has now assumed a fourth edition.

It has, however, been put in by the district surveyors, with the express understanding that they do not assent to the rules which still remain for determining the thickness of walls of public buildings, where any story is more than 20 feet in height. These rules merely remain because under the altered constitution of the Bill they were not able at once, in so short a time as has been allowed them, to propose a substitute. As they stand, the rules cannot work well.

One important improvement, however, has, I think, been introduced into this Bill, by allowing buildings to be built in compartments, separated by cross walls, the thickness of the walls being regulated by the size of the compartment, and not of the whole building, as in the present Act. The advantages of this are, amongst other things, that it will conduce to economy of space and cost, by allowing thinner external and party walls, and to sounder construction and greater stability, by encouraging brick internal walls, instead of wooden partitions, thereby also causing a great diminution in the risk and extent of fires, and in the end, probably to the reduction of premiums of insurance.

I may perhaps be allowed to say, that I first suggested this system to Lord Seymour, then First Commissioner of Works, in March, 1851, when I carefully pointed out all its advantages.

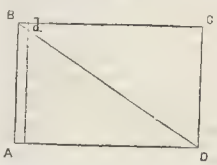
The cross walls are to be at least two-thirds of the thickness required for external and party walls; but not less than $8\frac{1}{2}$ inches thick; to have the openings limited to a third of the vertical area in each story, and to be carried up at least two-thirds the height of the building: I think four-fifths would be better.

We come now to the rules proposed by the framers of the Bill for determining the thickness of external and party walls.

One professed object of the framers is to simplify the Act, by dispensing with the system of *rating* buildings, which was introduced into the first Building Act passed in 1667, the year after the fire of London, and said to have been framed by Sir C. Wren. I must assert, that there is a complete declension in the new Bill from the framers' original intention. In the first Bill, it is true, it was completely carried out; but it was so by introducing a far more complex system, by losing sight of many matters which past experience had shown to be proper and requisite, and by permitting many defects and anomalies in practice. These having been pointed out (and I will presently show some which remain after the last revision), a most complex system of rating, actually, though not nominally, has been introduced into the new editions. There are, besides the general rule, no less than seven special ones, according to seven different sorts (why not call them rates?) of walls: warehouses, and that class of buildings, have likewise another system of rates of walls. And more than this, while the present Act gives but one rate to each building, this Bill would give a separate rate to almost every *wall* of a building. This must, then, surely negative any advantage said to be gained in this respect, and moreover, give the comparative merit of simplicity to the present Act. I am not sure that I might not go one step further, and submit that this complex system of the Bill ought, in this respect alone, to prevent its adoption for ordinary buildings.

But it will probably be said by many, that if the result obtained is right, it will be worth this complex machinery, and into this result will therefore inquire.

Now, the system proposed in the Bill purports to be founded upon the principles set forth by Rondelet, which he based upon, as he says, "an infinity of experiments, observations, and calculations." His first rule, which is that adopted in the new Bill, with a modification in the denominator, is as follows:—



Let A B C D be the elevation of a wall of a building between return walls at A B and C D. Draw the diagonal B D and set off on it B d, equal to a twelfth part of the height A B, and draw a line through d parallel to A B, and the space between this line and A B is the required thickness of the wall. The height A B, be it observed, is from the floor to the tie of the roof, not to the top of any parapet or gable, as in the Bill. The following formula gives the same result. The thickness $= \frac{l \cdot h}{12 \times d}$. l, h, and d being respectively the length A D, height A B, and diagonal B D. This, though only a rule of thumb, seems to be founded on some degree of reason; for it is evident that in walls of the same height the longer a wall is between return walls the thicker it ought to be between certain limits; nevertheless, the thickness ought not to increase so fast as its length, because the height must be the principal element in determining the thickness. This is attained by the rule where the length is much in excess of the height, inasmuch as, supposing the length to increase from A towards D, and onwards by equal increments, the corresponding increments of the ratio of the height and diagonal would be continuously diminishing. In the same case the thickness would increase nearly in proportion to the increase of height. But the rule fails more and more as the height becomes more and more in excess of the length, till it gives absurd results, as in the walls of towers. The formula of Rondelet is, as I have said, the thickness $= \frac{l \times h}{12 \times d}$.

That of the last edition of the Bill is for public buildings, the thickness $= \frac{l \times h}{18 \times d}$.

Now my impression is, that the divisor 18 will make the walls too thin for safety when in one story, and that Rondelet's divisor 12 is better. It is, however, a subject which requires great consideration. I give a few examples of calculations on both formulæ, in the diagrams suspended, in which are three instances of the aisle walls of churches with galleries. In these Rondelet's rule comes nearer than that of the schedule to the actual thickness; but I think that a mean between 12 and 18 will be found better than either for brick walls of public buildings in one height.

The formula ought, as I have shown, to be discontinued when the height is much in excess of the length; otherwise a wall, say 60 feet high and 20 feet long, would have its base no thicker than one 20 feet high and 60 feet long, and the Bill does so when the height exceeds twice the length, by requiring the thickness to be one-fortieth of the height. Yet I think this also gives too slight a wall, and requires the fraction

to be increased. For myself, I certainly think that, for public buildings with a high story, a formula ought to be introduced for determining the thickness of the walls, instead of the undigested rule of the present Act, though such formula may not be applicable on every occasion, and then special calculations must be resorted to. At the same time I think a far more perfect formula may be obtained by varying the thickness with reference both to height and to the square root of the length, which is founded on the reasons I have before given, and would not require abandonment in certain cases, as Rondelet's and the framers' rules do. I venture to submit the following formula, therefore, for consideration, though it is but a rule of thumb :—

$$\text{Thickness} = \frac{2\,h}{5} + \sqrt{l} \text{ in inches.}$$

Many speak against any such rule as being complicated; but this would not be the case, because of course, directly the Act should be passed, tables would be formed just as we now have with reference to bearings of timbers.

But where I venture entirely to differ from the framers of the Bill is in their not limiting this rule to *public buildings where there are lofty stories*, and then only to such *lofty stories themselves*. Rondelet himself, in giving this rule, limits it to *walls in one height without the ties or abutments* given to it by intermediate floors or roof. In the case even of the clerestory wall of a basilica, he modifies it by setting off on the diagonal, as at B *d* one-twelfth of the height of the clerestory, added to one-twenty-fourth of that of the part below it; thus diminishing the thickness on account of the aisle roof. But for buildings composed of many stories, he says distinctly, "In ordinary houses where the height of the stories does not exceed 12 to 15 feet, in order to find the thickness of walls, whether internal or external, regard must be had *only to the width of the spaces which they divide, and to the number of stories which they have to sustain*." It is not, however, necessary for me to go into the rules he gives for those buildings in stories, for this reason, that the framers of the Bill have themselves unaccountably forsaken those rules which Rondelet himself prescribes, and have adopted his first rule, which I have explained, and which he most distinctly repudiates for ordinary buildings in stories.

The framers' schedule is consequently still full of serious defects and anomalies, notwithstanding that they have departed from their first principle, and have introduced so many special rules for the purpose of obviating (as before mentioned) some particular inconsistences in the application of their general rule. I will point out two or three defects. First, small houses, now called fourth-rates, if they have *four* stories, are to be allowed *two* stories of 8½ inch walls; whereas if they have only *three* stories, they are allowed only *one* story of the thinner, or 8½-inch walls. This is the reverse of equitable. Secondly, in the larger description of houses, say there are two walls, each 40 feet long, between return or cross walls; and suppose one is 75 feet high, the other 85 feet high, the latter may have a greater height of the 13 inch or thinnest wall than the former. Thirdly, in such buildings, any of the uppermost stories, such as may be used as a gallery or show-room, might have been of any height up to about 10 feet, and yet have had the walls only 13 inches thick. I say *might have been*, because a new edition of the framers' schedule has just been printed, and is now laid on the table of the Institute for the first time. This, I believe, has taken another amendment from the present Act, by introducing a rule of increasing the thickness of the walls of stories when above a certain height, beyond the thickness otherwise required.

Now, under the rules of the present Act, I venture to say that not one such palpable defect or inconsistency can occur; but under the framers' schedule there are many more than I have specially mentioned, which I have not had time to put into shape.

There is one great anomaly, I admit, under the present Act, if the official referees, and with them about three of the district surveyors, are correct in their view of the Act, which is, that the small buildings commonly built in the rear of larger ones, and communicating with them, would require thicker walls than the larger building, because, by the addition of the smaller building, the rate of the whole had been increased. This, however, would be completely remedied by the new system of cross walls.

The Bill then, as I have above shown, is inconsistent and erroneous in its practice, and at variance with its own authority—Rondelet,—in adopting, in spite of him, his first rule for ordinary buildings in stories, and in forsaking his general principle, that in determining the thickness of the walls of such buildings, "regard must be had only to the width of the spaces which they divide, and to the number of stories which they have to sustain." Clearly neither one element nor the other comes into the calculation. I do not say that Rondelet is perfectly right, but at all events he has named two principal elements.

But not only does the new Bill *not* recognise these elements, but the present Act does so in the case of dwelling-houses by rating them according to area, as well as by the height and by the number of stories. In the rating by area, the width of spaces between walls may be deemed to be sufficiently taken into account, for in—

Fourth rates, the extreme width is $\sqrt{400}$—9 in. or about 19 feet, or in ordinary cases, say 15 feet.

Third rates, the extreme width is $\sqrt{600}$—1 ft. 2 in. or about 23 feet, or in ordinary cases, say 17 feet.

Second rates, the extreme width is $\sqrt{1000}$—1 ft. 2 in. or about 30 feet, or in ordinary cases, say 22 feet.

First rates, the extreme width is $\sqrt{1400}$—1 ft. 6 in. or about 36 feet, or in ordinary cases, say 27 feet.

And to meet these progressive widths are these progressive rates, requiring a progressive increase in the thickness of the walls. The number of stories also comes into consideration by the system of determining the thickness, by reckoning from the top of the wall downwards, instead of as in the 14 Geo. III. from the base upwards.

I believe, therefore, that for buildings in stories, the system (I do not say all the details) of the present Act is as perfect as possible, including in it of course the rules for increasing the thickness of walls of high stories, and their substructure. In the recast schedule it is therefore proposed to retain the rules of the present Act, for the dwelling-house class (with the exception of allowing in fourth-rate houses only two instead of three stories of the party-walls, to be built of 8½ inches thickness, as the latter has been found not to be sufficient for stability); also to retain them for warehouses and manufactories, with slight exceptions. It is further proposed, notwithstanding those general rules, that every story of a dwelling-house shall have the thickness of its external and party walls, at least one-fifteenth of the height of the story, and in warehouses and manufactories one-twelfth the height; and that any extra thickness may be disposed in piers, one-third the length of the wall, and that any substructure shall be increased in thickness proportionably to the superstructure. Where public buildings are built in stories not exceeding 20 feet in height, it is intended that they shall follow the dwelling-house class. Where, however, public buildings have any story, or stories, exceeding the height of 20 feet, then to let them follow the rules of the framers' schedule, which, however, I think, might be improved by keeping the rule to a single story, and by decreasing the divisors 18 and 40 to numbers nearer to, say, 15 and 30.

One other new introduction into this Bill, which I think is quite right, and will be attended with perfect security, is the allowance of recesses in party-walls, as well as external walls.

In conclusion I wish to state, that the remarks which I have ventured to offer, have been made with the determination of adhering as far as possible to the Bill before us, because there are, doubtless, wise reasons for adopting the general scheme of the Bill; but with regard to public buildings, the district surveyors have long ago urged the value of the superintendence as to their safety, being delegated, as at present, to more than one architect. Make what rule you will, it will be found that to the large majority of public buildings, excepting those built in stories, they will be totally inapplicable,—in one part proving very obstructive and oppressive; in another, insufficient for safety.

In the former case the architect must get relief by application, as now proposed, to the superintending architect, to whose single decision, perhaps of not equal consideration to his own opinion, he will have to bow. For this object a Board of Architects, as at present constituted, must be far preferable; at all events, till the happy time shall come when public buildings shall in all cases require an architect, and an architect in all cases a diploma to show his qualification for his profession, when official supervision as to safe construction might be probably dispensed with altogether.

At the close of the paper,

The Chairman (Mr. Tite, M.P.) observed, that the real matter for discussion was very simple. It had been a great inconvenience that the existing Act and the previous Bills were indefinite, but the copy of the Bill in its latest form, which he had that day obtained from the Office of Woods and Forests, had his unqualified approval. It contained a clause, suggested by himself, to the effect that the Institute might cause to be examined, by such persons and in such manner as they might think fit, all persons who might present themselves to be district surveyors, and that the Institute should grant certificates of competency, without which no district surveyor should be appointed. This was a point gained, and more might have been gained if the district surveyors had acted with the committee of the Institute. With regard to the thickness of walls, he considered it was idle to occupy time in the discussion of formulæ and principles. As a practical architect, he was sure that the regulations laid down in the Bill would in the main break down; but this did not signify, as the Bill contained two clauses which, with a little amplification, might have superseded the necessity for the schedules. (?) One of these clauses provided that the Board of Works might alter the rules for the thickness of walls; therefore, if the formulæ suggested either on one side or the other did not work well, there was the power to change it, and that power would, in fact, be in the hands of the architect to be appointed by the Board of Works, who would see the necessity of exercising it. The other clause provided, that in the case of "any building whatever, except those mentioned in the last preceding section," namely, buildings of iron and glass,—the builder might either construct the same according to the rules of the Act, or he might represent to the Board of Works the inapplicability of the rules, submitting a plan and particulars, and then the building might be erected in any way which the architect appointed by the Board might direct. To the existing system of "rates," there were some objections; because mathematical rules must be limited, definite, and arbitrary, and they must lead at times to inconvenience; but in the main the schedules of the existing Act were understood and were satisfactory. The question was, whether the meeting wished to retain the present system of rating by area and height, and on this point the committee of the Institute and the district surveyors should be unanimous before the Parliamentary committee.

Mr. C. Barry urged that the schedule of the existing Act had been long in use, and was intelligible, and probably a majority would decide that it had been found to work sufficiently well, and not to need any important change.

Mr. Papworth, Fellow, moved a resolution, urging the adoption of the principle of rating as it exists in the present Act, with certain modifications. He had observed many points in the new schedule upon which a difference of opinion might arise, whereas the existing schedule was clear.

Mr. Jennings, Fellow, observed that there was little to complain of in the schedules of the existing Act, the only difficulty as to the thickness of walls being in the case of public buildings, when it was necessary to apply to the official referees for a modification. The schedules had worked well, but the other machinery of the Act was defective, and prevented its being carried out. It was now proposed that the Government official should have power to alter the rules of the Act as he pleased. The propriety of such an arrangement was rather a question for the

public than for the profession, but he thought architects would object to be liable to the crotchets of any one individual. When he first saw the present Bill, it appeared to him to affect very much the liberty of the subject, and he regretted that it had not, like previous Bills, been sent to the district surveyors and the profession generally, in order that they might have an opportunity of stating their objections to it.

Mr. Penrose, Fellow, said that having acted somewhat as junior architectural counsel, under well-skilled seniors, in the preparation of the Bill, he could assure the Institute that there had been no intention to avoid bringing the measure earlier before them. The delay had arisen entirely from accidental circumstances. The district surveyors had been very much consulted, nearly fifty reports having been received from them some months ago, and carefully digested. Lord Seymour's Bill, which had been much used in the preparation of the present, was also based very much upon the evidence of the district surveyors. The question really was,—rating, or no rating? And on this point the reports of the district surveyors, in many cases, raised a doubt whether the existing system was a good one. It had not appeared right to the framers of the measure to put *all* buildings, as it were, into five boxes of fixed sizes; but rather that they should consider walls in themselves, and in reference to the work which they had to do. Rondelet, as the great authority on this point, was consulted, and both of his systems were worked out with great care, hundreds of examples being tried. Looking at the proposed schedule in its present form (and disregarding the accident which led to the printing of one system, which it was necessary to recall), it was believed that the rules laid down would give the proper thickness of wall in almost every instance,—and where it did not, there was a remedy by application to the proper authority. He knew it was the opinion of many besides himself, that the system of rating was inconvenient, and that a simple rule for determining the thickness of walls by themselves was preferable. The general rule proposed, and which would apply in nine cases out of ten, was, that when the length of a wall did not exceed half its height, then its thickness should be one-fiftieth of its height; and where this was the case, the simplicity of the rule would supersede any reference to the tables; and even in other cases, such reference would be very easy, as the tables were short, and might be carried on a slip of paper in a pocket-book.

Mr. Burnell considered the power of altering the rules of the Act objectionable, as the principle of all law was its certainty. It was, in fact, absurd in logic to make enactments, and to give the power to vary them, especially as that power would be vested in one individual. As far as dwelling-houses were concerned, he did not see any necessity for altering the old schedules: the difficulty only arose with reference to public buildings. Mr. Burnell then referred to the Strasburg Railway Station at Paris (500 feet by 100 feet, and 45 feet high), the walls of which were only 1 foot 10 inches thick; whereas, according to the formula of Rondelet and the proposed schedule, they ought to have been 3 feet 7½ inches, if without buttresses, or 2 feet 5 inches with buttresses. He also cited a polygonal engine-shed at Tours, of which the dimensions were as follows:—radius of the circle, 66 feet 6 inches; span of roof bearing on the external walls, and on internal columns, 33 feet 3 inches; sides of polygon, 25 feet 7 inches, the thickness of the wall being 2 feet. This thickness coincided with the formula of Rondelet; but according to the schedule in the first edition of the Bill under discussion, the thickness need not have been more than 10 inches.

Mr. Alderman Cubitt, M.P. said that when he was asked by the Chief Commissioner of Works to act on the committee on the Bill, he had felt it his duty to consent. He, in the first instance, carefully read the Bill, and was much struck with its merit, as introducing a system of extreme simplicity with regard to the thickness of walls; and he was still of opinion that it was more rational to take the height of each individual wall, and to consider its requirements in reference to its height rather than with reference to the area of the building. He was the more convinced of that by considering the anomalies of the existing law. If a building contained four squares, it was a fourth-rate building; and if it contained more, the walls must be of a greater thickness. But as a building of four squares would not accommodate two families, an "addition" was made to it, the walls of which were allowed to be of the same thickness as those of the building itself. Therefore, the law sanctioned that as an evasion which the proposed new system would permit. Moreover, the evasion gave more trouble to the district surveyor, and the house cost more by reason of the delay for the "addition," and must be let at a higher rent. There was nothing to recommend the existing system, except that architects were accustomed to it, and had been brought up in it. He had been a builder forty years, and ought to have obtained a great deal of experience; and if he were still a builder he was satisfied that by inspecting the drawings and ascertaining the length and height of a wall, he should at once be able to determine its proper thickness under the proposed schedule; and the district surveyors would in like manner find no difficulty in it whatever. He had often had to deplore the necessity of making a wall of an unnecessary thickness, because the building happened to be of a certain rate. The present was an age of reform, in which it would not do to uphold a system because it was old and well understood. On the contrary, all reformers would join in any well-digested scheme, by which the construction of houses could be made better and cheaper, and by which all unnecessary machinery could be got rid of. They were now 200 years in advance of Sir Christopher Wren, and it was strange indeed if they could not improve upon a system which was probably the best which could then be suggested.

Mr. T. Piper, visitor, expressed his opinion that the schedule of the Bill, as that day printed, would be acceptable to builders. The rule of determining the thickness of a wall by its other dimensions must commend itself to all as a simple and practical rule, and far preferable to that of the area which it might enclose. It would be very easy to fix the limit of height before a building was commenced. As an illustration of the difficulty to be expected in applying for any departure from the Act, Mr. Piper stated that, on one occasion, he had received permission to erect a house just four weeks after it was finished and occupied. He preferred the definition of the thickness of walls by inches rather than the number of bricks; for with all the prejudice of education in favour of the existing size of bricks, he was not prepared to say there might not be changes and improvements in bricks hereafter.

The Chairman observed that the great object was to protect the interests of the public, as against the interests of speculative builders. Reform should be carried out, but they must not introduce confusion. The present system was well understood, and was working well; and why, therefore, should it be changed? The technical phraseology of the schedules ["let a right angled triangle," &c. &c.] was enough to confound a plain man before he got half way through them. They were not dealing with cases where architects were employed,—for even in the highest possible quarters it was not now the fashion to employ professional men!

The Chairman then called attention to the terms of the motion, and, after some conversation, an amendment was incorporated with the original motion as follows:—"That the committee of the Institute be requested to urge respectfully upon the special committee of the House of Commons on the Metropolitan Buildings Bill their opinion that it is *not* desirable to change the principle of rating of the present Act, and the thickness of the walls consequent thereon; and that in their judgment it is most desirable to retain the schedules of the existing Act relating to these subjects, except as to the public building class, to which the new schedule may with propriety apply."

The motion being put to the vote of the Fellows present, was carried,—one member alone voting against it.

The following deserves the consideration of those to whom it appeals:—

Sir,—Can any of your numerous readers tell what, amid the changes and chances of this mortal life, is to become of the working body of the office of Metropolitan Buildings? The new Bill contemplates its entire abolition.

Can it be possible that this little band, which has worked the old ship through its earliest storms, and subsequently stuck to it in its water-logged condition, is to go by the board and be cast adrift on a trackless sea without provisions, without a compass, and without a helm, to float irresistibly towards the dark waters of despair?

These corporals and sergeants of the force, who have seen the Almas, Inkermanns, and Balaclavas, of the existing Act—are they to be cast off without even a *medal?*

The public at large, and the district surveyors in particular, can, I am sure, bear witness to the cheerful service by which many a lame dog has been helped over a stile, many a sea of trouble, calmed by the ready assistance, rendered early and late, of these sappers and miners of the Act.

Should these lines reach—as I trust, through your favour—they may—the eyes of some of our legislators, they will not, I feel confident, pass unheeded the peculiarity of their position, after nearly eleven years of faithful service. Well do I remember, how painfully, but earnestly, they contended through the first rough years of the Act, in those murky chambers up three pair of stairs in Trafalgar-square; and shall they, who have borne the burden and heat of the day, meet with no recompense?

It has been suggested that their early career is an apt omen of its close—that as it began in *smoke*, so also will it end.

In the name of humanity, let not this be the case.—A. Z.

We earnestly repeat the hope here expressed, and bear willing testimony to the ability and right-feeling of the gentlemen in whose behalf the appeal is made.

ON THE ARCHITECTURE OF THE PRE-GOTHIC AGE IN GERMANY, OR THE ROMANESQUE DEVELOPMENT OF THE RHINE AND CENTRAL EUROPE.*

IN the roofing of the towers of the church at Boppart, a peculiarity exists which has not been directly imitated in any succeeding style, the walls being finished with very high pitched *pediments*, the horizontal side or base of the triangle having mouldings similar to those which form the raking cornice of the roof. Here we see a remnant of Roman art, which was never carried further, the *gable* of a higher pitch, without the horizontal base, being universally adopted. The square ends of the walling, in any position, are finished in this manner, and the pitch of some of these pediments in the transept ends is still more in accordance with the classic type. The polygonal walls of the apses have often each face terminated by a pediment, and octagonal towers, as at Sinzig, St. Croix Liege; and even the walls which support the immense spire at Bonn are finished in the same fashion. The ridges of the roof being carried up from the apex of these pediments, meet together at an acute angle, and thus form a kind of spire, terminated by a vane and an ornamental cross. The flat surfaces of the roof between the sides of the pediments and the ridges of the spire are consequently of a diamond shape, and when scored with the diagonal lines of slate roofing, have the appearance of being ornamented with scales, the slates being always rounded at the corners. The angle of these roof-ridges varies, but it is generally acute, and more so the nearer the whole approaches the form and character of the spires of a later period.

In England, we have but one solitary specimen, at Sompting in Sussex; but it is a perfect pattern of the Rhenish tower and spire. Whether the spires of St. Martin, Cologne, and Schwartz Rheindorf are original, is uncertain,—but if so, they are the precursors of our common hipped broach spires, being octagonal on a square base. Along the banks of the river Maine, at the Pfarrkirche at Aschaffenburg, the villages of Erlenbach, Miltenberg, &c. are seen small but more elaborate specimens, in which the octagonal spire is complete, with a rib springing from the base as well as from the apex of the pediment. On the borders of Switzerland, by the Lake of Constance, and the upper part of the Rhine—thence to Schaffhausen,—these forms occur, varied according to circumstances. But the pedimented spire is not the universal roofing for towers, but it is reserved for the better class, or the most important of a group. The ordinary eaves roof forms a square spire on a square tower, or a polygonal one on a polygonal base. The example of Laach gives the latter form on two circular towers at the west end and the eastern cupola; and the former on the two at the opposite end, while the square form of the west cupola, being the most important feature, and the highest of all the six, has four pedimented faces. Many examples of (now) isolated towers, occur on the Rhine, one large one near the mouth of the Lahn, nearly opposite the castle of Stolzenfels. It is to be remarked that during the whole of this period the character of the spire was essentially that of a *roof* or covering for protection, and it is not till a much later date that we see it assuming a more important ornamental character, and constructed solidly in stone. The later we see it, the more resemblance it has to those succeeding constructions which were consummated in such masterpieces

* See p. 261, *ante*.

of Gothic lightness and skill as Freiburg Minster.

But there is yet another class of small country church towers, which are found in the plains round the cities of Augsburg and Munich, on the Danube, and towards the mountains of the Tyrol and Switzerland, of a form so common, that twenty or thirty may be counted in a day's journey, and sometimes, when an extensive view is obtained, at least half a dozen can be seen at once. Meyringen and Pasing are two of them, and they have simply two gables instead of four, and an ordinary high pitched roof. The earlier examples have pediments, and not gables. Some on the Rhine have a small gable in the centre of the tower; but this disposition is best seen in the four elegant spire-capped towers of Bamberg cathedral, which are carried up eight stages, and finished with gables and spires of a pink colour (copper), surmounted by an elaborate gilded cross. * * * * *

The interior effect of the Romanesque churches is mainly due to the use of the open *cupola*, which is placed at the junction of nave and transepts, and though of various forms, always gives dignity and power. Acknowledged to be the redeeming feature of the Classic Renaissance, the grandest of the Byzantine and of the Romanesque, it is a matter of surprise that its value seems never to have been duly recognised in the later Gothic. The question of the Gothic dome has been frequently raised of late, and it is not impossible that the present century may see it satisfactorily solved.

At Laach, the eastern cupola is octagonal: the western one is square, with pediments and a spire. At Sinzig, at St. Jacques, and St. Croix, Liege, the central cupola becomes a tower—octagonal, with pedimented faces, and a spire with ridges at the base, not at the apex of the pediments. At Worms, there is one cupola over the transept at the east end (flanked by round towers), which is octagonal, having an ogee-shaped roof (not the original covering). Spires cathedral has an additional circular one at the west end, but it is difficult to say how much of this is original, on account of the many disasters which have happened to this portion of the edifice. The cathedral at Maintz has an octagonal cupola at one end, of a highly mixed character externally; the base being decidedly Romanesque, with the usual gallery; then a stage of later work; upon that another, with a parapet of a different style—the whole crowned by a small octagon, finished with Renaissance work; but the whole being built of the same peculiar red sandstone, has by no means an incongruous appearance at first sight * *

Nothing contributes so much to the lightness and gracefulness of character which some of these buildings possess, as the open galleries surrounding them on the exterior,* and in many cases in the interior also: this latter arrangement, shown in the *männerchor* or triforium, has been previously mentioned. Small shafts resting on appropriate bases, and carrying grotesquely carved and foliated capitals, support small round arches, and form between themselves and the wall a passage way round the building, of which the church at Schwartz Rheindorf is an exquisite example.

The window openings are of a very plain character,—generally single, though sometimes double, or placed side by side; with or without an enclosing arch; in gables, or as a triplet, having the centre opening taller than the side ones, and a round arch enclosing the whole. The wheel windows, large and small, though not a very numerous class, would in themselves form a very interesting study: in some, plain flat tracery is decidedly developed, akin to what may be found in Italy, when "Gotico Tedesco" was first imported at Assisi, A.D. 1228. But, besides these, the later examples, though still comparatively early in the style, exhibit a wonderful play of fancy in the form and arrangement of small openings. The little isolated tower at Laach contains a curious variety—trefoil, quatrefoil, fan-shaped, quatrefoil in a diamond, trelobed, and octagonal; but these are chiefly small openings placed beneath the round arches of the corbel tables.

* Compare San Donato at Murano, Venice; SS. Giovanni e Paolo, Rome, San Felice, Como, Chiaravalle, near Milan, &c. &c.

On looking closely into the details and mouldings of early German churches, we recognise the propriety of the term "Romanesque." In the cornices we find the hollow and round alternating, with the dividing fillet constantly occurring, while all the base mouldings follow the Attic type. The capitals, we admit, though individual and spirited designs, and of great variety, are often carved after Classic models; but the simplicity of the whole, and the richness attained, without the sacrifice of this great virtue, is a principle certainly not copied from the later efforts of the Roman Empire.

We cannot doubt that the interiors of these churches received the best decoration of the age De Lassaulx, in his remarks on St. Gereon, Cologne, speaks of a church on the spot in 595, "named after the Golden Martyrs, probably because this church, like many others at that period, contained mosaic pictures on a gold ground;" and "Bishop Carentius is celebrated in a poem, as the restorer of golden temples." The present decagon of St. Gereon is decorated with colour: traces of colour also remain on the caps of the shafts, &c. at Laach Abbey. It cannot be supposed that large vacant spaces of wall would remain undecorated with fresco, when we remember how they were assigned in the Basilicas and Italian buildings of the same class as these, to display the powers of the artist. The spirit of revival in the present day and the spread of the arts at Munich, the capital of a state which possesses the largest Romanesque Cathedral, at Spires, have been the means of restoring this last-named building to something like its former grandeur, if not indeed surpassing in completeness any previous period of its existence.

After the paper had been read (at the Institute of Architects), Mr. G. G. Scott observed that in his visits to Germany he had generally been in search of architectural specimens of the thirteenth century, and had therefore paid less attention to the interesting edifices described by Mr. Hayward. He might suggest, however, as an interesting inquiry to antiquaries, an investigation of German architecture even before the period now referred to. For example, nothing was known of the architecture of the Franks between the days of Clovis and Charlemagne—a period of 400 years—which, so far as he was aware—was not illustrated by any existing remains. There were also very few examples, indeed, from the time of Charlemagne to that of Otho I. Many existing buildings—as St. Castor at Coblenz, &c.—were mentioned as *founded* in that era; but so small a portion of these buildings, as they now stand, were really of that date, that none but a very careful antiquary could find it. The accuracy of the term "Lombardic," as applied to this style of architecture, was also an interesting question. He confessed that he could not bring himself to believe in the great antiquity assigned to San Michele, &c. at Pavia, in which the style was supposed to have originated. These were ascribed by Mr. Gally Knight to the seventh century; but, inasmuch as the north of Italy was desolated by the Huns in the tenth century, and as the churches of Pavia so closely resembled those upon the Rhine, he (Mr. Scott, thought it more probable that Otho I. had been the originator of the early churches in both countries. The most probable date for the early Romanesque churches of Germany was the period of the three Othos (from about A.D. 960, to about A.D. 1000), although some of them were doubtless founded upon earlier churches In fact, the *best* specimens of Romanesque in Germany were of extremely late date. He imagined that the church of Laach—referred to by Mr. Hayward—bordered upon the transitional period; and the best and richest specimens at Cologne were of the same date. The workmanship of the German Romanesque appeared to be far superior to that of the corresponding style [Norman?] in England; but the style flourished in Germany till a much later date than in this country. The Abbey of Heisterbach (which was pure Romanesque) was, indeed, not finished till about 1230 Notwithstanding these facts, antiquaries had persisted in regarding the Gothic as a German style; whereas Germany was twenty years behind England, and at least fifty years behind France, in its adoption.

Mr Lockyer, Mr. Twining, and Mr. Papworth having made some observations,

Mr. Hayward said that he had been careful in deriving the origin of the Romanesque style from the antagonistic principles of the Basilican style at Rome, and the style of Byzantium itself. He did not derive the Romanesque of other countries from Germany, but spoke of its peculiarly grand development in that empire. Mr. Hayward referred to some dates in support of his views:—S. Sophia, Constantinople, and S. Paul, without the walls, at Rome (both before A.D. 400) might be taken as the two types from which the Romanesque style sprang. S. Vitale, at Ravenna, was copied from S. Sophia, and the church at Aix-la-Chapelle from S Vitale. Charlemagne died in 814, and if he built the parts now remaining of Aix-la-Chapelle, and was also connected with Lorsch, he must have introduced the style into Germany. With regard to the churches of Pavia, he believed that the peculiar style of the ornaments and carving indicated a date very soon after the decline of the Roman Empire. S. Giulia, Brescia, S. Frediano, Lucca, and many other churches were assigned to the same period as the churches of Pavia, the eighth century and the connection between Pavia and the Carlovingian Sovereigns of Italy in the eighth century afforded, as he believed, a good reason for the introduction of Lombard architecture into Germany. Coblenz followed about thirty years after Aix-la-Chapelle, and in the tenth century the great cathedrals of Worms, Maintz, and Spires, were founded, in all of which parts of the original work remained. In the Island of Torcello, near Venice, the cathedral and a neighbouring church, S. Fosca, presented respectively the distinct types of the Basilican and the Byzantine styles; although they were ascribed to about the same date. The year 1100, the age of the first Crusade, is the great central date for the Romanesque development—while *in England*, Tewkesbury Abbey, the Cathedrals of Gloucester, Worcester, Durham, Salisbury, Canterbury, Norwich, and the curious brick Church of St. Botolph's Priory, at Colchester, were in course of erection. *In Italy*, the Cathedral of Modena, &c. *In Sicily*, that of Messina, &c. *At Jerusalem*, the Chapel of Godfrey of Bouillon. *On the Rhine*, Laach Abbey, Maintz, Worms, and Spires Cathedrals, are supposed to have been in progress.

The year 1125—a quarter of a century later, is the date of the Apse of S. Donato, at Murano.

Of the year 1150—after the second Crusade, we have *in England*, Iffley and St. Sepulchre's, Northampton. *In Italy*, the Baptistry of Pisa. *On the Rhine*, the Church of Schwartz Rheindorf.

The year 1175—*In England*, the Galilee, Durham, and parts of the Temple Church. *In Italy*, the Tower of Pisa; and just before 1200, the Cloisters of St. Paul's without the walls, and St. John Lateran, Rome. *In Germany*, the Chapel at Murrhardt.

The year 1200—just after the third and before the fourth Crusade—*In England*, parts of the Cathedrals at Lincoln, Ely, and St. Albans. *On the Rhine*, Boppart, Limburg on the Lahn, &c.

The year 1210—*In England*, Beverley and Salisbury. *In France*, Amiens, Notre Dame, Paris, &c.

The year 1220—*On the Rhine*, Coblenz, Sinzig, Heisterbach, Gelnhausen; *at Cologne*, St. Gereon, &c.; *and in the Breisgau*, that marvel of the next style, Freiburg Munster, commenced after the fifth Crusade.

The year 1230—We have the return of the German influence, southwards; and *in Italy*, the Church of San Francesco, at Assisi, the first built in the style of the "*Gotico Tedesco*."

Thus we see that the great consummation of the style at Boppart and Limburg, was about the year 1200, when England had made a great advance upon the Romanesque. After that period came Heisterbach, &c. and the style went on improving till the German taste was remported into Italy, in the Church of S. Francisco, at Assisi, about the year 1230. There could be no question that that church was built by German architects and German workmen: it was the first really Gothic church in Italy, and the parent of all the others.

Mr. Fergusson remarked, that the history of Lombardic architecture had been more fully investigated by Rumohr, than by any other writer. In his work, a distinction was drawn between the Longobardic and the Lombardic styles. Of the former he stated that no remains now exist. It comprised the buildings erected before the time of Charlemagne (from the sixth to the nine centuries inclusive), but these, as Italy increased in wealth, were all pulled down and rebuilt. San Michele, Pavia, was, in Rumohr's opinion, erected in the eleventh or twelfth century, the materials of the previous church being employed, and these were in many instances reversed. There were many Romanesque churches in Italy, and a complete series of them might be found in the churches about Rome; but there were no *Gothic* churches in Lombardy till after the beginning of the eleventh century. It should be observed, that the Valley of the Po and the Valley of the Rhine belonged to the same empire from the time of Charlemagne downwards; and the same style prevailed in the one district as in the other, the churches being nearly identical. It was not correct therefore to say, that the Rhenish churches were derived from Lombardy, or the Lombard churches from the Rhine. In England the case was different, our Norman architecture being clearly derived from France.

THE STREET OF GLASS, AND METROPOLITAN COMMUNICATION.

THE details of the startling scheme for the improvement of London, to which we briefly referred some weeks ago, were promulgated by Sir Joseph Paxton, at the meeting of the Parliamentary Committee, on Thursday, the 7th, and highly interesting they appeared to be, not only to the members of the committee, but to an influential audience as well. The leading features of Sir Joseph's plan are so daring, and they involve such weighty interests, that he would be a rash man who would venture to pronounce a hasty judgment upon either their complete desirability, or practicability. Certain it is, that this great metropolis cries aloud for some monster remedy for monstrous anomalies, and that the vices of defective arrangement, which Evelyn, Wren, Gwyn, Nash, Pennythorne, and others have successfully denounced, have descended to our own days with accumulations of deficiency quadrupled at least by compound interest. It would be impossible to convey a more just idea of the outline of the scheme to our readers, than an analysis of the projector's own statement would afford, and such an analysis we shall proceed to condense from our note-book.

Sir Joseph commenced by stating that London has absolutely overgrown its leading thoroughfares; that at the present time it took as long to get from one side of London to the other as it did to get from London to Brighton; and that it was daily becoming more and more indispensable that adequate means of transport east and west, and from railway terminus to railway terminus, should be provided. The scheme proposed to the committee embraced two distinct and yet connected features—the one a girdle railway of $10\frac{3}{4}$ miles in length, embracing the heart of London, and the other a main artery traversing it nearly from west to east.

Such was the value of ground and vested interests in London, that it became absolutely necessary that all properties should be avoided the fee-simple of which was likely to be excessively costly; and it would be found that the line proposed for both one and the other, carefully avoided interference with existing lines of thoroughfare, or buildings of importance. The girdle was proposed to start from near Moorgate-street, to cross Cheapside and Cannon-street, and pass over the river near Queenhithe: thence it was to traverse Lambeth, to which district it would do infinite good, and effect a junction with the South-Western terminus. It would again span the river near the Houses of Parliament, approaching closely to Victoria-street; thence onward through Brompton to Gore House, and the new National Gallery that may be. From Kensington to Westbournalia it would stretch through Kensington-gardens in the form of a beautiful conservatory, providing at the same time a line of communication more needed than almost any other in the metropolis. After reaching the Great Western terminus, it would diverge a little through Marylebone successively to the North-Western and Great Northern, from which last terminus it would return, by way of Islington, to its starting point. The great artery, one mile and three-quarters long, would run from the South-Eastern station, at London-bridge, to the Regent-circus, crossing the river near the Hungerford Suspension-bridge. The section of the whole of both lines, excepting where the girdle crossed Kensington-gardens, was proposed to be nearly that of the transept of the Exhibition Building of 1851. Of this section, the central portion, 72 feet in width, with its arched roof in glass and iron, 108 feet high, would be reserved for road and footway. The 48 feet width on each side would be filled in as residences, with shops, &c. each having a frontage of 30 feet. The 24 feet widths, on the outside of these, would afford offices, &c. on the ground-floor for the residences; and on the first and second floors of this building, which would be erected independent of, although attached to, the residences, double lines of narrow-gauge railway would be laid. Thus, a noble street, answering to a Boulevard, would be created, in districts where improvement is most wanted; and at the backs of the houses a railway would run, the eight lines of rails provided by which would allow passengers to travel in either direction, at express speed, stopping only at some of the main points on the line, or at an ordinary pace, detaching carriages at short distances, as on the Blackwall line. The railway would be worked on the atmospheric system, for the efficiency of which Mr. Robert Stephenson and Mr. Edwin Clark would vouch, and thus all the puffing and blowing would be avoided. The carriages all running, as it were, in an enclosed corridor, would be of a much lighter description than those in ordinary use. The line would be used during the night for slow goods traffic, which would not be permitted either on the railroad, or on the road-way of the streets, after certain fixed hours in the morning. Sir Joseph went into minute details to show the purity of the air, to be breathed by the inhabitants of the Boulevard, and the light and ventilation of the whole. The superstructure of the bridges was to be similar in section to the general line, and they were to be made one of the most remunerating features of the whole scheme. Intersections on a dead level were to be made with all thoroughfares crossed by the lines of Boulevard, the houses of which were of course to stop, and the railroad alone run over at a height of about 25 feet from the ground.

The amount necessary to carry out the entire scheme, including every expense, was estimated at 34,000,000*l.* sterling! It was recommended that a portion only of the entire scheme should be undertaken in the first instance, *i.e.* the whole of the main artery from London-bridge to the Regent's-circus, and an instalment of the girdle from Moorgate-street to Westminster. This portion, amounting to 3 miles 5 furlongs, had been carefully surveyed and estimated for, at a total expense, including every outlay, of 11,307,941*l.* This estimate was analyzed by the committee, and many curious particulars were elicited. The bridges, for instance, were valued respectively,—the Queenhithe at 406,500*l.* the Westminster at 638,000*l.* and the Strand bridge at 754,800*l.*—a tender for its construction having been obtained at 600,000*l.* The buildings and railway were taken at 1,000*l.* per yard running; and the construction of the roofing for the great Boulevard at 45*l.* per yard forward. On going into the calculations as to the returns on the capital invested, of 11,000,000*l.* and a third in round numbers, it appeared that an annual income of 937,972*l.* might be looked forward to; this income being made up of 124,000*l.* the rental of the houses on the three bridges, 510,000*l.* the rental of the whole of the remainder of the houses on the *boulevard*, and 303,972*l.* from the estimated passenger traffic on the railway,—nothing being taken for the value of goods traffic. The rent of the houses, 30 feet by 48 feet on plan, and about 60 feet high, was assumed at 400*l.* in most cases, and, in some few exceptional instances, at 500*l.* and 600*l.* each. Details were gone into to show that by comparison with the rents of similar houses in leading thoroughfares, these rates were moderate. The estimate for passenger traffic was based upon some interesting statistics of metropolitan locomotion.

Sir Joseph then came to the true "crux" of the whole matter,—the question of "ways and means." He conceived that the requisite capital for such an undertaking might be raised in three several ways: first, by private enterprise; second, by local guarantees given by those whose local interests would be specially affected; and, third, by a Government guarantee of 4*l.* per cent. per annum. The first he considered, at the present moment, impracticable; the second exceedingly difficult, owing to probable jealousies and bickerings, and the want of a general confidence on the part of the public in the parties offering the guarantee; the third he considered would be effectual and justifiable, since the benefit this great junction would effect would be not for London only, but for the whole country. The time of every visitor from the country was now so sacrificed, owing to the difficulties of locomotion, that an annual loss was sustained by the country, the value of which it was really impossible to estimate. Sir Joseph argued that for many years past foreign Governments have been drawing annually millions of capital from this country, by offering guarantees at a high rate of interest, and with what results? In the case of France, the State had guaranteed no less than 32,850,000*l.* sterling, and had never been called upon to pay one franc of indemnity: it had thus obtained the means of developing the resources of the country to an incalculable extent, and contributing to the comfort of the whole population, without drawing a penny from them in taxation on that account. Unless our Government is willing to adopt some similar wise provisions in time, it is certain that those very superabundant means of ours will be drawn off to enrich our neighbour's land, which might with infinitely more beneficial results to us nationally, be expended upon the fertilization and adornment of our own soil.

CHURCH-BUILDING NEWS.

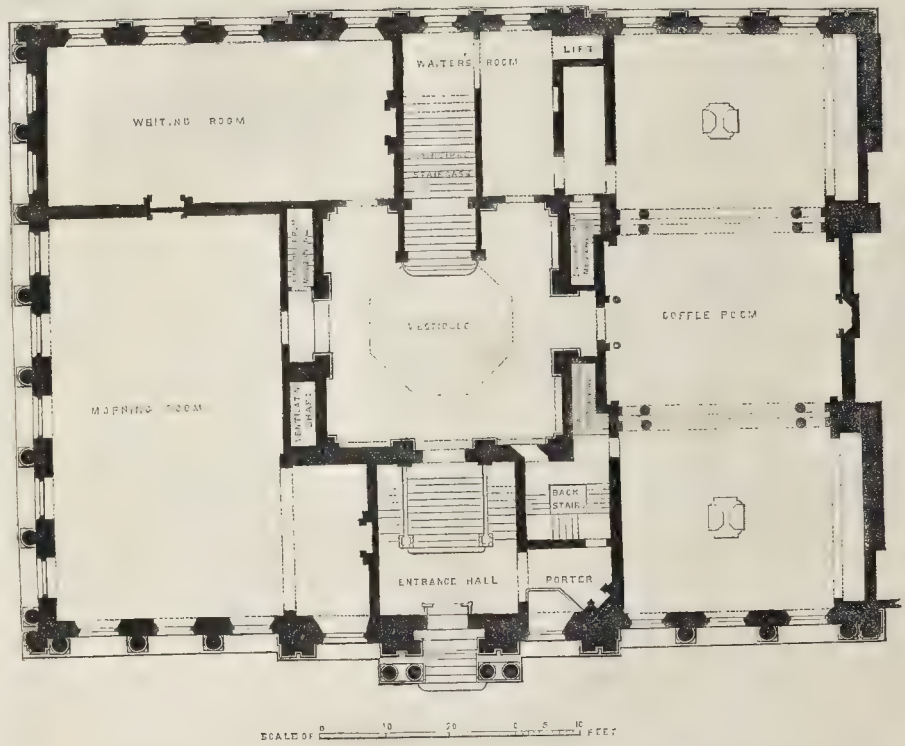
Harrington.—The opening of the church of this village took place on Sunday before last. The old church was found some time ago to be fast falling to decay, and, through the influence of the Rev. R. Cracroft and others, it was resolved to demolish the old structure and erect a new one on the site. The present edifice has not many striking features in its outward appearance, and is unostentatious in design. The old pews of the former edifice have given place to open seats, and the pulpit is replaced by one of stone. The centres of the windows are executed in amber-stained glass, with plain borders running round. A small window, the gift of the architect, on the south side of the chancel, has figures in stained glass, but is not seen from the nave. The churchyard has been planted with shrubs, and a parsonage has been erected. The building was designed by Mr. Teulon, and the whole of the works have been erected by Mr. Dales, of Louth, builder. The church still retains the ancient monuments and records that abounded in the ancient edifice, they having all been carefully replaced.

Bedford.—The new cemetery was consecrated on Tuesday before last. There are two chapels united in one tower: the designs of these, and those of the lodge and laying out of the ground, were provided by Mr. T. Jackson, of Bedford. The cemetery is eighteen acres in extent, on Foster's-hill.

Mollington, by Banbury, Oxon.—The church here is about to undergo a thorough renovation, and to have the addition of a new north aisle and new sacristy. The body of the church will be repaved with black, red, and buff paving-tiles, and rearranged with new open benches, the greater part free. The chancel will be partly rebuilt with new open-timber roof, and will have new fittings and a new east window. The architect is Mr. William White.

Knightwick-cum-Dodenham.—The church of this village was consecrated on Friday before last, by the Bishop of Worcester. Mr. Freeman, of Gaines, presented the site of the new church, and about 1,000*l.* is raised to defray the cost of erection. The estimate for the church itself was something under 900*l.* but the cost of the new mortuary chapel will be considerable. Mr. Perkins, of Worcester, was the architect: Mr. Norman contracted for the masonry; Mr. Shelswell for the carpenter's work; Mr. Chambers for the plumbing, &c. and Mr. Crump for the ironwork. The site of the church is immediately at the base of the hills, and about midway between the old church and Dodenham chapel. Rubble stone for the walls was got from the hills: a white stone from Bromyard Down was selected for the buttresses; and the facings, bell-turret, and spire are of Bath-stone. The church consists of chancel, nave, and vestry, with entrance porch. The length of the building is 70 feet; breadth, 21 feet; height, 38 feet to the point of the roof. The style of architecture is Early Decorated. The east window is of three lights, with three quatrefoils in the head, and bosses carved by Moyson, of Birmingham. The nave is lighted by three two-light windows on the south, and two on the north; and the west wall has two single lights, with double trefoil heads. There is an open timber roof throughout, that of the chancel resting on moulded stone corbels. Underneath the sittings the flooring is of wood, elsewhere of coloured tiles. Externally the walls are supported by buttresses of two sets-off between each window, those of the east wall being

PLAN OF THE CARLTON CLUB, PALL-MALL.



diagonal and all the others set square. The roof is of steep pitch, surmounted by Broseley ridge tiles, with ornamental points, in triplets. Floriated crosses, in Bath stone, ornament the east gables of chancel and nave. The spire, at the west end, is octagonal, and 62 feet high.

Exeter.—The church of Clyst St. George has for some time past been undergoing thorough restoration, under the superintendence of the rector, with funds contributed by the landowners and parishioners, and subscriptions raised in the neighbourhood. Four of the windows have been given, and lately another in the north aisle has been filled with stained glass, from the establishment of Mr. Ward, of London. The window consists of several small panels, containing figures set in an ornamental pattern, the foliaged scrolls of which run over the quarried ground, and are enriched with flowers and other objects in pot-metal glass. The style adopted is that of the early part of the sixteenth century, to which the material is admirably adapted. The work is well spoken of. It is set up as a memorial to Walter Brydges Ellacombe, late of Oriel College, the youngest son of the present rector. All the figures have been designed and painted, as we are informed, by Mr. Hughes, in connection with Mr. Ward. In a lower compartment of the middle light (for there are three) Christ is represented as comforting the afflicted sisters on the death of Lazarus, with the words, "Thy brother shall rise again;" immediately above which, on a scroll surrounding the brazen serpent—emblem of the atonement—"and I, if I be lifted up, will draw all men unto me." And in an upper panel is a chorus of angels, under which the words, "He shall give His angels charge concerning thee." The bench ends are all variously carved in oak, after old designs; the heraldic devices, where they occur, being blazoned in true colours.

Sheffield.—On Tuesday before last the new church in the thickly populated parish of Moorfields was consecrated by the Archbishop of York. The principal external feature is an octagonal bell turret, which rises to a height of 82 feet. The designs and directions of Messrs. Flockton and Son, of Sheffield, the architects, have been carried out by Mr. George Smith, of Sheffield, the contractor. The accommodation consists of 353 free, 314 appropriated, and 238 children's sittings. The cost of the new edifice is 2,000*l.* exclusive of the bell tower, which is 100*l.* additional, and was given by Mr. J. Grant, of Darnall. To this outlay must be added the cost of the land, 555*l.* and the expense of stoves, gas, church furniture, &c. Somewhere about 100*l.* is the present total deficit. The church is called St. Jude's.——On the same day was consecrated the church of St. Matthew, in the district of Carver-street. The church of St. Matthew has been erected with more than ordinary rapidity. The foundation-stone was laid a year ago, and the edifice is now completed with the exception of the spire, the capital of which remains to be added. The church consists of nave, aisles, chancel, with side chapel for children; vestry, with the tower and spire at the western extremity. The Perpendicular style of English architecture has been adopted. The building occupies the whole of the site, extending from Carver-street to Back-fields, and consequently, there are no windows in the side walls. There are no galleries except a small one in the tower. The spire, which springs from the octagon tower, will, when completed, reach a height of 125 feet. The church contains 273 appropriated and 308 free sittings, and seats for 150 children. It has been erected by Mr. J. Powell, Messrs. Dutton and Heald having executed the carpenters' work. Messrs. Flockton and Son, of Sheffield, are the architects. The cost of the site for the new church was 600*l.* and the total expenditure upon the edifice amounts to 3,164*l.* of which about 300*l.* remain to be subscribed.

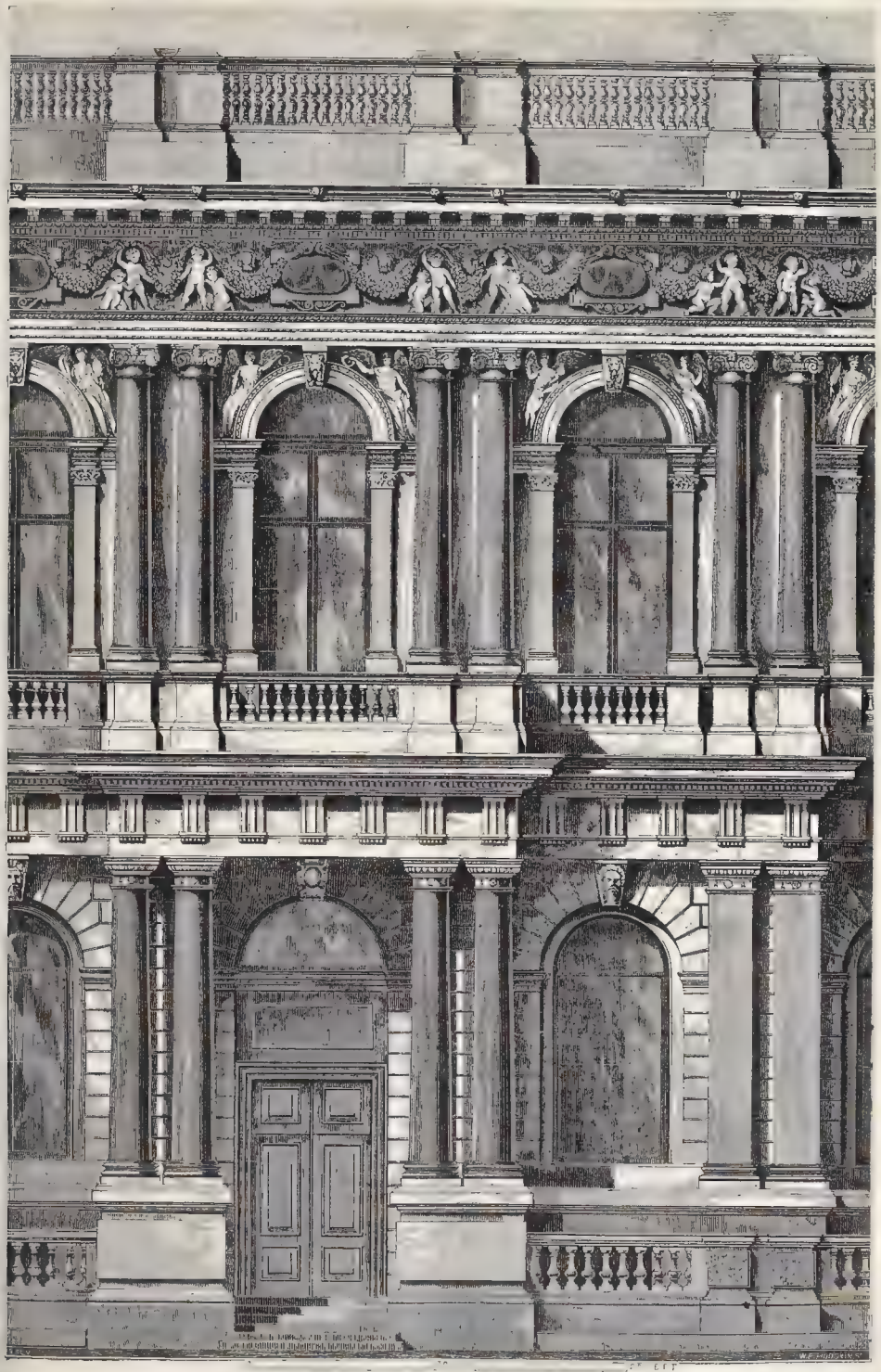
THE CARLTON CLUB-HOUSE, PALL-MALL.

THE west wing of the Carlton Club was built in 1846, with a view to form a part of the future design, which has just now been carried out, under the superintendence of Mr. Smirke.

In our volume for 1847 (p. 219), a general view of the design was given, with some particulars: we now publish a view of the central part of the Pall-mall front, to show the details more clearly, together with the plan of the ground floor, comprising the coffee-room (first erected), the hall, vestibule, and staircase, the morning room, and the writing room.

Many predictions were then ventured upon as to the perishable nature of the lustre of the polished granite shafts; but these predictions have been all falsified by time; nine years' exposure having produced no effect whatever on the polished surface. Probably the polish itself is the protection of the granite, by preventing moisture from hanging on the surface. The recent works, now nearly completed, have been performed with great rapidity by Mr. Kelk, eleven months only having passed since the contract works were actively commenced. The carving has been executed by Mr. John Thomas.

The Club will take possession of the building on the 1st of July, with the walls in a bare state,—all the interior painting and decorating being deferred until the autumn. Contracts for these finishings have been entered into with Mr. Bielefeld, Messrs. Collman and Davis, Mr. Webb, and others.



THE CARLTON CLUB, PALL-MALL.—Mr. S. Smirke, A.R.A. Architect.

PROVINCIAL NEWS.

Southampton.—The new jail for Southampton has been completed. It is in the Tudor style, and adapted for the reception of 100 prisoners on the separate system, each having a cell 13 feet long, 7 feet wide, and 9 feet high; sixty-six of these being for males, and thirty-four for females. There is also a separate wing or building for debtors; and thus far the whole may be said to be arranged after the Model Prison at Pentonville. The cells are divided by a wall two bricks in thickness, while the outer walls are two bricks and a half. The ceilings are formed of brick arches in cement, covered over by a bed of hard concrete, upon which is laid the asphalte floor of the cell above. The window-frames are of cast iron, and fixed, glazed with rough obscured glass, having outside two bars of wrought iron, so placed as not to intercept the light, and the doors are of double thickness. Internally, each cell is fitted with a water-closet, and a fixed wash-hand basin of copper, both supplied from a cistern under the roof, into which are measured daily six gallons of water, being the regulation allowance for each prisoner. The boundary-wall is of brickwork, 18 feet 6 inches high, and within it are built the police station for the St. Mary's district, a house for the governor, and two castellated lodges, which flank the entrance gateway. The area enclosed within the walls is nearly two acres. The entire cost, including purchase of ground and other expenses, will be under 22,000*l.* according to the *Hampshire Advertiser*, which names Mr. Critchlow, of Southampton, as the architect, and Mr. Bull, of Southampton, as the builder.

Wolverhampton.—The failures in the iron trade in this district, coupled with the want of confidence caused thereby, have created a great depression in the building trade, which is being severely felt. Most of the large builders are making now for "stock," while the small builders have scarcely work for a man.

Dudley.—According to a correspondent, another *temporary* station has just been put up, in which are now located the South Staffordshire and Oxford lines. A bridge, which has been thrown across all the lines, now gives access from Tipton, &c. as well as Dudley, without making a circuit. The whole of the erections are of timber, apparently designed by a back-woodsman.——Mr. Lee has been appointed consulting engineer to the Local Board of Health, and is expected down in a few days, to arrange the plan of drainage.

Evesham.—A temporary wooden bridge has been erected, the old bridge demolished, and the new bridge is in progress. The new bridge is being built of rock-tooled Littleton stone, regularly coursed, with Derbyshire stone for springers, arch quoins, string courses, fascia, and coping of parapet. It will consist of three arches, the centre one of 66 feet span, and a rise of 12 feet; and two side arches, each of 58 feet span, and a rise of 10 feet 3 inches. The voussoirs will be chamfered. The piers will be 8 feet thick, with semicircular ends that project on each side of the bridge. Between the abutments the bridge will be 199 feet long, and the water-way 182 feet, which is somewhat smaller than the water-way afforded by the old bridge as far as breadth is concerned, but the openings of the arches will be much more capacious for carrying off the floods. The arch will stand about 17 feet 6 inches clear above the level of ordinary low-water; about 6 feet above ordinary floods, and 3 feet above the highest floods. The roadway will be more than twice as wide as the roadway of the old bridge: it will be 30 feet clear inside the parapets. Outside the abutments the approaches will be bounded by wing walls of Littleton stone. The masonry under the road will be coated with asphalte. The plans for the bridge were prepared by Mr. J. Samuel, of London, engineer; and the contract was taken by Mr. Taylor, of London, at 8,865*l.* for the erection of the new bridge, after taking down the old and providing the temporary wooden bridge.

Great Budworth (Cheshire).—New schools and residences are about to be erected near the church, and upon land given by Mr. R. E. E. Warburton, of Arley Hall. The schools are for 100 boys and eighty girls, and in the form of a parallelogram, with class-rooms and entrance-lobbies returned at each end; to be constructed of brick, with moulded jambs, arches, and mullions to windows, and open timber roofs. Red, white, and black bricks will be laid in bands and patterns, both externally and internally. Mr. William White is the architect.

Clitheroe.—The works for the supply of water to this borough are progressing, under the directions of the engineer, Mr. M'Landsborough, of Bradford. Of 20,000 yards of pipe-laying required, upwards of 6,000 have been completed. The supply reservoir has been commenced. The water springs from the sandstone strata of the fells. From these sources it will be conveyed, by means of earthenware pipes, to supply the reservoir, and thence to and through the borough, by iron pipes, coated with enamel. The works are being carried out by a private company, for which an Act was obtained last session.

Gainford.—The new building for the Gainford Literary Institute, says the *Darlington Times*, was opened on Whit-Tuesday. It is of stone, from a design by Mr. Gibson, of Newcastle-on-Tyne, architect; the masonry executed by the late Mr. N. Adamson; and the carpentry by Mr. Thomas Nicholson, jun. both of Gainford. The site was presented by Mr. R. Hodgson, of Beverley, a native of Gainford. The village contains only 600 inhabitants, yet more than 500*l.* have been raised and expended in two and a half years by its Literary Institute.

Chester-le-Street.—The following estimates, says the *Gateshead Observer*, were received by the Board of Guardians for the erection of the new workhouse, designed by Mr. M. Thompson, of Newcastle, architect:—

Dunlop	£4,404
Neil	4,400
Glendinning and Co.	4,265
Pearson	4,145
Curry and Gibson	3,893

Quantities were not supplied. Messrs. Curry and Gibson's tender was accepted.

Wigan.—The foundation-stone of new Wesleyan Sunday and day schools, to cost 2,200*l.* was laid at Wigan on the 30th ult.

MEMORIALS OF OLD LONDON.

SEVERAL leading bibliopoles have made a practice, we observe, for some years past, to accompany their catalogues of old books with sundry bibliographical, biographical, or facetious paragraphs. Picked up, as these are, by the modern Wynken de Wordes from all sorts of curious and sometimes out-of-the-way books, fragments are often to be met with of much more than a passing interest. From the "Fly-leaves" of Mr. Miller, of Trafalgar-square, we have detached some facts bearing upon the dwellings and characteristics of ancient London, such as pertain to our department of antiquarian reminiscence.

Old House in Tothill-street, Westminster.—The "Cock" public-house in this street is traditionally said to have been the pay-table where the workmen received their wages at the building of the Abbey, in the time of Henry III. The rafters and timbers are principally of cedar. It was formerly entered by an ascent of many steps. In the parlour there is a massive carving of the Adoration of the Magi in solid oak, very ancient; and an *alto-relievo* of Abraham offering up Isaac, which is let into a slab, but has less of artistical design in it than the former. There is a curious hiding-place in the staircase. [Illustrations of this house, and some additional particulars, will be found in the *Builder*, Vol. X. pp. 345 and 393.] "This little ancient hostelry," says the Rev. Mackenzie Walcott ("Memorials of Westminster"), "bore probably the sign of the 'Cook' (of St. Peter) upon the pillar." Most of the old signs were religious charges, or the arms of kings or noblemen in the neighbourhood: such as the "Salutation" (of the Blessed), Son); the "Chequers," in Abingdon-street, the bearing of the earls of Arundel, who at one time were empowered to grant licenses to public-houses. We also read in the old parish books of the "Bell," perhaps named after great "Westminster Edward;" the "Maiden Head;" the bust of Our Lady; the "St. George and the Dragon;" the "Swan;" and the "Antelope," the badge of King Henry V.; and the "Sun," that of King Richard II. The "Blue Boar" was the cognizance of the earls of Oxford.

St. James's-square.—The author of a "Tour through the Island of Great Britain" (Daniel Defoe), second edition, 1738, gives us the following particulars of this locality:—"The alterations lately made in St. James's-square are entitled to our particular notice. It used to be in a very ruinous condition, considering the noble houses in it, which are inhabited by the first quality. But now it is finely paved all over with heading-stone. A curious oval basin, full of water, surrounded with iron rails, on a dwarf wall, is placed in the middle, mostly 7 feet deep and 150 in diameter. In the centre is a pedestal, about 15 feet square, designed for a statue of King William III. The iron rails are octagonal, and at each angle without the rails is a stone pillar, about 9 feet high, and a lamp on the top. The gravel walk without the rails is about 16 feet broad from each angle to the margin of the basin. It was done at the expense of the inhabitants by virtue of an Act of Parliament. The house that once belonged to the Duke of Ormond, and since to the Duke of Chandos, is pulled down, and makes three noble ones, besides fine stables and coach-houses behind, and two or three more good houses in the street leading to St. James's Church. This noble square wants nothing but to have the lower part of it, near Pall Mall, built of a piece with the rest, and the designed statue to be erected in the middle of the basin.

Old House in Drury-lane.—In Aggas's and Hoggenburgh's plans of about 1570 and 1584, Drury-lane is represented at the north end, as containing a cluster of farm and other houses, a cottage, and a blacksmith's shop; and the lane in continuity to Drury-place forms a separation from the fields by embankments of earth, something like those of Maiden-lane, Battle-bridge. It was, in fact, a country road to Drury-place and the Strand, and its vicinity. Nearly opposite to Crown-buildings is a low public house, bearing the sign of the "Cock and Pye," which two centuries ago was almost the only house in the eastern part of Drury-lane, except the mansion of the Druries.

Inlaid Floors in England.—In Clavel's "Catalogue of Books," &c. No. 8, June 1676, is the following curious advertisement:—"There is now in the press, and almost finished, that excellent piece of architecture, written by Andrea Palladio, translated out of Italian; with an Appendix touching doors and windows, by Pier le Muet, architect to the French king, translated out of French, by G. R.; also, rules and demonstrations, with several designs for the framing of any manner of roofs, either above pitch, or under pitch, whether square or level, never published before; with designs of floors of variety of small pieces of wood, lately made in the palace of the Queen Mother, at Somerset House; a curiosity never practised in England."

Ancient Mode of lighting London.—John Wardall, by will, dated 29th August, 1656, gave to the Grocers' Company, a tenement called the White Bear, in Walbrook, to the intent that they should yearly, within thirty days after Michaelmas, pay to the churchwardens of St. Botolph, Billingsgate, 4*l.* to provide a good and sufficient iron and glass lantern, with a candle, for the direction of passengers to go with more security to and from the waterside, all night long, to be fixed at the north-east corner of the parish church of St. Botolph, from the feast day of St. Bartholomew to Ladyday; out of which sum 1*l.* was to be paid to the sexton for taking care of the lantern. This annuity is now applied to the support of a lamp in the place prescribed, which is lighted with gas.

John Cooke, by will dated 12th September, 1662, gave to the churchwardens, &c. of St. Michael's, Crooked-lane, 76*l.* to be laid out to the most profit and advantage, for various uses. And amongst them for the maintenance of a lantern and candle, to be eight in the pound at least, to be kept and hanged out at the corner of St. Michael's-lane, next Thames-street, from Michaelmas to Ladyday, between the hours of

nine and ten o'clock at night, until the hours of four or five in the morning, for affording light to passengers going through Thames-street or St. Michael's lane.

St. Martin's-lane.—The house No. 96, in this street, is one of the oldest shops in London: it has one of the very few remaining shop-fronts where the shutters slide in grooves. The street-door frame is of the style of Queen Anne, with a spread-eagle foliage, and flowers, curiously and deeply carved in wood, over the entrance, similar to those remaining in Carey-street, Great Ormond-street, and a few other places about London. The staircase of this house is curiously painted with a number of figures viewing a procession. It was executed for the famous Dr. Misaubon, about the year 1732, by a French artist, named Clermont. Behind the house there is a large room, the inside of which Hogarth has given in his "Rake's Progress," introducing portraits of the doctor and his wife. [A view of this house will be found in the *Builder*, Vol. X. p. 813.]

Peter's-court, turning out of St. Martin's-lane.—In 1710, the goods of Mrs. Selby, sword cutler, are advertised to be sold, "at the Dancing-school, in Peter's-court, against Tom's Coffee-house, in St. Martin's-lane." This dancing-school was afterwards the first studio of Roubiliac, the celebrated sculptor. There, among other works, he executed the statue of Handel, for Vauxhall-gardens. Upon his leaving the studio, it was fitted up as a drawing-academy, supported by a subscription raised by numerous artists. Mr. Michael Moser was the first keeper. The site is now occupied by a Quakers' meeting-house.

THE NEW METROPOLITAN CATTLE-MARKET.

THE new Metropolitan Cattle Market, in what were formerly Copenhagen Fields, was opened on the 13th inst. by H.R.H. Prince Albert, when more than a thousand persons partook of luncheon, within a marquee erected for the occasion, and addresses were read and speeches delivered. The decorations, in the arrangement of which the architect, Mr. Bunning, was aided by Mr. Fenton, were appropriate and effective.

Mr. Bunning well deserves all the applause which was bestowed upon him on the occasion. The new market is a great work, enforcing admiration as well for the excellence of the arrangements as for the largeness of the general design, and we heartily congratulate him on its completion thus far.

A view of the market, with some descriptive particulars, will be found in our last volume,—No. 617, p. 618.

PLAN FOR AN INDUSTRIAL MUSEUM.

I BEG to submit the following outline of a plan for the accomplishment of two great objects. It would be a waste of time to point out the desirability of a cheaper, more sure, and equitable means of securing industrial copyright: that is already as well known to our manufacturers as the desirability of a museum is to the people generally.

1. I would suggest the establishment of an Industrial Museum, wherein all inventions, processes, and designs, for manufacturers, &c. for which a copyright is claimed, are to be deposited.

2. In cases where the cost of the invention or design would be very great, then a working model of the former, and a plaster cast of the latter (with full description of the material of the original, &c.), might be substituted.

3. Every invention or design to pay an annual rent of 10s. in return for Government protection of copyright, to be continued for any length of time the manufacturer shall see fit.

4. All inventions for which copyright is claimed for any term under twelve months, to pay a uniform rent of 1s. per month, for any number of months the manufacturer may wish the copyright to continue

5. No models to be removed after the term claimed, unless satisfactory drawings and descriptions are deposited for the purpose of reference in the museum.

The advantages of this plan would be—1. To reduce the first cost of the copyright, enabling all to secure their inventions or designs, by producing a model, and a prepayment of 10s. 2. It would be a just means of attaining this end, for the invention or design would not cost more than it was worth: so long as it continues to "pay," the inventor will pay the rent; and he has clearly a right to the copyright until he is superseded by a better. 3. If a court were held in the museum for the settlement of all disputes relating to copyrights, the jury would have an advantage which no other place would present. 4. It would be a means of rendering an Industrial Museum self-supporting, and in all probability would become a good source of revenue to Government. 5. The surplus fund of the great Exhibition of 1851 might be expended for this purpose with propriety.

W. L. S.

ARBORAL RECORDS OF BUILDINGS.

I HAVE frequently thought of drawing your attention to an idea which has long had possession of my mind, and which, had I property adequate to the requirement, I should be inclined to carry out myself. Let me now give you a notion of it.

In laying out parks and planting trees, might not interesting results be produced if the trees were arranged to *form models of some of our most interesting ecclesiastical buildings?* Take, for example, Redcliffe Church, Bristol. Plant an oak for each of the buttresses, and an elm for each of the pillars, and poplar, or some other lofty tree, at the angles of the tower. It would, of course, be some years before it became very pleasing: still, for the advantage of future generations, perhaps some might be found to do it. Various shrubs and trees might be planted to fill in and carry out the design of different parts, and gravel walks would represent the aisle. Training and cutting the branches properly would be desirable, and, if done judiciously, might prevent formality and stiffness. T. P.

COMPETITIONS.

Cambridge Conduit.—The Town Council, at a special meeting on the 8th instant, selected the design of which Mr. Gordon M. Hills, of London, is the author. Seventeen designs were sent in, and from these three were selected by a committee in which the Town Council of the University and Hobson's trustees were represented; and these three were submitted for the final choice of the Council with the above result.

Cemetery, Weston-super-Mare.—We are informed that the committee have selected the "Round ground" for the new cemetery, and chosen the design of Mr. Davis, of Bath, for the buildings. The estimate was as follows:—Cost of the land, 1,000*l.*; builder's contract, 1,325; gates, 50*l.*; architect's per-centage and journeys of inspection, 100*l.*; planting the ground, 100*l.*; consecration expenses and bell, 80*l.*; making a total of 2,655*l.*

Kingswinford.—The statement in some of the provincial papers that the design for proposed church here has been selected was premature.

Lincoln Cemetery. — The determination of the burial-board to restrict the expenditure for chapel to 500*l.* is greatly reprobated. We hope the board will revise their determination.

Newcastle: St. John's Cemetery.—The burial-board of St. John's, Westgate, and Elswick, having offered two premiums of 20*l.* and 10*l.* for the first and second best designs for building two chapels, two entrance lodges, gates, fences, &c. at a cost not exceeding 4,000*l.* fourteen designs have been sent in.

Ipswich Cemetery.—The proceedings of the burial-board are exciting animadversion. Out of the numerous designs submitted to competition for the chapels and other buildings required at the new Cemetery, the preference was given to the one furnished by Messrs. Cooper and Peck, of London, subject to a condition as to the cost. With a view to ascertain whether this condition had been observed, the architects were requested to get out the working drawings, so that detailed estimates of cost might be obtained. This was done: tenders were advertised for in our paper; and the following were sent in:—

Reuben Lawrence	£1,846	0	0
Edward Gibbons	1,479	0	0
Samuel Simpson	1,416	0	0
Samuel Baldiston, jun.	1,365	10	0
Henry Luff	1,331	7	0
Searles Cornish	1,330	0	0
John Whight	1,284	0	0

Mr. T. S. Gowing (one of the committee), in a published letter, points out that various alterations have been made in the working drawings, so as to reduce the cost very materially as compared with the design selected, and objects to the allowance of such a course as unjust to the other competitors. The *Suffolk Chronicle*, commenting on the matter, has the following remarks on competition generally:—"On the surface, the principle of architectural competition appears a sound one, and if carried out as it ought to be, it might, no doubt, be made so in reality. It holds out inducements, which stimulate the abilities of architects, and afford a chance for merit to make itself known. Where, then, is the drawback? It is to be found in the general incompetency of those to whom the duty of selection is confided. Only think of a number of gentlemen allowing themselves to be put on a committee of taste without possessing the qualifications necessary to enable them to act. Nothing could exceed the picture of helplessness which the easy, good-natured portion of the committee displayed at the late meeting. They seemed to be conscious of their own insufficiency, and one after the other was fain to shelter himself under the ægis of the consulting architect. The fact is, public taste in this country is not sufficiently advanced to warrant a number of promiscuously selected individuals sitting in judgment upon architectural works. We are deplorably behind our continental neighbours in this respect. People in England are not instructed in the principles of taste: the cultivation of the eye for the picturesque and the beautiful is left to chance: hence, we find in every station men to whom a barn is almost as charming an object as a cathedral, and who can be easily persuaded that to rob a building of all its ornaments, and to alter its proportions, cannot have the slightest effect upon either its external appearance or its internal convenience."

Dudley Workhouse. — The successful competitor desires to say, that he was entirely unknown to the guardians until the envelope was opened.

INSTITUTION OF CIVIL ENGINEERS OF IRELAND.

EXCESSIVE COST OF RAILWAYS.

THE closing general meeting of the institution for this session was held on the 29th ult. Various donations having been announced, a paper was read by Mr. Bower "On the respective Merits of Single and Double Lines of Railway, considered in relation to their Safety, Efficiency, and Cost." The paper advocated the construction of single lines only in this country, they being found sufficient in various parts of the continent where traffic was excessive. He urged their perfect safety with the use of the electric telegraph and under efficient management, and argued that the present distressed state of the railway interest in Ireland was caused by the unnecessary sums expended in construction, to raise which preference shares had in some cases to be issued, to the injury of shareholders, and in others the rates of the country were pledged as security for the outlay. He exhibited a section of a line now before Parliament, 44 miles in length, on which the saving would be 2,500*l.* per mile, or 110,000*l.*

Mr. Hemans stated that he found a single line answer on the Waterford and Limerick Railway, and on the Galway Extension, constructed by him; but he thought it expedient to form double works when money could be had. Mr. Purdon remarked, that a single line was found to answer on the Dublin and Bray Railway, and that in his opinion the Great Southern and Western, or any Irish railway, could be worked with a single track.

USE OF DISINFECTANTS AND DETOXICANTS IN THE CRIMEA.

A FEAR, but too well grounded, prevailed during the past winter and spring, that the immense numbers of the dead bodies of our poor slaughtered fellow countrymen and their allies, French and Turkish, as well as of their horses, slain, as many of their masters were, by starvation, wet, and cold, as well as in battle, would assuredly so pollute the air of the camps, &c. in the heats of summer, as to give rise to deadly disease, unless every care were taken to obviate the evils of imperfect burial, as by the use of quicklime, which could easily be got by burning the limestone strata which abound in the Crimea. Kilns accordingly were formed, and quicklime produced, and we trust profusely spread over the graves of the dead, if not mixed with the remains as it rather ought to be. Under existent circumstances, we think it is to be regretted that a medical man (Dr. Kidd) should have written to the *Times*, condemning this use of lime in the Crimea for the destruction of animal matters. True, lime, as he urges, is not, properly speaking, a disinfectant,—that is, it is not known to be capable of destroying the virus of infectious disease, or of preventing it from being communicated by one diseased but living human being to another, whether directly or through intermediate substances,—and that to this end chloride of lime, as he recommends, is preferable, as the fumes of burning sulphur also, and probably still more so, are; but

that quicklime is a valuable destroyer and fixer of corrupting animal matters there are few who doubt, although Dr. Kidd appears to overlook its fixative power altogether, and speaks of it as merely a dissolver of such matters, leaving them *more active* in producing malaria than ever! Since it *is* a fixative, however, as well as a burner or destroyer of animal remains, and since it can so readily be had in great abundance close at hand, it is certainly indiscreet to throw contempt by wholesale upon its sanitary use, by stigmatising the opinion in its favour as "one of those amiable old-fashioned prejudices which outlive all science." There is a bastard science which is worse than even old-fashioned prejudices. As for chloride of lime, it is certainly an excellent detoxicant, but there will be plenty of other demand for all of it that will ever reach the Crimea, besides the mixing of it with dead bodies, or the covering of graves with thick layers of it. For our own part, so far as regards fevers and cholera, with Dr. Graham we would most earnestly urge the free use of burning sulphur as well as of chloride of lime; and, if to spare, some chloride of lime might, for further security, be sprinkled over the quicklime layers on graves, so as to seize and destroy the volatile poisonous matters that might not be wholly fixed or destroyed by the lime.

ARCHITECTURAL MUSEUM.

WITH reference to Mr. Jopling's paper at the Architectural Museum, we are asked to add to our previous memorandum, that the model full length (101 feet 5 in.) of the curve of the top step, east front, of the Parthenon, and on which is also shown the curve of the *entasis* of the column, will remain until the meeting of the 25th inst. when Mr. Jopling will be in attendance.

On that evening a *conversazione* will be held, when doubtless a report of progress will be made.

Notices of Books.

An Account of the Library of the Division of Art at Marlborough House; with a Catalogue of the Principal Works. By R. N. WORNUM. Printed for Her Majesty's Stationery Office. 1855.

THE librarian at Marlborough House, Mr. Ralph Wornum, has prepared for the Department of Science and Art, and for the use of visitors to the library, a classified catalogue of the principal works now there collected. The library already comprises 5,000 volumes and 100 portfolios of prints, drawings, &c. relating to decorative art and ornamental manufactures of every description; and, as Mr. Wornum truly remarks, "except a special museum of actual manufactures, there can be no more direct agent for conveying palpable ideas to the mind of the artizan; but while the museum is necessarily extremely limited in many respects, the library is in a measure infinite: a single volume might contain more illustrations, in any one department of art, ranging easily over all ages, from the most remote down to the present day, than it would be possible to collect together in any one place at present." To the end, however, that such a library shall be as comprehensively and as promptly useful as possible, a good classified catalogue is an essential. Such a catalogue the students and subscribers connected with the Marlborough House Library have now the good fortune to possess in the present volume of 240 octavo pages, which, therefore, we would recommend one and all of them to purchase. Perhaps it may be advisable, for behoof of those who may or ought to become art-students or subscribers to the museum and library at Marlborough House, to state that all registered students of the central schools of science and art have free admission to this library, as also all subscribers of 1*l.* 1s. per annum to the museum; that the charge for an annual ticket to the library alone is 10s. 6d.; and that occasional students will be admitted on payment of 6d. entitling them to six days' use of the library, or of 1s. 6d. entitling them to a monthly ticket. The library is open every day (holidays and Saturday evenings excepted) from ten a.m. to nine p.m.

An Account of the History and Manufacture of Ancient and Modern Terra Cotta, and of its use in Architecture as a durable and elegant Material for Decoration. By J. M. Blashfield. Weale: High Holborn. 1855.

WE some time since noticed the publication of various engraved copies of modern applications of terra cotta to art manufacture published by Mr. Blashfield. The present pamphlet forms a useful adjunct to such engravings, and gives an interesting account of the ancient and modern applications to which baked clays, &c. have been put, as well as of the proper mode of working and preparing art works in such clays. Amongst other suggestions, Mr. Blashfield says,—

"For terra cotta work a good mould made from the clay is sufficient; but if many moulds are wanted of the same pattern, it is desirable to have a plaster model. For terra cotta work it is not always necessary, when only one or two copies are required, to mould at all: the original models can be built up in a cellular manner, so that it can be dried and removed to a kiln, and baked, being a perfect original work, and the only durable form fit for external use, in which sculpture exists as an original work. If this subject was better understood, there can be no doubt that architects would more freely employ terra cotta, as at the present day they are constantly exposed by the system of moulding to have their designs pirated and stolen. They may design for a public building a piece of decoration to be carved in stone, and from the model casts being made, copies find their way into other hands, and in less than two years they may see the same enrichment in cement adorning a gin palace. Bas-relievi might with great economy be constantly used as decorations, though they are now seldom seen. It would never be necessary to *mould* such work."

Miscellanea.

NEW ORPHAN ASYLUM NEAR BRISTOL.—Adjoining the orphan-house, in which the Rev. Mr. Müller, with the mysterious help of anonymous, and almost unsolicited, donors, has so long supported a host of little orphans, now amounting to 300, additional buildings are about to be erected, as a home for no less than 715 more, who are still to be provided for by Mr. Müller. The addition is to be in two parts, one to contain 400 and the other 300. The cost will be 35,000*l.* and of this large sum Mr. Muller has already managed, by prayer, as he says, to scrape together no less than 23,056*l.* odds. The motto of this man of faith is evidently "Nil Desperandum." Often, he tells us, in his Diary, entitled, "God's Dealings with George Müller," in the morning he had not a penny in hand towards the afternoon's meal of some hundred children, but he had not been long in prayer when some aid, always opportune, but often odd (from the form in which the contribution was made), came to supply the instant need. With a rigid detail, he gives us these timely donations; and we meet with such entries as,—a piece of plate, from a Christian not requiring it; a thousand pounds; a hogshead of treacle; a silver bodkin or thimble; a leg of mutton; a bag of meal, &c. Mr. Muller lately stated, while announcing to an astonished audience his new building scheme, that while there are 6,000 orphans in our jails, there are but 3,764 in all the orphan asylums in England and Wales, thirty-three in number!

EXHIBITION OF THE NORFOLK AND NORWICH FINE ARTS ASSOCIATION.—A fine art exhibition was opened at Norwich on Wednesday before last. If not so extensive as some previous exhibitions, it comprises, according to the *Norfolk Chronicle*, a great many more new and at the same time good paintings than were ever collected together in Norwich. On some former occasions a large proportion of the pictures have been lent merely, but on this occasion, with two exceptions, they are all sent by living artists, and are for the most part for sale, at affixed prices. The gallery presents 300 paintings in oil and 100 in water colours, the greater number being landscapes and scenes from nature, interspersed with some interiors and a few historical as well as dramatic scenes.

OXFORD ARCHITECTURAL SOCIETY.—A meeting of this society was held at Holywell on Wednesday evening before last. The librarian read a letter from the secretary of the Great Western Railway Company, promising every facility on the occasion of another excursion. The secretary of the Worcester Diocesan Architectural Society had communicated the intention of that body to meet in Warwick in July, and members were urged, if possible, to accept the invitation offered. The society was congratulated on the more favourable aspect of its finances. Mr. H. A. Gibson, of Wadham College, then read a paper on "Bells." Mr. Forbes brought before the meeting the state of the Holy Ghost Chapel, at Basingstoke, now completely in ruins, and which some persons are anxious to restore. It was agreed that the annual meeting should be held on June 13th, instead of 18th.

CHIEF STONES.—The foundation-stone of a large building for a Sailors' Home was laid at Dover last week by the Vice-President of the Board of Trade ——The chief stone of the Queen's Free Grammar School at Basingstoke was laid last week by the mayor of the town. The foundation of this charity was laid 300 years since by Lord Sandys, and called the Holy Ghost School, which, till within a few years past, was conducted on the original site contiguous to the old ruins. An inquiry into the charity has led to the erection of the new building.——On Wednesday week the foundation-stone of a new church was laid by the Duke of Bedford, at the west end of the parish of Tavistock, about three miles from the town.—— The foundation-stone of a new church was laid on Monday week on the hill-side of the valley of Tredegar, at Penmaen. Sir Thomas Phillips has given the site, and subscribed 300*l.* towards the building fund. ——On Monday before last, the foundation-stone of a new Wesleyan Chapel, at Harmby, Middleham, was laid.——The foundation-stone of a church which is about to be erected at Teviothead, in the south of Scotland, was laid on the 22nd ult.

TURN-OUT OF CARPENTERS AT CURRAGH.—The carpenters at the Curragh encampment, chiefly Englishmen, in the employ of Messrs. A. and G. Holme, left their work on Monday before last, without notice, and demanded an increase of wages, in consequence of the working hours being reduced to from six a.m. to eight p.m. It appears the men have insisted upon working from four a.m. to half-past eight p.m. claiming one and one-half day's wages; but Messrs. Holme found it impossible for the men thus to do justice either to themselves or their employers, and gave notice that in future the time worked should be from six a.m. to eight p.m. and for which they would be paid one and one-quarter day's wages. After an explanation from Mr. Holme, about 250 of the men returned to work; but about eleven in number summoned Messrs. Holme for expenses back to Liverpool, and also for time lost. The Lord Mayor of Dublin, before whom the case was brought, dismissed it, giving some advice to the workmen. Messrs. Holme are said to have provided every possible comfort for the men, who have a large dining-hall, and are supplied with the best of provisions at Dublin prices, and with beds and blankets at a small charge, besides being allowed to sleep in the buildings, and provided with lights free of cost. The carpenters' rate of wages is said to be 28s. per week, and none less than 26s. and this amount is paid both by Messrs. Holme, and Messrs. Courtney and Stevens, the co-contractors.

CARLISLE SCHOOL OF ART. — A meeting of the subscribers to the Carlisle School of Art, was held in the Town-hall, Carlisle, on Tuesday evening before last, when the secretary read the report of the committee, from which it appears that the school was established in October last, and that its progress has been satisfactory. The average number of students at the Central School of Art has been fifty-nine. Various public and private local schools have availed themselves of the services of the master. At these schools about 366 pupils have received instruction. Some discussion then ensued as to the rules and the funds to be provided. In course of the proceedings, Mr. Hannah reminded the meeting that the art of writing was simply a species of drawing, depending on the cultivation of the eye and the hand, for, in making the twenty-six letters of the alphabet, it was nothing else than making twenty-six imitations. When parents took this into their consideration, seeing that every one thought it essential that their children should learn reading, writing, and a little arithmetic, he had no doubt that eventually they would consider drawing as essential as anything else.

STEAM-BOILER EXPLOSIONS.—Your correspondent "E. C." has drawn attention to a subject which, unfortunately, has for some time been much neglected. Many boiler explosions which have been considered inexplicable, or vaguely referred to a defective safety-valve, I think there is good cause to suppose have proceeded from the water assuming the spheroidal state. How, then, can this be avoided? M. Boutigny proposed the introduction of a great number of metallic points into the interior of the boiler, but this presented many great practical difficulties. I have myself thought that if a number of metal balls were introduced into the boiler, they, by greatly increasing the heating surface, would greatly decrease the danger resulting from this cause. This arrangement would, I think, also reduce the danger to be apprehended from the formation of hydrogen gas.—O. H. H.

IRON STEPS.—Sir, your correspondent, "G. L." of June 2nd, will, I think, find that treads of diamond pattern, constructed with strong wire, and screwed to the main treads, will overcome the difficulties to which he alludes.—C. C.

*** Two other letters on the subject have been forwarded to the inquirer.

THE IRON TRADE.—More failures have occurred in this trade within the last few weeks, but otherwise no material change has taken place in the state or prospects of the trade. There is no talk of any advance next quarter on the lowest price named at last meetings. American orders are not yet returning, but "when the trade has recovered from the effects of illegitimate speculation, it is believed that it will soon exhibit a healthy aspect." Meantime iron has of late been sold at 10s. and even 20s. below the prices fixed last quarter-day.

ARTISTS' BENEVOLENT FUND.—The annual festival of this incorporated association was held on Saturday at the Freemasons' Tavern, the Earl of Harrowby (in the absence of Earl Granville) presiding. The company, although not very numerous, comprised many of our principal artists and patrons of art, including among others Sir C. Eastlake, Mr. C. Stanfield, Mr. D. Roberts, Mr. J. Absolon, Mr. G. Godwin, Mr. G. Clark, &c. The noble chairman, in proposing the chief toast of the evening, "Success to the Artists' Benevolent Fund," dwelt upon the advantage of the institution, which, while it practised benevolence, at the same time inculcated prudence. During the past year the fund had paid annuities of 15*l.* each to fifty-two widows, and granted assistance to twenty-nine orphans of artists to the extent of 137*l.* 10*s.* In former ages improvidence had been regarded as the necessary accompaniment and distinguishing feature of great talent; but that mistake had passed away, and professional men were upon the whole far from improvident. Still the advantages might be greatly increased; and it was, therefore, desirable, now that such great endeavours were being made to foster art among all classes in this country, that the professors of art, as well as its patrons, should give their assistance to an institution which had such peculiar claims upon them. Mr. Godwin, in replying to a toast with which his name was connected, said he considered the Art-Union of London as of the greatest benefit to artists. It had encouraged a taste for art, and many commercial men who commenced their career in art by gaining a prize in the Art-Union had been led on to become assiduous collectors of pictures. The Art-Union, twenty years ago, raised with difficulty 400*l.*: it now had a steady annual income of 12,000*l.* or 13,000*l.* which was all diffused among artists.——A list of subscriptions, exceeding in the aggregate 350*l.* was read, including 100 guineas from her Majesty.—*The Times.*

MIDDLESEX AND SURREY ARCHÆOLOGICAL SOCIETY.—It has been proposed to extend the range of the Surrey Archæological Society to the county of Middlesex, in order to comprehend within the operations of a single institution the entire metropolis, and also to obtain a complete and careful investigation of the archæology of the metropolitan county. The Surrey Archæological Society has itself been very recently established: its members already are upwards of 400 in number, and its career has been hitherto satisfactory. From a union of the counties of Middlesex and Surrey in a single Archæological Society, there would necessarily result both an increase and a consolidation of strength; the proceedings of the society would be at once more complete and more diversified; and, while each county would secure a distinct recognition for every object peculiarly its own, much of mutual advantage would be derived by them both, from their being associated for the purposes of archæological inquiry and research.

NEWCASTLE SOCIETY OF ANTIQUARIES.—A monthly meeting was held on Wednesday before last, at Newcastle. It was resolved that a country meeting be held on 25th July, at Borcovicus, on the Roman wall. A letter was read from Mr. Dobson, the architect, submitting a plan for the construction of a room below the vaulted roof of the great hall of the castle, to be lighted by a glass dome, whereby additional space would be obtained for exhibiting the possessions of the society. It was resolved that Mr. Dobson be requested to furnish an estimate of the expense.

BRIDGEWATER CHURCH: ARCHITECT'S CHARGES.—We have received a statement from the architect, in answer to Mr. Donaldson's letter in our last, but too late for insertion this week.

THE CRUMLYN VIADUCT.—The works on the line between Pontypool and the viaduct at Crumlyn, are nearly completed, the tunnel being all but finished. The erection of the viaduct is rapidly proceeding, the raising of the various sets of iron girders having been successfully accomplished without any further accident. These girders weigh twenty-five tons, and have to be raised to an elevation of 200 feet. A double line of rails will be laid upon the summit of the viaduct, and in less than two months the whole will be completed. From Crumlyn, on the other side, the line is making rapid progress, and when finished, this loop to the Newport, Abergavenny, and Hereford line, will save some twenty-six miles of distance, and prove a most important feeder.

EXHIBITION AT TIVERTON.—The Bath and West of England Society for the encouragement of agriculture, arts, manufactures, and commerce, having decided on holding their meeting this year at Tiverton, advantage was taken of the circumstance to get up a local exhibition of works of art and industry, the proceeds of which it is intended shall be expended in the restoration of the church of St. Peter, at Tiverton, the surplus, if any, to form a nucleus for the foundation of a local hospital. The opening was inaugurated by a *déjeûner*, in the large hall at Blundell's school, the apartment being decorated for the occasion, and the proceedings enlivened by music. The Exhibition, at the Athenæum, was then opened by a procession, with the Mayor and Corporation at its head, and the various rooms were visited by the company. The room marked A is devoted to antiquities, architecture, sculptures, and pictures: rooms B and C contain about 250 oil paintings and engravings, and statuary: in the passages leading to rooms A and B, are works of art and curiosities; in room D, the "Trade Department;" room E, philosophical instruments; and in F (a small apartment), autographic and printing presses, &c.

TESTIMONIAL TO MR. S. C. HALL.—A number of artists, among whom are Messrs. Stanfield, Ward, Foley, Cooke, Goodall, Harvey, Harding, Helmsley, Inskipp, Hulme, Mason, Paton, &c. propose to obtain subscriptions for the purpose of presenting some suitable testimonial to Mr. S. C. Hall, as an indication of their sense of his services to art and artists, and their sympathy with him, more especially while advocating, as he has been doing, not only in the *Art-Journal*, but in the courts of law, the cause of the profession and the public, *versus* questionable picture-dealers. As the subscribers, in their circular, justly remark, the course Mr. Hall has pursued, for a series of years, as editor of the *Art-Journal*, has been of great service to art and artists, and it is only just and right in the artists and art-lovers generally thus to manifest their feeling in this matter. We have not the least doubt but that the proposal will be warmly and promptly responded to. Mr. F. W. Hulme, and Mr. G. P. Nicholls of 54, Paternoster-row, are the hon. secretaries for the proposed testimonial.

STATISTICS OF VICTORIA.—From a Commercial Almanac recently published at Melbourne, it appears that the quantity of fine gold extracted from the gullies in the colony of Victoria during the three years from August, 1851, to September, 1854, was nine million ounces, which, at 4*l.* an ounce, gives more than thirty-six millions sterling as the wealth added to the world by this infant colony in this brief period. Moreover, the previous staple of the colony, wool, in place of being neglected, as was feared, for "the golden fleece," has, during the very same period, been on the increase. In 1854 the quantity of wool exported was 22,598,688 lbs. being an increase of 633,584 lbs. on the previous year. The value of the total exports from the port of Melbourne during that year was 10,109,292*l.*; of the imports, 16,557,404*l.* Up to September 1st, 1854, 1,266,267 acres of land had been sold. The average price per acre has come down from 5*l.* 10*s.* in 1853 to about 3*l.* 10*s.* in 1854. The population of the colony on 26th April, 1854, was 232,873, of whom 17,253 had arrived overland from the other districts of Australia. The town population was 100,891; the mining population 58,046. In 1853 more than two millions of letters and a million and a half of newspapers passed through the Melbourne post-office. The Central Road Board spent, in 1853, 502,078*l.* of which 282,844*l.* were expended on the Mount Alexander road alone. There are two rival educational organizations in Victoria, the national and the denominational, of which the latter is the more flourishing, having under its wing 10,000 scholars and 132 schools, while the former has only 1,753 scholars and 25 schools. In the year 1853, no fewer than 832 mortgages were registered on town and country lands (principally the former) to the amount of 990,797*l.* In Geelong the assessed value of property is 525,020*l.* The general revenue of the colony for the year 1855 is estimated by the Legislative Council at 2,400,000*l.*

THE TYNE DOCK WORKS.—The contracts for making the new docks on the Tyne have been let for about 400,000*l.* The area of the dock will be 48 acres; the basin 9 acres. The directors of the Blyth and Tyne Railway also propose expending 145,000*l.* in coal staiths and other works upon the side of the river opposite to these docks.

TEMPORARY CHURCH, TOTTENHAM.—It is proposed to erect a temporary church, dedicated to St Paul, in Northumberland-park, Tottenham, Middlesex, under the superintendence of Mr. Chas Gray. The following tenders have been received:—Fidler, 599*l.*; Clemens, 595*l.*; Blenkarn, 479*l.*

ARCHITECTS' CHARGES.—A correspondent remarks that, in the case of the Melton Mowbray Corn Exchange, one of the architects acted, and was paid, as clerk of the works as well as architect.

AN OLD ROMAN'S EPITAPH.—Some workmen, in making an excavation at Constantina, in Algeria, a short time back, came on an ancient tomb, which turned out to be that of a Roman citizen. It offered no peculiarity in construction, but the inscription, which is in well-written hexameters and pentameters, is curious:—"I, Procilius, whose remains repose here, state the exact truth in these verses. I have spent a life without annoyance, exercising the calling of silversmith in my house at Cirta. I have always been of the strictest probity, and of the most complete frankness towards every man. I have nothing whatever to complain of, for I was always gay and always happy, until the death of my chaste Valeria. I have celebrated with honour and in prosperity one hundred anniversaries of my birthday; and, at last, my final day arrived when my enfeebled frame rendered it welcome. The lines which you are now reading I composed myself during my lifetime, being permitted so to do by the kind goddess Fortune, who never forsook me. Follow the path which I have taken: I await you here below: come!"

A RAILWAY SPECULATION.—The East Lancashire Railway Company have adopted means similar to those some years since started by some of the metropolitan companies, to induce building operations in the vicinity of their line. To any person who will build houses within two miles of their stations at Maghull, Ormskirk, Burscough, or Town Green, of the clear annual value of 50*l.* per annum, they guarantee the privilege of nominating one resident, who shall travel free, as a first-class passenger, between these places and the Liverpool Exchange station, during a term varying from seven to eighteen years, according to the position of the houses erected.

THE BRITISH INSTITUTION.—The collection of works by the old masters, just now opened, with a sprinkling as usual in the south room of pictures by deceased English painters, although, perhaps, less important than it has sometimes been, nevertheless contains some pictures of great interest by Carlo Dolci, Tintoretto, Velasquez, Rubens, and others. No. 41, called in the catalogue "Portrait of a Man," by Holbein, is inscribed, "Sr Nicolas Pointz." The lines at the side are curious:—

"Je obais à qui je dois.
Je sers à qui me plaist:
Et suis à qui me merite."

TENDERS

For additions and alterations to Ham Church, Surrey. Quantities supplied:—

	For a new Aisle.			Repewing and Alterations to Old Church.		
	£.	s.	d.	£.	s.	d.
Myers	1,470	0	0	372	0	0
Brewer	1,424	0	0	344	0	0
Richards	1,377	0	0	395	0	0
Day	1,300	0	0	275	0	0
Wells	1,225	0	0	340	0	0
Wilkinson	1,187	0	0	315	0	0
Adamson and Sons	1,047	0	0	279	13	0
Wilson (Pimlico)	949	0	0	187	0	0

For proposed gun factory, for Messrs. Deane, Adams, and Deane. Mr. Richard Roberts, architect. Quantities supplied:—

Haward and Nixon	£9,200	0	0
Cubitt and Co.	8,875	0	0
Lee and Son	8,474	0	0
D'Anson, Brothers	8,346	0	0
Myers	8,320	0	0
Lucas, Brothers	8,200	0	0
Locke and Nesham	8,150	0	0
Yialou	8,000	0	0
Haynes and Eyre	7,823	0	0
Carter	7,495	0	0
Piper and Son	7,477	0	0
Lawrence and Sons	7,450	0	0

For new workhouse at King's Lynn, for Board of Guardians:—

W. D. Harding (Lynn)	£12,990	0	0
S. Simpson (Ipswich)	10,890	0	0
W. Tollitt (West Drayton)	10,860	0	0
W. S. Simpson (Lynn)	10,800	0	0
J. Simpson (Lynn)	10,698	0	0
A. Nicll (Bradford)	10,186	0	0
M. Bambridge (Lynn)	9,943	0	0
C. Bennett (Lynn)	9,915	0	0

TO CORRESPONDENTS.

"*Salt in Walls*"—A correspondent asks what is the best method of treatment for walls suffering not from damp but from *salt* in the walls.

"A Contractor" (others think differently).—"R." (very true; but not exactly mentionable).—"J. R."—"J. W. H."—"H. T. E." "G. S."—"H."—"B. W."—"E. L. S."—"R. R."—"C. K. B."—"G. B. N."—"T. E. W."—"J. H."—"T. and B."—"J. L." (we are not able to give satisfactory information on the subject).—"J. H. M." (shall appear).—"A Junior" (ditto).—"C. C. N." (Thanks).—"W. S."—"T. D. B."—"P. W. E."—"W. B."—"W. R."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO PARENTS AND GUARDIANS.

AN Eminent Architectural Firm, in a large manufacturing district, in one of the midland counties, have now a VACANCY in their Offices for an OUT-DOOR ARTICLED PUPIL, possessing a good address, and having a taste for drawing; to whom will be afforded peculiar opportunities and advantages. Address to A. & B. Office of "The Builder."

TO WOOD, PUMP, AND PIPE BORERS.

A GOOD HAND at the above Trade may obtain CONSTANT EMPLOYMENT at Reigate Wharf, King's-road, Reading, Berks.

TO ARCHITECTS' ASSISTANTS.

A VACANCY in an ARCHITECT'S OFFICE in the suburbs of Town, for a Gentleman having a general and practical knowledge of the profession. Age not less than 50 years. The engagement may be permanent.—Apply by letter to C. L. Office of "The Builder," stating salary and where last engaged.

CARMAN WANTED, to take out goods that require great care; he must be a trustworthy man, know how to drive and take care of a horse, also read and write well.—Apply, by letter, to F. A. Office of "The Builder."

TO STONEMASONS.

WANTED IMMEDIATELY, TWENTY GOOD MASONS, who have been accustomed to working Ancaster stone. Liberal wages will be given to good workmen, with full employment for the winter, in covered sheds. Personal application to be made at the Grammar School Works, East Retford, Notts. No society men need apply.

TO PARENTS AND GUARDIANS.

WANTED, in the Office of an Architect, near the Regent's-park, an ARTICLED PUPIL. A premium required, the principal of which will be returned after the first year.—Apply by letter to VERITAS, Office of "The Builder."

TO SURVEYORS AND DRAUGHTSMEN.

WANTED, one who has a good knowledge of Surveying and Levelling, and is a neat hand at Planning.—Communications, inclosing references, to be addressed M. T. Post-office, Leeds, stating age, qualifications, &c. Parties who are thought eligible will be communicated with.

TO SMITHS.

WANTED, a good RANGE and STOVE FITTER; one who can forge and fit up.—Apply to Mr. W. HARMER, 1, New Peter street, Horseferry-road, Westminster.

TO GLASS PAINTERS.

WANTED, a first-class HAND; one accustomed to figure-painting, who is a fair draughtsman, and understands light and shade.—Apply, if from the country, by letter, addressed F. W. G. stating qualifications and experience; if in London, personally, at 14, Salisbury-place, New-road.
Room for an APPRENTICE; some proficiency in drawing indispensable.

TO PLUMBERS, PAINTERS, AND GLAZIERS.

WANTED, an active Man, who understands his business, and can give references as to character.—Apply to Mr. J. TUCKER, 254, High Holborn.

WANTED, a SURVEYING CLERK, fully competent to measure, take out quantities, bring into bill and estimate builders' works. Unexceptionable references as to ability and character will be required.—Apply between the hours of FOUR and SIX p.m. to LUCAS, BROTHERS, Builders, Belvidere-road, Lambeth.

TO INSPECTORS OF WORKS.

WANTED immediately, in the city of HEREFORD, an INSPECTOR of WORKS, who has been accustomed to the practical laying of water and other works connected with Sanitary Improvement. Wages 30s. per week.—Apply by letter, with testimonials to R. JOHNSON, Esq. Town Clerk, on or before the 25th instant.
Hereford, June 12th, 1855. R. JOHNSON, Town Clerk.

WANTED, an OUTDOOR APPRENTICE to the Carpentry and Joining Business. A moderate premium required, and wages will be given.—Address, T. W. 7, St. James's Market, Haymarket.

YOUTH WANTED, in the OFFICE of a CIVIL ENGINEER, near the Royal Exchange. He will not be required to perform any menial office, and an opportunity of progress will be open to him. It is essential he shall write a good hand, and a knowledge of drawing will be a recommendation.—Apply in own handwriting, by letter, to ALPHA, care of Mr. BARKER, 12, Birchin-lane, Cornhill.

TO CARPENTERS AND BUILDERS.

WANTED, by a Young Man, aged 22, a SITUATION, as improver in a Carpenter's and Joiner's shop. Has been at the trade five years. Wages not an object.—Apply, H. D. 23, New-street, Covent-garden.

TO BUILDERS AND OTHERS.

WANTED, by a respectable Young Man, a Carpenter, a SITUATION as TIME-KEEPER and CLERK, or constant employment as Carpenter. Is willing to make himself useful. Town preferred.—Address, J. S. R. Post office, Colney Hatch, Middlesex.

TO BUILDERS, CARPENTERS AND JOINERS, OR CABINET-MAKERS.

WANTED to PLACE, an active, well-educated Youth as an IN-DOOR APPRENTICE. A short distance from London preferred. A moderate premium given.—Apply, post-paid, to T. K. 5, Ann-street, Arlington-street, New North-road, Islington.

TO BUILDERS AND PLUMBERS.

WANTED, by a Young Man, a SITUATION as a good PLUMBER; he is thoroughly experienced in Gothic lead-light glazing.—Address, post paid, T. L. W. H. No. 37, Houpel street, Cornwall-road, Lambeth, London.

TO PLUMBERS AND BUILDERS.

WANTED, a SITUATION as PLUMBER, by a steady respectable Young Man from the country, who can give good references as to character and ability.—Address, C. S. 4, Richmond-terrace, London-road, Southwark.

WANTED, a SITUATION as CLERK or WORKS; is well experienced in all the branches of building, can make plans, working drawings, &c. and has unexceptionable references from previous engagements.—Address to C. D. 6, Little St. James's-street, Pall mall.

TO CONTRACTORS AND BUILDERS.

WANTED, a SITUATION as General Foreman, or Foreman Bricklayer; can furnish first of testimonials.—Address to R. S. No. 3, Tower Royal, City.

TO BUILDERS AND OTHERS.

WANTED, by a respectable young man, who is about leaving his present situation as one of the respectable firms at the West-end, a SITUATION as YARD FOREMAN, or Builder's Clerk. Satisfactory references given. No objection to the country.—Address, A. B. Mr. Cook's, Builder, 60, Poland street, Oxford-street.

TO PLUMBERS, BUILDERS, &c.

WANTED, by a Practical Hand, aged 35, a SITUATION as Plumber, Painter, Glazier, &c.; would be found useful in writing, graining, paper-hanging, &c. Satisfactory reference as to ability, &c. Apply to O. P. 10, Park-street, Dorset-square.

TO BUILDERS AND OTHERS.

WANTED, by a steady, experienced Man, a SITUATION as FOREMAN of PAINTERS. Has been used to extensive works. One likely to be permanent on the establishment of a nobleman or gentleman would be preferred. Can be well recommended.—Address to O. H. at Mr. Allard's, 22, Pleasant-row, Pentonville.

WANTED, a SITUATION, by a perseveringyoung man, aged 23, who has practical ideas of Building, having worked as a Carpenter, at times, for the last six years. Can prepare finished and working drawings, take out quantities, keep builders' accounts, &c.—Address, ALPHA, 56, Bemerton-street, Caledonian-road.

TO BUILDERS AND OTHERS.

WANTED, by the Advertiser, a SITUATION as CHALK LINE FOREMAN and TIME-KEEPER, who perfectly understands booking of materials, having filled the same situation for three years, and can have an unexceptionable character from his late employer.—Address, W. S. 2, Alma-terrace, Camberwell-green, Camberwell, Surrey.

TO ARCHITECTS.

WANTED, an ENGAGEMENT in town (two guineas) or country, by an assistant of eight years' experience, competent to take the management of an office, and a neat and rapid draughtsman.—Address, N. O. Post-office, Throgmorton-street, City.

TO CARPENTERS AND BUILDERS.

THE Friends of a Youth, aged 15, are desirous of PLACING him under a Master, where he can learn the above trade in all its branches.—Address, stating full particulars, to J. U. at Mrs. Collingwood's, 30, Langley-place, Commercial-road East.

TO BUILDERS.

THE Advertiser, having just finished the Joiner's Work of some Houses, is desirous of TAKING MORE.—Address to F. C. 8, Boddy's-bridge, Upper Ground-street, Blackfriars.

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TO CARPENTERS AND BUILDERS.

THE Parents of a well-educated Youth, aged 15 years, wish to PLACE him as OUT-DOOR APPRENTICE to the above trade. Please to state full particulars.—Address, Mr. POOLE, 28, Rochester street, Vincent-square, Westminster.

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THE Advertiser is desirous of obtaining a permanent SITUATION as BELL-HANGER, LOCK-SMITH, GAS-FITTER, and Bath work. Can give testimonials for sobriety and ability. The country not objected to.—Address, W. C. 26, William-street, Park-road, Holloway.

CLERK of WORKS. — A practical Person wishes for an ENGAGEMENT as above. Is quite capable of making plans and working drawings, can measure up work, extract quantities, &c. Can produce first-class testimonials.—Address, A. J. S. 12, Blenheim-terrace, Abbey-road, St. John's-wood.

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A PERSON who has just completed some extensive Works, wishes to take BRICKWORK at PER ROD, labour only, or scaffolding, and all materials to any extent. First-rate testimonials from late employers. No objection to country.—Address, W. F. 35, Pickering-place, Paddington.

TO CIVIL ENGINEERS, ARCHITECTS, AND SURVEYORS.

A GENTLEMAN, educated, and of many years' general practice in the above occupations, is desirous of RE-ENGAGEMENT, or to enter into Partnership where an active Partner is required. Satisfactory testimonials and references can be produced.—Address, post-paid, to E. A. 17, Park-street, Camden-town.

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A GOOD BELL-HANGER and GAS-FITTER wishes to obtain constant EMPLOYMENT. Confidence may be placed in him, being particularly steady. References given if required.—Address, ALFRED PHILPOTT, 5, Hoxton-square.

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TO LAND SURVEYORS AND OTHERS.

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TO BUILDERS AND OTHERS.

A YOUNG MAN is open to an ENGAGEMENT in a Builder's Office, who has filled a similar situation with London builders for some years.—Address, A. B. 78, Talcbrook-street, Pimlico.

A YOUNG MAN, aged 19, who has been articled for three years to a dealer in materials for building in a large country town, is desirous of obtaining a SITUATION in a similar capacity. He understands the measuring and selling timber, bricks, lead, glass, paint paperhangings, &c. and can have a good recommendation.—Address, T. C. at Mr. Thurlow's, 28, Wellington-road, St. John's-wood.

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A GENTLEMAN, who has been for some years with a very experienced Land Agent and Surveyor, and has gained a thorough knowledge of his profession, is desirous of PURCHASING a SHARE in a highly-respectable AGENCY and SURVEYING BUSINESS. The advertiser has considerable private interest, and can give most unexceptionable testimonials. For further particulars apply (by letter only) to DELTA, Post-office, Chaddesley Corbet, Kidderminster.

AS WRITER and GRAINER. — The Advertiser, aged 33, who is a thorough sign writer and good grainer, wishes for CONSTANT EMPLOYMENT. Can give unexceptionable reference.—Address to L. S. Office of "The Builder."

A FRENCH GENTLEMAN, an Architect, who has just published a work on Architecture, and has another nearly ready, is desirous of meeting with a Partner or other interest in an Architect's Office. Being a clever draughtsman, his knowledge of general drawing, mouldings, mathematics, and natural science, would be of some advantage if pupils were kept.—Address, by letter, S. S. 30, Cannon-street, City.

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A YOUNG MAN, aged 27, who has had considerable practice in modelling from life and carving figure and ornament, is open to an ENGAGEMENT either for the whole or part of his time. Satisfactory reference can be given.—Address, G. Office of "The Builder."

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A GENTLEMAN requires a RE-ENGAGEMENT as COUNTING-HOUSE CLERK and BOOK-KEEPER; he is a thorough accountant, and possesses a knowledge of business generally, and is qualified to take the superintendence of a builder's office, having held a similar situation for the last two years, where reference will be given as to character and qualifications.—Address, F. Office of "The Builder."

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A YOUNG MAN, aged 22, desires a RE-ENGAGEMENT. He is a fair architectural draughtsman, can map, plan, and take out quantities, and is thoroughly acquainted with bookkeeping and the principles of levelling and surveying. Salary, 1l. 1s. per week, as the advertiser's object is improvement.—Address, X. Y. Mr. Lowe's, Law Stationer, Bell-yard, Temple-bar.

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A THOROUGH PRACTICAL ASSISTANT is OPEN to a RE-ENGAGEMENT. Unexceptionable reference can be given.—Address, A. B. 64, Theobald's-road, London.

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PARTNERSHIP WANTED.—A Gentleman, thoroughly conversant with the Profession, is desirous of meeting with a country architect requiring a partner; or a country surveyor with an increasing architectural practice.—Address, A. B Z Office of "The Builder."

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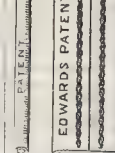

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EDWARDS'
IMPROVED FOLDED BANDS,
Which for strength, durability, and straightness in working, surpass any Bands at present in use.
Best STRETCHED SINGLE BANDS, with Cemented Joints.
Improved LEATHER HOSE, SUCTIONS, FIRE BUCKETS, &c.
MANUFACTORY,
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IMPROVED WINDOW BLINDS.—SAXBY'S PATENT ECCENTRIC CLEAT, manufactured solely by THOMAS PEMBERTON and SONS, and may be had of all ironmongers. It is the only perfect method yet introduced, of sustaining a Venetian blind, on releasing the cord, and avoiding winding on hooks. For calico blinds its action is perfectly noiseless, as it works on centre pins, and the blind is raised and lowered by a single line without a centre cord.

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Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

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The Permanent White of the Ancient Artist.

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THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase of weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

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The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 13, Manchester-buildings, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Gloucester Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a hard drawing cement of great power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1853.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not operate in damp situations. On account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements, read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few hours after being laid and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and export trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks of breakwaters, tidal work, or otherwise.—London Wharf, Belvedere road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not require to damp previously, and is perfectly uniform, of a good warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1853.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND STREET, Blackfriars (Surrey side); 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1853.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for the WARES is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Errors of our Judges," page 281, of the Great Exhibition, rank the Manufactures known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactured on the most extensive and unrivalled extreme durability. Slabs and Tiles for Fireplaces and Hearths. Covings for Grates. Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke upon-Trent, Staffordshire.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 52s. 6d. per 1,000; floor bricks and 6-inch pavings, at 40s. per 1,000; 9-inch pavings, 55s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Face, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any sallow matter, is acknowledged to be preferable to river sand.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. St. Aubrige Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59 Nelson-square, Blackfriars-road.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE (successors to Mr. Benjamin Gough), 3, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 28s. per thousand; Grizzles, 30s. per thousand; Rough Stocks, 20s.; Place, 18s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

TO BUILDERS, CONTRACTORS, AND OTHERS.

MESSRS. BARRETT and SHARP beg to inform the trade that they are prepared to LAND STONE, BRICKS, SAND, &c. &c. at their Wharf, at the usual rates. The traveller will land any blocks of stone, timber, or engineering work, 5 cwt. weighing more than three tons. BARRETT and SHARP, "Patent Stone Preserving Works," Holdnerness Wharf, 10, Bridge place, Harrow-road, Paddington.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

BRICKS.—Best Stocks, &c. delivered by Eastern Counties Railway, at London, or any other Station, by the Manager of the Ware and Railway Brick Works, Squirrel's Heath, Romford.—Address, Post-office, Squirrel's Heath.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from 1 inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Fine Planks, 12 ft. 3 in. by 11 in.	from 3s. 6d.	each.
Spruce Deals	3 in. by 9 in.	" 2s. 9d. "
Yellow ditto		" 4s. 0d. "
Honduras Mahogany, in logs		" 0s. 4½d. per foot.
Ditto ditto, in planks		" 0s. 6d. "
Spanish ditto		" 0s. 7d. "

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

ACORN TIMBER WHARF and SAWMILLS.

GRAND SURREY CANAL, OLD KENT-ROAD.—The extensive Waterside Premises Improved Sawing Machinery and Drying Warehouses, with a supply of all kinds of Foreign Wood direct from the importers, enable consumers to select from one of the largest stocks in London, at the lowest prices, for cash.

The Monthly Price Current forwarded on application.—RICHARD MAY informs the building public that American Pine and Spruce are cheaper, and Baltic goods are scarce.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross.

GEORGE NOKES and CO. (late Archbutt and Atkinson) beg to acquaint architects, builders, carpenters, and others, that they have opened the above premises with superior machinery for manufacturing architrave mouldings of any size and design, sashbars, match-boarding, skirtings, flooring, &c. and have always on hand a large stock of seasoned flooring at reduced prices; also, timber, deals, scantling, sash sills, mahogany wainscot, &c. Goods sawn at the mills fetched and delivered free of charge.

May 18, 1853.

MACHINE CARVING, JOINERY, and MOULDED WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any order they may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NASH'S Stains may be had at the Factory, 4a, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, fetched away and paid for at the time, at C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 31, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 18s. per cwt. given for old lead.

LOANS from 25*l.* to 1,000*l.* upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding fifty months, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 1s. per post.

CHARLES JAMES THICKE, Resident Secretary.

SEVERAL LARGE SUMS of MONEY to be LENT, upon mortgage of Freehold or Leasehold Property. Principals or their Solicitors only will be treated with.—Apply to Mr. JENKINSON, 34, Bedford-row.

SEVERAL INVESTMENTS WANTED, immediately, by Capitalists who are seeking to place out various amounts in any secure way, at a moderate rate of interest. The persons selling their properties may retain power to repurchase after a fixed period if so desired. Apply to Mr. ALFRED COX, Estate Agent, 68, New Bond-street.

MORTGAGES and LOANS ready to be ADVANCED upon Freehold and good Leasehold Property, in sums of 200*l.* and upwards; also upon Tithe Rent Charges, Advance Reversions, Annuities, Life Interests, Government and Railway Stock, Deposits, Bank and other Public Securities, &c. for long or short periods.—Apply to Messrs. TRIPP and CO. 17, Parliament-street, London.

MONEY on LOAN, at 3*l.* per Cent. per Annum.—ARNEWAY'S CHARITY.—NOTICE IS HEREBY GIVEN, that the Trustees of this Charity are enabled to lend out the Trust Moneys to poor occupiers or traders resident within the City and Liberty of Westminster, that is to say, within the parishes of St. Margaret and St. John the Evangelist, St. Anne, Soho, St. Clement Danes, St. George, Hanover-square, St. James, St. Martin-in-the-Fields, St. Mary-le-Strand, and St. Paul, Covent-garden. The amount of each loan is not to exceed 10*l.* is to clear interest after the rate of 3*l.* per cent. per annum, and is to be secured by the bond of the borrower, with two sureties. Printed Forms of Application, and all necessary information, may be obtained by applying personally, between the hours of Ten and Three o'clock in the day, at the office of the Clerk and Solicitor to the Trustees, No. 14, Great Queen-street, St. James's Park.

By order, EDWARD S. STEPHENSON, Clerk and Solicitor to the Trustees.

NOTE.—The Trustees meet on the second Wednesday in every month, to consider such applications for loans as have been sent in one clear week at the least before the first day of the month.—The sureties must be unexceptionable.

THE FARNLEY IRON COMPANY, WORTLEY, NEAR LEEDS,

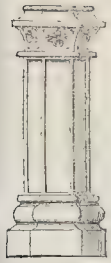
MANUFACTURERS OF

FIRE-BRICKS, PATENT GLAZED STONEWARE DRAIN PIPES, CLOSET PANS, ORNAMENTAL TRUSSES, BRACKETS, MODILLIONS, PEDESTALS, VASES, &c.;

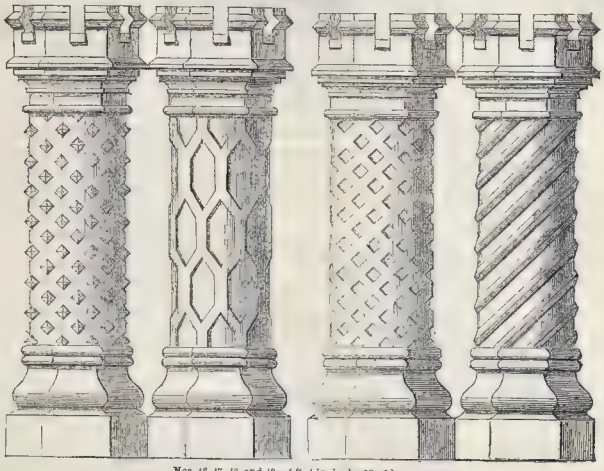
ALSO OF

TERRA COTTA CHIMNEY-TOPS,

In upwards of One Hundred Patterns, of various dimensions and of first-rate design, a few of which are given below,—scale half an inch to a foot.



No. 67.—Wind-guard
3 ft. 6 in.—10s.



Nos. 46, 47, 48, and 49.—4 ft. 4 in. high 18s. 6d.
" " 6 ft. 0 in. " 23s. 0d.
" " 9 ft. 0 in. " 60s. 0d.

No. 65.—3 ft. 6 in.—7s. 6d.

No. 38.—3 ft. 6 in.— 9s. 0d.
4 ft. 2 in.—10s. 6d.

No. 18.—Oblong or Square.
2 ft. 2 in.—3s. 2d.
2 ft. 6 in. 3s. 6d.
2 ft. 9 in.—4s. 0d.

No. 34.—Wind-guard.
3 ft. 6 in.—5s.

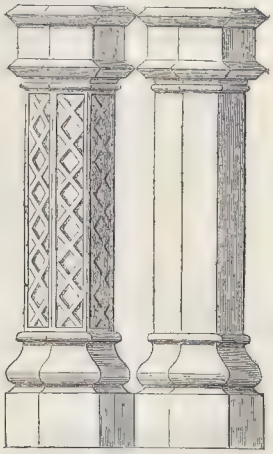
No. 3.—2 ft. 0 in.—1s. 6d.
2 ft. 6 in.—2s 0d.

No. 14.—2 ft. 6 in.—3s. 6d.
2 ft 10 i n. 5s. 0d.
3 ft. 8 in.—8s. 0d.

No. 13.—3 ft. 1 in.
4s. 6d.

No. 66.—Plain or Wind-guard.
3 ft. 10 in.—10s. 6d.
4 ft. 2 in.—12s. 6d.
4 ft. 8 in.—13s. 0d.

No. 76 (round).—1 ft. 10 in. high—2s. 6d.



No. 75 (square).—1 ft. 10 in.—2s. 6d.

No. 30.—4 ft. 3 in.—15s.
6 ft. 6 in.—20s.

No. 34.
2 ft. 9 in.—4s. 6d.

No. 12.
2 ft. 9. in.—4s.

No. 73.
6 ft.—28s.

No. 74.
6 ft.—23s.

No. 21.
Oblong or Square.
2 ft 6 in.—3s. 9d.
3 ft. 0 in —3s. 6d.
3 ft. 6 in.—8s. 6d.

No. 4.
2 ft. 8 in.—2s. 6d.

No. 70.
4 ft. 3 in.—15s.

ARCHITECTS' DESIGNS CAREFULLY EXECUTED, AND WITH QUICK DESPATCH.

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BIRMINGHAM.. No. 7, Easy-row; also King Alfred-street, adjoining Bingley-hall, and Lawley-street.
BRISTOL ..... No. 14, Nelson-street.
LIVERPOOL .... No. 9, Russell-street, 63, Renshaw-street, and Shipping Wharf, Leeds-street.
MANCHESTER .. No. 43, Travis-street, and 23, 24, and 25, Birmingham-street, London-road.
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IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 17. 15s.

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PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

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AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

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PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 70, Strand.

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WARNER'S PATENT CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

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Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 18-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

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PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

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PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work. Apply to Messrs MEDWIN, HALL, and CO Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Any of these Engines may be purchased.

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The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

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These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

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Brass and Iron Founders, Short-street, New-cut, Lambeth.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licenses for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bring new inventions on the subject before the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to
WILLIAM HOWDEN, Secretary.

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES, consisting of Matting, Mats, Mattresses, Brushes, Netting, &c. are distinguished for superiority and excellency of workmanship, combined with moderate prices. Prize medal both in England and America, at the Exhibition of all Nations. T. TRELOAR, Cocoa nut Fibre Manufacturer, 42, Ludgate hill, London.

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ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads; 3s. to 3s. per square yard. Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 33, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 35s. per ton. Importer of Trinidad Asphalte.
Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

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N.B. Country Agents and Railway Engineers and Contractors supplied with the best Bitumen for covering Bridges and Arches.

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ESTABLISHED UPWARDS OF 100 YEARS.

TO COUNTRY POTTERS.

A LONDON FIRM are willing to ENTER into an ENGAGEMENT for a REGULAR QUANTITY of STONE-GLAZED PIPES, of the best quality and of the required thickness by the Commissioners of Sewers; the said goods to be delivered free of all charges, and to be paid for in cash on delivery. The price must be stated at per cent. off the London printed list.—Address, M. P. 17, Lower Calthorpe-street, Gray's-inn-road.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street,
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD...J. Sparrow and Co
CARNARVON....Jno. Jackson.
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SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset, they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to
THE AGENTS:—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

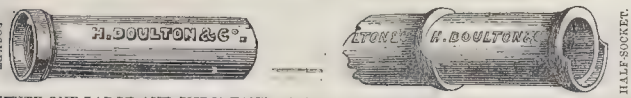
WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.
CLOSET-PANS AND TRAPS, 5s. 6d. EACH.
AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

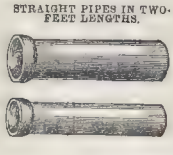
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES, LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Oak-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; T. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 39, Bryde's-street, Covent Garden; and at EDWARD COOKS, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

GUEST and CHRIMES, ROTHERHAM, and 37, SOUTHAMPTON-STREET, STRAND, London. Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS

Bateman and Moore's, and Chrimes' Patent Hydrants, or Fire Cocks. Improved Self-lubricating and other Police Cocks.

Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.

Siemens' Patent Balance Water Meter.

Pilbrow's Patent Water Waste Preventer.

Morris's Patent Water Supply Regulator.

Rawlinson's Patent Self-acting Drainage Valves.

Higginbotham's Patent Slide Stop Cocks.

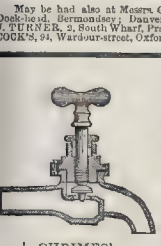
Lowe's Patent Stench Trap, Beggs's Improved.

And all other Articles required for Water-Works Purposes, &c.

LONDON HOUSE.

Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.

Plumbers' Brass Work of every description.

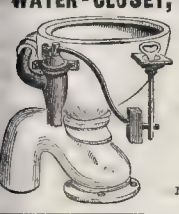


' CHRIMES' PATENT.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.

DOULTON & WATTS,

LAMBETH POTTERY, LONDON.



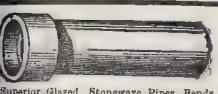
DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.



Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

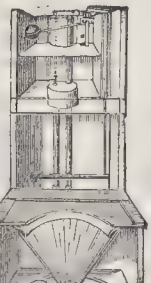
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin, the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.

R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,

Your obedient Servant,

WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and readyfor use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 300 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,

Brass Founders and Engineers,

Corner of Shore-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1855.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 23, Old Fish-street, near St Paul's, London

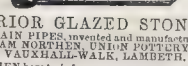
Crown Glass, 18 tables, 30s per Crate.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO., Great Northern-wharf, York-road, King's-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also, MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.



SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the sockets being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 8, Upper Thames-street. Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbett's Depôt, Britten-street, Chelsea; and at the Pottery.

UNDERHAY'S PATENT REGULATOR CLOSETS, for constant or intermittent supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficacy is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stoveless are cheaper, stronger, and more convenient, than any other. Many thousands are in use, and greatly approved of.

Manufactured by

CHARLES BUTLER and SON,

Brass Founders, Crawford passage, Clerkenwell, London.

SALES BY AUCTION.

TWICKENHAM, near Sir William Clay's Park.—Freehold Building Plots, on the Staines road.

MESSRS. FOSTER and SON will SELL by AUCTION, at the PRINCE BLUCHER, TWICKENHAM, near the land, on MONDAY, JUNE 25, at THREE for FOUR in the Afternoon, in lots, FREEHOLD BUILDING PLOTS, particularly eligible, on the high road, and opposite to houses of importance, which have been built for many years, besides frontage to two cross-roads, within ten minutes' walk of the station. May be viewed, and particulars had ten days before the sale, at the Prince Blucher; of W. P. PADMORE, Esq. Architect, 16, Great Marlborough street; of — STACEY, Esq. Solicitor, 17, Bloomsbury-street; and of Messrs. FOSTER, 54, Pall-mall.

An important Tract of Freehold Building Land, tithe-free and land-tax redeemed, comprising about 100 acres, in a beautiful situation, about four miles from the City, in the county of Surrey.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the MART, on WEDNESDAY, JUNE 20th, in numerous lots, unless previously sold in three lots, FREEHOLD BUILDING LAND, about 100 acres of eligible FREEHOLD BUILDING LAND, commanding extensive and beautiful views, situate at East Dulwich, in the parish of St. Giles, Camberwell, in the county of Surrey, and possessing a frontage of 4,000 feet to the high road from Goose-green to Forest hill, Sydenham, and the Crystal Palace, and opposite to lands belonging to Dulwich College. Also, very extensive frontages on the private roads which have been formed and extend through the property for nearly three-quarters of a mile. The water is already laid on, both by the South Lambeth and Vauxhall Water Companies, to within a few yards of the estate. The lots will vary from two to ten acres, and offer many eligible and attractive sites for the erection of gentlemen's villas and other purposes. There is a brickfield, comprising about six acres, let on lease at 68l. per annum, together with the Plough public-house and premises, also let at a ground rent, the lease of which will expire in about eleven years.—Printed particulars may be obtained twenty one days previously, of Messrs. DENTON, KINDERLEY, and Co. New-square, Lincoln's-inn; of Mr BYONAVI, Surveyor, 46, Lincoln's-inn-fields; the Plough, part of the property; the Inns at Peckham rye, Camberwell, and Denmark-hill, the Place of Sale; and of Messrs. WINSTANLEY, Paternoster-row.

WIMBLEDON HOUSE SURREY, with beautiful gardens grounds, and park, for many years the residence of the late Mrs. Marryat, deceased, and long known as one of the most delightful and desirable retreats in the neighbourhood of the metropolis, a portion of the land offering most attractive and eligible sites for the erection of detached villas and other residences, without interfering with the present seclusion of the mansion and grounds.

MESSRS. RUSHWORTH and JARVIS beg to announce that that they will SELL by AUCTION, at GARRAWAY'S, on FRIDAY, JUNE 29th, at TWELVE o'clock, in one lot, the above much-admired and very important FREEHOLD ESTATE, consisting of a capital and elegant spacious mansion, with offices, stabling, and buildings, combining every requisite accommodation for a large establishment, extensive and beautiful pleasure grounds, with lawns and shrubberies, choice flower and kitchen gardens, conservatory, orangery, fountains, and fish-ponds, a small but beautifully undulated and well-timbered park, with a large sheet of ornamental water, alcove, grotto, summer-houses, ice-house, gardener's cottage, farmyard, lodge-entrance, &c. comprising altogether about eighty-six acres, bounded on three sides by a lofty brick wall. The property is suited to the residence of a minister of state or family of distinction, a merchant or banker, or it offers to a speculative capitalist a very eligible opportunity for a safe and profitable investment, as from the extent of frontage to the common a portion of the land might be most advantageously appropriated for building. May be viewed by cards, to be obtained of Messrs. SNELL and Co. 27, Albemarle street; or of Messrs. RUSHWORTH and JARVIS, Saville-row, Regent-street, and 19, Change-alley, Cornhill; and printed particulars, with plans, may be had fourteen days previous to the sale, as above; also of W. E. OLIVER, Esq. Solicitor, 16, New Bridge-street, Blackfriars; and on the Premises.

TO BUILDERS. – Five Freehold unfinished Residences, the corner of Lansdowne-road North, and Ladbroke-road; also Two Freehold Plots of Freehold Building Land, on the best part of the Kensington-park Estate, at Notting-hill.

MR. ROBINS is directed to SELL by AUCTION, at the MART, on THURSDAY, JUNE 21st, at TWELVE, in seven lots, FIVE FREEHOLD RESIDENCES, unfinished, of handsome elevation, three stories high, stuccoed fronts, being Nos. 52, 54, 56, 58, and 60, the corner of Lansdowne-road North, and the Ladbroke-road, the most beautiful part of the Kensington-park Estate, at Notting-hill. The position of the houses, and their attractive appearance, at once recommend them for completion as a profitable investment; also two corner Plots of Freehold Building Land close by, upon which three villas on each may be erected; the situation most excellent. Particulars, with plans, may be had at the Clarendon Hotel, on the estate; of Messrs. ROY and CARTWRIGHT, Solicitors, 4, Lothbury; at the Auction Mart; and at Mr. ROBINS's Offices, Covent-garden.

MARKET-PLACE, SAFFRON WALDEN. To Builders, Antiquarians, and Others. A very large quantity of valuable Building Materials and Shop Fixtures, including some very ancient Carving and Chimney-Pieces, arising from the extensive Premises just taken down, formerly of Mr. Robert Paul, Ironmonger and Upholsterer, and late of Mr. Shuttleworth, will be SOLD by AUCTION, by

MR. B. T. THURGOOD, Land Agent, Saffron Walden, on or about WEDNESDAY, JUNE 27th, 1855, and following days. Further particulars in due time. Six Months' credit on approved security. For description of the ancient chimney-pieces, &c. see "Cambridge Chronicle" of the 2nd instant, and the "Chelmsford Chronicle" and "Essex Herald" of the same week.

Saffron Walden, June, 1855.

TO PAPERHANGERS, STAINERS, BUILDERS, DECORATORS, &c.

MESSRS. DEW, MATTHEWS, and KEYSELL will SELL by AUCTION, on the PREMISES, near the Rosemary Branch, Hoxton, by order of the assignees of Mr Norwood, on TUESDAY next, and two following days, the first portion of the STOCK and MATERIALS of this well-known manufacturer, comprising 50,000 pieces of rich papers, decorations, drawings, paintings, 5,000 sets of blocks, &c. The second portion will be sold on TUESDAY and WEDNESDAY following. Catalogues to be had of Messrs. JACOBS and FOSTER, 6 Crosby-square; and of the Auctioneers, 35, Camomile-street, Bishopsgate-street.

RINGWOOD, HANTS.—Freehold Estate, Fir Plantations.—To Capitalists, Railway Contractors, and Others.

MESSRS. DEW, MATTHEWS, and KEYSELL will SELL by AUCTION, at the MART, on THURSDAY, JUNE 28th, a capital FREEHOLD ESTATE, containing 166 acres of fir plantations of 60 years' growth, one mile from Ringwood and the railway. Part of the estate could readily be converted into a small farm, and other portions let for building purposes, each having extensive frontages to the high road, offering one of the most eligible investments, as the timber alone would return the purchase money immediately. Particulars to be had at the principal Inns at Ringwood, Poole, and Southampton; of Mr HOUNSLOW, Nurseryman, Ringwood, Messrs. HICKS and SON, 5, Gray's-inn-square; and of the Auctioneers, 25, Camomile-street, Bishopsgate.

WOOD GRANGE ESTATE, STRATFORD, ESSEX. — FREEHOLD GROUND-RENTS, and SIXTY-ONE PLOTS of BUILDING LAND.

MR. W. H. DEAN begs to announce that he has been favoured with instructions to SELL by PUBLIC AUCTION, in the early part of JULY next, SIXTY-ONE PLOTS of FREEHOLD BUILDING LAND exonerated from land-tax, and most advantageously situate, adjoining the Forest-gate Station of the Eastern Counties Railway, and within a short distance of the Wanstead Forest, and sundry ground-rents arising from premises in the locality.—Further particulars will appear in future advertisements, and may also be obtained of the Auctioneer, Stratford, Essex.

SALES BY AUCTION.

PRELIMINARY ADVERTISEMENT.—To Land Societies, Builders, and Others requiring to purchase Land near the Metropolis.

MR. W. H. DEAN has received instructions from the Executors of Mr. James Adams, deceased, to SELL by PUBLIC AUCTION, in the early part of JULY next, in Eight Lots, all that valuable FREEHOLD ESTATE, exonerated from land-tax, and situate at Plaistow, Essex, about five miles from London, consisting of seventy two acres of market garden and pasture land, with capital dwelling-house and homestead, with a frontage of 1,600 feet to the High road. The estate is contiguous to the Victoria London Docks, and, from the advantage of its situation, is eminently adapted for building or commercial purposes.—Further particulars will appear in future advertisements, and may also be obtained of the Auctioneer, Stratford, Essex.

TO IRONMONGERS, BUILDERS, SMITHS, COACH-BUILDERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on the PREMISES, 188, Union street, Southwark, on WEDNESDAY, JULY 4, and following days, at ELEVEN, in lots, by direction of the Assignees of Mr James Martyr, a bankrupt, the extensive STOCK of IRONMONGERY, bar and rod iron and steel, twenty tons rod, bar, and plate iron; five tons cast, shear, blister, and spring steel; fifty dozen spades and shovels, twenty dozen scythes (Foster and Fussell's), twenty dozen bagging-hooks, scales, and reap-hooks, fifty dozen ash handles, thirty dozen oval and round fryingpans, black hollow ware, 150 bags wrought and cut nails, five bags horse nails, 100 dozen cross garnet H and H hinges, five hundred weight of horseshoes, pighooks, share and arm moulds, two tons castings, 400 dozen files and rasps, anvils, vices, 5 cwt. farriers, sledge, and hand hammer heads; pit and crosscut saws, hand-saws, steel tools, Lancashire tools, 100 gross coach bolts and screws, 100 gross washers and burrs, 20 gross rubbers, 500 gross screws, carpenters', bricklayers', and coopers' tools; a large assortment of cabinet brass-work, five guns, 200 dozen locks and latches, counting-house and shop fixtures and utensils, a few lots of household furniture, and other effects.—To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises; of G. J. GRAHAM, Esq. Official Assignee, Coleman-street, and of Messrs. FULLER and HORSEY, Billiter-street, City.

TO BARGE BUILDERS, SHIP BREAKERS, SHIP AND BOAT BUILDERS, AND OTHERS. By

MESSRS. FULLER and HORSEY, at the ROYAL OAK, Barking-road, on TUESDAY, JUNE 26, at TWELVE, in lots, a PAIR of MARINE ENGINES, by Boulton and Watt, of 35 horse-power each, a 5 horse high-pressure steam-engine, two boilers, with tubes, 4 horse cylindrical steam-boiler, vertical saw frame, two circular saw-benches, pair of two-throw pumps, powerful force-pump, 2,000 feet sound oak planking, ship timbers, knees, deck planks, flooring and other fittings of a Government ship recently broken up.—To be viewed on Monday previous to the sale, when catalogues may be had at the Royal Oak; and of Messrs. FULLER and HORSEY, Billiter-street, City.

ON WEDNESDAY, the 27th instant, at TWELVE o'clock at Noon precisely, in the BROKER'S SHEDS, Brunswick and Toxteth Docks, Liverpool,

205 Logs BAYWOOD.
24 Logs CEDAR, just landed, ex De Witt Clinton.
93 Logs BAYWOOD, just landed, ex Florence.
Apply to Messrs. M'CALMONT (Bros.) and Co. Merchants.
479 Logs and Curls City St. Domingo MAHOGANY.
486 Pieces, weighing 25 Tons, LIGNUMVITÆ.
580 „ 124 „ DITTO, being the Cargo just landed, ex Childe Harold from the City direct.
Apply to Messrs. INNIS and TOMLINSON, Merchants.
121 Logs and Curls St. Domingo MAHOGANY, now landing, ex New World.
Apply to Messrs. A. DURANTY and Co. Merchants.
704 Planks Bahia ROSEWOOD, now landing, ex Gardyne, from Bahia Direct.
Apply to Messrs. EDWARD JOHNSTON and Co. Merchants.
93 Planks Italian WALNUTWOOD, ex Tiber, from Ancona, on account of the Importers.

To which will be added, Quantities of Rio ROSEWOOD and ZEBRAWOOD, PENCIL CEDAR, LANCEWOOD SPARS, &c.

For particulars apply to

EDWARD CHALONER, Broker, Liverpool.

TO BUILDERS, CARPENTERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, in Edward-street, Regent's park, on TUESDAY, JUNE 19, at TWELVE for ONE, a large quantity of Yellow and White Planks, Deals, and Battens, dry wide Pine Board, Scantling, Flooring, Mahogany in boards and curls, dry cut stuff, and much other useful stock.—May be viewed and catalogues had, Auction Offices, 2, Cardington-street, Hampstead-road.

RUISLIP, MIDDLESEX.—Oak, Elm, and Ash Timber.—By

MESSRS. COBB, on FRIDAY, JUNE 22, at ELEVEN, in lots, on the LAND, 150 OAK TIMBER TREES, 35 ELMS, and 11 ASH TREES, chiefly of large dimensions (some of them extraordinarily large), and of excellent quality, felled and lying in Young Wood, and on lands occupied by Messrs. Saich, Ives, Churchill, and Woodman, at Ruislip, about five miles from the Harrow and Pinner Stations, four from Uxbridge, and within a short distance of water-carriage. CHARLES CHURCHILL, of Duck's-hill, will show the Timber ten days before the sale; and catalogues may then be had of him; at the George Inn, Ruislip; the Inns at Uxbridge and Rickmansworth, and of Messrs. COBB, Surveyors and Land Agents, 18, Lincoln's-inn-fields.

GILLINGHAM, KENT. By

MESSRS. COBB, at the CROWN INN, Rochester, on TUESDAY, JUNE 26, at TWO, in three lots, 14a. or 14p. of very desirable FREEHOLD ACCOMMODATION and BUILDING LAND, in the parish of Gillingham. Two lots situate on the road from Chatham-hill to New Brompton, and one lot adjoining to the London road, with possession at Michaelmas next.—Particulars, with plans, may be had at the Place of Sale; the Auction Mart; of Mr. ACWORTH, Solicitor, Rochester; of Mr. W. S. MEERS, Land Agent, Stoke, near Rochester; and of Messrs. COBB, Surveyors and Land Agents, 18, Lincoln's-inn-fields, London.

ST. MARGARET'S ESTATE, ISLEWORTH.—To BUILDERS, TIMBER MERCHANTS, FIXTURE DEALERS, and Others.

MR. CAIN (by direction of the Conservative Land Society) will SELL by AUCTION, on the PREMISES, on TUESDAY, JUNE 26, at TWELVE for ONE, the whole of the excellent BUILDING MATERIALS of the large and commodious DAIRY, with dwelling-house attached, and lodge, comprising counters, slating, and pantiles, several rods of brickwork, tile York and other stone paving, slate shelving and skirting, the mahogany fittings-up of water-closet, with apparatus complete, about twenty squares of prime yellow floor boards, a large quantity of joists, rafters, and timbers, a handsome trellis verandah, about one ton of lead, a large quantity of stack wood, 150 loads of fine timber, in elm, lime, sycamore, fir, &c. and other useful effects.—May be viewed two days prior to the Sale, and catalogues had on the Premises; of Messrs. HARRISON and LEWIS, 14, New Boswell-court; of G. MORGAN, Esq. Architect, 5 and 6, Chancery-lane; C. L. GRUNEISEN, Esq. at the Offices of the Society, 33, Norfolk-street, Strand; at the principal Inns in the neighbourhood; and at the Auction Offices, King-street, Richmond.

CLEARANCE SALE.—Important to Builders, Paperhangers, Decorators, and Others.

MR. BRAY, Jun. will SELL, at his ROOMS, 259, High Holborn, on THURSDAY, JUNE 21st, at ONE for TWO (without the slightest reserve), upwards of 9,000 PIECES of PAPERHANGINGS, of excellent workmanship, suitable for drawing and dining rooms, parlours, secondary apartments, halls, and staircases, including about 2,000 pieces remnants.—May be viewed and catalogues had at the rooms as above.

SALES BY AUCTION.

TO BUILDERS, PAVIORS, MASONS, AND OTHERS.—Consignment of Stone by the Great Western Railway, Paddington.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, at the GOODS STATION of the Great Western Railway, Paddington, on FRIDAY, JUNE 22, at TWELVE for ONE, several thousand feet of Tooled Paving and Landings, Steps, Kerb, Sinks, Cills, &c. consigned from the Forest of Dean, and arranged into suitable lots.—May be viewed and catalogues had at the Goods Manager's Office, and of the Auctioneers, 40, Parliament-street, or Coal Exchange.

NEW ROAD. TO ARCHITECTS, BUILDERS, MASONS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE have received instructions from Messrs. Noakes and Pearce, in consequence of a dissolution of partnership, to SELL by AUCTION, on the PREMISES, Nos. 1 and 2, South-row, New road, St. Pancras, on TUESDAY, JUNE 26th, 1855, at TWELVE, the excellent manufactured STOCK of MARBLE, comprising about fifty very superior Statuary, Sienna, Black, Black and Gold, Dove, and Vein Marble Chimney-pieces (including several handsomely sculptured), handsome Mural Tablets, Portland Tombs, Headstones, and Monumental Pedestals, Marble Table-tops, Trusses, solid Marble Bath, Plaster Casts, and other effects.—May be viewed one day previous, and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—

MONDAY, 2nd JULY, 1855	MONDAY, 1st OCT. 1855
MONDAY, 6th AUG. „	MONDAY, 5th NOV. „
MONDAY, 3rd SEPT. „	

Catalogues and further particulars to be had on application one week previous to each sale.—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE. Just arrived, and landing, about Fifty Blocks of Statuary, and several cargoes of other Marbles.

TO CONTRACTORS, BUILDERS, and OTHERS. — Extensive fall of OAK and ASH TIMBER, Wesley, near Newmarket, Cambridgeshire, within a short distance of the Six Mile Bottom Railway Station.

MESSRS. NOCKOLDS, and KING, have received directions from the Proprietor, to offer for SALE by AUCTION, in the month of JULY next, in lots, about 547 OAK TIMBER TREES, many of which are of large dimensions, long lengths, and excellent quality, 200 ASH and POPLAR ditto; also, a large quantity of TOPWOOD and FAGGOTS.—Further particulars will appear in next week's paper.

Saffron Walden, June 13, 1855.

TO TIMBER MERCHANTS, CABINET MAKERS, PIANO-FORTE MANUFACTURERS, COACH BUILDERS, CARPENTERS, BUILDERS, &c. &c.

MESSRS. C. LEARY and CO. will SELL by PUBLIC AUCTION, without reserve, on the PREMISES, 97, Curtain-road, Shoreditch, on MONDAY, TUESDAY, and WEDNESDAY, the 25th, 26th, and 27th of JUNE, 1855, commencing each day at ELEVEN o'clock precisely, by order of the Proprietor, Mr. William Smith, Mahogany and Timber Merchant (who is about to retire from the retail trade in favour of his sons, Messrs. H. A. and C. J. Smith), all his remaining STOCK in TRADE, consisting of Spanish and Honduras Mahogany, in logs, planks, boards, and veneers; prime dry panel board; cedar, rosewood, birch, beech, staves, and wainscot, spruce and pine planks; cut deals, &c.—To be viewed two days previous to and on the mornings of sale. Catalogues may be had on the Premises; and at the Offices of the Auctioneers, 75, Old Broad street, City.

CAPITAL WHARF PREMISES, BUILDINGS, and spacious YARD, in the REGENT'S CANAL BASIN, CITY-ROAD.

MR. LEIFCHILD is instructed to LET, with immediate possession, the above important and valuable PROPERTY, for the unexpired term of the lease. The premises comprise excellent offices and counting rooms, foreman's dwelling-house, spacious and substantial buildings adapted for factory or stowage purposes, large yard, with stabling and other buildings, valuable landing wharf and frontage to the basin, and to a slip or dock, extending the whole length of the premises.—Particulars at Mr. LEIFCHILD'S Offices, 63, Moorgate street, City.

TO CARPENTERS, BUILDERS, and Others.—TO BE DISPOSED OF, an excellent JOBBING and BUILDING BUSINESS in the above line, situate in a most improving neighbourhood, five miles from town. Satisfactory reasons will be given for disposing of the business; and the trade books can be inspected. Possession will not exceed 100l.—Particulars may be had of Messrs. CRAFTER and SON, Auctioneers and Estate Agents, 4, Stamford-street, Blackfriars-road.

CAMP at ALDERSHOTT.—In the immediate vicinity, an increasing and old-established CABINET, UPHOLSTERY, and HOUSE AGENCY BUSINESS to be DISPOSED OF. Satisfactory reasons for disposal will be given. Apply to THOMAS CLARKSON and CO. 17, Coventry-street, Haymarket.

TO ARCHITECTS AND SURVEYORS.

TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering place.—For particulars, address, S. S. 9, Studley-terrace, Larkhall-lane, Stockwell, Surrey.

TO CEMENT MANUFACTURERS and OTHERS.—FOR SALE, in consequence of the death of the proprietor, a FREEHOLD CEMENT and PLASTER MANUFACTORY, situated in one of the largest seaport towns on the southern coast. It comprises, besides the usual plant, a whiting mill, kilns, stores, stables, saw-pit, &c. and three dwelling-houses, the whole in excellent repair and working order. No one need apply who cannot command 3,500l.—Address to Mr. RUTTER, Arundel-street, Landport, Hants; or to Mr. SWEET, 5, Chryssell-road, North Brixton, Surrey.

LAMBETH and PROVINCIAL FREEHOLD LAND SOCIETY.

Enrolled as the "Borough of Lambeth Benefit Building Society."

PRESIDENT,
The HON. JOHN LOCKE KING, M.P.

TRUSTEES,
George Singer, Esq. James Smee, Esq. S. Etches, Esq.

Offices, 211, High-street, Borough.
Open from Ten A.M. till Seven P.M.
Shares, 30l.
Entrance fee, 1s. Payments, 4s. monthly.

Allotments distributed by rotation, ballot, and to completed Shares in the order of their completion.

No Fines on unadvanced Shares. No back payments.

This Society within four years has divided five estates, satisfying 1,814 Shares out of 5,756. The value, as divided amongst members, being 67,797l.

A Bonus of 5 per cent. in addition to 5 per cent. interest, in all 10 per cent. was declared upon all unadvanced Shares at the annual meeting of 30th January last.

WM. BANKS, Secretary.

211, High-street, March 1, 1855.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, June 16, 1855.

The Builder.

AN ILLUSTRATED WEEKLY JOURNAL FOR THE Architect, Engineer, Operatives & Artist.

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ADVERTISEMENTS.

ROYAL ACADEMY of ARTS, Trafalgar-square. The Exhibition of the Royal Academy is NOW OPEN Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling

JOHN PRESCOTT KNIGHT, R.A. Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS.—The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s. Season tickets, 5s.

JAMES FAHEY, Secretary

GORE HOUSE, KENSINGTON.—The ANNUAL SPRING EXHIBITION of advanced Works, by Students in Metropolitan and Provincial Schools of Art, is NOW OPEN daily, from TEN a.m. to SIX p.m. Admission free

ADAM and EVE.—This great original work, by JOSEPH VAN LERIUS, is now on View at 57, Pall-mall, opposite Marlborough House, from eleven to six daily. Admission, 1s.

MONTI'S LECTURES on ANCIENT and MODERN SCULPTURE.—The Fifth of these LECTURES will be delivered on WEDNESDAY, JUNE 27th.—Subscribers' and Single Night Tickets, to be had at Messrs. COLNAGHI'S, Pall-mall East.

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

Sir Robert Smirke, R.A. George Stanley Repton, Esq.

PRESIDENT—Sydney Smirke, A.R.A.

TRUSTEES.

Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq. Philip Hardwick, Esq. R.A. | R.A.

TREASURER—William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855. The ANNUAL CONVERSAZIONE will be held on MONDAY next, JUNE 25th, at EIGHT o'clock. The President, the Right Hon. the Earl De GREY, K.G. in the Chair. A Lecture on Wrought Iron Work will be delivered on MONDAY, JULY 2nd, at EIGHT o'Clock, by Henry Clutton, esq. Cards, Catalogues, and Prospectuses, to be had at the Museum, and at the Office of The Builder. The entrance to the Museum is from Parliament-street, near Richmond-terrace.

M. J. LOMAX, Assistant Secretary.

June 22, 1855.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE BURIAL BOARD of the PARISH of BUCKINGHAM is desirous to receive PLANS, DESIGNS, SPECIFICATIONS, and ESTIMATES, for LAYING OUT and PLANTING the NEW BURIAL-GROUND in that parish, the freehold of which has been contracted for, and for ERECTING TWO CHAPELS, a LODGE, and RECEIVING-HOUSE thereon. The land contains 3 acres, a plan of which may be seen, and further information obtained, at the office of the Clerk to the Board. The person whose designs shall be accepted will be paid 10*l* for his design, but the Board does not pledge itself to accept any of the designs.—All plans, &c. must be delivered on or before the 9th day of JULY next, at the Clerk's office, in Buckingham.

GEO. NELSON, Clerk to the Board.

Buckingham, June 7, 1855.

COMPETITIONS.

TO ARCHITECTS.

THE COMMITTEE appointed by the Secretary of State for War, to consider the question of BARRACK ACCOMMODATION for the Army, are authorized to offer the following prizes, for PLANS of BARRACKS, which shall embody the recommendation contained in their Report, dated June 18, 1855:—

For the best plans for an Infantry Barrack, to accommodate 1,000 Men	£150
For the second best	100
For the third best	50
For the best plans for a Cavalry Barrack, to accommodate 300 Men	150
For the second best	100
For the third best	50

The candidate who obtains the highest prize of £150 for the best Infantry Barrack, will be employed to execute his plan in the building of an Infantry Barrack. The same for the Cavalry Barrack. Each plan must be accompanied by specifications and estimates, and where plans seem in other respects to possess equal merit, a preference will be given to those which provide the necessary accommodation in the most economical manner.

Plans, specifications, and estimates, must be sent to the Ordnance Office, Pall Mall, on or before the 31st JULY next, addressed "To the Chairman of the Committee on Barracks." All plans sent in, will remain the property of the War Department.

Copies of the Report of the Committee, and of the Evidence, may be had on application to the Barrack Department at the Ordnance Office

Signed MUNCK, Chairman.

June 21, 1855.

CONTRACTS.

Commanding Royal Engineer's Office, Dublin, 15th June, 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive PROPOSALS for the following CONTRACT, viz. for the CONSTRUCTION and ERECTION of TWO TEMPORARY CHURCHES at the Barracks on the Curragh of Kildare, in the Dublin District. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin; and may obtain specifications, with the terms of contract, upon making a deposit of 1*l*. for the same, which deposit will be repaid when the specifications are returned unopened. The Buildings to be completed within seventy days after the acceptance of the Tender. The letters of Tender to be sealed and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before the 28 h day of JUNE, 1855; and to be marked on the outside, "Tender for Work at the Curragh of Kildare."

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, Pall-Mall, London, on or before MONDAY, the 2nd of JULY, 1855, from parties willing to Contract for STONEWORK required to be performed at the New Battery, near Fort Monckton, Gosport. Plans and specifications for the work may be seen, and forms of Tender obtained, at the Royal Engineers' Office, No. 11, James-street, Pimlico, between the hours of TEN and FOUR o'clock (Sundays excepted). The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall-Mall, London, and endorsed "Tenders for the performance of Stonework, at the New Battery, near Fort Monckton, Gosport."

Royal Engineer Office, Portsmouth, June 18, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer in the London district hereby gives Notice, that sealed TENDERS, addressed to the Secretary to the Board of Ordnance, will be received at the Office of Ordnance, Pall-mall, on or before the 2nd of JULY, 1855, for SUPPLYING, LAYING DOWN, and FIXING the necessary GAS-PIPES and FITTINGS to the several Buildings at Wellington, St. George's, Regent's-park, and St. John's Wood Barracks. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineers' Office, No. 11, James-street, Pimlico, between the hours of TEN and THREE o'clock, from the 21st to the 30th of JUNE, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineers' Office, London District, June 19, 1855.

TO CONTRACTORS, BUILDERS, &c.

THE COMMITTEE of the STEPNEY GRAMMAR-SCHOOL, Tredegar-square, Mile-end, invite TENDERS for REPAIRS to the PREMISES, to be sent in to us before the 27th instant. Specifications may be seen at the School. The Committee do not bind themselves to accept the lowest or any Tender.

FARNHAM and HARTLEY WINTNEY DISTRICT SCHOOL.—The Building Committee of this School are desirous of receiving TENDERS for the BUILDING of a new SCHOOL, to be erected in the parish of Crondall, Hants, about two miles from Farnham, Surrey. Tenders must be sent to my Office, in Farnham, by the 14th day of JULY next. The plans and specifications can be seen on the 27th JUNE instant, at the present School-house at Hartley-row, three miles from Farnham; and at the BOARD of WORKS Offices, 28 & 29, Bridgman-street, London.

Farnham, June 15, 1855. WM. HOLLEST, Clerk.

Royal Engineer Office, Portsmouth, June 13, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on WEDNESDAY, the 4th day of JULY next, from such persons as may be willing to undertake the ERECTION of BARRACKS, with MAGAZINES, &c. at Hurst Castle, near Lymington, Hants. The plans, specification, and conditions of contract, may be seen, and every information obtained, on application at this Office, between the hours of TEN and FOUR each day (Sundays excepted). Tenders to be endorsed "Tender for the Erection of a Battery, with Magazines, &c. at Hurst Castle, near Lymington, Hants," and to be inclosed to J. WOOD, Esq. Secretary, Office of Ordnance, Pall-mall, London.

CONTRACTS.

SAINT COLUMB MAJOR BURIAL BOARD.—To BUILDERS.—The Burial Board of St. Columb Major, Cornwall, are prepared to receive TENDERS from Builders for the ERECTION of the BOUNDARY WALLS, IRON RAILING, and ENTRANCE-GATES, a LODGE, and TWO CHAPELS, on the site selected for their cemetery. Plans, sections, specifications, and form of Tender, may be inspected until the 29th day of JUNE instant, at the Offices of the Clerk to the Board, in St. Columb; and further particulars may be known at the Offices of Mr. WHITEHEAD, Surveyor to the Board, 4, Dix Field, Exeter. The Tenders must be delivered at the Offices of the Clerk to the Board, before noon on the 30th day of JUNE instant. The Board do not bind themselves to accept the lowest or any Tender. Security will be required for the due performance of the contract.—By order of the Board,

JAMES WHITEFIELD, Clerk.

St. Columb, June 13th, 1855.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of FARM BUILDINGS at Kirtling and Ashley, Cambridgeshire, for the Trustees of the Hon. W. H. J. North, may inspect the plans and specifications of the works, at the Office of Mr. J. F. CLARK, the architect, Newmarket. Tenders to be delivered and opened in the presence of the parties, on the 10th day of JULY next, and the lowest or any Tender will not necessarily be accepted.

TO WROUGHT IRON TUBE MANUFACTURERS, BRASS FOUNDERS, PLUMBERS, AND OTHERS.

CLITHEROE WATER-WORKS.—The Directors hereby give notice, that they are prepared to receive TENDERS from parties who may be willing to undertake either of the following CONTRACTS

CONTRACT No. 5.—For the supply of PLAIN and GALVANIZED IRON and LEAD PIPING, HIGH-PRESSURE COCKS, FERRULES and other FITTINGS, for HOUSE-SERVICE WATER SUPPLY.

CONTRACT No. 6.—For EXCAVATING the GROUND, TAPPING MAINS, LAYING, JOINTING, and FIXING PIPES, CUCKS, and other FITTINGS for complete HOUSE-SERVICE.

Specifications may be inspected, and forms of Tender obtained at the Offices of the Engineer, Mr. McLANDSBOROUGH, C.E. 24, Queensgate, Bradford; from whom any further information may be obtained.—Sealed Tenders, properly endorsed, must be sent in to us on or before the 14th day of JULY. No tender will be entertained unless duly made upon the printed form.

By order, TRAPPES and EASTHAM, Solicitors.

Clitheroe, June 14, 1855.

WORTHING LOCAL BOARD of HEALTH.—WATER-WORKS.—To EXCAVATORS, CAST IRON PIPE LAYERS, and OTHERS. The Local Board hereby give notice, that they are prepared to receive TENDERS, from parties willing to undertake the following contracts:—

CONTRACT No. 14.—For EXCAVATING the GROUND, and for LAYING and JOINTING CAST-IRON WATER-PIPES FIXING SLUICE VALVES, HYDRANTS, &c.

Specifications, schedules, and forms of Tender (for shillings the set), may be obtained, together with any further information required, on application at the office of the Local Board, Worthing; or at the Offices of ROBERT RAWLINSON, C.E. No. 26, Parliament-street, Westminster. Sealed Tenders to be delivered at the office of the Local Board, Worthing, before TWELVE o'clock, on TUESDAY, the 10th day of JULY, endorsed "Tender for Contract, No. 14."

(Signed) WM. HUGH DENNETT,

Worthing, June 21, 1855. Clerk to the Local Board.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Office of the Board, Greek-street, Soho-square, on TUESDAY, the 3rd day of JULY next, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK and PIPE SEWERS, 3,367 feet in length, or thereabouts, with other Works in connection therewith, in Tanner's hill, Broadway, and New Cross-road, Deptford, Holmesdale, Hanover-street, and Cross-street, Lewisham, in the county of Kent, and for the maintenance of the said works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender may be inspected, and their particulars obtained, at the principal Office of the Commissioners, No. 1, Greek-street, Soho square, between the hours of NINE and FOUR o'clock, until the 2nd JULY. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square,

Dated this 21st day of June, 1855.

TO BUILDERS, CONTRACTORS, and OTHERS, desirous of TENDERING for the EXECUTION of the WORKS to be done in ERECTING EIGHT SHOPS and DWELLING-HOUSES at Milford, and also of BUILDING additional STABLING, COACH-HOUSES, SHEDS, &c. to the Valence Hotel, adjoining, and for enlarging and making additions to the Commercial Hotel, in the principal street at Milford, may see plans, specifications, and obtain forms of contract, at the Office of Mr. W. H. LINDSEY, Architect, 9, Adam-street, Adelphi, and at Milford, on and after the 25th of JUNE. The estimates for the eleven houses and stables to be kept distinct from the estimate for the Commercial Hotel. The Tenders must be sent to me, and endorsed, directed to Mr. W. H. LINDSEY, Estate Office, Milford, Pembrokeshire, on or before the 8th of JULY. No Tender will be received after that date. The lowest Tender will not necessarily be accepted.

[For remainder of Contracts see next page.

CONTRACTS.

TO BUILDERS.

PERSONS willing to CONTRACT for the ERECTION of a PAIR OF SEMI-DETACHED VILLAS, on the St Margaret's Estate, at Twickenham, are desired to see the last page of Specification at the Office of the Architect (GEORGE MORGAN), Esq., 5, Chancery-lane, on and after MONDAY, JUNE 25th. Tenders to be delivered JULY 2nd. No pledge given to accept the lowest Tender.

TO BUILDERS AND CONTRACTORS.

CHESTERFIELD MARKET-HALL.—EXPENSION of TIME for TENDERS.—The Directors of the Chesterfield Market Company are desirous to receive TENDERS for the ERECTION of a MARKET-HALL and other Buildings in the Market-place, Chesterfield. Drawings and specification may be seen at the Office of the Architects, Messrs. SHIPTON and HALLEWELL, Sheffield, and any further particulars may be obtained of Mr. JOHN DAVIES, Chesterfield, to whom Tenders must be sent in to the Secretary by TEN o'clock a.m. on MONDAY, the 2nd of JULY. Bills of quantities may be obtained on payment of 1l. for each copy, from the Secretary, or from Messrs. BATSTONE and HUNT, Surveyors, 11, Parliament-street, Westminster, on and after MONDAY, the 25th JUNE. The Directors do not bind themselves to accept the lowest or any Tender.

By order,
GEORGE WALLIS, Secretary

Chesterfield, June 9, 1855.

GRIMSBY LOCAL BOARD of HEALTH.—WATERWORKS and DRAINAGE.—To CONTRACTORS, ENGINEERS, IRONFOUNDERS, and others.—The Great Grimsby Local Board of Health give notice, that they are prepared to receive TENDERS from parties willing to undertake the following CONTRACTS:—ENGINE BOILER, PUMPS, STAND and PIPE, capable of raising 90 lbs. gallons of water, 75 feet high, in twenty hours, for the SUPPLY of about 200 TONS of CAST-IRON WATER-PIPES, SLUICE VALVES, HYDRANTS, &c.; for LAYING the said PIPES, &c.; for DRAINAGE of the TOWN of GREAT GRIMSBY with BRICK TUNNEL and GLAZED EARTHENWARE PIPES. The Surveyor to the Local Board of Health, on and after MONDAY, the 18th JUNE inst., Sealed Tenders to be sent in to the Office of the Clerk to the Local Board of Health, on or before the 14th JULY next at TWELVE o'clock at noon, indorsed "Tender for Drainage and Waterworks." Copies of the specifications may be obtained on application to Mr. MICKLETHWAIT, on payment of 10s. Tenders will be received for any one of the contracts, but a preference will be given to the persons tendering for the whole. The Local Board of Health do not bind themselves to accept the lowest or any Tender.

By order,
GEO. BABB, Clerk.

Great Grimsby, June 12, 1855.

TO ARCHITECTS AND OTHERS.

THE BURIAL-BOARD for the Parish of WESTBURY, in the county of Wilts, is desirous of receiving DESIGNS, to comprise Plans, Elevations, Sections, and Specifications, for a PLAN for LAYING OUT a NEW BURIAL GROUND of about SIX ACRES, ENCLOSING the GROUND, BUILDING a LODGE, with ENTRANCE GATES, and BUILDING a NEW CHAPEL, one created, and the other not. The party whose plans, &c. may be approved, will be paid a premium of 25l. for the plans, designs, estimates, and specifications, the same to be delivered in, at the office of expense, without the author's name, but with a motto, on or before the 7th day of JULY next. A sealed letter, containing the name and address, should accompany each design, which will be opened after selection made, and the plans not approved will be returned. Further particulars, together with a plan of the site, may be obtained on application to

HENRY PINNIGER, Clerk to the Board.

Westbury, 13th June, 1855.

REIGATE UNION.—To BUILDERS.—Notice is hereby given, that TENDERS are required by the Board of Guardians of this Union for WORKS proposed to be done to the Workhouse at Redhill, Reigate Surrey, in the ERECTION of a WASH-HOUSE for the GIRLS, and ALTERATIONS of AGED WOMEN'S and GIRLS' WARDS, &c. The plans and specification may be seen at the Board-room of the Workhouse, on any day except Sunday, between the hours of TEN and FOUR, and any further information may be obtained of Mr MUGGERIDGE, the Architect, Dorking. The Guardians will not be bound to accept the lowest or any Tender. Tenders to be sent in, postage free on or before the 26th instant, directed to me at Reigate. By order of the Board,

G. CARTER MORRISON, Clerk.

Board-room, June 13, 1855.

DERBY and NOTTINGHAM TURNPIKE ROAD. TENDERS for WORK.—The Trustees of the Derby and Nottingham Turnpike Road are prepared to receive TENDERS for the LOWERING of CHADDESDEN HILL Farms of Turnpike Road, to be laid on and after MONDAY, the 25th instant, at the Office of Messrs. JESSOPP and SON, Wardwick, Derby, where also the plans and specifications can be seen after that date, to see, and all information be obtained. The Trustees do not bind themselves to accept the lowest or any Tender. Sealed Tenders, endorsed "Tender for Work at Chaddesden Hill," to be sent under cover, addressed to Mr FRANCIS JESSOPP, Wardwick, Derby, not later than MONDAY, the 2nd of JULY next.

N.B. No Tender will be received unless made upon the form and quantities supplied at Messrs. Jessopp's Offices.

Derby, June 16, 1855.

TO SLUICE BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for CONSTRUCTING a new OUTFALL SLUICE, and executing other WORKS, at Holme one mile above the town of Wisbech, for the drainage of Wisbech, south side, and Elm, west side, may see the drawings and specification at my Office. The Tenders to be sealed and delivered on or before FRIDAY, the 6th of JULY next, at ELEVEN o'clock A.M. The parties putting out the work will not bind themselves to accept the lowest or any Tender

WM. ADAMS, Surveyor, &c.

Wisbech, June 22nd, 1855.

TENDERS will be received on WEDNESDAY next, at FIVE o'clock, at the offices of Mr WILLIAM E. WILLIAMS, Architect, 7, St Jerom street, for the ERECTION of FIVE fourth rate HOUSES. Plans, &c. may be seen daily between the hours of TEN and FIVE at Mr. W. does not bind himself to accept the lowest or either of the Tenders.

GLOUCESTER WATERWORKS.—EXCAVATION for WATER-MAINS, &c. The Gloucester Board of Health are desirous of receiving TENDERS for CUTTING THROUGH, for LAYING the MAIN WATER-PIPE of 12 inches in diameter, in the direction of the intended New Waterworks, for a distance of about five miles and a half, and for CARTING the WATER-PIPES and other CASTINGS from the Railway station at Gloucester, at the line of Trench and for other Works. The specification and form of Tender may be had on application to Mr. BATEMAN, C.E. Manchester; or Mr. R. H. FRYER, Solicitor, Gloucester, the Clerk to the Board. All Tenders are required to be sent in to the Clerk, under a sealed cover, marked "Waterworks Tender," and addressed to "The Gloucester Board of Health," on or before TUESDAY, the 3rd day of JULY next. The Board do not pledge themselves to accept the lowest or any Tender.

K. H. FRYER, Clerk to the Board.

Gloucester, 14th June, 1855.

TENDERS are required for the ERECTION of a THIRD-RATE SEMI-DETACHED VILLA, at Peckham. Plans and specification on view, to be seen daily between TEN and FIVE, at the offices of Mr WILLIAM E. WILLIAMS, Architect, No. 7, St. Colemanstreet. Mr W. does not pledge himself to accept the lowest or either of the Tenders.

CONTRACTS.

FAVERSHAM PAVEMENT.—To CONTRACTORS, PAVIERS, and OTHERS. The Commissioners of the Faversham Pavement are desirous of receiving TENDERS for TAKING UP the ROAD PAVING in Preston-street, and of RELAYING about 350 yards with the best of the stones taken up, and by REPAVING about 70 yards with the best Guernsey granite pitchers. Persons willing to contract for the above work are requested to send Tenders in my Office, at Faversham, where the specification may be seen, on or before MONDAY, the 2nd day of JULY next, endorsed "Tender for Paving." The person whose Tender shall be accepted will be required to enter into a contract, with one or two sureties, for the due performance of the work. The commissioners do not bind themselves to accept the lowest or any Tender

By order of the Commissioners.
JAMES TASSELL, Clerk.

Faversham, June 16, 1855.

TO ENGINEERS AND SURVEYORS.

THE SURBITON IMPROVEMENT COMMISSIONERS require a SURVEY and MAP of the district of Surbiton, in the parish of Kingston upon-Thames, and are prepared to receive TENDERS for the same. Such Survey and Map (the district about 1 mile will the representants of the 49th and 50th sections of the Towns Improvement Clauses' Act, 1847, and show some of the principal roads in the district. Further particulars may be obtained between the hours of FIVE and SEVEN daily, at the Office of the Commissioners, situate at the National Schoolroom, in Surbiton, or at my Office, 147, Leadenhall-street, in the City of London. A Plan of the district may also be seen at the office of the Commissioners in Surbiton. All Tenders to be sent in before 1st JULY next, and the Tender to state the time when the Survey and Map will be completed.

JAMES BELL, Clerk to the Commissioners.

June 18, 1855.

TO GAS ENGINEERS

THE DIRECTORS of the CARSHALTON GAS and COKE COMPANY are desirous to receive TENDERS for the contemplated ALTERATIONS in their WORKS, drawings and specifications of which can be seen on application to their Secretary, Mr. WRIGHT, West street, Carshalton, to whom Tenders are to be addressed on or before THURSDAY, 5th JULY. The directors do not bind themselves to accept the lowest or any Tender.

Carshalton, June 18, 1855.

TO BUILDERS.

SUCH persons as may be desirous of CONTRACTING for the restoration of the PARISH CHURCH of SNETTISHAM, near Lynn, Norfolk are requested to apply by letter, to Mr. J. DAWES, 1, Adam street, Adelphi, London, on or before the 28th inst. The plans and specification will be sent to each person desirous of tendering, and he will be allowed to have them in his possession for two days. Tenders to be delivered, free of expense, on or before the 14th day of JULY next, addressed to the Rev. H. H. BRIDGEWATER, Snettisham, Lynn. The committee do not bind themselves to accept the lowest or any Tender, and no person need apply unless he can figure the whole of the fittings being executed in well-seasoned English oak June 14, 1855.

SERPENTINE, from the Lizard Rocks, Cornwall.—SLAB, HOB for chimney-pieces, Columns, Vases, &c. &c. Orders taken and estimates given.—J. UNWIN, Agar Wharf, King's-road, St. Pancras.

ITALIAN and GALWAY MARBLE QUARRIES. Depôt, Whitehall Wharf, Parliament-street, London.—BUILDERS, MARBLE MASONS, & BUILDERS. Twenty-eight blocks of statuary, Sicilian, &c. now landing at Whitehall Wharf, ex Tanfield, from Leghorn. Mr FRANKLIN begs to call attention to the above, and to his extensive stock of Marble in blocks, consisting of Statuary, Vein, and Sicilian, Best Black and Green, Dove, Bardilla, Sienna, Brocatella, Rouge Royal, St. Anne's, Emperor's Red, Black and Gold, &c. &c. which he is enabled to offer at reduced rates, on advantageous terms.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall Bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer in his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.

SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST STATUARY MARBLE.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Hareluil, Park spring, and other stone, in all its stages, and every description of York paving, granite curb, &c. All goods carefully packed and forwarded to any part of England.—THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

By Her Majesty's — Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS,
QUARRYMEN AND STONE-MERCHANTS,
BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter. London Agent, C. HOAR, 4, Milbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

VALUABLE SANDSTONE for PIER and DOCK PURPOSES.—To STONE MERCHANTS and CONTRACTORS. To be SOLD by PRIVATE CONTRACT, about 8,000 CUBIC FEET of SANDSTONE of the best quality. The party to sit sited at Golden Banks, Hotsforth, near Leeds, half a mile from the North-Eastern Railway Station. The stone has been extensively used in the construction of Government dock and harbour works. The baring is not above 5 feet in depth, and as the quarry has been wrought upwards of twenty years the entire breadth and depth of the bed of stone is open for working. Blocks of from one to twenty tons may be got, and can be carted from the lowest level of the quarry. A purchaser at a distance would find it worth his while to send trade-worthy persons upon the spot, who would contract to get and deliver the stone. To learn the time allowed for removing the stone, and other particulars, apply to Mr C. L. DRESSER, Land Surveyor, Leeds; or to Mr. EDWARD BUTLER, Solicitor, Leeds.

4, Park row, 7th June, 1855.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late LUARD, BEEDHAM, and CO.) Caen Wharf, Rotherhithe, London, General Stone Merchants and Carpenters, continue to deliver from their Wharf and Depôts CAEN STONE, AUBIGNY, PORTLAND, ANCASTER, GODSTONE IN, BUILDING, BLOCK, and RUBBLE STONE; BLUE KNOWLE and HARTLEY MILL STONE, also RUBBLE BUILDING STONE, direct from the Caen and Aubigny quarries, at very moderate charges, to compete with the price of Brickwork.—For information apply direct to Caen Wharf, Rotherhithe; or to Hiberna-chambers, London-bridge, Borough.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts—Granite Wharf, East Greenwich; Leith's Waterloo-bridge. Offices: 246, High-street, Southwark, near the Townhall.

MASTER BUILDERS with Capital are offered the GRATUITOUS WORKING of an old Quarry of CAEN STONE for a limited number of years, if they will engage to build the masonry of a small Protestant Church in this town. For further particulars apply to Mr B daily, from TEN to TWELVE, at No. 18, Buckingham-street, Adelphi.

FREESTONE.—Architects and Others are reminded that they can obtain the CASTERTON FREESTONE, in Blocks of any portable size, at the Quarries, or at the Railway Stations of Stamford, Essendine, or Tallington, and which, from its price, and the facility with which it is wrought, offers immense advantage to the purchasers.—Apply to FRAS. and GEO'S. SIMPSON, of Stamford.

N.B. Specimens in plain blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the Offices of Messrs. PENDER, SIMPSON, and SONS, 29, Saville-row, Burlington-gardens, London. May, 1855.

BATH STONE DEPOT, BOX STATION.—ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Box Ground Stone, Scalloll Block, Ashlar, Rangework, &c. &c. Supplied direct from the quarries; also every description of Stonework for Building purposes, both plain and ornamental, prepared ready for fixing, and forwarded to any part of the kingdom. Vases in elegant variety always on view; Urns, Fountains, Chimney-pieces, Tombs, &c. &c.

BANGOR WHARF, King's-road-bridge, Camden-town.—STRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's Parking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials landed, wharfed, and carted.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORK STONE of the very best quality direct from their Quarries, to all parts of the Metropolis or in the Kingdom, on the most reasonable terms.—GEO. VINT and BROTHERS will gladly forward Plan and Prices on application.—Address, Idle, near Leeds.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland, and Caen Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents—BELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard. This Granite is selected for the New Westminster-bridge.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, and others, that his PRICE LISTS for SLATES and SLAB WORK for 1855 are NOW READY, and can be had on application, inclosing a postage-stamp.

N.B. A liberal discount to the trade.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now made in large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Work, Model Prisons, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities at Messrs. FREEMAN, Millbank-street, also by Messrs Sharpe, Cooley-street, and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

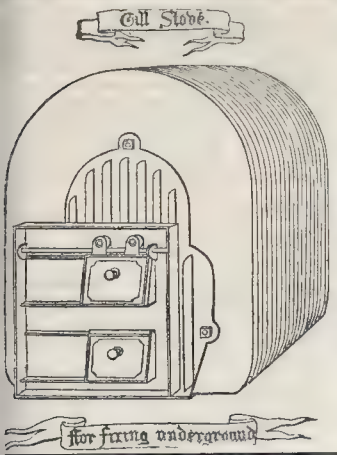
SLATE PAVING, 4½d. per foot superficial, averaging 5 feet, in a slab planed well one side, squared, fitted to lay without additional labour, warranted stronger and more durable than York. The above may only to be seen to ensure its active sale. Bangor slate paving, 2 inches thick, planed both sides, 2½d. per foot. Roofing slates at extremely low prices.—HANNAY and WORMALD, Rutcliff-cross.

BANGOR SLATES, of all sorts and sizes; SLABS of all dimensions, and of superior quality.—For prices and particulars apply to J. EASTWOOD and SONS, Surrey Canal-bridge, Old Kent-road.—Export orders supplied promptly.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 7 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE. Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in prices in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work. PIMLICO SLATE WORKS, 39 and 43, Upper Belgrave-place, Pimlico.



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PATENT GILL STOVE,

FOR

HEATING CHURCHES AND OTHER PUBLIC AND PRIVATE BUILDINGS.

The constant failures, and enormous expense, consequent upon the endless variety of experiments to warm buildings has left the public in doubt as to whether there exists any certain, economical, and safe mode of effecting that object or not.

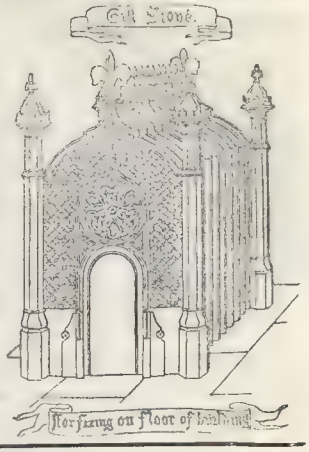
STUART AND SMITH,

ROSCOE-PLACE, SHEFFIELD,

confidently assert, that the Air-Warmer they recommend, possesses the desired qualifications, and respectfully request Gentlemen interested in the question, to ascertain the fact from the actual working of the invention.

It has been fixed in the following, besides a great many other private and public buildings:—St. Stephen's, Longsight, Manchester; Grassendale Church, Aigburth, Liverpool; St. Ann's, Aigburth, Liverpool; North Wootton, near Lynn, Norfolk; St. Paul's, Alnwick, Northumberland; Bettesanger Church, Sandwich, Kent; St. Mary's, Pitsmoor, and Grimesthorpe, Sheffield; County Lunatic Asylum, Derby, &c. &c. &c.

Prospectuses, and every information, sent on application.



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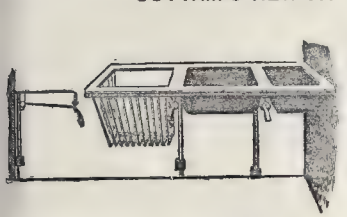

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the original projectors of the above arrangement of MANGER RACK and WATER-TROUGH, AS ONE FIXTURE, which obtained the Great Exhibition Prize Medal, and universally approved of, have added all the latest improvements to their invention (secured by patent), which includes an entirely new method of attaching the halter-ball and rein, giving to the horse greater freedom, and being noiseless in operation, and much to its comfort whilst feeding and convenience when at rest.

COTTAM'S ENAMELLED MANGERS

are constructed in the best possible manner, both as to form and utility, are cleanly in appearance, durable, and impervious to infection; manufactured PLAIN, GALVANIZED, or ENAMELLED.

Improved Stable Guttering, with Moveable Safety Covers.

Loose Box Fittings, Harness-room Appendages, and every Article in Stable Furniture Kept on Show.

Descriptive Catalogues and Estimates on application to

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET, LONDON.

IMPROVED PUMPS,

Of the best Workmanship and warranted.

The VALVES and SUCKERS of these Pumps are constructed upon an entire new and SIMPLE principle; they are not likely to get out of order; should they do so, can easily be repaired, as the Pump is so contrived that the valves can readily be got at.

An Improved CAST IRON TRAP strongly recommended by the Sanitary Commissioners, and suitable for Sugar Bakers, Slaughter Houses, &c. &c. It is so formed that the Trap-plate will pass any matter the top grating will let through, and therefore is not liable to stoppages and well adapted to Stables and Stable-yards, for saving the best part of Liquid Manure.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

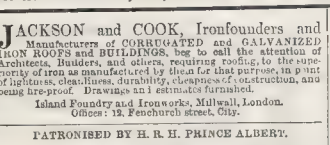
SKAIFE'S GALVANIZING WORKS,
Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated.—Roofs fixed complete.
J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
An Allowance to the Trade.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor, and Ironfounder, Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of build ngs always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch street, City.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plans or estimates.
Castings Warehouse removed from 81 to 68, Upper Thames-street.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron-bridge.

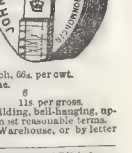
ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the store and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and CO. opening to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

HEATING BY HOT WATER.
JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 8s. 8d. This achievement in heating by hot water is unprecedented.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42, Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 9d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 8½d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 3s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each
Air Bricks, 4s. per doz.
Best Town Glue, 5os. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.
THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
5s. 6d.	6s. 6d.	8s.	9s. 6d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 48, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TO IRONMONGERS AND THE TRADE GENERALLY.
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on hand—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 14s.—55 and 56, High Holborn.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches up to 10 inches each corrugation, in all lengths up to about 11 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock, or galvanized to order.

The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters (plain and moulded), Gas Tubing, much cheaper and more durable than Lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys; Copper Rope Lightning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, at 1d. per square foot. Dry hair Felt for Deadening Sound, for Boilers and Steam Pipes, made in rolls 20 yards long, at a greatly reduced cost.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chains, Anchors, &c.

THE TRADE SUPPLIED ON LIBERAL TERMS.

Head Offices: 13, JAMES-STREET (late Coalbrookdale Company's Premises), LIVERPOOL;
Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. All kinds of Iron and Ironwork Galvanized, and Sheet-Iron Corrugated at very moderate prices.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,
19, WIGMORE-STREET, LONDON;
and at the Crystal Palace, Sydenham.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and CO. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery; they are made of various dimensions, a lapful for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and Co.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence lane, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the Lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1704, BRITISH SECTION, HARDWARE DEPARTMENT, PARIS EXHIBITION, 1855.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Nails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

Office, No. 7, Sise-lane, London.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent,—Mr BARRETT, 12, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O-G Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other castings; Iron work for Bakers' Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coalhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and not rising spring, swing, double acting, gate, and other Hinges, Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 88, Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL, Manufacturer of Wrought Iron Tubing for Gas, Steam, and Water; Stocks, Taps, and Dies, and all kinds of Gas Fittings.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and Best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler.

30	32	34	36-inch.
28s.	30s.	32s.	34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch.
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 4½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 3d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

	1	1½	2 inch.
Cast Rain-water Pipe	11d.	1s. 2d.	1s. 4d. per yard.

Cast Gutters—4 inch, 9d. per yard.

	4½ inch.
O G Gutters	1s. 1d. 1s. 3d. per yard.

	1½	1¾	2	2½	2 inch, and larger.
Best Cut Clasp and Rose	10s.	12s. 6d.	15s.	18s.	25s. 6d. per cwt.

Cut Sheet Bolts and Brads, 12s. per cwt.

	1 inch Cut Lath, 14s. 6d.		Cast Lath, 11s. 6d.	
	3	4	5	6
Patent Line	4½d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, is manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only scription of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and URROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS NNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE LONDON AND MANCHESTER PLATE GLASS COMPANY

Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to timate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee e maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

RON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, ink Plates, Area Gratings, Sash Weights, Fly and other Wheels, ggers, Pinions, Engine and Lathe Castings, Forge Backs, rnace Bars, Kilns, Pans, and other castings, to patterns or awings.

BUILDERS, Contractors, Carpenters, and others are invited to inspect the stock of
AILS, TOOLS, BRASS, AND GENERAL IRONMONGERY at PFEIL and STEDALL'S,
Nos. 5 and 6, BROAD-STREET, BLOOMSBURY.
e prices will be found the lowest, and the stock one of the largest in the trade. A price list sent on application.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD, d BORING WOOD or IRON.—House and Coach Builders, oners, Cabinetmakers, and others, doing similar work, are vited to call at the Patentees', POWIS, JAMES, and Co. Wholeale Builders and Cabinet Makers, Ironmongery Establishment, 26, ailing street, City, and see in action this very simple, powerful, d expeditious machine, which is the only one yet brought out, e performing these three separate kinds of work by one machine; d as it is self-feeding, it does not require any skill or care in ing like the older inventions introduced. It can either be rked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
3, 54, 55, & 57, WYCH-STREET, STRAND.

An Illustrated Catalogue on receipt of six postage-stamps.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

PLANING MACHINE

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and waggon builders, shipbuilders, agricultural implement makers, shipbuilders; and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee, 20, Lawton-street, Liverpool from whom full particulars may be obtained.

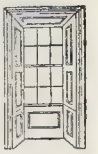
TO ARCHITECTS AND BUILDERS.
PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

CHARLES WM. WATERLOW AND CO.
MANUFACTURING JOINERS,
121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

N.B.—ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

SANDS AND EMERY,
CURSITOR-STREET, CHANCERY-LANE.

MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.



Lists of Prices and Estimates forwarded on application.

PATENT METALLIC LAVA.
A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of
ORSI AND ARMANI.
THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.
OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT
Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

GENUINE SEYSSEL ASPHALTE.
ORSI AND ARMANI.
THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)
DIRECT FROM THE MINES.
REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.
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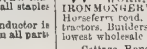
By Her Majesty's  Royal Letters Patent.

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VOL. XIII.—No. 646.

ROUTINE, the ready word, flying with the wings of every morning —the phrase of every "*leader*" where official rust, or immobility need the interposition of "the fourth estate,"—what word more appropriate now for the usual capitals to our own first column? For, if not *routine*, "the shackles of precedent," or "professional prejudice," have been terms applied to architects' practice by the *dilettanti* in art;—also by a section of the promoters of those sanitary measures which, indeed, our own columns may have assisted to advance. What, then, so apt as the word ROUTINE, withal to "point the pen" for the shedding of ink about the person of a designer and chief superintendent of military manœuvres, or some commander-in-chief of works in architecture and building?

The difficulties and responsibilities in the two positions are more and more, appearing to us to have points distinguishing them from other cases,—yet with points common to each other. We shall on all grounds animadvert, not on painful occurrences out of our proper path; nor need we turn upon our own friends,—more especially as our parallel would end with what we have just stated.—Habitual misconception on the part of the public is what the architect seems to be heir to; but that is mainly because the collective wisdom of our body attempts no explanation, where the individual and his profession are generally misunderstood. Progress in art and science has found in us,—and we honestly believe in the general profession of architects,—earnest advocacy and support.

We would, however, register a plea against the ascription of all evils, that have befallen public affairs, and works in architecture, to what is liable to be conveyed to some minds by the word *routine*. Order, system, rule, subordination, and division of labours,—these only are the means by which great undertakings—campaigns or buildings—can be accomplished. To have said this, is the result of no new discovery: and the means are comprised in what *may* be, in short, *routine*. Ill-success, perhaps through incapacity, has followed in particular cases;—on one side money may have been laid out in vain; on the other there has been superadded, disastrous loss of life. But—since the time allotted for great works is short—though genius is not to be dispensed with, something less brilliant in its manifestation is necessary. That which brings about the success of those commercial undertakings—given as examples to public departments—is, to all obviously, a certain mechanical distribution of duties in settled channels, proved to be of a labour and time-saving nature. Even where the avocations are mainly dependant upon personal exertion, conclusions from experience must be acted upon—often without fresh reference to reasons. To re-open every question when the time for action arrives, is to live in inactivity and scepticism. Therefore, those are bad teachers who would give *no* importance to precedent; and in architecture, such individuals may be fairly asked to show what they individually have done.

What is meant to be conveyed by the brilliant rhetoric of writers in the newspapers, is something very different from that against which we should have to contend. It would be found that we and they are of one mind. But a careful reader is hardly more common than a good writer,—and it would be unfortunate if ideas were disseminated, tending to give any light importance to organization and system, or even "precedent."

In fact, it is the most difficult of such questions, to say exactly where routine and precedent should cede to the working of genius,—or where they should interpose to moderate or shield. If a man be not prone to invention himself, the world about him is constantly advancing. Taught to cultivate the perceptive faculties, as every good architect is; impressed by what is new, and even impelled to the seeking of it,—it is positively impossible, as it is inconsistent and illogical, to disregard the new inventions which every day brings forth, and the altered position of the art and science of architecture which continually results. So far, it is easy for us to express the complete accordance that architects have with those who have sometimes imputed to them positively a contrary opinion.—But we must say that the onerous duties of architects, and their responsible position with reference to inventions are continually lost sight of. There is scarcely any member of the profession whose name is in the "London Directory," who does not receive at least once in every week, a circular referring to some new material, or building contrivance. Each circular is accompanied by testimonials —of course from individuals known by reputation, if not personally, to the recipient;—each circular deserves, at least, to be read, considered, and located for reference. He who can do only this, and yet not let slip more immediate duties, and who can preserve the fact of the invention in his memory,—that man is of more than ordinary *calibre*. The difficulties, however, of a course, form no reason for *abstaining* from entering upon it, where it is clearly essential to success, and morally right. No duty, whatever there is, but demands effort. For, the possible is discovered only during the act of exertion.

Let it not be thought we are giving too much importance to the trouble we have just alluded to. That would, we must admit, be comparatively slight, if it ended with the reading and filing of a document. To speak the truth, testimonials are given often with such slight regard for the responsibility — we might say the sacredness—of the duty which should be attached to the act of recommendation, that they entrap unwitting architects into mistakes, and so lead to apprehension as to untried inventions, altogether. Now, it is these exceeding difficulties in the way of sufficient trial which are so often forgotten where our profession is spoken of as narrow-minded, or prejudiced. What architect does not recollect how, at one time or another in his professional life, he seized upon and specified every invention that appeared to him an improvement—somewhat priding himself, perchance, that he at least was divested of prejudice, and disposed to employ all the advantages open to an architect of the present age. Bitter in such cases too often is the disappointment. Some of the most promising contrivances we have known not to stand the test of a year's wear. The carcase and finishings of a house should be "good" for a few generations; and the subordinate contrivances and working machinery should be in order for a fair measure of the time. It is certainly difficult enough to ensure this, even with materials of which the properties are supposed to be known; and this is no doubt in itself an argument for the search after what would better answer the purpose. Individual professional experience, however, in all directions, has been unfortunate in its discoveries. One day you shall have a new cement brought before you, calculated for use without the necessity of painting, or possessed of some other long-desired advantage. An odd year or so will not pass without defects, and a visitation from the house proprietor, on the head of you, the unfortunate architect. Or you shall have yourself witnessed experiments at the manufacturer's yard—only to be nullified by adulteration at the dealer's. The latter case, however, we may pass over, as exceptional to the argument, though not to the experience. Indeed—whilst feeling and even strongly maintaining the necessity of improvement in all departments of practical architecture, and in houses especially so—we are surprised at the "run" that some materials or contrivances have had. Were we to look at circumstances restrictedly, we should ascribe to our professional friends the very opposite fault to that imputed against them. Acres of paving have been laid in basements and passages, with materials which seem to shrink and shrivel under atmospheric influence, or are unfitted for traffic that would wear away the hardest stone. One such material we know of, that, if it is not so combustible as wood, is not incombustible like stone; and it appears to us not even capable of bearing the heat from a bucket of hot water. Who again has not in his memory the failures in roof coverings, many of which have been the cause of law proceedings,—to the cost of the architect? Our pages have reported many such cases.

The conclusion, however, to which we arrived, is by no means invalidated. The necessity for keeping up with the inventive genius of the age still remains. The whole tenor of the arguments will show that, if sometimes mistakes result from causes which hardly could have been within mortal prescience, they result as frequently from causes which are within ordinary means of prevention. Further, means now available for testing new inventions, which might save individual labour, and consequent fear of responsibility through unknown risk, are left undeveloped. Commissions of inquiry into promising improvements, such as we lately instanced in the French Institute, are almost unknown in England; though such as have been issued, like that on iron as applied to railway bridges, have produced important results. And we believe that many mistakes would be avoided, were there in the case of our particular branch of study, more of relationship between the designer and the workman—similar to what has lately been advocated in reference to art, and on general grounds—from which so much mutual advantage would undoubtedly accrue. Obstructiveness to improvement indeed is found amongst too large a proportion of the class of building operatives; and others, clever in the department to which they are for the time restricted, forget that they are but contributing a part to the great machinery of a building, which must be devised on comprehensive *data*, and with reference to general principles of science. But the very fact of this general range with us, must necessarily prevent the particular aptitude for every thing, in every trade,—from bricklaying to gas-fitting and bell-hanging. The architect may, or at least should, possess knowledge of the mechanical or other scientific principles upon which unwittingly the workman acts; the latter unquestionably has the *means* of finding out particulars, and of registering—if he be observant—a sum of experience such as the architect can have no like facilities for obtaining.

Here, then, are means—of which advantage has not been taken, through which promising improvements might be tried with some approximate test to that of actual use; and thus might the architect, with less risk and more reason, give his efforts to the improvement of practical construction. There are, however, other means, which are perhaps little known to our readers, and which, if they are calculated to give additional *impetus* to invention, and therefore to increase the number of objects requiring attention, supply also ready information about particular inventions, together with opportunities for comparing them with other inventions directed to similar objects,—which comparison affords the best chance of coming to a right decision.

At the *Great Seal Patent Office*—established in the late Masters-in-Chancery Office—facilities are now afforded for collecting information about any patented invention from the reign of James I. to the present time. On the coming into operation of the new Act, on October 1, 1852, the whole of the important business connected with patents was brought from separate offices: the building now occupied is capable of extension; and the whole measure forms an agreeable variation on "the usual routine" in Government matters, whilst attended with no small advantage to the public. A great number of specifications, under the old law, indeed still remain at the Enrolment Office, Petty Bag Office, and the Rolls Chapel; but the necessity for inspecting these may, as we shall show, now in many cases be avoided. But, as regards the patents for inventions under the new law, copies of the specification of every one of these are printed,—with the drawings lithographed,—though not coloured,—and can be referred to by any one, without charge, within three weeks of the date of the first deposit; and copies can be purchased at the cost of printing and paper,—the average price being about eightpence. As these, however, form only a portion of what constitute the advantages of the place, we shall endeavour to set forth what those are which appear to us deserving of the attention of our readers. The principal of them is the *nucleus* of a library. To the reading-room all persons are admitted between the hours of ten and four—on writing their names, and some general indication of the object of search. The public collection of books is just now limited to a few donations; but we believe it is intended soon to include every important work in science, likely to assist inventors. Meanwhile, Mr. Woodcroft, the "superintendent of indexes, specifications, &c." (to whom we may perhaps attribute most of the improved arrangements which pervade the department) has placed on the shelves his own private library of reference—including sets of the principal patent journals, in which copies of many specifications may be found,—so saving the trouble of going to the Enrolment or other office. A number of specifications under the old law are being printed by the Commissioners, besides the series regularly going on. The whole of this mass of material is made immediately available to any one knowing the date of a patent, or the patentee's name, or the subject of it; and the inquirer can also find, if under the old law, where the specification is deposited, in which of the works of reference it may be found printed, and the different cases of law that have arisen about it. Thus, there are four kinds of catalogues and indexes,—one of the number, the Reference Index, having an appendix, which gives actual copies of the early patents, or those before it was customary to have specifications enrolled. A Journal of Proceedings, published twice a week, gives notices of applications for patents, and of all steps taken,—also of patents which have become void, or forfeited,—together with other useful information, of which the principal portion relates to patents of foreign countries.* The chronological index† has the names and dates in the order of time, and opposite thereto, the title of the patent, with its progressive number prefixed. At the commencement is a table of the years of sovereigns' reigns. The chronological index is of course continued for the patents under the present law.‡ The alphabetical index§ furnishes the names of patentees, the progressive number, date, and subject-matter of the patent in separate columns. There is a separate catalogue of the same kind for for 1852-3, and one for 1854. In the classified catalogue,‖ the subjects of patents are arranged under general classes, and further subdivided: the subject of the patent is given in the first column, taken from the title as recorded; then comes the number of the patent, the date, and in the last column the name of the patentee. A general synopsis of headings at the commencement, allows any subject to be found readily. The whole of this catalogue occupies two thick volumes, in imperial 8vo. small type. A glance through the pages showed a large number of headings for matters in which we were interested. At the first few leaves, we came to "Building Materials," — one subdivision, that of "Bricks, Tiles, and Chimney-pots," being over six pages of titles; another—"Cements, Compositions, Burning Lime," &c.—more than four pages; and so on. "Building and relative Processes," included "Laying Foundations, erecting Structures, &c." "Scaffolding and Ladders," "Walls," "Decorating and Covering Buildings," "Chimneys, Flues, and Guards," "Roofs, Roofing, Slating, Beams, and Girders" (the last, three and a half pages), "Ceilings and Cornices," "Flooring, Stairs, and Rails," and others.—The Reference Index* has the progressive number of the patent in a first column, and opposite to it such entries as "Rolls' Chapel" (designating where the patent itself, if under the old law, is deposited), "Newton's London Journal" (with number of volume, &c. to be referred to), "Mechanics' Magazine," &c. and so forth,—there being often five or six such entries. The whole number of journals, and "Reports" referred to, makes up a long list. The book contains other useful information. The litigated cases are in the Appendix. The patents under the old law amount to 14,359, from which some idea of the labour incurred by Mr. Woodcroft may be gathered. The last entry of a patent in the Chronological Index, happens to be in his own name.

Thus, any one who chooses to take the trouble, *may* now inform himself as to the nature of inventions directed to any of the objects with which the architect is concerned. Formerly, this would have been scarcely possible, even with the payment of heavy fees. We can, perhaps, hardly expect any one who is in search of the best kind of brick or chimney-pot, to read through patents, of which the titles fill six pages; but it is something to have got the first step towards a knowledge of what we possess. Hitherto hidden, so much fruit of mental industry applicable to the advancement of architecture has been scattered, and, for the time, lost; invention has succeeded invention for the same object,—often, of course, involving failure after failure,—all arising from the simple want which is now supplied, for the most part within a small room in Southampton-buildings, Chancery-lane. Further measures in development of the new mine, will, we are sure, be supplied. Already, the Commissioners of Patents have taken some steps which show what might be done for us. The whole of the specifications for reaping machines, from the first in 1799, have been published with their drawings, and, together with an appendix by Mr. Woodcroft, describing the machines in use from the earliest period to the present time. The same has been done with the specifications for fire-arms, cannon, shot, accoutrements, and general mechanical contrivances for warlike in uses. The earliest of these specifications dates 1718. The diagrams show amongst other things, that the "revolver" is not a recent invention. The Board of Admiralty have required the publication of the specifications of inventions for propelling ships; and by direction of the Home Secretary, there are at present in progress, the specifications, with their drawings, of patents for consumption of smoke in furnaces; also, for the making of drainage-tiles applicable to sewerage. Subjects more directly applicable to practical construction, may, doubtless, follow; and there is nothing at the Commissioners' office, to prevent the Architectural Publication Society itself from setting to work. The whole of the publications are to be had at the cost of paper and printing. Perhaps the greatest use of the abundant material which there is in the mere catalogues, is their enabling you to trace the progress of inventions for the same object,—such as there are despite the Patent Laws, and indeed without any culpable piracy. You may almost analyse the thoughts of inventors, and may, that way, to some extent, judge about the merits of their ideas.

Thus, then, we think there are means by which the architect may, without danger, give scope to the resources of science, and yet neither despise, nor be under the tyranny of *routine* or precedent. Since we wrote our opening remarks, a broad sheet of the leading journal has been laid before us, with an article inspired with the same views that, with a less able pen, we had striven to expound. It is indeed the fact, that in architectural practice, as in affairs of government and commerce, there may be two sorts of precedent-rule; to wit, that which supplies the useful groove through which the more or less mechanical, but inevitable drudgery of life must travel, to make much way; the other, that which weights down the intellect—inconsistent alike with progressive science, as with true art. It is the fact, however hard it is for practice, that precedent should be the anchor and stay of genius, yet ever ready to be thrown off. Reynolds spoke of "that false, and vulgar opinion, that rules are the fetters of genius;" adding, that "they are fetters only to men of no genius." We and our contemporarics have been but saying the same thing,—we as to architecture, others as to warlike operations and administrative reform.

Who does not recollect the hardship of the old patent law to inventors, and the restrictions upon all progress in consequence? Fees such as no ordinary mechanic could ever hope to raise, paid to a multitude of functionaries, from the Lord High Chancellor, to Mr. Deputy Chaff-wax; troublesome "forms" to be gone through, at nine different stages, in seven offices at opposite ends of the town. All this, happily, has been remedied. The inventor obtains a patent, applying to the whole United Kingdom, for 25*l.* and this gives him all the advantages for three years. Protection for four years longer may be obtained by the payment of 50*l.* more, and for the remainder of the term by a further payment of 100*l.* Thus, if an invention does not realize much for the patentee, it can be given up without having occasioned expenditure which has brought no result.

A very large increase in the number of patents applied for has been the consequence of the change. In the period from 1st October, 1852, to 31st December, 1853, there were of applications from England, 3,574; from Wales, 43; from Scotland, 251; from Ireland, 76; from France, 263; the United States, 57; besides many from other places. London alone made 1,833 applications; Manchester and Salford, 246; Birmingham, 213; Glasgow, 109; and Liverpool, 72. A number of these, perhaps, are abortive schemes; such as some may consider would not have seen the light under the old system. As regards the *proportion* between such inventions and those of a serviceable nature, we suspect, however, that circumstances are much the same as before.

Whatever the exertion which the general mass of inventions relating to architecture and building—whether patented, registered under the separate Act for the registration of designs, or otherwise—may require from the architect in keeping up acquaintance with them, no architect will desire that progress should be stayed because of the mere trouble which it gives him, in the way referred to, or as to the use of untried inventions; and none will feel that the help which is now afforded is otherwise than important to him, and advantageous to his art.

NEW CHURCH AT WESTMINSTER.—On the 13th instant the Bishop of London consecrated the recently-erected church of St. Andrew, St. Margaret's, Westminster, situated in Ashley-place, south of Victoria-street, Vauxhall-bridge-road, and which has been built at a cost of above 8,000*l.* by voluntary contributions.

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* "The Commissioners of Patents' Journal." By Authority. London: printed by Eyre and Spottiswoode: published at the Great Seal Patent Office.

† "Titles of Patents of Invention, chronologically arranged from March 2, 1617 (14 James I.), to October 1, 1852 (16 Vict.) (Printed and published by order of the Honourable Commissioners of Patents, under the Act 15 & 16 Victoriæ. By Bennet Woodcroft, Superintendent of Indexes, Specifications," &c. London: 1854.

‡ "Chronological Index of Patents applied for, and Patents granted, from October 1, 1852, to December 31, 1853." London 1854.

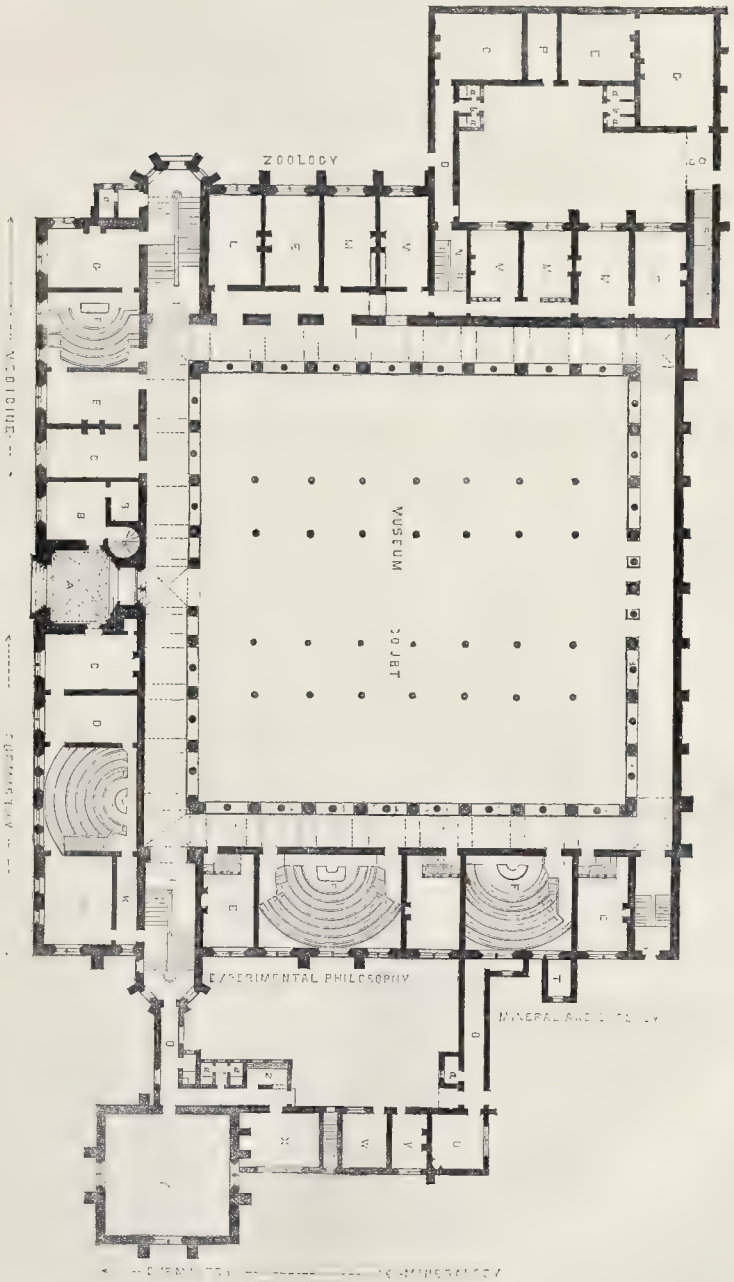
§ "Alphabetical Index of Patentees of Inventions, from March 2, 1617 (14 James I.), to October, 1852 (16 Vict.), by B Woodcroft." London: 1854.

‖ "Subject-matter Index (made from Titles only) of Patents of Invention, from March 2, 1617 (14 James I.), to October 1, 1852, (16 Vict.), by B. Woodcroft," &c. London: 1854.

* Reference Index of Patents of Invention, from March 2, 1617 (14 James I.), to October 1, 1852 (16 Vict.); pointing out the office in which each enrolled Specification of a Patent may be consulted; the Books in which Specifications, Law Proceedings, and other subjects connected with Inventions have been noticed; also such of the Specifications granted under the Act of James I. as have been published by the authority of the Commissioners, &c. &c. By B. Woodcroft, &c. London: 1855.

REFERENCES.

A. Entrance hall.
B. Porter.
C. Sitting-rooms.
D. Apparatus-room.
E. Work-room.
F. Lecture-room.
G. Dissecting-room.
H. Laboratory.
I. Principal staircase.
K. Passage.
L. Students' sitting-room.
M. Professor's work-room.
N. Staircase for anatomical and zoological department.
O. Covered way.
P. Macerating-room.
S. Private stairs to anatomical lecture-room.
U. Prælector's laboratory.
V. Balance-room.
X. Balance-room—furnace-room under.
Y. Large laboratory, 39 feet by 33 feet.
Z. Lavatories.
a. W.C.
b. Lobby.



THE OXFORD UNIVERSITY MUSEUM: GROUND PLAN.—MESSRS. DEANE AND WOODWARD, ARCHITECTS.

THE UNIVERSITY MUSEUM, OXFORD.

THE first stone of the new University Museum was laid by the Earl of Derby on Wednesday, the 20th instant, in the open ground known as the Parks. The accompanying plan of the Ground Story shows the general arrangement of the building, having the Lecture-rooms and apartments round three sides of the Museum-court, which is 112 feet square. The whole frontage of the museum is 320 feet 7 in. and the depth 178 feet 4 inches. On the right hand side of the Entrance Hall, in the upper floor (above the portion appropriated to Chemistry), is the general library, 81 feet by 25 feet, and on the left-hand side is an apartment for Mr. Hope's Entomological Museum, 82 feet 8 inches by 25 feet. The general lecture-room, 58 feet 6 inches by 33 feet, is on this floor over the portion appropriated to Zoology. We shall give a view of the building in an early number.

It is proposed to adorn the interior of the building with statues of eminent men, by means of individual donations; and Lord Derby stated, that a certain number of these had been already subscribed for by the Queen, the Batchelors of Arts, and undergraduates.

Messrs. Deane and Woodward are the architects.

At the annual meeting of the Oxford Architectural Society, on the 13th instant, Dr. Acland said, with reference to the new Museum, that Oxford was about to perform an experiment: it was about to try how Gothic art could deal with those railway materials,—iron and glass; and he was convinced, when the interior court of this Museum was seen, with its roof of glass supported by shafts of iron, while the pillars and columns around were composed of variously coloured marbles, illustrating different geological strata and ages of the world, and the capitals represented the several descriptions of Floras, that it would be felt that a problem had been solved of the greatest importance to architecture.

THE CITY OF LIEGE, AND WORKS RELATING TO THE PUBLIC UTILITY OF LONDON.

IN the year 1849, the attention of the civil authorities of Liége was directed to the rendering more healthy the crowded localities of the city, and to the improvement of the system of constructing the sewers; also to the paving of the streets, and the supply of water, as well for the service of public health as for use in private dwellings, and for the purpose of drinking. The desire of introducing into these different parts of the administrative economy the improvements already realized in the neighbouring countries, especially in England, determined the college of the burgomaster and magistrates to propose to the communal council to send the architect of the city to London, in order to study the system of public works of that great city, and to report on the various subjects all the information necessary to instruct the administration of the city of Liége with regard to works it was itself about to execute.

The Committee of Public Works decided that investigations should be made chiefly upon the following points: –

1. The distribution of water.
2. The different systems of sewers.
3. The system of paving; and
4. The arrangement of lodgings for workmen.

Accordingly Mons. Rémont departed for England, where he was engaged a considerable time in fulfilling, as completely as possible, the object of his mission; and on his return he arranged the numerous materials of information he had collected, and submitted to the administration the result of his observations and of his studies.

At a meeting of the Institute of Architects on May 21st, Mr. W. L. Donaldson laid before the Institute a summary of M. Rémont's statement.

The first chapter of his report relates to the supply of water, and after pointing out that the chief cities and towns in England and Scotland had organized companies for the supply of water, he traces the history of the supply in London from Peter Morrys, who founded the works at London Bridge, under the name of the Southwark Company, in 1581, and which was done away with in 1823, and united to the New River Company, whose works had been commenced by Sir Hugh Middleton in 1613, up to the present day. He gives a detailed account of the various existing water companies, and their amount of supply, with very minute statistical tables of the quantity and species of services in all cases. He also gives an explanation of the quality of the different waters, remarking that, according to the laws of health, water for drinking to be good should be clear, colourless, without taste, without smell, fresh in summer, temperate in winter, should contain atmospheric air and a small quantity of bi-carbonate of lime; in short, should not hold in solution either organic matter or sulphates of lime, nor any calcareous salt, the carbonates excepted. And after some further consideration of the subject he states, that one would understand from thence that the waters of the Thames, which is considered, and with reason, the greatest sewer of London, could not, notwithstanding the purifications to which they were submitted, satisfy the conditions required for being fit for domestic purposes. He sums up the chapter with the following observations:—

"One sees, moreover, that the English begin to understand that a good supply of water in a city cannot be the object of a speculative affair; that a supply without limit ought to be made at the simple price of the cost of the distribution; and that it can only be efficiently organised, regulated, and carried out by the magistrates who are entrusted with the very important interests of order and of the public health."

In his chapter on the sewers, he gives a short account of the Commission of Sewers established in the reign of Henry VIII. and of the system of management of the present day; and he enters very minutely into the construction of sewers, their forms, their inclination, the system of flushing, trapping, and the cost of construction. He also describes the tubular or pipe-drains for connecting houses with the sewers.

The fourth chapter is upon the carriage-ways and foot-pavements, and in this he enters into a full examination of the granite paving, the wood paving, and the Macadamizing, which he says is called in Belgium "Empierrement." He minutely describes the two modes of laying the granite pavings, the one in lines perpendicular to the axis of the street, the other in lines oblique to this axis, and in an angle of 45 degrees; and he enters into a full discussion of the subject, including in it the cost of the various modes of paving. He makes particular mention of the new mode of laying the paving at the London and North-Western terminus, which he calls "pavage Taylor." With respect to the foot-pavement, he speaks highly of the pavements of London, and he considers that the mode of paving is one of the most important and most useful works that this great city has accomplished. He remarks that in some narrow streets, where two carriages could not pass each other without sacrificing the convenience of the foot pavements, the carriage-way is lessened so as to allow of only one carriage to proceed, and a wide space, either at the middle or at the end, is left to admit one carriage to pass the other.

In chapter five he proceeds to describe the mode of cleansing the streets, and he traces the different modes of effecting this from the earliest times to the system of the present day. He describes the water-carts, and the patent machines for cleansing which used to operate in Regent-street, and which were first used at Manchester, Birmingham, Leeds, and other large provincial towns, before they were so in London.

The sixth chapter is devoted to the important subject of the dwellings of the working classes, and he traces the history of their establishment. He urges, that a house arranged according to the requirements of health and comfort, contributes essentially to the well-being of the family; inspires it with ideas of regularity, of peace, and economy; causes to arise insensibly in it respect for order and the laws, and altogether causing in it the knowledge of the necessity of fulfilling the duties that the social state imposes upon all good citizens.

He describes the formation of the Society for Improving the Condition of the Labouring Classes some years since under the patronage of Queen Victoria and the Prince Albert. He traces the progress of the society in not confining its operations to the cities, but extending itself to the country and erecting model cottages, of which several designs are given. In his observations he shows how much is due to Mr. Roberts, the architect, for his attention to the subject, and he refers also to Mr. George Beck, the architect of the St. Pancras dwellings for families.

Chapter seven is on the establishment of baths and washhouses. He traces, from the first establishment of eight baths and twenty washhouses at Liverpool, the progress of this system to the great establishments in London in the present day. The details upon this very interesting subject are very full and equally minute as on the other matters of inquiry, and are illustrated by many tables and drawings.

He calls particular attention to the extensive employment of slate in the baths and washing places, as a substance not susceptible of change by the influence of the hot and damp atmosphere, and not liable to be impregnated with deleterious and offensive substances

The eighth chapter is on the expedients in cases of fire.

He mentions the regulations in parishes, by Act of Parliament, to have two pumps always in good order, and in consequence of the insufficiency of the parochial arrangements, the subsequent establishment of the Fire Engine Brigade, which was founded and is supported by the different Fire Insurance Companies in the metropolis. He describes also the Society for the Protection of Life in Cases of Fire. The details he gives of the Fire Engine Establishment and its system of regulation are very full, and interesting to those who may not be acquainted with its operations; and the engine used in London obtains his warmest approbation. The fire-escapes also engage largely his attention.

At this part of the work he enters into a short account of the London Police, the whole system of which, and the conduct of the force, he warmly applauds.

The ninth and closing chapter is upon various subjects. First, the improvement of the sanitary condition of dwellings, of which the drainage forms a close inquiry and of very minute and lengthened details. The inscription of the names of streets does not escape this architect's attention, and he particularly notices the enamelled porcelain lettering fixed into a metal frame.

The extensive use of zinc in the present day attracts his attention, and he points out the difficulties to be guarded against in the use of this metal on account of its expansion and contraction under different temperatures.

How far the authorities of Liège have benefited their city by the information so largely given is not stated, but every traveller will admit that Liége is far from being a model town in any one of the points which are so fully reported upon and practically illustrated by M. Rémont.

ON CHRISTIAN ART.

ON Thursday in last week, Mr. George Scharf, jun. concluded his series of eight lectures on Christian Art at the Royal Institution, Albemarle-street. They were numerously attended, and, what is very unusual in a course of lectures, the audience did not diminish towards the conclusion. Each lecture was illustrated by a series of large diagrams of views and copies of paintings and sculpture, many of them coloured and elaborately finished. The following heads may serve to record the principal subjects treated of in the course:—

Lecture I. treated of the catacombs of Rome and churches of Ravenna. Mr. Scharf explained, in commencement, that his object was to exhibit a general view of the progress and changes in art connected with Christianity, from the earliest period to the times of Raffaelle and Michel-angelo. The increasing interest that was taken in the study of ancient paintings, not only for their own sake, but as illustrative of history, of science, and previous conditions of life, was especially manifest in several collections recently

formed by private individuals, and even in the National Gallery, where certain antiquated gold-grounded pictures had been introduced. Under these circumstances, he felt that some explanation of the subjects usually treated, the significance of the symbols and leading peculiarities of the more important painters and sculptors, might not be unacceptable.

He recognized the influence of the efforts of former writers and collectors of art, especially D'Agincourt, Lanzi, and Ottley, and invited attention to the important and still existing galleries of Lord Ward,* Mr. Rogers, Mr. Maitland, and Mr. Davenport Bromley. These collections are especially valuable, as containing genuine specimens of the best Italian masters, from the time of Giotto to Raffaelle and Michelangelo.

For historical information, his hearers were referred to the foundation of all art-biography, Vasari's "Lives of the Painters," and memoirs by Ghiberti, the sculptor.

In commencement of his subject, Mr. Scharf exhibited views of the interior of some of the Roman catacombs, especially the so-called Baptistery of St. Pontianus, and a chamber in the catacombs of St. Calixtus, where the wall-paintings might be descried in faded colours, but retaining all the grandeur and severity of the best times of ancient Pagan art. Many of the decorations exhibit a striking resemblance to the Etruscan excavated chambers, and the predominating colours, purple, green, and black, produced a remarkably solemn effect.

The love-feasts, the expressive attitude of prayer, and historical scenes from the Old Testament, were not confined to painting: they extended to sculpture, for the most part bas-relief, and to various glass vessels, many of which were adorned with beautiful figures and patterns, in flat gold, upon a surface of transparent glass. These are especially well figured in M. Perret's new work upon the catacombs, but the lecturer took the opportunity of mentioning that the mural paintings were a little too much *beautified* in M. Perret's representations. All these works were to be attributed to the early ages of Christianity. There are evidences of the changes that took place in their relation with those who held dominion in the ancient city. At times their symbols were more mysterious, and occasionally their types were more clearly set, so as to explain one another; but it was not till a comparatively late period that the figure of our Saviour was directly represented. During the infancy of the Christian religion any intruders into these subterranean sanctuaries would detect nothing at all unusual to what they were accustomed to see in other chambers for sepulture, and for celebration of rites connected with the memory of the departed. Even the form of the cross was not conspicuous! If it occurred it was not, in early times, to be seen alone. It was combined with the letter P, but more usually with the X, or St. Andrew's cross, forming, in fact, the first letters of the name of Christ in Greek. The A and Ω, alpha and omega, were of frequent occurrence. Our Saviour was first symbolized as the vine, as Orpheus, and as the good shepherd. Noah's ark was the type of the church. Jonah escaping from the whale, after three days, symbolized the resurrection of the Saviour. An important medallion from the centre of the ceiling was shown, which, although without painted glory or distinction of dress, is at once recognized as the earliest known picture of Christ. It was taken from the catacombs of St. Calixtus, near Rome, on the Via Appia.

After the Emperor Constantine made public profession of the faith, and Christianity was universally adopted, the art, so long cherished underground, emerged, and soon displayed its influence both in painting and architecture. The mosaics of Ste. Costanza, at Rome, executed upon a white ground, evince remarkable grace, and show how skilfully a Pagan subject of vine leaves, formerly attributed to Bacchus, could be applied to a Christian parable.

When Constantine removed the seat of empire to the shores of the Bosphorus, numerous works of art were required which drained Rome of the best workmen, and, for the first time, embellishments, both imperial in splendour and Christian in purpose, were produced.

The adjacent nations of the East were not long before exercising a powerful influence upon the Constantinopolitan, or, as they called themselves, Byzantine artists. The dome-shaped circular buildings, with pointed arches and mosaic wall decorations, sufficiently attest this in the time of Justinian (A.D. 537). The foundation of the order of St. Benedict, in the monastery of Monte Casino (A.D. 529), laid a means for the preservation of learning and many useful arts,—a security the more important, as the Eastern nations, called, indifferently, Arabs, Moors, and Saracens, were rapidly spreading along the southern shores of the Mediterranean, and in the first ages carrying devastation with them. The approach of the millennium—the year 1000—brought terror and alarm, and most persons, thinking the end of the world at hand, desisted from all undertakings or duties that had special reference to the future. The Saracens, at this juncture, possessed themselves of the Greek works on science, which they translated into their own language, and then destroyed the originals; but even by this means many scientific works have been preserved, and a practical experience in useful arts especially retained.

The excellence of art in the early period of the Roman empire was illustrated by tracings in colours, from the paintings at Pompeii. They were contributed by Mr. Digby Wyatt for the occasion. The lecture terminated with a minute description of the celebrated sarcophagus of Junius Bassus, who was prefect of Rome in 359: it is especially rich in sculptured compartments of Christian subjects, and had been discovered in the foundations of the Vatican about 1595.

LECTURE II.

Having illustrated the development of painting and sculpture, Mr. Scharf displayed a copy of the Pompeian Battle of Issus, as the finest antique specimen extant of Picture Mosaic. The interior of the Chapel of Galla Placidia, at Ravenna (A.D. 450), exhibited the free use of mosaics for mural decoration. The shape of this chapel is cruciform, the mosaics all on a dark blue ground, and in very gay colours.

The mosaic representing the Baptism of Christ, upon the centre of the ceiling of the Baptistery at Ravenna (A.D. 451), afforded a curious parallel with the same subject shown in the chamber of the Catacombs of St. Pontianus. The lecturer proceeded to exhibit the various mosaics of the ancient churches of Rome and Ravenna, explaining the position they usually occupied upon the concave heading of the niche or tribune, on the flat wall space around that recess, which is called the arch of the tribune, and of a second arch, which in most churches separated the presbytery from the nave, and was called the arch of triumph. Floors were richly inlaid with variegated marbles, but all pictorial mosaics were reserved for the walls.

The arch of triumph of S. Maria Maggiore, at Rome (A.D. 440), is remarkable, as being adorned with an infant Saviour, seated *alone* upon a throne, whilst the Virgin and angels stand reverently around.

The earliest representation of the Madonna and Child enthroned, is a mosaic in the church of S. Apollinare Nuovo, at Ravenna (A.D. 556).

A colossal portrait of Christ, in the act of blessing, adorned the arch of triumph of S. Paolo Fuori le Mura, at Rome (A.D. 450), constructed by Pope Leo the Great.

The position of the fingers in act of benediction was different in the Greek and Latin church. Both left three fingers fully extended, in allusion to the Holy Trinity, the other two bent as close to the palm as possible. In the Latin, the thumb and two first fingers were extended, and the third and fourth bent down. In the Greek, the tips of the thumb and third finger were joined, so as to leave the first, second, and fourth fingers extended. Much had been written upon the significance of each finger, but such is the invariable custom, and a simple statement of the case.

The Roman Mosaics of the Tribune of SS. Cosmo and Damiano, A.D. 530, were excellent specimens of the art of the period; the ground still dark blue, with the high lights on the draperies and edges of the clouds, in shining gold. The art of mosaic working had evidently declined in 630: the figure of St. Agnes was without middle tints: all careful regard to surface and modelling of forms had been lost: the features were indicated with coarse black lines, and the colour on the cheeks no more than crude patches of red, without the slightest blending into the rest of the complexion. The background of the figures was no longer blue, but bright gold. Mr. Scharf had prepared enlarged copies from paintings in various manuscripts, to show that the art of illustrating books kept pace with the changes and characteristics of larger decorations. The paintings of the Frankish style of art afforded, about the beginning of the ninth century, a curious contrast to the art then practised at Constantinople and in the East. The Frankish was all composed of crude earthy colours, very opaque, and of brick red colour in the flesh, whilst the Byzantine had a peculiar greenish tint, as a groundwork for the flesh, and the countenances were made solemn; that of the Saviour especially stern and ascetic. This was the result of a doctrine held at one time, viz. that as the Saviour had assumed a human form, he had selected one positively mean and repulsive, so as to increase, as it were, the mystery of the incarnation. The Russians and other barbarian nations being converted to the Christian faith, seized upon this point of view, and have ever since that time been distinguished by the meagre and ugly forms of their pictures.

The pointed arch was introduced from Kairwan into the South of Italy, by the Saracens (A.D. 827); and soon after, about A.D. 829, Theophilus erected a splendid palace at Constantinople, which was an exact model of a Saracenic one on the banks of the Tigris. This direct imitation gave great offence to the people at the time. The Mosaic decorations of Monreale, in Sicily, might be regarded as a most complete example of the Byzantine mode of treating pictorial subjects. Numerous Greek MSS. are preserved, in which the first pages consist of a series of pictures, occupying the full height; and sometimes on both sides of the leaf, illustrating the life of our Saviour and the Virgin Mary. The subjects are almost always the same, and always composed in the same way, the only difference being in the arrangement of colour and degree of finish. The Monreale Mosaics are in perfect accordance with these conventionalities; but some of the figures are conceived with extraordinary grace, and the draperies even effectively arranged.

The lecturer then explained the principal subjects in detail, comparing them with the sculpturesque treatment of a former age.

Pictorial representations of the Last Judgment were introduced into church decorations soon after the year 1000; as people, having escaped the expected doom, were beginning to forget the future, and the priests employed the subject as a reminder.

The contemporaneous erection of buildings in France, Germany, and England, occupied a considerable degree of attention; and the lecturer dwelt strongly upon the fact of the excellence of sculpture in England, before the appearance of the Pisani in Italy.

This portion of the lecture was illustrated by a series of beautiful large drawings by Flaxman, which he had prepared and used for his own lectures at the Royal Academy. Many of them have been published in the volume of his Lectures. Miss Denman had, with her accustomed liberality, afforded the free use of these treasures. Some casts of very beautiful ivory carvings, both Greek and Roman, evinced the elaborate style of finish attained in these ages. They were exhibited by Mr. Nisbett. A series of illuminations traced from MSS. in the British Museum, and from the collection of the Duke of Devonshire, marked the advance of miniature-painting,

LECTURE III.

The foundation of the mendicant orders of S. Francis and S. Domine exercised no small

* Lord Ward's valuable collection of pictures is still at the Egyptian Hall, Piccadilly, open to the public free of charge, every day of the week except Monday. Many of these ancient paintings serve as prologues to the pictures in the National Gallery, and it is to be regretted that his lordship's liberality is not more generally known, as many persons would gladly avail themselves of the privilege.

influence upon art, inasmuch as their deeds and sufferings have afforded an inexhaustible source of subjects for representation. Niccola Pisano was employed upon the tomb of S. Dominic in 1234, at Bologna; and this distinguished sculptor here displayed his wonderful abilities, which rose beyond the miserable chisel-work of his contemporaries at the sight of an antique sarcophagus sculptured with figures then in front of the Duomo at Pisa.

After the death of S. Francis in 1226, a magnificent church was erected to him at Assisi, the work of a German, and the first specimen of Pointed architecture north of Rome. It was completed in 1230. The painters of the day, chiefly Greeks, were employed in its decoration.

Greek art—that is, Constantinopolitan or Byzantine—still prevailed; and, with the same pertinacious adherence to precedents and conventionalities, everything became traditional; so that nature, the source of all art, was utterly forgotten, and consequently the significance of many touches became lost, frequently so perverted as to be no longer recognizable apart from the position they bore to the figure or place in the picture. Manuscript paintings clearly show this, and the British Museum has a rich store of them.

Giunta Pisano and Guido da Siena were old painters who wrought under the baneful influence just described; but the former master struggled for emancipation and partly attained it by studying from the living model. He painted a portrait of St. Francis, which still hangs in the sacristy of the church of the convent at Assisi. Cimabue, born of noble family, preferred when a boy to watch the painters working at the Dominican convent of S. Maria Novella, to studying literature, for which purpose he had been placed there. He ultimately painted a Madonna, so novel in style, so large, and so impressive, that the picture was carried in procession through the streets from the artist's house to the church for which it had been destined.

Cimabue's fame rests greatly on the circumstance of his having met with a lad who was tending sheep, and that he at once perceived his talent for drawing, which being carefully nurtured produced one of the most remarkable artists of Italy: the name of the youth was Giotto. His master, and parent by adoption, Cimabue, seems to have long been aware of the fallacious principle under which the artists of his day had been working, although he may not have been able to throw off the trammels imposed by his early instructors. He taught the boy, however, the course he would have pursued himself, and fully developed his wonderful dramatic powers.

The style of Giotto was perfectly novel. He threw aside the greenish complexion of the flesh, displayed great variety of character in his heads, most being from the life: he painted the portrait of his friend Dante about 1300, which still exists. The action of his figures was always natural, and sometimes boldly foreshortened; his execution slight and sketchy: indeed, his pictures were never highly finished, but generally well composed for the period. His mosaic of the "Navicella," a ship in a storm, with Christ and St. Peter on the waves, is universally celebrated. It is preserved in the vestibule of St. Peter's at Rome. Pietro Cavallini, who assisted in the execution, is said to have been also employed at Westminster. At all events, the mosaics of the tomb of Henry III. and shrine of Edward the Confessor afford an important example of the decorative ornament of the period. A curious gold-grounded mosaic, by Solsternus (A.D. 1207), marks the decline of art. It is on the front of the Duomo or Cathedral of Spoleto, and represents the Saviour seated on a throne, between the standing figures of the Madonna and St. John the Evangelist. A series of beautiful drawings of the relics of St. Cuthbert, at Durham, were exhibited by permission of the President and Council of the Society of Antiquaries. They illustrated the state of embroidery in this country about the beginning of the tenth century, and were very interesting, in comparison with the celebrated Bayeux tapestry. The society also contributed a curious old Greek painting, procured from Syria by Dr. Clarke, the traveller, which afforded a specimen of the traditional mode of representation.

The works of Giotto, in addition to Mr. Scharf's diagrams, were fully illustrated by large tracings from the originals, and a series of drawings from his frescoes, that had been prepared for publication by the Arundel Society, and were generously lent by the council on the present occasion. They were chiefly copied from his frescoes in the Arena chapel, at Padua.

FREEHOLD LAND AND BUILDING SOCIETIES.

So extensively has the system of popular subscriptions to benefit societies been carried out, that to give a digest of their action would require a committee as able, as energetic, and as tedious as the inquiry into the war management in the Crimea. In London there are over one hundred, and in the counties of the kingdom many more. The object of the first founders, from Robert Owen downwards, has, no doubt, been benevolent; but the plan has not been followed out, in all instances since, in that pure spirit of benevolence or mistaken philanthropy. What Socialist dreamers took up in fervour for the good of the multitude, has been adopted as a matter of business by shrewd, calculating traders; and these, in too many instances, have turned to account the fascinating delirium of artizans and mechanics to realize a real estate, and vote for the representatives in Parliament, by the too often penal sacrifice of 4s. 6d. a month out of their hard earnings.

It was easy for a knot of residents in any district to form a committee and appoint a secretary for the receipt of subscriptions: the rules were cut and dry—the regulations all in print—the indemnity to the movers and agitators complete. Mr. Tidd Pratt made these all right. The Act of Parliament secured all parties by a perfect immunity from responsibility; all from the defaults of their co-directors, and almost, if not wholly, from even their own laches!

Here was a temptation to do business. If ten acres were purchased at 200*l.* an acre, nothing forbade that it should be valued at 400*l.* (or 4,000*l.* for the ten acres), and subdivided at that ratio. The argument in all cases is, there is no mode of obtaining small freehold plots at the average rate of large tracts, and so far it is true; but there is a possibility of purchasing by a company which *will employ its own delegates* at the *actual selling price*, and of distributing the same for divisional proportionate sums. Whether real advantage has resulted to the public from the growth of these societies, is now a question.

Some estates there are within seven miles of London, which have been allotted, balloted for, won, and bartered, over and over again, upon which not one house has been erected out of fifty plots. Of the holders, many have realized handsomely by a timely transfer; the greater portion of the subscribers still retaining their long-coveted freeholds, and either from inability to build, or having discovered that a villa 16 feet by 25 feet, on a plot of 20 feet by 100 feet, at Ponder's-end or Finchley-common, would for themselves be useless and unavailable, and for their heirs and successors a profitless investment.

Such is the land of promise, in the issue, about the metropolis: farther afield the aspect of things is no better, save and except that here and there philanthropists of the Snig's-end kidney, who are prone to apostrophising "a bold peasantry, their country's pride," &c. &c. may felicitate themselves on the view of a few huts, cottages, boxes, hovels, and mud edifices, in the most fantastic confusion, at jars, angles, and cross purposes; presenting no doubt a picture of perfect freedom from all order or restraint—no roads, no sewers, and no harmony but of that negative kind which is assured by the absence of animation, and the liberty of free progress to every man who is his own architect.

On the first promulgation of the Freehold Land Societies, the whole class to whom the scheme was addressed, elate with the anticipation of certain freeholds for their heirs for ever, by the sacrifice of only 5s. a month for ten or twelve years, inflated with the importance of being invested with the elective franchise, flocked in by the 100,000 to get their names enrolled. The early societies profited by the rage: thousands of acres were bought, and the game of shares, or the traffic arising for their transfer, then began in earnest: a few gained by sale, still fewer realized the foundation of a heritable crib; but the great mass of prizes remain to this hour profitless and unreal.

What amount of good have all these distributions and amorcellements of freeholds effected? Look at the estate (Lord Cottenham's) near Wimbledon,—look at Finchley, or, indeed, any of them, and determine!

To win the basis or privilege of a foundation is not to acquire the means requisite for building: the site is not the fourth part of the value and essential cost of building: how is a poor man (on poorer security) to obtain that? At this crisis neither the money-changers of the Temple nor of *Walbrook* would look at the gage. Many of the societies are nearly done up, or steeped in mortgages.

A few of the many applications made to the magisterial bench for the restoration of subscriptions have come to light: the needy shareholder, unable to pay up his book and quarterage, redemanded his deposit. Alas! the money is spent, or invested in irremediably mortgaged estates. If he cannot await the lottery, he must bide his time for the definite acceptance of any balance that may be left after the deduction of periodical fines.

Q.

FALL OF CORNICE, WOOD-STREET, CHEAPSIDE.

ON Saturday last, an elaborate stone cornice which had been placed on the front wall of a large warehouse, now in course of construction under the direction of Mr. G. Somers Clark, architect, for Messrs. Nunt and Brown, in Wood-street, London, fell to the ground, and unfortunately killed a poor man, named James Thompson, who had brought some lime to the premises in a cart. Providentially, the other men had left the works for breakfast.

The cornice, with consoles, foot moulding, &c., was 7 feet 6 inches high, and projected at the top 4 feet 3 inches, falling into the wall 1 foot 11 inches, and in other parts more; upon which the principals of the roof and a blocking cornice were to have been placed. Upright iron nut and screw bolts were introduced at intervals, from the string to the top of the bed-mould, to tie the whole of the cornice together.

At the inquest the architect said, he had advised the builder's foreman, during the execution of the work, to shore up the cornice till the upper part was finished; but it had not been done. The jury returned the following special verdict:—

"That the deceased was accidentally killed by the falling of blocks of stone, or other solid substance, from a building in course of erection on the West side of Wood-street, in the city of London; and the jury cannot separate without expressing their strong conviction that due precaution had not been taken in shoring up the cornice of the building referred to, while under construction; and that the tie-bolts on which the architect and builders relied, were ineffective for the security of the work and the safety of the public; and they further consider that such unusual projections in narrow streets are highly objectionable."

Messrs. Lucas are the builders engaged.

ROCHDALE CEMETERY CHAPEL.

WE have already described the Episcopal chapel now in progress in the Rochdale cemetery. It is in the Norman style, and is arranged in the form of a parallelogram, 65 feet long by 29 feet wide, including the walls, from the centre of which, supported on two massive semicircular arches, will spring a broad Norman tower, 29 feet square, pierced with twelve windows. The interior is divided into three parts by arches and stone shafts; the former all ornamented with a characteristic moulding. The architect is Mr. R. Moffat Smith, of Manchester. Let us add that the walls are all 2 feet 6 inches thick; the whole of the exterior is faced with Yorkshire stone in pier-points, laid in courses; and the ashlar for the dressings is from Burnley. The cost, we are told, including all extras, will be about 950*l.*

EPISCOPAL CHAPEL, ROCHDALE CEMETERY.—Mr. R. Moffat Smith, Architect.

PROVINCIAL NEWS.

Bloxham.—The foundation-stone of All Saints' Grammar School here has been laid. The proposed buildings are from a design by Mr. G. E. Street, of Oxford. They comprise, chapel, hall, two large school-rooms, six dormitories for twenty boys each, separate rooms for the sixth-form boys, six sets of masters' rooms, library, common room, museum, oratory, and singing-school. They form a large quadrangle, with a cloister. A smaller cloister, south-east of the chapel, encloses a little burial-ground. The offices form a separate block of buildings, but communicate with the hall, &c. The style chosen is the Geometrical Decorated.

Gravesend.—A model of the monument proposed to be erected on Windmill-hill, to be called "The Alma Tower," is shown in the town, and the project has been laid before the town-council.

Sittingbourne.—The following tenders were received for the alteration and additions to Milton Vicarage, by Sittingbourne, in Kent, as advertised in the *Builder*; Mr. William White, architect:—

Jennings, London	£710
Dyne, London	580
Couch, Maidstone (and to complete in twelve weeks)	517
Cobb, Maidstone (and to complete in ten weeks)	515

The last tender was accepted.

Shorncliffe.—The huts at Shorncliffe, near Sandgate, for 5,000 men, are by this time probably completed. The sinking of the wells and the sanitary arrangements for the camp, however, are still in an unfinished state.

Dover.—The casemate barracks at the Castle overlooking the sea are in progress, and in a short time there will be accommodation there for a large number of troops.

Portsmouth.—A new dock was opened on Tuesday before last in Portsmouth Dockyard, by the entrance into it of her Majesty's new yacht, to be coppered. Its length is 335 feet; breadth, 82 feet; depth, 29 feet; ditto at high water, 23 feet (spring tides); width of entrance, 70 feet. It is 50 feet longer than any other of her Majesty's docks, and has consumed the following materials in its construction:—3,000,000 bricks, 152,359 cubic feet of stone, 94,783 cubic feet of timber, 729 cwt. of iron-work; and it has cost in the aggregate 63,000*l.* It was designed in 1851, and contracted for in same year by Mr. Edmund Smith, C.E. The work of construction was commenced under the superintendence of Captain Mould, R.E. and finished under that of Mr. Wood, C.E. clerk of Government works in Portsmouth Dockyard. It is the south inlet dock of the steamer basin, and, as docks take the name of the first ship admitted, this will be styled the "Royal Victoria and Albert Dock."

Bristol.—The works at the Bath bridge are progressing. On Friday in week before last the first of the iron ribs was brought up the river, and on Saturday evening floated to its permanent position on the buttresses. There will be no danger, it is said, of this bridge sharing the fate of its predecessor, as there will be a clear space from buttress to buttress. We shall give some particulars.

Taunton.—The tender of Messrs. Shewbrooks and Savery, for the erection of a wall and railing around the new cemetery, was accepted by the Joint Burial Board of Taunton, St. Mary Magdalen, and Bishop's Hull. The amount of the tender was 690*l.*——The ceremony of laying the foundation-stone for the new shire-halls and judges' lodgings, which was announced to take place on Tuesday before last, has been postponed for probably a fortnight.

Wolverhampton.—Plans and estimates for the erection of a new fat pig market in connection with the cattle market here have been laid before the town council, and the estimates of Mr. James Palmer, for the builders' work, at 674*l.* and of Messrs. Fletcher and Co. for the iron-work, at 803*l.* 4s. 5d. accepted, these being the lowest tenders. A committee has been authorised to carry out the proposed work in accordance with the specifications and plans of Mr. Banks, architect.——For the front of the new town-hall, the design of Mr. Veall has been adopted by the council, on the condition that a contract shall be entered into by a builder to erect it for 891*l.* the estimated cost.

Preston.—The Preston Banking Company are about to erect a new bank in Fishergate, from designs by Mr. J. H. Park. The buildings to be removed to afford space for the new bank, are two shops and two offices.

Oldham.—Arrangements have been made for laying the foundation-stone of the Lyceum here on Monday, the 25th inst. The magistrates, Freemasons, and other public bodies will take part in the ceremony; and Lord Stanley, Mr. Fairbairn, C.E. and the vice-president of the Manchester Chamber of Commerce, and others, have promised also to be present. The stone is to be laid by Mr. James Platt, the president of the Lyceum.

Shipley.—The General Board of Health having approved the plans submitted by the Shipley Local Board for supplying Shipley and adjoining districts with water, and authorized a loan of 14,000*l.* for the purpose of carrying them into effect, the works have been commenced. They comprise a compensation reservoir of about 8 acres in extent near Eldwick; a pure water conduit of glazed earthenware tubes, 15 by 20 inches within, upwards of 4,000 yards in length; a supply reservoir, about 220 feet diameter and upwards of 20 feet deep; and the pipeage therefrom to and through the districts to be supplied. Messrs. Swire and Blair, of Shipley, are the contractors for the compensation reservoir and pure water conduit; Mr. Lapish, of Bingley, for the supply reservoir; and Mr. Crosland, of Bradford, for the iron pipes. Messrs. Guest and Chrimes, of Rotherham, supply the stop-cocks, fire-plugs, &c. The iron pipes are being enamelled or coated by Mr. Angus Smith's patent process. The plans have been prepared by Mr. M'Landsborough, C.E. of Bradford, engineer to the Local Board, under whose directions the works are now being carried out. Mr. Geo. Hogg, of Saltaire, is clerk of works.

Glasgow.—Dr. William Clark, of Wester Moffatt, has placed at the disposal of the church the sum of 20,000*l.* for the erection and endowment of a free theological college in this city, provided others contribute a similar sum, so that 40,000*l.* should be immediately available for the purpose in view. The subscriptions in Glasgow towards this second sum already amount to 14,000*l.* Dr. Clark, moreover, offers to pay down or secure an additional sum of 10,000*l.* for the same object, provided a like sum of 10,000*l.* additional shall be guaranteed by responsible persons within the next twelve months.

CHURCH-BUILDING NEWS.

Braintree.—An appeal to the public has been made, with the sanction of the Archbishop of Canterbury and the Bishop of London, for assistance in the restoration of the old church here. Only a few hundred pounds can be realized within the parish, and the estimated cost of requisite restorations is about 4,000*l.*

Northampton.—An appeal has also been made on behalf of St. Giles's church, Northampton. This church has been for more than eighteen months undergoing extensive enlargement and restoration, including the extension of the church towards the west, the addition of a new north aisle, the opening of two of the ancient Norman arches, the whole of which are unfinished, that support the tower (by which means a large portion of the chancel will be made available for public worship), and the re-seating of the whole church in oak. The entire body of the church has also been newly roofed, and the windows are entirely new. The expense of this work will be not less than 4,800*l.* by which outlay the number of sittings will be nearly doubled, and the whole structure rendered more worthy of its sacred character. To meet this cost the parishioners have subscribed 3,000*l.* There remains a deficiency of 800*l.* or 850*l.* before the church can be thoroughly completed.

Cirencester.—The alterations in the parish church here, which, principally through the exertions of the rev. incumbent, have been from time to time made, are now to be further carried out by the removal of the organ and loft from the chancel arch, which it now occupies, to the western end of the north aisle.

Hardwick.—The following tenders for repairing Hardwick church, near Gloucester, were made:—

Coleman (Chavhill)	£240 10 6
Smart (Gloucester)	239 10 0
Spire (Eastington)	237 0 0
Chobaton (Quedgley)	234 0 0

The last of these was accepted. Messrs. John Jacques and Son are the architects.

Swansea.—The foundation-stone of a seaman's chapel was laid here on Friday before last, by Mr. H. H. Vivian, M.P. The site, given by the corporation, is in Adelaide-street, contiguous to the quays and docks. The building will be in the form of a cross, and in the style of 14th century. It will accommodate about 300 persons without the galleries, which (if put up) will give 120 more. About 500*l.* have already been subscribed, including 200*l.* by the late Mr. J. H. Vivian, M.P. and almost 500*l.* more will be required.

Liverpool.—Bidston Church, near Woodside, says the local *Times*, is to be pulled down, for the purpose of being rebuilt. It is one of the oldest, smallest, and most thoroughly rural of the churches in the vicinity of Liverpool. It was originally intended to repair the roof and the body of the church, but the walls were so dilapidated that it was determined to rebuild, leaving the tower alone standing. The funds will be raised by public subscription; and, for every 100*l.* raised, Mr. Vyner, the lord of the manor, has promised to give 200*l.* Several ancient and curious tombstones are found in both church and churchyard. Strange enough, within half-a-mile from Bidston there stands a new church which has never yet been opened for public worship, from having been placed in Chancery just as it was finished.

Mottram.—On Wednesday before last, the ceremony of laying the basement stone of one of the pillars in the re-erection of the clerestory of the parish church, Mottram, was performed by the vicar. Messrs. Heaton, Hallows, and Stokes, are the contractors.

Haslingden.—The foundation-stone of a new Wesleyan chapel has been laid here. It is to be erected in the Pointed style of architecture. The entire length of the building will be 95 feet; the breadth, 50 feet 3 inches, exclusive of buttresses. The length of the ground plan will be as follows;—interior of chapel, 62 feet 6 inches; exterior, including the vestibule, 71 feet. There are to be three vestries: the centre one, over which will be placed the orchestra, will be 18 feet by 19 feet 6 inches: the other two vestries will be smaller, namely, 11 feet 6 inches by 12 feet. The chapel is estimated to seat 1,000 or more persons, and the entire cost is expected to be 4,000*l.* The plans were furnished by Mr. James Wilson, of Bath, architect, and Mr. William Waddington, of Padiham, has contracted for the execution of the whole of the work. The stone will be procured from the delfs in the neighbourhood, excepting that for corners, door-heads, &c. for which Fletcher Bank stone will be used, and Catlow stone for tracery.

Slaithwaite.—On Thursday before last, the new burial-ground in connection with St. James's Church, Slaithwaite, was consecrated by the Bishop of Ripon.

ON SOME OF THE PRESUMED PORTRAITS OF SHAKSPEARE.

MORE than two hundred years have passed away since Shakspeare's death, and yet, strange to say, of such a man, there is not known to exist one authentic portrait of his form or features. There are, however, in place of positively proved paintings of the great bard, many assumed contemporary likenesses, and it is of some of these works of art that I purpose to make a few remarks, especially with regard to those which are best known by engravings. Although I have referred to painted portraits, it would not be wise to pass without notice the bust of Shakspeare which probably gives to the beholder the nearest approach to the general characteristics of his face, supposed to have been modelled after his death at Stratford-upon-

von, in 1616, by either a sculptor of the name Thomas Stanton, or one of the name of errard Johnson. In 1748, by the receipts ising from a performance of Othello, at the d Town-hall, at Stratford, a Mr. John Hall, eserved, as well as he could, the fading pig- ents, which the original sculptor, after the anner of the ancients, had covered the figure ith, and which Mr. Malone, in 1793, had inted white, to suit the then present taste, d for which he was afterwards most justly ndemned, as well as satirized.

"Stranger, to whom this monument is shown,
Invoke the poet's curses on Malone
Whose meddling zeal his barbarous taste betrays,
And daubs his tombstone as he marred his plays."

he portrait known by the name of the Felton ortrait,* is one that, with the Chandos ead, has, perhaps, divided public opinion ore than any other of the numerous aimants for the honour of truthfully repre- enting Shakspeare's intellectual and winning atures. It certainly has many claims for nperiority over the Chandos portrait, now ne property of Lord Ellesmere, not only in espect to the presumed antiquity of the paint- ng, but to its almost complete identification ith the engraved frontispiece to the collected dition of the poet's works, known as the first olio edition, 1623, by Martin Droeshout. If could be proved that Droeshout took his en- raving from the portrait we are referring to, here could exist no better testimony to its uthenticity; but as this cannot be done cer- ainly, the similitude of the one to the other as drawn forth a great many opinions on both ides of the question. Besides the critical pinions of many persons of celebrity on this ubject, the present possessor of the portrait as had communications personally made to him y the late Sir Francis Chantrey, the late Mr. Phillips, R.A. Mr. Pickersgill, Sir Charles East- ake, Sir William Ross, and others, to the effect hat they felt no doubt, from a comparison of he portrait with the engraving, that Droeshout sed the picture for the purpose of making his raving. Assuming this to be the case, there s very little chance of the palm of preferment eing given to the so-called Shakspeare of Lord llesmere, for independently of its being any- hing but a refined or intelligent-looking face, it ears no striking resemblance either to the Stratford bust in features or expression, or to the ead of Droeshout's engraving, in the above re- erred to folio edition. The ear-rings in the Chandos Head do not seem to accord with the generally re- eived notion of Shakspeare's style or habits, and although undoubtedly worn in the time of Queen Elizabeth by some courtiers, they do not seem to have been a prevailing fashion. The absence of ear-rings in the bust and in Droeshout's engraving, is, to a certain extent, evidence against the Chandos portrait being one of Shakspeare, although it does not prevent its being accepted as the likeness of some foreigner of distinction at the English court, as it bears many of the characteristics of a face from a more sunny clime than ours. Of the pencil writing at the back of the oaken panel on which the Felton portrait is painted, I have only to remark that it certainly enhances the value of the whole, for there is little doubt of the age of the painting, and therefore the attestation of the artist's initials "W. B." under the name of the person represented, would seem, at least, to vouch for the authenticity of the intended like- ness; for all who have seen the style of writing, agree that it is of the peculiar character of the period, and therefore most probably pencilled in on the completion of the work. Whether it be by William Burbage or not, must remain a matter of conjecture, for unfortunately there is little left to tell us of this artist's style, who, however, has a head attributed to him in the private gallery at Dulwich College, and is sup- posed to have been a scene-painter, as well as a fellow player with Shakspeare.

The next portrait I would call attention to is the once well-known painting in the posses- sion of the late Mr. Dunford, and which has in its time been the subject of much discussion: it certainly presents a very noble and animated expression, and decidedly must rank as the por- trait of an eminent and handsome man of the period; but it sadly lacks that soft and deeply intelligent look which one cannot help attribut- ing to the bard, and which, in the Felton head, is so naturally, yet modestly depicted. The same remarks may be applied to the beautifully painted head, published in chromo-lithography, by Mr. Hogarth; for although it comes before the world with a very plausible story, yet I think there is little chance of its being con- sidered a true likeness of those features, on which Ben Jonson wrote his famous lines, com- mencing —

"This figure that thou see'st put,
It was for *gentle* Shakspeare cut."

Before closing my remarks, I would allude to the little painting in oil and on copper, which I now exhibit, not from its intrinsic merit alone, but from the way in which it has been handed down as an heir-loom, for the last 100 years in the family, from a member of which I purchased it in 1851. In a paragraph of the will of the last bequeather, it is thus de- scribed—"and the small painting of Shakspeare on copper, in the old oak frame, mentioned in the will of my grandfather, Joshua Scholefield, of Saddleworth, in the county of York, bearing date the eleventh day of January, in the year of our Lord 1787, and directed by him to remain in the family,"* &c. &c.

I have now said enough, perhaps, to draw the attention of others much better qualified in every way than I am, to continue and enlarge upon the subject, for there remain in many galleries so- called portraits of Shakspeare, quite worthy of notice and remark, as the subject of them is of the admiration of the world, for all time to come.† G. R. W.

* The Rev Thomas Jones, of Whitehall Chapel has stated to the present proprietor of the Felton Portrait, which some have assumed came from the Boar's Head, in Eastcheap, that his grandfather, Philip Jones, was the auctioneer who sold that pro- perty, and that there were pictures disposed of at the sale belong- ing to the premises, which some commentators have doubted.

* The old oak frame was not in existence when the picture was brought to me, or I should have valued it the more, but the vene ration of Joshua Scholefield, of Saddlesworth, for Shakspeare, is a pleasing instance of the deep rooted affection his works have engrafted in many an Englishman's heart, whatever his station or calling may be, but which is not always perpetuated in the bosoms of his heirs, as we see in the present instance.

† Read before a meeting of the British Archæological Associa- tion, on the 13th inst.

M. CHARLES GEERTS, SCULPTOR.

WE have just now learnt, with regret, the death of Monsieur Charles Geerts, the Sculptor, of Louvain, who expired on the 16th inst. at the age of 48.

M. Geerts was a native of Antwerp, but settled at Louvain, where he was professor of the Academy of Fine Arts. He was created by the King of the Belgians a Chevalier of the Order of Leopold, and was a member of several learned societies in Belgium and other countries. In the Great Exhibition of 1851, in London, he exhibited some of his works: one, a group of the Massacre of the Innocents, carved in oak, was particularly distinguishable. This group is now in the possession of Mr. W. Stirling, M.P.

M. Geerts had in execution a series of statues, between 200 and 300 in number, to fill the niches of the well-known Hotel de Ville of Louvain, and was engaged in casting bronze gates with *bas-reliefs* for the new church of St. Joseph, at Brussels, which were intended to be of similar dimensions and treatment with the famous gates by Ghiberti, at Florence. The numerous statuettes of the stalls recently erected in the cathedral of Antwerp, are also his work.

BUCKINGHAM PALACE AND ITS IMPROVEMENTS.

NOT long since you called attention in your paper to the "Ram's-horn road," just constructed by the south-east corner of Buckingham-palace, but I believe nothing further has been said on the works going on there. The gigantic hoarding in that quarter, to the removal of which many have so long looked forward, in the hope that something both useful and beautiful might be disclosed, is at length *partially* gone; exposing to view a new entrance to the palace, con- sisting of one door, in the centre of an otherwise Ionic screen.

Is this entrance, with no projecting porch, a fit one for the hundreds of fair ladies to alight at when on a visit to her Majesty, perchance in a pouring rain? No, most assuredly not—for no sooner is the architect's back turned (for I imagine *him* innocent of the matter) than some one with more attention to the fair sex) sends for an upholsterer, who, doubtless, taking his idea from the elegant entrance annually erected in St. James's-palace, "rigs up" (for I can call it nought else) a wooden and canvas awning, bisecting the said Ionic columns in a manner that would have made Sir Wm. Chambers shiver.

Had the architect (whoever he be) ever read the "Palace of Architecture," by that excellent critic, George Wightwick, he would, I think, have at once acknowledged that a *covered* entrance was a most necessary adjunct to a palace; and instead of leaving it to be executed by the merciless hands of the upholsterer, would have designed one himself, in keeping with the existing buildings.

Workmen are now busy erecting a *high* range of stone piers, with *low* iron railings between them; gates inserted at intervals of a different height to either: the superfluous material in the piers would have gone far towards erecting a portico, and the piers themselves would have been much improved in appearance.

Stone curbs are put round the carriage drives inside the railing, and I understand that the inten- tion is to plant shrubs, &c. I would suggest that grass be laid instead (as is done with such good effect in one of the courts of the Louvre), grass ever looking far more pleasant and refreshing than stunted smoky plants.

I will just mention, that by the new foot-gate from the park, there is always in wet weather, a puddle, fully a yard wide; which passengers have the option of either stepping into, or jumping over: the former is disagreeable and prejudicial to health, and the latter, if one jumped too high, might be attended with fatal consequences, as there is a hori- zontal iron-bar across the top, placed so low, that the sentries, who, I am credibly informed, are con- tinually passing and repassing, are unable to do without knocking their bayonets.

I sincerely trust that the "ram's horn" com- plained of is only a temporary form of road, as the line of rails above mentioned would seem to indicate; and I shall therefore not make it a *butt* for criticism, further than to remark, that irrespective of its being *most* inconvenient for carriages, it has given pedes- trians a wide and muddy street to cross, there being now not a vestige of a paved crossing, or any signs of one.—A. F.

A CHANCE FOR ARTIST-WORKMEN.

IT is to be hoped that the advertisement of the committee of the Architectural Museum to artistical workmen will not be overlooked. Being desirous of encouraging and improving the practice of fine art workmanship (in stone, wood, and metal and in decora- tive painting), they have offered, as a first step, a prize of five guineas for the best specimen of wood carving which shall be exhibited in the present year in the rooms of the museum during the month of November. Following this up, Mr. Ruskin offers a prize of five guineas for the most successful specimen of stone carving exhibited at the same time in the rooms of the museum.

The wood carving must be a study of natural foliage, fruit, flowers, or animals.

The prize for stone carving will be given for the most inventive and well-arranged Gothic capital, con- taining figures of men, beasts, or birds, not more than two on each side, arranged with leaves or any other object the workman likes.

Particulars may be obtained at the Museum, Canon-row.

This is an opportunity for a man to individualize himself which should not be lost.

PROPOSAL FOR IMPROVING THE DWELL- INGS OF THE POOR IN THE UNITED PARISHES OF ST. GILES-IN-THE-FIELDS AND ST. GEORGE, BLOOMSBURY.

THERE are several courts in the parish of St. Giles so deplorably bad, the houses so filthy, and the inhabit- ants so depraved, that no district visitors can enter them; and the impurity of the atmosphere is the occasion of frequent illness to the Scripture readers or City missionaries, whose duties oblige them to visit these abodes. Our readers do not require to be told this.

It would be an incalculable benefit to the parish at large, and indirectly to the whole metropolis, could this state of things be remedied. The endeavour is to be made.

A committee has been organized for the purpose, and the Labourer's Friend Society have acceded to an arrangement, of which the following are the main features:—

The Labourer's Friend Society will expend on the improvement of the dwellings of the poor of St. Giles'- in-the-Fields, or St. George's, Bloomsbury, any sums

of money which may be entrusted to the Society for that special object.

The Society will accept of loans, in sums of not less than 50*l.* (subject to the condition of being expended as above), for which loans the Society will give security to the lender, with interest at the rate of 4 per cent. per annum, the principal to be returned at such period as, on the part of the lender, may be stipulated on making the advance, and afterwards on six months' notice, or, if required, on the part of the society, at three months' notice.

This arrangement affords the opportunity of investing money with a certainty of obtaining 4 per cent. interest, and, at the same time, of effecting results which will contribute to the sanitary, the moral, and religious welfare of this large and populous district of the metropolis.

The committee are looking for aid.

COMPETITIONS.

Lincolnshire Cemetery.—Twenty-seven sets of designs were received, and the committee agreed to recommend to the board the following:—For the chapels and lodge, 1st prize of 10*l.* to "Justitia," 2nd prize, of 5*l.* to "Hope." "Justitia's" buildings are in the Gothic style, and his estimates are—chapel, 987*l.*; lodge, 295*l.* 10s.; dead-house, 128*l.*; fence, 287*l.* 12s.; gates and piers, 44*l.*; total, 1,742*l.*; "the side and end boundaries of the ground are to be formed of brickwork, with panels for the reception of tablets; the front boundary next to Canwick to have a low wall, with iron fencing." For the ground plans, the committee recommend that the first prize of 10*l.* shall be awarded to "Hope" (who does not give any estimate of the expense of carrying out his design), and that the second prize of 5*l.* should be given to another, distinguished by an indescribable device, whose estimate amounts to 2,000*l.*

New Cemetery, Warrington.—The town council has confirmed the report of the committee, and the chapels, lodges, &c. are to be commenced forthwith, from the designs of Mr. T. D. Barry.

Newcastle.—The United Burial Boards of St. John's, Westgate, and Elswick, have awarded the first premium of 20*l.* to Messrs. Johnston and Knowles, and the second premium of 10*l.* to Mr. J. Johnston, for their designs for the proposed cemetery.

Salisbury Cemetery.—The Burial Board for the parishes of St. Thomas, St. Edmund, and St. Martin, after considering the thirty-two designs sent, decided upon those with the motto,—"Ad rem cum Deo,"—which, upon opening the letter, proved to be from Mr. C. Hutchinson Edwards, architect, of London.

Yeovil, Somerset.—The Charity Trustees of this town having decided to erect fresh almshouses, they offered a premium of 10*l.* for a design for that purpose. Thirteen designs were submitted: that of Mr. T. W. P. Isaac, of Bath, was selected.

BRIDGEWATER CHURCH AND THE ARCHITECT'S CHARGES.

SIR,—In your remarks upon the "local animadversion" which my charges have met with on the above works, I have nothing to complain of: they evince your usual gentlemanly feeling, and you could scarcely have done less, being called upon as you were for an opinion.

I may perhaps be allowed to say, on the other hand, that Mr. Donaldson would have acted more wisely, in my opinion, had he followed your example, and suspended all comment on your remarks until in possession of the particulars of the case: a simple application would have secured them.

I will proceed at once to an explanation. In the spring of 1849 the work in question was gained in a public competition, and I was induced at that time to give up my Manchester business through ill health, intending on its re-establishment to take up my quarters in London: in the mean time I went to Bridgewater, where, for many months, being duly employed as architect, I conducted the works personally as well as professionally.

In April, 1850, the vicar gave me the sum of 33*l.* 13s. as some acknowledgment for past services in the extra superintendence, and, unasked, offered, for the future, if I would continue to fill the position of clerk of works, a salary of two guineas per week, in addition to the commission of five per cent. which I received as architect. This I accepted.

At a subsequent period, within three or four months of the completion of the works, I intimated to the vicar my intention of giving up the office of clerk of works, as the salary attached to it did not answer my purpose, and that I was impatient to get to London; but to secure me still in the position I had so long occupied, it was arranged that two and a half per cent. should be added to my commission of five per cent. to compensate me, rather than the increase which I demanded in the salary should be allowed. This also I accepted; and it will account, I trust satisfactorily, for the amount of commission being charged at seven and a half per cent. in my account; and I trust also, that the foregoing remarks will justify my having, under peculiar circumstances, filled the two offices of architect and clerk of works.

Regarding the surveyor's account, I may say that generally, in the provinces, the old combination of architect and surveyor still exists, and was familiar both to the vicar and myself; and no one will contend, I should say, that the architect should do surveyor's work without receiving payment for it.

Under this head I may refute a not very delicate statement of Mr. Donaldson's,—that I have charged for work in one or two cases twice over,—by saying, that in the first place, although the chancel roof is referred to in each, the work performed is wholly distinct, hence the two charges. Again, the sum of 24*l.* 13s. 10d. is clearly not "included in the first item at the head of the bill," as measuring is not included in the work for which an architect is entitled to charge a commission.

The editor of the *Bridgewater Times*, in bringing this matter under your notice,—the manner in which he has treated my explanations, and the withholding of letters which in fairness should have been published,—justifies me in saying that this attack is a disgraceful and a personal one, and only to be traced to the fact, that some months since I refused, as an insult to the profession, as well as to myself, an offer of 100*l.* or 120*l.* in liquidation of my claim for balance amounting to 384*l.* The Exhibition Committee have since paid me 250*l.* and I have the vicar's acceptance for 50*l.* payable in twelve months. I have given up the 84*l.* have charged them nothing for the re-use of 1,200*l.* worth of old materials, or for a detailed set of designs, with quantities complete, for the rebuilding of the tower and spire, and many other things I could name; but I think this will be enough to convince all that I have done injustice to no one but myself in the matter, and scarcely deserve the serious charge of having brought discredit upon the profession by the course I have pursued.

Mr. Donaldson may rest assured that I am as warm a supporter of the dignity of the profession as he can be, and have on many occasions preferred the loss of both money and work rather than consent to terms which might bring discredit on our noble profession.

I have now encroached, Mr. Editor, too much upon your space, and I fear upon your patience also, to allow of my making any comment upon Mr. Donaldson's proceedings in this business, or on the views he has expressed thereon: indeed, I hope that its general interest and importance will induce a more able hand than mine to take the subject up fully. The whole subject of architects' charges *must* be put upon a more satisfactory footing shortly, or most serious consequences to the profession must result.

W. H. BRAKSPEAR.

METROPOLITAN COMMUNICATIONS.

MR. LIONEL GISBORNE has brought his plan before the committee on Metropolitan Communication. He proposes to confine the waterway of the river to a width of not less than 700 feet (the width of Westminster new bridge) by means of quay walls on both shores, the present wharfs to be accommodated with floating basins of a minimum width of 100 feet, with entrances for barges; the quay wall on the Middlesex shore, from Westminster-bridge to London-bridge, to be 21 feet over Trinity high-water-mark, avoiding the necessity of draw-bridges over the entrances to the tidal basin. From Westminster-bridge to St. Paul's-wharf, where a new bridge was contemplated by the Corporation of London, Mr. Gisborne proposed to have a covered esplanade for foot passengers next the river, 20 feet in width, alongside of which for 50 feet the ground would be let for building, except opposite Whitehall-gardens, the Temple, &c. Parallel with the esplanade, and extending from Westminster-bridge to London-bridge, a railway to be constructed. Next the railway a street, 40 feet wide, from Westminster-bridge to the proposed bridge at St. Paul's. Large cellars to be constructed under the esplanade, railway, and road. Opposite Whitehall, to Temple-gardens, &c. as well as from St. Paul's-bridge to London-bridge, the quay-wall to be 4 feet above Trinity high water, and the esplanade, railway, &c. to be carried on columns not less than 25 feet apart, so as not to interfere with the view of the river. Next the river a road 70 feet wide to be made, alongside of which the ground to be let for building purposes. The entire cost of the works was estimated under 1,900,000*l.* The annual ground-rents of shops, warehouses, wharfs, &c. with the receipts derived from the railway, would amount to 103,000*l.* annually on an outlay of 1,900,000*l.* He considered 55,000*l.* per annum was available by letting river-side property, which at thirty years' purchase would amount to 1,650,000*l.*—about the estimated cost of the whole work.

The committee met last week to hear the evidence of Mr. John Fowler, the engineer of the Metropolitan Railway Company, who called their attention to the fact that the company he represented was already incorporated by Act of Parliament, and had obtained powers to construct a line of railway from the Great Western, at Paddington, to the General Post-office, which would connect the Great Western, the London and North-Western, and the Great Northern with each other and with the heart of the City; and that the requisite capital had been subscribed. It had always been the intention of the promoters of the Metropolitan Railway, he said, by future extensions, to connect their line with the Eastern Counties Railway, and with the great railways on the south bank of the Thames. The extension to the Eastern Counties would be entirely underground, and would include a passenger-station at Finsbury-circus. The extension to the south of the Thames would pass from the Post-office by Fish-street and Upper Thames-street, and cross the river by a new bridge nearly midway between Southwark and Blackfriars Bridges, and by two short spurs form a junction with the London-bridge and the Waterloo stations. All the great railways would then be brought into communication with each other, and passengers and goods would be enabled to pass uninterruptedly from one part of the kingdom to the other. The entire cost of the proposed extensions, with four lines of rails, would not exceed 2,500,000*l.*

Writing us on the subject of metropolitan communications, a correspondent, "A. H. H." says,—Would it not be advisable to form an unpretending *lacteal*, before attempting a great artery? I propose for experiment, that upon some wide line of communication,—Oxford-street, for instance—a locomotive machine be constructed, resembling a magnified everlasting "band," composed of light platforms, fitted with canopied chairs, and working upon wheels in a "groove," formed in the centre of the street, 6 feet in width for the double line, and a few inches below the surface, bounded on either side by an iron railing. The motion, which would only be interrupted for three minutes, at intervals of ten minutes, and giving a speed of twenty miles per hour, would be derived from a stationary engine, or engines, placed in a subterranean terminus, where the travelling platforms would leave the *up* and resume the down line by describing the necessary circle. The descent to this terminus might be by an incline of 20 degrees, as the machine would ascend or descend a steep incline, without its speed being accelerated or retarded, and thus render viaducts and tunnels unnecessary. All traffic having to cross the line of route might readily do so by the use of a simple appliance during the stoppage of the "band." The ordinary traffic would still be continued on either side of the street.

Notices of Books.

The Harmonic Law of Nature applied to Architectural Design. By D. R. Hay, F.R.S.E. Blackwood and Sons, Edinburgh and London.

WE mentioned Mr. D. R. Hay's paper on "The Harmonic Law of Nature applied to Architectural Design," when it was read at the Institute of Architects (see Vol. XII. p. 627). Some of our readers may be glad to know that it has been published in a distinct form, with the diagrams required to explain its author's views, and some additional matter. Although we have not succeeded in converting ourselves to a full belief in Mr. Hay's system, we cannot withhold our praise for the ability that gentleman has displayed in the numerous works published by him bearing on the subject. With reference to the objections that were taken to his condemnation of "the sculptured figures which decorate Gothic architecture," Mr. Hay withdraws the expression "paltry in composition and puerile in conception," but still holds "that they are often grossly disproportioned, and much distorted in their attitudes."

Popular Guide to the Kew Museum. By Sir W. J. HOOKER, K.H. Director. London: Longman and Co. 1855.

UNDER the title of "Museum of Economic Botany, or, a Popular Guide to the Useful and Remarkable Vegetable Products of the Museum of the Royal Gardens of Kew," Sir William Hooker has published a shilling pamphlet, which, besides the more strictly scientific details connected with the botany of the most interesting of

the contents of the Kew Museum, also contains, in a condensed form, many curious and notable particulars with respect to them, whether as to their practical utility, superstitious or poetical ideas regarding them, or their peculiar formation, mode of growth, &c. so that the whole forms an excellent and much wanted guide to the curiosities of the very interesting museum at Kew.

The British Flora, comprising the Phænogamous, or Flowering Plants and the Ferns. Second Edition, with Additions, numerous Figures, &c. By Sir WILLIAM JACKSON HOOKER and GEORGE A. WALKER ARNOTT. London: Longman and Co.

THIS is an elaborate, condensed, and strictly scientific work of 618 pages, and of a very different class from the above. To all interested in grasses, as of meadows and pastures, or in weeds in general, and in hedges and ditches, woods, fields, moors, hills, rocks, bogs, and ponds, &c. this work must be very useful, as well as to botanical students in general.

Architectural Sketches in Italy. By T. C. TINKLER, Architect, 10, Great Marlborough-street, London.

MR. TINKLER has now completed his work, comprising villa outlines, doorways, gateways, candelabra, and other matters, on twenty-four large tinted plates, which he gives for a guinea and a half. It will be found suggestively useful.

VARIORUM.

LORD ARTHUR HERVEY, in a short pamphlet,* suggests that the universities should supply lecturers for the counties adjoining, to be called *rural* or *circuit professors*, by which means "we might look forward to having the population of the whole of the United Kingdom brought within reach of the best instructors which the country can afford, and a large amount of useful knowledge and sound sentiment diffused." ——"The Unity of Science" is a pleasant rhapsody, by Mr. William M'Cormac, read before the Queen's College Literary and Scientific Society, at Belfast. "Science," says the writer, "is not individual, is not solitary. Science is an estate given to man to cultivate. He farms off a portion here and a portion there; raises now this crop, now that; yet it is still one and the same estate." He would say that a general knowledge of all the sciences should be obtained by those who would obtain supremacy in one. —— "Plan for a Female College," by the Rev. F. D. Maurice,† is the substance of a lecture delivered at the Working Men's College, Red Lion-square, to a class of ladies. The objects the projectors have in view will be shown by mentioning the subjects of a course of lectures which have been commenced. They refer to dispensaries; to the treatment of surgical patients in hospitals; to different employments, and their effects on health and character; to the bearing of physiology on the mind as well as the body, and the way in which it may be studied; to the household economy of the poor; to district visiting, to hospital visiting, with reference to the spiritual condition of the patients; to the teaching of children in schools, and to the teaching of adults; to the condition of country parishes; to sanitary laws; and to other laws which affect the condition of working people. ——In Dr. Stenhouse's lecture "On the economical Application of Charcoal to Sanitary Purposes,"‡ he urges that charcoal being so powerful an oxidiser, it is manifestly injudicious to incorporate it with manure which is not to be immediately applied to the ground. For no sooner are the manure and charcoal in contact, than a species of low combustion ensues, and the manure is soon greatly deteriorated. "Notwithstanding this very obvious objection, this is the very process which a Company, called 'The Health of Towns' Improvement Institute,' established in Dublin, is constantly recommending. They propose that the whole of the offal from Dublin and other large cities, instead of being run into the common sewers, as at present, should be collected and mixed with peat charcoal. To say nothing of the enormous expense of such a proceeding, the deterioration which the manure undergoes would of itself, in my opinion, be a serious if not a fatal objection to their scheme."——"Every Boy's Book" is not a misnomer, for it is addressed to boys of all minds and dispositions, giving, in addition to information as to all sorts of games and athletic exercises, inducements to look to natural history, chemistry, pneumatics, and other sciences, for enjoyments.* Out of the boys of to-day must be made the statesmen, governors, and teachers of to-morrow; and when it is remembered that if you do not give boys something good to do, they will do something that is not good,—they must be doing;—that if you do not find them healthful, and innocent, and elevating amusements, they will make amusements for themselves that may not be either,—the value of such a book as this is at once seen.

* Cambridge: Macmillan and Co. London: Bell and Daldy.
† Cambridge: Macmillan and Co. 1855.
‡ London: S. Highley, Fleet-street. 1855.

* "Every Boy's Book." By Geo. Forrest, M.A. London: Routledge and Co.

Miscellanea.

ST. MARY'S, STOKE NEWINGTON.—On the 9th inst. the rev. the rector stated "that a sum of about 5,000*l.* had been collected towards defraying the cost of the new church, and a further sum of 4,000*l.* was required It was intended to be a solid lasting edifice, and could not be expected to spring up like a mushroom, as too many of the buildings of the present day do. However, it behoves the subscribers to have a definite understanding as to the arrangements that have been made with the builder—whether he has been limited to time and cost, and whether any contract has been entered into with him. Very few men are employed on the works, and they are sometimes standing still for want of stone. A number of stone sleeper blocks from the railways are being used in the foundations.—AN INHABITANT.

LEEDS MODEL LODGING HOUSE AND MECHANICS' HOME.—From a circular letter, it appears that there has been a falling off in the number of lodgers at these institutions during the past year, ending 31st March, 1855, of 4,500, and that the receipts only leave a balance of 41*l.* 9s. 9d. instead of 126*l.* 1s. 4d. Mr. Denison, the founder of the institutions, believes from returns in the possession of his superinteadent, that the decrease arises from the absorption into the militia and the regiments of the line of that class who avail themselves of such institutions, and he has issued the circular letter alluded to, addressed to chief constables of the principal towns in the kingdom, requesting a return of the number of lodgers in the model lodging-houses of such towns for the years 1853-4 and 1854-5.

MR. MONTI'S THIRD LECTURE.—Mr. Monti, in his third lecture, dwelt briefly upon the art of sculpture in Greece at the most flourishing period, when it was divested of the forms imposed upon it by religious symbolism. The most beautiful and sublime in art, he argued, was the ideal which could only be attained after a lengthened study of nature. He traced the different tendencies that prevailed among former great sculptors and the various subjects and schools which they followed. He eulogised the Achilles of the Louvre, the Parthenon Sculpture, and the Venus of Milo. The lecturer, in conclusion, announced that he should continue the subject on a future occasion, when he would point out the *modus operandi* of the Greek sculptor. His object, he said, was not so much to teach his hearers his noble art, as it was to make it well known, and plant a just appreciation of it in the minds of the English people.

SALE OF METROPOLITAN ROADS.—The Commissioners of the Metropolis Roads have let the tolls on the turnpike roads north of the Thames for one year, from the 1st July next. Mr. J. L. Panter, chief clerk to the commissioners, put up the several lots. The first, the Brentford, Kensington, and Isleworth roads, let last year for 15,910*l.* were put up at 15,000*l.* and knocked down to Mr. Cary at 15,020*l.*: the Upper and Lower Divisions of the Tyburn and Uxbridge roads, let last year for 9,730*l.* were put up at 9,200*l.* and sold for 9,270*l.*: the Harrow-road tolls, let last year at 1,150*l.* were put up at 1,100*l.* and sold for 1,110*l.*: the Kilburn and Edgware-road tolls, let last year for 3,230*l.* 11s. 6d. were put up at 3,100*l.* and were knocked down at 3,150*l.*

FIRE-PROOF CONSTRUCTION.—Our attention has been directed to specimens of clay-pots and hollow bricks, used by M. Vabre, in forming roofs and floors, by a combination of wrought-iron girders, supporting flat arches composed of these pots and hollow bricks. The system is stated to have been successfully applied.

A HINT TO MECHANICS.—The Commissioners of Patents have presented a complete collection of their series of copies of specifications of patents, with descriptive plates, indexes of patents, and all other works printed by them (embracing a period from 1617 to the present time), to the Marylebone Free Library, 27, Gloucester-place, New-road, on condition that they should be available for gratuitous consultation, and the taking of notes or sketches, every day in the week, from ten in the morning till ten at night.

THE NEW HIGH-WATER LANDING-PLACE AT MARGATE.—This work is nearly completed by the contractor, Mr. Bastow, from the plans of Messrs. Birch, of London. The pier commences at the Droit-office. The width at entrance is 84 feet: this part is curved, and it gradually narrows to 20 feet. At a distance of 180 feet from its commencement it is supported on twenty-three cast-iron piles, 12 inches in diameter, driven on an average 10 feet into the chalk. On the top of three cast-iron piles are placed seven wrought-iron girders 18 inches in depth, varying in length, being placed transversely according to the width of this part of the pier. On the top of these girders the timbers are placed, being 14 inches by 9 inches, running longitudinally, and on the top of these timbers is the platform. The pier-head is in the form of a parallelogram, 110 feet long by 45 feet broad, supported on fifty-seven screw piles, of solid wrought iron, 5¼ inches diameter, and 20 feet long. There are three landing-stages at the head, suitable for steam-boats at any time of tide. The staircase is in the middle of the head, 13 feet wide, of easy ascent and descent. The pier is 14 feet above high-water mark of ordinary spring-tides. The total length is 1,240 feet, giving a promenade of upwards of 30,000 superficial feet. The first pile was driven on 3rd May, 1853, by the chairman of the Pier Company, and the last pile was driven on 3rd March, 1855. The contractor has had difficulties to contend with: three months had scarcely elapsed after the signing of the contract, when materials advanced 30 to 50 per cent. labour as much, and freights 90 per cent.

THE SCOTTISH SOCIETY OF ANTIQUARIES.—The eighth meeting of the session of this society was held in their hall, at Edinburgh, on Monday before last. The secretary mentioned that he had received communications from the president, and from Colonel James, which gave every hope that the Ordnance Survey of Scotland would include all existing archæological remains. Mr. Spottiswoode of Spottiswoode called attention to the unfortunate condition in which St. Margaret's Well existed; and a committee was appointed with the view of endeavouring to get the state of this relic improved.

FRIGHTFUL EFFECT OF THE STUDY OF ART.—Mr. Chadwick, speaking of the female school teachers of the Government Schools of Art, in his last pamphlet, says—"The females have been so far advanced in mental power and influence as to have been lost to the service by matrimonial engagements obtained with exceeding rapidity. To avoid these losses, plainer candidates were selected for training, but they, too, have obtained preference as wives to a perplexing extent." Mere "blues" have no chance whatever against these ladies of all colours,—these Masters of Hearts!

AN AQUARIUM FOR BATH.—Mr. Charles Empson has been long advocating the construction of an aquarium in the gardens of the Royal Literary Institution, through which the tepid water from the hot springs finds its way from the baths to the Avon. The most eminent professional men have been consulted, and it is estimated that, for a very small sum, an aquarium for tropical rarities might be constructed, which would be superior to that recently added to the Royal Gardens at Kew. The experiment has been tried with complete success in a portion of the large tank in York-street. By taking advantage of Nature's gifts to them, all cost of heating would be avoided. And they have in Mr. Empson an excellent "guide, philosopher, and friend." We do not know of a more earnest and loving student of nature in all forms than this gentleman.

ARBORAL RECORDS OF BUILDINGS.—I think "T. P.'s" excellent suggestion in your last number should not be confined to ecclesiastical buildings. Why should not some of the finest monuments of the constructive skill of our age be thus transferred to our lawns? Take, for instance, the Menai Tubular-bridge. Plant oaks of sufficient distance apart in the width, and say 40 feet in the length; and graft the trunks of poplar trees (cut off close to the root), from one to the other horizontally, so as to form the four corners of a tube. It is not perhaps generally known that this mode of grafting will succeed, and the poplars draw nourishment through their connection with the oaks (beech would do as well), so as to give out their foliage. A little training is all that would be required, and I am sure future generations would thank us.—G. R.

PATENT STOWING, LOWERING, AND DISENGAGING APPARATUS.—On 9th ult. we noted the pressing necessity for the adoption of some new and safe, as well as speedy, mode of lowering ship-boats in cases of shipwreck and other casualties, whether in emigrant or passenger, mercantile or naval ships. We then instanced one new invention of the kind required, and now we have to note another, namely, Russell's patent davit and boats disengaging apparatus, for which Messrs. Troughton and Bevan, of Gravesend, are agents. By means of this apparatus it appears ships'-boats may be safely and speedily lowered even by one man, whether in the ship or in the boat. Without diagrams the mechanism—though seemingly quite uncomplicated, and not apt to get out of order,—cannot readily be described; but it has the opinion in its favour of such nautical authorities as Captain Bullock, R.N. Admiral Falcon, and many others. The apparatus, we believe, is already in use in a Sheerness steamer, called the *Queen*, and also in some Gravesend and General Screw Navigation steamers.

IMPROVED APPARATUS FOR DELIVERING MAIL-BAGS BY RAIL.—The *Liverpool Times* describes an apparatus, invented by Mr. T. Dalton, of Whitechapel, formerly a mail guard, for taking up and laying down bags from the mail trains, while going at their usual speed. This apparatus, according to the paper referred to, has many points of superiority to that at present in use; the principal advantage being the ease, celerity, and safety, to the contents of the bags themselves, with which the operation is managed

ENGLISH JURORS FOR PARIS EXHIBITION.—The Lords of her Majesty's Committee of Privy Council for Trade have appointed the following noblemen and gentlemen to act as jurors for the Paris Universal Exhibition:—For Fine Arts, Painting, Engraving, and Lithography—Division 2, Class 28.—Lord Elcho, Daniel Maclise, esq. R.A. Frederick Tayler, esq. and J. H. Robinson, esq. For Sculpture—Class 29.—R. Westmacott, esq. R.A. and W. Calder Marshall, Esq. R.A. For Architecture—Class 30.—Sir Charles Barry, R.A. and Professor Cockerell, R.A. For Glass and Pottery—Division 1, Class 18.—John Webb, esq.

BOILER EXPLOSIONS.—We have had various lengthened communications on this subject, which our limits prevent us from giving, except in a very brief form. Mr. S. C. Gant, C.E. of Merthyr, is of opinion that nine-tenths of such explosions arise simply from "a deficiency of water in the boiler, by which means a portion of the inner tube becomes weakened by being over-heated, when a collapse almost inevitably occurs, and the water coming in contact with the fire, or over-heated metal, the pressure of steam is instantaneously increased to an enormous extent, thereby producing the 'strange force' mentioned." Mr. Gant feels convinced that, if proper attention were paid to the "feed," explosions would be of very rare occurrence. "An Analytical Chemist" deprecates (as we not long since did) the reference to "electricity" as an explanation of every obscure phenomenon, although he agrees with us in regarding it as one of the most important forces in creation, if we only understood it aright. Boiler explosions, he thinks, have nothing directly or specially to do with electricity. The mere evaporation of water, he remarks, does not evolve it, although wet steam in the act of escaping does so, and the more rapidly the escape, the more intense the electric evolution, as, indeed, the astonishing force of Armstrong's hydro-electric battery clearly shows, the steam being positive and the boiler negative. Neither wet steam nor insulated boilers, however, are in ordinary use; and, besides, it is before any steam has issued that it is supposed to evolve electricity as a cause of explosion. Boiler explosions, continues our correspondent, are occasioned by either thinness of boiler, as when old and worn, carelessness in allowing pressure to accumulate, or, as in 75 per cent. of such casualties, lowness of water, and undue heating of boiler tubes, suddenly converting a new "feed" of water into steam of great pressure. It has even been supposed, we may add, that in such a case water may be actually decomposed into its elements, the oxygen being fixed in the iron while the hydrogen expands with irresistible force into the gaseous form, and bursts the boiler.

ST. ALBAN'S ARCHITECTURAL AND ARCHÆOLOGICAL SOCIETY.—The tenth anniversary meeting of this society was to be held at the Town-hall, St. Alban's, on the 19th inst. The chair to be taken by the Earl of Verulam, President. A paper was to be read by Prof. Donaldson, on "The Palaces of the Louvre and Tuileries, Paris."

DEATH FROM WANT OF DRAINAGE.—An inquest was held lately at Stalham, in Norfolk, on a child of two years, who had suddenly died there, finds a verdict to the effect "that the child died of spasmodic cholera, produced by the foul state of the yard where the child resided."

"HEAT WITHOUT FUEL."—At p. 75 of the fifth volume of the *Builder* (1847), we suggested, in an article titled, "Heat without Fuel," that by means of friction sufficient heat might probably be excited wherewith to produce steam, wherewith to continue the friction, and that it would then become a question whether or not a surplus of steam power might thus be obtained, wherewith to do other and less fruitless work than merely to evolve the heat necessary to produce the steam. Our main purpose, we confess, however, was to suggest, in scarcely a very serious way, something like a less absurd or less unfeasible idea of perpetual motion than ordinary. We now refer to the article in question, for two reasons;—first, because, happening to fall on it more easily than many suggestions in our columns not specially indexed and hence very troublesome to hunt out, we, by pointing specially to it, thereby dislocate the sneering apparatus of those who seem to think we have no right to remind our readers of our own suggestions, or to claim as our own what was subsequently appropriated, it might be, by the pretended sneerers themselves, as *their* original suggestion (although for all that we know, in the present instance, others may also have originated the suggestion quite independently and even previously to ourselves); and secondly, because we recently noted the following paragraph in *Galignani's Messenger*: "*Heat without Fuel.*—The problem of acquiring heat without fuel appears to have been solved by the invention of the machine of MM. Beaumont and Mayer, with which, by means of friction alone, they can make water boil. The machine, which may be seen at work at their establishment on the Quai Valmy, contains 400 litres of water, which is made to boil in two hours. A cone of wood, which turns in a cylinder so as to produce the necessary friction, is covered with tow, and that tow, in order that it may not catch fire, is kept constantly moistened by a stream of oil which runs on it. The heat gradually increases, until at last steam is generated."

DEPARTMENT OF ART.—An exhibition of the advanced works of the students in the metropolitan and provincial schools of art has been recently opened at Gore House. The award of medals has not given satisfaction. One correspondent says,—"The life-class in the metropolitan school, and study of anatomy, as well as the time-sketches of ornament, are all classes in which there are several models and therefore a competition, but in neither of these is there an award. Now, as the medal is to reward comparative merit, it is evident that these classes have been slurred for some unknown reason."

MONUMENT TO O'CONNELL.—A numerously attended meeting was held at Limerick, lately, for the purpose of erecting a statue to the late Mr. O'Connell, in that city. A letter was read from Mr. Hogan, the sculptor, in which he proposed to execute a statue, 8 feet high, in Portland or Caen stone, for 600*l*. The subscriptions to be received will govern the committee in the character of the proposed statue.

COMPETITION AT VIENNA.—A prize of 1,000 ducats was offered some time since for the plan of a church to be erected as a thank-offering in Vienna. Sealed letters were sent in with the respective plans, and one with the sign of a white cross upon a blue ground was selected. When the letter was opened it was found to contain the name of Henry Ferstel, a native of Vienna.

BUILDINGS AT ADELAIDE.—The new city bridge erecting under the supervision of the Government architect, by Messrs. McClure and Hinckley, is in progress. The superstructure was expected by last accounts from England. It is of wrought-iron, on the bow-string principle, and 100 feet in span. Government House is being enlarged at a cost of some 6,000*l*. The present house will form the eastern wing. The Legislative Council Buildings are now approaching completion. The style of the new Council Chamber is Elizabethan. The building covers 990 square yards. "By some strange inversion," says the *Adelaide Observer*, "the Upper House is stuck down below." We suppose, however, that, with our antipodes, where summer is winter and cherries bear their pips outside and their pulp within, this is all right. As for the President, it adds, "the builders are instructed to knock up a bit of a room for him which was not included in the original plan." The Adelaide City and Port Railway is regarded as the most important public work at present in progress. Labour, by last accounts, was at a discount for a season, and on this account it was thought a favourable time to begin such works as those of the new Hospital, for which money had been voted, and the plans prepared. The foundation-stone of a new Wesleyan chapel was laid on 30th April last: it is to be of stone, and to accommodate 500 persons. Mr. William Hanson, who many years since was with Mr. Thomas Cubitt, and subsequently with Mr. R. Stephenson, has been appointed by Government engineer to the Gawler Town Railway Commissioners.

RAILWAY MATTERS.—The committee on the Westminster Terminus (Clapham and Norwood Railway) Bill, which is to provide a west-end terminus for the Crystal Palace traffic, near Victoria-street, Westminster, have decided that the preamble was proved.——The committee on the West London and Crystal Palace and Westminster Terminus Bill have reported that the parties promoting it state that it is not their intention to proceed with the same.——The *New York Post* says, that on the Hudson River Railroad is an experimental car, furnished with an apparatus for ventilation. The air enters into a large funnel in front of the car, whence it is made to pass directly into the interior through an artificial shower of water. The shower is produced by a motion communicated from the engine, breaking the water into drops, and keeping it in constant agitation. The cost of fitting up a car with this apparatus is said to be about 150 dollars—not more.

MONUMENTAL.—Mr. Richardson has just placed in Kensal-green Cemetery, a temple tomb of Sicilian marble, by order of Major-general and Mrs. Perry. It is near to the tomb of General Casement, on the other side of the centre drive. It stands 15 feet high, by 6 feet at the lower base. The inscription is coloured azure. The same artist has on view two military memorials for Madras.

RATEABILITY OF THE ELECTRIC TELEGRAPH COMPANY.—In the Court of Exchequer, lately, judgment was given in the case of "The Electric Telegraph Company *v.* The Overseers of Salford," to the effect that the company were liable to be rated, and that judgment must be given for the overseers. Judgment, with costs, was accordingly entered for the respondents.

PIPE ACROSS THE THAMES.—There is now in course of construction upon the line of extension of the water-mains of the Chelsea Water Works Company, a pipe aqueduct, crossing the Thames from Putney to Fulham, and supported upon Mitchell's Patent Cast-iron Screw Piles. The structure is sufficiently advanced to be interesting to the profession.

THE ROYAL TOMBS AT DUNFERMLINE.—Dr. Henderson has been destroying a popular error. He says, in effect, within the hallowed walls of Dunfermline Abbey were interred the mortal remains of eight kings, five queens, six princes, and two princesses of Scotland. Their once magnificent tombs have long since disappeared,—not a vestige of them remains to point out the site of the ancient original "Locum Sepulturæ Regium!" Tradition, from time immemorial, has pointed to a spot now under the floor of the north transept of the present modern church as being "the sacred ground where the royal remains were deposited;" and why does tradition point to this place? Probably, because there lay here uncovered, until the year 1818, six extraordinary large flat gravestones, arranged in two parallel rows; and, as it was long the popular belief that there were only six kings interred in the abbey, very likely at some remote period an inference might have been drawn that these "six stones" covered the remains of the six kings, and thus, in process of time, tradition would point to these stones in this place as being the undoubted "Locum Sepulturæ Regium." But never did tradition commit a more serious error. For ages tradition has been pointing to this spot as the royal burial-place. All the while tradition has been pointing to a myth, for the royal tombs were not here. The site of the ancient "Locum Sepulturæ Regium" was not in this place: it was before the altars in the church of "the Holy Trinity." At least, so says our authority; and we will not contradict him.

TENDERS

For the erection of a girls' school and teacher's residence in the parish of Holy Trinity, Windsor. Mr. George Porter, architect. Quantities supplied.

Titcomb, Clewer	£1,050	0	0
E. Brown	1,045	0	0
Snowball, Slough	950	0	0
H. Tarrant	935	0	0
Holly, Windsor	930	0	0
B. Wells, Barmondsey (accepted)	898	0	0

For joiners' work to Castle Hall, Milford, Pembrokeshire. Mr. W. H. Lindsey, architect. Quantities supplied.

Rowland and Evans, London	£1,295	0	0
Lewis, Haverfordwest	1,280	0	0
Cadd and James, do. (accepted)	1,050	0	0

For sewer down the High-street of Putney. Mr. S. Wood, architect.

Adamson and Sons	£2,496	0	0!
Crump	1,728	4	0
Yeoman	1,684	0	0
Parsons	1,618	0	0
Batterbury	1,492	0	0
Carlisle and Co.	1,389	0	0
W. and R. Aviss	1,307	18	0
Brown	1,175	0	0!

TO CORRESPONDENTS.

"*Pitch of Roofs.*"—What is the lowest pitch of roof which can be with safety, as respects water-tightness, covered with common Welsh slates 24 inches long? Pitch is understood to mean a certain proportion of the span, for example 60 feet span with a rise of 7 feet 6 in. would be an 8th pitch. Where has an 8th pitch been executed?—A. B.

"J. P." (simply repeats what has been already asserted in our pages.)—"G. R. W."—"J. M. and Co."—"Mr B" (will appear).—"S. S. M."—"W. R." (under our mark.)—"F. A." (title).—"W. W." (cost would be regulated by size, position, &c. and would vary considerably).—"B. W."—"G. S."—"J. B."—"H. E. sen." (we are forced uniformly to decline).—"J. R. V."—"H. C. H."—"A. M." (shall have attention).—"H. M." (thanks).—"T. G."—"Competitor, Dudley Workhouse."—"R. G. F."—"A."—"T. H."—"W. R."—"S. D."—"J. V."—"J. H." (the mode of forming iron houses is not yet so perfect as to lead us to advise the substitution of them for buildings of stone in this country).—"G. B. N."—"D. B."—"An Architect."—"Hall v. Owen" (some facts are wanting to make the report useful).

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO PARENTS AND GUARDIANS.

AN Eminent Architectural Firm, in a large manufacturing district, in one of the midland counties, have now a VACANCY in their Offices for an OUT-DOOR ARTICLED PUPIL, possessing a good address, and having a taste for drawing; to whom will be afforded peculiar opportunities and advantages.—Address to A. & B. Office of "The Builder."

AN Architect is in immediate WANT of a good practical DRAUGHTSMAN, well acquainted with detail, that can measure builders' work, and take out quantities. Unexceptionable testimonials required.—Apply, stating terms, &c. to Mr. WILSON, 1, Belmont, Bath.

APPRENTICE.—WANTED, to APPRENTICE (in-doors preferred) to a Mechanical Business, Pattern-making, or some such, a strong active YOUTH, in his 15th year. Premium moderate.—Address, H. CROUCH, Brunton's-place, Commercial-road East.

TO PARENTS AND GUARDIANS.

A CIVIL ENGINEER and LAND SURVEYOR, of twenty years' practice, largely engaged under Government, has a VACANCY in his Office for a well-educated YOUTH, as a Pupil. Premium moderate.—Address, BETA, Messrs. Waterlow and Sons, 49, Parliament-street, Westminster.

OFFICE LAD WANTED, in an Architect's Office, who can write a good hand, trace drawings, and would make himself generally useful.—Apply, in own handwriting, with salary required, to ARCHITECT, 6, John-street, Adelphi.

FOREMAN of EXCAVATORS.—Wanted, a steady Man, as FOREMAN; one who understands tunnelling will be preferred. Salary, 2*l.* per week.—Apply, by letter only, stating where and by whom last employed, how long, and on what description of work, addressed to ALPHA, at the Office of "The Builder."

TO SURVEYORS AND ENGINEERS.

WANTED, a Person to discharge the duties of SURVEYOR and INSPECTOR under the Gloucester Board of Health, including the management of the roads and streets, and the overlooking of the Public Sewerage Works, now nearly completed, and the superintendence of the private house drains to be made in connection therewith, and the performance of other duties under the Local Board, and also the superintendance of the existing waterworks, and of new works when completed. Also to fulfil the duties of CHAMBERLAIN of the city, and generally, to take charge of, and manage the corporate estates, subject to the directions of the Town Council and their committees. Two sureties in 500*l.* will be required. Salary for the two offices combined, 250*l.* per annum. An assistant will be provided at the expense of the Board. Particulars as to the duties required may be had on application by letter to Mr. A. H. JENKINS, Town Clerk, or Mr. R. H. FRYER, Clerk to the Local Board of Health, Gloucester, to whose office written applications from candidates must be sent on or before the 2nd day of JULY next, under cover, addressed to "The Gloucester Board of Health," marked "Surveyor's Tender." An intimation will be given at a future time to such candidates whom the Board may desire to attend personally.

WANTED, a Young Man in a Surveyor's Office in the country; he will be required to make drawings occasionally, and assist in the usual routine of a Surveyor's Office. Board and lodging to be considered equivalent for his services. For further particulars, address, H. P. at Cotes's Library, 139, Cheapside.

TO GAS-FITTERS.

WANTED, a FIRST-RATE HAND to go abroad, for three years certain.—Apply, with testimonials as to character and ability, to Messrs. WM. BIRD and CO. 5, Martin's-lane, Cannon-street, London.

TO BUILDERS' CLERKS.

WANTED, by a London Firm, a respectable YOUNG MAN, who is a good plain draughtsman, and can assist in the general duties of the office.—Address, stating age, particulars, and salary required, to L. M. Office of "The Builder."

WANTED, three miles from London, in the office of a PLUMBER, PAINTER, and BUILDER, a YOUTH, from 16 to 18 years of age, competent to keep books by double or single entry. One that has filled a similar situation preferred, as no other is kept.—Address, stating age, qualification, and salary required, to Mr. OLIVER PITTS, Plumber, &c. Waltham-green.

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J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence. Shop-front Builder and Manufacturing Joiner. 1¼ and 1½ four-panel doors from 8s. each; 1¼ sashes and frames from 7d. per foot; 9 inch ditto from 8d. Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 1s. per foot super. Together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 60, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

PURE WATER.—The attention of Boards of Health, Water Companies, Engineers &c. &c. is particularly requested to a newly-invented PIPE for CONVEYING WATER, which possesses most important advantages. It can be made strong enough to resist any pressure, is comparatively flexible, easily joined, has great power of resisting the effect of frost, and what is of still higher consideration, is perfectly innocuous. This combination of desirable properties is produced by lining leaden pipes with cutta percha.—Further information may be obtained on application to the Patentees, Messrs STOCK and SON, Lead Works, Birmingham; or to the Gutta Percha Company, 18, Wharf-road, City road, London.

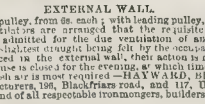
DAYLIGHT REFLECTORS. — GREAT NOVELTIES.—The Profession is hereby informed that Messrs CAPPE and Co. of 45 Skinner-street, Snowhill, London, are the Manufacturers of the ERIDGE never granted for DAYLIGHT REFLECTORS To this they have added two subsequent Patents of their own, embracing all the recent improvements down to the latest date. Messrs CAPPE and Co forward estimates, plans, &c. as usual, free of charge. The profession is warned that these are the only Reflectors which can with safety be recommended for adoption, as they never tarnish or become discoloured. The usual liberal allowance to architects, builders, decorators, c

TO DRAUGHTSMEN AND CIVIL ENGINEERS.
H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.
Three Pencils are prepared in various degrees of hardness and shades.

H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
	B B B B ditto ditto.
M medium.	

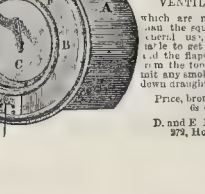
Sold by all the principal Stationers in town or country.

VENTILATION.—PURE AIR.
Sheringham's Ventilator for the admission of pure air through an



EXTERNAL WALL.
With single pulley, from 6s. each; with leading pulley, from 6s. 6d.
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole manufacturers, 196, Blackfriars road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

VENTILATION.



D. and E. BAILEY beg to call the attention of Architects and others to their improved
CIRCULAR ARNOTT VENTILATORS,
which are more sightly than the square ones in general use, much less liable to get out of order, and the flaps, being hung from the top, do not admit any smoke caused by down draught.
Price, bronzed, from 6s 6d.
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HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from any poisonous or pernicious property. Neither exposure to heat, nor tropical climates act upon it. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. To be had of the Wholesale Patent-dealers in Original Packages, each cask stamped—HUBBUCK LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any alteration has taken place in the oxide, either in consequence of immersion in the material or mainly made use of to produce it, an imperfect mode of reduction, or by mixing with the oxide certain substances calculated to give it increase i weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and Co.; when ground in oil, by Messrs. T. B MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 69, King William-street. City; FREDERICK BABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpo l by R. CLAY, 8, Mercer-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland-yard, and at the Works.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the Natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements tread at the Institute of Civil Engineers, lately obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stucco-es dry quickly, and may be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent — KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stucco-ue, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Bell-alley-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patents), and all other Cements in use for building purposes. Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs. Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone. CHARLES RICHARDSON, 6, South Wharf, Paddington.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.
CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.
Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.
ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.
SECONDS, PAVIORS', STOCKS, and other BRICKS.
CHARLES RICHARDSON, 6, South Wharf, Paddington.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.
WILLIAM PEYERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.
Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855. — CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Mansfield-street North, City-road Basin. Secondly, that the trade term, TERRO-METALLIC," is the exclusive right of the Proprietor, and, thirdly, that the "REWARD OF THE JURIES," page 381, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 23s. 6d. per 1,000; floor brick and 6-inch pavings, at 40s. per 1,000; 8-inch pavings, at 80s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

GREAT NORTHERN WHARF, York-road, King's-cross. WHITE BRICK and TILE DEPOT. L. B PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickures, of good and sound quality, constantly on sale at H. DODD'S Brickfields, where are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.
Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.
Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.
N B Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c Stourbridge Fire Goods, &c. of all descriptions, and of best quality —WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent — Mr. J. UNWIN, Private Residence, 20, Nelson-square, Blackfriars-road.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.—Grey Stocks, 28s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 26s; Place, 16s.—Terms, cash on delivery.—Apply to Mr G SMEED, Sittingbourne, Kent.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

MILLS for SALE.—A Slate-sawing Machine, powerful Crushing-mills or Edge stone Runners, all complete, price 50l.; two pairs of Horizontal French Stones, and 14-horse Boiler. Can be seen by applying to C. T. CHRISTIE, Millwright and Engineer, 113, Vauxhall-walk, Lambeth.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS
Pumps in Wrought and Cast Iron and Brass, fitted by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.
Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.
Upper Ground-street, Blackfriars Bridge, Surrey Side.

FARM AND COTTAGE PUMPS.

WARNER'S PATENT CAST IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump	£1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing	2 12 0
Larger sizes if required.	

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,
JOHN WARNER AND SONS,
8, CRESCENT, JEWIN-STREET, LONDON.
Every description of Machinery for raising Water, Fire Engines, &c.
The usual allowance to the Trade.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH-BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Cills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Pine Planks, 12 ft. 3 in. by 11 in.	from 3s. 6d.	each.
Spruce Deals, 9 in. by 3 in.	„ 2s. 3d.	„
Yellow ditto	„ 4s. 6d.	„
Honduras Mahogany, in logs	„ 0s. 4½d.	per foot.
Ditto ditto, in planks and boards	„ 0s. 6d.	„
Spanish ditto	„ 0s. 7d.	„

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

ACORN TIMBER WHARF and SAW-MILLS,
GRAND SURREY CANAL, OLD KENT-ROAD. — The extensive Waterside Premises Improved Sawing Machinery and Drying Warehouses, with a supply of all kinds of Foreign Wood direct from the importers, enable consumers to select from one of the largest stocks in London, at the lowest prices, for cash.
The Monthly Price Current forwarded on application — RICHARD MAY informs the building public that American Pine and Spruce are cheaper, and Baltic goods are scarce.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross
GEORGE NOKES and CO. (late Archbutt and Atkinson) beg to acquaint architects, builders, carpenters, and others, that they have opened the above premises with superior machinery for manufacturing architrave mouldings of any size and design, sashbars, match-boarding, skirtings, flooring, &c. and have always on hand a large stock of seasoned flooring at reduced prices; also, timber, deals, scantling, sash sills, mahogany wainscot, &c. Goods sawn at the mills fetched and delivered free of charge.
May 19, 1855.

MACHINE CARVING, JOINERY, and MOULDED WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Joinery executed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, available for various purposes, can be seen at the Works, and Estimates furnished upon application.

UNIVERSAL MOULDING-MILLS, 24, Portobello-road, Notting-hill.
WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer, with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L. are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade.—N.B. All customers having an account at the above establishment can be supplied with mouldings to their own design, at the shortest notice, free of any extra charge.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal support he has received upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 29, North Wharf-road, Paddington.
N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

WOOD-CARVING and FRET-CUTTING. T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Iron-founders, Cabinet and Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—T. H particularly solicits the attention of Ironfounders, having had many years' experience in ornamental pattern making.—Estimates furnished.

TO THE CLERGY, AND TO ARCHITECTS, BUILDERS, &c.
STEPHENS'S WOOD STAINS as a SUBSTITUTE for PAINT, and at less than half the cost, and without the disagreeable smell and deleterious consequences of paint, well adapted for Churches, Chapels, Schools, or other public buildings, as well as private dwellings, gives a true effect of Oak, Mahogany, or Satin Wood. Those who noticed the Entrance Doors of the Crystal Palace of 1851, which were executed with these stains, would find no difficulty in procuring direct Prospectuses, giving full particulars, and specimens sent free to any part of the kingdom.
HENRY STEPHENS, 54, Stamford-street, London.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, fetched away and paid for at the time, at C. LEITWICH'S Lead, Glass, and Colour Warehouse, 21, Munster-street, Regent's-park. — A large quantity of PAPER-HANGINGS, CHEAP. 18s. per cwt. given for old lead.

STEAM PILE-ENGINES.—WANTED, One or Two Second-hand STEAM PILE-ENGINES.—Address, by letter, to Mr. MORRIS, 3, Bridge-street, Westminster.

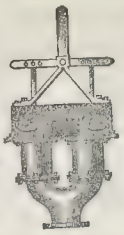
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11. 15s.

The usual allowance to the trade.

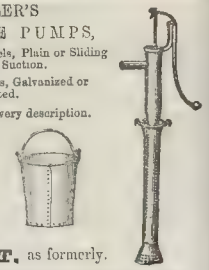
PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and gardens of places, quays, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.
Wrought-iron Pails, Galvanized or Painted.
Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 3, Crescent, Jewin-street, London.

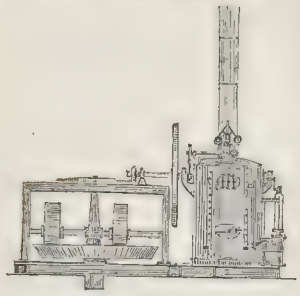
PRIZE MEDAL, CLASS 9.
HIGH-PRESSURE VALVE COCKS.—
LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.



A SAVING of TIME and MATERIALS, with Solidity of Building.
HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

"Railway Contractor's Office, Wellington, Salop.
"December 1, 1853.

"DEAR SIR, We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Bacup Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although for weeks the fire has never been out, we have no stoppage for repairs.

"We remain, dear sir, yours most faithfully,
"Mr. Gough." "DICKSON and M'KENZIE."

TO CONTRACTORS.
PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 14-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 93, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Any of these Engines may be purchased.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c
PARSEY'S PATENT REVOLVING PUMP will throw as much water with one third the labour as any other pump. One of these pumps at work at No 7, Strand.
To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.
W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 76, Strand, London.

PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground street, Blackfriars-bridge (Surrey Side).

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES, consisting of Matting, Mats, Mattresses, Brushes, Netting, &c. are distinguished for superiority and excellency of workmanship, combined with moderate prices. Prize medals, both in England and America, at the Exhibition of all Nations.—T. TRELOAR, Cocoa-nut Fibre Manufacturer, 42, Ludgate hill, London.

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c.—The nobility, gentry, water-companies, towns, mills, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 10, Cumming-street, Pentonville. Pumps and machinery for raising water from deep wells, boring-tools, and well-pipes for exportation. Men and tools supplied to bore for railroads, minerals, &c.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licences for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents. Applications may be made to CHARLES MAY, F.R.S. the Manager; or to
WILLIAM HOWDEN, Secretary.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSSES WHOLESALE WAREHOUSE, 29, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

TYLOR'S improved METAL-BOUND PAINTING BRUSHES.—These are the lightest metal-bound painting brushes hitherto introduced; the bristles are perfectly secure against the action of all kinds of varnishes and colours, the caps will not burst or rust when the brushes are placed in water, and the handles cannot come loose.—Price lists forwarded, post free, on application to the Manufacturer, J. B. TYLOR, 2, Bury-court, St. Mary-axe, London.

KENT'S PAINTING-BRUSHES are of the best quality, and may be obtained at all the first houses in the trade, and of the Manufacturers,
G. B. KENT and CO 11, Great Marlborough-street, London.
Established 1777.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

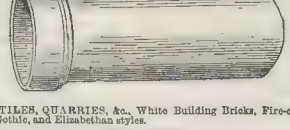
May also be had as follows:—

	LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.		
GLASGOW	J. A. Mathieson, Hope-street.	WIGAN	James Fairclough, King-street.
DUBLIN	Robt. Lovely, Poolbeg-street.	KENDAL	Robt. Thompson.
CORK	J. and J. Harley	CARLISLE	C. Armstrong, Lowther-street.
WATERFORD	J. Sparrow and Co	WHITEHAVEN	Hugh Todhunter.
CARNARVON	Jno. Jackson.	COCKERMOUTH	John Bird.
PRESTON	J. Armstead, Hudson-street.	GUERNSEY	Guerin, Brothers.
CHORLEY	Thomas Saville	LONDONDERRY	W. and A. M'Elwee.
BLACKBURN	W. Hopwood, Clayton-street.	LIMERICK	W. Burgess and Sons.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.
CLOSET-PANS AND TRAPS, 5s. 6d. EACH.
AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

THE FARNLEY IRON COMPANY, WORTLEY, near LEEDS.



Manufacturers of FIRE BRICKS, TILES, QUARRIES, &c., White Building Bricks, Fire-clay CHIMNEY-TOPS, in Norman, Egyptian, Saxon, Tudor, Grecian, Gothic, and Elizabethan styles.

TERRA COTTA

Fountains, Vases, Pedestals, Capitals, Trusses, Brackets, &c., in great variety, which for beauty and elegance of design are unequalled The designs of Architects modelled with the greatest exactness.

Also of PATENT GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, &c., well adapted for pressure, being made extra pressed under "Spencer's Patent." Superior White Glazed CLOSET PANS, TRAPS, &c.

The Works of the Company are situated in the immediate vicinity of the well-known bed of WORTLEY FIRE-CLAY, and their manufacture of BRICKS, for the use of Forges, Gas Companies, Foundries, Potteries, and Glassworks, is confidently recommended for all purposes where extreme heat is required. Their GROUND CLAY is also particularly adapted for the manufacture of CRUCIBLES, MELTING POTS, &c.

OFFICES AND STORES:

LONDON	No 14 York chambers, York-buildings, Adelphi; No 16, Bath-place, New-road; St Ann's-wharf, Limehouse.	MANCHESTER	No. 46, Travis-street, and 23, 24, and 25, Birmingham-street, London-road.
BIRMINGHAM	No 7, East-row; also King Alfred street, adjoining Hinckley-hall, and Lawley-street.	HULL	No. 60, Queen-street, and Wellington-street.
BRISTOL	No. 14, Nelson-street.	BRADFORD	Horton-road.
LIVERPOOL	No. 9, Russell-street, 83, Renshaw-street, and Shipping-wharf Leeds-street.	LEEDS	Wellington-street, adjoining the Midland Station; and Shipping-wharf, Victoria-works, Hunslet;

Where Drawings, with Prices, &c. may be obtained; and at the Great Industrial Exhibition, Dublin.

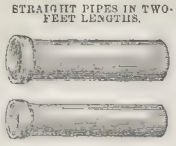
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

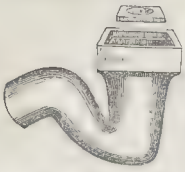
IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

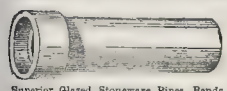


IMPROVED YARD-SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey, Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 9, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 33, Bryd.es-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

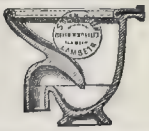


Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

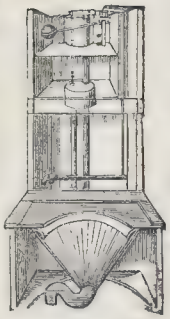
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Paving Bricks, &c., &c. Agents,—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Patent Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge wharf, City road.

N.B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1855.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE

No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 23, Old Fish-street, near St. Paul's, London.

Crown Glass, 18 tables, 30s. per Crate.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers, Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City. Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for hanging. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

SALES BY AUCTION.

WIMBLEDON HOUSE SURREY, with beautiful gardens grounds, and park, for many years the residence of the late Mrs Marryat, lace used, and long known as one of the most retired, fruitful and desirable retreats in the neighbourhood of the metropolis, a portion of the land offering most attractive and eligible sites for the erection of detached villas and other residences without interfering with the present seclusion of the mansion and grounds.

MESSRS. RUSHWORTH and JARVIS beg to announce that they will SELL by AUCTION at GARRAWAYS, on FRIDAY, JUNE 29th, at TWELVE o'clock in one lot, the above much-admired and very important FREEHOLD ESTATE, consisting of a capital old-fashioned spacious mansion, replete with every and all the requisite accommodation for a large establishment extensive and beautiful pleasure grounds, with lawns and shrubberies choice fruit and kitchen gardens, conservatory, fountains, and fish ponds, a small but beautifully wooded park and well-timbered park, with a large sheet of ornamental water, shower, grotto, summer-house, ice-house, arbours, &c. The farm yard, barn, stabling, &c., consisting altogether of about eighty acres of rich land lying on the gravel, will be let by the year, and is suited to the residence of a minister of state or family of distinction, a merchant or banker, or it offers to a speculative capitalist a very eligible opportunity for a safe and profitable investment, from the extent of frontage to the common a portion of the land might be most advantageously appropriated for building. May be viewed by cards, to be obtained of Messrs. SEELY and Co., 54, Cheapside; Messrs. HOWARD and JARVIS, Saville-row, Regent-street, and 19, Chancery-lane, Cornhill, and particulars may be had of Messrs. HALFORD and DAYS, Reading; of the Rev. W. HOLLAND, Wimbledon; of Messrs. FULLER and HORSEY, Billiter-street, City; and of Messrs. FULLER and HORSEY, Old Broad-street, City.

TO IRONMONGERS, BUILDERS, SMITHS, COACH-BUILDERS, AND OTHERS.—H

MESSRS. FULLER and HORSEY, on the premises, 189, Union-street, Southwark, on WEDNESDAY, JULY 4, and following days, at ELEVEN o'clock, by direction of the Assignees of Mr. James Martyr, a bankrupt, the extensive STOCK OF IRONMONGERY, bar and rod iron and steel, twenty tons rod, bar, and plate iron; five tons cast-steel; blister, and spring steel; fifty dozen spades and shovels, seventy dozen scythes (Foster and Fussell's), twenty dozen hedging-hooks, sickles, and pruning-knives; a quantity of cast and wrought and round fryingpans, black hollow ware, 150 bags wrought and cut nails, such as generally used in a large coach-building business; an entire weight of horse-locks, padlocks, shovel-and mould-, two tons of brass, tender files and rasps, vices, screw-jacks, and other gears; a large assortment of cast and wrought saws, hand-saws, axe-tools, Lancashire tools, 100 gross coach bolts and screws, 10 gross washers and burrs, 30 gross rabbit, 2000 screws, carpenters', bricklayers', and coopers' tools; a large assortment of cast brass work, 2 cwt. of cocks, 20 dozen locks in batch, counting-house and shop fixtures and utensils, a few pieces of household furniture, and other effects. To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises of G. J. GRAHAM, Esq. Official Assignee, Coleman-street; and of Messrs. FULLER and HORSEY, Billiter-street, City.

TO ENGINEERS AND OTHERS.—COMMERCIAL-ROAD

TO BE SOLD AUCTION by

MESSRS. FULLER and HORSEY, on WEDNESDAY, JUNE 27th, 1855, at TWELVE o'clock, with, at reserve, at Mr. FROSTS ROPE-GROUND CO WER, CHARLES and George Streets, a powerful PNEUMATIC ENGINE and MACHINERY, for the manufacture of PATENT JACKS; including a compressing engine, with iron cylinder 9" inches diameter, 24-inch stroke, governed piston, valve boxes, iron crank, pump, 4 inch radian cylinder, 24 inch stroke, expanding cylinder 9 inch with brass, 18 inch governor, 24 inch air key, brass suction, air, and speed gauges, 2 cylinder blocks in batch, counting-house and shop fixtures and utensils, a few pieces of household furniture, and other effects. To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises of G. J. GRAHAM, Esq. Official Assignee, Coleman-street; and of Messrs. FULLER and HORSEY, Billiter-street, City.

TO BARGE-BUILDERS, SHIP-BREAKERS, SHIP and BOAT BUILDERS AND OTHERS. By

MESSRS. FULLER and HORSEY, at the ROYAL OAK, Barking-road, on TUESDAY, JUNE 26, at TWELVE in LOTS by ORDER of MARINE ENGINEER, by Boulton and Watt, of 35 horse-power each, a 5-horse high-pressure steam-engine, two boilers, with tubes 24 inches diameter, steam boiler, vertical saw-frame, circular saw-bench, pair of two-throw pumps, powerful fore pump, 20 feet cobble deck planking, ship timbers, knees, deadeyes, &c. The whole, and lot of fittings & Governor ship recently broken up, to be viewed on Monday previous to the sale, when catalogues may be had at the Royal Oak; and of Messrs. FULLER and HORSEY, Billiter-street, City.

KENSINGTON PARK, NOTTING-HILL. Most important eligible Plots of Freehold Building Land in this admired locality, the roads and sewers formed.

MR. ROBINS is instructed to SELL by AUCTION, at the MART, on THURSDAY, JULY 12th, at TWELVE precisely, FREEHOLD BUILDING LAND, of an extremely attractive and important description, including the form both sides of the Sussex-road, leading from the London-road; also a continuation of Clarendon-road North and Somerset-terrace, at Kensington-park, Notting-hill. The great beauty and advantages of this much admired locality have been most happily developed by the architect and surveyor of the property in the plan for a building operation, which is worthy of attending towards successful completion. The much admired Sussex Church, now nearly finished, and standing in the immediate view of the premises, of a superior character, has been erected, and are in course of being finished; a glance at the plan will at once show the intimate connection of the land now offered for sale, with the most beautiful part of the estate and the advantages to be derived from residing in the carriage drive of the original scheme. The land will be arranged into lots of moderate size and value, and the building public are invited to inspect the plans and co-operate. Lots and sub-divisions already formed, may be had on application to Mr. Rowed, on the particulars with plans had at the Clarence Hotel, close to the land; of Messrs. Roy and Dawkins, Solicitors, Lothbury; at the Mart; and at Mr. Robins's Offices, Covent-garden.

THE CAMBRIAN LIME and CEMENT WORKS, CANTON in the Parish of Llandaff, Glamorgan. *By* James Bird, a Bankrupt.

MESSRS. W. H. WILLIAMS and CO. of Bristol, will SELL by AUCTION, at the CARDIFF ARMS, CARDIFF, on TUESDAY, the 26th DAY of JUNE, at FIVE o'clock in the afternoon precisely, subject to such conditions as will be then and there produced. The following desirable LEASEHOLD PROPERTY, viz.:—

Lot 1.—All that Piece or Parcel of LAND, situate at Canton, in the Parish of Llandaff, in the County of Glamorgan, containing by admeasurement 2a. 3r. 6p., or thereabouts, together with the Factory, consisting of Steam-engine, with Boiler and Grinding and Screening Machinery, Weigh-bridge, and a block of Four Kilns, together with Sheds and other Erections and Buildings thereon, now or lately used as a Lime and Cement Manufactory. This Lot is held for the remainder of a term of 99 years, from the 25th day of March, 1851, subject to the annual rent of £6.

Lot 2.—All that Piece or Parcel of LAND, adjoining Lot 1, containing by admeasurement 1a. and 1r. or thereabouts. This Lot is held for the remainder of a term of 99 years, from the 25th March, 1851, granted by an Indenture of Lease bearing date the 21st May, 1853, and subject to the annual rent of £2.

Copies of the respective leases will be produced at the time of sale, and in the meantime may be inspected at the Offices of Messrs. EDWARDS and FORMAN, Solicitors, 7, Coleman-street, London; CLEMENT WALDRON, Esq. Solicitor, Cardiff; and Messrs. W. H. WILLIAMS and GIMLETTE, Solicitors, Bristol, from which, and from the Auctioneers, further particulars may be obtained.

SALES BY AUCTION.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days

MONDAY, 9th AUG. " | MONDAY, 1st OCT. 1855
MONDAY, 3rd SEPT. " | MONDAY, 5th NOV. "

Catalogues and further particulars to be had on application one week previous to each sale.—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE. Just arrived, and landing, about Fifty Blocks of Statuary, and several cargoes of other Marbles.

SHOREDITCH.—Leasehold Manufacturing Premises, a 30-horse power Steam-engine and Boiler.

MR. J. J. CLEMMANS has received instructions to submit for SALE by AUCTION, on the PREMISES, Nos. 9 and 10, New-road, Shoreditch, on MONDAY, JUNE 25, 1855, at TWELVE o'clock, by order of Messrs. Will, who are liquidating this part of their business, unless an eligible offer should previously be made by private contract, all the valuable MACHINERY, comprising a 30-horse power steam-engine, a tubular boiler on the Cornish principle, 16-inch cylinder engine, 9-inch stroke, two-throw machines cocoa-nut fibre-breaking machine, upright sawing frame, with circular saw, lathes, counter-shafting, and other effects. The premises, four floors high, being adjoining, will adapt for carrying on an extensive business, having a lofty chimney-shaft and a good well of water. The whole can be viewed until the day of sale, and further disposed of with the Lease if not sold previous to catalogue. May be viewed on Saturday and morning of sale, when the machinery will be in motion, and catalogues had on the premises; of Messrs. Rooper, Ex.-Solicitor, 4, King-street, Finsbury; and at the Office of the Auctioneer, 11, Bedford-row, Holborn-square.

ST. MARGARET'S ESTATE, ISLEWORTH.—To BUILDERS, TIMBER MERCHANTS, FIXTURE DEALERS, and Others.

MR. CAIN (by direction of the Conservative Land Society) will SELL by AUCTION, on the PREMISES, on TUESDAY, JUNE 26, at TWELVE for ONE, the whole of the excellent BUILDING MATERIALS of the large and commodious DAIRY, with dwelling-house attached, and lodge, comprising counters, slating, and pantiles, several rods of brickwork, tile kiln, quantity of stone paving, slate shelves and skirting, the mahogany fittings-up of water-closet, with apparatus complete about twenty squares of prime yellow floor boards, a large quantity of joists, rafters, and timbers, a handsome trellis verandah, about one ton of lead, a large quantity of stock wood, full sale of fine timber, in elm, lime, sycamore, fir, &c. and other useful effects. May be viewed two days prior to the sale, and catalogues had on the Premises; of Messrs. Harrison and Lewis, 14, New Bowell-court; of G. Morgan, Esq. Architect, 6 and 6, Chancery-lane; C. L. Gruneisen, Esq. at the Offices of the Society, 33, Norfolk-street, Strand; at the principal Inns in the neighbourhood; and at the Auction Offices, King-street, Richmond.

TO TIMBER MERCHANTS, CABINET MAKERS, PIANOFORTE MANUFACTURERS, COACH BUILDERS, CARPENTERS, BUILDERS, &c. &c.

MESSRS. C. LEARY and CO. will SELL by PUBLIC AUCTION, without reserve, on the PREMISES, 97, Curtain-road, Shoreditch, on MONDAY, TUESDAY, and WEDNESDAY, the 25th, 26th, and 27th of JUNE, 1855, commencing each day at ELEVEN o'clock precisely, by order of the Proprietor, Mr. William Smith, Mahogany and Timber Merchant (who is about to RETIRE from the retail trade in favour of his sons, Messrs. H. A. and C. J. Smith), all his remaining STOCK in TRADE, consisting of Spanish and Honduras Mahogany in logs, blade boards, and veneers; prime dry panel board; cedar, rosewood, birch, beech, staves, and wainscot, spruce and pine planks, and deals &c.—To be viewed the morning of sale, and the mornings of sale. Catalogues may be had on the Premises; and at the Offices of the Auctioneers, 25, Old Broad-street, City.

UNRESERVED SALE OF MARBLE MASONS, SCULPTORS BUILDERS, AND OTHERS.

MR. MARSH has received instructions to SELL by AUCTION, without the slightest reserve, on the PREMISES, Nos. 8 and 9, North Wharf, Paddington, on FRIDAY, JUNE 29, 1855, at TWELVE o'clock, the STOCK of MARBLE, in slabs, consisting of Sicilian, Veined, Black, and Statuary, varying from 1 of an inch to 3 inches in thickness. May be viewed the day prior and morning of sale and catalogues obtained on the premises; and at Mr. Marsh's Offices, 6, Charles-street, Middlesex Hospital. Mr. Marsh has to announce that the above will be sold without the slightest reserve, the proprietor having given up the premises.

TO BUILDERS, HOUSE DECORATORS, AND OTHERS.

MR. MARSH has received instructions to SELL by AUCTION, on the PREMISES, The Mount, Notting-hill, in consequence of the removal of Mr. Holmes to 16, Queen's-gate, Bayswater, on TUESDAY, JULY 10, at TWELVE o'clock, the very valuable STOCK, comprising thirty superior chimney pieces, in stone; statuary, with carved trusses; black and gold, vein, black, and Bardilio marble; a Genoa marble table, two marble washstands, pedestals and quarters, enamels in cement, vases and pivoted busts, and sundry ornamental items.—May be viewed one day prior and morning of Sale, and catalogues obtained at the Place of Sale, and at Mr. Marsh's Offices, 6, Charles-row, Mansion-house.

Very valuable and beautifully situate Freehold Building Land, at Lewisham, with an approach from the High-street, and also from the Loampit Hill and Turnpike Road.

MESSRS. DANIEL SMITH and SON will submit to SALE by AUCTION, at the MART, on TUESDAY next, JUNE 26, at TWELVE (unless an agreement previously be made), about SIX ACRES of valuable LAND, freehold and free of tithes and land-tax. It is a dry elevated spot, with an extensive frontage upon the High-street, leading from the station to the village of Weybridge, and upon the Oatlands drive, capable of being subdivided for the erection of five or six villas. There is good brick earth on part of the ground. Particulars and plans may be had at the Mart; at the chief Inns in the neighbourhood; of Mr. Hodgson, Builder, Weybridge; of Mr. Gribble, Solicitor, Angel-court, Throgmorton-street, and of Messrs. DANIEL SMITH and Son, Land Agents, in Waterloo-place, Pall-mall.

Building Freehold Land, in Surrey, near the station and village of Weybridge and between Chertsey, Oatlands Park, and Walton.

MESSRS. DANIEL SMITH and SON will SELL by AUCTION, at the MART, on TUESDAY next, JUNE 26, at TWELVE, unless an agreement previously be made, about SIX ACRES of valuable LAND, freehold and free of tithes and land-tax, situate on the Oatlands drive, capable of being subdivided for the erection of five or six villas. There is good brick earth on part of the ground. Particulars and plans may be had at the Mart; at the chief Inns in the neighbourhood; of Mr. Hodgson, Builder, Weybridge; of Mr. Gribble, Solicitor, Angel-court, Throgmorton-street, and of Messrs. DANIEL SMITH and Son, Land Agents, in Waterloo-place, Pall-mall.

TO BUILDERS and OTHERS. — TO BE LET, in that rapidly increasing and genteel neighbourhood, HARRISON, SURREY, valuable PREMISES, comprising a dwelling-house, workshops, two saw-pits, stable, &c. lately occupied by a timber merchant and builder. To a young man with a small capital, the above affords a rare opportunity, as the premises are most eligibly situated for a wood-yard, being adjacent to the railway station, having a back entrance to the Kingston station. Apply to Mr HOLLINSHED, on the Premises.

BROOK-HILL PARK, West Plumstead, adjoining the parish of Woolwich. TO BE LET, in PLOTS, for the erection of detached and semi-detached villas. The situation is attractive, the ground undulating, and it lies within a short distance of the Arsenal Station of the North Kent Railway, the Artillery Barracks, and Woolwich Common, and opposite to the grounds of the residence of the commanding officer of engineers. Money will be advanced if required.—Plans may be seen, and particulars had at the Offices of Mr. GEORGE HUDSON, Surveyor, Brewer-street, Woolwich.

AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 255, Blackfriars road, near the bridge, respectfully invites all persons having Engines, Machinery, Foundries, Plant, or Ironmongery businesses to dispose of, to forward the particulars thereof for insertion in his REGISTRY-BOOK, for which NO CHARGE will be made unless sales be effected.

TO ENGINEERS, MACHINISTS, and OTHERS.—A first-rate PREMISES in the above line, on the Surrey side, TO LET, fitted up with an excellent 3-horse engine boiler, 3 furnaces and fans, screw-cutting and other lathes, benches, anvils, blocks, tools, &c. The forego ng spacious premises are in full work, and will be supplied, and may be had on advantageous terms.—Apply to AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 255 Blackfriars-road, near the bridge.

MAITLAND-PARK, HAVERSTOCK-HILL, Hampstead-road.—LAND-TAX REDEEMED.—TO BE LET, upon Building Leases, for ninety-nine years, desirable BUILDING SITES upon the ab ve Estate The continued demand for houses in this healthy and picturesque position of the property adjoining the grounds of the Orphan Working School, render this a desirable opportunity for builders or gentlemen wishing to erect villas for themselves. For terms and to view plans, apply to the Secretary of the Orphan Work ng School, 32, Ludgate-hill; Messrs. TERRELL and CHAMBERLAIN, 30, Bedford-street; the Architects, Messrs. WEHNERT and ASHDOWN, 42, Charing-cross; or at the Porter's Lodge, on the Premises.

BUILDING GROUND TO BE LET, in the best part of Euston square, with a frontage of 170 feet; a populous and respectable neighbourhood; suitable for a church, chapel, public building, or dwelling-houses. For particulars apply to Mr. GRAHAM, No. 32, Taviton-street, Euston-square.

KENSINGTON GORE.—Valuable SITES for first-class MANSIONS, in the new (Prince Albert's) road, Kensington Gore, with frontages to the park-like property purchased by the Royal Commissioners for the Exhibition of 1851, as sites for institutions connected with science and art, may be obtained upon 99 years' leases.—Apply by application at Mr. W. JACKSON'S Office, 10, Kensington Gore.

FREEHOLD BUILDING LAND TO BE LET at Bath-road, in large or small plots, where bricks will be advanced. It fronts a high road with good sewer; plenty of sand and water may be easily obtained on the ground, and every probability of a railway crossing the land, notices having been given.—Apply personally to the owner, at Chesterfield-house, Bath-road, Peckham, before TEN o'clock a.m.

HIGHBURY NEW PARK.—FREEHOLD BUILDING GROUND TO BE LET, in this desirable locality, commanding extensive views. To gentlemen desirous of selecting a site for the erection of villa residences, this affords an excellent opportunity. Money advanced to responsible persons, if required.—For particulars apply to Mr. C. HAMBRIDGE, Architect, 73, Coleman-street, City.

FREEHOLD BUILDING GROUND, at OLD FORD, with Liberal Advances, to LET, suitable for fourth-rate houses, which, being much required in this rapidly-improving locality, will let and sell as soon as completed.—For further particulars apply to Mr. GEORGE CLARKSON, Surveyor, 48, Penton-street, Pentonville.

VALUABLE BUILDING SITE, in the High-street, Camberwell, TO BE LET, on building lease, having two frontages, making together about 168 feet in length, with large premises, recently occupied as a boiling house, &c. standing thereon.—Apply to WILLIAM C. REED, Architect, 64, Old Broad street, City, where a plan of the estate can be seen, and an order to view obtained.

FREEHOLD BUILDING LAND TO LET, abutting on the Barking station of the Tilbury line, twenty minutes from Fenchurch-street, where moderate-sized houses are greatly in demand, and a first-class public-house urgently wanted for the accommodation of the station and neighbourhood. Apply to H. WILLIAMS, Esq. Arch tect, 64, Great Ormond-street, Queen-square.

CAMBERWELL, opposite the Rye-lane. To Builders and Others. Valuable Freehold Premises, and Plots of Land in the rear

MR. PEAKE is instructed by the Proprietor to DISPOSE OF the PROPERTY by PRIVATE CONTRACT, which presents a favourable opportunity of creating a most lucrative investment by a small judicious outlay. A plan may be seen and further particulars obtained at Mr. PEAKE'S Office for the Disposal of Estates, 44, Tooley-street, Southwark.

KENTISH-TOWN.—TO BE SOLD, several well-built six-roomed CARCASES, with garden ground, in a first-rate situation, and low ground-rents. For particulars apply to S. TAYLOR, Plumber, &c. 2, Albany-place, Kentish-town-road.

FREEHOLD LAND, near Forest-gate, Stratford. TO BE SOLD, together or separately, THREE PLOTS of LAND, close to the Forest-gate Station, of the following dimensions, namely 93 feet by 114 feet, 91 feet by 101 feet, and 95 feet by 116 feet. Land-tax redeemed.—For particulars, apply to Mr. RANDALL, Solicitor, 14, Tokenhouse-yard, London.

FREEHOLD BUILDING GROUND.—TO BE LET, or SOLD, on advantageous terms, TWO PLOTS of GROUND, situate in the most preferable part of St. John's Wood.—For particulars apply, by letter, post paid, to W. L. No. 2, Craven-terrace, Paddington.

FOR SALE, TWO FOURTH-RATE CARCASES; lease, 100 years; ground-rent 5l. each; or the amount of purchase-money will be taken in any kind of building materials. Apply by letter only, to Mr. K. DYE, 8, Stafford-street, Lisson grove, Marylebone.

TO ARCHITECTS AND SURVEYORS.

TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place.—For particulars, address, S. S. 9, Studley-terrace, Larkhall-lane, Stockwell, Surrey.

BUILDER'S BUSINESS, within three miles of the Bank.—TO BE DISPOSED OF, a respectable BUSINESS, with dwelling-house, large yard, eight workshops, including Joiner's shop, and building, benches; all for 500 guineas. This is an excellent opportunity for a young man going into business, as it has been established thirty years, and the rent of the house and premises is merely nominal.—Direct or apply to Mr. THOMAS KING, 1, St. Michael's-alley, Cornhill.

TO CARPENTERS AND BUILDERS.

TO BE DISPOSED OF, a moderate but good BUSINESS, capable of considerable extension, in a populous and increasing locality. The Premises, which are eligibly situated, consist of a convenient yard, an excellent workshop, with store for dry deals beneath; a saw-pit, 1-horse stable and chaise house, with immediate possession if desired. For particulars apply at 4, Bennett-street, East Greenwich, Kent.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, June 23, 1855.

The Builder.

AN ILLUSTRATED JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

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ADVERTISEMENTS.

OYAL ACADEMY of ARTS, Trafalgar-square. The Exhibition of the Royal Academy IS NOW OPEN.—Admission (from Eight to Seven o'clock), one shilling. gues, one shilling.
JOHN PRESCOTT KNIGHT, R.A. Secretary.

HE NEW SOCIETY of PAINTERS in WATER COLOURS The Twenty-first Annual Exhibition of this Society is NOW OPEN at their Gallery, 5a, PALL Mall, near St. James's Palace, daily from nine till dusk. Admission, 1s.—Season tickets, 5s.
JAMES FAHEY, Secretary.

ORE HOUSE, KENSINGTON.—The ANNUAL SPRING EXHIBITION of advanced Works, dents in Metropolitan and Provincial Schools of Art, is OPEN daily, from TEN a.m. to SIX p.m. Admission free

R. T. ATKINS'S PANORAMA of CREATION, SCIENCE, and CIVILIZATION, SAINT TIN'S HALL, every Evening at EIGHT. Admission, 1s.; Seats, 2s.; Stalls, 3s. Mondays half-price.

ONTI'S LECTURES on ANCIENT and MODERN SCULPTURE.—The Sixth and last of LECTURES will be delivered on WEDNESDAY, JULY Tickets to be had at Messrs. COLNAGHI'S, Pall-mall

HE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855. committee earnestly desire the attendance of Art Workmen EVENING MEETING, to be held in the Rooms of the im, on MONDAY, JULY 9th, at EIGHT o'clock. The F. D. MAURICE, M.A. Principal of the Working Mens e, and other gentlemen, will address the meeting. Cards of ion will be presented, on application at the Rooms of the m, and at the Office of "The Builder," and after DAY, JULY 3rd. HENRY CLUTTON, Hon. Sec.

ECTURE on WROUGHT-IRON WORK will be delivered on MONDAY NEXT, at EIGHT o'clock.

COMPETITIONS.

TO ARCHITECTS.

HE COMMITTEE appointed by the Secretary of State for War, to consider the question of ACK ACCOMMODATION for the Army, are authorized r the following prizes, for PLANS of BARRACKS, which embody the recommendation contained in their Report, June 18, 1855:—

e best plans for an Infantry Barrack, to accommo- 1,000 Men £150
e second best 100
e third best 50
e best plans for a Cavalry Barrack, to accommodate Men 150
e second best 100
e third best 50

candidate who obtains the highest prize of £150 for the best ry Barrack, will be employed to execute his plan in the ng of an Infantry Barrack. The same for the Cavalry ks. Each plan must be accompanied by specifications and tes, and where plans seem in other respects to possess equal a preference will be given to those which provide the neces- ccommodation in the most economical manner.

gs, specifications, and estimates, must be sent to the Ord- Office, Pall Mall, on or before the 31st JULY next, ad- to the Chairman of the Committee on Barracks." All ent in, will remain the property of the War Department

es of the Report of the Committee, and of the Evidence, may d on application to the Barrack Department at the Ord- Office.
(Signed) MONCK, Chairman.
y 21, 1855.

COMPETITIONS.

TO ARCHITECTS, BUILDERS, AND OTHERS.

THE BURIAL BOARD for the PARISH of SAFFRON WALDEN, in the County of Essex, are desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising ground-plans, sections, and elevations, for LAYING OUT, PLANTING, and FENCING a NEW BURIAL-GROUND, with suitable ENTRANCE GATES, and for BUILDING a LODGE and TWO CHAPELS thereon. The ground contains about six acres, a plan of which may be seen and further information obtained at the Office of the Clerk to the Board. The party whose plans are approved will, at the option of the Board, either have the superintendence of the works or be paid the sum of twenty guineas for his designs. The plans and estimates must be delivered at the Office of the Clerk to the Board on or before TWELVE o'clock at noon, on the 23rd day of JULY next. Each plan is to be distinguished by a motto, and a sealed letter, similarly indorsed, containing the author's name and address, to be sent therewith. SIMEON J. KING, Clerk to the Board.

Saffron Walden, June 21, 1855.

SUDBURY BURIAL BOARD.—To ARCHITECTS and OTHERS.—The Burial Board for the Borough of Sudbury are prepared to receive DESIGNS, PLANS, and DRAWINGS; comprising ground plans, sections, and elevations, accompanied by a general specification and statement of probable cost for two CEMETERY CHAPELS, RECEPTACLE HOUSE, and LODGE, on their intended Burial ground, which contains about 7 acres. The buildings to be inexpensive, and ecclesiastical in their character. The Board will not be bound to employ the person whose design, plan, or drawing shall be adopted, but in the event of his not being employed, will pay such person a premium of fifteen guineas, and his design, plan, and drawing shall then become the property of the Board. A plan of the ground may be seen, and any further information obtained at my office. The designs, plans and drawings are to be sent free of expense, under seal, without the author's name, but with a motto, on or before the 16th day of JULY next, addressed to me, marked, "Sudbury Burial-ground." A sealed letter, containing real name and address, should accompany each design, plan, and drawing, which will be opened after selection made; and those not approved will be returned. No design, &c. with the author's name upon it, will be received.

ROBT. RANSOM, Jun. Clerk to the Board.

Sudbury, June 27, 1855.

BLANDFORD FORUM BURIAL BOARD.—To ARCHITECTS and OTHERS.—The Burial Board for the parish of Bland ford Forum, in the county of Dorset, is desirous of receiving PLANS and DESIGNS for TWO CHAPELS, an Entrance Lodge and Gates, a Receptacle-house, and for the Fencing and Laying out the Ground. A plan of the ground, which contains four acres, may be seen at the Office of the Clerk to the Board. The party whose plans are approved, will, at the option of the Board, either have the superintendence of the works, or be paid the sum of 10l for his designs. The plans, &c. to be sent (prepaid) to the Clerk to the Board, on or before the 27th day of JULY next. The Board does not pledge itself to accept any plan.
FRANCIS T. JOHNS, Clerk to the Board.

Blandford, June 20th, 1855.

CONTRACTS.

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, Pall-Mall, London, on or before MONDAY, the 2nd of JULY, 1855, from parties willing to Contract for STONEWORK required to be performed at the New Battery, near Fort Monckton, Gosport. Plans and specifications for the work may be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Portsmouth, between the hours of TEN and FOUR o'clock (Sundays excepted). The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall Mall, London, and endorsed "Tenders for the performance of Stonework, at the New Battery, near Fort Monckton, Gosport."

Royal Engineer Office, Portsmouth, June 18, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer in the London district hereby gives Notice, that sealed TENDERS, addressed to the Secretary to the Board of Ordnance, will be received at the Office of Ordnance, Pall-mall, on or before the 2nd of JULY, 1855, for SUPPLYING, LAYING DOWN, and FIXING the necessary GAS-PIPES and FITTINGS to the several buildings at Wellington, St George's, Regent's-park, and St. John's Wood Barracks. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineers' Office, No. 11, James street Pimlico, between the hours of TEN and THREE o'clock, from the 21st to the 30th of JUNE, 1855. The Board of Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineers' Office, London District, June 19, 1855.

Royal Engineer Office, Portsmouth, June 19, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on WEDNESDAY, the 4th day of JULY next, from such persons as may be willing to undertake the ERECTION of a BATTERY, with MAGAZINES, &c. at Hurst Castle, near Lymington, Hants. The plans, specification, and conditions of contract, may be seen, and every information obtained, on application at this Office, between the hours of TEN and FOUR each day, Sundays excepted. Tenders to be indorsed "Tender for the Erection of a Battery, with Magazines, &c. at Hurst Castle, near Lymington, Hants," and to be inclosed to J. WOOD, Esq. Secretary, Office of Ordnance, Pall-mall, London.

NOTICE to BUILDERS.—Sealed TENDERS, addressed to the Inspector-General of Fortifications, will be received at the Ordnance Office, Pall mall, London, on or before the 7th JULY next, for certain ALTERATIONS and ADDITIONS to Pater Battery. The specifications and plans for the above service may be seen, and the form of Tender be obtained, with every information, at the Royal Engineer Office, Pembroke Dock. The Inspector-General of Fortifications reserves to himself the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Pembroke Dock, 21st June, 1855.

CONTRACTS.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of FARM BUILDINGS at Kirtling and Ashley, Cambridgeshire, for the Trustees of the Hon. W. H. J. North, may inspect the plans and specifications of the works, at the Office of Mr. J. F. CLARK, the architect, Newmarket. Tenders to be delivered and opened in the presence of the parties, on the 14th day of JULY next, and the lowest or any Tender will not necessarily be accepted.

WORTHING LOCAL BOARD of HEALTH.—WATER-WORKS.—To EXCAVATORS, CAST IRON PIPE LAYERS and OTHERS. The Local Board hereby give notice, that they are prepared to receive TENDERS, from parties willing to undertake the following contracts:—
CONTRACT No. 14. For EXCAVATING the GROUND and for LAYING and JOINTING CAST-IRON WATER-PIPES and FIXING SLUICE VALVES, HYDRANTS, &c.

Specifications, schedules, and forms of Tender (five shillings the set), may be obtained, together with any further information required, on application at the Office of the Local Board, Worthing; or at the Offices of ROBERT RAWLINSON, C.E. No. 34, Parliament-street, Westminster. Sealed Tenders to be delivered at the Office of the Local Board, Worthing, before TWELVE o'clock, on TUESDAY, the 10th day of JULY, endorsed "Tender for Contract, No. 14."

(Signed) WM. HUGH DENNETT,
Worthing, June 21, 1855. Clerk to the Local Board.

METROPOLITAN COMMISSION of SEWERS. To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 3rd day of JULY next, 1855, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETING in the CHALK certain intended BRICK and PIPE SEWERS, 4,967 feet in length or thereabouts, with other Works in connection therewith, in Tanner's hill, Broadway, and New Cross-road, Deptford, Hounds-dale, Hanover-street, and Cross-street, Lewisham, in the county of Kent; and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender may be inspected, and their particulars obtained at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 2nd JULY. The Commissioners do not hold themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour at above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek street, Soho square.
Date this 21st day of June, 1855.

TO ARCHITECTS AND OTHERS.

THE BURIAL-BOARD for the Parish of WESTBURY, in the county of Wilts, is desirous of receiving DESIGNS, to comprise Plans, Elevations, Sections, and Specifications, with Estimates, for LAYING OUT a NEW BURIAL GROUND of about SIX ACRES, ENCLOSING the GROUND, BUILDING a LODGE, with ENTRANCE GATES, and BUILDING TWO CHAPELS, one consecrated and the other not. The party whose plans, &c. may be approved, will be paid a premium of 25l. for the plans, designs, estimates, and specifications, the same to be delivered at my office, free of expense, without the author's name, but with a motto, on or before the 7th day of JULY next. A sealed letter, containing the name and address, should accompany each design, which will be opened after selection made, and the plans not approved will be returned. Further particulars, together with a plan of the site, may be obtained, on application to me.

HENRY PINNIGER, Clerk to the Board.

Westbury, 19th June, 1855.

GLOUCESTER WATER-WORKS.—EXCAVATION for WATER MAINS, &c.—The Gloucester Board of Health are desirous of receiving TENDERS for CUTTING the TRENCH, for LAYING the MAIN WATER-PIPE (19 inches in diameter), in the direction of the intended New Water-works, for a distance of about three miles and a half, and for CARTING the WATER-PIPES and other CASTINGS from the Railway Station at Gloucester along the line of Trench and for other Works. The specification and forms of Tender may be had on application to Mr. BATEMAN, C.E. Manchester; or Mr. K. H. FRYER, Solicitor, Gloucester, the Clerk to the Board. All Tenders are required to be sent in to the Clerk, under a sealed cover, marked "Water-works Tender," and addressed to "The Gloucester Board of Health," on or before TUESDAY, the 3rd day of JULY next. The Board do not pledge themselves to accept the lowest or any Tender.

K. H. FRYER, Clerk to the Board.

Gloucester, 14th June, 1855.

TO SLUICE BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for CONSTRUCTING a new OUTFALL SLUICE, and executing other WORKS, about one mile above the town of Wisbech, for the drainage of Wisbech, south side, and Elm, west side, may see the plans and specification at my office. The Tenders to be sealed and sent to me on or before FRIDAY, the 6th of JULY next, at ELEVEN o'clock, a.m. The parties putting out the work will not bind themselves to accept the lowest or any Tender.

WM. ADAMS, Surveyor, &c.

Wisbech, June 22nd, 1855.

TENDERS will be received on WEDNESDAY next, at FIVE o'clock, at the Office of Mr. WILLIAM E. WILLIAMS, Architect, No. 75, Oxford-street, for the ERECTION of a SEMI-DETACHED VILLA at Peckham. Plans, &c. may be seen daily before the hours of TEN and FIVE. Mr. W. does not bind himself to accept the lowest or either of the Tenders

[For remainder of Contracts see next page.

CONTRACTS.

GRIMSBY LOCAL BOARD of HEALTH.—WATERWORKS and DRAINAGE To CONTRACTORS, ENGINEERS, IRON FOUNDERS, and OTHERS. The Grimsby Local Board of Health are notified that they are prepared to receive TENDERS from parties willing to undertake the following CONTRACTS:—ENGINE, BOILER, PUMPS, drawings and specifications may be seen, and can other information obtained, at the office of Mr. E. MICKLETHWAIT, the Surveyor to the Local Board of Health, on and after MONDAY, the 25th JUNE next. Sealed Tenders to be sent in to the office of the Clerk to the Local Board of Health, on or before the 14th JULY next at TWELVE o'clock at noon, indorsed "Tender for Drainage and Waterworks." Copies of the specifications may be obtained on application to Mr. MICKLETHWAIT, on payment of 10s.—Tenders will be required for any one of the contracts, but a preference will be given to the persons tendering for the whole. The Local Board of Health do not bind themselves to accept the lowest or any Tender.

By order,
GEO. BABB, Clerk.

Great Grimsby, June 12, 1855.

PLYMOUTH BREAKWATER.—CONTRACT for GRANITE.—The Lords Commissioners of the Admiralty propose CONTRACTING for upwards of 250,000 CUBIC FEET of GRANITE for Plymouth Breakwater, the conditions and specifications for which may be seen at the office of Messrs. WALKER, BURGES, and COOPER, Engineers, 28, Great George-street, Westminster; and at the Office of Commander WALKER, Superintendent, Oreston, Plymouth, until the 9th of JULY in this year. London, June 23, 1855.

CHESTERFIELD WATERWORKS.—To EXCAVATORS, MASONS, and GENERAL CONTRACTORS.—The Directors of the Chesterfield Gas and Water Company will meet at their Office in Corporation-street, on THURSDAY, the 2nd day of AUGUST, at TWO o'clock in the afternoon, for the purpose of receiving TENDERS or PROPOSALS for the following WORKS, authorised by their Act obtained in the present session of Parliament:—

CONTRACT No. 1.—The EXCAVATING, FORMING, and COMPLETING of a RESERVOIR, to contain 1,000,000 GALLONS of water, at TWENTY-FOUR feet above the level of the Market-place, in Chesterfield, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 2.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 200,000 GALLONS, at Hasland, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 3.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Whittington Moor, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 4.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Newbold, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 5.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Brampton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 6.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Walton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 7.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Spital, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 8.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Ashgate, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 9.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 10.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Brimington, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 11.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 12.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 13.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 14.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 15.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 16.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 17.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 18.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 19.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 20.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 21.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 22.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 23.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 24.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 25.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 26.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 27.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 28.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 29.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 30.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 31.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 32.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 33.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 34.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 35.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 36.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 37.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 38.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 39.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 40.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 41.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 42.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 43.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 44.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 45.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 46.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 59.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 64.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 68.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 70.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 71.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 72.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 73.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 74.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 75.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 76.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 77.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 78.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 79.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 80.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 81.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 82.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 83.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 84.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 85.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 86.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 87.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 88.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 89.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 90.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 91.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 92.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 93.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 94.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 95.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 96.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 107.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 112.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 113.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 114.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 115.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 116.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 117.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 118.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 125.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 126.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 127.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 128.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 129.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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CONTRACT No. 132.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 133.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 134.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 135.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 136.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 137.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 138.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 139.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 140.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 141.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 142.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 143.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 144.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

CONTRACT No. 145.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 50,000 GALLONS, at Tapton, with the Embankments, Puddle Trenches, Culverts, Sluices, and other Works connected therewith.

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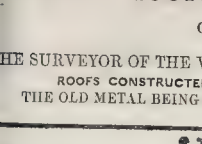

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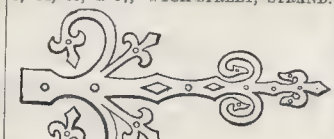

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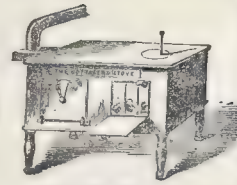

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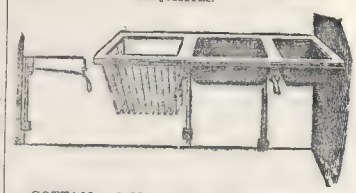

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STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

Office, No 7, Bide-lane, London.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and Co. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, cemetery, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5id. 6d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings: -

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 8s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 25s. each.

3-feet self-acting ditto, ditto, 30s. each.

Air Bricks, 4s. per doz.

Best Town Glue, 50s. Ditto, Scotch, 60s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	6s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trade on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

3	4	5	6
5s. 3d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 13, Blandford-street, Manchester-square, removed from 47, Baker street, Portman-square. Every other article equally reasonable

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures. Patenters and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s. 55 and 56, High Holborn.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1704, BRITISH SECTION, HARDWARE DEPARTMENT, PARIS EXHIBITION, 1855.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

TO BE SOLD, a TEN-TON TRAVELLING JENNY, complete. Apply at KING and HEMINWAY'S, 5, York-street, Lambeth.

ENAMELLED IRON TUBING, at the same price as plain tubing.—From 5.8 to 10.60 feet of various sizes, from ¾ inch to 3 inches diameter, at HOOD and SON'S Castings Warehouse, 68, Upper Thames street.

IRONMONGERY.

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THE LARGEST STOCK AT

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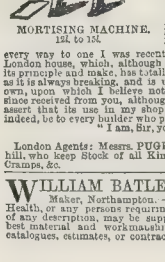
5 AND 6, BROAD-STREET, BLOOMSBURY.



MORTISING MACHINE. 12l. to 13l.

KIMBERLEY'S PATENT MORTISING MACHINE.

The Patentee feels justified in calling attention of all Builders, Cabinet-makers, and others to this difficult thing, cheap, and most effective machine. Hundreds are in daily use all over the kingdom, and references to any extent can be given to prove it really is what it is represented, viz. the most valuable tool ever offered to the trade.

Amongst testimonials of the highest character, he would respectfully invite attention to the following:—

"Rugby, June 14, 1855.

"Dear Sir,—In reply to your inquiry respecting the Patent Morusing Machine I purchased from you three years ago, I have to inform you I consider it a most simple, excellent, and durable article; nor do I think it saying more than it deserves when I state it is highly superior every way to one I was recently induced to purchase from a London house, which, although represented to be unexcelled in its principle and make, has totally deceived myself and all others, as it is always breaking, and is useless in comparison with your own, upon which I believe not a sixpence has been expended since received from you, although in constant work. I candidly assert that its use in my shop is of great value, as it must, indeed, be to every builder who possesses it.

"I am, Sir, yours faithfully,

"JOHN PARNELL."

London Agents: Messrs. PUGH and CO. 13, King-street, Snowhill, who keep Stock of all Kimberley's Patent Cords, Flooring Cramps, &c.

WILLIAM BATLEY, Engineer and Boiler Maker, Northampton.—Manufacturers, Local Boards of Health, or any persons requiring Engines, Machinery, or Boilers of any description, may be supplied with the same of the very best material and workmanship on the shortest notice.—For catalogues, estimates, or contracts, apply as above.

PATTERN and MODEL MAKING.—Engineers, Founders, Builders, Patent Agents, and others, are respectfully informed that the advertiser makes PATTERNS for every description of CASTINGS, at prices considerably less than those usually charged by the trade. Working or other models made with the utmost secrecy and promptitude.—ABRAHAM BOWEN, 162, Goswell street, two doors from Wilderness-row Patent Agents liberally dealt with.

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The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.

SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.

THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble, boldly massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

STONE! STONE! STONE!—Go to Devon Wharf, Mile-end, for your Sinks, Sawn Slabs, Self-faced Slab, Paving, Curb, Bath, Portland, and every other description of Block Stone, Landing, and every article in the stone trade, and you will save money. Bath Stone delivered at 1s. 7½d. per foot cube. Terms, cash.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

HAYTOR GRANITE COMPANY.—Incorporate by Royal Charter.—London Agent, C. HOAR, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar-square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—Mr. J. TRATHAN, Liskeard.

This Granite is selected for the New Westminster-bridge.

BRAMLEY-FALL STONE and LARGE LANDINGS.—Mrs. ANN HUSLER can supply any quantity of BRAMLEY-FALL STONE, large landings, flags, steps, sills, copings, sinks, &c. &c. at the lowest wholesale prices. NOTE.—No charge made for supplying to dimensions. Apply for price, &c. to S. TRICKETT, Stone Wharf, Isle of Dogs.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Waterloo-bridge. Offices: 946, High-street, Southwark, near the Townhall.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Thanfield-place, Leeds.—To Builders and Buyers of the best Quality—Direct from the Quarries in truck-loads of five tons. Pavings, Landings got out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

VALUABLE SANDSTONE for PIER and DOCK PURPOSES.—To STONE MERCHANTS and CONTRACTORS.—To be SOLD by PRIVATE CONTRACT about 300 000 CUBIC FEET of SANDSTONE of the best quality. The quarry is situated at Golden Bank, Horsforth, near Leeds, half a mile from the North-Eastern Railway Station. The stone has been extensively used in the construction of Government dock and harbour works. The baring is not above 5 feet in depth, and as the quarry has been wrought upwards of twenty years, the entire breadth and depth of the bed of stone is open for working. Blocks of from one to twenty tons may be cut, and can be carted from the lowest level of the quarry. A purchaser at a distance would readily meet with competent and trustworthy persons near the spot, who would contract to get and deliver the stone.—To learn the time allowed for removing the stone, and other particulars, apply to Mr. C. L. DRESSER, Land surveyor, Leeds; or to Mr. EDWARD BUTLER, Solicitor, Leeds.

4, Park-row, 17th June, 1855.

FREESTONE.—Architects and Others are reminded that they can obtain the CASTERTON FREESTONE, in Blocks of any portable size, at the Quarries, or at the Railway Stations of Stamford, Essendine, or Tallington, at which, from its price, and the facility with which it is wrought offers immense advantage to the purchasers. Apply to FRAS. and COCTS. of SIMPSON, Stamford.

N.B. Specimens in plain blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the Offices of Messrs. PINDER, SIMPSON, and SONS, 29, Saville-row, Burlington-gardens, London.—May, 1855.

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GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORKSHIRE STONE of the very best quality, direct from their Quarries, to the Railway Stations and Ports in the Kingdom, on the most reasonable terms. GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

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BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Contractors, Builders, and others, that his PRICE LISTS of SLATES and SLAB WORK for 1855 are NOW READY, and may be had on application, inclosing a postage-stamp.

N.B. A liberal discount to the trade.

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The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Marble Floors in Bedfordshire and Hertfordshire, Breweries, the Royal Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; Messrs. Chapman, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

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EXHIBITION and COMPETITION DRAWINGS, Coloured or Tinted, and LITHOGRAPHY in its various branches, executed by Mr. T. J. RAWLINS, Author of "Elementary Classes," adopted at Marlborough House; "Contemporary Architecture;" and Illustrator of numerous works. Specimens and estimates forwarded. 34, University street, University-college, London

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Diving-dresses of superior make, and improved Valves for Rubber Suppers for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

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Beg to inform the TRADE, that the EXTENSION OF THEIR WORKS being now completed, they are enabled to execute orders to any extent at immediate notice. The Company also beg to intimate that owing to improvements effected in the reconstruction of their Works, the COLOUR and QUALITY of their GLASS will be found to be considerably improved, and that they can guarantee the maintenance of these essential requirements. They further beg to invite attention to their reduced List of Prices, which may be obtained on application at their London Warehouse, or at the Works

For the convenience of the LONDON TRADE, a large stock of POLISHED PLATE is now kept at the COMPANY'S WAREHOUSE, BARRAUD'S WHARF, WHITEFRIARS.

The Works, Sutton, St. Helen's, January, 1855.

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

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By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 49 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor.

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d 5d, and 6d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

PLATE GLASS.—The Thames Plate-Glass Company's Works, Blackwall, manufacture Polished Plate-glass, ¼ inch to 4th thick, 18 feet to 19 feet long, by 10 feet to 7 feet wide, and any other proportionable smaller size. The tariff of prices just issued by the Thames Plate-Glass Company, is a great reduction of former prices. Contracts for the supply of large quantities are accepted by the Thames Plate-Glass Company, on the lowest terms of the day.—Address, the Secretary, Thames Plate-Glass Company's Warehouse, Savoy Wharf, Strand.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 298, Oxford-street.

The Managers acquaint Architects, Builders, Glaziers, &c. that their Tariff for BRITISH PLATE, PATENT PLATE, CROWN SHEET WINDOW GLASS, HARTLEY'S PATENT ROUGH PLATE, COLOURED and ORNAMENTAL GLASS, may be had, free, on application at the Company's Depôt.

Hartley's Patent Rough Plate Tiles from 8s. per dozen.

Perforated Rough Plate and Sheet Ventilating Glass, 1s. 6d. per foot.

Flashed Ruby, 1s.; Ground Sheet, 3½d.; Enamelled, 8d. per foot. Crown or Sheet Squares, in 100 feet boxes, 2d. per foot.

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All kinds of Agricultural, Horticultural, Architectural, Domestic, Scientific, and Ornamental Glass, at wholesale prices.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.
The Warehouse, 99, Hatton-garden, London.
" 45, Piccadilly, Manchester.
Messrs. C. and J. Malloch, 30, Turner's-court, Glasgow.
" John Dix and Co. Bath-street, Bristol.
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ROUGH PLATE-GLASS from ⅛ to ¼ inch, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

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FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps Water-closet Cocks and Plumbers' Brasswork. Paints, Colours, Oil, Turpentine of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 97, Bishopsgate-street, London. Established more than 100 years.

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 4d, 6d and 8d. per foot; sizes varying from 24 by 16 to 40 by 28. Also Foreign glass of various tints made expressly for CATHEDRAL and CHURCH purposes.—G FARMILOE and SON, 118, St. John-street, West Smithfield, London.

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PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSS'S WHOLESALE WAREHOUSE, 32, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

The Builder.

VOL. XIII.—No. 647.

THE addition of a vast collection of works of contemporary fine art to the great display of those of industry, is the one redeeming feature which will serve to stamp e Parisian Exhibition of 1855 with a character its own, and a lasting place in the records of tellectual development. No man interested the position which the nineteenth century ll some day hold in the history of the world ould fail to visit this great cosmorama, in ich he will find mapped out for his study all e leading landmarks of contemporary civiliza-n. In the majority of the subjects repre-nted, he will trace the affinities which link us the past, while in many a daring conception, ly realized, he will read the moral of the ssing moment. The sum of such indications, we take pains to interpret them rightly, rnishes the formula of immediate if not of timate progress. As a whole, the Fine Art hibition is infinitely suggestive; so much so, deed, that the critic is almost bewildered by e various claims upon his notice which its numerable details enforce. Fortunately, a collection of the more special scope of our rnal dictates the points of view from which readers will most probably desire that the bject should be approached on the present casion. While, therefore, we shall hope to dividualize a little in speaking of the archi-ctural contributions, we shall restrict our-lves to generalities in dealing with those of inting and sculpture.

The building which France has provided for e reception of 5,112 works of art, con-ibuted by 2,054 artists, representing no less an 28 different nationalities, is admirably apted for its purpose. The light is every-here excellent; and, although the whole of the nstruction is of a very temporary character, ere is no external evidence of shabbiness or relessness of design. The façade is agree-ble, and the tint which has been selected for e interior, a dark sage green, is well adapted bring out the colour of the pictures, while it of so negative a character as to retire from e eye, and in no wise to draw attention to the chitectural forms, which have been kept as mple as possible. Commencing with painting, e have to remark, that the general relative merical proportions which have obtained tween the works of the different nations are follows:—Austria, 52; Nassau and Baden, ; Bavaria, 65; Belgium, 224; Denmark, 5; cily, 5; Spain, 84; the Pontifical States, 13; e United States, 39; Great Britain, 376; the rand Duchy of Hesse, 4; Mexico, 1; Holland, ; Java, 1; Peru, 5; Portugal, 23; Prussia, 37; Sardinia, 26; Saxony, 12; Sweden, 25; orway, 16; Switzerland, 94; Tuscany, 6; urkey, 1; the Hanse Towns, 18; Wurtem-erg, 9; France, 2,060, that is to say, early twice as many as all the other nations it together. To her, therefore, we give recedence, since not only her extent demands , but her merits justify it.

Deprived by some of those foolish *caprices artiste*, which, if annoying at the opera, are in-olerable in the atelier, of the valuable co-opera-ion of MM. Ary Scheffer and Paul De la Roche, rance has fallen back upon MM. Ingres and oorace Vernet for *chefs d'orchestre*. With ne exhibition of the first of these two gentle-en, each of whom is allotted a gallery to him-lf, all who love refined drawing and sentiment ust be eminently gratified. As one of the favourite pupils of David, M. Ingres forms the principal surviving link between the old and new French schools, and his series of works, which spread over almost the whole of his long and laborious life, evidence the minute shades of progress by which the transition has been effected. His portrait of himself painted in 1804, shows how early he acquired perfect mastery over the difficulties of his art, and his "Vierge à l'Hostie," painted exactly fifty years afterwards, evidences how gently time has laid its hand upon his. The most popular work of the series, and that probably which best exhibits the taste and sweetness of the painter, is his well-known Venus Anadyomene. M. Horace Vernet maintains in all his works his invariable characteristics of power, and "*Luca fa presto*" brilliancy of execution. After the two field-marshals crowd swarms of generals of division, some commanding the "heavies," in the shape of history and epic landscape, and others the lighter troops of *genre*, and *paysage* under its more playful aspects. Gudin, Biard, and Isabey head the marines; while Alexandre Decamps manœuvres with a select company of Bashi Bazouks and miscellaneous Orientals of his own. Couture's masterpiece, "The Decline of the Roman Empire," and Muller's "Entry of the Emperor to Paris in 1814," and "Summons of the last Victims of the Reign of Terror," stand out amid the whole collection as the grandest historical pictures of the age, next after Kaulbach's series at Berlin. In every other department of pictorial art, the English school maintains, to say the least, an equal footing with the French; but in the very highest class of composition, the severe academic training to which the leading artists are subjected in their youth tells with a force upon their manhood that our more desultory education in art cannot rival. In the extreme of littleness, as in the extreme of greatness, the French are most excellent, since Meissonnier and Plassan are almost as unrivalled as Couture and Muller. Between these two poles lies a tract of country the leading features of which it would take pages, not lines, to indicate: it may suffice to commend especially to the student's notice the landscape and cattle pieces of Rosa Bonheur and Troyon; the colour and effect of Diaz; the historical compositions of Eugene Delacroix, Leon Cogniet, Abel de Pujol, Flandrin (whose exhibition does not do his great talents justice), and Henri Lehmann; the landscapes of Ciceri, Huet, Le Poitevin, &c.; and the *genre* pictures of Hebert, Glaize, Hamon, Eugene Lami, &c. Neither by any means let him omit, as he values fair faces, to look at Winterhalter's large group of the Empress and her Ladies of Honour.

Next in importance to the French comes our own school of art; and it is a matter for just pride to us all that it should come out of this peaceful tournament not only unscathed but with fairly-earned laurels. It is not necessary here to dwell on the well-known merits and peculiarities of our popular painters: upon the French press, however, they have fallen as a nine days' wonder. In spite of the denunciations of Mr. Ruskin, the world delights in the English school, and most especially in the works of its Academic representatives. The French artists generally acknowledge the genius of Millais and of Hunt, and regret that it should be doomed to shine through clouds of quaintness and mannerism. Their admiration for Mulready, Landseer, Leslie, Dyce, Roberts, Creswick, Linnell, Lewis, and Haghe, are unbounded.

Germany has by no means added to her reputation by her exhibition: the interval is so great between the ambition of her artists and their powers of performance, that we are tempted to regret that they should aim so high to fall so short. Cornelius is divine in thought, but full of exaggeration and hardness of style. Kaulbach is certainly a noble draughtsman, filled with happy inspirations, and unrivalled at a cartoon, but with a brush his manner is laborious: his manner of painting is opaque, and the highest dignity or energy of expression fails to animate his forms of leathery flesh. The two, however, with all their faults, stand among their contemporaries as giants; and, by dignity and moral elevation, such truly epic works as Cornelius's series of cartoons for the Campo Santo, at Berlin, and Kaulbach's, for the museum at the same place, throw all surrounding studies into the shade. It is principally owing to the evidence of labour shown by extreme artificiality of composition, and to an elaboration of painting which extinguishes vigour of handling and purity of tint and texture, that even good and well-educated artists, such as Hubner, Mücke, and Führich, fail to produce the powerful impressions on the mind at which they aim. It is but just to Prussia to remark that she is far ahead of both Bavaria and Austria. The latter falls below par altogether.

Belgium is unquestionably the most rising school of the day; and, in pleasing *genre* pictures, she exhibits a very high order of excellence. A more graceful specimen of this class than Willem's "Interior of a Silk-shop in 1660," we have rarely met with. Van Schendal's clever artificial light effects, and Verboeckhoven's cattle, are well known and generally esteemed in this country. Madou's picture of some young gallants disturbing a country *fête* is full of talent; and Dyckmans, Stevens, Bossuet, Portaels, and Leys, contribute works of much merit. The tendency against which this school has to be most upon its guard is that of over-finish, degenerating into teaboardism. Holland is perhaps in greater danger from the same temptation than Belgium. Many of the pictures exhibited by the modern Dutch masters are almost worthy of the old, and that must be looked on as no mean praise. Spain sends a considerable number of paintings, some of which are interesting, from the scenes and episodes of national manners represented; few rising above mediocrity. The portraits of Madrazo are to be distinguished for vigour of treatment and life-like execution. From Portugal much was not to have been expected; but of America we certainly had hopes, destined, however, to be grievously disappointed. Healy and Rossiter have a reputation in America, but they are neither of them likely to obtain much upon this side of the water.

In sculpture there is not very much that is novel: the boldest attempt is a colossal work by Kiss, of Berlin, representing St. George and the Dragon. There are points of great merit in it, though it by no means rises to the beauty of the Amazon. It is to be regretted that the cast has not been bronzed, as, both the composition and manner of modelling being adapted for that material, the general effect of the whole is much impaired by its being seen in its plastery whiteness. There are, for instance, many details, such as the veins on the horse's neck, the scales of the dragon's skin, certain parts of the armour, &c. which have been exaggerated, in order to keep their place in the dark-coloured material, and which are so defined by the bright lights and shades of the white material, as to interfere with the expression of the whole, which, to be effective, required concentration and repose. At present, these details fret the eye, and scarcely allow a correct judgment on the group to be formed. Most of the works exhibited, and almost all the best, being included in the Sydenham collection, we need not dwell upon the Paris series: suffice it to say that no very shining light has manifested itself, and that both have reason to regret the apathy of Tenerani, who appears resolved to allow his light to shine only for those who pay him. It certainly seems a pity that the works of an

artist who, by his genius and studies in the atelier of Canova, is identified with Thorwaldsen, Rauch, and Gibson, should be so little known out of his own country.

In architecture, on the whole, we regret to say, the display is inadequate to the present position of the art. Although the French exhibit no less than 183 series of drawings, the whole, with two or three exceptions, may be divided into studies of existing monuments and designs for restorations. The Institute of France contributes a selection of the admirable studies made of ancient remains by the gold medal students in Italy and Greece; and the archives of the "Monumens Historiques" furnish a corresponding and much more extensive collection of studies of national archæology, representing the monuments of the country, not only as they exist but as they may be supposed to have existed in the days of their completeness and perfection. Each of these is certainly highly important, but neither can be accepted as an adequate illustration of the present state of architecture in France. Prussia is represented by a pupil of M. Didron's, who sends a design for an altar;—Denmark, the Roman States, America, Portugal, Norway, Switzerland, Wurtemberg, and the Hanse Towns, are not at all. Bavaria contributes only some sketches of houses by Professor Lange; Austria a few poor designs by Professors Vantini and Grueber, of Prague. Belgium musters but one second-rate architect to all her painters: Holland sends but three designs, none of which have been executed; and Spain forwards drawings only of ancient monuments. Great Britain alone vindicates the actual position of her national architecture: she alone takes cognizance of the existence of iron as a building material, and it is only from the details she furnishes of executed works that any idea can be formed of the nature of the wants and tastes to which it is the duty and province of architecture to minister in the nineteenth century. Nor is it alone the utilitarian side of the profession to which her illustrations tend, for all its varied and most recent aspects are taken cognizance of. In the Houses of Parliament and the Crystal Palace, represented, as to its construction, by Sir Joseph Paxton, and, as to its art, by Mr. Digby Wyatt, we have the most important recent works. In the Catholic Apostolic Church, by Messrs. Brandon and Ritchie; the church of St. Nicholas and the new Town-hall, Hamburg, by Mr. Scott; Peckforton Castle, by Mr. Salvin; St. Aidan's College, Birkenhead, by Mr. Thomas Wyatt; St. Stephen's Church, Westminster, by Mr. Ferrey, we have the happiest illustrations of the application of mediæval art to modern civil and ecclesiastical uses, so far as it has gone. Wilton Church shows how legitimately novelty may be derived from little practised styles; while the late Mr. Carpenter's, Mr. Scott's, Mr. Salvin's, and Mr. Clutton's drawings show how judiciously we often effect our restorations of the past. Mr. Bunning, Mr. Lockyer, Mr. Hardwick, Mr. Gibson, Mr. I'Anson, and Mr. Fowler illustrate the application of art to the requirements and adornment of the business part of the metropolis. Mr. Falkener and Professor Donaldson show that in all our practical labours we are not unmindful of the lessons to be derived from the severest study of the antique. Mr. Penrose's drawing of Lincoln Cathedral, Mr. Allom's designs for river-terraces, Professor Cockerell's noble visions, Mr. D. Wyatt's studies at Rome and Subiaco, and Mr. Owen Jones's masterly views in the Alhambra, show that there are artists in the profession, in the most practical sense of the term.

France, we must repeat, has not done herself justice in her Exhibition, and has missed an opportunity which may never again occur. We look in vain for any indication of the nature of those great works which have drawn upon Paris the eyes of all Europe: we recognise not a spark of that fervid imagination which has created an eclectic style of street architecture almost original. If French architects were to be judged of by the present exhibition alone, they would be set down as pedants, whose studies were equally laborious and barren. This is so absolutely contrary to fact, that however much we may be constrained to admire the learned and beautiful drawings shown, we cannot but protest altogether against accepting them as a fitting architectural exhibition for her. The archæological and classical knowledge, as well as the artistic power, of MM. Viollet le Duc, Duban, Paccard, Caristie, Duc, Labrouste, Lefuel, Normand, Vaudoyer, poor Tetaz, Daly, Thomas, Lassus (with M. Hittorf, the flower of the architectural ability of France), are well vindicated, but not one of them exhibits an indication of ever having executed an original work in all their days. M. Duban, for instance, contributes drawings executed many a long year ago, showing admirable taste; and if we are to accept this exhibition as an exposition of the contemporary architecture of France, his country has never benefited by such abilities; and so far as practical matters are concerned, his name has been written in water. The jury will be placed in a position of exceeding difficulty, for they will either have to ignore the ablest men of the present day, or they will have to give their best medals for antiquarian studies, treating with extreme unfairness those who have contributed elaborate drawings of original works designed and executed by themselves. In fact, they will have at starting to choose between rewarding drawings or rewarding designs. The only exceptions among the French contributions to the studies and restorations are the drawings of a Byzantine Church, by M. Questel; a fountain, by M. Driollet; and some buildings for the Zoological Society of London, by M. Perrot. The first of these, the Church of St. Paul, at Nismes, is a fine building which was begun in 1838, and completed in 1849. It has been admirably decorated in colour, under the architect, by M. Flandrin, the painter of the Grand Procession in St. Vincent de Paul, and by M. Denuelle, who exhibits a number of beautiful studies made during his period of study in Italy. The second is agreeable and well drawn, and the third is of but little importance. These three subjects, with some studies on lunatic asylums, by M. Philippon, and on dwellings for the labouring classes, by M. Gourlier, are all that exhibit the practical tendency of the grand apparatus of study so abundantly set forth.

It is well for the architects of Paris that the city itself, with its noble monuments, so admirably supplies visitors with means of estimating the present highly advanced state of practical architecture in France, for they might certainly look in vain for any indications of it in the Palais des Beaux Arts.

CRYPT AT MERCHANT-TAILORS' HALL, THREADNEEDLE-STREET.

NOTWITHSTANDING the demolition of the remains of Old London by fires, improvements, and other causes, there still lie below the present surface many interesting vestiges, concealed in coal-cellars and other dark labyrinths unknown in many instances even to those who are living immediately in the neighbourhood of them, and it is in many cases only when the light of day has been thrown into such places, when making alterations, that these matters are brought under the public notice. Notwithstanding the endeavours of a few, many objects of interest have been removed and destroyed without any record at all. This is to be regretted, and its recurrence for the future might easily be remedied. The Corporation should depute some qualified person to watch over and preserve such objects of antiquity as may from time to time be discovered; and these ought without delay to be removed to some place appointed for the reception of such fragments as are portable, and of sufficient interest.

In the present instance we lay before our readers engravings of the remains of one of the halls of an ancient and honourable City Company which has numbered amongst its members Edward III. Richard II. Anne, his queen Henry IV. Henry V. Henry VI. Edward IV. Richard III. and Henry VII. Charles I. was also a brother of the craft; so was James II. Since this reign none of the kings or queens of England have been free of this Company, but a host of personages eminent for rank and talent have been admitted as members. Amongst these not the least worthy were honest John Stow and Speed, the chroniclers, both tailors by trade. Prince Albert is amongst those recently admitted to the Merchant Tailors' Company.

In glancing over the above list of royal persons we fancy pictures of many a rare feast composed of "capons of hic grece," "fesaunts," "heronsaus and bitrons," "breves," "frysh and salte venison," and other vives, the table thronged with the varied costumes of the times, the background formed of the fitting architecture of the old hall. In this hall, in addition to the admission feasts of the above kings, July the 16th, 1607 (the day of election of masters and wardens of the Merchant Tailors' Company), was kept with great solemnity and feasting. King James I. with Prince Henry and divers honourable personages, dined at Merchant Tailors'-hall, and were entertained with great variety of music, vocal and instrumental, and speeches. The king dined in the chamber called the king's chamber. Then the master of the company, John Swinnerton, attended, with the four wardens and other eminent aldermen and citizens, and after a speech gratulatory made to the king by Sir Henry Montague recorder, presented him with a purse of gold; and Richard Langly, clerk of the company, delivered unto his Majesty a roll, wherein were entered the names of such kings and nobles, and other great personages, as had been free of their company, viz.,—seven kings, one queen, seventeen princes and dukes, two duchesses, one archbishop, thirty-one earls, five countesses, one viscount, twenty-four bishops, sixty-two barons and lords, two ladies, seven abbots, seven priors and one sub-prior, omitting a number of knights and esquires.

The king then said, that he was free of another company, yet he would so much grace the Company of Merchant Tailors, that his eldest son the prince should be free thereof; and that he would see and be a witness when the garland should be put upon his head; and then they resorted unto the prince, who dined in the great hall; and the Company presented him with *another purse of gold;* and the clerk delivered his roll. And his highness said, that not only would he be free of the Company, but many other of his lords; and commanded one of his gentlemen and the clerk of the company, to go to the lords present, and to require of them that loved him, and were not free of other Companies, to be free of this Company; and so were accordingly made free twenty-two earls and lords, and a great many clergymen, knights, and esquires.

At the time of this feast, Threadneedle-street must have presented a picturesque appearance, contrasting strangely with the present bustling thoroughfare. One would like to see an engraving of the Merchant Tailors'-hall before the time of the Great Fire, thrown into relief by the carved gables, projecting signs, and the other characteristics of ancient London. Respecting the old hall Stowe says, "Some distance from St. Martin Outwich Church is the Merchant Taylors' Hall, appertaining to the guild and fraternity of St. John, Baptist, time out of mind called of Taylors and Linnen Armourers of London; for King Edward I. in the twenty-eighth of his reign, confirmed this guild by the name of the Taylors and Linnen Armourers, and also gave to the brethren thereof authority every year at Midsummer to hold a feast, and to choose a governor and master, with wardens. When, upon the same year 1300, on the feast-day of the nativity of St. John, Baptist,

CRYPT, MERCHANT TAILORS' HALL, LONDON.

hey chose Henry de Ryall to be their pilgrim; or the master of this mystery (as one that ravelled for the whole Company) was then so alled, until the 11th year of Richard II. and he four wardens were then called purveyors of lms (now called quarterage) of the said fraernity."

This Merchant Taylors'-hall, some time peraining to a worshipful gentleman, called Edmund Crepin (Dominus Crepin, after some record), he, in the year of Christ 1331* (the ith of Edward III.), for a certain sum of money o him paid, made his grant thereof by the name f his principal messuage, in the wards of Cornhill and Broad-street (which Sir Olivar ngham, knight, did then hold), to John Makesly, the king's pavilion-maker. This is alled the *New-hall*, or Taylor's Inn, for a ifference from their old hall, which was near he Red Lion in Basing-lane.

The list of donors to the Merchant Tailors' Company is very lengthy: amongst them we ay, however, mention the name of Thomas utton, citizen and tailor, of London, who by is will dated May 25th, 1432, gave to the Company a certain lane called "Gressynghamane, as they lie in length from Thames-street to he Thames, to have to the Masters of the Fraternity and Custodes of the same, and to heir successors for ever, to relieve and maintain the poor brothers and sisters of the same Fraternity, to pray devoutly for his soule *in erpetuum*."

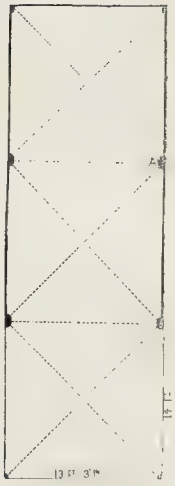
He also gave to the same Company all his ands and tenements in the parish of Trinity-he-Less, and a lane called Trinity-lane.

The old hall was partly destroyed by the Great ire of 1666, and a new structure erected, the ntrance to which was by a richly carved and otherwise ornamental doorway. This was emoved a few years since, and within a short me the hall has put on a new face, correspondig with the style of recent improvements.

The hall erected after the fire is of large size nd noble proportions, enriched with stained lass and paintings. The present roof of plain lanking is, however, a sad eye-sore. Formerly he roof was composed of a panelled ceiling, art of which, not long ago, ten days before the me appointed for an important feast, fell down —fortunately in the night—with a tremendous crash. Workmen were immediately set to work to remove the whole of the plastering, and within the ten days the present ceiling was fixed. It is a pity that such haste was necessary: the effect is beggarly: it might, however, be improved by the judicious application of colour.

The kitchen, at which we take a peep on the way to the crypt, may be older than the time of the fire, probably about the time of Henry VIII. On a conspicuous part of the wall is the excellent motto—"WASTE NOT, WANT NOT." There are some pointed arches and windows, and also two corbels, visible. The crypt is at a considerable depth below the kitchen, and has been used for some time past as a coal-cellar: the walls and filling in between the groins are of chalk; the proportions may be judged of by the engravings.

CORBEL.



PLAN.

Some alterations are being made on the premises of the Company, under the direction of Mr. Hardwick; and it was during the execution of these, that the crypt was brought into notice. We are glad to hear that the Company have determined on preserving it.

About 7 feet from this crypt, and under the late open yard of the hall, another old vault has been recently discovered: it is 7 feet wide, and quite full of garden mould. The walls are of chalk-rubble, and the voussoirs of Kentish rag.

Let us note in conclusion, that the Merchant Tailors' Company have always shown a consideration for literary men, and have done much for general education.

* This is about the date of the crypt engraved.

THE NEW CHURCH AT ISLEWORTH. — The first stone of this new edifice was laid on Monday last.

THE METROPOLITAN BUILDINGS BILL.

We have now before us the Metropolitan Buildings Bill, "as amended by the Select Committee:" but whether or not it will be carried through this session, appears still doubtful. Comparing it with the Bill originally brought in by Sir William Molesworth, it will be seen that it has undergone so many changes as to be no longer the same measure. As we have already said, it is in most respects very greatly improved: many of the objections that we pointed out have been remedied: some of them at the last moment, as for example, the dangerous exemption from control of detached buildings. The exemption of greenhouses ought not to remain unlimited, especially if they are not detached: it should be stipulated that no part of the enclosure should be of wood excepting the doors and sashes, and that the chimney, shaft, &c. should be in accordance with the directions of the Act. Clause IX. which excepts from the operation of the Act works done for the purpose "of necessary repair," would lead to differences of opinion, and so, for the sake of all, should be more clearly defined. As it now stands defective walls might be taken out and rebuilt, or tampered with without supervision. The exception of "necessary repairs" should apply only to woodwork, plastering, or other superficial covering. By Clause XXV. it is required that "the eaves or cornices to any overhanging roof" shall "be of brick, tile, stone, slate, cement, or other fire-proof material." This will put an obstacle in the way of the most natural and proper mode of roofing, and ought not to be insisted on. It is true the clause says, "unless the Metropolitan Board (the Board *to be* appointed under Sir Benjamin Hall's Bill for the better local management of the Metropolis) otherwise permit;" but it would surely be much better legislation to settle the matter by the Buildings Act itself.

Very great powers are confided to this Board, even to the extent, with the consent of her Majesty in council, of altering "in such manner as they may think fit, the Rules for the Regulation of the Thickness of Walls;" and to give to any district surveyor such a fixed salary as they may determine by way of remuneration, instead of fees. This can scarcely be deemed justice to the surveyors appointed *previously* to the passing of the Act, and will doubtless be reconsidered when the House goes into committee on the Bill.

Touching the rules for determining the thickness of walls, the formulæ originally prescribed have been abandoned, and tables are substituted showing the thickness required according to the height and the length of each wall. The rules have an advantage over the schedules of the present Act, but they seem to involve various strange anomalies, and are modified by so many provisions that we fear they will be found very troublesome,—to use no stronger term. Mr. Thomas Cubitt, Mr Piper, and Mr. Wales (as secretary of the Builders' Society), gave evidence before the committee in favour of the proposed schedules as they now stand.

The official referees and registrar are to be compensated, as a matter of course, for the loss they will sustain; and we are glad to observe that the appeal we inserted in favour of the clerks and others employed in the Office of Metropolitan Buildings has not been made without effect.

MR. EDITOR,—A comedy in real life is proposed to be performed in 1856, by H. M.'s servants, the district surveyors, if the order of her Majesty and both Houses of Parliament can be obtained. It is to be in one (the Metropolitan Buildings) Act: will you kindly insert three of the scenes, and oblige a

DISTRICT SURVEYOR.

N.B. The author of the Act is not one of the performers.

Scene 1.—*The District Surveyor's Office.*

[The District Surveyor discovered alone at his desk, in a despairing mood over the schedule.]

D. S. (concluding his meditations). Well! I suppose my duty is to try to induce the public to think this schedule a model of perfection. Such, then, shall be my endeavour.

Enter a Builder of small Houses.

Builder. I want to build a small two-story house, and to ask you whether I understand aright Schedule 1, part 2, rule 2, horizontal column 9; vertical column, 2. I intend to build my party-walls 8½ inches thick, as they will be only 23 feet high, and 26 feet long.

D. S. The Act will not allow it.

B. Why? *There* is the rule.

D. S. So it *is*, but it cannot be used because of Rule 6.

B. Then why is it in the Act?

D. S. I suspect it was put there as an architectural ornament, because the table would not have looked so well without it. I believe, too, it has been endeavoured to make the schedule ornamental, to compensate for the Act restricting very much the external decoration of the buildings themselves.

B. But I am a practical man, and want a practical Act. Is there no remedy?

D. S. Yes. The Legislature in its wisdom, foreseeing that difficulties would occur, specially provided by the 52nd section for the repeal of the schedule and enactment of another without the interference of Parliament. You had better, therefore, apply to the Board of Works.

[*Exit Builder towards Whitehall.*

Scene 2.—*A large Dwelling-house in course of Erection.*

Enter Mr. P. (*an eminent Contractor*), *and the District Surveyor.*

P. What is this notice which you have given me, as to my building being wrong? You say the walls of this story are not thick enough, and that I must either raise the story to a height of 25 feet, or lower it to 18 feet, and then my 13-inch walls will do; but that they will not do for the story 20 feet high as at present. This is against common sense (indignantly).

D. S. The Act requires it. Schedule 1, part 2, rules 5 and 9.

P. Then the Act is against common sense?

D. S. Oh, no! that cannot be; and besides you spoke in favour of this schedule last June, at the Institute of Architects.

P. So I did. But can you reconcile the rules with common sense?

D. S. Not with common sense. But setting that aside, cannot you perceive some analogy between the Act and a Quadratic Equation, the solution of which you know always gives two results?

P. I see. The Act is doubtless right. So I will make my walls thick enough by raising them 5 feet higher. Thank you for your courteous explanation.

Scene 3.—*An Architect in his Study, designing a House. Soliloquy over the Buildings Act.*

A. The rules for the thickness of walls of dwelling-houses were calculated so as to make them about one-fifth *thinner* than the walls required for public buildings. It is curious that in working out the rules, the walls should actually be required to be much thicker. I suppose that in mathematics there is always a difference between a thing before involution, and after evolution. Here comes the District Surveyor; I will ask him.

Enter District Surveyor.

A. Mr. D. S. If I build a building strong enough for a public building, may I use it as an ordinary dwelling-house?

D. S. Reason would say so.

A. But what says the Act?

(The architect explains his case.)

D. S. No. Your walls must be thicker for the dwelling-house than for a public building.

A. Then the Act is contrary to reason.

D. S. (At first at a non-plus, but recovered by a happy thought) Oh, no! On the banks of the Cam they have two kinds of reasoning, one of which is called the "reductio ad absurdum," and was adopted in the case of the Buildings Act, which is highly scientific. Good bye.

[*Exit in haste to avoid further inquiries.*

PROTECTION OF IRON FROM OXIDATION.—Mons. Paris, it is said, has discovered a vitreous enamel, which will stand the test of any chemical or physical action to which it may be subjected. Experiments, it is added, fully prove that the adherence is perfect, and that the enamel resists the most violent shocks without cracking, although the iron it covers may be completely bent; and it does not peel off or take fire by the action of heat; while concentrated acids can be kept at the boiling point for a considerable period in vessels protected by it. Iron may thus be used where glass, silver, gold, or platina only has heretofore been employed. It is also proposed to apply the invention to the lining of water and gas-pipes, covering roofs, and sheathing ships, anchors, &c.

INCISED SLABS AND PAVEMENTS,

WITH A VIEW TO THE USE OF THEM.

It is a matter surely to be regretted, that the artists of the Middle Ages, generally so profuse in their legacies to posterity, should have been so parsimonious with regard to those historiated pavements of incised stones which formed by no means the least valuable ornaments in some of the largest cathedrals, and by which the forcible outlines of the Egyptian hieroglyphics and the Etruscan vases are brought back to our recollection.

A few scattered, half-defaced slabs, long removed from their original position, with one or two scanty notices of the Benedictines, serve rather to suggest what we have lost, than to afford us many data for any reconstruction.

It is probable, however, that even in the thirteenth century the extreme amount of cost and labour demanded for the production of incised stones prevented their frequent employment in large masses, such as pavements; although as tombs, consisting of single slabs, they are sufficiently common all over Europe.

Dante gives a curious proof of this: describing the examples of the punishment of pride incised on the marble floor of the first circle of the hill of Purgatory, he compares them to the slabs on the floors of the churches, which exhibit the image of the person such as he was when alive, by which it would appear that figure-subjects were in his time for the most part employed for monumental purposes. For had such a mode of treatment been common in the pavements of the churches of Florence, or of his own "bel San Giovanni," he would doubtless have referred to them.

The marble plan of Rome, now in the Capitoline Museum, which anciently formed the floor of the temple of Remus; and an obscure allusion by Pliny to the pavimentum scalpturatum, which he described as ornamenting the temple of the Capitoline Jove, as far back as the third Punic war, show that the origin of these pavements is to be sought at a time far anterior to the period of their greatest prevalence.

As regards the Middle Ages, we must refer the gradual employment of incised slabs to the increased difficulty of procuring the costly and exotic materials for the pavements of the Opus Alexandrinum and Opus Vermiculatum, which were so common in ancient art. Accordingly, we find incised stones first of all used in conjunction *with* mosaic, as in the tomb of William, son of Robert, the second count of Flanders, who died in 1109, a few years back discovered in the ruins of the church of St. Bertin, at St. Omer. This tomb was no other than a pavement of mixed mosaic: the principal feature was a cross saltire, the circles at the extremities of which contained stones with incised lions, the lines being filled up with a coarse cement; and if I remember rightly, an imitation in incised stone and mortar was in some cases substituted for the coarser mosaic. If we may believe the authors of the "Voyage Littéraire," the cathedral of Arras possessed in the choir a pavement of historiated stone, still more ancient than this example; but unfortunately the judgment of the Benedictines was so often wrong when they attempted to assign a date to objects of the Middle Ages, that it may well be permitted to doubt whether those "great hard stones on which the history of genius was represented in relief" were really constructed when the bishopric of Arras was separated from that of Cambray, viz. in 1095. In all probability they resembled those at St. Omer, and the deterioration of the cement would easily explain how they came to present the appearance of being in relief, especially when the edges became worn down.

We now come to the pavement belonging to the ancient cathedral of St. Omer. Although repeatedly taken up and removed from place to place, and still worse, injudiciously restored, it remains by far the most important example we possess, not only with regard to the quantity of the stones, but also to the importance of the subjects represented.

The choir, the chapels, and probably a portion of the ambulatory were paved with these slabs, the execution of which appears to have

extended from the end of the twelfth century to the latter half of the thirteenth. In 1608, the soil of all the east end of the church was raised, and they were then conveyed to the nave, where, being exposed to much rougher usage than in the choir, they rapidly decayed, until at last, after very many removes, the few, comparatively speaking, which have been left have found an asylum in the Chapelle des Antiquaires. Unfortunately it was decided that they should be restored before being finally deposited in safety, and accordingly a hot cement was run into all the hollows utterly irrespective of the ancient colours, while a few strokes of the chisel gave the requisite sharpness to any part that had become obliterated. After this it is needless to say, that the drawings are but shadows of what the originals must have been; indeed, it is probable that not a single line retains its ancient shape, not only on account of the restoration, for that was only partial, but from the fact that the ancient workman sometimes under-cut his incisions, or did not make them all of equal depth. Now, when these incisions came to be worn down, they would present a very different appearance from what they did when they were first executed.

The Italian work, on the contrary, is far better preserved, for the marble being a harder material, the lines were formed in the first instance by means of drill holes, and as they went in much deeper than the chisel, we can often ascertain the direction of the lines when they themselves have been utterly obliterated.

The slabs at St. Omer consist of three sizes, the sides of which bear the proportion, 1, 3, 5. The larger ones consist principally of portraits of the donors on horseback: these were varied by others containing nine figures of men or animals, in as many circles. Others, again, have interlacing foliage or shields. There are also some fragments of slabs much larger than any of these: they probably served as centres for the pavements of the chapels. One represents the burial of the Virgin, and the other is defaced.

Of the second size, the subjects are still more varied:—Armed elephants, the seven liberal arts, the signs of the zodiac, the labours of the months, the fables of Æsop, besides the usual arrangement of foliage, and circles, with animals in them, form the subjects. Unfortunately all the series are very imperfect. Thus we have only five out of the seven arts, six of the labours of the months, five of the signs of the zodiac, and only two of the fables.

As to the smaller stones, they are exceeding numerous, there being about seventy varieties. They represent various species of foliage; various subjects from the Bestiarium (the natural history of the time); some Minotaurs, which strongly recall the manner in which these metamorphoses are depicted in the "Ovid Moralisé," in the library at Rouen; and, finally, sundry subjects of satirical allusion, such as the ass playing on the harp.

It is not a little singular that in even those few dalles which have reached our time—the sole wrecks of this once magnificent pavement—we can almost trace the same thing that M. Didron fancies he has discovered in the sculpture at Chatres Cathedral, viz. the Speculum of Vincent de Beauvais, written in stone. Vincent de Beauvais divides his Speculum into four parts;—The Mirior Doctrinal, which teaches the seven liberal arts; the Mirior Historique, the history of the world; the Mirior Naturel, the study of nature; and the Mirior Moral, the different duties to fulfil and vices to avoid. The first is represented by the seven liberal arts, the second probably by the metamorphoses, the third by signs of the zodiac, the labours of the year, &c.; whilst the fourth is wanting, but probably has been destroyed, as it is impossible not to believe but that so common a subject as the battle of the Virtues and the Vices should have had a place in so large a pavement. It exists, however, at Canterbury, to which place I must now refer for the next chronological example.

In front of the shrine of St. Thomas à Becket remains a pavement of Opus Alexandrinum, unlike any other that I have ever seen—the porphyry, the serpentine, the piombino, and, indeed, the general lines tell of an Italian origin; but the intermixture of the black French slate, the brass fillets, the flattened circles, the fretted border in the centre, and the scale-like diaper in the angles, inform us that those materials have been put together by some western artificer, and not the "Petrus Civis," who about the same time had employed his skill at Westminster. Round this pavement, as a centre, there are now inserted about thirty-four small incised stones. Those drawn, although not in their original position with regard to each other, appear to have retained to some degree their ancient arrangement. Unfortunately it is almost impossible to make any restoration that would be completely satisfactory with regard to the angles of the opus alexandrinum; but that which presents the greatest probability would be to place the circles three deep on the north and south, two deep on the west, and none at all on the east, inasmuch as there does not remain sufficient room between the points of the mosaic and the furrow worn in the marble by the knees of the countless pilgrims who went, like Chaucer, to worship the blissful martyr. There are two lozenge-shaped stones, one containing four lions, in as many circles, and the other defaced, which help to fill up the space left between the angles of the mosaic and the indented marble above mentioned. The rest of the intervals, as well between the mosaic and the stones as between the stones themselves, were probably filled with the coarse mosaic of black slate, red French marble, and white close-grained stone.

The subjects are, as usual, the Signs of the Zodiac, the Labours of the Year, the Virtues and Vices, and chimerical animals.

No one of these series is perfect; but at the same time they are most valuable examples, both from the spirit of the drawing, and from the fact of their having escaped the restoration which has so lamentably disfigured the slabs at St. Omer; and indeed it was with great pleasure that I heard the architect of the cathedral, Mr. Austen, disclaim any intention on the subject, and I may here be permitted to thank that gentleman, not only for the facilities afforded me, but for sundry hints as to their ancient state and the sources of their material.

The next pavement of importance is now preserved in the church of St. Remi, at Rheims; it originally ornamented the space between the high altar and the body of the choir, of St. Nicaise. When this church, the *chef d'œuvre* of the celebrated architect Libergier, was destroyed by the Bande Noire of Santerre, they were sold with the rest of the materials, and for several years formed the pavement of a yard leading to a stable. However, some time ago, they were acquired by the town, and finally deposited in their present position.

These dalles differ from any of the others before described, inasmuch as the figures are formed of a single outline run in with lead. From the style of the drawing they can scarcely be earlier than the beginning of the fourteenth century, and we should probably not be far wrong in saying that they were executed under the superintendence of Robert de Coucy (the successor of Libergier), who died in 1311.

They consist of forty-eight lozenge-shaped slabs, each having a group incised on it representing some one of the Bible stories within a more or less complete quatrefoil. The series begins with the construction of the Ark, and finishes with the condemnation a second time of Daniel to the lion's den.

Mr. Tarbé, who has published these very interesting monuments, supposes that if the pavement was wholly composed of historiated slabs, we should want just as many again as those we possess; but I think it very doubtful if the whole of the slabs contained figures, inasmuch as we have several half ones, in which foliage is the only ornament.

In 1553, the Spaniards and Flemings succeeded in destroying Therouanne, a town about eight miles from St. Omer. Never, probably, since the introduction of Christianity, has a town been destroyed with such relentless animosity. The victorious Flemings carried off the works of art, and even the building materials, for trophies: thus the cathedral at St. Omer possesses a colossal figure of our Lord, with St. Mary and St. John, which came from the grand portal of the cathedral of Therouanne. In like manner, in the little village church of Blaringhem, there are about sixty incised slabs, nearly defaced, and inserted into the pavements without order. The tradition runs that they formed part of the spoils of Therouanne; and when we consider that broken pieces of them are found built up into the houses, it will be found rather easier to believe tradition in this case, when the same authority asserts, that the dalles of St. Omer came from a temple of Minerva, situated on Mount Sithieu.

As to the art of these stones we may observe, that they appear to have been executed a little later than those of St. Omer: the large ones consist of scenes from sacred history in circles and quatre foils, and the smaller in much the same subjects as those at St. Omer.

Another pavement is drawn in Willemin's work: it is there described as being in the Musée des Augustins. What became of it after the dissolution of the museum, I cannot tell. I do not remember ever to have seen it in any of the public collections in Paris, but most probably it is in the depôt at St. Denis. The design was a series of quatrefoils, touching one another, and containing foliage: the space between them was occupied by figures on a black ground, and the incised parts are stated in the text to have been filled up with bitumen.

I must now direct your attention to Italy, and there we find a somewhat different process applied: the body of the pavement is white marble, and the figures are detached by a black ground of the same material. If the ground is tolerably extensive, the black marble goes right through: if on the contrary it is small, a hole is cut in the white marble, into which a thin piece of black is then inserted: lastly, the lines of the drapery, the features, &c. are formed by incised lines, filled in with a black resinous cement. The two principal examples which occur to me are the Baptistery at Florence, and the Cathedral at Sienna. The former may almost be passed over; for though it contains a great many white slabs, with black ornaments, they are all mosaic; the only portion containing lines being a circle with the signs of the zodiac: unfortunately this has been so much worn, that little can now be made of it.

As to Sienna, we are much better off: it is certainly the only incised pavement tolerably perfect, and although of different dates, and consequently of different styles, it still retains its unity of arrangement. The first in order of time, are the representation of the Virtues, which are arranged round the altar: they are all referable, with one or two exceptions, to the beginning of the fourteenth century. The illustration represents Justice, surrounded firstly by a richly cusped circle, and then by a square border, at the angles of which are represented the winged lamps of knowledge. At the present moment I forget whether the Italians, who always know who did everything, or if they do not, always invent, refer the designs of these to Buoninsegna or Simone Memmi. However that may be, they are beautifully drawn, and are certainly without exception the very finest incised slabs which have come down to us. The rest of the church is thus mapped out. Rich borders run from pillar to pillar, both north and south, and east and west. These again enclose rich borders, separated from them by bands of plain marble. In the nave within these last, we find principally scenes from the Scriptures, executed during the latter half of the fifteenth century: some of them of latter date are attributed to Beccafumi. Others again are earlier, more particularly a curious collection of mediæval emblems of the Italian cities in opus vermiculatum, which probably dates considerably before the present cathedral. Other subjects are the Wheel of Fortune, the Seven Ages of Man, Socrates and Crates climbing the Mountain of Virtue; together with the ten sybils and figures of Faith, Hope, and Charity: these last and the sybils are placed in the aisles, and belong to the sixteenth century.

I have now, I think, given as correct an account as I can of the various pavements of incised stones that I have been able to make myself acquainted with, either by books or actua

inspection: that there are others I can scarcely doubt; more especially in Germany, a country so rich in the arts of the Middle Ages; but, neither have I seen them myself in that country, nor have I been able to find an account of any.

It appears to me very desirable that some endeavours should be made to introduce this beautiful description of pavement into the choirs and richer portions of our cathedrals and churches, and in some measure to substitute a material affording opportunities to the artist to embody his ideas, in place of what are now called encaustic tiles; which, however they may recommend themselves by the excellence of their manufacture, generally end by sickening us of their endless repetitions of the same rose, the same fleur-de-lys, and the same scroll. If this holds good with regard to our churches, how much more must it be with regard to our public buildings, where black and white marble pavements, and tiles with the badges of extinct dynasties, usurp the place of those representations of the history of a people which would indeed enable us to find sermons in stones.

I do not mean to assert that it becomes us to copy the errors of our forefathers in natural history and place them in our cathedrals. But the other sources of design remain equally open to us as to them: the Bible is the same now as then: the same virtues and the same vices affect us: the arts abstractedly are the same (would that their excellence were identical); so are the fables of Esop (for at least the beasts and birds have not changed their costume), and surely the modern discoveries in natural history would furnish us with beings as strange as any which ever presented themselves to the compilers of the Bestiaria. In fact, time has added to rather than diminished our choice of subjects.

Above all, in designing new subjects, we must be careful to the last degree to give them a sharp and energetic outline even when copying from nature; unless the subjects are really copied directly from nature, there can be no freshness or originality about them. In designing a group of figures, it will be necessary to have the living model and good stout cloth garments; for a man may copy mediæval figures for ever, and yet be unable to design as they did in the Middle Ages; for it is to be believed that then, as now, really good figures (and there were not a few of them produced in the thirteenth and beginning of the fourteenth centuries) were copied directly from the life. If monsters must be employed, why not follow the advice of Leonardo da Vinci, who recommends us in this case to copy parts of existing animals, and afterwards to join them together? but I think the giraffe, the kangaroo, and the apterix, would be as effective as any mediæval chimera; to say nothing of the resources we might derive from the antediluvian world: truth is always stranger than fiction.

Again, in designing an incised slab, our great aim should be to make the object cover the ground pretty equally, so as to leave no very large spaces of cement which would be liable to be worn into holes. When this cannot be done a small circle is left, so as to diminish the space and balance the composition. These little circles occur very frequently in the St. Omer slabs. When this space becomes larger, as in the Taurus, at Canterbury, they become quatrefoils; and when, as in the equestrian figures, it becomes still more extensive, a stem of foliage supplies their place. Another point to be considered is the termination of the lines of the drapery: they should never, if possible, end in a sharp point, but rather in a blunt point, with a nick at the end. The object of this is evident: the workman can get his drill or chisel to the end of the latter, whereas the former must necessarily be shallower towards the end, and consequently soon become obliterated in that part, especially when the stone has become worn down to the depth of an eighth of an inch, as the dalles of St. Omer have.

Again, the borders should be composed of a stout, strong network, of two or more scrolls: if a single scroll is used, figures should be introduced, to restore the proper balance, and give it strength. An additional amount of energy is got by not making the scroll homogeneous with the outer line of the border: a good strong line should be employed to divide them.

Altogether, I see no reason why incised slabs might not become the receptacles for the very best artistic talent we can procure,—only taking care always to preserve a certain energy of outline, for which we could find the most valuable hints in the Egyptian hieroglyphics and Etruscan vases.

Having designed our dalles, the next thing is how to arrange them. It will be perceived that the small ones have a plain border round each, which enables us to place them in juxtaposition, without requiring any intervening plain border: they can therefore serve as a ground in which to insert the larger subjects, or can form a subsidiary border round one of the intermediate-sized slabs, so as to enable it to range with the larger.

But of course the whole arrangement of a pavement depends on the disposition of the large subjects. Now these latter, in western Europe, are generally either lozenge-shaped or circular, and occasionally quatrefoiled. If the space required to be paved was small, such as the sanctuary of a church, a species of diaper might be formed by making the large dalles touch at their edges, as at Canterbury, and the examples from St. Denis, the interstices being filled up with plain dalles or mosaic or cement of a different colour. If the space is rather considerable, a more complicated form of diaper was adopted, as in Abbot Seabrook's tile pavement in Gloucester cathedral, where every alternate row of the diaper is made up of smaller and unequal members, thus affording ample space for detaching the subjects, by means of a plain border. When, however, the space was still larger, as a whole choir or a large chapel, it was divided into three or more longitudinal strips by means of borders: these borders were again filled with a diaper such as I have above described, only varied in each strip. The middle strip, of course, would be the widest, and contain the most important subjects; while those of subsidiary interest, such as the signs of the zodiac, the labours of the year, or the battle of the virtues and the vices, would be referred to the sides.

A border would run all round this composition, but I am very doubtful whether it would enclose the first and simplest; for the western artists during the Middle Ages were not over fond of borders, exhibiting thereby a great contrast with their Italian brethren who followed the antique, where the border often forms the largest part of the composition.

I should not omit to state that a large square subject was generally placed in the sanctuary before the altar. This, in Prior Crawden's Chapel at Ely, represents Adam and Eve; and M. Deschamps has very properly placed a great slab of the death of the Virgin in a similar position in his very clever restoration of the pavement of St. Omer. It will be perceived that I have been obliged to resort to tile pavements to find types for the general arrangement, on account of the deficiency of any example of incised stones remaining *in statu quo*. But I think that there could have been but very little difference between them in this respect, for the subjects show that the majority of incised stones were intended to be used lozenge fashion, in the same manner as we generally find the tiles arranged in the more perfect pavements which have come down to our own times. One word more on the cement, or as the French call it the mastic, with which the interstices are filled. An analysis has been made of that at St. Omer, by M. Tavernier: it was found to consist of lime, mud, pounded brick, rosin, and colouring matter; the rosin being in the proportion of one-sixth of the whole. It would appear that the materials, with the exception of the rosin and part of the lime, were made up into a kind of clay, which was burnt and ground into powder: it was then mixed with the colouring matter, the rosin, and the rest of the lime. The accounts of this process, which are repeated in the same words both in the work of M. Deschamps and M. Wallet, are rather confused; but the above appears to me to be the meaning, as far as I can make it out, inasmuch as two analyses are given and one receipt for the synthesis, which agrees with neither of the former.

M. Deschamps recommends the hot cement used by marble masons, and it is with this that the restoration has been made. M. Vandambosse, by whom the dalles of St. Omer have been restored, informed me that his cement was composed of one-quarter of wax, three-quarters of rosin, besides powdered stone and ivory black: however, he added, the workmen were not particular to a shade with regard to the proportions. Of this there is good proof in one of the large equestrian dalles fixed against the wall: in one place the cement has cracked, while in another it runs out like honey: however, it is but justice to add, that generally speaking it has stood very well. Probably where one colour only is to be employed, there is nothing superior to the modern Roman cement: unfortunately its tone is so strong, that any attempt to colour it would require so much pigment that all the strength of the cement would be destroyed. Parian cement is much better in this respect, but does not possess sufficient properties for resisting damp to recommend its use in any work required to last for centuries, as a pavement of a church.

I regret much that want of time has prevented me from making any experiments in this matter. That we can obtain a cement which will take colour and resist the damp cannot be doubtful in an age which is, par excellence, the age of cements: it can only require a little time and patience. I may here observe that M. Wallet, who describes the slabs before they were restored, enumerates the following colours as being visible;—brown of various tints; slate colour, more or less deep; brick red, more or less yellow; and bright red. One or two of the smaller slabs which have escaped the restoration, and are at present in the Museum, present us with a cement of a granulated appearance, like coarse gunpowder mixed with little pieces of brick. That at Canterbury is much finer, and there is less brick; but when it does occur, it is in much larger pieces.

If marble be used, probably the best thing would be to burn shellac mixed with colour in the incisions with a hot iron. The lead filling in, as in the St. Nicaise pavement, is much the most difficult of all, inasmuch as only a small portion of the lead is run at a time: in this case the incisions should be undercut, and small drill holes made in the angles, in order to prevent the lead from moving.

The principal objection to this last process is, that in course of time the lead oxidises on the surface, and becomes nearly the same tint as the stone itself: the best remedy for this would be to oil or wax the stones at intervals, much in the same way that oak floors are kept in order.

Thus there are really no valid reasons why these pavements should not share in the general renaissance of Christian art. Luckily there remains enough to enable us to effect this in all certainty; and it must be a subject of congratulation that what few examples have been spared to us belong to the golden period of Christian art and poetry—the age which presented us with the Cathedral of Beauvais, the Abbey of Westminster, the Niebelungenleid, and the divine Comedy.* WILLIAM BURGES.

REFERENCES.

1. The Cathedral at Sienna.
2. St. Denis, Paris.
3. Canterbury Cathedral; before the shrine of St. Thomas à Becket.
4. St. Remi at Rheims; formerly in the Church of St. Nicaise.

5, 5, 5, 5, 5, 5, 5, 5, 5. St. Omer.

No. 1 and the equestrian figure from St. Omer are to half-inch scale, and the rest to three-quarters inch ditto, with the exception of No. 2, which is copied from "Willemin's Monuments Français."

THE HAYMARKET THEATRE. The wood scenes for "As You Like It" are very good, and Miss Helen Faucit's personation of *Rosalind* is the most charming picture of grace and tenderness that has been seen for a long time.

* The Dalles of St. Omer and Blaringhem have been published and illustrated by M. Hermand, M. Wallet, and lastly M. Deschamps, who has made a very interesting restoration of the pavement of the choir of the Cathedral of St. Omer, in the "Annales Archeologiques" of M. Didron.

I

II

III

IV

INCISED PAVEMENTS.

CHURCH BUILDING NEWS.

Dunham.—The new church erected at Dunham Massey, by the Earl of Stamford and Warrington, was consecrated on Wednesday in week before last, by the Bishop of Chester. The church stands on high ground, on the Chester road beyond Altrincham, and close to Dunham-park. The foundations, according to the *Manchester Courier*, were commenced about four years ago, but before one-half of the length was put in, the design, which was intended to be realized in white brick, with ashlar dressings, was abandoned. In September, 1851, the agent of the Earl wrote to six architects, in London and Manchester, inviting them to furnish designs for a church to be built of stone, adopting, as far as practicable, the foundations already put in; and the successful competitor was Mr. Harley, of Manchester, architect, from whose designs the church is now built. The style is perpendicular, and the plan cruciform, consisting of a nave, lighted from clerestory windows; north and south aisles, lighted by three-light windows, the tracery of which is of different designs; transepts lighted by three-light windows, and a chancel lighted by nine windows, varying in size and design. On the south side is the Stamford chapel, lighted by two two-light windows. A tower and spire rise from the intersection of the nave, and the transepts and chancel ascend from four moulded stone piers to an altitude of 210 feet, surmounted by a cross. The spire has enriched flying buttresses. At the east end there is a large seven-light window. The west end window is divided into five compartments, filled in with tracery. Under this window is a large doorway, with square head over a moulded arch. The other entrance to the church is through a porch on the south side. The exterior is built of wall stone from the neighbourhood of Sheffield, with ashlar stone dressings from Hollington. The first object which attracts the eye on entering the church, is the stained glass window at the east end, over the altar. In the openings of the arched head in this window is the emblem of the Holy Lamb with the monogram of "Jesus Christus." In the upper panels are angels bearing the instruments of the passion, and others in adoration. The smaller are filled up by scrolls and ornaments on a ground of ruby colour. The square portion of the window contains fourteen large openings, arranged in two tiers, of seven openings in each. In the centre of the upper range is the whole-length figure of our Lord. The other figures ranging with this are St. John the Baptist, the four Evangelists, and St. Peter. The centre compartment of the lower tier is occupied by the figure of St. Paul, the others by prophets, each bearing an inscribed scroll. In the general tone of this window the ruby prevails. All the figures stand under canopies. The west window contains two ranges, of five openings in each. In the centre opening of the upper range is the figure of the Virgin and child. The other four figures are those of Mary Magdalene, Mary the mother of James, Salome, and Elizabeth. The centre compartment of the lower range has the figure of St. Margaret, to whom the church is dedicated. The other four are Deborah, Ruth, Esther, and Dorcas. The prevalent tone of this window is sapphire. All the figures, as in the east window, stand under decorated canopies. The other windows are frosted with stained glass borders. The whole of the internal fittings are of oak, and the pews throughout have open ends. All the pews are furnished with cushions, stuffed with curled hair, and covered with scarlet morocco cloth, having the appearance of morocco leather. The extreme length of the building is 130 feet, and the width, exclusive of the transepts, 60 feet. The church will accommodate 700 persons, 200 free. The gas standards and metal work were designed and manufactured by Messrs. Skidmore and Son, Coventry. The tower contains a peal of ten ringing bells in the key of C. The weight of the tenor is 27 cwt. 3 qrs. The total weight of the ten bells is 123 cwt. 2 qrs. 10 lbs. There is also a set of fourteen bells for chimes, shortly to be fixed in the tower. These bells are furnished by Messrs. Taylor and Son, of Loughborough. The heating and ventilating are secured by a combined hot-air and hot-water apparatus, furnished by Messrs. Haden, of Trowbridge, Wilts. Messrs. Bowden, Edwards, and Forster, of Manchester, were the contractors for the church, and Mr. James Garbett was clerk of the works.

Plymouth.—On Thursday week the church of St. John the Evangelist, erected in the district parish of Sutton-on-Plym, a portion of the parish of Charles, situated at the head of Jubilee-street, was consecrated by the Bishop of Exeter. The church is designed in the Middle-Pointed style. It consists in plan of nave, north and south aisles, divided by a stone arcade of four bays, with chancel and south chancel aisle, separated by a screen of open timber, and tower at the east angle of north aisle. There is a north entrance and porch, and also a west doorway. The materials of which the church is built are Bath stone for the dressings, and the main walls of the limestone of the neighbourhood, laid in random courses and slightly hammer-dressed. The roofs are covered with grey slates. The interior is fitted up with open deal seats stained, and the timbers of the roof are also stained and exposed to view. The length of the nave and north and south aisles is 66 feet; the chancel, 26 feet; the height of tower and broach, 120 feet. The church accommodates 550 persons, and is built from a design of Mr. Ferrey's, by Messrs. Bovey and Matcham, of Plymouth.

Birmingham.—The foundation-stone of the restored spire of St. Martin's was laid on Thursday before last.

PROVINCIAL NEWS.

Boston.—The Corn-exchange is making progress, under the contractor, Mr. Webster, of Wyberton. The laminated ribs for the roof, constructed at Wyberton, are now lying in front of the Exchange. Their span is nearly 50 feet. ——The works of the New General Cemetery are approaching completion. The walks, plantings, and shrubberies have been laid out by Mr. Foxley, of the Boston Vauxhall Pleasure-gardens, at a cost, it is said, of about 400*l.* The chapels and lodge are nearly finished.

Lynn.—The Poor-law Board advised the erection of only a portion of the New Workhouse works, namely, the main buildings and the infirmary. It being considered by the Local Board, however, that the present infirmary would answer the purposes required of such a building, it was resolved to proceed with the main works only; and Mr. Bennett's tender for that portion (5,240*l.*) being the lowest, was accepted.

Banbury.—The circular baths, of which we have before spoken, are in progress at the south-eastern extremity of the borough, adjoining the canal. The water is supplied from a perpetual spring in the hills. The circular building will be about 100 feet in circumference. The centre of this circle, 24 feet across, forms the boys' bath, which it is intended should be occasionally a tepid one, 4 feet in depth. The outer circle will form the bath for men, varying from 4 feet 6 inches to 5 feet 6 inches in depth. An embankment runs round, from the top of which instructions may be given in the art of swimming. The men's department will contain sixteen dressing-boxes—and the boys a proportionate number, all of which will be enclosed and made as comfortable as private baths. In the bath-house adjoining the entrance, over a small bridge, will be some private warm baths, each department to be superintended by proper attendants. The building, according to the local *Guardian*, is erected at the sole expense of Mr. T. Draper. Mr. A. Kimberley is the builder employed, and the baths are expected to be ready for opening in the course of the ensuing month.

Watford.—The foundation-stone of the new Corn-exchange here was laid on Monday before last by the Provincial Grand Master of Freemasons in Hertfordshire. The new Exchange is to occupy a part of the site of the old posting house, the Essex Arms. It will comprise a hall 60 feet in length, 30 in breadth, and 23 feet 6 inches high to the crown of the arched ceiling. The ceiling will be pierced by eight lights, and is to be coffered and enriched with mouldings. There will be an assembly-room at its east end, and a billiard-room over it. Opening into the principal half will be seven rooms, for the use of the corn buyers. The building will be approached from the street by a vestibule. The hotel is to be reconstructed. The street elevation will, in appearance, form part of the Corn-exchange. The architect, Mr. James Murray, and the contractor, Mr. Thomas Pratt, both of Coventry, are said to have recently acted in the same capacity at the erection of the new Corn-exchange in that city. The amount of the contract is 18,000*l.*

Newcastle-under-Lyne.—That portion of the new covered market here appropriated to the use of the butchers having been found too small, the town council some time ago determined upon its enlargement: this alteration is just completed, and thus about twenty additional stalls are added to the building.

Kelham.—The committee appointed to consider the measures to be adopted for the erection of a bridge at Kelham, in the place of the one destroyed by ice in February last, have reported to the magistrates in special sessions, that Mr. Cubitt did not recommend either of Mr. Worth's designs which had been submitted to them, and that Messrs. Fox and Henderson had not sent in any design, but that Mr. Cubitt had approved of a design which had been laid before him, by Mr. Carr, of a brick and stone bridge, which afterwards had been amended by Mr. Carr, and also approved of by Mr. Cubitt, now submitted to the court by the committee, and for the erection of which Mr. Waring had submitted a tender for the sum of 6,900*l.* The committee recommend the court to adopt the same design." The committee were accordingly requested to proceed with the erection forthwith.

Manchester.—The foundation-stone of the new mechanics' institution was laid on Thursday before last at the corner of David-street, Portland-street, by Mr. Oliver Heywood. The design was furnished by the late Mr. Gregan, architect, and, according to the local *Courier*, this design will be carried out in its integrity, under the superintendence of Mr. W. R. Corson, of Leeds.

Droylsden.—On Saturday before last the ceremony of laying the first stone of new schools at Clayton, in this parish, was performed by the agent to Mr. P. R. Hoare, owner of the estate, at whose sole cost the building is to be erected. The site of the new school is a field adjoining Clayton Hall.

Blackburn.—According to the new valuation, just completed by Mr. Railton, the following appears to be the number of assessments of the rateable value of property in each ward of this town:—

	Assessments.		Valuation.		
Park ward	1,850	...	£20,808	15	0
St. Peter's	1,523	...	16,604	5	0
St. Paul's	1,892	...	17,910	10	0
St. Mary's	1,214	...	21,971	10	0
St. John's	1,697	...	16,870	10	0
Trinity	1,763	...	17,046	10	0
	9,939	...	£113,212	0	0

Wigan and Ince.—Progress is now being made with the Wigan cemetery. A new road to it, 12 yards wide, has been cut from the highway to Warrington, and a large iron girder bridge has been erected across the North Union Railway, at the point where the new road terminates. The lodges and gates of the cemetery will be close to the westerly side of the bridge. The Episcopal chapel is 7 yards out of the ground, and the foundations of the Dissenters' chapel and Roman Catholic chapel are also laid. Workmen have commenced the drives, walks, &c. The Ince Burial Board have also selected a site for the proposed cemetery for the township of Ince. Their plot consists of 3a. 2r. 10p. and, like the Wigan ground, forms part of the Hall of Ince estate. The price is 300*l.* per acre. The Ince Board are now obtaining plans and estimates for two chapels.

Slaithwaite.—On Tuesday week the foundation-stone of the Slaithwaite gas-works was laid by the agent to the Earl of Dartmouth.

Newcastle-upon-Tyne.—Mr. Grainger is about to submit to the corporation a plan for a new cattle-market. The site proposed is ten acres in extent, near to the Water Company's reservoir at the Westgate.

Glasgow.—The new suspension-bridge, near the Humane Society's house, is in progress.

The iron pillars intended to surmount the stone piers are placed in position, and otherwise nearly completed; and two chains have been suspended across the river.——The long intended improvement at the north end of Glasgow bridge is now in course of being carried out. The parapets of the wing walls have been cut short by some 25 feet or so, and the foot pavements towards Broomielaw and Great Clyde-street will be rounded quicker off, thus affording a greater width of carriage-way for the Broomielaw and Clyde-street traffic, and easing off the over-bridge traffic from these streets.

Perth.—Sir Hugh Munro, of Foulis, bart. has bequeathed his estate of Milton, in Rossshire, to found a free school in Perth, for the education of the children of tradesmen belonging to the town. The rental of the property, being about 300*l.* per annum, is to be applied to the support of the institution; and the sum of 1,000*l.* is left for the building of the schoolhouse. The school is to be in connection with the Established Church of Scotland.

Arbroath.—On Saturday week, according to the local *Guide*, the new market buildings were opened, and a dinner was given in the hall henceforth to be used as a corn exchange.

ST. PETER'S-IN-THE-EAST, OXFORD.

THE great interest which has always attached to the Church of St. Peter-in-the-East, its venerable antiquity and curious architecture, give it rank among the most valuable remains of ecclesiastical architecture, and on this account its preservation is an object of considerable importance.

For some years past the south-east angle of the chancel has exhibited increased signs of weakness: the turret is several inches out of the perpendicular, and so also are the walls, which, besides this defect, present fractures in many places. These injuries at length assumed so threatening an aspect, by their enlargement across the stone roof, as to require immediate attention. The warden and fellows of Merton College, the patrons, undertook the work in the most generous spirit, and employed Mr. Buckler to carry out their intention.

When it is considered that the south wall yielded to the pressure of the stone groining of the roof so far back as the commencement of the fourteenth century, and required the aid of a powerful buttress to check the accident, the existence of several of the present defects may be easily accounted for, as, for example, that in the Norman window on the south side, which was crippled at the time referred to. There can be no doubt that the principal defect was in the foundation of the turret at the angle: it has gradually subsided from the want of sufficient strength, a fault of no common occurrence in Norman architecture, and in this instance resulting from the fact that the walls of the crypt were built nearly to their height without any additional bulk as a preparation for the staircase turrets, the stonework for which was abruptly started at the ancient ground-line. The turret is 5½ feet square, and the projection of the face, beyond the foundation, 18 inches: rough stones were loosely piled up between the footing and the overhanging turret, as if intended to answer the purpose of a shore, but the ground was no sooner removed from it, than the rude casing fell away from time to time, and revealed the evidence of the change which had been made in the design at this place. The turret now stands upon a basement of solid masonry, and the defective portions of the adjoining walls have been repaired.

The angle rib of the roof was sadly depressed, but it has been restored as nearly as possible to its original curve, and the joints made perfectly secure. The ribs receive no support from the stone vault: they have only to sustain their own weight, and may be regarded as solely ornamental to the interior.

The design is a chain pattern, which would have been greatly enriched had the carver resumed his labours after the stonework was fixed.

PETERBOROUGH CATHEDRAL. — The Dean and Chapter have determined on a steady and gradual course of repairs and improvements in and about the Cathedral.

TO FIND THE STRENGTH OF A BEAM SUPPORTED BY PROPS.

WHERE a beam of any material is supported at its two ends only, the strength thereof is found by the formula

$$S = c.\frac{b.d^2}{l}$$

Where S = weight which the beam will bear, b = its breadth, d = its depth, l its length, and c is a constant quantity depending on the material of the beam.

If then we place a prop under the centre of the beam we divide it into two other beams, each of which is half the length of the former beam. Therefore, if we call S the strength of the unsupported beam, and s that of the half-beam, it follows that

$$s = c.\frac{b.d^2}{\frac{1}{2}l} = 2.c.\frac{b.d^2}{l} = 2.S$$

And since the whole supported beam consists of the two halfs whose separate strengths are each double of that of the unsupported beam, therefore the strength of the propped beam is four times that of the unpropped beam, or is equal to 4.S.

If the beam has two props, dividing the length into three equal parts, then since the length of each part is $\frac{1}{3}l$, the strength of each part

$$= c.\frac{b.d^2}{\frac{1}{3}l} = 3.c.\frac{b.d^2}{l} = 3.S.$$

And since the strength of the whole propped beam must be equal to the sum of the strengths of its several parts, therefore its strength is equal to three times that of one of the parts, or is equal to 9.S. In other words, the strength of a beam divided by props into three equal parts is nine times the strength of the same beam without props.

In the same way we can readily obtain a general rule for the strength of a beam having any number of supports. Let n be the number of equal parts into which a beam is divided by $n-1$ props, let s be the strength of each part,

$$\text{then } s = c.\frac{b.d^2}{\frac{1}{n}l} = n.c.\frac{b.d^2}{l} = n.S$$

and since there are n of these parts, therefore the total strength of beam $= n^2.S$.

Or, the total strength of a beam divided by props, placed at equal distances, into any *number of parts*, is found by multiplying the strength of the beam without props, by the *square* of the *number of parts*.

When a beam has a prop which is not in the centre but at a distance of m feet from one end and of $l-m$ feet from the other end, if we call s_1 the strength of the former part, and s_2 that of the latter,

$$s_1 = c.\frac{b.d^2}{m} = \frac{l}{m}.c.\frac{b.d^2}{l} = \frac{l}{m}.S$$

$$s_2 = c.\frac{b.d^2}{l-m} = \frac{l}{l-m}.c.\frac{b.d^2}{l} = \frac{l}{l-m}.S$$

And the total strength of the propped beam $= s_1 + s_2$

$$= l\left(\frac{1}{m} + \frac{1}{l-m}\right).S = \frac{l^2}{m(l-m)}.S$$

In the same way may be found the strength of a beam supported by any number of props placed at irregular distances apart.

E. W. TARN, M.A.

THE TOMB OF AYLMER DE VALENCE, WESTMINSTER ABBEY.

MY notice of "M. H.'s" interesting letter of the 28th of October last (*Builder*, Vol. XII. p. 557), is indeed late, but I had not the opportunity of reading it until the present week. Your correspondent speaks of the "evident inaccuracy" of an anecdote quoted by me in the address to the Worcester Architectural Society, viz.—that Aylmer de Valence's tomb in Westminster Abbey was removed to make room for General Wolfe's monument. We must remember that, in quoting Horace Walpole, I quoted a living witness—one personally interested in the subject. His was not a mere hearsay report; and what does he tell us? That the Dean of Westminster had at first objected to the arrangement of removing this tomb for Wolfe's monument, but that he was wrought upon to consent to the removal. Walpole was doubtful as to the fact: he wrote to the dean, expressing his regret that this fine monument should be removed, and asking for it as an ornament for Strawberry-hill. What a translation, from Westminster Abbey to Strawberry-hill! Then he tells us that after a fortnight's delay, the dean avowed the story under his own hand, viz.—mistaking the earl's tomb for that of a Knight Templar; that upon discovering whose it was, he had been very unwilling to consent to the removal, and at last had obliged Wilton to engage to set it up within 10 feet of where it stands at present.

Now I would ask whether Walpole's letter was not sufficient to lead me astray? and I would also ask whether the removal of the ancient tomb might not have been commenced, and been happily stopped, from difficulties intervening, or from a better feeling arising amongst the chapter; and was it in the efforts made during its partial removal that this noble monument was injured? It is admitted that either from unpardonable neglect or wilful injury "considerable dilapidations" have taken place.

It would be worth ascertaining whether the space which Wolfe's monument occupies was sufficient to have admitted the older one. If too small, all thoughts of removal must have been at once abandoned, unless De Valence's monument was to have been subjected to monstrous curtailment.

Notwithstanding Walpole's explicit statement, I admit that the anecdote in my paper should not have rested on his unsupported testimony, and is too strongly expressed. Instead of saying that the reckless deed was actually perpetrated, I should have merely shown that it was contemplated or perhaps attempted.

J. H. MARKLAND.

ART-WORKMEN.

CONVERSAZIONE, ARCHITECTURAL MUSEUM.

THE *conversazione* at the Architectural Museum on Monday evening last was exceedingly well attended, and passed off with much spirit and satisfaction. There were probably 500 or 600 persons present. Earl de Grey presided. The treasurer, Mr. Scott, read a report, from which we take the following illustrative passages:—

"The one great object of this institution is the improvement of that large and important class employed on architectural works who may be included under the denomination of art-workmen, and, through them, the restoration to their proper level and estimation of the branches of art which they represent.

It is a peculiarity in architecture, as distinguished from the other fine arts, that it requires for its perfection workmen and artists in almost every branch of ornamental workmanship, and is in itself a concentration of nearly the whole range of decorative art. In the best ages of architecture, whether under the civilization of the ancient world, or in the days which heralded our own, this fact was thoroughly appreciated, and it was considered the province of architecture to promote the perfection of all the subsidiary arts. In our day, however, this has been unhappily lost sight of. Painting and sculpture, in their higher branches, have estranged themselves from architecture, while she has neglected to foster those humbler branches of the sister arts which she has retained in her service, and has allowed them to sink into mere handicrafts, scarcely removed a step above the mechanical operations of masonry or carpentry. The humble artificers who are employed in our decorative work, have been suffered to go on without any means being provided for their artistic education and improvement, and really without the means of knowing whether their productions were good or bad. And, strange to say, such has been the apathy of the public, and their want of appreciation of such subjects, that they have never appeared aware of these facts: they seem never to have discovered the demerits of the works with which they are surrounded; and, even now, it is not uncommon to find educated men filled with admiration of the genius of some precocious stonemason, whom they have seen boldly cutting into a piece of stone, and with unhesitating confidence producing sculpture somewhat inferior to that of the gingerbread kings at Bartholomew Fair. We do not pretend to say that *our* movement has been the first to remedy this state of things. Individual architects and others have done much within their own spheres to ameliorate it. Ours, however, claims the honour of being the first PUBLIC and SYSTEMATIC step taken for the benefit and improvement of the art-workman.

If you will look into our published catalogue, you will find a detailed statement of what we have already done, and wish to do. Our first principle is to bring within the reach of the workman as large a collection as possible of objects of study, as it is for the most part quite out of his power to visit them if not brought within his reach. Our next object is to excite his interest and to induce him to make use of the means we are placing at his disposal."

The Rev. Mr. Maurice, Archdeacon Thorpe, Mr. A. Beresford Hope, Mr. S. C. Hall, Mr. Godwin, the Rev. Mr. Boutell, the Sub-Dean of Salisbury, Sir Walter James, and others, addressed the meeting at some length; and thanks were voted to the treasurer; the hon. secretary, Mr. Clutton; the curator, Mr. C. B. Allen, &c.

Amongst the contributions for the evening we may mention the model of the Crystal Palace, as proposed by Sir C. Barry, and lent by him; a large collection of modern fine art work, in brass and iron, by the Messrs. Hart, of the Strand; a collection of cups, book-covers, in silver, &c. by Messrs. Skidmore, and some ironwork for the new Oxford Museum; a panel incised stone, by the Messrs. White; some

specimens of glass, by the Messrs. Powell; drawings of glass, from Altenberg, taken by Mr. A. O'Conner; designs for glass windows, by Mr. Oliphant; a glass window, by Mr. Lavers; the cartoons for an altar-piece, by Mr. A. Rowan, typical of the Incarnation; some specimens of Oriental workmanship, by Mr. Rhode Hawkins; a number of specimens of panels, &c. of glass mosaic, by Mr. Stephens; a model of the top platform of the Parthenon, showing the curvature of the east and west points, and two sides, also the rise in the centre, exhibited and explained by Mr. Jopling; a collection of photographs from Venice, by Mr. Scott; some specimens of Spanish terra cotta, by Mr. Rogers; some casts of natural leaves, by Mr. French; and a vase, Eastern workmanship, lent by Mr. Owen Jones.

COMPETITIONS.

Lincoln Cemetery.—Although the committee, as we said last week, had selected a certain number of designs, and had even recommended one for the first prize ("Justitia"), the Board have determined on referring the whole of the designs to an architect for him to report upon, and have invited Mr. Scott to undertake the matter. This is a proper step. The authors of the design marked "Justitia" had identified themselves by referring to works which were being performed under their direction elsewhere, contrary to the advertisement, which says,—"If any name is written on the plans, or any written or verbal communication made, directly or indirectly, to indicate any competitor's name to any member of the Board, or the officials, previous to the plans being selected, such plans will be absolutely rejected." The following are the mottoes of the other selected designs:—"Ad Rem cum Deo," "Hope," "Experience," "Spes," "Industria," "Confide in Deo," "Nulla fallacia est," and "Studii Summa."

"*Barrack Committee.*"—Allow me to protest against the injustice contemplated by the "Barrack Committee," in keeping "*all plans sent in*," as stated in their otherwise liberal advertisement.—M.

Dudley Workhouse.—The plot thickens. Every step that is taken sinks the Guardians deeper in the mud. Notwithstanding the denial of foul play so emphatically given to the *Builder* correspondent, will they say that *no attempt* was made to pass a certain set of plans by name? or rather to vote for a certain individual before his plans ever were known? Scorning the advice for professional assistance, the Guardians took upon themselves the decision—made it in favour of a "picture." The result is, the plans are returned from London, with a voluminous letter of forty-eight pages of foolscap, pointing out alterations that were required. The letter likewise suggested the *docking* the elevations of the ornamental work, "more especially of the entrance building, and of the central tower of the main building," which they thought might be dispensed with. The Poor-Law Board were apprehensive that *after their* deductions were made, *the cost of the building would exceed the architect's estimate.* The above is no hearsay, but gathered from the local press. Do you do right, then, sir, to let the matter rest? Is it not so flagrant a case of *mal competition* that it deserves the heartiest castigation that can be inflicted?

ARCHITECTUS.

ARCHITECTS' CHARGES.

You will do well, I think, to open your pages to the discussion of architects' charges. I have found great difference of opinion among *professional* men as to how the usual 5 per cent. is made up. Some books state that it is made up of four equal parts, thus:—

Design and working drawings	1¼
Specification	1¼
Approximate estimate	1¼
Superintendence, including supply of detail drawings	1¼
	5 per cent.

Again, the evidence of some three or four architects lately taken in the Court of Queen's Bench was to the following effect:—

Design, including working drawings, specification, approximate estimate, superintendence, and further details	5 per cent.
If not actually built:—	
For design, working drawings, specification, and approximate estimate	2½ per cent.

And lastly, in a recent number of your journal, I find Professor Donaldson stating that 2 per cent. is the proper charge for superintendence, and the remaining 3 per cent. for designs, working drawings, and specifications. No mention is made of estimate, which I suppose he includes in the last-mentioned item.

It is evident these three cases, while agreeing in 5 per cent. as the maximum, are at variance as to the proper charge in the event of the works not proceeding. I should be glad to know from good authority what is really the charge adopted by the profession *generally*, and your journal seems a likely medium to elicit and supply this information.—B.

ADDITIONAL WORKS SELECTED BY PRIZE-HOLDERS IN THE ART-UNION OF LONDON.

From the Royal Academy.—Skaters, C. Lees, 105*l.*; Lallah Rookh, F. Wyburd, 80*l.*; Cuddie Headrigg, D. W. Deane, 60*l.*; Gathering Watercresses, W. F. Witherington, R.A. 60*l.*; Landscape, G. Cole, 60*l.*; At Sonning, G. C. Stanfield, 50*l.*; Erridge Park, C. R. Stanley, 35*l.*; Italian Mother praying for her Sick Child, H. Pickersgill, 35*l.*; Lane, Hastings, J. Meadows, 35*l.*

From the Society of British Artists.—Quiet Evening on the Thames, H. J. Boddington, 60*l.*; at Lynton, A. Clint, 35*l.*; Etretat, Normandy, J. Wilson, 35*l.*; Girl and Chickens, J. T. Peele, 35*l.*; Lutcombe Chine, J. Danby, 35*l.*; Cymon and Iphigenia, A. J. Woolmer, 35*l.*

From the National Institution.—Autumnal Morning, A. W. Williams, 100*l.*; Lane Scene, A. W. Williams, 75*l.*; Kilchurn Castle, S. R. Percy, 75*l.*; Scenery in Knowle Park, E. J. Cobbett, 60*l.*; Feeding Rabbits, E. J. Cobbett, 50*l.*; Showery Weather, E. C. Williams, 35*l.*; Reading a Chapter, C. Dukes, 35*l.*; Salmon Trap, F. W. Hulme, 35*l.*

From the Water-Colour Society.—Hadley Castle, G. Fripp, 42*l.*

From the New Water-Colour Society.—Belted Will's Tower, W. Bennett, 75*l.*; Berry Pomeroy Castle, E. G. Warren, 73*l.* 10*s.*; Ye hae tellt me that afore, Jemmy, H. Warren, 105*l.*; Fishermen off the Nore, T. S. Robins, 25*l.*

THE BATH-ROAD BRIDGE AT BRISTOL.

IN place of the cast-iron bridge at Bristol, which was recently destroyed by a coal-barge, the Dock Committee determined to erect a bridge of wrought-iron; and on the 13th of April Mr. Finch, of the Chepstow-bridge works, made arrangements with their engineer, Mr. T. E. Blackwell, to construct it. This bridge is to consist of nine girders, each girder being 107 feet long, 5 feet deep in the middle, and 4 feet at each end; and weighs, each, about 25 tons. Upon the top of these girders is placed strong planking, and over this is formed the road. As there was novelty in the mode of conveying and erecting the two girders now in place, we may briefly state how this was accomplished. The girders, 107 feet long, were put together and rivetted complete in the maker's yard. When ready for shipment, they were taken each separately out of the yard, and placed alongside the wharf. At high-water a barge was floated to the wharf, and as the tide receded, the barge was left aground on the mud bank. Balks of timber were then laid, one end resting upon the barge and the other on the wharf, immediately under the bottom flange of the girder. Upon these balks rails were laid: these were greased, and the girder was slided gently down until it rested on the deck of the barge, and being longer than the barge by about 36 feet, there was 18 feet at each end of the girder overhanging. The balks were then removed, and the girder lashed to its place, edgeways on the barge, the underside of the overhanging ends of the girder being about 4 feet from the surface of the water. When the tide again rose, the barge with the girder upon it floated, and was towed away from the river Wye, at Chepstow, to Bristol.

The masonry has been prepared, and stands about 17 feet above the high water-mark; a substantial square block on each side of the river: upon these two blocks of masonry the girders have finally to be placed. About 40 feet below the bridge, Mr. Finch erected two substantial stages, formed of balks of timber, firmly attached to the ground, and stayed in every direction. These stages or platforms stood at high water about 3 feet 6 inches out of the water: the steamer then brought up the barge with the girder upon it, with the flood-tide, to the bridge, so as to arrive there about half an hour before the tide turned, and before the current was very strong: when arriving at the stages above described, the barge was placed across the stream, so as to allow the two overhanging ends of the girders to come over the stages: they were retained in this position, and a valve in the barge was opened, and the vessel partially filled with water, until she sank sufficiently to leave the overhanging ends of the girders resting upon the stages, and until she was so far immersed as to be moved down the stream by the receding tide. The girder is now across the stream, resting upon these two stages: the tide now recedes, until there is nothing left but the fresh water from the hills flowing down the bed of the river, the girder then being left high above on the stages. We will now see how the operation of lifting the girder and conveying it to its place is performed. Two mud barges, used by the Dock Company, at Bristol, for conveying the refuse out of the docks are obtained: these are large flat-bottomed boats that will carry 67 or 70 tons each. Upon each of these barges is erected a stage or tower, so high, that when the barges are resting on the bed of the river at low water, the top of the tower shall reach, or nearly so, to the under side of the girder, as it rests upon the wood stages across the river: as soon as the tide has receded sufficiently low, these two barges, with the towers upon them, are placed under the girder, and are moored so that they shall not be able either to move up or down the stream, until required to do so. Being all prepared, as described, they remain stationary, until the tide turns; when the tide begins to float the barges, and as the tide rises, so the barges rise, until the towers press against the girder, and lift it off the stage; and as the tide continues to rise, so the girder is carried upwards, until it is finally lifted by the rise of the tide as high as the top of the masonry upon which it has to rest. The chains that hold the barges at one end are slackened out, and those at the other are tightened, and the barges are thus moved forward with the tide, until the ends of the girder are brought over the masonry, the exact place where the girder has to be fixed. It is held there until the tide turns; and, as this recedes, the barges sink, and deliver their burden to its final resting place on the masonry, and are carried down the stream with the receding tide, and anchored in a convenient place, ready to perform the same operation again.

POTICHOMANIE.

THE new practitioners of this old art take a much higher flight than our good old grandmothers of the sand bottles, and are content with no less a victory than an exact imitation of everything in the shape of porcelain that falls into their unmerciful clutches. To this all their energies are directed: on this all their talent is displayed. No improvement in the characteristic of the art is sought after, or the perfecting its capabilities as a distinct branch of the ornamentation and colouring of beautiful forms: all this is cast aside for the tempting *ultimatum*, which is to make blown-glass appear baked pottery, and coloured prints pass as porcelain painting. But no human being could ever mistake the one for the other on close inspection, and painted porcelain invites minute examination; we must, therefore, pronounce the present practice of Potichomanie as an unmistakable abortion. It is a misfortune that popular favour should have taken this bent, when so many beautiful effects are within its reach, and might so easily be obtained, if those who practise the art studied the harmony of colour, the disposition of form, the peculiarities and difficulties of the process of application, overcame the latter, and turned the former to advantage.

I would suggest that the forms of the beautiful Etruscan vases in the British Museum, should be reproduced, as the material which Potichomanie is best fitted to render beautiful. These, when produced in clear thick glass, might be decorated with Rowney's water-colour prints, or the chromo-lithography of Vincent Brooks, especial care being taken in harmonising the background with its subject, so that all violent contrasts may be avoided. This would give us the pure beauty of *form* in the vase, and when we examined more minutely the *colour* of the prints, we should there find no disappointment. Knowing perfectly well what they were, we should feel pleasure in examining their various claims to our admiration, and be willing to allow them a niche in the vast temple of Beauty and Art. The art would then depend on its own foundation, and not rely on any tricky deception for its toleration amongst us. In this way many beautiful objects might be obtained, at a cost which would place them within the reach of all. And, then, as a distinct and really legitimate branch of art, let us call it by a name which neither breaks our teeth nor excites commiseration; for this, I would humbly suggest that the treatment I have proposed should be distinguished from its meretricious sister by the name of "RALLIA WARE."

But allow me, through your columns, to raise my voice against the present practice of Potichomanie, merely as an imitation of another and much higher art;—to protest against the scattering, broadcast, vile, and unsightly Chinese caricatures of dragons and houses, outrages of nature and perspective;—against the transferring body and bones, the barbarous and puerile efforts of any nation which happens to be ignorant in art to the hearths of a highly refined and educated people; against the reproducing all the *defects* of porcelain of every "school;"—and against the *ultimatum* of an English art being the low, trivial victory of a take-in!

A MARLBOROUGH-HOUSE STUDENT.

Notices of Books.

The Louvre; or, Biography of a Museum. By BAYLE ST. JOHN. London: Chapman and Hall. 1855.

THE history of the Louvre runs over many centuries,—if we go no further back than the year 1204, when Philippe-Auguste built the great tower there, that long frowned over Paris. Mr. Bayle St. John has sketched this history with a pointed pen, and has produced a pleasant book, which will interest as well those who stay at home at ease, as those who have visited, or are about to visit, the finest home of which the Arts can boast. François I. destroyed the great tower, and to him may be ascribed the commencement of the present building, during the Renaissance, when the revivers of the antique style, or what they considered such, were combatting and overlaying the Gothic. Mr. St. John speaks of an allusion to the discussions which accompanied this change by a rhetorical writer of the end of the sixteenth century, Estienne Pasquier. Pasquier says that—

"There still existed some people of the old school who admired all the edifices built 'since the coming of the kings,' as Notre Dame, the Holy Chapel, and the Palais, which common observers, adopting the fashionable term of praise, esteemed to be all constructed in the antique style. 'Yet, in the judgment of brave architects,' he continues, 'there is nothing antique about them; they are built after the modern fashion, and have none of those rare traits which the ancient Greeks and Romans used in their architecture; but it may truly be said that a Louvre was constructed by the late M. de Claigny, in the antique style, although it is new; and he has expressed in it everything that was fine and worthy of old.' On the other hand, as the same writer tells us elsewhere, according to a great architect, Maistre Jacques Androuet, dit Du Cerceau, the Sainte Chapelle was the finest modern building known; and he spoke slightingly of the *parades* which M. de Claigny, or Clagny—that is to say, Pierre Lescot, to whom François I. gave the Abbaye of that name—had borrowed from the antique. We have here the record of a conflict of opinion, which does not seem to have left any other documentary trace; but it is difficult to reconcile the admiration of Du Cerceau for the master-piece of the time of St. Louis, with the accusation directed against him by M. Vitet, that he introduced the colossal order from Italy."

Pierre Lescot, aided by Delorme, Lemercier, Perrault, Bernini, Mansart, and Duban, followed each other at wide intervals, as architects. Claude Perrault, who designed the frontispiece and colonnade of the Louvre, was born in 1613, and died in 1688. He had studied medicine. Boileau refers to him, when he speaks of one who "from an ignorant physician became a good architect." The Colonnade of the Louvre has had more praise than it seems to us to deserve. Perrault translated Vitruvius, and published some other works on architecture.

After the revolution of 1848, the new government appointed Mons. Jeanron director, and this gentleman Mr. St. John regards as having rendered greater services to the museum than any other individual since its foundation. Under circumstances of extreme difficulty, when the court of the Louvre and the yards were occupied by five or six thousand insurgents, he contrived by his addresses to protect the building from spoliation. Although they consented to refrain from sacking the museum, they determined to destroy the bronze statue of the Duke of Orleans in the court, and were only persuaded from it by the pledge that he would cause the obnoxious statue to be removed during the night.

"The rain was falling in torrents, and the night had become dismally dark. That colossal monument was difficult to move. No tools, no workmen were ready. M. Jeanron made an impassioned appeal to some of the people of the museum, and to M. Debay, the sculptor attached to the Louvre. They worked all night, and by daylight the statue had, indeed, been carried to the Pavilion Beauvais, and carefully surrounded by a hoarding. Only just in time, for immediately afterwards the folk from the Palais Royal, flushed with wine, came tumultuously to ascertain whether the engagement entered into with them had been kept. The bas-reliefs on the pedestal had not yet been unsealed, and numerous hammers were at once raised to shatter them. But a man in the crowd saved them by saying that M. Jeanron had proved himself to be a diligent workman, that he was himself of the trade, and could not understand how so much work had been got through in so little time. 'The least we can do, therefore,' he added, 'is to make him a present of the two bas-reliefs for his trouble."

From Mons. Jeanron Mr. St. John repeats many opinions, especially on the subject of restoring works of art, wherein our author speaks strongly, giving a frightful account of such doings in Paris:—

"'We have sometimes,' said a sculptor working at Versailles, 'very sad fellows in our ateliers, the poor and impudent devils who serve as our models. They have carried many a word from the language of our class to the barriers, and other out-of-the-way places, where a hideous language is spoken for hideous confidences. To kill a man, in slang, is 'to clean him.' This word came from us. To clean a picture is to kill it."

Mr. Jeanron objects, and with justice, to the alterations made by enlargement to integral and pure architectural monuments,—

"Whose complexion had been pre-established in the mind of the architect, their size fixed, and their compartments exactly divided in their variety—which have been completely destroyed, as manifestations of that first instinct of the beautiful and the proper, which the creating artist had known how to introduce. Architecture also has its framework and its proportions. Thus the admirable Hôtel de Ville of Paris, increased beyond measure, enlarged and continued, in pretended respect of the style of the primitive monument—with the same fineness—the same lightness of form and ornamentation—appears now as a colossal mass, on which are written, as it were, an imperceptible and flimsy tissue of ornaments, which were only proportioned to the old edifice."

There are parts in which the book is a little spun out, but as a whole we can safely recommend it to those who would get a knowledge of the Louvre and its contents.

Miscellanea.

IRON AND STEEL: IMPORTS AND EXPORTS.—Returns issued from the Parliamentary Paper Office show that, comparing the imports with those of 1853, there was a large increase last year in iron ore, and also in wrought iron and steel goods; but the supply of the latter came chiefly from Denmark, France, and Holland, in 1853, while last year the United States, Belgium, and France, were the chief sources of it. As regards bar iron, there is a decrease of almost precisely the quantity received from Russia in the preceding year. The exports of foreign iron show a decrease. The quantities of British iron exported last year were as follow:—Pig iron, 293,432 tons; bar iron, 604,662 tons; bolt and rod iron, 12,056 tons; cast iron, 69,338 tons; iron wire, 7,987 tons; wrought iron, 176,203 tons (including 26,084 tons of anchors and grapnels, 30,709 tons of hoops, and 8,141 tons of nails); old iron for remanufacture, 12,242 tons; and unwrought steel, 20,793 tons. Comparing these figures with the return for the preceding year, we find that the decrease in the quantity of pig iron exported is exactly accounted for by the loss of Russia as a customer, which, in 1853, imported from this country 639 tons. Of bar iron Russia imported from Britain, in 1853, 5,080 tons, but the decrease in the exports of last year is about 40,000 tons, the remainder of the difference being accounted for by the diminished demand from the United States. The export of cast iron has increased, notwithstanding the closing of the outlet afforded to the Russian markets, which in 1853 took 1,499 tons.

A CAUTION.—While a child, under two years of age, the daughter of Mr. Holt, organ-builder, Halifax, was watching the progress of some excavating work, and standing close behind on the left side of a workman who was casting out earth, he accidentally struck the child on the face with his spade, actually cutting off the nose.

AN ANTIQUARIAN QUERY: GLASTONBURY.—Can any of your readers oblige me with any information respecting the "Pyramids" mentioned by William of Malmesbury ("History of Kings of England," section 21), as being close to the church of Glastonbury? One of them is described as 28 feet high, and having five stories; another, as 26 feet high, and of four stories. It appears that they were Christian monuments of the Saxon period. I do not suppose that any traces of them are still in existence, since one of them, in Malmesbury's time, was threatened with "ruin from its extreme age;" but I should be glad to be informed whether anything is known respecting them, beyond what Malmesbury has said in the passage above quoted, and whether any monuments of a similar character ever existed in this country.—BETA.

DECORATION OF GLOUCESTER.—Mr. Clarke, architect, of Gloucester, has been engaged to superintend the decorating of the city for the Royal Agricultural Show. His remuneration, according to the *Carlisle Journal*, is to be twenty guineas.

METROPOLITAN ASSOCIATION FOR IMPROVING THE DWELLINGS OF THE INDUSTRIOUS CLASSES.—According to the eleventh report of the directors of the Metropolitan Association for Improving the Dwellings of the Industrious Classes, they have purchased during the last year two houses in Albion-buildings, Bartholomew-close, Aldersgate-street, tenanted by twenty-four families, each occupying two rooms. Dwellings for 108 families on the freehold site in Nelson-street, Bermondsey (near the London-bridge Railway termini), are also on the point of completion: they consist of 102 sets of three rooms, and six sets of four rooms. When the whole are completed they will have provided a total amount of improved accommodation for 395 families and 362 single men. In consequence of the applications from the inhabitants of different metropolitan districts for the apportionment of capital, and to grant the same immunities to persons resident in the metropolitan districts as could be enjoyed by those resident in the provincial towns and districts, without incurring the further expense of obtaining separate charters, the directors have obtained a further supplemental charter, enabling them to effect this object, that the whole of England and Wales may now be worked by such district committees as the respective shareholders may appoint, yet preserving that unity and principle of action so essential to accomplish a beneficial result.

THE SAPPERS' CHURCH IN THE CRIMEA.—One among the many interesting objects in the British Camp before Sebastopol is the Sappers' Church on the right attack. It is built wholly of siege apparatus; but these are neither injured nor unfit for service, being only "in store," while so arranged. The articles employed in the construction have been scaling ladders, gabions, fascines, timber ready cut and shaped for gun-platforms, a few planks, and some pieces of rope. Two scaling-ladders locked into each other at the top, form the columns which separate the aisles from the body of the church, and bear the roof. The framework of the outer wall is made by long upright timbers, which lean against the summits of each set of ladders respectively, and are secured by cords. Across these a few joist beams are lashed, and the outer wall of gabions, though thicker at the base than above, in a great degree rests against these horizontal supports. To form the wall, the gabions are placed end to end, one above the other, until they reach the height of the roof. The roof is made by the platform timbers laid between the tops of the ladders on each side, and at right angles to these the fascines are laid in regular rows, until a complete covering is formed. The roof is light, admits, of course, of free ventilation, and gives a perfect protection against the direct rays of the sun. At the end opposite the entrance into this truly military church a semicircular sweep is given to the gabion wall, and in the recess thus formed several sacks stuffed with straw, and covered with the Union Jack, are arranged, to form a reading desk and kneeling cushion for the preacher.

BURSTING OF THE LOCK OF THE VICTORIA DOCKS.—The intended opening of these spacious docks, at Plaistow marshes, in August, will be delayed some months, according to the *Shipping Gazette*, in consequence of a serious accident which happened on Sunday before last, by the bursting in of the principal lock, near Bow-creek. The whole of the north side of the lock quay, with its enormous iron piles and plates, forming the wall, broke outwards with a loud report, destroying nearly every part of it; and the opposite lock wall was discovered next day to have sunk considerably, with every indication of its being thrown outwards in a similar manner to the other. The lock is, we believe, between 300 and 400 feet long, and nearly 70 feet in width. Luckily for the contractors, Messrs. Peto, the water is not yet admitted into the dock, which will enable them to remove and rebuild the lock quay wall without loss of time. Land-springs are supposed to have undermined the foundation of the wall. The contractors are removing the earthworks on each side the lock to ascertain the precise cause of the accident. The loss must be very great.

BATH STONE.—With reference to a remark quoted by us on Bath stone used at Liverpool, a Quarry-owner urges that "Bath stone would hold a lasting reputation, in any clime, provided it were properly selected, and not (as I am sorry is the case) taken from quarries where anything in the shape of blocks is found, and sent away regardless of the different beds or qualities of the stone: the consequence is, the weather acts upon it, and brings the *Bath stone* into disrepute." The matter would seem to be worth investigation. His brother quarry-owners should look into this.

NEW MARKET-HALL, HOLYHEAD, ANGLESEY.—Like most places in northern Wales, the want of accommodation for an increased and apparently increasing population has been seriously felt in Holyhead, and as one step towards making up the deficiency, the Hon. W. P. Stanley, M.P. has manifested his good wishes by erecting a spacious market-hall, for the use of the town,—the first public building erected in Holyhead. It is 134 feet in length, and 85 feet in breadth. The style is Elizabethan, the rubble work being of blue stone from Mr. Stanley's quarries, of variegated colours, the windows, cornices, &c. of Storeton stone. The centre room on the upper floor, 41 feet by 33 feet, is intended for public meetings and a general assembly-room. On the left is a reading-room and library, taken by the Holyhead Mechanics' Institute: its length is 41 feet by 24 feet, divided by folding-doors, so that when necessary, it may be thrown open for lectures, &c. On the right is another room, 41 feet by 24 feet, intended for a corn-exchange. The roof is made of open timber framework, stained in imitation of oak. The area of the market-hall is floored with Holywell flags. The roof, consisting of open timber framework, is supported by two rows of Storeton stone octagonal columns, with moulded capitals. At the top of the market is a well with a pump, for clean water; and the rain-water from the roofs is conducted into a large iron tank to be used for common purposes, such as washing vegetables, &c. The number of stalls fitted up is 56, varying in size from 11½ feet square to 9 feet by 6 feet, each of which is provided with a convenient fire-place. Mr. John Edwards was the architect; Mr. John Thomas, the builder.

APPROPRIATION OF WASTED POWER.—Will you allow me to express my conviction that much power which might readily be made available, is annually wasted upon the London Bridges? The work which, I submit, is available and wasted consists in the *vis viva* of waggons, carts, &c. descending the bridges. It is obvious that much of this could be most *advantageously* expended *in overcoming a slight obstacle*. In order to render this force valuable, I propose that the descending routes of the principal bridges be furnished with pairs of large wheels, fitted in the earth-work or masonry, each vertical, and in such position, and of such diameter, as to present an arc, not rising more than 6 inches above the surrounding surface, and presenting a chord (described by that surface) of at least 3 feet. One of each pair of wheels would be placed by the curb-stone, to catch the "near" wheels of the passing waggon, and the other a short distance from it, to meet the "off" wheel, leaving a sufficient space for the passage of the horses, and still broad enough to allow for divergence from the exact line, or difference of distance between the wheels. A waggon or cart passing over this apparatus would depress it, and would thus give motion to a hydrostatic machine, filling a tank, for the purpose of obtaining water-power,—or it might be connected with any mechanism requiring only irregular motion. This apparatus would not impede the transit of vehicles: if the weight be not sufficient to produce the piston-like motion, the very light carriages would pass over easily. Thus, by gently checking the impetus of descending traffic, a valuable piston motion might be obtained.—O. H. HODGE.

LAYING CHIEF STONE OF MODEL DWELLING-HOUSES IN WORCESTER.—Monday before last was selected by the City of Worcester Association for Building Dwellings for the Labouring Classes for the inauguration of their first adventure as an association for social improvement. The foundations of the model dwelling-houses in Cooken-street, one of the dirtiest and most disreputable localities in the city, having been laid, invitations were sent to the Mayor, Town Council, Magistrates, Chamber of Commerce, clergy, officers of militia, and most of the public bodies and public men of the city, to attend the laying of the chief stone of the building. A luncheon was provided by the association for their numerous guests in the assembly-room of the Guildhall. Large crowds of persons occupied the street, and the Militia band was stationed in the area in front of the Guildhall. The company numbered about 160. The Mayor presided on the occasion.

MR. RAWLINSON WOUNDED AT SEBASTOPOL.—We regret to learn that the chief engineer to the Crimean Sanitary Commission, Mr. Rawlinson, was accidentally wounded by a shot from the enemy while passing through a ravine near the trenches. The wound, however, is not dangerous, and the patient is going on favourably by last accounts.

THE ASYLUM FOR IDIOTS.—The National Model Asylum for Idiots, which has been in the course of erection for nearly two years, at Earlwood, near Reigate, will be opened by Prince Albert, on Tuesday, 3rd July. The building is intended to accommodate 400 pupils. There are at present about 250 cases in the institution, and the applications for admission continue to be numerous.

SALT IN WALLS.—DISINFECTANTS. — Regarding the inquiry as to the nitrification in walls, what is the original cause of the salt-formation, or what is it supposed to be? Has sea-sand been used for the mortar, &c. for wall? What is the nature of the soil upon which the wall is based? Also, is it in contact with any refuse animal or vegetable matter? If your correspondent will answer these questions, and send me, per letter, a small quantity of the salt formed, I will with great pleasure inform him of what is best to be done under the circumstances. Meantime I may as well give the process I have found quite effectual in the few instances of the kind that have come under my notice. Take 4 lbs. commercial carbonate of soda (natron), 2½ lbs. commercial carbonate of potash (pearl-ash), and 2½ lbs. of finely sifted silver sand: mix intimately, and put into a crucible (iron is best if not Hessian), capable of containing three times the quantity, and fuse for two or three hours: pour out upon a stone or iron slab, and allow it to cool; then boil in about one gallon of water, until a saturated solution is obtained. Let the salt be scraped off the wall as much as possible, and washed well with warm water; then brush the hot solution prepared as above on all parts of its surface; give the wall another coat in three days' time, and at the end of a week or two the wall will be covered with an impervious glassy coating, which will, I think, attain the desired object. If applied to damp walls, they cease to be so. It will also prevent the white rubbing off.——In reference to "the use of disinfectants in the Crimea," I quite approve of the employment of quicklime, as being better than nothing. For absorbing moisture, sulphuretted hydrogen, and removing effluvia offensive to the olfactory organs, quicklime is undoubtedly very useful; but for destroying malaria,—disinfecting, in fact, in the proper sense of the word,—chloride of lime is the only real disinfectant. Why has charcoal been so completely overlooked? It possesses the property of absorbing and condensing in its pores gases of every kind: mixed with the chloride, it greatly economises and increases its power by absorbing the nascent chlorine and giving it up again to organic matter. Is not charcoal just the thing for the Crimea?—AN ANALYTICAL CHEMIST.

BRIDGE SURVEYOR OF WEST RIDING OF YORKSHIRE.—The demise of Mr. Barnard Hartley, for many years bridge surveyor of the West Riding, has made this office vacant. Mr. Barnard Hartley, the son of the late surveyor, and who has for many years discharged the duties of the office for his father, is a candidate; so also is Mr. W. L. Moffatt, of Doncaster, architect, according to the local *Gazette*. The election is in the hands of the West Riding magistrates, and the present salary is 800*l.* per annum. On 3rd July a day will be fixed for a special meeting of magistrates, for the purpose of appointing a successor to the late surveyor.

RUINS OF OLD BATHS ON LORD PANMURE'S ESTATE IN SCOTLAND.—An interesting discovery was lately made in connection with the old castle of the Lindsays, at Edzell, near Brechin. Remains of baths are rarely to be found at old baronial buildings in Scotland; indeed, those now discovered at Edzell, are supposed to be the first that have ever been found. There had long been a tradition in the district that in addition to the many comforts enjoyed of old by the Lindsays of Edzell, they had also those of baths; but the accuracy of that idea has only now been ascertained. Little more than the foundations remain. They were attached to the south-west corner of the flower-garden. Some portions of the building are as high as 3 feet, and the foundations of the whole are quite distinct. They consist of a bath-room, dressing-room, and sitting apartment, the last of which is 16 feet square, and a lobby (entering from the flower-garden) about 16 feet long and 8 feet broad, with steps leading to the sitting-room. A narrow stair or private entrance from the lobby to the bath, and the stone pipes from the bath and the well, are in nearly as good preservation as when first erected. But for the accidental discovery of the mouth of the pipe leading from the well, the remains would have still been unknown.

THE GUTTA PERCHA COMPANY.—We have had serious statements as to gutta percha piping and the conduct of the Gutta Percha Company to plumbers, but as they affect an article of much utility, we must make some inquiries before inserting them.

THE IRON TRADE.—The collapse still continues, especially in the Staffordshire district, and there have of late been numerous failures. It is admitted that "even the most sanguine are not bold enough to think of any advance of price." The demand for iron in Lancashire and Yorkshire has improved, in consequence chiefly of a brisk start in the building trades in these districts. Beyond this, the war is, unfortunately, the best customer of the iron-masters at the present moment. A valuable discovery of ironstone, it appears, has been made at Muiravonside, in Stirlingshire.

UNCULTIVATED LAND IN FREEHOLD LAND SOCIETIES. — Unfortunately I am the possessor of some land at East Moulsey through a society; and sorry I am that I ever became such possessor, for the occupiers, or rather the proprietors, of land on either side of myself have allowed weeds to cover their land, and, in fact, in nine cases out of ten, the land is so covered a yard in height. The wind, of course, blows the seed of those weeds upon my land; so that if I weed from morning to night, trying to keep my place in order, my efforts are in vain, and my place gets overgrown with weeds from my kind slovenly neighbours' land. Cannot they let some one on the spot cultivate it for a nominal rental, and thereby turn the land to a good account? If proprietors will not see the force of this remark, it would be no more than justice that a clause should be inserted in hereafter land societies' rules, that in the case of non-cultivation within a reasonable time by the possessors, such land should be forfeited.—A WELL-WISHER TO MY NEIGHBOUR.

FIRES IN FLAX WAREHOUSES.—The alarming frequency of fires in flax warehouses at Dundee and elsewhere, is engaging the attention of the press in the north; and the *Dundee Warder* of last week has a leading article, urging the necessity of building fire-proof warehouses, and suggesting that such fires may in many cases arise from spontaneous combustion. It is a curious circumstance, that since the cholera raged in London last year, fires have been here too unusually frequent. If such fires do in many cases arise from spontaneous causes rendered more than ordinarily inflammatory by atmospheric peculiarities, it is to be hoped that the meteorological equilibrium is now re-established, and that the metropolis will neither be revisited this autumn by cholera on the one hand, nor by unusually extensive or numerous fires on the other. The deficiency of thunder about the metropolis last year was quite remarkable: we are rather reassured by the little that has already occurred in course of the present season, and we listen somewhat anxiously for more.

ELECTRO-TELEGRAPHIC PROGRESS.—The Atlantic telegraph is no longer a merely talked of project: although not yet realized, an European company, of which Mr. Brett is a prominent member, is said to have now actually entered into contracts for the completion of the work by 22nd January, 1858. The length of the wires from Ireland to Newfoundland will be some 1,750 miles: they will lie on the sandy plain which the soundings of the United States' Government have shown to stretch from land to land for the whole distance, with the exception of 200 miles next to the Irish coast, where the bottom becomes irregular and the water deeper. The actual distance is about 1,600 miles only, but it will be necessary to make a detour with the wires in order to carry them round the banks, where icebergs often ground, and where the cable might be broken by their weight and friction. The cable is to contain six wires, eight tons to the mile. Messrs. W. Kuper and Co. of London are the manufacturers. They mean to splice the ends of the portions carried to the spot in different steamers. An American company propose to form the entire American portion of the telegraph from St. John's, Newfoundland, to New York. This part of the line will be 1,200 miles in length, 71 miles of which will be under the Gulf of St. Lawrence, and the cost of the whole is estimated at a million and a half of dollars. The wires across Newfoundland will make 400 miles of the line, running through a country hitherto unoccupied and unknown. In the cutting of the path and other preparatory labours the company have had 600 men employed during the past year in that island alone. The cable to go under the Gulf of St. Lawrence has been made in this country. It contains three electric wires only, it being contemplated to lay down another of same size when the European wires have been taken across, and the business between New York and London requires it.

SARSEN STONES.—"M." asks why the Druidical sandstones in Wilts and Berks are called "sarsens?" The question itself suggests a solution. As the Saxons applied the term Saresyn to pagans, or heathen in general, and as the principal specimens of these blocks of stone were perceived to be congregated into temples popularly attributed to heathen worship, it naturally came to pass that the entire geological formation acquired the distinctive appellation of Saresyn (or heathen) stones; that is to say, after the conversion of the Saxons to Christianity. The same epithet the Saxons also applied to their invaders the Danes or Northmen, who on their coming hither were all heathen. Thus Robert Ricart (quoted in Roberts's "History of Lyme") says, "Duke Rollo le Fort was a Saresyn come out of Denmark into France." And a spot in Guernsey is still designated, I believe, the Saracen's-hill, from having constituted the temporary stronghold of certain Norman freebooters.—J. W.—*Notes and Queries.*

TENDERS

For sundry additions and alterations to house at Crowhurst Park, Battle, Sussex. Mr. W. M. Teulon, architect. Quantities supplied by Mr. Charles Poland.

Clout, Tunbridge Wells	£4,820	0	0
Taylor, Loudon	4,602	0	0
Wardle and Baker, London	4,390	0	0
Searle, Deptford	4,290	0	0
Dove, London	4,180	0	0
Jones and Pickerden, Hastings	3,986	0	0
Hill, Brixton	3,902	0	0
Howell, Hastings	3,627	0	0
Kenwood, St. Leonards	3,397	0	0

For pulling down and rebuilding Mr. Symons's house and shop, Islington-green. Mr. George Lamb, architect. Quantities furnished by Mr. Atkinson.

Dove, Brothers	£2,595	0	0
Haynes and Eyre	2,532	0	0
Ashby and Sons	2,529	0	0
Browne and Co.	2,397	0	0

For church, Shooter's-hill. Messrs. Tress and Chambers, architects. Quantities not supplied.

Fowler	£1,475	0	0
Rowland and Evans	1,350	0	0
Macey	1,316	0	0

For model lodging-houses, Lisson-grove North, for the Marylebone Association.

H. W. Cooper	£1,728	0	0
B. and W. Hayne	1,600	0	0
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Higgs	1,520	0	0
Reade	1,495	0	0
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Batterbury	1,479	0	0
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"*Hanging Shutters.*"—A correspondent says, what are "the best means of hanging window-shutters to a large window opening, to prevent their swagging? whether in one or two heights preferable? I have tried all means without success."

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"*Books and Addresses.*"—We are forced to decline pointing out books or binding addresses.

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John Hodgson, esq.
John Edward Johnson, esq.
Richard Lambert Jones, esq.
Robert Locke, esq.
Boyd Miller, esq.
Nathaniel Montefiore, esq.
Sheffield Neave, esq.
William Phillimore, esq.
W. H. C. Plowden, esq.
Robert Saunders, esq.
Sir Walter Sterling, bart.
William Tite, esq. M.P. F.R.S.
R. Westmacott, esq. F.R.S.
Josiah Wilson, esq.
Benjamin G. Windus, esq.

Full Security to Parties Assured by means of a Capital of ONE MILLION STERLING, for the last Fifty Years all Paid up and Invested.

Premiums particularly favourable to the younger and middle periods of life.

Two-thirds of Profits as Bonus.

Life Tables according to various plans, to suit the special circumstances of Insurers.

No charge for Stamps on Life Policies.

Fire Insurance Proposals entertained to any amount.

Liberality and promptitude in the settlement of claims.

Prospectuses, with full Tables and Details—and Forms—may be had at the Company's offices, or of the Agents.

WILLIAM NEWMARCH, Secretary.

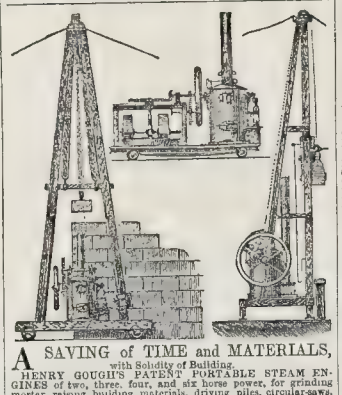
N.B. Life Insurance Premiums are allowed as deductions in Income Tax Returns.

NOTICE.—To TRADE SOCIETIES, BUILDERS, and OTHERS.—The NORTH LONDON SOCIETY OF CARPENTERS AND JOINERS have REMOVED from the Horse and Groom, Great Portland-street, to 29, UPPER MARYLEBONE-STREET, Fitzroy-square.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS, Engineers and Contractors, John's place, Holland-street, Southwark, London.



A SAVING of TIME and MATERIALS, with Solidity of Building.

HENRY GOUGH'S PATENT PORTABLE STEAM ENGINES of two, three, four, and six horse power, for grinding mortar, raising building materials, driving piles, circular-saws, pumps, &c. 46, Albert-street, Manchester.

Railway Contractor's Office, Wellington, Salop.
December 1, 1853.

"Dear Sir,—We have much pleasure in bearing testimony of the value of your Patent Portable Engine that you fitted for us, for the construction of the tunnels on the Bacup Branch of the East Lancashire Railway in 1851, and have since used for sawing timber, and driving other machinery up to the present time, during which period, although for weeks the fire has never been out, we have no stoppage for repairs.

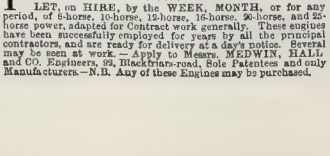
"We remain, dear sir, yours most faithfully,
"Mr. Gough." "DICKSON and McKENZIE."

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 70, Strand.

To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps left on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO CONTRACTORS

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL and CO. Engineers, 99, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

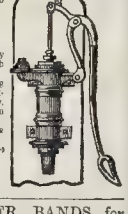
N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 33s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP,

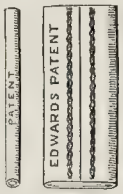


which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Deer and Water Engines for raising fluids from a depth not exceeding 28 feet also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.



LEATHER BANDS for DRIVING MACHINERY (EDWARDS PATENT). Engineers, Mill-owners, Printers, and others using bands for driving machinery, are respectfully invited to inspect

EDWARDS IMPROVED FOLDED BANDS,

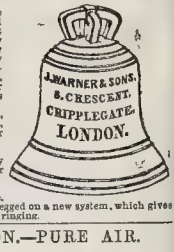
Which for strength, durability, and straightness in working, surpass any Bands at present in use.

Best STRETCHED SINGLE BANDS, with Cemented Joints.

Improved LEATHER HOSE, SUCTIONS, FIRE BUCKETS, &c.

MANUFACTORY,
33, Great Sutton-street, Clerkenwell.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.



J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any Bells, of any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

IMPROVED WINDOW BLINDS.—SAXBY'S PATENT ECCENTRIC CLEAT, manufactured solely by THOMAS PEMBERTON and SONS, and may be had of all ironmongers. It is the only perfect method yet introduced, of sustaining a Venetian blind, on releasing the cord, and avoiding winding on hooks. For calico Blinds its action is perfectly noiseless, as it works on centre pins, and the blind is raised and lowered by a single line without a centre cord.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 8, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 3s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES, consisting of Matting, Mats, Matresses, Brushes, &c. are distinguished for superiority and excellency of workmanship, combined with moderate prices. Prize medal both in England and America, at the Exhibition of all Nations.—T. TRELOAR, Cocoa-nut Fibre Manufacturer, 42, Ludgate-hill, London.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 113, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 84, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers of White Zinc Paint on a large scale in this country, are enabled, by a process, which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Those direful maladies, paralysis and painters' colic, will be entirely avoided. It is entirely free from all poisonous or pernicious property. Neither exposure to heat, nor to equal climates act upon it. The Patent Zinc White can be had for grinding in Oil, Japan, or Turpentine Varnishes, and there is used with Size, Varnish, &c. To be had of the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK, LONDON PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers in this country. Paint and Varnish Works, Upper East Smithfield, opposite the London Docks.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any alteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior indeed of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and Co.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 69, King William-street, City; FREDERICK BABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Ipswich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Hath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrat.

These Cements are, they believe, the best for any purpose now in use; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The Portland Cement is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that its strength exceeds them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers', to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Laight and Park, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Building, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements. CHARLES RICHARDSON, 6, South Wharf, Paddington.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent. ROMAN and PORTLAND CEMENT of the first quality manufactured on the above works. Also STOCK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise. Apply to G. BOOTH, Agent, as above.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side, 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for inside is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London. March 29, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, expressly to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c. Notice is hereby most respectfully given, that the LONDON DEPOT for these WARES is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Reports of the Juries," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Peakes," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability. Sixths and Tiles for Fireplaces and Hearths. Covings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 32s. 6d. per 1,000; floor bricks and 9 inch pavings, 45s. per 1,000; 9 inch pavings at 40s. per 1,000; 9 inch pavings, at 32s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT. L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, Contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Countine-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

ENFIELD.—TO BE SOLD, about a MILLION good STOCK and PLACE BRICKS. For particulars, inquire of Mr. WM. FISHER, Union-court, Old Broad-street, London.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59, Nelson square, Blackfriars-road.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey stocks, 25s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

WHITE SUFFOLK and RED FACING BRICKS.

GOWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE foreseen to Mr. Benjamin Gough, 6, ADELAIDE-PLACE, LONDON-BRIDGE.

O. MCCARTHY, CARMAN, and SAND and CEMENT MERCHANT. Whitefriars Wharf, Whitefriars. Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

WANTED, some second-hand RAILWAY EARTH-WAGGONS and CONTRACTORS' RAILS, about 35 lbs per yard.—Send price, delivered in London, and where to be seen, to B. T. Adams's Newspaper Office, 9, Parliament-street, Westminster.

600,000 KILN-BURNT BRICKS.—For SALE, in large or small quantities, the above excellent stock of BRICKS.—Apply to Mr CHANDLER, the North Brick-fields, Crawley-down, Crawley, Sussex

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Bars, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations

Pine Planks, 12 ft. 3 in. by 11 in.....	from 3s. 6d.	each.
Spruce Deals ..... 3 in. by 9 in.....	„ 2s. 9d.	„
Yellow ditto	„ 4s. 0d.	„
Honduras Mahogany, in logs	„ 0s. 4½d.	per foot.
Ditto ditto, in planks and boards	„ 0s. 6d.	„
Spanish ditto.....	„ 0s. 7d.	„

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

ACORN TIMBER WHARF and SAW-MILLS,

GRAND SURREY CANAL, OLD KENT-ROAD.—The extensive Waterside Premises Improved Sawing Machinery and Drying Warehouses, with a supply of all kinds of Foreign Wood direct from the importers, enable consumers to select from one of the largest stocks in London, at the lowest price, for cash.

The Monthly Price Current forwarded on application.—RICHARD MAY informs the building public that American Pine and spruce are cheaper, and Baltic goods are scarce.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross.

GEORGE NOKES and CO. (late Arch'utt and Atkinson) beg to acquaint architects, builders, carpenters, and others, that they have opened the above premises with superior machinery for manufacturing architraves, mouldings of any size and design, sashbars, match-boarding, skirtings, flooring, &c. and have always on hand a large stock of seasoned flooring at reduced prices; also, timber, deals, scantling, sash sills, mahogany veneers, &c. Goods sawn at the mills fetched and delivered free of charge.

May 19, 1855.

MACHINE CARVING, JOINERY, and MOULDED WORKS. Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally, entering into carved and moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, finished out by the machine for the trade. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, and tracings for the same, may be seen at the Works, and Estimates furnished upon application.

UNIVERSAL MOULDING-MILLS, 24, Portobello-road, Notting-hill

WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer, with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L. are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade. N.B. All customers having an account at the above establishment can be supplied with mouldings to their own design, at the shortest notice, free of any extra charge

IMPROVEMENT in WOOD MOULDINGS: J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 20, North Wharf-road, Paddington.

N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

WOOD-CARVING and FRET-CUTTING. T. HEWETSON, Wood-Carver, Band Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Ironfounders, Cabinet and Chairmakers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—T. H. particularly solicits the attention of Ironfounders, having had many years' experience in ornamental pattern making. Estimates furnished.

STAINING DEAL TO IMITATE ALL KINDS of WOODS IS required NOSIZING, and will stand the test of the weather. Price 6s. per gallon. Sold by the Patentee for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, delivered at my own door (for cash only).—C. LEETWICH'S Lead, Glass, and Colour Warehouse, 31, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 12s. per cwt. given for old lead.

NEW METROPOLITAN CATTLE-MARKET.—DEAD MEAT MARKET.—The Markets Improvement Committee will meet at Guildhall, on WEDNESDAY, the 4th of JULY next, at TWELVE o'clock precisely, to receive APPLICATIONS for STANDINGS in the MEAT MARKET.—Particulars and forms of Tender may be seen and obtained at the Architect's office, Guildhall, on any day, except Sunday, between the hours of TEN and FOUR o'clock. MERE WETHER.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11. 18s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

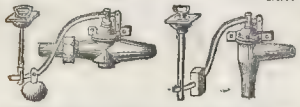
COLLIER'S TERRO-METALLIC and GLAZED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York road, King's-cross.

VICTORIA POTTERY, LEIGH.
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE.

MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House Blackwall. Orders executed from the above places, from Falcon wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf Stratford, Essex.

LAMBERT'S SELF-CLOSING
LAVATORY AND CLOSET VALVE
No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 300 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers.
Corner of Short-street, New Cut, Lambeth.

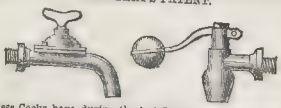
N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 1s. 6d each.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners have recommended the adoption of the high-pressure principle in all towns. WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—
LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c.—Parties in the vicinity of towns, farmers, cattle breeders, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 10, Commine-street, Pentonville. Pumps and machinery for raising water from deep wells. Boring-tools, and well-pipes for exportation. Men and tools supplied to bore for railroads, minerals, &c.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Matheson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD.....J. Sparrow and Co
CARNARVON....Jno. Jackson.
PRESTON.....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
RENDAL.....Robt. Thompson.
CARLISLE.....C. Armstrong, Lowther-street.
WHITEHAVEN..Hugh Todhunter.
COCKERMOUTH..John Hird
GUERNSEY.....Guerin, Brothers.
LONDONDERRY...W. and A. M'Cleve.
LIMERICK.....W. Burgess and Sons.

WHOLE OR HALF-SOCKET PIPES SAME PRICE.

HENRY MILLICHAMP,
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, LIMEHOUSE,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, &c.
CLOSET-PANS AND TRAPS, 5s. 6d. EACH.
AN ILLUSTRATED LIST WILL BE FORWARDED FREE ON APPLICATION.

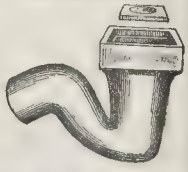
JAMES STIFF,
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.



HALF SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

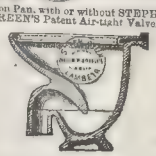
May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster bridge, City-road Wharf, City Basin; Dockhead, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kings-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 33, Bryd-es-street, Covent Garden, and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

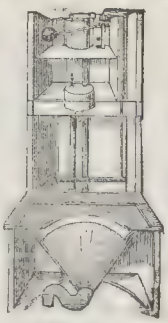
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



This effective article has not any Crank or Wire to get out of order, and is of complete and readily use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

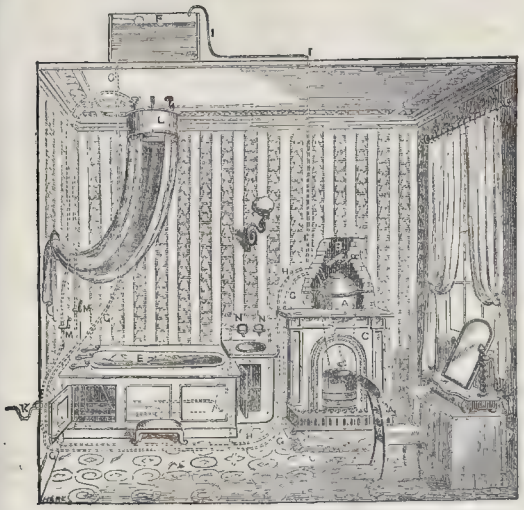
Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 21, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

J. TYLOR AND SON'S BATH APPARATUS.



To fix a Bath, the apparatus for heating which can be fixed in the same room, and the luxury of an Open Fire retained.

A. Copper Boiler of sufficient capacity to make a warm bath, clasped by an iron band to support it, and fixed in the breast-work of a chimney. A flue is carried all round, and the draught is regulated by a revolving damper, *B*, which covers the opening into chimney. When set, the Boiler is entirely concealed from view.

This Boiler can be adapted for any chimney, by making it of an oval or elongated form.

A soot-door is fixed just underneath the damper for the convenience of cleaning, which, however, is rarely required, on account of the great draught round the boiler preventing any deposit of soot.

C. An ordinary stove front with sliding blower for the additional regulation of the draft.

E. Copper or tinned iron Bath, enamelled white marble inside, having three copper pipes, for the hot, cold, and waste water, which are indicated by the engraved levers on the cocks. The overflow is carried into waste-pipe *K*.

F. Cistern for cold water, say 100 gallons, which can be made of tinned iron, or any suitable material, either fitted into a recess or made of a cylindrical shape to stand on the floor of any room above the bath. The overflow can be carried into the waste or other convenient outlet.

G. Inch pipe from cistern to the pipe which goes to the bottom of boiler to fill it with water. A branch from this pipe also supplies the bath with cold water.

H. Inch pipe from the top pipe of boiler, to deliver the hot water into bath.

I. Half-inch pipe taken from the hot pipe *H*, and turned over the top of cistern to relieve the boiler.

K. Inch or 1¼-inch pipe to take away waste water from bath into soil-pipe or drain, as may be most convenient, and must be well trapped before entering.

L. Round copper or tinned iron Shower Bath, suspended from ceiling, and filled with hot or cold water by branches from the pipes *G* and *H*, the supply being regulated by the two cocks *M M*, which are let in the wall, and have levers fixed on them, engraved, "hot and cold shower."

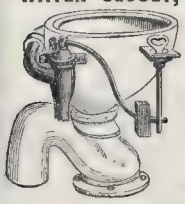
A thermometer can be fixed in the shower-bath to regulate the temperature.

N N. Wash-hand basin supplied with hot and cold water, by branches from the pipes *G* and *H*, the waste being carried into the overflow of bath.

By this simple arrangement, the boiler is always kept full of water, and cannot, by any means, be emptied by the action of the fire. The draught is so regulated by the blower and damper, that a bath can be made in twenty minutes, or an open fire kept continually alight.

WARWICK-LANE, NEWGATE-STREET, LONDON.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.



DOULTON & WATTS,

LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset, they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:—

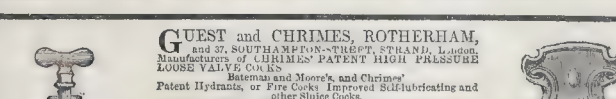
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

MESSRS. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM, and 37, SOUTHAMPTON-STREET, STRAND, London, Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS

Bateman and Moore's, and Chrimes' Patent Hydrants, or Fire Cocks Improved Self-lubricating and other Sluice Cocks.

Kirkwood's Tubular Water Closet Improved Self-acting and other Water Closets.

Siemens' Patent Balance Water Meter.

Pilbrow's Patent Water-Waste Preventer.

Morris's Patent Water Supply Regulator.

Rawlinson's Patent Self-acting Drainage Valves.

Hicomb thams's Patent Slide Stop Cocks.

Lowe's Patent Stench Trap, Beggs's Improved.

And all other Articles required for Water-Works Purposes, &c.

LONDON HOUSE,

Mr THOMAS BEGGS, 37, Southampton street, Strand General Depôt for sanitary Articles, including Wood and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.

Plumbers' Brass Work of every description.

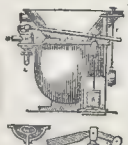
SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipe and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbett's Depôt, Britton-street, Chelsea; and at the Pottery.



UNDERHAY'S PATENT REGULATOR CLOSETS, for constant or intermitting supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stool-valves are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

Manufactured by CHARLES BOTTEN and SON, Brass Founders, Crawford passage, Clerkenwell, London.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E and W. STURGE, Bon-secours Wharf, City-road.

N B The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made. January, 1855.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post.

Price for Closet and Apparatus complete from 25s. and 10 feet action guaranteed. Five specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish street, near St. Paul's, London.

Crown Glass, 18 tables, 30s. per Crate.

ISAAC PARRY'S GLAZED STONE SEWER PIPES, RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY, CHURCH-STREET, DEPTFORD, KENT. ESTABLISHED UPWARDS OF 100 YEARS.

SALES BY AUCTION.

TO BUILDERS AND OTHERS.

MR. MARSH has received instructions from the Directors of the South-Eastern Railway Company to SELL by AUCTION, on the PREMISES, on TUESDAY next, JULY 3, at TWELVE o'clock, in lots, the BUILDING MATERIALS of the residence and premises, "Bells Yew House," Tunbridge Wells, within a few minutes' walk of the railway station, comprising about 125,000 bricks, two tons of lead, a large quantity of timber in roofs and quarter-partitions, flooring and joists, paving, slating, excellent four and six-panel doors, sashes and frames, marble chimney pieces, fixtures, and other useful material. May be viewed the day prior and morning of sale, and catalogues obtained at the Railway Station, at Tunbridge and Tunbridge Wells; of Mr. Edward Ridge, Surveyor to the Company, at his Office, London-bridge terminus; and at Mr. MARSH'S Offices, Charlotte-row, Mansion-house.

KENSINGTON PARK, NOTTING-HILL. Most important and eligible Plots of Freehold Building Land in this admired locality; the roads and sewers formed.

MR. ROBINS is instructed to SELL by AUCTION, at the MART, on THURSDAY, JULY 12th, at TWELVE, in several Lots, FREEHOLD BUILDING LAND, of an extremely attractive and important description, intended to form both sides of the Sussex-road, leading from the Uxbridge-road; also a continuation of Uxbridge-road North and Somerset-terrace, at Kensington-park, Notting-hill. The great beauty and advantages of this most admirable site have been most happily developed by the architect on many leases granted to prepare the plan for a building operation, which is now rapidly advancing towards successful completion. The much admired new church, now nearly finished, and the numerous commodious residences of a superior character have been erected and are in course of being finished; a glance at the plan will at once show the intimate connection of the land now offered for sale, with the most beautiful part of the estate, and the advantages to be derived from assisting in carrying out the original scheme. The land will be arranged into lots of moderate size and value, and the building public are invited to inspect the plans and to operate. The roads and sewers are already formed, at great expense. May be viewed, and particulars with plans had at the Clarendon Hotel, close to the land; of Messrs. Roy and Cartwright, Solicitors, Lothbury; at the Mart; and at Mr. Robins's Offices, Covent-garden.

TO ENGINEERS AND OTHERS COMMERCIAL-ROAD.—TO BE SOLD by AUCTION, by

MESSRS. FULLER and HORSEY, on WEDNESDAY, JUNE 27th, 1855, at TWELVE o'clock, without reserve, at Mr. FROST'S ROPE-GROUND, COMMERCIAL-ROAD, opposite the George Tavern, a powerful PNEUMATIC ENGINE and MACHINERY, for the manufacture of PATENT ICE; including a compressing engine, with iron cylinder 20 inches diameter, 31 inch stroke, gun-metal piston, valve-boxes, iron cranks, pump, 4 inches diameter, 24-inch stroke, expanding cylinder, lined with brass, 18 inches diameter, 34-inch stroke, brass piston, covers, valve-boxes and sheaths, brass pump with covers, cast-iron fly-wheel, 17 feet 6 in. diameter, two pair strong driving-wheels, 7 feet 2 in. 8 feet, and 4 feet diameter, three wrought-iron receivers, iron refrigerator, 17 feet 6 in. long, 5 feet wide, and 6 feet deep; the corrugated iron roof and front to form factory, 60 feet long, and 40 feet wide. To be viewed on Tuesday previous to the sale. Catalogues may be had on the Premises; and of Messrs. Fuller and Horsey, 13, Billiter-street, City.

TO IRONMONGERS, BUILDERS, SMITHS, COACH-BUILDERS, AND OTHERS. By

MESSRS. FULLER and HORSEY, on the PREMISES, 189, Union-street, South-walk, on WEDNESDAY, JULY 11, and following days, at ELEVEN, in lots, by direction of the Assignees of Mr. James Marsh, a bankrupt, the extensive STOCK of IRONMONGERY, tin and red iron and steel, twenty tons rod, bar, and plate iron; five tons cast, shear-blister, and spring steel, fifty dozen spades and shovels, twenty dozen sets of Foster and Fussell's, twenty dozen hedging-hooks, sickles, and reap-hooks, fifty dozen ash handles, thirty dozen oval and round fenders, black-lead, hollow ware, large assortment of cut nails, five bags horse nails, 100 dozen cross garnet H and H hinges, five hundred weight of horse-shoes, pigiron, steel and iron in rods, two tons of cast-iron pipes and traps, sashes, vices, 5 cwt. farriers', sledge, and hand hammer heads; pit and crosscut saws, hand saws, sled tools, Lancashire tools, 100 gross coach bolts and screws, 100 gross washers and nuts, 20 gross rabbets, 500 gross screws, carpenters', bricklayers', and coopers' tools; a large assortment cabinet brass work, fowling-piece guns, 300 dozen locks and latches, counting-house and shop fixtures and utensils, a few lots of household furniture, and other effects. To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises; of G. J. Graham, Esq. Official Assignee, Coleman-street; and of Messrs. Fuller and Horsey, Billiter-street, City.

LETTS WHARF, COMMERCIAL-ROAD, LAMBETH.

MESSRS. FULLER and HORSEY will SELL by AUCTION, as above, on TUESDAY, JULY 31, 1855, at ELEVEN o'clock, in lots, without reserve, by direction of the assignees of Messrs. Routledge, new SAWING MACHINERY, by Horn, of Whitechapel, and Car, of Belper, including one double and four single deal frames, one timber frame to cut 27 inches in depth, one planing, tonguing, and lining machine, the whole quite new and having not been fixed, and made on the most approved construction. To be viewed on Monday previous to the Sale, when catalogues may be had on the Premises; of Messrs. Horwood, Solicitors, King William-street, Strand; and of Messrs. Fuller and Horsey, Billiter-street, City.

Most desirable Freehold Building Land, with elegant Mansion and Grounds, the parish of Hampstead, Middlesex. By

MESSRS COBB, at the AUCTION MART, on THURSDAY, JULY 19, at TWELVE, in two lots, 20 acres, 2 roods, 5 poles of FREEHOLD BUILDING LAND, of the first character, with very valuable frontages on either side of the main turnpike road, between Child's Hill and West-end, Hampstead, and on the roads to Hampstead-heath and Kilburn, and lying extremely well for division into eligible building plots for villa residences in an attractive and beautiful situation, within a short distance of Hampstead, the Regent's-park, Kilburn, and the Railway Station, and near to a proposed new church; also a substantial well-built Mansion, called Kidderpore Hall, seated on an eminence commanding rich and extensive views on all sides, containing a suite of handsome reception-rooms, excellent bed-rooms, and ample domestic offices, the whole fitted up in the best manner, good stabling and coach-house, conservatory, lawns, gardens, fruit plantation, shrubberies, &c. approached from the road by an entrance lodge. The house can be viewed by permission of the tenant only, and with cards fourteen days before the sale; and particulars may be had at the Mart; of Messrs. Simpson, Cobb, Roberts, and Simpson, Solicitors, 69, Moorgate-street; and of Messrs. Cobb, Surveyors and Land Agents, 15, Lincoln's-inn-fields.

TO BUILDERS, CARPENTERS, PIANOFORTE AND CABINET MAKERS, COACH-BUILDERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 42, Union-street, Soho-square, on MONDAY, JULY 9th, at ELEVEN for TWELVE, the capital well-seasoned STOCK, comprising 50 loads of white pine and spruce planks, deals, and battens; 180 squares of prepared flooring; 3,000 feet wide pine board; 5,000 feet seasoning; dry cut stuff; 5,000 feet mahogany; 80 four-panel doors, scaffold-poles, ladders, barrows, partitionings, and sundry useful stock. May be viewed on the SATURDAY prior to the sale, and catalogues had on the Premises, and at the Auction Offices, Cardington-street, Hampstead-road, near the Euston Station.

SALES BY AUCTION.

LOWER EDMONTON.—To PLUMBERS, BUILDERS, FURNITURE BROKERS &c.

MR. HARDING will SELL by AUCTION, on the PREMISES, near the Railway Station, Lower Edmonton, on TUESDAY, JULY 3, at TWELVE, THREE TONS of LEAD, two tons capital sheet iron, two tons of iron, two tons of lead piping, quantity of zinc, four loads of firewood, ladders, and the usual stock of a plumber; three chaise carts, market gardener's cart, also the useful trade fixtures, comprising a cottage mould and cradle, with apparatus complete, melting-pots, counters, &c.; together with the household furniture of the usual description; at the same time will be sold a very capital four-wheel headed phaeton, four-wheel pony phaeton, and a pony gig.—The property may be viewed the day previous to the sale. Catalogues had on the Premises; and at the Offices of the Auctioneer, 25, New Broad-street, City.

HASTINGS, SUSSEX. Freehold Property (land-tax redeemed

MR. WOMERSLEY will SELL by AUCTION in one lot, at the SWAN HOTEL, HASTINGS, on WEDNESDAY, the 25th of JULY, 1855, at THREE o'clock, FOUR advantageous PLOTS of GROUND, comprising to the Old London-road, leading out of the town of Hastings, and be mile from the sea. Three of the plots are suitable for building or garden ground. The fourth plot is covered by a detached dwelling, called Orient Cottage, and has a stabling, with a flower garden in front, and a yard behind. The premises are in substantial repair, and just vacated. The view from the front of the house is down the valley, looking southward on the sea. Excellent water, good dry soil, and well drained. The dwelling house consists of a large cottage and a smaller one, communicating by an enclosed passage. The larger one contains a porch and passage entrance, two sitting rooms, store-room, kitchen, scullery, and larder. The smaller one has four bedrooms, wash-closet, and bath-room, containing a bath, &c. There is convenience on the premises for washing, brewing, and baking; also a large coal cellar, and separate water-closet. The smaller cottage has four rooms, adjoining which is a building 80 feet long by 40 feet broad, having the stabling, &c. in the centre, and a ride around of about 19 feet wide, all under one roof.—May be viewed till the day of sale by cards only, which, with particulars and conditions of sale, may be obtained of the Auctioneer, Mr. Womersley, 1, Harold place, Hastings.

BUILDING MATERIALS.—Upper Thames-street and Broad-street, City.

PULLEN and SON will SELL by AUCTION, on the PREMISES, on WEDNESDAY, JULY 4, at TWELVE, by order of the Joint Executor committee of the parishes of St. Giles, Cripplegate, and St. Luke, Middlesex, all the BUILDING MATERIALS of the large stock of WAREHOUSES, dwelling-house and premises, No. 208, Upper Thames-street, and 16, Broad-street-hill; comprising about 200,000 sound stock bricks, slates, oak and fir timber in balks and boards, sound floor boards, sashes, doors, shop front, lead gutters and pipes, large iron cranes and jibs, iron columns, stone paving, coping, and sills, and a variety of useful fixtures and fittings, &c. May be viewed the day previous.—Catalogues had of A. J. Bayliss, Esq. 22, Red Cross-street; and of Pullen and Son, 87, Fore-street, Cripplegate.

MARBLE TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—

MONDAY, 6th AUG.	MONDAY, 1st OCT. 1855
MONDAY, 3rd SEPT.	MONDAY, 5th NOV. „

Catalogues and further particulars to be had on application one week previous to each sale. The MARBLE WHARF, Thames Bank, Pimlico, close to the Grosvenor Bridge.

TO BUILDERS, ARCHITECTS, DECORATORS, AND OTHERS An important and peremptory Sale of Patent Chimney-pieces, suited either to mansion or cottage, Gothic Columns, Table Stone Vases, and other ornamental lots.

MR. KEELING is instructed to SELL by AUCTION, at the ROOMS, No. 3, Chemies-street, Tottenham-court-road, on WEDNESDAY, JULY 4th, at TWELVE for ONE o'clock, without the slightest reserve, a consignment from Berm ndsey, of all the PATENT CHIMNEY PIECES, of quality designed, Gothic Columns, large and small Table-tops, Vases, and other articles for decoration. The material is the hardest, most durable, and perfect imitation of the choicest marbles, and for which the Hyde-park Exhibition Medal was awarded. May be viewed the day previous to and the morning of sale, and catalogues obtained on the Premises, or at Mr. Keeling's Offices, 2, Edgeware road.

Building Materials, King-street, Bloomsbury

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, on TUESDAY, JULY 3, at TEN for ELEVEN, the MATERIALS and FITTINGS of THREE HOUSES, to be Nos. 46, 47, and 48, King-street, Bloomsbury; comprising sound timber, flooring, doors, sashes, wainscotting, lead in flats, gutters, and flushings; sound brickwork, and other effects. May be viewed one day previous to the sale; and catalogues had on the Premises; and of the Auctioneers, 49, Parliament-street, Royal Exchange

PLUMSTEAD POTTERY, near WOOLWICH

MESSRS. WILSON and ST. QUINTIN will SELL by AUCTION, on FRIDAY, JULY 6th, upon the PREMISES, as above, by order of the Assignees of Mr. Jas Harris, the STOCK and EFFECTS, comprising a quantity of red-ware drain pipes, chimney-pots, pantiles, sugar and lead pots, paving tiles, fire-bricks, balls, stocks, and hollow bricks, sea-kale pots, dry boarding, and a variety of useful material, three capital horses, two waggons, spring cart, also the furniture of the residence.—May be viewed the morning of sale. Catalogues had on the Premises; at the Inns in the vicinity; and of Wilson and St. Quintin, Auctioneers and Surveyors, 3, Royal Exchange.

Extensive fall of Capital Oak and Ash Timber.—Westley, near Newmarket Cambridgeshire.

MESSRS. NOCKOLDS and KING have received instructions from the proprietor to offer for SALE by AUCTION, upon the PREMISES, on MONDAY, the 30th day of JULY, 1855, at TEN o'clock for HALF-PAST punctually, on account of the number of lots—

368	Fine Oak TIMBER TREES.
16	Ash ditto.
161	Oak Saplings.
154	Ash Seconds.
733	

The timber has all been felled this season, and lies contiguous to good roads within two miles of the Bullingham Station, on the Cambridge, Newmarket, and Bury (Eastern Counties) line of railway, affording an easy conveyance to any part of the kingdom. The Auctioneers beg to call the particular attention of shipwrights, contractors, timber-merchants, and others, to this sale; many of the trees are of good dimensions, long lengths, and excellent quality, and suited for many purposes. Twenty per cent deposit to be paid on the day of sale, and six months' credit will be given for the remainder upon approved joint security.—May be viewed upon application to John Pearson, the keeper, at Westley, of whom catalogues may be had; also at the principal Inns at Newmarket, Bury, Cambridge, Royston, St. Ives, Huntingdon; and of Messrs. Nockolds and King, Land Agents, &c. saffron Walden, Essex.

Note. About 70 tons of good Oak Bark to be sold by private contract (fall of this year).

PEREMPTORY SALE.—To Coal, Brick, and Lime Merchants Builders, Engineers, Maltsters, Gas Companies, and others

MR. TINDALE will SELL by AUCTION, on the PREMISES, Honduras Wharf, Bankside, Southwark, on THURSDAY, JULY 12th, 1855, at TWELVE o'clock, all the remaining PLANT, UTENSILS, and STOCK IN-TRADE, consisting of several well-built coal waggons and carts, by Brady), horses, weighing machines, planks, trucks, and ladders, a selected assortment of the best manufacture fir goods, real Dutch clinkers, and dapentry. Other material suited to the building trade will now be day before the sale. Catalogues post free of the Auctioneer, 1, Portland-place, Commercial-road East.

TO CARPENTERS and BUILDERS.—TO BE DISPOSED OF, the LEASE and GOODWILL of a first-rate old-established COUNTRY BUSINESS, in the above lines, with a good retail Timber trade. This concern is a certain fortune to any one; there is a first-rate profitable business now, and has been carried on for many years, and may be much increased, for it has many advantages, and only wants to be seen by any one in want of a business. The only reason it is to be disposed of, is the forcible indisposition of the proprietor.—For particulars, apply to Mr. FOX, Southend, Essex.

TO ENGINEERS and OTHERS.—TO BE SOLD by PRIVATE CONTRACT, the valuable BUSINESS PREMISES, held under lease for 99 years, from the 24th of June, 1851, and the GOODWILL of the BUSINESS carried on at, and known as the West London Ironworks, Latimer-road, Notting-hill, by the side of the West London Railway, now in operation, and which connects the Great Western and London and North Western railways. The works consist of three large houses, fitting and tool shops, with good assortment of tools, erecting shop and sheds, smiths' shop, pattern-makers' shop, and pattern loft, engine and boilers, stable for two horses, large yard, with five-ton crane, the whole in good condition and repair. There is a good connection to the business, and there is a foundry next door.—Further particulars may be obtained of, and Tenders made to, Messrs. FREHERN and WHITE, solicitors, 13, Bucklersbury, Cheapside, London, who will also give an order to view the premises if required.

TO ARCHITECTS AND SURVEYORS.

TO BE DISPOSED OF, upon moderate terms, a small but increasing PRACTICE, in a rising and beautiful watering-place.—For particulars, address, S. S. 9, Studley-terrace, Larkhall-lane, Stockwell, Surrey.

TO ARCHITECTS and SURVEYORS.—An old-established watering-place PRACTICE, in the South of England, TO BE DISPOSED OF, on very moderate terms.—Address, X. Y. Z. 19, Albert-terrace, Barnsbury-road, Islington.

TO ARCHITECTS, BUILDERS, and SURVEYORS.—TO BE DISPOSED OF, an old-established COUNTRY PRACTICE, having the building trade connected, which has been successfully carried on for a long period, and the reasons for wishing to relinquish it can be satisfactorily explained. For further particulars, apply to Messrs. EVERSFIELD and HORNE, Auctioneers and Estate Agents, 49, Parliament-street, Westminster.

TO LEAD and GLASS MERCHANTS, PAPER-STAINERS, PLUMBERS, PAINTERS, and others.—TO BE LET, very desirable large and convenient PREMISES, fitted up expressly for the above business, with a first-rate opportunity for a man or firm to do trade with a moderate capital.—For particulars, apply to Mr. JOHN DAWSON Land and Estate Agent, 49, Pall-mall, and Kingston.

TO DRAIN-PIPE and STONEWARE MANUFACTURERS, and others.—TO BE SOLD, by PRIVATE CONTRACT, by order of the Assignees of Mr. Jas Harris, important LEASEHOLD PREMISES at CHARLTON, within five minutes' walk of the railway station, and most conveniently situate for the trade to the various metropolitan depôts and railways. There is a frontage of 208 feet next the river, with landing pier, a substantial brick building, enclosing four spacious kilns, a steam-power machinery, stabling, workshops, and every convenience, will be land in the rear, comprising about three acres; had at a valuation the premises ready for immediate work.—For further particulars, apply to WILSON and ST. QUINTIN, Auctioneers and Surveyors, 30, Royal Exchange.

EPSOM.—To SMITHS and IRONMONGERS.—TO BE LET, the BUSINESS of an old-established SMITH and IRONMONGER; together with the premises, which are well adapted for the business. Commencing moderate. For particulars apply to Mr. HENRY ANDREWS, Surveyor and Estate Agent, Epsom.

TO PLUMBERS, WINDOW-GLASS CUTTERS, and OTHERS.—TO BE DISPOSED OF, a BUSINESS of the above description, situate in one of the leading thoroughfares of the metropolis, and having both a trade and a private connection.—For particulars apply by letter to P. W. Mr. White's, 33, Fleet-street.

BUILDER'S BUSINESS, within three miles of the Bank.—TO BE DISPOSED OF, a respectable BUSINESS, with dwelling-house, large yard, eight workshops, including joiners', plumbers', benches; all for 500 guineas. This is an excellent opportunity for a young man going into business, as it has been established thirty years, and the rent of the house and premises is merely nominal. Direct or apply to Mr. THOMAS KING, 1, St. Michael's alley, Cornhill

TO BUILDERS with Capital.—Westbourne-terrace North.—FOUR substantial well-built CARCASES of first-rate HOUSES, in this terrace, TO BE SOLD, on advantageous terms, at low ground rents. Leases direct from the Trustees of the Paddington Estate of the Bishop of London.—For particulars apply to Messrs. UNDERWOOD and COLMAN, Solicitors, 18, Holles-street, Cavendish-square.

TO BUILDING MATERIAL DEALERS, &c.—TO BE SOLD by TENDER, the MATERIALS of a STABLE and other OUTBUILDINGS, at the rear of No. 9, Nassau-street, Soho, to clear the site for the proposed Welsh Methodist Chapel. Apply to the Architect, R. H. MOORE, Esq. 4, Queen's-terrace, Regent's-park.

TO BE DISPOSED OF, the Sixteen Years' LEASE of a HOUSE, containing ten rooms, in a healthy and respectable neighbourhood. At present let to respectable tenants, clearing the sum of 36l. a year.—Address to A. B. care of Mr. Hales, Advertising Agent, 12, Catherine-street, Strand.

AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 235, Blackfriars-road, near the bridge, respectfully invites all persons having Engines, Machinery, Foundries, Plant, or Ironmongery businesses to dispose of, to forward the particulars thereof for insertion in his REGISTRY-BOOK, for which NO CHARGE will be made unless sales be effected.

TO ENGINEERS, MACHINISTS, and OTHERS.—A first-rate PREMISES in the above line, on the Surrey side, TO LET, fitted up with an excellent 30-horse engine boiler, 3 furnaces and fans, screw-cutting and other lathes, punches, anvils, blocks, tools, &c. The foregoing spacious premises are in full work, and will be supplied, and may be had on advantageous terms. Apply to AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 235, Blackfriars-road, near the bridge.

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The Builder.

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THE OPERATIVE MASONS' BENEFIT SOCIETY, held at the GEORGE, Great Chapple-street, Soho, instituted 1834. Enrolled 10th Geo. IV c. 56. The FORTY-FOURTH ANNIVERSARY of the above Society will be celebrated on TUESDAY, JULY 17th, 1855, at the MANOR-HOUSE TAVERN, Walworth, T. THOMPSON, Esq. in the chair.

HONORARY SUBSCRIBERS.

Messrs. G. Baker and Son. E. Ficuster, esq.
Booth, esq. Messrs. W. and J. Freeman.
Bird, esq. T. Grissell, esq.
Baker, esq. Messrs. Greave and Grillier.
Bool, esq. J. Hutchinson, esq.
Messrs. W. Cubitt, and Co. W. Harding, esq.
Cubitt, esq. T. Jackson, esq.
Grundy, esq. J. McKay, esq.
W. Cooper, esq. J. Mowlem, esq.
Romaland, esq. G. Myers, esq.
Messrs. Chadwick and Ackroyd. Messrs. Piper and Son.
Clyke, esq. T. Stirling, esq.
Cogerell, esq. Messrs. Smith and Appleford.
Crook, esq. Messrs. Thompson and Holmes.
Darrow, esq. — Wright, esq.

STEWARDS.

W. Goodfellow, 4, Stanmore-street, Lambeth.
T. Norton, 28, Ernest-street, Regent's-park.
R. Hassell, 9, Moreton-street, Belgrave road, Pimlico.
Tickets to be obtained of the Stewards.

ROYAL ACADEMY of ARTS, Trafalgar-square.—The Exhibition of the Royal Academy IS NOW OPEN—Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A. Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS will SHORTLY CLOSE their Twenty-First Annual Exhibition, NOW OPEN at their Gallery, 53, PALL-MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s. Season Tickets, 5s.
JAMES FAHEY, Secretary.

CONTE'S LECTURES on ANCIENT and MODERN SCULPTURE.—The last of the Series that will be delivered on WEDNESDAY, JULY 9th, in accordance with the express desire of the subscribers, has been POSTPONED UNTIL WEDNESDAY, JULY 11th.—Tickets to be had at Messrs. NAPHEGHI'S Pall-mall East.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855. The Committee earnestly invite the attendance of Art Workmen at the EVENING MEETING, to be held in the Rooms of the Museum, on MONDAY next, at EIGHT o'clock. The Rev. F. C. MAURICE, M.A. Principal of the Working Men's College, and other gentlemen, will address the meeting. Cards of admission may be procured, on application at the Museum, or at the Office of The Builder.

On MONDAY, JULY 16, at EIGHT o'clock, a LECTURE on ARCHITECTURAL DECORATION, from the TWELFTH to the FOURTEENTH CENTURY, will be delivered by OCTAVIUS MORGAN, Esq. M.P.
HENRY CLUTTON, Hon. Sec.

COMPETITIONS.

TO ARCHITECTS, BUILDERS, AND OTHERS.

THE BURIAL BOARD for the PARISH of SAFFRON WALDEN, in the County of Essex, are desirous of receiving PLANS, DESIGNS, and ESTIMATES, including ground-plans, sections, and elevations, for LAYING OUT, PLANTING, and FENCING a NEW BURIAL-GROUND, suitable ENTRANCE GATES, and for BUILDING a CHAPEL and TWO CHAPELS thereon. The ground contains about seven acres, a plan of which may be seen and further information obtained at the Office of the Clerk to the Board. The party whose plans are approved will, at the option of the Board, either be the superintendence of the works or be paid the sum of Fifty guineas for his designs. The plans and estimates must be delivered at the Office of the Clerk to the Board on or before the 25th JULY, o'clock at noon, on the 23rd day of JULY next. Each of the plans to be distinguished by a motto, and a sealed letter, similarly endorsed, containing the author's name and address, to be delivered therewith.
SIMEON J. KING, Clerk to the Board.
Saffron Walden, June 21, 1855.

COMPETITIONS.

TO ARCHITECTS.

THE BOARD of MANAGEMENT of the Central London School District are ready to receive PLANS and ESTIMATES for BUILDINGS suitable for the purposes of a District Pauper School, to be erected at Hanwell, Middlesex, and sufficient for the accommodation of 1,200 children. A plan of the ground, with particulars, may be obtained on application to me at 51, St. Mary Axe, City. The plans and estimates to be delivered sealed, with a letter also sealed, containing a reference by motto or cipher, on or before Friday, the 31st of AUGUST next.
JOHN THOMAS ROWSELL,
Clerk to the Board of Management.
51, St. Mary Axe, July 6th, 1855.

CONTRACTS.

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, Pall-Mall, London, on or before MONDAY, the 16th of JULY, 1855, from parties willing to CONTRACT for the CONSTRUCTION of NINETEEN SHELL RECEPTACLES, at Gosport Lines and Priddy's Hard. Plans and specifications for the work may be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Portsmouth, between the hours of TEN and FOUR o'clock (Sundays excepted). The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall-Mall, London, and endorsed "Tender for the Construction of Shell Receptacles at Gosport Lines and Priddy's Hard, Gosport."
Royal Engineer Office, Portsmouth, June 30, 1855.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Office of the Inspector General of Fortifications, Pall-mall, London, on or before SATURDAY, the 4th day of AUGUST, 1855, from persons desirous of CONTRACTING for various WORKS at Dover Castle. Plans and specifications of the works to be executed, may be seen by competent persons, and forms of Tender obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 15th of JULY to the 3rd of AUGUST, 1855, Sundays excepted. No other persons need apply. The party whose Tender may be accepted for the works, will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of £3,000, for the due performance of the contract. Tenders for the above works to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Ordnance Works at Dover Castle."

N.B. The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.
Royal Engineer Office, Dover, July 4th, 1855.

NOTICE to BUILDERS. — BARRACK WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Office of the Inspector General of Fortifications, Pall-mall, London, on or before WEDNESDAY, the 1st day of AUGUST, 1855, from persons desirous of CONTRACTING for INCREASING the BARRACK ACCOMMODATION at the WESTERN HEIGHTS, DOVER. Plans and specifications of the works to be executed may be seen by competent persons, and forms of Tender obtained, at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 16th of JULY to the 31st of JULY, 1855, Sundays excepted. No other persons need apply. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of £500, for the due performance of the contract. Tenders for the above works to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Barrack Works at the Western Heights, Dover."

N.B. The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.
Royal Engineer Office, Dover, July 4, 1855.

NOTICE to BUILDERS.—Sealed TENDERS, addressed to the Inspector-General of Fortifications, will be received at the Ordnance Office, Pall-mall, London, on or before the 7th JULY next, for certain ALTERATIONS and ADDITIONS to Pater Battery. The specifications and plans for the above service may be seen, and the form of Tender be obtained, with every information on, at the Royal Engineer Office, Pembroke Dock. The Inspector General of Fortifications reserves to himself the right of rejecting the whole or any of the Tenders.
Royal Engineer's Office, Pembroke Dock, 21st June, 1855.

THE DIRECTORS of the FINSBURY FREEHOLD LAND SOCIETY are desirous of receiving TENDERS for the FORMATION of ROADS and SEWERS on their Estate at Woodgreen, Tottenham, Middlesex.—Specification, plans, and conditions may be seen at the Offices of Mr. LAMBERT, Surveyor, 4, New Basinghall-street. Sealed Tenders are to be sent in to the Offices of the Society, 48, Bedford-row, on or before TUESDAY, the 10th day of JULY. The Directors do not bind themselves to accept the lowest or any Tender.
R. A. MARCH, Secretary.

TO BUILDERS.

GREENWICH CEMETERY.—The Burial Board for the parish of Greenwich, in the county of Kent, are prepared to receive TENDERS for the ERECTION of TWO MORTUARY CHAPELS, Entrance Lodge, &c. at the new burial ground, near Wellnall-lane, in the liberty of Kidbrooke, Kent; also for enclosing the ground on the north and south sides with oak park fencing. The plans and specifications may be seen, and further information obtained on and after SATURDAY, the 7th inst. at the Office of the Architect, Mr. SAMUEL HEWITT, Montague-close, Southwark. Tenders to be delivered on or before MONDAY, the 30th JULY instant, at FIVE o'clock in the afternoon, at the Clerk's Office, No. 1a, Burney-street, Greenwich.—The Board do not bind themselves to accept the lowest, or any of the Tenders sent in.
E. W. JAMES, Clerk to the Board.
Greenwich, July 3rd, 1855.

CONTRACTS.

CHESTERFIELD WATERWORKS.—To EXCAVATORS, MASONS, and GENERAL CONTRACTORS.—The Directors of the Chesterfield Gas and Water Company will meet at their Office, in Chesterfield, on THURSDAY, the 2nd day of AUGUST, at TWO o'clock in the afternoon, for the purpose of receiving TENDERS or PROPOSALS for the following WORKS, authorised by their Act obtained in the present session of Parliament.

CONTRACT No. 1.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 3¼ acres in extent, on the Holme or Linacre Brook, with the Brc Channels, Waste Weir, and other works connected therewith.

CONTRACT No. 2.—The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 1½ acres in extent, near to Club Mill, with the Waste Weir and other works connected therewith.

Plans and specification may be seen, and further information may be had on and after THURSDAY, the 19th day of JULY, on application to Mr. JOHN W. LEATHER, Civil Engineer, Leeds.
By order,
SHIPTON and HALLEWELL, Solicitors to the Company.
Chesterfield, June 21, 1855.

ASTON NATIONAL SCHOOLS.—To BUILDERS.—Persons desirous of CONTRACTING for the ERECTION of NATIONAL SCHOOL BUILDINGS, at Aston, juxta Birmingham, comprising boys', girls', and infants' schools, with class-rooms, teachers' residences, &c. may forthwith inspect the plans and specification, at the Offices of the Architect, Mr. FREDERICK EMPSON, 33, Waterloo-street, Birmingham, to send Tenders, addressed to the Rev. GEORGE PEAKE, Aston Vicarage, to be delivered on or before MONDAY, the 16th day of JULY.

TO BUILDERS.

STRATFORD-UPON-AVON CORN EXCHANGE.—Persons desirous of CONTRACTING for the ERECTION of the same, are informed that the altered drawings, specification, and form of Tender, will be ready for inspection on and after THURSDAY, the 5th JULY next, at the Office of EDWARD GIBBS, Architect, Engineer, and Surveyor, of Stratford-upon-Avon. The Tenders are required to be delivered to the Architect on or before FRIDAY, the 20th JULY next.—The Directors do not bind themselves to accept the lowest or any Tender.
By order,
HENRY BEST SOWDON, Solicitor.
June 27, 1855.

HOARWITHY BRIDGE.—To BUILDERS, CONTRACTORS, and OTHERS.—The Directors hereby give notice, that they are prepared to receive TENDERS for the ERECTION of a TIMBER BRIDGE, with STONE PIERS and ABUTMENTS, over the river Wye, at Hoarwithy, near Ross, together with the Approaches to the same, and a Toll-house. The plans and specification may be inspected and copies of the quantities obtained, at the Offices of Messrs. LOWND and BLOUNT, Civil Engineers, 13, Essex-street, Strand, London; or of Mr. HENRY MINETT, Solicitor, Ross, after the 14th of JULY. Sealed Tenders to be delivered at the Harp Inn, Hoarwithy, near Ross, before ELEVEN o'clock in the morning of the 31st JULY.
J. F. SYMONDS,
HENRY MINETT, } Solicitors.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-House, No. 1, Greek-street, Soho-square, on TUESDAY, the 17th day of JULY instant, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK SEWERS, (two feet in ten th or thereabouts), Kings-road East, Beaufort street, and Danvers-street, Chelsea, in the parish of St. Luke, Chelsea, in the county of Middlesex, and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the Principal Office of the Commissioners, No. 1, Greek-street, Soho square, between the hours of NINE and FOUR o'clock, until the 16th day of JULY inst. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to enter into two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.
E. H. WOOLRYCH, Secretary.
No. 1, Greek-street, Soho-square,
Dated this 5th day of July, 1855.

CONTRACT for ROADS and DRAINAGE. The Burial board for the Parish of Greenwich will meet at the VESTRY-ROOM of the Parish Church, on MONDAY Evening, the 16th of JULY, 1855, to receive TENDERS and to CONTRACT for the making of certain ROADS and LAYING DRAINS proposed to be executed on the Land selected for the Greenwich Cemetery, near Eltham-common, Shooter's-hill, in the Liberty of Kidbrooke.—Parti iculars of Contract may be obtained on and after SATURDAY, the 7th of JULY next, between the hours of TEN and FOUR o'clock, at the Clerk's Offices, 1a, Burney-street, Greenwich.—By order of the Board.
Greenwich, June 29, 1855.
E. W. JAMES, Clerk.

HOLYHEAD GASWORKS.—TENDERS are required, on or before the 14th inst. for the BUILDINGS and IRONWORK connected with these works, and STREET MAINS.—Plans and specifications on view at Mr. H. G. HUGHES'S, Druggist, Holyhead. Tenders to be addressed to Captain JOHN ROBERTS, Chairman of the Holyhead Gas Committee, Holyhead.
GEORGE WALCOTT, Engineer.

[For remainder of Contracts see next page.

CONTRACTS.

NOTICE TO CONTRACTORS.—The Commissioners for the Port and Harbour of Londonderry are now ready to receive TENDERS for the execution of the PUBLIC QUAYS, CHARLES QUAY-WALL, and other [illegible] and CONTRACTORS may be seen at the Office of Mr. NEWTON, [illegible] Londonderry, on and after WEDNESDAY next, between the hours of TEN and FOUR o'clock. Tenders are to be delivered to the undersigned, addressed "Tender for Harbour Works," on or before the hour of TWELVE o'clock, on THURSDAY, JULY 26. The Board of Commissioners do not bind themselves to accept the lowest or any Tender.

By order of the Board,
CHARLES CAVE, Clerk.

Bracknell, June 23, 1855.

TO CONTRACTORS AND HIGHTERMEN.

THE EAST and WEST-INDIA DOCK COMPANY are willing to receive TENDERS for LIGHTERING and LANDING MUD taken up in the Docks. Particulars may be seen at the Dock Office, Wapping Stairs. The Tenders to be delivered at the Dock House, Bullen's-place, on or before TUESDAY, 10th JULY next.

GEORGE COLLIN, Secretary.

East and West India Dock House, June 26, 1855.

TO CARPENTERS, BUILDERS, AND OTHERS.

PARTIES desirous of CONTRACTING for the ERECTION of a HOUSE and FARM BUILDINGS on the Estate of Sir William Bowyer Smythe, Bart. M.P. at Hoy Mill Hall, near Ripon, Yorkshire, are requested to think the matter as soon as possible, and particulars may be seen, on and after the 4th JULY, at Mr SMITH'S, Peacock Room, of the above estate; and at Mr. BELL'S, Builder, Ripon. A sketch of the proposed House, Stables, and Barn, may be seen at the Office of Mr. MICKLETHWAIT, Architect, Bond-street, Bradford, to whom Tenders are to be delivered on or before the 14th day of JULY next, at TWELVE o'clock at noon, addressed "Tender for the Buildings at Hoy Mill Hall." Copies of the specifications may be obtained on application to Mr. MICKLETHWAIT, on payment of 1s. Tenders will be received for any one of the contracts, but a preference will be given to the persons tendering for the whole. The Local Board of Health do not bind themselves to accept the lowest or any Tender.

By order,
GEO. BABB, Clerk.

Great Grimsby, June 19, 1855.

The Time for sending in Tenders for the above Works has been EXTENDED until the 28th of JULY instant.—By order,
GEO. BABB, Clerk to Grimsby Local Board of Health.

Great Grimsby, June 3rd, 1855.

WORTHING LOCAL BOARD of HEALTH.—WATER-WORKS. To EXCAVATORS, CAST-IRON PIPE LAYERS and OTHERS.—The Local Board of Health hereby give notice, that they are prepared to receive TENDERS, from parties willing to undertake the following contracts:—
CONTRACT No. 14.—For EXCAVATING the LAND and for LAYING and JOINTING CAST-IRON WATER-PIPES FIXING SLUICE VALVES IN HOUSE DRAINAGE &c.

Specifications, schedules and forms of Tender (the minimum the set), may be obtained, together with any further information required, on and after MONDAY next, at the Office of ROBERT RAWLINSON, C.E. No. 34, Parliament-street, Westminster. Sealed Tenders to be delivered at the Office of the Local Board, Worthing, before TWELVE o'clock, on TUESDAY, the 14th day of JULY, endorsed "Tender for Contract, No. 14."

By order of the Board,
WM. HUGH DENNETT,
Worthing, June 21, 1855. Clerk to the Local Board.

TO BUILDERS.

TENDERS are required for the ERECTION of SCHOOLS and TEACHER'S RESIDENCE, for the District of St. Matthias, Bristol, to be built on the Weir, adjacent to the Church of St Matthias. The plans and specification will remain at the vestry room of the church from MONDAY, the 9th, till WEDNESDAY, the 18th inst on which latter day the sealed tenders are to be forwarded to the Architects, Mr NORTON, 24, Old Bond-street, London. Further information may be obtained on application to the incumbent, the Rev ADAM CLARKE, Rowley, or of the Architects.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of a CHAPEL, in NASSAU-STREET, Soho, may see the plans and specifications, &c at the Office of the Architect, R. H. MOORE, Esq., 3, Queen's-terrace, Regent's-park, from MONDAY the 9th, until the 23rd, when the Tenders are to be delivered. The Committee will not be bound to accept the lowest Tender.

TO BUILDERS

PERSONS desirous of TENDERING for the WORKS required to be done in the ERECTION of a five-story WAREHOUSE, at Leicester, may inspect the drawings and obtain the quantities, by applying at the Office of the Architects, Messrs FLINT and SHENTON, Leicester, on and after FRIDAY, the 13th instant. The lowest Tender will not necessarily be accepted. Leicester, July 4, 1855.

WISBECH S. PETER'S, CAMBRIDGESHIRE.—Builders desirous of CONTRACTING for the RESEATING and RESTORING the PARISH CHURCH of S. PETER, WISBECH, may inspect the drawings and specifications, on applying to Mr. JAMES WOODS, Churchwarden, Wisbech; and further particulars required may be obtained from the Architects, Mr. GEORGE DARLEY, of Lowestoft, or Mr. WILLIAM SMITH, 12, James-street, Adelphi, London.—Tenders to be delivered on or before MONDAY, the 23rd of JULY instant, addressed to the "CHAIRMAN, Wisbech, and to be sealed, and endorsed "Tenders for the Church Restoration." The Committee do not bind themselves to accept the lowest or any Tender. Good and sufficient security will be required for the due performance of the works.—By order of the Committee

ARTHUR CHAS COPEMAN,
WM. A. JEPPS, Esq. } Secretaries.
FRED. M. METCALFE,

Wisbech, July 3, 1855.

IRON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Bracket Stairs, Plate Copings, Tie Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rixers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank public building, or licensed establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse lane, Birmingham.

CONTRACTS.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of FARM BUILDINGS, at Berwick Hall, White Colne, Essex, may see the plans and specifications on and after FRIDAY, JULY 6th, at the offices of Messrs. BIDDELL, SON, and CHANCELLOR, Architects, Chelmsford, to whom Tenders, addressed to Mr. [illegible] Berwick Hall, White Colne, are to be delivered on WEDNESDAY, the 11th inst. [illegible] The lowest or any Tender is not necessarily accepted.

THE Society of Clement's Inn are ready to receive TENDERS for the ERECTION of two third-rate HOUSES, to form a Court, Clement's Inn, in accordance with the plans and specification, at Mr. BUNNY'S, No. 5, Holborn-court, Gray's-inn. Tenders to be delivered at the above address, on or before WEDNESDAY, JULY 11, at 12 o'clock, when the Tender will not necessarily be accepted.

GRIMSBY LOCAL BOARD of HEALTH.—WATER-WORKS and DRAINAGE. To CONTRACTORS, ENGINEERS, IRON-FOUNDERS, and OTHERS. The Great Grimsby Local Board of Health are prepared to receive TENDERS from parties willing to undertake the following CONTRACTS:—ENGINE, BOILER, PUMPS, STAND and PIPE, for the lift of raising 2,000,000 gallons of water, 70 feet high, in twelve hours.—for the SUPPLY of [illegible] TONS of CAST-IRON WATER-PIPES, SLUICE VALVES, HYDRANTS, &c.; for LAYING the said PIPES, &c.; for the ERECTION of the PUMPING ENGINE-HOUSE, with BRICK CHIMNEY, and GLAZED EARTHENWARE PIPES. The drawings and specifications may be seen, and any other information obtained, at the office of Mr. MICKLETHWAIT, the Surveyor to the Local Board of Health, on and after MONDAY, the 9th JUNE next. Sealed Tenders to be sent in to the Office of the Clerk to the Local Board of Health, on or before the 14th JULY next at TWELVE o'clock at noon, endorsed "Tender for Pumping and Waterworks." Copies of the specifications may be obtained on application to Mr. MICKLETHWAIT, on payment of 1s. Tenders will be received for any one of the contracts, but a preference will be given to the persons tendering for the whole. The Local Board of Health do not bind themselves to accept the lowest or any Tender.

By order,
GEO. BABB, Clerk.

Great Grimsby, June 19, 1855.

The Time for sending in Tenders for the above Works has been EXTENDED until the 28th of JULY instant.—By order,
GEO. BABB, Clerk to Grimsby Local Board of Health.

Great Grimsby, June 3rd, 1855.

TO BUILDERS.

PARTIES desiring to TENDER for the ERECTION and COMPLETION of TWO third-rate HOUSES now in course of erection in Wakefield, Cleveland-road, as per the plans, sections and specification, at Mr. RAYNUS, No. 5, Hill-street, Leeds, Upper Head Row, on or before WEDNESDAY, JULY 11th. Tenders to be delivered at the above address, on or before WEDNESDAY, JULY 11, at 12 o'clock, when the Tender will not necessarily be accepted. Security will be required for the due performance of the work. The lowest tender will not necessarily be accepted.

TO BUILDERS.

PARTIES desiring to TENDER for the ERECTION and COMPLETION of TWO third-rate HOUSES now in course of erection in Wakefield, Cleveland-road, as per the plans, sections and specification, at Mr. RAYNUS, No. 5, Hill-street, Leeds, Upper Head Row, on or before WEDNESDAY, JULY 11th. Tenders to be delivered at the above address, on or before WEDNESDAY, JULY 11, at 12 o'clock, when the Tender will not necessarily be accepted. Security will be required for the due performance of the work. The lowest tender will not necessarily be accepted.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of a VILLA RESIDENCE, at Oulton, near Stone, in the county of Stafford, may inspect the plans and specifications at our office, from MONDAY, the 9th, till SATURDAY, the 21st of JULY, when the Tenders must be delivered to us, properly sealed. The lowest Tender not necessarily accepted, and proper references required.

WARD and SON, Architects.

Albion-street, Hanley, Staffordshire, 28th June, 1855.

N.B. Oulton is about a mile from Stone, which is a first-class station of the Norths Staffordshire Railway.

TO ENGINEERS.

THE COMMITTEE of TRUSTEES of the POOR of the PARISH of ST. LEONARD, SHOREDITCH, will meet in the Vestry-room, Shoreditch Church, on THURSDAY, the 26th day of JULY, 1855, at SIX o'clock in the Evening, to receive TENDERS from persons who may be willing to contract for the supply and erection of a FOUR-HORSE TABLE ENGINE and a Cornish Boiler; together with the erection of a Chimney Shaft, formation of a Coal Store, and other Works, at their Workhouse, Kingsland Road. The drawings and specification may be seen at the Workhouse, and other information obtained upon application to Mr. T. E. KNIGHTLEY, Architect, 26 Cannon-street, City, on and after DAY next. The Tenders are to be sealed, and must state the names of two substantial persons who will be ready for their signature in the amount of the contract, and the Trustees will not pledge themselves to accept the lowest or any Tender.

By order,
HENRY EDWARDS, Clerk.

MIDLAND RAILWAY.—The Directors are now ready to receive TENDERS for the different works in the HEAD BOARD OFFICES, and making sundry ALTERATIONS and ADDITIONS to the Weighing Shed, at Leeds. The drawings and specification may be seen, and additional information obtained up to an early hour on the Engineer's office at the said station, on and after MONDAY next. Tenders are also out for the whole of the works, to be forwarded, addressed to the Works and Stock Committee, Derby station, not later than TEN A.M. on TUESDAY, the 17th instant. The Directors do not bind themselves to accept the lowest or any Tender. By order,

JOSEPH SANDERS, Secretary.

Derby, July 1, 1855.

TO BUILDERS AND OTHERS.

THE BURIAL BOARD for the PARISH of DEAL, in the County of Kent, hereby give notice that they intend to enter into CONTRACTS for the BUILDING of TWO CHAPELS and a PORTER'S LODGE, in the Burial Ground provided in and for the said parish, under the Burials Act, and 17 Vict. c. 134, and also of WALLS to ENCLOSE the GROUND, and for SETTLING and FIXING IRON FENCES and GATES, in and all for the same, according to the plans and specifications prepared for the Burial Board by Mr. J. MESSENGER, of Deal, some. The Burial Board hereby request any person or persons willing to undertake the above contracts or either of them, to make proposals for that purpose, to be offered to the Burial Board, at the Office of the Clerks to the Board, in Queen-street, Deal, at or before noon of the 21st day of JULY, 1855, under sealed Tenders, marked "Tender for Works for the Deal Burial Board." The proposals and Tenders to specify a separate price for building the Chapels and Porter's Lodge, and a separate price for building the walls and for erecting and fixing the iron fences and gates. The terms and specifications of the several works, are at the Office of Mr. J. MESSENGER, Architect, Deal, where Parties contracting will be required to enter into a bond with sufficient sureties, for the due performance of the works. The Burial Board will not be bound to accept the lowest or any Tender.

By order of the Board,
MERCER and EDWARDS, Clerks.

Deal, June 29, 1855.

TO BUILDERS AND OTHERS.

PERSONS desirous of submitting TENDERS for completely FINISHING two VILLAS, in Mildmay-park, Balls-pond, near Hackney, may see specifications of the several works required to be done on application to Mr. JOHN FOWLER, Surveyor, No. 4, Hardwicke-court, Temple, from the 6th JULY, between the hours of TEN and FIVE, until WEDNESDAY, 11th JULY, at FOUR o'clock, on which day Tenders are to be delivered.

TO BUILDERS.

THE MAYOR, ALDERMEN, and BURGESSES of the BOROUGH of CAMBRIDGE are desirous of receiving TENDERS for the ERECTION of a CONDUIT, on the Market hill, in the said Borough, according to a plan and a specification, prepared by GOODMAN & HILLS, Esqs. Architects, and which may be seen at 15, Chancery-lane, 13, John-street, Adelphi, London, or at my Office, in the Guildhall, Cambridge, on and after TUESDAY, the 10th day of JULY inst. Tenders, directed to the Corporation Committee, are to be sent in to me, or to the Council, on or before TUESDAY, the 24th day of JULY instant. The party tendering must specify the names of two responsible persons, who are willing to become bound for the performance of the contract. No member of the Council can be concerned as surety. The committee do not pledge themselves to accept the lowest or any Tender. By order,

C. H. COOPER, Town Clerk.

Guildhall, Cambridge, July 4, 1855.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction, being more extensively used, and its application rendered [illegible] nearly EVERY DESCRIPTION of BUILDING, whether public or private.

The system combines ECONOMY, with great [illegible] construction, perfect safety from fire, increase [illegible] and many other important advantages.

The floors and roofs are formed by a combination of [illegible] wrought or cast iron, with concrete, so constructed [illegible] the [illegible] beam, after a beam of material one, and [illegible] the whole, thus possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface of [illegible] ordinary flooring boards, or of cement, asphalte, tiles, slate, or other materials.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended, at the desire of all who are interested in building, both as ensuring the necessary safety, and also as [illegible] and [illegible] saving the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent.—Mr BARRETT, 19, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES a MANCHESTER, by FIRE.—Messrs. Ryands and Son Books, Papers, and Bank notes preserved in one of CHUBB'S SAFES, after [illegible] exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, Hyde-street, Manchester, March 10th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating to you, that the large "Patent Fire-proof Safe" that we purchased from you 2 years ago, for our late offices in New High street, has been the means of preserving our books, cash, notes, & c., [illegible] from the ruins of the fire of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks and keys answered to their respective keys, and all the contents received [illegible] except that one of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

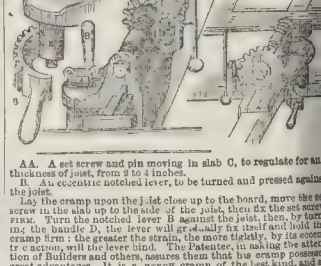
CHUBB'S LOCKS, with all the recent improvements. Cash, Deed, and Paper Boxes, of all sizes; Fire-proof Safes and Chests from 10s to 80l. Prices for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsefields, Wolverhampton.

EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL. Manufacturer of Wrought Iron Tube for Gas, Steam, and Water; Stocks, Taps, and Dies, and all kinds of Gas Fittings.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES.

W. BISSELL, PATENTEE, WOLVERHAMPTON. Manufacturer of Rim and Mortise Locks and Builders' Ironmongery.



AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 3 to 4 inches.

B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist, then fix the set screw FIRM. Turn the notched lever B against the joist, then, by forcing the handle D, the lever will gradually fix itself and hold the cramp firm; the greater the strain, the more rigidly, by its eccentric action, will the lever bind. The Patentee, in asking the attention of Builders and others, assures them that his cramp possesses great advantages. It is a RAPID cramp of the best kind, and a well suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be as readily and safely used than any yet brought out, and at the same time it is light and portable.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentee, Mr. LEWIS JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 93, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought into perfect use that does three separate kinds of work by one machine, and as it is self-feeding, it does not require any skill or care in using like the other inventions introduced. It can either be worked by hand or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Long-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for wholesale Trade of Manufacturers for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times execute short notice and apply them. S. W. and Co. beg to make that they now [illegible] their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished cotton mills and factories in the world with their Machines for home and foreign use.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and office gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle trees, sugar-mills, &c.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and non-rising spring, swing, double acting, gate, and other Hinges. Floor centres, &c. &c. Orders for Hinges only, addressed to Mr J. WALBY, sole Agent, at the Warehouse, 30, Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

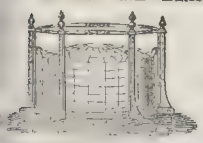
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

SKAIFE'S GALVANIZING WORKS,

COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

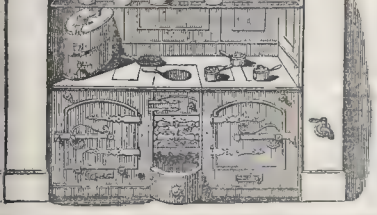
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanised Iron supplied in every form.—Sheets plain and corrugated.—Roofs fixed complete.

J. SKAIFE is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

AN ALLOWANCE TO THE TRADE.

FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

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MOREWOOD and CO. (late Morewood and Rogers),

Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets,

PLAIN or CORRUGATED, and Curved, of all Gauges.

Manufactured articles always kept in stock, such as pails, scoops, bowls, trotters, skirts, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Pipes, Stamped and Moulded Gutters, Wire, Wire Netting, Staples, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Iron Building at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and requiring to be more than one-fourth or one-fifth as thick as Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Lead.

No. 11 gauge weighs about	18	oz.	per foot	super.
" 12 " "	20	"	"	"
" 13 " "	23	"	"	"
" 14 " "	26	"	"	"

Full particulars and the reduced price sent by post on application to

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TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Feeding, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY STREET, BIRMINGHAM.

Rods, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

PATENT IRON ROOFING and IRON BUILDING MANUFACTORY (late the Coalbrookdale Company's premises), 13, James-street, Liverpool.—N.B. Parties are particularly requested to note the address, LIVERPOOL. FRANCIS MORTON and Co. will supply estimates, plans, &c. for Iron Roofs and Iron Buildings, painted or galvanized, to be erected in any part of the United Kingdom. Roofs and buildings prepared for shipment abroad. F. M. and Co. possess advantages from their long experience, and are enabled to execute work on the most moderate terms consistent with good materials and workmanship.

N.B.—The attention of Agriculturists and Landed Proprietors is particularly invited to their Corrugated Iron Farm Buildings, Sheds, Roofs, &c.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,

Patent Corrugated, Galvanized, and Painted, Wrought-Iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by

JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Island Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. are much struck with confidence in the INFRANGIBLE COOKER, a COAL fire-grate of equal economy, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In the ironmongery department of DEANE, DRAY, and CO.'s extensive premises, Monument, London-bridge, may be seen a variety of other cooking apparatus, with prices affixed, and the whole will be forwarded free by post. DEANE, DRAY, and CO. opposite to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DERKIN'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful model of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

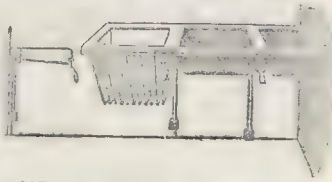
HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,400 feet in length, at the small expense per day in fuel and labour of 1s. 8d. This achievement in heating by hot water is unparalleled.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace grates, soot doors, for the same, hot water pipes, elbows, tees, syphons, throttle valves, stop cocks, flange and screw pipes, &c. also, trough pipes. Drawings and prices of the above, on application to J. JONES, Iron bridge wharf No. 9, Bankside, London, near the Southwark iron bridge.

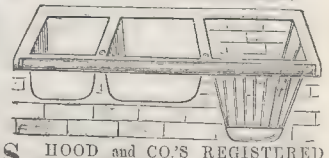
DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42, Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required and a saving of from 20 to 30 per cent being effected in the cost of fuel. Prospectuses, with testimonials, sent on application.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well managed stable should be without these fittings, being a very durable appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fixtures. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 9, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled

Castings Warehouse removed from 81 to 83, Upper Thames-street.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 1s. 6d. per foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

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NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES.

a complete LIST of which will be forwarded upon application.

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LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE,

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

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ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Ferry-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, brass top, &c. complete, from 45s. each.
Register Stoves, from 5d. per inch.
Elliptic ditto, with double backs, from 2½d. per inch.

Cast-iron Rain-pipe	2	2½	3 inch.	
	11d.	1s. 3d.	1s. 6d. per yard.	
4-inch Eaves Gutters, 9d per yard				
O G Gutters	3½	4	4½	5 inch.
	1s. 1d.	1s. 3d.	1s. 5d.	1s. 6d. per yard.
Best Cut Clasp and Rose	1½	2	2½	3 inch and larger.
	16s.	15s.	14s. 6d.	14s.

1-inch Best Cut Lath, 13s 6d. per cwt.
Sheet Floor Brads, 13s. 6d. per cwt.
Hoop Floor Brads, 13s. per cwt.

Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 2s. 6d. per doz.; 6-inch Sink Traps, 8s. per doz.; along Coal Plates, with hooks, 20s. per doz. Sheet Zinc. Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 189, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

20	22	24	26-inch.
23s.	30s.	32s.	34s

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch.
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in 2½d.

Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Cheek Register, with strong Bars and Trivets, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2	2½	3 inch.
	1½d.	1s. 2d.	1s. 4d. per yard.
Cast Gutters—4 inch, 9d. per yard.			
O G Gutters	4	4½ inch.	
	1s. 1d.	1s. 3d. per yard.	

Patent Line	3	4	5	6	
	4½d.	5d.	7d.	8d.	1s. per knot

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs,
3d. per inch, and upwards.
Register Stoves, 5d., 6d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 25s. each.
3-feet self-acting ditto, ditto, 38s. each.
Air Bricks, 4s. per doz.
Best Town Tube, 56s. Ditto, Scotch, 68s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List Prices had on application at the Warehouse, or by letter prepaid

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.	3	4	5	6
	5s. 3d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 1s. 6d. 55 and 56, Hatton Garden, Holborn

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, 4s. 6d. each.
J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 300 years, for the supply of Goods from the best Manufactories, at the lowest prices.
14, Stanhope-street, Clare-market, London.
No. 1764, BRITISH SECTION, HARDWARE DEPARTMENT, PARIS EXHIBITION, 1855.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention is now in operation upon Steam-engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the means extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Fenders, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

AUSTIN'S IMPERIAL PATENT SASH and BLIND LINE, can be obtained of all IRONMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY. Established 1774.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

ENAMELLED IRON TUBING, at the same price as plain tubing.—From 8,000 to 10,000 feet of various sizes, from ¾ inch to 3 inches diameter, at HOOD and SON'S Castings Warehouse, 68, Upper Thames-street.

IRONMONGERY.

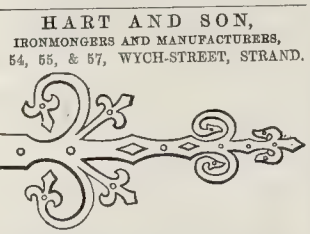
PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
3, 54, 55, & 57, WYCH-STREET, STRAND.



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FOR SALE, Powerful CRUSHING-MILLS, or EDGESTONE RUNNERS, single or in pairs, 3 feet 10 inches and 3 feet 3 inches diameter, with best stones; two pairs horizontal French 4 feet stones, and pair 2 feet ditto in frame, complete; 14 horse boiler, and pair of malt or seed rollers. Can be seen by applying to E. T. CHRISTIE, Millwright and Engineer, Manufacturer of the improved Slate-sawing Machines, 113, Vauxhall-walk, Lambeth.

ITALIAN and GALWAY MARBLE QUARRIES, Depôt, Whitehall Wharf, Parliament-street, London. To SCULPTORS, MARBLE MASONS, & BUILDERS.—Twenty eight blocks of Statuary, Sicilian, &c. now landing at Whitehall Wharf, of Tanfield, from Leghorn. Mr FRANKLIN begs to call attention to the above; also to his extensive stock of Marble in blocks, consisting of Statuary, Vein, and Sicilian, Irish Black and Green, Dove, Bardilla, Sienna, Brocatella, Rouge Royal, St. Anne's, Emperor's Red, Black and Gold, &c. &c. which he is enabled to offer at reduced rates, on advantageous terms.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, a joining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account.
Mr. Thompson being no longer his agent.
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The Builder.

VOL. XIII.—No. 618.

IN our last article on the history of architecture,* we alluded to the importance of understanding the position in which the art was left, late in the eighteenth ntury, when the course of styles is generally garded as having run out; and we endeavoured give some general characteristics of the state art which succeeded, by way of preface to ore particular examination. The knowledge facts such as we refer to, is of course the first d the indispensable step to what there is so uch difference about, namely, the proper prehension of existing circumstances. But, believe that the recent history of architecture nnot be said to have been as yet written; and ose who notice the difficulty of getting at rictly reliable particulars of any of the events our own time, will see that to detail the urse of architecture, even in a period about hich our memory might give help, is not cessarily a straightforward business. Until thin the last five and twenty years, or thereouts, such records as, with painstaking, may turned to account, are few in number. It is t till as late as the year 1828, that we meet th anything like a regular statement of proess,—which was then first attempted, and with me success in limited space, in the "Comnion to the Almanack" of the Society for the ffusion of Useful Knowledge.

Some years afterwards, our sources are inased by the publication of the "Architectural agazine," edited by the late Mr. Loudon,—a rk which did service in its day. The existing rnals, though of later date, may be said to an over really a considerable measure of exrience. Whatever the channel to which the quirer is able to look, he will rise from the pour, instructed, if not with some sort of onishment.

It has been said, perhaps more than once, t if any man would sit down and plainly reint the facts of his own history, he would oduce one of the most entertaining, instruce, and valuable works in the English lanage. This is something like the chronicler t has been wanted for the current history of chitecture,—since changes that occur under e eyes are indeed momentous. On looking back, might then be able to discern that progress s being made at particular dates,—as, even der late disadvantages. For, we are not of ose who abandon all hope of the present, or o refuse to see anything in recent history of t, but what is profitless for the future. As ntrasted with several preceding periods, architure, during the latter part of the eighteenth ntury and the beginning of the nineteenth, s indeed at a low ebb. But it seems to us t the proper and philosophical aspect in ich to regard the epoch, would be as a link in chain of *progress*,—one as much as any better derstood period, essential to the working out that problem of ultimate perfect art to which artists' efforts are intended to be directed.

In endeavouring to fix some distinctive aracteristic,—after rejecting the ordinary e as asserted, namely, the prevalence merely contemporaneous styles,—we found that other period had practised so much the exrimental system,—that where any and every del is resorted to by the same architects, and t with the sense of the *proper* use of ancient odels, but with the desire of producing *facsimiles*; an object which was itself not attained. Even such set direction of style as we can discover—enabling us to group buildings into examples of prevailing fashions—did in no case endure sufficiently long, for the completion of the didactic process which in a blundering sort of way, over and over again, commenced. During the last seventy years, the world has been infected with a Greek fever, or a Gothic fever, by turns,—not to mention an occasional dalliance with the Egyptian, Roman, Romanesque, Roman Italian, Elizabethan, Swiss, and Indian, Saracenic, and Chinese styles, and the modern nondescripts called Castellated, and Rustic architecture, or *Cottage ornée*. No favoured style was made the instrument of real *design*; yet there was always just enough latent dissatisfaction with the existing condition, to allow of an excursion in any eccentric direction. For some years great attention was given to the Greek architectural details; yet to the same general period belongs the Pavilion at Brighton, where the highest art consisted in putting the forms of dragons into every imaginable position and contortion,—until, as we have heard it said, the senseless repetition drove one ornamentist mad. The Greek precedent was adopted to an extent, even beyond what public buildings would lead us to suppose,—and we must look to the porches and doorways of ordinary houses to gain an idea of its actual prevalence. The portico, or rather the prostyle, was, however, the acme of the modern Greek art: it was attached to any sort of front, and was itself shorn of the accessories—the depth of shadow, the internal columns, the steps, and the sculpture—most conducive to its original effect. As to the sculpture, it is certainly curious, that at a time when reproduction was exalted almost as a principle of so-called *art*, this very element should have been, so far as we know, wholly omitted from that Grecian Doric order, which some who are best informed on the subject do not hesitate to regard as a mere framework for sculpture in the architecture. And as a fashion, Grecian architecture was on the wane, when its secret appeared to be penetrated. To the fact that its real spirit has been at length detected, we must ascribe some of the chief effects in St. George's Hall, at Liverpool, the Fitzwilliam Museum, at Cambridge, and certain recent buildings.

We must, however, not omit to say, that although some of the chief branches of study, thirty or forty years ago, were not so far advanced amongst architects as they are at present, the difficulties in connection with opposite prevailing styles, were due to the public demand, in great measure, as they are now. The precedent of Sir Christopher Wren has not protected a living architect from being denounced as one who can "paganize" in the universities; and in the case of Wilkins, connected with the university of Cambridge, yet by inclination and learning drawn to the endeavour after Grecian art, it was scarcely possible, without abandoning practice altogether, to avoid that difficulty in the pursuit of different systems, on which many a reputation has been wrecked. Few there are, who, like the architect of the Houses of Parliament and the Treasury building, succeed in establishing a successful practice, in what are fields of study really hard to reconcile with each other. We are even constrained to think that a better result for art generally, would follow from taking example of the entire devotion to an object shown by Welby Pugin. However unsatisfactory it is to have to say that the present condition of ecclesiastical architecture is defective, and exceptional to the progressing art of the day—for which fact we believe we have to thank the public demand above referred to—doubtless some of the principles now understood, and capable of extensive development, are due to the recent study of Gothic architecture, and in no slight measure to the example and teaching of Pugin himself. But, for the mass of men—under the pains and penalties of an early education, hardly yet what it should be in such a profession—mediocrity will be the inevitable result of want of concentration. Enlist all the resources of study; but let the energy of *action* be directed towards one clear and undivided aim.

The experimental system to which we refer, as commenced at the end of the eighteenth century, was therefore a bad system from the manner in which it was conducted. There is at all events a *disposition* to work out the experiment of Gothic architecture; but during the period we are noticing, grown men and learned architects comported themselves like those students who are ever at work, but who present you only with a folio of all-unfinished sketches.

If ever there was a turning-point in the history of art in Europe, we believe it is at the present instant. Under discouraging circumstances, many recent works in England are such as our architects may be proud of. The element of danger we believe to be solely that difficulty which the professional architect meets with in getting proper reward of the ordinary kind. To no other profession could such an offer be made by a Government Commission, as that which has lately appeared in our advertising columns—where, by holding out offers of premiums to three sets of drawings, the endeavour is made to procure a hundred others without any compensation whatever. What it is to the interest of the country to possess, it is just that the country should pay for; and the offer of premiums, even if larger than are now generally offered, but which would be by no means excessive for really good sets of drawings, is quite beside the question,—so long as all drawings are held possession of—the competitors in general going unrewarded. If the unsuccessful drawings were returned, their authors would have—as the pernicious system of competitions runs—no cause of complaint. As it is, the profession should note that a new phase of the encroachment upon the just "hire" of which labour is "worthy," has commenced.

We say that there is danger to ART, in this position of the profession,—because the inadequate compensation for thought, in all that large class of works which most conduce to the elevation or the depression of public taste, namely, the class of small houses, prevents the requisite study upon them, in the few cases in which they are sought for by architects. It is not the fact, as we have heard it asserted by architects who had been fortunate themselves, that success in one kind of work compensates for inadequate return in another. The prizes and blanks of life are not so evenly distributed: it would be nearer the truth to say, that the duties of designing and superintending small houses are shirked by one class of architects, or are liable to be hurried off too hastily by others,—so that, be the case what it may, the existing art suffers. Thus, if the vantage-ground which general art is taking up is to be secured, the serious attention of the profession must be directed to that diffusion of information as to the nature of an architect's duties, and the fair return for them, so often insisted upon, but as yet unconsidered in the proper quarter. Without this, all the space that we give to the discussion of the other element in the condition of architecture, viz. precedents in its history, is so much waste of paper and type. Believing, however, that the question of remuneration, with subjects associated with it, will, ere long, force themselves upon the attention of the profession, if not of the public, we proceed with the inquiry from which these remarks have detained us, though we desired to make the latter, that it might be at once understood where the effort to elucidate the antece-

* See p. 109, *ante*.

dents of the present state of art can and cannot serve us.

Now, it is not difficult to understand how the experimental condition of our art came about. Towards the end of the eighteenth century there was a general change of taste in Europe, towards exceeding plainness in architecture. In France we have seen that the characteristic style of decoration was worked out. There, the change was the natural result of what itself came from the separation of architect and decorator, occasioned by misconception of the relation of structural and decorative architecture. We recognised the tendency in examples of exteriors in the time of Louis XV. having a character wholly opposite to the style of interior decoration then prevalent. For a time, a decided antique Roman element is to be noticed, as in the works of Soufflot, the architect of the Pantheon. Still Gondouin—like Burlington, and the architects of England—was a great admirer of the works which were then esteemed of chief excellence, in Italy—where plainness is the characteristic of the most important of the few late buildings. Palladio was the great model; and the slight amount of decoration which there is in many of his works, was an excuse for imitators who had not the requisite capacity for invention, or to detect the real cause of excellence in the works of the master.

Of men of this class, Quarenghi and Rusca became largely employed at St. Petersburgh. Both architects have published their executed works and many of their designs; but all are marked by the affectation of simplicity. The chief designs in Rusca's book are for barracks on an immense scale, and this gives to the works a certain importance beyond what can be ascribed to the architect. The mention of Rusca brings us up to a very recent period; but the inanimate character of Palladian imitation is remarkable during a long interval. Now, whilst the idea of the purity of the architecture of the great Italian master was prevalent in Europe, knowledge of the Greek models began to justify what seemed to be the attainment of great effect by very simple means. For, as we said, although the Greek sculptures had been delineated, it does not appear that sufficient importance was then given to the sculptured element in the architecture. The Greek style in England, however, did not obtain great favour for some years. Greater attention was given to it in France.

Besides their use of the Doric order, the works of Antoine were marked by that form of rustication in which the perpendicular channellings are omitted. Architecture had stood in need of something new; and every trifling novelty, or revived detail, was sure to be rendered nauseous in passing through the hands of those who were incapable of an invention of their own. Thus, this kind of rustication had its day, and its like discontinuance. It had been used by Inigo Jones in his beautiful front of old Somerset House; it was used in the India-House, and, to a great extent, in the works of Sir John Soane.

The Greek style, however, did not continue in France to any very late date. In England, the Grecian orders, which had been depreciated by Sir William Chambers, in 1759,—though the work of Stuart and Revett appeared within a few years of the same date, did not meet with immediate favour. The general architecture of the country seems to have been gleaned from the books of Palladio, or in great part from works of less repute. The style of Sir Robert Taylor and Sir William Chambers was formed from elaborate study of Italian models, but is not the slavish reproduction of the style of one particular architect.

The long-continued sameness of manner, however, perpetuated two antagonistic principles in architecture, each to be explained from dissatisfaction with things as they were. Those who were ready to escape the labour of invention,—for which they felt incompetent,—were glad to justify poverty of effect by reference to sounding authorities; others determined at least to avoid that error, and therefore sought for precedents from any new sources. Consequently, belonging to the same general date as the emasculated Palladian of Italy, and, indeed, Europe, we have the budding Greek revival in Germany—expressed in the Brandenburgh-gate, at Berlin, by Langhans, copied from the Propylea, at Athens, and commenced in 1789—the exotic Greek architecture of France, and in England works of a superior character of Italian, as well as the growth of a taste for what was classical, and lastly the peculiar style of the Adams. To the architects last named, it has been the habit with many writers to allow no one good quality. So far as having mistaken mere opposition of system for good art, and for having under the desire for novelty sought out a degenerate school, their practice should not be imitated. In the details which they reproduced, novelty was not so much the characteristic, as was the obvious impotence of the effort of the following in the track of an originally noble school. The details of the Palace of Diocletian, should be classed with such styles as the "debased" Gothic architecture, where we are only reminded of how excellent are the details which are not actually before us, —and such sense of dissatisfaction is always fatal to an impression on the beholder. But after full importance has been given to this, there is much in the work of Robert Adam that deserves to be recorded with approbation. The introduction of medallions, enriched with sculpture in low relief or subjects painted, and the general recognition of ornamental and decorative art, evinced not only in his buildings, but in a profusion of designs for articles of manufacture, seem to us to show a mind, at all events, in advance of the architectural taste of many of his contemporaries, as of the pseudo-classical school, which succeeded. His industry was marvellous. At the Soane Museum, we recollect one or more large cupboards, or recesses, filled with folios of his sketches, including almost every imaginable object. We are not aware that any living architect has been so much appealed to for designs for articles of decoration and household use. At the same time there are numerous ideas of iconographic distribution,—in which, with reference to scenic effect, it is admitted by Mr. Gwilt that he excelled. He seems to have had the habit of preserving every scrap of paper that his pencil touched: the result is, that we get much that may be useless; still the habit is one to be imitated. There are houses in the Adelphi, of which the ceilings are well deserving of examination; and if they are not faultless in details, show great superiority over the designs during many years later, which were simply an unbroken surface of plaster, or treated with a centre "flower." Indeed, the flat style of relieved ornament is quite as suitable for the enrichment of ceilings, as the heavy beams and coffers, and the ponderous fruit and flowers introduced earlier. Even in the terrace of the Adelphi, which has been at one time unnecessarily exalted, and at another contemned, we see much that explains, if it does not justify, the praise which may be read of it. In the view from the river, the substructure is now nearly concealed by a number of low buildings,—with chimneys smoking for the especial advantage of the residents in the terrace. Formerly, however, when railway viaducts were unknown, the range of arches—with their spandrils enriched with large *paterœ*, of good design, but now injured and broken—gained for the place, attention of which it was not wholly unworthy. The vaults generally, as most of our readers know, extend under the houses and streets of the whole district. They are not undeserving of praise, as structural works produced when such matters did not often engage an architect's attention; but they of course absorbed an enormous amount of money, and must have been a serious mistake as a speculation. Such merits as there are in the superstructure, contributing to the general effect, are limited to the mere grouping of the buildings in blocks, and to such details of ornament (for example, about some of the doorways) as we have referred to. The general treatment of the orders there, as in the more pretentious front of the Society of Arts, in John-street, is feeble in the extreme. Nevertheless, evidence may be found in favour of our view of the merits of the school as to some particulars, on comparison of the original ironwork of the terrace-railing, part of which is remaining, with the cast spear-heads placed at a more recent date along the principal portion of the line. The favourite anthemions of the school, used in the balconies and lamp-standards, will suggest similar comparisons. In Bolton House, Russell-square, there were, formerly, and perhaps are now, as there are no doubt in other houses, several rooms with the doors and other wood-work decorated with medallions on the panels—enclosing figure subjects. The effect appeared very good, and highly suggestive as an improvement upon modes of decoration, such as are now general. Whether these particular designs were by any of the Adams, we do not happen to know; but they are quite in accordance with the style referred to, which prevailed to a wide extent in architecture and ornamental art. We may also add, that at Drapers' Hall there is a staircase with a highly effective lantern and ceiling, much enriched with ornament, and which is probably by one of the Adams. It deserves to be better known. Robert Adam died at the age of ninety-four, in the year 1792. Sir Joshua Reynolds, and Smeaton, the architect of the Eddystone Lighthouse, died in the same year. This was about ten years after Soufflot and Gabriel had died, in France, and four years after Sir Robert Taylor and "Athenian Stuart," in England.

The French Revolution had commenced with the capture of the Bastile, in 1789. In 1793 Louis XVI. was executed, and the war between France and England commenced. Sir W. Chambers lived to the year 1796. We therefore have the means of forming some opinion as to the comparative influences which were in operation. The general classical tendency—though not necessarily with the proper accompaniment of taste, is shown in the sculpture of this period, of which a large quantity was shortly executed, in commemoration of the heroes of the war, by such men as Nollekens, Banks, and Bacon. Attention was given about this time both to Egyptian, and classical antiquities. The interest of the problem of the unravelling of hieroglyphics drew to the former much notice. The French carried with them to Egypt a corps of *savans*, as well as an army of soldiers,—with the attention to such opportunities which all the governments of France have shown, but which our own country has never imitated. The great monument of research, the "Description de l'Egypte," was the result. Some three years earlier, or in 1796, the chief works of art from Rome, had been deposited in the Louvre. Though Antoine was living till 1801, the most important school of architecture at the end of the century was that of the architects Percier and Fontaine, who elaborated a new version of pseudo-classical ornament, and whose works at the Louvre have very great merit.

This direction in general taste,—aided in England by the study of Grecian architecture, through the labours of Stuart, which had been given to the world about the year 1752—received a new *impetus* from those occurrences which had overturned the monarchy of France, and now influenced every country in Europe. The effect upon art was immediate: classical models, which had gained great importance from the works of David, were now the only source of inspiration, and an imitation of Roman customs and titles was general. Bonaparte became emperor in 1804. To the influence of the French consulate and empire upon art, and the contemporary period in England, however, we may give attention hereafter.

A FEW REMARKS ON ITALIAN ARCHITECTURE,

WITH A VIEW TO AN ADVANCE.

IT is not to be expected that the observations of a mere amateur like myself will convey any fresh information to practical and professional architects; yet if I honestly record my own impressions, and do not merely retail the opinions of others, I may succeed in suggesting a new and perhaps not unprofitable train of ideas even to the most experienced.

I have no doubt that much which has appeared to me new and remarkable is, to many, familiar and common-place; and that the views which I have entertained, and which I would lay before you, are not presented to notice for the first time; nor need I say that I avail myself freely

f the works of other writers upon architecture; hat I have been led by them to observations I should probably never have made of myself, and of course must be indebted to them for rudimentary principles, facts, data, historical evidences, &c. without end: I shall draw my conclusions myself, and not take them ready-made from any authority at hand.

When I express a doubt whether the present attempt to revive the mediæval styles be favourable to the promotion of architectural taste, or to the advancement of architectural art, I trust I shall not be accused of insensibility to the wonderful beauty of Gothic architecture, nor yet of indifference to the merit of a considerable number of modern buildings of that style, some of which I have had an opportunity of studying lately, and cannot but admit the excellence of their design and execution. In some, the architect has not only traced the details, but caught much of the spirit and character of the age from whence he has borrowed his style. At the same time, I cannot look at such works in any other light than as spirited and successful imitations. Their excellence appears to be just proportioned to the closeness of the imitation. I am occasionally told that the advocates of revived Gothic look to, and aim at, a fuller development of the system. If it be so, and if they have a fair prospect of success, my argument falls to the ground; but I do not see any symptoms of this development, any aiming at a higher standard than has already been attained. And under such circumstances it cannot, as a national style, possess that vigour and energy which are the very essence of true Gothic. I am hardly prepared to admit that the Gothic style was the natural and inevitable result of the arcuated system. It seems more correct to say that it was struck out of it by the genius of a peculiar race, who in other respects are remarkable for their influence on the destinies and condition of the greater part of Europe. But for the Normans, the use of the arch, even of the pointed arch, would never have given birth to such productions as Amiens, Strasburg, and Salisbury.

I need not say that an arch may have two kinds of abutment—one, a solid, immoveable mass, which would stand independently, though the arch were taken away,—the other, an arch or portion of an arch, pressing against that to be sustained, and if the latter were removed, liable to fall in. This constitutes the grand distinction between the Gothic and Roman. For though but a small proportion of Gothic buttresses are actually flying buttresses, that would fall in if the arch strengthened by them were removed, still all the buttresses have apparently that tendency, and are made to indicate an active pressure, while the Roman abutment is a solid vertical mass (each pier is itself an abutment); and to give a greater appearance of stability, an engaged column or pilaster is attached to the pier, and an entablature carried along the top of the order; broken or not by projections corresponding with the column. Undoubtedly this is an incongruity in composition, but it may be less severely condemned on account of the expression it gives of repose and tranquillity; an expression, you will observe, proper to architecture itself, independently of the spirit and character of the age or people. And, although it is most strongly marked in ancient work, it is by no means lost in the lighter compositions of the revival. The Gothic expression is that of movement, energy, conflict; elements of grandeur, so long as they represent a corresponding spirit of the age, and giving amazing life and force to an architecture that sprang up in times characterised not only by earnestness and strength of purpose, but also by a considerable degree of restlessness, turbulence, and violence. The attempt to adapt it to an age of advanced civilization and refinement may possibly result in burlesque, and almost certainly will result in tameness and insipidity. A style suggesting repose (and this also is an element of grandeur) cannot be out of place at any time, or with any people, because it belongs essentially to architecture itself: a style suggesting movement and conflict (which are not the natural characteristics of architecture in the abstract) must be out of place unless it conveys a true and lively expression of the spirit in which it originates. And this appears to me the principal reason why modern Gothic buildings fail to command that amount of interest which the intrinsic beauty of the style, and, in many cases, the excellence of the work itself, would seem calculated to excite.

Though I have remarked that something may be said in justification of one of the most manifest inconsistencies of the Italian classical style, I by no means assert that we should not get rid of it if we can; and I am farther still from defending the debasements which undoubtedly have tended to bring this style into contempt. That much poverty of invention, meagreness of design, ill conceived and unmeaning ornament, has marked some of its stages, it is impossible to deny. In a hasty excursion that I lately made through some parts of Italy, it struck me that works of the revived Classical of the fifteenth century were of great interest; those of the sixteenth mostly worth study; those of the seventeenth of comparatively little value; while in the eighteenth a decided improvement took place, though not without considerable coldness and formality of character. The principal front of the Lateran will explain what I mean. In France and Germany we shall hardly find buildings of the same purity with those of Italy belonging to the sixteenth century; but in those countries, as in England, the lingering of the Gothic element gives a degree of picturesqueness to structures very faulty in this design. Of some of the earlier specimens in Italy I will speak presently.

If we must necessarily consider the Pointed arch as a refinement and improvement upon the round arch, then it would be a barbarism to go back to the latter. But I do not think we are at all bound to admit this. The Pointed arch may in some positions be more appropriate; but it is by no means beyond dispute the better form of the two, in the abstract, either as regards beauty or strength. The variety which the Pointed arch admits has been much insisted upon. But the variety of angles made by the points of the arches is, I think, the last thing to which we should attribute the beauty of a Gothic cathedral. And though in a recessed Pointed doorway every order has a different form, still I think many will prefer the majestic sweep of the round arch, of many orders (all of the same form), as it appears at Tewkesbury (Tutbury). It seems not very easy to prove that the pointed arch is invariably stronger than the round. Certainly, in engineering works, the number of pointed bears no proportion to the number of round arches. There are many beautiful Mediæval bridges which present the latter form; —that of Kirby Lonsdale, for instance; and on the Continent, the fine bridge of Pont St. Esprit, over the Rhone, and the ruined bridge at Avignon. To find out the strongest form of an arch must be an extremely difficult problem; its conditions will vary, according to the supposed action of the weight supported; that is, whether we consider it as a solid mass, or as one acting like a fluid perpendicularly to the curve of the arch, or as a number of detached columns bearing vertically upon every point. I suppose the real action is a combination of all three; and I cannot see how mathematical calculation can give any decided practical rule. Probably, in most cases, neither the pointed arch, nor the unbroken circular arc, is really the strongest, but something rather of the form of the parabola, or the catenary, which the curve most commonly used for tunnels appears to resemble. I can conceive the pointed arch to be the strongest only where there is a decided weight upon the vertex, such as a pinnacle, and I should even doubt whether a gable required in the arch below more than a maxim of curvature not amounting to a curvature greater than any that can be assigned, or, in other words, a finite angle.

But experience teaches us that there are few cases in which we may not use the round or the pointed arch at pleasure, either being amply sufficient for the purpose required. The construction of several of our old market-houses (that of Ross may be remembered, as an example), shows that arcades of round arches supporting a considerable weight, can be used with very little abutment. If, then, the pointed arch is not a more pleasing form in the abstract than the round arch, not more desirable as a general rule, on the ground of strength, there is no reason why its introduction, at whatever period, should drive the round arch out of the field, or render its adoption obsolete and barbarous. The pointed arch was necessary for the perfection of a particular style, namely, the Gothic, but is it impossible that a perfect round-arched style should be developed, possessing quite as high architectural qualities, and equally capable of expressing the genius and character of a people? There seems to me to be greater room for the further development of a round-arched style, than there is at present for that of a pointed style; for no round-arched style has been hitherto carried out with that purity or to that perfection which almost every remnant of it suggests as attainable. The Roman style admitted the trabeal element much too freely. The Basilican, though purer, and not unimpressive, is somewhat meagre, and depends more on pictorial than architectural ornament. The Byzantine promises well, and would form an admirable ground-work. The Pisan, with its multitude of small arcades, betrays a want of architectural invention (I do not say a want of invention in carving and coloured decorations, but I wish to speak of architecture as much as possible independently of other arts). The Lombard is grand but rude. The French and German Romanesque have much that is excellent, and in the twelfth century showed a considerable degree of refinement. The Norman, on either side of the Channel, is a noble and powerful style, but has so much of the Gothic element that its progress could only lead to the Gothic itself. A great deal already exists that might be available towards such a style, supposing it to be a desideratum; and if we followed it up with energy, it is not impossible that some hitherto unknown element, necessary to give unity, individuality, and decided character, may yet be discovered. I believe I am now and then accused of advocating some unaccountable jumble of styles, made up of Romanesque, debased Gothic, Cinque-cento, and Roman, and revived Italian of every class. Now, I would answer, that there is a great difference between obtaining suggestions from these, or fifty others, and mixing up their characteristics; for what I want to draw from these suggestions, are true and essential architectural principles, and not the mannerisms of style. I do not want the result to remind you of Romanesque, or Gothic, or Italian, any further than by possessing abstract architectural merits belonging to each or all. And the careful study of them will enable us to distinguish between sound principles and superficial distinction.

I will now call attention to a few of the earlier buildings of the revival which have struck me. The cathedral of Rimini, the latest part of which belongs to the fifteenth century, is well known by Mr. Gally Knight's work on the ancient architecture of Italy. The church is Gothic, but attached to its outer wall is an arcade of round classical arches or square piers. The front, which is unfinished, suggests a very grand design. In this, the ornamental system of the engaged column and entablature is used, but the arcade round the rest of the church is without it, and exhibits in fact, the round arch in its purity. I do not think I am acquainted with a grander specimen of the revived classical, as far as it goes; but these arches were built for a particular purpose, namely, to form a canopy for tombs ranged along a rich basement, and the structure would not sufficiently help an architect who is designing a cathedral. * *

Palladio's churches in Venice have good outlines, but his fronts are unsatisfactory, and in the interior he is too fond of the engaged column. His general proportions, however, are very pleasing.

A careful study of the early works of the revival is calculated to enable us to clear the Italian style of all that is really base and meagre, and render it a style in which a great architect may express his thoughts, without the fear of being ashamed of, or dissatisfied with, his work. But it may prove more difficult to clear it of those elements which, whatever reasons may be produced to justify their introduction, cannot but be felt to be incongruous, and yet to command such means of enrichment

as are necessary to ensure the magnificence of which architecture ought always to be capable.

A Gothic structure may be rich and magnificent by the mere help of mouldings, without the introduction of any sculpture, even so much as a wreath of conventional foliage. Some of our Cistercian abbeys illustrate this. And the Temple of Pæstum, now denuded of all adventitious ornament, and probably never enriched with much sculpture, proves that Greek architecture is in itself, even without the aid of any other art, sufficient for works of the highest grandeur of effect. Nor is the Roman style, whether ancient or revived, dependent upon sculpture or painting for its magnificence and beauty; and I have purposely selected examples which owe their excellence to neither.

If we attempt any new style we must take care that it be equally independent, though at the same time equally able to avail itself of the higher efforts of the sister arts. So that a mere surface decoration of sculpture does not solve the problem. And the use of unmeaning lines or mouldings to fill up blank spaces, would be a sad falling off from the nervous and powerfully expressive Gothic.

It strikes me that the clear, delicate, line of a semicircular arch requires a rectangular edge to mark it out properly, and consequently that it never appears to greater advantage than in plain square orders. A large torus confuses the outline, nor does a chamfer preserve it with sufficient distinctness. A sharp edge, or at the most a small bead, seems to be the proper finish.

If the soffit is full of mouldings it takes the nature of Gothic, and any other ornament that varies the surface, such as the octagonal panels in a Roman vault, is objectional as interfering with the strength and solidity of the voussoirs, which require that the inner surface of arch, vault, or dome, be unbroken.

As the arch is a constructive feature, invented for the purpose of bridging over spaces beyond the reach of a stone lintel, or where such could not be conveniently obtained or applied, I might suggest that it should not be used on a minute scale, where a piece of stone, or even a brick, is sufficient to serve the purpose; nor am I certain that the use of small ornamental arcades should be advocated. There is a difference between making the accessory details harmonise with the construction, and making them repeat it. I would suggest that the use of the shaft or column be abandoned, except where it can be perfectly insulated, and of something like classical form and proportion. Vertical lines may be obtained by pilasters, and these can be enriched by fluting, as in the Cathedral of Autun, a building which, though its pier arches are pointed, furnishes many admirable hints for the formation of a round-arched style.

If the entablature be recognised, it ought, I think, to be somewhat modified, and confined to two members only, under the spring of a barrel vault: the architrave seems unnecessary, except to connect a series of columns.

There is also a test which the composition ought to bear, which I shall call the test of reduplication, and endeavour to explain it. Set a spire upon a tower, and put a pinnacle upon each angle, also terminating with a spire. This may in its turn be surrounded with similar pinnacles, and so on without limit. Your work might soon become too minute to be carried on, but still it would involve no absurdity or impropriety: the original design bears the test of reduplication: we cannot object to it as either involving or suggesting any architectural anomaly.

So again, upon a mass pierced with one arch, place one pierced with two similar arches, their imposts bearing the same ratio to the void spaces as in the composition below. On this again place a series of four arches; above that of eight, and so on. You may, as before, soon stop from the minuteness of your work; but carry on your structure as you will, it involves no architectural anomaly; and a design suggesting such repetition or reduplication is in this respect not faulty. But now take an arch with square imposts: pierce these imposts with arches; the imposts of these also with others, and so on; then we find that we are constantly lightening and weakening the substructure of a heavy mass; and the work that suggests this reduplication does suggest an architectural anomaly, and is therefore faulty.

The arch of Titus or Trajan, with its unpierced imposts, suggests no such reduplication, and consequently is so far correct; but where the impost (stripped of its columnar features) is pierced, the reduplication is commenced; and unless there are points of difference sufficient to turn the mind from the idea that it may possibly be continued, I think the arrangement is faulty. Perhaps the pierced piers of Perigeux are almost open to this objection, unless there be marked with sufficient clearness the difference between the soffit of an arch and the surface of a vaulted roof. In the model of St. Paul's, the piers are not pierced, but merely hollowed out into a niche; a distinction quite sufficient to avoid the suggestion of any erroneous principle.

It will be said that I am only raising difficulties to the formation of the style I would recommend. Perhaps it is so. It is the province of genius to surmount difficulties. An art beset by no difficulties is no art at all; or at least not one worth attaining. Poonah-painting has fallen into disuse. Potichomanie will, if I am a true prophet, scarcely outlast the present century. And such architecture as consists in mere imitation, whether its model be Gothic or classic, may not be destined to boast a much longer period of endurance. It is not from a mere desire of novelty that I am anxious to see a new style attempted. The Gothic, admirable as it is, appears to be so essentially connected with the spirit and character of the age which produced it, and to owe so much of its value and interest to the expression of that spirit, that its general revival in a different age, notwithstanding its successful adoption by individuals, seems to be morally impossible.

The classical, though not open to the same objection, and having many excellencies, still contains certain essential defects and incongruities, which prevent our remaining perfectly satisfied with it. A mere recurrence to English or French Romanesque, or a reproduction of German or Lombardic forms, would be an outrage to art herself, who demands constant progress, even if it be towards decline, and if she collects the elements of an earlier period, still moulds them into something new and striking.

And therefore I believe that a path is still open to inventive genius; and, however I may have failed in finding it out, I cannot be wrong in endeavouring to urge others to persevere in the search.

J. L. PETIT.

ON CHRISTIAN ART.

MR. SCHARF'S *fourth* lecture on "Christian Art" opened with the Campo Santo at Pisa, the celebrated burial-ground, enclosed within four covered ambulatories like the cloisters of our own cathedrals. The architecture was designed by Giovanni Pisano, and completed in 1283. The beautiful traceried windows, however, belong to a subsequent period. The arrangement of the pictures upon the wall, and the subject of the earlier ones by Francesco da Volterra, Pietro di Orvieto, and Buffalmacco, were explained in order. The large painting of "The Chapter-house of S. Maria Novella," at Florence, represented the church militant, with a group of Dominicans preaching in the lower part of the picture, accompanied by a pack of dogs tearing wolves to pieces; the former being spotted black and white, in allusion to the dress of the order who were *Domini canes*, the dogs of God. The same picture contained a representation of the Duomo of Florence, according to the design of the original architect, Arnolfo da Lapo, son of the architect of S. Francesco at Assisi, by which it will be seen that he had intended a dome, such as Brunelleschi ultimately executed. Memmi, more properly Simone Martino, of Siena, was a contemporary of Giotto, and mentioned by Dante rather as his rival than a pupil. A certain Duccio of Siena painted a large altar-piece for the cathedral of his native city, which, like the picture of Cimabue, was conveyed to the church in grand procession. It represents in numerous compartments the Passion of our Lord. The lecturer showed that one of the subjects, the three Maries coming to the sepulchre, and seeing the angel after the resurrection, which had obtained especial praise for grace and composition, was in fact a transcript of the earlier Byzantine treatment. It frequently occurs in the old Greek MSS. was wrought in mosaic upon the walls of Monreale, and adopted by Cimabue before Duccio, who, with a greater refinement of feeling, in which possibly he only returned nearer to the original source, made it his own.

Certain subjects were referred to as almost always exhibiting the period at which they were painted. Among these, especially, the interior of the chamber in the Annunciation, the costume of the soldiers and women in "The Massacre of the Innocents," and that of "The Sleeping Guards around the Tomb in the Resurrection," serve to mark the date of execution. But Duccio lived in the past, and notwithstanding his improved manipulation, chose to adopt the old Byzantine conventionalities, with the exception of his architecture, where the round arch and pointed appear in the same picture.

Meanwhile the Early Pointed style of architecture had grown into richness and beauty during the reign of Edward I.; and the yet remaining crosses to the memory of his beloved Queen Eleanor sufficiently attest this. She died in 1290. An exquisite large drawing by Flaxman fully exhibited the refinement our sculptors had attained at this period, and a beautiful bronze statue, executed by one Torrell, may be still seen on her tomb in Westminster Abbey. The date of this work is known by the payment to be 1292, in the same year that the tribune mosaics were completed by Jacopo Turriti, in S. Giovanni Laterano and Sta. Maria Maggiore at Rome, and four years before Giotto was invited to Rome, when only twenty years of age. At this same date Roger Bacon was buried at Oxford.

Edward I. began to rebuild St. Stephen's Chapel, and employed many artists upon the decoration of the Painted Chamber in his palace. After repeated injury from fire, the Chapel of St. Stephen was completed with great magnificence by Edward III. The date of its endowment was 1348. The hero of Cressy and his valiant son were represented, with the other members of the royal family, kneeling on each side of the altar; and these paintings existed until the great fire of 1834, which destroyed the House of Commons, originally St. Stephen's Chapel, and the adjacent buildings. About the year 1800 they had been most accurately copied in colours and gold, for the Society of Antiquaries, who permitted Mr. Scharf to exhibit these beautiful transcripts of our former magnificence in mural decoration. As contemporary works with the school of Giotto and Simone Memmi, they were to be regarded with no small interest, and recently they had acquired an additional importance as the only authentic records besides the documents referring to the payment for them.

During the wars of Edward III. in France, the Papal court was resident at Avignon, and Rome, being deserted by the head of the church, fell into the power of various factions of the old nobility, who, in their perpetual feuds with each other, contributed to lay waste no small part of the city. Contemporary with the battle of Cressy, Niccolo Rienzi was exciting his fellow Romans to return to their ancient constitution, and eventually had himself nominated tribune of the people. His name deserves mention in connection with art, as at a time when no public works were in progress, he, knowing the effect it would produce upon the populace, employed pictorial representations, which he exhibited to the people and explained their significance. Fortunately, a minute record of these allegorical devices exists, and we may trace in them no small resemblance to the Navicella of Giotto. Everything was symbolical, but each figure appears to have possessed a clear and strong meaning: in accordance with the old plan, the names of the personages, and short speeches they were supposed to utter, were written against them. The central tower of Lincoln Cathedral, when compared with other English towers of the period, has more affinity in composition and proportion to the campanile designed by Giotto at Florence than any other

xisting in this country: it certainly belongs to the same period. The magnificent bronze gates of the Baptistery at Florence were completed by Andrea Pisano, in 1339, from designs provided by Giotto. The lecture concluded with notes upon the illustrious men of Italy, and the use made by Boccaccio of the great plague of Florence, in 1348, as a vehicle for his "Decameron."

LECTURE V.

The scene was laid in the Dominican convent of St. Marco, at Florence, which is especially rich in the paintings of a monk of their order, known as Il Beato Fra Angelico da Fiesole. His real name was Guido di Mugello. The epithets Angelico and Il Beato were given him for his heavenly disposition; and he himself adopted the name of Giovanni, with reference to St. John, the apostle of love. Fiesole was the place where he first assumed the monastic vow. His conceptions are essentially pure, and teeming with enthusiastic devotion; every picture of his might be termed a visible prayer. He never could be persuaded to alter anything he had already painted; what he had done was regarded by him as a direct inspiration from Heaven.

The colours of his pictures are remarkably bright and cheerful, enriched freely with gilding, but not gaudy withal. For even where pure colour is shaded with pure colour, its position, with regard to the rest, is such as to preserve a balance and ensure a harmony. Some of his most beautiful works are at Florence. One especially fine work of his—a "Coronation of the Virgin, surrounded by the Angelic Host," now in the Louvre,* is especially charming.

Mr. Rogers, Mr. Fuller Maitland, and Lord Ward, possess, undoubtedly, fine specimens of this rare master, all of which are in excellent preservation. Fiesole was weak and timid in drawing, and when called upon to represent exertion, as in those making resistance to the devils seizing their prey, in pictures of the "Last Judgment," he failed entirely. Nothing, however, could equal the heavenly enjoyment of the blessed approaching Paradise, and the celestial dance on the asphodel meadow.

The Arundel Society again exhibited a beautiful series of original drawings, that they had caused to be taken from Fiesole's paintings, in the chapel of San Lorenzo, which Pope Nicholas V. had founded in the Vatican. Fiesole was ten years old in 1399, when Richard II. was deposed, and he lived three years beyond the capture of Constantinople by the Turks, in 1453. The costume of his pictures shows the period of our King Henry VI.

Further decorations had been added to the walls of the Campo Santo, at Pisa, and the most important among them were two pictures by Andrea Orcagna, a pupil of Andrea Pisano, representing the Triumph of Death and the Last Judgment and Hell. A compartment which was intended to have been filled with the subject of Paradise was occupied by a pictorial history, representing the Lives of the Hermits in the Desert, their occupations, intercourse, and temptation. This picture was by Pietro Laurati. At this period the business of the painter was to write upon the wall as clearly as if words were used, and in most cases these designs were intelligible even to the meanest capacities. Where difficulties occurred, and people could not read the names, it was the business of the priests to explain them.

Orcagna was also distinguished as a sculptor and architect. He executed the celebrated tabernacle in Orsanmichele, at Florence. It was designed by a company, in gratitude to the Virgin for having terminated the great plague of 1348. The tabernacle was finished in 1359.

Orcagna also designed the beautiful Loggia dei Lanzi in the Piazza Ducale, but did not live to see it finished: he died about 1375, the same year as Boccaccio, both, somewhat singularly, having commemorated the Florentine plague.

The two great sculptors of the age were Ghiberti and Donatello: Ghiberti, three years older than his rival, was born in 1380; Donatello died in 1466.

Ghiberti executed the famous bronze doors for the Baptistery of Pisa, to correspond in size with those already wrought by Andrea Pisano. They possess many of the excellencies of this refined period, but display also serious violations of the fundamental laws of sculpture. Michelangelo's praise must, however, silence all severe criticism, since he pronounced them worthy to be the gates of Paradise. Both sculptors commenced with the practice of painting. Donatello was a pupil of Lorenzo Bicci. In his sculpture there was a pictorial wildness and agitation corresponding to the ancient Etruscan style observable on ancient urns and bassi-relievi, especially at Pisa and Volterra, whilst Ghiberti was delicate, refined, and elaborate; delighting in alto-relievo where the front figures in his subject were completely detached from the background. His style might be compared to that of Greece, after the Macedonian influence. Brunelleschi, also a sculptor, and competitor with Donatello, distinguished himself in architecture. He measured and studied all the ancient examples then to be seen in Rome. He constructed the cupola of the Duomo of Florence, which had been designed by Lapo, as mentioned in the notice of Memmi's picture of the Church Militant. Brunelleschi, however, heightened the dome by introducing an intervening member or drum, which bestowed greater importance upon the central portion. This illustrious architect died in 1444.

The Perpendicular style of architecture in our country is generally dated from 1377; the same year that Brunelleschi was born. A restless desire for change, and the increasing study of classic architecture, seem to have contributed chiefly to its rectangular characteristics. The east end of Gloucester cathedral is a magnificent specimen of this peculiarity. A series of copies of monumental brasses were exhibited, taken by a new process by Mr. Richardson, of Greenwich, and Dr. Alfred Taylor, which displayed a class of art extensively employed in England from the middle of the fourteenth century. These brass slabs being engraved, and filled with black paint and mastic, were in fact *niellos* on a large scale, the very principle and process that led to the discovery of copper-plate printing.

The pictorial art of England was exhibited in copies of the Jerusalem-chamber portrait of Richard II. paintings from his monument in Westminster Abbey, and also from that of the canopy of the Black Prince at Canterbury, together with selections from the metrical romance of Richard's Deposition, in the British Museum collection of MSS.

LECTURE VI.

The scene was laid in the Brancacci chapel of the Carmine church, at Florence. A large view exhibited the position of the various frescoes by Masolino da Panicale, Masaccio, and Filippino Lippi. This chapel fortunately escaped destruction by the conflagration of 1771, when the rest of the church and a valuable series of paintings by Giotto were totally burnt. The lecturer proceeded to explain the causes that had led to the improvement in art observable in these works, and of Masaccio in particular.

Masolino had studied under Ghiberti and Starnina; he lived only to complete two of the frescoes, one on each side of the altar. Masaccio acquired perspective and modelling from Brunelleschi; he painted a chapel in S. Clemente, at Rome, and died just before his master, in 1443, twelve years before Fiesole and Ghiberti. He left many frescoes incomplete, which were afterwards supplied by Filippino Lippi, the son of Filippo Lippi, who was a talented painter; but although a monk, of a most scandalous character.

These frescoes all display breadth of manner, freedom of handling, a perfect knowledge of form, individuality in the heads, combined with a remarkable richness of colouring. The old form of the nimbus, or glory round the head of holy personages, is no longer a flat gold disc, but a circular plate, drawn in perspective, resting on the head. The draperies are full, with large folds, and in the works of Masolino especially, encumbering the figures too much. These paintings were studied by Raffaelle and Michelangelo with great advantage, and certain figures are still to be seen in the works of the former, which have been directly adopted from the walls of the Carmine. St. Paul preaching, in the famous cartoon at Hampton Court, is taken from a figure of St. Paul by Filippino. The Adam and Eve expelled from Paradise, that had been taken by Masaccio from Cimabue, at Assisi, was introduced by Raffaelle, with considerable improvements, into his series of cupola decorations, for the Loggie of the Vatican.

Mr. Scharf next explained a series of paintings by Benozzo Gozzoli, covering one side of the wall of the Campo Santo, at Pisa. They illustrated the history of Noah and Moses, David and Solomon. Gozzoli was a pupil of Angelico da Fiesole, and was employed to complete several of his works. Paolo Uccello, Gentile Fabriano, the Venetian school, and the works of the brothers Van Eyck, were mentioned, and specimens of their styles exhibited. The lecture terminated with a series of notes upon the various modes in which the crucifixion had been represented from the earliest Syriac example at Florence, through the periods of symbolism, to the Greek custom of representing the Saviour as emaciated and in agony. In the fourteenth century the feet were transfixed with one nail only; and this system, in which three nails altogether were used instead of four, became universal in the Italian schools of art. The Saviour at first was represented alive on the cross without any appearance of suffering, but at a late time the crown of thorns was introduced with the blood streaming from the brow in a most revolting manner. The body was made to *hang* from the upper nails, and swayed violently sideways. Fiesole, who is one of the first to introduce the crown of thorns, makes it encircling the head without touching it. In his beautiful deposition, now in the gallery of the Belle Arte at Florence, the crown is the subject of a most pathetic appeal by one of a group, who are contemplating some of the instruments of the passion. The earliest well-authenticated picture by Raffaelle represents the Crucifixion: it was painted in 1500, is inscribed with his name, and is the only instance of his representing that subject. The picture is now in the possession of Lord Ward, and displays all the characteristics of the artist's master, Pietro Perugino.

* A very beautiful print in coloured lithography has just been published in Paris. It conveys very successfully the richness and cheerful tone of the original, which is painted in tempera, or distemper colours. The brightness of the gilding also is fully rendered.

COMPETITIONS.

Wolverhampton.—New Town-hall Front. — The design of Mr. J. R. Veall, architect, of this town, has been selected by the town council. It is intended to execute the façade in stone, at an expense not exceeding 891*l.*

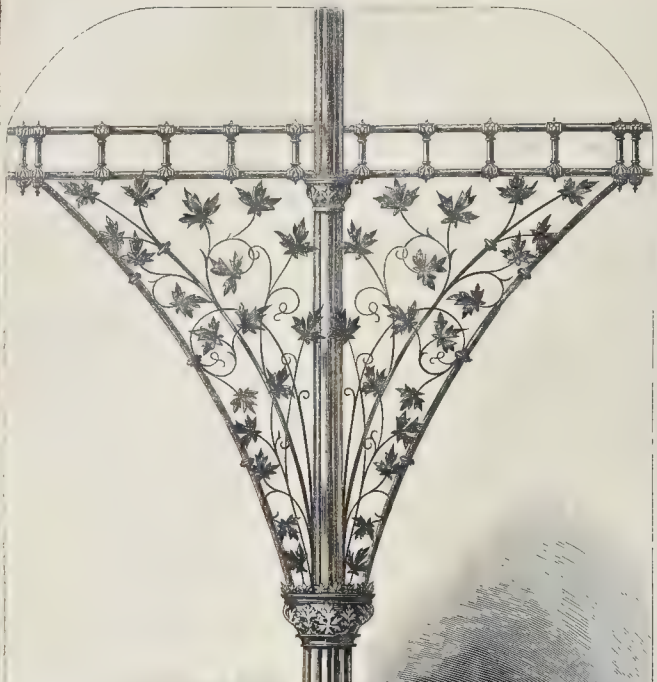
New Market-hall at Warrington.—The town council of Warrington being about to erect a new market-hall and covered shed, on the site of the present market-place and manor-house, invited architects to send in plans and designs, offering a premium of 25*l.* for the best design. Eleven architects responded. The design selected, according to the local papers, is by Mr James Stevens, architect, of Macclesfield and Manchester. The estimated cost is about 5,000*l.*

St John's Cemetery, Newcastle-on-Tyne.—We are asked to mention that the competitor to whom the second premium was awarded is Mr. R. J. Johnson, not Johnstone.

Dudley Workhouse.—Endeavours are being made to arrange an exhibition of the designs sent in, so as to bring them all before the ratepayers.

Greenwich Cemetery.—The Burial Board for the parish of Greenwich have received designs for two chapels, entrance lodge, and gates, of the intended new cemetery at Kidbrooke, near Shooter's-hill. From the designs sent in, those of two of the competitors, respectively distinguished by the words "Crosier" and "Rest in Peace" were considered most deserving of approval. Ultimately, the board decided in favour of the designs bearing the signature of "Crosier," the author being afterwards found to be Mr. Samuel Hewitt, architect, of Southwark.

SALT YOUR CHIMNEYS. In building chimneys, put a quantity of salt into the mortar with which the intercourse of bricks are to be laid, and the effect will be that there will never be any accumulation of soot in that chimney. The philosophy is thus stated: the salt, in the portion of mortar which is exposed, absorbs moisture from the atmosphere every damp day: the soot thus becoming damp falls down to the fire-place. [Very agreeable!] —*A late American publication.*



UNIVERSITY MUSEUM: IRONWORK, CENTRAL COURT.

THE UNIVERSITY MUSEUM, OXFORD.

OUR engraving represents the entrance front of the proposed University Museum: the low building on the right is the laboratory. Comparing it with the plan (p. 291, *ante*), it will be seen we have omitted a low building on the left appropriated to anatomy, in order to make the view of the rest of the building larger.

We give, too, an illustration of the spandril of the ironwork, which is to be set up in the central court of the new museum. There will be five arcades formed in wrought iron. The spandrils are each to be of a different design, having the foliage of various trees—the maple, hawthorn, oak, lime, &c. as the types of their ornamentation.

It was one of the characteristics of mediæval architecture that it boldly adopted and found fitting expression for every material of its locality, whether the limestone of one district, the flint of another, or the marble of the third; so also with the arts of the age—sculpture, stained glass, ceramic art, works in metal, were all similarly applied.

For a museum, where light is of the utmost importance, the delicate treatment of which wrought iron is capable is of the greatest value, giving freedom from all those obstructions resulting from material less malleable.

The design and execution of this part of the building are entrusted to Mr. Skidmore, and we shall not fail to note the manner in which he may execute his task.

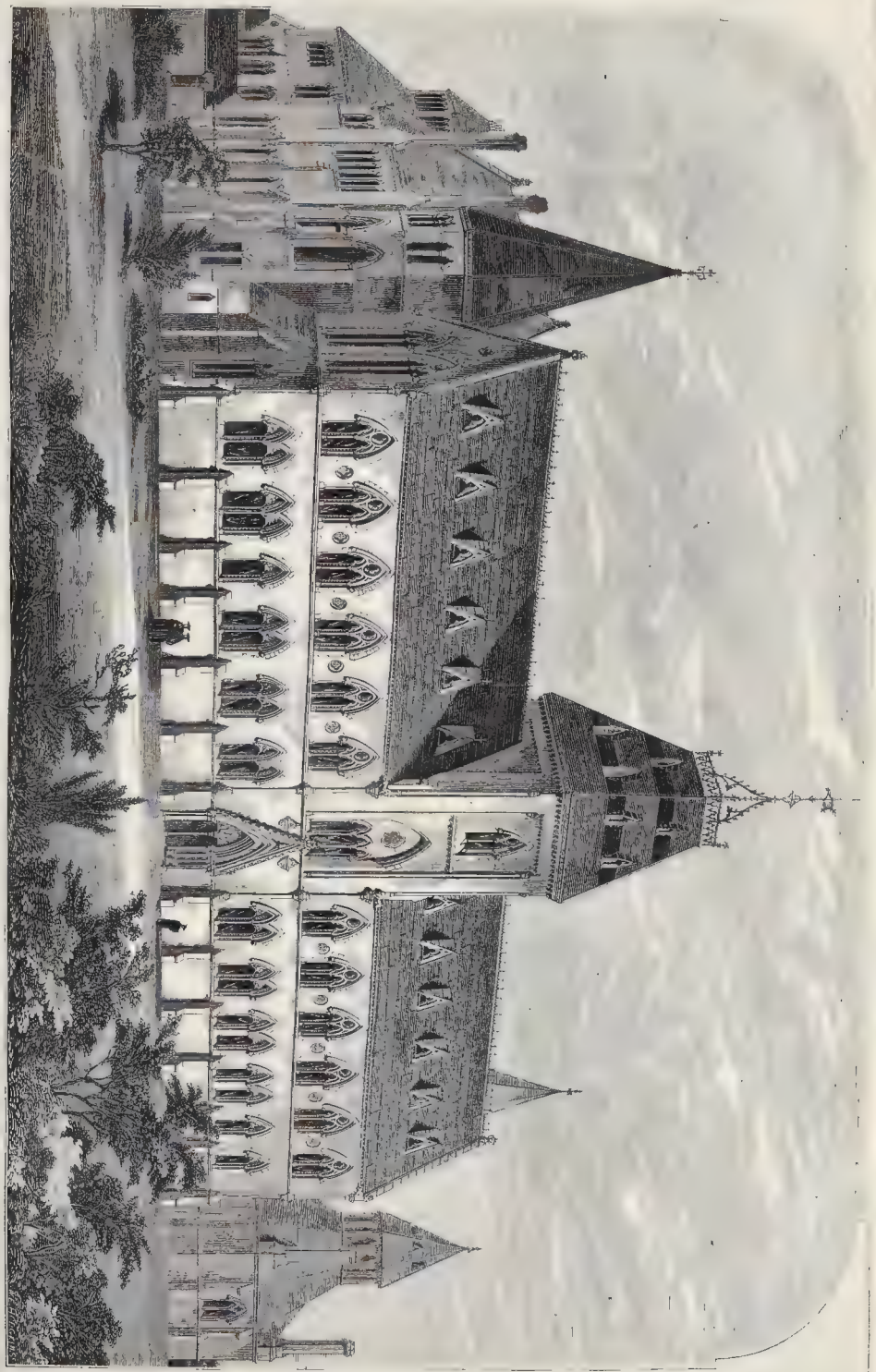
CHURCH-BUILDING NEWS.

Dowlais.—A monument has been erected in the church here over the remains of Sir John Guest. The vault is in the centre of the chancel, over which has been laid a granite slab of great weight, and on which is the simple inscription—"Sir John Guest." The monument is placed in the eastern side of the church, above the family pew. The inscription is of gilt letters on granite ground, surrounded by cornices and columns in alabaster, marble, and Caen stone. It ends with the following texts:—"Seest thou a man diligent in his business? he shall stand before kings."—"Blessed are the dead who die in the Lord."

Baschurch.—Through the liberality of Mrs. Barrett, of Prescott, who is said to have lately become possessed of a large fortune, a new church is about to be erected at Weston Lullingfield, in this parish. Mr. C. K. Mainwaring, of Oteley-park, has given a site about a quarter of a mile to the north of the village of Weston, and facing the distant range of Denbighshire hills. The plans are not yet fixed on, but it is stated that the parsonage-house will be connected with the church by means of a cloister. Mr. Edward Haycock, jun. is the architect; and the works will be carried out by Mr. W. T. Rogers, of Beaumaris, Anglesey. On Tuesday before last the foundation-stone was laid by Miss Mesham, niece of Mrs. Barrett.

Preston.—The restoration or rebuilding of the parish church here has been completed, and the new edifice opened. The old church was razed to the ground (with the exception of the lower stages of the tower), and the present structure has been entirely rebuilt upon the old foundations, in the Middle-Pointed style. The body of the church is a parallelogram, consisting of nave and north and south aisles, with tower and spire at the west end, and chancel at east end of nave. There is also a south aisle against the chancel, and the porch forming the principal entrance into the church is placed on the north side of the tower, and at the end of the north aisle. The other entrance is on the south side, opposite. The north and south aisles are both divided into six compartments, each compartment containing a large pointed window, the upper part or head having tracery of a varied and flowing decorated character. The divisions are marked by buttresses, ornamented with carved and enriched canopies. The clerestory of the nave above contains the same number of compartments or divisions on each side as the aisles. The east end of chancel contains a large decorated window of five lights. The south side of chancel aisle is somewhat similar to the north side of chancel, except that there are no pinnacles, and the parapet is plain. The east end is also filled with a large window. The tracery of these last windows comes down on the jambs, after the manner of many windows in continental cathedrals of the Flamboyant style. The porch consists of a crocketed gable, with two panelled buttresses at each angle, with carved pinnacles. The doorway is very large, with moulded arch, and is enriched with carving and ornamental niches on each side. A suitable window and panelling occupy the gable. The tower is in two stages, with two buttresses at each angle. The tower and spire are 205 feet high from ground to top of vane. A moulded plinth runs all round the church. The body of the church is 51 feet 6 inches wide, by 93 feet long, and the extreme length internally from the west wall of the baptistery in the tower to the east wall of the chancel is 162 feet. The roof of the nave is 50 feet from floor to ridge. The church will accommodate about 1,200 persons. Mr. Shellard was the architect, and Mr. Foggett the contractor.

Keighley.—The church of St. Mary the Virgin, at Eastwood, recently consecrated, is in the early decorated style. The plan is cruciform, but without aisles. The organ chapel on the north side of the chancel is balanced by the vestry on the south side. The nave is divided exteriorly into four compartments or bays, separated by buttresses of two stages, which die away in the walls below the eaves course. Each bay contains a one-light narrow window, with a three-foiled head. The west elevation of the nave contains two two-light windows, three-foiled, with four foils in the head, surmounted in the gable with a spherical triangle doubly foiled. The whole is surmounted with a bell-gable and cross. The elevations of the north and south transepts have each one two-light window, flanked on either side with a window of a single light, three-foiled. The gables have spherical triangles like those already referred to. The east window of the chancel consists of four lights, forming two fenestellæ, surmounted by a circle enclosing four four-foiled circles. The fenestellæ have each light three-foiled, and in the head a three-foiled circle. The accommodation is for 530 persons, all free. Through the liberality of a lady, the east window of the chancel has been filled with stained glass, the work of Mr. F. Barnett, of Edinburgh. The following are the dimensions of the church: nave, east to west, 67 feet; north to south, 24½ feet. Chancel, east to west, 21 feet; north to south, 22 feet; entire length, 88 feet. Transepts, east to west, 22 feet; north to south, 18 feet; entire width, 60½ feet. Messrs. Perkin and Backhouse, of Leeds, were the architects.



PROPOSED UNIVERSITY MUSEUM, OXFORD.—MESSRS. DEANE AND WOODWARD, ARCHITECTS.

HUMAN LONGEVITY.*

M. FLOURENS, perpetual secretary to the Academy of Sciences, ought, as a professor of comparative physiology, to be well able to write an interesting and instructive work on such a subject as this; and, indeed, what he has written is both interesting and curious; but we must confess that it falls short of our expectation, both theoretically and practically considered. True, he professes but to "touch" upon some of the most important points of the study and the theory of life, and he does go both lightly and briefly over it; but he stimulates our expectation in the outset by saying, with undoubting confidence, "I solve the mystery, *as far as it can be solved;*" whereas, after perusing all he has said on the subject, we incline to think that he ought simply to have told us that he had solved the mystery, *as far as he could solve it;* for, in more points than one, other physiologists have even already far surpassed him in their progress towards such a solution; and M. Flourens, in these instances, has not even taken advantage of what has been already done towards so desirable an end.

The practical object which M. Flourens has in view is a good one. "I have wished," he says, "to prove a thing that is not sufficiently well understood, which is, that man possesses a great power of life; and that, by making good use of this reason, he can greatly extend this power." Is it not strange that with such an object in view the author has not one word to say in favour of those external circumstances and arrangements of a sanitary nature on which health, and hence long life, in truth, so much depend? So far, indeed, from this, he assures us that "the duration of our life depends neither on climate, food, nor variety; it depends *upon nothing external;* it depends *only* on the internal constitution, and upon the intrinsic virtue of our organs." That staminal vigour of constitution is one essential—nay, a primary essential—to longevity, who can doubt? but it is not hence the only essential. Even Cornaro, for instance, M. Flourens's great exemplar, might have enlightened him on this point a little, where he says,—"I have never lived in places where the air is bad," and where he also adverts to other external circumstances unfavourable to health and long life. No doubt many do live to a good old age *in spite of* unfavourable sanitary arrangements, but, few will doubt that in such instances the life would have been still further prolonged had external circumstances been more favourable. So, too, with irregular or intemperate habits of life: some have certainly attained to old age in defiance of such habits, but would they not have lived still longer had these habits been avoided? When the inspired writer spoke of "three score and ten years" as the limit of the life of degenerate humanity, doubtless everything was intuitively taken into account that tends to abbreviate life, and so reduce its average length; but look to the divine endeavours, at the very same time, to obviate such causes, by the institution, amongst the Jews, of positive *sanitary* laws, regulations, and observances, in regard to diseases, purifications, unclean animals, food, &c. which it would be well for Gentiles, no less than for Jews, did they still give heed to. We do not quarrel with M. Flourens for extending the "three score and ten" alleged length of life to even a century. Indeed, we have more than once semi-seriously proposed the institution of a sanitary association for the lengthening of life to a hundred years; and we are still a believer in the possibility of such an extension, whatever may be the amount of the probability or improbability of its general attainment. M. Flourens's idea that a century is the normal term of human life is deduced from certain facts, as he alleges them to be, in regard to the growth, continuance, and decay of various animals. He regards it as a law, amongst the higher order of mammalia at least, that an animal lives, on the average, five times the period expended in its growth. Thus, since the human being, he urges, continues to grow to about the age of twenty, when its gristle has fully become bone, therefore the normal term of his life is five times twenty, or a century. The growth here alluded to, however, is but one out of two species of growth. The body grows first in size or length mainly, and then it consolidates—grows in girth, or rather in *firmness* and *solidity* mainly, or "fills up." M. Flourens appears to imagine that he is the first discoverer of this secondary process of *consolidation*. "After growth," he says, "or rather after the developments in length and in size, I find still a third, not indicated by physiologists, but which appears to me none the less real. I mean that of the deep interior work which acts in the most hidden parts; and rendering all these parts more complete — *firmer*, — also renders all the functions more certain, and the entire organization more perfect." Now, so far from this author having been the discoverer of this process of *confirmation*, as we may call it, or consolidation, physiologists have perfectly well known and recognized it for many years, as he may find, for instance, by reference to the late Dr. Gregory's admirable work on life. And what is more, physiologists have well known, also, what M. Flourens appears not to be aware of, that the very same cause which first builds up the animal frame and then consolidates it, next proceeds to constrict and wither it away,—that old age, or natural decay, and death, in short, are produced by the mere continued, uncounteracted, or at least paramount, operation of those very *concentrative* forces which first *composed* the frame by adding composite particle to composite particle, in the semi-fluid embryo and the soft and tender child, till the limit of growth was consummated in the final consolidation of the body so composed. Composition may be named as the first grand process (ever alternating with decomposition, but ever overcoming it till the body be evolved). Consolidation is the next. The last is that general process of constriction or *ultra*-consolidation in which the firm and vigorous muscle, for example, becomes hard and stiff almost as a board; and in which the whole of the fleshy tabernacle proceeds on the way, as it were, towards petrifaction into a mere ossified statue, long ere which dread consummation the heart has ceased to beat, the lungs to play, and the animal to live. That this fell constrictive process can be even temporarily retarded by ordinary sanitary arrangements we do not mean to urge, although we have listened in our time to not unfeasible arguments to this end against the use of food containing *lime!* On the contrary, this constrictive withering process is necessarily implied in the unhindered continuance of those very forces which constitute the vigour and the prime of healthful life. These forces we have said are, in their general nature, essentially concentrative. It is concentrative force which drives us ever onward, from infancy to old age,—from the cradle to the grave. Can this dread power be ever overcome, even temporarily, or to a partial extent? Is there no counteractive force, equally inherent in, and constitutional to, the highest form and evolution of animal life, as is the concentrative, but whose tendencies are the reverse, to draw us backwards from old age towards youth? Why this would be a renewer of the youth! No doubt of it. Here we would have the true elixir vitæ. But we know too well, by all the sad experience of mortal man, that there is no such counteractive. Yet *how* do we know that there *is no* such counteractive? All we do know from experience, it must be admitted, is that no such elixir ever does operate towards the accomplishment of so sublime an end. In fact, we scarcely know even this: on the contrary, physiologists tell us that there *is* such a counteractive which does operate *towards* such an end, although it be not a complete counteractive or restorer. Macnish, in his "Anatomy of Sleep," even calls this restorer "the only elixir vitæ." Sleep itself is that imperfect restorative to which Macnish and other physiologists allude. As, in the active concentrative vigour of waking life, we take, each day, as it were, one full step onwards towards old age and our inevitable grave; so, in refreshing, restorative sleep, we retrace,—but, alas! only partially,—only as it were by *half* a step,—the fatal progress we had made while exhausting life's limits in the vigilant state. Though "the praise of the whole earth," then, sleep—

> "Balmy sleep!
> Beloved from pole to pole,"

is but a siren after all, that wiles us onward towards inevitable destruction while it seems to promise us eternal bliss. In the vigour of middle life, such is the apparent balancement of the vital forces that physiologists say their only wonder is, that so glorious a machine should ever progress towards decay, or ever stop; and that experience alone is capable of undeceiving us on that point. And, from what they tell us of sleep, we must conclude that were *it* but a little more intense and perfect of its kind,—not longer or more abundant in mere quantity be it noted, but intenser and more powerful in quality,—as an irradiator, we shall say, of what is concentrated, an expander, a dissolver, of what is consolidated or constricted, a restorer of what is lost,—we should in reality possess that blissful elixir vitæ which Dr. Macnish has called it, spite of all its shortcomings and defects. Ah! Monsieur Flourens, there are mysteries here on which you have not even "touched;" far less have you evolved them so far as they may yet be evolved. Life, according to Shakspeare, "is rounded by a sleep." Why sleep, then, which constitutes one whole hemisphere, as it were, of the full *round* of life, is not even alluded to by a physiologist, such as M. Flourens is, in such a work, as a probable influencer of longevity, we cannot comprehend: probably he felt that here the "mystery" was likely to become too profound. We can imagine even an ardent penetrator into life's mysteries, such as Flourens certainly is, pausing on the brink of that ocean of uncertainty which divides us from anything like tangible ground in this dark mysterious hemisphere of life,—this "brother," this "shadow of death,"—and gazing seaward, as across a tossed and unstable Atlantic of misrule and mad confusion of life, and through a hovering mist at length impenetrable; but with no guiding star, no eye of a Columbus to lead him forward in full faith towards the unfolding of so vast a mystery; and till this mystery *be* unfolded, we are persuaded that physiologists ought humbly to acknowledge that the subject of longevity is one they know very little about.

Meanwhile, however, we can at any rate fight against those external agencies of man's own setting up, which admittedly produce wretchedness and shorten life.

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* "On Human Longevity, and the Amount of Life on the Globe. By P. Flourens. Translated by Charles Martel. Second edition. London: Baillière, Regent-street. 1855.

METROPOLITAN MEMS.

County Fire Office, Cornhill.—The house which has been erected on Cornhill for the County Fire Office, under the direction of Mr. Alfred Beaumont, has two noticeable façades, very creditable to the architect. It is five stories in height, faced with Anston stone. The largeness of the windows on the one-pair story in Cornhill aids in giving an appropriate character. The ground story displays some delicate ornamentation. The amount of the contract was 15,000*l.*

The Paintings in St. Paul's—Considerable progress has been made by Mr. Parris in his restoration of the paintings in the dome of St. Paul's Cathedral. About three-fourths of the dome, besides the lantern, are completed. The right-hand figure, with books, in the easternmost compartment, has an extravagant aspect, but probably the artist has but restored. It is to be regretted that the same ability and expenditure were not employed to decorate the dome on sound principles instead of in renewing a colossal error.

Testimonial to Dr. Croly.—A considerable party were gathered together at the Mansion House, by the Lord Mayor, on the 29th ult. on the occasion of presenting a bust to Dr. Croly, subscribed for by a number of his friends: they afterwards partook of a *déjeuner* in the Egyptian Hall, when the Rev. Dr. (who had previously addressed the assembly at some length), Mr. Monckton Milnes, the Vice Chancellor, Alderman Wire, and others spoke.

Art in the City.—On Saturday, the 7th, the Lord Mayor will receive at dinner the representatives of various artistical bodies, to meet the members of the Royal Academy.

Bryanstone-square.—A correspondent, who finds fault with the alteration of the name of this square to Bryanston, says it was derived

from one Bryan and a certain stone in the neighbourhood! If the objection were not more valid than the story, it would be unnecessary to allude to it. The square has its name from E. Bryanstone Portman, esq. of Bryanstone, Dorset, father of Lord Portman, the present ground-landlord. According to the "Curiosities of London," it was built on Ward's Field, by David Porter, who was once chimney-sweeper to the village of Marylebone.

Smithfield and Lincoln's Inn.—A reader asks us to tell him which occupies the largest area, old Smithfield Market or Lincoln's Inn-fields. The area of Lincoln's Inn-fields is very considerably the larger. The area of the market is said to be 6¼ acres, while that of Lincoln's Inn-fields is more than 11⅓ acres.

Birchin-lane.—A large set of offices, fireproof and of a substantial character, has been erected in Birchin-lane, City, for Messrs. Waterlow, under the direction of Mr. F. Leake. The pilasters and entablature of the shop-front are of grey and red granite; the rest of the front is of stone and white brick. It is to be regretted that the front is not straight.

Buckingham House, Pall-mall.—Buckingham-house, in Pall-mall, has been purchased by the Government for Lord Panmure's office—thus placing the War-office very near to the Ordnance-office. We believe the house is not to be materially altered—so that Soane's architecture, such as it is, will be spared a little longer. Various clubs have been *nibbling* at it, but the Government now has walked in and swallowed it up.

PROVINCIAL NEWS.

Bilston.—New schools for workmen's children have been erected by Messrs. John Bagnall and Sons. The building adjoins their works and collieries at Capponfield, near Bilston. The school-room is 52 feet 6 inches long, by 25 feet 2 inches wide, and has a chancel 23 feet by 15 feet at the east end, separated from the school-room by a screen 7 feet high. The walls are built of blast furnace cinders with freestone dressings. The roofs are open, having all the timbers exposed internally. The east window, of three lights, has been filled with stained glass by Hardman, of Birmingham, at the expense of the workmen. The subject of the centre light is our Saviour blessing little children. The cost of the building, exclusive of fittings, warming apparatus, and site, was 175*l.* Mr. W. D. Griffin, of Wolverhampton, was the architect, and Mr. Johnson, of West Bromwich, the builder.

Evesham.—The chief stone of the new bridge here, lately described in our columns, was laid on Thursday in last week by the mayor of the town.

Stratford-on-Avon.—Six tenders for the erection of the proposed Corn-Exchange have been received by the committee, varying from 1,990*l.* to 2,433*l.* Three of them are from builders residing in Stratford, one from Coventry, one from Birmingham, and one from Evesham. No final decision has yet been made.

Newport, Cardiff, &c.—The dock accommodation of the southern ports of the principality is being rapidly extended. The long-proposed new dock at Newport has being commenced. The extensive new dock at Cardiff is expected to be finished in August next. The trade of these ports is increasing, and the same may be said of Swansea, where it is proposed to extend the west pier of the harbour to the extent of 600 feet, erect a lighthouse at the extremity, and form the old bed of the river into a half-tide basin, with an area of three acres. The channel from the floating harbour to the sea is being deepened.

Liverpool.—Another pair of large iron gates have been erected at the southern entrance to the area of St. George's-hall.

Oldham.—The chief stone of the Lyceum was laid on Monday in last week, by the president, Mr. James Platt, in presence of Lord Stanley, the mayor of the town, a body of Freemasons, and many other persons.

Halifax.—The new railway station was opened on Saturday before last. It has a frontage of about 236 feet, and consists of two wings, brought forward from the front about 6 feet, with a centre part brought forward three feet. At the principal entrance is a portico with four columns. There is one general entrance for passengers of all classes, 25 feet by 7 feet, with a booking-office on each side, 24 feet by 16 feet. The platform next the station is 323 feet long and 21 feet wide. The platform opposite the station is 450 feet long and 18 feet wide. The iron roof over the building is 73 feet in width, and is divided by fifty-three principal rafters. The works have been executed by Messrs. G. Thompson and Co. contractors. The stone for the building has been supplied from Ringby delphs, and that for the platforms from Northowram. The plumber's work has been done by Mr. Walsh, of Halifax. The chief engineer of the works was Mr. Meek; resident engineer, Mr. Watt; architect, Mr. James Butterworth, of Manchester.——On Tuesday in last week the foundation-stone of the new almshouses and blue-coat school, about to be erected by the trustees of Mr. N. Waterhouse, on the vacant ground near Trinity church, was laid by Archdeacon Musgrave. The ground on which the buildings are to be erected comprises about 5,924 square yards, on which there will be three blocks of houses and a large school. Each set of houses will cover 108 feet of ground by 38 feet, and the school 121 feet by 41 feet.—The style of architecture is the Pointed. Each dwelling is to consist of a sitting-room, a kitchen, pantry, &c. and all the rooms are so constructed that they may easily be heated with hot water. The Blue-Coat School will consist internally of two schools, one for girls, and another for boys; a committee-room, master's parlour, sitting-room, kitchen, &c. besides a large dining-room for the whole school. The second story will be divided into twenty-four bed-rooms, for the accommodation of thirty boys and thirty girls.

Hartlepool.—The Great Northern Breakwater, designed to elongate the headland on which Hartlepool is built, is progressing. There is now on the ground about 100,000 cubic feet of building material ready for laying. The pier is being built chiefly of artificial stone, composed of Portland cement and broken stones. Moveable staging has been constructed, by means of which from a hundred to a hundred and twenty tons of material have been set and built in daily during a week.

Derry.—Fourteen wooden huts, roofed in the cottage form, are in course of erection at the Ebrington Barracks. These huts measure from 40 feet by 20 in width: twelve of them are intended for quarters for the non-commissioned officers and privates, and as they will be capable of accommodating twenty-five men in each, the whole will afford room for 300. The two other huts will be fitted up for officers' quarters. These wooden houses will be heated by stoves, and substantially floored.

Leeds.—The Kirkgate Covered Market, which is to be erected upon the plans of Mr. C. Tilney, C.E. the borough surveyor, will be principally constructed of cast-iron and glass in the English style of architecture, and will have a west frontage of 240 feet to Vicar-lane, a south frontage of 150 feet to Kirkgate, an east frontage of 312 feet to Smithfield-street, and a north frontage of 132 feet to Ludgate-hill. The entire area covered will be 4,100 superficial square yards. The external part is to be supported by seventy cast-iron columns. The interior will be divided into three bays or avenues, by means of two rows of columns ranging the whole length of the structure from north to south, these columns being braced by cast-iron four-centered arched girders, extending from pillar to pillar, and forming three arcades, along the top of which will be placed the horizontal water conductors and supports to the roof—the pillars themselves forming the vertical water conductors. The three roofs are to be constructed of malleable iron on the string-and-girder principle, and covered with Westmorland slate. On the apeces of the three roofs will be elevated lantern lights, extending the entire length of the ridges, and glazed with strong glass, under which are to be cast-iron ventilating louvre frames, with galvanised iron louvres. The whole plan of the building has been arranged on the 12 feet square principle; so that the arches, strings, girders, &c. will all be of equal length. Each of the shops or stalls will be 12 feet square, the footways 12 feet wide, the carriage-roads 24 feet wide, the centre avenue 36 feet wide, and the two side avenues 48 feet wide. Thus the metals and castings will work in every direction, causing the building to be constructed at a comparatively small cost, considering the minute details and enrichments. Seventy-nine covered stalls will surround the structure. The roads and entrances are so arranged that nearly every shop will have two frontages. The shops will be divided and covered by corrugated iron. The corrugated iron will in no instance be exposed to the weather. Each shop front will be divided into four compartments by four arches—one of which will form the doorway, and the remaining three again subdivided and glazed. The stalls will cover an area of about 1,300 square yards, and the roads, stands, and entrances, will form one large area of about 2,800 square yards in the centre of the building. In all, there will be seventeen entrances 12 feet wide each, and six smaller entrances of six feet wide each. The total estimated cost is 14,000*l.*

MORE OF THE "SCIENCE OF STATISTICS."

CENTRAL ARCHIVES AT BERLIN.

SINCE we printed the memoranda on this subject, we have fallen upon some additional interesting information in the columns of a foreign print. There exists in the city of Berlin a private institution for the accumulation and diffusion of statistical information upon all matters relating to political economy in its most comprehensive sense. It is under the direction of Herr Otto Hubner, at whose sole expense it is maintained; but the great advantages which it offers to the public, and the services which it has already rendered to several European Governments, demand that its scope should be more widely known.

This is not the place to speak of the importance of statistical studies. Those who know their value, and are engaged in their pursuit, will agree with us in saying that every effort which is made to collect promptly reliable information concerning the actual condition of different countries, is deserving of the utmost encouragement. In such efforts Herr Hubner has been for many years engaged with very great success. In the furtherance of his designs he has received official information from the governments of the following states;—Prussia, Austria, Bavaria, Saxony, Baden, Hanover, Oldenburg, Mecklenburgh, Brunswick, Saxe-Coburg, Saxe-Gotha, Hamburg and Bremen, Russia, France, England, the United States, Brazil, Spain, Denmark, and Belgium. Many public institutions and private persons are also already in communication with his bureau, and several governments not named above have given assurance of their co-operation. From these various sources, about 5,000 documents have been accumulated, which are arranged in six departments, as follows:—

1. General statistics.
2. Statistics in relation to emigration and colonization.
3. Statistics pertaining to insurance.
4. Statistics in regard to finances and banks.
5. Statistics concerning customs.
6. Statistics of railroads.

The direct practical relation in which these divisions stand with commercial and industrial prosperity has already enabled Herr Hubner to be of great service in the promotion of public works and private enterprises in different countries of Europe. Statistics which it would have required weeks and months to have obtained by application to official statistical bureaux, where such departments exist, and which it would have been impossible for governments to obtain where there are no statistical bureaux, he has been able, by a wide system of correspondence, and by remarkable enterprise, to collect with promptness, and to place at the service of the public.

The consequence has naturally followed, that applications are now often made to Herr Hubner by various governments, as well as by private insurance and commercial companies in the different cities of Europe, when general statistical information is desired. For the complete success of

an enterprise like this, which aims at placing before the public of every country the *statistics* of every country, it is evident that there is need of general co-operation upon the part of those who are interested in such investigations. Our object here in detailing the attempt is first to inform our readers where they may find a large collection of general statistics, which is constantly supplied with fresh material from a wide variety of sources; and secondly, to express a hope that those who have the control of new statistical information in this country, in whatever position they are, may bear in mind Herr Hubner and the Central Archives of Statistics in Vienna. There is perhaps no class in the kingdom to whom such an institution is of higher value, upon occasions of ever-recurring frequency,—while at the same time there is no class who have it in their power to contribute more to such a fund of knowledge,—than the readers of the *Builder*.

COMMERCIAL DOCKS, ROTHERHITHE.

ON Wednesday, 27th ult. the water was admitted into the New Dock constructed for the Commercial Dock Company by Mr. Kelk, the contractor, and described in our pages some time ago. Messrs. Walker, Burges, and Cooper, are the engineers. The High Sheriff of Surrey, Mr. James Gadesden, assisted by Mr. Carter, a director, opened the sluice on the north side of the cofferdam, while the chairman of the company, Mr. Alexander Sim, assisted by the chairman of the dock committee, Mr. Edmund Brandt, opened the sluice on the south side. We understand that the opening for the admission of ships will take place early in July, and that the company will be enabled to admit ships of the largest tonnage.

SURREY ARCHÆOLOGICAL SOCIETY.

AT the annual meeting of this society, held on the 27th ult. the proposition that the operations of the society should be extended to Middlesex was discussed, but the feeling of the meeting being against it, the motion was withdrawn. The meeting was presided over by Mr. W. J. Evelyn, one of the members for the county. Mr. Austen, of Chilworth, gave some account, on the spot, of the Castle at Guildford, claiming for it, on not very sufficient grounds, an earlier date than is usually ascribed to it; and the Rev. C. Boutell read a paper on "The Monumental Brasses of Surrey." Mr. Britton, by a lively speech, saved the dinner from being a failure. From the report of the hon. secretary, Mr. Bish Webb, it appears the society now comprises 415 members.

DOINGS IN IRELAND.

A NEW Presbyterian church, schools, and manse are to be built at Carrickfergus.

The Lords of the Treasury have sanctioned the application for the grant of 6,000*l.* in aid of the Dargan Fund, for the erection of suitable premises on the site of "The Dublin Industrial Building" at Leinster-lawn.

Alterations and repairs are now in progress at the Convict-office, Dublin Castle-yard, and two workmen were recently precipitated from a high scaffolding by the falling of some new brickwork thereon, which resulted in the death of one.

The first stone of the new Roman Catholic Church of the Holy Trinity, Cookstown, was laid on Whit-Monday. It is situated on an eminence at the southern entrance to the town. The plan comprises nave, chancel, side-aisles, and chapels, with tower and spire at west end of nave, and sacristy on the south side of chapel. Total dimensions, 158 feet by 63 feet; height, from ground line to ridge of roof of nave, 64 feet. The tower and spire will be 185 feet in height. The style is Decorated Gothic of the fifteenth century. It is expected that the church will be consecrated in about two years. Mr. J. J. M'Carthy, M.R.I.A. architect.

The new Roman Catholic Church of St. Joseph, Caledon, has been consecrated.

An inquiry is being prosecuted as to the desirability of carrying into execution either of two plans submitted respectively by Mr. Gibbons (harbour engineer) and Mr. Rendall, C.E. for improving the harbour of Kingstown, and affording additional accommodation to the packet service. That of the former gentleman has been partially carried out, and involves the construction of a pier 800 feet by 60 feet, to run from the water-tank, and to be connected with the railway at the level of the atmospheric. The connecting rails are to be under a tunnel near the station. 45,000*l.* is estimated to complete the work. Mr. Rendall proposes a connecting line of railway from the station round the inner side of the eastern pier, to about the first angle of the pier beyond the wolf hulk. A floating pontoon, and wall 25 feet high along far side of pier, also the narrowing of the mouth of the harbour, are proposed by this plan. Estimated cost, 180,000*l.*

Notices of Books.

Dictionary of Geography—Descriptive, Physical, Statistical, and Historical; or, Gazetteer of the World. By A. K. JOHNSTON, F.R.S.E. Second Edition. Longman and Co. London. 1855.

THE first edition of this work having been exhausted, the author, who is her Majesty's Geographer in Ordinary at Edinburgh, has, it appears, revised and corrected it up to the most recent possible dates, and made many additions, so that the whole constitutes almost a new work, a large portion of the volume having, in fact, been rewritten, while the remainder has been corrected. Though comprised in a single volume, this is a comprehensive and well-proportioned Gazetteer of the world. It might, indeed, have easily been bound up into more than one volume, as it consists of no less than 1352 large octavo pages; but while for facility of reference the limits have been condensed by abbreviations and otherwise, any division into more than one volume has also been avoided for similar reasons. The work is well worthy of commendation and favour as a standard book of general geographical reference, and is likely to meet with a rapid sale in these war times, when the eyes of all are turned abroad in various directions throughout the world.

A School Atlas of Astronomy. By A. K. Johnston. Edited by J. R. Hind, F.R.A.S. Blackwood and Sons, Edinburgh and London. 1855.

THIS is a handsome volume of plates and notes, by the same author, illustrative of that wonderful science of which all know a little, but none very much. The plates, besides maps of the stars, comprise various interesting engravings of the nebulæ or star clusters, the comets, the solar spots, the moon's surface, the planetary system, double and coloured stars, &c. the whole printed in colours, and the notes explanative of the plates.

Illustrations of the Useful Arts. By C. TOMLINSON. No. 1. The Manufacture of a Needle. London: Myers and Co. Leaden-hall-street. 1855.

THIS is the first of a series of little treatises which ought to be, and we doubt not will be, highly interesting as well as instructive, inasmuch as they are to be accompanied by specimens of the manufacture treated of, in its various stages of preparation. Thus, in the present instance, we have, on a card, enclosed, together with the tract, in a pasteboard sheath, ten little pieces of metal, showing the various stages through which a needle passes, from the wire cut for two, to the perfect and polished needle. The next is to be on the pin. The editor of this series, Mr. Tomlinson, is already engaged on another series of a similar kind, but relating chiefly to woven fabrics, paper, &c. under the sanction of the Board of Trade Department of Science and Art. He is best known to our readers as the editor of the very good "Cyclopædia of the Useful Arts," recently issued.

Miscellanea.

THE RUINS OF THE BLACKFRIARS' MONASTERY, AT HEREFORD.—Great improvements have been effected in the Conigsby Hospitals, and at and around the neighbouring ruins of the Dominican Monastery. Mr. John Arkwright, of Hampton Court, the present patron of the hospitals, has caused an entire clearance to be made of the rubbish which has for many years choked up, and partially hidden from the eye of the visitors, these interesting remains; and under the superintendence of Mr. Samuel Williams, of this city, says the *Hereford Times*, the surrounding land is being laid out in grass-plots, edged with box, and separated by broad gravel paths. The interior of the Refectory is to be levelled, and also sown with grass. The space round the Preaching Cross has also been divested of unsightly objects which long encumbered it.

GUTTA PERCHA PIPES.—The complaint we alluded to last week, and which is from Mr. Alexander Marshall, a plumber, is to the effect, that when gutta percha pipes for the conveyance of water leak, the agents of the company say they have been cut by the plumber, and he gives the particulars of a case in a nobleman's mansion, where the accusation had been wrongly made against himself:—"As plumbers," the writer says, "are generally considered averse to the use of gutta percha, there is a presumption against them, and direct and official accusations like the one I report, so unhesitatingly made, would have *primâ-facie* weight; and had not the nobleman to whom it was addressed been a just and dispassionate employer, I should have been dismissed his house and service with disgrace." Examination showed that the leakage proceeded from defective workmanship; and the agents of the company admit that the opinion was too hastily given. The pipe had been fixed two years and a half.

TESTIMONIALS TO THE LATE MAYOR OF OXFORD.—Amongst the testimonials presented to Alderman Spiers, of Oxford, on the 16th ult. was a singularly interesting album, designated the "Friends, and Guests' Gift," comprising contributions, literary and artistical, from 125 authors, artists, and men of science, more or less known to the public. Mr. Spiers discharged the duties of his office in no common manner, and has had the good fortune to find his efforts appreciated. We had written a few particulars of the presentation for our last number, but were forced by press of matter to omit them.

ST. MARY'S, ISLINGTON.—An endeavour is being made to raise funds to repair this church. The present state of it is hardly creditable to the parish, and a considerable outlay is absolutely necessary in order to render its internal condition such as becomes the mother church of a vast population. An estimate has been made of the probable expense which must be incurred; and it is found that an outlay of 600*l.* or 700*l.* will be required.

THE PANOPTICON.—A course of lectures on "The Genius of the Great Composers," by Mr. Leicester Buckingham, illustrated by selections from their works, is now being delivered here. Those already given have treated of—1. The music of the ancients; Ambrosian Chant; Gregorian Tones; Italian School—Festa, Palestrina, Allegri, Scarlatti, Corelli, Pergolesi, and Piccini. 2. The Italian School—Cimarosa, Cherubini, Spontini, Rossini, Bellini, Donizetti, and Verdi. 3. The German School—Handel, Bach, Gluck, Hadyn, and Mozart. Next week the subjects will be:—1. German School—Beethoven, Spohr, Flotow, Weber, Schubert, Mendelssohn, Meyerbeer, and Wagner. 2. French School—Early French music; Lully, Gretry; Influence of Gluck; Le Sueur, Boieldieu, Auber, Félicien David, Halevy, and Hérold. 3. The Old English School—Music of the Elizabethan Age; Morley, Purcell, Locke, Greene, Arne, Calcott, and Linley.

NORWICH SCHOOL OF ART.—This institution has now been in existence about ten years. The school, however, has not been adequately supported by the citizens. The council having determined to raise the building for the Free Library a story higher, accommodation will be afforded for the school, and thus the rent will be saved; while under the new Act, when passed, grants of sufficient amount may be made to the school as well as to the library and museum. Mr. Claude L. Nursey, the new master, has introduced an entirely new system into the school, which, according to the local *Chronicle*, has very considerably revived it during the past year. On Tuesday in last week the annual meeting of the subscribers was held at the rooms in St. Andrew's. In the afternoon there was a meeting to dispose of the usual routine business, the election of officers, appointment of committee, &c. for next year; and in the evening a considerable number of the subscribers and their friends, as well as the students, assembled in the rooms to witness the distribution of prizes. The drawings in competition were hung round the room, and were inspected till the room became too crowded. The mayor distributed the prizes.

A MEETING OF ART-WORKMEN is to be held at the Architectural Museum, Canon-row, Westminster, on Monday, the 9th instant, when the Rev. F. D. Maurice, will make an address.

IMPROVEMENTS AT WINDSOR CASTLE.—Amongst other minor works in progress about the immediate precincts of the Castle, a subterraneous passage is in course of formation, commencing in the basement of the Cornwall Tower, and extending through the north side of the Castle, below St. George's Hall, into and across the Quadrangle, and joining the passages in the basement-floor of the south side of the Castle, thereby forming a complete chain of communication from the Porter's Lodge, to the south-east angle of the Castle. On each side of this extensive passage there will be a continuous range of coal and other store cellars, the want of which has long been felt.

NEW WORKS IN ST. JOHN'S CHURCH, BARNET.—In the small church of St. John, Potter's-bar, three stained-glass windows have lately been placed over the communion-table, "in memory of Harriet, widow of George Byng, esq. M.P." There are nine scriptural subjects depicted in the three windows, namely,—"The Annunciation of the Virgin Mary," "The Birth of Christ," "The Baptism," "The Agony in the Garden," "The Crucifixion," "The Burial of the Saviour," "The Resurrection," "The Ascension," and "The Descent of the Holy Ghost." The windows were put up by Mr. O'Conner. Since their erection the Rev. H. G. Watkins, M.A. (the incumbent), has had the Commandments, &c. re-written on the walls, between the windows, in old church text, ornamented with borders, by Mr. Castell, decorator. Between the vestry-room and the chancel is erected the tomb of the late Mr. and Mrs. Byng. It is of Caen stone, in the Tudor style, and was designed by Mr. J. Clutton, architect. It is an altar-tomb, surmounted by a canopy. The front is divided into four panels, upon which are carved the family crests. Alternating with these are four recessed niches, each crowned with an ornamented projection. Each niche contains a statuette of a widow with a tear on her face, but all the figures differing from each other. Beneath the canopy is a tablet divided into panels, and in the centre is carved the inscription.

WANT OF LIGHT.—A Mr. Pease, of Darlington, complacently states that, "As proprietor of the only gasworks in Middlesbro', my orders have hitherto prevented gas from being sold to the theatre." It is to be regretted that there are not other gasworks in the place under more sensible and charitable guidance.

THE CAMBRIDGE FREE LIBRARY.—This institution was opened to the public on the 28th ult. a not unworthy mode of celebrating the anniversary of her Majesty's coronation.

GAINFORD.—A Roman Catholic chapel erected on the north side of the turnpike-road from Darlington to Barnardcastle, and dedicated to St. Thomas and St. Osmond, was inaugurated on Tuesday before last. It was built from the designs of Mr. J. Gibson, of Newcastle, in the Early English style, and its decorations were executed by Mr Henderson, of Edinburgh. The windows are all of stained glass, and lancet-shaped; those over the altar filled in with sacred emblems, surrounding a figure of the Saviour in the centre compartment, and of St. Osmond and St. Thomas in the side windows. Attached to the church is a suite of apartments for the officiating priest. The erection of the building, it is said, was undertaken by the Rev. Thomas Witham, of Lartington-hall, at his own cost. The entire cost has been three or four thousand pounds.

SCULPTURED FIGURES IN CHURCHES.—Very great excitement has been caused by the introduction of sculptured representations of certain passages of the Saviour's life in the chancel of a church now building at Bedminster, near Bristol. A memorial having been addressed to the bishop calling for their removal, his lordship says,—"I shall pursue the practice which I have adopted for several years past, of having a new church examined, before consecration, by eyes which I can trust better than my own in seeing distant objects, with the express purpose of obviating the danger of confirming, by the ceremony of consecration, the introduction of objectionable or superstitious appendages."

ELECTRO-TELEGRAPHIC PROGRESS.—The electric wires that are being laid down to connect Constantinople with Sebastopol have all been safely paid out, and Adrianople will now be in instant communication with Constantinople. A Turkish enthusiast is spoken of who cut off a couple of yards of the wire, and brought it home to his own house, in the hope of being the first to know the news. When taken up for the offence, he admitted the fact, but added that all he wanted to learn was the fall of Sebastopol: as for the news transmitted by Government, he would have had discretion enough not to have inquired into that. While apt to smile at Turkish ignorance, however, we ought to remember that the old woman who expected her answer to be forwarded by electric telegraph was not a Turk.——The French commissioners who are taking part in the conferences relative to the continental telegraphs, urge a reduction of one-fifth in the tariff for the despatches. The Belgians urge a reduction, but to a less extent.

CEMETERY CHAPELS.—As an illustration of your remarks on cemetery chapels and burial-boards, a few weeks ago, read the enclosed advertisement as a specimen of what we have going forward at Lewes.

A. B.

*** The advertisement says: "The Burial Board for the parish of St. Michael, in Lewes, are prepared to receive Tenders from persons willing to enter into a contract for the erection on the new burial-ground of the said parish, two chapels under one roof as large as can be obtained for the sum of 150*l.* without the internal fittings!"

METROPOLITAN COMMUNICATIONS.—The committee met again on 19th June, when Mr. J. H. Stevens, engineer to the City Improvement Commissioners, was examined as to the traffic of the City, particularly east and west. He recommended generally the plan proposed by Mr. Pearson to meet the wants of the City. Mr. F. Bennoch advised a proper organization of the omnibus system to prevent obstruction, and an underground railway, with its terminus either in Smithfield or Fore-street, or any place within half a mile of the centre of the City, to obviate such nuisances as that of hundreds of railway vans and waggons in narrow streets. The bridges, he remarked, ought all to be toll free.

DINNER TO MR. CALDER MARSHALL, R.A.—This sculptor being on a visit lately to Edinburgh, a few of the leading artists and personal friends of Mr. Marshall in that city entertained him at dinner in the London Hotel.

SCOTTISH ANTIQUITIES: ORDNANCE SURVEY.—In answer to an application from the Scottish Society of Antiquaries, Lord Panmure has intimated that he will give instructions to the engineer department of the Ordnance, directing that, so far as practicable, "all remains, such as barrows, pillars, circles, and ecclesiastical and other ruins, may be noted on the ordnance survey of Scotland now in progress."

SUSSEX ARCHÆOLOGICAL SOCIETY.—The general annual meeting of this society, we learn, will take place at Horsham, on Thursday, the 12th inst. The objects to be visited, besides the parish church of Horsham, and other points of antiquarian interest in the town, will also include the ancient church at Worth.

NEW TEXTURES.—A discovery has been made by a M. Petit, of Lyons, and patented, of a means of impregnating silk, by a chemical process, with gold, silver, brass, or iron, so that it can be woven with perfect flexibility, and thus form, as it were, stuffs of those metals. A specimen is to be placed in the Universal Exhibition. Could not metallic threads be lacquered or glazed with various coloured vitreous or glassy coatings, so as still to remain flexible, and be capable of being woven into very brilliant textures? Aluminium, or zinc, might have sufficient toughness for such threads, or iron itself might be made bright enough for the purpose, so as to render the textures moderate in price. Copper, too, might do with certain colours; and perhaps the vitreous glaze might be effectible (as by some wire-drawing process) in such a way as to remain prismatic, and so to yield rainbow hues on the surface of the metallic thread. The brittleness of mere threads of glass might thus be overcome. Textures we know, have been woven even with ordinary threads of various coloured spun glass mixed with silk. Verb. sap.

SMOKE PREVENTION.—Mr. A. V. Newton, of Chancery-lane, has secured a patent, by which he claims—Certain means for contracting the passage or passages by which the flame and gases of combustion escape from the fireplace to the flues, "and for dividing or diverting the current of the flame and gases at that part of the furnace, and thereby permitting the oxygen of the air or steam admitted in streams to the furnace to combine with the gases of combustion, and effect the consumption of the smoke."

IMPROVEMENTS IN ROLLING MALLEABLE IRON.—In many of the more remote towns and villages considerable difficulties are still experienced by blacksmiths, from not knowing they can save much time, and make superior work, by using the various forms into which malleable iron is now rolled. Angle iron, T-iron, double T-iron, are now common forms, but only recently extended to general use. Following up this course of progressive improvement, Messrs. Boydell and Glasier, of Camden Works, London, and Anchor Ironworks, Smethwick, have patented some useful forms of iron, adapted for fencing, hurdles, and various other purposes.

PUBLIC CLOCK.—As accessory to an edifice with provision for a clock-face, you may not object to the readers of the *Builder* being made acquainted with the following mode of exhibiting time by public clock. Every hour to be shown by both hands, minute and hour, pointing to its distinguishing figure. Every half-hour to be known by the two hands forming straight upon a diameter of the clock-face: the hour-pointer being between the figures of the past and current hours. Also at all other intervals of five minutes, the hands to be situate correlatively between figures, *i. e.*:—

At 25 minutes to or past,	150 deg.	apart.
At 20	,, ,,	120 deg.	,,
At 15	,, ,,	90 deg.	(rightangle) apart.
At 10	,, ,,	60 deg.	,,
At 5	,, ,,	30 deg.	,,
And for each minute always	6 deg.	,,

This direct geometrical relation may recommend the proposition to encouragement by local authorities.—WM. WALDRON.

SEWERS.—The following tenders were sent in for constructing a sewer along Webb's-lane, Starch-green, and Victoria-road, in the parish of Hammersmith, for the Hon. the Commissioners of Metropolitan Sewers:—

Ycoman	£3,716
Carlisle	3,677
Goodison	3,550
Dethick	3,544
Chamberlin	3,480
Thirst	3,371
Rowe	3,334
Adamson and Sons	3,319
Hill	3,292
Lee and Lavers	3,274
Phillips	3,234
Bird	2,958
Batterbury (accepted)	2,900

TENDERS IN BATH.—Herewith I enclose the amount of tenders given in by some of our Bath tradesmen for repairing an old wall and building new one, by the river, near the old bridge, Bath.

Repairing old wall:—			
Treasure	£393	10	0
Aust	298	0	0
Mitchell	105	0	0
Building new wall:—			
Aust	668	0	0
Treasure	542	0	0
Millage	360	0	0
Mitchell	279	0	0

I can vouch for the accuracy of the above.—C. G. M.

TENDERS

For the erection of warehouses, stabling, and other buildings; together with sundry repairs to six dwelling-houses at Southgate, Middlesex. Mr. William C. Reed, architect:

Hill and Ladds, Barnet	£1,121 0 0
J. Wilkinson, Southgate	967 16 0

For a new church, parsonage, school-master's house, and schools, at Sambrook, near Newport, Shropshire. Mr. Ferrey, architect. Quantities not given. Stone, sand, drawing of all materials, builder's plant, &c. provided by the committee:—

Cobb	£3,400 0 0
Barrat	3,160 0 0
Thomas	2,715 0 0
Treasure	2,629 0 0
Nesett	2,488 0 0

For erecting church, Arlington-square, New North-road. Mr. Gough, architect. Quantities not supplied:—

Carter and Ellis	£5,115 0 0
Dove, Bros.	4,975 0 0
Rowland and Evans	4,941 0 0

TO CORRESPONDENTS.

"H. M. R."—"E. J. K." (will find Cases at the Metropolitan Build ngs Office). "No Friend of Blacke anthem" thanks for kind expressions. Such conduct as that referred to will bring its own reward. "Direct r f a Land Society" thanks.—"E. F." "B. C. D."—"Messrs. C."—"H. T." (we are unable to comply)—"F. S." (letter received).—"W. C."—"S. S." thanks.—"F. D. C."—"D. L. T."—"District Surveyor."—"C. P."—"R. L. W."—"Non Nobis."—"F. L."—"T. H. H."—"Junio" (we do not desire to return to the Academy).

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor;" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO CARPENTERS, BUILDERS, and OTHERS. Extensive Stock of well-seasoned Timber at Sale by Auction.

MR. HASLEHAM has been favoured with instructions to SELL by AUCTION, the surplus STOCK of TIMBER, MERCHANDIZE, &c. remaining on the Railway Arches, Holl way-road, for convenience, on TUESDAY, JULY 10, at TWELVE for ONE o'clock; comprising a large quantity of 4 and 3 inch red and white deals and battens; 3 and 2½ inch yellow and white battens; 4 and 3 inch yellow and white deals and battens; 4 and 3 inch red and white battens; a large quantity of quartering, slating-battens, pantile battens, and other stores. May be viewed the day prior, and had in the morning, and catalogues had at the yard in the neighbourhood; also at Barnet, Finchley, and Highgate; and at the Auction Mart, Threadneedle-street, and 23, Tredegar-road, Bow.

HARTLEY'S WHARF, HORSELYDOWN.—To STONE-MASONS PAVIORS, BUILDERS, and Others.

MR. PEAKE is ordered to SELL by AUCTION, on the WHARF, as above, on TUESDAY, JULY 10th, 1855, at TWELVE, in lots, a Quantity of STONE, comprising 3 and 3 inch tooled Flag, 3-inch and 2½ inch self-faced ditto, tooled landings, self-faced ditto, tooled sills, tooled coping, sawn York do. &c. to extend the more immediate attention of Purchasers of Mr. Peake's Offices, 11, Tooke's-court, Southwark.

WORCESTER.—Fresh 12 Building Lots, near the City of Worcester, adapted for first-class Villas, on sale of commanding Leases. TO BE SOLD BY AUCTION, by

MESSRS. HOBBS and SON, at the STAR and GARTER HOTEL, Worcester, on THURSDAY, the 19th JULY next, at FOUR o'clock, in fifteen lots (many of them large sizes), about TWENTY-THREE ACRES of excellent BUILDING LAND, most charmingly situated on the high ground, about a quarter of a mile from the Cathedral, and only one mile from the centre of Worcester; and possession may be had at Michaelmas next for building purposes. Plans and particulars may be obtained at the Office of "The Journal of Auction," Exchange-street, Stand, London; of G. H. St. Patrick, Esq. Solicitor, Worcester; Messrs. WEBB and BECK, Surveyors; or the Auctioneers, Worcester.

BARROWS! BARROWS!—J. BARNES, WHEELWRIGHT, Manufacturer of every description of Navvy, Brick, Clay, and other Barrows, Trolleys, Sack, Painters' Machines, &c. 2, York-place, Pentonville-hill. A good Second-hand One-horse Brick or Rubbish Cart for sale, cheap.

Office of Metropolitan Buildings, 6, Adelphi-terrace, Strand, July 3, 1855.

METROPOLITAN BUILDINGS ACT.—NOTICE.—An Examination of Persons desirous to obtain a Certificate of Qualification for the Office of District Surveyor will take place on MONDAY, the 30th day of JULY instant, at ONE o'clock, p.m. Persons desirous to be examined must apply on or before the 20th instant, and the application must be accompanied by a preliminary statement, according to the course of examination prescribed in the rules for that purpose, copies of which may be had at this Office.

ARTHUR SYMONDS,
Registrar of Metropolitan Buildings.

TO PARENTS AND GUARDIANS.

AN Eminent Architectural Firm, in a large manufacturing district, in one of the midland counties, have now a VACANCY in their Office for an OUT-DOOR ARTICLED PUPIL, possessing a good address, and having a taste for drawing; to whom will be afforded peculiar opportunities and advantages.—Address to A. & B. Office of "The Builder."

A CIVIL ENGINEER has a VACANCY for a respectable Youth as PUPIL in his Office.—Address, by letter only, to N. J. care of Mr. Deacon, News-rooms, No. 184, Leadenhall-street.

CARPENTERS' COMPANY, TWICKENHAM ALMSHOUSES.—A VACANCY has occurred in the above almshouses. Applicants must be liverymen or freemen of the Company, of the age of fifty-five years or upwards, or widows of liverymen or freemen of the Company, of the age of fifty years or upwards. Applications are to be left at Carpenters' Hall, on or before the 4th day of AUGUST, 1855.—Forms of application may be obtained at the Beadle's Office, at the Hall.

EDWARD B. JUPP, Clerk.

IMPROVING CLERK.—An Architect wants an Improving Clerk, to whom a progressive salary will be given.—Apply, with specimens of drawing, to Mr. FOWLER, Architect, 4, Garden-court, Temple.

WANTED, by a Gentleman, a thoroughly experienced CARPENTER, who can bring high testimonials of both his trade, as well as of good character. He must have an extensive knowledge of machinery, and be competent to undertake all joinery work required in the building of houses and farmsteads. Apply, by letter only, to Mr. CHARLES GIDDY, Bolton Priory, Tadcaster.

WANTED, a first-rate GRAINER.—Apply to R. B. Alfred-place, Camden-road Villas.

WANTED, immediately, TWO expert LITHOGRAPHIC TRANSFER WRITERS.—Apply by letter, stating terms and qualifications, to W. A. care of Mr Crosbie, No. 1, Duke-street, Adelphi, London.

WANTED, immediately, a skilful Modeller, in Wood, Card, and Metal, for the representation of ground and buildings.—Apply, stating terms and qualifications, by letter, addressed to A. B. care of Messrs. ELLIOTT, 99, Strand, London.

TO BUILDERS' CLERKS.

WANTED, by a London Firm, a CLERK, who is a good draughtsman, and can assist in the general duties of the office. Address, stating age, particulars, and salary required, to W. M. Office of "The Builder."

TO BUILDERS AND OTHERS.

WANTED, by a respectable middle-aged Man, a SITUATION as COLLECTOR or as WHARF CLERK. Has been accustomed to the different branches in the building line. Unexceptionable reference and security, if required.—Address, D. S., 31, St. John-street West, Smithfield.

WANTED, EVENING EMPLOYMENT by an Architect, disengaged after five o'clock, to make working drawings, specifications, or to copy, or to look after the repairs of an estate of houses, having a thorough knowledge of the building line to Satisfactory references given. Address, A. B. 47, Admiral-terrace, Vauxhall-bridge road.

TO PLUMBERS, GLAZIERS, &c.

WANTED, by a respectable Young Man, aged 19, a SITUATION as IMPROVER, in town or country. Address, J. K. No. 29, Caroline-street, Eaton-square, Pimlico.

WANTED, a SITUATION as ENGINEER, to take charge of an engine, either high, low, or compound; steel years' character from last employer.—Address, post-paid, P. B. 2, Grosvenor-street, Wharf-road, City-road.

TO ARCHITECTS, BUILDERS, AND OTHERS.

WANTED, by a respectable, persevering, married Young Man, of good abilities, possessing a thorough practical knowledge of bookkeeping by double entry, is extremely quick and correct in all calculations of measurement, &c. the Man-general of an Office, or to keep the books of an estate. Can produce satisfactory and pleasing testimonials, and has no objection to the country.—Address, BETA, 7, Spur-street, Leicester-square.

TO BUILDERS, &c.

WANTED, a SITUATION as FOREMAN, by a person who has had the management of a large establishment, for several years, in the entire native department, in Canada, purchasing, measuring, &c., he is competent to measure, make out the work, book-keeping, &c. and is the thorough master of his business. Three years' testimonials can be given for leaving his present situation.—Address, A. Z. 29, Paradise-terrace, Liverpool-road, Islington.

TO BUILDERS AND PLUMBERS.

WANTED, a SITUATION, by a respectable LAD, aged 16. Can write a good hand, and make himself generally useful.—Address, L. M. 18, Chandos-street, Covent-garden.

TO LAND SURVEYORS AND ESTATE AGENTS

WANTED, by a Young Man who has been employed under Government, and has thorough knowledge of land-surveying, a SITUATION as ASSISTANT, with an ultimate view to a partnership. Country not objected to.—Address, A. B. Lee's Library, 17, Borough-road.

WANTED, by a Young Man, a SITUATION as CLERK in an Architect's or Builder's Office; can trace and copy drawings, and has a knowledge of mechanical hands, perspective, and bookkeeping. Good references can be given, and a moderate salary required.—Address, A. M. 1, Rittson's place, Hackney-road.

TO CONTRACTORS AND BUILDERS

WANTED, a SITUATION as CLERK of WORKS or GENERAL FOREMAN, by a Person who has had great experience in carrying out extensive works. Can produce first of testimonials.—Address to R. S. No. 1, Bruce-villas, Richmond road, Hackney.

TO BUILDERS AND OTHERS

WANTED, an ENGAGEMENT in the Office, or as Timekeeper, Storekeeper, &c. by a Clerk of experience in all branches of the trade. Terms moderate. No old clothes to the country, or temporary employment.—Address, Y. Z. at Mr. Neale's, Watchmaker, Dunsing-place, Wandsworth-road, Surrey.

WANTED, a SITUATION.—A young Man wishes to engage himself for twelve months, at the BENCH, principally for improvement. Premium will be given. Wages not of secondary consideration.—Address, S. B. No. 1, Caledonian-street, Pimlico.

TO STONE-POTTERS.

WANTED, by a young married Man a SITUATION as FOREMAN or JOURNEYMAN. Understands pipe-making, mixing, and glazing stone ware in all its branches. Has no objection to go abroad, if required.—Direct to A. B. 3, Deane's-cottages, Dunston-road, Kingsland-road.

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TO BUILDERS, &c.

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TO STONE POTTERS AND OTHERS.

WANTED, a SITUATION, the Advertiser having a thorough knowledge of Stone Potting, with all the late improvements in glazes for stoneware and also the much approved white enamel for closet and other pans; also the yellow tap and white bottom for bottles, jars, &c.—Address, S. S. FARRELL, 20, Catherine-street, Jonathan street, Vauxhall, Lambeth.

TO PLUMBERS AND BUILDERS.

THE Advertiser, who is a good Plumber and Gas-fitter, wants a SITUATION. If required would be willing to fill up his time painting and glazing.—Direct, C. H. at Mr Burnham's, 22, Ashford-street, Difficult-street, Hoxton.

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THE Advertiser is open to an ENGAGEMENT as Managing and Practical Foreman of Works, either in town or country. Fifteen years' experience, with testimonials. Terms moderate.—Address, A. B. 71, Drummond-street, Euston-square.

THE Advertiser, aged 24, who has been brought up on railway, town drainage, and public works generally, and for the last eighteen months has been employed on works under the Commissioners of Sewers, is desirous of an ENGAGEMENT. Thoroughly understands levelling, setting out, and measuring up work, and the entire duties of assistant engineer. Could take the management of a job, if required.—Unexceptionable references can be given.—Address, P. W. 33, Lunardstreet, Caledonian-road.

TO ARCHITECTS

THE Advertiser, who is a first-rate Draughtsman and likewise has had great experience in detail and perspective drawings, &c. is desirous of an ENGAGEMENT with an Architect, of good practice, where he may obtain further improvement.—Address, ALPHA, Hebert's Library, 48, Cheapside.

THE Advertiser, who has been some time in the profession, and is capable of making finished and perspective drawings, &c. is desirous of an ENGAGEMENT with an Architect, of good practice, where he may obtain further improvement.—Address, ALPHA, Hebert's Library, 48, Cheapside.

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TO ARCHITECTS.

AN Artistic Colourist, Draughtsman, and Designer, OFFERS his SERVICES in the Preparation of Perspective Views, with landscape and figures; also in general Drawing, on moderate terms. Address, A. Z. 91, Denbigh-street, Belgravia.

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A THOROUGH PRACTICAL MAN, aged 43, having had eighteen years in the general superintendence of some of the largest public works in the kingdom, is accustomed to take out quantities, make plans and working drawings, keeping accounts, and has a knowledge of levelling, plot line, &c. is in want of a SITUATION. Country not objected to. Testimonials of the first class.—Address, T. Office of "The Builder."

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A FRENCH GENTLEMAN, an Architect, who has just published a work on Architecture, and another nearly ready, is desirous of meeting with a Partner or other interest in an Architect's Office. Being a clever draughtsman, his knowledge of general drawing, mouldings, mathematics, and natural science, would be of some advantage, if pupils were kept.—Address, by letter, Mr. STAPLEY, 20, Cannon-street, City.

A BUILDER'S CLERK is open to a SITUATION, at a moderate salary.—Address, A. B. care of Mr. Perkins, Grocer, 88, Snow's-fields, Bermondsey.

TO MASTER PLUMBERS.

AS PLUMBER'S ASSISTANT, a strictly sober, respectable young Man, with a small knowledge of the business, wishes for a permanent SITUATION. Wages moderate. Address, A. B. Lee's Dining-room, Pemberton row, Gough-square, Fleet-street.

AN ENGINEER, of considerable experience in the practical branches of the profession, and who has a knowledge practically of copper and tin mining, dressing, &c. is desirous of an ENGAGEMENT. Has been about, go abroad for railroad or for mining purposes, or to represent by agency an engineering firm. Testimonials of the highest character.—Address, A. B. 15, Montpelier-place, Brompton, London.

TO LAND AND ENGINEERING SURVEYORS.

A YOUNG MAN of some experience in surveying, taking levels, a good draughtsman, &c. is desirous of an ENGAGEMENT. Satisfactory references can be given.—Address to Mr. J. WINDER, Greenhill, Harrow.

MODELLING AND MOULDING

A YOUNG MAN is desirous of EMPLOYMENT, who understands modelling and moulding, can draw accurately, and undertakes moulding for metal purposes. Wages not such an object as a situation.—Direct A. B. 40, Upper Johnstreet, Fitzroy-square.

A YOUNG MAN, aged 19, who has been articled for three years to a dealer in materials for builders, in a large country town, is desirous of obtaining a SITUATION in a similar capacity. He understands the measuring and selling timber, bricks, lead, glass, paint, paperhangings, &c. and can have a good recommendation. Address, T. C. Mr. Lowry's, 2, Wellington-terrace, St. John's-wood.

A GOOD DRAUGHTSMAN, well acquainted with English and Classic Architecture, desires a SITUATION in an Architect's Office.—Address, DELTA, Office of "The Builder."

FREEHOLD BUILDING GROUND, at OLD FORD, with Liberal Advances, to LET, suitable for fourth-rate houses, which, being much required in this rapidly-improving neighbourhood, let and sell as soon as completed. For further particulars apply to Mr. GEORGE CLARKSON, Surveyor, 48, Pentonville-street, Pentonville.

FREEHOLD BUILDING GROUND.—TO BE LET, or SOLD, on advantageous terms, TWO PLOTS of GROUND, situate in the most preferable part of St. John's Wood. For particulars apply, by letter, post-paid, to W. L. No. 2, Craven-terrace, Paddington.

KENSINGTON GORE.—Valuable SITES for FIRST-CLASS MANSIONS in the NEW (Prince Albert's) ROAD, KENSINGTON GORE (with frontages to the park-like property purchased by the Royal Commissioners for the Exhibition of 1851 as a site for Institutions connected with Science and Art), may be obtained upon ninety-nine years' lease, by application at Mr. W. JACKSON'S Office, 10, Kensington Gore.

BUILDING LAND TO BE LET at NORWOOD, within three minutes' walk of the station, where fifty trains stop during the day. Water laid on, drains made, roads nearly completed, and a West-end line by the Crystal Palace will be shortly opened. The advantages of this situation, in point of variety and rural scenery, with its easy access to and from the metropolis, with trains running up to twelve o'clock at night cannot be excelled. Houses are in great request. For particulars and plans, apply to W. F. LOW, Esq. 67, Wimpole-street, Cavendish-square.

ELIGIBLE FREEHOLD BUILDING LAND at NOTTING-HILL.—TO BE LET, at a low ground-rent, with moderate pre-session, with frontage towards Lutymer-road and Clifton-terrace, a very desirable PLOT of GROUND, suitable for third or fourth-rate houses, or the FREEHOLD to SELL. For particulars apply to H. NORTHCROFT, Esq. Surveyor, 40, Nottingham-place, St. Marylebone; or Mr. SHILCOCK, 30, Royal-crescent, Notting-hill.

FREEHOLD BUILDING LAND, TO BE LET, at Bath-road, in large or small plots, where bricks will be advanced; it fronts a high road with good sewers. Plenty of sound and water may be easily obtained on the ground, and every probability of a railway crossing the land—notices having been given. Apply personally to the owner, at Chesterfield-house, Bath-road, Peckham, before TEN o'clock, a.m.

KENSINGTON PALACE GREEN.—TO BE LET, by PUBLIC TENDER, on WEDNESDAY, the 1st of AUGUST next, on building leases, SEVEN PLOTS of CROWN LAND, part of the late Royal Kitchen gardens.—For plans and particulars, apply at the Office of Her Majesty's Woods, &c. 1, Whitehall-place; or at the Office of JAMES PENNETHORNE, Esq. 7, Whitehall-yard.

FREEHOLD BUILDING LAND.—TO BE LET on lease, for 99 years, for the erection of detached residences, in the most desirable part of Clapham-common.—For plans and particulars, apply at the Office of DAVID YOUNG, Architect and Surveyor, 1, Thurlow-place, Wandsworth-road.

CAMDEN-TOWN CEMETERY.—BUILDING ESTATE.—TO BE LET, on Building Leases for 99 years, very eligible SITES upon the carriage-road having good frontages into Camden-street, Pratt-street, and Buchanan-street. There is a great demand for houses and shops of the third rate in this locality, which is abundantly supplied with trains to the North-Western and North London railway stations, and the Hampstead-road. Plans may be seen, and particulars obtained by application to H. E. KENDALL, Secretary, 21, Parliament-street, Pall-mall East; or to JOHN DANSFIELD, Esq. Solicitor, 29, Craven-street, Charing-cross.

TO BUILDERS and GENTLEMEN desiring a first-class situation of well-known salubrity for building purposes.—TO BE LET, on lease, a most desirable PLOT of FREEHOLD LAND, near the Norwood Junction, and a mile from the Crystal Palace. The new West-end line will have a station at Norwood, and when opened, will afford the additional advantage of communication with the West-end as well as with the City. Frontage 100 feet, which has a fine view of the Crystal Palace, and the surrounding delightful scenery.—For terms, apply to Mr. R. BRETT, 52, Trinity-square, Southwark.

AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 295, Blackfriars road, near the bridge, respectfully invites a personal inspection of Engines, Machinery, Foundries, Plant, or Premises for Sale, intrusted to his care, to forward the particulars thereof for insertion in his REGISTRY-BOOK, for which NO CHARGE will be made unless sales be effected.

TO ENGINEERS, MACHINISTS, and OTHERS.—A first-rate PREMISES in the above line, on the Surrey side, TO LET, fitted up with an excellent horse engine boiler, 3 furnaces and fans, screw-cutting and other lathes, benches, anvils, blocks, tools, &c. The present spacious premises are in full work, and will be supplied on long lease on advantageous terms. Apply to AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 295, Blackfriars-road, near the bridge.

WATERLOO BRIDGE WHARF, Commercial-road, Lambeth. Those spacious PREMISES, with ten arched brick houses under the Waterloo bridge road, TO BE LET or LEASE. There are two capital houses, with cranes and scaffolding on the wharf, and the premises which have been used as a timber-yard for nearly forty years, are in good repair.—For terms apply to HENRY MOTT, Esq. Solicitor, 5, King's-road, Bedford-row.

COTTAGES at TWICKENHAM TO BE SOLD. FOUR SEMI-DETACHED VILLAS, each containing six commodious rooms, with other conveniences and garden. They are named Crosby-villa, and are situate in a most healthy locality, at Twickenham, common, on the high road from Twickenham to Hampton-wick, facing the ground of Sir William Clay, one mile from the railway station. Also, a House and Shop at the back of the above, containing eight rooms, with cart entrance. Term, seventy-four years unexpired, at a ground-rent of 2l. per annum each. The purchase-money may be paid by instalments, extending over three years. Adequate space to be taken for ground, with good frontage, with a view to add the free land, for building other premises. Apply, to Mr. H. DICKSON, House-agent, 23, Penton-place, Walworth; or to Mr. F. RICHARDS, 5, Church street, Hackney.

TO BE DISPOSED OF, the Sixteen Years' LEASE of a HOUSE, containing ten rooms, in a healthy and respectable neighbourhood. At present let to a respectable tenant, clearing the sum of 36l. a year. Price 70l.—Address A. D. care of Mr. Hines, Advertising-agent, 12, Cath rine street, Strand.

TO ENGINEERS, CONTRACTORS, AND OTHERS.

WANTED, at the Northumberland Dock, ONE or MORE PORTABLE STEAM-ENGINES, and Apparatus, to drive a Cofferdam, of 4,800 feet in length, a double row of whole timber piles, 5 feet apart.—For further particulars, apply to Mr. THORBURN, Contractor, Northumberland Dock, North Shields.

NEW PRINCIPLE IN BANKING.

UNITY

JOINT-STOCK MUTUAL BANKING ASSOCIATION.

Established for the purpose of introducing the principle of mutuality into banking operations, whereby the customers of the bank become entitled to bonus, by way of interest, estimated after the rate of fifty per cent. on the net profits.

Capital, Half a Million Sterling.

Divided into 5,000 shares of 100*l.* each. Deposit, 50*l.* per share.

This amount will be payable by two instalments, namely, 10*l.* on allotment, and 40*l.* at the time of incorporation. Shareholders have the option of paying up the whole 50*l.* on the shares allotted to them, in one instead of two payments. It is not expected that any further call will be made.

The business of the bank will not be commenced until the whole of the capital has been subscribed, and one-half thereof paid up.

By a clause in the deed of settlement, shareholders are entitled to interest at the rate of five per cent. per annum on all share capital paid up, previously to the declaration of bonus, as well as to fifty per cent. of the net profits.

With the exception of the amount needed to defray the necessary preliminary expenses, the paid-up capital will be invested in Government securities until the bank is incorporated.

TO BE INCORPORATED BY ROYAL CHARTER.

OFFICES.

The Central Offices of the Bank will be at the Unity-buildings, No. 10, Cannon-street, City. During the necessary alterations, business will be carried on at the

TEMPORARY OFFICES.

CHIEF—40, Pall-mall, London.
CITY BRANCH—38, Cannon-street, London-bridge.

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William Joseph Bruce esq. Duke-street, Westminster, and 4a, Hyde-place, Cumberland-gate.
G. L. P. Eyre, esq. (Messrs. Trinder and Eyre), 1, John-street, Bedford-row.
Thomas Carlyle Hayward, esq. (Messrs. Hayward and Sons), 93, Minories, and 3, Highbury-park North.
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Edward Gould Bradley, esq. Heathland lodge, Hampstead.
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Robert James Snape, esq. 3, Stone buildings, Lincoln's-inn.
Major Martin Mulkern, Ightfield House, Regent's park.

* * This number to be increased within the court of directors is completed, the governor and deputy governor will be appointed.

BANKERS.

The London and Westminster Bank.
Chief Offices—Lothbury.

And at the following Branches, at either of which deposits on shares will be received and receipts given, viz. :—

Westminster Branch, 1, St. James's-square.
Bloomsbury Branch, 214, High Holborn.
Southwark Branch, 2, Wellington-street, Borough.
Eastern Branch, 87, High-street, Whitechapel.
St. Marylebone Branch, 4 Stratford-place, Oxford-street.

SOLICITOR Thomas Taylor, esq. 27a, Bucklersbury, London.
GENERAL MANAGER James Knight, esq. F.S.S.
SECRETARY—Henry Lake, esq.

Among the various improvements introduced during the present century, in connection with the commercial institutions of this country, there is not one in itself so entirely satisfactory—not one which has been attended with more solid and complete success, or that has conferred greater benefits on the community than that of joint stock banking. It has opened up means for profitably employing capital, provided the public with institutions replete with known security, arising from paid-up and subscribed capital by numbers of individuals, and given to banking operations a tone and an importance previously unknown

The joint-stock banking system has grown out of a combination of circumstances, arising amongst other causes, from the prosperity of the country, and the increase of population. It has now become a positive necessity to the commercial world, and it provides such advantages as command the cordial approval and support of the public.

The late Sir Robert Peel, in a speech delivered twenty years ago in the House of Commons, alluding to the joint-stock principle generally, and in particular to the joint-stock bank, said—

"I look upon the principle of joint-stock companies as one of the great discoveries of modern times. I regard them, when made responsible to public opinion, as the ground on which all successful enterprise must be founded. I say further, that if there can be one description of business to which the principle of a joint-stock company can be more applicable than another, it is, under due restrictions, the business of banking."

The opinion of Sir Robert Peel, delivered in 1835, has not only been fully confirmed by the success which has attended joint-stock companies generally, but more especially by the success which has since then been obtained by all joint-stock banks that have been well established and prudently managed.

That there has existed, during the past twenty years, room for additional banks, no doubt will be entertained. For, while the six London Joint Stock Banks have created and transacted a large business—while they have extended and popularised to a great degree the principles of banking, and thus afforded valuable facilities to the commercial community, by directing capital to most profitable uses,—there is no known instance of any well-regulated and responsible private bank, which has not increased its business also during the same period. Bearing in mind the daily extension of the commercial operations of this country, and the continuous increase of the population, this is not to be wondered at. The population cannot increase without rapidly extending commerce, and adding to the wealth of the nation. This, necessarily, gives an impetus to every commercial enterprise. The banking system, therefore, like all others, must progress, and in order still further to facilitate commercial transactions, and to meet the increasing requirements of the community, new organisations must be brought about for its further development.

It is, moreover, proved to demonstration, that Joint Stock Banking, under proper supervision, affords a most legitimate and unusually profitable field for the investment of capital.

CONDITION OF ALL THE EXISTING LONDON JOINT-STOCK BANKS.

The present position of the Six existing Joint-Stock Banks in London (this number including all that are in operation) may be seen from the following Table: -

Name of Bank.	Date when established	Capital. Subscribed.	Capital. Paid up.	Amount of Deposits.	Number of Shareholders.	Number of Shares issued.	Amount of each share.	Amount paid on each Share.	Present Value of each Share.	Increase of Capital Per Cent.	Rate per cent. Dividend paid.
		£	£	£			£	£	£	£	per ct. per an.
London and Westminster ..	1834	5,000,000	1,000,000	7,177,244	1235	50,000	100	20	40	100	16
London Joint Stock	1836	3,000,000	600,000	6,161,154	870	60,000	50	10	27½	175	20½
Union Bank of London	1839	2,114,500	422,900	7,041,47	824	42,290	50	10	27	170	16
London and County	1839	889,700	394,135	3,779,941	660	17,794	50	20	38	90	19
Commercial Bank of London	1840	1,500,000	300,000	1,265,806	316	15,000	100	20	31	55	10
Royal British Bank	1840	100,000	50,000	893,721	121	1,000	100	50	—	—	6
Totals.....		12,604,200	2,767,035	26,315,473	4028	186,084					

The five totals in the foregoing table show that,—

I. The entire amount of subscribed capital in the whole of the existing joint-stock banks in London, amounts to 12,604,200*l.*

II. The amount thereof paid up is 2,767,035*l.*

III. The amount of deposits, or customers' balances, is 26,315,473*l.*

IV. The total number of shareholders is 4,028.

V. The number of shares issued 186,084.

These facts exhibit the material points in connection with the whole of the existing London joint stock banks, so far as their responsibility, business, and extent of connection, are concerned.

With respect to the profitable working of these institutions, it will be observed that the highest rate of dividend payable amounts to the large sum of 20*l.* per cent per annum, while that of the lowest is 6 per cent. Viewed, therefore, in any respect, each institution has proved to be a most desirable investment to the persons holding shares.

The small number of shareholders in all these banks together namely, 4,028—will no doubt excite surprise; and the more so, when it is known that very many of these are resident out of London. This clearly indicates that there is but a very small proportion of the public who are enabled to participate as shareholders in the business resulting from the joint-stock banking system. The comparison of 4,028 persons constituting the shareholders in the six London joint-stock banks with the number of their customers, is very small indeed; and yet these are the only persons who enjoy the profits and the bonuses resulting from the large transactions of the whole body.

It is therefore, evident that there not only exists ample room for properly established and well-regulated joint-stock banks, conducted on sound banking principles, but that by their establishment the public will be greatly benefited. It now becomes worthy of consideration, what course can be adopted in the construction and practical management of banks which will secure the most effectual identification of interests between the shareholders of a bank and its customers. As at present constituted, the shareholders alone participate in the bonuses declared by the banks.

Of late years the requirements of the public have led to the establishment of various joint stock institutions based on another principle, namely, that of mutuality. This has resulted entirely from an experience which has proved its necessity, and has led to a most desirable and successful "Unity" of purpose and interests. In no one instance has this principle failed in securing the very best results. Nor is it likely to do so; for it confers upon the greatest number of persons the largest amount of benefit.

The present joint-stock banks, as compared with the private banks, are an exemplification of this fact. The former have, unquestionably, given greater benefits to the public than the latter; but even these institutions do not carry out the principle in a comprehensive and effectual manner. It is for the accomplishment of this object that the

UNITY

JOINT-STOCK MUTUAL BANKING ASSOCIATION

is established. This association is promoted under singularly advantageous circumstances. A decidedly distinct from them, in point of capital and liabilities, it commences its career with the assistance of two powerful and popular institutions, viz the Unity Fire and the General Assurance Associations, whose united constituencies number several thousands of shareholders. So that, apart from the support that will necessarily arise from the public appreciation of the new features now proposed, there is every reason to regard the present project as one commencing under peculiarly favorable auspices. The plan proposed is that of extending the "mutual principle" to the business of banking, by paying the customers of the bank, interest, estimated according to profits, and by these means inducing them to interest themselves in promoting and extending its operations.

CAPITAL OF THE BANK.

The capital will amount to half a million sterling, with power to increase. This sum will be divided into 5,000 shares of 100*l.* each, on which a deposit of 10*l.* will be required on allotment, and 40*l.* on incorporation. This will yield a paid-up working capital of 250,000*l.*

MANAGEMENT.

The management of the bank will be conducted by a governor, deputy-governor, and a court of directors, representing the professional, mercantile, and trading interests of the country. Each of the directors must be the holder of five shares, and have paid up 1,000*l.* of the capital stock as a director's qualification. The Central Bank will be at the Unity-buildings, No. 10, Cannon-street, in the City of London, and branches will be opened in such parts, and at such times, as may be deemed desirable.

ALLOTMENT OF THE SHARES.

It will be the earnest desire of the court of directors to be very cautious in the allotment of the shares. Their object is to obtain a numerous and responsible proprietary, without distinction of class or place. For the accomplishment of this object they will require a respectable reference with each application. The shares will be allotted in small numbers, and a preference will be given to those allotments which are most likely to produce business to the bank, and extend its connection.

ADVANTAGES TO SHAREHOLDERS.

The Deed of Settlement gives to the Shareholders, out of the profits, as a remuneration for the capital advanced, and the responsibility and security for the transactions of the bank (after paying interest at the rate of 5*l.* per cent. on the paid-up shares) ..... 50 per cent.

ADVANTAGES TO CUSTOMERS.

It is in this important particular that the Unity Joint Stock Mutual Banking Association differs from all other existing banking institutions. It is the first to propound and offer for public support, a principle so equitable and so calculated to favourably advance the interests of all parties. No good reason can be assigned why a bank should not acknowledge and reward the services of those who contribute to its profits and success, as assurance companies recognise those who assure their lives or property. It is well known, that of late several assurers have been permitted to participate largely in the bonuses of those institutions, with the most successful results.

With a view, therefore, to applying this well-known and highly appreciated principle to the business of banking, after having made due provision for a reserve fund, to be regulated by the shareholders, under the advice of the directors, and paid 5*l.* per cent interest per annum on the paid-up capital,

The deed of settlement gives to the customers, as interest on their cash balances, in addition to the ordinary amount paid on deposit and current accounts a sum equal to the interest paid to the shareholders, that is..... 50 per Cent.

The deed, however, does not render it compulsory on the customers to accept such additional profit, but provides that the customer may, on opening his account, elect whether he will or will not accept it as same.

This plan, it will be observed, creates strong interest with the customers in the bank, who thus become much concerned in extending its business. It will be the means of opening up new business in quarters where banking has not hitherto been conducted; it will have a strong tendency to consolidate and preserve the attached connections of the bank; and it will thus advance its own interests, and be productive of practical benefits to the public generally.

Great difficulty exists in estimating the effects likely to be produced by the establishment of this and any other description of bank in banking. It is one that must become highly popular with every commercial interest, and with every class of the public, because its simplicity and advantages are at once to be seen and appreciated.

To those great commercial bodies which are compelled to have large cash balances constantly at their bankers, it will prove to be a serious consideration and a most important source of profit. The railway, dock gas, water, steam navigation, insurance, and other companies, professional men merchants, brokers, gentlemen of for one, and traders of all kinds, will duly estimate the difference in the system now proposed from that heretofore existing. In fine, as joint-stock banks become a public necessity, as is now proved so will the principle of mutuality, whereby these admirable institutions may be rendered still more serviceable to the public, and in no way less safe, demand the best consideration of the community at large.

BUSINESS TO BE UNDERTAKEN.

All the usual business of banking will be undertaken; and arrangements will be made for extending the transactions of the bank in every desirable quarter.

Current accounts will be made up half-yearly, namely, to the 30th of June, and 31st of December, and interest will be allowed at the rate of 2*l.* per cent. provided the balance shall not at any time have been below 50*l.* If not below 100*l.* 1*l.* per cent.

DEPOSIT ACCOUNTS.—With respect to these, the rate of interest allowed on money placed at seven days' notice will be 1*l.* per cent. under the rate of discount on first-class bills adopted by the Bank of England, regulated thereby. The Bank will give receipts for the sums so deposited; or for the convenience of depositors leaving England, promissory notes, or bills, including interest as well as principal, at not less than six months' date.

The Bank will undertake the Agency of Country and Foreign Banks, whether Joint Stock or Private, and will afford every accommodation to travellers and others, with respect to circular notes and letters of credit. It will receive all kinds of Income for its customers, including Annuities, Dividends, Military, Naval, and Civil Officers' pay. It will undertake the Sale and Transfer of Stock in the Public Funds, &c.; and will be responsible for the safe custody of Title Deeds and other securities belonging to its customers, to which they will at all times have convenience of access.

Applications for Prospectuses and Forms of Application for Shares, to be made to the Solicitor to the Association, THOMAS TAYLOE, Esq. 27A, Bucklersbury, London; to the Secretary, at the Temporary Offices, 40, Pall-mall, London; or at 38, Cannon-street, London-bridge.

HENRY LAKE, Secretary.

PELICAN LIFE INSURANCE COMPANY, established in 1797,

79, Lombard-street, City, and 57, Charing cross, Westminster.

DIRECTORS.

Robert Gurney Barclay, esq.	Thomas Hodgson, esq.
William Cotton, esq. F.R.S.	Henry Lancelot Holland, esq.
John Evans, esq.	J. Petty Muspratt, esq.
Jas A. Gordon, M.D. F.R.S.	C. Hampden Turner, esq. F.R.S.
Henry Grace, esq.	Matthew Whiting, esq.
Kirkman D. Hodgson, esq.	M. Wyvill, jun. esq. M.P.

The Company offers—
Complete Security—
Moderate Rates of Premium with Participation in Profits—
Low Rates without Profits.

BONUS.—Four-fifths or Eighty per Cent. of the Profits are divided amongst the Policy-holders.

LOANS in connection with Life Assurance on approved security.

ANNUAL PREMIUM required for the Assurance of 100*l.* for the whole term of life :—

Age.	Without Profits.	With Profits.	Age.	Without Profits.	With Profits.
15	£1 11 0	£1 15 0	40	£2 18 10	£3 6 5
20	1 13 10	1 19 3	50	4 0 9	4 15 7
30	2 4 0	2 10 4	60	6 1 0	6 7 4

For Prospectuses and Forms of Proposal, apply at the Offices as above, or to any of the Company's Agents.

ROBERT TUCKER, Secretary.

IMPERIAL LIFE INSURANCE COMPANY, 1, OLD BROAD-STREET, LONDON. Instituted in 1820.

WILLIAM R. ROBINSON, Esq. Chairman.
HENRY DAVIDSON, Esq. Deputy-Chairman.

The SCALE OF PREMIUMS adopted by this Office will be found of a very moderate character, but at the same time quite adequate to the risk incurred.

FOUR-FIFTHS, or 80 per cent. of the profits, are assigned to policies every fifth year, and may be applied to increase the sum insured, to an immediate payment in cash, or to the reduction and ultimate extinction of future premiums.

ONE-THIRD of the accumulations on assurances of 500*l.* and upwards, for the whole term of life, may remain as a debt upon the policy, to be paid off at convenience; or the Directors will lend sums of 500*l.* and upwards on the security of policies effected with this Company for the whole term of life, when they have acquired an adequate value.

SECURITY.—Those who effect insurances with this Company are protected by its subscribed capital of 750,000*l.* of which 141,000*l.* is invested from the risk incurred by members of Mutua. Societies.

The satisfactory financial condition of the Company, exclusive of the subscribed and invested capital, will be seen by the following statement :—

At the close of the last financial year, the sums assured, including bonus added, amounted to £3,500,000
The premium fund to more than 800,000
And the annual income from the same source, to.. 130,000
Insurances, without participation in profits, may be effected at reduced rates. SAMUEL INGALL, Actuary.

SECURITY TO EMPLOYERS.

THE TIMES ASSURANCE COMPANIES.

To Clerks and others guarantees at the lowest rates.
Plate Glass Assurance.—Windows, mirrors, &c. insured against breakage.
Every description of life and fire assurance.
Apply to the Manager, 36, Ludgate hill.

THE ALBERT ASSURANCE COMPANY.

(Established in 1838.)

MORTGAGE and other LOANS in connexion with life assurance are granted by this Office, either for long or short periods, on freehold and copyhold property, reversionary interests, and on good personal security.—EASTERN BRANCH, 7, Finsbury-square W. S. VARDY, Manager.

HOUSEHOLDERS' and GENERAL LIFE ASSURANCE COMPANY, 15 and 16, Adam-street, Adelphi.

Money received at interest at 5 per cent. per annum, payable in April and October.

Agents (with references may apply.
R. HODSON, Secretary.

INDISPUTABLE LIFE POLICY COMPANY,

72, Lombard-street; 24, Connaught-terrace; and 38, Denbigh-street, Pimlico.

At the Seventh Annual General Meeting, held at the London Tavern on the 26th inst.

Lord Viscount TORRINGTON in the Chair,

The following Report was received and unanimously approved :—

In submitting their ANNUAL REPORT to your consideration, the Board are enabled again to present a statement showing a highly satisfactory advance in the business of the Company.

At the last Annual Meeting it was seen that the progress of the Company had been greater in that than in any previous year; and it is gratifying to observe that the new business of 1854 has again exceeded that of the previous year, while the business of the current year exceeds that of the corresponding months of 1854. This large and steadily progressive amount of business has been obtained, notwithstanding the obstacles to the extension of Life Assurance, arising from the pressure of the war taxation bearing heavily upon the means of all classes of the community. While the premiums of the new business of 1854 exceed those of 1853, the expenses have been less.

At the close of the year embraced in the account now presented the revenue of the Company was a little under, and now considerably exceeds 21,000 per annum.

At the last Annual Meeting a reduction of 25 per cent was made up in the premiums of all participating policies of five years' standing, and a further reduction of the same rate of reduction shall be continued, which will enhance all the participating policies on which the annual premiums have been paid prior to this date.

The causes of such a year have been greater, as was to have been expected, than in the preceding year, but considerably under what the experience upon which the calculations of the Office are founded would have warranted us to anticipate.

Great as the success of this Association has hitherto been, the Directors would again remind the Members that their own interests, as well as the general benefit of the community, may be greatly promoted by the exercise of their individual influence.

TORRINGTON, Chairman.

London, 72, Lombard street, June 19, 1855.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parr-tt.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall Portion, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cement to stand at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes. Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL. Light and Dark equal to any made Manufacture also, and Purchase, Paris White Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs Fire-bricks, Grindstones, Cement Hammer-tops, ditto Vases, Ridging &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6, South Wharf, Paddington.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.
CHARLES RICHARDSON, 6, South Wharf, Paddington

11, George-yard, Lombard-street, City

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent. ROMAN and PORTLAND CEMENT of the best quality manufactured on the above works. Also STOCK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise Apply to G. BOOTH, Agent, as above.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the Trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Woolhampton Hill Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co's Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire-clocks.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.
CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken the South Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for exports, or alongside rivers, canals, or railway stations, should be given a few days before required.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT one quantity of rain having any effect upon it, and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "Tano-Mexico," is the exclusive right of the Proprietor; and, thirdly, that "REPORTS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Pileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 32s. 6d. per 1,000; floor bricks and 6-inch pavings, at 40s. per 1,000; 9-inch pavings, at 60s. per 1,000; 9-inch pavings, at 75s. 6d. per 1,000 Cash prices. Delivered on trucks in London on Eastern Counties Railway.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy resulting by the purchase of such adulterated becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. S. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting shires, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

GREAT NORTHERN WHARF, York-road, Kings-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at R. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

HOLLOW BRICKS for SALE, at a very moderate price. They are hard kiln-burnt, and having stood the winter, very suitable for purposes where strength and light weight is an object. Apply to J. S. NORTON, Brick and Tile Machinist, Union Works, Newpark-street, near Southwark-bridge, London.

Depôt, Acre Wharf King's road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c Stourbridge Fire Goods, &c. of all descriptions, and of the best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 50, Nelson-square, Blackfriars-road.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 23s. per thousand, Grizles, 26s. per thousand; Rough Stocks, 29s.; place, 1os. Terms, cash on delivery—Apply to Mr. G SMEED, Sittingbourne, Kent.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE (successors to Mr. Benjamin Gough), 5, ADELAIDE-PLACE, LONDON-BRIDGE.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast, screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

TO BUILDERS, CONTRACTORS, &c
SAND for SALE, at 1s. 6d. per yard, quite equal to Thames Inquire of J. GROVER, on the Sewer Works, City Gardens, City-road, near the Bridge

FOR SALE, a BRICKLAYER'S CART, TWO good LADDERS, a Scaffolding, and a powerful SCREW JACK.—Apply at No. 10, New-street, Blackfriars-street.

TO BUILDERS AND OTHERS
AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH BOARDING of all descriptions Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Cills, &c. Yards of all kinds, Planks, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

A CORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, slating battens, laths, English oak planks, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from 4 inch to 14 inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations in

Pine Planks, 12 ft. 3 in. by 11 in.....	from 3s. 6d.	each.
Spruce Deals 3 in. by 9 in.....	„ 2s. 9d.	„
Yellow ditto.....	„ 4s. 0d.	„
Honduras Mogany, in logs	„ 0s. 4½d.	per foot.
Ditto ditto, in planks and boards	„ 0s. 6d.	„
Spanish ditto.....	„ 0s. 7d.	„

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE or COMMISSION, at very low prices for cash Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

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WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L. are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade.—N.B. All customers having an account at the above establishment can be supplied with mouldings to their own design, at the shortest notice, free of any extra charge.

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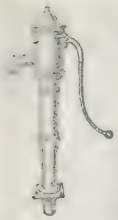

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PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for sinking wells, for agricultural purposes, roads, embankments, liquid manure, ships, barges, ore furnaces, excavators, ponds, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 18-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s per doz. painted.
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ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

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PORTABLE PUMPS,
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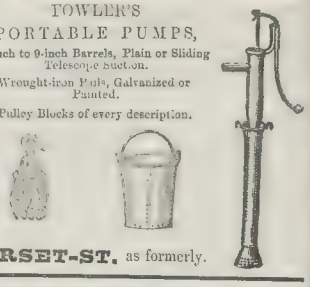

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Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, ponds, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
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Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

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Every description of Machinery for raising Water, Fire Engines, &c.
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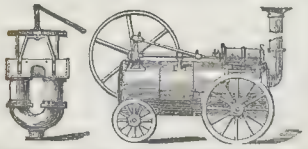

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The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
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These Cocks have, during the last five years, been extensively and most successfully used in many Towns under ominous high pressure, varying from 100 to 400 feet; their efficiency and durability is by experience established.
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.
Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
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KENT'S PAINTING-BRUSHES are of the best quality, and may be obtained at all the first houses in the trade, and of the Manufacturers,
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Established 1777.

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Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d.
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, there is no impediment when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, Sole Manufacturers, 119, Blackfriars-road, and 127, Union-street, Borough; and of all respectable Ironmongers, Builders, &c.

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D. and E. BAILEY beg to call the attention of Architects and others to their improved
CIRCULAR ARNOTT VENTILATORS,
which are more sightly than the square ones in general use, much less liable to get out of order, and the flaps, being hung from the top, do not admit rain smoke caused by down draught.
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IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.

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STRAIGHT PIPES IN TWO-FEET LENGTHS.

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HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

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WHOLE OR HALF-SOCKET PIPES SAME PRICE.

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WHITE ENAMELLED STONEWARE,

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W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

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DOULTON AND WATTS,

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Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

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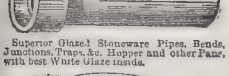
These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.



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Pan, 3s. 6d.

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Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

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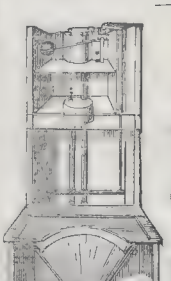

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

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TO THE EFFICIENT WORKING OF

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PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

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GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

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GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

BY HER MAJESTY'S ROYAL LETTERS PATENT, APRIL 27, 1855.

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FOR STRUT USE

Price, with Gutta Percha Joints and Screws complete, 4s. 6d.; weight, about 2 oz. Can be conveyed by the post.

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Price, with Back Plate, 6 inches by 7 inches, each 6s.

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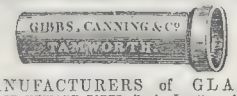
The above articles are protected for the Patentee by the British Government, on account of the considerations, for the advantages they possess, being a perfect trap for preventing smell proceeding, by which the water, should it be evaporated, is supplied from the pan. Water-closets can be put down to main's connection to a tenth of the cost they are at present, and the nuisance of cesspools and dry earth closets avoided. The closet cisterns are always ready for use, requiring no attention. It is well known when children have taken the fever in this country, it commences and leaves last those places where there are no drains, or where they are foul, and any persons interested in such improvement will be kind enough to write to the patentee for drawings, and if wishful, testimonials. Please order from any respectable ironmonger, contractor, or the Patentee, JAMES LEWIS, Ironfounder, Abergavenny. Specimens to be seen in the Court of Inventions, Crystal Palace, Sydenham.



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COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

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MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

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Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the patentees,

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N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

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Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post.

Price for Closet and Apparatus complete from 28s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

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These Pencils are prepared in various degrees of hardness and shades.

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M medium.
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F for general use.
B black for shading.
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SALES BY AUCTION.

LETT'S WHARF, COMMERCIAL-ROAD, LAMBETH.

MESSRS. FULLER and HORSEY will SELL by AUCTION, at-o'clock, on TUESDAY, JULY 31, 1855, at ELEVEN o'clock, in lots, with out reserve, by direction of the assignees of Messrs. Boutflour, the SAWING MACHINERY, worked by Horn, of 8 horse-power, and Car, of Belper, including the portable and four stock deal frames, one timber frame to cut 27 inches in depth, circular saw, mandrel, and sundries machinery, the whole quite new, not having yet been fixed, and made on the most approved construction.—To be viewed on Monday previous to the Sale, when catalogues may be had on the Premises; of Messrs. Horwood, Solicitors, King William-street, Strand; and of Messrs. FULLER and HORSEY, Billiter-street, City.

TO IRONMONGERS, BUILDERS, SMITHS, COACH-BUILDERS, AND OTHERS.—By

MESSRS. FULLER and HORSEY, on the PREMISES, 160, Union-street, Borough, on WEDNESDAY, JULY 11, and following days, at ELEVEN, in lots, by direction of the Assignees of Mr. James Martyr, a bankrupt, the extensive STOCK of IRONMONGERY, bar and rod iron and steel, twenty tons rod, bar, and plate iron; five tons cast, shear, blister, and spring steel; fifty dozen spades and shovels, twenty dozen screws, assorted; bricklayers' and coopers' tools; a large assortment of cabinet brass-work, five guns, 200 dozen locks and latches, counting-house and shop fixtures and uten-ils, a few lots of household furniture, and other effects.—To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises; of G. J. GRAHAM, Esq. Official Assignee, Coleman-street; and of Messrs. FULLER and HORSEY, Billiter-street, City.

HASTINGS, SUSSEX.—Freehold Property (land-tax redeemed)

MR. WOMERSLEY will SELL by AUCTION on the lot, at the SWAN HOTEL, HASTINGS, on WEDNESDAY, the 18th of JULY, 1855, at THREE o'clock, FOUR COMPACT PLOTS of GROUND, contiguous to the Old London-road, leading out of the town of Hastings, and one mile from the sea. Three of the plots are suitable for building or garden ground. The fourth plot is covered by a detached dwelling, called Orient Cottage, and its stabling, with a flower garden in front, and a yard behind. The premises are in substantial repair. The view from the front of the house is down the valley, looking southwards on the sea. Excellent water good dry soil, and well drained. The dwelling-house consists of a large cottage and a smaller one communicating by an enclosed passage. The larger one contains a porch and passage entrance, two sitting rooms, store-room, kitchen, scullery, and larder. The floor above has four bedrooms, water-closet, and bath-room, containing a bath, &c. There is convenience on the premises for washing, brewing, and baking; also a large coal cellar, and several water-closet. The smaller cottage has four rooms, upon which a building society has by direct bond, duly registered, a charge of 100*l*. and upwards of 50*l*. has been paid off. The house is down the valley, looking southwards on the sea. Excellent water good dry soil, and well drained. The dwelling-house consists of a large cottage and a smaller one communicating by an enclosed passage. The larger one contains a porch and passage entrance, two sitting rooms, store-room, kitchen, scullery, and larder. The floor above has four bedrooms, water-closet, and bath-room, containing a bath, &c. There is convenience on the premises for washing, brewing, and baking; also a large coal cellar, and several water-closet. The smaller cottage has four rooms, upon which a building society has by direct bond, duly registered, a charge of 100*l*. and upwards of 50*l*. has been paid off. The house is 13 feet wide, all under one roof—May be viewed till the day of sale by cards only, which, with particulars and conditions of sale, may be obtained of the Auctioneer, Mr. WOMERSLEY, 1, Harold-place, Hastings.

WESTBOURNE-TERRACE.—Important Sale of unfinished first-class Residences, offering a very desirable opportunity for investment's speculation, and especially for occupation.

CHINNOCK and GALSWORTHY are directed by the Trustees for Sale, the Mortgagees concurring, to SELL by AUCTION, at the MART, on THURSDAY, the 12th of JULY, at TWELVE, in lots, ELEVEN UNFINISHED RESIDENCES, Nos. 121, 123, 125, 127, 129, 131, 133, 135, and 141, comprising the north-east portion of that noble row of town mansions, Westbourne-terrace, Hyde park. They are most substantially built and admirably situate, and have been designed to possess the accommodation for family residences, and the numerous comforts for which Westbourne terrace is so distinguished. At the time among these premises which have and occupation have developed in some of the earlier constructed mansions, the rooms being loftier, the staircases of easier ascent, with unusually spacious landings. The property comprises the only unfinished residences left to complete Westbourne terrace. The houses are in various stages of progress, the approaching towards completion, and the terrace, when complete, will present a noble facade, having an ornamented balustraded screen in front, with private entrance doors. Doric portico entrances, and Corinthian ornaments in stucco. The lease, which is very long, will immediately let. Westbourne-terrace is now daily improving in value, and increasing in public estimation, on account of its lockless, fit for immediate occupation. Possession on completion. This property can be safely recommended either for investment or occupation, and it is proposed to make arrange ments with the purchaser to continue the building, if required. Particulars with be published early, and may be obtained of Messrs. VALPY and VALPY, Sol. ors, 25, Essex-street, Strand; of Messrs. BEVAN, VIZARD, and MEARS, Solicitors, 16a, Oxford-street; of Messrs. WEBB, ROBINS, and BEVAN, 7, New-Inn, Strand; of EDWARD RYE, Esq. Solicitor, 16, Golden-square; of Messrs. FARMER and ARCHIBALD, Regent-street; and of Messrs. CHINNOCK and GALSWORTHY, Auctioneers and Land Surveyors, 28 Regent street, Waterloo-place.

TO BUILDERS, MASONS, &c.—NEW BUILDING MATERIALS.

CHINNOCK and GALSWORTHY will SELL by AUCTION, on MONDAY, JULY 16, and following days, on the PREMISES of the Proprietor, Upper Terrace of houses, Westbourne-terrace, close to the Bishop's-road, Paddington, capital NEW BUILDING MATERIALS and STOCK, collected for completing the terrace of first-class mansions, comprising about 30 stone mantels and stock brackets, 2 Portland stone steps, 10 floor boards, 3,700 half sheets, 700 bundles of laths, a quantity of oak timber and slabs, iron and water pipes, cornice, drain, junction, and bend pipes, well seasoned and prepared joiners' work, doors, sashes, as well as large houses, 40 four panelled and double-mastered doors of various sizes, shutters, backflaps, window backs and lining, cuffs, architraves and mouldings, sash cases and framing, stonemasons' work, comprising stone sinks, tooled landings, slabs, and mantles, York paving, Portland stone kerb, worked at the stairs, &c., a large block of Portland stone, a general stock of ironmongery, about 6 cwt. of nails, chiefly cut, clasp, and hand nails, and 6 barrels each, 20 tons of lime, 100 plasterers' planes, white lead, plaster of Paris and bags of hair, several thousand loads of Thames sand, road grit, and mortar mixings, scaffold boards, poles, putlogs, and a variety of effects.—To be viewed one week previously. Catalogues had on the premises; and of Messrs. CHINNOCK and GALSWORTHY, Auctioneers, 28, Regent-street, Waterloo-place.

WOOD-GRANGE ESTATE, Stratford, Essex.—61 Plots of Building Land, Freehold Ground-rents, and Freehold Dwelling-houses.

MR. W. H. DEAN has received instructions to SELL by AUCTION, at the MART, on WEDNESDAY, JULY 25, 1855, at TWELVE o'clock, sundry FREEHOLD GROUND-RENTS, a PAIR of FREEHOLD DWELLING-HOUSES, and SIXTY-ONE PLOTS of FREEHOLD BUILDING LAND. The whole extending from the Stank-road, 1½ mile contiguous to the Forest gate station of the Eastern Counties Railway, and within a short distance of the Wanstead Forest. The building ground is high and dry, having the advantage of a gravelly subsoil, and the locality is exceedingly healthful and pleasant; and the quick and easy mode of transit, renders the situation admirably adapted for the residence of persons whose business occupation requires their day attendance in the City. There is great and increasing demand for houses in the neighbourhood, and this is a most favourable opportunity for purchasers to secure a certain and liberal interest for their capital.—May be viewed, and printed particulars and conditions of sale, with lithographed plans, may be had at the Mart; at the Eagle and Child Inn, Forest Gate; Yorkshire Grey and Swan Inns, Stratford; of Messrs. YOUNG and WALLINGS, Solicitors to the Vendor, 2, St. Mildred's-court, City; and of the Auctioneer, Stratford, Essex.

SALES BY AUCTION.

TO BUILDERS, HOUSE DECORATORS, AND OTHERS.

MR. MARSH has received instructions to SELL by AUCTION, on the PREMISES, 1, The Mall, Notting-hill, in consequence of the removal of Mr. Holmes, the proprietor, to 16, Queen's-road, Bayswater, on TUESDAY next, JULY 10, at TWELVE o'clock, without reserve, the very valuable STOCK, comprising superior chimney-pieces, in statuary, with carved trusses, black and gold vein, black and Barbilly marble and stone; a Genoa marble table, two marble washstands, pestles and mortars, ornaments in cement, vases and plaster busts, and sundry ornamental items. May be viewed one day prior and morning of Sale, and catalogues obtained at the Place of Sale; the Royal Oak, Paddington; and at Mr. MARSH'S Offices, 3, Charlotte-row, Mansion house

FIRST ANNUAL SALE of Articles manufactured by the PATENT SILICEOUS STONE COMPANY, in their beautiful and durable MATERIAL consisting of a large assortment of vases, fountains, flower boxes, pedestals, balustrades of every description, in white Parian, statuary vein, black and Barbilly marble and stone; a Genoa marble table, two marble washstands, pestles and mortars, ornaments in cement, vases and plaster busts, and sundry ornamental items. May be viewed one day prior and morning of Sale, and catalogues obtained at the Place of Sale; the Royal Oak, Paddington; and at Mr. MARSH'S Offices, 3, Charlotte-row, Mansion house

MR. MARSH has the honour to announce that he has been favoured with instructions from the directors of the Patent Siliceous Stone Company, to SELL by AUCTION, on the PREMISES, WHITEHALL WHARF, Cannon-row, Westminster, on THURSDAY, JULY 24, at TWELVE o'clock, in lots, adapted to the trade, private buyers and others, the above important and well selected stock, forming part of their extensive annual productions. To describe the articles manufactured under the above process, which has so much engaged the attention of the scientific world, is beyond the limits of an advertisement; suffice it to say, that for durability, strength, and cheapness, as well as for delicate ornamental finish, the Siliceous Stone stands unequalled, even among nature's productions. May be viewed and catalogues obtained on the Premises; at the principal Inns in the neighbourhood; and at Mr. MARSH'S Offices, 3, Charlotte-row, Mansion-house.

MARBLE, TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—

MONDAY, 6th AUG. " | MONDAY, 1st OCT. 1855
MONDAY, 3rd SEPT. " | MONDAY, 5th NOV. "

Catalogues and further particulars to be had on application one week previous to each sale—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE

Extensive fall of Capital Oak and Ash Timber. Westley, near Newmarket, Cambridgeshire.

MESSRS. NOCKOLDS and KING have received instructions from the proprietor to offer for SALE by AUCTION, upon the PREMISES, on MONDAY, the 16th day of JULY, 1855, at TEN o'clock for HALF-PAST punctually, on account of the number of lots—

296 Sound Oak TIMBER TREES.
16 Ash ditto.
266 Oak Saplings.
174 Ash Seconds.

792

The timber has all been felled this season, and lies contiguous to good roads within two miles of the Bullingham Station, on the Cambridge, Newmarket, and Bury (Eastern Counties) line of railway, affording an easy transit to any part of the kingdom. The Auctioneers beg to call the particular attention of ship-builders, contractors, timber-merchants, and others, to this sale: many of the trees are of great dimensions, long lengths, and excellent quality and suited for navy purposes. Twenty per cent deposit to be paid on the day of sale, and six months credit will be given for the remainder upon approved security. May be viewed upon application to John Pearson, the keeper, at Westley, of which catalogues may be had, also at the principal Inns, at Newmarket, Bury, Cambridge, and Ely; of the Auctioneers; and of Messrs. NOCKOLDS and KING, Land Agents, &c. Saffron Walden, Essex.

Note.—About 70 tons of good Oak Bark to be sold by private contract (fall of this year).

TO BUILDERS, CARPENTERS, PIANOFORTE AND CABINET MAKERS, COACH-BUILDERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 62, Upper-street, Somers-town, on MONDAY, JULY 9th, at ELEVEN for TWELVE, the capital well-seasoned STOCK, comprising 1,000 yellow, white pine, and spruce planks, deals, and battens; 180 squares of prepared flooring; 3,000 feet wide pine board; 3,000 feet seantling; dry cut stuff; 5,000 feet mahogany and fine panel moulding, framed doors, pulleys, ladders, horses, partitioning, and sundry useful stock—May be viewed, and catalogues had, on the Premises, and at the Auction Offices, Carnaby-street, Hampstead-road, near the Euston Station

The ENMORE PARK ESTATE, comprising about thirty three Acres of Building Land, beautifully situate at Woodside, between Norwood and Croydon, in the County of Surrey.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the AUCTION MART, on MONDAY, 23rd JULY, a valuable FREEHOLD PROPERTY, land-tax redeemed, and free of great tithe, consisting of about thirty-three acres of most highly productive land, commanding very extensive views of the distant and immediate picturesque scenery, the Crystal Palace, &c. It is approached from the high road from the Norwood Station, upon which it is only a short distance. Three principal roads (40 feet wide) have already been formed, extending through the land to Woodside-green on which there is a very considerable frontage, but there is full scope for the formation of others to create frontages to a much greater extent. The farm cottage, stabling, &c. fronting the green will be included in the sale. There are two churches in the vicinity. A plentiful supply of spring water is already on the premises, and the pipes of the Thames Ditton Water Company are laid within 400 yards of the estate. In the hands of a building society or capitalist this property offers attractions of no ordinary character. The estate can be viewed upon application to Mr. SKIDMORE, at the cottage. Particulars, with plans, may be had of the Auctioneer; and at the Greyhound Inn, in Croydon; at the Windmill Inn, St. James's-road, Croydon; the Jolly Sailor and White Lion Inns, at Norwood; the Crooked Billet, Liverpool-road, Islington; and of Messrs. BLAKE, Auctioneers; 28, Bread-street, Cheapside; and at the Grey-hound Inn, in Croydon; at the Windmill Inn, St. James's-road, Croydon; the Jolly Sailor and White Lion Inns, at Norwood; the Crooked Billet, Liverpool-road, Islington; and of Messrs. BLAKE, Auctioneers; 28, Bread-street, Cheapside; and at the Grey-hound Inn, in Croydon; at the Windmill Inn, St. James's-road, Croydon; the Jolly Sailor and White Lion Inns, at Norwood; the Crooked Billet, Liverpool-road, Islington; and of Messrs. DRAPER, Globe Tavern, Hatton-garden; and of Messrs. WINSTANLEY, Land and Estate Agents, 10, Paternoster-row.

FINE OAK TIMBER SUFFOLK.

MR. HENRY NEWSON will SELL by AUCTION, at BURY ST. EDMUNDS, on the 18th day of JULY, 1855, 170 FINE OAK TREES, many of which are of noble dimensions and beautiful quality, well worthy the attention of ship-builders and timber-merchants. The timber lies in the parishes of Livermere and Lawshall, and may be viewed at any time prior to the sale.—Catalogues posted free, on application to Mr. NEWSON, Land, Estate, and Timber Agent, Bury St. Edmund's.

CLEMENT'S INN, STRAND.—Old Building Materials of Three Houses.

MESSRS. EVERSFIELD and HORNE have received instructions to SELL by AUCTION, on the PREMISES, Nos. 11, 13, and 16, Clement's-inn, Strand, on SATURDAY, JULY 7th, 1855, at TEN for ELEVEN, the MATERIALS and FITTINGS of THREE HOUSES, comprising sound timber and flooring, doors, sashes and frames, wainscoting, lead gutters and flashings, sound brickwork, and other effects.—May be viewed on Friday previous to the sale, and catalogues had on the Premises; and of the Auctioneers, 40, Parliament-street, or Coal Exchange.

SALES BY AUCTION.

CLAPTON, MIDDLESEX.—The valuable Freehold Residence of the late Samuel Burger, esq with nearly Ten Acres of Land attached, delightfully situate within Three Miles of the City, and adapted for the abode of a Banker or Merchant. The Estate also presents great capability for conversion into a Public Institution, or for a Building operation on a large scale, its proximity to the Metropolis, and the dry and salubrious nature of the Soil offering rare advantages for either purpose.

MR. V. J. COLLIER has received directions from the Executors to SELL by AUCTION, at the MART, on TUESDAY, JULY 31, at TWELVE o'clock, a noble FAMILY RESIDENCE, eligibly situate at Clapton, within two minutes' walk of the Clapton and Railway station at Hackney. It contains a spacious entrance-hall and staircase, handsome dining and drawing rooms of large proportions, breakfast-room, morning-room, three principal bed-chambers, with dressing-rooms attached; five secondary bed-rooms, servants' hall, man's room and pantry, kitchen, scullery, extensive cellarage and other domestic offices; the whole in a perfect state of substantial and ornamental repair; double coach house, harness-room an l four-stalled stable, with loft over the whole, and coachman's dwelling adjoining. The residence has a portico entrance, with carriage sweep, lawn, and shrubbery in front, enclosed by a dwarf wall and iron palisades, and two pairs of folding gates. On the opposite side of the road is a meadow of about seven acres, and in the rear is an extensive lawn and undulated pleasure grounds, interspersed with gravelled walks and flower borders, and planted with fine American and other shrubs, of luxuriant growth, and ornamental trees of great beauty and variety. Also a highly productive kitchen garden, enclosed by lofty brick walls, clothed with choice fruit trees, and abundantly cropped; a thriving young orchard, and a close of meadow land of park-like character, ornamented with fine old timber. In the grounds is a double grapery, containing choice vines in full bearing, and several convenient forcing-houses; also a noble storebuilding of elegant architectural design, intended for a music hall or temple, but now appropriated as a gardener's dwelling, with large dairy in the basement. There is also a complete farm-yard and buildings at the extremity of the estate, which comprises altogether upwards of 9½ acres, the whole freehold and exonerated from land-tax. Particulars and plans may be obtained of Messrs. TAMPLIN, Esq Solicitor, 139, Fenchurch-street; at the Mart; and of Mr. V. J. COLLIER, 3, Moorgate street, of whom cards to view the property may be obtained fourteen days prior to the sale.

MILE-END-ROAD.—Three acres of valuable Building Ground and a commodious Residence, eligibly situate, within a very short distance of the City.

MR. V. J. COLLIER has received instructions to SELL by AUCTION, at the MART, on FRIDAY, JULY 20, at TWELVE, in one lot (unless previously disposed of by private contract), a large and valuable SURFACE of BUILDING GROUND, containing about three acres, desirably situate, in the rear of York place, Mile-end-road, together with the excellent Dwelling-house adjoining, No. 6, York-place, at the side of which is a good roadway, affording a communication with the above land from the high road, in addition to which there is a frontage in the rear of about 300 feet. The ground affords space for the erection of nearly 100 houses of the fourth-rate class of building, which are in great demand in the neighbourhood, and it presents to the speculator a fine opportunity for a successful building operation. The tenure is copyhold of the manor of Stepney, but, inasmuch as the fine is certain and of trifling amount, the cost of enfranchisement would be inconsiderable.—For particulars apply to Messrs. SWAIN, FOX, and SWAIN, Great Swan House, Old Broad street; and to Mr. V. J. COLLIER, 3, Moorgate-street.

VALUABLE FREEHOLD BUILDING GROUND, exonerated from land-tax, eligibly situate about a mile and a half from Whitechapel Church.

MR. V. J. COLLIER will SELL by AUCTION, at the MART, on FRIDAY, the 20th of JULY, at TWELVE o'clock, in one lot, a large PLOT of BUILDING GROUND, desirably situate in the rear of No. 1, New-gate, Mile-end-road (Old Town), presenting a frontage of nearly fifty feet to a good back road, and extending about 400 feet in depth, thus affording space for the erection of about thirty cottage-rental houses, which let readily in this populous locality at very remunerative rents. The ground adjoins the property described in the preceding advertisement, and would form a valuable addition thereto.—Particulars may be had of Messrs. BIDDLE, GRUBER, and ROWSELL, Solicitors, 5, Bibliter-street; at the MART; and of Mr. V. J. COLLIER, 3, Moorgate-street.

Important and Unreserved Sale of Belgian and English Cart Horses, &c. to be SOLD by AUCTION, by

MESSRS. BRETHERTON and HARRISON, at the MIDLAND COUNTIES REPOSITORY, Birmingham, on THURSDAY, and SATURDAY, the 26th, 28th, and 21st inst. commencing punctually each day at TWELVE o'clock, the following HORSES, &c. &c. without reserve, being the valuable well-selected stock of the Corporation of Birmingham, and sold by order of the Public Works Committee, who have let their work by contract. SIXTY-two superior Belgian and English Cart Horses, principally young, and remarkably clean, short legged, muscular horses, combining symmetry and power with great quickness and quickness of action, being in good working condition; also upwards of seventy sets of thill and chain harness, head collars, seventy quarter cloths, &c.; fifty substantial and well-built gravel and rubbish carts, in good condition; two wheelbarrows; stable utensils; roundsmen's brooms, and a variety of articles in use, and reserve stock requisite to be kept in connection with this part of the Corporation work. For full particulars, as catalogues, to be obtained at the Repository, on and after MONDAY next, or post-free on application. Messrs. B. and H. beg to call the especial attention of railway companies, persons engaged in public works, and others requiring first-class cart horses, to this stock, having been selected from the most eminent breeders in Belgium, expressly for the Corporation from the great care and judgment that has been given in their selection, they cannot fail to give satisfaction to purchasers. Will be on view at the Repository from the TUESDAY prior until the day of sale. The sale of horses and harness will take place on THURSDAY, the 19th, and the remaining part of the stock on FRIDAY and SATURDAY, the 20th and 21st inst.

TOTTENHAM.—Stock in Trade of a Wheelwright, New Haverhill, Oak and Ash Timber, six tons of Iron, Tools, and Effects of the late Mr. John Tatem, also, the Goodwill of the old established Business by

MR. RICHARDS, on the PREMISES, near Tottenham High Cross, on THURSDAY, JULY 12, at TWELVE o'clock, comprising a quantity of oak and ash timber, seasoned planks, carriage and cart bodies, tilt frames, iron axles, wheels, new van and cart bodies, track, wheeled arrows, iron flat form, four sacks, forge bellows, standard vices, quantity of nuts and bolts, patent tackle, iron and crowbar chain, weighing machines, set tons of new and old iron, erection of sheds, &c.; also, a nearly new Albert Dennet light van and a variety of effects.—On view the morning of Sale; catalogues on the Premises, and of the Auctioneer, Tottenham.

Third Portion of the valuable Mansion and Park of the Islington Cattle-market, comprising the Boundary Walls, 2,200 feet run; Public-house, Dwelling-house, and extensive range of Stabling, 750 lineal feet of Granite Kerbing, Lead, and Effects, by

MESSRS. RICHARDS, on the PREMISES, in lots, to be taken down by the purchasers, on TUESDAY, JULY 17, at TWELVE o'clock; comprising about 60 excellent stock BRICKS, forty squares of planing, sound timber in roofs, floors, and partial flooring, battens, joists, and timbers in dem fittings, stoves, pumps, stall divisions racks, mangers, stable doors, fencing, stone coping, pantiles, and a variety of materials useful for immediate and morning of sale. Catalogues obtained of GEO. LAKE, Esq. Solicitor, 19, Lincoln's-Inn-fields; and of the Auctioneer, Tottenham.

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The Builder.

AN ILLUSTRATED WEEKLY MAGAZINE FOR Architect, Engineer, Operatives & Artist.

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ADVERTISEMENTS.

THE OPERATIVE MASONS' BENEFIT SOCIETY, held at the GEORGE, Great Chapple-street, Soho-square, Dean-street entrance, IN CHAIR. The FORTY-FIFTH ANNIVERSARY of the above Society will be celebrated on TUESDAY, JULY 17th, 1855, at the MANOR-HOUSE TAVERN, Walworth, T. THOMPSON, Esq. in the chair.

HONORARY SUBSCRIBERS.

Messrs G. Baker and Son. — Booth, esq. W. Bird, esq. J. Baker, esq. E. Bonsey. Messrs W. Cubitt, and Co. T. Cubitt, esq. S. Cundy, esq. H. W. Cooper, esq. J. Cron, and esq. Messrs. Chadwick and Ackroyd. G Dyke, esq. — Foucard, esq. J. Foot, esq. E. Farrow, esq. E. Fleuster, esq. Messrs. W and J. Freeman. T. Grissell, esq. Messrs Grissell and Grillier. J. Hutchinson, esq. W Harbuse, esq. T. Jackson, esq. J. McKay, esq. J. Mowlem, esq. G. Myers, esq. Messrs. Piper and Son. T. Stirling, esq. Messrs. Smith and Appleford. Messrs Thompson and Holmes. — Wright, esq.

STEWARDS.

W. Goodfellow, 1, Staunate street, Lambeth.
T. Norton, 28, Ernest-street, Regent's-park.
R. Hassell, 15, Moreton-street, Belgrave road, Pimlico.
Tickets to be obtained of the Stewards.

ROYAL ACADEMY of ARTS, Trafalgar-square—The Exhibition of the Royal Academy IS NOW OPEN Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A. Secretary.

SOCIETY of PAINTERS in WATER-COLOURS.—The FIFTY-FIRST ANNUAL EXHIBITION is NOW OPEN at their Gallery, 5, PALL-MALL EAST (close to Trafalgar-square), from Nine till Dusk.—Admittance 1s. Catalogue, 6d.
JOSEPH J. JENKINS, Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS will SHORTLY CLOSE their Twenty-first Annual Exhibition, NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s.
JAMES FAHEY, Secretary.

NOTICE is hereby given, that a GENERAL QUARTERLY MEETING of Members of the INSTITUTION of BUILDERS FOREMEN and CLERKS of WORKS will take place on WEDNESDAY EVENING next, at the Albert Tavern, St Swithin's lane, for the purpose of transacting the usual quarterly business.
W. ALLARD, Secretary.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855.
On MONDAY, July 16th, a LECTURE on MURAL DECORATION, from the Twelfth to the Fourteenth Century, will be delivered by OCTAVIUS HUDSON, Esq.
Hour of admission, SEVEN o'clock. The chair to be taken at EIGHT o'clock.
Casts, prospectuses, and catalogues of the collection (non numbering upwards of 5000 specimens) may be had at the Museum, and at the office of "The Builder."
July 13, 1855. HENRY CLUTTON, Hon. Sec.

BENNETT PARK, BLACKHEATH.—The PLAN SELECTED for laying out this Estate for Building is No. 42, by Messrs WEHNERT and ASHDOWN. The rest may be had after Monday next, from Mr. BENNETT, Watchmaker, opposite the Church.

BARRACK WORKS, DOVER.—Quantities of the above works may be had in due time of Mr. WRIGHT, Surveyor, Coventry. Mr. Wright will be at Dover during the time the plans are open.

COMPETITIONS.

TESTIMONIAL to the late Lord FITZGIBBON.—The Committee of the Fund, raised for the Erection of a Testimonial to the late Viscount Fitzgibbon, and his gallant Companions-in-Arms, who so nobly fell in the glorious Light Cavalry Charge at Balaklava, are desirous of receiving DESIGNS for a suitable WORK, commemorative of their gallantry and devotion to their country.

The proposed site is in the centre of the Crescent, in the City of Limerick, and is 75 feet in width, to the flagway at either side. A space of about 50 feet, in circumference can be allocated for the purpose, but within which must be included the railing or enclosure.

The entire expense of the testimonial (including the railing and pedestal) completed in all respects, and placed on the proposed site, is not to exceed a sum of 800*l*. A prize of 10 guineas will be given by the Committee for the design (with specification) of which they may approve, and which must be sent in on or before the 1st of AUGUST next.

Reference to be made to HENRY O'SHEE, Esq. Mayor of Limerick.

TO ARCHITECTS.

PLANS of BARRACKS.—The Committee appointed by the Minister of War to consider the question of Barrack Accommodation for the Army, have to inform all architects who may be desirous of competing for the prizes offered for the best plans of Infantry and Cavalry Barracks, that in consequence of the very numerous applications received from architects, requesting an extension of the time given for the preparation of the plans, the Committee have agreed to DEFER the following one month for the due performance of the contract. Tenders for the above works to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Ordnance Works at Dover Castle."

Reference to be made to HENRY O'SHEE, Esq. Mayor of Limerick.

TO ARCHITECTS.

PLANS of BARRACKS.—The Committee appointed by the Minister of War to consider the question of Barrack Accommodation for the Army, have to inform all architects who may be desirous of competing for the prizes offered for the best plans of Infantry and Cavalry Barracks, that in consequence of the very numerous applications received from architects, requesting an extension of the time given for the preparation of the plans, the Committee have agreed to DEFER the following one month for the due performance of the contract. Tenders for the above works to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Ordnance Works at Dover Castle."

NB The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, July 4th, 1855.

Royal Engineer Office, Chatham, July 11, 1855.

TO CONTRACTORS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 30th day of JULY, 1855, from persons desirous of CONTRACTING for ERECTING ABLUTION and BATH ROOMS, &c. at the Victoria Hospital, Fort Pitt, near Chatham.—Plans and specifications of the work are to be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 24th of JULY.—Sundays excepted. The person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and severally, to be bound under a penalty of 200*l*. for the due performance of the contract. Tenders to be addressed to the Secretary, Ordnance Office, Pall mall, London, and to be delivered at the Guard-room, "Tender for Works at Chatham" No Tender can be admitted after the sixth day of JULY, 1855. The Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

ORDNANCE CONTRACT.—Notice to IRONMONGERS and BUILDERS.—TENDERS, sealed and addressed to the Secretary to the Ordnance, will be received at the Ordnance Office, Pall mall, London, on or before WEDNESDAY, the 25th JULY instant, for the CONSTRUCTION and ERECTION of THIRTY-EIGHT IRON BUILDINGS, for Quarter-master's Stores, at the temporary barracks, Aldershot, within ten weeks from the date of the notification of the acceptance of the Tender. Plans of the same may be seen, and specifications and forms of Tender obtained on application at the Royal Engineer's Office, Aldershot. Tenders to be endorsed "Tender for Quartermaster's Stores at Aldershot."

NOTICE to BUILDERS.—BARRACK WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that the WORKS proposed for ENCREASING the BARRACK ACCOMMODATION at the WESTERN HEIGHTS, DOVER, are POSTPONED, except that portion of them which provides for building a non-commissioned officers' and soldiers' privy, the plans and specification for which can be obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 16th of JULY to the 31st of JULY, Sundays excepted. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 25*l*. for the due performance of the contract. Tenders for the above work are to be addressed to the Inspector General of Fortifications, Pall mall, London, and endorsed "Tender for Building a Privy at the Western Heights, Dover."

NB The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, July 9, 1855.

TO BUILDERS.

TENDERS are required for the ERECTION of SCHOOLS and TEACHER'S RESIDENCE, for the District of St. Matthias, Bristol, to be built on the Weir, adjacent to the Church of St. Matthias. The plans and specifications will remain at the vestry-room of the Church from MONDAY, the 9th, till WEDNESDAY, the 18th inst., in which latter day the estimates are to be forwarded to the Architect, Mr. NORTON, 34, Old Broad-street, London.—Further information may be obtained on application to the incumbent, the Rev. ADAM CLARKE, Rectory, or of the Architect.

TO PAINTERS AND OTHERS.

PERSONS desirous of TENDERING for PAINTERS' and OTHER WORK to be done at St. Peter's Church, Walworth, Surrey, are informed that the Specification of the Architect, Mr. HENRY JARVIS, 29, Trinity-square, Newington-Surrey, The Tenders are to be delivered at the Vestry-room, of St. Peter's Church, on the 18th inst. at FIVE o'clock p.m. The party whose Tender is accepted will be required to enter into a contract, and to find the requisite there for. No Tenders will be received unless made as above.

CONTRACTS.

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, Pall-Mall, London, on or before MONDAY, the 16th of JULY, 1855, from parties willing to ENTER INTO CONTRACT for the CONSTRUCTION of NINETEEN SHELL RECEPTACLES, at Gosport Lines and Priddy's Hard. Plans and specifications for the work may be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Portsmouth, between the hours of TEN and FOUR o'clock Sundays excepted. The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall-Mall, London, and endorsed "Tender for the Construction of Shell Receptacles at Gosport Lines and Priddy's Hard, Gosport."

Royal Engineer Office, Portsmouth, June 30, 1855.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Office of the Inspector-General of Fortifications, Pall-mall, London, on or before SATURDAY, the 4th day of AUGUST, 1855, from persons desirous of CONTRACTING for various WORKS at Dover Castle. Plans and specifications of the works to be executed, may be seen by competent persons, and forms of Tender obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 16th of JULY to the 3rd of AUGUST, 1855, Sundays excepted. No other persons are to apply. Every party whose Tender may be accepted for the works, will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 1,500*l*. for the due performance of the contract. Tenders for the above works to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Ordnance Works at Dover Castle."

NB The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, July 4th, 1855.

TO CONTRACTORS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 30th day of JULY, 1855, from persons desirous of CONTRACTING for ERECTING ABLUTION and BATH ROOMS, &c. at the Victoria Hospital, Fort Pitt, near Chatham.—Plans and specifications of the work are to be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Chatham, between the hours of TEN and FOUR, till the 24th of JULY.—Sundays excepted. The person whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and severally to be bound, under a penalty of 200*l*. for the due performance of the contract. Tenders to be addressed to the Secretary, Ordnance Office, Pall mall, London, and to be delivered at the Guard-room, "Tender for Works at Chatham" No Tender can be admitted after the sixth day of JULY, 1855. The Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

ORDNANCE CONTRACT.—Notice to IRONMONGERS and BUILDERS.—TENDERS, sealed and addressed to the Secretary to the Ordnance, will be received at the Ordnance Office, Pall mall, London, on or before WEDNESDAY, the 25th JULY instant, for the CONSTRUCTION and ERECTION of THIRTY-EIGHT IRON BUILDINGS, for Quarter-master's Stores, at the temporary barracks, Aldershot, within ten weeks from the date of the notification of the acceptance of the Tender. Plans of the same may be seen, and specifications and forms of Tender obtained on application at the Royal Engineer's Office, Aldershot. Tenders to be endorsed "Tender for Quartermaster's Stores at Aldershot."

NOTICE to BUILDERS.—BARRACK WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that the WORKS proposed for ENCREASING the BARRACK ACCOMMODATION at the WESTERN HEIGHTS, DOVER, are POSTPONED, except that portion of them which provides for building a non-commissioned officers' and soldiers' privy, the plans and specification for which can be obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 16th of JULY to the 31st of JULY, Sundays excepted. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 25*l*. for the due performance of the contract. Tenders for the above work are to be addressed to the Inspector General of Fortifications, Pall mall, London, and endorsed "Tender for Building a Privy at the Western Heights, Dover."

NB The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, July 9, 1855.

TO BUILDERS.

TENDERS are required for the ERECTION of SCHOOLS and TEACHER'S RESIDENCE, for the District of St. Matthias, Bristol, to be built on the Weir, adjacent to the Church of St. Matthias. The plans and specifications will remain at the vestry-room of the Church from MONDAY, the 9th, till WEDNESDAY, the 18th inst., in which latter day the estimates are to be forwarded to the Architect, Mr. NORTON, 34, Old Broad-street, London.—Further information may be obtained on application to the incumbent, the Rev. ADAM CLARKE, Rectory, or of the Architect.

TO PAINTERS AND OTHERS.

PERSONS desirous of TENDERING for PAINTERS' and OTHER WORK to be done at St. Peter's Church, Walworth, Surrey, are informed that the Specification of the Architect, Mr. HENRY JARVIS, 29, Trinity-square, Newington-Surrey. The Tenders are to be delivered at the Vestry-room, of St. Peter's Church, on the 18th inst. at FIVE o'clock p.m. The party whose Tender is accepted will be required to enter into a contract, and to find the requisite there for. No Tenders will be received unless made as above.

CONTRACTS.

TO BUILDERS AND OTHERS.

GLOUCESTER COUNTY LUNATIC ASYLUM.—Persons desirous of CONTRACTING for certain extensive ALTERATIONS and ADDITIONS at the Institution, in converting the double paupers' wings into kitchens and other offices, and the building of washhouses and laundries, may inspect the plans and specification at the Office of THOMAS FULLJAMES, County Surveyor, Gloucester, any time between the hours of TEN o'clock a.m. and SIX o'clock p.m. from the 9th of JULY to the 31st of JULY inclusive. Sealed Tenders to be sent in addressed "To the Committee of Visitors, Lunatic Asylum, Gloucester," endorsed "Tender for Building," on or before the 23rd inst. The Committee do not pledge themselves to accept the lowest Tender.

Gloucester, July 3, 1855.

TO BUILDERS AND OTHERS.

EASTHAMPSTEAD UNION.—The Board of Guardians are desirous of receiving TENDERS for the ERECTION of an INFIRMARY and other WORKS, plans, specifications, and conditions may be seen at the Office of the Architect, Mr. S. B. CLACY, Broad-street, Reading, after WEDNESDAY next, between the hours of TEN and FOUR. Sealed Tenders endorsed "Tender for Infirmary &c." to be sent to me at the Union House, Easthampstead, near Bracknell, Berks, on or before WEDNESDAY, JULY 25. The Board of Guardians do not bind themselves to accept the lowest Tender.

By order of the Board,
Bracknell, June 29, 1855. CHARLES CAVE, Clerk.

[For remainder of Contracts see next page.

CONTRACTS.

HOARWITHY BRIDGE.—To BUILDERS, CONTRACTORS, and OTHERS.—The Directors by the undermentioned, that they are prepared to receive TENDERS for the ERECTION of a TIMBER BRIDGE with STONE PIERS and ABUTMENTS, over the River Wye at Hoarwithy, near Ross, in the county of Hereford. Approaches to be formed, and a Toll-house. The plans and specifications may be inspected and copies of the quantities obtained at the offices of Messrs LOW and BODMAN, Civil Engineers, Hereford, on Tuesday next, and of Mr HENRY MINETT, Solicitor, Ross, after the 17th of JULY. Sealed Tenders to be delivered at the Harp Inn, Hoarwithy, near Ross, before 11 o'clock in the forenoon of the 31st JULY.

J. F. SYMONDS, }
HENRY MINETT, } Solicitors.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice that they will be ready at the Court House, No. 1 Greek street, Soho-square, on TUESDAY, the 17th day of JULY next, at ONE o'clock pm. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETING a PUMPING-HOUSE, certain intended BRICK SEWERS, of the respective lengths or thereabouts, with other Works in connection therewith, in King's road, Kingsland, Mile End, Beaufort street, and Danvers street, Chelsea, in the parish of St. Luke, Chelsea, in the county of Middlesex, and for the maintenance of such works in complete repair for twelve calendar months. Plans, specifications, and a quantities of the works to be done and the form of Tender may be inspected, and their particulars obtained at the principal office of the Commissioners, No. 1 Greek-street, Soho-square, between the hours of NINE and FOUR pm until the 16th day of JULY next. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted will be required to execute a Contract according to the proper forms of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRICH, Secretary.

No. 1, Greek-street, Soho-square.

Dated this 9th day of July, 1855.

TO BUILDERS

THE MAYOR, ALDERMEN, and BURGESSES of the BOROUGH of CAMBRIDGE are desirous of receiving TENDERS for the ERECTION of a CONDUIT, on the Market hill, in the said Borough, according to plans and specifications, prepared by GORDON M. HILLS, Esq. Architect, and which may be seen at his Chambers, 12, John-street, Adelphi, London; or at my office, in the Guildhall Cambridge, until after TUESDAY, the 24th day of JULY instant. Tenders, directed to the Conduit Committee are to be sent to me under seal, on or before TUESDAY, the 24th day of JULY instant. The party entering must specify the number of Lions required to be pierced, who are not to become his sureties for the performance of the contract. No member of the Council can be accepted as surety. The committee do not pledge themselves to accept the lowest or any Tender. By order,

C. H. COOPER, Town Clerk.

Guildhall, Cambridge, July 4, 1855.

TO BUILDERS

PERSONS desirous of TENDERING for the ERECTION of a CHAPEL, in NASSAU-STREET, Soho, may see the plans and specification, &c. at the Office of the Architect, R. H. MOORE, Esq., 1 Queen's-terrace, Regent's park, from MONDAY the 23rd instant, when the Tenders are to be delivered—The Committee will not be bound to accept the lowest Tender.

WISBECH S. PETER'S, CAMBRIDGESHIRE.—Builders desirous of CONTRACTING for the RESEATING and RESTORING the PARISH CHURCH of S. PETER, WISBECH, can view the drawings and specifications on applying to Mr LEWIS TUFNELL, Churchwarden, Wisbech; and further particulars required may be obtained from the Architect, Mr. GEORGE GILBERT SCOTT, 1, Lowndes-st., or Mr WILLIAM SMITH, 12, John-street, Adelphi, London—Tenders to be delivered on or before MONDAY, the 30th of JULY instant, addressed to the VICAR, Wisbech, and to be sealed, and endorsed "Tenders for the Church Restoration." The Committee do not bind themselves to accept the lowest or any Tender. Good and sufficient security will be required for the due performance of the works. By order of the Committee

ARTHUR CHAS. COPEMAN, }
WM. A. SLY, } Secretaries.
FRED. M. METCALFE, }

Wisbech, July 3, 1855.

THE PUBLIC HEALTH ACT, 1848.—TO CONTRACTORS and OTHERS.—The Local Board of Health for the District of Leamington, are prepared to receive TENDERS for WORK to be performed in executing the REMOVAL of CARTH, GRAVEL, and STONE, and LAYING and RAISING required in making the public roads, streets, and places in proper order and condition; and for CLEANSING the PRIVIES and ASH-HOLES, and for REMOVING and CARTING SOIL, ASHES, and RUBBISH, from private premises within the district, for the term of five, seven, or ten years, commencing the 29th day of SEPTEMBER, 1855. A plan showing the several roads and district over which the different works extend may be seen and further information obtained, on application at Mr. JOSEPH PEACH SHARP'S Surveyor to the Local Board, at his Office, Town-hall, Leamington; and copies of the specification, schedule of prices, and form of Tender, may be had on application to the Clerk, at the Town-hall, on payment of two shillings each. Tenders must be forwarded, enclosed "Tenders for Maintaining Roads, &c." to the Clerk to the Local Board, on or before SATURDAY, the 4th day of AUGUST next.—The Board do not bind themselves to accept the lowest or any Tender.

By order,

R. H. DAVIES, Clerk.

Town-hall, Leamington, June 19, 1855.

TO BUILDERS.

CONTRACT for REPAIRS.—The Guardians of the Poor of the parish of St. Martin in the-Fields, Strand, and Hundred of Ossulstone, require TENDERS for REPAIRS to the WORKHOUSE. Specifications and forms of Contract may be inspected, and tenders must be delivered, by FOUR o'clock in the afternoon of the 24th instant, at the Office, 41 Castle-street, Leicester-square. The Guardians do not bind themselves to accept the lowest Tender. By order,

July 9, 1855. W. B. WEST, Clerk to the Board.

TO HYDRAULIC ENGINEERS AND OTHERS.

NOTICE is hereby given, that the Harrow Waterworks Company are desirous of receiving TENDERS for ENLARGING and ALTERING the TWO PUMPS (Lifting and Forcing) at the Harrow Waterworks. The specification may be seen at the Office of the Secretary, Harrow. Tenders, endorsed "Tender," to be sent to the Chairman, C. F. HARRIS, Esq. The Park, Harrow, all or before THREE o'clock, on SATURDAY, the 21st instant.—By order of the Directors,

WM. WINKLEY, Jun. Secretary.

Harrow, July 12, 1855.

TO ENGINEERS, SURVEYORS, &c

THE LOCAL BOARD of HEALTH for the District of Dewsbury, is prepared to receive TENDERS for REVISING and ALTERING the PLANS of DISTRICT PROJECT No. 2 and LAYING DOWN a SYSTEM of SEWERAGE and lines of IRON PIPES for Water Supply from the Service Reservoirs, and superintending the execution of the same. The contract sum to include the expense of all drawings, specifications and estimates. The plans of the district to be seen at the office of the Local Board of Health, and further information obtained, and Tenders received. Ten cross and two segment sewers for vertical Plans, &c." to be sent in her case to reach me before the 23rd instant. The Board do not bind themself to accept the lowest or any Tender, nor will any allowance be made for estimates. CHARLES OLDROYD

Clerk to the said Local Board of Health.

Dewsbury, 5th July, 1855.

CONTRACTS.

TO CONTRACTORS.—The Local Board of Health for the District of Dewsbury, is prepared to receive TENDERS for the EXECUTION of the following WORKS, namely:—

CONTRACT No. 3.—For EXCAVATING and LAYING DOWN about 2,000 YARDS of WATERTIGHT CONDUIT, known as the Watertight Conduit and Inverted Syphon, between the termination of Contract No. 2, near Bradstone Dike, in the township of Foulstone, in the parish of Kirkburton, in the county of York, and the village of Shelley, in the same parish.

CONTRACT No. 4.—For EXCAVATING and LAYING DOWN about 3,000 YARDS of WATERTIGHT CONDUIT, known as the termination of Contract No. 3 and the boundary fence between the townships of Whitley Lower and Thornhill both in the county of York.

Plans and sections of the above works may be seen at the Offices of Messrs. MORGAN and HOUSE, Westgate, Huddersfield, and at the Office of the undersigned, and copies of the specifications and quantities may be obtained there at one Guinea each, on payment of such charges each to be returned on the same being delivered. Tenders, sealed and endorsed, "Tenders for Conduit Contract No. 3," or "Tenders for Conduit Contract No. 4," as the case may be, to be sent under cover to me on or before the 31st instant. The Board does not bind itself to accept the lowest or any Tender, nor will any allowance be made for estimates.

CHARLES OLDROYD,
Clerk to the said Local Board of Health.

Dewsbury, July 5, 1855.

CITY of COVENTRY.—To IRONFOUNDERS and OTHERS.—Persons willing to contract for supplying the Coventry Local Board of Health with CAST-IRON TUBES to be laid in connection with the Branch Sewers crossing under the Watercourses are requested to send sealed TENDERS, endorsed "Tenders for Cast-iron Pipes," to the Office of the Town Clerk at or before TEN o'clock on MONDAY, the 23d day of JULY instant. Plans and specifications may be seen at the Office of Mr. WILLIAM ROBINSON, Civil Engineer, Bank Chamber, High-street, Coventry, on and after WEDNESDAY, the 11th day of JULY instant, between the hours of ELEVEN a.m. and ONE p.m. The Board do not pledge themselves to accept the lowest or any Tender.

By order of the Local Board of Health,
THOMAS BALL TROUGHTON,
Town Clerk.

Coventry, 5th July, 1855.

PARTIES willing to do the PLASTERING of several HOUSES, and take a carcase as part payment, can have the particulars, by applying at No. 15, Marsden terrace, Maiden road, Haverstock-hill.

ST. MARYLEBONE WORKHOUSE.—To CARPENTERS, BUILDERS, &c.—Notice is hereby given that the Directors and Guardians of the Poor of the parish of St. Marylebone in the county of Middlesex, will meet in the BOARD-ROOM of the Workhouse of the said parish, on FRIDAY, the 27th day of JULY, 1855, at ELEVEN o'clock in the forenoon, to receive TENDERS for or persons willing to Contract for the FORMATION of a NEW FLOOR in the Laundry of the said Workhouse. Further particulars may be known, and a specification seen on application to the Surveyor, Mr. ROBERT SCOTT, at his daily attendance at the Court House, Marylebone, from TWELVE to ONE o'clock. The Board do not pledge themselves to accept the lowest or either of the Tenders; and they must be sent in, addressed to the Board of Guardians of the Workhouse, and endorsed, "Tender for Laundry," on or before the day preceding the day above mentioned.

By order,
THOMAS B. RAE, Secretary.

Secretary's Office, July 6, 1855.

TO DRAIN-PIPE MANUFACTURERS, CONTRACTORS, and OTHERS TO BE SOLD by PRIVATE CONTRACT, the Lease of the Assignees of Mr. James Harris, important LEASEHOLD PREMISES, at Charlton, within five minutes' walk of the railway station, and most conveniently situate for the Thames, and the Kent and Greenwich railways, with depôts and railway. There is frontage of 300 feet near the river, with landing stage, a substantial brick building enclosing four spacious kilns, a drain-pipe manufactory, standing, workshops, and every convenience with land in the rear, comprising about three acres. The plant can be taken at a valuation, rendering the premises ready for immediate work.—For further particulars apply to WILSON and ST. QUINTIN, Auctioneers, 28, Royal Exchange.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of a SCHOOL-HOUSE at Newcastle-under-Lyme to contain 400 children, with RESIDENCE attached may see the plans and specification at the Architect's Office, Stoke Ville, Stoke-upon-Trent. Tenders, sealed and endorsed, to be sent in on or before WEDNESDAY, the 25th inst. The lowest Tender will not necessarily be accepted.

JAMES TRUESHAW, Architect.

Stoke Ville, Stoke-upon-Trent, July 14th, 1855.

TO BUILDERS

WOLVESNEWTON CHURCH, near Raglan, Monmouthshire.—Builders are invited to submit TENDERS for the RESTORATION and PARTIAL REBUILDING of this CHURCH. The plans and specification may be inspected at the Rectory, Wolvesnewton, from WEDNESDAY, the 18th, to SATURDAY, the 28th instant, when the Tenders are to be sent in to the Rector, the Rev. DAVID JONES, M.A. NORTON, the Architect, of 28, Old Bond-street, London, will furnish any information required by Builders wishing to submit Tenders for the work.

TO BUILDERS

GLOUCESTER CORN EXCHANGE and MARKET-RATE ROOMS.—The Corporation of Gloucester are desirous of receiving TENDERS in one contract, for the ERECTION of the above BUILDING, in accordance with the plans, specifications, and quantities prepared by Messrs MEDLAND and MABERLY, Architects, Gloucester, which may be seen at their Offices, on and after the 16th of JULY. Tenders to be delivered free of charge before TWELVE o'clock on WEDNESDAY, the 1st day of AUGUST, addressed to the Town Clerk, and sealed and endorsed, "Tender for Gloucester Corn Exchange and Market Rooms." The contract will be taken out by a competent Surveyor. The Corporation will not be bound to accept the lowest or any Tender, and the amount to be named in figures to them.

Gloucester, July 13, 1855. A. H. JENKINS, Town Clerk.

LYNN PUBLIC BATHS.—Persons desirous of CONTRACTING for the several works required in the ERECTION of PUBLIC BATHS for the town of Lynn, to be supplied with salt and fresh water, may see the plans and specification at the Offices of Messrs. COLTON and BELOE on and after MONDAY, the 9th day of JULY instant, where sealed Tenders will be received up to ELEVEN o'clock on MONDAY, the 23rd day of JULY, endorsed "Tenders for Public Baths for Lynn." The Council are not pledged themselves to accept the lowest or any Tender. For further particulars apply to Mr. THOMAS OLIVER, Jun. Architect, Sunderland; or to Messrs. COLTON and BELOE, Solicitors, Lynn.

Lynn, 9th July, 1855.

TO BUILDERS.

PARTIES desirous of CONTRACTING for the ERECTION of a VILLA RESIDENCE, at Oulton, near Stone, in the county of Stafford, may inspect the plans and specification at their Office, from MONDAY the 9th, to SATURDAY, the 28th of JULY, when the tenders are to be delivered to us, properly endorsed. The lowest Tender not necessarily accepted, and proper sureties required.

WARD and SON, Architects.

Albion-street, Hanley, Staffordshire, 9th July, 1855.

N.B. Oulton is about a mile from Stone, which is a first-class station of the North Staffordshire Railway.

SHREWSBURY PUBLIC CEMETERY.—TO BUILDERS.—The Burial Board of the Borough of Shrewsbury hereby give Notice that they are prepared to enter into a CONTRACT or CONTRACTS for BUILDING the necessary CHAPELS, LODGES, and ENTRANCE GATES, required at the Cemetery Ground, in the parish of Meole Brace, Shrewsbury. Persons willing to undertake such contract or contracts are therefore requested to send proposals in writing to me, at the Guildhall, Shrewsbury, on or before the 26th of JULY, sealed up and endorsed, "Proposals for Cemetery Buildings." Specifications and plans of the work may be seen at my Office on and after MONDAY, the 2nd of JULY next.

J. J. PEELE, Clerk to the Burial Board.

Guildhall, Shrewsbury, June 19, 1855.

GRIMSBY LOCAL BOARD of HEALTH.—WATERWORKS and DRAINAGE.—Notice is hereby given that the TIME for sending in TENDERS for the above works is hereby EXTENDED until Thursday next, at Noon. The Builder, owing to the press of engines, &c. not yet being ready for inspection.

By order,
GEO. BABB, Clerk to the Board.

Great Grimsby, July 10, 1855.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Oil Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

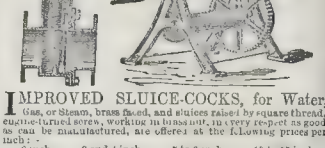
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FREDERICKS, BRothers, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 35, High Holborn.

ENAMELLED IRON TUBING, at the same price as plain tubing.—From 8 000 to 10,000 feet of various sizes, from ½ inch to 4 inches diameter, at HOOD and SON'S Castings Warehouse, 98, Upper Thames-street.



IMPROVED SLUICE-COCKS, for Water, Gas, or Steam, brass faced, and sluices raised by square thread, engine-turned screw, working in brass nut, in every respect as good as can be manufactured, are offered at the following prices per inch:—

2-inch.	3 and 4 inch.	5 to 9-in h.	10 to 15 inch.
10s.	8s.	7s.	6s.

Lithographs of the improved self-lubricating and various other construction, with descriptions and prices attached, may be had on application.

Single purchase Builders' Cranks, above, title 1 with two handles, 2 and 4 with iron braces and spindles, with set to throw in and out of gear.

Price	7s. each.
Stronger and larger ditto	6l. 10s. do.
Double purchase	8l. 8s. do.
Treble purchase	12l. 12s. do.

BARRETT, EXALL, and ANDREWS, Kate's Grove Iron-works, Reading. Agents in London, DRAY and CO. Swan lane.

PUMPING MACHINERY for AUSTRALIA, INDIA, CEYLON, SOUTH AMERICA, MEXICO, the CONTINENT, &c.—All persons desirous of RAISING large or small quantities of WATER, for works of drainage or irrigation, dry docks, canals, coffer-dams, water-works, &c. by horse, wind, or steam power, should SEE GWYNNE and CO.'S PATENTED MACHINERY for the purposes, being the most economical efficient, simple, and durable ever brought before the public Hydraulic Rams, Water-wheel, Steam-engines portable and fixed, with every information obtained by applying to GWYNNE and CO. Hydraulic and Mechanical Engineers, Essex Wharf, Essex-street, Strand, London.

212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES are undoubting and unrivalled with all the improvements, under their Quadruple Patents of 1839, 51, 54, and 1855, including the Gunpowder Proof Soft Lock and Door (without which no safe is secure).

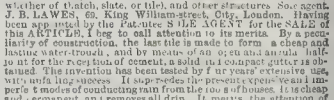
THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX 212° SAFE-WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47, Moorgate street, City.—Circulars free by post.

GASHOLDER and CAST-IRON TANK FOR SALE TO BE SOLD, a GASHOLDER 132 feet 4 inches diameter, by 12 feet 9 inches deep; and CAST-IRON TANK, 40 feet, four metal columns, pulleys, and counter weights.—The above may be seen at the Monkwearmouth Works of the Sunderland Corporation Gas Company, and further information obtained on application to the undersigned, by whom offers in writing will be received until JULY 31.

JOHN H. COX, Secretary.

61, Fawcett-street, Sunderland, June 29, 1855.



BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES either old or new, whether of Thatch, slate, or tile, and other structures. Soc agent, J. B. LAWES, 23, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough, and by means of an open and annular hollow at the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with only a few excess. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses, to the cheap and permanent, and removes all drip. It meets the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal at the works, Yeverett, near Rugby; or in London, Gloucester, or Bridgwater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 9d.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"18, Hyde-park Gate, Kensington, February 24, 1854.

"My dear Sir,—The Air Warmer continues to work very satisfactorily indeed, with regard to the warm body of the house, and during this weather is of immense value in the painting room. Mrs. Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed. I remain, my dear Sir, yours sincerely,

"Mr. J. Jobson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq. late M.P. for Sheffield

"Stanhope lodge, St John's wood, London, January 27th, 1855.

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in England, and this has increased with increasing years and decreasing strength; I have, therefore, had no rest, from time to time, to various and all other modes of warming the hall and passages of my house; but I have never succeeded till now in producing an equal temperature over every part, and have had that temperature completely under control which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and have the climate of May within doors in the months of December and January. The servants learned its proper management in a few days with no difficulty, and its economy in fuel is as remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall lose no opportunity of heartily avowing its adoption to all who desire to protect themselves against the changes of temperature in their dwellings.—I am, dear Sirs, yours faithfully,

"JAMES SILK BUCKINGHAM.

"To Messrs. Stuart and Smith, Roscoe-place, Sheffield."

M. E. HADFIELD, Esq. Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir,—We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable oppressive odour produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective.—I am, my dear Sir, yours faithfully,

"Mr J. Jobson Smith, Roscoe-place." "M. E. HADFIELD.

WILLIAM HUTSON, Esq.

"Notley Wake, Thrapston, 15th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the disadvantages incident to an uninhabited and unfurnished house, with all the doors open day and night, it is keeping up a very genial influence over the temperature even during this severe weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 18s. 9d. per ton, the rate at which it has been burning for the last two or three months, is 1d. per hour.

"I am, Sirs, yours truly, "WILLIAM HUTSON.

"Messrs. Stuart and Smith

"P.S.—Mr. Hutson, on looking again, sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3s. 8d. for coke—say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop-road, February 27th 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the last ever, from the comfort it has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase and passages, being a reserv oir of cold air, a genial warmth has been everywhere diffused; and when recovering from colds my children have had the general run of the house without the fear of a relapse. To many invalids the invention will prove unreliable giving them the freedom of their invalid-room instead of confining them prisoners to one apartment.—Believe me, my dear Sir, very truly yours.

"Mr. Jobson Smith." "EDWARD MARTIN.

E. F. SANDERSON, Esq.

"West-street, Sheffield, 27th March, 1855.

"Gentlemen.—The Gill Air Warmer you put up for me last year at Eastcliffe, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been peculiarly sensitive of the damp and chilly air of this country, but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a coal fire of ordinary size, warm, free air. This excellent apparatus must be invaluable to invalids and delicate persons. I am accordingly offering my testimony in approbation of its effective plan of rendering dwelling-house as most equally comfortable in point of temperature.—I am, yours very truly,

"Messrs Stuart and Smith, Roscoe-place." "E. F. SANDERSON.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

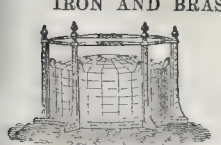
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all sizes; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

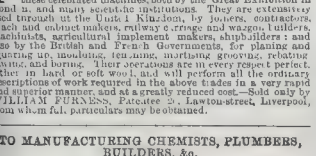
These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



SASH AND MOULDING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used through at the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders: and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee 20, Lawton-street, Liverpool, from whom full particulars may be obtained.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Debrock's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c. The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tap, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10 11, and 12, Charles-street, Long-acre, London

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS

Messrs. HOBBS, ASHLEY, and Co. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 44, Lawrence-lane, London, where, by the introduction of their patent steam machinery they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the strongest Safeguards against Fire and Robbery; they are made of any dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and Co. Wholesale and Retail Warehouses, 97, Cheapside, and 44, Lawrence lane, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOODBYER at the Great Exhibition, 1851, who invites the attention of Builders, &c. to his stock of Ironmongery, Brass Founding, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent-sliding Spindles, Dr Arnott's Vent-lator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c. each

J. H. BOODBYER, late STURCH and BOODBYER, established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

13, Stanhope-street, Clare-market, London

No. 1081, Class 9, Section 16, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

CHUBB'S LOCKS & FIREPROOF SAFES.

UNEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY, LIVERPOOL.

"London and North-Western Railway Company,

"Liverpool, May 17, 1853

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"8, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant, "C. OTWAY,

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements: Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields Wolverhampton.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's, JONES and BLAXPOX, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Rain-pipes, Gates, Iron Cornice, Balconies, Window Guards Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Cross, Standing, Lamp and other Brackets, Cantilevers, Newel Bars, Paper Cheese Work, Area Gratings, Lily and other Wheels Wool Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock

FOUNDRY AND IRON WORKS,

68, DRURY-LANE, and CHARLES-STREET, DRURY-LANE,

GLOVER, BROS.,

solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Unions, Lot and Stand Screw engines; Ramsbeck, Hot-plate Metal. An improved Soot Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Airbricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of Ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,

168, DRURY-LANE, and CHARLES STREET.

NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES,

a complete LIST of which will be forwarded upon application.

FREDERICK BLYTH,

Nail Manufacturer and General Factor,

Nail Manufacturer and General Factor, BIRMINGHAM; or at 16, Gresham-street, LONDON.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.	4	5	6
	5s. 4d.	6s. 6d.	8s. 9s. 9l per gross.

At JOHN TOUNGS, Birmingham and Wolverhampton, Agent, Factor, and General Furnisher, 15, Blandford-street, Manchester-square, from out of Baker-street, Portman-square. Every other article equally reasonable.

SKAIFE'S GALVANIZING WORKS,
Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated. Roofs fixed complete.
J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
An Allowance to the Trade.

LIVERPOOL and MANCHESTER PATENT GALVANIZED IRON WORKS.—FRANCIS MORTON and CO.—Galvanized Sheet Iron of the best quality; ditto, expressly prepared for Tinmen and Braziers. Corrugated Sheets, Painted or Galvanized, of all sizes, for Roofing. Fire-proof Partitions, Ceilings, &c. always kept in Stock. Gas and Water Tubing, Rain-water Gutters and Pipes; Wire of all numbers; Nails, Screws, Spikes, Hoops, &c.; Wrought Iron Hurdles. Field Gates, &c.—An allowance to Shippers and the Trade.—Head Offices, 13, James-street (late Coalbrookdale Company's Premises), Liverpool, and at 18, St. Mary's-gate, Manchester.
N.B. Parties are particularly requested to note the address, LIVERPOOL.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets.
PLAIN or CORRUGATED, and Curved, of all Gauges
Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.
Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building, at the
OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.
PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about	18	oz. per foot super.	
12	"	20	"
13	"	24	"
14	"	28	"

Full particulars and the reduced price sent by post on application to
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TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal Glass and Slated Roofs, to any span.
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor, and Ironfounder, Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Iron Works, Millwall, London.
Offices: 12, Frenchurch-street, City.

PATENT GALVANIZING and CORRUGATING IRONWORKS. Improved Process. WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

THE COTTAGERS' STOVES.
Testimonial.

"Lord Hardinge requests Messrs. BAILEY will be so good as to inform him how much he is in their debt for the stoves which they supplied to him. He is happy to inform them the stoves have proved VERY GOOD ones in the Camp before SEBASTOPOL.
Horse Guards, 26th Feb. 1855."
D. and E. BAILEY, Ironmongers, 573, Holborn. Price 30s.

ROYAL POLYTECHNIC GAS FIRE.—BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent street, London.

HEATING BY HOT WATER.
JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler only being daily in full operation, heating 5 buildings, measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
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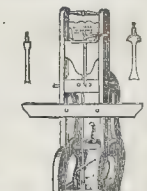
ESTABLISHED 1817
WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.
Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 33s.
Self-acting Oven and Boiler Ranges, with wrought fittings, brass top, &c. complete, from 45s. each.
Register Stoves, from 5d. per inch.
Elliptic ditto, with double backs, from 2½d. per inch.

Cast-iron Rain-pipe	2	2½	3 inch
	11d.	1s. 3d.	1s. 4d. per yard.
4-inch Eaves Gutters, 9d. per yard.			
	4	4½	5 inch.
O G Gutters	1s.	1s. 1d.	1s. 3d.	1s. 6d. per yard.
Best Cut Clasp and Rose	1½	2	2½	3 inch and larger.
	15s.	15s.	14s. 6d.	14s.

1-inch Best Cut Lath, 35s. 6d. per cwt.
Sheet Floor Brads, 13s. 6d. per cwt.
Hoop Floor Brads, 13s. per cwt.
Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 9s. per doz.; strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.


MORTISING MACHINE. 12l. to 16l.

KIMBERLEY'S PATENT MORTISING MACHINE.
The Patentee feels justified in calling attention of all Builders, Cabinet makers, and others to this simple, strong, cheap, and most effective machine. Hundreds are in daily use all over the kingdom, and references to any extent can be given to prove it really is what it is represented, viz. the most valuable tool ever offered to the trade.
Amongst testimonials of the highest character, he would respectfully invite attention to the following:—
"Rugby, June 14, 1855.
"Dear Sir,—In reply to your inquiry respecting the Patent Mortising Machine I purchased from you THREE YEARS AGO, I have to inform you I consider it a most SIMPLE, EXCELLENT, and DURABLE ARTICLE; nor do I think it saying more than it deserves when I state it is highly superior every way to one I was recently induced to purchase from a London house, which, although represented to be unexcelled in its principle and make, has totally deceived myself and all others, as it is always breaking, and is useless in comparison with your own, upon which I believe not a sixpence has been expended since received from you, although in constant work. I cheerfully assert that its use in my shop is of GREAT VALUE, as it must, indeed, be to every builder who possesses it.
"I am, Sir, yours faithfully,
"JOHN PARNELL."
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NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON House and Ship Builders, Joiners, Cabinetmakers, and others doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongers, Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

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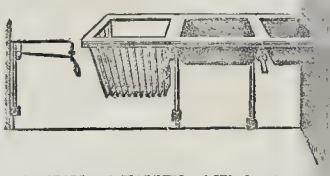
COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with three fingers as easily as a wicket or ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and super-or gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

COTTAM'S NEW PATENT for STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

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THIS IS THE ORIGINAL PATENT

for important improvements in stable fittings, including a method surpassing all others for conveying the straps and halter-weights to the back of the fittings, to prevent the horse being cast in the stall. Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock; Iron Hurdles, Gates, Feeding, &c. &c. Manufacturer of Kite's Patent Noiseless Cast-Iron Smoke-Curing Chimney-Cans,—200 on Buckingham-palace.—Price Lists sent on receipt of two postage-stamps.
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A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler

20	32	34	36-inch	
28s.	30s.	32s.	34s.	

Best Self-acting Ranges with Oven and Boiler, Bright Wrought Bars—

34	36	38	40-inch
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Strong Elliptic Stoves with Extra Back and Solid Bars, per in. 2½d.
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Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2	2½	3 inch.
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Cast Gutters 4-inch, 9d. per yard.			
O G Gutters	4	4½ inch.	
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Patent Line	2	3	4	5	6
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6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

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JOHN DALE, 18 and 19, Chiswell-street.
Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.
Elliptic Stoves, double backs, 3d. per inch, and upwards.
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Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 8s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 32s. each.
3-feet self-acting ditto, ditto, 38s. each.
Air Bricks, 8s. per doz.
Best Town Sinks, 5ft. Ditto, Scotch, 60s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms. A list of Prices had on application at the Warehouse, or by letter prepaid.

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D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 5d. shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
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LOSH, WILSON, and BELL NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-Iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
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AUSTIN'S IMPERIAL PATENT SASH and BLIND LINE can be obtained of all
ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY.
Established 1774.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, anufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only tion of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and OW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS CESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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AMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

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THE UNION PLATE GLASS COMPANY,

PECTFULLY INFORM THE TRADE, THAT IN ORDER TO MEET THE PRESENT DEPRESSION, THEY HAVE MADE A VERY CONSIDERABLE

REDUCTION IN THE PRICES OF POLISHED PLATE GLASS

FOR GLAZING PURPOSES.

Lists of Prices may be obtained at the places named in another advertisement in this publication.

THE WORKS—POCKET-NOOK, ST. HELEN'S—JULY 2, 1855.

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In order to supply the deficiency which has hitherto existed in Furniture suitable for the many Mansions that have been erected or restored in the MEDIÆVAL STYLES, Messrs. CRACE have directed their particular attention to this subject, in addition to their other works, and have prepared appropriate specimens in the various branches of Furnishing.

FFS for HANGINGS, in simple Worsted Damask, in Silk; also in Tapestry of Baudekin.
PETS, plain or in rich Velvet pile, with appropriate Borders.
ER-HANGINGS of various kinds.
CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and appropriate Furniture whole of the above-mentioned Furniture, &c. is designed by the late Mr. A. W. PUGIN, Architect.
nder this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with it haracter.
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IRONMONGERY.

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THE LARGEST STOCK AT

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BARTLETT, manufacturer of Girders, Columns, Cantiewel and Railing Bars, Panels, Iron Coping, Hot Plates, ates, Area Gratings, Sash Weights, Fly and other Wheels, Pinions, Engine and Lathe Castings, Forge Backs, Bars, Kilns, Pans, and other castings, to patterns or

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ENT CLIMAX DOOR-SPRINGS.—
attention of architects, builders, and ironmongers is ly directed to the above patented improvements in door- ing the most perfect and durable yet invented. Their qual to doors of any size and weight, and they are war- stand the wear and tear of any bank, public building, or stablishment in the kingdom.—Drawings, with full par- may be had from the manufacturers, WEBB and AY, Steelhouse-lane, Birmingham.

ARD RUSSELL, ALMA TUBE ORKS, WALSALL, Manufacturer of Wrought Iron or Gas, Steam, and Water; Stocks, Taps, and Dies, nds of Gas Fittings.

ILLS (late Shop Foreman to Messrs. wrence and Sons), JOINER to the TRADE, 7, Princes- mford-street, Lambeth. Shop-fronts, fittings, staircases, seasoned materials and superior workmanship, at the sible prices. A quantity of doors and sashes always in enclosing a postage-stamp. a full list of prices will be Workshops, 160, Broadwall.

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CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

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THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at
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ROUGH PLATE-GLASS from ⅛ to ¼ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz Sheet Glass, in crates, from 21d. per foot; C C C Crown, 18 tables, 32s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 33s. 6d. and 40s. per case; Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

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E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 215, OXFORD-STREET.

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C. NOSOTTI respectfully informs Architects, Builders, and Others, that he can supply them with PLATE GLASS for windows and shop-fronts, at prices not to be excelled, the glass being of a more brilliant colour than generally used. Lists of prices free. Gold Mouldings for rooms, and every article required for general furnishing ready for immediate delivery.
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By Royal Letters Patent.

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REDUCED TARIFF.
CCC CROWN, 18 Tables, per crate, 30s.; H 15 oz. SHEET, 2d. per foot; FOREIGN SHEET, 200 feet cases, 34s. per case; CROWN or SHEET SQUARES, 1½ feet boxes, 3d. per foot; HARTLEY'S PATENT ROUGH PLATE, from 6-1 and PERFECTED VENTILATING GLASS, 1s 6d. per foot; CRYSTAL SHEET GLASS, 4d., 6d. and 8d. per foot; FLASHED RUBY, in GROUND SHEET, 3½d. ENAMELLED, 8d. per foot. Sashes primed and glazed, 3d. per foot.
Catalogues free, on application to the Managers, as above.

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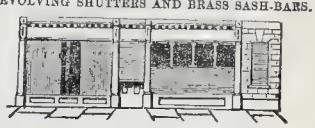

CLARK and CO. Engineers and Manufacturers of Patent Revolving Shutters, in iron and wood, at very reduced prices. Brass Sash Bars, Stall Board Plates drawn by machinery. Prospectuses forwarded post free.—CLARK and CO. 15, Gate-street, Lincoln's-inn-fields.

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J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs Lawrence, Shop-front Builder and Manufacturing Joiner. 1½ and 1¼ four-panel doors from 6s. each; 14 sashes and frames from 7d. per foot; 2 inch ditto from 8d. Windows fitted with Gribbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

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PLUMBER'S, PAINTER'S, and GLAZIER'S BUSINESS TO BE DISPOSED OF, in consequence of the proprietor going abroad.—Apply, by letter only, to Mr. DORLING, 6, Osnaburgh-place, New-road.

TO ENGINEERS and OTHERS.—TO BE SOLD by PRIVATE CONTRACT, the valuable BUSINESS PREMISES, held under lease for 99 years, from the 24th of June, 1851, and the GOODWILL of the BUSINESS carried on at, and known as the West London Ironworks, Latimer-road, Notting-hill, by the side of the West London Railway, now in operation, and which connects the Great Western and London and North Western railways. The works consist of offices, stove-houses, fitting and tool shops, with good assortment of tools erecting shops and sheds, smiths' shop, pattern makers' shop, and pattern loft, engine and boilers, stable for two horses, large yard, with five-ton crane, the whole in good condition and repair. There is a good connection to the business, and there is a foundry next door. Further particulars may be obtained of, and Tenders made to Messrs. FREEBORN and WHITE, Solicitors, 13, Barge-yard Chambers, Bucklersbury, London, who will also give an order to view the premises if required.

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The facilities and repeated enlargement of means enable GEORGE JACKSON and SONS to announce the execution of works of the above descriptions in these advantageous materials at a considerably below any known method, while for quality, relief, and finish, they flatter themselves they stand unrivalled.

DESIGNS MADE FOR ANY WORKS.

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The Annual General Meeting of this Society was held on [the] 30th of May, 1855, when a Report of the business for the last [year] was presented, exhibiting a statement of most satisfactory [pro]gress. It appeared that during the two last years, 1853 and [1854] between 800 and 900 new Assurances had been effected, produ[cing] an increase of premium income amounting to 14,000l. per ann[um]. It also appeared that, notwithstanding the extraordinary [mor]tality which prevailed during the last year in consequence o[f the] visitation of the cholera, it had not been found necessary to re[duce] in the slightest, the allowance previously awarded to the Po[licy] holders.

The Members present at the Meeting were fully satisfied [with] the Report, and resolved unanimously that a Reduction of 31[½ per] Cent. should be made in the current year's Premium payab[le by] all Policy-holders now entitled to participate in the profits.

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The Builder.

VOL. XIII.—No. 649.

GUILDFORD (which speaks in its name of a trading company or guild, and a passage across a river) is thought by some to be the site of the much-disputed station, *Noviomagus;* so the Noviomagians, of whom our readers have before now incidentally heard, made it their meeting-place on the occasion of their last annual excursion into the country, to taste fresh air and hunt up antiquities. They themselves hold to Keston, in Kent, as the site of their Noviomagus; but, nevertheless, they went to Guildford,—ancient Guildford, mentioned even in the will of Alfred the Great,—to see its castle, its church of St. Mary, its crypts, quaint streets, and a neighbouring place or two.

Of the club and their doings we are not about to speak—a club half serious half social,—but it may be worth while to point out a pleasant trip, in pursuance of our plan; and it will be odd if we do not find on the road a suggestion or a fact calling for mention. The club in question,—

> "Love to see the dolphins play,
> Yet still they mind their compass and their way."

If we do not give the words of the quotation exactly they convey our meaning, and that will suffice.

Stopping at the Woking station, it is a short ride to *Sutton-place;* and if it be such a bright, clear, glowing day as this was, you will find plenty of variety, and feel how wholly colour depends on light. A field of buttercups; the tender greens of thickly-massed foliage, with the dark boughs of later trees just speckled with bursting leaves; here a brown bank, and there some red tiles, make up a picture brighter under such a sun than any palette can touch. It is easy to reproduce forms, but overwhelmingly difficult to paint light and air. It was a real summer's day, of which we speak: the cows had gathered under the trees, and, though not hot enough to make you desire, with Sydney Smith, "to take off your flesh and sit in your bones," would have amply justified the less extreme course of taking off your coat.

Sutton-place, mainly built about the year 1530, by the Westons, to whom Henry VIII. gave it, is a terra-cotta house, and therefore very noticeable: the mullions and transoms of the windows, the parapets, the ornamental panels, the cornices, and the turrets, are wholly of burnt clay, some red, some cream colour, strongly contrasted. The human figure, where it appears in some of the panels, is badly modelled, almost grotesque, but some of the ornaments—those, for example, running up the hollows of the mullions—are very elegant. R. W. and a tun or barrel, for Richard Weston, will be found in various positions. The bricks forming this house were brought from the Low Countries, it appears. The moulds are few, and the inquiry arises why we do not now do more with clay than is done. Many houses were erected in England about the time of Henry VIII. which display coats of arms, capitals, cornices, and parapets, of burnt earth, and where allowed to remain, these have endured well. Fronts of great durability and elegance might be produced readily in this material. As to colour, white, buff, yellow, blue, and red can be obtained; and if a glazing were applied, they could be washed clean without difficulty. Some idea of what could be done with moulded bricks may be gained from the Entrance to the station for the Woking Cemetery, in the Westminster-road,—a very good piece of brickwork, though wanting in free art. The improvement effected in tiles, thanks to Mr. Minton especially, is very great, and will, doubtless, lead gradually to an extended use of them. This species of decoration was anciently held in high esteem, and regarded as a mark of wealth in the possessors, whence, says Mr. Marryat, in his volume on Pottery, arose the old Spanish proverb, "He will never have a house adorned with glazed tiles" (*nunca hará casa con azulejos*), that is, he will never thrive, or be a rich man.

There is a large hall at Sutton-place, perhaps 50 feet long, with remnants of stained glass—some curious; and the dining-room is hung with the stamped leather, coloured and gilt, which was used extensively in the sixteenth and seventeenth centuries. These hangings were known as *tapisseries de cuir-doré.* Some were formed in moulds, the leather having been first softened by boiling; others were produced by hand-labour and at considerable cost. Leather in another shape was used for hangings much earlier than the date just now mentioned. On the walls of the staircases a number of mostly very bad pictures are stacked up; and in one of the upper rooms will be found some designs, signed "Joseph Bonomi, architect, 1789," for the restoration and completion of the building.

The kitchen garden is enclosed symmetrically with a high wall, and has in one of the angles a piquant little octagon building for a tool-house, formed like the main building, of burnt clay. Even the old walls which surround a garden of this sort are full of suggestive objects for observation. "It is sometimes a good and consoling reflection," says Alphonse Karr, "to be in a well-secured enclosure, alone with perfumes, flowers, trees, the heavens, the air, the sun, stars, remembrances, and reveries, and to know that nobody can come and disturb you. I like walls, but I do not like white walls; I like nothing but old walls. I have one here, along which the course of my journey brings me, and which pleases me exceedingly. It is just as old as it ought to be: if it were a little older it would be given up to the mercies of the bricklayers, who would introduce all sorts of new bricks or white stones. As it is, it is grey and black, and is covered with twenty species of mosses and lichens. In the crevices of its top extends an absolute crown of yellow wallflowers and ferns. At its foot vegetate pellitory and nettles, in all their beautiful green."*

On the road to Guildford, which is four miles off, Stoke Church may be viewed. It has been restored, and offers no special points for notice.

The keep of the castle at *Guildford* is an interesting ruin, apparently of the Norman period. "There is not," says Brayley, "the least degree of credible authority for the inferential deductions made by the late Mr. Edward King; namely, 'that this was one of the identical palaces and castles of the earliest Saxon kings;' "that Alfred the Great sometimes dwelt here; and afterwards, occasionally, his nephew, Æthelwald."† Domesday Book, although explicit as to the houses at Guildford, says nothing of a castle there, so that we may conclude it had not been erected at the time of the survey. There seems to be no mention of it in records earlier than 1216, but it was probably built at the end of the eleventh century, or beginning of the twelfth.

At the recent meeting of the Surrey Archæological Society, referred to in our last,‡ a resident member, Mr. Austen, adopted Mr. King's theory, mainly on the ground that the masonry displays what is known as herring-bone work. This, however, is as often found in Norman work as any other, and is not to be relied on as evidence of date. The entrance to the principal story of the castle from the outside, must have been approached by a lofty flight of steps, now destroyed or removed. It is at this time about 12 feet from the ground. In the thickness of the walls at the south-west angle, and running both west and south, is a curious apartment, which displays a Norman arcade, against the wall on one side, with short columns, the capitals of which are variously sculptured. There are some rude but not feelingless carvings, too, on the ashlar, ancient, if not contemporary.

St. Mary's church deserves particular notice for its plan. It consists of a nave and chancel, with a wide aisle on each side, and all the three divisions originally terminated at the east end, in a semicircular apse or *concha*, after the Byzantine mode. In Germany, Italy, and in France, buildings with several apses are not uncommon; but in England they are very rare. The central, and principal apse at St. Mary's was taken down some years ago to widen the street, and the chancel now has a square end; but the apses north and south remain, and offer much to interest. They appear to be of the twelfth century, if not earlier in part. Rickman seems to have missed the peculiarity of the plan, and describes the church simply as having "a tower at the west end of the chancel, and on the north side, a sort of north aisle, with a circular east end, and a western portion with a lower roof." The apse on the north side is separated from the rest of the aisle, and is known as the chapel of St. John the Baptist: it is vaulted with a semi-dome, the groins resting on corbels; and this vault displays a series of very curious drawings in circular and oval compartments, in reddish-brown outline, which have been described and figured in more than one publication. The running pattern on the soffit of the main arch, is Byzantine in character, and particularly elegant. Should the observer, when leaving the church, notice the enclosure prominently lettered in old English, "Church Maidens' Pew," he need not speculate on the office and probable position of these maidens, for there are none; they simply stand, through the error of the scribe, for "Wardens."

In St. Nicholas' Church there is a chapel containing memorials of the Mores of Loseley-place, situated just out of Guildford, and made famous by the curious MSS. which were there preserved.

We will not stop to say anything of the crypt at the Angel Inn, interesting as it is; or the seventeenth-century Townhall, with its projecting clock and curious chimney-piece; or Abbot's Hospital and its stained glass; but will hasten at once to this Loseley Manor House, its hall, Elizabethan ceilings, and delicious gardens, resting, nevertheless, a few minutes to see an appendage to the church of St. Nicholas, the ruins of St. Katherine's Chapel, on the hill. This chapel was rebuilt in 1317, by Richard de Wauncey, ancestor of one not unknown to some antiquaries of the present day. This De Wauncey obtained a charter for an annual fair here, which is still held. Turner once painted it.

The hill on which the chapel stands rises abruptly from the river Wey,—the river which Pope calls

> "—— Chalky Wey, that rolls a milky wave,"

and it commands some pleasant views.

Well, at last we are at *Loseley*. There was a

---

* "A Tour round my Garden." Routledge.

† History of Surrey. p. 319.

‡ The short notice of the meeting of the Surrey Archæological Society, which appeared in our last number, has given great umbrage to the honorary secretary. Mr Webb, and has led him to address to us several, what we are forced to term, very impertinent letters. If the notice in question had been worded from the secretary's own vocabulary, comprising "absurd," "silly," "offensive," "misrepresentation," "bad feeling," and "want of good taste," it would have taken a very different shape, and might have afforded an excuse for his language. But for a childish threat to evoke "the assistance of numerous friends in the London and county press" with which he concludes, we should, nevertheless, have made no further allusion to the matter. We have no "hostility" towards the society, very far from it, as our pages have shown, but we have, nevertheless, a duty to perform, and will perform it. The fact is, archæology, so called, is being overdone, and if care be not taken, the title of archæologist will come to be one of derision, if not of contempt.

moated house here once, and the moat remains to some extent, though the house has changed its character. William More, who was knighted in 1576, by Dudley, Earl of Leicester, began to build it in 1562, and the structure is what might be looked for as the work of that time,—Gothic in the general arrangement and character, but with Italian forms creeping in. There is a large hall with an oriel: some of the ceilings are good specimens of Elizabethan work, and in the drawing-room there is an elaborately carved Italianized chimney-piece, formed out of a hard kind of chalk, and which is very little injured. In the cornice here, and elsewhere about the house, is the punning motto of the Mores,—"*Morus tarde Moriens—Morum cito Moriturum,*" intersected by a mulberry-tree,—a poor conceit, and not very clear.* The use of mottoes about the buildings of this period, is a pleasant and useful characteristic, giving the mind food for thought:—

> "Lull'd in the countless chambers of the brain,
> Our thoughts are link'd by many a hidden chain.
> Awake but one, and lo! what myriads rise!
> Each stamps its image as the other flies!"—*Rogers.*

Some of the pictures at Loseley are interesting, particularly a triptych of the end of the fifteenth or beginning of the sixteenth century, the Presentation of Christ in the Temple. This is a very fine work; parts of it, on the right-hand leaf, indeed, are exquisitely beautiful.

Queen Elizabeth visited this house more than once, and there are some curious letters amongst the Loseley MSS. from Sir Christopher Hatton, advertising Sir William More of the Queen's coming, so that he might keep his house "Sweete and cleane, to receave her Hygnes whensoever she shalbe pleased to see it."

The grounds are very charming. Coming out of the hall there is on the right hand a wall of trees of wonderful height. "God Almighty," wrote Bacon, "first planted a garden; and, indeed, it is the purest of human pleasures; it is the greatest refreshment to the spirits of man; without which buildings and palaces are but gross handy-works." So thought those who built this and other houses of the period, and so think we.

* It is considered as implying, "that the family stock, like the mulberry-tree, should be of long endurance, but that its individual descendants, like the fruit, should, by the common lot of mortality, be subject to speedy decay."—*Kempe, as quoted by Brayley.*

PRACTICAL OBSERVATIONS ON PILE DRIVING.

PILED foundations are most advantageously employed when the solid ground, over which it is proposed to erect any important edifice, is situated at so great a depth from the surface that the removal of the softer and sometimes unequally compressible intermediate strata would be attended with excessive delay, difficulty, or expense; or when there is any probability that either the intermediate materials, or the substratum on which they rest, may be displaced by land springs forcing their way under the foundations.

Piles are usually formed of round or squared timber, and are driven into the ground in a vertical direction, or in one corresponding with, and parallel to, the resultant of the forces they are intended to resist. Of late years, however, both cast and wrought iron have been used instead of wood, in some situations with remarkable success. But in salt or brackish water a chemical action upon the metals takes place, which renders their application very questionable, even if it should not be considered to justify their total exclusion in positions of this description, in which engineers are compelled to use wood, notwithstanding the danger to which it is exposed from the attacks of the boring worms.

The kinds of timber most frequently used in England for piles, are beech, elm, Scotch or English larch, Baltic fir, the American rock elm, live oak, the green heart, or the sabacu, from Guiana. The two last named are said to resist the attacks of the borers, but we have hardly sufficient practical experience in this respect to justify implicit belief in their superior value. It is, therefore, very desirable that authentic observations should be made upon their durability in waters where the above-named destructive worms occasion the greatest injury. On the continent, beech timber is principally used for piling, and a prejudice appears to exist against the family of the firs: round timber is also preferred for detached piles to timber which has been tool-dressed: indeed, Perronet says expressly, that "such piles ought not to be squared;" but, he adds, "they must be straight in the grain, and without projecting knots." In England, the choice of the particular description of wood appears to be regulated by the nature of the ground into which the piles are to be driven; or by considerations connected with the local markets. Amongst workmen, piles of American wood are generally known by the name of "*hard wood piles;*" and those of European are called "*soft wood piles.*"

The preference of any particular description of wood for pile driving, it appears to me, should depend more upon its durability, and immunity from attack by either organic or inorganic causes, than upon its original cost. Beech timber decays very rapidly when exposed to alternations of dryness and humidity: elm resists such exposure more satisfactorily: fir, when free from sap, lasts longer still under such circumstances; but, of course, all woods decay with greater or less rapidity in positions where they are exposed to these alternations; and the only methods which appear to have successfully solved the problem of increasing their durability are those of Kyanizing, or of creosoting. It has been stated that the injection of the ingredients employed in the application of both these methods renders the wood sufficiently distasteful to the boring worms to insure immunity from their attacks.

According to their position in a foundation, piles are distinguished by the following names:—1. *Gauge piles,* driven to define the limits of the ground to be enclosed, or to act as guides in driving the other piles. 2. *Close piles,* driven between the gauge piles, to form a continuous enclosure of wood-work. 3. When the close piles, instead of being of the same scantling as the gauge piles are only of half timber, they are generally known by the name of *sheet piles.* The several descriptions are connected together by *wales* or horizontal ties; by cross braces; and in some cases by a platform, which is either entirely close, or formed as an open grating. The entry of the piles into the ground is facilitated by their being cut to a sharp pyramidal end, generally shod with iron, either cast or wrought: in sheet piling, however, the various pieces of wood have often a sharp edge, parallel to the face of the enclosure. Wrought-iron hoops are generally used to prevent the heads from splitting in driving, or from becoming too much compressed. In some cases, piles are driven with the broadest end downwards, as for example, in foundations executed upon extraordinary depths of compressible mud; and Perronet appears to consider that there is some advantage in adopting this system when the middle of the height of the piles is situated at nearly the mean level of the water, a condition which sometimes occurs in the erection of large timber bridges. From some experiments made at L'Orient, recorded in Sganzin's Cours de Construction, it appears that piles so driven offer a resistance equal to about 45½ lbs. per foot superficial of their frictional surface, which is barely a fifth of the resistance they would offer if driven to a solid stratum. It is important to drive the piles, if this mode of placing them with the broad end downwards be adopted, by beginning with the outer rows, and working inwards towards the centre of the mass.

When piles are used in solid ground, and are designed to resist a vertical pressure, they are driven by means of engines until what is called a *refusal* is attained; that is to say, until they only descend a certain depth under an impulse, which is made to vary with the nature of the superstructure, the number of the piles employed, or the machinery used for driving: but when the piles are intended to resist a transverse strain, or any tendency of the foundations to lateral displacement, they must be driven until they attain a solid substratum, without reference to the resistance they may meet with in their descent. It is considered by some engineers, that the ground around the piles becomes so compressed in the former case that an adequate resistance in the foundations is secured, even when the piles are not driven to the more solid strata. In the latter case, the piles become fixed in the materials through which they are driven, and can only move by being displaced horizontally, or by being broken off on the line of thrust.

Although the earth in which piles are driven contributes to their power of resistance to an insistant load, it is not customary to take it into account; and the number, as well as the distance apart, of the piles is calculated as though they had to support the load without any assistance. In other words, the weight which is brought upon each pile is calculated upon the supposition that it should be able to support such a weight in the air, without crushing. Under these circumstances, it is evidently necessary to diminish the weight upon any definite portion of the support in proportion as the height of the support itself is increased. Rondelet gives some tables of the weights which may be brought with safety upon the various descriptions of wood used for piles, according to their length; but it may suffice at present to observe, that when the length of the pile, supposed to be of oak, does not exceed sixteen times its diameter, it may be loaded permanently with a weight of from 430 to 500 lbs. per inch superficial of the sectional area, and the extreme refusal must be such as to ensure stability under such a load. There are few cases when the load above named may not be slightly exceeded; at any rate, it must be considered to be fairly within the limits of stability, although far in excess of the load usually applied.

The rules generally adopted for fixing the "refusal," appear to be empirical, and to require more elaborate investigation than they have hitherto received. It is customary on the continent to fix it upon the following principles. If each pile be intended to bear a weight of twenty-five tons, it is not considered to have attained its proper refusal until it will not descend more than two-fifths of an inch with a series of thirty blows from a ringing engine, with a monkey of 12 cwt. falling 4 feet; or with a series of ten blows from a common pile engine, with a monkey of the same weight falling 12 feet. If the weight to be brought upon each pile should be 12½ tons, the refusal is altered to four-fifths of an inch; and if it be only 5 tons, it is altered to 2 inches. But it must be evident, that the vibrations excited in the piles themselves, or in the ground, must differ so essentially under the conditions of the ringing engine with the small fall, from those which hold with the piling engine with the great fall; and the effects of the action and reaction developed under these respective circumstances must be so dissimilar, that no simple geometrical ratio can exist between the efforts exerted in the respective cases. At the bridge of Neuilly, where each pile supports a total weight of 52 tons, Perronet adopted the refusal of one-fifth of an inch for each series of twenty-five blows, with a fall of about 4 feet 8 inches.

The engines generally employed for the purpose of pile-driving are the ringing engine, the pile-driver, and Nasmyth's hammer. The first consists of a frame in which a monkey, or rammer, is raised vertically above the pile by means of a cord passing over a large wheel, and worked by a number of men standing around. As all intermediate machinery is avoided, the blows struck by this engine follow one another with tolerable rapidity, and may easily be carried to twenty or thirty per minute; but the weight raised is necessarily limited by the unfavourable mode in which the power is applied, and the fall is equally confined within a small range. In the ordinary pile engine, the monkey is raised to any desired height by means of a crab; so that the weight of the monkey and the height of the fall may be made to vary within very considerable limits; but the number of blows given within a definite period becomes diminished in the same proportion that the power of the engine increases. Of late years, the Americans, and many of our contractors after their example,

have applied steam power for working machinery of this description with considerable success. Nasmyth's hammer is, however, the most decidedly marked modification of pile-driving machines lately introduced, and when applied under the proper conditions, it appears likely to render great service. Dr. Potts' system, and the modifications it has lately received, appear to be more adapted to secure the descent of what may perhaps be correctly described as small caissons than of piles, as the word is usually understood. Attention is therefore called more exclusively to Nasmyth's hammer, as presenting the greatest advantages in certain situations.

It consists of a cylinder, in which a piston bearing a rod connected directly with the monkey, or striking mass, is made to move in one vertical direction by means of high-pressure steam, which escapes directly the piston reaches the head of the stroke, and allows the monkey to fall by the mere effect of gravity. The weight of the monkey need only be limited by the capacity of the cylinder or the elasticity of the steam; and accordingly in practice it varies from 32 to 45 cwt. The height of the fall is, however, limited by the stroke of the piston, and rarely exceeds 2 feet 6 inches. At the same time it is to be observed, that the number of blows is greatly increased beyond that which can be given by any hand gear; and instead of being from thirty-five to forty per hour, as in the case of the ordinary pile engine, it becomes from fifty to sixty per minute. The effect of each separate blow under these circumstances is naturally less with the Nasmyth's hammer than with the old engine; but the rapidity with which the blows succeed one another must considerably modify the descent of the piles, particularly in ground able to transmit undulations separated by long intervals. The whole question of the influence of the elasticity of the ground upon the rate and manner of descent is, however, still involved in too great uncertainty to admit of any definite conclusions on the subject; and, indeed, it is found to complicate not only the theoretical reasoning upon, but also the practical operations connected with pile driving to a very serious extent.

For instance, it has been frequently observed that after a pile has received a certain number of blows from an ordinary pile-engine, it will "refuse," or cease to drive. But if it be then allowed to rest, and after a definite period the driving be recommenced, the pile will descend rapidly under blows of far less power than those which were previously unable to move it. This phenomenon has been attributed by some authors to the increase of the reaction of the ground developed by an exaggerated "vis viva;" by others, to the fact that the pile itself, and the ground round it, assume a state of vibration, which, for the time, disperses the effort exercised on the head of the pile. Nearly all the investigations which have been made with respect to the transmission of movement in elastic media have been made upon the perfectly elastic gases; and they hardly bear upon the conditions likely to prevail in the denser, less homogeneous, and comparatively speaking nonelastic, materials into which piles are usually driven. But it appears at least more probable that the vibratory undulations produced by heavy blows succeeding one another at distinctly perceptible intervals, should, on their reflux, coincide and interfere with the transmission of a succeeding blow, than that the lighter blows following one another almost instantaneously should give rise to undulations of a character to check the descent of the pile. Indeed, in the latter case it is possible that the undulations, especially if they be reflected, would so far interfere with one another as to procure a comparative stillness of the ground.

The "refusal" to be adopted when Nasmyth's hammer is employed, may easily be calculated from those before given for ringing or for pile engines—assuming that the forces bear to one another a simple geometrical ratio. If a hammer of 34 cwt. be used with a fall of 2 feet 9 inches, a succession of seventeen blows would produce an effect presumed to be equal to that of thirty blows from a ringing engine of 12 cwt. with a 4-feet fall; or ten blows from a pile engine of 12 cwt. and a fall of 12 feet.

Theoretical observations were confirmed by some circumstances noticed by myself during the execution of the works for the repairs of the Blackwall entrance of the West-India Docks, in which I also had an opportunity of learning practically the conditions most unfavourable to the use of the steam pile hammer. In this instance the side wall of the river entrance to the Blackwall Basin was carried into the channel by a lateral movement of the ground, apparently produced by some copious land spring, or by the escape of the water retained in some of the inner basins at low tides. The old wall was carried bodily forward for a length of about 120 feet, in a kind of irregular curve, whose maximum versed sine was about 10 feet: it sank about 9 feet below its original level, and forced up the bed of the navigable channel nearly 3 feet. Mr. Rendel, who was consulted by the directors of the company, decided upon replacing the old wall by a timber staging. This was intended to be close planked at the back, on the land side, in order to retain the earthwork of the pier heads; to have a paved stone floor in the intermediate portion, between the close planking above mentioned, and a corresponding parallel row of close piles driven towards the water-way. It was proposed, also, that the whole of the piles to be driven on the inside of the old wall should be placed before the old works were removed—excepting, of course, in the positions where they interfered with the piles. The masonry and the earthwork, both in the channel and in the situation of the new stone floor, beneath the staging for the pier head, were to be removed after the completion of the latter.

The effect of retaining the ruins, in combination with the compression of the subsoil which had already been produced by the weight it had supported for so many years, was to create a degree of resistance to the entrance of the piles totally unprecedented. The ground itself consists in parts of a bed of rounded flints, agglutinated by fine white sand, occasionally containing veins of the hydrous oxide of iron. Apparently it is of the same nature as the Gun Fleet shoal in the bed of the Thames; and geologically it is analogous to the member of the basement beds of the London clay which occurs upon the surface near Bromley, in Kent. When this bed is not confined laterally, it does not offer any very extraordinary difficulties to the descent of piles, or to the operations of boring—although evidently, in consequence of its composition, it must exercise great friction, both upon the boring tools and the piles driven through it; and the resistance so occasioned would naturally be seriously felt when it became necessary to insert close, or sheet piling. But, in this particular case, it appears that the old wall acted to prevent the gravel from spreading; and consequently the new materials, the piles, could only be introduced by displacing and compressing the materials into which they were forced. It followed that the labour, difficulty, and cost of the formation of the stage were increased to such an extent as to entail a very heavy pecuniary sacrifice; and, indeed, in the case of some trial borings, to induce the contractor entirely to renounce the attempt to traverse the bed of gravel.

Under normal circumstances, the cost of driving piles, properly shod and hooped, by Nasmyth's hammer, would have been about 2s. per foot forward in ground of this description, and upon an average of gauge and sheeting piles, the rate of progress would be about 5 feet per hour. The cost of driving by hand-gear would have been about the same; because the magnitude of the work in question was not such as to render the cost of the temporary staging required for the hammer an unimportant element in the relative value of the work effected by it. But, in consequence of the induration of the ground, from the causes before mentioned, the rate of descent was so materially altered that in the space of 1¾ hour no less than 5,880 blows were struck upon a pile-head in the presence of the author, without advancing it more than 3 inches. Naturally, under such circumstances, the pile-heads were rapidly "knocked up;" and frequently, when fir timber was used, as many as six or seven heads were required, thus entailing a loss of from 4 to 5 feet lineal of the baulk. When rock elm was used, this source of expense was diminished; for it was found that the heads would in this case last three times as long as those of fir piles. But the nature of the timber did not otherwise affect the rate of descent, which varied from 1 foot to 3 inches per hour, and frequently cost as much as 42s. per foot lineal, merely for the labour and working of the engine—leaving entirely out of account the expense of re-heading the piles, or any charges for superintendence, rent, rates, or taxes.

Excessive as this cost of the work was in itself, it was, however, still further increased by many of the piles being broken during their descent, in consequence of the shoes working off, and also of the development of longitudinal fissures. In some cases, where these fissures ran at a slight angle across the pile, the latter became so shattered, and the fissures opened to such an extent, as to render it necessary to cut off, or even to draw the piles, after considerable progress had been made in driving them. Both these sources of expense were of irregular occurrence, and it was almost impossible to guard against them; for neither the inequality in the resistance of the ground could be foreseen, nor do the longitudinal fissures always show on the sides or the ends of timber baulks in their original state before driving. The piles drawn on account of the loss of shoes were two: those which were drawn or cut off, on account of defects in the timber, were about ten in number; and it may be added, that towards the end of the work it became necessary to use rock elm constantly instead of Baltic fir, from the increased resistance to the descent.

At the Great Grimsby Docks these difficulties did not occur. The works were, in this case, executed upon the alluvial mud at the mouth of the Humber, which lies (with a variable thickness) upon a stratum of hard clay. In consequence of the inequality of thickness in the upper stratum the piles varied considerably in length, being occasionally 70 or 50 feet long, whilst the average length was 30 feet, of which the last four were in the harder clay. Sometimes the piles would traverse the first 26 feet in an hour, and the remaining 4 feet in half an hour: at others, and especially when many piles had already been driven near the position of the one observed, the resistance was greater. But there were few instances in which a less number than from thirty to fifty piles were driven per day by a single engine. To perform a similar amount of work with the ordinary pile-engines would have required at least from ten to twelve machines, with their respective gangs of workmen; so that it would appear that, under favourable conditions, the economical results of Nasmyth's hammer are such as to ensure its adoption. The cost of working the engine employed at the West India Docks, and at Great Grimsby, was about 10s. 6d. per hour, including wages of driver, stoker, carpenter to attend to the pile, labourers, and incidental expenses; whilst the cost of each of the ordinary piling-engines would not be less than 1*l.* 0s. 6d. per day, without any allowance for interest on capital, depreciation, repairs, &c.

The practical conclusions which I am disposed to draw from my experience in the use of the various descriptions of engines for the purpose of driving ordinary piles, may be stated briefly as follows:—

1st. Ringing engines are adapted to driving short piles through ground of a moderate degree of hardness, but the immense number of men they require must exclude their use when the works are extensive, and many piles are to be driven.

2nd. Ordinary pile-engines, or those in which monkeys of about from 12 to 16 cwt. with falls between 12 and 26 feet are used, are the most efficient and economical when the number of piles to be driven is small, or when the ground is remarkably hard.

3rd. When, however, the number of piles is great, and the ground of an ordinary degree of hardness, Nasmyth's hammer is the most economical mode of executing works of this description.

It must, then, it appears to me, be the duty of the contractor to carefully estimate the relative proportion the first outlay will bear to the whole expense of the works, and to ascertain

the precise nature of the ground (both in its original and its contingent states) before he decides upon the machinery he will adopt for pile-driving in any particular case. The engineer or architect probably ought also to take these considerations into account, before he fixes the time for completing the works.

Dr. Potts' system of driving piles by atmospheric pressure, before alluded to, originally consisted in the use of hollow tubes of cast iron, open at bottom, and able to be closed at top; the open lower end of which was placed upon the surface to be traversed. When the tube had descended as far as possible by its own weight, the ground in the interior was extracted, and the tube being placed in communication with an air-pump, a species of vacuum was formed. The atmospheric pressure upon the top then naturally caused the tube to descend, until the compression of the inner air enabled it to counterbalance the weight of the external atmosphere. The earth in the interior was then again removed, and the operation repeated until a sufficiently solid substratum was reached, when the interior of the tube was filled in with concrete. Latterly, the tubes have been executed of such dimensions that they ought more properly to be called caissons; and in the foundations of Rochester Bridge, Mr. Hughes is said to have introduced so many alterations and improvements into the system that it would be highly interesting to compare the successive modifications of the original idea, the real merit of which, perhaps, after all, should be attributed to Coulomb, who in the year 1788 published a memoir, entitled "Recherches sur les Moyens d'exécuter sous l'Eau toutes Sortes de Travaux hydrauliques sans employer aucun Epuisement," which contains the germs of much that is assumed to have been invented at later periods. Be this as it may, the circumstances under which the use of open cylindrical caissons appear to be desirable may be stated to be when the compressible substratum is of small depth, and when it is immediately succeeded by a thick stratum of incompressible material. It is essential that the latter also should be of a nature to resist the dissolvent action of water, in case the smooth sides and cutting edge of the cylinder should lead that element to the substratum. Upon railways, to quote one instance of the situations in which these cylinders might be used, it may be necessary to cross a long, semi-fluid bog—as upon the Munich and Augsburg line. The system actually adopted there was to sink holes through the peat, in alternate squares like a chess-board, about 2 feet wide at the bottom, and 3 feet at the top, the average depth being about 15 feet: these holes were filled in with puddling clay, and the embankment was carried upon them. In this particular instance the peat was sufficiently solid to allow of the holes being cut and left without any support, and to resist the lateral displacement of the clay. Had it, however, been similar to many of the Irish bogs, the use of some such caissons as Dr. Potts introduced would have been indispensable, and, perhaps, it would have been preferable to have sunk them by pneumatic pressure, rather than in any other way. Our Transatlantic brethren content themselves with carrying their railways over such foundations upon common piles, partially driven into the ground, and partly standing above it—a mode of proceeding which may answer in countries where it is essential to keep down the first cost of such enterprises, and where wood is sufficiently cheap to render it unnecessary to regard its waste. But evidently piles thus partially exposed and partially covered up are liable to rot with great rapidity.*

FALL OF A BELL.—At Sherborne, lately, while the ringers were welcoming in the anniversary of the Coronation of the Queen, the third bell of the peal in the old church tower fell down from its bearings. The damage, however, was found to be very slight. The axle had broken asunder, and the bell, which is said to weigh 21 cwt. had fallen, breaking in the floor and one joist, but not injuring the rafters. By the aid of a few carpenters and a little tackle, according to the local *Journal*, the bell was soon raised and the damage repaired.

* From a paper by Mr. G. R. Burnell, read at the Ordinary Meeting of the Institute of Architects, June 18th.

THE SANITARY QUESTION.

ISOLATED but warning instances of the recurrence of the virulent cholera within the bounds of the metropolitan "bills of mortality" urge us, one and all, to be up and doing our part in the reagitation of this great question.

So far as regards the metropolis, the main point for consideration and amendment is the Thames. What is to be done with this *cloaca maxima*,—this tremendous sewer of sewers. Bad as it long has been, we doubt if ever it was so offensive—so beastly—as it has now become. The drought of the present summer has intensified its horrors tenfold. Professor Faraday only expresses, in the best possible way, the ideas of thousands whose senses are receiving the vilest offence as they sail along this filthy sewer, in pointing attention to its horrible condition in the columns of the daily press. Are even large type, the *Times* columns, and Dr. Faraday capable of doing *anything* for its permanent amendment? Why should either the one or the other be requisite at this time of day to urge on so vital an object and end? Does any one now doubt the deadly issue of such stenches and vapours of human refuse as those which pervade the atmosphere of the Thames? Why they are "fit to kill a horse;" and as if to remind us that they are so,—that human filth is too much even for the beasts to stomach,—we happen, just at this moment, to fall upon a little paragraph in the *Armagh Guardian*, to the effect, that two fine military horses have just been poisoned—literally killed—by the noxious vapours emanating from a barrack cesspool. Every site of congregated human beings, whether it be in a barrack or a metropolis, has a natural and inevitable tendency to become a noxious dunghill, if not constantly and thoroughly submitted to cleansing, sweetening influences; and the action and use of such influences is, or ought to be, a perpetual and paramount *duty* on the part of all municipal authorities. How disgraceful to all concerned, then, is the present state of our metropolitan river! If, as the *Times* remarks, we resign ourselves to the idea of its being the great sewer of London, what a filthy set we Londoners are not to have it covered decently over! If, on the contrary, we regard it as a great highway, and a source of metropolitan water supply (as it actually is), how still more filthy we are to sail on such a sewer, and to contaminate the very source of such a vital necessary with all that is noxious and vile! What is it but this, and such as this, that renders the country so much more healthy and wholesome than the town, and the country town than the city and the capital? Why is it but on such accounts, that while the three healthiest districts in England are Glendale ward and Rothbury, in Northumberland, and Eastbourne, in Sussex; and while the average number of deaths yearly in these places is only 15 in every 1,000 of the population; and while even in such little towns as Haltwhistle it is but 16 per 1,000, Bellingham, 17, Morpeth and Hexham 18, and Alnwick 19,—in Berwick it is 24, in Durham 24, Tynemouth 25, Newcastle 27, Sunderland and Gateshead 28, Hull 29, Bolton 32, Liverpool and Manchester 33, and so on, worse and worse, according to the extent of the congregation and compression of human beings within one limited and circumscribed circle? The greater the town the more pressing the necessity of perpetual cleanliness; whereas in our metropolis, the greatest of all, we seem to regard ourselves as liberated from all sanitary laws or restrictions, so far as regards the Thames and *its tributaries, the sewers*. Would that some such plan as that of Dr. Sayer, to which we elsewhere allude, were forthwith set about, and intercepting main sewers at once begun in earnest, without one word more of mere talk about it!

Apropos of the Thames, what *are* the Chelsea Waterworks authorities about that they do not supply something better than the miserable stuff they at present call water to their customers? What precise relation does their unusually muddy material (filtered or not filtered) bear to the likewise unusually opaque "element," or compound rather, in the river, whence they "extract" their supply? We fear to face this question any further, or to follow it to its legitimate issue: all that the Chelsea Waterworks customers can do is to shut their eyes, open their mouths, and swallow in exemplary faith what the Chelsea Waterworks may choose to send them.

THE METROPOLITAN MILE-POSTS.

BY A COUNTRYMAN.

IT is now many years ago, and yet we remember the circumstance as clearly as some of those of yesterday, that we read on the mile-stone (it *was* a stone) near our native town, for the first time, "So many miles to LONDON." A strange, yet impressive idea of the great metropolis was formed in the mind, and often after then we wandered onward with no other seeming object than to enjoy the reflection that we had progressed some miles nearer to that place of palaces, where the streets, as we were told, were all paved with gold.

In more advanced years, when increased strength and a love of old buildings, rivers, trees, and things picturesque or curious had coaxed us in search of them over many miles of road, we seldom passed unnoticed the inscriptions, "So many miles to London." Time went on, and, mounted on the stage-coach, we left our dearly and well-remembered mile-stone, and rolled on, passing mark after mark, until we reached the bustling haven of our hopes.

It is curious to reflect now on the difference between the London in reality and the dream of childhood; but this we still believe, that London streets *are* paved with gold, and that it is a richer mine than California to the greater portion of those who truly, diligently, and with intelligence, labour and search. However, years of the fog and excitement of London life have not damped the love of rambling, not only in that wonder of wonders, the metropolis itself, but also to the places of interest by which it is surrounded. During these peregrinations, many of them of pleasant memory, our old habit of noting the mile-posts, as we had better call them (the stones having to a considerable extent been changed for other materials), has often caused us to wonder at the want of system which is displayed by these wayside records. On some suburban mile-posts is marked "One mile to London." This, however, is a vague direction, for where does London begin? where does it end? or where is its centre? Are we to consider Poplar in the east and Paddington on the west; Kentish Town, Holloway, &c. on the north; Walworth, and the other large populations in the south, as the commencement of London? Does the inscription, "So many miles to London," mean that the City is London? Even this is a wide mark, and we are puzzled to know if we are so many miles from Whitechapel or from Temple Bar, both extremities of *the City*, which though of such huge extent, forms but the heart of the mighty body which spreads around. *London*, even considering the city as that particular point, is a wide address, as it is easy to discover by calling a cabman and asking him to drive to that place.

Other suburban mile posts are more explicit. On some we have noted, "so many miles to the Angel, at Islington;" on others, "To the White Horse Cellar,"—"Holborn-bars"—"Hyde-park-corner"—"Charing-cross:" some journeys end at the Royal Exchange; some at the Bank; others at the Post-office in St. Martin's-le-Grand: the termination of the Epsom-road is at Whitehall and the Exchange: one of the Tottenham roads ends at Portland-place; and a few posts have on them, "So many miles to where Hicks's Hall formerly stood!" This is, perhaps, the most vague of all; and we have heard some, with wonder in their countenances, ask who was Hicks?—*what* was Hicks?—and where was Hicks's Hall. It may suffice for our present purpose to mention that Hicks's Hall was in St. John's-street, Clerkenwell, and that a memorial of it in the shape of a mantel-piece is preserved in the present Sessions House, Clerkenwell-green. Other mile-posts for the guidance of the ignorant wayfarer might be mentioned, but to increase the examples is unnecessary.

At the present day, when London has become so bulky, and is still constantly growing in a compound manner, like a rolling snow-ball, it is

difficult to imagine the state of confusion we should have been in but for the numbering of the houses and shops. This and some other plans have served to keep us in something like order. The police are alphabetized and numbered: the cabmen and omnibus-men in like manner have their numbers from one to several thousands. Lately it has been considered necessary to arrange the watermen and letter-deliverers in a similar manner. Notwithstanding all this, as is shown by the varied inscriptions on the mile-posts, *the centre of London has not yet been clearly established;* and surely it must be difficult in many ways, in such a mass of buildings and population as are contained in the metropolis, to have a proper system of order without a well-known and decided central point. So far as the transmission of letters is concerned, a circle is drawn from the General Post-office, and to this point the mileage fairly set forth on the *mile-posts throughout the kingdom should radiate.* The new pillar post-offices in the streets, on each of which is the distance in miles and furlongs to the General Post-office, is a move in the right direction, and which only requires to be more extensively carried out.

In Cannon-street, not at a great distance from the General Post-office, as our readers know, still stands the venerable London stone, which by most antiquaries is considered to have been the central point for the purpose of the measurement of the Roman city. This was a capital example of order, which it is to be regretted has been lost sight of; yet it is curious to notice, notwithstanding the random manner in which London has been built at different periods, what a short distance that which must again become the centre of London has moved during 1,600 years. Some will say that it is not worth while now beginning to make any fuss about centralizing our roads, for that as the paint of the old posts wears off they will be sure to do what is so obviously necessary,—mark, "To the Post-office." It would seem, however, that such is not the case, for we note many posts, seemingly newly-lettered ones, in the old fashion: at Brompton, for example, is one, on which is inscribed, "Fulham 2½—London 1." Very precise, certainly!

To carry out the alteration to which we refer as being required would, it is true, so far as the provinces are concerned, be attended with some trouble and expense; and yet it is highly necessary. In the neighbourhood of London the cost would be but trifling, particularly as many of the posts are only painted. In necessary public improvements we should make the cost a secondary consideration.

Supposing, as indeed it must as a matter of course, that the General Post-office in St. Martin's-le-Grand becomes eventually the central point of London and also of the United Kingdom—the Post-office even is too vague a centre: we ought to have a distinct object, that we can see and touch; and, standing beside it, as the Anglo-Romans did in ancient days by the side of London-stone, know to a yard without dispute the distance from town to town, and from place to place. This object, in a great city like London, should be remarkable both for its fitness to its purpose and for its artistic design, and would be a proper place for the reception of the effigies of those men who, like Macadam, Telford, Stephenson, and Rowland Hill, have advanced the nation by facilitating communication.

NORMANDY.*

How completely is the pleasure or profit of any pursuit in which we may embark in life dependent upon the *animus* with which we engage in it, and the capacity with which we fulfil it. The well-known axiom of philosophy, that size can be but relative,—that is, that the same object appears of various degrees of magnitude according to the eyes with which, or the medium through which, we behold it, applies still more forcibly to beauty, whether of art or nature.

"De gustibus non est disputandum."

The universally accepted aphorism renders caution necessary in the expression of opinion upon beauty, for the very standard of excellence by which we form those opinions, though of universal acceptation, varies in intensity according to the different capacities and various powers of appreciation with which we regard them.

These observations apply with peculiar force to the subject of travelling,—an intellectual and delightful mode of passing spare time, once limited to the adventurous few, but now, from facility of transit, and wide-spread accommodation, within reach of the many, but still peculiarly adapted to the fortunate class who possess those three grand requisites for its perfect enjoyment,—health, wealth, and wisdom. The first and last ingredients are the most important, for our appreciation of what we see mainly depends upon them.

The most important condition of travelling is a definite object. The architect, the archæologist, the painter, the sculptor, the musician, the linguist, the botanist, the geologist, the agriculturist, the scholar, will all find abundant amusement where the lounger will expire of *ennui*.

Even the places voted in the handbook "dull, dirty, devoid of interest," will show, upon inspection, that their sentence implies comparison only; and it must be a desolate region indeed that will afford no kind of satisfaction to one or other of the above investigators. Abroad, one certainly finds more excitement than at home: language, dress, features, manners, habits, government, religion, architecture, produce, climate, history, and geographical position, all being different to what we are accustomed to, extra stimulus to exertion is awakened, new gratifications are conferred. Among the continental regions adjacent to England, none have a greater claim upon the sympathies and interest of every educated Englishman than Normandy. Well may the French call it "*la belle*," for it includes some of the most lovely scenery of their wide domains. The superiority of the locality was early evinced by the preference shown by those best of all judges the monks, who covered the face of the country with abbeys, convents, and monasteries, whose remains to this day present an inexhaustible treasure of archæological studies.

The crumbling relic of feudal grandeur that rear their time-honoured towers above this fair scene of field and foliage, bring one back to the period when the Norman William left his paternal dukedom to try his fortune in that wider and finer field, where the blood of his race was to be for ever after blended with our own. That fusion of blood and interest, of language and manners, has formed an indissoluble connection between England and Normandy, and renders it the more remarkable that a country so near, and of attractions so distinguished as the latter, should be so little visited comparatively by our tourists; illustrated, too, as it has been, by such investigators as Turner, Gally Knight, Whewell, Colman, Pugin, Caumont, and Charpentier.

The specimens of mediæval architecture are unrivalled for richness and variety, but have been too often described by us to render enumeration necessary. In our previous volumes will be found several long notices of Caen, Rouen, and other parts of the country, with views of many of the buildings.

The volume before us bears evidence throughout of the scholar and the keen observer.

The portion of Normandy explored was the department of Calvados,—the time occupied, including journey there and back, one month.

To reach the land of promise, the author landed at Calais, and touched at Boulogne, Dieppe, and Rouen. The tour of Calvados itself comprised Honfleur, Caen, Bayeux, Vire, Falaise, and Lisieux. This department lies between those of Seine Inferieure and Eure, on the north-east side, and of Manche and Orne on the west and south; its greatest length being seventy-five miles, its greatest breadth forty-nine. It contains mines of iron and coal, quarries of great extent, variety, and value, including those of granite and the well-known Caen stone, to the reputation of which latter, by the way, the quarry owners are the worst foes. Its chief trade is in wheat, horses, fatted oxen, and cider; and the making of lace, tulle, and blonde, employs 21,000 women and children in Caen alone.

As to the origin of the title, Calvados, Mr. Musgrave says, "Most of the principal towns and villages of the continent have their Calvaire; an eminence, generally in the outskirts of the place, distinguished by a crucifix and small oratory, or shrine for prayer,—around which are the graves and monuments of the dead; a cemetery, in fact. The Spanish word for Calvaire is *Calvados;* and this appellation, primarily annexed to the *reef* only, at the period of the occupation of this coast by the Spaniards, was subsequently adopted by the government (when France was divided into departments), as the distinctive name of the region of territory whose boundaries have been already described. It was long before I succeeded in acquiring this information. In all quarters, even among the savans of the Lycée Imperial, at Caen, I heard the most ridiculous conjectures as to the derivation of the word."

He gives a very satisfactory account of the provisions for education provided, and is urgent, as every man should be, in calling for the most complete arrangements with this end in view in our own country:—"Education should be 'laid on,' like water, in every town and village street. It should be cared for like ventilation; like pure air. If the dense masses enjoy it not, they sicken, and dwindle, and prematurely decay; and better were it for many legions of loose and lawless children to die in their ignorant and irresponsible infancy, than grow up untaught, uncivilized, unmanageable, and unfit for a future here or hereafter; since, in such instances,

'Worse than dying is to live;'

and, in my humble opinion, the best Boards of Health that England could maintain in efficacy, at the present moment, would be those that should form themselves into a standing committee of management for bringing every poor man's child, in town or country, within the salubrious and blessed influences of a well-ordered school; of an institution where religious training should go hand in hand with practically useful knowledge, and patience have her perfect work in conciliating a *love* of such attainments, *and of the teachers. Their* aim should ever be to educate for *eternity;* but let such trainers of youth take hints from these large French schools, where that ambition of self-maintenance is awakened which is best calculated to provide for each child through *time*."

The writer gives a long account, in a popular style, of the Bayeux tapestry, that historical sampler by the past young ladies of Normandy, and dilates with enthusiasm on the beauty of Falaise, as well he may,—the birthplace of William the Conqueror,—Falaise, with its towering castle, bold rocks, and luxuriant trees. In his notice of St. Peter's church, at Caen, our author appears to confuse, as many others do, the two Pugins. It was the elder Pugin who made tours of Normandy with his pupils, and a well-known work was the result.

We have said enough to show that Mr. Musgrave's work contains much that is pleasant and instructive. Although not architectural in its true sense, it contains much pertinent remark relating to art, and the architectural as well as general tourist will find it a useful and agreeable *compagnon de voyage*.

* A Ramble through Normandy; or, Scenes, Characters, and Incidents in a sketching Excursion through Calvados. By George M. Musgrave, M.A. London: D. Bogue, Fleet-street. 8vo.

DESIGNS AT GORE HOUSE.

It seems desirable to call the attention of potters and encaustic tilemakers to the specimens of elementary design now exhibiting at Gore House, Kensington, being a portion of the studies of the Schools of Art collected there, and thrown open to the free inspection of the public.

The form selected by the Marlborough House authorities was a hexagon, of about 7 inches diameter, and the flower from which the designs were to be made, the *solanum dulcamara*, or woody nightshade, the flower being conventionalized, and arranged geometrically so as to fill the space within the hexagon as evenly as possible.

The efforts which the students have made in this class prove that it is a popular one; indeed, after a careful review of the several classes, and the works in the Exhibition generally, it may with truth be said that this

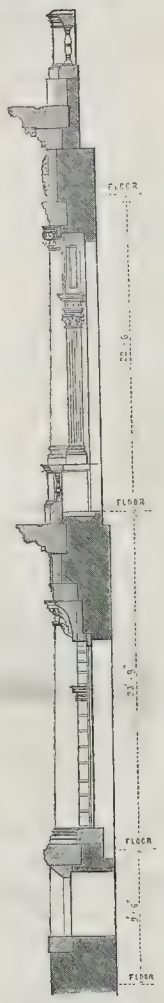
elementary exercise of the inventive faculties has been productive of more satisfactory results than any other portion of the school system.

It is certainly within the mark to say, that there are a hundred and fifty designs, all composed of the woody nightshade, and all filling the required space, no two of which in any degree resemble each other. Produced by many students of different education and manners, the impress of each mind is distinctly stamped upon its work, resulting in a variety which is positively marvellous. Few colours and many colours are made use of, according to the taste of the individual student, and each differs from the other in both drawing and colouring.

Now, as a hexagon is a form frequently used as a tile for ecclesiastical purposes, and as there is a much greater want of good designs in those of the present day, than technical excellence of manufacture, here is an admirable opportunity for our potters, of obtaining such designs as would be worth the expense of reproducing in encaustic and earthenware. Extremely simple in their arrangement, they would combine individual excellence with extremely rich general effect, if used as the pavement for altar-steps and chancels. I am aware that in many cases the colours would have to be altered, and their number modified; but let me point out the designs of the Paisley, Manchester, Potteries, and Birmingham schools, and I am sure that an examination of their merits will be sufficient plea for their adoption as what I have suggested, on same terms. Such an astonishing amount of originality should not be thrown away, and manufacturers should be apprised of the existence of these works, and invited to appropriate them to their especial branches of manufacture. I regret to say that the London school, hitherto so successful in this particular class, is sadly deficient this year in both drawing and colouring.

In conclusion, let me remind those who have the selection of form and subject for these designs, that the fountain-head of reformation and purification of ornamental art should pay some slight attention to the bearing of all works produced in the schools of art. If the talent which has been displayed in these productions had been applied *intentionally* to designing for ecclesiastical tiles, or some such purpose, we should have had even a more valuable result than we see at present, and it would have been no greater tax upon the abilities of the students. It does not look like wise economy to risk the wasting of so much artistic labour, when with a little forethought it might so easily have been brought directly to bear upon an important branch of ornamental art. The very excellence of the designs shows what might have been done, if simple rules concerning their colouring as applied to walls or floors had been stated when the form and subject were chosen and given out. The schools of art are supported by the nation for the improvement of ornamental art, and through it for the refinement of the people, and not as a toy, or an amusement which has no end in view. To them we look for emancipation from our gross servility to the French School of Design, and in them alone do we recognize our means of obtaining a school of our own. On them we rely for the proper guidance of our arts and manufactures, and, as a nation, have a right to expect some return for the public money already expended upon them. At the same time let manufacturers remember, that as long as they hold aloof from the schools, they must bear the brunt of the charge of bad taste with which the public is charged. Let them only put themselves in communication with the schools, and offer liberal prices for the designs which they require, and there will be no lack of talent to respond to their requisition. If half the sum they pay a private designer was offered as a prize in a public competition, the manufacturer would receive a much better work, and the student be encouraged to persevere in his profession. A MARLBOROUGH HOUSE STUDENT.

SAXON COINS.—There has been a remarkable find of Saxon coins in the neighbourhood of Scotby. The coins are in an excellent state of preservation, and extend to Edward the Elder, son of Alfred the Great.



The Carlton Club-House: Section of the Front Wall.

THE CARLTON CLUB.

THE Carlton is a purely political club, and was founded by the late Duke of Wellington, and a few of his most influential political friends. It first held its meetings in Charles-street, St. James's, in the year 1831. In the following year it removed to larger premises, Lord Kensington's house, in Carlton-gardens. In 1836, an entirely new house was built for the club, in Pall-mall, by Sir Robert Smirke, small in extent, and plain and inexpensive in its architecture.

As the club grew in numbers and importance, the building soon became inadequate to its wants. In 1846, a very large addition was made to it by Mr. Sydney Smirke; and in 1854, the whole of the original building was taken down and rebuilt by Mr. Smirke, upon a sumptuous scale; and it is now the largest although not the most costly club-house in London. The club consists of 1,300 members, each paying an annual subscription of ten guineas, with an entrance-fee of fifteen guineas. The business of the club is managed by a committee of thirty members and the five trustees, viz.—The Duke of Buccleuch, the Marquis of Salisbury, the Earl of Hardwick, Lord Redesdale, and Lord Verulam.

It is a vulgar error to regard a club as the rich man's public-house: it bears no analogy to a public-house: it is as much the private property of its members as any ordinary dwelling-house is the property of the man who built it.

A history of the clubs of London would make a curious chapter in the social history of the people of England. Our clubs are thoroughly characteristic of us. We are a *proud* people—it is of no use denying it,—and have a horror of indiscriminate association; hence the exclusiveness of our clubs.

We are an *economical* people, and love to obtain the greatest possible amount of luxury at the least possible expense: hence, at our clubs we dine at prime cost, and drink the finest wines at a price which we should have to pay for slow poison at a third-rate inn.

We are a *domestic* people, and hence our clubs afford us all the comforts of home, when we are away from home, or when we have none. Finally, we are a *quarrelsome* people, and the clubs are eminently adapted for the indulgence of that amiable taste. A book is kept constantly open to receive the outpourings of our ill-humour against all persons and things. The smokers quarrel with the non-smokers: the billiard-players wage war against those who don't play; and, in fact, an internecine war is constantly going on upon every conceivable trifle; and when we retire exhausted from the fray, sofas and *chaises longs* are everywhere at hand, whereon to repose *in extenso*, as cats after their nocturnal sports are wont to come home and elongate themselves upon the kitchen hearth. The London clubs are certainly the abodes of earthly bliss, yet the ladies won't think so.

We have already illustrated the entrance front of the new Carlton Club-house (p. 282, and previously), and have given a plan of the ground-floor. The annexed engraving represents the garden front: the pilasters, which here take the place of columns in the entrance front and flank, are of the same material as the latter, namely, Peterhead granite, polished. On the first floor are the east and south library (over the morning-room and writing-room), the card-room (over entrance-hall), and the house dinner-room and billiard-room, over the two ends of the coffee-room; the centre part of the coffee-room has a skylight above it. The vestibule has a gallery round it on this story, marked on the plan of the lower story previously given. We append a section of the front wall in Pall-mall.

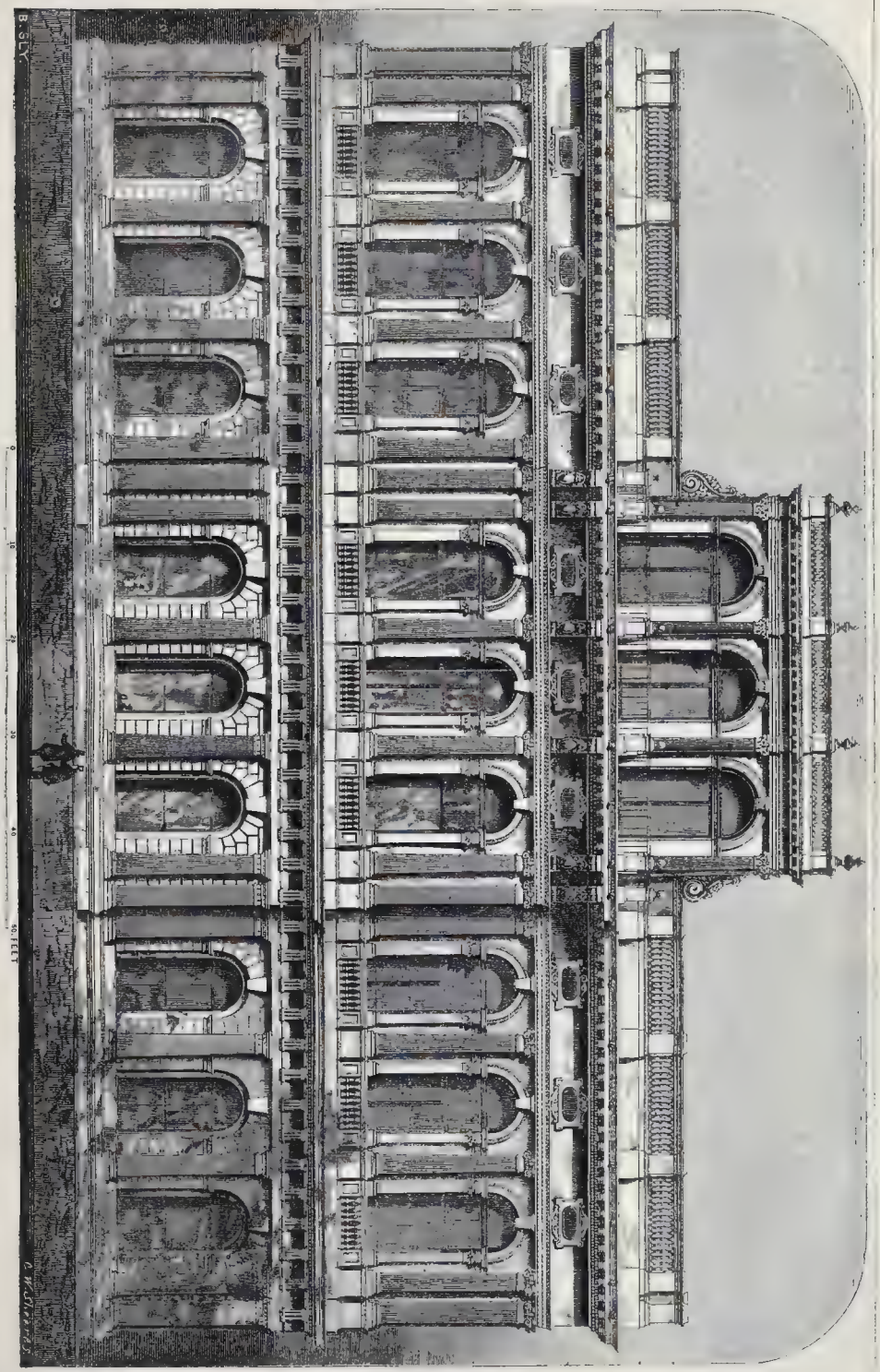
MEETING OF ART-WORKMEN AT ARCHITECTURAL MUSEUM.

THE meeting of art-workmen on Monday evening last, was very well attended: between 300 and 400 persons (chiefly workmen) were present. The Rev. F. D. Maurice was in the chair, and made an address. Mr. S. C. Hall, Mr. Ruskin, the Rev. Charles Boutell, Mr. Penrose, Mr. Scott, and others, also addressed the meeting. Several of the workmen, too, spoke. It seems on the whole to have been a very successful attempt to interest the art-workmen in the Institution, and to show them how they may aid themselves.

It was announced that Mr. Godwin had offered two prizes of a guinea each, for the second-best specimens of stone and wood carving; and that the Rev. C. Boutell had been raising subscriptions for a prize for a design in metalwork. Mr. S. C. Hall also stated his willingness to place at the disposal of the committee, a sum of money for the same or any other object upon which they might determine.

A correspondent, in reference to our notice of the five-guinea prizes, proposed to be given by the committee of the Architectural Museum, to carvers in wood and stone, objects that they are not large enough for the production of works pretending to reach beyond commonplace mediocrity. It must be remembered, however, that the real prize after all is not the amount offered, but notoriety and distinction.

ELECTRO-TELEGRAPHIC.—The Electric Telegraph Company was lately summoned for poor-rates at Salford, and refused to pay, because it occupied no "land" or "earth." The Court of Exchequer decided against the company, quoting Lord Coke, who said,—"The earth had in law a great extent upwards not only of water, as had been said, but of ayre, and all other things, even up to heaven."



THE CARLTON CLUB-HOUSE: GARDEN FRONT.—MR. S. SMIRKE, R.A. ARCHITECT.

CHURCH-BUILDING NEWS.

Hertford.—At the village of Bengeo, or Benehoo, on a site close to the new National Schools, and adjacent to the principal street of the village, a church, containing sittings for 600 persons (450 free), has been erected, in the Early English style. The church consists of nave and two aisles. The fittings are plain. The seats are lowbacked. The roof is open-timbered. The church is at present without a tower. The total expense incurred is 4,779*l.* 17s. 2d. which is thus divided: erection of church, 3,890*l.*; purchase of land for church and burial ground, 329*l.* 17s. 2d.; fences, gates, stoves, architect, and other expenses, 560*l.* The architect was Mr. Benjamin Ferrey, and the builders were Messrs. Holland and Co. The edifice was consecrated on Friday in last week.

Upper Tooting.—The new church of the Holy Trinity, at Upper Tooting, in the parish of Streatham, was recently consecrated by the bishop of the diocese (Winchester). This church was first promoted some year and a half since, and the subscriptions were rapidly raised, amounting to upwards of 4,000*l.* The ground was then given by Mr. Browse, one of the committee; and some twelve months since the church was commenced, under the superintendence of Mr. A. Salvin, the architect. The edifice, which is calculated to hold 700 persons seated, one-third of the seats being free, is in the Early English style, and built of Kentish rag-stone, with Bath stone dressings, and consists of a nave, with side aisles, together with a chancel, with side aisles also, with columns intersecting. The roof is a plain open timber one, of stained deal, and the pews throughout are of same material. There are no galleries in the church. The tower is not yet commenced.

Norbiton. — The consecration of the new burial ground at Norbiton, Kingston, took place on 27th ult.

Coln St. Aldwyn.—The tomb of the late Sir M. H. Hicks Beach, bart. of Williamstrip Park, Member of Parliament for East Gloucestershire, has just been erected over his grave, in the churchyard of Coln St. Aldwyn. The intersection of the gables forms a floriated cross. In the panels on the north-west and south sides are carved lilies and passion flowers. At the east end are the arms of the family emblazoned on a shield, lying at the foot of the cross. A text of Scripture is inscribed on each side of the plinth. The work has been executed in Ancaster stone, by Mr. S. Cundy, of Pimlico, from a design by Mr. G. R. Clarke, architect.

Shipston-on-Stour.—On 20th ult. the parish church of Shipston-on-Stour, having been rebuilt with the exception of the tower, was re-opened. It consists of a nave, filled with open benches; north and south aisles extended beyond the chancel arch; a chancel, fitted with stalls; north and south porch; and vestry. The architect was Mr. G. E. Street, who had very limited funds at his disposal. He has retained two windows of the original church, one of which, a window of the thirteenth century, together with another of same period, preserved and restored in the old tower, forms the ground-work of his design. The works have been executed by Mr. Joseph Mills, of Stratford-on-Avon, builder. The edifice will accommodate 800 persons.

Bath.—A meeting of the congregation of the Percy Chapel was held last week, when it was stated that the cost of the edifice, including organ, expense of opening, &c. amounted to 4,949*l.* Of this sum 2,550*l.* had been received; 150*l.* promised; and 2,000*l.* borrowed; leaving a deficiency of 250*l.* Messrs. Goodridge, the architects, sent in their account for upwards of 250*l.* accompanied with a stamped receipt for the amount due, the architects having thus given their services gratuitously. A plan was determined on for paying off the debt.

Cardiff.—The opening of the new Congregational Chapel, Cardiff, took place on Thursday before last. This chapel has been lately erected in Charles-street, in this town, for the congregation formerly in Church-street. Mr. R. G. Thomas, of Newport, was the architect, and the builders were Messrs. Price and James, of this town. The chapel is in the Early Decorated style. The face-work of the walls is of various coloured stones, placed so as to contrast with each other. The stones, it is said, "were brought from all parts of the world, and are of every variety of geological epoch." In the construction of the roof, each rafter forms a complete principal, strengthened at intervals of 12 feet by curved ribs, to which are fastened wall-plates, instead of the usual form of beams and purlins. The organ-gallery is placed within an arch at the back of the pulpit. The large west window contains the flamboyant tracery of the Decorated period, and is filled with stained glass. The total cost of the structure amounts to about 2,400*l.* It contains about 530 sittings, and there is a school-room underneath, measuring 73 feet in length by 33 feet in width.

Llowes.—On Tuesday in week before last, the new church of St. Meilig, Llowes, Radnorshire, was opened by the Bishop of St. David's. The church (the erection of which is mainly due to Mrs. De Winton, of Maesllwch Castle) is built on the site of the old one, and, with the exception of part of the tower, is entirely new. It is executed in the grey stone of the country, with Bath stone dressings, and is in the Early English style of architecture, and consists of nave, chancel, and porch entrance, with vestry on the north side. An open arch into the tower displays a three-light tracery window. The chancel windows, four in number, are all of stained glass, by Ward. The east window consists of four lights, representing the Four Evangelists; and a medallion above contains "the Institution of the Holy Eucharist." The south window represents "Christ blessing Little Children," and "Christ stilling the Tempest,"—a family thank-offering for the safe return of Capt. Collinson from the Arctic Seas. The north window represents the "Adoration of the Magi," and a small gable window the "Holy Ghost descending like a Dove." The roof of the nave is of high pitch, stained dark oak: that of the chancel is plastered between the timbers, and coloured ultramarine blue, powdered with gilt stars, and has a cornice of trefoils in light oak: the pavement is of red and black tiles. The building will hold nearly 300 people, and costs about 1,200*l.*

Willaston.—On Thursday in week before last, Christ Church, Willaston, was consecrated by the Bishop of Chester. Willaston is a township in the parish of Neston. The site was given by Mr. P. Heywood; the stone by Mr. Roberts, of Liverpool. The whole cost of the church is 1,300*l.*

Retford.—East Retford parish church, we understand, will be opened on 20th August for divine service, Mr. Lee, the contractor, having nearly completed the restoration of the edifice.

Hulme.—The new church, dedicated to St. Paul, situated in Stretford-road, Hulme, has been opened for Divine service. It is in the Decorated style. The front abuts upon Stretford-road, its entrance consisting of a large porch under the tower. Over the porch is a large six-light window, with traceried head. A similar four-light window lights the front of the aisles. The whole is surmounted by a bell tower, with eight pinnacles. The tower is 71 feet high, and has a window in each of its four sides. The building is 95 feet long and 48 feet wide. There is no fenestration in the sides, the whole of the light for the interior being from the clerestory and the front windows. The clerestory is glazed continuously along both sides. From three metal columns on either side the nave rise skeleton timber arches, and these support the clerestory. There are side and front galleries, and the church will accommodate 1,100 adults and 200 children. The cost of building is 2,200*l.*; and as the edifice will seat 1,100 persons, the average is 2*l.* per sitting! The church was erected from designs by Mr. R. M. Smith, architect; the contractors being Messrs. Mellor, Son, and Terras, Ardwick. A circular stained window, over the altar, bearing an emblem of the Trinity, was furnished by Messrs. Drury and Smith, of Sheffield.

Newcastle-upon-Tyne.—The Bishop of Durham (says the *Gateshead Observer*) having objected to consecrate the Church of England chapel in St. Andrew's Cemetery, unless it were 100 feet apart from the unconsecrated chapel (three times the distance which separates the chapels of the Jesmond Cemetery), there was a meeting on 29th ult. of all the Burial Boards of Newcastle, when a deputation was appointed to wait upon his lordship with the plans of all the cemeteries, and effect a friendly arrangement.

PROVINCIAL NEWS.

Reigate.—The Asylum for Idiots at Reigate was formally opened on Tuesday in last week by Prince Albert. It will accommodate 400 inmates, viz.—34 adult females, 66 adult males, 133 boys, 67 girls, and 100 infants, besides the officers of the establishment. The building is in the Elizabethan style, and is healthfully situated. It consists of a central building, with two wings each of which presents a front miniature of the main front. It has been erected by Mr. Jay, at a cost of about 35,000*l.* The architect was Mr. Moffatt. Mr. Sneezum, of Red-hill, acted as clerk of the works. The visitors at the opening inspected, with much interest and no little astonishment, the drawings, the specimens of tailoring and shoemaking, and the other articles executed by the idiots. A model of a frigate, built by a boy who, at the time he entered the institution, was not possessed of the least glimmer of intelligence, it is said would not disgrace the best shipbuilder in Woolwich Dockyard.

Shoreham. — The foundation-stone of the College of S. Mary and S. Nicholas, at Lancing, was laid on Wednesday week in the presence of several hundred spectators, by Sir John Patteson, the senior trustee. The town was decorated with triumphal arches, bearing inscriptions in Latin and English, and the entrance to the New Shoreham churchyard, nearest the station, was covered with evergreens. The new building will consist of all the usual arrangements of a mediæval *collegium*, in the Middle Pointed style of architecture. The foundations are already finished. The late Mr. Carpenter was the architect who furnished the plans, which are being carried out by Mr. Slater. Messrs. Chessman, of Brighton, are the builders. The brass plate covering a coin of the realm beneath the stone, bore the following inscription:—

+
Ad SS. et Individuæ Trinitatis
per omnia sæcula sæculorum
gloriam sempiternam
et in honorem Beat. Virg. Mariæ necnon S.
Nicolai
hujusce Collegii
lapidem angularem posuit
vir honoratissimus Joannes Patteson Eques
reg. mag. a secretior consil
visitatore præposito ac sociis assistentibus
die iv. mensis Julii. a.s. Mdcccl v
Regnante Victoria
Ashurst Turner, ep. Cicestr. necnon visitatore
Nathaniel Woodard præposito
Ricardo Cromwell Carpenter
qui jam in Christo obdormivit
Architecto primario
Gulielmo Slater operibus præsidente.

The ground plan of the building shows that it will consist of two quadrangles running east and west. In front will be a quadrangular piece of ground, at the south-east corner of which the provost's house is to be erected, and on the northern side will stand the chapel, which will abut from the front of the building. To the south of the chapel, and forming part of the front, will stand the hall, a large building, which will extend to the main entrance, on the other side of which will be the master's house, and this will terminate the front and form the south-east angle of the college. The main entrance, which will be ascended by a flight of broad steps, leads into the first quadrangle; it will be surrounded by class-rooms and other apartments devoted to the officials of the college. On the west side there will be a laboratory and school-room, between which will be a communication with the inner quadrangle: on the other three sides of which dormitories, lavatories, and trunk rooms are to be erected. The college will be erected of flint, with facings of Caen stone. The object of the building is for giving a first-class public-school education, combined with the inculcation of Church doctrines, to children of parents of limited means. The college is to be conducted by clergymen only, and it is children of shopkeepers, and

even of the artizans of populous places like Southwark and Lambeth, who are expected to derive advantages from its operations, as the terms are, it is said, to be on a remarkably low scale. Mr. Woodard, the Provost elect apparently, in his address said, that after the society had erected a chain of schools across the south, they meant to do the same across the north of England, and so cut the manufacturing districts in half. Baron Alderson, Lords Delaware and R. Cecil, and other gentlemen, also addressed the assemblage at the site.

Stafford.—The mural monument subscribed for by the members of the Oxford Circuit, and sculptured by Lough, to the memory of the late Justice Talfourd, has been placed in the Crown-court, Stafford, against the wall between the two galleries. The bust is life-size, but many are of opinion that the likeness is not a good one, and that much of the effect is marred by some few misplaced ornaments.

Melton Mowbray.—The Corn-exchange here appears to be receiving its more decorative touches. Mr. Whitchurch has presented some of Messrs. Minton's centre tiles for the floor of the entrance-hall. There are three of these centre pieces, each of the same design, but the surrounding portions have two patterns. The chimney-pieces are now being sculptured by Mr. Robinson, of Derby, who has completed one with an agricultural group.

Leeds.—The Market Committee of the Leeds Corporation have received tenders for the various works required in the construction of the covered market, to be erected in the Kirkgate Market-place. There were eight tenders for the whole of the work, and a considerable number for separate divisions of it. The highest estimate for the whole was 14,797*l.* and the lowest 10,854*l.* The latter was from Messrs. Nelson and Son, ironfounders, Leeds, and was accepted. The works are to be proceeded with as early as possible, and will probably, according to the local *Intelligencer*, be completed by the 1st of June, 1856.

Sunderland.—Mr. E. Backhouse, Jun. says the *Gateshead Observer*, has laid before the Building Hill Committee at Sunderland a design for a crystal palace, to be erected on the site of the old house on the highest elevation of the hill, and which, it is estimated, will cost 7,500*l.* The building is to embrace a museum, winter garden, school of design, and large hall for tea meetings, bazaars, and exhibition. It is proposed to offer 20*l.* for the best plan in detail, and estimates for the proposed building. The grounds are in a very forward state. Chairs for the public are liberally scattered over the ground.

Jarrow.—The dock contractors are laying down rails from the old Brandling Junction Railway to the Slake. They are also excavating for the line of railway from below Brockley Whins to Jarrow, and materials for the further progress of the works are being accumulated. The undertaking will be prosecuted with vigour, and in a short time a large body of workmen will be employed in the construction of the docks.

SALTPETRE ON THE SURFACE OF WALLS.

IN connection with the inquiry and remarks on this subject recently made in our journal, it may be useful to refer to a communication from Mr. C. H. Smith, to the "Commissioners on the Fine Arts," which was printed in their second Report, 1843, but was not otherwise made public. Mr. Smith says, in the course of it,—The mineral substances chiefly used in building, consist of lime, sand, and different kinds of stone, neither of which contain any saline or deliquescent matter as an integral part of their composition. No trace of salt or alkali is mentioned in the analyses of various stones that were examined with reference to the selection for building the New Houses of Parliament. Bricks are made of clay, which consists principally of alumina and silica, but generally containing some portion of lime, in the state of carbonate or sulphate; carbonate of magnesia; iron in the state of oxide, or combined with sulphur; and common culinary salt: these various materials, when exposed to a red heat, act chemically on each other: the magnesia most probably will combine with the sulphuric acid, which it obtains partly from the iron pyrites mixed with the clay, and partly from the fuel, if coal is used. It is this sulphate of magnesia (common Epsom salt) which is occasionally found to cover the surface of newly-built walls with an efflorescence like hoar frost.

The presence of saline or deliquescent matter on the surface of a building, either internally or externally, may, to a certain extent, be attributed to carelessness, ignorance, or inattention of those who superintend the construction of an edifice. Salts, alkalies, or acids, according to the usual acceptation of such terms, do not necessarily form any part whatever of building materials. Nearly all animal and vegetable substances, when in a state of putrefaction or decay, produce a certain quantity of saline or alkaline matter, which absorbs moisture rapidly; therefore every precaution should be taken to avoid admitting such substances into a building where damp walls are likely to be of serious importance.

Under ordinary circumstances it is scarcely possible to get rid of the various saline or deliquescent substances that have once been admitted into the walls of a building. The fixed alkalies (potash and soda) may probably be considered imperishable: no length of time can injure them: they may effloresce, or, more properly, they may crystallize on the surface of a wall, and totally or partially disappear again and again, as often as a change in temperature or of dryness or humidity takes place: these changes may be daily, or the salts may remain inactive during ages, and, from some favourable cause, a crop of crystals may be produced as flourishingly as if the wall had been recently erected. The only way to abate the evil, is to brush off the crystals, dry, whenever they appear in the most flourishing condition. If potash has been introduced into the walls, either from the putrefaction of animal or vegetable substances, such as have been named, or from other sources, however thick the wall may be, it will make its way to the surface, and then absorbing nitrogen from the atmosphere, which contains 70 or 80 per cent. of it, nitrate of potash (or saltpetre) is produced.

If we may imagine the possibility of salts in a crystalline state getting to the interior of a dry wall, beyond the influence either of moisture or considerable variation of temperature, in such case they would unquestionably remain crystallized as they were deposited; but such a state of things is never likely to take place: salts are generally communicated to a building in weak solutions: the water very gradually evaporates, carrying with it, from the interior of the wall, the molecules which compose salt. The solution having arrived at the surface, so as to be freely in contact with the atmosphere (which is always essential to crystallization), evaporation continues until the solution is sufficiently strong to crystallize, leaving only the mother-water in the wall, which is indicated by a certain dampness.

Lime, mortar, or some other sort of calcareous earth, seems to act as a vivifying principle to set the molecules of salt and water in action: if no lime were present, crystallization would certainly be much less active. An increase of temperature, or a humid atmosphere, will slowly dissolve the salts: if both these causes occur at the same time, liquefaction will be rapid, and the newly-formed fluid will be absorbed into the wall as fast as the salts are dissolved. These changes will take place with every variation of atmosphere: a cool dry air, in a state of absolute rest or stagnation, is favourable to crystallization: a warm one, charged with aqueous vapour, will facilitate solution. It is extremely probable that several kinds of salts may be formed on the same wall, with their crystals intermixed so as to escape the discrimination of a casual observer, and that each will crystallize and liquefy at different times, according to the temperature and the quantity of moisture in the atmosphere: should this be the case, perhaps the wall may never appear perfectly free from efflorescence, so long as the various stimulants of air, moisture, light, heat, and other causes of attraction are in activity; and, since all attraction is mutual, it may readily be understood, that as the particles of water attract those of the alkaline salt, and retain them in solution, so the particles of alkaline salt will attract those of the water, and hold them in crystallization.

PLAN FOR REALIZING FUNDS FOR METROPOLITAN MAIN SEWERAGE.

THERE has been printed, for the use of the commissioners, an "Inquiry, presented to the Commission by Dr. A. Sayer, Commissioner for Marylebone, "to ascertain the maximum limit of the annual taxation required from the sewers ratepayers, and to advocate for the community the adoption of the principles of joint-stock association for the raising and liquidation of the funds to improve and extend the sewerage, and to intercept from the Thames the sewage and drainage of London." Dr. Sayer having moved at the Court of Sewers on 15th of May last, "That large funds being required efficiently to improve and extend the sewerage and drainage of the metropolis (1,500,000*l.*), and to carry out the great works (resolved on unanimously by the commission as expedient) for the interception and the delivery of the sewage, &c. north of the Thames at Barking-creek, and south of the river at or below Plumstead-marshes (3,500,000*l.*); this Commission do take into consideration the means of raising the money (5,000,000*l.*), paying the interest thereof, and ultimately paying off (5,292,475*l.* which includes the existing debt, 292,475*l.*—the 110,000*l.* now invested in Exchequer Bills, and the 150,000*l.* to be received under engagements entered into by the last Commission—together 290,000*l.* part of the 3,500,000*l.* required for the great works of interception, &c.;) on terms the least onerous and the most equitable for the present and future ratepayers—with reference to the Bill now before Parliament, 'For the better Local Management of the Metropolis;'"—the mover of this resolution proceeds to explain his views, in the course of which he points out that great works carried on at Paris, and in the Department of the Seine, are supported by funds raised under the authority of the legislature, by the public sale of *Obligations de la Ville de Paris*, or *Obligations du Departement de la Seine*;—Bonds of the City of Paris—Bonds of the Department of the Seine; these bonds being for 1,000 francs,—about 40*l.* each; and he states it as his opinion that if Parliament were to grant similar privileges to the metropolis of England, the large funds required might be raised and paid off by the ratepayers with all the advantages and economy of joint-stock association;—that the system would be found preferable to the measures provided by clause 141 of the "Bill for the better Local Management of the Metropolis,"—and that it would secure to the ratepayers the saving of a large amount of money. From this inquiry, he adds, it will become apparent that the maximum limit of a general equal and annual pound-rate need not exceed, from the metropolis, exclusive of the City of London, eightpence,—and from the City of London, fourpence. Such a rate assessed and levied by Act of Parliament on the 1854 gross metropolitan assessment 9,484,945*l.* and on all future increments thereof *without* the present metropolitan rated area,—and on the 1854 gross City of London Sewers Rate assessment rental, 1,241,280*l.* and on all future increments thereof, would, he believes, supply ample means to pay the annual interest of 3,500,000*l.* raised by the issue and sale on the Stock Exchange from time to time as the money may be required, of *Metropolitan and City Sewers Bonds*, to carry out the great works in question. We some years since pointed attention to a similar mode of "realizing great public improvements." Any feasible plan of effecting so great and essential a work as the main sewerage of the metropolis, and the cleansing of its noble river, is worthy of anxious and immediate consideration, for the evil to be remedied is rapidly and intolerably on the increase, and it *must* be abated, and that without further loss of time.

THE LIZARD SERPENTINE.

SOME time since we called attention to the Serpentine Stone obtained from the Lizard district of Cornwall. Although the stone called Serpentine has for many years past attracted occasional notice, it is but recently that commercial enterprise has been energetically directed to the development of the district in which it is principally found. The failure of many, indeed of all, of the attempts formerly made to introduce the material into general use produced, as a natural consequence, a prejudice of which the result has been, that an ornamental stone of very great pretensions has been hitherto condemned either as altogether useless, or adapted only for exceptional application. The brittleness and unsoundness of the stone found on the surface, and the varying results of numerous chemical analyses, induced geologists, as well as practical men, to conclude that these defects and a want of equal consolidation of component parts, were inherent in the material; and it was reserved for

late Sir Henry de la Beche to suggest that these advantages would in all probability be overcome if arries were opened to some considerable depth, and ne obtained which had not, like that hitherto nufactured, been subject for ages to the influences ir and water.

We are assured that the justice of this opinion has n fully proved, and are informed that the quarries the Lizard Serpentine Company having, during the t twelve months, been opened by powerful Derrick nes, to a depth of from 40 to 50 feet, and the erincumbent mass of loose and unsound stone ving been thrown over the cliffs, the company re had the satisfaction of coming upon extensive ls of consolidated rock, which are worked in the ne manner as quarries of granite. The size of the cks raised formerly, varied from 2 to 10 feet, but are told that the masses have increased to so great extent, that it is now frequently found necessary to ak them up before they can be removed.

The stone was supposed to be not only brittle in e extreme, but equally hard with granite; and it s considered that the expense of manufacturing uld far exceed that of working the marbles used in s country. Experience has again proved these ebodings to be incorrect. Architects have long en acquainted with the extreme beauty of the aterial. The Lizard Serpentine is distinguished om that obtained in other parts of the world, by e variety and vividness of its colours, and the in-rsecting white lines caused by veins of steatite, which ere both unsightly and a source of weakness, are t found in the stone obtained from the quarries of e Lizard Company. The serviceable stone runs in ds varying from 4 to 40 feet in width, and the ocks are of the irregular form in which statuary arble is found.

HE ARCHITECTURAL CLASSES—UNIVERSITY COLLEGE, LONDON.

ON Saturday, the 30th of June, the following rizes and testimonials were announced and distriated at University College, to the classes in architecture and construction, as awarded by Professor onaldson. The Right Honourable Lord Monteagle resided.

FINE ART.—*First Year's Course.*

Prize and first certificate—Alfred L. Spencer.

CERTIFICATES OF HONOUR.

Second certificate—Walter Kelsey.
Third certificate—Angelo Bachhoffner.

Second Year's Course.

Prize and first certificate—Henry H. Smith.

CERTIFICATES OF HONOUR.

Second certificate—M. Underwood.
Third certificate—E. A. Gruning.

CONSTRUCTION.—*First Year's Course.*

Prize and first certificate—Joseph Gale.

CERTIFICATES OF HONOUR.

Second certificate—Alfred L. Spencer.
Third certificates—(equal)—Edwin Lawrence, W. Hooper, and Angelo Bachhoffner.

Second Year's Course.

Prize and first certificate—M. Underwood.

CERTIFICATES OF HONOUR.

Second certificate—Henry H. Smith.
Third certificate—E. A. Gruning.

MINING SURVEYORS' CHARGES.

BRAY *v.* READ AND LEALE.

IN the Court of Exchequer, at Guildhall, on Wednesday, July 4th, before the Lord Chief Baron and a special jury, a rather startling conclusion was arrived at as to the proper amount of remuneration for a mining surveyor's services, the particulars of which I beg to hand you, being, as I confess, unable to determine by what ingenious manner of addition, subtraction, multiplication, or division, the special jury arrived at the particular amount which they awarded to the plaintiff. It appeared, from the statement of counsel, and the evidence brought forward, that Mr. William Bray was, in September, 1853, employed to proceed to the State of Tennessee, U.S. America, on behalf of Mr. Braine, to examine and report upon copper mines in that district, for which service he was to be paid the sum of 400*l.* together with his expenses there and back, and while resident in America. Shortly before starting upon that mission, he was solicited by the defendants, Read and Leale, to examine and report upon another mining property, situate about one mile and a half distant from Mr. Braine's property, and which the defendants were in treaty to purchase. A written agreement was drawn up, signed and handed to plaintiff before his starting,—"a blank" being left for the amount to be charged; and it was verbally agreed by the defendants, with him, that he was to fill up the amount himself. It was proved in evidence that the plaintiff satisfactorily performed the duties undertaken for both parties; that the defendants printed and circulated extracts from his report (without his name appended thereto) in the prospectus of the proposed company, and now set up as a defence, "Not indebted," for that plaintiff was under an engagement to his first employer to report for him only! This defence broke down; and the Judge in charging the jury stated it as his opinion, that although no particular sum was agreed to be paid to plaintiff, yet as it was clear that defendants had availed themselves of his services, he was entitled to remuneration.

Plaintiff called, in support of his claim, Mr. B. P. Wilme, civil engineer and surveyor. Mr. Wilme's maximum pay to a mining surveyor for examining and reporting upon mines, would be ten guineas per day.

Mr. Elijah Galloway, who was also called by plaintiff in support of his demand of 575*l.* for work and labour, stated that he (Galloway) had made underground surveys of mines, and that his charge would be five guineas per day.

For the defence a witness named Wood proved, on oath, that he was on the ground with plaintiff "all the time" he was engaged in making his examination, and the time all put together did not exceed two hours, but was rather under. The special jury found a verdict for the plaintiff, and awarded him 175*l.*!

A LOOKER-ON.

Miscellanea.

ST. JUDE'S CHURCH, MILDMAY-PARK, ISLINGTON.—This church, already mentioned in our pages, has been consecrated. The site, which is near Bill's-pond-road, was presented by Messrs. Sandoz and Brown. The church was designed by Mr. A. D. Gough, and the builders were Messrs. Dove, Brothers, of Islington. The external facings are formed with random Kentish ragstone, relieved with dressings of Bath stone. It is a cruciform church, and has a tower surmounted by a spire of Bath stone, 110 feet high. The latter is enriched with crockets at the angles, and springs from pinnacles which ornament the tower. The interior displays an open timber roof. The entire cost of the church will be about 5,000*l.* Adjoining, and nearly finished, is a parsonage-house, erected also by Messrs. Dove, which accords in style with the Church Schools, to be built as soon as funds can be raised. The whole group will be a considerable ornament to this very improving neighbourhood.

THE IRON TRADE.—No new failures have been announced since our last notice, and it is hoped the worst is over for the present. There is not the least likelihood of any advance in price, however, as yet.

PROFESSIONAL REUNIONS.—Mr. Gutch received a number of his professional friends, chiefly district-surveyors, at dinner a few days ago, including Professor Donaldson, Mr. Kendall, Mr. Henry Baker, Mr. Thomas Little, Mr. Snook, Mr. Foxhall, Mr. Good, Mr. William Donaldson, Mr. Howell, Mr. T. H. Wyatt, Mr. Pownall, and others. Such meetings tend to the extension of that kind feeling which ought to exist among members of the profession. Sir Charles Barry gave a similar dinner a few weeks ago, when, in addition to several named above, Professor Cockerell, Mr. Poynter, Mr. Banks, and others, were amongst the guests.

WOLVERHAMPTON SCHOOL OF PRACTICAL ART.—The first annual meeting of this institution was held on Friday in last week, when there was a large and highly respectable attendance of its friends and members, to receive the first annual report and financial statement of the council, and to appoint office bearers for the ensuring year. The report stated that the attendance and fees during the past year had continued steadily to increase, and the following statement was made of the average attendance of pupils:—

	Pupils.		*Fees.*		
First quarter.....	72	.....	£27	7	6
Second ditto.....	106	.....	37	19	9
Third ditto	108	.....	45	9	6
Fourth ditto	120	.....	51	14	0
Total.....			£162	10	9

The annual subscriptions amounted to 134*l.* 8s.; so that the whole income was 296*l.* 18s. 9d. There was a balance, however, against the treasurer of 35*l.* 8s. 10d. many expenses having occurred during the first year which would not appear again. Among the students who have attended the school during the year, were eleven architects and surveyors, three brassfounders, sixteen builders, joiners, and cabinet-makers, two draughtsmen and artists, six engineers and machinists, one locksmith, two moulders and patternmakers, five house-painters, thirteen pupil teachers, five schoolmasters, and thirty-seven youths not apprenticed to any trade. The prizes were distributed after the report was read, and the meeting addressed by the chairman and various other gentlemen.

VALUE OF A SURVEYOR'S SERVICES AT TENBY.—A special meeting of the Local Board of Health, at Tenby, was held on Friday before last, for the purpose of electing a surveyor, who is to give his whole time and attention to the business, for a salary of 25*l.* per annum! Nevertheless, there were no less than five applicants, George Mends, John Smith, G. Stone, J. Lewis, and 'Adolphus Fitz-Sniggins.' The application of Mr. Fitz-Sniggins, however, was a well-deserved satire on the corporation, who constitute the Board. Mr. E. Mends, the collector to the Board, was the successful candidate. 'Fitz-Sniggins's' application merits notice. "By profession," he says, "I am a draper, and from the frequent opportunities I have had of using the yard, think myself fully qualified to undertake any duties requiring a practical knowledge of logarithms, mensuration, and land surveying. With respect to my personal bearing, be under no apprehension. I shall always pay the greatest deference to members of your worshipful body, and my unremitting attention will be directed to *your* happiness, profit, comfort, and convenience. . . . Should *your* drains, &c. become a public nuisance, or *your* wares impede the traffic in the streets,—against *you*, of course, such fortuitous circumstances will not be recorded."

THE "TIMES'" SPECIAL CORRESPONDENT.—Every one has read the brilliant letters of Mr. William Howard Russell, the Special Correspondent of the *Times* in the Crimea; and, without doubt, every one will be pleased to hear that the entire series has been placed in the hands of Messrs. Routledge and Co. for immediate publication. This remarkable Chronicle of the War—from the time of the British Army leaving Southampton to the very latest events—is of important interest in every point of view, no less from having first called the attention of the English nation to the state and management of the army generally, and produced those great and entire changes in its organisation which contributed so greatly to its subsequent successes, than from its enthralling attraction as a powerfully-written, intense, and graphic description of the terrible drama now being played in the Crimea.

SUSSEX FORTIFICATIONS.—Works of considerable importance, besides the numerous martello towers, &c. already in existence, for the defence of the southern coast, are now in progress in Sussex, the expenses of which were set down in the ordnance estimates at 10,000*l.* A new battery is in course of erection at Cuckmere: when completed, it will mount six 24-pounders. At Blatchington and Newhaven new fortifications are also being erected. The latter place is becoming a port of considerable importance, and at the mouth of the harbour extensive works are in course of construction. They are to present an angular front to the sea; and internally there will be brickwork. The batteries will be composed of earthwork, 30 feet thick, rising 9 feet above the level of the eastern pier. The dimensions of the works are 112 feet from each of the angles in the interior. The magazines are of brickwork, and 50 feet square. Each front of the batteries will mount three guns of heavy calibre on swivels. At Littlehampton new fortifications have been just completed and armed.

CHIEF PRIZE, ART-UNION OF LONDON.—For the principal prizeholder in the last distribution, Mr. Sant's picture, "The Fortune Teller," No. 378, Royal Academy, has been purchased, and will be sent to the United States.

CONSUMPTION OF SMOKE.—A digest of the information obtained, with regard to the operation of the inventions for the consumption of smoke, by the General Board of Health, has been laid before Parliament, by command of her Majesty. The following are submitted as conclusions deduced from the evidence obtained:—That the chief impediment to the prevention of smoke in factories is the insufficient boiler surface in proportion to the steam required, a deficiency which occasions waste in two ways—by the escape of heat up the chimney, and by the necessity of over-firing. That many persons have, in spite of all difficulties, succeeded in entirely preventing the escape of visible smoke, and many others reduced the time of its emission. That successful modes of preventing smoke, if there be proper boiler surface, may be adopted without infringing any patent rights, the method in question not having been patented, or the patents having expired. That the reduction of smoke to a minimum amount may be effected with comparative ease, and without the heavy expenses that would be entailed on factory owners by the absolute prohibition of smoke. That the enforcement of anti-smoke regulations would be best effected by the appointment of watch constables. That great facilities would also be afforded by the appointment of qualified officers, not connected with any patentee or boiler manufacturer, to superintend the police employed to suppress the nuisance in smoke, and to advise owners of furnaces how best to observe the law, and to report upon its infringement.

MEMORIAL WINDOW IN ST. PAUL'S EPISCOPAL CHURCH, DUNDEE.—A large stained glass window has been put up in the north aisle of St. Paul's Episcopal Church, Dundee, in memory of Charles Guthrie, esq. of Taybank. The window contains three large subjects from the Life of Christ, representing the Raising of Lazarus, Christ blessing the little Children, and Christ entering into Jerusalem. The whole are enclosed with diapered work on a pearly white ground, with borders. The style of the window is the Decorated. The tracery of the window contains figures of angels, and other ornamental work. The window is the work of Messrs. C. and A. Gibbs, London.

COPPER AND ZINC.—A return obtained by Mr. M. Williams, M.P. shows that the total quantity of copper imported into the United Kingdom in 1854 amounted to 50,940 tons of ore, 6,351 tons of regulus, 1,597 tons of unwrought copper, 1,621 tons of partly-wrought copper, 710 tons of plates and coin, and 638 tons of manufactures. The total quantity of British copper exported in 1854 amounted to 13,678 tons (exclusive of ore). The total quantity of British copper exported from the port of London in 1854 amounted to 5,434 tons, and from Liverpool, 5,920 tons. The quantity of zinc or spelter imported into the kingdom in 1854 was 19,588 tons, and 336 tons of oxide of zinc, while the quantity of British and foreign zinc or spelter exported was respectively 3,030 and 5,322 tons.

SMITHFIELD.—SIR: What is to be done with Smithfield? How many a change of sight and sound has passed upon that ground since the slow retiring wave left it the reedy wildfowl's home; and the ancient Celt viewed its neighbourhood as the natural bulwark of his infant London, or the good Prior Rahere gathered the pious and the poor beneath his hospitable roof. And then how changed when darkness closed upon the last smouldering ember of the holy martyr's fire—when the jeer of the tormentor and the low sob of the bereaved, all were hushed—and the resigned sigh of the dying saint was registered in heaven. A lingering relic of old London times has passed away with St. Bartholomew's fair, and now the heaving, bellowing mass of goaded life has uttered its last groan. What is to be done with Smithfield? A martyrs' memorial is called for, to mark the spot where dying holy men sowed the gospel seed, and watered it with their blood. Let then the glorious spot be marked with a "martyr's cross," and let it be a preaching place as Paul's Cross was of old, where, unrestrained by walls or pews, the Word of Life may be given forth to many a passer by, who only in this way can be reached. All denominations acknowledge the necessity of open air preaching. Forthwith, then, let us have a martyrs' cross and pulpit in Smithfield, from which regularly ordered preaching may proclaim the truths for which our fathers so nobly gave their lives. In our uncertain climate, a partially covered space, like some of our old market crosses, Malmsbury, to wit, might be very appropriate, or a vaulted building carried upon polished shafts of marble or serpentine: a chamber over for vestry, or for a block, might be included.—"NON NOBIS."

ARBOREAL RECORDS OF BUILDINGS.—May I be allowed to offer a few remarks upon some suggestions that have appeared in the *Builder* on this subject. Without wishing to cast a shadow of ridicule on these suggestions, but fully appreciating the motive as to forming, by means of trees, lasting (?) records, or representations, of some of our greatest works, I cannot but feel that we should be deviating from the path of taste were the principles enunciated in those suggestions referred to as to planting) attempted to be carried out. It is highly desirable that all embellishments in the way of plantations, or planting of any kind, should be founded on the principles of *true taste*, and should be under *no law* but that of nature. I do not see how it is possible to adhere to this principle, in the fashioning out with a mass of trees a model of an architectural structure, so as to afford an approximate outline, or give to the eye the semblance of the object intended. I feel sure that your correspondents cannot desire to see such effects as were produced in the days of "Capability Brown"—the days of straight lines and angles, of plants clipped into such formal and preposterous shapes, or as given in Petruchio's language:—

> "What! up and down carved like an apple-tart;
> Here's snip, and nip, and cut, and slish, and slash,
> Like to a censer in a barber's shop."

So that the beauteous forms of nature were in many gardens almost unknown. One of your correspondents, in speaking of representing a church, proposes to plant oaks for buttresses, elms for pillars, and soon, evidently thinking that trees will grow equally and with as much uniformity as the walls of a building would rise under the hands of the workman,—"Oak has always answered well, as a buttress in the wooden walls of Old England." I do not anticipate it would be so successful as an arboral buttress.—H. M. R.

ART AND THE LORD MAYOR.—Sir Francis Graham Moon and the Lady Mayoress, gave a dinner to the Royal Academy, at the Mansion-house, on Saturday, the 7th instant, and invited the presidents of other bodies of artists and cognate societies, to meet them, together with several known collectors and friends of art. One hundred persons sat down to dinner, including several ladies. The idea was good: it was a very interesting meeting, and a little more cleverness in the selection of toasts would have made it a great success. Sir Charles Eastlake (who spoke very well), Earl Stanhope, the Earl of Perth, Lord Harrowby, Mr. H. T. Hope, Sir R. Murchison, and Mr. Beckett, M.P. were the speakers.

NEW RAILWAY.—The Londonderry, Seaham, and Sunderland Railway, a short line of six miles, connecting Sunderland with Seaham Harbour, and also the Hetton, South Hetton, Seaton, and Londonderry collieries, was opened for passenger traffic on Monday week, when upwards of 1,000 persons passed along it free. The line has been executed at a cost of about 20,000*l*.

ON THE PROBABLE ORIGIN OF MALARIA.—The following remarks are quoted from an article "On the probable Origin of Malaria, and the specific action of Coal-tar, Naphtha, and other Hydrocarbons," by Mr. L Thompson, in the *Journal of Gaslighting* for June:—"When a common water-bottle, or *carafe*, is filled with ice and water, and suspended in a warm and damp situation, it immediately becomes coated with dew, which collects in it till drops of water fall from the bottle; and if these are allowed to accumulate in a little phial placed to receive them, we have at once a solution of the organic impurities existing in the air of the surrounding locality. Thus, if this had been an inhabited room, a sewer, the ward of an hospital, or the open air, we may expect to learn something by examining this water. Chemically, however, there is nothing to be learnt, at least by any test which I know how to apply; but with the microscope it is very different. . . . The microscopic observer will sometimes notice the formation of a class of confervous plants and infusorial insects in the condensed water, although when first collected nothing can be seen. This result, far from being uniform, is, however, quite exceptional, and will not be found to have any connection with the seeming putrescence of the locality where the water has been collected: the foulest sewer may give no trace of animal or vegetable life, whilst a mass of inodorous mud may give a fluid absolutely alive, as it were, after being kept for only a few hours. It has long been known that the ova of infusorial insects exist in most solid and fluid bodies, but I am not aware that these substances have been detected in the atmosphere, and as, according to my experiments, they prevail only in particular spots of a moist nature, I have suspected that to these animals are due the origin of what has been called malaria, or the presumed generation of certain contagious or epidemic diseases. The object, therefore, will be to examine carefully the water collected in such diseased districts, in hospitals, and from the breath of patients suffering under particular affections; to determine whether the appearances thence obtained indicate varieties of *infusoriæ* and *confervæ*; and, generally speaking, to test the effect produced by mixing small quantities of different re-agents with portions of the water about to be set aside for experiment. I have found that when water of this kind, which alone generated an abundance of vitalised structures, has been mixed with a single drop of creosote water, coal-tar water, camphor water, or water which had been in contact with oil of cloves, no change whatever has occurred in it after many days' exposure to warmth; whereas a small quantity of fluid albumen has rather hastened than retarded the growth of infusorial and confervous products; thus seeming to show that the various forms of volatile hydrocarbons exercise a beneficial action in this respect which does not belong to albumen; and hence it is probable that the large amount of volatile oil continually dissipated during the warmer months of the year from flowers and plants, is a provisional arrangement of the Creator for arresting what may after all prove to be the origin of pestilence. That these oils are not produced merely for human enjoyment is clear from this, that many of them have a disagreeable odour; and the late popular prejudice which attributes to the air of gas-works a specific protective power against cholera, may, perhaps, possess more foundation in reason than is at present supposed."

A NEW SLIDING-RULE has been devised by Mr. Charles Hoare. Its chief advantages are a series of new gauge points, by which brickwork of any thickness can be converted to standard or cubic measure;—a table of constants, to facilitate the forming of estimates, and the gauge-points for polygons and circles, very clearly tabulated; with concise formulæ for the various operations, which, with the necessary gauge-points, are engraved on the face of the instrument.

LANDLORD AND TENANT.—As it does not appear to be known, that whatever a tenant plants in a garden becomes the property of the landlord, and not even a perennial flower-root can be removed by law, it may be well to mention that a case tried a few days ago in the Clerkenwell County Court has further confirmed this, the tenant having to pay for his own plants: thus a tenant is debarred from cultivating plants, for amusement and instruction, if he is under the necessity of changing his residence, unless he leaves the garden soil unbroken. None but an owner can therefore be expected to expend money on a garden as the law is imperative, and gives all to a rapacious landlord, in spite of custom and usage from time immemorial; and any improvement in form, though evident, is considered as waste.—R. D. C.

BELLS.—The new church of St. Luke's, Marylebone, Mr. Ewan Christian, architect, contains the only peal of bells in the parish. The tenor weighs 8½ cwt. The bells were cast by the Messrs. Warner, of London, under a new patent process.

ARCHÆOLOGICAL.—The British Archæological Association will hold their congress in the Isle of Wight, from August 20th to 25th inclusive. The Archæological Institute will meet in Shrewsbury during the week commencing August 6th.

LENDING-LIBRARIES IN PUBLIC PARKS.—There can be no harm in any man as often as he takes a stroll to unbend his mind after business, furnishing himself with a book for a companion. There are many moments which individuals give up to such purpose that might be thereby most usefully, and almost profitably employed. The activity of educated minds is wonderful, even in the midst of pleasure. Now there are thousands of persons not insensible to the beauties of our parks and pleasure-grounds, who yet often walk about listlessly and mopingly for want of an intellectual stimulus. I therefore think that our parks might supply a means of agreeable instruction to their frequenters,—a resource to them of reading the newspapers, periodicals, and light literature; and that if the "Woods and Forests" permitted, in one or two spots in the parks, or in one central spot, shops for lending out, at a halfpenny per head for a stated time, the publications of the day, a great benefit would be conferred on the London population. In the hot summer months it is a great pleasure to con over the news in the open air, and places which afford amusement and the cheap luxury of literature at the same time will be doubly appreciated. No one who has visited Paris, and who has often owed a pleasant half-hour to the book-stalls in the Palais Nationale, the garden of the Tuileries, &c. but would give his vote in favour of such circulating libraries in all our English parks.—F. L.

TENDERS

For the covered markets at Leeds. The estimates were for the whole of the works, including brickwork, mason's, and the ironwork:—

Bingley and Co. Leeds	£14,797	0	0
T. Walker, London	14,319	0	0
Bray and Co.	14,200	0	0
Buxton	13,068	0	0
Mahon, Manchester	12,549	5	0
Butler and Co.	12,252	19	0
Cliff	11,081	0	0
Nelson and Sons, Leeds (accepted)	10,854	0	0

For additions and alterations to Hampstead Union. Messrs. W. G. and E Habershon, architects:—

Cooper	£5,233	0	0
Tolley	4,953	0	0
B. and C. Haynes	4,930	0	0
Rowland and Evans	4,829	0	0
Piper	4,795	0	0
Locke and Nesbam	4,795	0	0
Batterbury	4,463	0	0

For the erection of a Sailors' Institute, Mercer's-street, Shadwell. Mr. G. C. Searle, architect:—

Haynes and Eyre	£4,124	0	0
Brown and Co.	4,092	0	0
Hack and Co.	4,044	0	0
Rowland	3,998	0	0
Piper and Son	3,985	0	0
Ashby and Sons	3,868	0	0
Hill	3,802	0	0
Ennor	3,638	0	0
Cooper	3,550	0	0

For new model lodging-houses, Lisson-row. Messrs. W. G. and E. Habershon, architects:—

Hayne	£1,800	0	0
Hopkins and Roberts	1,720	0	0
H. W. Cooper	1,589	0	0
Batterbury	1,549	0	0
Rowland and Evans	1,501	0	0
Tolley	1,497	0	0
J. B Cooper	1,495	0	0
W. Higgs	1,475	0	0
Reade	1,400	0	0
Wilson	1,250	0	0
Bottomby	1,228	0	0

For building six houses at Bromley, Middlesex, for Mr. Pritchard. Mr. W. Ellison, architect:—

Rivett	£1,795	0	0
Salt	1,750	0	0
Blackburn	1,710	0	0
Hack and Son	1,700	0	0
Jeffrey	1,648	0	0
Watts (accepted)	1,625	0	0

For retort-house and stores, with chimney-shaft, at the Equitable Gas Light and Coke Company's station, at Thames-bank, delivered on the 5th inst. :—

	Retort-house and stores.	Chimney-shaft.
Rigby ...	£3,785 0 0	£60 0 0
Lucas	3,773 0 0	50 0 0
Jay	3,592 0 0	48 0 0
Smith and Co.	3,474 0 0	48 0 0
Piper	3,462 0 0	40 0 0
Mackenzie (accepted)...	3,260 0 0	48 10 0
Baker and Wardell	3,092 0 0	36 0 0

TO CORRESPONDENTS.

NOTE.—The paper "On Italian Architecture," by the Rev. J. L. Petit, in our last, was read at the Institute of Architects.

"C. C. N."—"J. W."—"H. B. M." (such an arrangement of flashes has been proposed, but we do not remember the particulars)—"Mr. F."—"H. A."—"J. G."—"Verax."—"C. G. S."—"H. C."—"Quondam."—"G. M. B." (address, at Society of Arts, London).—"C. M."—"R. R. R."—"E. M. B."—"E. W. G."—"N. G. P." (apply to honorary secretary, 16, Grosvenor-street, London)—"G. H."—"M. J. L."—"J. C. N."—"Dr. H."—"C. F. H."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

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WANTED, in a Surveyor's Office in the City, a CLERK, not less than 25 years of age, a tolerable draughtsman, and fully competent to take out quantities. As the Principal is much from home, a gentleman of industrious habits, and possessing these qualifications, is indispensable. Address, P. W., stating real name, age, where last engaged and salary required, care of Messrs. Cockshaw and Co. Horse-shoe court, Ludgate-hill.

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Boston, July 10, 1855.

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CHARLES LEWIS GRUNEISEN, Secretary.
33, Norfolk-street, Strand, London, July 4th, 1855.

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33, Norfolk street, Strand, London, July 4th, 1855.

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NEWBURY, BERKS.—TO PLUMBERS, GLAZIERS, PAINTERS, &c.—TO BE LET, all those capital BUSINESS PREMISES, for many years in the occupation of Mr W BOWYER, deceased, whose lease has expired. The premises are well adapted for the business, and will be let at a moderate rent.—Apply to Mr. KING, Globe Inn, Newbury.

HOUSE PROPERTY.—Wanted to invest several thousands of pounds in the PURCHASE of FREEHOLD or LEASEHOLD HOUSES. Builders having eligible properties for sale are invite to send full particulars to Mr. JOHN TOZER, No. 16, Walbrook, City.

NORWOOD, near the Crystal Palace and West-end Railway. TO BE LET or SOLD, with immediate possession, about EIGHT ACRES of most valuable FREEHOLD BUILDING GROUND, with a large family residence, situate near an intended station on the above line, and affording unparalleled advantages to capitalists and builders desirous of erecting a workingman's suburban village. The land abounds with brick earth, capable of yielding a supply of bricks more than adequate to the requirements of the estate, and which surplus to a large extent might be required by the railway company.—Apply to Mr. J. WOODCOCK, Architect and Surveyor, Adelaide-chambers, Gracechurch street.

FREEHOLD LAND for SALE.—For SALE, a most eligible ESTATE, of about 28 acres, in one of the most central and flourishing towns near London. The soil is dry and excellent, the situation proverbially salubrious, and close to a railway station, and the ground is studded with fine and small, extremely great. The houses are taken before they are finished, and it is well known that builders have only to build good houses to insure their being let directly. It is a situation in which the cream of a building or land speculation would be secured. Shares would be freely taken. The country is well wooded, and the views from the estate beautiful, and the transit to London only forty minutes. The estate will only be sold in one lot, but several parties are ready to join in taking portions. An enterprising builder or two is a man to find the best encouragement.—Apply by letter only, to B. C. Messrs. Davy's, 137, Long-acre

BUILDING LAND TO BE LET, at
HALLSVILLE....Term 1,000 years, for small cottages.
CANNING TOWN " 1,000 " for small cottages.
NORWOOD..... " 1,000 " for villa residences.
STRATFORD ..... " 100 " for small cottages.
POPLAR..... " 98 " for forth-rate houses.
Advances 70*l.* to 100*l.* at 5 per cent. on each cottage.
Apply to Mr Wm. ELLISON, Architect, Stamford road, Lumehouse

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The head of every house built upon the Waddington Estate, of the value of 50*l.* per annum, will be entitled to a Free First-class Railway Ticket; and every house of the value of 40*l.* per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years.

AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 255, Blackfriars-road, near the bridge, respectfully invites all persons having Engines, Machinery, Foundries, Plant, or Ironmongery business disposed of, to favour him with the particulars for registration in his REGISTRY-BOOK, for which NO CHARGE will be made unless sales be effected.

TO ENGINEERS, MILLWRIGHTS, AND OTHERS.
PARTNER WANTED.—A Young Man, having a business in the above branch, established for some years, would be glad to JOIN an INDUSPRIOUS MAN, who can command from 400*l.* to 500*l.* to meet the requirements of an already increasing business, and which, from position and circumstances, can scarcely be put to any extent. References exchanged.—Apply to AUGUSTUS SMITH, Auctioneer to Engineers and the Metal Trades, 255, Blackfriars-road, two doors from Holland-street

SERPENTINE. — The Lizard Serpentine Company manufacture and also sell stone in block or slab. The stone now raised is from the lower beds, and as sound as the coloured marbles with which it competes in price.—Chimney-pieces, columns, fonts, &c. &c. on view at the Show-rooms, 29, Surrey-street, Strand.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.
THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIALS.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

By Her Majesty's — Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter.—London Agent, C. HOAR, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar-square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS J TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.
CAEN STONE.—About Twenty Tons of Small Blocks and Pieces, now lying at Lett's Wharf, to be sold at a moderate price. Terms, cash.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

MARKET-WHARF, REGENT'S-PARK-BASIN -WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Baths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Lantings, &c. cut on the shortest notice. Country orders promptly attended to.

FREESTONE.—Architects and Others are reminded that they can obtain the CASTERTON FREESTONE, in Blocks of any portable size, at the Quarries, or at the Railway Stations of Stamford, Essendine, or Tallington, and which, from its price, and the facility with which it is wrought, offers immense advantage to the purchasers.—Apply to FRAS. and OTTS. N. SIMPSON, Stamford.
N.B. Specimens in plain blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the Offices of Messrs. PINDER, SIMPSON, and SONS, 29, Sarrile-row, Burlington-gardens, London.—May, 1855.

YORKSHIRE STONE.
GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORK STONE of the very best quality direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.—GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

IMPERISHABLE STONE.—TRICKETT and PERKINS having erected new and powerful machinery, at their extensive quarries, are now able to execute orders to any extent with their celebrated HAWDON-HILL STONE, which, from its strength and durability, together with its beautiful colour and readiness of conversion, renders it one of the most desirable stones out, being at once useful and ornamental. Architects and others are requested to test its qualities for strength and durability, either for external, internal, or ornamental purposes. Samples and prices furnished by SAMUEL TRICKETT, Stone Wharf, Isle of Dogs.
NOTE. Can be got any size, or delivered to any part by rail or water carriage.

TREVALGA SLATE.—T. B. HANNAFORD, Sole Consignee of the above beautiful material, begs to inform builders and the trade generally, that being part owner of the quarries from which he receives his ROOFING SLATES, he is enabled to offer them at exceedingly low prices. Samples can be seen on Camberwell Church, St. Matthew's Church, City-road, Royal Artillery's Rifle Gallery, Finsbury, &c. Slate Paving, in runs, 4½d. per foot superficial, Trevalga Wharf, Ratcliff-cross.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Builders, Contractors, and Others, that his Price Lists for Slates and Slab Work, can be had on application, enclosing a postage-stamp. Country and Export orders promptly attended to. N.B. A liberal discount to the trade.

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VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. REEN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.
ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 25s. to 10 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

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TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noblest buildings. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition, and will be found to be a different material to that now being imitated by puffers and manœuvrers, with only three or four years' experience, and without practical knowledge. Some of the works recently completed by M. H. B. are—the Chapel, containing from 3,000 to 4,000 feet cube; the colossal Britannias, 13 feet high, at the County Fire Offices, Cornhill and Lombard-street; the Arms, with the allegorical group, at the Kent Mutual Insurance Queen street; and other works elsewhere, too numerous to mention. A large Stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazze, Busts, Consoles, Bas-relievi, &c. by J. M. BLASHFIELD, of Millwall, near the West-India Docks Station, and sold at No. 1, Pmed-street, Paddington-basin, where prices and designs can be obtained. Examples of Terra-cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Mineral Court. The statues of Australia, Venus di Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra-cotta, so are the fountains at the Renaissance Court, and the roof of the Alhambra Court. The Pompeian roof is of Terra-cotta and red cement combined. Since the execution of these works, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

MONEY on LOAN, at 3½ per Cent. per Annum.—ARNEWAY'S CHARITY.—NOTICE IS HEREBY GIVEN, that the Trustees of this Charity are enabled to lend out the Trust Moneys to poor occupiers or traders resident within the City and Liberty of Westminster, that is to say, within the parishes of St. Margaret and St. John the Evangelist, St. Anne, Soho, St. Clement Danes, St. George, Hanover-square, St. James, St. Martin-in-the-Fields, St. Mary-le-Strand, and St. Paul, Covent-garden. The amount of each loan is not to exceed 100l. is to clear interest after the rate of 3l. per cent. per annum, and is to be secured by the bond of the borrower, with two sureties. Printed Forms of Application, and all necessary information, may be obtained by applying personally, between the hours of Ten and Three o'clock in the day, at the office of the Clerk and Solicitor to the Trustees, No. 14, Great Queen-street, St. James's Park.
By order, EDWARD S. STEPHENSON,
Clerk and Solicitor to the Trustees.
NOTE.—The Trustees meet on the second Wednesday in every month, to consider such applications for loans as have been sent in one clear week at the least before the first day of the month.—The sureties must be unexceptionable.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding fifty months, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 1s. per post.
CHARLES JAMES THICKE, Resident Secretary.

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MORTGAGES and LOANS ready to be ADVANCED upon Freehold and good Leasehold Property, in sums of 200l. and upwards; also upon Tithe Rent Charges, Absolute Reversions, Annuities, Life Interests, Government and Railway Stock, Debentures, Bank and other Public Securities, &c. for long or short periods.—Apply to Messrs. TRIPP and CO. 17, Parliament-street, London.

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TO ARCHITECTS.
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ARTESIAN WELLS, Boring for Water, Sinking Shafts, &c.—The nobility, gentry, water-companies, towns, baths, brewers, and manufacturers of every description, may be supplied with any quantity, by DAVID GREENLEY, Civil Engineer and Patentee of Boring Tools, 10, Cumming-street, Pentonville. Pumps and machinery for raising water from deep wells, boring-tools, and well-pipes for exportation. Men and tools supplied to bore for railroads, minerals, &c.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 4s. per foot super. Together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

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WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner: Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

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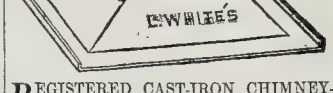

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IRON GIRDERS and COLUMNS to MODEL or DRAWING.
IRON PIPES and connections for gas, water, and liquid manure.
RAIN-WATER PIPE and EAVE GUTTERS, at wholesale prices. Also, O-G Gutters, Sash-weights, STABLE FITTINGS, pumps, tomb railing, cattle and pig troughs, and COLUMNS with caps and bases, and every kind of builders' castings, in stock, at LYNCH WHITE'S Iron Wharf, Upper Ground-street, London, near Blackfriars-bridge.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for admission of pure air through an EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 6s. 6d.
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, a which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 198, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

LEATHER BANDS for DRIVING MACHINERY (EDWARDS' PATENT).—Engineers, Mill-owners, Printers, and others using bands for driving machinery, are respectfully invited to inspect
EDWARDS'
IMPROVED FOLDED BANDS,
Which for strength, durability, and straightness in working, surpass any Bands at present in use.
Best STRETCHED SINGLE BANDS, with Cemented Joints.
Improved LEATHER HOSE, SUCTIONS, FIRE BUCKETS, &c.
MANUFACTORY,
32, Great Sutton-street, Clerkenwell.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

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ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his WORKS, 3, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone. CHARLES RICHARDSON, 6, South Wharf, Paddington.

SOUTHAM. — BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

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ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the best quality manufactured on the above WORKS. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

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WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 29, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf and ground, purposely to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or along-side rivers, canals, or railway stations, should be given a few days before required.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON ABSORBENT (no quantity of rain having any effect upon it), and will wash. VEGETABLE or RUBBLE Stucco Cement and Stucco Paint. CLARK and BENSOUGH, Manufacturers. Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC" is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 50s. per 1,000; floor bricks and 9-inch paving, at 40s. per 1,000; 8-inch pavings, at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Coznas for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark in Hull by Messrs. BLUNDELL, SPENCE, and Co.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 82, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. in Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 28s. per thousand; Grizzles, 24s. per thousand; Rough Stocks, 24s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SNEED, Sittingbourne, Kent.

DAVISON'S IMPROVED PAVING BRICKS.—These Bricks, the cheapest and most durable pavement for stables, cattle or carriage sheds, courtyards, &c., may now be obtained at the depôt, from Mr. ROBERT DAVIES REA, Great Central Horse and Carriage Repository, St. George's-road, Southwark. CHARLES DAVISON and CO. Manufacturers, Queen's Ferry, North Wales.

WANTED, a large quantity of 2½-inch ELM PLANK, 16 feet 1 inch long by 1 foot 7 inches wide, of fair quality, and the edges sawn square. Parties Tendering for the above will please state at what per plank they will deliver them free at one of the London railway stations, the number they can supply, and how soon from the date of the order, and also if seasoned or green. Tenders to be sent by post, prepaid, to JAS. S. S. Grafton-place, Euston-square, London, on or before the 30th instant.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Peckings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS,

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

Depôt, Acar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all description, and the best quality WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 39, Nelson-square, Blackfriars-road.

O. MCCARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand from above or below bridge, delivered in the rail or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, on any quantity, alongside the Thames.

GUNPOWDER MAGAZINE.—Gunpowder Manufacturers, Quarrymen, &c. requiring Powder to be stored for the supply of Rock Excavations, Brist, Gloucester, Worcester, Stour, ort, &c. may have accommodation Cradwich, on the Bridgewater river, by applying to Mr. FREAN, Plymouth, Devon.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, slating battens, laths, English oak plank, and sash sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the still further reduction, owing to the recent fluctuations.

Pine Planks, 12 ft. 3 in. by 11 in.	.....	from 3s. 6d. each.
Spruce Deals 3 in. by 9 in.	.....	" 2s. 8d. "
Yellow ditto	.....	" 4s. 0d. "
Honduras Mahogany, in logs	.....	" 6s. 4½d. per foot.
Ditto ditto, in planks and boards		0s. 6d. "
Spanish ditto	.....	" 0s. 7d. "

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on applications.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, Pink Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MACHINE CARVING, JOINERY, and MOULDED WORKS, Belvidere-road, Lambeth.—The Proprietors of the above works have respectfully to apprise the nobility, clergy, architects, builders, cabinet makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, finished out by the machines for the trade only. Pulpits, Lecterns, Reading Desks, Screens, Altar Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

UNIVERSAL MOULDING-MILLS, 24, Portobello road, Notting-hill.

WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer, with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which a large Stock of material is required to give their patronage and support. Also, that all Goods manufactured by the said W. L. are of the best seasoned timber, and forfeit such a price and quality as not to be surpassed by any other House in the trade. N.B. All customers having orders out at the above establishment can be supplied with mouldings to their own design, at the shortest notice, free of any extra charge.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 23, North Wharf-road, Paddington.

Malm Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

WOOD-CARVING and FRET-CUTTING. T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Ironfounders, Cabinet and Planoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—T. H. particularly solicits the attention of Ironfounders, having had many years' experience in ornamental pattern making.—Estimates furnished.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnish for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, delivered at my own door for cash only.—C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 21, Munster-street, Regent's-park. A large quantity of PAPER-HANGINGS, CHEAP. 19s. per cwt. given for old lead.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross.

GEORGE NOKES and CO. (late Ambidge and Atkinson) beg to acquaint architects, builders, carpenters, and others, that they have opened the above premises with superior machinery for executing at lowest possible charges, every description of sawing, mouldings, scantlings, flooring, &c. and have always on hand a large stock of seasoned flooring at reduced prices; also, timber, deals, scantlings, sash sills, mahogany, &c. Goods sawn at the mills fetched and delivered free of charge.

May 15, 1855.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the above, and all other Filters at trade prices. These filters, at one, two, three and four guineas each, yielding 50, 100, 150, and 200 gallons per item, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per item, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

PURE WATER.—The attention of Boards of Health, Water Companies, Engineers, &c. &c. is particularly requested to a newly-invented PIPE for CONVEYING WATER, which possesses most important advantages. It can be made strong enough to resist any pressure; it is comparatively flexible, easily joined, has great power of resisting the effect of frost, and what is of still higher consideration, is perfectly innocuous. This combination of desirable properties is produced by lining leaden pipes with patta percha. Further information may be obtained by application to the Patentees, Messrs. STOCK and SON, Lead Works, Birmingham; or to the Gutta Percha Company, 18, Wharf-road, City-road, London.

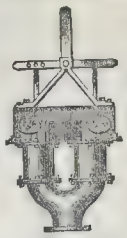
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

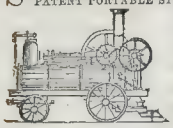
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

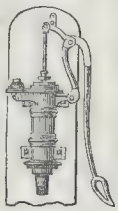
STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.



Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS, Engineers and Contractors, John's-place, Holland-street, Southwark, London.

TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP,



which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London, Manufacturers and Patentees.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells. PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 32s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

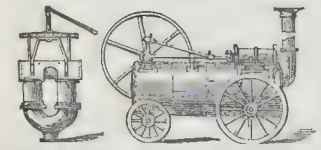
Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 70, Strand.

The LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES are FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.



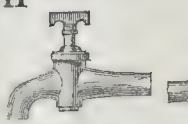
PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16 horse, 20 horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and Co. Engineers, 99, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES Established by Messrs. HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. Pupils Prepared Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering Drawing, and Colouring. Making Finished and Working Drawings Preparing Specifications, Taking out Quantities, Estimating, &c. &c. Terms: Pupils Three Guineas per Quarter; Evening Pupils Two Guineas per Quarter, which includes Drawing Boards, T squares, Plans, Drawings, Models, &c. For Prospectuses apply at the Offices, 24, Guilford-street, Russell-square.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE, used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 315, Fore-street City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, School, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, FOLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. County Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licenses for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents. Applications may be made to CHARLES MAY, F.R.S. the Manager; or to WILLIAM HOWDEN, Secretary.

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES, consisting of Matting, Mats, Mattresses, Brushes, Netting, &c. are distinguished for superiority and excellency of workmanship, combined with moderate prices. Prize medals in England and America, at the Exhibition of all Nations. T. TRELOAR, Cocoa nut Fibre Manufacturer, 42, Ludgate-hill, London.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor. 2nd. It is portable, being packed in rolls, and not liable to damage in carriage. 3rd. It effects a saving of half the timber usually required. 4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 10 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor.

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c. and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Marr-street, Dublin.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, painters and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Patent Agents in original Packages, each cask stamped HUBBUCK—LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

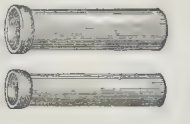
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Docklike-st. Bermondsey; Dauver's Wharf, foot of Battersea-bridge, Chelsea; Frost Wharf, Kingsland, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryd-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-st. cet. Drawings and list of Prices will be forwarded free on application.

NOTICE TO POTTERS.

HENRY DOULTON AND CO.

ARE PREPARED TO GRANT LICENSES ON MODERATE TERMS, FOR THE MANUFACTURE OF THEIR

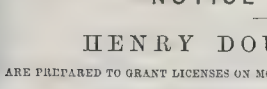
PATENT JUNCTION BLOCKS.

Particulars will be forwarded on application.

Lambeth, July 2, 1855.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

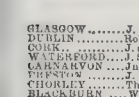
May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD....J. Sparrow and Co
CARNARVON....Jno. Jackson.
PRESTON.....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.
CARLISLE.....C Armstrong, Lowther-street
WHITEHAVEN...Hugh Podhunter.
COCKERMOUTH John Laird
GUERNSEY.....Guerin, Brothers.
LONDONDERRY...W and A M'Elwee.
LIMERICK.....W. Barrett and Sons.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

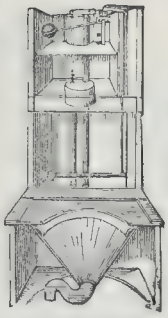


Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN, Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

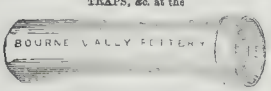
Royal Arsenal, Woolwich, June 24, 1850.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connection. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the best quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

CHRIMES' PATENT.

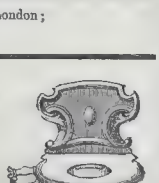
GUEST and CHRIMES, ROTHERHAM, and 37, SOUTHAMPTON-STREET, STRAND, London,

Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS.

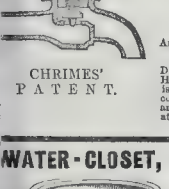
Bateman and Moore's, and Chrimes' Patent Hydrants, or Fire Cocks Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.
Siemens' Patent Balance Water Meter.
Philbrow's Patent Water-Waste Preventer.
Morris's Patent Water Supply Regulator.
Rawlinson's Patent Self-acting Drainage Valves.
Hipgrab thans Patent Side-stop Cocks.
Lowe's Patent Stench Trap, Beggs's Improved.
And all other Articles required for Water-Works Purposes, &c.

LONDON HOUSE,

Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.
Plumbers' Brass Work of every description.



WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.



DOULTON & WATTS,

LAMBETH POTTERY, LONDON.

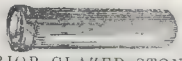
DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.



SUPERIOR GLAZED STONEWARE

DRAIN PIPES, invented and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed Spencer's new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipe and sockets, the sizes being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and renders leakage or stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilson's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kennington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britton-street, Clerkenwell.—And at the Pottery.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slabs of the best quality, wholesale and retail. Country builders and others supplied with all information on application to E. and W. STURGE, Bridge-wharf, City-road

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.
January, 1855.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—The ware followed by all to be of the best manufacture, to be superintended quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co., Great Northern-wharf, York-road, King's-cross.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 300 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Finishers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, discharging with extra cranks, wire, lead trap &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Extended payments to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish-street, near St. Paul's, London.

Crown Glass, 18 tables, 9½. per Crate.

ISAAC PARRY'S

GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 3½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 3s. per square yard. Railway Arches made with Roofing, 2s. per square yard. Every description of pavement laid down in the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1838. Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 3s. per ton. Importer of Trinidad Asphalte.
Shipping Depôt, Devon Maytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

SALES BY AUCTION.

LETT'S WHARF, COMMERCIAL-ROAD, LAMBETH.

MESSRS. FULLER and HORSEY will SELL by AUCTION, as above, on TUESDAY, JULY 31, 1855, at ELEVEN o'clock, in lots, without reserve, by direction of the assignees of Messrs. Routledge, new SAWING MACHINERY, by Horn, of Whitechapel, and Car, of Belper, including one double and four single deal frames, one timber frame to cut 27 inches in depth, one planing, tonguing, and adzing machine, the whole quite new (not having yet been fixed), and made on the most approved construction.—To be viewed on Monday previous to the Sale, when catalogues may be had on the Premises; of Messrs. Hodgson, Solicitors, King William-street, Strand; and of Messrs. FULLER and HORSEY, Billiter-street, City.

HASTINGS, SUSSEX.—Freehold Property (land-tax redeemed).

MR. WOMERSLEY will SELL by AUCTION, in one lot, at the SWAN HOTEL, HASTINGS, on WEDNESDAY, the 18th of JULY, 1855, at THREE o'clock, FOUR adjoining PLOTS of GROUND, contiguous to the Old London-road, leading out of the town of Hastings, and one mile from the sea. Three of the plots are suitable for building or garden ground. The fourth plot is covered by a detached dwelling, called Orient Cottage, and its stabling, with a flower garden in front, and a yard behind. The premises are in substantial repair, and just vacated. The view from the front of the house is down the valley, looking southward on the sea. Excellent water, good dry soil, and well drained. The dwelling house consists of a large cottage and a smaller one, communicating by an enclosed passage. The larger one contains a porch and passage entrance, two sitting rooms, store-room, kitchen, scullery, and larder. The floor above has four bedrooms, water-closet, and bath-room, containing a bath, &c. There is convenience on the premises for washing, brewing, and baking; also a large coal cellar, and servants' water-closet. The smaller cottage has four rooms, adjoining which is a building 80 feet long by 40 feet broad, having the stabling, &c. in the centre, and a ride around of about 12 feet wide, all under one roof.—May be viewed till the day of sale by cards only, which, with particulars and conditions of sale, may be obtained of the Auctioneer, Mr. WOMERSLEY, 1, Harold-place, Hastings.

CLAPTON, MIDDLESEX.—The valuable Freehold Residence of the late Samuel Berger, esq. with nearly Ten Acres of Land attached, delightfully situate within Three Miles of the City, and adapted for the abode of a Banker or Merchant. The Estate also presents great capability for conversion into a Public Institution, or for a Building operation on a large scale, its proximity to the Metropolis, and the dry and salubrious nature of the Soil offering rare advantages for either purpose.

MR. V. J. COLLIER has received directions from the Executors to SELL by AUCTION, at the MART, on TUESDAY, JULY 31, at TWELVE o'clock, a noble FAMILY RESIDENCE, eligibly situate at Clapton, within two minutes' walk of the church and railway station at Hackney. It contains a spacious entrance-hall and staircase, handsome dining and drawing rooms of large proportions, breakfast room, morning room, three principal bed chambers, with dressing rooms attached; five secondary bed rooms, servants' hall, man's room and pantry, kitchen, scullery, extensive cellarage, and other domestic offices, the whole in a perfect state of substantial and ornamental repair, double coach-house, harness-room and four stalled stable, with loft over the whole, and coachman's dwelling adjoining. The residence has a portico entrance, with carriage sweep, lawn, and shrubbery in front, enclosed by a dwarf wall and iron pallisades, and two pairs of folding gates. On the opposite side of the road is a meadow of above an acre, and in the rear is an extensive lawn and undulated pleasure-grounds, interspersed with gravelled walks and flower borders, and planted with fine American and other shrubs, of luxuriant growth, and ornamental trees of great beauty and variety. Also a highly productive kitchen garden, enclosed by lofty brick walls, clothed with choice fruit-trees, and abundantly cropped; a thriving young orchard, and a close of meadow land of park-like character, ornamented with fine old timber. In the grounds is a double grapery, containing choice vines in full bearing, and several ornamental summer houses; also a noble stone building of elegant architectural design, intended for a music hall or temple, but now appropriated as a gardener's dwelling, with large dairy in the basement. There is also a complete farm-yard and buildings at the extremity of the estate, which comprises altogether upwards of 10 acres, the whole freehold and exonerated from land-tax.—Particulars and plans may be obtained of GEORGE TAMPLIN, Esq. Solicitor, 159, Fenchurch-street; at the Mart; and of Mr. V. J. COLLIER, 3, Moorgate-street, of whom cards to view the property may be obtained fourteen days prior to the sale.

MILE-END-ROAD.—Three acres of valuable Building Ground and a commodious Residence, eligibly situate, within a very short distance of the City.

MR. V. J. COLLIER has received instructions to SELL by AUCTION, at the MART, on FRIDAY, JULY 20, at TWELVE, in one lot (unless previously disposed of by private contract), a large and valuable SURFACE of BUILDING GROUND, containing about three acres, desirably situate, in the rear of York place, Mile-end road, together with the excellent Dwelling-house adjoining, No. 6, York place, at the side of which is a good roadway, affording a communication with the above land from the high road, in addition to which there is a frontage in the rear of about 40 feet. The ground affords space for the erection of nearly 100 houses of the fourth rate class of building, which are in great demand in the neighbourhood, and presents to the speculator a fine opportunity for a successful building operation. The tenure is copyhold of the manor of Stepney, but, inasmuch as the fine is certain and of trifling amount, the cost of enfranchisement would be inconsiderable.—For particulars apply to Messrs. SEWELL, FOX, and SEWELL, Gresham house, Old Broad street; and to Mr. V. J. COLLIER, 3, Moorgate-street.

VALUABLE FREEHOLD BUILDING GROUND, exonerated from land-tax, eligibly situate about a mile and a half from Whitechapel Church.

MR. V. J. COLLIER will SELL by AUCTION, at the MART, on FRIDAY, the 20th of JULY, at TWELVE o'clock, in one lot, a large PLOT of BUILDING GROUND, desirably situate in the rear of No. 1, New-grove, Mile end-road (adjoining Union-row), presenting a frontage of nearly fifty feet to a good back road, and extending about 450 feet in depth, thus affording space for the erection of about thirty fourth-rate houses, which let readily in this populous locality, and at very remunerative rents. This ground adjoins the property described in the preceding advertisement, and would form a valuable addition thereto.—Particulars may be obtained of Messrs. DODD, GURNER, and ROWSELL, Solicitors, 5, Billiter-street; at the MART; and of Mr. V. J. COLLIER, 3, Moorgate-street.

The ENMORE PARK ESTATE, comprising about thirty three Acres of Building Land, beautifully situate at Woodside, between Norwood and Addington, in the County of Surrey.

MESSRS. WINSTANLEY are directed to SELL by AUCTION, at the AUCTION MART, on MONDAY, 23rd JULY, a valuable FREEHOLD PROPERTY, land-tax redeemed, and free of great tithe, consisting of about thirty-three acres of most eligible building land, commanding very extensive views of the distant and immediate picturesque scenery, the Crystal Palace, &c. It is approached from the high road from the Norwood Station, from which it is only a short distance. Three principal roads (40 feet wide) have already been formed, extending through the Estate to Woodside green, on which there is a very considerable frontage, but there is full scope for the formation of others to create frontages to a much greater extent. The farm cottage, stabling, &c. fronting the green will be included in the sale. There are two churches in the vicinity. A plentiful supply of spring water is already on the premises, and the pipes of the Thames Ditton Water Company are laid within 300 yards of the estate. In the hands of a building society or capitalist this property offers attractions of no ordinary character. The estate can be viewed upon application to Mr. SKIPMORE, at the cottage. Printed particulars, with plans annexed, may be obtained of Messrs. DRUMMOND'S, ROBINSON, and TILL, Solicitors; Messrs. BLAKE, Auctioneers; of Mr. JOHN BERNEY, Surveyor; and at the Greyhound Inn, in Croydon; at the Windmill Inn, St. James's-road, Croydon; the Jolly Sailor and White Lion Inns, at Norwood; the Crooked Billet, Penge; the Greyhound, Dulwich; and, in London, at the Place of Sale, of Mr. DAVIES, Globe Tavern, Hatton-garden; and of Messrs. WINSTANLEY, Land and Estate Agents, 10, Paternoster row.

SALES BY AUCTION.

TO BUILDERS, MASONS, &c.—NEW BUILDING MATERIALS.

CHINNOCK and GALSWORTHY will SELL by AUCTION, on MONDAY, JULY 16, and following days, upon the PREMISES of the upper terrace of houses, Westbourne-terrace, close to the Bishop's-road, Paddington, capital new BUILDING MATERIALS and STOCK, collected for completing this terrace of first-class mansions, comprising about 100,000 malm and stock bricks, 250 Christiana deals, 400 floor boards, 3,700 half battens, 700 bundles of laths, a quantity of oak timber and slabs, iron rain water pipes, earthen drain, junction, and union pipes, well seasoned and prepared joiners' work, fitted for small as well as large houses, 400 four panelled and double-margined doors of various sizes, shutters, back flaps, window backs and lining, soffits, architraves and mouldings, sash casements and framing, stonemasons' work, comprising stone sinks, tooled landings, slabs, and hearths, York paving, granite kerbs, worked stone staircases, a large block of Portland stone, a general stock of ironmongery, about 8 cwt. of nails, chiefly cut, clasp, and lath nails, and flooring brads, 150 bead and moulding planes, white lead, plaster of Paris and bags of hair, several thousand loads of Thames sand, road grit, and mortar mixings, scaffold boards, poles, putlogs, ties, and numerous effects. Viewed one week previously. Catalogues had on the premises; and of Messrs. CHINNOCK and GALSWORTHY, Auctioneers, 28, Regent-street, Waterloo place.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—

MONDAY, 6th AUG. ,,	MONDAY, 1st OCT. 1855
MONDAY, 3rd SEPT. ,,	MONDAY, 5th NOV. ,,

Catalogues and further particulars to be had on application one week previous to each sale.—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE.

Extensive fall of Capital Oak and Ash Timber. Westley, near Newmarket, Cambridgeshire.

MESSRS. NOCKOLDS and KING have received instructions from the proprietor to offer for SALE by AUCTION, upon the PREMISES, on MONDAY, the 16th day of JULY, 1855, at TEN o'clock for HALF-PAST punctually, on account of the number of lots—

308 fine OAK TIMBER TREES.
16 Ash ditto.
166 Oak Saplings.
123 Ash Seconds.

743

The timber has all been felled this season, and lies contiguous to good roads within two miles of the Dullingham Station, on the Cambridge, Newmarket, and Bury (Eastern Counties) line of railway, affording an easy transit to any part of the kingdom. The Auctioneers beg to call the particular attention of ship-builders, contractors, timber-merchants, and others, to this sale: many of the trees are of good dimensions, long lengths, and excellent quality, and suited for navy purposes. Twenty per cent. deposit to be paid on the day of sale, and six months' credit will be given for the remainder upon approved joint security.—May be viewed upon application to JOHN PEARSON, the keeper, at Westley, of whom catalogues may be had; also at the principal Inns, at Newmarket, Bury, Cambridge, Royston, St. Ives, Huntingdon; and of Messrs. NOCKOLDS and KING, Land Agents, &c. Saffron Walden, Essex.

Note.—About 70 tons of good Oak Bark to be sold by private contract (fall of this year).

Third Portion of the valuable Materials of the Islington Cattle-market, comprising the Boundary Walls, 2,600 feet run; Public-house, Dwelling-house, and extensive range of Stabling, 7,000 feet of Granite Pitching, Lead, and Effects.—By

MR. RICHARDS, on the PREMISES, in lots, to be taken down by the purchasers, on TUESDAY, JULY 17, at TWELVE o'clock; comprising 400,000 excellent stock BRICKS, forty squares of slating, sound timber in roofs, sixty squares of capital flooring battens, joists, and timber; modern fittings, stoves, pumps, stall divisions, racks, mangers, stable doors, fencing, stone coping, pantiles, and a variety of materials. On view the day preceding and morning of sale. Catalogues obtained of GEO. LAKE, Esq. Solicitor, 10, Lincoln's-Inn-fields; and of the Auctioneer, Tottenham.

At IPSWICH.—120,000 Bricks, among which are 150,000 Suffolk Whites and 20,000 Reds of superior colour, by AUCTION, by

MR. ROSS, on FRIDAY, JULY 27, at the FOXHALL-ROAD and ROSE-HILL BRICKFIELDS, in consequence of the leases expiring. Sale to commence at ELEVEN o'clock. Catalogues at the Auctioneer's Office, St. Nicholas.

Valuable Building Materials, Lower Norwood, Surrey.

MESSRS. NORTON, HOGGART, and TRIST have received instructions from the Crystal Palace Railway Company, to OFFER for SALE, on the PREMISES, on MONDAY, JULY 16th, at TWELVE, without the slightest reserve, the valuable BUILDING MATERIALS of a large residence, situate at the corner of York-crescent, York-road, Lower Norwood, with walls and other fences, consisting of good sound brickwork, slated roofs, flooring-boards, joists, girders, glazed sashes, panelled doors, marble and other chimney pieces, stone paving, register and other stoves, copper, with lead flushings, a large lead flat, lead cistern, hips, ridges, gutters, pipes, pumps, &c. and a variety of useful materials.—May be viewed on Saturday preceding the sale, and catalogues had at the Horns and King's Head, Lower Norwood; on the Premises; and of Messrs. NORTON, HOGGART, and TRIST, 62, Old Broad-street, Royal Exchange.

PARK-WALK, CHELSEA.—Very valuable Building Contract of Ground, upon which eight villas have been erected, with space for twenty-four more, roads and sewers completed.

MESSRS. FAREBROTHER, CLARK, and LYE are instructed to SELL, at GARRAWAY'S, on WEDNESDAY, JULY 25, by direction of the executors of the late Robert Chambers, Esq. a very valuable BUILDING CONTRACT of a PIECE of LAND, situate in Park-road, in the rear of Park-walk, Chelsea, near to Camera-square and the Park Chapel, with access to the Fulham-road, for a term of ninety-nine years, at ground rents to be separately reserved. Eight capital semi-detached villa residences have been erected, six of which are let on leases at ground rents, and two are in hand, and of the annual value of [illegible]. There is space for the erection of twenty four more villas. The roads and sewers have been completed. This forms a most desirable property for a capitalist or enterprising builder, being sold in consequence of the death of the owner.—May be viewed, and particulars had of EDWARD WILLIAMSON, Esq. Solicitor, 9, Red Lion-square; at Garraway's; and at the Offices of Messrs. FAREBROTHER, CLARK, and LYE, Lancaster place, Strand.

Most desirable Freehold Building Land, with elegant Mansion and Grounds, in the parish of Hampstead, Middlesex.

MESSRS. COBB will SELL by AUCTION, at the MART, on THURSDAY, JULY 19, at TWELVE, in two lots, 20 a. 2 r. 5 p. of FREEHOLD BUILDING LAND, of the best character, with very valuable frontages on either side of the main turnpike road, between Child's hill and West-end, Hampstead, and on the road to Hampstead heath and Kilburn, and lying extremely well for conversion into eligible building plots for villa residences in an attractive and beautiful situation, within a short distance of Hampstead, the Regent's park, Kilburn, and the Railway Station, and near to a proposed new church; also a substantial well-built Mansion, called Kidderpore Hall, seated on an eminence commanding rich and extensive views on all sides, containing a suite of handsome reception-rooms, excellent bed-rooms, and ample domestic offices, the whole fitted up in the best manner, good stabling and coach house, conservatories, lawns, gardens, fruit plantation, shrubberies, &c. approached from the road by an entrance lodge and carriage-drive. The house can be viewed by permission of the tenant only, and with cards fourteen days before the sale; and particulars may be had at the Mart; of Messrs. SIMPSON, COBB, ROBERTS, and SIMPSON, Solicitors, 62, Moorgate-street; and of Messrs. COBB, Surveyors and Land Agents, 18, Lincoln's-inn-fields.

SALES BY AUCTION.

TO BE SOLD by AUCTION, o[n] WEDNESDAY and THURSDAY, the 25th and 26th ins[t.] beginning at TWELVE o'clock at noon on the first day, and r[e]suming at TEN o'clock on the morning of the second day, in th[e] BROKER'S SHEDS, Brunswick and Toxteth Dock, Liverpool,

118 Logs BAYWOOD, being the cargo just landed, ex Willia[m] Stanley, from Alvarado.
Apply to Messrs. A. DURANTI and Co. Merchants.

413 Logs and Curls St. Domingo MAHOGANY, being the car[go] now landing, ex George Andrews, from Gonaives.
Apply to Messrs. A. DURANTI and Co. Merchants.

107 Planks Birdseye MAPLE, just landed, ex Ontario, from Ne[w] York, on account of the importers.

393 Planks Rio ROSEWOOD, ex sundry vessels, on account of th[e] importers.

649 Planks Bahia ROSEWOOD, just landed, ex Gardyne, fro[m] Bahia direct.
Apply to Messrs. E. JOHNSON and Co. Merchants.

155 Large and fresh LANCEWOOD SPARS, now landing, e[x] Jane Howard, from Jamaica.
Apply to Messrs. J. R. DEALY and Co. Merchants.

To which will be added quantities of PENCIL CEDAR, ZEBR[A] WOOD, LIGNUMVITÆ, &c. &c.—For particulars, apply to

EDWARD CHALONER, Broker.
6, East Side, Queen's Dock, Liverpool.

To BUILDERS, CARPENTERS, and OTHERS.—Freeho[ld] Dwelling Houses and Business Premises, Castle-street, Guil[d]ford. By

MESSRS. F. and A. MELLERSH, withou[t] the slightest reserve, at the WHITE HART HOTE[L,] Guildford, on FRIDAY, JULY 27, at THREE, a FREEHOL[D] RESIDENCE, with a frontage to Castle-street, together with large builder's yard in the rear, in which is erected an extensi[ve] range of workshops, sheds,—the foregoing is land-tax free; it [is] now unoccupied, and possession will be given on completion [of] the purchase. Also, TWO FREEHOLD DWELLING HOUSE[S] with shops and building premises, also situate in Castle-street, no[w] let to Messrs. Taunton and Simmonds, at an aggregate rental [of] 31l. 10s. per annum.—To view apply to the respective tenants, an[d] further particulars may be obtained of T. A. CURTIS, Es[q.] Solicitor, Guildford; or of the Auctioneers, Godalming an[d] Guildford.

The START-BAY SLATE-QUARRY, near Torcross, Devonshir[e]. To Slate and Slab Merchants, Builders, Contractors, Engineer[s] and Others.

MR. EDWARD LUMLEY will SELL b[y] AUCTION, at the QUARRY, within a quarter of a mi[le] of Torcross, near Slapton, Devonshire, on THURSDAY, JULY 1[9,] 1855, at TWELVE o'clock (immediately after the sale of the lease) the extensive stock of SLATES, consisting of about 20,000 feet [of] slabs, many of which are of an unusually large size; a quantity [of] tiles; 45,000 of scantle; several thousand feet of rags &c.; al[so] about 70 tons of coals, fittings of smithy, and a variety of valuab[le] effects. The machinery, which is all new, consists of a 20-hor[se] power high-pressure horizontal engine, with 20-horse power boiler, a Jones's patent slate-planing machine, with gear complete; [a] double-winding tackle and apparatus; a capital slate-rubbin[g] machine, about 250 feet of wrought iron tramway; six railwa[y] trucks, iron pump, and a quantity of useful plant, machinery, an[d] effects. Catalogues may be had at the Quarry, and at the Auctio[n] Offices, 67, Chancery-lane.

FARRINGDON-STREET EXTENSION.—Building Material[s] of Twenty Houses.

PULLEN and SON have the honour t[o] announce that they will SELL by AUCTION, on th[e] PREMISES, on THURSDAY, JULY 26, and following day, [at] TWELVE, by order of the Improvements Committee of the Co[r]poration of the City of London, all the valuable BUILDIN[G] MATERIALS and FIXTURES of about twenty houses, shop[s,] stabling, slaughter houses, and extensive premises, in Turnmil[l]-street and Bowling-street, Clerkenwell, comprising about 800,0[00] good sound bricks, oak and fir timber, in roofs and floors; sashe[s,] doors, floor boards, shop fronts, York and pebble paving, rack[s,] mangers, and large folding-gates; several tons of lead, in gutte[rs] and pipes; large quantity of plain and pantiles; counters an[d] drawers, cranes and jibs, gas-fittings, stoves, ranges, and numero[us] fixtures and fittings up. May be viewed two days previo[us.] Catalogues had at the Architect's Office, Guildhall, and [of] PULLEN and SON, 80, Fore-street, Cripplegate.

Steam Saw-mills, with large Yard and Workshops and extensiv[e] Builder's Premises attached.

PULLEN and SON are directed to SEL[L] by PRIVATE CONTRACT, first rate PREMISES, wi[th] complete SAWING MACHINERY of the most approved con[]struction, fitted up within a recent period at a vast expense, i[n]cluding two capital steam-engines of 20-horse power each; 50-hor[se] boiler, and chimney-shaft 65 feet high; two vertical deal frames; three circular saw-benches, with 3 feet 6 in. segment saws, sel[f]-acting saw-bench; mortising and tenoning machines, &c. Th[e] whole capable of being worked in the most economical manne[r.] The premises are leasehold, and the rent is covered by a portion [of] the workshops let off.—Further particulars may be obtained [of] PULLEN and SON, 80, Fore street, Cripplegate.

TO LIGHTERMEN, BARGE BUILDERS, AND OTHERS.

MESSRS. EVERSFIELD and HORN will SELL by AUCTION at CARNE'S WAYS, 85, Ban[k]side, Southwark, on THURSDAY, JULY 19th, 1855, at THRE[E] o'clock in the afternoon,

The Amazon, Decked Barge..........	50 tons
The Danube, open ditto	37 ,,
The Wandel, ditto, ditto	30 ,,
The Harry, half-decked Sailing ditto	50 ,,

Also several other barges of various tonnage. May be viewed tw[o] days previous, and catalogues had at the Place of Sale, and of th[e] Auctioneers, Coal Exchange, or 40, Parliament street.

Old Stores, Royal Hospital, Greenwich.

MESSRS. EVERSFIELD and HORN will SELL by AUCTION, at the STORE YAR[D,] Greenwich Hospital, on TUESDAY, JULY 24, 1855, at TWELV[E] o'clock, by order of the Commissioners of Greenwich Hospital, [a] large quantity of STORES, comprising blue woollens, coat[s,] waistcoats, and trowsers, cuttings of blue cloth, striped linen an[d] rags, coverlets, blankets, bedticks, linings, and flannels, hats an[d] shoes, casks, &c.; also a quantity of materials, ironwork, &c. b[e]longing to the works department.—May be viewed one day pr[e]vious, and catalogues had at the Offices of the Stewards an[d] Inspectors of Works, Royal Hospital, Greenwich, and of th[e] Auctioneers, Coal Exchange, or 40, Parliament-street, Westminste[r].

TO HOUSE DECORATORS, BUILDERS, AND OTHERS.

MR. EDWIN WHITE will SELL b[y] AUCTION, without reserve, at his ROOMS, 170, Bishop[s]gate-street Without, on WEDNESDAY, the 25th of JULY, [at] TWELVE for ONE precisely, about 7,000 PIECES of superi[or] PAPER-HANGINGS, comprising Flocks, Satins, Damask[s,] Marbles, Chintzes, and others, suitable for parlours, bed-room[s,] staircases, &c. Also a small consignment of French Hangings an[d] Decorations.—Catalogues and view day prior and morning of sal[e].

KINGS LYNN.—To be SOLD by AUCTION, by

MESSRS. CRUSO and SON, on TUESDA[Y,] JULY the 24th, 1855, at ONE o'clock precisely, at t[he] BRICK-YARD, in the occupation of Mr. J. Sheppard, near t[he] South Gates, King's Lynn (the purchase of the 7th June last n[ot] having been completed according to conditions), a Six-hor[se] power High-pressure STEAM ENGINE, by Spiller and Tayl[or.] The above is a first-class engine, has been worked only twel[ve] months, and is worthy the attention of any person requiri[ng] steam power. It is also adapted for either a stationary or portab[le] engine.—The engine may be seen upon application to M[r.] SHEPPARD, and will be working on the morning of Sale from Te[n] till One o'clock.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-stree[t,] Brunswick-square, in the Parish of St. George, Bloomsbur[y,] Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Pari[sh] of St. Giles-in-the-Fields; and published by the said CHARL[ES] WYMAN, at the Office of "THE BUILDER," 1, York-street, in th[e] Parish of St. Paul, Covent Garden, all in the County of Mi[d]dlesex.—Saturday, July 14, 1855.

The Builder,

Architect, Engineer, Operative & Artist.

VOL. XIII.—No. 650. JULY 21, 1855. PRICE FOURPENCE *Stamped 6d.*

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ADVERTISEMENTS.

WILL CLOSE ON THE 28th INSTANT.

ROYAL ACADEMY of ARTS, Trafalgar-square The Exhibition of the Royal Academy IS NOW OPEN Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling

JOHN PRESCOTT KNIGHT, R.A Secretary.

THE NEW SOCIETY of PAINTERS in WATER COLOURS will SHORTLY CLOSE their Twenty-first Annual Exhibition, NOW OPEN at their Gallery, 53, PALL MALL, near St. James's Palace, daily from nine till dusk.—Admission, 1s.—Season tickets, 5s

JAMES FAHEY, Secretary

WILL SHORTLY CLOSE.—The GERMAN ARTISTS' THIRD ANNUAL EXHIBITION of NEW WORKS, in London. Open daily from Ten till Six o'clock Admission, 1s Catalogues, 6d. Gallery, 168, New Bond-street, next door to the Clarendon

BUILDERS' BENEVOLENT INSTITUTION.—THE EIGHTH ANNUAL GENERAL MEETING will be held at the LONDON TAVERN, Bishopsgate street, on WEDNESDAY, 25th inst. at THREE o'clock P.M WILLIAM LEE, Esq. M.P. President, in the chair, to receive the Report for the past year, and elect the Treasurer, Directors, and Auditors for the year ensuing, &c. A. G. HARRIS, Secretary.

July 17th, 1855

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

Sir Robert Smirke, R.A. George Stanley Repton, Esq.

PRESIDENT—Sydney Smirke, A.R.A.

TRUSTEES.

Sir Charles Barry, R.A. Charles Robert Cockerell, Esq. R.A.

Philip Hardwick, Esq. R.A. R.A.

TREASURER—William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon Secretary Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 35, Wilton street.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855.

On MONDAY, July 30th, a LECTURE will be delivered in the Rooms of the Museum, on the PROGRESSIVE CHANGES in ORNAMENT in the SUCCESSIVE STYLES of MEDIÆVAL ARCHITECTURE. By G. G. SCOTT, Esq; being a continuation of a former lecture

The hour of admission, SEVEN o'clock. The chair to be taken at EIGHT o'clock

Casts, prospectuses, and catalogues of the collection (now numbering upwards of 5 000 specimens) may be had at the Museum, and at the Office of "The Builder."

July 2, 1855. HENRY CLUTTON, Hon. Sec.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE BURIAL BOARD for the PARISH of HADLEIGH, in the County of Suffolk, is desirous of receiving DESIGNS, to comprise plans, elevations, sections, and specifications, with estimates for LAYING OUT a new BURIAL GROUND, of about 4½ acres, enclosing the ground, BUILDING a LODGE, with entrance gates, and BUILDING TWO CHAPELS. The party whose plans, &c may be approved, will at the option of the Board either have the superintendence of the works, or be paid a premium of 10l. for the plans, designs, estimates, and specifications, the same to be delivered at my Office, free of expense, without the author's name, but with a motto, on or before the 1st day of AUGUST next. A sealed letter containing the name and address, should accompany each design, which will be opened after selection made, and the plans not approved, will be returned, but the Board does not pledge itself to accept any plan.

For further particulars, together with a plan of the site, may be obtained on application to me.

J. F. ROBINSON, Clerk to the said Board.

Hadleigh, July 4, 1855.

COMPETITIONS.

COMPETITIONS.—PARISH of CHATTERIS, CAMBRIDGESHIRE.—DESIGNS for NEW BURIAL GROUND, CHAPELS, &c PREMIUM of 10l.—The Burial Board for the Parish of Chatteris offer a premium of 10l. to the Architect or other person whose DESIGNS for the erection of TWO CHAPELS (one for burials according to the rites of the Church of England, and the other for burials otherwise than according to the rites of the said church), and a SEXTON'S LODGE (to include a board-room and a room for a hearse), and for Laying out the Burial Ground, shall be selected for adoption. The parish contains about 5,2 0 inhabitants, and the Burial ground will contain from three to five acres The total cost of all the buildings is expected not to exceed 1,000l. The designs, with estimates of the costs, accompanied by working drawings and specifications complete, to be addressed to me, and left at my Office, in St. Ives, on or before MONDAY, the 6th day of AUGUST next. The co-ts of laying out the burial gr und to be estimated separately from the other works The Architect will be held bound to undertake and complete the works according to the plans for the amount of his estimate, if required by the Board to do so, within three calendar months after the acceptance of his plans; but the Board do not pledge themselves to accept any of the designs, or to employ the Architect whose designs shall be accepted. By order of the Board JOHN LAWRENCE, Clerk.

St. Ives, Huntingdonshire, 16th July, 1855

BENNETT PARK, BLACKHEATH.—The PLAN SELECTED for laying out this Estate for Building is No. 42, by Messrs WEHNERT and ASHDOWN The rest may be had, after Monday next, from Mr. BENNETT, Watchmaker, 65, Cheapside.

CONTRACTS.

TO BUILDERS.

SEPARATE SEALED TENDERS for the performance of the following SERVICES, or WOODEN HUTS to be erected within the Fort of PENDENNIS CASTLE, on the site of the former Temporary Barracks;

ONE HUT for Officers;

ONE DITTO for Sergeants or Married Men;

EIGHT DITTO for Private Soldiers;

ONE DITTO for a Cooking and an Ablution Room;

for a specific sum, will be received at the Ordnance Office, Pall-mall, London, on or before the 31st JULY, at Noon, addressed "To the Secretary to the Board of Ordnance," and endorsed "Tender for Wooden Huts at Pendennis Castle, Cornwall."

On the left-hand corner of the envelope Plans and specifications of the work to be performed, with the terms and conditions of contract, may be seen, and form of Tender and every information may be obtained at the Royal Engineers' Office, Devonport, between the hours of TEN and FOUR o'clock, from MONDAY, the 23rd, to SATURDAY, the 28th JULY, both days inclusive

Royal Engineers' Office, Devonport, 17th July, 1855.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Office of the Inspector General of Fortifications, Pall mall, London, on or before SATURDAY, the 4th day of AUGUST, 1855, from persons desirous of CONTRACTING for various WORKS at Dover Castle. Plans and specifications of the works to be executed, may be seen by competent persons, and forms of Tender obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 24th of JULY to the 3rd of AUGUST, Sundays excepted No other persons need apply The party whose Tender may be accepted for the works, will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 1,500l. for the due performance of the contract. Tenders for the above works to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Building a Privy at the Western Heights, Dover."

N B The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders

Royal Engineer Office, Dover, July 9, 1855.

NOTICE to BUILDERS. — BARRACK WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice that the WORKS proposed for ENCREASING the BARRACK ACCOMMODATION at the WESTERN HEIGHTS, DOVER, are POSTPONED, except that portion of them which provides for building a large non-commissioned officers' and soldiers' privy, the plans and specification for which can be obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 24th of JULY to the 31st of JULY, 1855, Sundays excepted The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 250l. for the due performance of the contract. Tenders for the above work are to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Building a Privy at the Western Heights, Dover."

N B The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders

Royal Engineer Office, Dover, July 9, 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—The principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz:—For the Works proposed in the ERECTION of ADDITIONAL OFFICERS' QUARTERS, at the New Barracks, Limerick. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle yard, Dublin, and at the Royal Engineer's Office, at Limerick, and may obtain specifications, with the terms of contract, upon making a deposit of 1l. for the same, which deposit will be repaid when the specifications are returned uninjured. The work to be completed on or before the 31st July, 1856 The letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 8th of AUGUST, 1855, and to be marked on the outside "Tender for Work at Limerick."

Office of Ordnance, Dublin, 16th July, 1855.

CONTRACTS.

TO BUILDERS.

GLOUCESTER CORN EXCHANGE and MAGISTRATES' ROOMS.—The Corporation of Gloucester are desirous of receiving TENDERS in one contract, for the ERECTION of the above BUILDING, in accordance with the plans, specifications, and conditions prepared by Messrs MEDLAND and MABERLY, Architects, Gloucester, which may be seen at their Offices, on and after the 16th of JULY. Tenders to be delivered (free of charge) before TWELVE o'clock on WEDNESDAY, the 1st day of AUGUST, addressed to the Town Clerk, and sealed and endorsed, "Tender for Gloucester Corn Exchange and Magistrates' Rooms." The quantities will be taken out by a competent Surveyor The Corporation will not be bound to accept the lowest or any Tender, should the amount be unsatisfactory to them

Gloucester, July 13, 1855. A. H. JENKINS, Town Clerk.

SHREWSBURY PUBLIC CEMETERY.—TO BUILDERS—The Burial Board of the Borough of Shrewsbury hereby give Notice, that they do intend to enter into a CONTRACT or CONTRACTS for BUILDING the necessary CHAPELS, LODGES, and ENTRANCE GATES, required at the Cemetery Ground, in the parish of Meole Brace, Shrewsbury. Persons willing to undertake such contract or contracts are therefore requested to send proposals in writing to me, at the Guildhall, Shrewsbury, on or before the 24th of JULY, 1855, sealed up and endorsed, "Proposals for Cemetery Buildings." Specifications and plans of the work may be seen at my Office on and after MONDAY, the 2nd of JULY next.

T. J. PEELE, Clerk to the Burial Board.

Guildhall, Shrewsbury, June 19, 1855

GRIMSBY LOCAL BOARD of HEALTH. WATERWORKS and DRAINAGE.—Notice is hereby given, that the TIME for sending in TENDERS for the above works has been EXTENDED until further notice appears in "The Builder," owing to the plans of engines, &c. not yet being ready for inspection. By order,

GEO. BABB, Clerk to the Board.

Great Grimsby, July 10, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at their Office, No. 1 Greek-street, Soho-square, on TUESDAY, the 31st day of JULY instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING the following WORKS, viz:—7,305 feet in length or thereabouts, of BRICK and PIPE SEWERS, with other Works in connection therewith, in Clerkenwell-green and Ayle-bury-street, Clerkenwell; Turnham-road, Shoreditch, Dalby-terrace, City-road; Brunswick-row, Islington; and Holloway-road, Upper Holloway-streets and places in the county of Middlesex (in one Tender) 2,100 feet in length or thereabout, of BRICK SEWERS, with other Works, in connection therewith, in New-road, Castle-green, Bayswater-terrace, and Sloane-street, Chelsea, in the county aforesaid (in one Tender) 1,750 feet in length or thereabouts of BRICK SEWERS, with their works in connection therewith in Queen's-road East, Franklin's-row, White-lion-street, and Turk's-row, Chelsea, in the county aforesaid (in one Tender), 8,340 feet in length or thereabouts, of BRICK and PIPE SEWERS, in King-street, Portland-street, St. James's, Crown-street, Rose street, &c. St. Ann's, Soho, Bedford street and court, Covent Garden, and Bear-yard, St. Clement's, in the county aforesaid (in one Tender); and for the maintenance of such works in complete repair for twelve calendar months Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the principal Office of the Commissioners, No 1, Greek-street, Soho-square, between the hours of NINE and FOUR p.m. until the 31st JULY next The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works No Tender will be received after the hour aforementioned.

E. H. WOOLEY, Jun. Secretary.

No. 1, Greek-street, Soho-square,

19th July, 1855.

BEDFORD ESTATE, ST. PANCRAS.—TO PAVIORS and MASONS — The Commissioners of this estate are prepared to receive TENDERS for LAYING DOWN 1,800 FEET of 5½ inch YORK PAVING, and other work on this estate The Specification may be seen at the Office below, from ELEVEN till FOUR, daily. Tenders to be delivered on or before the 31st INSTANT

JOHN WOOD, Clerk to the Commissioners.

20, Gordon-street, Gordon square, July 12th, 1855

THE PUBLIC HEALTH ACT, 1848.—TO CONTRACTORS and OTHERS. The Local Board of Health for the District of Leamington are prepared to receive TENDERS for WORK to be performed in executing the REPAIRS, CARTAGE-WORK, WATERING, and CLEANSING required in maintaining the public roads, streets, and places in proper order and condition, and for CLEANSING the PRIVIES and CESSPOOLS, and for REMOVAL of NIGHT-SOIL, ASHES, and RUBBISH, from private premises within their district, for the term of five, seven, or ten years, commencing the 29th day of SEPTEMBER, 1855 A plan showing the extent of roads, and district over which the different works extend, may be seen and further information obtained, on application to Mr. JOSEPH FOX SHARP, Surveyor to the Local Board, at his Office, Town-hall, Leamington, and copies of the specification, schedule of prices, and form of Tender, may be had on application to the Clerk, at his Office, Town-hall, on payment of five shillings, on or after MONDAY, the 16th day of JULY. Tenders must be forwarded, endorsed "Tenders for Maintaining Roads, &c." to the Clerk to the Local Board, on or before SATURDAY, the 4th day of AUGUST next The Board do not bind themselves to accept the lowest or any Tender.

By order, R. H. DAVIES, Clerk.

Town-hall, Leamington, June 19, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TO BUILDER AND OTHERS

GLOUCESTER COUNTY LUNATIC ASYLUM Persons desirous of CONTRACTING for carrying into effect ALTERATIONS and ADDITIONS at this Institution, or contracting the double pauper wards into kitchens and other offices, and the building of washhouses and laundries, may inspect the plans and specifications at the Office of THOMAS FULLJAMES, County Surveyor, Gloucester, any time between the hours of TEN o'clock a.m and SIX o'clock p.m. from the 9th of JULY to the 23rd JULY inclusive. Sealed Tenders to be sent in addressed to the Committee of Visitors, Lunatic Asylum Gloucester, endorsed "Tender for Building," on or before the 23rd inst. The Committee do not pledge themselves to accept the lowest Tender

Gloucester, July 3 1855

TO CLERKS OF WORKS

THE BUILDING COMMITTEE of MAGISTRATES for the ERECTION of the SHIREHALL, TAUNTON, Somersetshire, are desirous to engage a competent practical PERSON as CLERK of the WORKS. He will be well acquainted with, and understand the construction of carpenter's works, and of masonry in particular and he is to act and understand detail and working drawings and specifications. The weekly salary of two guineas and a half will be paid to the party appointed, for his constant and efficient attention to the building. Applicants are requested to send their testimonials, enclosed in a letter addressed to the Shirehall Building Committee, care of Mr. CARVER, County Surveyor, Taunton, on or before TWELVE o'clock of the 25th of this month.

Dated Wilton, Taunton, July 18, 1855.

CHESTERFIELD WATERWORKS.—To EXCAVATORS, MASONS, and GENERAL CONTRACTORS The Directors of the Chesterfield Canal Water Company will meet at their Office, in Chesterfield on THURSDAY the 2nd day of AUGUST, at TWO o'clock in the afternoon, for the purpose of receiving TENDERS or PROPOSALS for the following WORKS authorised by their Act obtained in the present session of Parliament

CONTRACT No. 1.—The EXCAVATING, FORMING, and COMPLETING of a SCORE RESERVOIR, of about 84 acres in extent on the Hollow and Longacre Brook with the Reservoir Channels, Waste Weir, and other works connected therewith.

CONTRACT No. 2 The EXCAVATING, FORMING, and COMPLETING of a SERVICE RESERVOIR, of about 14 acres in extent near to Club Mail, with the Waste Weir and other works connected therewith.

Plans and specifications may be seen, and further particulars may be had on and after THURSDAY, the 12th day of JULY on application to Mr JOHN WHEATHER, Civil Engineer, Leeds.

By order,

SHIPTON and HALLEWELL, Solicitors to the Company.

Chesterfield, June 21, 1855

TO BUILDERS

WARWICK CORN-EXCHANGE.—Persons desirous of CONTRACTING for the ERECTION of this BUILDING, are informed that the plans, specification, &c., may be seen at the Offices of Mr. JAMES MURRAY, the Architect, Coventry, after the 23rd day of JULY. The Tenders to be delivered to the Secretary, THOMAS NICKS, Esq. Solicitor, Warwick not later than the 6th day of August 1855

TO CONTRACTORS AND OTHERS

THE LOCAL BOARD of HEALTH of Uxbridge, Middlesex, are prepared to receive TENDERS from persons willing to UNDERTAKE for MAKING, LAYING, or FIXING the HOUSE CONNECTIONS and SERVICES, WATER CLOSETS, &c. both for Drainage and Water Supply for the Local District, including all Materials (and Excavating required, as well as Labour, being Contract No. 10. Further particulars of a local nature may be obtained by application to Mr. JOHN, Inspector, Surveyor to the Board; or to JAMES PILBROW, C.E. Tottenham, Middlesex, Engineer to the Board, as to general principles to be adopted, from either of whom specifications and conditions of contract may be had, stamp, 1s. each. Tenders must be sent in on or before THURSDAY, the 26th day of JULY next endorsed "Tender for House Services" and addressed to the Local Board of Health, Uxbridge, Middlesex. By order of the Board,

CHARLES WOODBRIDGE, Clerk.

Uxbridge, July 13, 1855.

WIDENING BIDEFORD BRIDGE, North Devon.—Persons desirous of CONTRACTING for the execution of the various WORKS necessary to the WIDENING of BIDEFORD BRIDGE to the extent of 30 or 35 feet, may inspect the plans and specification, and obtain further information by applying to CHARLES HOLE, Esq. Bridge Steward, Bideford or Mr J. ATKINSON, C.E 7, Beaufort building s, Strand, London, on and after MONDAY, the 16th day of JULY instant Tenders addressed to the Committee of the Bideford Bridge Trust and endorsed "Tender for Widening Long Bridge, Bideford," must be sent in to the Office of CHARLES HOLE, Esq. Bridge Steward, Bideford, on or before the 8th day of AUGUST next. The Committee do not bind themselves to accept the lowest or any Tender. Contractors will be expected to give security for the due execution of the work.

Bideford 11th July, 1855.

SEWERAGE. — TOWCESTER, NORTHAMPTONSHIRE —Persons desirous of CONTRACTING with the Highway Surveyors for the CONSTRUCTION of 1,650 feet of MAIN SEWER, 2 feet 3 inches by 1 foot 6 inches, together with a BRANCH DRAIN, in this town, may see the plan, section, and specifications at my office, where they will remain open for inspection until SATURDAY, the 28th instant, between the hours of TEN a.m. and FIVE p.m. on each day. Tenders to be sent in on or before TUESDAY, the 31st instant, sealed and addressed to me. The lowest Tender will not necessarily be accepted. HENRY PARR JONES, Surveyor.

Towcester, July 11, 1855.

PARTIES willing to ESTIMATE to do the JOINERS' WORK of several houses, and take a excess as part payment, may have the particulars at the Office, 13, Marsden-terrace Mall on-road Havorst ck Hill.

SOUTHPORT WATERWORKS.—CONTRACT for PIPE-LAYING.—The Directors of the Southport Waterworks Company are ready to receive TENDERS for LAYING the MAIN PIPES, COCKS, HYDRANTS, and other apparatus, appendages and works connected therewith, for the town of Southport. Plans and specification may be seen, and forms of Tender obtained at the Office of Mr WILLIAM HARPER, 17, Silver-street, Bury, Lancashire; or from THOMAS HAWKSLEY, Esq. 30 Great George street, Westminster, London, the Engineer to the Company, on and after the 6th inst. Sealed Tenders, on the proper form, to be addressed to Mr. WILLIAM HARPER, 17, Silver-street, Bury, and endorsed, "Tender for Pipe laying," must be left before SIX o'clock p.m. on the 27th day of JULY inst. The Directors do not bind themselves to accept the lowest or any Tender

By order,

WM. HARPER, Clerk to the Company.

17, Silver-street, Bury, July 6, 1855

TO BUILDERS

THE UNITED BURIAL BOARD of the parish of St. Andrew and township of Ipsmund, Newcastle-upon-Tyne, are prepared to receive TENDERS for the whole or any part of the works required in LAYING OUT and FENCING the NEW CEMETERY of the said parish and township, and for ERECTING TWO CHAPELS and ENTRANCE-LODGE thereto. The plans may be seen and printed copies of the specifications, quantities, and forms of Tender, may be obtained at my Office in Newcastle, on and after MONDAY, the 23rd of JULY instant. Sealed Tenders addressed to me, to be sent in on or before MONDAY, the 6th of AUGUST next. Further particulars may be obtained from the Architects, Messrs. MIDDLETON and PRITCHETT, Darlington.

By order of the Board,

JOSEPH BLACKLOCK, Clerk to the Board.

CONTRACTS.

TO BUILDERS

GREENWICH CEMETERY.—The Burial Board for the parish of Greenwich, in the county of Kent, are prepared to receive TENDERS for the ERECTION of the MORTUARY CHAPELS, Entrance Lodge, &c at the new burial ground, near Wellhall-lane, in the liberty of Kidbrooke, Kent; also for enclosing the ground on the north and south sides with oak park fencing. The plans and specification may be seen and further information obtained on and after SATURDAY, the 14th inst at the Office of the Architect, Mr. SAMUEL HEWITT, Montague-close, Southwark. Tenders to be delivered on or before MONDAY, the 30th JULY instant, at FIVE o'clock in the afternoon, at the Clerk's Office, No 14, Burney-street, Greenwich.—The Board do not bind themselves to accept the lowest, or any of the Tenders sent in.

E. W. JAMES, Clerk to the Board.

Greenwich, July 3rd 1855.

TO BUILDERS

THE CATHOLIC POOR-SCHOOL COMMITTEE are desirous to receive TENDERS for the ERECTION of a TRAINING COLLEGE, at Brook-green, Hammersmith The plans and specification may be seen at Hammersmith, from MONDAY, the 23rd, to SATURDAY, the 28th JULY inclusive on application to the Rev J M GLANIE, St. Mary's, Brook-green; or at the Office of the Architects, Messrs. J. and C. HANSOM, 4 Park place, Clifton The Tenders to be delivered to T. W. ALLIES, Esq Secretary to the Catholic Poor-School Committee, 11 Johnstreet, Adelphi, London, on or before the 1st AUGUST, endorsed "Tender for Training College" The Committee do not pledge themselves to accept the lowest or any other Tender.

11, John-street, Adelphi, London, July 18, 1855

TO BUILDERS

PERSONS desirous of CONTRACTING for the ERECTION of a SCHOOL-HOUSE at Newcastle-under-Lyme (to contain 400 children), with RESIDENCE attached may see the plans and specifications on the 19th inst. at my Office, Stoke Ville, Stoke-upon-Trent Tenders, sealed and endorsed, to be sent in on or before WEDNESDAY, the 25th inst. The lowest Tender will not necessarily be accepted.

JAMES TRUESHAW, Architect.

Stoke Ville, Stoke-upon-Trent, July 14th, 1855.

TO ROAD CONTRACTORS

PERSONS desirous of CONTRACTING for the formation and making of ROADS, &c. on an estate known as Albert road, close to the Norwood Station, may see the plans and specifications at the Offices of Mr. W. F. LOW, Solicitor, 67, Wimpole-street, Cavendish-square, and of Mr. HARRIS, Surveyor, on the Estate. Tenders to be endorsed and delivered on or before MONDAY, the 30th day of JULY instant, at Mr. LOW'S Office, as above. The parties will not bind themselves to accept the lowest or any Tender.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND

An Illustrated Catalogue on receipt of four postage-stamps.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnaces, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

The furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

ENAMELLED IRON TUBING, at the same price as plain tubing From 3 to 10 feet of various sizes, from ½ inch to 4 inches diameter, at HOOD and SON'S Castings Warehouse, 68, Upper Thames-street.

212 MILNER'S HOLDFAST and FIRE-RESISTING SAFES non conducting and vaporizing) with all the improvements, as per their Quadruple patents of 1854-54 and 1855, including their Gunpowder Proof Solid Lock and Double Bolt which no safe is secure

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MILNER'S PHŒNIX SAFE-WORKS, LIVERPOOL, the most complete and extensive in the world Show-rooms, 6 and 8, Lord street, Liverpool London Depôt, 47a, Moorgate-street, City Circulars free by post

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Sheet or Rolled Brass for Engravers, Castings in Fine and Common Brass, Ore Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouse, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and Co. are now manufacturing their celebrated American and English Locks, on the premises, 97, Cheapside, and 34, Lawrence lane, London; where, by the introduction of their patent steam machinery they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNER'S PATENT), fitted with HOBBS'S PATENT POWDER PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery, they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and Co.—Wholesale and Retail Warehouses, 97, Cheapside, and 34, Lawrence-lane, London

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOODBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut), Copper and Zinc Goods, Cabinet Furniture of all descriptions Chims, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, as now advertised, &c. &c. 6d. each.

J. H. BOODBYER (late STURCH and BOODBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

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No. 1061, Class 6, Section 16 BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs Rylands and Sons' Books, Papers, and Bank notes preserved in one of CHUBB'S SAFES, after a fourteen hours' exposure to intense heat COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"94, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"Gentlemen,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS.

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector. Complete Illustrated Lists, with prices and sizes, will be sent on application.

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This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast iron girders and brick arches, and as bringing the great desiderata of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one

Further information may be obtained of the Proprietor of the patent.—Mr BARRETT, 13, York-buildings, Adelphi

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

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MR. LEE STEVENS'S PATENT FURNACES complete an established system of smoke prevention and economy of fuel for all manufacturing purposes, from the smallest pan to the largest copper or boiler, and are remarkable for simplicity, cheapness and facility of adaptation. Average say us of fuel, 25 per cent. Drawings of hundreds of his furnaces in successful operation; testimonials, official reports, &c. may be seen at 1, Fish-street-hill, City.

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No.	3	4	5	6
	5s. 6d.	6s. 6d.	8s.	9s. 3d. per 56 lbs.

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ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

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ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

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The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

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FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufactures of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches up to 10 inches each corrugation, in all lengths up to about 11 feet, also the angular or arch corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock or galvanized to order.

The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eave-Gutters plain and moulded, Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys, Copper Rope Lightning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron PIERCED GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, 40 to per square foot. Dry-hair Felt for Deadening Sound, for Boilers and Steam Pipes, made in rolls 20 yards long, at a greatly reduced price.

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Skaife's process is the most effectual prevent ve against rust, and is extensively used for all purposes where Iron not liable to rust is required

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated—Roofs fixed complete.

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PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets

PLAIN or CORRUGATED, and Curved, of all Gauges

Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

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Estimates given for Roofs, and every description of Galvanized Building, at the

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PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about	18	oz.	per foot	super.
12	"	"	20	"
13	"	"	22	"
14	"	"	26	"

Full particulars and the reduced price sent by post on application to

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UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,

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Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters Doors, &c

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

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Offices, Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application

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TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country

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TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns Gas Tubing, Gutters, Pipes, Feeding, &c.

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TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

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SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always in view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

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WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks

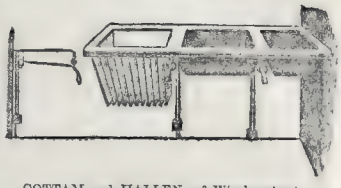
GALVANIZED SHEETING and WIRE of every description superior in all respects to that produced by any other process

THE TOUGHNESS AND MALLEABILITY of the Iron being preserved

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

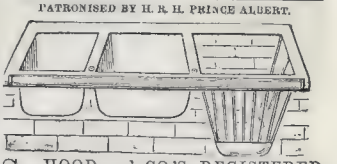
A Discount allowed to the Trade.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety comforts to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled

Castings Warehouse removed from 31 to 33, Upper Thames-street.

ROYAL POLYTECHNIC GAS FIRE.

BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 4s 8d. This achievement in heating by hot water is unprecedented

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron bridge.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42 Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. in the cost of fuel.—Prospectuses, with testimonials, sent on application.

ESTABLISHED 1817

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Ware-house, 11, Horse-street-road, and 1, New Bond-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest possible prices

Cottage Ranges, with oven or boiler, complete, 23s. each.

Self-acting ditto, with ditto, from 25s.

Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 40s. each

Register Stoves, from 5d. per inch.

Elliptic ditto, with double backs, from 2½d. per inch.

Cast-iron Rain-pipe	2 inch.	2½ inch.	3 inch.	
	11d.	1s 3d.	1s 4d.	per yard
4-inch Eaves Gutters, 9d per yard				
O G Gutters	2½	4	5½	5 inch.
	1s.	1s 1d.	1s 4d.	1s 6d. per yard.
Best Cut Clasp	1½	2	2½	3 inch and larger.
and Rose	16s.	18s.	14s 6d.	14s.

1 inch Best Cut Lath, 15s. 6d. per cwt.

Sheet Floor Brads 14s 6d per cwt

Hop Floor Brads, 14s. per cwt

Sash Weights, 7s 6d. per cwt.; 9-inch Air Bricks, 3s 6d. per doz.; 6 inch Sink Traps, 6s. per doz.; strong Coal Plates, with hooks, 20s per doz. Sheet Zinc, Perforated Zinc and Tinning. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

JOHN HENDERSON PORTER,
ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS,
GAS-STREET, BIRMINGHAM.

LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

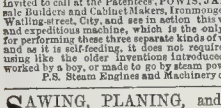
KINGSTON'S PATENT WHITE METAL, for bearings of marine, stationary, and locomotive engines, connecting rods, motion blocks, and any other machinery, where metal bearings, or fixings are required. The metal has been in use for upwards of two years, has been proved, and pronounced by eminent engineers to be the best article, without exception, that has ever been invented for the purposes above named. — Orders addressed to Mr. WILLIAM LANGFORD, Agent, at the Manufactory, Clay-hall Works, Old Ford, Bow, London, will receive prompt attention.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, conchhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and Best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler.
30 32 34 36-inch
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars
34 36 38 42-inch.
54s. 56s. 58s. 60s.
Strong Elliptic Stoves, with Extra Hob and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 6d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2 inch.	3 inch.	4 inch.
	11d.	1s. 2d.	1s. 4d. per yard.

Cast Gutters—4 inch, 9d. per yard.

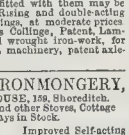
O G Gutters	4 inch.	5 inch.	6 inch.
	1s. 1d.	1s. 3d.	per yard.

Patent Line	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of Ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs,
2d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 32s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6	
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s.	per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 9d. per foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
19, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Bise-lane, London.

W. FRY and CO. 57 or 35, Great Guildford-street, Southwark.—Hot water, hot air, or steam buildings of every description, heated by any of the above ways, at the lowest possible cost, and in the best style. Architects, &c. are solicited. Gentlemen finding their own materials, if preferred. Unexceptionable references can be given.

AUSTIN'S IMPERIAL
PATENT SASH and BLIND LINE,
can be obtained of all
ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY,
Established 1774.

IRON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

TO ARCHITECTS AND BUILDERS.
PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.
RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O-G Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other castings; Iron work for Bakers' Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL, Manufacturer of Wrought Iron Tubing for Gas, Steam, and Water; Stocks, Taps, and Dies, and all kinds of Gas Fittings.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,
MILLBANK STREET, WESTMINSTER.
Marble of all kinds and of best quality, in block and slab Marble mortars, &c.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Extra Terrace, Millbank, to his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N B The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

SERPENTINE. — The Lizard Serpentine Company manufacture and also sell stone in block or slab. The stone now raised is from the lower beds, and as sound as the coloured marbles with which it competes in price.—Chimney-pieces, columns, fonts, &c. &c. on view at the Show-rooms, 20, Surrey-street, Strand.

ITALIAN and GALWAY MARBLE QUARRIES. Depôt, Whitehall Wharf, Parliament-street, London. To SCULPTORS MARBLE MASONS, & BUILDERS.—Twenty-eight blocks of Statuary, Sicilian, &c. now landing at Whitehall Wharf, ex Tasso'wid, from Leghorn. Mr. FRANKLIN begs to call attention to the above; also to his extensive stock of Marble in blocks, consisting of Statuary, Vein, and Sicilian, Irish Black and Green, Dove, Bardilla, Sienna, Brocatella Rouge Royal, St. Anne's, Emperor's Red, Black and Gold, &c. &c. which he is enabled to offer at reduced rates, on advantageous terms.

TO BUILDERS, MASONS, AND OTHERS.
THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Hareshill, Park Spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

By Her Majesty's Royal Letters Patent.
SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter. London Agent, C. HOAR, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.
CAEN STONE.—About Twenty Tons of Small Blocks and Flags, now lying at Lett's Wharf, to be sold at a moderate price. Terms, cash.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

FREESTONE.—Architects and Others are reminded that they can obtain the CASTERTON FREESTONE, in Blocks of any portable size, at the Quarries, or at the Railway Stations of Stamford, Essendine, or Tallington, and which, from its price, and the facility with which it is wrought, offers immense advantage to the purchasers.—Apply to FRAS. and OCTS. N. SIMPSON, Stamford.
N.B. Specimens in plain blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the Offices of Messrs. PINDER, SIMPSON, and SONS, 20, Saville-row, Burlington-gardens, London.—May, 1855.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truck loads of five tons. Pavings, Landings got out to sizes. Step Copings, &c. &c. supplied on most advantageous terms by railway and with despatch. Prices sent on application.

YORKSHIRE STONE.
GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, Masons, &c. that they can supply to any extent all kinds of YORK STONE of the very best quality direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.—GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

BATH STONE DEPOT, BOX STATION.—ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Box Ground Stone, Scaliett Block, Ashlar, Rubblework, &c. &c., supplied direct from the Quarries; also every description of Stonework for Building purposes, both plain and ornamental, prepared ready for fixing, and forwarded to any part of the kingdom. Vases in elegant variety always on view; Urns, Fountains, Chimney-pieces, Tombs, &c. &c.

BANGOR WHARF, King's-road-bridge, Camden-town.—STRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cement, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials landed, wharfed, and carted.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Builders, Contractors, and Others, that his Price Lists for Slates and Slab Work, can be had on application, enclosing a postage-stamp. Country and export orders promptly attended to.—N.B. A liberal discount to the trade.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Kent Stand, at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.
ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size. J. HOWELLS, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 30 and 40, Upper Belgrave-place, Pimlico.

SLATING, 22s. per square, net cash on completion.—T. B. HANNAFORD, Slate Merchant and Slater, Trevalga Wharf, Ratcliff Cross, is in a position to execute Slating to any amount in Town, for Builders of position, at the above low price. Slate Paving, 1½ inches thick, planed one side, and squared ready to lay, 4d. per foot super.

YATES'S MARBLE WHARF, Crescent-road, Millbank.—M. YATES begs to inform the friends of the late W. Yates, and all persons connected with the marble trade, that the business of the above premises will be carried on as usual, under the superintendence of an able manager. A large quantity of marble slab of all kinds, also a good stock of chimney-pieces and other marble works.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 5s. per square yard. Railway Arches made watertproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834.
Every description of Flooring laid with the above durable material in the best manner. Asphalte for Railway Arches, 25s. per ton.
Importer of Trinidad Asphalte.
Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

PLATE GLASS AT GREATLY REDUCED PRICES.

THE UNION PLATE GLASS COMPANY,

RESPECTFULLY INFORM THE TRADE, THAT IN ORDER TO MEET THE PRESENT DEPRESSION, THEY HAVE MADE A VERY CONSIDERABLE

REDUCTION IN THE PRICES OF POLISHED PLATE GLASS

FOR GLAZING PURPOSES.

Lists of Prices may be obtained at the places named in another advertisement in this publication.

THE WORKS—POCKET-NOOK, ST. HELEN'S—JULY 2, 1855.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

CHARLES WM. WATERLOW AND CO.
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The Builder.

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ON Tuesday last, the Metropolitan Buildings Bill, with the exception of the schedules, passed through the House of Commons. Sir William Molesworth, Lord Seymour, Mr. Jackson, Mr. Henley, Mr. Bell, Mr. Tite, and Mr. Cubitt, took chief parts in the discussion, and various alterations were made, nearly the whole of them improvements. The exemption of greenhouses is confined, as we urged it should be, to "the necessary woodwork of the sashes, doors, and frames." Touching the exemption of all work for the purpose "of necessary repair," Sir William Molesworth promised to reconsider the clause, and it is to be hoped that he will qualify it. With every desire to obtain for owners and builders immunity from unnecessary interference, we cannot shut our eyes to the fact that the exception of "necessary repair" without any limitation would allow of large and important works being done without supervision as to their proper construction and safety in respect of fire. Thus, a great part, if not the whole of an external wall might be rebuilt, any external woodwork being restored—party timber partitions might be reinstated—party walls might have large portions removed and replaced with unsound materials—and chimneys, furnaces, and flues, might be cut into, and partly rebuilt in an unsafe manner,—works involving danger, not only to the inmates of the house repaired, but to the occupiers and owners of the neighbouring property.

Some alteration in clause 39 is asked for by the district surveyors. As it now stands, the district surveyor would be debarred entry on the very hour of the completion of the building, and anything then contrary to the Act could not be compulsorily amended.

Touching clause 25, which contains the inexpedient restriction on the eaves and cornices of overhanging roofs, we have received the following note, signed "A District Surveyor:"—

"The daily papers report of the proceedings, in the House of Commons on Tuesday, upon the Metropolitan Buildings Bill, that "some amendments of no interest to the public were made to the clauses of the Bill." Is it then of no importance to architects and the inhabitants of London, that a leading architect combined with a leading builder to move, as an amendment to clause 25, that there shall be no projection beyond the face of houses in streets (even over the ground of the owner), except open porches or porticoes not higher than 5 feet above the one-pair floor? Two noble lords, former Chief Commissioners of Works, saw, indeed, that there was something faulty here, but deferred to these high authorities; and the amendment was carried! Henceforth there must be no front balconies, cornices, pillars, pilasters, window-dressings, above the first-floor; and, moreover, the only method of making a balcony to the first-floor windows will be to make an open portico first, and afterwards remove the pillars. Alas! where are we to look for 'administrative reform?'"

We are not aware of the terms of the amendment, but if its effect be as stated by our correspondent, some means should be adopted to remedy it in the House of Lords. It would interfere most injuriously with the improvement of street architecture in the metropolis and suburbs, throwing us back to flat walls with holes in them for light and ingress.

ON "DRIERS," AND THE IMPROVEMENT OF HOUSE-PAINTERS' WORK.*

WE are sure it is not necessary to give further reasons for presenting the details which it has cost us some trouble to extract from the elaborate tabular statements of M. Chevreul. We will not attempt to point out the application of the result of each series of experiments; but they deserve every consideration from all who, like ourselves, are interested in the progress of constructive science and the advancement of art. If they do not specify in words, what must be done for the objects *we* have contemplated, they are the necessary basis without which such progress could not be hoped for; and the remaining chapters present particulars equally important to architects and decorative painters, as also to those engaged in the preparation of materials.

We have already, we trust, established safe ground as to the nature of that which is called the drying of the work—under several modifications of the vehicle or pigment used, and the character of the material and surface. We found that the ordinary carbonate of lead base, and the pure linseed oil each possessed siccative properties, and that in the case of the oil, these might be increased by time and exposure to the air, supposing it were convenient to resort to such means.

We have received testimony from practical painters to the soundness of the opinion upon which we ventured, as to the constant antagonistic influences of "driers," as regards the chief objects of painting. There is no doubt that much of the want of durability is to be traced to ignorance of such points as we are inquiring into,—or to exclusive regard for early completion of work. It has, however, been apparent, that considering the time which can generally be allotted, some proportion of "drier" is not to be dispensed with. In particular, we found, that were it the object to escape from deleterious influences entailed by the use of white of lead, by resorting to the white of zinc, —that material had the siccative property in so comparatively slight a degree, as would positively prevent trial of any of its recognized advantages. It, therefore, becomes of some importance to know what is the best mode of preparing "driers."

We shall follow M. Chevreul in his researches, leaving open the question between white of lead and white of zinc; though were we now to accept the latter base of pigments, experiments as to the *ordinary* "drier" might be thought superfluous. We therefore proceed to inquire into the influence of litharge, of peroxide of manganese, and of the mere application of heat, in rendering linseed oil siccative. It is necessary to consider the latter influence, apart from that of the metallic-oxide, to ascertain whether the heat is ordinarily applied in the best manner.

The common "drier," or litharged oil, in France, is generally made thus:—Linseed oil is heated to near the boiling point in a melting pot, and skimmed: after three or six hours, about one-tenth of its weight of litharge is added to the oil, and the mixture is again heated for five or six hours. Another method is the following:—100 kilogrammes of linseed oil, as old as possible, are heated for about six hours; six kilogrammes of litharge, and three kilogrammes of burnt umber are then added; the mixture is heated for six hours, is allowed to settle, and is decanted. The litharged oil, M. Chevreul says, is adulterated with substances which are greatly injurious to its properties. This remark may apply to the sulphate of zinc spoken of by Dr. Thomson, as required to be added to the litharge. The ordinary English method would seem to correspond with that used in France. M. Leclaire, to whom the chief credit of the introduction of oxide of zinc is due, prepares his manganesed oil thus:—Linseed oil is heated at the boiling point for five hours; then for eight hours at least, with peroxide of manganese.—It will now be discovered what are the best methods of procedure.

Experiments were made in the first four months of the year 1850, with the several oils, laid as before, on oak; and we have again tried to condense M. Chevreul's extended statements in a new table. The different kinds of oil experimented upon, are written at the heads of the columns; and the letters of reference (which correspond with those used by M. Chevreul) refer to the notes and particulars below:—

Reference to Notes:—	A	EE	E	B	CC	C	D	F	FF
Oil, how prepared:—	Linseed Oil, Pure.	Linseed Oil; boiled 3 hours.	Linseed Oil; boiled 3 hours with 1-10th of its weight of Litharge.	Linseed Oil; boiled 5 hours, over a gentle fire in a melting-pot.	Linseed Oil B; again boiled 3 hours (without addition).	Linseed Oil B; boiled 3 hours with 1-10th of its weight of Litharge.	Linseed Oil B; boiled 3 hours with Peroxide of Manganese which had been used previously.	Linseed Oil B; boiled 3 hours with Peroxide of Manganese which had been used previously.	Linseed Oil B; boiled 8 hours (without addition).
Days occupied in Drying:—									
First coat	99	41	2	54	40	4	5	16	54
Second coat	6	4	3	6	4	5	6	10	
Third coat.....	3	4	2	8	6	6	6	13	
Total,—Days	108	49	7	68	50	15	17	39	

Notes and Conclusions from the foregoing Table.

Reference.

A. EE.—The oil by 3 hours boiling, becomes more siccative.

E. EE.—The oil by 3 hours boiling with 1-10th its weight of litharge, becomes more siccative than if boiled without the litharge.

B. EE.—Five hours' boiling not so advantageous as 3 hours.

CC. C. E.—Oil which has already boiled 5 hours without addition, again boiled 3 hours, undergoes scarcely any change in the siccative property, whilst it becomes more siccative if it has boiled the same time upon litharge: but it is less siccative than the oil which has boiled 3 hours with that oxide without the previous boiling.

D. F.—Oil already boiled 5 hours, boiled 3 hours upon peroxide of manganese that had served previously for a similar operation, is nearly as siccative as the oil which has boiled in the litharge under the like circumstances (C),—but it is more siccative than if the boiling on the peroxide of manganese had lasted 8 hours.

FF.—Oil which has boiled 5 hours, boiled alone 8 hours more, becomes viscid, and exacts a considerable time for drying.

Generally, these experiments established the fact that the presence of the oxide of lead, or oxide of manganese, will concur with heat in augmenting the siccative property of the oil. But it also appeared from them, that the direct ebullition of the oil with the litharge during three hours only, gave more of the siccative property than the oil would have acquired by the ordinary process,—that is to say, by a previous boiling of three to six hours, or *before* treatment with the litharge. Further experiments were therefore gone into, with regard to that matter. It then appeared:—

1. That linseed oil, which has been boiled in a glass globe in a sand-bath merely, five hours, is not more siccative than the ordinary oil.

2. That the oil which has been boiled three hours, with 15 per cent. of its weight of litharge, or of peroxide of manganese, is more siccative than the oil which has been heated five hours.—At the same time we arrive at these important facts:—

(*a*) That litharge is more siccative than peroxide of manganese.

(*b*) That litharge that has been once heated with the oil, if used for a further portion of oil, is positively

See pp. 109, 193, 243, *ante*.

more active than that which had not been previously heated.

(*c*) That peroxide of manganese which has been heated many times, has similar effects, relatively to manganese, which had not been heated.

It also appears that—

3. The oil which has undergone a heating of five hours, heated again with 15 per cent. of its weight of litharge, is more siccative than if it had been heated with peroxide of manganese.

But it is remarkable that the *excess* of activity distinguishing the litharge, and the peroxide of manganese which have been used previously in heated linseed oil, from the same ingredients in their first condition, and where linseed oil was in its original condition, exists no longer where *oil* has undergone the heating process during five hours.

Having discovered that the usual length of time occupied in heating—or rather stewing—in the preparation of "driers," was not advantageous, M. Chevreul proceeded with experiments by which was discovered the fact, that the oil exposed for six hours to a temperature of, as nearly as possible, 70 degrees, with 10 per cent. of peroxide of manganese, could be employed immediately in painting, without the necessity of adding a (or we think it should rather have been stated, *any other*) siccative Pure oil exposed the same time to the like temperature, receives also a considerable increase of the siccative property, but not to the extent discovered in the other case. The special value of the particular combination referred to is shown by results supposed to be as under. Experiments were commenced at the end of January, 1850, the coats being laid on glass. Pure linseed oil is first contrasted with the manganesed oil: thus,—

	Linseed Oil.
First coat required to dry	21 days
Second coat ditto	10 ,,
Third coat ditto	7 ,,
Total	38 days.

the other result being here stated:—

	Linseed Oil, heated six hours, at from 70 to 80 degrees, with 10 per cent. of peroxide of Manganese, which had been used previously several times.
First coat required to dry	3 days
Second ditto	3 ,,
Third ditto	3 ,,
Total	9 days.

An addition of white of zinc to the oil last mentioned, appears to give an increase of siccative property, much exceeding what it would give to the pure oil.

This branch of the subject may be wound up with the results of a comparison of oils differently treated, as under. The experiments were commenced at Midsummer, 1850, the coats being laid on glass. The oils were (using letters of reference for the columns of the table):

(A.) Pure linseed oil.

(B.) The same oil, exposed six hours to a temperature of 70 to 80 degrees.

(C.) The same oil, heated during six hours at a temperature near to the boiling point, with new peroxide of manganese.

(D.) The same oil, heated in the same manner with peroxide, which had been used twice.

Days occupied in Drying.	A.	B.	C.	D.
First coat	6	4	2	0½
Second ditto	6	5	4	4
Third ditto	5	5	4	2
Total:—Days	17	14	10	6½

The short period occupied in the drying of the first coat in the fourth column is remarkable. In some previous experiments, similar unexpected results occur where coats were laid on wood. Those cases suggested to us inquiry whether sufficient absorption could have taken place to ensure durability. It is, however, due to M. Chevreul to say that this question was not wholly neglected, for independent of the record given of the exact state of the surface on every day during the progress of the experiments (our own pages having limited us to results), in experiments tried on certain materials, the paint is specially mentioned as of slight adherence to the wood. These instances are chiefly in the concluding chapter.

Various additions have been made to the pure substances, carbonate of lead and oxide of zinc, not only in the course of extensive adulteration which is practised, but in other cases, with the idea of particular beneficial results. It may therefore be interesting to follow our author where he endeavours to find what is the sort of influence which certain bodies, mixed with one or other of the above-mentioned bases, will exercise as regards the general drying properties. He finds that sulphate of lead mixed with linseed oil is much less siccative than the carbonate,—the three coats—if laid on oak in summer—occupying nearly three times as long in the drying as three coats, similarly laid, of the carbonate. However, whilst the bulk of the excess of time was occupied by the first coat, the second coat of the sulphate dried in precisely the same number of days as that of the carbonate. A *mixture* of the sulphate and the carbonate appears to have been introduced in France about 1850. That material, M. Chevreul found would dry as well as the pure carbonate; in other words, the sulphate had received from the carbonate a considerable accession in siccative properties. But it is observed that the mixed material had some tendency to work unevenly under the brush.

Passing to the zinc base,—the *sub-carbonate* of zinc has been tried. It begins to dry more quickly than the oxide, and might therefore be supposed to afford advantages, if mixed with the latter. It has, however, the disadvantage of being "semi-transparent," and is altogether very different to the white of lead, or even to the white of zinc. Still, M. Chevreul thought advantage might be taken of the peculiar siccative property, as a substitute for the oil of manganese, which has the inconvenience of interfering with that peculiarity of the oxide of zinc, for which, at all events, it is valuable, namely, its peculiar whiteness. Experiments were commenced, therefore, on two deal doors, and in Midsummer, 1849, with the mixtures designated below, A and B:—

	Parts by weight.
(A.) Pure linseed oil	100
White of zinc (oxide) 0¾, by measure	100
Sub-carbonate of zinc, 0¼ by measure	
(B.) Pure linseed oil	98
Manganesed oil	2
White of zinc (oxide)	100

The first coat applied of each, had an equality of aptitude as regards the covering of the surface; and four hours after application the paint had taken hold. The mixture A, however, showed a disposition to dry best where most exposed to the light. On comparison at the end of a year, the door painted with A was sensibly more white than the other. Perhaps, however, the paint was less adherent than the mixture B. Yet M. Chevreul does not seem to consider the difference of much moment, since he goes at once to the advantages of the admixture,—saying, that whilst there can be no material difference as to the drying in A and B, the former has advantages with white grounds, or such light tints as yellow would be injurious to.

The effect of finely-divided powders upon the drying of a vehicle, is M. Chevreul remarks, that of accelerating the drying,—as might be expected, apart from chemical influences.

In the course of our examination into the series of experiments, we have attached, certainly, great importance to the absorption of the coating by the material painted. No artist, we are sure, will differ with us for having gone greatly beyond M. Chevreul, in desiring with the durability of substance and surface, the absence as a general rule, of all shining appearance. No doubt the brilliant and the "dead" character of surface can be used side by side, and might be so more frequently than they are, with the best effect. Nevertheless, there is good esthetic reason for the practice of finishing the best kind of work in flatted colour. Wherever there is "surface enrichment," in form or colour, or where there is moulded ornament, a general shining varnish seems to be only antagonistic to the effort of the design. Such a surface by reflecting, is necessarily unequal and accidental in its effect, and calculated to annihilate defined form. Herein, lies a disadvantage of pictures painted in oil, as compared with those in fresco,—a disadvantage which was well understood a few years since when the subject was under discussion, but which latterly seems not to have received much consideration.

We allude again to this element in our subject of investigation, because the experiments which are the last mentioned in M. Chevreul's paper, appear to be not unconnected with the end to which the discoveries of chemistry will, we hope, one day reach. On this point we hope to offer some suggestions.

ON CHRISTIAN ART.

MR. SCHARF'S seventh lecture on this subject commenced with a notice of the interior of the Sistine Chapel, erected in 1473, by Pope Sixtus IV. The name of the architect was Baccio Pintelli. The chapel measures 132 feet 8 inches by 43 feet, and from the floor to top of window arch, 57 feet 10 inches. The roof is waggon-headed. With the exception of the Chapel of St. Lawrence, built by Nicholas V. in 1450, the Sistine Chapel is now the oldest part of the Vatican. In 1474, Sixtus IV. employed the best artists of the Tuscan and Umbrian schools to paint the walls of this chapel with a series of compartments, six on each side, from the history of the Saviour and of Moses, the former being ranged on the south wall. Thus, in accordance with the established custom, the scenes from the Old Testament confronted those from the New. For example, Christ's Sermon on the Mount faced Moses on the Mount, and the Last Supper was opposite to the last commands of Moses to Joshua. The painters employed were Luca Signorelli, Sandro Botticelli, Cosimo Roselli, Salviati, Pietro Perugino, and Domenico Ghirlandajo. The lecturer quoted Vasari's account of Roselli's conduct in the Sistine Chapel: he was far inferior to the other painters, and was aware of his deficiency; but, perceiving the weakness of the Pontiff, who delighted in gold and finery, belaboured his work with gilding and ultramarine. This was so much to the delight of the Holy Father, that he commanded the other artists to spoil their works in a similar manner for his gratification. Sandro Botticelli was a pupil of Filippo Lippi, and although we know nothing of his private life, it is evident that he imitated the wild and gipsy-like style of his vicious master. He was the instructor of Lippi's son, Filippino Lippi, who worked so creditably in the Carmine chapel at Florence. Botticelli was employed by the Medici upon profane subjects. His picture representing Calumny, from the description of a painting by Apelles, is well known, and a round Holy Family at Florence, repeated also in the Louvre, is especially beautiful in sentiment and composition. The finest specimen of the master, however, is to be seen in the Accademia at Florence.

Luca Signorelli and Melozzo da Forlì, were the first successful masters of foreshortening: several groups in the frescoes by the former at Orvieto, relating to Antichrist and the day of judgment, were afterwards adopted by Michelangelo. A large fresco by Melozzo is preserved in the Quirinal Palace, at Rome; and a picture containing portraits of Sixtus IV. Platina and his Nephews, is still treasured in the Vatican as a relic of the old library. Verocchio, born 1432, was a pupil of Donatello, and himself the instructor of Perugino and Da Vinci. A magnificent work of his may be seen in the Crystal Palace at Sydenham. It is a cast from the bronze equestrian statue of Colleoni at Venice. He died 1488.

Pietro Perugino, chiefly celebrated as the master of the great Raffaelle, executed some very fine works, especially an altar-piece in the Vatican, an Ascension at Lyons, and the decoration of the Sala del Cambio, at Perugia. He was employed in Rome about 1480, upon the ceilings of the Papal apartments.

Domenico Ghirlandajo, the master of Michel-

ngelo, displayed a closer affinity to the Lippi nd Botticelli school. In the choir of S. Maria Novella, at Florence, he painted a series f frescoes from the life of the Virgin Mary. His frescoes in S. Trinità, from the history of . Francis, are particularly beautiful; and there a fine specimen of his talents in the collection f the Florentine Academy.

Of Francia, the Bolognese goldsmith, a great ontemporary painter, we possess some very fine xamples in our National Gallery and at Hampon-court.

Leonardo da Vinci, a most universal genius, nd of extraordinary accomplishments, united ith great personal advantages, was born 452, and apprenticed to Andrea Verocchio, nder whom he made such proficiency as to urpass his master, and deter him from further ractice as a painter. Da Vinci was an able culptor, working in marble, bronze, and terra otta: botany, mathematics, engineering, and rchitecture found him equally proficient; and e is said to have discovered and illustrated everal minute portions of the human body not itherto observed by anatomists. His sketchooks are still in existence; and it is to be marked that he always wrote backwards. He repared a cartoon of a fight for a standard, to orm part of the battle of Anghiari—a subject iven him to paint in the council-hall of the alazzo Vecchio, at Florence. In 1497 he nished his celebrated painting of the Last upper, at Milan, in the refectory of the Dominican convent of S. Maria delle Grazie. he motive of the arrangement of the apostles the table becomes at once evident in the uilding itself. Convent refectories are square, aving three long tables placed along the walls, aving one wall facing the prior blank. The onks sit on one side of the table only, with eir backs to the wall, so that the other side is ft open for the convenience of the servants. painting of the Last Supper was not unfreiently introduced on the blank wall, so as to ontinue the arrangement of seats all round the partment. It was usual, before Da Vinci's ne, to place Judas alone on the outer side of e table, seated on a stool, with an especially lanous countenance, and this arrangement as adopted by Giotto in Sta. Croce, and Raffaelle also in a recently discovered sco at Florence. It appears likewise in small painting in Lord Ward's collection tributed to Giotto or his school. But Vinci ranged Judas with the rest of the ostles, marking him sufficiently by his counance, the money-bag, and the old superstition having overthrown the salt. This picture s at once recognized as a grand source of udy for young artists, and especially as a ool of expression; but unfortunately, from ne imperfection in the wall on which it was nted, the picture began to decay rapidly, and y little now remains beyond a mere wreck. very fine copy, by Marco d'Oggione, made the time, and under Leonardo's superendence, still exists in the Royal Academy, Trafalgar-square. Giuliano de' Medici inded Leonardo da Vinci to Rome; but he tted that city without producing any rerkable work there beyond a beautiful paint- in the convent of Sant' Onofrio. He exled, it is said, in the arms of Francis I. in 19, one year before the death of Raffaelle. s work on painting deserves greater attention n is generally bestowed on it; but it is anged more like a receipt-book than we are ustomed to in modern essays on art.

The contemporary Flemish painters who succeded Van Eyck and Memling were mencned, as well as the works of King René, of jou, father of the celebrated Margaret, en of our Henry VI. His large altar-piece, work of remarkable excellence, is still preved at Aix. The changes in book illumina- at this period were very striking, and the ie peculiarities manifested themselves in oidery.

The rest of the lecture was devoted to the ory of engraving and printing. Mr. Scharf an by observing, that although the latter was irely dependent upon the former, the art of raving had been practised as a durable ornat from time immemorial. It was alluded to an early period in scripture; and the Nineveh sculptures and bronzes show the perfect use that was made of incised lines by the ancient Assyrians. Like the Etruscans, they employed a series of fine lines closely parallel, to give the effect of shading: sometimes the lines were crossed, and patterns were frequently relieved by thickly punctured dots, giving the effect of modern stippling. The Etruscan mirrors, and bronze circular boxes to contain their bathing apparatus, called cistæ, afford numerous examples of outline engraving; but to *print* from them and so multiply the device, does not seem to have been thought of till the days of Finiguerra, in the middle of the fifteenth century. A favourite style of ornamental engraving upon silver plates had prevailed for ages before this period, in which the cross lines, intended to look dark, were filled in with a black metallic substance called *niello*, which, being fused at a temperature not injurious to the silver plate, incorporated itself with the metal, and formed a permanent and beautiful device heightened with black.

In his fifth lecture, alluding to monumental brasses, Mr. Scharf spoke of them as *nielli* on a large scale, which were filled in with mastic varnish and black paint, instead of the more elaborate metallic composition. These niello plates were sometimes heightened with gold and enamel, and so much pains were bestowed on them as to make them eagerly sought as works of art. In those days the goldsmiths were the engravers; and, as it was natural to desire to retain some specimen of their art after the work had passed out of their hands, they adopted a very simple expedient to procure a copy. When the engraving was sufficiently advanced, and the lines had not yet been filled in with the niello composition, they took an impression in very fine earth or plaster, so that the deep-cut lines stood up in relief exactly in proportion to the engraving. Upon this, again, the workman poured melted sulphur, which being very fine, and of a beautiful metallic colour, took a perfect impression, with all the lines exactly as they appeared in the metal plate itself. The hollows in the sulphur were filled in with black colour: the surface was polished; and thus the *copy* became a specimen of the goldsmith's ability. During the process of working at his engraving, the artist was in the habit of filling in the lines of the plate itself with some black paint, mixed with water, in order to judge the better of his progress, and the colour would easily wash out when the experiment had sufficed. Accidentally, it appears that some melted sulphur was dropped upon a metal plate filled with this temporary colour, and when taken off, the sulphur was found to have received the entire device formed by the black colour in the lines, as we are now accustomed to see in ordinary prints. This accident suggested to Maso Finiguerra, the best engraver of his day, to apply paper to the plate charged with black ink before it was finally incorporated with niello.

The entire proceeding is happily illustrated by a famous niello, still existing at Florence, by a paper impression from it, preserved in Paris, and by a sulphur copy from the same, taken by double impression, formerly at Genoa, and now in the British Museum.

This niello plate, forming the front of a Pax, one of the church devotional instruments, is mentioned in the archives of St. Giovanni, and thereby ascertained to have been finished and *paid for* in 1452. As all the copies and impressions must have been taken before the final process of infusing the niello, the date is very satisfactorily determined. The price paid by the British Museum for the sulphur copy from this celebrated pax was 300 guineas. At the same sale a paper impression from a similar niello fetched the *same* price. The museum is especially rich in early paper and sulphur specimens of engraving. In sulphurs it is unrivalled.

From this period, 1542, engravers began to work for the express purpose of multiplication, and the first book printed with engravings is the "Monte Sancto di Dio," Florence, 1477. The Landino Dante was illustrated with engravings by Baldini, from designs by Botticelli.

The history of wood-engraving was equally important, but the limitation of time prevented the lecturer from devoting the requisite attention to it. He mentioned the early use of stamps evident in the ornamental impressions upon Nineveh clay tablets, bowls, and inscribed bricks. In these cases, the patterns were indented by a prominent surface, and the reverse of the action of the well-known cylinders, on which the figures were hollowed out, or sunk, as in ordinary seals. The Greeks and Romans employed cut stamps for the repetition of their patterns on walls and ceilings, and this seems to have been actual surface printing, and not stencilling. Wood printing in the fifteenth century is so intimately connected with the formation of letters, that it seems impossible to determine which were first carved in wood, figures or letters. The earliest block books, in which the type is fixed, and the whole page carved, belong to a date about 1472. These blocks were all printed in a pale brown ink; but the famous St. Christopher, the earliest wood-block with a date on it, is printed in pure black ink. It is in the collection of Lord Spencer, and inscribed 1423. Another engraving has been discovered at Malines recently, bearing the earlier date 1418, but many doubts are entertained of its genuineness.

CHURCH BUILDING NEWS.

Ipswich.—A stained glass memorial window has been put up in the church of St. Margaret, in this town, by Mrs. Tranter. The work has been executed by Mr. Cuthbert, of Ipswich.

Cradley. — The foundation-stone of a new church, or chapel of ease to the parochial church of Cradley, was laid on Thursday in last week by the Hon. F. Lygon. The funds for the erection and endowment of the church, and a parsonage-house adjoining, were left by the late dean of St. Asaph. The church will cost about 1,800*l.* Mr. F. Preedy, of Worcester, is the architect, and Mr. G. M'Canu, of Malvern, the builder. The site is eight miles from Worcester, by the side of the old Hereford-road. The edifice will consist of a nave, chancel, tower, and spire, with a painted glass east window, designed and executed by Mr. Preedy. The style is Geometrical Decorated; and the material will be Cradley stone range-work and Cradley stone external quoining, with Bath stone internal quoining. There will be sittings (open benches) for 185 persons. The length inside the wal's will be 92 feet; breadth, 22 feet; width of chancel, 16 feet; height of tower and spire (which are at west end), 107 feet. The church will be warmed with hot air.

Torquay.—The Episcopal Chapel of the extramural cemetery has just been completed in the cemetery grounds, about a mile and a half from Torquay. The internal dimensions of the chapel (a simple parallelogram in plan), are 34 feet 6 in. long, 16 feet 6 in. wide, 16 feet high from floor to top of cornice, and 27 feet 6 in. to internal ridge-rib. It is in the Decorated style, and wholly built with wrought light grey limestone, except the door and window frames, labels, eaves, cornice, and roof corbels inside; all which are of Bath stone, and the gable and spire finials, which are of Portland stone. The roof is slated. The walls are internally coated with blue lias cement stucco, in which material the cornices and edge-mouldings of the window-splays are also executed. The roof-ribs are supported, internally, by curved pieces springing from stone corbels about 12 feet 3 in. above the floor, and divide the length of the chapel into several bays, all of equal width, except the two end ones, which are somewhat narrower. The bell-turret projects on the south side, and a tool-house on the north side. The only entrance to the chapel is by the western door. The architect is Mr. Gribble.

Newport (Wales).—A new district church, parsonage, school-masters' house, and schools, are to be erected at Sambrook, near Newport. The church will contain 204 free sittings for the poor. Messrs. Nevett, of Ironbridge, have promised to complete all the buildings in fifteen months, weather permitting. The building committee having advertised for tenders, received the following on 25th June:—From Mr. Cobb, Newport, 3,400*l.*; Mr. Barrat, Drayton, 3,150*l.*; Mr Treasure, Newport, 2,629*l.*; Messrs. Nevett, Ironbridge, 2,438*l.* These tenders do not include land and stone given, or the carting

of all materials, scaffolding, &c. which twenty residents in the neighbourhood have undertaken to do free of cost.

Bordesley.—A stained-glass memorial window has recently been placed at the east end of the northern gallery of Holy Trinity Chapel, Bordesley, by Mr. H. R. Cooksey. It consists of two principal lights, in which are placed eight medallions representing events in the life of our Lord, amongst which the blessing of little children and the dispute with the doctors, with other subjects from His childhood, occupy an appropriate position. The intervening spaces are filled with ornamental foliage, as is also the tracery, with the exception of the centre light surmounting the whole, which contains the monogram of the Holy Trinity. The glass is from the *atelier* of M. A. Gerente, of Paris, who has also executed the stained glass recently placed in the nave and transept of Ely Cathedral.

Walsall.—For a new church in Lichfield-street, a site has been given by Lord Hatherton, and a committee has been appointed. The estimated cost of the erection is 3,000*l.* and the endowment 1,500*l.*; making a total of 4,500*l.* Lord Hatherton has contributed for the endowment 500*l.*; the Lichfield Diocesan Society and the Corden Fund, 500*l.*; and it is expected that the Church Building and other societies will contribute 1,000*l.*; making a total of 2,100*l.* leaving 2,400*l.* to be raised by voluntary contributions. Of this 400*l.* have been subscribed, and the committee have appealed to the inhabitants for the residue.

Liverpool.—On Thursday in last week the first suburban cemetery constructed in this town since the passing of Lord Palmerston's Intramural Interments Bill, was commenced by laying the foundation-stones of the two chapels intended for burial services in the cemetery at Toxteth-park. One chapel will be devoted to the Church of England, the other to churches of other denominations. The cemetery is being constructed by the Toxteth-park Burial Board. The site was obtained from the Earl of Sefton, at a cost of 500*l.* per acre, or of altogether 15,000*l.* The cemetery, which will be about 30 acres in extent, is situate on the south side of Smithdown-lane. The ground is sandy, and capable of being properly drained. One-half, or thereabouts, is to be set apart for the Church of England, and the other half for other religious denominations. The whole will be laid out in mounds and slopes, and planted with shrubs. At the entrance from Smithdown-lane there will be two lodges. The chapel for the use of the Church of England will stand on the high ground at the eastern portion of the site, and consist of a nave 40 feet by 20 feet, porch, and vestry. It is designed in the Geometric Decorated style, and will seat 120 persons, allowing space in the centre for burial purposes. An octagonal turret and small stone spire are placed at the corner. The height from the ground to the top of this spirelet will be 53 feet. The two end windows will be filled with tracery, of geometric character. The jamb shafts are to be of black marble; the caps and bases, as well as all the other dressed stonework, of Storeton stone. The walls will be of brick, faced with Huyton stone; and in order to exclude the damp a cavity of 2 inches will be formed in the centre of the brickwork. The floors will be of square red and blue Staffordshire tiles. The roof, together with the seats, reading-desk, &c. will be wrought and stained to imitate oak. The other chapel consists of a nave, 35 feet by 20 feet; and will seat ninety persons, with room for funereal purposes. It is similar in general character and style to that already described, but will have, instead of a turret, an ornamental bell cote, pierced with tracery on the principal gable. The lodges will be built of patent brick, with Storeton stone dressings in the domestic old English style, of same period as the chapel. The front fence-wall will be of similar brick and Storeton dressings, having piers at intervals, the spaces being filled with an iron palisading, of suitable design. The gates will also be of an original pattern. The whole of the works have been designed by Mr. T. D. Barry, of Liverpool, architect. The laying out of the grounds, drainage, &c. are under the direction of Mr. William Gay, of Bradford, Yorkshire.

Ugthorpe.—The foundation-stone of a new church at Ugthorpe, near Whitby, was laid on Thursday before last, on a site given by Mr. James Hindson, of Ugthorpe. The new church is of the Decorated Gothic style, of about the period 1315. The plan is cruciform, having a small bell-turret and spire at the west end. The windows of the transepts are divided by mullions and tracery, and on the north side of the building a porch projects at the western commencement of the nave, the vestry being formed by a small outshoot on the same side towards the eastern end. The chancel or choir is divided in the interior from the nave by a ribbed arch, which rests on either hand upon corbels of carved foliage, and a screen of oaken tracery after the ancient manner passes across from side to side, through which in the centre the communion-table is approached. In addition to chancel sedilia, a flooring of encaustic tiles and other enrichments are spoken of, as well as stained glass for the windows, as far as the funds will admit. The length of the edifice from east to west is 80 feet; width in transepts 39 feet; height to ridge of roof, 32½ feet; and altitude of spire, 57 feet. The points of transepts, east end, porch, &c. are finished with ornamental stone crosses. Messrs. Coe and Goodwin, are the architects; and Mr. W. Langdale, of Whitby, the contractor.

THE BUILDERS' SOCIETY.

THE annual summer dinner of the Builders' Society was eaten on Thursday, the 12th inst. at Greenwich. Mr. Lucas presided: Mr. Wales was at the other end; and Mr. Haward, Mr. Nixon, Mr. T. Piper, Mr. W. Piper, Mr. Nesham, Mr. Bird, Mr. Todd, Mr. Lawrence, and other members, were round the table. Mr. Edward Barry was amongst the guests.

The Chairman pleaded his "first appearance in that capacity" as an excuse for any shortcomings, but showed as he proceeded that no excuse was necessary. In the course of some of his observations he spoke with warmth of the good qualities of Sir S. M. Peto, once his employer, and now his best friend.

Mr. Nixon gave "Success to the Society," with a sensible exposition of the good effects which resulted from the cultivation of kindly feeling: Mr Piper made one of his pleasant speeches; and Mr. Haward showed how "Good cheers" ought to be given.

The day was distinguished by good feeling and good wine; whitebait and wisdom.

Mr. Alderman Cubitt was kept away by an impending calamity, which has since fallen heavily upon him.

PROVINCIAL NEWS.

Wolverhampton.—The borough surveyor, Mr. Henry, on Tuesday in last week, laid before the local Public Works' Committee plans, estimates, and sections of the main sewers he proposes to lay down, accompanied by a report. He proposes to collect the sewerage into three main outfalls, Compton-road, Gosbrook, and Monmore-green, to afford facilities for the manufacture of solid manure, should it appear desirable. The estimates for the main sewers, including two canal crossings, shafts, side entrances, and various contingencies, amounts to 21,310*l.* The borough engineer is at present engaged upon the detailed levels, so as to prepare the sections for the street sewerage, which, when completed, will enable the local board to obtain the approval of the general board, and raise the necessary funds for carrying the entire scheme into effect.——The contract of Messrs. G. and F. Higham, for the erection of a new façade to the Red Lion premises, and interior alterations, to form the new town-hall, has been accepted by the Public Works Committee. The contract, according to the local *Chronicle*, is under the estimate of the architect, Mr. R. Veall, of this town. The new front will be of stone. The alterations, which are to be finished in six months, will be commenced immediately.

Worcester.—At the last meeting of the Local Board of Guardians, it was resolved that Mr. Rowe, architect, should furnish plans and specifications for new school-rooms at the Union-house, with day-rooms for master and matron attached, and dormitories for the children and the schoolmaster and schoolmistress.

Cardiff.—The opening of the new East Docks here was to take place on 20th inst. with procession, boat-racing in the new dock, and a public dinner and ball, &c.

Manchester.—Rapid progress is being made with the new Free-trade Hall. The Peter-street façade will be 70 feet high from the basement, or 10 feet higher than that of the adjacent Theatre Royal. The style of architecture will be Italian, richly decorated; and it is expected that two years will be required for the completion of the edifice.

Oldham.—The chief stone of the Lyceum was laid on Monday before last, by the president of the institution, in presence of Lord Stanley, M.P. Mr. John Platt, the mayor, with others of the corporation of Oldham, and a large number of spectators. We have already described the general design of this new building, of which Mr. N. G. Pennington, of Manchester, is the architect, and Mr. G. Whittaker, of Oldham, the builder.

Blackburn.—On Saturday before last, the foundation-stone of a new mill, to be called the Ordnance Mill, was laid on land at Furthergate, purchased from the Board of Ordnance. The ceremony was performed by Mrs. Marlin, daughter of the proprietor. The intended mill and shed will cover an area of 7,000 yards. The contractors for the building are Messrs. Hacking, of Blackburn, for the stonework; and Mr. Hornby, of Clitheroe, for the woodwork. The mill, when finished, will find employment for upwards of 500 hands. It will most probably lead to the erection of other mills on the same land, which adjoins the Leeds and Liverpool Canal. Two new streets have been laid down upon the land.

Lambton Castle (Durham).—Lambton Castle has been undermined by coal workings, and a portion has settled, fracturing the walls considerably. A drift is being sunk for the purpose of enabling the workmen to get underneath, and underset the castle. It is at present closed to visitors.

Stirling.—There is now nearly completed a new building for the Edinburgh and Glasgow Bank in Stirling. The front elevation has semicircular-headed ornamented windows. The street floor is appropriated to the bank, and two floors above for the manager's residence. In the basement story there are fire-proof rooms and safes. The building is of a warm tinted freestone.

WALLS' COURT FARM, NEAR BRISTOL.

ACTING on the suggestion of others, we have engraved a view and plan of farm buildings, in the parish of Stoke Gifford, near Bristol, on the estate of his Grace the Duke of Beaufort, and occupied by Mr. Alderman Proctor, which have been recently completed under the direction of Mr. Godwin, the conductor of this journal. To make the matter complete, we shall in an ensuing number venture to give a view and plan of the residence, and of the house for the bailiff.

The farm is situated principally on the lias formation, and was, until the last three or four years, of a wet, barren soil. Draining has greatly increased its capabilities, and improved tillage has produced considerable alteration in its appearance. The drains were put in at distances, varying from 30 to 60 feet, at a depth of 4 feet: 1½-inch pipes were used with collars, 2-inch pipes without collars. For the main drains, 3 inch pipes were used. The result has been very satisfactory.*

Mr. Proctor cultivates about 520 acres of grass land, and 125 acres of arable. On the farm there are other buildings for bulls and calves, and near the arable land stables, pigsties, and implement sheds. The buildings now shown are conveniently placed for the grass land.

The stock usually consists of about 200 head of cattle, of the short horn or Durham breed,

* Some remarks on thorough drainage will be found in our Vol X p 209 At p. 305 of the same volume, there are some particulars of the mode of irrigation adopted by Mr. Mechi; and in the previous volume, p. 555, some observations on farm buildings generally.

viz. from forty to fifty dry cows, twenty to thirty rearing calves, and the remainder young and feeding stock. There is also a breeding flock of about 230 South Down ewes and their produce, making a total of from 600 to 700 sheep, and ten farm-horses.

Mr. Proctor has now occupied the farm sufficiently long to completely systematise his proceedings, but at present he endeavours to have half the arable land in wheat, and the remaining half Swedes and mangel wurzel, beans, clover, and vetches.

A few days ago the Mayor of Bristol and twenty of the fraternity of Freemasons dined at Walls' Court, for the purpose of inspecting the homestead. Some account of the farm, by an able pen, appeared, in consequence, in the last number of the Bristol *Times*, a part of which we thankfully adopt, for obvious reasons, in preference to making any observations ourselves.

"Walls' Court," says Mr. Leech, "is in the rear of Stoke Gifford, and is, with the surrounding estates, the property of his Grace the Duke of Beaufort. Mr. Proctor's farm comprises 600 acres, of which about 400 are under grass; and so poor had for many years been the reputation of the land, that by all previous tenants it was known by the hungry but expressive name of 'Starve-all-Farm.' Nothing deterred by this title Mr. Proctor took it as a sort of recreation from the severer duties of a large manufacturing business, or, we should rather say, manufacturing businesses, as he has houses for bone and other artificial manures, not only in Bristol, but in Birmingham, London, and, we believe, in Leicestershire, so that our agricultural friends may form some idea of the amount of leisure such a man has to bestow on experimental farming. But system is everything, and as they say Cockney shopkeepers, when emigrating, make the most successful agriculturists in Australia, so the method of the counting-house, when applied by a man of business to predial matters, renders the management of even 600 acres a thing of easy routine.

Another potent element of trade was, it is true, also applied to Walls' Court Farm, by our friend, the alderman. He took the holding, we believe, under an equitable term, that was to give him a fair return for his capital, and through the magic operation of the latter, the once ill-omened Starve-all-Farm gradually became a model one. By the effective draining and manuring, the hungry land took heart, and gave forth rich herbage, dotted with cattle, such as Sidney Cooper would delight to paint. 4,000*l.* or 6,000*l.* not only made the wilderness bloom and blossom like the rose, but a picturesque residence and the most complete set of farm offices now render Walls' Court Farm the interesting object of the neighbourhood. All this has taken place in a marvellously short time. About four years ago, the aldermanic tenant resided in a handsome villa in Cotham-park, when the thought of rural felicity and dairy farming first struck him."

"The common bullock-sheds were, in themselves, patterns of convenience and order. The largest is about 220 feet long, and is almost an ecclesiastical-looking structure, being lit at the end by a three-light Gothic window. It accommodates fifty cattle, holding altogether, with the two lesser sheds on either side, about one hundred. But the singular feature of this bucolic building has still to be noticed. Down the centre of it (hear it, all ye lag-behind sons of the soil in Somersetshire and Gloucestershire, and, like our worthy alderman, go a head if you can), runs a well-constructed railway, for the conveyance of fodder to the stalled beasts on either side—no mere patched-up tramway, but a substantial permanent way, a line made without an Act of Parliament, working without a solicitor, and managed without directors. Certainly, at morning and evening, you may hear and see the train of waggons thundering along through these handsome sheds, while its share of green fodder is punctually delivered at every shed or station throughout the entire distance. Special trains also, we believe, occasionally travel at other hours of the day.

"Next came the incident in the Alderman's Agricultural Department, which most struck us. After passing the comfortable and picturesque cottages which he had erected for his farm labourers, our attention was attracted by an exclamation from one of the visitors, and following him into a building, we were pleased and surprised to find ourselves in a neatly fitted-up schoolroom, airy, arranged with desks, forms, clock, &c. and the walls ornamented with maps, and those illustrations of natural history which the Society for the Diffusion of Knowledge have published and rendered popular. This was in fact a school, established and supported by the tenant alderman himself, for the children of his farm labourers, there being nothing of the kind within practicable distance of Walls' Court. The children and intelligent mistress rose as we entered, and we learned that sixteen scholars attended during the day, and ten in the evening—the latter being employed at other times on the land, and spontaneously devoting a portion of their afternoons to the opportunities of improvement thus afforded them. Hear ye this, ye great farmers of Wiltshire, with your two or three thousand acres! how many of you recognise your responsibilities to the children of your workmen in this manner? If every one felt his duty and fulfilled it at his own cost, as Alderman Proctor does, the ignorance of the rural classes of England would not be so crying as it is. It was by the merest accident we discovered this circumstance, and the worthy alderman appeared to think as little of the merit of the act as he is ignorant of our noticing it. However, we cannot abstain, even at the risk of appearing to invade privacy, from chronicling the fact for the sake of example. People talk a great deal now about the right man in the right place; and we think it may well be said Mr. Proctor, whether in town or country, is never in the wrong one. Nor can his business in Bristol, Birmingham, and elsewhere, superadded to the charge of his bullocks and milch cows at Walls' Court Farm engross his energies—for the stranger or citizen who passes Redcliff Church, and sees the North Porch growing from year to year in newness and beauty through the liberality of an anonymous hand, which from time to time furnishes the funds, will not perhaps be so astonished to learn that the same Alderman Proctor, manufacturer, grazier, and restorer, is, *at least*, the sole depository of the secret of *Nil Desperandum*."

So much for the local historian. With regard to the use of pits for cattle, to which, in theory, there would seem to be some objection,—Mr. Proctor states that his present experience is decidedly in their favour for rearing and feeding stock, but for milch cows he prefers the stalls, on account of keeping them clean. The manure from the pits is found of excellent quality, and is allowed to remain in the pits until carted to the land.

The drainage from the stalls runs into the tank, and there is a supply of water at a level sufficiently high to allow of its running near the tank and mixing with its contents, and then irrigating some meadows below the buildings, which plan Mr. Proctor contemplates adopting.

We were somewhat surprised to find that Mr. Proctor has been disappointed in the result of his experiments with liquid manure: he informs us that for two years he has carted the liquid manure on grass and arable land, but the result has not been satisfactory. It would be interesting to know whether other farmers who have gone to the expense of tanks and liquid-manure carts, and applied the manure on *heavy lands*, have been similarly disappointed, as these are expensive items in what are called agricultural improvements.

The steaming chambers are large, convenient, and inexpensive, and in seasons when hay is badly made appear to answer well. Mr. Proctor seems to consider that they are principally useful for steaming inferior hay, or hay and straw mixed, as the cattle are thereby induced to eat what they would otherwise reject and waste,—but his experience induces him to think cattle will do equally well on good hay without steaming as when it is steamed.

He has found from 4 lbs. to 6 lbs. of linseed cake, and from 4 lbs. to 6 lbs. of bean meal, with vetches or clover in spring, and hay and swedes in winter, the best food for fattening cattle; regularity and speed in feeding, and subsequent undisturbed repose, are essential.

The references which follow show the appropriation of the various parts of the building, the railway, the drains, and the water supply.

The buildings are constructed of stone, dug on the estate, with Bath stone dressings, and have slated roofs.

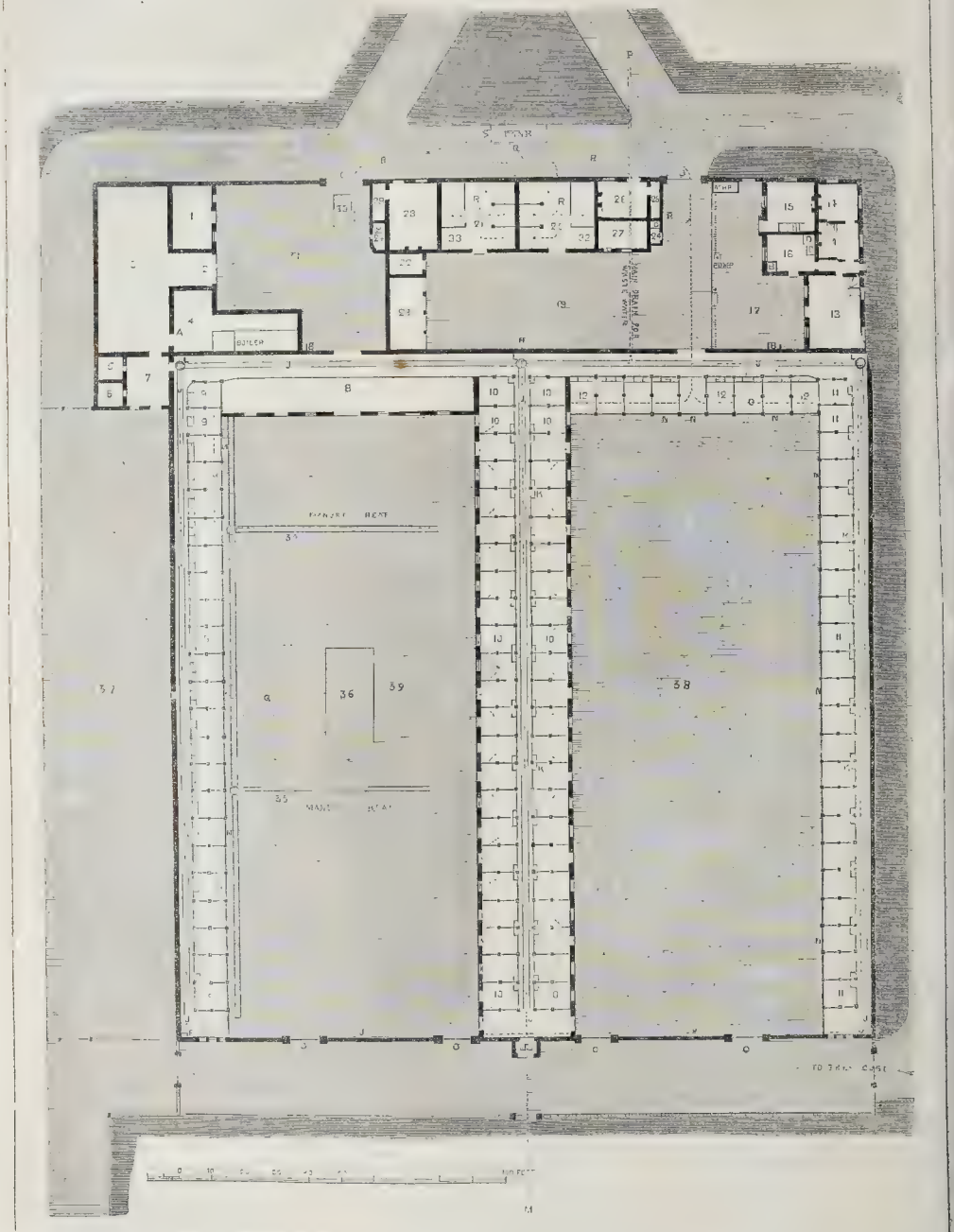
In the centre of the main yards, 38 and 39, straw-sheds of appropriate character will hereafter be erected. The stable-yard, 19, dairy, and barn, are on a much lower level than the cattle-sheds: the ground, before the buildings were commenced, having a steep incline. Inclined planes lead from the sheds into the stable-yard. We may add that the duke's agent, Mr. Thompson, of Badminton, has cordially co-operated with Mr. Proctor, and has taken a warm interest in the result.

The whole of the parish of Stoke Gifford belongs to his Grace the Duke of Beaufort, and we understand he has lately erected a new farm-house on the other side of the estate, and has shown a laudable interest in the improvement of the parish, by giving premiums to the cottagers for the cleanest dwellings and best cultivated gardens. We shall be glad to see farm labourers so raised in the scale of intelligence as not to need, or be willing to receive, rewards for simply acting like sensible beings; but so long as these are found useful means, we should be thankful to those who judiciously employ them.

REFERENCES.

1. Cake and corn-store } Corn-loft above, the door
2. Barn-entrance ..... } being over X, and trap
3. Barn..... } over A.
4. Engine-house.
5. Steaming-room for chaff ..... } Chaff-cutting
6. Ditto..... } rooms above.
7. Communication between barn and root-store ..... } rooms above.
8. Food-store.
9, 9, 9. Open Cattle-shed for forty-six dairy cows, tied up (two in each compartment): in each stall the drain falls from the centre both ways, and there is a grating under every division of stalls: the drain-pipes are dotted on plan Q: each stall is paved, and contains two feeding-troughs and one tank for water.
10, 10, 10. Enclosed feeding-shed for cattle—forty-six loose boxes: the feeding-troughs can be raised as pits fill with manure. The short dotted lines at the sides of the feeding-boxes show that the rails are open to allow passage of beast.
11, 11, 11. For breeding animals—twenty-three loose boxes: the feeding-troughs can be raised as pits fill with manure.
12, 12, 12. Open sheds for sixteen tied up (two in each); the drains, paving, troughs, &c. the same as 9, 9, 9.
13. Dairy, with cheese-room above.
14. Dairy-maid's cottage, with two rooms over.
15. Cowman's cottage—two rooms over.
16. Scullery for dairy purposes.
17. Dairy-yard.
18, 18. Coal-store under railway entrance at these points.
19. Stable-yard.
20. Stables for three horses, and one loose box.
21. Ditto ditto
22. Tool-house.
23. Cart-shed.
24, 24. Water-closets.
25. Closet attached to school-room.
26. School-room.
27. Bailiff's office.
28. Men's room.
29. Weighing-room.
30. Weighing-machine.
31. Barn yard.
32. Hay, corn, and harness.
33. Ditto, ditto.
34. Portable railway for removing dung from cattle shed 9.
35. Ditto, ditto.
36. Tank.
37. Yard for storing turnips and roots. The rick-yard is on another part of the land.
38. Yard.
39. Yard.
B. Hot-water apparatus for cheese-room.
C. Boiler.
D. Ditto.
E. Cast-iron cistern, 3 feet 6 inches by 1 foot 6 inches and 1 foot 6 inches deep, with ball-tap, &c.

PLAN OF FARM BUILDINGS, WALLS' COURT, NEAR BRISTOL.



References continued from preceding page

F. Cast-iron cistern, 2 feet by 1 foot, and 1 foot 3 inches deep, with ball-tap, &c.

G. Ditto, ditto, ditto.

H One-inch pipe, with tap to supply stable-yard.

J J J. Three-inch cast-iron pipes, from the top of which there is an inch wrought-iron pipe to bottom of each water-tank in the stalls, as dotted on plan.

K K. Tanks for water: see 10 and 11; one tank for two stalls, size, 2 feet by 1 foot, and 1 foot deep.

L L L. At these points the water can be let off from all pipes and tanks into waste drain P, whenever it is thought desirable to change it.

M. Water supply from large pond 150 yards off.

N. Open gates.

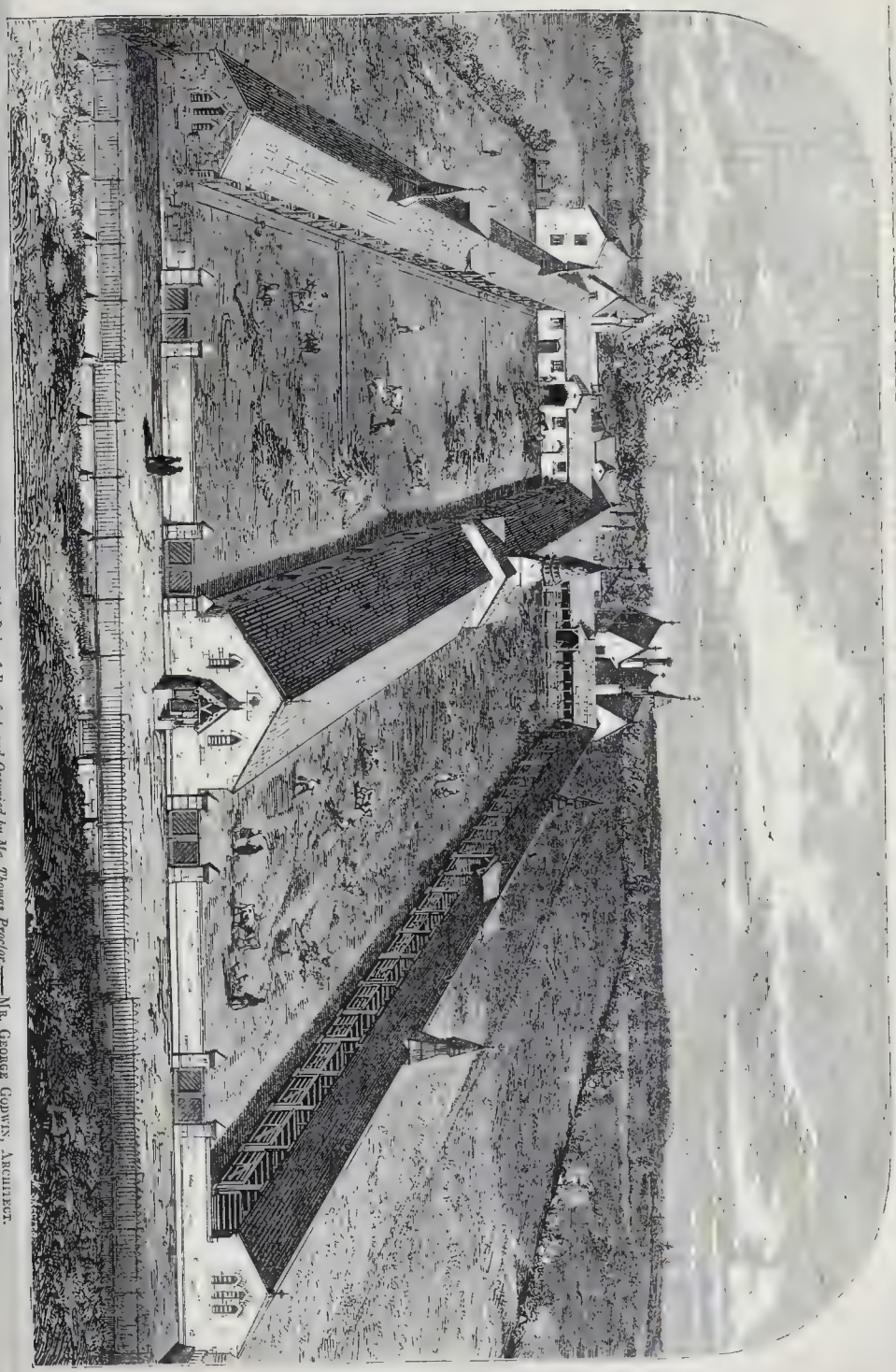
O. Entrance gates.

The rain-water from roofs is caught for use of stable-yard, W. C.s, and for household purposes.

The doors to stables and enclosed cattle-sheds all hang from above, and slide.

The stall passages have a railway with turn-tables, L, at the junctions, for easily conveying food to the animals.

The drains to sheds, 9 and 12, are dotted (see Q Q) on plan: the drains of W. C.s, and stables, are dotted at R R. The whole empty into tank S.



WALCOT COURT FARM, NEAR BRISTOL, on the Estate of the Duke of Beaufort and Occupied by Mr. Thomas Proctor.—Mr. George Godwin, Architect.

SCRAPS FROM AN OLD SCRAP-BOOK.

IN the curious collection of manuscripts bequeathed by Mr. Cole to the British Museum, we find a page which condenses a number of facts, several of which relate to matters of specific interest. Without endorsing the data set down, we quote the column, and the authorities likewise where these are given. Mr. Cole has made the following observation as an introduction:—

"Mr. Tyson, of Benet College, having made the following observations in his reading, sent them to me at Milton, November. 1771."

"Anno 400. Bells invented by Paulinus, Bishop of Nola, in Campania, and thence named Campanæ.

Anno 550. Bells first known in France.

Anno 555. Raw silk first propagated, and wrought silk first made in Greece. Watermills invented, or rather their re-invention. —*Paneirollus.*

Anno 581. The Latin tongue ceases in Italy, and the Italian takes place.

Anno 590. Dress of the Lombards. They wore loose garments like the Anglo-Saxons, mostly of linen, having large seams, and interwoven with various colours. Their shoes were open, almost to the toes, and buttoned or laced together. They afterwards began to wear hose, over which, when they rode, they drew a sort of breeches; but this fashion they took from the Romans.

Anno 674. Abbot Benedict, says the venerable Bede, also brought over artificers skilled in making of glass, which till then had been unknown in Britain, wherewith he glazed the window of the church of Weremouth, and taught the English the art of glass making.

Anno 709. Wilfrid, a Northumbrian bishop, first uses silver plate.—*Tyrrell.*

Anno 728. The bans of Ina, king of Wessex, mention ale and alehouses.

Anno 758. Organs first brought from the Greek empire into the West about this time.

Anno 1070. Musical notes, as at present used, invented by Guido Aretinus.

Anno 1086. Domesday Book finished. The revenue of William I. (1160), 700*l.* yearly.

Anno 1090. London not paved.—*Howell.*

Anno 1097. The Holy War commences, from which heraldry took its rise.

Anno 1181. About this time glass windows are said to have been begun to be in use in England. They had been discovered long before though very scarce in private houses, and ranked even till now as a kind of luxury, and as marks of magnificence. Italy had them first, then France, from whence to England.

Anno 1200. The use of the mariner's compass supposed to be found out about this time. Some suppose it to have been of French invention, as it was first mentioned by Guyot of Provence, a French poet, who calls it maretina, and also because the north point is by all nations marked on their compasses by a *fleur-de-lis.*

Anno 1300. Looking-glasses made only at Venice.

Anno 1302. Most authors fix on this year for the invention of the mariner's compass by di Gioia, a Neapolitan.—See above, anno 1200.

Anno 1306. The daily expenses of the Bishop of St. Andrew's and his servants, being a prisoner in Winchester Castle, for siding with his own king, Robert Bruce:—

For the bishop's own daily expense	6d.
One man-servant to attend him	3
One boy to attend likewise.....	1½
A chaplain to say mass to him daily.....	1½
Total...	1s. 0d.

—*Rymer's Fœdera, vol.* 2, *fol.* 1016.

Anno 1330. Gunpowder and guns invented by one Swartz, a German monk of Cologne. The English in the famous battle of Cressy, 1346, had four or five pieces of cannon.—*Mezeray.*

Anno 1331. Edward III. grants letters of protection to John Kemp, of Flanders, to come and exercise his trade of a woollen cloth weaver. Soon after, in the same year, seventy families of Walloons came over. This was the first foundation of our woollen manufactures.

Anno 1344. Gold first coined in England.—*Sumptuary Laws of Edw. III. Vide Statutes.*

Anno 1367.—A grant of 10*l.* yearly settled on Geoffrey Chaucer, whom the king styles his servant (*Valletus noster*), for the good services which he has done, and is to do hereafter.—*Rymer, tom.* 6, *fol.* 567.

An inventory of goods sent to the Pope.—*Ib. tom.* 7, *fol.* 356.

Clock-makers brought first into England.—*Ib. tom.* 6, *fol.* 590.

Anno 1410. Henry IV. grants to the town of Cambridge a number of small taxes or tolls on provisions, &c. brought into their town either by land or water, to enable them to pave their streets, and mend the high roads leading thither. —*Rymer.*

Anno 1410. Guicciardini ascribes to the Netherlanders the invention of painting in oil, and staining glass with colours; also the making of tapestry;—who also named the points of the compass.

Anno 1418. Stone bullets used for cannon, the iron not yet being invented. See an order of Henry V. for 7,000 stones.—*Rymer, tom.* 9, *fol.* 542.

Anno 1422. Under this year, in Sir Robert Cotton's records, amongst the inventory of Henry V.'s jewels, Arras tapestry, apparel, and goods—'you shall,' says Sir Robert, 'find plain gowns of that king of less value than 40*s* and such other costly apparel as the worst pages of the least gentleman in these days would scorn to wear.'"

SUSSEX ARCHÆOLOGICAL SOCIETY.

THE Sussex Archæological Society, now numbering 667 members, held their annual meeting at Horsham on the 12th inst. The Hon. Robt. Curzon presided. The report having been read, the Rev. E. Turner, rector of Maresfield read a lengthened paper on "The Antiquities of Sedgewick Castle," which, he stated, was situated about two miles and a half from Horsham, eastward, in that detached part of the parish of Broadwater which lies between Horsham and Nuthurst.

Mr. W. H. Blaauw, Honorary Secretary, then read a curious paper, which he had translated from Greek and Latin letters, illustrative of Sussex men and manners in the last century, written in the year 1751 by the Rev. John Burton, fellow of Eton College, who, it appeared, in that year had paid a visit to Shermanbury in this county.

A short paper on the Scrase family was read by Mr. M. A. Lower.

The Rev. Thomas Medland read a paper on "The Ancient Churchwardens' Accounts of Steyning;" and Mr. Blaauw another paper on "Easebourne Priory and Durreford Abbey."

Mr. W. D. Cooper read a genealogical paper on "The Two Families of Braose and Hoo," whose monuments still remain in Horsham Church.

At the dinner, the President said;—

"Some fifty or sixty years ago we were wanting in a general knowledge of archæological subjects, more particularly of painting, architecture, and sculpture, and had fallen into the greatest state of barbarism on all these points. Any one who travelled into the remote districts of Harley-street and other parts of London, would see the great metropolitan style of architecture about fifty or eighty years ago. At the same time when these buildings were thought the peculiar beauties of the metropolis and the towns of England, the country churches were built in the Brummagem Gothic or Cockney Florid style; many peculiar instances of which might be seen in the neighbourhood of London and surrounding country. In consequence, however, of a greater knowledge in architecture, the Cockney Florid style was much rarer now than some years ago. A great many present must remember the days when there was no such thing as a National Gallery, and when there was no place where it was the pleasure of Her Majesty's subjects to go and study the pictures of the great masters of the old times. It was not more than thirty years ago since the National Gallery was first instituted, or what was called the National Gallery, held at a little house in Pall-mall, and to which they had to go down steps; and it was so dark that people had no great means of studying the art of painting. The British Museum did exist in a dark house in London, where people occasionally went in hackney coaches; but if one went there on a Monday, in all probability he would be told it was not open: if he went on the Tuesday, probably the keeper was not to be found: the same on Wednesday. Thursday was the day for cleaning, Friday the keeper was again out of town, and Saturday was a holiday. That was the most barbarous era that had existed in England since the days of William the Conqueror. He really believed that William the Conqueror would have known better than to have built Baker-street."

SIGNOR MONTI'S LECTURES.

IN his fifth lecture, Sig. Monti entered into a criticism on the application of the art of sculpture to the purposes of the new religion which was then being established, and showed the inevitable changes it would not fail to experience, when brought to express the new ideas and their noble aspirations.

The first symptoms of such changes were illustrated by the lecturer with diagrams of early Christian works from Rome, in which the Pagan materialism of forms is almost entirely subdued, and a tendency to mystic symbolism is obviously displayed.

More decided modifications in the Christian art at Byzantium were also illustrated by the lecturer, who showed that the subsequent dispersion of Greek artists, in consequence of the predominance of Iconoclastic doctrines, spread a knowledge and love of sculpture amongst the western nations, and affected also the efforts of Christian art in Central Italy.

The lecturer then traced out the influence which the prevailing element of the Germanic nations has exercised over Byzantine art itself,—exemplifying his assertions by diagrams from works of different countries, such as France, England, Germany, Italy, &c.

This influence tended to abrogate the decorative display and meaningless hieratic forms of the Byzantine school, and substituted for them the more sublime expression of the inward soul, under a simplicity of exterior that added to the importance of sculpture.

In the sixth lecture, according to the *Leader*, the lecturer resumed his analysis with the period of the Italian Cinquecento, where modern art ceased to be strictly Christian or religious, and embraced the wider field of history and poetry.

Having defended Michelangelo from the accusation of causing the ruin of his art by the intense vitality with which he impressed his creations, by showing in the works of his immediate Italian imitators a great deal of animation, but no excessive exaggeration—the lecturer traced the development of the French Renaissance, and examined the works of that period, both of France and of the Low Countries. Then, resuming the notice of Italian art with the excesses of Bernini, and alluding to the similar deformities of taste in France and in England, as exemplified by Puget and Roubillac, the lecturer introduced the modern reform brought about by the efforts of Pacetti, Canova, Thorwaldsen, and Flaxman, with whose names Sig. Monti associated those of the Roman critic Milizia, and the English painter Hamilton.

The historical sketch concluded with a notice of the more modern masters, as Rauch and the German School, the importance of which the lecturer took pains to impress upon his audience; and of Gibson and the English sculptors, of whose merits he spoke with the most warm and brotherly admiration, not unmerited; Pradier and the French Art, in which he lamented to find, with but few exceptions, so much *esprit* and skill debased to subordinate decoration, or lost in trivial materialism; and, finally, Bartolini and the new Italian or romantic school, of which, by-the-bye, Sig. Monti himself is an adept. In a brief summary of the course of lectures, Signor Monti said that the symbolic phase of art offered mere conventional representations, important only for the idea attached to them—that art reaches its climax only when it is the unfettered embodiment of national free expression—and that it sinks into emasculated and meretricious display when serving despotism and bigotry.

METROPOLITAN SEWERS' OFFICERS.—A deputation of officers of Metropolitan Commission of Sewers, consisting of Messrs. Lovick, Hatton, Cooper, and Dunhill, had an interview on Monday with Sir William Molesworth, at the Office of Public Works, on the subject of the Metropolis Local Management Bill.

COMPETITIONS.

Colchester Cemetery.—The Burial Board, according to the *Essex Standard*, are in a dilemma. They complain that the successful architect, Mr. Law, took away the selected design to prepare working drawings; that the lowest tender, — upon these working drawings (that of Messrs. Colls, of London) was found to be 1,905*l.* (nearly 300*l.* above the architect's estimate), and as this did not include all the works, additions were made, raising the total to 2,210*l.* at which sum the contract was executed, and some considerable progress has been made with the buildings. In the meantime, repeated applications have been made to the architect for the original plans, and various excuses assigned for the delay, but the committee being urgent, the plans were returned in the course of last week, when, on a comparison of them with the working drawings, the buildings were found to be 7 feet less in width, 5 feet in breadth, and 7 feet in height; the walls of the buildings, as well as those at the entrance-gates, considerably reduced in thickness; several windows missing. The newspaper, our authority, says that Mr. F Barnes has since been selected to carry out the design.

Manchester.—The design of Mr. Oliver, Jun. of Sunderland, has been selected in competition for the new Congregational Church, High Broughton, Manchester.

Lincoln Cemetery.—We have received an old account of the ulterior doings of the Burial Board here. Mr. Scott, who was requested to report on the plans, declined; but recommended Mr. Pearson, and the latter gentleman, our correspondent says, named as the six he thought best:—"1. Justitia. 2. Spes. 3. Studii Summa. 4. Industria. 5. Fides. 6.——I do not know the sixth; but certain it is that the set marked '*Hope*,' was not one of the six, and to show you the value set upon the architect's opinion, the board have actually awarded the first premium to '*Hope*,' the second to '*Studii Summa!*' The first prize for laying out the ground to Mr. Goddard (an indescribable motto), and the second to '*Hope!!*' So that you see the whole of the premiums are *confined to Lincoln*. There has been some nice 'dodging,' I can assure you; but it would take me too long to enter into particulars." The board afterwards determined to employ the author of the set marked "*Studii Summa*," Mr. Drury.

Greenwich Cemetery.—A competitor complains that although the selection of a design has been made, and tenders advertised for, he has applied three times for his drawings without effect.

Madeira.—The commissioners appointed to examine the plans sent in competition for the Hospital for Consumption to be erected at Funchal, Madeira, for the Duchess of Braganza, have selected the plan of Mr. E. B. Lamb, of London, for adoption, "for the convenience of the arrangement of the different apartments, and the characteristic architectural expression of the whole design." Several plans were sent from France and Germany.

SHEFFIELD.

New Temperance Hall.—The chief stone of the Sheffield Temperance Hall was laid on Monday before last by Mr. Alderman Harrison, of Wakefield, in the presence of a considerable number of the friends of the temperance cause. The site fronts into Townhead-street, and adjoins the Baptist Chapel. The design has been furnished by Mr. Kirby, and the works will be carried out under his superintendence. The building will have a plain dressed brick front with stone cornices, and will comprise two stories. On the ground-floor will be a room 25 feet by 50 feet, to be used as a school-room, or for temperance meetings. The second-floor will comprise a room 80 feet long by 51 feet wide, with a gallery at one end capable of seating 500 persons. At the opposite end will be two ante-rooms communicating with the large room by folding-doors, which by opening make these two rooms available as an orchestra or platform for speakers. The upper room will be the largest in the town, being 13 feet wider than the Music Hall, and capable, with the gallery, of accommodating 2,000 persons. The contracts have been let to Messrs. Cooling and Bowshaw, who have undertaken to complete the building for 1,148*l.* by October next. Including the purchase of land, internal fittings, heating-apparatus, &c. the building will cost about 2,000*l.* of which about 350*l.* have yet to be raised.

New Congregational Chapel.—The new chapel of the Congregationalists in the Wicker district was opened on Thursday in last week. It is in the Decorated Early English style,—a novelty in this vicinity as applied to Dissenting edifices. The plans were prepared by Messrs. Weightman, Hadfield, and Goldie, and the contract was let to Messrs. Ash and Clayton. The form of the edifice is that of a parallelogram, and it consists of nave, side-aisles, and galleries extending round the church. The building is 90 feet long and 60 feet wide. It affords sitting accommodation for 1,000 persons. The principal front is the south-east end. It contains a six-light window, with tracery. An arcade crosses the building beneath the window. The side view shows a triple range of windows;—first, the windows of the basement; then the gallery windows, over which is the gabled roof of the aisle; and above these the windows of the clerestory, surmounted by a high-pitched roof. The galleries rest on a Gothic arcade. The clerestory and roof are supported by metal columns, painted, with capitals decorated in the Byzantine style. From these columns spring a second series of Gothic arches. The roof is open to the spars. All the timbers are stained. The front of the gallery is of iron-work, relieved by gilding. The new mode of lighting public buildings by sun-lights has been applied. The heating will be by warm air. All the inner doors are protected by glass screens from exposure to cold draughts. The seats are low open benches. The cost of the building and its fittings, with other expenses, is 4,500*l.* of which, according to the local *Independent*, about 2,500*l.* have been subscribed.

Presbyterian Church.—The foundation-stone of the first Presbyterian Church in Sheffield was laid on Tuesday before last. The site is on the west side of Hanover-street, between Broomspring-lane and Wilkinson-street. The church will be in the Geometrical English style, with a lofty tower and spire at the end nearest Hanover-street, and the principal front will be formed of the tower and of the nave, which will contain a five-light window. The edifice will contain north and south aisles and a gallery at the eastern end. Externally, the building will have the usual form of a church with chancel at the western end, but in reality there will be no chancel: a school-room, with sessions-room over it, will be made to have outwardly the appearance of a chancel. The edifice will be of stone. It will cost about 3,000*l.* exclusive of the ground. Accommodation will be provided in it for 450 persons, and, when necessary, for more, by addition of side galleries. Messrs. Flockton and Son, architects, have furnished the designs, and will superintend the erection. The principal contractors are, Messrs. Powell for the masons' work, and Messrs. Moss and Robertson for the carpenters' work.

ARCHITECTS' CHARGES.

TAYLOR *v.* NEWINGTON.

THE circumstances giving rise to this case, as stated in evidence, are shortly these:—The southern portion of a lunatic asylum at Ticehurst, belonging to the late Dr. Newington, was destroyed by fire on the 21st April, 1852. The premises were insured in the Norwich Union for 7,000*l.* A claim was made upon the office for that amount. They refused to pay so much, but offered 5,000*l.* At first this sum was refused. The office then intimated they should claim a right to rebuild. At this stage Mr. G. R. Taylor, who was engaged on some works at the vicarage of Ticehurst, became employed to arrange the sum to be paid by the office. He met Mr. Howell, the surveyor to the office, and then made a report to the executors that he thought the sum of 5,000*l.* offered was ample, and that he could rebuild for that amount. Acting upon this advice, the executors accepted the 5,000*l.* For his trouble on this occasion Mr. Taylor charged the sum of 125*l.* being 2½ per cent. upon 5,000*l.*

The plaintiff then commenced plans for the restoration of the buildings, for which purpose he was furnished with some lithographic plans which the executors had in their possession. These he copied, and made some alterations, re-arranging some of the rooms. He also prepared a rough elevation. Before the plaintiff proceeded further, and before he had made any detailed calculations and specifications, or had, in fact, completed the plans, a difference arose between him and the executors, in consequence of which the plaintiff voluntarily withdrew, and sent in his account, charging the sum of 87*l.* 10s. for his rough plans, attendances at Ticehurst, and for attending twice on the Commissioners in Lunacy in London. He also charged 10*l.* 10s. for his travelling expenses, making in the whole 223*l.* The sum of 87*l.* 10s. was claimed on the principle of 1¼ per cent. on 7,000*l.* amount of his estimate,—being 5,000*l.* for a portion of the building, and 2,000*l.* for another portion. In consequence of Mr. Taylor's withdrawal, the executors consulted Mr. Charles Freeman, who made fresh plans and specifications for the restoration of the building, and received tenders for the work. The lowest tender was sent in by Messrs. Holland, and amounted to 8,015*l.* The executors considered that the amount claimed by Mr. Taylor was much too large; that a larger sum ought to have been obtained from the assurance office; and that as the plaintiff had discharged himself, leaving the matter incomplete, he was not entitled to a per-centage. An action was brought, and they paid 90*l.* into court. After the case had been opened it was referred to Mr. Phipson, of the Oxford circuit. Mr. Donaldson and Mr. C. Lee, on the part of the plaintiff, were of opinion that the commission was rightly charged. On the part of the defendants, Mr. Pownall, Mr. Freeman, Mr. T. H. Lewis, and Mr. Godwin considered that it was not a proper case in which to charge such a commission, and that the sum paid into court was a fair one,—giving the plaintiff 10 guineas a day for the time during which he was employed in the country, 5 guineas a day in town, from 25 to 30 guineas for the plans, and the amount of his travelling expenses.

The arbitrator has given his award in favour of the defendants, being of opinion that all that the plaintiff had done did not justify him in charging a per-centage, but only according to the value of his services; and that the sum paid into court, 90*l.*, was the value of them.

The counsel for the plaintiff was Mr. Field, of the Midland Circuit, instructed by Messrs. Chilton and Co. The counsel for the defendants was Mr. Henniker, of the Home Circuit, instructed by Messrs. Raw and Gurney, as agents for Messrs. Simpson and Dimond.

ADELPHI THEATRE.—ARTISTIC ENTHUSIASM.

VITRUVIUS tells us that Euterpe must not be forgotten in our court paid to her sister Muses, and a striking impersonation at the Adelphi Theatre strongly recalls to us the advice of the great commentator upon our art, and reminds us how few architects think more of music than as an amusement only. We are not going here to give a history of the art, or attempt to extricate its origin from the halo of uncertainty which envelopes it. The music of the past is a myth,—a mystery, a sweet dream of—we know not what, nor care, indeed, to examine too closely,—wherein gods, and poets, and inspired beings, and cherubs, were the performers, and shells and reeds, and lyres, and shepherds' pipes, the instruments; and when the waterfall and the sighing-breeze, and the rustling leaf, and the feathered songster of the grove, emitted no sounds but melodious ones.

For the music of the future we are told to seek the type in the mysterious strains of a Wagner or a Berlioz, or in the modern school of ultra-romanticism, where the ties of rythm and the rules of harmony, that fettered such *dull* fellows as Beethoven, Mozart, Weber, and the like, are scattered to the winds! But not having time to analyse the ingredients that form the school in question, we must content ourselves, and with thankful heart, too, with the music of the present; and, for the contemplation of a veritable enthusiast, whose love for his art and his instrument no earthly consideration can affect, no possible affliction diminish, we would refer our playgoing readers to a masterly creation by Mr. Webster, in the piece entitled, "Helping Hands," at the Adelphi Theatre.

This charming piece has been constructed by Mr. Tom Taylor, out of the poverty of a violinist, induced by loss of sight; his intense love for his Straduarius (the only article of value remaining to him), its sale for arrears of rent, his discovery of its locality by hearing it played upon, and his ultimate recovery of his treasure by the help of good friends.

And this reminds us of a *naïve* question put to us a few nights since, namely, why a violinist is always supposed to be more wrapped up in *his* instrument than other performers in theirs? The answer appears simply to be, that while pianos and harps wax old, and deteriorate in value, the violin enjoys a charmed existence, and improves in tone and value in an inverse ratio to its age. To this we must add its portability, and its wonderful power in delineating the passions, and the limited number of its oldest and best specimens,—

> "First seat him somewhere, and derive his race."
> *Dryden.*

Italy was the land whence the *perfected* violin emanated,—and the names of the three Amatis, of Straduarius, and Guarnerius, have conferred a lustre upon Cremona, which the lapse of two centuries and a half have but tended to strengthen.

NEW IRON ROADWAY FOR HIGH SPEEDS ON RAILWAYS.—Mr. Thomas Wright, C.E. has designed a bed-plate, sleeper, and iron roadway, for high speeds and heavy traffic, by which means 100 miles per hour may, it is said, be performed with ease and safety. The chief feature of this invention is the employment of a single sleeper as a complete piece of roadway in itself, consisting of a massive piece or casting, capable of sustaining a pair of rails.

NEW DISTRICT CHURCH OF THE HOLY TRINITY, UPPER TOOTING.

NEW DISTRICT CHURCH OF THE HOLY TRINITY, UPPER TOOTING.

LAST week we briefly alluded to the New Church of the Holy Trinity, at Upper Tooting, in the parish of Streatham, consecrated on the 26th ult. We now proceed to give more in detail an account of its architectural features, with an engraving. The building consists of nave, north and south aisles, chancel, chancel aisles, north and south porch, and vestry. A tower, 84 feet high, and 24 feet square, as indicated above, is proposed to be erected at the west end, when sufficient funds are obtained: the opinion of the committee, however, inclines in favour of a spire or steeple. The nave is 72 feet long, 44 feet high, and 25 feet wide, and the aisles 13 feet wide. The chancel is 35 feet long, 23 feet wide, and 32 feet high. The nave has an open timbered roof of deal, stained, with arched principals. The roof of chancel is open timbered, resting on short hammer-beams, with cusped principals, supported on stone corbels: those of the aisles are lean-to. The nave is divided from the aisles by an arcade, consisting of five bays, the columns of which are circular, surmounted with moulded capitals. The windows of the north aisle are two-light, cusped, and of different design: those in the south aisle are three-light. In the chancel there is a large window, at the east end, consisting of five lights, with circular foliated tracery in the head. The sittings are deal, stained. The pulpit is situated on the south side of the chancel arch: it is panelled on five sides, and is of oak. The reading-desk is also of oak, with open trefoil-headed panels, and small buttresses. The font is octagonal, of stone, with moulded base, and trefoils round the sides. Between the chancel and chancel aisles there is an arcade with two bays, with a shaft in the centre, with moulded capitals and bases. The church is paved throughout with red and black tiles; and the windows are glazed with cathedral glass in various patterns. The walls are of Kentish ragstone, with Bath stone dressings: the arches, columns, caps, bases, strings, &c. in the interior are also all of Bath stone.

We may, in conclusion, remark upon the circumstance of this being the third new district church consecrated within the space of twelve months in the parish of Streatham,—the two previous ones being those of Emanuel, at Lower Streatham; and St. Mary's, at Balham. This commendable zeal for increasing the church accommodation of the parish of Streatham has been materially aided by the rector (the Rev. J. R. Nicholl), who on the present occasion was assisted in the good work by the exertions of the committee, consisting of Mr. Butterworth, churchwarden, Mr. Castle, Mr. Henry Lee, Mr. Bousfield, Mr. Browse, Mr. Harper, and Mr. Stallingford. The family of the incumbent (the Rev. Edward Cree), headed the subscription with 1,000*l*. The building, as far as completed, has cost, with internal fittings, nearly 4,000*l*. The architect is Mr. A. Salvin; the contractor for the works, Mr. Jay. The seats are for upwards of 700, one-third being free.

HOW TO EXCLUDE THE HOUSE-FLY.—In rooms lighted from one side only, a net, or open network curtain, it is said, will keep out the house-fly, even if the meshes be more than an inch in diameter, or wide enough to allow several at once to enter on the wing.

Notices of Books.

The Crimea: its Ancient and Modern History; with Notices of its Scenery and Population. By the Rev. THOS. MILNER, M.A. London: Longman and Co. 1855.

THE Crimea is the great centre of attraction to which the eyes of the world are for the present turned, and the press accordingly is busily engaged in gratifying the public curiosity and interest in all that relates to it. The present volume, though not, it would appear, the narrative of one who has travelled in the Crimea, is an intelligent and interesting compilation, historical, archæological, and topographic. The author gives some little space to an account of the buildings, ancient and modern, scattered throughout the Peninsula, and to subjects of archæological and of general antiquarian interest. Various architectural remains of the ancient semi-civilization of this once "Cimmerian" land have been destroyed by the Russians since they took possession of it in modern times, but still there are some curious and interesting records, an account of which is here given.

The site of Cherson, the ancient Greek and Roman capital of this Chersonese territory, is a little to the south of Sebastopol. Here very considerable remains existed till the Russians destroyed them, at the end of last century. They included vestiges of the walls, gates, dwellings, and sepulchres of the inhabitants, with three Byzantine churches, half buried in the soil, and shafts and capitals of columns strewn upon the ground. The walls were double, and of thick masonry, filled interiorly with cement: two strong towers were entire in 1794. The Inkerman caves are curious remains. They were evidently subterranean monastic residences, and contain many traces of Byzantine character. The whole of the cliff to a height of 250 feet, is excavated with cells, chapels, sepulchres, winding galleries, and staircases. The summer palace of the Khans, who preceded the Czars, is said to have been "a fairy-like palace, with lofty windows of painted glass, commemorated in poetry, as having descended from Paradise." It stood on the banks of the Alma, in the vicinity of Bakchi-serai, the ancient Tartar capital of Crim Tartary, or the Crimea. "All that could be imagined of Oriental magnificence," says Halim Pasha, of one of its apartments—the Hall of Roses—"was here displayed: the walls were hung with purple velvet: carpets, of the finest manufacture, covered the floor; and richly embroidered silk cushions were the divans by which the room was surrounded." The fortunes of the Tartars were traditionally linked with the existence of the summer palace of their Khans; and the Russians fired and utterly destroyed it in the midst of the contest for possession of the land. So perished the hope of the descendants of Gengis Khan.

Some time thereafter, when Catherine of Russia visited the Crimea, a new scene opened on her doubtless gratified senses:—

"As the fleet sailed along, the spectacles prepared by the prolific genius of Potemkin were visible on either hand, though not in their true character. At greater or less distant intervals, pretty insulated dwellings were seen, so disposed with respect to the soil as to form picturesque points of view. Well-built villages appeared, the extent of which would lead the beholder to expect a numerous population, while their exterior aspect seemed to bespeak the comfort of the inhabitants. There were groups of men, women, and children, flocks of sheep and droves of cattle, shepherds and herdsmen. The houses were slender fronts hastily run up—the villages collections of them! Peasantry, flocks, and herds, had been brought from various parts of the empire, and were successively removed from one spot to another, often under cover of the night, so that a few thousands sufficed to produce the spectacle of a country teeming with people. 'The empress,' said the Prince de Ligne, 'who cannot run on foot as we do, was made to believe that towns for the building of which she had assigned the necessary money, are finished, while they are often towns without streets, streets without houses, and houses without roof, doors, and windows.' Several of these mock towns, at which the imperial traveller was expected to touch, presented wharfs laden with goods, apparently sacks of corn, storehouses crammed with merchandise, and shops full of manufactured articles. The raw produce of the empire had been hastily collected for the purpose of show: fabrics had been sent for from Vienna, Warsaw, and other places: but many of the ticketed bales and bags contained nothing but straw, shavings, or earth!"

There is still not a little of this Chinese deceptiveness in the policy of Russia. The Russians, however, have since done a good deal for some parts of the Crimea in the way of improvement, exclusive of Sebastopol, to which we need not here more particularly refer. The destruction of its archæological records, too, has at length been stayed, and at the ancient Tartar capital Bakchi-serai, Russians are not even allowed to reside, and all is preserved as far as possible in its primitive state, by way, we presume, of archæological and ethnographic curiosity. Near this singular old town is another of a still more curious kind, named Tchoufout Kaleh, or the Jews' Fort, perched on the summit of an isolated and perpendicular rock. This town is inhabited, during the night, by Jews, who are believed to be the pure descendants of a wandering tribe from Babylon who never returned to Jerusalem, unless in modern times and for religious purposes. By day these Jews employ themselves in Bakchi-serai, but there none of them sleep. The Jews' town is said to be silent as a sepulchre during the daytime. Adjoining the town is a dell, called from time immemorial, "The valley of Jehoshaphat," and which is the cemetery of Tchoufout Kaleh. There are here many sepulchres with curious ancient Hebrew inscriptions. Every Crimean Jew returns, if possible, to Tchoufout Kaleh, to die, and be buried in the valley of Jehoshaphat along with his forefathers.

Enough has recently been said in the daily papers as to Kertch and its museum, its tomb of Mithridates and its other archæological curiosities. As for the museum it seems that its most valuable treasures had been long since removed to St. Petersburgh, so that the recent destruction of what remained is the less to be regretted.

Along the southern coast, to seaward of the highland range which adjoins it, there is a series of showy villas belonging to the Russian nobility, of which our author gives some account, and particularly of Aloupka, "the Alhambra of the Crimea," said to belong to Prince Woronzow, but which, if we mistake not, he disowns. Of the imperial domain of Great Orianda, near Yalta, belonging to the dowager empress, it is said, that nearly twenty years since, Mr. Hunt, an English architect, received a commission to erect here a palace designed to be the most magnificent building in South Russia, but only a very small portion of it has been executed.

On the whole, the volume in hand will repay perusal at the present moment.

VARIORUM.

THERE is an interesting volume which has been before us some time, and to which we allude under this heading merely by way of preliminary notice, as we may return to it at greater length, —namely, "Historical Memorials of Canterbury," by Arthur P. Stanley, M.A. canon of Canterbury, published by Murray, Albemarle-street. The divisions of the volume are titled "The Landing of Augustine,"—"The Murder of Becket,"—"Edward the Black Prince,"—and "Becket's Shrine." By way of frontis-piece, the work is illustrated with an engraving of the transept of "the Martyrdom" in the cathedral, and, connected with the same subject, there is a plan of the cathedral at the time of the murder of A'Becket. The shrine of A'Becket and the tomb of the Black Prince, form the subjects of other illustrations. The basis of this book consists of certain lectures delivered at Canterbury, and a Quarterly Review article. In an appendix are copies of various original documents from the archives of the Chapter of Canterbury, contributed by Mr. Albert Way, who is a relative of the author. ——Not entirely unconnected in general nature with the preceding subject is the next book to be here noticed, namely, a new and cheap edition of Hallam's "View of the State of Europe during the Middle Ages," also published by Mr. Murray. In this (eleventh) edition of Hallam's standard work, the volume published in 1848, under the title of "Supplemental Notes" to the text of the work itself, has been incorporated, so that the "Hallam" of the present day is not just what it used to be, but a work more complete in detail, and, as it were, once more revised and corrected by the author himself. Every student should know this work.——A very superior book of its kind, is an Almanac, has been forwarded to us from Australia. It is titled "The Victoria Commercial and Nautical Almanac for 1855;" James J. Blundell and Co. Melbourne, the publishers. The price is six shillings, but the contents are very varied, and full of useful information. From this Almanac, we find that in Melbourne there are now the following institutions;—The University, the Philosophical Society of Victoria, the Victorian Institute (would not Victorial have been better, as derived from Victoria not from Victor?) the Mechanics' Institute, the Philharmonic Society, Benevolent Asylum, Lunatic Asylum, Immigrants' Aid Society, and Wesleyan Immigrants' Home. Various Government officers, amongst others, have liberally contributed to the getting up of this capital Almanac. Mr. Blaudowski, curator of the public Museum, has contributed a valuable article on the physical geography of the colony of Victoria, from which it appears that sandstone of exceedingly good quality is found in more than one district, as at Geelong. There seems to be plenty of slay slate too, and of granite in all its varieties. Lime stone is got along the whole coast, and is in regular use for conversion into lime.—— The new number of the *Edinburgh Review* (a capital one), has a sensible and instructive essay on Fortification, showing how completely Silistria and the Crimea have established the value of earth-works over stone walls:—"The result of all this experience on our engineers has been, that after the siege of Silistria was raised, and Bomarsund had fallen, they came to Parliament for increased estimates to erect masonry towers, *à la Bomarsund*, along our coasts, choosing especially places where the water was deepest close in shore, and where they were most completely commanded from the high lands behind; and, as is usually the case, the House of Commons passed these estimates without asking a single question."—— In the *Quarterly Review* we have an elaborate article, showing the just claims of *Colchester* to the interest of the archæologist:—"Where else in Britain can we find more abundant traces of Roman life and manners? Which of our towns besides presents such a monument of Roman fortification?" There is, too, a useful article on the Supply of Paper, urging attention to the pressing want of a new material for it. The present consumption is enormous, and it must be greater. The sheets of paper required by the *Times*, for eight days' supply, laid open and piled upon each other, would exactly equal the height of St. Paul's Cathedral.——Part I. of the fourth volume of "Transactions of the Architectural Institute of Scotland," just now published, contains several very excellent papers on "The Chemistry of Building Materials," by Dr. George Wilson.——A third edition of "The Royal Hotel Guide and Advertising Handbook" has just been issued from the office, 441, Strand. In this very useful guide the tourist throughout the United Kingdom, and even abroad, may at once be able to ascertain the charges made at various hotels for such accommodations as bed-chambers, private rooms, &c. or for breakfasts and dinners, or other items of expenditure. One excellent result of the publication of such a guide will be the equalization of charges, heretofore so absurdly and so unaccountably various. —— Not much unconnected with Hotels is the interesting subject of Cookery, although what we have to say of it bears more particular reference to home cookery, and making the most of good ordinary victuals fit for the poorer classes. Mrs. Acton has published (Messrs. Longman and Co.) a newly-revised and much enlarged edition of her already excellent and standard work on "Modern Cookery for Private Families." This book is especially intended for the tyro in cookery, and although Monsieur Soyer may be said to have swallowed up an immense amount of public patronage even on this more elementary branch of the science of gastronomy, we have no doubt that Mrs. Acton will still find a wide field open to her, and much success we wish her in her commendable effort to make the poor man's wife a better cook, and his home more comfortable and attractive.

Miscellanea.

MACHINE FOR MAKING BUTT HINGES.—Mr. Charles Miller, of New York, in patenting a machine for manufacturing hinges, claims a series of punches, which cut out two blanks of proper shape, with a pair of bending rollers, for giving the proper bend to form the joint, by which two pieces of metal, fed at proper intervals, are cut, bent, and put in position ready to receive the pin; so controlling the action of the punches, rollers, and cutters, that they act nearly simultaneously during each intermission of the feed movement, the rollers following the punches, and the cutters succeeding to the rollers;—the arrangement of wire feeder and cutting apparatus, and the press which carries the closing die, that the rotating wheel may hold the hinges—first to receive the wire for the pin, and afterwards to have it closed or rivetted;—an eccentric curved piece for finishing the insertion of the pin in the wheel, and the general combination of the several mechanical arrangements, forming a machine for the manufacture of hinges from bars or strips of metal, complete at one operation.—*Mining Journal.*

MANUFACTURE OF IRON.—Mr. Joseph Hipkiss, of Dudley, has patented the making and repairing of the beds of puddling furnaces with the cinder produced in the manufacture, whether used alone, or fused, or mixed, with pottery or other iron ore.

THE SCOTCH NATIONAL GALLERIES.—We understand that Government has agreed to give a further sum of 10,000*l.* towards the completion of the art galleries on the Mound, upon the understanding that the board of trustees shall also give an additional sum to finish the building and approaches. The amount already expended is 40,000*l.* of which 25,000*l.* were received from Government.

STATE OF THE THAMES, AND MEANS OF RELIEF.—In the present discussion, several important facts are quite overlooked. By reference to "Hansard," of July 27 last,* it is evident that a large sum of money was granted for the purpose of commencing the construction of two intercepting drains, and the Metropolitan Commission hold this sum (300,000*l.*) subject to a decision as to the best plan, they having invited the submission of plans, and having received about thirty. A general committee of the Metropolitan and City Commission selected ten of these, on the 18th of April, and then they resolved, "that it be recommended to the court to order that the reports and communications of the gentlemen undermentioned, having reference to the drainage of the metropolis, or part thereof, be referred to a committee of engineers for their consideration and report." Since the month of April no farther step has been taken by the Commission, although powers might have been secured for purchasing land for the outfalls during the week required for obtaining the consideration and report of a committee of engineers.—EDILIS.

* Daily News, Chronicle and Advertiser, July 25, 1854.

LAUNCH OF "THE LARGEST STEAMER IN THE WORLD."—There seems to be an ambition amongst naval architects and builders to render every large steamer laid on the stocks still larger than all previously launched, and now the *Himalaya* and the *Great Britain* are ships of but secondary calibre. In rapidity of sailing, too, wonderful advances are being made: the new royal yacht flies along at the rate of 17½ miles an hour, and even still more recently we hear of another new steamer which is said to have realized no less than 20 miles an hour,—the usual rate of pretty good railway speed. A very large steamer, the *Persia*, has just been launched for the Cunard American line, by Messrs. Napier, at Glasgow. She is an iron paddle-wheel liner, and is said to be the largest steamer, both in capacity of hull and steam power, as yet built. The contrast between this magnificent ship and Henry Bell's *Comet*, of 40 tons and 4 or 5 horse power—the first vessel propelled by steam in British waters—is so vast as almost to exceed belief; yet there were persons at the launch who had also witnessed the starting of the tiny *Comet* in 1812. The *Persia's* chief proportions are,—length from figurehead to taffrail, 390 feet; length in the water, 360 feet; breadth of the hull, 45 feet; breadth over all, 71 feet; depth, 32 feet; burthen, 3,600 tons. According to government rule of admeasurement, her power is equal to that of 900 horses; according to James Watt's old-established rule of 33,000 ft. lbs. to the horse, she is expected to work up to the pith of between 4,000 and 5,000 horses. The *Persia* has seven water-tight compartments and a double bottom, so that in the event of accident to the hull these compartments or tanks would of themselves float the ship. She will have eight large tubular boilers and two funnels. There is separate sleeping accommodation for nearly 300 passengers. The weight of iron in the ship as launched was 2,200 tons: with engines and full load the weight will be 5,400 tons, at which time she will draw 23 feet of water.

MACHINE FOR TESTING TIMBER, IN THE PARIS EXHIBITION.—In a communication from Messrs. Varral, Middleton, and Elwell, engineers, Paris, dated the 22nd ult. there is a description of a series of experiments tried before Lord Cowley and some gentlemen of the British Embassy, Captain Fowke, R.E. and other royal commissioners, with a machine invented by Mr. Dunn, of the Windsor-bridge Iron-works, Salford. The first experiment was on a piece of French-grown pine, 12 inches square and 4 feet between the supports, which deflected ½ inches, and broke with a strain of 42½ tons. Next the tension was tested on a bar of charcoal iron, 20 feet long and 1 inch diameter: it broke with a strain of 26 tons, after stretching 17 inches. The third experiment was made upon a chain-cable, made by Mr. Tinsley, of Dudley, Staffordshire, of the ordinary iron, three-eighths of an inch in diameter, stud link, and 20 feet long. It stretched 9½ inches, and broke with a strain of 56 tons. The fourth experiment was upon a piece of French-grown oak, 12 inches square and 4 feet between the supports. It deflected 5½ inches, and broke with a strain of 54 tons. Our correspondent adds that "one end of this log was shaky, and gave way before we considered the full test was on." They state that a quantity of colonial timber is being prepared by the royal commission for further tests, as well as other large cables and bars of iron.

THE CITY.—What do the authorities intend to do with the ruins in Skinner-street, Snow-hill? Valuable as land is in the City and its immediate neighbourhood, surely some improvement here would pay, while it added to the comforts and welfare of the inhabitants. Some years ago we were told that a sum of money was provided by the corporation to build lodging-houses, baths, &c.; yet there is neither a lodging-house nor public bath in the City; nor do we hear of the public library which Mr. Challis was so anxious to provide when he was Mayor. In the northern suburbs we have no baths, and but few other institutions that conduce to improvement; and considering the wealth the town represents, and that most persons of property and influence are connected with it, it does not present that picture of Christian love and charity which we, as professors, are in duty bound to show.—G. H.

DISTRICT SURVEYORS' FEES.—The District Surveyor of Bow and Poplar summoned Mr. Augustus Taylor, of Colt-street, Old Ford, and Mr. Miles, of the same place, to Worship-street Police Court, for refusing to pay the fees upon various houses built by them in Albert-road and Victoria-street. Proof was given that the receipt had been tendered in each case. The defendants, who had up to that time refused to pay, asked for time, and the district surveyor consented to allow a fortnight. The magistrate, Mr. Hammill, said that if the fees were not settled by that time his warrant would be issued for the amount claimed and expenses, to be levied on their goods. He wished builders would understand that district surveyors had this power of recovery.

DRAINAGE AND THE THAMES.—Cleanse the river from its present polluted state. Provide a direct east and west communication for the metropolis. These are both crying wants, that will sooner or later be remedied; but in the meantime, both projects are in a nebulous state, and if you will grant me audience in your pages, I will try to clear away a little fog by putting two or three things together that have always hitherto been considered apart. I do not claim any novelty of ideas in this matter, but I only wish to give the matter a practical turn, and what has hitherto been looked at as impossible, on the score of expense, may now, perhaps, be thought not so difficult of execution on that head. The Government, *or* the Commission of Sewers, is committed to a plan of intercepting sewers, the estimate for which is three-quarters of a million or more. This plan, if I understand it aright, is a series of large tunnels, intersecting the present sewers at various points, and their construction will cause a vast disturbance of the causeways, and lead, perhaps, as in the case of the Victoria sewer, to immense expense beyond the estimate. Now I propose a tunnel sewer in the bed of the Thames, at 100 yards from the shore, the crown of the sewer to be level with low-water mark. This will admit the present sewers to discharge into it, instead of into the river, and so satisfy point one, and clear the river of all pollution. By means of inlets from the river, it may be flushed at any time, without cost. Above the crown of the arch, and 6 feet above high-water mark, I would construct a causeway, 120 feet wide, divided into three spaces, the two side spaces of 40 feet each to be roads, with footways on each side; the centre space, of 40 feet, to be built up in strong arches: on the summit of this I would run four lines of railway, two for expresses, and two for slow traffic: under the railway, in the arches, there is room for shops facing the road. The levels of the road would enable any side streets, such as from the Strand, Blackfriars, &c. &c. to join in readily; and the railway, being on arches, could run off at any point to any district of London. On the score of expense, as far as the main sewer goes, it would undoubtedly cost less than the intercepting sewers. Again that is a matter that will in any case fall into the sewer rate, and so we may assume that it will not need to enter into the calculation as regards the roadways. The rental from the shops and the traffic of the railroad will, without doubt, cover all expenses, and leave a handsome profit. Government need not advance one penny: only let them guarantee 4 per cent. interest in the event of failure, and I will venture to say they will never be called upon for a penny, and get the money for its execution subscribed in a week.—J. C. N.

MINERAL DISCOVERY AT SWANSEA.—A valuable vein of lead ore, it appears, has been found in the immediate neighbourhood of Swansea, and preparations are being made for working it. The principal lode is said to be 12 feet wide, and the ore a rich silver bearing one.

THE WORCESTER MODEL DWELLINGS ASSOCIATION.—The annual meeting of this society was held on Thursday in last week, when the hon. secretary read the report of the past year's proceedings; from which it appeared there was a balance in hand of 885*l.* 10s. 7d. after paying preliminary and law expenses, and purchasing the site between Warmstry-slip and Cooken-street; that 246 shares had been taken, representing 6,150*l.*; and that all the calls had not yet been made on these shares. The sum received on calls, a few subscriptions, &c. was 2,763*l.* 10s. 10d. The report was adopted.

BATH SCHOOL OF ART.—The second quarterly meeting of the general committee of this school was recently held at the Commercial and Literary Institution, Bath. The report read by the hon. secretary states that there are six classes at the central school, with 230 students; and that there are five other schools under instruction, with 439 students. Since the commencement there have been received 317*l.* 12s. 11d. of which 297*l.* 8s. 4d. have been expended, leaving 20*l.* 4s. 7d. to meet outstanding demands, amounting to 130*l.* Only 56*l.* 2s. have been obtained from the public, notwithstanding frequent appeals, and the publication of a previous report. It is singular that in Bath, where so much is said of art, and where there exists a society, for the "Promotion of Fine Arts," the sum of 150*l.* cannot be raised for the sake of working a useful talent, and fostering a taste for what is pure and pleasing.

PARSONAGE-HOUSES.—It may be useful to mention a new principle lately admitted by the Church Commissioners, in a case where, from the absence of endowment, the Queen Anne's bounty is unable to make a loan. The incumbent is permitted to purchase the site, to build the house, and to make over both to the Church Commissioners, charging the living with the repayment of a portion of the capital advanced, secured in the form of an annual rent-charge to himself or his heirs, in case of his voidance of the incumbency within thirty years.

CONSECRATION.—A correspondent says, "The earliest commencement of particular actions is at times of such a lineament, as to be thought great; but the minute completion of the same may also be esteemed as great, if not in ultimate results even greater;" and then urges the necessity of inscribing the day of consecration (and date), and name of the prelate by whom the church is consecrated, in golden letters, upon a visible panel of the said church or churches.

FALL OF AN INHABITED HOUSE AT BRIGHTON.—Two very old houses were being pulled down in North-street to make way for new, when a third, which was shortly to have been also pulled down, slipped down into a mass ruins, burying under them two young women and a dog, all of whom escaped with life and limb. A bruise near the eye, which one of the ladies unfortunately got, was the only casualty. A customer was in the shop at the moment, and had just time to spring out into the street as the ceiling came down. The house adjoining stands on the site of the old theatre of Brighton.

MR. DARGAN, the Irish railway contractor, was defendant in a recent case brought to a close in the Court of Queen's Bench, Dublin, after a trial of three days. It was an action brought by Dr. Atkinson, of Drogheda, to recover 6,000*l.* for alleged breach of an agreement, by which he and Mr. Dargan were to have shared between them certain profits in the execution of railway works for the Dundalk and Enniskillen Company. Mr. Dargan's defence was that he never undertook to superintend the management of the contract or the measurement of the works. Both plaintiff and defendant were examined on oath, and their evidence was point blank contradictory as to the fact whether the seals were fixed to the agreement at the time it was signed. The case terminated in a verdict for the defendant on all the issues.

ANTIQUARIAN DISCOVERIES AT HIGH ROCHESTER.—The Newcastle-upon-Tyne Society of Antiquaries, with the aid of the Duke of Northumberland, have discovered at, the Roman Camp, Bremenium, the remains of a thick wall, with a chamber-like a prison, and various inscriptions, one of which relates to the erection of a ballistarium, by Claudius Paulinus, a Roman pro-prætor.

SHARP PRACTICE.—Some time ago my excellent client, the Vicar of Llan——, consulted me on the subject of a Cemetery Chapel he was about to build, but as the undertaking was not of a pressing nature, and as I was ill at the time, the execution of it remained in abeyance. Within the last fortnight I had an opportunity of calling on the worthy vicar, and the first object which caught my eye on entering his drawing-room, was an elaborately got-up design for a Cemetery Ch pel, bearing the signature of an individual whom I shall call Mr. Wily Wesleyan. I was naturally surprised, and on seeking an explanation, I was told that Mr. Wily Wesleyan (with the full knowledge that I had been previously employed), pressed the vicar to transfer the commission to his (Mr. Wily Wesleyan's) hands—that Mr. Wily Wesleyan appealed to the vicar in a manner offensive to good taste, and finding his (Mr. W. W.'s) solicitations unavailing, he capped his unwarrantable procedure by stating his determination to send to the vicar a design gratuitously. This was the drawing I saw, and it was accompanied (so the vicar informed me), by some framed and glazed lithographs of buildings erected under the superintendence of Mr. Wily Wesleyan. I trust the success which has attended Mr. Wily Wesleyan's career in the congregational conventicle connection, in which his efforts are perhaps appreciated, has not been obtained by a course of practice similar to the specimen I have ventured to expose.—A COUNTRY ARCHITECT.

FALL OF A CORNICE.—At Manchester, on Tuesday week, a portion of a heavy cornice fell from the upper story of the Stamp-office-buildings, Cross-street, to the pavement below, a height of at least 40 feet. A man passing was knocked down, but his injuries were slight.

MILITARY ENCAMPMENTS.—The contract for forming the new encampment at Colchester has been taken from Government by Messrs. Lucas, Brothers, who have just completed the encampment for the Foreign Legion at Shorncliffe, and are also engaged by Government upon extensive works of a similar kind at Woolwich and Aldershot.——A large range of wooden huts, capable of accommodating 1,000 men (militia), is immediately to be erected on Hobb's Point, in the vicinity of Pembroke Dockyard, Wales. The contract has been taken by the Board of Ordnance, and six weeks are allowed for their erection.

CITY OF LONDON PEEL STATUE.—The statue of Peel, executed by Mr. Behnes, for the City, and cast by Robinson and Cottam, has been set up at the west end of Cheapside, where it joins Aldersgate-street. The pedestal, of granite, is simple to a fault. Of the statue itself we cannot now speak, as it was wrapped in a cloth when we visited it.

FALLING OF A RAILWAY TUNNEL.—The Outhwaite Tunnel, which is situated about midway between the Penistone and Wortley stations, on the Manchester, Sheffield, and Lincolnshire Railway, fell on Saturday morning, the 14th. The tunnel is 300 yards long, and the portion fallen is not more than 10 yards. The stratum for a great thickness above the roof of the tunnel is soft shale.

RAILWAY COMMUNICATION BETWEEN ENGLAND AND FRANCE.—The project of a tunnelled railway beneath the Channel has been revived. It is now proposed to case the walls of the tunnel with iron instead of masonry, so as entirely to exclude water and to allow of the tunnel being made on a level from shore to shore, in place of falling towards each end to drain off the water by help of steam power.

THE RECENT THUNDER-STORM.—During the severe storm of lightning and rain which passed over the metropolis on Saturday morning last, one of the pinnacles of the Church of the Holy Trinity, Brompton, was struck and hurled to the ground. A house at Estridge-place, St. John's-wood, was also struck. Oxford was visited by the same storm, accompanied by lightning of a terrific character. The parish church of St. Ebbes was somewhat injured. Soon after five o'clock the lightning struck the weathercock, and in its progress knocked a small portion of the top of the tower off, passed through the roof of the church, and completely melted part of the spouting. The interior also felt the effect of the shock, for, after passing through the wall, it struck the pulpit, and completely took the door off its hinges. At Bristol the storm exceeded in violence anything of the kind that has occurred in that city for the last thirty years. The thunder was very violent, and the lightning so vivid that the captains of the African and Indian ships in that port describe it as being the nearest approach to a tropical tornado that they ever witnessed in this country. This looks very much like a compensation for the singular want of thunder storms last year; and if such storms do "clear the air;" and if the want of them do breed pestilence, we have now reason to be thankful, even spite of our nasty Thames.

TENDERS

For a pair of Villas on the St. Margaret's Estate, Twickenham, for Mr. J. Sprye. Mr. G. Morgan, architect. Quantities supplied by Mr. Yeldham:—

Chapman and Parsons	£1,239 15 0
Richards	1,188 0 0
Tombs	1,060 0 0
Todd	1,057 0 0
Donelly	1,040 3 3
Howlsson and Co.	1,033 0 0
Adamson and Sons (accepted)	994 0 0

For alterations and additions to Goring Hall, near Worthing, Sussex. Mr. Edward M. Barry, architect. Quantities supplied by Mr. J. H. Strudwick:—

Lucas	£2,775 0 0
Cubitt	2,647 0 0
Blaker, Worthing	2,454 0 0

For the Wesleyan Provident Assurance Society's Offices, Moor-street, Birmingham. Mr. Samuel J. Smith, architect. Quantities supplied:—

Haywood	£2,250 0 0
Pashby	2,220 0 0
Mountford	2,218 0 0
Briggs	2,190 0 0
Barnsley	2,050 0 0

For alterations and additions to the Brompton County Court. Mr. C. Reeves, architect. Quantities supplied:—

Haward and Nixon	£2,777 0 0
George Mansfield and Son	2,735 0 0
H. and R. Holland	2,694 0 0
Ashby and Horner	2,440 0 0

For new Music Hall, and additions to Hotel for Mr. Green, Covent Garden. Mr. W. F. Hill, architect.:—

Gammon	£4,999 0 0
Mackenzie	4,987 0 0
Carter and Ellis	4,225 0 0
Mansfield	4,894 0 0
Ashby and Horner	4,890 0 0
Elston	4,730 0 0

TO CORRESPONDENTS.

Antiphlogistic Wood.—A correspondent, "W. L L. R." wishes to know "what are the other ingredients besides alum which Mr. Braidwood speaks of as being a good preparation to make timber to a certain degree antiphlogistic." We do not remember the composition in question. Alum itself, we may remark, has been recommended as an antiphlogistic, by means of which theatre curtains, drapery, &c, might be deprived of their liability to take fire. The corrosive sublimate process by which timber is saved from rot, is said also to render it to a great extent incombustible.

"F. B." "W. C." "A Tradesman" (the West-India Docks occupy 295 acres).—"A Surveyor."—"F. L."—"C. B."—"G. D." "J. W. B."—"J. B."—"G. L."—"A Subscriber."—"R. M."—"Mr. M."—"J. P. J."—"E. C."—"A Poor Mechanic" (A. has remedy at common law against B. for stopping his light, if the circumstances be as stated).—"J. R."

"Books and Addresses."—We are forced to decline pointing out books or finding addresses.

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Pine Planks, 13 ft. 3 in. by 11 in.	from	3s. 6d. each.
Spruce Deals	9 in. by 3 in.	9s. 8d. "
Yellow ditto		4s. 0d. "
Honduras Mahogany, in logs		0s. 4½d. per foot.
Ditto ditto, in planks and boards		0s. 5d. "
Spanish ditto		0s. 7d. "

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
Bor.ugh-road, Southwark, and Elm-street, Gray's-inn-lane.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

TO BUILDERS, CONTRACTORS, AND CONSUMERS OF ASH TIMBER.

FOR SALE, a large quantity of FIR POLES (Larch), suitable for railway fencing; about fifty loads of English Oak Timber, cut in spring 1854; a quantity of Oak Scantling (dry); also 100 loads of good Ash Timber, and 30,000 good kiln-burnt Bricks, all lying within two miles of a station on the London and Brighton Railway.—For particulars and prices apply, post-paid, to Mr. JOHN PUTTOCK, Horsham, Sussex.

WOOD FENCING.—WANTED, about 7,000 feet in length of CLOSE FIELD FENCING, 6 feet high. Persons disposed to supply and fix the same will please give description and price, by letter, to R. G. Post-office, Wellington, Upper-street, Islington.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally, that he has carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, wrought out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

UNIVERSAL MOULDING-MILLS, 24, Portobello-road, Notting-hill.
WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer, with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L. are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade.—N.B. All customers having an account at the above establishment can be supplied with mouldings to their own design, at the shortest notice, free of any extra charge.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by those who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, inclosing six postage stamps, the cost of postage.—Steam Works, 20, North Wharf-road, Paddington.
N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, delivered at my own door for cash only. C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 21, Manor-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. per cwt. given for old lead.

ST. PANCRAS SAWING, PLANING, and MOULDING MILLS, Cambridge-street, near the Great Northern Railway Station, King's-cross

GEORGE NOKES and CO. (late Architett and Atkinson) beg to acquaint architects, builders, carpenters, and others, that they have opened the above premises with superior machinery for manufacturing architrave mouldings of any size and design, stable bars, match-boarding, skirtings, flooring, &c. and have always on hand a large stock of sea and kiln dried flooring, planed prepared; also, timber, deals, scantling, sash sills, mahogany wainscot, &c. Goods sawn at the mills fetched and delivered free of charge.
May 19, 1855.

ROYAL POLYTECHNIC INSTITUTION. The Effect of Russian Infernal Machines on Vessels demonstrated daily, at 3 45 and 8 45.—The Arctic Collection of John Barrow, e q including the Relics of the Franklin Expedition, on view daily.—Lecture by J. H. Pepper, esq. on the Transmission of Vocal and Instrumental Music through solid Conductors; illustrated by the Orpheus-lyre Union of Tone and Light on Monday, Wednesday, and Friday.—The "Singing Mouse," at Four and Nine.—Dissolving Views of the late Battles, Diorama of San Sluck, &c. &c.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither are exposed to heat, nor spread chemicals in the air. It is scientifically free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK and LONDON—PATENT. And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Grant Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at the Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Plastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, and to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses These well-known hard Stuccoes dry quickly, and may be painted upon within few days—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with special reference to its destination, whether for concreting, brickwork, blocks for breakwaters, canal work, or otherwise. London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. RANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent, and all other Cements in use for building purposes, Pine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, RUEL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Plastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs. Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone. CHARLES RICHARDSON, 6, South Wharf, Paddington.

SOUTHAM.—BLUE LIAS LIME, and CEMENT WORKS.—OLDHAM and TATHAM'S Blue Lias Lime, Portland, Roman, and Lias Cements. CHARLES RICHARDSON, 6, South Wharf, Paddington.

31, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise. Apply to G. BOOTH, agent, as above.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement The best lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, Bouverie-street, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), and NORTH WHARF-ROAD, Paddington.

WILLIAM PETTES begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON ABSORBENT: one quantity of rain having many effect upon it, and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, 4, George yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin, Finsbury; that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietors; and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 50s. per 1,000; floor bricks and 6 inch pavings, at 40s. per 1,000; 8 inch pavings at 60s. per 1,000; 9 inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely luminous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs CHARLES DEVAUX and CO Wholesale Agents, 62, King William-street City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham court, New road. In Manchester and Liverpool by R. and A. S. Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H J BUCHAN Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester buildings, Westminster.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L B PEARSE and CO Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half washed Stocks, and Place Bricks, also on sale These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand; approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

TO CONTRACTORS, BUILDERS, AND OTHERS.

FINE hard WHITE FACING BRICKS, superior to any Brick used in London, and suitable for first-class houses, churches, or chapels. The public are invited to see a specimen now used in the front of a house in Tower-street.—For particulars apply to Messrs DUNN and GIBBS, 7, Great Tower-street, City.

N.B. Reference is also permitted to Mr. C. ALDIN, Builder, Nightingale-lane, Clapham-common, where the bricks may be seen as facing for several mansions.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey stocks, 25s. per thousand; Grizzles, 30s. per thousand; Rough Stocks, 30s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London-bridge.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Kenbridge Fire Goods, &c. of all descriptions, and of best quality. WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 20, Nelson-square, Blackfriars road

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on E. PARKS, Lewisham, and see the quality at low prices. Carriage within six miles on the most reasonable terms. Red facing bricks at 30s. All kinds of tiles, paving bricks for oven building, salt glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

TO BUILDERS and OTHERS.—About 400,000 hard, red, kiln-burnt BRICKS for SALE, near Caledonian-road, Islington. Satisfactory arrangements may be made with parties having property to offer as security.—Apply to J. S. NORTON, Engineer, Union Works, Newpark street, near Southwark-bridge.

FOR IMMEDIATE SALE.—FIRE BRICKS, LUMPS, TILE, and TERRA COTTA.—SAMUEL TRICKETT has received a large consignment of the above goods for sale.—Apply on the premises, Stone wharf, Isle of Dogs.—Dealers and large consumers liberally dealt with.

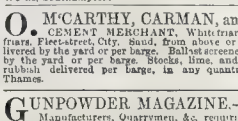
TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch Soil and Sewage Pipes, in 2 feet lengths.—Apply to St. JOHN HEWITT, Redhill Works, Southampton.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

GUNPOWDER MAGAZINE.—Gunpowder Manufacturers, Quarrymen, &c. requiring Powder to be stored for the supply of South Wales, Bristol, Gloucester, Worcester, Stourport, &c. may be accommodated at Cumbwich, on the Bridgewater river, by applying to Mr. FREAN, Plymouth, Devon.

TO WATER COMPANIES AND PLUMBERS

HIGH-PRESSURE COCKS & CLOSETS.



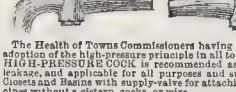
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 3.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is now of experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,

Brass and Iron Founders, Short-street, New-cut, Lambeth.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, one, two, three, and four guineas each, yielding 30, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

PURE WATER.—The attention of Boards of Health, Water Companies, Engineers, &c. &c. is particularly requested to a newly-invented PIPE for CONVEYING WATER, which possesses most important advantages. It can be made strong enough to resist any pressure, it is comparatively flexible, easily joined, has great power of resisting the effect of frost, and what is of still higher consideration, is perfectly innocuous. This combines a desirable properties is produced by lining Ice'en pipes with gutta percha.—Further information may be obtained on application to the Patentees, Messrs STOCK and SON, Lead Works, Birmingham; or to the Gutta Percha Company, 18, Wharf-road, City-road, London.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best bolland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, to the adornment of our noblest buildings. Groups, statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition, and will be found to be a different material to that now being imitated by puffers and manœuvrers, with only three or four years' experience, and without practical knowledge. Some of the works recently completed by M. H. B. can be referred to the whole of the embellishments to the external part of Clifden House, his Grace the Duke of Sutherland's; also Tottenham and Kingsland Churches, the turrets to the Camden-road Chapel, containing from 3,000 to 4,000 feet cube; the colossal Britannias, 12 feet high, at the County Fire Offices, Cornhill and Lombard-street; the Arms, with the supporters, for the Kent Mutual Insurance, Queen street; and other works elsewhere, too numerous to mention. A large Stock of newly designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and 1 patterns commencing at 1s. per foot super, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 3, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

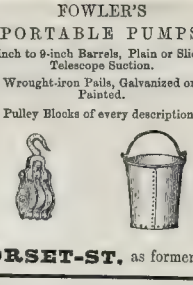
AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

FARM AND COTTAGE PUMPS.

WARNER'S PATENT CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS.

Patent Pump £1 12 0
Patent Pump, with 15 feet of lead pipe attached, and bolts and nuts ready for fixing 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
6, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, moved by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 36s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

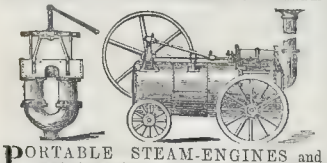
TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump in use. These pumps at work at No. 76, Strand

To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES. — FREEMAN ROE'S PATENT SLUICE-VALVES, as now fixed by us to the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 76, Strand London.

PUMPING MACHINERY for AUSTRALIA, INDIA, CEYLON, SOUTH AMERICA, MEXICO, the CONTINENT, &c. — All persons desirous of RAISING large or small quantities of WATER, for works of drainage or irrigation dry-docks, canals, coffer-dams, water-works, &c. by horse, wind, or steam power, should SEE GWYNNE and CO.'S PATENTED MACHINERY for these purposes, being the most economical, efficient, simple, and durable ever brought before the public. Hydraulic Rams, Water-wheels, Steam-engines portable or fixed, with every information, obtained by applying to GWYNNE and CO. Hydraulic and Mechanical Engineers, Essex Wharf, Essex-street, Strand, London.



PORTABLE STEAM-ENGINES and BOILERS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street Blackfriars-bridge (Surrey Side).

TO ENGINEERS and CONTRACTORS.—TO BE DISPOSED OF, a pair of 12-inch PUMPS, with two spur wheels, connecting rods, plates, &c. requisite to work the same; also, an 8-horse STEAM BOILER, with fire in centre flue, the whole nearly new.—Apply at the Gas Works, Stafford.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET on HIRE, by the WEEK, MONTH, or for any period, of 8-horse 10-horse, 12-horse, 16-horse 20-horse, and 25-horse power adapted for Contract work generally. These Engines have been successfully employed for years by all the principal contractors and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B Any of these Engines may be purchased.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses and every description of Pavement laid down at the above price, and the work guaranteed.

Apply to JOHN FALKINGTON, POLONCEAUX BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B Coachyard Aprons and Railway Engine seats and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the

admission of pure air through an EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draughts being felt by the occupants, and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required. HAYWARD, BROTHERS sole Manufacturers, 196, Blackfriars road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

VENTILATION.

D. and E. BAILEY beg to call the attention of Architects and others to their improved CIRCULAR ARNOTT VENTILATORS, which are more sightly than the square ones in general use, much less liable to get out of order, and the flaps, being hung from the top, do not admit any smoke caused by down draught.

Price, bronzed, from 6s. 6d.

D. and E. BAILEY, 273, Holborn.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer and is about 30 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter, and prices per yard.

½	⅝	1	1¼	1½	1¾	2	2½	2¾	2¼	3 in.
9d.	11d.	1s.1d.	1s.3d.	1s.5d.	1s.7d.	1s.9d.	2s.	2s.3d.	2s.6d.	2s.9d.

Super-extra stout quality.

2	2½	2¾	3 inches.
2s.	2s.3d.	2s.6d.	2s.9d. 3s. per yard.

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

¾	1	1¼	1½	2	2½ inches.
9d.	10d.	11d.	1s.	1s.3d	1s.6d per yard.

The hose is Burnettized at an extra charge of 4d. per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

CHEAP AND DURABLE ROOFING.

By Her Majesty's Royal Letters Patent.

F. McNEILL and CO. of LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON, Manufacturers and ONLY Patentees of

THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronized by

HER MAJESTY'S WOODS AND FORESTS,
HER MAJESTY'S COMMISSION OF CUSTOMS,
HONOURABLE EAST-INDIA COMPANY,
HONOURABLE BOARD OF ORDNANCE,
HER MAJESTY'S ESTATE, ISLE OF WIGHT,
ROYAL BOTANICAL GARDENS, REGENT'S PARK,

And by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under slates at the Royal Agricultural Society's House, in Hanover-square. Its advantages are lightness, warmth, durability, and economy. It is impervious to rain, snow, and frost, and a non conductor of heat and sound. The Felt can be cut to any length, by 39 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its uses and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen and Gentlemen who have extensively used it, sent free to any part of the town or country. A Dry hair Felt, for covering Boilers, &c. is also manufactured by which a saving of about 25 per cent in fuel is effected. The TRADE are respectfully enjoined to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their roofs. They are likewise CAUTIONED AGAINST MISREPRESENTATION, as the only works in Great Britain where the above roofing is made are F. McNEILL and CO.'s Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW. Roofs covered with the Felt to be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the New Houses of Parliament.—A Liberal Discount allowed to the Trade.

PATENT METALLIC LAVA.

A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

GENUINE SEYSSEL ASPHALTE.

ORSI AND ARMANI.

THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

DIRECT FROM THE MINES.

REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

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WORK GUARANTEED FOR THREE YEARS.

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

WILLIAM NORTHEN'S

WHITE ENAMELLED STONEWARE,

UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD....J. S. arrow and Co
CARNARVON....Jno. Jackson.
PRESTON.....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.
CARLISLE.....C. Armstrong, Lowther-street
WHITEHAVEN..Hugh Todhunter.
COCKERMOUTH..John Hird.
GUERNSEY.....Guerin, Brothers.
LONDONDERRY..W. and A. M'Elwee.
LIMERICK.....W. Burgess and Sons.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

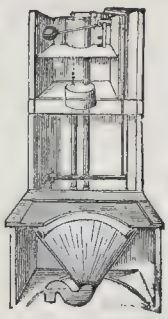
perior Glazed Stoneware Pipes, Bends, Stone, Traps, &c. Hopper and other Pans, best White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

phon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

cered Flushing Basin,—the most effective yphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1859.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

IMPROVED YARD-SINK.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

Pan, 3s. 6d. Trap, 2s.

F-SOCKET PIPES, in 2 feet lengths, at usual prices, by the of which. Drains may be readily examined, and Junctions serted, in the event of requiring further connections.

may be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; ead Herin-mews; Pauper's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kingsland, Camden New Town; NER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 29, Bryd ges-street, Covent Garden; and at EDWARD 3, 94, Wardour-street, Oxford-street. Drawings and ss of Prices will be forwarded free on application.

VICTORIA POTTERY, LEIGH,

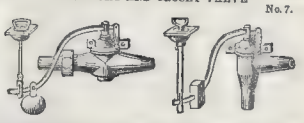
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers. Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Leonard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE

No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 14s. 6d each.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentees, WILLIAM PATTEN, 29, Old Fish-street, near St Paul's, London.

Crown Glass, 18 tables, 30s. per Crate.

ISAAC PARRY'S

GLAZED STONE SEWER PIPES,
BED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,

BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York road, King's-cross.

E. and W. STURGE invite special attention

to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for carriage is made. January, 1855.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c. &c.

Agents,—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. MORRELL, BLACK LEAD PENCIL

MANUFACTURER, No. 149, Fleet-street, London.

These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.
H H H for architectural use.
H H for engineering.
H for sketching.
H B hard and black for drawing.
M medium.
F F light and shading.
F for general use.
B black for shading.
B B ditto ditto.
B B B ditto ditto.
B B B B ditto ditto.

Sold by all the principal Stationers in town or country.

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES,

consisting of Matting, Mats, Matting, Brushes, Netting, &c. are distinguished for superiority and excellency of workmanship, combined with moderate prices. Prize medal both in England and America, at the Exhibition of all Nations. T. TRELOAR, Cocoa-nut Fibre Manufacturer, 42, Ludgate hill, London.

PAPER-HANGINGS.—The CHEAPEST

HOUSE in London for every description of PAPER-HANGINGS is CROSS'S WHOLESALE WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

SALES BY AUCTION.

LETT'S WHARF, COMMERCIAL-ROAD LAMBETH.

MESSRS. FULLER and HORSEY will SELL by AUCTION, as a lot, on TUESDAY, JULY 31, 1855, at ELEVEN o'clock, in lots, with an reserve, by direction of the assignees of Messrs. Rowland Lyon and Co., of SUNNING-HILL-STEAM-DYE-WORKS, Berkshire, and Messrs. Lyon, Lyon, and Co., of Whitechapel, and Car., of Belper, including the double and four-single-lift frames, the timber frame to cost 27 inches in depth, one planing, tonguing and matching machine, the whole quite new, and having yet been fixed; and made on the most approved construction. To be viewed on Monday previous to the sale, when catalogues may be had on the Premises; of Messrs. HODGE, Pitching, King William-street, Strand; and of Messrs. FULLER and HORSEY, Bullister-street, City.

TO IRON SHIP BUILDERS, IRON MERCHANTS, SHIP-CHANDLERS AND OTHERS.—By

MESSRS. FULLER and HORSEY, at the DREADNOUGHT YARD, Thames-street, Greenwich, on FRIDAY, JULY 27, at ELEVEN, by direction of the Assignees of Messrs. Routledge, a bankrupt, in lots, without reserve, ONE HUNDRED and FIFTY TONS BAR, PLATE, and ANGLE IRON, English best crown, and Staffordshire best charcoal, 60 tons burnt iron, one ton of rope, quantity of rigging, wood blocks, eight cast wrought iron press screws and nuts, quantity of cast-iron flanged pipes, five lengths 15-inch cast-iron screw pump barrel, 15-inch cast-iron paddle-wheel shaft, 14-inch cast-iron six new patchway tarpaulings, mahogany and deal boards, and a large quantity of timber, to be drawn and sold by the purchaser. To be viewed on THURSDAY previous to the sale, when catalogues may be had on the Premises; of Messrs. HOWARD and BULLOUGH, Solicitors, 26, Bridge-street, Southwark; of — BELL, Esq. Official Assignee, Chancery-lane-buildings, and of Messrs. FULLER and HORSEY, Bullister-street, City.

A Pair of new 25-horse power Pendulous Steam-engines, with Boilers.—By

MESSRS. FULLER and HORSEY, on the PREMISES, Letts-wharf, Commercial-road, Lambeth, on TUESDAY, JULY 31, at ELEVEN, by direction of the Assignees of Messrs. Routledge, a PAIR of NEW STEAM-ENGINES, of 25-horse power each, with double cylinders for high and low pressure, constructed by Dodgson, Greenwich, on his patent pendulous principle. The engines are made in a very superior manner, in Gothic frame, with tooth fly wheel 15 feet diameter, and most effective driving motion. They have not yet been fixed, but will be fixed free of charge to a purchaser in any part of London, or at a small charge, if required to be fixed at a distance from London. Also TWO NEW CORNISH BOILERS, 26 feet long, 6 feet 6 inches diameter, with tube 3 feet 6 inches diameter To be viewed by cards only. Catalogues may be had of Messrs. Howard, Solicitors, 24, King William-street, Strand; and of WILLIAM PENSELL, Esq. Official Assignee, Basinghall-street; and, with cards to view, of Messrs. FULLER and HORSEY, Bullister-street, City.

TO BUILDERS, COAL MERCHANTS, CORN DEALERS, and Others requiring extensive Premises, or persons desirous to obtain a second private residence, or for investment, CHRIST-CHURCH, HANTS.

MR. JOHN ABBOTT has been favoured with instructions from the proprietor to SELL by AUCTION, at the HOLMES HOTEL, on TUESDAY, the 24th of JULY, 1855 (unless an acceptable offer be made previously, of which due notice will be given), all that desirable FREEHOLD PROPERTY, situated at Purewell, comprehending a genteel, newly-built substantially erected Dwelling-house, with ornamental shrubs and flower garden in front, a good kitchen, with large yard, capital workshops, sheds, stables, and gig-house, with about 2 acres of very productive pasture land all adjoining, with valuable rights for depasturing cattle. On the premises the business of a builder has been success fully carried on by the present proprietor and his predecessor for the last half century, and it is now brought into the market solely on account of family arrangements. Further particulars may be had of the owner and occupier, Mr. THOS. CONNISH, on the Premises; of Messrs. SHARP, Solicitors, Christchurch and Lymington; or of the Auctioneer, Bridge-street Christchurch.

IN BANKRUPTCY.—Re John Mitchell, Warminster, Wilts.—To Carpenters, Builders, and others.

MESSRS. DAVIS and VIGERS are honoured with instructions from Mr. Commissioner Fane to submit to PUBLIC AUCTION, on FRIDAY, JULY 27, at the SMITHY, Messrs' Arms yard, and on SATURDAY, JULY 28, at the KING'S ARMS YARD, Warminster, at TWELVE for ONE o'clock each day, THIRTY-FOUR powerful YOUNG MACHINE HORSES, in excellent working condition; a valuable hunter, 15 years old, and a useful cob; three strong road-waggons, six carts, two timber carriages, two useful dog-carts, one chaise-cart; fifty sets of thill and trace harness, thirty horse clothing sets, chaff box, and various stable implements; also two five-ton travelling-cranes, nine casks of cart-grease, sixteen dozen new sh ets and stocks, ½ ton of railway-spikes, chain-cables and cables, &c.; ten tons of wrought and cast iron chain couplings, &c.; portable forge, forge-tools, navvy barrows, wedging planks, picks, crowbars, and numerous items of miscellaneous effects, collected and removed from the works for the convenience of sale. May be viewed the day previous and morning of sale, and catalogues had of Messrs. Pittmore and Lowman, Solicitors to the Fiat, 68, Old Broad-street, London; at the Red Lion Inn, Salisbury; the Angel Inn, Heytesbury; the Deptford Inn, Wilts; the London Inn and Mason's Arms Inn, Warminster; and of the Auctioneers, 3, Frederick's place, Old Jewry, E. and C.

THE LYNMORE PARK ESTATE, comprising about thirty three Acres of Building Land, beautifully situate at Woodside, between Norwood and Addington, in the County of Surrey.

MESSRS. WINSTANLEY are directed to SELL, by AUCTION, at the AUCTION MART, on MONDAY, 23rd JULY, a valuable FREEHOLD PROPERTY, including two lots, and forming a portion of part of about thirty-four acres of most eligible building land, commanding very extensive views of the distant and immediate picturesque scenery, the Crystal Palace, &c. &c., approached from the high road from the Norwood Station, from which it is only a short distance. There principal roads (40 feet wide) have already been formed, extending through the land to Woodside-green, on which there is a very considerable frontage, but there is full scope for the formation of others to create frontages to a much greater extent. The fottage stabling, and premises (including the green) are also included in the sale. There are two churches in the vicinity. A plentiful supply of spring water is already on the premises, and the pipes of the Thames Water Company are laid within a few yards of the estate. In the hands of a building society or capitalist this property offers attractions of no ordinary character. The estate can be viewed upon application to Mr. Hammond, at the cottage. Printed particulars, with plans annexed, may be obtained of Messrs. Dutchmans, Rousseau, and Tite, Solicitors; Messrs. Burt, Auctioneers; of Mr. Joseph Berger, Croydon; and at the Greyhound Inn, in Croydon; at the Windmill Inn, St. James's-road, Croydon; the Jolly Sailor and White Lion Inns, at Norwood; the Crystal Palace, Anerley; the Greyhound, Dulwich; and, in London, at the Place of Sale, of Mr. Draper, Globe Tavern, Hatton-garden; and of Messrs. Winstanley, Land and Estate Agents, 1, Paternoster-row.

TO HOUSE DECORATORS BUILDERS, AND OTHERS.

MR. EDWIN WHITE will SELL by AUCTION, with an reserve at his ROOMS, 126, Bishopsgate-street Without, on WEDNESDAY, the 25th of JULY, at TWELVE for ONE precisely, about 7000 PIECES of superior PAPER HANGINGS, comprising flocks, damasks, marbles, chintzes, and others, suitable for parlours, bedrooms, staircases, &c. Also a small consignment of French Hangings and Decorations. Catalogues and view day prior and morning of sale.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—

MONDAY, 6th AUG.	MONDAY, 1st OCT., 1855
MONDAY, 3rd SEPT.	MONDAY, 5th NOV.

Catalogues and further particulars to be had on application one week previous to each sale.—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE.

SALES BY AUCTION.

FARRINGDON-STREET EXTENSION.—Building Materials of Twenty Houses.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on THURSDAY, JULY 26, and following day, at TWELVE, by order of the Improvements Committee of the Corporation of the City of London, all the valuable BUILDING MATERIALS and FIXTURES of about twenty houses, shops, stabling, slaughter houses, and extensive premises, in Turnmill-street and Bowling-street, Clerkenwell, comprising about 500,000 good sound bricks, oak and fir timber, in roofs and floors; sashes, doors, floor boards, shop fronts, York and pebble paving, rocks, mangers, and large folding gates; several tons of lead, in gutters and pipes; large quantity of plain and pantiles; counters and drawers, cranes and jibs, gas fittings, stoves, ranges, and numerous pictures and fittings up.—May be viewed two days previous. Catalogues had at the Architect's Office, Guildhall, and of PULLEN and SON, 80, Fore-street, Cripplegate.

Steam Saw-mills, with large Yard and Workshops and extensive Builder's Premises attached.

PULLEN and SON are directed to SELL by PRIVATE CONTRACT, in-state PREMISES, with complete SAWING MACHINERY of the most approved construction, fitted up within a recent period at a vast expense, including two capital steam-engines of 30-horse power each, 20-horse boiler, and chimney-shaft 60 feet high; two vertical deal frames; three circular saw-benches, with 3 feet 6 in. segment saws; self-acting saw-bench; mortising and tenoning machines, &c. The whole could be set off in further particulars may be obtained of PULLEN and SON, 80, Fore-street, Cripplegate.

TO CONTRACTORS, BUILDERS, &c.—TO BE SOLD by AUCTION by

MR TURNER, at KETTON QUARRIES, near Stamford, on THURSDAY, the 26th JULY inst. about 4 00 feet of KETTON FREESTONE, of first-rate quality, in blocks of from 1 cwt. to 5 tons and upwards, which may be seen on application to JOHN HALES, of Ketton. Credit on approved security for twelve months. The Auctioneer requests the company to meet him at MR. EDWARDS'S, White Hart Inn, Ketton, at TWO o'clock, when he will immediately proceed to sale.

Edithweston, July 16th, 1855.

PARK-WALK, CHELSEA.—Very valuable Building Contract of Ground, upon which eight villas have been erected, with space for twenty-four more, roads and sewers complete!

MESSRS. FAREBROTHER, CLARK, and LYE are instructed to SELL, at GARRAWAYS, on WEDNESDAY, JULY 25, by direction of the executors of the late Robert Chambers, Esq., a very valuable BUILDING CONTRACT of a PIECE of LAND, situate in Park road, in the rear of Park-walk, Chelsea, near to Camera square and the Park Chapel, with access from the Fulham-road, for a term of ninety-nine years, at ground-rents to be separately reserved. Eight genteel semi-detached villa residences have been erected, six of which are let on leases at eight pounds and two are in hand, and of the annual value of 90l. There is space for the erection of twenty-four more villas. The roads and sewers have been completed. This forms a most desirable property for a capitalist or enterprising builder, being sold in consequence of the death of the owner.—May be viewed, and particulars had of Messrs. Williamson, Esq. Solicitor, 5, Red Lion-square; at Garraway's; and at the Offices of Messrs. Farebrother, Clark, and Lye, Lancaster place, Strand.

Important to Builders, Farmers, Railway Contractors, Wood and Timber Merchants, and Others.

MESSRS. DUNN and GIBBS will SELL by AUCTION, at the DOCKYARD, Northfleet, Kent, on WEDNESDAY, JULY 25th, at half-past ONE for TWO, 700 Pairs of TEAK GRATES and RISINGS, English, Pantiles, and African teak and Rock Elm Slabs, English and Pantile Oak Edging, English Oak and Elm Tops, Oak; fir and mixed fire-wood; lot of ornamental wood pillars, lot of ship timbers, lot of oakum, and rope-netting, &c.—May be viewed Monday and Tuesday before the sale; and catalogues had on application at the Dockyard, and at the Auctioneers' Offices, 7, Great Tower-street, London, and Northfleet, and sent free on application.

BARKING, ESSEX.—Thirty-three Plots of Freehold Building Land.

MR. W. H. DEAN will SELL by AUCTION, on TUESDAY AUGUST 14th, 1855, at the MART at TWELVE o'clock, THIRTY-THREE PLOTS of Valuable FREEHOLD LAND, ex-empted from land tax, and most eligibly situate in the preferable part of the town of Barking, and within two yards of the station of the London, Tilbury, and Southend Railway. May be viewed, and printed particulars with lithographed plans may be had at the Mart; at the Ship and Bull Inns, Barking; of Messrs. W. and H. P. Sharp, Solicitors, 2, Verulam-buildings, Gray's-inn; and of the Auctioneer, Stratford, Essex.

WOOD GRANGE ESTATE, STRATFORD, ESSEX.—Sixty one Plots of Building Land, Freehold Ground-rents, and Free hold Dwelling-houses.

MR. W. H. DEAN has received instructions to SELL by AUCTION, at the MART, on WEDNESDAY, JULY 25th, at TWELVE, sixty FREEHOLD GROUND-RENTS, a pair of Freehold Dwelling-houses, and Sixty-one Plots of Freehold Building Land, the whole exempt from land-tax. The property is situate contiguous to the Forest-gate Station of the Eastern Counties Railway, and within a short distance of the Wanstead Forest. The building ground is high and dry, having the advantage of a gravelly subsoil, and the locality is essentially healthful and picturesque, and the quick and easy mode of transit renders the situation admirably adapted for the residence of persons whose business occupation requires their daily attendance in the City. There is a great and increasing demand for houses in the neighbourhood, and this is a most favourable opportunity for purchasers to secure a certain and liberal interest for their capital. May be viewed, and printed particulars and conditions of sale, with plan, obtained (gratis) at the Auction Mart; at the Rose and Child Inn, Forest-gate; York-hire Grey and Swan Inns, Stratford, of Messrs. Young and Valiens, Solicitors to the Vendor, 2, St. Mildred's-court, City; and of the Auctioneer, Stratford, Essex.

STRATFORD, ESSEX.—Extensive Stock-in-Trade of a Builder.

MR. W. H. DEAN will SELL by AUCTION, on TUESDAY, JULY 31, and following day, on the PREMISES, near the Harrow-bridge, Stratford, the valuable BUILDING MATERIALS and STOCK-IN-TRADE of Mr. GRANITE YORK PORTLAND, and other STONE, in blocks, landings, steps, slabs, &c. rubbed and tooled, 10,000 prepared and other slates, 60,000 fire and paving bricks, a large quantity of good drain-pipes, &c. with the extensive and valuable builder's stone-yard; an excellent, nearly new, and expensive slate-cutting machine, with gear, &c. complete; also the fixtures and fittings, and a powerful travelling-crane, capable of raising many tons weight, with the strong erection of stage supporting the same. May be viewed three days prior to the Sale, and catalogues had on the Premises; and of the Auctioneer, Stratford, Essex.

PLAISTOW, ESSEX.—To Land Societies, Builders, and Others, requiring to Purchase Lands near the Metropolis.

MR. W. H. DEAN has received instructions from the executors of Mr. James Adams, deceased, to SELL by PUBLIC AUCTION, at the MART, on THURSDAY, AUGUST 16th, at TWELVE, in lots, a valuable FREEHOLD ESTATE, situate about 4½ miles from London, and comprising seventy two acres of land, with capital dwelling-house, and extensive and substantially-built farm buildings, the whole enclosed from land-tax. The estate is contiguous to the Victoria London Docks, which will shortly be opened, and within a short distance of the Barking-road station of the North Woolwich Railway, and has a frontage of 1,600 feet on the high road to London. The ground is high and dry, and, from the advantage of its situation, is eminently adapted for building or commercial purposes. May be viewed, and printed particulars had at the Mart; of Messrs. Hillman, Solicitors to the Vendors, 5, Fenchurch buildings, City; and of the Auctioneer, Stratford, Essex.

SALES BY AUCTION.

FIRST ANNUAL SALE of ARTICLES manufactured by the PATENT SILICEOUS STONE COMPANY, in their beautiful and durable Material, consisting of a large assortment of Vases, Fountains, Flower Boxes, Pedestals, Balustrades of every description; Moulded Plinths and Copings Gate Piers, Caps and Bases, Brackets and Trusses, Chimney-pieces in great variety, both plain and elaborate; Monumental Tombs, Tablets, and Headstones; Coats of Royal Arms, Ashlars, String-courses and other Dressings, &c. &c. &c.; from good Designs both for Mediæval and Renaissantal Architecture.

MR. MARSH has the honour to announce that he has been favoured with instructions from the Directors of the "Patent Siliceous Stone Company" to SELL by AUCTION, on the PREMISES, Whitehall-wharf, Cumming-row, Battersea, on TUESDAY next, JULY 24, at ELEVEN for TWELVE o'clock precisely, in lots adapted to the trade, private buyer, and others, the above important and valuable PLANT and STOCK, forming part of their extensive annual productions. To describe the articles manufactured under the above process, which has so much engaged the attention of the scientific world, is beyond the limits of an advertisement; suffice it to say, that for durability, strength, and cheapness, as well as for delicate ornamental finish, the Siliceous Stone stands unequalled, even among nature's productions. Luncheon will be provided for Purchasers. May be viewed the day prior and morning of sale; and catalogues obtained on the Premises, and at Mr. Mansh's Offices, 2, Charlotte-row, Mansion House.

Old-established Steam Saw mills, with Wharf, abutting on the Portsmouth Harbour, and situate contiguous to the Portsmouth Terminus of the London and South Western, and London and South Coast Railways. Freehold and with possession.

MR. MARSH has received instructions from the proprietor (after a period of fifteen years' occupancy) to SELL by AUCTION, at the MART, on THURSDAY, AUGUST 2nd (unless previously disposed of by private contract), in one lot, the valuable FREEHOLD PROPERTY, comprising the Hulbert-road Steam Saw-mills, timber yard, and business premises, dwelling-house, and foreman's house, large drying sheds, and other offices, most conveniently situate at Milo-end, Portsmouth. The valuable machinery, plant, &c. will be included in the purchase. To any party desirous of embarking in the foreign timber trade, saw-mills, &c. a more eligible opportunity is rarely to be met with. May be viewed on application, and particulars of Sale obtained of Thomas Edgcombe, Esq. Solicitor, Portsea; and at Mr. Marsh's Offices, 2, Charlotte-row, Mansion House, London, where a plan may be seen.

SURREY.—Inviting Freehold Estate, tithe-free, and land-tax redeemed; admirably placed, about two miles distant from the Ewell, Kingston, or Malden railway stations.

MR. W. BUTCHER has received instructions to SELL by AUCTION, at the MART, Bartholomew-lane, London, on FRIDAY, 27th JULY, 1855, at TWELVE o'clock, in four lots, about twenty-five acres of very valuable LAND, in a commanding position for a villa, with the pleasing occupation of a small farm; or it presents an eligible opportunity for a building speculation of magnitude. This property adjoins Worcester-park, and has an extensive frontage to the main road from Ewell to Kingston. Particulars, with plans attached, will be ready a few days previous to the sale, and may be obtained at the following hotels:—Old Ship, Brighton; Mount Ephraim, Tunbridge Wells; Griffin, Kingston; Greyhound, Croydon; the Bridge Wells; and of the Auction Mart; of Messrs. Roy and Cameron, Solicitors, 4, Lothbury, London; of W. H. Carter, Esq. Solicitor, 71, Brewer-street, Woolwich; and of Mr. W. Butcher, Estate Agent, Epsom.

GRAVESEND, KENT.—To BUILDERS, CAPITALISTS, and OTHERS.—Valuable Freehold Building Land, and Two substantial brick-built Private Residences.

MR. CHARLES JOHNSON (business established 1764) has been honoured with instructions to SELL, by AUCTION, at the NEW INN, Gravesend, on WEDNESDAY, JULY 25, 1855, at ONE for TWO precisely, the remaining portion of the MILTON PARK ESTATE, consisting of thirty-seven plots of building land, on the east and west sides of Milton-road, with 16 feet, 17 feet, and 18 feet frontages thereto, and an average depth of 75 feet; also, four eligible plots in the Grove, with 60 feet frontages thereto, and an average depth of 96 feet. The land in Wellington-street is suitable for the erection of houses of the value of from 16l. to 20l. per annum, for which there is a steadily increasing demand. The plots in the Grove are well adapted for the erection of villa residence. Two substantially-erected private residences, Nos. 8 and 9, Berkeley-crescent, of the annual value of 78l. per annum, held for an unexpired term of 79½ years (less five days) from Michaelmas, 1855, at a very moderate ground-rent.—Particulars and conditions of sale, with plans, may be obtained free of charge on the sale, of G. Arnold, Esq. Solicitor, Berkeley-crescent, Gravesend; G. H. Knight, Esq. Solicitor, 3, Essex-court, Temple, London; Mr. J. Gedd, Jun. surveyor, Gravesend; at the Place of Sale; and of Charles Johnson, Auctioneer, 188, Parrock-street, Gravesend.

TO BUILDERS, CARPENTERS, and OTHERS.—Freehold Dwelling Houses and Business Premises, Castle-street, Guildford.

MESSRS. F. and A. MELLERSH, without the slightest reserve, at the WHITE HART INN, Guildford, on FRIDAY, JULY 27, at THREE, a FREEHOLD RESIDENCE, with a frontage to Castle-street, together with a large builder's yard in the rear, in which is erected an extensive range of workshops, sheds, the forging, and land-tax free; it is now unoccupied, and possession will be given on completion of the purchase. Also, TWO FREEHOLD DWELLING HOUSES, with shops and building premises, situate in Castle-street, now let to Messrs. Taunton and Simmonds, at an aggregate rental of 50l. 15s. per annum. To view apply to the respective tenants, and further particulars may be obtained of T. A. Curtis, Esq. Solicitor, Guildford; or of the Auctioneers, Godalming and Guildford.

CHELSEA. Important Sale of Leasehold Property for Investment or Occupation.

MR. W. F. HAMMOND is instructed by the several proprietors to SELL by AUCTION, at the COMMERCIAL SALE HALL, King's-road, Chelsea, on FRIDAY, AUGUST 3rd, 1855, at TWELVE for ONE o'clock, the above valuable PROPERTY, comprising two shops with substantial dwelling-houses, Nos. 11 and 12, Strewan-place, King's-road, Chelsea; lease, ninety-seven years, at a ground-rent on each of 8l.; rent, 42l. each. Also, in the parish of Kensington, No. 1 and 2, Grove-cottages, Kensal's-rose, two houses; lease sixty-nine years, ground-rent on each, 6l.; rental, each 24l.—Particulars, with conditions of sale, to be had at the Commercial Hall, King's-road, Chelsea; and at the Auctioneer's Offices, No. 3, Carey-street, Lincoln's-inn.

At IPSWICH 420,000 Bricks, among which are 150,000 Suffolk Whites and 200,000 Reds of superior colour, by AUCTION, by

MR. ROSS, on FRIDAY, JULY 27, at the FOXHALL-ROAD and ROSE-HILL BRICKFIELDS, in consequence of the leases expiring. Sale to commence at ELEVEN o'clock. Catalogues at the Auctioneer's Office, St. Nicholas.

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The head of every house built upon the Waddington Estate, of the value of 30l. per annum, will be entitled to a Free First-class Railway Ticket, and of every house of the value of 20l. per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years.—Apply to Mr. George Morgan, 3, Chancery-lane.

London: Printed by Charles Wyman, of 23, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of Cox (Bros.) & Wyman, 74 & 76, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said Charles Wyman, at the Office of "The Builder," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, July 21, 1855.

The Builder,

Architect, Engineer, Operative & Artist.

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ILLUSTRATIONS.

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ADVERTISEMENTS.

WILL CLOSE ON THE 28th INSTANT.

ROYAL ACADEMY of ARTS, Trafalgar-square.—The Exhibition of the Royal Academy IS NOW OPEN.—Admission (from Eight to Seven o'clock), one shilling. Catalogues, one shilling.
JOHN PRESCOTT KNIGHT, R.A Secretary.

WILL CLOSE ON SATURDAY NEXT, THE 28TH.

SOCIETY of PAINTERS in WATER-COLOURS.—The FIFTY-FIRST ANNUAL EXHIBITION is NOW OPEN, at their Gallery, 5, Pall mall East (close to Trafalgar-square), from NINE o'clock, Admittance, 1s. Catalogue, 6d.
JOSEPH J. JENKINS, Secretary.

THE LAST WEEK.

THE NEW SOCIETY of PAINTERS in WATER COLOURS will CLOSE their Twenty-first Annual Exhibition on SATURDAY NEXT. NOW OPEN at their Gallery, 53, PALL MALL, near St. James's. Palace, daily from nine o'clock.—Admission, 1s.—Season Tickets, 5s.
JAMES FAHEY, Secretary.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster. Midsummer Session, 1855.

On MONDAY, July 30th, a LECTURE will be delivered in the rooms of the Museum, on the PROGRESSIVE CHANGES in ORNAMENT in the SUCCESSIVE STYLES of MEDIÆVAL ARCHITECTURE. By G. G. SCOTT, Esq.; being a continuation of a former lecture.

Hour of admission, SEVEN o'clock. The chair to be taken at EIGHT o'clock.

Cards, prospectuses, and catalogues of the collection (now numbering upwards of 5,000 specimens) may be had at the Museum, and at the Office of "The Builder."

July 20, 1855. HENRY CLUTTON, Hon. Sec.

THE ARCHITECTURAL EXHIBITION will REOPEN at the Galleries, Suffolk-street, Pall-mall east, in DECEMBER next. The Committee have determined in future not to admit any drawings previously exhibited in London; they call the especial attention of all those interested to the advantages offered by the department for materials, models, patents, and sculpture connected with building. Any subscription now should be forwarded directly, as the Committee are about to close and audit the account relating to the past season.

JAS. FERGUSSON, F.R.A.S. 20, Langham-place;
JAS. EDMESTON, Jun. 5, Crown-court, Old Broad-street, } Honorary Secretaries.

COMPETITIONS.

TO ARCHITECTS.

PLANS of BARRACKS.—The Committee appointed by the Minister of War to consider the question of Barrack Accommodation for the Army, have to inform all Architects who may be desirous of competing for the prizes offered for the best plans for Infantry and Cavalry Barracks, that in consequence of the very numerous applications received from Architects, requesting an extension of the time given for the preparation of the plans, the Committee have agreed to DEFER the time limited for the reception of competing plans till the 30th of SEPTEMBER next. Each plan should be submitted under a motto, accompanied by a sealed envelope containing a copy of the motto, and the name and address of the architect. It would be desirable that the plans should be drawn upon a uniform scale: that is suggested that the general plan should in every case be drawn upon a scale of 30 feet to an inch; that the plans and sections should be shown on a scale of 10 feet to 1 inch; and that any details should be drawn upon such a scale as may show them fully. No particular site can be pointed out. Architects will assume that a level site is level. Officers of engineers and clerks of works to the Royal Engineer department will not be excluded from competition; but any plans submitted by them must be submitted under a motto, like the others. A circular will be sent to all barristers requesting them to allow architects to inspect the plans. All communications upon the subject to be addressed to Viscount MONCK, chairman of the Barrack Committee, Barrack Department, Ordnance Office.

Signed MONCK, Chairman.

Office of Ordnance, 4th July, 1855.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Office of the Inspector General of Fortifications, Pall-mall, London, on or before SATURDAY, the 4th day of AUGUST, 1855, from persons desirous of CONTRACTING for various WORKS at Dover Castle. Plans and specifications of the works to be executed, may be seen by parties disposed to tender, and forms of Tender obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 18th of JULY to the 3rd of AUGUST, 1855, Sundays excepted. No other persons need apply. The party whose Tender may be accepted for the works, will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 1,500l. for the due performance of the contract. Tenders for the above works to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Ordnance Works at Dover Castle."

N.B.—The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, July 4th, 1855.

NOTICE to BUILDERS.—BARRACK WORKS.—The Commanding Royal Engineer of the Dover District hereby gives Notice, that the WORKS proposed for INCREASING the BARRACK ACCOMMODATION at the WESTERN HEIGHTS, DOVER, are POSTPONED, except that portion of them which provides for building a large non-commissioned officers' and soldiers' privy, the plans and specification for which can be obtained at the Royal Engineer Office, Dover, between the hours of TEN and FOUR o'clock, from the 18th of JULY to the 31st of JULY, 1855. Sundays excepted. The party whose Tender may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 200l. for the due performance of the contract. Tenders for the above work are to be addressed to the Inspector General of Fortifications, Pall-mall, London, and endorsed "Tender for Building a Privy at the Western Heights, Dover."

N.B. The Ordnance Department reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover, July 9, 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—The Principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz.:—For the Works proposed in the ERECTION of ADDITIONAL OFFICERS' QUARTERS, at the New Barracks, Limerick. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Tower Castle yard, Dublin, and at the Royal Engineer's Office, at Limerick, and may obtain specifications, with the terms of contract, upon making a deposit of 1l. for the same, which deposit will be repaid when the specifications are returned uninjured. The work to be completed on or before the 31st July, 1856. The Letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 6th of AUGUST, 1855, and to be marked on the outside "Tender for Works at Limerick."

Office of Ordnance, Dublin, 16th July, 1855.

Royal Engineer Office, Sheerness, July 23, 1855.

TO CONTRACTORS. — CONTRACT for ERECTING additional CELLS and LOCK-UP ROOM, &c. at SHEERNESS.—The Commanding Royal Engineer, Sheerness, gives Notice that TENDERS will be received at the Office of Ordnance, Pall-mall, on or before MONDAY, the 13th day of AUGUST, 1855, from such persons as may be desirous of Tendering for Erecting additional Cells and Lock-up Room, &c. at Sheerness. The plans may be seen, and printed specifications obtained, at this Office, between the hours of TEN and FOUR each day (Sundays excepted), till the 11th of AUGUST, 1855.

COUNTY and CITY of WORCESTER PAUPER LUNATIC ASYLUM.—To BUILDERS.—Persons wishing to TENDER for the ERECTION of the CHAPEL, may see the drawings and specifications at the Asylum, Powick, near Worcester, on and after WEDNESDAY, the 25th instant. Tenders to be sent to me, endorsed "Tender for Chapel," on or before SATURDAY, the 1st of SEPTEMBER. The Committee of Visitors do not pledge themselves to accept the lowest or any Tender, if not satisfactory.

MARCUS CURTLER, Clerk to the said Committee.

Pierpoint-street, Worcester, July 21, 1855.

TO BUILDERS

PARTIES willing to CONTRACT for the ERECTION of a PUBLIC HOUSE, near Poplar, Middlesex, may inspect the plans and specifications at Mr. R. SIBSON'S, No. 7, Gerrard-place, Old Round-ad, on or after TUESDAY next, the 31st JULY, between the hours of TEN and FIVE o'clock. The Tenders to be delivered on THURSDAY, 9th AUGUST, at THREE o'clock p.m. The proprietor will not bind himself to accept the lowest or any Tender.

TO BUILDERS

PARTIES willing to TENDER for sundry ADDITIONS and ALTERATIONS at HERSHAM LODGE, near Esher, Surrey, may be referred to the plans and particulars by sending their address to Mr. MATTHEWS, Architect, 75, White Lion-street, Islington, London.—Tenders to be sent in not later than the 9th AUGUST next.

LIGHTING.—CITY of WORCESTER.—Persons desirous of CONTRACTING with the Council and Local Board of Health of the City of Worcester, to LIGHT the CITY with GAS, may receive full particulars on application to Mr. JOHN HILL, Town Clerk, Worcester. The Tenders must specify the charges for Lighting per lamp for nine months, and the charges for lighting per lamp for twelve months. The Contract to find lamps, lamp posts, and all other material and apparatus. Tenders must be sent to the Town Clerk's Office, Worcester, under cover to the Watch and Lighting Committee, on or before MONDAY, the 6th day of AUGUST next.

Worcester, 24th July, 1855.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek street, Soho square, on TUESDAY, the 31st day of JULY instant, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING the following WORKS, viz.:—7,265 feet in length or thereabouts, of BRICK and PIPE SEWERS, with other works in connection therewith, in Clerkenwell green and Aylesbury-street, Clerkenwell; Curtain-road, Shoreditch, Dalby terrace, City-road; Britannia-row, Islington; and Hollowar road, and other streets and places, in the county of Middlesex (in one Tender). 2130 feet in length or thereabout, of BRICK SEWERS, with other Works, in connection therewith, in New-road, Cadogan street and terrace, and Sloane-street, Chelsea, in the county aforesaid (in one Tender). 1,750 feet in length or thereabouts of BRICK SEWERS, with other works in connection therewith in Queen's-road East, Franklin's-row, White-lion-street, and Turk's-row, Chelsea, in the county aforesaid (in one Tender). 640 feet in length or thereabouts, of BRICK and PIPE SEWERS, in King street Portland-street, St. James's, Orange-street, Russ-street, &c. St. Ann's, Soho, Bedford street and court, Covent Garden, and Bear-yard, St. Clement's, in the county aforesaid (in one Tender); and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the principal Office of the Commissioners, No. 1, Greek street, Soho square, between the hours of NINE and FOUR each day until the 6th JULY inst. The Commissioners need not bind themselves to accept of the lowest or any Tender, and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above named.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square,
Dated this 19th day of July, 1855.

TO BUILDERS.

THE UNITED BURIAL BOARD of the parish of St. Andrew and township of Jesmond, Newcastle-upon-Tyne, are prepared to receive TENDERS for the whole or any part of the works required in LAYING OUT and FENCING the NEW CEMETERY of the said parish and township, and for ERECTING TWO CHAPELS and ENTRANCE LODGE thereon. The plans may be seen, and printed copies of the specifications, quantities, and Forms of Tender, may be obtained at my Office, 80, Grey-street, Newcastle upon-Tyne, on and after MONDAY, the 23rd for JULY inst. Sealed Tenders, addressed to me, to be sent on or before MONDAY, the 6th of AUGUST next. Further particulars may be obtained of the Architects, Messrs. MIDDLETON and PRITCHETT, Darlington.

Hon. Sec. for the Board.
JOSEPH BLACKLOCK, Clerk to the Board.

TO BUILDERS AND OTHERS

NEW GAOL for the COUNTY of CORNWALL.—Builders desirous of TENDERING for the ERECTION of the NEW GAOL, at BODMIN, are requested to inspect, prior to the action of doing so to the Architect, Mr. F. W. PORTER, 14, Chadd-street, Bedford-square, London, on or before MONDAY, the 6th day of AUGUST next. Lithographed copies of the bill of quantities will be supplied to builders applying for same, on payment of two guineas for each copy, which will be returned to such persons as send in Tenders upon and according to the form of tender, which will be furnished with the quantities.

No pledge will be given as to the acceptance of the lowest or any tender.

E. COODE, Clerk of the Peace, St. Austell.

July 17, 1855.

UPPER THAMES-STREET, and BREAD-STREET-HILL.—BUILDING LAND TO BE LET, with TWO FRONTAGES [illegible] will be continued towards the building by the fresh Pier.—The Joint Estate Committee of Saint Giles-Without, Cripplegate, and Saint Luke, Middlesex, will meet at the QUEST House, in the Parish-church of Saint Giles, Cripplegate, on MONDAY, the 13th day of AUGUST next, at TWELVE o'clock, to receive TENDERS for taking on lease a PLOT of LAND, on which stood No. 9, Upper Thames-street, in the City of London, having a frontage in that street and in Bread-street-hill. Printed particulars and conditions, with the form of tender, may be had at the office of Mr. A. J. BAYLIS, Solicitor, 24, Redcross-street, City.

TO BUILDERS AND OTHERS.

PERSONS desirous of TENDERING for the several works required to be done in the ERECTION of a VILLA RESIDENCE and OFFICES for Mr. George Poole, to be situated in a field near the Moss Turnpike, on the Congleton-road, Macclesfield, may inspect the drawings and specifications, with conditions of Contract, at my Office, Exchange-street, Macclesfield, on and after the 31st inst. to the 7th day of AUGUST, upon which day tenders must be left at my Office, and addressed to the proprietor, not later than FOUR o'clock, p.m. The quantities have been taken out, and can be had upon application.

Macclesfield, July 26. JAMES STEVENS, Architect.

TO CONTRACTORS

THE Local Board of Health of Newton Heath is prepared to receive TENDERS for SEWERING and PAVING, &c. Holland-street and Albion-street; being Contracts 2 and 3. The drawings may be inspected, and specifications and forms of Tender obtained, on payment of 10s. at the Office of Messrs. TRAPP and HEFFLIS, Civil Engineers, 18, Cooper street, Manchester, on and after 30th inst. Sealed Tenders, addressed to me, the undersigned, and endorsed, "Tender for Works," must be delivered on or before the 10th AUGUST next; and the Local Board will not be bound to accept the lowest Tender.—By order,

S. H. NEEDHAM, Clerk to the Board.

Newton Heath, near Manchester, July 26, 1855.

[*For remainder of Contracts see next page.*

CONTRACTS.

TO BUILDERS

TWO SEMI-DETACHED VILLAS to be ERECTED at Sydenham.—Tenders to build the same will be received at the Office of the Gresham Freehold Land and Building Society, on or before FIVE o'clock, on FRIDAY, the 10th of AUGUST. Specifications and plans may be seen at the Office as above, between the hours of TWO and FIVE o'clock, on and after TUESDAY, the 31st of JULY. The Committee will not be bound to take the lowest, or any Tender.

By order,
FREDERICK DAVIES, Managing Director.

TO BUILDERS

GREENWICH CEMETERY.—The Burial Board for the parish of Greenwich, in the county of Kent, are prepared to receive TENDERS for the ERECTION of TWO MORTUARY CHAPELS, Entrance Lodge, &c. at the new burial ground, near Wellhall-lane, in the liberty of Eltham, Kent; also for enclosing the ground on the north and south sides with oak park fencing, which fencing may be tendered for separately, and made the subject of a separate contract. The plans and specifications may be seen, and further information obtained on and after SATURDAY, the 14th inst. at the office of the Architect, Mr. SAMUEL HEWITT, Montague-close, Southwark. Tenders to be delivered on or before MONDAY, the 30th JULY instant, at FIVE o'clock in the afternoon, at the Clerk's Office, No. 14, Barney-street, Greenwich. The Board do not bind themselves to accept the lowest, or any of the Tenders sent in.

E. W. JAMES, Clerk to the Board.

Greenwich, July 3rd, 1855

TO IRONMONGERS.

WANTED, at the Hilston Union Workhouse the undermentioned GOODS, to be delivered there at the Director's expense, before SEPTEMBER next:—

2 Register Stoves, each			£	s.
2	ft.	in.	3	0
2	"	"	2	11
2	"	"	2	11
3	"	"	2	8
3	"	"	2	6
2	"	"	2	4
5	"	"	2	2
1	"	"	2	0

Eighty single wrought iron bedsteads not to turn up, with sheet-iron head plate, to be made of B B H crown iron; length 6 feet; width 2 feet 6 inches; scantle of sides, head, and feet, ¾ inches, by ¾ of an inch; legs, 15 inches high, of 1 inch round iron; ¾ inch elastic laths for bottom. Persons willing to supply the above are requested to send their Tender for GILLYN GILLIS, Esq. Hilston, on or before the 4th day of AUGUST, and to refer also to the stoves, to state the weight, as well as price of each sort.

Dated, 19th July, 1855.

TO BUILDERS.

THE COMMITTEE for ERECTING a NEW CHURCH at Peterborough, are desirous of receiving TENDERS for the same. The plans and specification may be seen on and after SATURDAY, the 28th instant, at Mr. H. P GATES's Office, Peterborough; and at the Office of the Architect, Mr. E. ELLIS, 131, Fenchurch-street, London. Tenders to be forwarded by TUESDAY, the 7th day of AUGUST next, to H. P. GATES, Esq. Secretary, Cathedral Precincts, Peterborough. The Committee will not be bound to accept the lowest or any Tender

DORCHESTER BURIAL BOARD.—To BUILDERS and OTHERS.—The Burial Board for the parishes of the Holy Trinity, St. Peter and All Saints in Dorchester, is desirous of receiving TENDERS for BUILDING TWO CHAPELS, and an ENTRANCE LODGE and GATES, according to plans, drawings, and specifications prepared by Mr. G. J. G. GREGORY, and which may be seen at the office of the said Mr. GREGORY, situate in South-street, Dorchester, between the hours of TEN a.m. and FIVE p.m. until MONDAY, the 6th day of AUGUST next. The works may be tendered for in one amount, or as follows:—

Tender for Episcopal Chapel,
" Dissenters' Chapel,
" Lodge and Entrance-gates.

Security for the due performance of the works to be required from the persons of the contractors. Tenders to be delivered to me on or before TEN o'clock on TUESDAY, the 7th day of AUGUST next, marked "Tender for Dorchester Cemetery." The Board do not engage themselves to accept the lowest Tender.

By order of the Board,
HENRY LUCK, Clerk

Dorchester, 21st July, 1855

TO BUILDERS.

SAINT LUKE, MIDDLESEX.—The Guardians of the Poor of this parish will meet here on WEDNESDAY the 29th day of AUGUST next, at SIX o'clock in the evening precisely, to receive TENDERS for the ERECTION of an additional STORY to part of the Workhouse. Drawings and specification may be seen here, or by application to Mr. CHARLES F. HOWARD, Architect, 3, Bedford-terrace, Clerkenwell, on and after THURSDAY next, the 2nd proximo. The Guardians will not hold themselves bound to accept the lowest or any Tender.

JOHN PARSON, Clerk to the Guardians.

Board-room, City-road, July 26th, 1855.

TO BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for the ERECTION of FARM BUILDINGS on two farms, called Walkern Park and Walkern Bury, near Stevenage, Herts, may see the plans and specification at or at the White Lion Inn, Stevenage; and at the Offices of Messrs. DENTON and DRAKE, 53, Parliament-street, Westminster, Surveyors to the General Land Drainage and Improvement Company, on and after the 31st day of JULY, 1855. Reference also to be made to CHARLES PALMERT, Esq. Walford, Herts, Agent to the Right Hon. the Earl of Essex.—Tenders to be sent to Messrs. DENTON and DRAKE, on or before the 11th day of AUGUST, 1855.

SMOKE-BURNER:

AN improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon others. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Cokе-ovens, Bakers' Ovens, Pottеries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions and means of abating the Smoke Nuisance, and in many instances with a diminished consumption of Fuel.

In furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BRIDGES, & Co. Nine Elms, London.

Address, THE SMOKE BURNING COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure locks, &c. Manufacturers of Dr. Arnott's improved ventilator. HULETT and CO. 55, High Holborn.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 84 and 85, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, counting-house, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and not rising spring, swing, double-acting, gate, and other Hinges, Floor Centres, &c. &c. Orders for Hinges, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 59 Greek-street, Soho; or at the Foundry, will be promptly attended to. Every description of small, soft, and Malleable Iron Castings.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accident from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145 Regent-street, London.

HEATING BY HOT WATER

JOHN WEEKS and CO. King's-road, Chelsea, call the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating two buildings containing 1,500 feet in length, at the small expense per day in fuel and labour of 1s 8d. This achievement in heating by hot water is unprecedented

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment, where may also be obtained engravings with prices, or forwarded free by post. DEANE DRAY, and CO. opposite to the Monument, London-bridge. Established A.D. 1700

GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO. 1, Arthur-street East, London-bridge.

Testimonia, respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and Co.

8, Rosemount place, Hampstead, March 9th, 1855.

Gentlemen,—I have great pleasure in bearing testimony to the capabilities of your extensive new Gas Cooking Apparatus, being the largest and most complete in use. Suitable for hotels, mansions, club houses, private houses, and the army; having cooked in one day 1,000 fowls, and many cwts. of ham, beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 180 lbs. in nine hours, forty-three minutes, presented by J. Banister, esq. Threadneedle street, to the directors, for the banquet given to the foreign ministers. They have been in full operation for ten months, and are now in as perfect order as when first finished. "I hey have not cost one shilling for repairs."

I am, Gentlemen, yours respectfully,
EDWARD HORNE.

Messrs. Deane, Dray, and Co.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated.—Hollow tired complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

An Allowance to the Trade.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets

PLAIN or CORRUGATED, and Curved, of all Gauges

Manufactured with a large assortment always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Pans, Rigs and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON

PATENT IRON ROOFING and IRON BUILDING MANUFACTORY (late the Coalbrookdale Company's premises), 73, James street, Liverpool.—N.B. Parties are particularly requested to note the address, LIVERPOOL. FRANCIS MORTON and Co. will supply estimates, plans, &c. for Iron Roofs and Iron Buildings, painted or galvanized, to be erected in any part of the United Kingdom. Roofs and buildings prepared for shipment abroad. F. M. and Co. possess advantages from their long experience, and are enabled to execute work on the most moderate terms consistent with good materials and workmanship.

N.B. The attention of Agriculturists and Landed Proprietors is particularly invited to their Corrugated Iron Farm Buildings, Sheds, Roofs, &c.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Sheet Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.			
13	"	22	"
14	"	24	"
16	"	26	"

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Ironfounder, Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be had free on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable stock always made to the trade.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).
WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the New Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of Iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices, 12 Fenchurch-street City

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS,
GAS-STREET, BIRMINGHAM.
LONDON OFFICE 1, RICHES-COURT, LIME-STREET.

MARK BERRY, established 1850, practical ZINC and GALVANIZED IRON WORKER.—My motto is cheapness, durability, workmanship and punctuality. Experienced workmen sent to all parts of the kingdom. Flats, roofs, an. verandahs, covered with zinc and galvanized iron. Pipes, gutters, heads, and all kinds of zinc work. Bath manufacturer. Large size open bath for 2os. 6 feet 3 inches long, 2 feet 6 inches deep, at MARK BERRY'S, White-chapel Works, Whitechapel Church-yard. Orders by post punctually attended to.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on view in every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern book and price list, 1s. 6d.—55 and 56, High Holborn.

NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which
will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES non-conducting and vaporizing with all the improvements, under their Quadruple patents of 1851-54 and 1855 including their Gunpowder Proof Solid Lock and Door without which no safe is secure.
THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.
MILNER'S PHŒNIX IRON SAFE-WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 57a, Moorgate street, City.—Circulars free by post.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Corner-plates, Hinges and Lacquered Case Tube for Picture Rods. Door Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouse, Nos. 11, 12, Charles-street, Hatton-garden, London.

EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL, Manufacturer of Wrought Iron Tubing for Gas, Steam, and Water; Stock, Taps, and Dies, and all kinds of Gas Fittings.

THOMAS EDINGTON, PURCHASER and INSPECTOR of CASTINGS on COMMISSION, 17, GORDON-STREET, Glasgow.

TO ARCHITECTS AND BUILDERS

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelh use-lane, Birmingham.

W. FRY and CO. 57 or 35, Great Guildford-street, Southwark.—Hot water, hot air, or steam buildings of every description, heated by any of the above ways at the lowest possible cost, and in the best style. Architects, &c. are solicited. Gentlemen finding their own materials, if preferred. Unexceptionable references can be given.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"16, Hyde-park Gate, Kensington, February 24, 1854.

"My dear Sir,—The Air Warmer continues to work very satisfactorily in fact with regard to the main body of the house, and during this weather is charming, even in the reading room. Mrs. Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,

"Mr. J. Jobson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq. late M.P. for Sheffield.

"Stanhope lodge, St John's-wood, London, January 27th, 1855.

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in England, and this has increased with increasing years and decreasing strength; I have, therefore, had recourse, from time to time, to various stoves and other modes of warming the hall and passages of my house; but I have never succeeded till now in producing an equal temperature over every part, and having that temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and have the climate of May within doors in the months of December and January. The servants learnt its proper management in a few days without difficulty, and its economy in fuel is as remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall lose no opportunity of heartily advising its adoption to all who desire to protect themselves against the changes of temperature in their dwellings.—I am, dear Sirs, yours faithfully,

"JAMES SILK BUCKINGHAM.

"To Messrs. Stuart and Smith, Roscoe-place, Sheffield."

M. E. HADFIELD, Esq. Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir,—We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable oppressive odour produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective.—I am, my dear Sir, yours faithfully,

"Mr. J. Jobson Smith, Roscoe-place." "M. E. HADFIELD.

WILLIAM RUTSON, Esq.

"Newby Wake, Thirsk, 13th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the disadvantages incident to an uninhabited and unfurnished house, with all the doors open into the adjacent rooms, it is keeping up a very genial influence over the temperature even during this severe weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 18s. 8d. per ton, the rate at which it has been fired for the last two or three months, is 1d. per hour.

"I am, Sirs, yours truly, "WILLIAM RUTSON.

"Messrs. Stuart and Smith

"P.S. Mr Rutson, on looking again, sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3s. 6d. for coke—say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glose-op-road, February 27th 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the late severe frost, the cold air has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase and passages, being a reservoir of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the general run of the house so much to the fear of a relapse. To many invalids the invention will prove invaluable, giving them the freedom of their habitation instead of confining them prisoners to one apartment.—Believe me, my dear Sir, very truly yours, "EDWARD MARTIN.

"Mr. Jobson Smith."

E. F. SANDERSON, Esq.

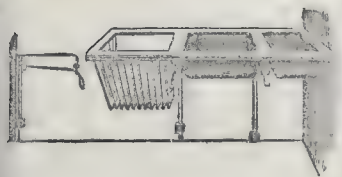
"West street, Sheffield, 27th March, 1855

"Gentlemen, The Gill Air Warmer you put up for me last year at Endcliff, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been painfully sensitive of the damp and chilly air of this country, but by the happy effects of your Air Warmer this house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your effective plan of rendering dwelling houses equally comfortable in point of temperature.—I am, yours very truly,

"Messrs. Stuart and Smith, Roscoe-place." "E. F. SANDERSON.

COTTAM'S NEW PATENT FOR STABLE REQUISITES.

COTTAM AND HALLEN,



the original projectors of the above arrangement of MANGER RACK and WATER TROUGH, AS ONE FIXTURE, which obtained the Great Exhibition Prize Medal, and universally approved of, have added all the latest improvements to their invention secured by patent, which includes an entirely new method of attaching the latter all and each, giving to the horse greater free loom, and being noiseless in operation, all much to its comfort whilst feeding and convenience when at rest.

COTTAM'S ENAMELLED MANGERS

are constructed in the best possible manner, both as to form and utility, are clearly in appearance, durable, and imperrious to infection; manufactured PLAIN, GALVANIZED, or ENAMELLED.

Improved Stable Guttering, with Moveable Safety Covers.

Loose Box Fittings, Harness-room Appendages, and every Article in Stable Furniture kept on Show.

Descriptive Catalogues and Estimates on application to

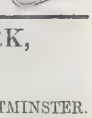
COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET, LONDON.

IMPROVED PUMPS,

Of the best Workmanship and warranted.

The VALVES and SUCKERS of these Pumps are constructed upon an entire new and SIMPLE principle; they are not likely to get out of order; should they do so, can easily be repaired, as the Pump is so contrived that the valves can readily be got at.

An Improved CAST IRON TRAP strongly recommended by the Sanitary Commissioners, and suitable for Sugar Bakers, Slaughter Houses, &c. &c. It is formed that the Trap plate will pass any matter the top grating will let through, and therefore is not liable to stoppages and well adapted to Stables and Stable yards, for saving the best part of Liquid Manure.



ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
5s. 3d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNGS, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c. each.

J. H. BOOBYER (late STURCH and BOOBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1051, Class 6, Section 15, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.

Messrs. HOBBS, ASHLEY, and Co are now manufacturing their celebrated American and English Locks, on the premises 97, Cheapside, and 33, Lawrence-lane, London; where, by the introduction of their patent steam machinery, they are enabled to guarantee superior workmanship, combined with greater security, at a moderate price, than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured by order through any respectable Ironmonger in the United Kingdom; or at the Warehouse, as above Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES (MILNERS PATENT), fitted with HOBBS'S PATENT POWDER-PROOF LOCKS, form the strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and important Documents, Parish Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and Co. Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence lane, London.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY, LIVERPOOL.

"London and North Western Railway Company,

"Liverpool, May 17, 1855.

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron safe and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"6, Great Vine-street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thieves tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant, "C. OTWAY.

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

LIGHTNING CONDUCTORS.—

R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors with the point and all staples complete for Rods, at one shilling the foot.

R. S. NEWALL and CO's Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world

OFFICES.—Gateshead-on-Tyne.

166, Strand, London.

67, Hyde-park-street, Glasgow.

27, Dale-street, Manchester.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.

THIS IS THE ORIGINAL PATENT

which secures all the recent improvements in Stable fittings, including a method of removing all others for converting the straight and bad fastenings to the back of the stall, to prevent the horse being cast in the stall.

Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of Kite's Patent Noiseless Cast-Iron Smoke Cowls. Chimney Cans.—200 on Buckingham-palace.—Price Lists sent on receipt of two postage-stamps.

JAMES BARTON, Iron Founder, &c. 370, Oxford-street, a few doors East of the Pantheon.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peterstreet, Westminster.—Contractors, Builders, &c supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 42s. each.
Register Stoves, from 5d. per inch.
Elliptic ditto, with double backs, from 3½d. per inch.

Cast-iron Rain-pipe	2 inch.	3 inch.	4 inch.	5 inch.
O G Gutters	3d.	4d.	5d.	6d. per yard.
Best Cut Class and Rose	1s. 1d.	1s. 3d.	1s. 5d.	1s. 6d. per yard.
	1s. 4d.	1s. 6d.	1s. 8d.	2 inch and larger.

4-inch Best Cut Lath, 35s. 6d. per cwt.
Sheet Floor Brads, 13s. 6d. per cwt.
Hoop Floor Brads, 13s. per cwt.

Sash Weights, 7s. 6d. per cwt.; 3-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 9s. per doz.; strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', Messrs. POWIS & JAMES, and Co.'s Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and economical machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler.

20	23	24	26-inch.
28s.	30s.	32s.	34s.

Best-cut self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars.

34	36	38	42-inch.
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivets, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2	2½	3 inch.
	1½d.	1s. 2d.	1s. 4d. per yard.

Cast Gutters—4 inch. 9d. per yard.				4½ inch.
O G Gutters	1s. 1d.	1s. 3d.	1s. 5	1s. 6d. per yard.
Patent Line	4d.	5d.	7d.	9d. 1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Lenght Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

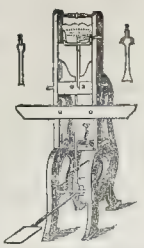
CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Candlesticks, Fenders, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.
BAKER'S OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS,
63, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,
Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.
Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.
A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.
Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.
Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.
GLOVERS' IRONWORKS,
163, DRURY-LANE, and CHARLES-STREET.

IRON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rigers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

LOSH, WILSON, and BELL,
NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Size-lane, London.



MORTISING MACHINE.
12l. to 15l.

KIMBERLEY'S PATENT MORTISING MACHINE.

The Patentee feels justified in calling attention of all Builders, Cabinet-makers, and others to this simple, strong, cheap, and most effective machine. Hundreds are in daily use all over the kingdom, and references to any extent can be given to prove it really is what it is represented, viz the most valuable tool ever offered to the trade.

Amongst testimonials of the highest character, he would respectfully invite attention to the following:—

"Rugby, June 14, 1855

"Dear Sir,—In reply to your inquiry respecting the Patent Mortising Machine I purchased from you THREE YEARS AGO, I have to inform you I consider it a most SIMPLE, EXCELLENT, and DURABLE ARTICLE; nor do I think it saying more than it deserves when I state it is highly superior every way to one I was recently induced to purchase from a London house, which, although represented to be unexcelled in its principle and make, is totally deceived myself and all others, as it is always breaking, and is useless in comparison with your own, upon which I believe not a sixpence has been expended since received from you, although in constant work. I candidly assert that its use in my shop is of GREAT VALUE, as it must, indeed, be to every builder who possesses it.

"I am, Sir, yours faithfully,
"JOHN PARNELL."

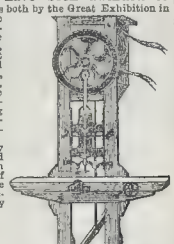
London Agents: Messrs. PUGH and CO. 13, King-street, Snowhill, who keep Stock of all Kimberley's Patent Cords, Flooring Cramps, &c.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.

CORONAS, SCONCES, GAS BRACKETS, &c.
An Illustrated Catalogue on receipt of four postage-stamps.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

PRIZE MEDALS have been awarded to these celebrated Machines both by the Great Exhibition in London, and many scientific Institutions. They are extensively used throughout the United Kingdom by joiners, contractors, couch and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring.



POWER MORTISING MACHINE.

Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.

Sold only by
WILLIAM FURNESS,
Atlantic, No. 30, Lawton-street, Liverpool, from whom full particulars may be obtained.

AUSTIN'S IMPERIAL
PATENT SASH and BLIND LINE,
can be obtained of all
ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY.
Established 1774.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 2l. 8s.; 4 ft., 2l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 65s. per cwt.

Best Patent Sash Line.					
1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

CHURCH FITTINGS.—TO BE SOLD, a CHURCH GALLERY, nearly new, 21 feet 9 inches by 14 feet, fitted up with substantial seats, and space for organ. Also a quantity of old Oak Church Fittings.—Apply to G. CLARK, Wooton Warren, near Henley-in-Arden, Warwickshire.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the following greatly reduced prices:—

Fine Planks, 12 ft. 3 in. by 11 in.	from 3s. 6d.	each.
Spruce Deals 9 in. by 3 in.	„ 2s. 9d.	„
Yellow ditto	„ 4s. 0d.	„
Yellow Battens, 2½in.	„ 0s. 2½d.	per foot.
Honduras Mahogany, in logs	„ 0s. 4½d.	„
Ditto ditto, in planks and boards	„ 0s. 6d.	„
Spanish ditto	„ 0s. 7d.	„

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

A CORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, slating battens, laths, English oak plank, and sash stills, at reduced prices for cash. The Monthly Price Current forwarded on application.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ½ inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Stills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

TO BUILDERS, CONTRACTORS, AND CONSUMERS OF ASH TIMBER.

FOR SALE, a large quantity of FIR POLES (Larch), suitable for railway fencing; about fifty loads of English Oak Timber, cut in spring 1854; a quantity of Oak Scantling (dry); also 100 loads of good Ash Timber, and 30,000 good kiln-burnt Bricks, all lying within two miles of a station on the London and Brighton Railway.—For particulars and prices apply, post-paid, to MR. JOHN PUTTOCK, Horsham, Sussex.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth. The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

UNIVERSAL MOULDING-MILLS, 24, Portobello-road, Notting-hill.
WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer, with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L. are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade. N.B. All customers having an account at the above establishment can be supplied with mouldings to their own design, at the shortest notice, free of any extra charge.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced for the money. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 30, North Wharf-road, Paddington.
N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, delivered at my own door, for cash only. C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 91, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 10s. per cwt. given for old lead.

STEPHENS'S STAINS for WOOD.
Testimonial to the value of:—
"Northgate, Colchester, February 5, 1855.
"Sir,—I have just finished a new church with your oak stain, and I consider it the best adapted for the purpose, being the nearest approach to the real wood of any I have ever used.
"I am, sir, your obedient servant,
"SAMUEL GIMMES, Builder.
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STAINING DEAL TO IMITATE ALL KINDS of WOODS, it requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 41, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

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During the year closed on 1st March last—
628 Policies have been issued;
The Sums Assured thereby amount to 284,670l.;
And the Annual Premiums thereon to 9,041l.

The position of the Society at 1st March was as follows:—
Existing Assurances £4,393,733
Annual Revenue 163,394
Accumulated Fund..................... 910,845

This Corporation has been in existence Twenty-four years. It proceeds on the principle of mutual contribution, the surplus or profit being wholly divisible among the Members.

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VIEW OF THE PROGRESS AND POSITION OF THE SOCIETY.

	Amount Assured	Annual Revenue.	Accumulated Fund.
At 1st March, 1837	£740,462	£26,993	£56,115
„ 1843	1,707,7[illegible]6	64,000	227,755
„ 1849	3,067,378	114,1[illegible]6	496,535
„ 1855	4,393,733	163,394	910,845

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The Annual General Meeting of this Society was held on the 30th of May, 1855, when a Report of the business for the last year was presented, exhibiting a statement of most satisfactory progress. It appeared that during the two last years, 1853 and 1854, between 800 and 900 new Assurances had been effected, producing an increase of premium income amounting to 14,000l. per annum. It also appeared that, notwithstanding the extraordinary mortality which prevailed during the last year in consequence of the visitation of the cholera, it had not been found necessary to reduce, in the slightest, the allowance previously awarded to the Policy-holders.

The Members present at the Meeting were fully satisfied with the Report, and resolved unanimously that a Reduction of 31½ per Cent. should be made in the current year's Premium payable by all Policy-holders now entitled to participate in the profits.

Credit is allowed for half the Annual Premiums for the first five years.

The following Table exemplifies the effect of the present reduction.—

Age when Assured.	Amount Assured. £	Annual Premium originally paid £	s.	d.	Allowance of 31½ per cent £	s.	d.	Annual Premium now payable. £	s.	d.
20	1,000	20	17	6	6	11	6	14	6	0
30	1,000	25	13	4	8	1	8	17	11	8
40	1,000	33	18	4	10	13	8	23	4	8
50	1,000	48	16	8	15	7	8	33	9	0
60	1,000	75	17	6	23	18	0	51	19	6

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VOL. XIII.—No. 651.

IF every house in London were ticketted with its history, how pleasant and instructive our walks amongst them would be!

Some time ago reference was made in these columns to the exceedingly salubrious character borne by the district of the "squares," as evidenced by the uniformly low rate of mortality during the most trying and pestilential seasons. To make quite clear the precise quarter of the metropolis in question, it may, in schoolboy fashion, be described as that part of London bounded on the north by the New-road, on the east by Gray's-inn-lane, on the west by Tottenham-court-road, and on the south by Holborn and New Oxford-street. These are the extreme boundaries of that portion of the town which includes within its area a greater number of commodious dwellings around open spaces than can be met with in any other spot of similar dimensions within the scope of the Registrar General's functions. When we remember that this was until no very distant date *a* if not *the* patrician part of London, it is not surprising that the associations which cluster around it, from the memory of great and eminent men, are as abundant and interesting as its claims to be still considered one of the most convenient and sanitary divisions of the modern Babel are well founded. Within these few acres of ground there have been "births, marriages, and deaths," not a few, recorded of names which are now "household words." Dipping into Mr. Cunningham's "Handbook," Mr. Weale's "London," Mr. Timbs's "Curiosities," Mr. Knight's "London," with other authorities, we have drawn together, into one focus, part of what they have to tell about the old inhabitants of these "squares," and have further jotted down some few notes made the other day during a stroll in the locality.

Russell-square, the largest and most lordly, dates about 1804. Here, in No. 21, Romily died by his own hand; Sir Thomas Lawrence lived for a quarter of a century in No. 65; Lord Chief-Justice Tenterden died in No. 28; and Baltimore House, at the corner of Guildford-street, was long the residence of Wedderburne, Lord Chancellor Loughborough. This square has had a fair share of judicial occupants, for, in addition to those names quoted, the lamented Guildford was a resident (at No. 67) within its bounds. Concerning the residence of Sir Thomas Lawrence, there is a note in the *Gentleman's Magazine*, by the Rev. John Mitford, which says, "We shall never forget the Cossacks, mounted on their small white horses, with their long spears grounded, standing sentinels at the door of this great painter, whilst he was taking the portrait of their general, Platoff" (1818). Russell-square is built on the site of the gardens of the ancient town mansion of the Dukes of Bedford: it is one of the largest in the metropolis. The houses are of brick, with the lower part in some cases cemented. Something of architectural character is given to a block on the west side, between Montague-place and Keppel-street, but the majority are better inside than out. The pedestal for the statue of Francis, Duke of Bedford," set up in the inclosure here, in 1809, has groups in high relief, bulls' heads at the angles, with other agricultural symbols, and is altogether more satisfactory than many others. The statue itself looks very sooty.

The size of this square is very considerable,—no less than 665 feet from north to south, and 670 feet from east to west.

At the north-east corner of Upper Montague-street was "The Field of Forty Footsteps,"—so called from a doubtful story of a conflict there between two brothers, at the time of the Duke of Monmouth's rebellion, on account of a lady (of course), who sat by while they destroyed each other. The grass never grew, it is said, over the forty footsteps they had imprinted on the ground. The alliterative title is attached to a novel and a drama.

The site of Guildford-street, says Malcolm, was formerly a path, which led from Gray's-inn-lane by the Foundling Hospital, the gardens of Great Ormond-street, the back of Queen-square, to Baltimore House (afterwards inhabited by the Duke of Bolton and the Earl of Roslyn); and was generally bounded by stagnant waters, at least 12 feet lower than the square!

Bedford-square was the scene of the curious interview between Lord Chancellor Eldon (who resided in No. 6), and the Prince Regent, afterwards George IV. The story is thus told. The prince came alone to the Chancellor's house, and upon the servant opening the door, observed that as the Chancellor had the gout, he knew he must be at home, and therefore desired to be shown up to the room where he was. The servant said his master was too ill to be seen, and that he had positive orders to show in *no one*. The prince then asked to be shown the staircase, which he immediately ascended, and pointed first to one door then to another, asking, "Is that your master's room?" The servant answered no, until he came to the right one, upon which he opened the door, seated himself by the Chancellor's bedside, and asked him to appoint his friend Jekyll, the great wit, to the vacant office of Master in Chancery. The Chancellor refused—there could not be a more unfit appointment. It was a round man for a square hole. The prince, perceiving the humour of the Chancellor, and that he was firm in his determination not to appoint him, threw himself back in his chair, and exclaimed, "How do I pity Lady Eldon!" "Good God," said the Chancellor, "what is the matter?" "Oh, nothing," answered the prince, "except that she will never see you again, for here I remain until you promise to make Jekyll a Master in Chancery." Jekyll of course obtained the appointment. This square stands on a portion of the Bedford estate, in a wretched district, formerly called St. Giles's Ruins. The centre houses are embellished with attached porticoes of Ionic pilasters and pediments: those on the east and west sides have four pilasters, and those on the north and south have five—one directly in the centre, under the pediment. The curb-roof and garret windows are seen peeping out behind the pediment, to demonstrate its absurdity. The key-stone over the entrance doorway of some of the houses displays a very fine male head. The square was built between 1800 and 1806.

Tavistock House, in Tavistock-square, now, we believe, the residence of Mr. Charles Dickens, was formerly that of Mr. James Perry, editor of the *Morning Chronicle*, during the great days of that celebrated Whig paper.

Close to that last named, stands a house which, in the language of Sir John Herschel, "can never cease to be an object of interest to astronomers of future generations." In No. 37, Tavistock-place, lived Francis Baily, president of the Royal Astronomical Society from 1825 to 1844. The house stands isolated in a garden, so as to be free from any material tremor from passing carriages. A small observatory was constructed in the upper part. In this building the earth was weighed, and its bulk and figure calculated, the standard measure of the British nation perpetuated, and the pendulum experiments rescued from their chief source of inaccurracy.

At No. 9, in Tavistock-place, dwelt John Pinkerton, the historian: here his depraved mode of life was the cause of continual quarrels with abandoned women. Mary Anne Clarke, while mistress of the Duke of York, lived for a long time at No. 31. The next house was subsequently occupied by Galt, the novelist, and Douce, the antiquary. Mr. Britton, himself an inhabitant of this quarter, gives, in his interesting "Autobiography," now in progress, particulars of many of the occupants. Burton-street and Burton-crescent preserve the name of the builder who may be regarded as the creator of all this district, James Burton. We are tempted to quote Mr. Britton's notice of him:—

"The career of Mr. Burton was like that of many other ardent and speculating persons. In his first undertaking of building Russell-square, Bedford-place, Upper Bedford-place, &c. he was eminently successful, and might have retired from the working world with a handsome fortune; but he was tempted to embark in further speculations by engaging to cover a large tract of ground belonging to the Skinners' Company: this proved a failure, and he sustained serious losses. During this time he became connected with John Nash, the sycophant architect and companion of the Prince Regent and after King. That architect, like Mr. Burton, was an active speculating man, and amongst other plans for the improvement of London, his designs for Regent-street, the Regent's-park, St. James's-park, and Buckingham-Palace, were accepted and acted upon. Mr. Burton was intimately connected with Mr. Nash in carrying into effect much of the New-street, and also the Regent's-park; in the latter of which he built a handsome villa for himself, where he resided some years. At a previous time he embarked in gunpowder works, in Kent, and built a country-seat near Tunbridge. Soon afterwards he ventured on the perilous task of building and forming the new town of St. Leonard's; to convey occupants to which he established coaches to run between that place and the metropolis. These were hazardous and losing schemes, and the very worthy but daring builder was, consequently, involved in ruin. Amongst a large family, his son *Decimus* has been eminently and deservedly successful as an architect, and has designed many handsome buildings in London and different parts of the country. Amongst these are the Colosseum, and Cornwall-terrace, in the Regent's-park, the lodges and gate-ways in Hyde-park and the Green-park."

Bloomsbury-square owes its origin to the Earl of Southampton, the father of the virtuous Lady Rachel Russell. Evelyn has this note,—"9th Feb. 1665: Dined at my Lord Treasurer's, the Earle of Southampton, in Blomesbury, where he was building a noble square or piazza, a little towne: his owne house stands too low, some noble roomes, a pretty cedar chappell, a naked garden to the north, but good aire." This site formerly constituted the manor of Lomesbury, in which, according to Hughson, the kings of England anciently had their stables until removed to the Mews, near Charing-cross. Coming into the hands of the Russell family, by marriage with the Earl of Southampton, it was called first Southampton-square, and then Bloomsbury-square. Bedford-house, which occupied the north side, and wherein Lady Rachel Russell resided until her death, has been ascribed to Inigo Jones, but it would seem erroneously. It was built a few years after his death. Thornhill's copies of Raffaelle's Cartoons were in one of the wings of this house. It was sold by auction in the year 1800, and immediately pulled down.

Pope alludes to this once fashionable quarter of the town:—

"In Palace-yard, at nine, you'll find me there,
At ten, for certain, sir, in Bloomsbury-square."

The Earl of Chesterfield, the editor of "De Grammont's Memoirs," died here in 1713; Richard Baxter's wife in 1681. Sir Hans Sloane, Dr. Akenside, and the elder Mr. Disraeli resided in this square. The latter compiled the "Curiosities of Literature" in No. 6, which house was built in 1766, by Isaac Ware, the editor of "Palladio," originally a chimney-sweep, and whose skin, it is said, was so engrained with soot, that he bore till his dying day the marks of his early profession. The great Lord Mansfield also lived here, and his house and library were destroyed by fire in the riots of 1780, he and Lady Mansfield narrowly escaping by a back door from the hands of the mob. This square has a statue of Charles James Fox, seated, which was put up in 1816, and may be looked at with pleasure.

Torrington-square (No. 55) is note-worthy, as the residence of the late distinguished antiquary and genealogist—Sir Harris Nicolas, the editor of Nelson's Despatches and Letters. He died at Boulogne in 1848. Peter Pindar (Dr. Wolcot) died in a house attached to Montgomery's nursery gardens, now the site of Euston-square. Regent's-square, often heard the "unknown tongues" in the large Gothic building, erected for Edward Irving, and now well known as the Scotch Church, of which Dr. James Hamilton is the minister.

Gordon-square is noticeable for its churches and schools. Ground yet remains here, on the west side, to be built on.

Brunswick-square (the house-fronts are brick walls with holes in them, as in the majority of those we have already spoken of), is blocked up on the east side by the Foundling Hospital, which forms, on the other hand, the west boundary of Mecklenburg-square. The east side of the latter is architectural, and the inclosure contains some very fine trees.

Queen-square was so called out of compliment to Queen Anne, in whose reign it was erected. Alderman Barber, the printer, who died here in 1741, was the individual to whom Butler owes a monument in Poet's Corner. Jonathan Richardson, and his son, of the same name, both died in Queen-square.

Dr. John Campbell, author of the "Lives of the Admirals," and editor of the "Biographia Britannica," had a large house at the north-west corner. On Sunday evenings it was a great resort as a *conversazione* for persons of eminence in science and literature. Boswell has this note on these assemblies. "*Johnson:* I used to go pretty often to Campbell's on a Sunday evening, till I began to consider that the shoals of Scotchmen who flocked about him might probably say, when anything of mine was well done, 'Ay, ay, he has learnt this of *Cawmell.*'"

In Dodsley's "Environs," it is said that the north side of this square was left open for the sake of the beautiful landscape formed by the hills of Highgate and Hampstead, together with the adjacent fields!

Red Lion-square was built about 1698, and so called of the "Red Lion Inn," long the largest and best frequented in Holborn. The bodies of Oliver Cromwell, Ireton, and Bradshaw were carried from Westminster-abbey to the Red Lion, in Holborn, and next day were dragged thence on sledges to Tyburn. In 1733, Lord Chief Justice Raymond lived in this square. Sharon Turner, the historian, was also an occupant. The benevolent Jonas Hanway, the traveller, lived and died (1786) in a house in Red Lion-square; the principal rooms of which he decorated with paintings and emblematical devices, "in a style," says his biographer "peculiar to himself. I found," he used to say, when speaking of these ornaments, "that my countrymen and women were not *au fait* in the art of conversation; and that instead of recurring to their cards, when the discourse began to flag, the minutes between the time of assembling and the placing of the card-tables, are spent in an irksome suspense. To relieve this vacuum in social intercourse, and prevent cards from engrossing the whole of my visitors' minds, I have presented them with objects the most attractive I could imagine,—and when that fails there are the cards." Hanway was the first man who ventured to walk the streets of London with an umbrella over his head. After carrying one nearly thirty years, he saw them come into general use.

Sir John Prestwick, in his "Republica," tells us "That Cromwell's remains were privately interred in a small paddock near Holborn, on the spot where the obelisk in Red Lion-square lately stood." Can any one fond of notes and queries say what authority Prestwick had for such a statement, or whether it is a mere blunder caused by the incident we have above mentioned? The author of "A Tour through Great Britain" says:—"This present year, 1737, an Act was passed for beautifying Red Lyon-square, which had run much to decay, and no doubt but Leicester-fields and Golden-square will soon follow these good examples." Though Red Lion-square has at this time a decayed lodgings-to-let aspect, there is a picturesqueness and a touch of sentiment about it not to be found in those we have passed through of higher grade. The variety in the houses, dilapidated and disfigured as some of them are, is more interesting than the even respectability of continuous brick walls and unbroken roofs. Here we find the Needlewomen's Institution, and the Female Aid Society; and in after times No. 31, the Working Men's College, will be pointed out as the scene of the voluntary labours of a number of men known to fame, who desired to aid in the mental development of their fellows.

ON WROUGHT-IRON WORK.*

GLASS painting and the work of the mosaicist as applied to the manufacture of pavements are not the only arts the golden epoch of the Middle Ages may appropriate to itself for grandeur of style and refinement of execution. The art of wrought-iron work yields in nothing to these. Take, for example, the remains of those beautiful metal screens, or grilles, which once enclosed the choirs, the chapels, and the shrines in the cathedrals and churches of this and other Christian lands; or, some of those equally fine and masterly productions of the skill and energy of the smith which in France may still be pointed out in the wonderfully-executed hinges to the western portals of Notre Dame, in Paris; and, again, in England, although perhaps in works of less pretensions, in the metal work to the door of the hall of Merton College, Oxford; in that to the doorway of the chapel of St. John, within the precincts of the cathedral of Norwich; and, indeed, in that multitude of examples which have still been preserved to us throughout the length and breadth of this land in our churches and other Mediæval buildings. In all of these, and in every specimen, I say, of the like kind, is the same power of design, the same taste and energy of execution to be found as in the other before-mentioned contemporary arts, viz. those of glass-painting and mosaic work.

I use the expression contemporary arts to these—and I do so emphatically,—because to the twelfth and thirteenth centuries belong also the finest productions of the craft of the blacksmith; to an epoch, indeed, wherein it may be said every artistic effort bore the impress of unity. The craft of the blacksmith is, in my opinion, a truly noble and manly one. How our sympathies become enlisted by the many pleasing and mysterious legends attached to it! To obtain his bride one of the chief of blacksmiths, Quintin Matsys, forsook his craft, only to become a greater painter; and Bescomette, eager of celebrity, is said to have bartered his soul to attain a deeper insight into the mysteries of forging.

The manufacture of wrought iron in connection with art workmanship is a subject perhaps of greater extent and importance than any other that can well be brought before the notice of the public at the present day. It is an art which, unfortunately, in recent times, has been almost entirely superseded by the more rapid, and perhaps inexpensive method of casting. To vindicate the claims of wrought-iron work as a branch of the fine arts, to rescue it from the false and base attempts to reproduce forms which are inherent only to it, by the process of casting, and to endeavour to quicken an appreciation of its beauty and merits into a desire to make it applicable where hitherto its illegitimate rival has alone been encouraged, are necessarily some of the principal objects to be attained by observations like the present.

I therefore propose to confine myself, on the present occasion, to metal screens or grilles; to tell you something of their use and position in churches and other buildings, of the variety and character of their design and composition, of the manner and various processes by which they were manufactured, and lastly, of the few rules which appear to me were followed in designing and executing them, with a view to helping ourselves to the manufacture of new ones.

First, then, as to the use and position of metal screens or grilles. * * *

As to the design and composition of these screens, I may remark that it is very rare to find forms of a pronounced architectural character in early works of this kind; that is to say, forms which are common in architecture, either to wood or stone: the only example in early iron-work that I am aware of,—and even that no earlier than the fourteenth century,—is in the doors to the beautiful screen published by Mr. Digby Wyatt, and belonging to the Rinucini Chapel, in the church of Santa Croce at Florence.

The imitations of purely architectural forms in metal screens belong almost exclusively to the works of the fifteenth and sixteenth centuries, as may be seen in the grille recently restored to its place in Henry V.'s tomb, in Westminster Abbey; the screen enclosing the tomb of Edward IV. in St. George's Chapel, Windsor; and in the numerous examples remaining in Germany and Belgium. Works such as these I have no wish to see reproduced, and I purposely dismiss all comments upon them beyond the few observations necessary to complete the subject.

The most remarkable specimen of those I have mentioned as belonging to the fifteenth century, and in form and composition retaining very much the character of stone-work, is that enclosing the tomb of Edward IV.; but before entering upon a description of it, let me observe that the next great work of the kind that followed was the screen to the tomb of his son-in-law, Henry VII. in Westminster. This last is what may be also termed a purely architectural specimen, but it is not executed in wrought iron,—it is cast in brass,—indeed, it appears to me that the art of working in wrought iron declined in the same degree as architecture and the other arts towards the close of the fifteenth century. An attempt had before been made to execute all the complicated details of Perpendicular and Flamboyant architecture in wrought metal, till the early and simple principles of that noble art became involved in the greatest complexity; and the artist, despairing to realise his design without prodigious cost and labour, sought for a solution of his difficulty in the easier process of casting. The magnificent grille of brass surrounding the tomb of Henry VII. was, I consider, the knell of death to the ancient and honourable craft of the blacksmith.

* * * * *

The inference I wish to draw from the above observations is this, viz.;—that it is not legitimate in works of wrought iron to use forms or details peculiar to stone or wood carving; that if a design, to be executed in metal, from accidental or other causes, approaches in character to any such works, then the bronzist or caster in brass must be applied to, not the blacksmith. To execute such a work in wrought iron, irre

* From a lecture delivered at the Architectural Museum, July 2nd, 1855.

pective of the costliness and difficulty, is, in act, a violation of the art, and an excuse to ubstitute cast for wrought iron.

I believe, if we want examples of what are eally true specimens of the art workmanship of he blacksmith, these are only to be found in he simple forms and constructions of the twelfth nd thirteenth centuries, not in the elaborated nd architectural ones of the fifteenth and six- eenth.

Another example I have already alluded to as elonging to the fifteenth century, and of archi- ectural character, is that to the tomb of Henry V. at Westminster. The filling-in is very ebased, clumsy, and complex in execution, and nsatisfactory when compared with the exces- ive beauty of its neighbour, the beautiful rille to Queen Eleanor's tomb.

We learn from the Fœdera that one Roger ohnson, of London, was the smith employed o do the work to the grille of Henry the ifth's tomb, and that he was empowered to mpress workmen for this purpose. It appears hat as late as when Neale's "Westminster" as written, there were remains of the colours hich were used to throw up the little embossed ilt *fleur-de-lis*, the lions, antelopes, and swans ttached to the great horizontal and vertical ars.

I shall dwell no longer upon these produc- ons of the fifteenth century, but proceed to ie works of the fourteenth, mentioning only hat the beautiful screens of brass which were xecuted toward the end of the middle ages, ill form a distinct and most interesting subject r future consideration. As examples of four- eenth century screens, I prefer directing atten- on chiefly to those of Italy. The most beau- ful I am aware of is that from Rinucini hapel, in the church of Santa Croce, at lorence, the doors of which I have ventured condemn. The remaining parts, however, e of the highest order of merit, and the uatrefoil reticulation a most charming com- osition. That which makes these grilles of aly so valuable as specimens is the high rder of finish with which they have been xecuted, and the introduction of a greater egree of ornamentation than is to be found in ontemporary works. One from the Cathedral t Rouen is exceedingly elaborate, and is re- arkable for retaining the conventional orna- ents of the twelfth and thirteenth centuries.

There is also a very good example of a simple ourteenth century grille, from a tomb in alisbury Cathedral. It consists merely of a umber of upright and horizontal bars, halved nd rivetted together, and forming square anels, filled in with pointed pieces of iron, like kind of quatrefoil.

The grilles at the Cathedral of St. Quentin, rance, at Sienna, and Lincoln Cathedral, are l of corresponding date, viz. the thirteenth entury. Of these examples that from Sienna immeasurably the finest, and serves to vindi- te the very high character pointed art sumed in Italy. The examples from St. uentin and Lincoln are excellent types of the anufacture of the grilles of France and ngland. In both countries, although the amples remaining are far more numerous in e former than in our own, a simpler kind of rticle appears to have been manufactured than Italy. Let us take the example from ncoln. This screen is one of a pair which parate the smaller transepts from the choir.

all probability screens of exactly the me design enclosed the sanctuary, and divided from the part now called the Angels' Choir, t which formerly was used for the Lady apel. The kind of reticulation in this screen, d the manner of its application, is very simple d deserves attention. The scrolls of which it composed are of the ordinary conventional pe of ornament used in stone, arabesque paint- s, and the other applications of wrought-iron ork of the twelfth and thirteenth centuries. ey appear to have been formed out of bars of ought iron, one-eighth and one-sixth of an ch thick, by five-eighths of an inch in width. There is no more art and labour required t the formation of them than what an dinary village blacksmith could accomplish the present day. He would require little re than the service of the beak of his anvil, a pair of tongues, and a hammer or two of different sizes; and observe, the curves are not mathematically true, neither were they ever so; nor is it very desirable in wrought-iron work that they should be.

The screen from St. Quentin possesses greater variety in its design and manner of execution. This, too, forms part of the enclosure of the choir of the cathedral. It has the same kind of framing as the one at Lincoln, and there is also much similarity in the pattern and manner of filling in, that is, to the extent of the upper compartment only of that at St. Quentin. The second compartment is filled in with a reticulation of quatrefoils, and the third and lower one formed of panels of solid sheet metal, fastened to rebates forged in the bars of the skeleton framing. All signs in either of the above-mentioned screens of ever having had a *chevaux de frise* are quite gone; still it is not improbable that a strong bar either of wood or iron once ran along the top of them, and to which they were attached.

The framing of the grille at Sienna appears to be the same as those we have already considered; but the Italians were not content with the bare appearance of the skeleton framing, so they sought to enrich it with a wedge-shape moulding, which was rivetted to the framing beneath it; the reticulation of quatrefoils having been previously fixed by a thin strip of metal passed through slits cut in the bars of the framing, and clipping round the quatrefoils. This example was further enriched by the beautiful kind of frieze formed of a foliage pattern. This pattern was first drawn on sheet metal, perhaps about $\frac{1}{16}$ of an inch thick, cut out with a chisel and hammer, and the leaves *repoussées*, that is, beaten into undulations. A flat horizontal bar surmounts this screen, and carries the *chevaux-de-frise* before alluded to.

The construction of these screens is exceedingly simple, and ought not to be very expensive. A few flat iron bars, halved and rivetted together, so as to form a number of panels, is all that is necessary to give them the requisite strength and stability. The reticulations, or fillings-in of the panels, added really nothing to the strength of this framing: they served merely as a protection or guard, in the same way as a succession of upright bars does to a modern iron railing. Still these reticulations admitted of great beauty and variety in their designs.

The grille before mentioned at Lincoln consists merely of a skeleton frame of wrought iron, composed of upright bars, $2\frac{1}{2}$ inches wide by $\frac{3}{4}$ inch thick. These are about 18 inches apart, and halved and rivetted on to a bottom and top rail, flat, and of corresponding thickness to the uprights, the whole forming a succession of panels.

Of the reticulations, those of the scroll pattern are the most numerous. The curves of these scrolls, as I have before mentioned, are not true: a certain angularity may be observed in them, which implies that iron is the material used. The bars out of which they were formed of course varied in size in each specimen: in thickness these bars are from an eighth to a quarter of an inch; in width, from half an inch and upwards. If a bar of the smaller dimensions was used, and a scroll of merely a continuous form required, then, very little tempering of the metal was necessary, and probably the beak of the anvil served alone to form the scroll; but, if it was too complicated in its volute to admit of being so worked, then perhaps a bolster or mould was fixed on the top of the anvil, and the end of the bar which was to form the eye of the scroll attached to the corresponding part of the mould: the iron bar, after being tempered, was beaten round the mould, and so the more complicated kind of scrolls were prepared. If, again, the reticulation was so complicated that several furrings out were required to form the pattern, as in the grille at Rouen, then a greater degree of tempering was necessary, and, what are termed the furrings out effected by beating out the bar: the file was applied in such cases to finish off the parts so beaten out.

Ornaments, such as leaves and rosettes, were produced by the means of a stamp, also used while the beaten out parts of the bar were in a highly-tempered state.

The distinction between the simpler and more ornamental kinds of scroll reticulation appears to be that the former can be worked almost without the forge and at the vice or bench; the latter and more ornate only and exclusively at the forge, on account of the many temperings the iron must undergo to produce the furrings out, and the stamping of the rosettes and other ornaments.

To form a reticulation of quatrefoils, the iron bar is again used, each of the four circles beaten into shape on a mould, and then welded together at the points.

Mere surface quatrefoils were cut out of thin sheet metal, as were also other ornaments of a similar nature; and to fix these to the iron framing, a tenon was left on part of them: a hole was then punched into the sides of the iron framing, prized up by a tool called a mandril, the tenon of the filling-in ornament then inserted, and the whole well hammered together, after being subjected to a moderate heat.

The manner of fixing scrolls, quatrefoils, and other ornaments, worked out of iron bars, to the skeleton framing, appears to be chiefly by drilling a long-shaped hole into parts of the bars of which the framing is composed, and passing a thin strip of metal through it, which, clipping round the scroll or other ornament, was twisted by a pair of pliers, and cut off short. To attach one scroll or quatrefoil to another, the same method was adopted. Sometimes these ornaments were rivetted to the skeleton framing, and to one another, as at St. Quentin.

Mouldings, when used, were often stamped out: frequently, however, they were drawn out: to effect this, a tool was made a few inches in length, and one end of it formed in shape to the reverse of the moulding: this tool was then used on a bar of iron, well tempered, and placed on the anvil, and by the application of a hammer, drawn along it until the required form was produced. In modern works these mouldings would be rolled out, as being a much easier process than drawing.

In pointing out the peculiarities in the design and construction of these metal screens of the thirteenth century workmanship, I wish it to be understood that I do not advocate a blind imitation of them in new works of the like character; but I do hold and insist that there is an obligation upon every one studying the works of a past age, that they strive to acquire a right knowledge of the motives, or rather the intention for which such works were composed, and the precise character which was given to the art itself, in reference more particularly to the material in which we find it embodied.

The age which produced works such as those I have here described was unlike our own. No effort was then made to disguise or to deceive; hence every peculiarity they possess is certain of a satisfactory solution, if only a patient investigation be made into it. It was necessary to make a screen, such as, for instance, at St. Quentin; wrought iron was to be the material used; it was to be of a certain construction, to answer to a certain purpose, and it was done; that is to say, it was not only made of wrought iron, but it was made to look like wrought iron,—unmistakeably so, and not one morsel more labour incurred than the nature of the material and the strength of the construction warranted. It is a lamentable fact, at the present day, that we cannot get common things executed in common materials and at common prices. That which any village blacksmith would have produced five hundred years ago, without effort, and comparatively without expense, can now, in this nineteenth century of ours, for the most part only be procured in some expensive emporium for such articles. Again, we want a tile pavement, one of the simplest things I believe ever executed. Well, in our new work we get no really tile pavement: one made after the same fashion as our ordinary paving bricks are made in any common tile or brick yard, but we are forced to go to the potteries for the article, and then what do we get? Certainly no tile pavement, only an imitation of one in porcelain, which, when laid down, is more like crockery-ware than terra-cotta, and at an enormous cost.

This is another example of the impossibility of getting common things executed in common

materials, and at common prices. Then, again, we want a wall decoration, say a picture. Well, we are forced either to have an elaborate work, executed after the most approved Munich frescoes, or no picture at all. The use of ordinary tempera painting is not recognized with us: in fact, it is considered too cheap a medium for an artist to realise his ideas in.

In this country, it is only the intrinsic value of an article that is cared for, and until the skill and ability of the artist rates higher in value than the material does in which he works, he will be forced either to use costly materials to embody his ideas, or to starve.

HENRY CLUTTON.

FUNGOIDAL AND EXCRETAL MATTERS AS EPIDEMICAL CAUSES.

In the *Edinburgh New Philosophical Journal*, for July current,* there is an interesting article by Professor Daubeny, of Oxford, "On the Influence of the lower vegetable Organisms in the Production of epidemic Diseases." It is Dr. Daubeny's opinion that such epidemics as the virulent cholera may owe their origin to microscopic fungi. This hypothesis the writer does not claim as a new one: indeed, it has been occasionally broached by different writers ever since the first visitation of the epidemic or Asiatic cholera to this country; but Dr. Daubeny has further matured the idea, and placed it on a basis which will enable it to hold its place beside other hypotheses, till the true theory of such epidemics be elicited; and we should not be in the least surprised to find that the true theory, so elicited, will turn out to comprise more than one of the hypotheses more or less separately advocated by different minds. Dr. Daubeny has himself, for instance, connected the fungoidal hypothesis, in a very feasible way, with that on which epidemics, such as cholera, have been, more or less, directly and exclusively ascribed to the noxious influence of animal refuse, where concentrated, as in towns; and that both cholera and typhus *are* closely connected with this latter as a cause, can scarcely be now termed a hypothesis; for the reality of such a connection has, in fact, been well ascertained; but still it remains a question how this connection is carried out, and how such refuse really and specially operates to the production of the epidemic; and it may be ultimately found, that the fungoid hypothesis is not only perfectly consistent with the ascertainment of this fact, but necessary to explain the *modus operandi* of such noxious matters as those, too generally, still so closely associated with the aggregates of human dwellings.

All fungi contain azote, or nitrogen: hence their proper pabulum is animal matter in a decomposing state; and hence, although the spores of indigenous fungi must be floating about perpetually in the atmosphere of the places where they abound, they can only fasten themselves on spots where decomposing azotized matter exists, and can be prevented from getting a footing wherever the latter is carefully removed. Moreover, there may be seasons during which, as Liebig suggests, the scavenging "ozone," or electrified and active state of the oxygen of the atmosphere, is deficient, so that the usual palliation or moderation of the evils arising from so malignant a conjunction of causes as that of the fungous *spore* with its fitting *nidus*, may be awanting, and the festering, superabounding *soil*, so suitable to these vegetable *seeds* of evil, be left undiminished, or but slowly to waste, thus affording the requisite conditions for the most luxuriant propagation of the epidemical fungus.† In this way the ozone theory and the electrical theory or hypothesis, which we have more than once brought under notice, may also take their proper and necessary places, side by side with the fungoid and the excretal hypotheses, in enabling us to arrive at a complete and satisfactory solution of the mystery of the deadly epidemics. Although Dr. Daubeny may be right, therefore, in his association of the two latter for this desirable purpose, he may be equally wrong in rejecting, as he does, the close and co-ordinate association of the two former,—or, at least, of the electrical,—with the others towards the same end.

In connection with this rather too interesting subject, we may here remark that Dr. E. H. Greenhow has had reprinted from the Transactions of the Epidemiological Society of London, published in the "Journal of Public Health" for June last, a paper read by him before that society, on "Cholera in Tynemouth, in 1831-2, 1848-9, and 1853." The case of Tynemouth appears to be an instructive one. Towards the close of his paper, the author says: "Judging from the facts detailed in the former portion of this paper, regarding the earlier visitations, it may with considerable probability be inferred that the removal of so many sources of atmospheric impurity, just before the anticipated outbreak, had removed some local conditions favourable, perhaps necessary, to the development of the pestilence in its more malignant form." This one can readily understand, if Dr. Daubeny be right; for the "sources of atmospheric impurity" referred to were doubtless the azotized nidus in which the epidemical fungus would have multiplied,—the stinking nest in which the pestilence would have been hatched,—as in ordinary seasons it would have been the source of that "atmospheric impurity" to which, perhaps, directly, the ordinary forms of endemic disease, such as typhus, scarletina, &c. ought to be attributed, rather than (in their case) indirectly to the propagation of the virulent or epidemical fungi in the rotting matters which yielded the mere "atmospheric impurity" productive of these more ordinary forms of disease.

The moral, as we may term it, of what has been said, then, is, as Dr. Daubeny expresses it, that,—

> "Whilst on the one hand epidemic cholera never breaks out except in spots where human beings are closely congregated, its propagation on the other hand may in general be rendered more or less difficult, in proportion to the care bestowed in removing every kind of decomposing organic matter—all bodies capable of absorbing animal effluvia, such as rags, clothes, dust, &c.—everything, in short, of an azotized nature which can serve as a *nidus* of infection; just as moulds and other fungous growths may be prevented from springing up, by removing all those conditions which experience has shown to be favourable to their growth."

This wholesome and reassuring inference we may even reiterate in the words of one of the final conclusions of Dr. Greenhow's paper, drawn from facts, as Dr. Daubeny's is from reasoning, that,—

> "When cholera is impending, it may either be averted, or at least the visitation be much mitigated, by active measures of a precautionary character; and that probably sound sanitary arrangements, which provided for the complete and rapid removal of all the excretæ and other exuviæ of towns, would so improve their condition as to remove the local sources of atmospheric impurity which appear to favour the development of cholera in a pestilential form."

The authorities in every parish throughout the United Kingdom ought at this moment to be at work.

CONSTRUCTION AS APPLIED TO CIVIC STRUCTURES.

OUR readers are aware that Professor Hosking's two Treatises of 1829-31, "Architecture" and "Building," respectively, of the seventh edition of the Encyclopædia Britannica, have been revised and amended for the eighth edition, so far as was consistent with the fact of the matter being in stereotype plates; and that there is in the eighth edition a supplement to "Architecture" (wholly new) which has been appended. Part of this supplement will be found in our pages. The same able writer has since contributed two new articles, "Construction" and "Drainage," to be further supplementary to "Architecture" and "Building," as one cognate subject; and as the work may not come into the hands of all our readers, we reprint the section of the article on "Construction" as applied to civic structures:"—

"The ignitibility of timber, and the rapidity with which it burns when placed in circumstances so favourable to that effect as by its disposition in an erected building, have led to its prohibition for the purposes of the main inclosures of houses, and buildings generally, in London, and in some of our larger provincial towns. It is possible, however, so to protect timber employed in the inclosures, and for the internal partitions and floors of buildings, as to render mere dwelling-houses practically fireproof. Whilst, however, the liability of timber to take fire and to burn may in a great measure be counteracted, and notwithstanding that this material combines the advantage of economy with security, stone and brick are undoubtedly better adapted for the main structure of a building. Brick or stone, or brick and stone together, with mortar as a setting material, ought to be employed, but in such manner only as to be freed from dependence upon other and less trustworthy materials. The most perfect erections as buildings are those in the composition of which this principle has been understood and fairly practised. If adventitious aid be given to brick or stone walls by foreign materials, the materials ought to be at the least harmless. Iron in bulk is not a proper substance to incorporate with walls, because of its great expansibility by heat; but iron used in thin laminæ, as hoop-iron laid in walls in the bed-joints of the brick or stone, cannot be productive of any bad consequences, whilst it is most beneficial in that form as a tie to the structure.

Bricks come ready shaped to the hands of the workman, in a form the best adapted for the arrangement in the construction of a wall, which, under the designation of bond, gives it such a degree of consistency that a weight placed upon the top is carried by the wall in every part throughout its whole thickness, and throughout a greater or less proportion of the length, according to the height of the wall.*

Stone, on the other hand, comes to the workman without regular form; and with skill on his part to dispose and arrange the materials, good erections may be produced of rubble; for although the thickness of which walls may be built of rubble with safety will depend in a great degree upon the quality of the mortar, much depends also on the skill of the workman in bedding and bonding the stones. Under any circumstances, however, a wall so composed cannot, safely, be charged with heavy weights, nor be exposed to the vibrating action of floors, until the mortar shall have indurated to some extent; whereas a wall of brickwork is secure by the horizontal bedding of the bricks, and by the effect of the transverse bond which the alternation of the header and stretcher almost necessarily produces. Stone, again, may be dressed to any shape, and so as to mould it to every variety of construction with the smallest possible quantity of mortar or cement. From blocks with rough hammer-dressed parallel beds,

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* Longman and Co. London, publishers.

† It so happens that while we write, a little volume on "The Philosophy of Reproduction," by Dr. R. J. Mann (Longman and Co. publishers), lies at hand, so as to suggest a reference to it thus briefly, as a good exponent of the wonderful multiplicity with which such organizing organisms (if we may so call them) as these are endowed for the propagation of their species. So far as we can see, this little work does not specially allude to the subject under notice; but its general bearing does, and we have particularly treated and as a whole especially in what relates to animal reproduction, it is well worthy of a perusal by all who desire to dive a little into the mysteries of creation. The text is pretty fully illustrated by instructive woodcuts.

* Bond in brickwork is most conveniently and most effectively formed and maintained by disposing the bricks in their courses either endwise and lengthwise (technically, header and stretcher), alternately brick and brick, or course and course; that is to say, that the bricks in every course should be laid alternately header and stretcher, or that the courses should consist of all headers and all stretchers alternately. The former arrangement—alternate header and stretcher in the same and in every course—is known in this country as Flemish bond; and the latter—alternate courses of header and stretcher—is distinguished by the term English bond. Neat work in face can be produced more easily with Flemish bond, but English bond has the reputation of being the best bond structurally. But why these two arrangements should be distinguished by the names they bear is unknown; at least, it is unknown to the present writer, who supposed, in common with most other people with whom he had conversed upon the subject, that alternate header and stretcher in the same course was the practice in Flanders, and generally in the neighbouring countries on the Continent, whilst the term English bond seemed to imply that the arrangement which bears that designation is peculiar to England. A visit made a few years ago to the countries where Flemish bond ought most to abound, if the name be properly applied, enabled the writer to observe what had never, to his knowledge, been remarked by any person who had published his remarks, and what was quite unknown to every one to whom he has stated, since his return, what he had observed. At Rotterdam and at the Hague, at Antwerp, at Brussels, and at Liège, at Cologne, at Mayence, and at Frankfort, and again throughout the north-eastern parts of France, brick walls are built according to the arrangement distinguished in England as English bond; and Flemish bond is unknown, at least no single example of it fell under the writer's observation in any of the towns and countries indicated, although his attention was called to the subject by the quay-walls at Rotterdam before he set foot on shore.

up to the most complete and perfectly wrought parallelopipeds adapted to any arrangement of bond that may be best adapted to the structure, and with combinations of rudely formed and perfectly formed pieces of stone, walls may be built of stone of greater strength than the best bricks can be made to yield, while stone walls are liable to be inferior in every respect to brick-built walls of ordinary quality.

Some combinations of the two kinds of materials have the effect, however, of making a better wall than could be produced by the main constituent in the form employed alone. A stone-rubble, or pebble-built wall, is greatly improved by one or two bonding courses of brickwork at short intervals; and a brick wall is improved and adapted for a higher purpose by thorough courses, at intervals, of good stone, wrought to bed and joint truly; whilst on the other hand, a wall substantially of stone-rubble or pebble, and faced with brickwork, is essentially an unsound wall; as in like manner a brick wall faced with wrought stone is liable to be weaker than the brickwork would have been without the stone.

With regard to the thicknesses of the walls of buildings, it is generally considered that these should be governed by the height of the structure; but they ought not to be determined by that condition alone. Chimney-breasts, or other buttress-like projections, built up with a wall, and extending to more than the thickness of the wall, make it in fact stronger in its transverse section, and justify less general thickness in the body of the wall, whilst window and other openings in a wall leave piers which ought to be of greater thickness than the mere height would require. But all returns, indeed, whether as chimney-breasts or as cross walls, built and bonded with a wall, tend to render unnecessary the full thickness which the height might require; whilst, as just intimated, the omission of portions of a wall for door and window openings should be compensated for by additional substance to the parts which remain.

Walls subjected to undue action, such as that arising from slight joists tailed into them, or that occasioned by inclined timbers, as under galleries in churches, chapels, and theatres, require to be of greater thickness than they otherwise would; whilst it is quite wonderful to what great heights brick walls may be built with safety, if they are well built, and exposed to no other action than direct vertical weight. When, indeed, such walls stand upon a sufficient foundation, direct vertical weight without motion is a means of security to the walls so long as the weight is reasonably within the power of resistence of the materials to crushing pressure. The object to be looked at, therefore—the walls being honestly built—is, as hereinbefore remarked, to make the weight to be imposed upon any wall act upon its solids vertically and steadily.

Floors upon girders, or framed to strong trimmers—the girders or the trimmer-joists running into and bearing upon the piers or solids of the walls—are far preferable to what are termed single floors, of which each joist runs into the wall. Girders, as the basis of floors, render plates in the walls wholly unnecessary, by depositing the weight in the right places, without requiring plates to carry it on from the weaker to the stronger places; and being of necessity stout and rigid, they form a fair tie and strut to the walls into which their bearing ends are tailed.

Whether girders or trimmer joists be employed for placing the weight of floors upon the walls of a building in the safest manner, the bearing timbers ought to be placed upon pieces of stone as templates built into the walls, and be made to take a cog-hold of the templates, so as to enable them to tie and stay the walls by means of the cogs.*

It is by means of the girder bearing upon the solids of the walls, though with bad carpentry, that the French are able to carry up their soft stone rubble walls to heights that would certainly be unsafe if the walls were seamed with wooden plates, and shaken by floors of single joists;* and it is by means of the solidity given to the floors by the girders, and the solid bearings which the girders obtain, that the floors are able to carry the dead weight of matter which renders them practically fire-proof, as hereinafter described, in addition to the moving weights to which the floors of buildings are necessarily exposed in use.

We can and do frame floors most effectively by carpentry alone; whereas the French do the work so badly, that no important bearing is, or indeed may be, trusted by them to the framed joint—dog-nailed stirrup straps of iron being always brought in aid. But the common practice with us is to use single or unframed floors, which carry the weight and the vibration to which floors are exposed into the walls, over voids as well as over solids; while the French frame their floors to or upon girders, by means of which the floors are brought to bear upon the solids of the walls. The walls are thus not only less exposed to vibratory action, but are both tied together and strutted apart with better effect by the stout girders stiffened by joists, than by joists which themselves require some foreign aid to stiffen them. Moreover, single floors of joists, unless trimmed at frequent intervals, when, indeed, they may be termed half-framed, are supposed to require plates of timber laid along the inside faces of outer walls and upon internal walls. This defect is avoided by our neighbours, who exclude all timber, except the bearing ends of girders, from their walls, and use framed floors.

When the walls of a building have reached their full height, the wall-plate comes into use legitimately—to cope the walls, in fact, and to form a curb as a base upon which to place the roof, which should deposit its weight, nevertheless, by means of its tie-beams upon the plates over the solids of the walls below, and which should, moreover, oversail, so as to cover and effectually shelter from the weather the inclosing walls also.

In setting forth the structural advantages derivable from the use of girders as the bases of floors, it may be necessary to repeat the warning already intimated against the use of girders of a material of uncertain strength and of treacherous character when exposed to transverse strain.

Cast iron is of uncertain strength, mainly because of the imperfections which the most skilful founders, with the best materials and every appliance at command, cannot always avoid, and which are most liable to occur in the production of complex forms in long lengths; whilst careless founding and rapid cooling are contingencies connected with the production of cast-iron girders—which are necessarily long and complex castings. Cast iron is treacherous, inasmuch as it is brittle, and liable to be startled into fracture by impact trifling when compared with what it may have borne safely as a dead-weight.

Proving long metal castings by straining them upon their transverse section does but aggravate imperfections, and leave the casting weaker; whilst no dead-weight proof is proof as against blows or other action inducing vibration. It is only under circumstances which do not admit of concussive action upon the beam, or which prevent it from vibrating under any shock that may reach it, that cast iron can be safely used in beams of long lengths to carry heavy weights, without some appliance to mitigate, at least, the imperfections which this substance exhibits.

The application of wrought-iron tension bars as soles to beams and girders of cast iron would prevent the most serious consequences from attending the failure of the casting, if the beam were also prevented, by binders, or by other sufficient means, from turning round when the blow produces an oblique fracture.

The foundation of a building of ordinary weight is, for the most part, sufficiently provided for by applying what are technically termed footings to the walls. The reason for the footing is, that the wall obtains thereby a bearing upon a breadth of ground so much greater than its own width or thickness above the footing, as to compensate for the difference between the power of resisting pressure of the wall and of the ground or ultimate foundation upon which the wall is to rest. It will be clear from this, that if a building is to be erected upon a rock as hard as the main constituent of the walls, no expanded footings will be necessary: if upon chalk—upon strong or upon weak gravel—upon sand—or upon clay—the footing must be expanded with reference to the power of resistance of the stratum to be used as a foundation; whilst in or upon made-ground, or other loose and badly combined or imperfectly resisting soil, a solid platform bearing evenly over the ground, and wide enough not to sink into it, becomes necessary under the constructed footing. For this purpose the easiest, the most familiar, and, for most purposes, the most effectual and durable, is a layer of concrete, which may be formed so as to cover a surface large enough to obtain from the most yielding soil the amount of resistance to pressure required to support the weight of the intended building. It will be evident that upon a concrete foundation a footing or expanded base may or may not be required to a wall, according to the hardness of the concrete and the kind of wall to be built; but it is, perhaps, better to give the footing to the wall than to wait for the sufficient induration of the concrete to enable the wall to do without a footing; and better still, to lay the concrete of such height only, with reference to the spread or extent of base beyond the toes of the footing, that the gravel of which the concrete is made would stand at in an uncombined condition.*

Inasmuch, however, as some soils are liable to change in form, expanding and contracting under meteoric influences, as clays which swell when wetted and shrink when dried, concrete foundations are commonly interposed upon such soils to protect the building from derangement from this cause; or rather, to that effect walls are brought up from a level sufficiently below the ordinary surface of the ground of the cheaper material, concrete, instead of the more expensive brick or stone structure.

When concrete is used to obviate the yieldingness of the soil to pressure, expanse or extent of base is required to answer the end; and to this end the concrete, being widely spread, should be deep or thick as a layer, only with reference to its own power of transmitting to the ground the weight of the wall to be built upon it, without breaking across or being crushed. But when concrete is used as a substitute for a wall, in carrying a wall down to a low level, it is in fact a wall, wide only in proportion to its comparative weakness in the absence of manipulated bond in its construction, and encased by the soil within which it is placed.

Concrete, indeed, is at all times more safely to be regarded as a substance to be placed as a layer, than as a substance to be set up as a wall; for although excellent erections as walls may be made of concrete—as erections in the same form may be made of tempered clay—neither concrete nor tempered clay is to be regarded as a proper substance with which to form the lofty walls of buildings in towns."

EGYPTIAN DISCOVERIES.—Mr. John B. Greene, son of an American banker, while clearing away the palace of Medinet Habora, is said to have discovered the celebrated Egyptian calendar of which Champollion could only copy the first lines. Colossal figures have been brought to light, one of them showing the features of Ramses III. In clearing round this colossus, inscriptions of the grand portal between the two courts, and the existence of a pavement in granite, were revealed.

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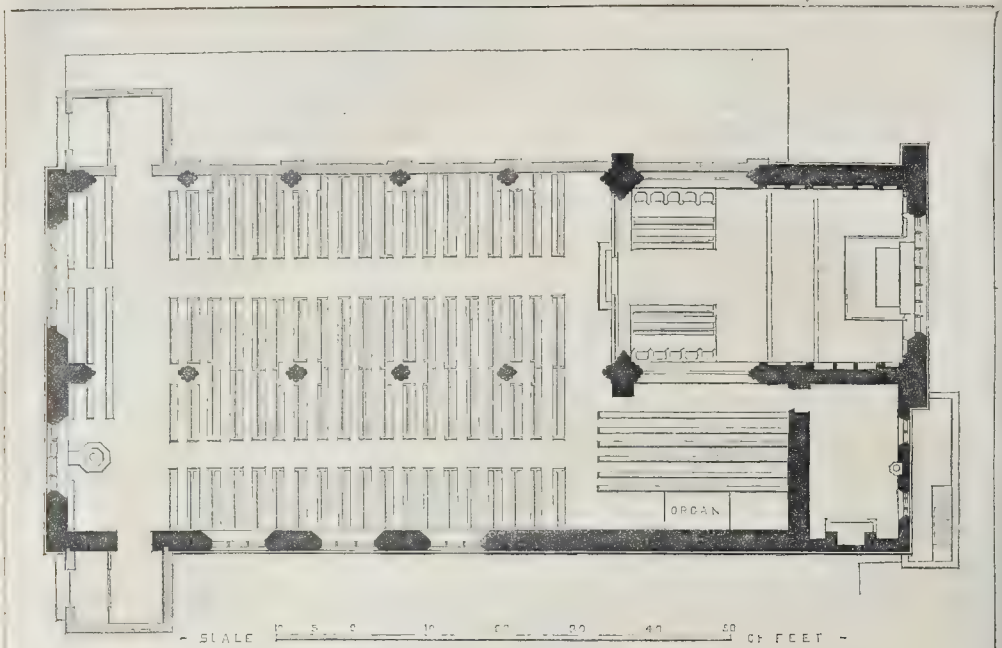
* A cog-hold is best obtained through the agency of a chair of cast iron, which should, however, be itself cogged or joggled to a stone template laid in the wall under it, and be capped or covered by another broad flat stone as an inverted template, with a jogge from the chair running up into it.

* The author, being in Paris in 1846, measured the thickness in the ground-floor story of a newly-built coursed-rubble party-wall in the Rue de la Banque (the Gresham-street of Paris), and found it to be exactly 28 English inches in that part, whilst the total height of the wall was not less than 85 feet. The wall run up of that same thickness through six stories, a height of not less than 65 feet, and was terminated by a gable of from 12 to 15 feet high, of the same kind of structure; and there was, besides, a vaulted basement story, throughout which the wall might have been 20 inches thick, as other similar walls then in progress to neighbouring buildings proved to be.

* This is indeed the only safe practice in cases in which the full induration of concrete cannot be obtained before the wall or other structure to be raised upon it shall begin to be built. Gravel poured dry upon the ground will resolve itself into a cone, having an angle of inclination to the horizon more or less acute, according to the sharpness, or otherwise, of the sand and stones of which it is composed.



PLAN OF CHURCH OF ST. MARY MAGDALEN, MUNSTER-SQUARE.

THE METROPOLITAN BUILDINGS BILL.

The Metropolitan Buildings Bill is, at the last moment, the third reading, going through a series of proposed amendments, to be moved by Viscount Duncan. The exemption of "necessary repair" from the Act is to be qualified by the words, "not affecting the construction of any external or party wall." The rules of Schedule K of the present Act, with regard to rooms for habitation, are to be inserted after being made more stringent. Rules for projections are to be adopted from the present Act; nevertheless, eaves and soffits of overhanging roofs are to be of incombustible materials, and not to have the relaxation in their favour which was carried in committee of the whole House. Section 25 will be omitted with the last objectionable amendment in the committee of the whole House. The rule of the present Act respecting "back yards" is to be adopted, except that every house must (unless lighted and ventilated from the street) have 100 superficial feet of open space *exclusively* belonging thereto. We venture to think that this would be too stringent, especially in the case of shops on the ground-story, which may cover the whole of the owner's ground without injury to health. Those clauses of the present Act which have reference to noxious trades have been adopted in the Bill.

We believe an amendment will be proposed, allowing the district-surveyor's entry on premises for a month after discovery of works done, in cases where no notice of them had been given to him.

The Metropolitan Board of Works are to have the power of allowing thinner walls than are prescribed by the Act for the dwelling-house and warehouse classes.

But the proposition which seems most objectionable, as well to architects as to the officers themselves, is a proposition to be brought forward that the schedule prescribing the thicknesses of walls of public buildings shall be struck out entirely, because of its manifest anomalies, and that the district surveyors shall have the determination of what is sufficient in all cases, not only respecting walls, but with regard to floors, roofs, galleries, staircases, and other parts of those buildings.

This proposition is so clearly at variance with the whole scope of the Bill, that we cannot think it will be adopted, for why should *specific* rules be framed to regulate minor matters, as is the case in all other parts of the Bill, and in this most important part, an unlimited discretion be given to the officers?

Would it not be better that the present rules for public buildings should be now passed, as they can be hereafter revised or recast by the Metropolitan Board of Works, under section 52?

ST. MARY MAGDALEN'S, MUNSTER-SQUARE, REGENT'S-PARK.

This church was erected from the designs of the late Mr. R. C. Carpenter, and under his superintendence. His works, as described in a memoir of his life, in the *Builder*, in April last, are extensively distributed in the provinces, but this is the only specimen of his skill possessed by the metropolis, and we have thought it desirable to give illustrations of it. The church of St. Mary Magdalen owes its foundation to the munificence of the present incumbent, the Rev. E. Stuart. It is designed to consist of a nave, with two aisles, and a large and lofty chancel. The tower, with a stone broach spire, will stand at the south-west angle of the church, in Osnaburgh-street, and the north side of the church will be open to Munster-square. The east end abuts on Laxton-street; so that ultimately three sides of the church will be exposed to view, and the situation, though in a thickly populated neighbourhood, is in this respect more favourable than can usually be obtained where space is so valuable. Our description necessarily speaks of the future, as the structure at present consists only of the chancel, nave, and south aisle, which were completed and opened for divine service in April, 1852. This site, when cleared of an extensive railway carriage factory and other buildings, was found to be so completely excavated to a depth of about 14 feet, that it was decided to carry up a substructure of brick piers and arches to the level of the street, due precaution being taken to prevent unequal settlements, and this has proved eminently successful. This done, the superstructure of Kentish rag, with Bath stone dressings, was placed upon it. The style is that of the fourteenth century. The nave and aisle have both gabled roofs, of Baltic fir timber, open to view inside, massive in their framing, and effective in appearance. The chancel roof is arched with timber, boarded and panelled. The east window of the chancel, which is of seven lights, is original in design, and is filled with stained glass, at a cost of 400*l.* by Hardman, of Birmingham, and is also interesting as being one of the last works upon which Pugin was engaged before his services were lost to the art. The lower part of the chancel is adorned by a series of richly carved arcades, with shafts of St. Ann's marble, and panels in the spandrils, filled with the same material. The whole of the arcades, as well as the chancel roof, are also highly enriched with colour and gilding, executed by Messrs. Crace, of Wigmore-street. The arcade on the south side of the chancel is varied, to form sedilia for the officiating clergymen, and the floor is raised three steps above that of the nave, and is separated from it by a stone septum. We shall give a view of the arcade hereafter. The west window of the nave is a fine one, of five lights, which it is intended to fill with stained glass, in memory of the architect. The position of the organ, which is raised on massive stone corbels projecting from the south wall of the aisle, at the east end, has been described by a musical authority as the best arrangement that has come under his notice. The performer is placed underneath the organ, on a level with the congregation, and faces the choir. The bellows are in a chamber beneath the floor of the church. The chancel is floored with Minton's encaustic tiles; the nave and aisles wholly with plain tiles from the same manufactory. The benches are of stained deal, and are moveable. Provision for kneeling is made by a strip of cocoa-nut matting laid between each bench, and a commendable attention to the wants of the congregation is shown in the provision of hymn-books for their use, which is fully rewarded by the heartiness with which they join the choir in the service. The cost of the church, as far as completed, has been about six thousand pounds. The contractors were Messrs. Kelk, of South-street, Grosvenor-square.

CHURCH OF ST. MARY MAGDALEN, MUNSTER-SQUARE, REGENT'S-PARK.—The late Mr. Carpenter, Architect.

THE CRYSTAL PALACE.

A VERY beautiful model of the Coliseum at Rome, restored, has recently been placed in the Roman Court. This is an addition especially interesting to architects. The model exhibits great research, and has been executed with extraordinary care by Dr. Emil Braun, of Rome, assisted by Signor Francesco Pieroni, a Roman architect. The scale is one-eighth of an inch to a foot. Every opening is filled with its statue. The details are beautifully made out, and the posts for the *Velarium* are in their places at the top.

The plants are now in a beautiful condition, and the whole place full of charms.

The one drawback is the difficulty of access. The slowness of the trains, the pressure and inconvenience to which those who are coming away are subjected, and the difficulty to which those who go late are unnecessarily exposed, by being forced to fight their way through the out-coming multitude, are constantly brought before us. Surely some of these evils could be remedied.

PROVINCIAL NEWS.

Taunton.—The local *Courier* states that the foundation-stone of the new Assize-halls will be laid on 14th August.

Wolverhampton.—It is in contemplation to enlarge the Wolverhampton workhouse at a cost of 2,000*l.*

Birmingham.—An appeal on behalf of national schools about to be erected at Aston, has just been issued. These schools will be for 700 children, with suitable residences for master and mistress, and will be built in the immediate vicinity of the parish church. Plans have been prepared, a site purchased, and donations secured, amounting, with anticipated grants, to 1,500*l.* leaving 700*l.* still to be raised. The building is from designs by Mr. Empson, of this town, and will be chiefly in the Tudor style, some portions partaking of the character of the Decorated period, with a small tower and spire.

Weston.—The opening of the new dock at Weston Point, belonging to the trustees of the Weaver navigation, was formally opened on Thursday, in week before last. The works consist of a lock opening into the Mersey, 60 feet wide and 100 feet long, with a gateway 34 feet wide; and at the upper end another lock, through which the Weston canal to Northwich is entered. The basin and locks are constructed of Runcorn red stone, with two courses of Welsh limestone, placed at certain distances up the walls, to prevent the friction of vessels against the red stone. The whole of the work is set in "Halkin mountain" lime. The stone was supplied by Mr. J. L. Wright, from the Runcorn quarries; and Mr. Dean, of Northwich, was the contractor for the masonry. The works are from the designs of Mr. W. Saxon, resident engineer to the trustees. The whole was constructed under the superintendence of Mr. Donkin, clerk of the works.

Chorley.—The recently-erected baths at the alkaline and chalybeate springs of Whittle-le-Woods, Chorley, were opened on Wednesday before last. The baths, which have been erected at a cost of 1,000*l.* consist of a plunge bath for ladies, and one for gentlemen, the latter 81 feet long, 19 feet wide, and 5½ feet deep, and the former 16 feet long, 9 feet wide, and 3½ feet deep.

Guide (Darwen).—The chief stone of a new school was laid here on Saturday before last. The building is to accommodate 200 scholars, and to cost about 300*l.* of which 150*l.* is still unprovided. Mr. W. Thompson is to execute the mason-work, and Mr. William Hoghton, of Oswaldtwisle, the joiner work.

Edinburgh.—At a recent meeting of the City Paving Board, the chairman, Mr. Leburn, made a statement of various works which he said must shortly be carried out. In a report by the surveyor, estimates were given for these,—viz. for the laying of various streets in two ways, namely, in concrete and in sea sand. The total amount in concrete was 13,260*l.*; in sea sand, 11,370*l.*

Glasgow.—The narrow, inconvenient, and dangerous bridge over the Monkland Canal, at St. Rollox, says the local *Gazette*, is now removed, and workmen are busy with the preliminary operations for building an iron bridge, with a towing-path below. Meanwhile, the traffic is carried on over a temporary wooden bridge to the east of the road.

Montrose.—From an interim report laid before the Montrose Police Board, it appears that experiments are now in progress at the Haugh of Kinnaber, for ascertaining the capabilities of the Haugh for affording an additional supply of wholesome water for the town. According to the local *Review*, a well or tank has been constructed, 15 feet in diameter, and 15 feet in depth, through a fine sand and gravel soil, into which the water was flowing copiously, and from which it was being pumped by a water-wheel, at the rate of 288,000 gallons a day, and of excellent quality. Subsequently, the supply of water in the well at a few feet deeper had greatly increased, the yield being one-third more in quantity, the pumps continuously drawing day and night at the rate of 300 gallons a minute, or upwards of 430,000 gallons a day. This will give an additional supply for the town at the rate of 28½ gallons per head each day to the entire population, even though the yield be gradually lessened.

CHURCH-BUILDING NEWS.

Woodbridge.—There being a division amongst the Burial Board here as to the position of the intended chapels for the cemetery about to be formed, it was resolved that Mr. Cant, of Colchester, should be sent for, to look over and make a plan for laying out the grounds. This was accordingly done, and the plan was adopted, and directions given to have the specifications for both chapels prepared forthwith.

Handsworth.—The new church of St. Michael was to be consecrated on Monday last, by the Bishop of Lichfield. The church overlooks the celebrated Soho Works. It is cruciform in plan, consisting of chancel, nave, north and south aisles, transepts, clerestory, tower adjoining south aisle, and vestry. It is of the Decorated or Middle Pointed style, with a large admixture of Early English details. The chancel is separated from the nave by a moulded arch, resting on each side on a cluster of three cylindrical pillars, having foliated capitals. In the communion is a reredos of stone, and in the south wall sedilia containing three seats beneath a square-headed hood moulding, for the officiating clergy. The east window is of five lights, the head being filled with flowing tracery. Adjoining the chancel arch, on the north side, is placed the pulpit, resting on cylindrical shafts of black marble, each shaft having a foliated capital. It is octagonal, every compartment being ornamented with a tricusped ogee arch. The roofs are open. The tower is appropriated to the purpose of a baptistery, and contains a font, resting on a cluster of circular pillars. The seats, about 1,000 in number, are open and plain, 540 being free. Exteriorly the heads of the windows are filled with flowing tracery, approaching slightly to the Flamboyant style, and numerous buttresses terminate in pediments, with crockets and finials. A porch is attached to the south aisle; and on the south side, adjoining the chancel and transept, a small tower has been erected, surmounted by a dwarf octagonal spire, terminating in a finial. The tower adjoins the south aisle, is not yet completed, and has received a temporary roof at about the middle of the second stage. The expense of the erection of the structure is about 6,000*l.* the material employed being a light gray stone, with Bath stone dressings. The architect is Mr. W. Bourne, of Dudley, and the builder Mr. Jones.

Avon-Dasset.—A new Roman Catholic church here was opened on 4th inst. Mr. Myers was the architect. It consists of a nave, chancel, Lady Chapel on south of chancel, southern transept opening to Lady Chapel, and music gallery opening over the sacristry into the transept, whilst the sacristry itself connects the church with the presbytery. On the south-west rises a tower, surmounted with a spire, furnished with bell and clock. The lower portion of the tower forms a porch, by which the church is entered from the street. The altars are furnished with sculptured reredoses. The subjects carved in that of the high altar are the Nativity and the Flight into Egypt, whilst that of the Lady Chapel consists of enriched panels. Within a carved arch, surmounted by a floriated canopy of stone above the high altar, is a tabernacle of metal work, with chased and enamelled doors. A stone pulpit projects from the north side chancel arch, and is approached by stairs in the chancel wall. There are twelve stained windows, many of them gifts of friends of the founder. Mr. Hardman, of Birmingham, was the artist. In the centre lancet, over the high altar, is represented the Eternal Father, crowned, coped, and seated on a rainbow in a vesica, the atmosphere within which is of ruby seraphs, whilst angels hover over the rest of the lights. In the lancet on the right is the Virgin, in that on the left St. Joseph. On the northern wall of the chancel is a double lancet, in which are represented St. Peter and St. Paul, with their emblems. In the window near the pulpit is a historical representation of St. Charles Borromeo administering Communion to the plague-stricken people of Milan. The subjects which fill the two windows over the altar in the Lady Chapel, are the Annunciation and the Assumption; whilst the side window represents St. Stephen. There are three detached lancets at the west end. In the centre light is a representation of our Lord upon the cross: at the foot of the cross kneel St. Thomas of Canterbury on the one side, and St. Anne on the other. In the other two lancets are the Virgin and St. John in grief before their crucified Lord.

West Charlton.—The restoration of the parish church of West Charlton, which is intended as a memorial of the late Archdeacon Brymer, is now completed.

St. Asaph.—An obituary window is to be placed at the west end of St. Asaph Cathedral, in memory of the late Rev. Rowland Williams, of Ysceifiog. The work is to be entrusted to Mr. Gibbs, of London.

Rhyl.—The chapel belonging to the Calvinistic Methodists, which has been erected in Clwyd-street, Rhyl, was opened on 5th and 6th instant. It is in the Pointed style. Mr. Owen, of Llanrwst, was the architect, and Mr. Morris, builder, Rhyl, the contractor. The whole cost is about 1,800*l.*

Manchester.—The restoration of the clerestory, windows, &c. of the whole of the six south bays of the collegiate portion of the cathedral of this city, next the east end, is now completed. Where the collegiate portion of the church terminates, and the parish part commences, is indicated on the roof by an octagonal turret. On the west or parochial side of this turret, two bays have been completed, and two others are now in progress. It is thought that if adequate repairs be not made on the tower, there will, sooner or later, and perhaps sooner than is anticipated, be a downfall of a very dangerous kind. Instead of the soft and friable red sandstone of which the tower is built, all the restorations on the south side of the cathedral are being made with the stone from the Fletcher Bank quarries, Ramsbottom, near Bury; which is a peculiar kind of sandstone grit, very hard to work. Knowing how often a thick layer of plaster hides superior though older work below, those engaged in the restorations cut away a portion of the old plaster-cast restorations, and, at a depth of 4½ inches below their surface, found the Gothic mouldings of the earlier architecture. These have been their guides and models in the restorations. Inside, the south clerestory of the choir or collegiate part is being cleansed and washed.

Gainsborough.—The opening of the new church at Luddington took place on Tuesday before last.

Gateshead.—The restoration of St. Mary's Church is progressing. The stained windows, it is said, will be replaced, and the one intended for the chancel of the church is about to be entrusted to Mr. Wailes, of Newcastle, who is also designer of it. The principal figure is our Saviour, with Matthew and Mark on his right, and Luke and John on his left. In the larger circular openings of the tracery are represented the Baptism of the Messiah, the Lord's Supper, and the Resurrection; and in the smaller, the royal arms and the arms of the borough. Below the figure of Jesus, and above the record of the

sufferers by the explosion of 1854, there is introduced a representation of the falling tower of Siloam, with the words, "Think ye they were sinners above all men that dwelt in Jerusalem? I tell ye, nay; but, except ye repent, ye shall likewise perish."

DIFFUSION OF KNOWLEDGE OF ARCHITECTURE.

CONSIDERING the value and importance of architecture, we have often wondered that its great leading principles have not been made a subject of study in our schools, and a means of mental education. Some may not recognise the necessity or desirableness of such study: some doubt its practicability. It would be easy to show it is an acquirement affording largely that very sort of training and discipline which it is the business of schools to impart. The leading principles or laws of architecture may be laid down with all the precision which belongs to science. He who, after learning them, has no occasion to practise them, would still have acquired something which, if it did not avail him as a divine, as a lawyer, or as a physician, which ever he might be, would yet avail him as a man; and it would by no means hinder him from acquiring the specific knowledge of his profession. All practical sciences, as arithmetic, grammar, navigation, and the like, are thus taught. Rules are laid down and examples are subjoined; not that these examples are the cases, much less all the cases, which will actually occur; they only explain the principle of the rule, and are given as so many specimens of the method of applying it.

The whole art and science of war (as far as theory goes) is thus taught by Callander in his "Military Maxims,"—a collection of beautiful maxims; to illustrate which follow a variety of examples from battles and engagements, ancient and modern.

We would take this interesting book as a model for the popular teaching of architecture and its principles. The teacher might also consult to great advantage Professor Donaldson's "Maxims of Architecture, Theoretical and Practical;" Rickman's "Attempt to Discriminate the different Styles;" Durand's "Parallèle d'Architecture," and comparative views of celebrated edifices. Such works would form the public taste. Sums of money ought to be granted by Government for having them at all the free libraries and institutions throughout the country.

F. L.

THE NEW PARISH CHURCH OF ALDHAM, NEAR COLCHESTER.

THE new church of Aldham, near Colchester, was consecrated by the Bishop of Rochester on Friday, the 13th instant. The old church, in an inconvenient out-of-the-way part of the parish, was comparatively unknown, and to those who sought it out, presented a picturesque rural church with great brick buttresses of enormous strength shouldering up the old walls, round which the graves had risen as if to meet them half way in their expected fall; so that when you descended into the church, you were not surprised that the rude brick pavement was damp and the walls green. But it has all been pulled down, and the old materials removed to the present convenient position, where it has again arisen in its old form and dimensions, with the addition of a tower and stone spire. The old oak porch is well known to lovers of church architecture as a specimen of the work of the fourteenth century,* and here it is safe and sound.

The aisle is separated from the nave by an arcade of three stone arches and columns. In the old church a row of wooden posts occupied their position, and carried the junction of the nave and aisle roofs; but the foundations of the older columns were discovered, and a portion of one of the base mouldings (which, indeed, was re-used as the "first stone" of the present church) formed the key by which this arcade has been designed. A new stone chancel arch carried on corbels separates the nave from the chancel. The corbels are carved, and contain a figure of St. Peter in one, and St. Paul in the other. We do not understand that there was any vestige of a chancel arch in the old church. The east window is filled with stained glass, the centre light representing the Saviour: it is the work of Messrs. Ward, of London, who have also supplied one of the two-light windows on the north side representing the Crucifixion and Ascension. This is a memorial window to the parents of the present rector; while a portion of the east window is a memorial of Dr. Morant, one of the former rectors, and the well-known historian of the county.

The old roofs have been used throughout, with no attempt to hide their old stains and scars. The seats, which are all open, are of deal, stained and varnished; as also the pulpit, prayer-desk, lectern, and stall seats: on the latter are carved emblems of the four Evangelists.

The old ironwork has been preserved, and the abstracted rings restored to the doors.* There are also two bells of the fifteenth century, of most musical note. For the curious in such matters we add their inscriptions,—"Katerina vocata sum rosa pulsata mundi," on one; and "Margareta ora pro nobis," on the other one is 2 feet 9 inches, and the other, 2 feet 4 inches in diameter. The total length of the church, internally, from west to east, is 82 feet 6 inches; the width, including the aisle, 35 feet 9 inches; the internal height to the upper part of the roof, 35 feet; the height of the spire, including the weathercock, 96 feet.

The church accommodates 270 persons, and the cost has been about 1,600*l*.

The ground on which the church stands was given by Mr. Weston, and the spire was given by Mrs. Gee. Mr. Edward Hakewill was the architect; Mr. Luff, of Ipswich, the builder.

* See Brandon's "Analysis," plates 12 and 13.

ARCHITECTURAL AND ARCHÆOLOGICAL CONGRESSES.

The Liverpool Architectural Society have made their annual excursion, visiting Crewe Hall and Nantwich Church. A writer in the Liverpool *Daily Post* says:—"Crewe hall is a quadrangular building, built chiefly of red brick, with some lozenged-shaped ornamental work in black brick; the door frames, mullions, and cornices of cut stone; and the roof surmounted by a group of tall octagonal chimneys, of moulded brick, which add much to the effect of the general appearance. The hall stands in a well-planted park, of 552 acres; and beneath a new esplanade on the north side there is a magnificent sheet of water covering 95 acres. Each front of the building is broken by the projection of large bay windows. There are entrances on the east and south fronts, the latter of which opens on a staircase of singular curiosity and beauty.

The Chester Archæological Society selected for their annual excursion St. John's Church, Hawarden, Offa's Dyke, Hope Church, Caergwrle Castle, and Mold. A discussion took place as to the etymology of Caergwrle. The Rev. Mr. Massie and Mr. Ayrton contended for Pennant's definition, namely, "The Camp of the Giant Legion," and supported their arguments by the following derivatives,—*Caer*, a fortification, *gwr*, a man or a strong man, and *lle* or *le*, a place; while Mr. Hicklin read a letter from Mr. Williams, of Chester, assigning a different signification. The writer, sustaining his views, says,—"You will judge for yourselves when you ascend the hill, and see it covered in a remarkable manner with a plant which I do not know on dry ground anywhere else. It is the bog-myrtle, called in Welsh, *Gwyrl*. My impression is, that, before the castle was built, the hill was *Bryn Gwrli*, and afterwards *Caer Gwrli*."

The Worcester Architectural Society have held a meeting at Warwick. Several papers were read; among them one by the Rev. W. Staunton, on "Church Architecture as a popular and interesting Pursuit; with some Remarks on the Church of St. Mary, Warwick;" another by the Rev. G. Ayliffe Poole, on "Photography and the Sketch-book;" and one by Mr. Parker, of Oxford, on "Kenilworth Castle." At the conclusion of the meeting visits were paid to St. Mary's Church, the Beauchamp Chapel, the Castle, Lord Leycester's Hospital, and All Saints' Church. There was a *conversazione* at the Court-house, when papers were read, and subjects of architectural and antiquarian interest discussed; and an excursion to Kenilworth, Temple Balsall, Knowle, and Solihull.

* See Analysis, plate 5, sec. 2.

Norfolk and Norwich Archæological Society.—The summer excursion of this society took place on Thursday and Friday before last, the churches of Marshland being the subjects of investigation. The meeting commenced under the presidency of Sir Wm. Ffolkes, Bart. at Wisbech Museum, where a paper on Wisbech Church was read by the Rev. W. B. Hopkins. After visiting this church, the company were conveyed to Walsoken Church (where a paper was read by Mr. Harrod, the secretary); to West Walton (paper by the Rev. E. Blencowe); by the Roman Sea Bank and the Marshland Tumuli to Walpole St. Peter's (paper by Rev. E. Blencowe), and Terrington (paper by Mr. Harrod); whence they proceeded to Lynn. On the following day, the churches of Tilney and Wiggenhall St. Mary's, Wallington Hall, and Stow and Wimbotsham Churches were visited.

SPONTANEOUS COMBUSTION.*

THE original form of a pamphlet on this subject now before us, was a paper read before the Literary and Philosophical Society of Liverpool, by Dr. Inman, who was lately a vice-president of that institution. The treatise is an important one, embodying a larger and more complete account of what is known of the circumstances and causes of spontaneous combustion than we have yet seen. It also contains an account of various experiments by the author himself, which tend still further to throw a light on this heretofore nascent and somewhat obscure subject. In testing the influence of different substances on painters' oil, for instance, in evolving heat and producing spontaneous combustion, he found that charcoal had the most powerful influence; and, indeed, of this fact painters are already aware, inasmuch as they know that lamp-black and their oil have at once to be ground, or they will ignite even in a few minutes. Next to charcoal stood sponge, then worsted, saw-dust, cotton-wool, tow, and shavings. The precise measure and time in which these various substances absorb oxygen when mixed with the oil are noted in a tabular form. We were rather surprised to find worsted, an animal substance which merely singes and does not tend, under ordinary circumstances, to burst into flame when fire is applied, ranking here next to charcoal and before cotton-wool; but our impression of the greater risk of spontaneous combustion from cotton than from animal wool is nevertheless borne out by these experiments; for Dr. Inman afterwards remarks, in reference to cotton, though not specially to animal wool, that in effect, and on account probably of the relative forms and surfaces, and access to air, of the different substances, "it is far more difficult to get small quantities of tow to ignite, even under very favourable circumstances, than cotton-wool: indeed, we may say that when the quantities used are small, it is difficult to procure actual ignition with anything but cotton-wool: when the quantity used is large, it is only a question of time." One point well worthy of notice, is the enormous amount of oxygen absorbed by painters' oil *in the first twelve hours*, compared with the ultimate quantity. This, the writer suggests, may explain how it is that fires so frequently break out within a *very brief* period after workmen have quitted premises where they may have been using painters' oil, and have left their greasy aprons, rags, or pieces of cotton on which their hands may have been wiped near to each other, *or to a warm steam pipe, or stove not yet cold* (or in a warm summer-day or sunshine, we might add); or that some few drops of oil have extended from the cans to some dust, sawdust, shavings, and the like. In such cases, we have the materials provided, and the train laid, as it were, for a conflagration which will burst out in an hour or two. Professor Graham refers to instances of olive oil igniting upon sawdust; of greasy rags from butter heaped together taking fire within twenty-four hours; of the spontaneous combustion of tape-measures, covered with oil var-

* "Spontaneous Combustion, and the Best Means of Extinguishing Fire. By T. Inman, M.D. London: Ward and Lock, Fleet-street. 1855.

nish; and even of an oilskin umbrella put aside in a damp state. The ignition of such materials, generally, it must be noted, is greatly favoured by a slight warmth, such as the heat of the sun.

Dr. Inman suggests, for the extinction of fires, in warehouses especially, and in ships, the previous arrangement of iron spouts, commencing outside in a convenient position, and running into the interior of each apartment or space likely to be exposed to the occurrence of fire, either spontaneously, or communicated by accident or otherwise. Through these spouts such gaseous substances as carbonic acid, or nitrogen as from the Fire Annihilator, might then, he remarks, be poured in without the necessity of opening doors, windows, or hatches, and of so admitting the air which inflames and increases the combustion. In certain cases, he adds, even the water-hose might be fitted on to the ends of such pipes, and deluge the burning materials.

The public are much indebted to Dr. Inman, and also to Mr. Papworth (whose tract we lately noticed), for the collection of the facts they have put together on the subject of spontaneous combustion.

COMPETITIONS.

Warwick.—Designs for a new corn-exchange, by Mr. Murray, have been selected.

Aberystwyth Clock Tower.—We continue to receive complaints that competitors have not been able to get back their drawings.

Peterborough New Church.—We are informed that forty-four designs were submitted to the committee for the proposed church at Peterborough, from which one by Mr. E. Ellis, of London, was selected.

Keynsham Schools.—A competition for proposed parochial schools at Keynsham, near Bristol, has been decided in favour of Mr. Masters. Various plans were sent in, out of which three were selected for builders to estimate from, viz. by Messrs. Gabriel and Hurst, Mr. Davis, of Bath, and Mr. Masters, and the ultimate selection was then made.

Kilkenny.—Mr. R. Burnham's plans for additions to the County Court House, Kilkenny, having been approved of in a competition for a premium of 22*l.* 10s the grand jury proposed that the premium should be deducted from the per centage for superintendence, and furnishing working drawings, &c. As Mr. Burnham declined to accept the proposition, they decided on having no architect, leaving the building in the hands of the contractor and clerk of works! The architect declined to accept the proposition because he conceived he had already earned the 22*l.* 10s.

BUILDERS' BENEVOLENT INSTITUTION.

ON Wednesday last the eighth annual general meeting of the friends and supporters of this excellent charity was held at the London Tavern, for the purpose of receiving the report, and upon other business. Mr. W. Lee, M.P. the president, took the chair.

Mr. A. G. Harris, the secretary, read the report, which congratulated the subscribers upon the success which continued to attend the institution. During the past year two elections had taken place, at which seven persons had been elected, making the total number at present enjoying the benefits of the charity, twenty-nine, viz. sixteen males and thirteen females. The amount paid in pensions since the institution was established was 1,979*l.* 13s. 4*d.* The annual ball, under the superintendence of the honorary secretary, Mr. Joseph Bird, realised to the funds the sum of 74*l.* 14s. 6*d.* The subscriptions and donations received in the past year amount to 1,225*l.* 9s. and 400*l.* stock had been added to the amount funded in the names of the trustees, viz. 200*l.* stock to the relief fund, and 200*l.* stock to the building fund, making the total amount invested in the Three per Cent. Consols, 4,750*l.*: 3,250*l.* stock to the relief fund, and 1,500*l.* to the building fund, with a balance at the bankers' of 338*l.* 2s. 11½*d.* The report, after calling upon the subscribers to place the means at the disposal of the directors to enable them to take in the unsuccessful candidates, concluded by stating that Mr. C. Lucas had consented to accept the presidentship for the year ensuing.

Mr. Joseph Bird having moved the adoption of the report,

Mr. George Bird, the treasurer, seconded the motion, and remarked that there never was a time when so many persons were in want of the benefits of this institution as at present. He was not aware whether they were all of the proper age to be admitted; but if they had subscribed more liberally in their prosperous days—and he called the attention of the meeting and the collectors particularly to that fact—the directors would have been enabled to place a larger number upon the list for election. In conclusion, he trusted that the builders generally would support their new president in large numbers at the next annual dinner in October next.

The motion was carried, as was also a vote of thanks to the trustees, moved by Mr. Cozens, who bore testimony to their valuable efforts on behalf of the charity.

Mr. Lee, M.P. in reply to a vote of thanks, said he regretted that his suggestion with regard to the amalgamation with the Tilers' and Bricklayers' Almshouses had not been adopted, but he trusted that it would yet be carried out. He should this year be master of the Tilers' and Bricklayers' Company, and if he could in that capacity serve them, he should be most happy to do so: in fact, they might reckon upon his co-operation in this good work at any time.

THE ARCHITECTURAL ASSOCIATION.

THE Architectural Association Class of Design have elected Mr. Thomas M. Rickman their president for the ensuing session. Messrs. Thomas W. Horn and R. Druce continue as secretaries, and Messrs. R. Druce and A. MacGachen are the curators. The class is particularly recommended to the younger members of the profession as a source of wholesome emulation, their meetings combining pleasure with profit. An address will be read by the president at the opening meeting of the session 1855-56, which will be held at Lyon's-inn-hall, Strand, early in October.

HOUSE DRAINAGE ACT.

By this Act, the 18th Vict. cap. 30, the Metropolitan Commissioners of Sewers are authorized to exercise powers of house cleansing, drainage, and improvement, for the purpose of executing, in houses which may appear exposed to the ravages of zymotic diseases, palliative and preventive works, either temporary or permanent, to obviate the outbreak and spread of such epidemic disorders; and to carry on such works they are authorized to employ a sum not exceeding 25,000*l.* and to charge the cost of such works upon the owners or occupiers of the premises in which the works are executed. The commissioners having considered the provisions of the Act, a resolution was adopted that it should be carried into effect. The following resolution regulating the manner in which it should be carried out was then, after a lengthy discussion, adopted.

"That any money which the commissioners shall resolve to expend under the House Drainage Act, be laid out on those houses which are most exposed to the ravages of disease, preference being given to any such houses from which there appears the best prospect of being able to recover the amount expended, and chiefly for combined works. That in putting the Act into operation it is, in the opinion of this commission, inexpedient to empty cesspools during the hot months, except in cases of extreme emergency."

To make the first experiment, Giffin-street, and Regent-street, Deptford, were selected.

At the succeeding court, held on Tuesday in last week, the report of Mr. Donaldson, the district surveyor, was presented as to the expense, and it appeared that the average cost of each house being provided with a water-closet, cistern, pipes, and other accessories, was 12*l.* while the rent paid by the tenants was 5s. a week for each house. The commissioners, on considering the subject, found that they could not certify that, in the words of the Act, this was a "reasonable and proper" charge in reference to the rent of the premises where the works were to be executed, and the proposal for carrying the Act into operation in the locality in question was therefore negatived, and the Act thus far remains inoperative.

ACOUSTICS.

YOUR periodical, Vol. XII. page 342, contains a paper on Fountains Abbey, in which mention is made of some *jars* that have been discovered there, lying a little below the level of the floor, the use of which the writer of the paper is at a loss to conjecture. A paper read by Mr. Walbran, before the Yorkshire Architectural Society at Skipton, in Craven, also speaks of them; but the author confesses himself quite puzzled as to the purpose for which they were intended. Similar ones have been discovered at Norwich, and a communication respecting them has appeared in "Notes and Queries." Others, again, have been found in the church of St. Mary, Youghal, built into the wall, about 25 feet from the ground; and Mr. Fitzgerald, in a notice of them printed in the Proceedings of the Kilkenny Archæological Society for March last, gives a highly probable solution of the enigma, viz. that they were designed for *acoustic purposes*; and he quotes ancient examples to support his view.*

How far they might answer that end I dare not guess; but it has struck my unprofessional mind, that the shafts of Purbeck marble with which our cathedrals abound might be partly intended to serve the same purpose. Their sonorous properties are known to every one, and Paley ("Gothic Architecture," p. 97) says, "We have somewhere read of an arcade whose shafts were attuned in regular progression." That their colour and polish were intended to please the eye there can be no doubt; but this does not prevent their having been also meant to give resonance to the spacious buildings in which they are found. It is needless to observe that in the present day the acoustic qualities of churches, lecture-rooms, &c. often cause great disappointment, and if any thing could be done to facilitate the transmission of sound to the ear in our public edifices, without offence to the eye, it would be a great benefit to the community. This must be the apology for these suggestions to a learned body like the readers of the *Builder*, offered by

A COUNTRY PARSON.

* This supposition was of course started when the jars were discovered at Fountains, but their position seemed to make it untenable.—ED.

SURVEYORS' CHARGES.

POLAND *v.* TEBBUTT.—In this case, at the Bloomsbury County Court (before D. D. Heath, esq. Judge), Mr. Poland, the plaintiff, is a surveyor, of Margaret-street, Cavendish-square, and the defendant a tradesman in the same neighbourhood. The action was brought to recover 9*l.* 9s. as follows:—"Preliminary survey of house in Foley-place, as to the necessary repairs to be done, 1*l.* 1s.; drawing specification of repairs and fair copy, and superintending work of the value of 124*l.* at a commission of 5*l.* per cent. 6*l.* 4s.; settling up extra work and going through accounts, and finally settling same, 1*l.* 1s.; postage, 2s.; attendances upon Mr. Knight, &c. &c. as to an attempted encroachment upon the defendant's premises, 1*l.* 1s. Total, 9*l.* 9s." Of this sum the defendant paid 6*l.* 4s. into court.

Mr. Poland proved that in cases of repairs it was not usual to charge by commission, but by time. In this case he had taken into account the position of the defendant, and had charged by commission, and not time. He had no idea that the amount would be disputed, as he had sent in his bill upwards of a twelvemonth; and when he found there was a dispute, he had offered to refer the matter to Mr. Lockyer, a gentleman who had originally introduced him to the defendant.

Mr. Hunt, a surveyor, proved that the prices charged were fair and reasonable. He said,—"The plaintiff has made a mistake in this case, for he ought to have charged by time, as it is impossible in a case of repairs to do otherwise." Considered the time occupied in the preparation of the specification must have been three or four days.

The plaintiff's clerk, and a builder, were then called to prove that due diligence had been used in the superintendence of the work.

Mr. Williams (defendant's attorney) then submitted, that the plaintiff having made his election to charge by commission, and not by time, he could only recover commission; and, therefore, that the first, third, and fourth items, must come off. With regard to the last, he tendered evidence to show that the plaintiff never had been instructed to resist the encroachment.

His Honour, in giving judgment, said,—"I am quite clear that where a surveyor adopts one scale of charges, he cannot afterwards vary them. I am with the defendant upon that point."

The cause was then adjourned to enable the plaintiff to show that the third item was really for commission for extra work over and above the 124*l.*; and to produce evidence that he was fairly instructed to resist the encroachment.

His Honour said there was no doubt the plaintiff had not adopted the ordinary custom in such cases, but at the same time he was bound by his own election of the mode of charging.

TO MAKE RANCID OIL SWEET.

I HAVE much pleasure in acquainting you with the results of my experiments upon *rancid oil*, in accordance with my promise to that effect.

The following substances will *prevent* oil from getting *rancid*:—

1. Sweet spirits of nitre. A few drops added to the oil. The effect is due to the *nitric acid* of the spirit, oxidizing everything but the oil itself. The *hydrogen* has *nothing* to do with it.

2. Creosote appears to answer even better than the last.

3. Methylic alcohol ("comm. wood-spirit"), if added in small quantity to oil, will prevent its putrefaction, probably from the creosote, &c. it contains.

4. Hypochlorite solutions. The hypochlorite of soda is about the best, but a little *strong* solution of chloride of lime does very well, shaken up with the

oil: when required for use, the oil may be decanted from the top, or drawn off with a syphon; or let the mixed *oil* and *solution* be poured upon a circular filter, *thoroughly wetted with water*, and placed in a funnel, when the *solution* will pass through the filter, the *oil* being left. (Any liquid which does not perfectly mix may be separated in this manner,—the filter-paper to be previously wetted with the fluid intended to pass through).

5. Small pieces of charcoal, soaked with diluted nitric acid, I have found to possess similar properties to the above.

Substances that will make rancid oil sweet:—

1. Sweet spirits of nitre.
2. Creosote (*very uncertain*,—cannot be depended on).
3. Methylic alcohol (*very uncertain*,—of little use).
4. Hypo-chlorites (*quite effectual* in a few hours; in a few minutes if boiled: the *dry salts* are of little use).
5. Peroxide of manganese (very good).
6. Animal charcoal (very good, but takes a few days, unless boiled with the oil).
7. Charcoal (of no use unless boiled with the oil: that from *beech-wood* is best).

WENTWORTH L. SCOTT.

Miscellanea.

ST. PAUL'S-ROAD, CAMDEN-TOWN. — Allow me, through the medium of your columns, to bring before the notice of the proper authorities, whomsoever they be, a nuisance which exists in the new "St. Paul's-road," Camden-town. At the termination of the yet incomplete thoroughfare of "brick-noggin" houses there being erected, immediately underneath the railway bridge which crosses the fields, is a hollow ground, into which all the surface-drainage must run; and when the rain falls in any quantity (as recently the case), an unfordable, offensive pool is formed, shutting out all communication on either side the bridge. Taking advantage of this circumstance, a benevolent individual has established himself "in position" with a plank, for the use of which he *moderately* levies black-mail, insulting those who do not avail themselves of the desideratum. The consequence is, that passengers are compelled to submit to this extortion, with the additional risk of being tumbled into these Stygian deeps, "for a lark," by the numerous hangers-on, or to go half a mile out of their way in order to reach St. Augustine-road, which is a few paces *in sight* of them. I cry, "A boat—a boat!" for the shipwrecked public.—RHEUMATICUS.

THE CONDITION OF THE THAMES. The public attention still continues and no wonder—to be seriously occupied with the condition of the river. The Lord Mayor has been using praiseworthy exertions to agitate this question, and numerous correspondents continue to address us on the subject. The state of the water supply in Southwark and at Vauxhall is very bad, and the Chelsea Waterworks continue to give a fluid full of decaying matter to their customers, instead of water fit for culinary or other household purposes. We hope shortly to be able to put together some facts which may help to bring this serious question to a speedy issue.

CITY COMMISSION OF SEWERS.—At a Court held on the 17th instant, a report from the Cemetery Committee was read, which stated that the ground would not be ready for consecration till the end of September next; that a contract for planting the cemetery, at a cost estimated by the surveyor of the committee at 1,800*l.* would require to be entered into; and that the surveyor had employed a person to lay out the ground, whom the committee recommended to superintend the planting, at a cost not to exceed 100*l.* including travelling expenses. The report was unanimously adopted. The commissioners afterwards considered the question of water supply to the poorer dwellings in the City, and the increased charges of the water companies, and ordered a copy of the medical officer's report on the subject to be sent to the New River Company.

FALL OF THE HUTHWAITE TUNNEL NEAR BARNSLEY.—On Saturday and Monday before last portions of the Huthwaite Tunnel, on the Manchester, Sheffield, and Lincolnshire Railway, fell in, completely obstructing the passage. By the praiseworthy exertions of some workmen, who were hoeing turnips on the Saturday, timely notice was given, and many a valuable life probably saved, as an express train came up shortly after the first fall took place. The strata above the tunnel are shale, but it is also thought that the masonry of the arch has not been sufficiently knit together.

ST. PETER'S, WALWORTH.—Tenders have been received for repairs, &c. at St. Peter's, ranging from 520*l.* to 199*l.*! Mr. Thornhill's tender at 284*l.* was accepted.

METROPOLITAN MILE-POSTS.—In reference to the recent article on this subject in our columns, a correspondent states that about four years back he had cast-iron plates (such as one sent us), stating the distance from the Post-office, in St. Martin's-le-Grand, fixed along the lines of the Commercial, East India Dock, West India Dock, Barking, and Essex roads, at each quarter of a mile, upon the house frontages, and on wooden posts in the country. He took the centre of the Post-office portico as his starting point, and chained the distances. The other turnpike trusts, however, could not be prevailed upon to go out of their old jog-trot, and the requisite improvement was not further carried out. Our correspondent also made a tender, at Sir R. Mayne's request, for the determination of the exact intersection of the Hackney Carriage Act circle with the leading radiating thoroughfares, and to mark it by distinctive cast-iron plates; but, through the Ordnance authorities and others, it was discovered that there were no funds applicable to such a purpose.

THE RANELAGH SEWER.—I take the liberty of asking your attention to the condition of an open sewer (known as the "Ranelagh sewer"), at back of Bloomfield-terrace, Pimlico, with the hope that you may be induced to remark upon it in your valuable paper. It is proposed by the Commissioners of Sewers to cover it in, but a stoppage in the works took place about six weeks back, since which time it has been allowed to remain, accumulating daily, and now having nearly 3 feet of soil, exhaling the most nauseous and dangerous vapours. I have several houses in the immediate neighbourhood, and, by the request of many of the inhabitants, have made application to the Commissioners of Sewers, who, *once only*, caused some lime to be thrown in. I have since written to Sir Richard Mayne, and received a reply from him that he has no power to interfere with the acts of the Sewers Commissioners. I have also applied to the Board of Health (believing in such a matter, where life was concerned, that I should get assistance). Their surveyor visited the place, and made his report, of which I received a copy; but, beyond pointing out that such a place and nuisance *did* exist, and was dangerous to the neighbourhood, no ultimate good was done.—JOHN NEWSON, JUN.

ELECTRO-TELEGRAPHIC PROGRESS.—A submarine telegraph from Turkey to Egypt is about to be formed. The Turkish government have granted an exclusive concession for such a telegraph to run from the Dardanelles to Alexandria. The cost will be 120,000*l.* Proposals are also on foot for extending the project to India, *vid* Suez and Aden to Kurachee, at the mouth of the Indus, where it would connect with the Indian lines. The total length from the Dardanelles to Kurachee is about 4,000 miles, and the sum required for the whole (including the line to Alexandria) would be 850,000*l.* The entire line to India may, it is estimated, be completed in two years.

SCENERY AT THE ITALIAN OPERA-HOUSE.—In the production of Meyerbeer's last opera, "L'Etoile du Nord," Mr. Gye has brought into operation all his resources, and with a result which makes it to be regretted that it did not occur earlier in the season. The composer and the musical artists, Mdlle. Bosio, Mdlle. Marai, Formes, Gardoni, and Lablache, have been justly praised by our contemporaries of the press, and we may confine ourselves to offering tribute to the scenic artist, Mr. Beverley, and the director of the stage business, Mr. Harris. The first scene represents a village near Wyborg, with carved wooden house at the side, and the Gulf of Finland behind. The water is capitally painted, but the scene being kept somewhat dark, with due reference to its geographical position, pleased less than it would have done if it had been less truthful. The Calmucks make a very picturesque group. The scene for the second act, where rocks rise above rocks, interspersed with trees, especially when the soldiers gather together, and the Tartars and the grenadiers of Smolensko descend the mountains, is singularly effective.

SALFORD MUSEUM AND LIBRARY.—The attendance of readers and the issues of books at the Royal Museum and Library in Peel's-park, Salford, during the fortnight ending July 14, have been as follow:—Libraries: volumes issued from reference library, 2,443; volumes issued from lending library, 1,855; total, 4,298. Reading-room: attendance of readers, 4,241. Museum: attendance of visitors, 27,200.

TO PREVENT COMBUSTIBILITY OF WOOD.—In reference to the dephlogistic composition, I am not aware of Mr. Braidwood's, but your correspondent will find a mixture of equal parts of *alum* and *borax* (biborate of soda) answer every purpose.—S.

DOWNING-STREET IMPROVEMENTS.—The cost of acquiring sites and erecting new public offices is estimated at 385,000*l.*

THE PUBLIC HEALTH BILL will be postponed.

THE DWELLING-HOUSES BILL FOR SCOTLAND has passed through the Commons.

SALE OF UXBRIDGE-HOUSE.—The Bank of England have purchased for their West-end branch establishment the mansion of the Marquis of Anglesea, in Burlington-gardens, Piccadilly, for 45,000*l.* or 47,000*l.*

CONSECRATION OF CHRIST CHURCH, BAYSWATER. Last week the Bishop of London consecrated the new church in Bayswater-road, near the new carriage entrance to Kensington-gardens. A view will be found at p. 31, *ante*.

THE IRON TRADE.—The quarterly meetings have exhibited no further improvement in the position of this trade; and as yet there exists no increase of demand to justify the resumption of those furnaces that have been put to a stand. The amount of business done has been unusually limited. The extreme discredit into which the Staffordshire ironmasters seem to have fallen from the late disasters and consequent disclosures, has created such a feeling of distrust, that the sellers of pig iron and ironstone have shown an unusual indifference about making sales, except such as were compelled by circumstances. Better prices have been realised for good qualities, but very few parcels, and those of small extent, have changed hands. The prices of iron may now be considered as settled for a time, and the variation from the nominal list is much more contracted than three months ago. Rods and bars may fairly be quoted from 7*l.* to 8*l.* per ton; hoops, sheets, and plates, from 8*l.* to 10*l.*; the highest price for pig iron being 5*l.* 5s. average qualities 4*l.* 15s. and hot blast cinder pigs 65s. per ton.—*Birmingham Gazette*.

THE FOUNTAIN OF DIANA, IN BUSHY-PARK, is being restored.

MELLISH'S PERFORATED VENTILATORS have an advantage over others, inasmuch as the perforations are made obliquely, so that a tendency upwards is given to the air as it enters, and direct currents are avoided.

TENDERS

For Warley Barracks, for the East-India Company. Quantities furnished:—

Lee	£16,240	0	0
Brass	15,962	0	0
Kelk	15,875	0	0
Lawrence	15,778	0	0
Wilson	15,587	0	0
Ashby	15,400	0	0
Holland	14,927	0	0
Lucas, Brothers	14,750	0	0
Nicholson and Sons	14,550	0	0

For brick and pipe sewers, 4,967 feet in length, under the control of the Metropolitan Commissioners of Sewers, at Tanner's-hill, Broadway, and New-cross-road, Deptford; Holmesdale, Hanover-street, and Cross-street, Lewisham. Engineer's estimate, 4,230*l.*:—

W. Hill	£3,920	0	0
J. and C. W. Carter	3,698	0	0
R. Goodison	3,500	0	0
Jos. Yeoman	3,451	0	0
Lee and Lavers (accepted)	3 350	0	0
W. H. Rowe	3,035	0	0

For residence for Mr. Jas. Insole, Llandaff. Messrs. Habershon, architects:—

Mitchemore, Cardiff	£2,972	0	0
James and Price, ditto	2,794	0	0
Rees, Llanelly	2,450	0	0
Harris, Cardiff	2,350	0	0
Rowland and Evans, London	1,893	0	0
Brown, Bristol	1,960	0	0

For a new aisle and putting new seats in the church at Seal, near Sevenoaks:—

Thompson, Maidstone	£1,350	0	0
Billson, Malling	1,320	0	0
Grover, Sevenoaks	1,172	0	0
Buckland, Loose, near Staplehurst	1,170	0	0
Constable, Penshurst	1,050	0	0
Wightwich, Malling (accepted)	884	0	0

For almshouses, Finsbury, for the Deacons of the Dutch Church. Mr. S. Dyball, architect. Quantities supplied by Mr. Poland:—

Rawlings, Brothers	£1,142	16	0
Macey	999	0	0
Haynes and Eyre	999	0	0
Lefevre and Son	998	12	7

For roads and drains at Highgate Cemetery:—

Batterbury	£1,926	0	0
Hill and Lads	1,770	0	0
T. D. Carter	1,731	0	0

For South Metropolitan Schools, Sutton, Surrey. Quantities supplied:—

	Wing.	Infirmary	Total.
Marsland	£10,060 0 0	£3,420 0 0	£13,480 0 0
Thomson	9,973 0 0	3,384 0 0	13,357 0 0
Ashby and Sons	9,991 0 0	3,353 0 0	13,344 0 0
Lucas	9,780 0 0	3,220 0 0	13,000 0 0
Piper and Son	9,528 0 0	3,140 0 0	12,668 0 0
Mills	8,909 0 0	3,188 0 0	12,097 0 0
Pollock and Co	8,990 0 0	2,972 0 0	11,962 0 0
Nicholson & Sons	8,710 0 0	2,940 0 0	11,650 0 0
Coleman	8,358 0 0	2,863 0 0	11,221 0 0

For brick sewers, 4,083 feet in length, in King's-road, King's-road East, Beaufort-street, and Danvers-street, Chelsea. Quantities not supplied. Engineer's estimate, including 1,000*l.* for extras, 4,479*l.* :—

R. Batterbury	£5,854	0	0
J. Phillips	4,689	0	0
R. Goodison	4,475	0	0
W. Hill	4,388	0	0
J. and T. C. Todd	4,304	0	0
Lee and Lavers	4,270	0	0
J. Stanford	4,270	0	0
W. H. Rowe	4,227	0	0
Thirst	4,222	0	0
J. Yeoman (accepted)	4,011	0	0

For five houses at Croydon. Mr. Wm. Power, architect :—

Wells	£4,375	0	0
Brown	4,253	0	0
Hill	4,237	0	0
Paull	3,975	0	0
Mackenzie	3,960	0	0
Sewel	3,375	0	0
Hyde	3,275	0	0

For enlargement and additions to chapel and tunnel at Highgate Cemetery, in connection with new ground. Messrs. Wehnert and Ashdown, architects. Quantities furnished by Messrs. Balam and Leo :—

Myers	£2,400	0	0
Hill and Lads	1,840	0	0
Wm. Higgs	1,700	0	0
T. D. Carter	1,699	0	0

For double villas for Mr. Walker, Newport :—

Williams, Newport	£1,289	0	0
Bolt, ditto	1,280	0	0
Edwards, ditto	1,232	0	0
Richards, ditto	1,227	0	0
Moore, ditto (accepted)	1,198	0	0

TO CORRESPONDENTS.

"J. T."—"W. G. D." (send decision).—"Very old Sub."—"Central London School" (we cannot adopt an anonymous assertion of that kind)—"G. C."—"J. C. C."—"Panlatim."—"A. B."—"C. E."—"A. F. A."—"G. D." (we do not know of any acknowledged "Builders' Arms.")—"S. D."—"M. S."—"C. E."—"P. W. H."—"Constant Reader."—"A Builder."—"E. M. R."—"E. C. H."—"J. H."—"W. L."—"G. H."—"F. R. G."—"B. F."—"G. M. H." (thanks).—"T. N." (shall appear; send particulars).—"H. C." (the Corporation of London).—"An Original Subscriber" Nos. 518, 528, and 571 can be had).

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

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NORTHAMPTON IMPROVEMENT COMMISSIONERS.—Notice is hereby given, that the Commissioners for Improving, &c. the Borough of Northampton, will, at a meeting to be held at the Guildhall, in the said town, on WEDNESDAY, the 1st day of AUGUST next, be prepared to receive APPLICATIONS from any person not resident in the town of Northampton, for the OFFICE of SURVEYOR. The salary of such surveyor will be 300*l.* per annum, and the person appointed must devote the whole of his services to the Commissioners, and will not be permitted to carry on any private business.—Printed particulars of the duties of the office may be had on application to the Clerk to the Commissioners. Applications for the office must be sent to the Clerk on or before the 31st day of JULY inst. and no candidate will be allowed to make a personal canvass.
C. MARKHAM, Clerk to the Commissioners.
Northampton, July 20, 1855.

AGENTS WANTED for the EMPIRE ASSURANCE COMPANY, 61, Pall-mall, London. The Agents of the EMPIRE ASSURANCE COMPANY are entitled, in addition to the ordinary commissions, to a direct and substantial interest in the profits of the Company. Every Director has qualified for his office by paying down 50*l.* on shares. Prospectuses, &c. free, and every information, on application to
EDWIN H. GALSWORTHY, Actuary and Secretary.

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AN AUCTIONEER, SURVEYOR, and UPHOLSTERER, within a short distance from town, has a VACANCY for a PUPIL, where he will have every opportunity of acquiring a practical knowledge of the profession.—Address, B. B. Office of "The Builder."

FOREMAN WANTED.—One who is thoroughly understands the management and overlooking of men in a factory.—Apply personally, to Mr. CROUCH, Messrs. Tupper and Carr's, Patent Galvanized Iron Works, Regent's Canal Dock, Limehouse.

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WANTED, immediately, in a country town, a PERSON thoroughly qualified in all the duties of an office. A person with a good knowledge of construction, and a fair plain draughtsman, quick at figures and accounts, would be preferred. None but persons fully capable need apply.—Address, with age, particulars, and salary, in own handwriting, to A. B. Falcon-wharf, Blackfriars, London.

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WANTED, immediately, an experienced HAND, competent to undertake the plumbing of several large houses. Address, X. Y. care of Mr Edward Hunt, Surveyor, Sydenham.

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WANTED, a FOREMAN, to take the entire charge of the building of the NEW ASSIZE COURT, at Taunton. He must be active, thoroughly competent, and strictly honest. Stating particulars, salary required, &c.—Apply to Mr GEORGE POLLARD, Taunton.

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WANTED, a SITUATION, by a Person who has a practical knowledge of building. He can take out quantities, estimate, measure up work, draw plans, and make specifications.—Address, H. H. No. 52, Judd-street.

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WANTED, by a Young Man, who has for some years filled the office of General Clerk and Bookkeeper in a Builder's office, a similar SITUATION. Good references can be given.—Address, O. P. Swallow's Newspaper Office, Everett-street, Russell-square.

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WANTED, by a Gentleman, aged 26, an ENGAGEMENT with an architect or others, as DRAUGHTSMAN and general ASSISTANT. The advertiser is rapid and skilful, acquainted with theoretic and practical architecture, a good colourist, and familiar with office practice; speaks French and Italian, knows the continent well, and would prefer an engagement abroad. Salary not so much an object as an engagement in an office transacting a large business.—Address, X. Y. Z. 3 Melbourne-square, Brixton, London.

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WANTED, by a Young Man, aged 23, a SITUATION as TIME-KEEPER and MEASURER in a Builder's or Timber Yard; is a good writer and accountant, served his time to a builder, and is willing to make himself generally useful.—Address, C. C. 4, Tufnel's-park West, Camden-road.

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THE Advertiser wishes for a RE-ENGAGEMENT as FOREMAN of PAINTERS, &c.; can measure, give estimates, &c. References as to character and ability from present employer.—Address, A. Z. 37, Ashford-street, Pitfield-street, Hoxton.

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Marble of all kinds and of best quality, in block and slab. Marble mortars, &c.

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July 25, 1855. C. ADENEY, Secretary.

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Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

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BELGRAVE-WHARF,
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PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

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VALUABLE QUARRIES, &c. in FORFARSHIRE, TO BE LET.—To be let for such number of years as may be agreed on with entry at Martinmas next, the extensive and well-known FLAG or PAVEMENT and FREESTONE QUARRIES of LEYSMILL and BONDER, belonging to W. F. Lindsay Carnegie, Esq. and situated on the line of the Arbroath and Forfar (Aberdeen) Railway, and running to the Leysmill Station, about five miles from the Seaport Town of Arbroath. And along with them will be disposed of the whole MACHINERY, comprehending six Stone-Planing Machines, with the Polishing Apparatus; two steam Engines, &c. now in active operation. The FARM of LEYSMILL, extending to 175 acres, or thereby, of arable land, all enclosed and thoroughly drained, and in a high state of cultivation, and with an excellent steading of farm offices, may, if desired, be let along with the Quarries.

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Kimblethmont, near Arbroath, 20th June, 1855.

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Shipping Depôt, Devon Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The head of every house built upon the Waddington Estate, of the value of 5 l. per annum, will be entitled to a Free First-class Railway Ticket; and of every house of the value of 3 l. per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years. Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every assistance for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Lunes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's station.

LADDERS, BARROWS, &c. for SALE or HIRE.—GEORGE ELL, Wheelwright, &c. 3, Tottenham-court, New-road, opposite the Hampstead-road, and corner of Pratt-street, Caledonian-road, has on hand at all times a large Stock of Excavators', Brickmakers', and other Barrows, Builders' and Painters' Ladders, Trestles, Steps, &c.—A price-list sent on application to 3, Tottenham-court, Waggons, Carts, &c. on the shortest notice.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer and is about 60 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inched diameter, and price per yard.

¼	⅜	½	¾	1	1¼	1½	2	2½	3 inches.
9d.	11d.	1s.1d.	1s.3d.	1s.5d.	1s.7d.	1s.9d.	2s.	2s.3d.	2s.9d.

Super-extra stout quality.

2	2½	3 inches.
2s.	2s.3d.	2s.6d.

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

¾	1	1¼	1½	2	2½ inches.
9d.	10d.	1s.	1s.3d.	1s.6d.	per yard

The hose is Burnettized at an extra charge of 3d. per yard. Union Joints Branch Pipes, and Jets, are also supplied.

WOOD-CARVING and FRET-CUTTING.—T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Ironfounders, Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—T. H. particularly solicits the attention of Pianoforte Makers, having had many years' experience in ornamental pattern making. Estimates furnished.

TO ENGINEERS, MACHINE MAKERS, AND OTHERS.

CHARLES MACINTOSH and CO., Patentees and Manufacturers of the VULCANIZED INDIA-RUBBER in all degrees of elasticity, recommend this material as can be of sustaining the action of hot or cold water, gas, steam, acids, and grease. It is used extensively for valves in marine and land engines railway buffers and springs, washers for pipe joints, hose and tubing; also for gas-holders, and pumps, alkali cisterns, &c. &c. Articles, moulded or otherwise, made to any size or figure.—Address, 3, Cannon-street West, London; and Cambridge-street, Manchester

HARD RUBBER, as a Substitute for Ivory, Ebony, &c. Also, India Rubber Packing, Tubing, Mill Straps, and Printing Blankets. For sale by DODGE, BACON, and CO. 49, Poultry-street, sole Licensees of GOODYEAR'S Patent for India Rubber Combs, and Importers of CROCKETT'S Patent Leather Cloths.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.

Driving dresses of super or make, and improved Vulcanized Rubber Sup. Hoppes for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimen-and patterns commencing at is. per foot super, together with particulars of its cost and adaptation, can be obtained of Mr. BUET, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way, are at all times ready to communicate on the subject, and to grant Licenses for their use. To all the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and change of litigation is avoided. The Company undertake arrangements for licensing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents. Applications may be made to CHARLES MAY, F.R.S. the Manager; or to

WILLIAM HOWDEN, Secretary.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSS'S WHOLESALE WAREHOUSE, 23, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

PATRON H.R.H. PRINCE ALBERT.

ROYAL POLYTECHNIC INSTITUTION. Under entirely new management.—Fifth Course of Monday Lectures, specially addressed to the Industrial Classes, to which they and their families as well as Afternoon and Morning or Evening, on payment of Sixpence each, on producing a Ticket signed by the Foreman or superintendent of the Works to which they may belong. The Next Lecture of this Course will be on Monday Evening the 30th inst. on Coal and Coal Gas, by Lewis Thompson, Esq. The Russian Infernal Machines, Dissolving Views of the late Battles, Diorama of San Sluck, &c. &c.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates can turn it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale and Retail Colourmen in Original Packages, each cask stamped HUBBUCK, LONDON—PATENT, and if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and Co. with pleasure announce to their Friends and the Public that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used in them as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at the Works, St. Andrew's Wharf, East-street, Blackfriars, or Middle Wharf, Portland-yard, Westminster. Manufacturer of Roman, Lias, and other Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the Natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not warrant in damp situations. Accounts of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

PARENT'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with special reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-drying Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, and Steel street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (their patent), and all other Cements in use for building purposes, 12, Ely-place, London.

NEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any in Manufacture also, and Dealers in Plaster, Paris White, Stone, Hair, Lime, Lime, Lathe, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Rolling, Paints, Stucco, &c. Marble Merchants and Importers of Carrara.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by J. HILDEN, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the quarry, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

PATII CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in any situations, is perfectly hydraulic, of a regular and warm colour resembling Bath stone. CHARLES RICHARDSON, South Wharf, Paddington.

11, George-yard, Lombard-street, City.

WILMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality. Orders to these works. Also BRICK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Kent, as above.

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS.—OLDHAM and TATHAM are prepared to receive orders from contractors, builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland and Lias or Bath Cement, both of which will be found of superior quality, and will be improved by a double admixture of two more parts of sand to one of cement, IO and 7 bushels can run to the ton; any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), or NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities at the above wharfs, or per barge direct from the kilns in Sittingbourne, Gouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stuccо than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SEYSSELS, FAVIERS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

BLUE LIAS LIME.—J. EASTWOOD and SONS take this opportunity of informing their customers that they have now BLUE LIAS LIME always in stock, ready for delivery, at Belvedere-road Lambeth

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers. Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Remarks on the Press," page 501, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Covings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbench, Cambridgeshire, begs to offer pantiles at 50s. per 1,000; floor bricks and 9-inch pavings, at 40s. per 1,000; 9-inch paving, at 30s. per 1,000; 9-inch paving, at 75s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that may be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase I weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and Co., white ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO. Wellington-street, 63, King William-street, City; FREDERICK BRADBURY, Wholesale and Retail Agent, 5, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs R. ANDERSON and Co. Timber-merchants; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 13, Manchester-buildings, Westminster.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-stock, Pitsides, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

A SECOND-HAND ONE-HORSE BRICK CART, FOR SALE, at J. BARNES'S, Wheelwright and Manufacturer of every description of Barrows, Railway Trucks, Ladders, Machines, &c. 2, York-place, Pentonville-hill

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on E. PARKS, Lewisham, and see the quality at Low prices. Cartage within six miles on the most reasonable terms. Red facing bricks at 18s. All kinds of tiles, paving bricks for oven building, salt glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

FOR IMMEDIATE SALE. — FIRE BRICKS, LUMPS, TILE, and TERRA COTTA.—SAMUEL TRICKETT has received a large consignment of the above goods for sale.—Apply on the premises, Stone-wharf, Isle of Dogs. Dealers and large consumers liberally dealt with.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch red Socket Drain Pipes, in 3 feet lengths.—Apply to St. JOHN HEWITT, Redhill Works, Southampton.

TO CAPITALISTS, SPECULATORS, BUILDERS, and BRICKMAKERS.—TO BE DISPOSED OF, a large BRICKYARD, situate near one of the principal towns in the midland counties, capable of producing more than two millions of bricks, of good quality, weekly. As the neighbourhood is increasing with a degree of rapidity witnessed in scarcely any other part of the kingdom, the opportunity is a favourable one. Both machinery with steam power and hand-labour employed.—Apply to Mr. W. WHITEHEAD, Auctioneer and Estate Agent, 2, Albert-street, Nottingham.

BRICK and TILE-MAKING MACHINERY for all NATIONS, from 15l. to 250l. each.—J. S. NORTON, Engineer and Ironfounder, Union Works, New Park-street, Horsleydown, Surrey, near Southwark-bridge, London. Every description of clay mills, crushing-rollers, horse-gear, travelling and other cranes, &c. &c.—List of prices and catalogues may be obtained at the Works. Licenses granted to manufacture the tubular roofing-tiles.—A quantity of hollow bricks on sale.

BRICK-FIELD. — About 3½ ACRES of WHITE and RED EARTH, of excellent quality, with Kiln, situate on the Foxhall road, Ipswich, Suffolk, TO BE SOLD or LET.—Inquire of S. B. JACKAMAN, Esq. Solicitor, Ipswich.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast, screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by HANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the accustom and other Filters and Trades. These filters, at one penny, three and four guineas each, yielding 60, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are portable, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

PURE WATER.—The attention of Boards of Health, Water Companies, Engineers &c. is particularly requested to a newly-invented METHOD OF CONVEYING WATER, which possesses most important advantages. It can be made strong enough to resist any pressure, it is comparatively flexible, easily laid, has great power of resisting the effects of frost, and what is of still higher consideration, is perfectly innocuous. This combination of desirable properties is produced by lining leaden pipes with gutta percha. Further information may be obtained on application to the Patentees, Messrs. STOCK and SON, Lead Works, Birmingham; or to the Gutta Percha Company, 18, Wharf-road, City-road, London.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner.—Venetian blinds, per square foot, 9d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, &c.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 8s. Transparent blinds in great variety. Engravings, with prices and designs to builders and the trade, forwarded on application, post free.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noblest buildings. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition, and will be found to be a different material to that now being imitated by puffers and mannfacturers, with only three or four years experience, and without practical knowledge. Some of the works recently completed by M. H. B. can be referred to the whole of the country, published in the Official Houses, as the gigantic Duke of Sutherland's; also Tottenham and Kingsland Churches, the terrace to the Caen-wood Chapel, consisting from 4000 to 5000 feet cube; the colossal Britannias, 12 feet high, at the County Fire Offices, Cornhill and Lombard-street; the Arms, with the allegorical group, at the Kent Mutual Insurance, Queen street; and other works elsewhere, too numerous to mention. A large stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

TERRA-COTTA.—Statues, Statuettes, Vases, Terms, Busts, Consoles, Bas-reliefs, &c. by J. M. BLASHFIELD, of Millwall, near the West-India Docks Station, and sold at No. 1, Broad-street, Pallington-basin, where prices and designs can be obtained. Examples of Terra-cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Nigerni Court. The statues of Australia, Venus di Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra-cotta, so are the fountains at the Renaissance Court and the roof of the Alhambra Court. The Pompeian roof is of Terra-cotta and red cement composition. Since the execution of these works J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, from £1 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ships, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

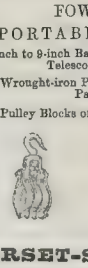
AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, moved by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, mines liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic rams for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per Doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

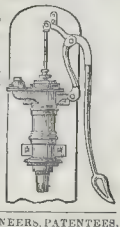
TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to JOHN WARNER & SONS'
PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin street, London,
Manufacturers and Patentees.



TO NOBLEMEN GENTLEMEN, ENGINEERS, PATENTEES, INVENTORS, MECHANICS, &c. &c.

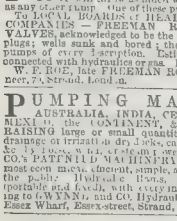
WILLIAM ANTHONY ROWLAND,

Hydraulic Engineer, Plumber, Glazier, &c. Metallic Wire Manufacturer, No. 5, Seagate street, near the Royal Hotel, Chester, HEREBY GIVES NOTICE that he has PATENTED ENGINES, MACHINES, APPARATUS &c. &c. He will be happy to arrange with those that the EXHIBITING of the above in MODELS, DRAWINGS, &c. and to give every particular relating thereto; also all kinds of Brass or Iron Work, &c. used for water, gas, steam, &c. He respectfully invites the attention of Inventors and Patentees to favour him with Agencies for their various articles, and assures them the strictest attention will be paid for the benefit of their patents &c. The greatest care will be taken of all articles entrusted to him. Catalogues of patents and useful articles will be kept at his office for inspection. Tracings of designs will be sent on application. Gas, steam, and zinc work; baths, pumps, water-closets; beer, fire, and garden engines; spirit and water fountains

---

STEAM PUMPING ENGINES.—
PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.



JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street,
Southwark, London.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 76, Strand.

To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES — FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or hose-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 76, Strand, London.

PUMPING MACHINERY for AUSTRALIA, INDIA, CEYLON, SOUTH AMERICA, MEXICO, the CONTINENT, &c. All persons desirous of RAISING large or small quantities of WATER, for works of drainage or irrigation, dry docks, canals, coffer-dams, water works, &c. &c. are invited to inspect one of SIR SAMUEL BROWNE and CO.'S PATENTED MACHINERY for the purposes, being the most economical, efficient, simple, and durable ever brought before the public. Hydraulic Rams, Water Supplies, Steam-engines (portable and fixed), with every information, obtained by applying to CLEYNE, and CO. Hydraulic and Mechanical Engineers, Essex Wharf, Essex-street, Strand, London.

PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO CONTRACTORS

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work. Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Any of these Engines may be purchased

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TO ENGINEERS and CONTRACTORS.—TO BE DISPOSED OF, a pair of 12-inch PUMPS, with two spur-wheels, connecting-rods, guides, &c. requisite to work the same; also, an 8-horse STEAM BOILER, with fire in centre flue, the whole nearly new. Apply at the Gas Works, Stafford.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London

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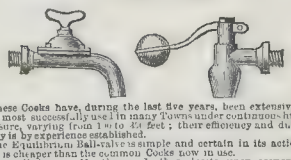
PRIZE MEDAL, CLASS 3.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 1 to 45 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

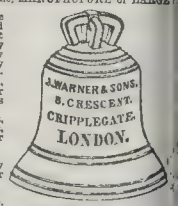
J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret-Clocks, &c. cast for any size, note, or weight, single or in peals.

TUNED BY MACHINERY.

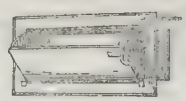
Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and rigged on a new system, which gives a superior tone and facility for ringing.



VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an



EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 58, Blackfriars-road, and 17, Union-street, Borough; and of all respectable ironmongers, builders, &c.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE supplied by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City. Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co. Great Northern-wharf, York-road, King's-cross.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage. 3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 48 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor.

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c. and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 20 per cent of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM, and 37, SOUTHAMPTON-STREET, STRAND, London. Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS.

Bateman and Moore's, and Chrimes' Patent Hydrants, or Fire Cocks Improved Self-lubricating and other Sluice Cocks.

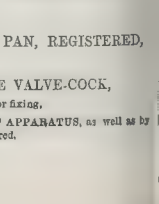
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.

Siemens' Patent Balance Water Meter.
Pilbrow's Patent Water Waste Preventer.
Morris's Patent Water Supply Regulator.
Rawlinson's Patent Self-acting Drainage Valves.
Lye and Evans's Patent Slide Stop Cocks.
Lowe's Patent Steam Trap, Beggs's Improved.
And all other Articles required for Water-Works Purposes, &c.

LONDON HOUSE.

Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, Double Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets with Urinals, may be fitted, by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.

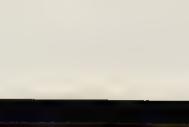
Plumbers' Brass Work of every description.



WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.

DOULTON & WATTS,

LAMBETH POTTERY, LONDON.



DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

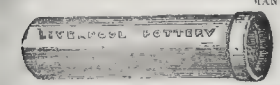
OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW .....J. A. Mathieson, Hope-street.	WIGAN .....James Fairclough, King-street.
DUBLIN .....Robt. Lovely, Poolbeg-street.	KENDAL .....Robt. Thompson.
CORK .....J. and J. Harley	CARLISLE .....C. Armstrong, Lowther-street
WATERFORD....J. Sparrow and Co	WHITEHAVEN...Hugh Todhunter.
CARNARVON ....Jno Jackson.	COCKERMOUTH. John Bird
PRESTON .....J. Armstead, Hudson-street.	GUERNSEY .....Guerin Brothers.
CHORLEY.....Thomas Saville	LONDONDERRY..W. and A. M'Elwee.
BLACKBURN ....W. Hopwood, Clayton-street.	LIMERICK .....W. Burges and Sons.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

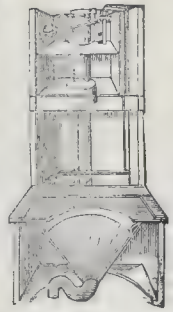
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective and complete and resistless, and may be seen in operation at STEPHEN GREEN'S Syphon-trap yet offered to the public. Manufactory, Lambeth.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several used here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

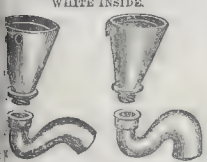
This effective article has not any Crank or Wire to get out of order, and is all complete and resistless, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES.]

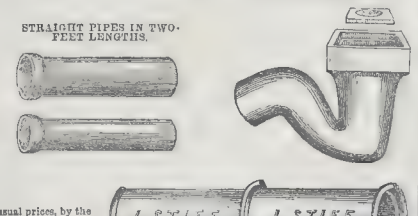
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's acre, Westminster-bridge, City-road Wharf, City Basin; York-road, Bermondsey, Danvers Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Brydges-street, Covent Garden; and at EDWARD CLARKS, 24, Wardour-street, Oxford-street. Drawings and list of Prices will be forwarded free on application.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.

UNDERHAY'S PATENT REGULATOR CLOSETS,

for the instant and uninterrupted supply, dispense with Cisterns, Service Boxes, Valves Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been made, and no instance of failure has occurred.

These Stoneware are cleaner, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

Manufactured by
CHARLES UNDERHAY and SON,
Brass Founders, [illegible]

SUPERIOR GLAZED STONEWARE

DRAIN PIPES, invented and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed his new and extensive patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it ensures perfect uniformity in form and size, both of pipes and sockets, the diameter being of a different and better construction to that of any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to enamel, and rendering stoppages in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbett's Depot, Britton-street, Chelsea; and at the Pottery.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also to their Patent Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road

N.B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1855.

VICTORIA POTTERY, LEIGH,

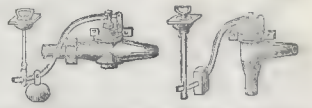
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on a variety of stamps. Also MANUFACTURER of superior Roman Cement and Plaster of Paris, at Leigh Wharf, Bridewell Dock. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE

No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under a continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW PRESSURE WATER CLOSETS patronised by the Board of Health Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 23, Old Fish-street, near St. Paul's, London

Crown Glass, 18 tables, 30s. per Crate.

ISAAC PARRY'S

GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

SALES BY AUCTION.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:

MONDAY, 6th AUG | MONDAY, 1st OCT. 1855
MONDAY, 3rd SEPT. | MONDAY, 5th NOV.

Catalogues and further particulars to be had on application one week previous to each sale. The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE.

In the matter of Queen's Borough Common Inclosure, Isle of Sheppey, Kent.

MR. ROWLSTONE has received instructions to SELL by AUCTION, at the SHIP INN, Queenborough, on FRIDAY, AUGUST 3, 1855, by order of the Inclosure Commissioners for England and Wales, about SIXTY ACRES of valuable FREE HOLD LAND, which will be sold in fifteen lots for the purpose of providing funds for inclosing the said common. The land is situate on the south-eastern side of excellent quarry, suitable for factories, having excellent water communication.—Plans and printed particulars may be had of G. A. DEANE, Esq., 1, Lancaster-place, Strand; Silver Inn, Queenborough, and at Mr. ROWLSTONE'S Offices, Woolwich, Kent.

HAMPSTEAD.—Building Materials; about a Ton of Lead, Four Miles of Copper Wire, 3 cwt. of Gutta Percha, &c.

MR. C. FURBER has received instructions from Messrs. Friend and Hamill to SELL by AUCTION, on the grounds of BELSIZE PARK, leading from Belsize-road and the New Finchley-road, on WEDNESDAY, AUGUST 8th, at ELEVEN for TWELVE o'clock, the excellent and BUILDING MATERIALS, comprising the entire erection of Belsize Turnpike-house, the noble park gates, a good assortment of doors, sashes, rafters, tiles, stable fittings, miscellaneous assortment of brasswork, iron park fencing, large brewing coppers, Venetian and roller blinds, and other harness, and numerous effects, to clear the estate. Catalogues may be had four days prior to the sale, on application to the Clerk of the Works' Office, on the estate; of Messrs. FRIEND and HAMILL, Contractors, 44, Bedford-row; and at the Auction Offices, in Warwick-court, Gray's-inn.

BROADWAY, STRATFORD, ESSEX.—Valuable Building Materials, &c.

MR. W. H. DEAN will SELL by AUCTION, on the PREMISES, on TUESDAY, AUGUST 7th, 1855, and following day at TEN for ELEVEN o'clock each day, the valuable BUILDING MATERIALS and extensive STOCK IN-TRADE, comprising a large quantity of dry yellow and white deals, dry yellow pitch, mahogany, and teak in plank, a part of Dantzic timber, a large quantity of dry cut stuff, fifteen fathoms of lathwood, quantity of oak park pales, oak stakes and rafters, 2,000 scaffold-poles, 2,000 scaffold boards, 1,000 pulleys, a large quantity of scaffold cords, blocks and falls, quantity of ladders, a large quantity of wheeling planks and mortar-boards, fifty carpenters' benches, a powerful pile-driving machine, a set of iron well-boring tackle, several powerful iron derabs, with gear, a nearly new stout built timber-carriage, a nearly new timber-truck, a strong-built stone truck, ten nearly new large tarpaulins, a pair of handsome wrought iron entrance gates, 10 feet by 7 feet, quite new, five pairs of forge bellows, sundry anvils and forge tools, 5,000 Suffolk white bricks, 5,000 Stock and Stourbridge bricks, and a variety of effects.—May be viewed two days prior to the sale, and catalogues had of the Auctioneer, Stratford, Essex.

TO SAWMILL PROPRIETORS, BUILDERS, CONTRACTORS, ENGINEERS, AND OTHERS.

MESSRS. FULLER and HORSEY will SELL by AUCTION, on the PREMISES, Lett's wharf, Commercial-road, Lambeth, on TUESDAY, JULY 31, at ELEVEN, NEW SAWMILL MACHINERY, by Horn, of Whitechapel, and Carr, of Belper, including one double and four single deal frames, one timber frame, capable of cutting a stick 27 inches square, and three circular saftings, complete, and for going either single or double action; excellent set of smith tools. The whole have been made in a very superior manner to the order of Messrs. Routledge, and have not yet been fixed. Also, Two powerful Young Brandah Horses, Three Carts, Harness, Counting-house Fittings, &c.—To be viewed and Catalogues had of the Auctioneers, King William-street, Strand; of WILLIAM PENNETT, Esq. Office, Assistant Bankruptcy Court; and of Messrs. FULLER and HORSEY, Builders, &c. next City

NEW BRIGHTON, within eight miles of the Fleetwham Railway Station, and twelve of the Port of King's Lynn.

MR. J. BECK has the honour to announce he has received instructions to SELL by AUCTION, on MONDAY, AUGUST 6th, 1855, the splendid OAK TIMBER TREES, many of them of large dimensions, and all of first-rate quality, the property of the Most Noble the Marquis of Cholmondeley, all lying within a mile of great roads for conveyance of timber. Three months' credit will be given to purchasers to the amount of £2 and upwards, upon approved security.—Catalogues may be obtained of Mr. W. STANTON, Resident Agent; of the Auctioneer, Smethsham, near Lynn; and posted free on application.—Sale to commence at TWELVE o'clock.

Old-established Steam Saw-mills, with Wharf, abutting on the Portsea Harbour, and situate contiguous to the Portsmouth Town, Docks, and South-Western, and London and South-Coast Railways.

MR. MARSH has received instructions from the proprietor (after a period of fifteen years' occupancy) to SELL by AUCTION, at the MART, on THURSDAY next, AUGUST 2nd, unless previously disposed of by private contract, in one lot, the above FREEHOLD PROPERTY, consisting of the Bath-road Steam Saw-mills, timber yard, and business premises, standing upon freehold ground, large driving wheels and other effects, most conveniently situate at Milton, Portsmouth. The valuable machinery plant, &c. will be included in the purchase. Any party desirous of embarking in the foreign timber trade saw-mills, &c. a more eligible opportunity rarely to be met with. May be viewed on application, and particulars of sale obtained of Messrs. GEORGE ENGLAND, Esq., Solicitor, Portsea; and at Mr. MARSH'S Offices, 3, Charlotte-row, Mansion House, London, where a plan may be seen.

LONDON DOCK ENLARGEMENT.—Important sale of valuable new Building Materials, to be taken down and cleared away by the purchasers.

MESSRS. BROMLEY and SON will SELL by AUCTION, on FRIDAY, AUGUST 3, at TWELVE o'clock, on the PREMISES, (a large PILE of NEW BUILDINGS, known as Cook's Almshouses,) adjoining Shadwell Church, with stately Dwelling-houses in Fenchurch-land, and other places in a count, by order of the Directors of the London Dock Company.—May be viewed two days prior to the sale. Catalogues had of the Auctioneers, 17, Commercial-road, St. George's East.

CAMDEN-TOWN CEMETERY.—BUILDING ESTATE. TO BE LET, on Building Leases for 99 years, very eligible SITES upon the above extensive and good frontages to Camden-street, Pratt-street, and Bayham-street. There is a great demand for houses and shops of the third rate in this locality, which is out-running the supply, owing to the South Western and North London Railway Stations, the Hampstead and Primrose Hill Tunnels, and Parkville. Ground to be applied for to Mr. H. KENDALL, Esq. Architect, 17, Suffolk-street, Pall-mall, East; or to JOHN BANSFIELD, Esq. Solicitor, 5, Craven-street, Charing-cross.

FREEHOLD SITES, WANTED.—Each not less than 20 square feet, in second class streets or roads, where a cash, if payable, in any of the densely populated districts, particularly the Strand, Clerkenwell, Westminster, or Lambeth.—Full particulars to be sent to Messrs. ASHLIN and WHICHCORD, Architects and Surveyors, 7, Gloucester, Westminster Abbey.

KENSINGTON GORE.—Valuable SITES for FIRST-CLASS MANSIONS in the NEW (Prince Albert's) ROAD, KENSINGTON GORE (with frontages to the park-like property purchased by the Royal Commissioners for the Exhibition of 1851 as a site for Institutions connected with Science and Art), may be obtained upon ninety-nine years' lease.—Application at Mr. W. JACKSON'S Office, 10, Kensington Gore.

KENSINGTON PALACE GREEN.—TO BE LET, by PUBLIC TENDER, on WEDNESDAY, the 1st of AUGUST next, on building leases, SEVEN PLOTS of CROWN LAND, part of the late Royal Kitchen-gardens.—For terms and particulars, apply at the Office of Her Majesty's Woods, &c. 1, Whitehall-place; or at the Office of JAMES PENNETHORNE, Esq. 7, Whitehall yard.

LOWER THAMES-STREET.—TO BE LET, by Tender by the Worshipful Company of Armourers and Braziers, on a Lease for Twenty-one years from Midsummer, 1856, the extensive Premises known as the GLOBE-YARD WAREHOUSES, situate on the above street, lately occupied as Custom House. The lessee will be required to pay all taxes and rates, including sewers and main drainage, and all assessments for sanitary purposes and the expense of fire insurance, the land tax being redeemed; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman-street, on or before the 3rd OCTOBER next where parties making the same are required to attend the following day, at HALF-PAST TWO o'clock the Company do not bind themselves to accept the highest or any other Tender.

JOHN PONTIFEX, Clerk.
5, St. Andrew's-court, Holborn.

TO BUILDERS, PACKING-CASE-MAKERS, and OTHERS.—TO BE LET, situated near the Mile-end-gate, a new roomed HOUSE, spacious yard and workshop, with steam engine, boiler, and saw bench, complete, with every convenience. Rent low; coming in moderate.—For cards to view, apply to Mr. WILLIAM BOWER, Wholesale and Retail Ironmonger, 6, Pleasant-row, Cambridge-road, opposite the Mile-end Station, at the Eastern Counties Railway.

THE CAMP, ALDERSHOTT.—FREEHOLD LAND TO BE LET on building lease, or SOLD, suitable for the erection of a first class hotel, situate on the high ground near her Majesty's Pavilion, the chief officers' huts, and Government barracks. Also, Land for Villas and Cottages now in very great demand. Money and bricks advanced.—Particulars of Mr. T. GOODCHILD, Architect and Surveyor, Guildford.

ON BUILDING LEASE.—TO BE LET, an eligible PLOT of GROUND, having two frontages, making together about 85 feet in length; with a considerable quantity of old materials on the ground.—Apply to W. C. REED, Architect, 64, Old Broad-street, City, where a plan may be seen and an order to view.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz:—

FOREST-HILL, Forest Railway.
ST MARGARET'S, near Richmond, South Western Railway.
OAKLANDS GRANGE, Weybridge, Surrey, ditto.
HOUNSLOW, Middlesex, ditto
TOTTENHAM-GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.

Part of the purchase-money may remain at 5 per cent. interest. Part exchanged in the building of their own residences. Several Plots to be Let on Building Leases. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

TO LET, a very roomy three-story SNUFF MILL, but would be Let for other purposes, with water and steam-power: with also two Cottages, and two Acres of Land. Inquire of Mr SAMUEL GRAY, Millwright, Hackbridge, Carshalton, Surrey.

FREEHOLD LAND for SALE, three or four plots, eligible for building on, situate near the railway terminus, North Woolwich. Apply to JOHN YATES, Baker, &c. Orpington, Kent.

DESIRABLE PREMISES in the CITY of LONDON.—The Trustees of Lord Viscount Sudbury's Charity Estate, in the City of London, are desirous of receiving TENDERS for the LETTING in one or separate leases, for a term not exceeding eighty years, the PREMISES belonging to them, situate in Crutched Friars, Jobs-street, and Cunningham-alley, including the old Poor-house. Sealed proposals, indorsed "Tenders for Premises, John-street, &c." are to be delivered on or before the 1st day of SEPTEMBER next, at the Office of the Architect and Surveyor to the Trustees, Mr FREDERIC LEET, 26, Essex-street, Strand, from whom all further particulars may be obtained, between the hours of TEN and FOUR o'clock.

WESTON-SUPER-MARE, SOMERSET. TO BE SOLD, FOUR ACRES of FREEHOLD BUILDING LAND, on which two houses might be built, in the centre of the town, abutting on the public pleasure-ground, and the only frontage to the sea-road now available, upon the rapidly increasing bathing-place. The Vendor would willingly join a purchaser if wished in expending £20,000, in erections thereon.—Plans, &c. of Mr. G. PHILLIPS, Esq. West-street, Weston-super-Mare.

WHARF and PREMISES WANTED, suitable for the Corn Trade, with House and Stabling attached.—Address, JAY BEE, Barnett's Newspaper Office, Stamford-street.

AUGUSTUS SMITH, Auctioneer to Engineers, Machinists, and the Metal Trades, 295, Blackfriars-road, near the bridge, respectfully invites all persons having Engines, Machinery, Foundries, Plant, or Iron-mongery Businesses disposed of, to forward the particulars thereof for insertion in his REGISTRY-BOOK, for which NO CHARGE will be made unless sales be effected.

TO BUILDERS, MILLERS, STONE MASONS, MACHINISTS, PUTTERS, and OTHERS.—DESIRABLE BUSINESS PREMISES, substantially built of stone brick, with 16-horse power steam engine, patent tubular boiler, and various gun-mongery mill gearing, at Hastings, to any three partners of a safe, active, and enterprising character, TO BE LET or SOLD.—The same property is nearly land, has frontage to the road, and at the back to the sea beach, convenient for access to and from trade vessels, and comprises, a Private Dwelling-house, counting-room or save-office, 21 feet by 8 feet, with cellaring, four workshops, running together 54 feet, and each 20 feet wide, 41 feet by 24 feet: two large store-rooms over the whole building, with strong boarded floors and high-pitched roof. The premises are now in occupancy (all quite new), at Hastings, as sawing mill purposes, and, from its contiguity to the shore, coals may be landed at a low price. To POTTERS and STONE-WARE MANUFACTURERS an eligible opening offers itself, as there is a large supply of fine clay immediately on the spot, which has recently been proved to produce sound salt glazed ware and drain-pipes, specimens of which may be seen. The quantity of land is five acres, 41 feet by 24 feet: two large store-rooms over the whole building, with strong boarded floors and high-pitched roof. The premises are now in occupancy (all quite new), at Hastings, as sawing mill purposes, and, from its contiguity to the shore, coals may be landed at a low price. To POTTERS and STONE-WARE MANUFACTURERS an eligible opening offers itself, as there is a large supply of fine clay immediately on the spot, which has recently been proved to produce sound salt glazed ware and drain-pipes, specimens of which may be seen. The quantity of land in the stone, in blocks of large dimensions, and sand-stone, which can be procured at small cost from the cliffs and stone adjoining these premises by the application of the sawing machinery must be extensively in many branches of uses for building and interior work, the hard stone taking a polish equal to marble.—For further particulars apply to Mr. C. SHARP, East Cliff Sand Quarries, Hastings, Sussex.

PLUMBERS, PAINTERS, and GLAZIERS. BUSINESS TO BE DISPOSED OF.—Apply, by letter only, to Mr. BOWLING, 6, Cathaburgh-place, New-road, near Trinity Church.

MANSFIELD UNION.—Parish of Mansfield.—Survey and Valuation.—Notice is hereby given, that the Guardians of the Poor of the Mansfield Union have received an order, under the hand and seal of the Poor-law Board, requiring them to appoint one or more fit Persons to MAKE a SURVEY and VALUATION, without a map, of all the rateable property in the Parish of Mansfield, in the said Union containing about 1 800 houses, and 7,500 acres of land, or thereabouts, 4,700 acres of which are old inclosure, and the remainder inclosed in 1852 3, and has not yet been assessed, for the purpose of the Poor-rate, according to the Act or Acts of Parliament now in force as to rating and assessments; and that the Guardians will accordingly at their Meeting, to be holden in the Board-room, at the Workhouse of the said Union, on THURSDAY, the 23rd day of AUGUST next, at TEN o'clock in the forenoon proceed to appoint two gentlemen, one to value the landed property, and the other the houses and buildings in the said parish. Gentlemen desirous of undertaking these duties, are invited to forward to me their offers in writing, stating the sum for which they will make such valuation. Each Tender to be sealed, and marked outside "Tender for Valuation," and to be sent to me not later than WEDNESDAY, the 15th day of AUGUST next. Any gentleman canvassing the Guardians, either personally or by letter, will be deemed disqualified, and his Tender rejected accordingly. Further particulars, if required, may be learned on application at my Office, in the Mansfield Union Workhouse or paid, for order of the Board,

WM. E. WODEHOUSE, Clerk.
Union Office, Mansfield, July 24, 1855.

N.B.—The Guardians do not pledge themselves to accept the lowest Tender.

ARCHITECTURAL OUTLINES COLOURED, for Competition or Exhibition, in the first style, by GEORGE CHILDS (removed to 14, Sussex-street, Warwick-square, Pimlico

TO BUILDERS, ARCHITECTS, and SURVEYORS, or any Gentleman wanting WRITING DONE, or SPECIFICATIONS, &c. COPIED, on the most reasonable terms.—Apply to A. B. 24, Princes terrace, Caledonian-road

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instruments, and considerably cheaper Apply to Mr. S BARLOW, 2, Thames-ditton, Esher-road, between 1 and 3 p.m.; or to Mr. H. B. BARLOW, Office for Patents, Duke-place, Exchange, Manchester.

TO ARCHITECTS.

COMPETITION and other DRAWINGS.—Mr THOMAS S. BOYS, Member of the New Society of Painters in Water Colours, and author of "The Picturesque Architecture of Paris, Ghent, Rouen," &c and of "London as it is," offers his services in Tinting Backgrounds, Landscapes, Perspective Views, Interiors, &c. From the long experience he has had in these matters, he is fully aware of the points essentially necessary to be attended to. Drawings and designs lithographed in a superior manner.—Address, Mr. BOYS, 33, Albany-street, Regent's park.

MATHEMATICAL DRAWING INSTRUMENTS JOHN ARCHBUTT, 20, Westminster-Bridge-road, Lambeth, near Astley's Theatre, begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. An illustrated price-list will be immediately forwarded, free, on application.

GOLD MEDAL for GEM ENGRAVING.—Monumental Brasses, Ecclesiastical and Corporate Seals, Dies, and Presses, Monograms, and Testimonials, Engraved and Written in Medieval and Modern Styles. Cyphers for Seals or Rings, 2s.; Arms Crest, and Motto on Book-plate, 2s.; Arms Sealing-Wax and Sketch, 3s. 6d.; in Colour, 5s.—T. MORING, Engraver and Heraldic Artist, 44, High Holborn.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. for Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Practical Geometry, Mechanics, Model Drawing, Perspective Drawings Preparing Specifications, Taking out Quantities, Estimating, &c. &c. Terms—Day Pupils, Three Guineas per Quarter; Evening Pupils, One Guinea per Quarter, which includes Drawing Boards, T Squares, Plans, Drawings, Models, &c. For Prospectuses apply at the Offices, 24, Guildford-street, Russell-square.

THE O'CONNELL MONUMENT in LIMERICK.—At a full meeting of the Committee, convened by requisition, and assembled this day, JULY 24th, at the Council Chamber, Town-hall,

FRANCIS GREENE, Esq. High Sheriff, in the chair, the following resolutions were unanimously adopted:

Proposed by MICHAEL KELLY, Esq. T. C. and seconded by JOHN BARRY, Esq. T.C.—

Resolved, That the Chairman, Treasurers, and Secretaries, Rev. Mr. BRAHAN, Mr. E. J. O'NEILL, and Mr. MURPHY, be requested to communicate with Artists for the completion of the Monument.

Proposed by the Rev. Mr. RYAN, and seconded by Mr. GRIMES—

Resolved—The gentlemen appointed this day at a full meeting of the Committee, specially convened to receive proposals from Artists for the completion and erection of the O'Connell Monument in the city of Limerick, request that Artists will send in proposals for the execution of the Monument, addressed to any of the undersigned—

FRANCIS GREENE, Esq. High Sheriff, Chairman.
Rev. JOHN BRAHAN, P.P. St. Mary's.
FRANCIS JOHN O'NEILL, Esq.
JOSEPH MURPHY, Esq.
MICHAEL QUIN, T.C. } Treasurers.
P. BARRY, M.D. J.P. }
E. O'CALLAGHAN, J.P. } Secretaries.
R. J. O'HIGGIN, O.S.F. }
MAURICE LENEHAN, T.C.

Resolved—That these Resolutions be published in the *Reporter and Chronicle, Times, Art Journal,* and *Builder*, Newspapers

July 24th, 1855.

LOANS at 5 per cent. on personal security, in connection with life assurance. £20l to 300l. preferred. No delay. ENGLISH and FORTION OFFICE, 135, Oxford-street. LEWIS BERTSLET, Secretary.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over such period not exceeding fifty months, as may be agreed upon. APPLICATIONS from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 18 per post.

CHARLES JAMES THICKE, Resident Secretary.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St George, Bloomsbury, Printer, at the Printing-office of COX (Brothers) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, July 28, 1855.

The Builder,

Architect, Engineer, Operative & Artist.

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COMPETITIONS.

PREMIUM of FIFTY GUINEAS for DESIGNS.—The Proprietors of the White Cross Estate, situate at Weston-super-Mare, in the county of Somerset, offer a PREMIUM of FIFTY GUINEAS to the Author, Architect, or other person whose design shall be selected for adoption, for the erection of TWO CHAPELS, either separate or attached, with simple Entrance and Access Gates to the Burial Ground, and Lodge; Offices and Stables, if required; the cost of which is to be estimated separately. The total cost of the whole not to exceed £1,000. The designs with estimates of the costs, accompanied by working drawings and specifications complete with the Architect's name, but with a distinguishing letter, to be delivered to the undersigned on or before the 15th day of AUGUST, addressed to Mr. BULLES, Secretary to the Board, of whom further particulars and a plan of the ground may be obtained. The Architect will be held bound to undertake and complete the works according to the plans for the sum and of no less a time, if required by the Board to do so; but the Board do not hereby themselves to employ the Architect whose designs may be accepted. The plans not approved will be returned.

Guildford, July 26, 1855.

CONTRACTS.

SCINDE RAILWAY COMPANY.—CONTRACT for PERMANENT WAY MATERIAL.—The Directors of the Company are prepared to receive TENDERS for the supply of about 4,000 TONS of RAILS, 1,500 TONS of CHAIRS, 250 TONS of FISH-PLATES, 100 TONS of SPIKES, BOLTS, and NUTS, and WASHERS, and 1,000 compressed WOOD KEYS, and 60,000 CREOSOTED SLEEPERS. Plans and specifications may be seen at the Offices of Mr. T. A. YARROW, the Company's Engineer, Gresham House, Old Broad-street, on and after MONDAY, the 13th AUGUST. Tenders in sealed covers, and addressed to the Directors, are to be lodged at the Company's Offices of the TWELVE o'clock on FRIDAY, the 31st day of AUGUST. The Directors do not bind themselves to accept the lowest or any Tender. By order of the Board,

THOS. BURNELL, Secretary.

Scinde Railway Offices, Gresham House, Old Broad-street, July 27, 1855.

TO BUILDERS.

PARTIES desirous to TENDER for the ERECTION of an ATHENÆUM, to be built at Llanelly, Carmarthenshire, may see the plans and specification at my Office. Sealed Tenders, addressed to me, to be sent on or before the 30th day of AUGUST next. The lowest or any Tender will not necessarily be accepted.

JAMES WILSON, F.S.A. 1, Belmont, Bath.

TO BUILDERS.

PARTIES desirous to TENDER for the ERECTION of a HOUSE, with Coach-house, Stables, and Lodges, to be erected near Newport, Mon., with the Steward's Plans and Specifications at my Office—Seal d Tenders, addressed to me, to be sent on or before the 30th of AUGUST next. The lowest or any Tender will not necessarily be accepted.

JAMES WILSON, F.S.A. 1, Belmont, Bath.

TO ROAD-MAKERS AND OTHERS.

TENDERS are required for PUTTING in SEWERS, and FORMING ROADS, on an estate near the Railway Station at Putney. Apply to Mr. LEE, 29, Golden-square, Architect, between the hours of TEN and FOUR.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—The principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz.:—For the Works proposed in the ERECTION of ADDITIONAL OFFICERS' QUARTERS, at the New Barracks, Limerick. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin, and at the Royal Engineer's Office at Limerick, and may then personally see, with the terms of contract, upon making a deposit of £1 for the same, which deposit will be returned when the specifications are returned unmarked. The work to be completed on or before the 31st July 1856. The letter of Tenders to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 6th of AUGUST, 1855, and to be marked on the outside "Tender for Work at Limerick."

Office of Ordnance, Dublin, 16th July, 1855.

Royal Engineer Office, Sheerness, July 27, 1855.

TO CONTRACTORS.—CONTRACT for ERECTING additional CELLS and LOCK-UP ROOM, &c. at SHEERNESS.—The Commanding Royal Engineer, Sheerness, gives Notice that TENDERS will be received at the Office of Ordnance, Pall-mall, on or before MONDAY, the 13th day of AUGUST, 1855, from such persons as may be invited to Tender for Erecting such additional Cells and Lock-up Room, &c. at Sheerness. The plans may be seen, and printed specifications obtained, at the Office, between the hours of TEN and FOUR each day (Sundays excepted), till the 11th of AUGUST, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives Notice, that Sealed TENDERS, addressed to J. WOOD, Esq. will be received at the Office of Ordnance, Pall Mall, London, before the 10th AUGUST, 1855, for the ERECTION of GARRISON CELLS, on the West Face of the Tower of London. The specification and plans for the above service may be seen and Tender obtained, at the Royal Engineer Office, as aforesaid, between the hours of TEN and THREE o'clock, from the 6th to 10th AUGUST, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, London District, 3rd August, 1855.

NOTICE to BUILDERS.—Sealed TENDERS, addressed to J. WOOD, Esq. Secretary, Office of Ordnance, Pall-mall, London, will be received until NOON of FRIDAY, the 17th AUGUST, 1855, for parties willing to CONTRACT for the performance of the WORKS required in ENLARGING the BARRACKS at WEYMOUTH, in the county of Dorset, Exeter District. Plans and specifications for the same may be seen, and forms of Tender obtained, at the Royal Engineer Office, Weymouth Barracks, between the hours of NINE and FOUR, from the 6th to the 16th of AUGUST, 1855, both days inclusive. The Tenders to be endorsed "Tender for Enlarging Weymouth Barracks." The Director General of Contracts reserves to himself the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Exeter, 30th July, 1855.

ORDNANCE CONTRACT. — Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, PALL MALL, London, on or before TUESDAY, the 14th AUGUST, 1855, from parties willing to CONTRACT for EXTENDING the INUNDATION round a portion of the GLACIS of FORT MOUNCKTON (so-called), under the direction of the Royal Engineer, Fort Pitt, Chatham. The plans, &c. may be seen at the Royal Engineer Office, Fort Pitt, between the hours of TEN and FOUR o'clock, Sundays excepted. The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall-mall, London, and endorsed, "Tender for extending the Inundation round a portion of the Glacis of Fort Mouckton, Chatham." Royal Engineer Office, Fort Pitt, Chatham.

NOTICE to CONTRACTORS.—PORT and HARBOUR of LONDONDERRY.—Notice is hereby given, that the following TENDERS for the REPAIRS of the QUAYS, WHARFS, QUAY WALL, and other works, specified in the plans, sections, and specifications deposited in the Office of the Harbour Engineer, 3, Custom-house-quay, Londonderry, on the 21st of AUGUST, Tenders will be received by the Harbour Commissioners at their Office, on or before the 31st day of AUGUST, 1855, for the execution of the said works. The Tenders to be addressed to the Secretary of the Commissioners, at the Custom-house, and marked "Tender for Quays, &c." The Commissioners do not bind themselves to accept the lowest or any of the Tenders.

A. H. STEWART, Secretary.

Port and Harbour Office, 30th July, 1855.

TO NURSERYMEN AND OTHERS.

Solicitor's Office, Guildhall, August 2, 1855.

CITY of LONDON CEMETERY.—The Commissioners of Sewers of the City of London, acting as the Burial Board for the said City, hereby give Notice, that they will meet at Guildhall, on TUESDAY, the 14th day of SEPTEMBER, at TWELVE o'clock precisely, for the purpose of receiving TENDERS for the supply of TREES and SHRUBS for the Cemetery now being formed at Little Ilford, in the county of Essex. Forms of specification, with schedules, by which the prices are to be affixed, may be obtained on application at the Office of the Commissioners, 14, Old Jewry-chambers; or at the Office of Mr. DAVIDSON, Landscape Gardener, 4, Great Russell-street, Bedford-square. JOHN PAL DAW, Principal Clerk.

LIGHTING.—CITY of WORCESTER.—Persons disposed to CONTRACT with the Council and Local Board of Health of the City of Worcester, to LIGHT the CITY with GAS, may receive full particulars on application to Mr. JOHN HILL, Town Clerk, Worcester. The Tenders must specify the charge per lamp per annum, and the number of years for which they are to be made. The Contractor to find lamps, lamp-posts, and all other material and apparatus. Tenders must be sent to the Town Clerk on or before Monday, the 13th day of AUGUST next.

Worcester, 25th July, 1855.

CONTRACTS.

TO BUILDERS.

STEPNEY UNION.—The Board of Guardians are desirous of receiving TENDERS for WORKS proposed to be done, in making certain ALTERATIONS and ADDITIONS at the CHILDREN'S ESTABLISHMENT, CHURCH LANE, LIMEHOUSE. The plans and specification may be seen on application at the Office of Messrs. DUNCH and SON, Surveyors, No. 1, Stepney-causeway, Commercial-road, after the 31st instant, between the hours of TEN and FOUR o'clock. Tenders in the form set forth in the specification, are to be delivered sealed and endorsed, "Tender for Alterations and Additions at the Children's Establishment," at the CLERK'S Office, Relief Workhouse, York-street, Commercial-road East, before SEVEN o'clock in the evening of THURSDAY, the 9th day of AUGUST next, when and where the Tenders will be opened, and the attendance of the parties (or he or some authorised agent or other on behalf of each) required. The Board do not bind themselves to accept the lowest or any Tender. The contractor will have to enter into a written contract, and to give security if required for the due performance of the work.

W. B. BATHURST, Clerk to the Board of Guardians.

July 27, 1855.

LIGHTERAGE.—The SURVEYORS of HIGHWAYS for the Parish of Christ Church, Surrey, are ready to receive TENDERS for the LIGHTERAGE (including wharfage) from 800 to 1,000 tons of BROKEN GRANITE, to be received into the Contractor's craft from the shore of the River Upper Pool of the river Thames, and the craft so taken to be landed ashore in working position, at the Falcon, or metal-boarding dock, at Deptford, as received and delivered. The quantity of granite to be ascertained by weighing the carts, &c. on the contractor's premises, and the material and weighing near, from the public weighing-machine, on the Surveyors' premises, at the expense of the Surveyors' Board. The carts to be brought into the premises only when the Surveyors' weighing-machine is ready for weighing, and the carts to be weighed in succession as they arrive. The granite to be delivered into the Surveyors' craft, the contractor to be responsible for the Surveyors' weighing near while the same is on board the vessel. Tenders to be delivered at the Board Room, at the Vestry Hall, to the Surveyors' residence, 3, Princes-road, Buckingham-road, London, sealed and endorsed "Tender for Broken Granite for the Surveyors' Board," on or before Monday next, the 6th instant. Payment to be made monthly.

CAMBERWELL PAROCHIAL CEMETERY.—To BUILDERS, LANDSCAPE GARDENERS, and OTHERS.—Notice is hereby given, that at the Vestry Hall of the Parish of Camberwell, in the county of Surrey, on WEDNESDAY, the 8th day of AUGUST, 1855, at TWELVE o'clock precisely, the Churchwardens and Overseers of the said Parish will receive TENDERS for the ERECTION of CHAPELS, PORTERS' LODGES, PALL HOUSE, IRON RAILINGS, and other WORKS required in the formation of the IRON FENCES and BOUNDARY WALLS, and for the laying out a part of the said ground with oak fencing; and also for draining and making, laying out, planting, and enclosing the same.

Plans, specifications, and forms of Tender may be seen, and further particulars obtained, on application to Mr. MOFFATT, Jun., at No. 2, Adelaide-place, London-bridge, on and after THURSDAY, the 2nd day of AUGUST, 1855, between the hours of TEN and FOUR o'clock; and all persons proposing to contract for the same are required to attend at the Vestry Hall aforesaid, on WEDNESDAY, the 8th day of AUGUST, 1855, at TWELVE o'clock precisely, when and where the Tenders will be opened in the presence of such persons as may attend.

The Board do not bind themselves to accept the lowest or any Tender, but will enter into contract with the person whose Tender they shall consider most advantageous to the Parish.

GEORGE WILLIAM MARSDEN, Clerk to the Board.

Dated this 2nd day of August, 1855.

Vestry Hall, Camberwell.

TO IRONFOUNDERS AND HORTICULTURAL BUILDERS.

PERSONS desirous to TENDER for the ERECTION of a CONSERVATORY, 100 feet long, 22 feet wide and 22 feet high, to be executed in the Island Garden, Kew, with drawings and particulars at the Office of Mr. DAVIDSON, Architect, 57, Devonshire street, Portland-place. The Tenders to be delivered at the Office of Mr. DAVIDSON, on 11th AUGUST, 1855, at TWO o'clock. No party need apply who cannot produce testimonials of having executed similar works to the satisfaction of the Architect.

TO BUILDERS.

PARTIES willing to TENDER for sundry ADDITIONS and ALTERATIONS at HENLEY LODGE, near Bagshot, Surrey, are requested to call for particulars, by sending their names to Mr. MATCHAM, Architect, Milton-chambers, London-bridge. Tenders to be sent in not later than the 7th AUGUST next.

TO CONTRACTORS.

THE Local Board of Health of Newton Heath is prepared to receive TENDERS for SEWERING and PAVING, &c. Holland-street and Albion-street; being Contracts A and B. The plans, specifications, and forms of Tender may be inspected, and copies obtained, at the Office of Messrs. HAMP and HILL, Engineers, Manchester, on and after the 30th inst. Sealed Tenders, addressed to the undersigned, and endorsed "Tender for Sewering and Paving Works," must be delivered on or before the 16th AUGUST next; and the Local Board will not be bound to accept the lowest Tender.—By order,

S. R. NEEDHAM, Clerk to the Local Board.

Newton Heath, near Manchester, July 25, 1855.

[For remainder of Contracts see next page.]

HOBBS'S PATENT AMERICAN and ENGLISH LOCKS.—Messrs. HOBBS, ASHLEY, and Co. are now manufacturing their celebrated American and English Locks, on the premises, Cheapside and 76, Lawrence-lane, London, where by the [illegible] of machinery they are enabled to guarantee superior workmanship, combined with greater security, at a more moderate price than in any locks produced either in town or country.

EVERY LOCK being MADE and FINISHED at the MANUFACTORY, is warranted, and bears their OWN STAMP, without which none are genuine.

These Locks can be procured, by order, through any respectable Ironmonger in the United Kingdom, or at the Warehouse, as above. Wholesale and Retail.

PATENT FIRE and BURGLAR-PROOF SAFES.—MILNER'S PATENT, united with HOBBS'S PATENT POWDER-PROOF LOCKS, form the Strongest Safeguards against Fire and Robbery; they are made of various dimensions, adapted for the security of Money, Plate, and Important Documents. Patent Registers, &c. Lists of prices and dimensions can be had on application to HOBBS, ASHLEY, and Co.—Wholesale and Retail Warehouses, 97, Cheapside, and 33, Lawrence-lane, London.

PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition [illegible] Stock of [illegible] Nails [illegible] Copper and Zinc; Patent Locks of all descriptions; China, Glass, and [illegible] Furniture of all kinds, with Patent shifting Spindles, Dr. [illegible] Registered Venetian Ventilators [illegible].

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1051, Class 6. Section 16. BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possesses great strength, and forms a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, [illegible] and dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent, Mr. BARRETT, 12, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Cash-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat [illegible] March the locks all answered to their respective keys, and all the contents [illegible] that only some [illegible] were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,
"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

TWENTY SECOND-HAND REGISTER and other STOVES TO BE DISPOSED OF. They are all [illegible] of them have been very little used. For particulars, apply to F. EDWARDS, SON, and CO. 42, Poland-street, Oxford-street.

JARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, [illegible] Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, [illegible] Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. It [illegible] is acknowledged by Government Inspectors to be a most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address THE SMOKE BURNER COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

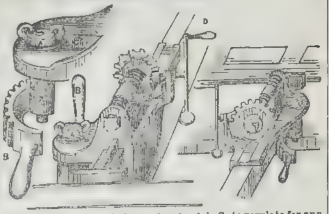
PATENT WROUGHT-IRON WELDED TUBE for GAS, steam, water, high-pressure [illegible] Manufacturers of Dr. Arnott's improved ventilators.—HULETT and Co. 55, High Holborn.

IRON FOUNDRY, HARROW STREET, LANT-STREET, SOUTHWARK. W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, [illegible] Bars, Panels, Iron Pipes, Hot Plates, [illegible] Sash Weights, [illegible] Wheels, [illegible] Pumps, Engine and Lathe Castings, Force Backs, [illegible] Kilns, Pans, and other castings, to patterns or drawings.

TO MASONS, SAW-MILL PROPRIETORS, and OTHERS.—For SALE, an IRON STONE-SAW FRAME 13 feet by 3 feet in the clear all complete. Also an [illegible] traveller, crab, block, &c. capable of lifting ten tons; a vertical [illegible] sawing frame, with twenty-four saw, buckles &c. complete; [illegible] moulding machine, with irons of all patterns [illegible] and the property of a builder retiring from business. Apply to Mr. ATTACK, [illegible], Caledonian-road.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES.

W. BISSELL, PATENTEE, WOLVERHAMPTON, Manufacturer of Rein and Mortise Locks and Builders' Ironmongery.



AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 3 to 4 inches.

B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw to the slab up to the side of the joist, then fix the set screw firm. Turn the notched lever B against the joist, then, by turning the handle D, the lever will gradually fix itself and hold the cramp firm; the greater the strain, the more tightly, by its eccentric action, will it cleave hold. The Patentee, in asking the attention of Builders and others, assures them that his cramp possesses great advantages. It is a perfect cramp of the best kind, and as well suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be more quickly and easily used than any yet brought out, and at the same time it is light and portable.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.

CORONAS, SCONCES, GAS BRACKETS, &c.
An Illustrated Catalogue on receipt of four postage-stamps.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

W. FRY and CO. 57 or 35, Great Guildford-street, Southwark.—Hot water, hot air, or steam buildings of every description, heated by any of the above ways, at the lowest possible cost, and in the best style. Architects, &c. are solicited. Gentlemen finding their own materials, if preferred. Unexceptionable references can be given.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
5s. 3d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES—Gateshead-on-Tyne.
130, Strand, London.
67, Holborn-street, Glasgow.
27, Dale-street, Manchester.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL, Manufacturer of Wrought Iron Tubing for Gas, Steam, and Water; Stocks, Taps, and Dies, and all kinds of Gas Fittings.

THOMAS EDINGTON, PURCHASER and INSPECTOR of CASTINGS on COMMISSION, 17, GORDON-STREET, Glasgow.

NAILS and IRONMONGERY, from BIRMINGHAM direct. Builders, Contractors, and Others supplied with Nails, Iron and Ironmongery of every description, at the LOWEST BIRMINGHAM PRICES; a complete LIST of which will be forwarded upon application.

FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE. Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and STEWART'S PATENT CAST IRON GAS and WATER PIPES. Office, No. 7, Size-lane, London.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges with oven or boiler, complete 23s. each.
Self-acting ditto, with ditto, from 2l.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 4l. each.
Register stoves, from 1l. per inch.
Elliptic ditto, with double backs from 2½d. per inch.

Cast-iron Rain-pipe	2	2½	3 inch	
	11d.	1s. 3d.	1s. 4d. per yard.	
	4 inch Eaves Gutters, 9d. per yard.			
O G Gutters	3½	4	4½	5 inch.
	1s.	1s. 1d.	1s. 3d.	1s. 6d. per yard.
Best Cut Clasp and Rose....	1½	2	2½	3 inch and larger.
	16s.	15s.	14s. 6d.	14s.

1-inch Best Cut Lath, 17s. 6d. per cwt.
Sheet Floor Brads 16s. 6d. per cwt.
Hoop Floor Brads 13s. per cwt.

Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 8s. per doz.; strong Coal-plates, with hooks, 9s. per doz. Sheet Zinc, Perforated Zinc, and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

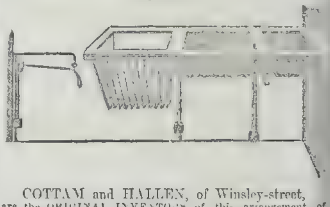
IRONMONGERY.

PFEIL AND STEDALL.
THE LARGEST STOCK AT
THE LOWEST PRICE,
5 AND 6, BROAD-STREET, BLOOMSBURY.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.—House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builder and Cabinet Makers, Ironmongers' Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions it is reduced. It can either be worked by a boy, or made to go by steam power.

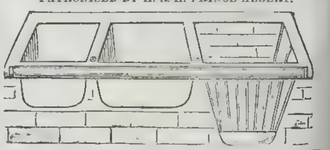
P.S. Steam Engines and machinery contracted for.

COTTAM'S NEW PATENT for STABLE REQUISITES



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER TROUGH (SAME FIXTURE); they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which from practical experience have been found desirable. No well manager of stables should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fixtures. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse removed from 81 to 63, Upper Thames-street.

AUSTIN'S IMPERIAL

PATENT SASH and BLIND LINE, can be obtained of all ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY. Established 1774.

TO CONTRACTORS. — WANTED to PURCHASE, THREE or FOUR PILE ENGINES, in good working order, complete, with heavy rams. The price for the same to be forwarded to Mr. A. T. ANDREWS, Engineer's Office, London Docks, Shadwell.

MARINE-ENGINES for SALE.—A splendid PAIR of CONDENSING ENGINES, recently erected by an eminent London firm, about 45-horse power each, oscillating. They are made in a very superior manner, and will be sold at one-fourth their value. Also, a Pair of first-rate Boilers, together or separately.—Apply to JOHN NEWTON, Esq. 5, Cannon-street West, City.

TO GAS AND WATER COMPANIES.

FOR SALE, 100 9-inch SOCKET PIPES, 9 feet long, and weighing about 4 cwt. 1 qr. each. Also, a few 5-inch SOCKET PIPES. For further particulars, address to Y. Z. office of "The Builder."

POWERFUL CRUSHING MILLS.—For SALE, several edge-stone runners, French and Cologne stones, a capital hand-mill, 1½-horse boiler, pair of malt-rollers, and complete set of [illegible]. Can be seen by applying to C. T. CHRISTIE, Millwright and Engineer, 114, Vauxhall-walk, Lambeth.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

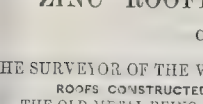
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stores for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. Georges Catholic Cathedral Southwark; and numerous Churches, Chapels &c

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS.

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

SKAIFE'S GALVANIZING WORKS,

COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to wear is required.

Patent Galvanized Iron supplied in every form —Sheets plain and corrugated —Roofs fixed complete.

J. SKAIFE is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

AN ALLOWANCE TO THE TRADE.

MOREWOOD and CO. (late Morewood and Rogers)

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PLAIN OR CORRUGATED, and Painted, Full Gauges

Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

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PLUMBIC ZINC is a perfect combination of Lead and Zinc, and requiring to be more than one-fourth or one fifth as thick as Lead, is consequently very much cheaper than that metal, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.			
12	"	20	"
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LIVERPOOL and MANCHESTER PATENT GALVANIZED IRON WORKS—FRANCIS TON and CO.—Galvanized Sheet Iron of the best quality, expressly prepared for Tinmen and Braziers. Corrugated in Plain or Galvanized, of all sizes, for Roofing, Fire-proof Flooring Ceilings &c. always kept in Stock. Gas and Water Pipe, Bath-water Gutters and Pipes; Wire of all numbers; Nails, Spikes Hurdles & Wrought Iron Hurdles, Field Gates, All sizes of Corn Shippers, and Tea Trays. Head offices, 15, Tower Buildings, Liverpool. Corn Exchange Co. pany's Premises, Liverpool. 18 St. Mary's-gate, Manchester. Parties are particularly requested to note the address, LIVERPOOL

SAMUEL HEMMINGS'S PATENT much improved PORTABLE BUILDING and ROOFING MANUFACTORY REMOVED from BRISTOL to BOW, near, and close to the Bow Railway Station—A large variety of machinery, new, churches chapels, schools, boarded or corrugated iron buildings, dwelling houses, farm buildings, and workshops &c. Also, railway stations, trucks, and carriages to any plan on the shortest notice.

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GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process THE TOUGHNESS AND MALLEABILITY of the Iron being preserved

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For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

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Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

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UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,

Patent Corrugated, Galvanized, and Painted, Wrought-iron, or metal, Glass and Slated Roofs to any span

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER.

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Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to form plans and estimates which may be consulted, or applied to

N.B. Galvanized and painted Sheet Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

MARK BERRY, established 1850, practical ZINC and GALVANIZED IRON WORKER.—My motto is economy, durability, workmanship and punctuality. Experience, whereon sent to all parts of the kingdom. Eaves, roofs, and verandahs, covered with Zinc and galvanized iron. Pipes, gutters, heads, and all kinds of zinc work. Bath manufacturer. Large size open bath for gas 5 feet 2 inches long, 20 inches deep, at MARK BERRY'S, Whitechapel Works, Whitechapel Churchyard Orders by post punctually attended to

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, to painting recently to the superior effects manufactured by them for Iron, as regards point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates forwarded

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ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEPRIPS'S PATENT The public is respectfully informed that arrangements have now been made for the supply of this simple and beautiful method of warming private houses, shops, public buildings, &c., smoke, dust, ashes, and discomfort from fire are effectually prevented, and while it presents all the comfort and appearance of an open coal fire, securing at the same time perfect ventilation To be seen in action at DEPRIPS'S Office, 15, Regent-street London.

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JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c., &c. to their superior APPARATUS At Messrs Weeks' establishment, an apparatus with no boiler has been kept in full operation heating four buildings, the length of pipe in each of which is 60 feet in length, at the small expense per day in fuel and labour of 3s 6d This achievement in heating by hot water is unprecedented

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. are now commencing with confidence their IMPROVED COOKING STOVE, the notice of the public. It is exactly in the form of an ordinary kitchen range, and is easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is now furnished in sizes suitable for large or small families. It is now on daily in the stove and general department of Deane, Dray, and Co.'s establishment; where may also be obtained cooking apparatus in brass, or forwarded free by post DEANE, DRAY, and CO. opening to the Monument, London-bridge. Established A.D. 1700.

GAS COOKING-STOVES, for large or small establishments—DEANE, DRAY, and CO. 1, Arthur-street East, London-bridge.

Testimonial respecting the Original Patent Kitchen, as fitted by DEANE, DRAY, and CO.

5, Richmond-terrace, Whitehall, March 9th, 1853

Gentlemen I have great pleasure in bearing testimony to the capabilities of your cooking apparatus, fitted up in the kitchen of the largest and most effective yet most compact portable mansion, club houses, private houses, and the army; having cooked on one occasion for 400 individuals of beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 30lbs in nine hours, forty three minutes, presented by Sir John Ross, esq. T. Peddie-street to the directors, for the occupation given to the French ministers. They have been in full operation for ten months, and remain in as perfect order as when first fixed. They have not cost one shilling for repairs."

I am, Gentlemen, yours respectfully,

EDWARD HORNE.

Messrs. Deane, Dray, and Co.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CIRCULAR and SADDLE BOILERS in STOCK, also the newest furnace bars, ornamental and plain supply cisterns, ash-pit doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and screw elbows, &c., also, trough pipes, brazing and joining of the above, on application to J. JONES, Iron Merchant No. 6, Bankside, London, near the South-wark-iron bridge

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE manufactured by F. EDWARDS, SON, and CO 42, Poland-street, Oxford-street, where one may be seen in daily use The whole series of these fire-grates, the smoke is completely consumed, to economy of space, coal, and labour, and a saving of from 40 to 60 per cent, being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65 Bridge-road Lambeth, where a great variety are always on view for cabinet-work, park, rustical, and house, and for gates and doors of large and small dimensions, a four weight moving with these hinges as easily as a wicket. Ornamental hinges adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant Rising and double action spring hinges and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

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ANDREW CLARK and COMPANY, PLUMBERS

THE BEAR GARDEN LEAD WORKS SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Anti-poisonous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

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212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporizing) with all the improvements, under their Quadruple patents of 1849 21-34 and 1850 including their Gunpowder Proof Solid Lock and Door (without which no safe is secure THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

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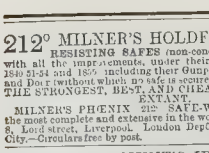

Improved Self-acting Cottage Ranges, with Large Oven and Boiler.
30 32 34 36-inch.
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with oven and Back Boiler, Bright Wrought Bars—
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54s. 56s. 58s. 60s.
Strong Elliptic Stoves, with Extra Back and Sound Bars, per in. 2½d.

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Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

	2 inch.	3 inch.
Cast Rain-water Pipe	1s. 1d.	1s. 3d. per yard.
Cast Gutters—4 inch, 9d. per yard.		
O G Gutters	4 inch. 1s. 1d.	1s. 3d. per yard.

Patent Line	2	3	4	5	6
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8-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

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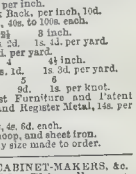
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs,
2d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 3s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
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Air Bricks, 4s. per doz.
Best Town Glue, 36s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6	
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s.	per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

CHEAP GAS-FITTING WAREHOUSE.—The Trade supplied with every description of GAS CHANDELIERS, Hall Lamps, Pendants, Pedestals, Pillars, Brackets, Iron and Brass Tube, Tin and Composition Pipe, &c. &c. at J. JEALS, 20 and 21, Old-street, near St. Luke's Church, London.
P.S. As large and choice an assortment as any house in London Gas-fitting Contracts to any amount.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kings road, Chelsea, and added to their very extensive and first class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished Companies and Contractors in the world with their Machines for home and foreign use.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that they have JUST RECEIVED large stocks from the principal quarry owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Scagliola, Mortars, Vases, &c., Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom holding Italian Marble the position of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Sienna, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson he no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

YATES'S MARBLE WHARF, Crescent-terrace, Millbank. MR. YATES begs to inform the friends of his late father, and Mr. Yates, and all persons connected with the Marble trade, that the business of the above premises will be carried on externally under the superintendance of an able manager. A large quantity of Marble Slab; also a good stock of chimney-pieces, and other marble works.

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Architects and the Trade are respectfully invited to inspect specimens of the
PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,
Applicable for Piers, Pilasters, Chimney-pieces, Shop Facia, Table-tops, Panels, &c. &c.
Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Caledonian-road, King's-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS, MILLBANK-STREET, WESTMINSTER. Marble of all kinds and of best quality, in block and slab Marble mortars, &c.

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THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Macclesfield-street North, City-road, for the sale of CHIMNEY-PIECES, and other articles, useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.
July 5, 1855. C. ADENEY, Secretary.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 20, Surrey-street, Strand.
HENRY COX, Manager at the Lizard
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TO BUILDERS, MASONS, AND OTHERS
THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd ant pue, &c. Portland, Hazelhill, Park spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Chimney Pots, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

YORKSHIRE STONE.
GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons, that they can supply to any Quantity, Heads of YORK STONE, including Paving, Bramley Fall, Park Spring, &c. of the very best quality, direct from their Quarries, at the all Railway Stations and Ports in the Kingdom, on the most reasonable terms.
GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter.—London Agent, C. HOAB, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar-square; King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLAS and TAYLOR, 3, Pinner's-court, Old Broad street. Manager—JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE

BATH STONE DEPOT, BOX STATION. ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Box Ground Stone, Smallett Block, Ashlar, Rangework, &c. &c. supplied direct from the Quarries; also every description of stone work for Building purposes, both plain and ornamental, prepared ready for fixing, and forwarded to any part of the kingdom. Vases in elegant variety always on view; Urns, Fountains, Chimney-pieces, Tombs, &c. &c.

BANGOR WHARF, King's-road-bridge, Camden-town.—STRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cement, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire flags, pitch, and tiles, glazed water pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials landed, wharfed, and carted.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. COOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where curbing will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

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N.B. Specimens in plain blocks, and in elaborately carved Bosses, from Ely Cathedral, may be seen, and other particulars obtained, at the office and Masons. PINDER, SIMPSON, and SONS, 2, Saville-row, Burlington-gardens, London.—May, 1855.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truck-loads of five tons. Paving, Landings got out to size. Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Builders, Contractors, and Others, that his Price List of Slates and Slab Work, can be had on application, enclosing a postage-stamp. Country and export orders promptly attended to.—N.B. A liberal discount to the trade.

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VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality, for the Trade. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street, and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

TO BE SOLD, 28 Tons of WESTMORELAND SLATES, at 3l. 15s. per ton, delivered on Trucks at Bishop Stortford Station.—Apply to J. L. GLASSCOCK, Builder, Bishop Stortford.

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TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.
ENAMELLED SLATE CHIMNEY PIECES, of elegant designs and superior workmanship, at great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-ground, King's-road, Chelsea, Mid Hosex.

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The Builder.

Vol. XIII.—No. 652.

SPENSER, were he writing now, could not describe the Londoners' river as "The silver-streaming Thames;" nor could Denham call it,—

"Though deep, yet *clear*."

Meetings of inhabitants, deputations to Board of Health, Lord Mayor's well-meant inquiries, learned professor's card-dropping, all concur to show that public attention is to some extent directed to the evils resulting from the present appropriation of the drainage of London, and consequent condition of the Thames. Year after year the once translucent and beautiful river has become more and more impure: in fact, it has been converted into a gigantic and foul ditch, into which, besides that of London, the drainage of many places is passed. For example, as this fact should not be forgotten, Cirencester, with a population of 6,096; Cricklade, with 33,505; Fairford, 1,859; Farringdon, 3,122; Lechlade, 1,373; Oxford, 27,843; Wallingford, 2,819; Thame, 2,869; Reading, 21,456; Henley, 3,733; High Wycombe, 7,179; Amersham, 2,093; Maidenhead, 3,607; Guildford, 6,740; Windsor, 9,596; Uxbridge, 3,236; Watford, 3,800; Rickmansworth, 4,851; Staines, 2,430; Chertsey, 2,743; Kingston, with 6,279 persons; and many other places, saying nothing of the 8,000 persons, who, according to the last returns, sleep on the river; all contribute to the result we are now deploring. At Kingston, by the way, to which point some of the Water Companies have resorted for their supply, operations are going on to render it a most unfit spot for such a purpose. The effect of impure water in producing disease, is surely too certain to need further proof at the cost of life.

The population of the London district alone in 1851 was nearly two and a half millions, thus divided:—

	Males.	Females.
Middlesex	814,594 —	931,007
Surrey.....	225,617 —	256,818
Kent	66,347 —	67,853
	1,106,558 —	1,255,678
		1,106,558
Total		2,362,236

In considering this most important subject, it is right to remember that in 1666 the population of London was about 400,000; in 1801, 958,863; and in 1851, 2,362,236. In 1900 we may expect a population of nearly 5,000,000.

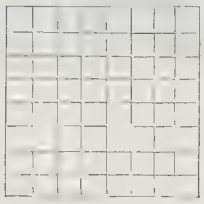
Our diagrams will aid through the eye in giving a clear idea of this progressive growth.

In London, in 1801, there were on an average nearly 394 square yards of land to every person, and 2,784 square yards to every inhabited house. In 1851 there were on an average 160 square yards to every person, and 1,234 square yards to every house. If the same rate of crowding be continued, in 1900 we shall not have so much as 80 square yards for each person, and 600 square yards for every house. The size of the squares in our diagrams will convey an idea of this difference.

These figures ought to convince all of the vast consequence of this subject, and that it is only by meeting the matter with promptness, energy, and skill, that we can hope to escape great loss of life and other calamities.

The best mode of healthfully and economically getting rid of the sewage of London and other large towns is one of the greatest and most pressing questions of the day.

Comparative Population of 1666, 1801, 1851, *and the estimated Population in* 1900.



Density of the Population of London in 1801.

Density of the Population of London in 1851.

Density of the Population of London in 1900.

The Thames is not the only river in course of pollution. The miserable state of the Clyde, amongst others, is beginning to attract the attention of the good people of Glasgow, and it is quite time that it did so: it is described to us as steaming with poisonous exhalations.

It would be not a twice-told but a twenty-times told tale, to urge in these pages the paramount necessity of good drainage. A knowledge of this fact is becoming general; but it is painful to notice how slowly we have moved.

Once upon a time the well-known and disreputable *Fleet* was a crystal stream. In the reign of James I. and even before then, it had become a dangerous nuisance; and since that time wit, sarcasm, and abuse have been tried against it: the strong power of the press has battered against the Fleet for more than a quarter of a century; medical men have shown the evil of living near its banks; and yet this venerable abuse has not at the time we write altogether vanished from the sight. While it was uncovered it served to afford some idea of the cause of the pollution of the Thames to those who might otherwise have been ignorant; for few except the ratcatchers, those who search for lost valuables, and others whose business it is, can be persuaded to venture upon a walk through a London sewer,—to stand, and by the help of lantern light see and hear the waters which pass, for example, through the sewer below Scotland-yard. On the shore of the river there, however, at low-water, or standing on Hungerford-pier, you may see something of what is going on.

We have occasionally loitered on the Gravesend steamboat pier at London-bridge, where hundreds of Londoners, bent on the search for pleasure and fresh air, embark in the close neighbourhood of one of these inky floods. We will take away the canvas screen which usually hides it, and show it as it appeared a few mornings since, the pestiferious flood rolling and roaring, and throwing up a spray whereon the sun marked for an instant a mimic rainbow;—Beauty and Filth!

The river on that day, from Chelsea to the spot in question, differed little in complexion from this, its foul tributary. What with the sewers, the soot, and other defilements, old Father Thames is in a sad pickle. If he were to see himself as he appeared in Queen Elizabeth's days, he would feel most thoroughly ashamed and out of sorts with himself, particularly if he remembered how much his wealth had increased, —the number of his ships and visitors from all parts of the world,—and that, instead of becoming, with his prosperity, a useful and personable gentleman, he had sunk into a dirty, unsightly, and poisonous scrub.

In the reign of Queen Elizabeth, that worthy lady and her fair maids of honour were often gladdened by the clear countenance of Father Thames. The city dames and London prentices were delighted with him. Salmon, then, as may be seen by reference to prints of the period, could be readily captured opposite "*Paul's*." The most cunning fisherman would now fail to catch here anything but slimy eels.

We know a Thames waterman who for upwards of fifty years, "as man and boy," has been well acquainted with the Thames, and who remembers salmon being caught at Blackwall-reach. "That," says he, "is forty years ago, and cannot be done now. What would they say if the whitebait, like the salmon, should desert the old river?"

The city dames and 'prentices of our time begin to look on Father Thames with suspicion and dislike, and many thousands of pent-up Londoners, instead of looking up to him as a blessing, say that such water as he can now supply is a curse instead. Father Thames, however, asks, and with justice, too, "Have I been fairly treated? Has a tythe of the riches and benefits which I have been the means of showering upon others, fallen to my use? Have I, who have been the means of carrying out great improvements, been used with due consideration? No! I, an old and useful servant, have been left in such neglect, and exposed to such defilement, that I am not only becoming disgraceful, but dangerous! Gog and Magog have been painted and beautified, but woe is me!"

We raise our voice against any endeavour which may be made, founded on the injury which is now being done to the river, to stop admission to the sewers even temporarily, and

THE THAMES AND ITS TRIBUTARIES.

Londoners Embarking for Fresh Air at London-bridge.

retain the sewage in cesspools. This remedy would, indeed, be much worse than the disease. Every endeavour should be made immediately, and without stint, to free the river from the pollution to which it is exposed, and if possible to apply productively the fertilizing matter now wasted; but pending this the refuse of our houses must be got away: to stop draining, and revert to the cesspoool system would be an act of madness. A step, however, towards this was attempted last week, at the Court of Sewers, but was negatived by a resolution, declaring that, "This court, while deeply sensible of the necessity for intercepting the sewage from the Thames, and anxious in every way to promote that object, is not, meanwhile, prepared to stay or discourage the connection of house-drainage with public sewers, which would greatly inconvenience the community, endanger the public health, and therefore be highly inexpedient."

In seconding this resolution, Mr. F. O. Ward urged that the pollution of the Thames to the extent now being commented on was but *occasional*, and was one of the evil effects of the retention of the refuse-matter in cesspools and badly-constructed sewers, which was all poured into the Thames by a storm after drought. He did not mean to say that the daily outflow from the sewers was not an evil, nor that it did not contribute to the pollution of the river; but he thought that a daily discharge, daily carried away, was far less dangerous than such sudden eruptions of filth as he had just described. To test the correctness of this view, he had made inquiry as to the effect produced on the Fleet by the late violent storm; and he found that the Fleet had poured down a most black and noisome tide, so swollen as to overflow its banks at New Farringdon street, and so fœtid that the clerk of the works engaged on a large sewer in progress there had been obliged to scatter chloride of lime along the banks of the Fleet to mitigate its sickening emanations. And as the Thames had since recovered, and returned to its ordinary condition, so also had the Fleet. It would be observed that the sample did not prevent the unusual blackness and fœtor described as having previously existed; and he might add that when he visited the Fleet at the spot last Friday, in company with Dr. Varrentrapp, of the Legislative Council of Frankfort, and his brother, Professor Varrentrapp, they could none of them perceive any sensible odour from the stream, which a few days before had infected the air all around. Hence it was clear that the causes in operation were not, as some writers supposed, of a casual nature, operating exclusively on the Thames (such as canal-cleansing, gas-liquor discharge, &c.), but that the temporary pollution was due to circumstances affecting at once the Thames and the Fleet. He thought this confirmed his view, and pointed conclusively to *accumulations* of filth, taking place mainly in consequence of drought, and subsequently discharged into the river, partly, no doubt, in daily driblets, but partly also in sudden bursts, as the main cause of such pollution as that which Professor Faraday had observed. And, therefore, accumulated deposit being the source of evil, whether in foul cesspools, foul house-drains, or foul sewers, our endeavour should be to get rid of such deposit in all its loathsome forms; to persist in developing the self-scouring tubular system; and, above all, to extirpate as rapidly as possible those hideous sepulchres of rottenness called cesspools, which some writers assumed to be abolished, but which still existed under four-fifths of the London houses,—under the mansions of the rich as well as the hovels of the poor. Every house drained by a self-scouring pipe, instead of a cesspool with an overflow drain-of-deposit, would contribute only one day's discharge, and that fresh, instead of many days' discharge, and that putrid, to the storm waters flowing down the sewers to the river. Like abatement of evil would ensue in the case of every tubular sewer substituted for the great brick vaults now accumulating deposit under the streets. And thus, while they were preparing and executing their great intercepting works, immediate mitigation of their sanitary sufferings might be obtained; the houses and streets thus improved being at once rendered more healthy, and the river itself being no longer exposed, in so great a degree as heretofore, to sudden pollution by storms. *Entirely* to obviate such pollution, they must adopt, he believed, the principle of separating the sewage proper from the rainfall, and declare, with him, "The whole of the rainfall due to the river, the whole of the sewage due to the soil." That, he was convinced, was the only true and complete solution of the sewage problem.

Bad as was the condition of the Fleet-ditch, with the *manufactories* by its sides, it will be found, by a reference to the health statistics, that the mortality amongst those in its immediate neighbourhood was not so great as in the courts and alleys surrounding it in which there *was no drainage;* and the reason is obvious, for near the Fleet the refuse of the houses was carried away to a certain extent; the stream itself was comparatively diluted, and its rapid course perhaps tended in some measure to prevent the stagnation of the atmosphere.

According to the Local Management Bill, as it now stands, the Metropolitan Board of Works are to execute a scheme of intercepting sewers by December, 1860, or five years from this time, if certain preliminary difficulties can be got over,—not a very cheering prospect for those who feel the importance of properly draining London, and disposing of the refuse, even if it be realized. The chances, however, would seem to be, looking at the various duties intrusted to this Board, that it will not be done at all if left in that way. A correspondent on this subject, Mr. Frederick Smith, says,—

"A variety of plans for constructing works to rid the Thames of its impurities are before the Metropolitan Commissioners of Sewers. These commissioners have in their hands 300,000*l.* to be devoted to this special object. A committee of the court of commissioners resolved that it was expedient to refer these plans to a committee of engineers, but the court

did not act upon their own committee's recommendation. Money, plans—everything, in short, is ready for immediate action. Modify, then, Sir B. Hall's Bill thus—it is but a very trifling modification after all—hand over the plans and money to Her Majesty's Board of Works: let them at once proceed to carry that plan pronounced by a committee of engineers to be the best into execution, availing themselves of course of the successful candidate; and when Sir B. Hall's board is ready to undertake the task, let Her Majesty's Board of Works transfer the whole affair over to Sir B. Hall's board. I am no prophet if the intercepting sewers will not be very near completion by the time Sir B. Hall's board will be ready to accept the transfer."

Without confirming his belief that both money and plans are ready, we are perfectly satisfied as to the necessity of immediately taking the most energetic steps to obtain them. The present condition of the Thames is a disgrace to us as an intelligent people. We waste a fertilizer, and we poison the waters.

THE MODERN HISTORY OF ARCHITECTURE.

In previous papers it has been our endeavour—besides contributing to knowledge of facts—to lead attention to aspects in the history of architecture, whence light may be reflected upon questions in the present condition of the art. If we have succeeded so far, it will have been apparent, that at various epochs, the point had to be solved practically, between the preponderance of *novelty* as an element in art, and the subordination of that, in favour of forms supposed to be *certified* as embodying beauty of effect. The latter aim involved the whole matter of what is called "precedent-rule." Now, the object in all good artistic effort is not *one* of these two, but *two-fold*; and question on the subject never could have presented itself had not one element been unduly exalted, ere the other claimed to supply its place. It is the tendency of all opinions to oscillate between extremes. Men do not take the time to sum up and balance, in the Jeremy Bentham manner, the heads of this side and that;—indeed, it requires a colossal mind to do so. To that we can make no pretension. We merely go on to remark that, whilst it is not in evidence that before the last sixty or seventy years, the question referred to above, was raised except at comparatively long intervals, during the later period it has been revived over and over again. At least, so should we say with the single qualification that may be involved in substituting merely novelty of model for novelty of invention. Thus, from opposite directions, the same general absence of *art* was arrived at. Men forgot that the *use* of a good model was not necessarily the *right* use of it.

It should not be inferred, that all were intentionally copyists. But the result was much the same as if that had been the case. More would have been needed than the catching the spirit of the original—put forth even by recent writers as the end of art,—far more than the production of *fac-simile*. Whether chiefly from the absorption of mind in one of the materials of art—archæology, or from a low state of æsthetics (or whatever name we give to the range of philosophic analysis at this juncture first sensibly needed),—or from positive want of the requisite industry, or artist-feeling,—certain it is that the knowledge that was possessed was turned to no real account. We infer the deficiency of proper zest for *art*, because, where the case is otherwise—efforts will involve the exercise of the creative power which is productive, as essential to the existence, of works of ART. With a true artist-mind, reproduction would be unthought of,—would be even impossible. Many architects of the present century deserve neither unqualified praise, nor the censure which it has been the practice of certain writers to give them. Mediocrity, however, may be a demerit in artists, as in poets.

But, it is the general perception of art that has been out of character with the age: and this has made the mistakes of which architects have been the instruments. To that only can be due the excessive apprehension about taking any step, for which immediate reference could not be quoted from an original. Wherever a feature could be drawn from the works which happened to be in favour, the praise was given to him who was supposed to copy from it. The rest of the building took its chance; and the result was a combination of discordant parts. The tendency, therefore, was to produce what was neither good in point of art, nor accurate in "copyism."

There may be novelty without beauty, and beauty without novelty; but there cannot be that particular effect which gratifies in a work of ART, unless both elements are present; and we believe that the efforts to depreciate precedent, or to inculcate anything that may lead to its despotism,—the neglect of models, or the misuse of them,—are equally erroneous as restricted principles. But, as we have shown—beyond the ordinary agitation of these questions—a further influence sprang up at the new era, opening at the juncture when the old art was "a creed outworn," and when the question was—a new belief, or old? That feature of the time was the modern spirit of research,—the investigation into previous history, and the digging out of the records of former art. There was considerable difference between the spirit referred to, now, and any manifested at previous dates. The old Roman collectors had given their attention to Egyptian and Greek antiquities,—mainly to the latter. The later Italians re-discovered the collections and the works themselves, of their predecessors. But the new era inaugurated was that of general investigation and discovery.

Particulars of travels and researches in Egypt and the East, with investigations such as those in Athens by Wheeler and Spon in 1676, and the drawings of Carrey, made in 1674, as they became known, contributed, with the knowledge of what there was in Rome, to develop such a tendency. The chief *impetus*, however, in the direction alluded to, was produced in the latter part of the reign of Louis XV. in France, or within the first few years of the reign of George III. in England,—the latter reign we may say, commencing in 1760, and the other ending in 1774. Indeed, before 1760, the Greek architecture, as we have shown in a former article, was known to the French; and in England it was commented upon in Sir Wm. Chambers's treatise, published in 1759, though unfavourably to its merits. The publication of Stuart and Revett's work, commenced in 1762 (not in 1752, as by a misprint in the last article), the first edition continuing to appear at intervals till 1816. We should be disposed to ascribe to this work more of an immediate influence on the *study of classical antiquities* than similar influence on architectural *style*. It was after the expiration of the war that many of the chief imitations of Grecian architecture were produced. The copy by Stuart, of the Tower of the Winds, at Shuckburgh, Lord Anson's seat in Staffordshire, and a few other works, are exceptions; but the bulk of the Grecian Doric and Ionic of our country belongs to a much later date. Doubtless, however, Stuart helped to produce that idea of classical simplicity which was ultimately proffered in lieu of thought. His work is remarkable for careful drawings of the marbles, now forming part of the Elgin collection.

In 1772, Sir Wm. Hamilton's collection was purchased for our British Museum. Previous to that time, however, important collections had been formed in England, amongst which may be mentioned that of the Earl of Arundel, in 1634, now at Oxford. The most important English acquisition—except the Elgin marbles—the Townley collection, was due mainly to the researches of Mr. Gavin Hamilton, which commenced in 1770. It was purchased by the nation in 1805, the Elgin marbles not being acquired till 1816. The publication of the Dilettanti Society's "Ionian Antiquities," commenced in 1767,—their other works not appearing till 1815, and later dates.

Let us now look to the influences of this character, and those alluded to in the last article, which were at work in the neighbouring country. In France, attention had been early directed to classical antiquities. It contributed to the production of the Roman character of architecture, noticeable in the time of Louis XV. An edition of Montfaucon's "*L'Antiquité Expliquée*," in 10 vols. folio, bears date 1719. Winckelmann, to whom the chief importance is due, published his "*Monumenti Inediti*" in 1767. Le Roy's work on the remains in Greece had appeared in 1758. The revolution, of tremendous importance in much that affected the condition of art, in the matter of style simply completed the course to which art had been tending under the monarchy.

The peculiar style of Louis XV. in interiors, and indeed in painting and sculpture, is so marked, and so widely prevalent, that people are apt to omit the requisite consideration of the contemporary tendency. The latter at length resulted, especially in the art of painting, in works totally different in character from that of the lively and graceful cabinet pictures of Watteau,—in works merely cold, academic, classical, and correct. As the history of such changes about this time throws light upon our especial subject, we shall venture to give them some attention. It will be recollected that the capture of the Bastille took place in 1789. Nobility was suppressed in France in the following year; in 1792, the Tuileries were besieged and plundered, massacres took place in all the prisons and religious houses of Paris, and France was declared a republic. Louis XVI. Marie Antoinette, and the Duke of Orleans were guillotined in 1793, and the war with England and Holland, and a rapid series of terrible events commenced. The elder David had already attained a reputation by his works, The Horatii, The Brutus, The Death of Socrates, and The Paris and Helen—all, be it observed, taking their subjects from classical antiquity. Citizen David became a leader of the *sans-culottes*.

A very Talleyrand he was in the facility of his transformations, whether in political adherence or in art. His bust in the Crystal Palace, with distorted lip, gives one more the idea of a hero of the Reign of Terror, than of the rank claimed for him as the father of modern French art. He it was who ordered the ceremonial of the festival of the republic, the procession of the works of art from Italy, which were brought in an imitation of a Roman triumph, and who later, was the favoured painter of Buonaparte. The portraits of Napoleon in the imperial robes, and crossing the Alps, are well known. The latter work, as designedly not the representation of the event as it took place, may be compared with the picture by Delaroche, where the general is, with greater truth to history, seated on a mule. The difference affords one means of judging of the changes in opinion on the subject of *the ideal*; changes which, of course, much concern the principles of all branches of art, but which changes are yet neither consummated nor very obvious in their ultimate direction.

The study of the antique which had commenced in France, grew up side by side with the most violent political passions. In fact, it seems to have become what it was by the force of those influences. That true love of *art* was the main engine of development, it would be hard to believe in the face of acts that are recorded. Wanton destruction to the precious antiquities of the whole country, which recent years would attempt, and in vain, to restore: similar destruction in 1794 at the Cathedral of Cologne, and the Rhine churches: the little regard for the masterpiece of Leonardo da Vinci, which permitted its decay: all these do not show that the enthusiasm amongst the artists was then supported out of love of what we call ART, by an appreciating people. Strasburgh Cathedral, it is said, was saved from destruction only by the device of crowning it with the red cap of the Jacobin club.

The antique happened to be the visible means of expressing what the nation desired to be politically. Roman example, Roman antiquities, and Roman subjects for pictures, were for a time alone regarded; so that, quoting literally from an accomplished writer, M. E. J. Delécluze,*

* M. Delécluze, formerly a pupil, and still an admirer of David, has recently published an interesting volume on "Louis David, son Ecole et son Temps."

in the Feuilleton of the *Journal des Débats*,—"the austerity of the taste even became almost savage." David was hailed as *Le vrai Lycurgue des Arts*.

In the revolution which occurred in art, the puritanism of the young painters anathematised everything that had been done by their predecessors: from 1792 to 1796, no *genre* painter would have had a chance of getting attention. Subjects were, in fact, selected almost exclusively from the time of the early Roman republic. There is some reflection from the same taste even in the works of Benjamin West. In England, both the Roman and general classical taste, as mentioned in our last, were expressed chiefly in sculpture. But whatever classical tendencies there were in the two countries, now should be viewed as irrespective of one another. The nations were at war; and whatever had appeared to be connected with the name of Buonaparte would have been rejected. Certain points of resemblance are to be traced in some of the furniture of Carlton House, and that of the Empire; but the resemblance, of course, arises by derivation from the same models. This department of art we may have another opportunity to speak of. For the present we have to observe the course of the influence of the French painter. David in merit was superior at least to his contemporaries. At length he himself contributed to moderate the admiration of the toga and the lictor's *fasces*, by representing an incident of contemporary life, although with some infection of the prevalent manner. The picture remained unsold; but the subject eventually became celebrated as the foundation of a new manner, which it helped to produce. The style of David, however, always retained a classical character. It is presented under its most favourable aspect in the picture of the coronation of Napoleon. That event happened in 1804.

Yet, between 1793 and 1809, taste in France underwent other important modifications. A more profound study of the antique began to show the painters the superiority of Greek art as compared with that of the Romans, who became considered as barbarians,—for as the French writer before mentioned says, in apt illustration of one of our positions above, he perhaps referring especially to France:—"It is in art as in politics,—you pass suddenly from white to black." Greek architectural details, it will be recollected, had been already long in use. David was the first to receive and transmit the new fever. In 1796 he had commenced a subject from Roman history—the picture known as the "Sabines;"—and this, as shown by a sketch extant, was originally intended to have the figures clothed with the Roman dress. The finished picture is, however, treated in the new manner. The next phase in the progress peculiarly exemplifies what we have so often before noticed as to the influence of a great master. We cannot refrain from again quoting what we find by M. Delécluze. "But," he says, "attached to the most skilful master there are always indiscreet pupils, who make false applications of the principles which they have received; and to the *hellenism*, soon succeeded a *Greco-mania*. Then, young pupils more rigorous in the matter of taste than the master, pronounced in their turn an anathema against all works of antiquity executed since the age of Alexander the Great." It must be remembered by our readers that precisely the same result tended to dim the legitimate fame of Michelangelo; and it has likewise been apparent that the indiscriminate admiration of another master, Palladio, produced some of the most unfortunate characteristics of art during the time now under review. In France, the finest works from Rome deposited in the Louvre in 1796 were viewed as corrupt, whilst the paintings on Greek vases, and even the *archaic* Greek sculptures, were held in disproportionate estimation. These causes tended to bring on the school discredit of which the master for some time bore the imputation.

The *manie* in question was at length dispossessed by another—of great importance, though of short duration; but the consideration of this we must reserve for another article.

ON POLYCHROME.

At the Warwick meeting of the Worcester Architectural Society, Mr. R. P. Pullan read the following paper on Polychrome:—

Before proceeding to say anything about the application of coloured decoration to ecclesiastical edifices, I should wish to remove the common impression that prevails that wall colouring produces a tawdry effect, inconsistent with the solemnity that should characterise a building dedicated to the service of God. We hear people who profess to admire the glowing glooms of stained glass windows, who rave about the ruby-coloured robes of the martyrs, who have a decided partiality for the painted pages of illuminated missals—who do not find fault with the warm hues of encaustic tiles, and who tolerate the introduction of altar pieces, painted in the rich yellow tones of the Italian school, or in the crude colouring of modern days, exclaim loudly, and I must add most inconsistently, against the introduction of polychrome in any shape, unless it be of the faintest, mildest, and most undecided character. I would remind them that although in all polychromatic decoration, only the primary and secondary colours are employed, yet that if they be distributed with good taste, the most refined and gratifying combinations can be produced. The very fact of the laws of decorative being those of heraldic colouring prevents many of those violations of taste that so constantly occur in the application of colouring upon colour, without an intervening line of black or white; and the constant use of diapers enables any one to avoid that glaring effect generally produced by large masses of colour unbroken and unsubdued. I would point out the Alhambra, as affording one of the most satisfactory specimens of refined colouring as exhibited in its reproduction by Mr. Owen Jones in the court of the Crystal Palace. It is well known to all that we have sufficient precedent for employing every means in our power to give our churches a richly-clothed and furnished appearance. It is well known that not only were almost all the buildings of the middle ages decorated with colour, but that also those people to whom we attribute perfectly pure and refined taste (the Greeks) coloured their finished works of art; that the friezes and pediments of the Parthenon, for instance, were decorated, and that in a bold and liberal manner; and that there was no stint of colour, but that there were masses of blue, red, and gold, which heightened and completed the effect of that noble edifice. As to the extent to which polychrome was employed in the middle ages, we have only to go into some of the nearest parish churches that have been unrestored, and with a pen-knife scrape off some portion of the numerous coats of whitewash on the walls, to discover traces of frescoes or of distemper paintings, and the result of our explorations will be such as to convince us that the mode of adornment was general, if not universal.

Having said a few words in defence of the practice, I may add some remarks upon the characteristics of the ornaments employed in the various styles; and it will not perhaps be uninteresting to you to hear something of the *modus operandi* made use of by me when superintending the decoration of the Byzantine and Mediæval Courts in the Crystal Palace, and in other buildings. As to style, the Byzantine style affords a wider field than any other for the purpose; for there are in all buildings of that period large spaces left round the domes, in the spandrils, and soffits of arches, which do not admit of the introduction of sculpture ornament, but afford ample space for the reception of coloured foliage and figures. Round the dome were generally arranged figures of saints beneath "the Palms of Paradise." On the spandrils were seen the four Evangelists or the four doctors of the Greek church. Our Saviour seated in judgment filled the conch above the apse. The soffits and wall spaces were covered with foliage, real "Arabesques," and with medallions here and there. The columns and pavements being of rich marbles, the effect produced is gorgeous in the extreme. I believe no one could enter the Church of St. Mark, at Venice, without being impressed by the magnificent *coup d'œil* it presents. I have lately had an opportunity of inspecting the finest Byzantine building in the world—the Mosque of St. Sophia, at Constantinople, the mother of all other churches in that style, and was gratified to observe that the few other Byzantine buildings that exist, bear a strong family likeness to their prototype, as far as arrangement and character of pattern are concerned. This style is in a measure applicable to our Roman buildings. In the Early English style, diapers became frequent, figures became more graceful, the eyes were no longer of the conventional almond shape, nor were the ladies all represented as brunettes: draperies partook of the elegance of those we find in the pictures of Giotto and Cimabue; and architectural features such as niches and crockets were introduced; but the crockets were then only in the bud, and were not fully developed until the Decorated and Perpendicular periods, when the foliage became much more flowing and elegant in its outline. Geometrical patterns (some of them of a very elaborate character) were common in backgrounds of the Decorated style. And I may mention that the "master" of architecture and decorations, Pugin, adopted this style as the perfection of both branches of art. In the Perpendicular style, draperies became more crisped and foliage also, figures and faces assumed the rather heavy proportions that we find in the engravings of Albert Durer, and in the stained glass of the time. Stained glass is always valuable as affording the best authority for costume and ornament for wall painting, seeing that so few wall pictures remain in England.

As to the mode of execution as adopted in the Crystal Palace, after making the designs and careful drawings of the ornaments and figures, I gave them to an artist who made stencils of them; the walls were then prepared, and the spaces to be covered traced out with black lines; the patterns were then distributed among fifty or sixty men, each taking his particular department. Encaustic painting was used for the Byzantine, and oil painting for the Mediæval Court, and the result I think goes far to prove the excellence of the former medium. However, distemper painting for a church, where the walls are not damp, is equal, if not superior, to either. At a church at Hawarden, in North Wales, decorated under my direction five years ago, there was no sign of the colours having faded, though everything was done in distemper.

THE BUILD AND HISTORY OF THE VIOLIN.

The remarks upon Mr. Webster's artistic impersonation in the *Builder* of the 21st ult. lead me to think that a few words upon an instrument which, for disputed origin, singularity, compactness, simplicity of construction, power of delineation, and universality of adoption, has not its equal, may not be unacceptable to those who view the progress of science on its broadest and most comprehensive basis.

The poetical speculations of Pythagoras, Athenagoras, Varro, Lucretius, and others, upon the origin of music; Plato's reference of the invention to the Egyptian deities, Osiris, Isis, and Hermes; that of the Hindoos to Brahma, and all the other references to mythology, classic and barbarous, are received in these matter-of-fact times at their exact value—a smile.

As in most cases where origin is obscure and benefit extensive, many nations have claimed the honour of the first thought; and, as usual, the lovers of the classic have affected to trace its beginnings to remote antiquity, and accordingly find its type in the meagre descriptions handed down to us from the Greeks. In some ancient Greek tablets, dating, according to Professor Murchard, 709 B.C. it is stated that "Pherekydes stretched four strings upon a piece of wood, and played upon them with a smooth stick." This instrument was called the "epigonion." Its derivation, however, *επι, supra, γονε, genu*, would seem to indicate that its position must have been that of a violoncello. The stick, however, was most probably an instrument of percussion, and the tone a fable. Euphorion, on the

Isthmian Games, describes the "Magadis" as touched by the *plectrum;* and Philostratus of Athens, describing Orpheus and his lyre, says, "in his right hand he held the *plectrum*."

What the *plectrum* really was, however, we cannot now say;—the translation into "*bow*" being a mere make-shift for want of a real equivalent. Baillot, in his "*Méthode du Violon*," says, "The violin is presumed to have been known from remotest times," and again, "this form bears much affinity to that of the lyre, &c. Unfortunately, however, for these theories, the few statues extant, supposed to be antique, representing Orpheus or Apollo playing upon a viol with a bow, have been proved spurious by high authority, as Winkelman, and others.

But these speculations are very unprofitable. The fact is, that the period when the violin may be said to have originated was when the important discovery was made that the drawing over the strings a certain material, such as horsehair, covered with a resisting medium, such as resin, would produce a powerful and continuous sound. This discovery of the principle of the bow was as important for the developement of the violin, and with it of music generally, as that of the steam-engine for mechanical, or gunpowder for explosive power; and, therefore, setting aside the flowery fictions in which so many writers love to indulge their taste for allegory, and extricating ourselves from the realms of mythicism, we enter the regions of reality, and first touch *terra firma* somewhere about the tenth century. In the Cottonian Collection in the British Museum is a manuscript of the Psalms of David, in the frontispiece to which that monarch is represented playing on the harp. Before him stand four "gleemen," one of whom plays with a bow upon a kind of violin. This drawing is perhaps one of the earliest that records that instrument. Other manuscripts prove its existence about the same date.

In the twelfth century the viol was common amongst the Provençal troubadours. They styled it the "viula," whence our viola or tenor.

The state of music amongst the British bards,—the Norman minstrels, descendants of the ancient Scandinavian Scalds,—and the Provençal troubadours, is a subject full of interest. The French used more than twenty instruments in the reign of Philip de Valois, but the forms of most of them are lost to us; but the bassoon, trumpet, flute, hautbois, harp, guitar, viol, cymbals, and drum were amongst them. The Welsh claim the origin, on the strength of a rude instrument of an oblong square shape, called the "Crwth." From this the English doubtless derived their term "crowd," which, with that of "fiddle," obtained until the importation of the perfected article from Italy, when the term "violin" supplanted them. Although the *fidicula* of the Romans had no connection with the fiddle, yet the term "fiddle," doubtless, had with *it;* and the Anglo-Saxon *fithele*, and earlier German *redel*, with their Danish, Icelandic, and Dutch varieties, all own *fidicula* for their original. The hackneyed line recording that "Nero fiddled while Rome was burning," is a fable, no such instrument existing for 1,000 years after Nero's reign.

From the old Norman-French word *viol*, its varieties have derived their distinctive appellations; though for a long period they were only called treble, tenor, and bass viols. The name of *viol di gamba*, from its position between the legs, was for a long time the distinction of the bass variety. Finally, the terms *violone* or *contra-basso*, *violoncello*, *viola*, and *violino*, comprised the distinctive titles of the viol family in its perfected state. To this glorious quartette may be added a fifth diminutive in the *piccolo*, or kit, which latter is held, however, especially sacred to the *maître de danse*. The "rebec" was also an ancient name for the early specimen of the fiddle, and old French writers applied the term *barbiton* to the whole class. In England, says Dubourg, no family of consideration during the sixteenth and to the middle of the seventeenth century thought its establishment complete without a regular set of viols.

Public performers were few till the beginning of the seventeenth century, and vocal music not much cultivated, though in Italy it had attained much perfection. In the reign of Charles I. music suffered long and grievous depression, and during the Protectorate, the cathedral service was abolished, and organs removed from the churches. In Charles the II.'s time, engraved music was introduced, and the science thence advanced to the culminating point.

But few works can be consulted upon the construction of the violin. That of Jacob Augustus Otto, though very short and insufficient, is perhaps most useful. An elaborate work on the matter is much wanted; but so nice is the subject, so fine the thread upon which excellence depends, that it is extremely difficult to *describe* the rules for obtaining it, and like that of the Freemasons, "the secret" is likely to be confined to the craft. An eminent dealer told me yesterday, that after twenty-five years of study he had just produced his *first* violin! The finest models of the instrument were made at Cremona. Hieronymus Amati, at the beginning of the seventeenth century, Antonius Amati at the middle, and Nicholas Amati and Antonius Straduarius at the end of the same, and at the beginning of the eighteenth century, Joseph Guarnerius, were the makers whose instruments have enjoyed the most world-wide celebrity. Many other makers have earned a secondary reputation.

The wood generally used is of three sorts—Sycamore, for back, neck, and sides; Tyrolese soft red deal, for belly; and ebony, for finger-board and tail-piece. Otto divides a violin into fifty-eight parts! Only a maker can be well up in the various models, as amateurs can but rarely see more than one or two at a time. But there is no mistake about their distinctive features, though to describe them would occupy far too much space.

Hieronymus, considered handsomest generally; Antonius, but few extant, and not quite so well finished; Nicholas smaller, generally known as "Small Amatis;" Straduarius, the flattest of all models, but in tone most approved; Guarnerius, also flat and very rare. Maple is also much used in the backs of these makers.

The fine Tyrolese instruments of Steiner differ much in make and tone from the Cremonese. Much fraud has been carried on by dealers in the clever Tyrolese imitations of Steiner and the Italian classics. Amongst genuine makers, those by the two Klotz are much esteemed. A list of German makers of repute will be found in Otto, together with such distinctive features as to make, varnish, quality, &c. as his practical experience could supply.

Many of the oldest specimens of violins—as of paintings—have been much injured by "repairing," so called; and an opinion is abroad that even the uninjured ones have reached their climax as regards tone; but others consider they will yet stand the test of another century or two. The partial failure of the specimens of the great Parisian imitator, Vuillaume, shows how difficult is the art, how uncertain the result.

For lively anecdote and much information, Dubourg may be read with advantage Dr. Burney's "History of Music," too, and his "Musical Tour," furnish much of value in connection with the subject.

These observations are merely intended as a very rough and limited sketch of a large and highly interesting subject, in the hope of awakening a portion of the interest in the reader that actuates the writer. A. F. Ashton.

TIPTREE HALL.

Mr. Mechi has lived down all objectors, and has come to be regarded as a benefactor by the agricultural world. Very justly so, too, for even his failures give the advantage to others of knowing what to avoid, while all may profit by following in those courses which he has shown to be successful. His crops are excellent, though backward, and were pointed to as proving the value of liquid manure as distributed from his tank. Before coming to a conclusion, though, on this head it would of course be necessary to know the consistency of the fluid used, the number of applications, and the quantity of guano also applied and washed in by it. Most valuable results are involved in the success of such a system, results in which the whole kingdom is virtually interested.* We wish Mr. Mechi had given something of beauty to his buildings: it would almost seem that the endeavour had been the other way.

Lord Dundonald's huge steam-plough for pipe drainage was in action, and appeared to lay the pipes at a depth of 2 feet 3 inches, or 2 feet 6 inches satisfactorily. Whether it could be economically set to lay them at the more useful depth of 4 feet, did not appear. There was a model of a steam plough, too, by Mr. Phillips, and a reaping machine by Dray; nor must we omit favourable mention of a winnower and seed-separater, patented by Mr. Salmon, of the United States.

Mr. Mechi had around him about 300 guests, of all ranks and conditions, from the House of Peers, the House of Commons, the Church, the City Mansion House, the studio, the farm, the manufactory, and the shop, and gave an equally hearty welcome to all.†

CHURCH-BUILDING NEWS.

Much Hadham.—A chapel has been erected at Green Tye, in the parish of Much Hadham, Herts. The material is Kentish rag-stone walling and Caen stone dressings, and the style is Early English. The building was consecrated by the Bishop of London, on 18th July. Mr. G. E. Pritchett, of Bishop Stortford, was the architect, and W. Brown, of Lynn, the builder.

Snettisham.—The following were the tenders for reseating and repairs to Snettisham Church, Norfolk. Mr. J. Daws, of London, architect. Opened on the 23rd July:—

Pennington, Lynn	£1,165	0	0
Ringham, Ipswich	1,090	0	0
Brown, Lynn, and Ayton, Attleborough (accepted)	1,038	0	0
Daws, Snettisham	897	0	0
Bainbridge, Lynn	895	0	0

Northampton. The strength of the tower arches in St. Giles's Church, Northampton, according to the local *Herald*, was lately tested by the ringing of the bells. Fears were entertained that the opening of the arches could not be effected without endangering the safety of the tower,—but these fears are said to be now diminished, if not wholly removed. The builder employed in the restoration was Mr. Ireson, and the architect, Mr. Law. The remainder of the alterations, such as re-seating, and fixing apparatus, pipes, &c. for warming, are progressing, so that if funds should be forthcoming the whole of the work will probably be finished by Michaelmas. It appears by the mottoes inscribed on the bells that they were re-cast in 1783.

Woolpit.—On 17th ult. the new portions of Woolpit church were dedicated to divine service. It was exactly three years since the old tower and spire were struck by lightning and destroyed. The new tower and spire were designed by Mr. R. M. Phipson. They are Decorated, and harmonize with the rest of the church. The parapet is of open work. The western arch is pointed. The belfry chamber is supported by a groined ceiling, and under it is placed the font, which thus stands in what makes a baptistry. The contractor is Mr. J. Y. Rednall, builder, of Woolpit. Mr. Simpson, of Stowmarket, executed the stone work. The amount of subscriptions collected from every source and paid away is 1,330*l.*; the estimated outlay, 1,750*l.*; leaving a deficiency of 420*l.* towards which 64*l.* 4*s.* 10*d.* have been received.

Tilehurst.—The consecration of Tilehurst Church, Berks, which is newly built upon the site of the ancient fabric, took place on Saturday before last. The new edifice was designed by Mr. Street, of Oxford, the diocesan architect. It consists of nave, chancel, north aisle, south aisle restored, and south porch and vestry on the north of the chancel. The chancel and porch were undertaken by the late president of Magdalen College, at his own expense; and the transformation of the red

* A trial of it on a large scale is being made at Rugby.

† We go a step out of our way to express the pleasure with which we saw amongst the guests, recently at Leith, Mr Macdonald, to whom the distribution of the *Times'* Fund amongst the sick and wounded at Scutari was entrusted. It seems to us that such services, so ably performed as these were, at the risk of life, deserve some public acknowledgment.

brick western tower (built in the last century) into a tower and spire of Pointed character is being carried out by some of his friends and relatives as a memorial to him. The outer doorway of the south porch is of intricate design, and the inner has marble shafts and mouldings. All the window tracery is new, except in the south aisle, and the whole is Geometrical Decorated in style. Inside, the church is paved with Minton's tiles, those in the chancel being of a new type, the tiles being cut in curved shapes, and effect being obtained by the introduction of green among the more ordinary-coloured tiles. The seats are all open. The font is surmounted with an oak cover about 12 feet high, hung from the roof. The chancel arch springs from marble shafts, and the triple sedilia in the south wall are similarly adorned. An oak screen, with gates, divides chancel from nave, and oak stalls and seats for choristers, with carved finials, are arranged in the western part of the chancel. The chancel windows are of stained glass, to the memory of Dr. Routh. The east window, of five lights, has, in the centre light, the Crucifixion and the Ascension, and, in the side lights, types and antetypes. In the head of the window are SS. Michael and George, and a head of our Lord, surrounded with rays and with angels censing. In the side windows are,—The Song of Simeon and the Presentation in the Temple, and figures of S. Gregory, S. Augustine, and S. Chrysostom, fathers, whose works Dr. Routh had edited. All these windows have been executed by Mr. Wailes, from Mr. Street's designs. The tower has been opened to the church with a new and lofty arch of stone. Externally, the tower was originally built in a kind of Classic style, but, by taking out the old windows, bricking up others, and inserting a new doorway and belfry windows with moulded brick jambs, it has lost its former character, and begins to harmonize with the new church, although the spire is not yet completed. Mr. Street's designs have been carried into execution by Mr. Wyatt, of Oxford.

Tarnham.—The old church here, which has been re-pewed and extensively repaired and beautified, at a cost raised by voluntary subscriptions, was reopened for divine service on Wednesday before last.

Ryde. — The Congregational new church named St. George's, just erected on the site of the old George-street chapel, has been fitted up with many interior points of resemblance to a church. The style, according to the *Hampshire Advertiser*, is Grecian. The western front, which forms the grand entrance, consists of a pediment supported by fluted pillars, surmounted by a cupola. The side facing Melville-street presents a blank space, entirely unrelieved, except by shallow niches or blank windows, the light being entirely supplied from skylights in the roof. The interior is not choked up with galleries, and the whole length of the nave is fitted with open seats. The chancel at the east end is supplied with a circular stained glass window, and the floor is raised in the usual manner, above that of the nave. Instead of the communion-table, however, it was recently decided to place the pulpit in the centre of the chancel, for the sake of uniformity. In the centre of the building is suspended a large circular chandelier. The consecration took place on Wednesday before last.

Chichester.—The restoration of the west front of St. Olave's church has been commenced. Two buttresses were in course of erection, but being found to project half an inch beyond the adjoining houses, they were, on the orders of the commissioners, taken down and set back.

Chippenham.—On Monday in week before last, the new cemetery here was consecrated by the Bishop of Gloucester and Bristol. The burial-ground is divided, part for the Establishment, and part for Dissenters. There are also chapels, architecturally united by an entrance screen, but respectively appointed for the different burial-grounds. The chapels have nave and chancel. The windows are in the Decorated style. There is a bell-turret over the entrance. There is also a cottage for the custo or sexton.

Bridgnorth.—The consecration of the new cemetery took place on Tuesday week. The site is about half a mile distant from the town. A lodge stands on the right of the entrance, occupied by the superintendent and registrar. There are two small Gothic chapels, one for the Establishment, and the other for Nonconformists, the former at the eastern extremity of the ground, and the latter on the north side. The chapels are nearly uniform in design: they are built with stone from Marlbrook quarry, with Bath stone dressings, and the windows are filled in with plate glass. They are after designs by Messrs. Truefitt and Edmiston, of London, architects, and executed by Messrs. Powell and Foxall, builders, Bridgnorth. The cemetery is enclosed by a wall, with rustic coping, built of red sandstone, obtained on the spot. The portion allotted to Nonconformists is indicated by the insertion of kerbstones. The cemetery comprises 8a. 0r. 1p. of which 5a. 0r. 25p. is appropriated to the Established Church, and the remaining 2a. 3r. 16p. to Nonconformists. The land was purchased at a cost of 400*l.*; expense of building two chapels and lodge, 1,200*l.*; walling, 390*l.*; plants, 50*l.*; making roads, 100*l.*; and architect's commission, 100*l.*; total, 2,240*l.* The sum allowed by the vestries was 2,150*l.*

Kingweston.—On Thursday before last, the church dedicated to All Saints, recently built, according to the *Taunton Courier*, by the liberality of Mr. F. H. Dickinson, of Kingweston, with the additional burial-ground, was consecrated by the Bishop of the diocese. The church has a tower and spire of the height of 132 feet. It is built in the Early English or Decorated style of architecture, of Doulting stone and blue lias. Mr. Giles, of Taunton, was the architect. The work was done by Mr. Henry Dawe, of Taunton, mason, under the immediate superintendence of the founder, Mr. Dickinson. The spire lantern stands upon eight windows, so that the peal of bells when rung may be seen at a distance from the church. The interior is laid with Minton's encaustic tiles, and the altar-table is composed of Serpentine marble from the Lizard rocks, Cornwall. The stone corbels of the capitals were carved by Mr. H. Davis, of Taunton, who executed all the carving for the interior of the edifice. The new building stands on the site of the old parish church.

Cheddar.—The consecration of the new cemetery here took place on the 20th ult.

Smethwick.—On Tuesday before last, the consecration of the new church of St. Matthew, in Windmill-lane, Smethwick, took place. The church is intended to accommodate 450 persons, 250 free. Mr. Samuel Briggs was the builder of the edifice.

Willenhall.—Holy Trinity Church was consecrated on Wednesday before last. The church, which has been erected at a cost of 4,500*l.* and accommodates 700 persons, is in the Early English style. The material is a brown stone quarried in the neighbourhood. Externally the edifice is ornamented with a Bath stone bell-turret; and internally with a low pulpit of Caen stone, and a baptismal font of same material, both carved. The roofs of the nave and chancel are open and lofty, and the timbers are stained. Encaustic tiles, the gift of Mr. H. Minton, are laid down in the chancel. All the sittings are without doors, and a large proportion are free. The architect is Mr. W. Horton, of Wednesbury. The builder is Mr. J. Wilkes, of Darlaston.

Ashbourne. — The reopening of Mayfield Church took place on 19th ult. For nearly a year this old church has been undergoing extensive alterations and enlargement. A new aisle on the north side has been added, and an old gallery, which blocked up an arch, has been removed. The old Norman pillars and arches, which before were covered with whitewash, have all been restored and dressed. The church has been entirely repaired, and above one hundred additional sittings have been made for the poor. Mr. W. Evans, of Ellastone, builder, was employed.

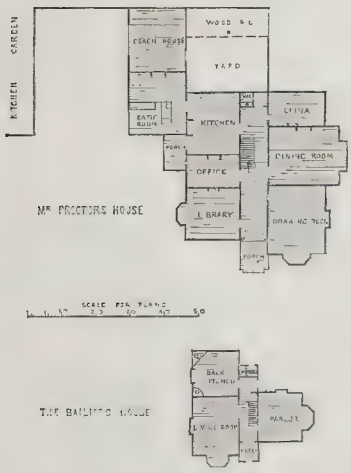
Rowsley. — On Wednesday before last the church of St. Catherine, recently erected in the picturesque vale of Rowsley, was consecrated by the Bishop of Lichfield. The edifice is in the Norman style. It has no galleries, and the seats or stalls are confined wholly to the body of the church. A memorial window of stained glass has been placed over the communion-table in the chancel, to the memory of Catherine, the late Lady John Manners. In the centre compartment are two groups of figures, emblematical of the resurrection, with an inscription in old English characters. This window has been designed and erected by Mr. T. Williamont, of London. The Commandments have been painted on zinc, with illuminated borders and initial letters, by Costell, of London. The site of the building, which was presented by the Duke of Rutland, is a small eminence, in a road leading from Rowsley to Manners' Wood. The architect was Mr. Anthony Salvin, jun. of London; and the builders were Mr. Hibberd and Mr. Ellis, of Bakewell. The church has been dedicated to St. Catherine, "after the name and in honour of the late Lady Manners." The cost of the building and appurtenances was 800*l.*

Leyland.—St. James's Church, Leyland, was consecrated on Wednesday week, by the Bishop of Manchester. The church is in the Early English style, and consists of a nave, north aisle, and chancel, with a tower at east end of nave. The walls are of Whittle Hill stone, with dressings of Longridge stone. The nave is 50 feet long by 25 feet wide, with trussed rafter roof, continuous over the chancel, which is of same width as nave, and 25 feet in length. At the western end of nave, an arch opens into the tower portion of the building, and is intended for the church scholars. The north aisle is of same length as nave, with which it communicates by three arches, supported on octagonal columns, with moulded caps. The square tower, with buttresses, is surmounted by an octagonal spire, pierced by eight quatrefoil lights: the height of the vane from the ground is 148 feet. The roof is an open one of framed timbers, and stained firs, covered with green Westmorland slate. The fittings are of a simple character, executed in pitched pine. The building is calculated to hold between 400 and 500 persons. The east end of the church is lighted by a stained glass window, the work of Mr. Warrington. The subject of the central light represents the mother of Zebedee's children soliciting that her sons might sit on the right and on the left of our Saviour in His kingdom. In the right-hand light is a portrayal of Jesus, suffering little children to come unto him; and the left-hand light represents the deed of the good Samaritan. The church is heated by hot-water apparatus. The parsonage and stabling are situated on the south side, and are built in the old English style, with brick walls, and stone dressings to the windows, &c. with lofty chimneys in ornamental brickwork. The entrance from the road is opposite the north porch, and consists of a small bridge across a sunk fence: on this is placed one of the old oak litchgates, covered with a stone roof. Mr. Ewan Christian was the architect employed on the erections; and Mr. W. H. Espinett, also of London, has superintended the progress of the work. Mr. Armstead, of Preston, was the contractor; and Mr. Aughton, jun. sub-contractor. The land was given by the Misses Ffarington, but the church has been built at the sole expense of Mrs. Ffarington. The outlay has been between 3,000*l.* and 4,000*l.* The workmen employed on the works, with several of the contractors and others, celebrated the opening by a dinner at the Union-hall, Leyland, when about 120 persons were present.

WALLS' COURT FARM, NEAR BRISTOL.

To complete the illustration we annex a view of Mr. Proctor's residence, and one elevation of the bailiff's house, together with sketch-plans of both. The residence is situated at a short distance from the farm-buildings (see page 342, *ante*), and the bailiff's house is at Stanley Farm, adjoining, which belongs to Mr. Proctor.

Both are built of the local stone, with Bath stone dressings. In the residence, however, the inner face of the walls is of brick, as it was feared, the stone being non-absorbent, that damp would show. The house is raised on a turfed slope, and has a prospect tower, from which the whole of the farm and lands may be viewed. We will not venture to speak of its convenience.



RESIDENCE, WALLS' COURT FARM, NEAR BRISTOL: AND BAILIFF'S HOUSE.—Mr. Godwin, Architect.

PROVINCIAL NEWS.

Cardiff.—The new dock was opened with great ceremonial and rejoicing on Friday before last. The dock now opened is but one-half of the intended size; and operations are actively being proceeded with, to carry out the whole project. The new dock was commenced in January, 1852. It is of the following dimensions:—Length of locks, 220 feet; width of locks, 55 feet; length of basin, 380 feet; width of basin, 250 feet; length of dock, exclusive of extension, 1,000 feet; width, 300 feet. The extension, which it is expected will be completed in December, 1856, will give a total length of 3,000 feet. The contractors are Messrs. Hemmingways and Pearson. There are already coal shipping machines provided; and it is intended to place two lines of rails on the east side—one, of the Rhymney Valley Railway, and the other a branch of the South Wales; and on the west side there will be connecting branches with the Taff Vale. All these lines will find traffic in the large quantities of iron and coal which this dock—calculated to accommodate 200 per cent. more shipping than the old dock—will require. The day of opening was observed as a complete holiday, with public dinner and ball, fireworks and illumination, &c. and a feast to the 700 workmen employed by the contractors.

Warrington.—The borough surveyor, Mr. B. Coxon, has been appointed, by the town council, inspector of nuisances, and Mr. Hackey, deputy inspector. ——It is rumoured that through the instrumentality of the rector, the Rev. Mr. Quekett, steps are about to be taken for the establishment of model lodging-houses in this borough.

Lynn.—The local Baths Committee, on Monday before last, met to open tenders for the construction of public baths here. Only two were received, viz. Mr. M. Bambridge, 1,792*l.*; and Mr. J. Stimpson, 1,450*l.* As the committee have only 1,250*l.* to lay out, they have requested the architect's advice on the subject, and it is presumed the plans will have to be reduced.——The first stone of the new Workhouse was laid on Monday in week before last. ——Measures have been taken for the much required ventilation of the Corn Exchange, by raising a portion of the roof so as to form a kind of lantern. Plans for the purpose were recently laid before the committee by Mr. Maberley, the architect, and the tender of Mr. John Laird, to execute the works for 80*l.* has been accepted by the town council. It appears from a statement in the *Norfolk Chronicle*, that the receipts from the Exchange from the opening to 19th ultimo, have been 438*l.* 10s. and the expenditure 64*l.* 12s. 6d.

Hartlepool.—The works at the New Dock here are making progress. Considerably over 300 workmen are daily employed upon the masonry and excavations, and it is anticipated that the dock will be ready for opening during the first week in October. The works connected with the Graving Dock are also being pushed forward.

Glasgow.—At a meeting of friends and patrons of art, held in the Council Chambers, under the presidency of the Lord Provost, a committee has been appointed to raise subscriptions for the maintenance, as a Museum of Art in Glasgow, of the collection made by the architects for the Scottish Exhibition. A sum of 3,000*l.* is required to free the promoters from personal liabilities. The proceeds of the exhibition pay all current expenses.——The New Suspension-bridge over the Clyde, at the Humane Society's House, is approaching completion. The approaches have been laid out, and planks to form the footway are on the bridge.

Hamilton.—The new militia barracks here in course of erection, consisting of 15 one-story houses, each 50 feet in length, will accommodate four sergeants and 449 privates. There will also be a cooking-house, 50 feet by 18. The new erections occupy a line of 850 feet, along the barrack boundary wall, which forms one of the side walls of the houses, and is fully 2 feet thick. The opposite side walls and gables are of brick. The height of the side walls is 10 feet; length of each room, 50 feet; width, 18 feet 8 inches. The riding-school has been turned into a men's mess-room. The contractor is bound to have the new barracks done within less than two months.

SURVEYORS' CHARGES.

POLAND *v.* TEBBUTT.

This was an action in the Bloomsbury County Court, a notice of which appeared in our last impression. It will be in the recollection of our readers that the case was adjourned in order to enable the plaintiff to produce evidence, that the charge of 1*l.* 1s. for going over the extra work, and settling the accounts of these extras, was really in the nature of commission, the principle affirmed by the judge (Mr. Heath) being, that where surveyors charge by *commission*, they are precluded from adding any charge for *time*. There was also another item of 1*l.* 1s. disputed by the defendant, for resisting an encroachment, by the defendant's neighbour, in some alterations that were about being made under the direction of Mr. Knight, a surveyor. Mr. De La Mare was now instructed on behalf of the plaintiff, and Mr. Williams, as before, appeared for the defendant.

Mr. Brown, the builder, who had made the alterations, was now called, and stated that in addition to the 124*l.* for the original repairs, he had received the further sum of 24*l.* for extra work, which had been duly superintended by the plaintiff in the ordinary way.

Mr. Williams now submitted that, as to this item the plaintiff could not recover, as by the custom of the profession commission was never charged upon extra work! This assumption was negatived on the part of the plaintiff by his personal evidence.

The Judge said, he was clearly of opinion that the plaintiff was entitled to commission on all sums actually paid to the builder. This item must, therefore, be allowed, unless special cause was shown to the contrary.

As to the encroachment, evidence was given that the plaintiff acted as the defendant's surveyor, and adopted the plaintiff's suggestions.

The learned Judge thereupon allowed this item. The result of the whole case was, that the postage 2s. was taken off, and it was held that the charge of 1*l.* 1s. for the preliminary survey of the premises was included in the charge for commission; and the sum of 1*l.* 3s. thus being taken off, the sum of 8*l.* 6s. was allowed as the plaintiff's claim.

Mr. De La Mare then applied for costs, and after a lengthened controversy, the costs of the plaintiff's attorney, and all his witnesses, were allowed.

ZINC PAINT.

As an interested party in the question lately treated in your useful paper relative to the advantages of White Zinc Paint, I hope you will allow me to offer a few observations, referring particularly to the substance of the article of 26th May (p. 243, *ante*).

The article says, that "If the work is to have the maximum of durability, the turpentine should be reduced to the smallest possible quantity, because in the oil is the principle of stability."

To a great extent I agree with this, and thence one of the greatest advantages of oxide of zinc as a paint, the absorbing quality of this oxide being far greater than that of any material hitherto used as a pigment; but therein, also, may be the cause of certain disadvantages if this absorbing quality be abused: a quality good in itself may become a defect if unduly treated.

The important point which must be kept in view in order to insure a durable, clean, and well-covered surface, is the extent to which the oxide of zinc is to be allowed to absorb the oil in mixing; and allow me to state that in practice the unrestricted admission of the principle, that the greater the quantity of oil absorbed the more perfect the paint, has led to great mistakes.

Our experience in the use of zinc paint, which has been for several years very extensive on the Continent and in America, has taught us that there is a very exact medium to be observed in mixing this paint, and that allowing the oxide to imbibe too much oil is quite as objectionable as the contrary.

If too freely diluted with oil, two prominent defects will be found to result.

1st. Too great transparency, causing want of covering power.

2nd. A constant, although imperceptible oozing out of the excess of oil: thence the perpetual formation of a slight glutinous coating on the surface, which attracts and retains every particle of dust or dirt floating in the air which is brought in contact with it; and this effect will continue for a considerable time,—in fact, until all the superfluous oil has thus slowly evaporated, and the paint definitively hardened. This alone is the real cause of the failing which you have observed.

In consequence of the great durability of the colour of zinc paint, a house painted with it may be washed for a succession of three, four, and even five years; and after each successive washing the surface will be found as clean and bright as when fresh painted. Of this fact there are even in London several instances to show. This circumstance mainly led us to consider the fact I have just submitted to you, and to seek for a remedy. In the first place we found that exterior surfaces, painted with zinc too freely diluted with oil, on the usual assumption that the more the oil the better the paint, foul very rapidly, and require frequent washings to be kept clean; but we at the same time discovered, that after each washing these surfaces remained clean for a longer period, and this because such successive washings carried off the thin glutinous coating formed on the surface by the exuding of the oil, and rendered its re-forming less frequent, and more imperceptible as the superfluous oil became diminished. We also remarked, as would naturally follow, that surfaces painted flat (with more turpentine) did not foul as surfaces painted bright with more oil. It was also found, that where oil to the full extent of the absorbing power of the oxide was used, it covered less effectually than lead paint. Hence it became our object to ascertain the exact proportion of oil required to ensure the greatest durability of the paint and efficiency of covering, without causing the defect of softening and fouling, and at the same time the due proportion of turpentine to be added, so as to give the paint the degree of fluidity required to ease the labour of spreading, without producing such transparency as would be detrimental to its covering power, or giving it a tendency to pulverise, which would be the case if turpentine were added too freely.

In fact, all objections to the use of zinc paint may be traced to the difficulty of arriving at the exact necessary proportions of oil and turpentine; perhaps, also, to a little special practice in laying on a new material. It should, however, be remembered, when zinc and white lead are respectively properly mixed, and equally liquid, that the former invariably contains more oil, and is at the same time lighter and more easily spread, and that it will cover equally well, and paint a larger surface, in proportion to its weight.

I think it will be generally acknowledged, that if a material has been found free from the several disadvantages attached to the use of white lead, and equal, if not superior in its advantages, it would be conferring a benefit on the public to demonstrate the fact; and if, therefore, any experiments should be suggested to show that such is the case in respect to zinc oxide, I shall be most willing to take part in conducting them, and giving such suggestions as our experience has pointed out to us as being practical and true.

For the Vieille Montagne Company,
R. G. Fisher.

DUTIES OF DISTRICT SURVEYORS.

Our attention has been directed to a clause in the Metropolis Local Management Bill, which, as it seems to us, ought not to be allowed to remain, and we trust that its omission will be arranged for in the House of Lords. The clause is as follows:—

"Every district surveyor acting under the Act of the session holden in the seventh and eighth years of her Majesty, chapter 84, or under any Act repealing or amending the same, shall without any fee or reward enforce the observance of this enactment [as to the non-occupation of underground rooms not in accordance with certain requirements], and proceed for the recovery of penalties thereunder, and report periodically, and otherwise, as the said Metropolitan Board may order, to such Board, all cases in which rooms or cellars are occupied contrary to this enactment in the district of such surveyor, and also to the respective vestries and district Boards all such cases occurring within such parts of his district as may be within their respective parishes and districts, together with the particulars of the cases in which proceedings may have been taken for penalties, and the result of such proceedings; but nothing herein contained shall be construed to disable other persons from enforcing this enactment, and taking proceedings for penalties thereunder."

A duty of this kind is altogether apart from the duties of the district surveyor as marked out by the Buildings Bill, and should devolve on the police or inspectors of nuisances. It would seem to be a duty without end, requiring constant attention, and would take off the district surveyors from their proper province, enforcing attention to the constructive requirements of the Buildings Act. All are interested in having for district surveyors men of high standing and professional knowledge; and this clause, if it be permitted to remain, will unquestionably tend to keep such from the office.

Irish National Gallery.—The estimated cost of the new Irish National Gallery is 11,000*l.* of which Government contributes 3,000*l.* this and the same sum next year, making 6,000*l.* in all. The remaining 5,000*l.* is made up of subscriptions to commemorate the public services of Mr. Dargan.

SPONTANEOUS COMBUSTION.

Referring to your notice of Dr. Inman's work on the above interesting subject, in the *Builder* of last week, I am tempted to describe an instance of spontaneous combustion, which occurred on my own premises a few years ago, and may serve as a warning to others.

The roof of a large coal-shed was one day discovered to be on fire, which was, fortunately, quickly extinguished, but occasioned much surprise as to how it could have originated. On examination, I found the tiles were destroyed on part of the roof, and the rafters, which were old and rotten, exposed to the sun and rain. A quantity of fine coal-dust had settled on the upper surface of the rafters. The weather was hot, with occasional showers, and I suppose a kind of fermentation of the rotten wood* had taken place, and ignited the coal-dust; at any rate, after minute inquiry, no other explanation of the mystery could be arrived at by A. S.

A correspondent, Mr. W. Brotherton, points attention to the use of oils in manufactories, steam-vessels, &c. as a cause of combustion, spontaneous or otherwise. These oils, he remarks, are but too generally adulterated with the cheaper volatile oils, and, from friction and heat, they rapidly disappear, but still pervade the atmosphere of places where they are used, often, indeed, penetrating to and collecting in spaces apart from these, and giving rise to fires, either from spontaneous or communicated causes. Foreign oils of a poisonous description, he also states, are often mixed with the same materials, and are supposed to give rise to heretofore unaccountable diseases; whereas if the oil of the rape plant were cultivated to a sufficient extent to supply the enormous demand, such evils would be obviated, and much good would ensue, both to our agriculturists, our manufacturers, and all who use such oils, or breathe the atmospheres in which they are used.

Notices of Books.

Homes for the People, in Suburb and Country: in a series of 100 original designs. By Gervase Wheeler, Architect. New York: Scribner. London: Trubner. 1855.

It is quite possible that the information here gathered together may be useful in America; in some respects, even in England; and that if the work had been done in an honest, honourable manner, we should have thought the compiler of it entitled to praise. So far, however, from this being the case, if we may judge from that which comes immediately within our knowledge, the author has appropriated the writings of others in the most extraordinary manner, without the slightest acknowledgment.

He has thus laid under contribution the series of papers on the History of Architecture, first published in our journal in the shape of Letters to a Lady, and afterwards in a volume, under the title of "History in Ruins,—a Handbook of Architecture for the Unlearned." We have placed a couple of passages side by side to prove our case:—

"*History in Ruins.*"	"*Homes for the People.*" (Page 20-21)
"We are apt, in the business and bustle of to-day, to forget too entirely the past: everything which serves to take us back to the early periods of the world's history, to force upon our notice the age of prophecy, the foundation of Christianity, the rise and fall of states, must tend not merely to interest, but to expand the mind; will enable us to estimate rightly our present position, and, by showing what *has* been done, assist us in making further advances. You will see at once, too, that by a knowledge of architectural history, and the peculiarities which characterise the works of various people and epochs, the pleasure of travel is greatly increased: every stone is suggestive of an idea, and every old building becomes an open book, wherein with this knowledge those who run may read."	"We are too willing, amid the hurry and the business of to-day, to forget utterly the past. In our struggle onward, we have little time for a backward glance; and yet, everything that may help to lead us back to the early world's history, that may serve to force upon our attention the age of inspiration—the rise and fall of nations, the planting and the spread of Christianity, must tend not merely to interest, but to expand the mind. So may we learn duly to estimate this our own position, and by knowing what has been done, gain a power for further advances. At least let me claim that, by some knowledge of architectural history, and of the peculiar characteristics of various epochs of art, the pleasure of foreign travel (now so widely sought) must be greatly enhanced; for every stone would then be the token of an idea, and every old building an open book, and 'sermons in stones' be read and understood."

* More probably of sulphuret of iron in the coal, while the rotten wood would be a kind of touchwood, or tinder, to foster the combustion.

"*History in Ruins.*"	"*Homes for the People.*" (Page 108-9.)
"The houses [of the Greeks] were very plain, and contrasted strikingly with the public buildings: they sometimes stood back, within an inclosure of their own, and in front had an altar of Apollo, or a bust of the god Hermes. Inside, the houses were but simply adorned; yet we hear of painted ceilings in the time of Plato, and, at a later period, coloured stones were used, and mosaics. "I could almost wish that there was a memorial of the mythic Apollo before every Hodge-to-day Apollo, always youthful,—Apollo, the representative of music, and eloquence, and poetry! What do we find in too many of our houses? Not a picture, not 'a thing of beauty' of any description; often not a thought of it. Even where thrift and carefulness reign, there sometimes shines no joy; and the clay-bound spirit never reaches its right elevation: the occupants groan instead of living. But there is a Bible on the window-sill, you will say: we want not Apollo. True. We have deeper consolation, purer teaching, higher incitement than the poor, dark Greek; but The Book scarcely required white ceilings, drab walls, gloomy looks, constant care; lamentations for ills which are not, and never may be; thoughts only for the animal life; a shutting out of the light, and refusal to be joyous. If you do not know of such houses, you are lucky in your friends,"	"Centuries ago, the people of Greece were accustomed to erect in the small court-yard invariably in front of their private houses, a bust, or statue of the god Apollo, the mythic representative of lively art, the joyous and youthful patron of music, eloquence, and poetry; this to be a constant teaching of the usefulness of cultivating acquaintance, in their daily going out and coming in, with the softening and elevating influence of material beauty. Would it not be well in our day to metaphorically erect a statue of Apollo in the court-yard? "In early days, the cross was planted before the doors of many Christian homes; and its teachings were still the same; for the holy emblem was invariably made 'a thing of beauty,' breathing strains of hope, not groans of gloom. Shall not our court-yards be in spirit so adorned? "In present times, a custom is to plant sweetly-smelling and cheerful-looking flowers before the house door: these may teach the lessons of older times, as told by Apollo and by Christian emblem—may show that where thrift and carefulness reign may shine a cheerful joy—and that thoughts only of the animal life, refusal to be joyous, constant care, are not required by *The Book* upon the table, that takes the place of the heathen god in the court-yard. Our deeper consolation, purer teaching, higher aims, than those of the darkened Greek, should show recognition in the evidence of grateful appreciation of the beauties found so lavishly around us: the added comforts and superior conveniences of our homes to those of our Christian forefathers should make us strive to emulate in our works the spirit which gives to those of our fathers a beauty and a use."

When we add, that no reference whatever is made to the source throughout Mr. Wheeler's volume, the justice of our complaint must be evident. This is not the first time the little book in question has been made use of by others, but this instance is certainly the most barefaced example.

Improved Dwelling-houses for the Humbler and other Classes, based on the Scottish Dwelling-house System. By William Chambers. London: W. and R. Chambers, Paternoster-row. 1855.

The substitution of the horizontal or flat system of building dwelling-houses for the ordinary perpendicular system, especially in London, we have often urged in these columns, so that the subject is not new to our readers. For more detailed particulars, however, as to the former system, than our limits allow us to give, we are glad to be now able to refer all interested, and particularly our professional readers, as well as capitalists, to the precise and clear conception of that system which a perusal of Mr. Chambers's tract will afford them. It contains much information as to the flat system as it is practised not only in Scotland but also in France, the adoption of which latter modification in London Mr. Chambers recommends,—at least so far as relates to the appendage of a porter or general attendant to look after the common stair, outer entrance, &c. of each of the higher class tenements of "houses" or flats; although in many cases the additional expense thus incurred may not be considered necessary, especially in the tenements of cheaper and smaller dwellings so much wanted about London. In respect to the endeavour to introduce the flat system in the metropolis, as at Victoria-street, Westminster, Mr. Chambers says:—

"In certain new tenements lately erected in Victoria-street, Westminster, an attempt has been made to introduce into England the plan of dwellings in flats; and there the common stairs are placed in charge of a porter or porteress, who opens the door to all visitors. With this commendable improvement, however, the plan of accumulating separate dwellings under one roof is not presented in a form which is likely to be popular. In one case, the intervention of *entre-sols*, and in another the erection of low parasitic buildings behind, as residences for the shopkeepers, are fatal objections. The very putting of shops in houses of this class, with no adjoining neighbourhood for their support, seems an error which it would be well for speculators to avoid. From whatever cause, the flats in question are charged with rents far beyond the means of those class of persons who might be expected to occupy dwellings of this kind. On lately making personal inquiry, I learned that for a first floor, raised to a great height by reason of an *entre-sol*, the yearly rent (rates and taxes included) was as much as 120*l*. For a second floor in another tenement, consisting of only three rooms and a kitchen, and possessing no accommodation whatever for a servant, the yearly charge was 90*l*. Possibly, other dwellings of this kind in or near Victoria-street may be cheaper, but the sums just specified at least indicate the general extravagance of the charges which are made; and after making all allowances for local circumstances, I am inclined to suppose that some great architectural or financial blunder has been committed by the parties concerned. The price of timber, glass, slates, locks, hinges, and some other materials, can be no greater in London than in Edinburgh; and as it may be imagined that any excess in the price of labour would be compensated by the low cost of brick in comparison with the heavy outlay for polished sandstone, one is at a loss to understand why, as regards mere construction, a substantial and commodious tenement on the Scottish plan could not be produced as cheaply in the environs of London as in Edinburgh or Glasgow. In examining the Victoria-street buildings, it may be noted that the floors are placed on iron beams and arches, as a precaution against fire—an arrangement shown to be unnecessary for properly built edifices of this kind, and by which, as well as from some other oddities, the cost of construction is possibly increased. Be this as it may, it is matter of regret that the attempt to introduce into London, buildings on the Scoto-Parisian plan, should not have afforded a more correct idea of the original; and it is only from observing this unfortunate failure, of what was no doubt a well-meant scheme, that we would venture to recommend a new course of procedure."

For this new course of procedure we must refer our readers to the tract itself, and its illustrations.

In allusion to a very much wanted class of dwellings,—those namely of 15*l*. to 20*l*. rental, Mr. Chambers says,—

"Advancing to a still better class of dwellings, much in request, we arrive at those which embrace two rooms, with a bed-closet, kitchen, scullery, water-closet, and other conveniences — rent, from 12*l*. to 16*l*. or what in London might be from 15*l*. to 20*l*. per annum. The best specimen of a tenement of this class which has come under my notice, is one lately erected, as a private speculation, by a gentleman at Port-Hopetoun, a suburb of Edinburgh. This large building, forming the corner of a street, consists of flats, reached by two common stairs. Each dwelling consists of a kitchen and two rooms, with closets of various sizes, a scullery, and other conveniences. The rents are from 12*l*. to 16*l*. each, making a money-return to the landlord of at least 7 per cent. per annum. The chief peculiarity of the structure is, that it is pierced from top to bottom by shafts, which afford light and air to the water-closets in the several dwellings. These shafts have a glass cupola, with louvre-boards for ventilation."

The author formally dedicates this useful tract to "Capitalists, architects, builders, and generally all who may feel interested in promoting the erection of improved dwelling-houses at a moderate rent in London, New York, and other large seats of population."

Miscellanea.

Cracks in Lead.—Upon a roofing of lead subject to the frequent tread of the foot, and exposed to the excessive heat of the sun, I wish to apply to certain damaged parts a composition which would be a preventive to the water oozing through the crevices at the time of rain, and would likewise remain hardened and adhesive under a summer sun. Soldering, from the spreading of the lead by the frequent tread, cracks, and again exposes the crevices to rain. Gas-tar, mixed with a good proportion of rosin, and applied in a high state of heat, becomes again melted by the sun's heat. If any of the readers of your paper be in possession of an efficient remedy, and would name it in your columns, I should be much obliged.—G. S.

Loss of Antiquities for the French tional Museum.—Letters from the East intimate t the greater part of the collection of antiquities de by M. Place and M Fresnel, at Babylon, have n lost just above the confluence of the Euphrates l the Tigris. The advices state that they were eral feet under the alluvial soil, into which they had k in four fathoms water. Mr. Holland, com- nding the Hon. East Company's steam-ship *Comet*, nired to the spot, sent down divers, who ed every rtion to recover them, but without s ess. Of the ole of this magnificent collection only two rafts, taining fifteen sculptured figures, and one large bull, ached Bussorah in safety.

Sussex Memorial.—The first stone of a new ng to the Royal Free Hospital, London, to serve as nemorial of the late Duke of Sussex, was laid on onday last, with Masonic honours.

A Singular Lightning Stroke at Birmingham.—If last season was remarkable from want of under-storms, the present is equally remarkable om their number and intensity. A strange incident curred during the great thunder-storm which re- ntly passed over Birmingham. The workmen em- oyed on the Independent College, in course of erec- on on Moseley Common, near the Stratford-road, ok shelter in a couple of wooden sheds, thirty or rty yards from the building, and from each other ne of these is used for the workmen's tools, and in some thirty bricklayers took refuge. Separated om the tool-house by a wooden partition, is the ilder's office, in which was Mr. Beeson, the clerk the works. The other shed was occupied by renty stonemasons. They were not many minutes eltered when a lightning flash prostrated to the rth the whole party of fifty. A noise like the crack a percussion cap (the well-known sound of the ectric force in action), preceded the peal of thunder. wo or three minutes elapsed before any of the party ere able to rise, and one, the foreman of the brick- yers, remained quite unconscious for upwards of a uarter of an hour. A sensation as of scalding led the discovery that their bodies were more or less istered, several being nearly covered with watery tches, varying in size from a hand's breath down- ards. The stonemasons do not appear to have been sited so severely, as none of them were blistered. he lightning descended a scaffolding-pole at the cor- er of the building nearest the sheds, scooping out its bstance, from top to bottom, as cleanly as if it had een the work of a gouge or chisel, burning the ropes y which four ranges of scaffolding were tied, and ipping a heap of bricks below as if with hammers.

British Archæological Association. — The rogramme for the meeting in the Isle of Wight, om August 20th to 25th inclusive, is as follows:— Monday.—Public Meeting in the Town-hall of New- ort; President's Address; Introductory Sketch of he Antiquities of the Isle of Wight, by Mr. Petti- rew; Exhibition of Plans of the Town of Newport; ecture on the Municipal Records of Newport, by Ir. W. H. Black; Inspection of the Town; Remains f St. Thomas's Church; the Grammar School; Museum of the Isle of Wight; Evening Meeting at Newport for Papers, &c. Tuesday.—Visit to Caris- brooke Castle; Remains of Priory; Carisbrooke Church; Shalfleet Church; Newtown; Site of An- cient Francheville; Examination of Ancient Docu- ments; Evening Meeting; Papers. Wednesday.— Visit to Calbourne Church; Longstone; Mottistone; Brixton Church; supposed Site of Roman Villa; Westcourt; Manor House; Shorwell Church; Row- borough; Ancient British Town of Gallibury; Evening Meeting at Newport; Papers. Thurs- day.—Visit to Niton; Puckastor Port; Ventnor; St. Lawrence Church; Bonchurch; Examination of Barrows on Wroxall Downs; Evening Meet- ing; Papers. Friday. — Visit to Southampton; Reception in the Audit House; Examination of the Ancient Walls and Fortifications; St. Michael's Church, &c.; Lecture on the Corporation Documents, by Mr. Black; and on Saturday, closing Meeting and Visit to Netley Abbey.

Sharp Practice.—The "Country Architect's" paragraph headed "Sharp Practice," I did not at first think worthy of my notice. I will, however, for the sake of *truth*, just state what passed between the vicar and myself. The vicar is a personal friend of mine, having known him for upwards of twelve years. I called on him when in that part of the country, as I frequently do. I had no idea that it was his intention to build a cemetery chapel, until he named it to me, and asked me to make a design: no other architect's name was ever mentioned to me as having been applied to; and, in accordance with the vicar's wishes, I sent him a *pen-and-ink sketch*. The framed and glazed lithographs which are stated to have "accompanied" this "elaborately got-up design," were presented to the vicar twelve years ago, and out of compliment to me he had them framed and glazed.

A Town Architect.

Grimsby Docks.—These docks, and the railway in connection with them, are prospering. During the past half-year the local goods traffic on the railway increased 23,746 tons, and the foreign goods traffic 31,728 tons. The coal traffic increased 15,402 tons. The shipping shows an increase of tonnage amounting to 2,715. The directors have modified the wharfage charges for coastwise timber and grain. The construction of a graving dock, corn warehouse, and additional conveniences for the shipment of timber and coal has been contracted for at 26,817*l*.

Stone for Doncaster Church.—The new building is rapidly progressing under the direction of Mr. Scott. It is supposed, nevertheless, that it will yet require more than two years to complete it. It was commenced with a stone called Steetby, but the architect, we are informed, has now adopted the Ancaster stone from the quarries belonging to Mr. John Wilson, which supplied the material for many of the ancient churches in Lincolnshire. We gave particulars of these quarries, it may be remembered, some time ago.

English Patents.—The *Mechanics' Magazine* of 7th ult. contains an account of Mellish's patent obliquely perforated glass ventilators, which, in their most recent and improved form, consist simply in cutting any approved pattern on the opposite sides (upper and lower edges) of a series of strips of glass, which being brought together, form a window-pane impervious to rain or direct currents of air, but constituting, it is said, an efficient ventilator. Under the head of specifications of patents recently filed, in the number of the same journal for 28th ult. is the following:—"Arnold, Joseph, of Tamworth, Stafford. A new mode of ornamenting bricks, and other moulded articles for building purposes. Patent dated Jan. 2, 1855. (No. 9.) In order to mould bricks with ornamental surfaces, the inventor cuts or engraves a die representing the required design, and applies this die as the side of the mould in which the moulded article is to be formed. This die is not permanently fixed to the mould, but is applied in such manner as to be capable of being readily removed." Provisional protection has been granted to George Antoine Tabourin, of Lyons, France, student, for a new system of metallic arch, proper for the construction of bridges, arcades, vaults, roofs, and all other such purposes; and to Charles Hide, of Worthing, Sussex, for improvements in connecting earthenware pipes or tubes. A patent has been applied for, with complete specifications by William Pidding, of Putney, Surrey, for improvements in the manufacture of building materials.

Machines exhibited at Carlisle.—A new brick machine, Boydell's steam-horse, and various reaping machines, were exhibited in action at the late meeting of the Royal Agricultural Society at Carlisle. The brick machine was exhibited by Messrs. Porter, Hinde, and Porter, of Carlisle. At the first trial it did not come up to the mark, but it afterwards, according to the newspaper reports, threw off 18,000 well-formed bricks in an hour. The machine effects the two processes of pugging and moulding the clay almost simultaneously. The bricks are cut in the direction of their bed, so that the four sides are preserved smooth, while the top and bottom are slightly roughened, so as, with the perforation of the centre, to secure the proper adhesion of the mortar and consequent safety of the building. The steam-horse is said to have made a successful *début*, notwithstanding some reports to the contrary. Having been put to many tests, it was fixed to a digging machine made by Gibson, of Newcastle-on-Tyne. This implement consists of a series of long hook-shaped prongs, which revolve on a common centre; the prongs striking into the soil by the weight of the machine, and tearing up the ground as the instrument advances. Great power is said to be required for the motion of this implement, so that it put the steam-horse to a severe test, which, nevertheless, it encountered and overcame. The competing reaping machines were Bell's, with Croskill's improvements; Lord Kinnaird's, manufactured by Barry and Leigh; Hussey's Improved, by Dray; M'Cormick's, by Burgess and Key; Palmer's (Stockton); and one by Harker (on the principle of Smith, of Deanston). Most of them are reported to have done their duty smoothly and well, although some minor improvements were desiderated. The prospects of mechanical aid in agriculture appear to be very promising. We may here add that a new steam-plough and harrow, to be worked together, have been made by Mr. R. Rogers, of Westrow Foundry, Stockton. The construction is described as being simple, and with an engine of four-horse power, it can cultivate four acres of land a day, it is said, to any depth required. A patent has been secured for it by Mr. Fiskin, the inventor, and the Highland Society has awarded to it a sum of money, and sent a deputation to witness its operations, who have expressed themselves satisfied that its powers might be applied to agriculture with advantage.

Railway Matters.—A general meeting of the Grand Trunk of Canada Company was held on Tuesday week, at the London Tavern. The report of the directors stated that the progress and execution of all the works had been in the highest degree satisfactory, and that the sections of the line from Quebec to St. Thomas (40 miles), and from Montreal to Brockville (125 miles), will be delivered over to the company for traffic in the ensuing autumn. The communication between Brockville and Toronto (210 miles) will be completed next year; the section from Toronto to Stratford (82 miles), before the end of this year. A connection will thus be effected between Stratford and Montreal, and between Montreal, Portland, and Quebec (341 miles), except the Victoria-bridge. An arrangement with the contractors, Messrs. Peto, Brassey, Betts, and Jackson, had been come to, under which it was expected a more economical plan for the construction of Victoria-bridge might be effected. In reply to questions, it was stated that the Victoria-bridge had already cost 200,000*l*. and that 60,000*l*. more would be required before they could stop the works with a view to give time to consider whether a cheaper mode of construction could be adopted. Half-yearly reports would in future be given. The report was unanimously adopted.——On Tuesday week instructions were forwarded to Messrs. Peto, Brassey, and Betts, from the War Office, requesting them to take the necessary steps for hiring a steam vessel to convey to the Crimea 130 railway waggons, 40 drivers, ten shoeing smiths, and a supply of iron for shoes. The North of Europe Steam Navigation Company's steam ship *Leipzic*, of 700 tons burden and 250 horse-power, was engaged for the voyage, and on Saturday thereafter was at Blackwall, with all her berths ready and her coals on board. The work of loading commenced immediately, and by this date she sails.——Messrs. Wright and Son, of Saltley, have just completed a railway carriage for the Pasha of Egypt, intended for the line between Cairo and Alexandria, which is ultimately, it is said, to be carried across the desert. The interior is divided into three compartments—the centre for the Pasha and attendants, the second for his private use, splendidly fitted up, and the third for his servants.

The Edinburgh Fine-Arts Association.—The twenty-first annual meeting of the Royal Association for the Promotion of the Fine Arts in Scotland, called for the drawing of prizes and reception of the directors' report, took place on Saturday before last, in Queen-street Hall. The prize paintings were exhibited from a screen behind the platform. There was a numerous and fashionable attendance. The chair was occupied by Lord Neaves, who addressed the meeting. The report congratulated the subscribers on the prosperous aspect of their affairs. The annual fund of the Association for the year 1854-55 had exceeded that of last year by 100 guineas, and was larger than that of any year since 1840. The sum was 4,264*l*. From the late exhibition of the Royal Scottish Academy the committee had selected forty-four works of art, at a cost of 1,087*l*. The committee had given 400*l*. for the picture of the "Porteous Mob," by James Drummond; and for five pictures by George Harvey, D. O. Hill, Edmund Crawford, Samuel Bough, and R. T. Ross, a sum of 565*l*. Other details were entered into, and the committee further mentioned that, in March last, a memorial was addressed to them, on the part of the Government, applying for the temporary loan of one of their pictures in the National Gallery, for exhibition at Paris, namely, "The Quarrel of Oberon and Titania," by Noel Paton, a request which was at once acceded to by the committee.

The Metropolitan Buildings Bill has been read a third time, and passed the Commons.

The Chester City Surveyorship.—The local improvement committee, according to the *Chester Chronicle*, have resolved to recommend the council not to fill up the vacancy in the office of city surveyor—at all events, for the present. "It is suggested," adds our authority, "that the preferable plan would be to engage a person at the rate of 100*l*. a year to superintend the works that may be going on, and that there will be no difficulty in finding one competent at that salary. Almost all the important works that are contemplated are in that state of forwardness, as regards plans, specifications, and estimates, that the services of a regular surveyor are no longer required, and an individual of sufficient mechanical skill is all that is required. The situation is now more that of a clerk of the works than a surveyorship in the sense the latter office carries. It is hardly possible for 150*l*. *per annum* to secure the undivided services of a surveyor; and, if the present system were continued, it would be necessary that heavy security should be required. The best plan, it is urged, would be to obtain the assistance of a special engineer or surveyor when and as occasions arise for extra services of the kind, and to pay for them *pro re nata*."

Stained Glass Window for Branksea Castle.—A stained window for the banqueting-room of Branksea Castle, on Branksea Island, Poole harbour, the residence of Colonel Waugh, the owner of the island, is being completed by Messrs. E. Baillie and Co. of London, the exhibitors in the Crystal Palace, Hyde-park, of the glass painting, "Shakspeare Reading a Play to Queen Elizabeth." The colonel has built and endowed a church on this island, employing Messrs. Baillie to decorate the windows. The subject of the castle window is dictated partly by the consideration that Mrs. Waugh is lineally descended from Sir Walter Raleigh.

St. Bartholomew the Great, Smithfield.—A meeting has been held, to set on foot a subscription for the restoration of this church. It is one of the most ancient in London, and it is hoped that the authorities and ancient guilds of the city, as well as private individuals, will contribute handsomely towards the preservation of this interesting edifice, which is quite beyond the means of so poor a district to repair in the manner it deserves.

A Free Church and Schools for Pentonville. At a public meeting of the inhabitants of the new parish of St. James, Pentonville, recently held, resolutions were adopted to the effect, that there being but church accommodation for 600 out of a population of 12,000, an additional church is required which should be perfectly free; and that an additional school was needed for children of the poor, education free. A committee was appointed to carry out the object in view. It is proposed, in the first instance, to provide a temporary edifice constructed of iron, and capable of accommodating 1,000 persons, to be used for divine worship, and also for a school. The funds required are to be raised by voluntary contributions.

Architectural Notes.—In Committee of Supply on Tuesday last, the Commons voted, amongst many other items, 17,695*l.* for National Gallery expenses, including purchase of pictures; 25,000*l.* for Chelsea embankment and roadway; 4,578*l.* for the British Embassy Houses at Constantinople and Therapia, 1,550*l.* for the erection of Courts of Law, in the Isle of Man, and 9,000*l.* for the general repository for public records; 90,000*l.* for a site, and erection thereon of new offices for the Foreign Secretary (various objections to the plans have been started, we do not yet know with what reason or justice); 5,000*l.* towards completion of the Galleries of Art at Edinburgh; 40,000*l.* to defray the cost of public works, and for educational and other purposes, in South Africa; 5,000*l.* for the piece of ground required as we have often urged for opening up a continuation of Pall-Mall to the Green-park; and 11,000*l.* for the purchase of the remaining term of the Crown Lease of Buckingham House, Pall-Mall.

The Conservative Land Society.—The twenty-first purchase for distribution amongst the members has just been made at Clapton. The estate belonged to the late Mr. Samuel Berger, and consists of a family residence, with pleasure-grounds, gardens, &c. This property is in the parish of St. John, Hackney, and is close to the church, and the station of the North London Railway.

Sanitary Observance in Ancient Egypt.—A French chemist, M. Fontenelle, in a discourse on opening an Egyptian mummy, at the Sorbonne, Paris, expressed his belief that the Egyptians were led to embalm their dead from sanitary motives. During four months of every year the inundations of the Nile cover almost entirely the surface of Egypt which is under cultivation. Under the reign of Sesostris, for an extent of territory of about 2,250 square leagues, according to D'Anville, there would be a population of 6,222 persons per square league, which would present 350,000 deaths per annum. These corpses required to be got rid of either by burning or by interment: if the latter, they must have been buried around the inhabited spots, or in those inundated, and then the decomposition would have been a source of destruction: for burning there was an insufficiency of wood. But the soil of Egypt abounds in springs of natron (subcarbonate of soda), and as this substance is antiseptic, the inhabitants were naturally led to preserve with it the corpses of the dead. In support of the opinion that sanitary views were the cause of embalment down to the third century before the Christian era, when the practice was abandoned, M. Fontenelle observed that during the whole of that period the plague was unknown in Egypt, where it is now endemic.

Scaffolding.—While reading your paper yesterday, and *apropos* of nothing, it occurred to me that it would be much better every way if builders used permanent scaffolds, moveable on wheels, in fact a sort of car, instead of the present ugly and dangerous contrivances used in house building. I think if they did we should not have to hear of so many calamities as we do in connection with bricks and mortar.

Non-Professional.

Stone-cutting Machine.—The *Arbroath Guide* mentions a new stone-cutting machine, a recent invention of Messrs. James Hunter and Sons, of Leysmill, near that place, in full operation at the pavement quarries there, belonging to W. F. Lindsay Carnegie, esq. of Kinblethmont. "In the course of ten minutes," says our authority, "we saw a stone of 16 feet 8 inches, and another of 15 feet 2 inches, completely and mathematically divided by a revolving plate-iron wheel, to which are attached steel-cutters of a rounded, bell-mouthed form, apparently of no formidable description, and which can be taken off or put on with the greatest celerity. The speed of the machine is about 7 inches forward per minute for fair working stone of any breadth. The rapidity of the work is only equalled by the extraordinary noiselessness of the machine, as persons standing close by can let themselves be heard without any effort. Two men are only required to be in attendance, their principal work being the adjusting of the stone operated upon, the taking of it away—very easy processes—and the looking out for another. The stones which were subjected to the cutting process on this occasion were of the solid rock and unlaminated description and old sandstone formation. Thus, a description of stone which was previously not available for pavement purposes has been rendered so by the action of this novel and ingenious machine."

Precision in Speech and Writing requisite.—We have heard of a shipowner, not very accurate either as a speller or a writer, who required one of his skippers to bring him home from Africa "two" monkeys, and had afterwards reason to thank his own autographic "too," or rather "loo," as well as the zealous exertions of his "keptin," for the conversion of his ship into a splendid menagerie, containing a hundred gibbering *simiæ*. In this instance, "word of mouth" would have been preferable to written request. In another instance, which we have here more particularly to note, the written request would have been decidedly preferable to the verbal. At Plymouth there is a wall, adjoining the military prisons, and belonging to Government, which impedes the traffic on the Milbay-road. This wall it was very desirable to remove, and with concurrence of the corporation, the mayor, who happened to visit headquarters, asked Mr. Phinn, late recorder of Devonport, the Admiralty Secretary, if he thought there could be any objection to the wall in question being *razed*. Mr. Phinn replied that he saw no reason why it might not be *raised*, and accordingly procured the requisite authority to this end; and, while the corporation were congratulating themselves on the removal of the obstacle, and thanking the mayor for his successful effort to that effect, their astonishment may be conceived when they learned that a number of masons were busily engaged in raising the wall in accordance with the mayor's supposed request. The consequence is, that a written memorial has been forwarded to the Admiralty, praying that the wall may not be raised, but razed. In a case such as this, it is very desirable that the latter word should be *uniformly* pronounced in "*a* flat," leaving "*a* sharp" exclusively to the former, and so obviating all chance (a serious one at times it might be) of misunderstanding.

Boot and Shoe Cleaners.—Why should we not have boot and shoe cleaners on the plan of the knife cleaners? They should be worked with a treadle like a lathe, which should drive a cylindrical brush, one half of it a rough brush for removing dirt, and the other half a polishing brush. For hotels, schools, and other establishments, needing much boot and shoe cleaning, they would save time, labour, and cost.—N. R.

The "Holy Trinity," Upper Tooting.—The builder of this church was Mr. Samuel Nowell—not Mr. Jay, as first stated.

Coating Iron with Copper.—Mr. Johnson (for a correspondent) has patented an improved system of coating iron with copper, in carrying out which, the iron is thoroughly cleansed by the action of dilute sulphuric acid, and a lye of caustic soda. It must then be plunged into a first bath, by which means a thin coat of copper is deposited, and the iron is thereby protected against the action of the acid in a second bath, by which the deposition is completed, this latter bath consisting of sulphate of copper, rendered strongly acid by the addition of sulphuric acid. A thin coating of lead may be substituted for the first coating of copper.

Repair of St. Mary's, Islington.—We mentioned the endeavours that were being made to raise money to put the mother church into a proper state. The following tenders show the different views contractors take as to cost:—

Longmire and Burge	£1,666 0 0
Dove	963 0 0
Patrick and Sons	944 10 0
Timewell	891 10 0
T'Anson	847 0 0
Haynes and Eyre	804 0 0
Glenn	699 0 0
Taylor	694 18 0

Improvements in Propelling Vessels.—M. C. De Bergue, of Dowgate-hill, has recently secured a patent for a new propeller. It consists of a rectangular box, open at both ends, fixed laterally on the sides of the vessel, in the place of the ordinary paddle box, but completely under water. A disc of iron, or other metal fits closely into this box, and is connected to the crank on the main shaft of the engine by a connecting-rod. This disc acts as a plunger, and when in action the end toward the bows first reaches the bottom of the box: the hinder end then comes down rapidly, ejecting the water sternwards with great force, somewhat on the principle of the common bellows, propels the vessel forwards. Working under water, it is out of reach of gun-shot, and is therefore as safe in that respect as the screw.

Ottery Church.—I am much surprised never to have seen in print a proper account or engraving of the fine old church of Ottery, in Devonshire, which is justly deserving of the notice of architects, both from the grandeur of its appearance and peculiarity of plan (being apparently built on the fine model of Exeter Cathedral), and also from its exhibiting a specimen of a vaulted stone roof, unsupported by any kind of buttress above the height of the side aisles. But the point to which I particularly wish to call attention, is the extreme boldness of the operation to which this building must have been subjected at the time when the beautiful additional side aisle, covered by a vault of fan-tracery, was added. In order to connect the new aisle with the aisle of nave (it is equal in width to the nave), the whole of the wall originally supporting the vaulted roof of the nave on the north side, have been removed, and four rather slender pillars or piers substituted. The intricacy and effect produced by this succession of pillars and arches appears to me very beautiful, and certainly the architectural skill that could venture on carrying out so ticklish an interference with the main supports of a massy building, appears worthy of all admiration. A vast sum has lately been laid out on this church, and fine painted glass has been inserted in such profusion as to darken the interior to a most inconvenient degree.—A. B.

TENDERS

For two chapels, lodge and offices, and entrance gates to the Bridport Cemetery. Mr. H. Hall, architect:—

Patten (Bridport)	£1,300 10 0
Harris (Sherborne)	1,239 7 0
Gerrard (Bridport)	1,154 10 0

For building chambers, Nos. 11, 15, and 16, Clement's Inn. Quantities supplied by Mr. Elliott:—

Lawrence	£3,717 0 0
J. and C. W. Todd	3,500 0 0
Williams	3,366 0 0
Macey	3,343 0 0
Fish	3,295 0 0
White	3,270 0 0
Bennett and Co.	3,248 0 0
S. S. Wilson	3,228 0 0
Rudkin	2,956 0 0

For the enlargement and repair of house, at the corner of Hanover-square, London, and Hanover-street (formerly the Hanover Hotel), for Mr. John Leslie. Mr. Godwin, architect. Quantities not furnished:—

E. O. Symons	£2,234 0 0
John Phillips	2,800 0 0
Bywaters and Sons	2,694 0 0
Delay (accepted)	2,399 0 0

For new Congregational Chapel, Canonbury. Messrs. G. W. and E. Habershon, architects:—

Callow	£5,400 0 0
Piper and Son	4,280 0 0
Battenley	4,238 0 0
Butterbury	4,039 0 0
Cooper, H. W.	3,893 0 0
Myers	3,844 0 0
Higgs and Cullingford	3,787 0 0
Willson	3,782 0 0
Tolley	3,747 0 0
Dove	3,735 0 0
Higgs, Wm.	3,723 0 0
Rowland and Evans	3,448 0 0

For Welch Chapel, Nassau-street, Soho-square. R. H. Moore, architect. Quantities supplied by Mr. Charles Poland:—

Butterbury	£2,200 0 0
Rowland and Evans	2,228 0 0
Myers	2,200 0 0
Higgs and Cullingford	2,193 0 0
Macey	2,123 0 0
Dove, Brothers	2,095 0 0
Wilson	1,964 0 0
Bennett and Holdsworth	1,940 0 0
Richards	1,840 0 0
Searle	1,790 0 0
Hopkins and Roberts	1,696 0 0

For sewers, Queen's-road East, &c. Chelsea, for the Metropolitan Commissioners of Sewers. Engineer's estimate, 1,530*l.* 12*s.*:—

Batterbury	£1,744 0 0
Phillips	1,699 0 0
Yeoman	1,663 0 0
J. and E. Bird	1,630 0 0
Stamforth	1,520 0 0
Hall	1,458 0 0
Gooderson	1,410 0 0
Lee and Lavers	1,359 0 0
J. and C. W. Todd	1,297 0 0
Thirst	1,289 0 0
W. H. Rowe (accepted)	1,269 0 0

For Messrs Carlisle and Co.'s offices, Dunster court, Mincing-lane. Mr. John I. Cole, architect :—

J. and C. l'Anson	£4,100	0	0
James Browne and Co.	3,997	0	0
Ashby and Horner	3,995	0	0
Isaac Wilkinson	3,995	0	0
Haynes and Eye	3,953	0	0
Piper and Son	3,849	0	0

For laying out and enclosing ground, and erecting buildings, at Woolwich Cemetery :

	Chapels and Lodge.	Dwarf Wall and Fence.	Laying out and draining.	Oak Fences.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Carlisle	1957 17 0	817 9 3	1137 2 4	
Todd	1425 0 0	715 0 0	18.9 0 0	
Willmington	1.00 0 0	...	1208 0 0	
Rolfe	1512 0 0	...	...	
Smith	1311 15 11	614 18 0	1473 19 3	
Barnes and Co.	1247 0 0	487 11 6	1325 0 0	282 5 0
Harmer	...	605 0 0	...	
Tamsett	...	...	...	517 10 0
Jones and Co.	...	576 12 0	...	
Rogers	...	...	1599 17 0	
Spiller and Co.	...	...	2723 15 2	
Cole	...	...	871 7 6	
Tongue	...	593 0 0	933 6 0	497 0 0
Harmer	...	...	...	625 0 0
Campbell	...	...	1310 13 11	
Hawkes	...	...	1709 0 0	
Martin	...	...	...	495 0 0
Murray	...	...	1147 0 0	
Marshall	...	...	...	410 0 0
Strickson	...	...	1278 0 0	
Sharron and Co.	...	...	1783 11 0	
Newnham	...	...	...	375 14 0
Kirk and Co.	for the whole, 5454			
Murray	...	...	...	474 0 0
Langton and Co	...	...	...	387 5 6
Maidstone	...	...	...	666 0 0

TENDERS FOR SEWAGE WORKS IN THE KING'S-ROAD, CHELSEA.—Mr Butterbury informs us that the amount of his tender was £1,65[illegible]. The sum stated was sent us by two correspondents. We must ask our friends to be careful with their lists of tenders.

SOUTH METROPOLITAN SCHOOLS, SUTTON.—Messrs Coleman's tender having been withdrawn, Messrs. Nicholson's was accepted.

TO CORRESPONDENTS.

"R. M." (it is scarcely possible to give such lists correctly) —"A. L."—"J. P."—"J. W."—"J. H. jun."—"Old Subscriber" (in measuring deck-nogged partitions, the timber in quarters, &c. is measured and cubed, and is also included in the superficial measurement for lathing, &c. ; if it is yes no particulars)—"W. W."—"H. A. L."—"The Tyler" (we are compelled to decline advising)—"R. M. P."—"J. W. B."—"J. W."—"T. N."—"R. K."—"T. L." (will appear)—"H. A. L."—"J. S. M."—"R. P. P."—"A Tourist"—"J. A. G."—"G. W."

"*Books and Addresses.*"—We are forced to decline pointing out books or trading addresses.

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Existing Assurances	£4,892,733
Annual Revenue	167,394
Accumulated Fund	900,846

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VIEW OF THE PROGRESS AND POSITION OF THE SOCIETY.

	Amount Assured	Annual Revenue	Accumulated Fund
At 1st March, 1837	£740,402	£20,203	£56,115
" 1843	1,757,216	64,303	257,753
" 1849	3,167,756	114,146	496,576
" 1855	4,892,733	163,394	910,846

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TO PLUMBERS, GLASS-CUTTERS, &c.
A GENUINE CONCERN, in a main road to the City. Coming in easy.—Particulars, of the Tyne Glass Company, Bridewell wharf, William-street, Blackfriars.

WANTED, about 200 YARDS of SAND or ROAD DRIFT, to be delivered at Wood green, near Hornsey. Address, stating lowest price, &c. to A. B. 10, Stratford-place, Camden New Town

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the following greatly reduced prices:

Pine Planks, 12 ft. 3 in. by 11 in.....	from 3s. 6d.	each.
Spruce Deals 3 in. by 9 in.....	" 3s. 0d.	"
Yellow ditto	" 4s. 0d.	"
Yellow Battens, 2½in.	0s. 2½d.	per foot.
Honduras Mahogany, in logs	" 0s. 4½d.	"
Ditto ditto, in planks and boards ..	" 0s. 6d.	"
Spanish ditto	" 0s. 7d.	"

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
Borough-road, Southwark, and Elm street, Gray's-inn-lane.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, moulding-, pine and oak deals, skirting battens, laths, English oak plank, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

TO BUILDERS AND OTHERS.
AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Sills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills Commercial-road, Pimlico, London

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

¼ inch White, 12s. 6d. per square.			¼ inch Yellow, 15s. per square.		
½ ditto	14s.	"	½ ditto	16s. 6d.	"
1 ditto	18s.	"	1 ditto	20s.	"

Laths, 36s. per load.
Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.
ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

UNIVERSAL MOULDING-MILLS, 24, Portobello-road, Notting-hill.
WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L. are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade.—N.B. All customers having an account at the above establishment can be supplied with mouldings to their own designs, at the shortest notice, free of any extra charge.

IMPROVEMENT in WOOD MOULDINGS. J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.—Steam Works, 20, North Wharf-road, Paddington.
N.B. Builders supplied with all kinds of Marble and Stone Chimney-pieces, at prices lower than any house in London.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

SCAFFOLDING for SALE, consisting of 120 poles, about 3600 feet; about 180 boards, 150 putlogs, 25 dozen cords, &c. &c. Poles, 3d. per foot; Boards, 1s. 6d. each; putlogs, 6s. per dozen; cords, 3s. per dozen.—To be seen on application to Mr. SOMERVILLE, Zinc Worker, 2, High-street, Notting-hill

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES, consisting of Matting, Mats, Mattresses, Brushes, Netting, &c. are distinguished for superiority and excellency of workmanship, combined with moderate prices. Prize medal both in England and America, at the Exhibition of all Nations.—T. TRELOAR, Cocoa-nut Fibre Manufacturer, 42, Ludgate-hill, London.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those dreadful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster of Parisand Scorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK—LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their friends and the public that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cements, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market, they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and continuous power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not recrate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stucco dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent. KNIGHT, BEVAN, and STURGE, Manufacturers only of first class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its fitness, whether for stucco, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no coil ring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lime Limes, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Rilsing, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

21, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent. ROMAN and PORTLAND CEMENT of the first quality manufactured at the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS, OLDHAM and TATHAM are now prepared to receive orders from contractors, builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and which are approved by the Authorities of two or more parts of south to one of cement 10 and 7, to Londs can be run alongside our wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick.

GREY STONE LIME WHARFS, 13, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone lime Works, on the Medway, near Rochester, March 31, 1855.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Maudeville-street North, City-road House. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietors; and, thirdly, that the "REWARDS OF THE JURIES," page 781, of the Great Exhibition, must the Manufactories known as long as "The Tilleries," Tunstall, Staffordshire, as the first of the kind in the world.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland yard, Westminster

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or as sand than any other description of cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any ores. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is the best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 29, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another WHARF, adjoining, as expressly to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

BLUE LIAS LIME.—J. EASTWOOD and SONS take this opportunity of informing their customers that they have on WHARF LIAS LIME, always in stock, ready for delivery, at Belvedere road Lambeth

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and is not VEGETATE or RUST. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers, Office, 4, Georges-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbench, Cambridgeshire, Begs to offer pantiles at 30s. per 1,000; floor bricks and inch pavings, at 30s. per 1,000; 9-inch pavings, at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other vapours or emanations. Being entirely untouched by acids, and from the former ill effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any of the attention has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect process of manufacture, or by mixing with the oxide certain substances calculated to give it increased weight it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark on Pig by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by their Company's Grinding Agents in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 63, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 5, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting slate, warehouses, dwelling houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 13, Manchester-buildings, Westminster.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. R. PEARSE and CO. Brick and Tile Makers and General Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 35s. per thousand; Grizzles, 28s. per thousand; Rough Stocks, 25s. Place, 18s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviers, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to honour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-seconds, Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; as very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Hackney Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. The Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

Depôt, Agar Wharf, King's road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Sonthbridge Fire Goods, &c. of all descriptions, and of best quality. Wood and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 75, Nelson-square, Blackfriars-road.

BRICKS.—Builders wanting Bricks of good colour, are advised to call on H. PARKS, Lewisham, and see the quality at low prices. Carriage within six miles on the most reasonable terms. Red facing bricks at 30s. All kinds of tiles. Paving bricks of own making, salt glazed stone pipes manufactured; also all kinds of red pipes and pots. Application by letter punctually attended to.

FOR IMMEDIATE SALE.—FIRE BRICKS, LUMPS, TILE, and TERRA COTTA.—SAMUEL TICKETT has received a large consignment of the above goods for sale. Apply on the premises, Stone wharf, Isle of Dogs. Dealers and large consumers liberally dealt with

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch red Socket Drain Pipes, and 6 by 6 Tile Pipes. Apply to ST. JOHN HEWITT, Redhill Works, Southampton.

TO CAPITALISTS, SPECULATORS, BUILDERS, and BRICKMAKERS.—TO BE DISPOSED OF, a large BRICKYARD, situate near one of the principal towns in the midland counties, capable of producing more than 10,000 bricks, of good quality, weekly. As the neighbourhood increases with a degree of rapidity witnessed in scarcely any other part of the kingdom, the opportunity is a favourable one. Both machinery with steam power and hand labour employed.—Apply to Mr. W. WHITEHEAD, Auctioneer and Estate Agent, 2, Albert street, Nottingham.

O. MCARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars Fleetstreet, City. Sand, from above or below bridge delivered per yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Boilers and Pumps supplied with the ascension and other Filters at trade prices. These Filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements, and self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 4, Queen-street, Cheapside, London, beg to call the attention of WINDOW BLINDS, which they can recommend as being made in the best manner. Venetian blinds, per yard, 4s.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, ditto, 3s. 6d.; outside blinds, in canvas cloths, 3s. Transparent blinds in great variety. Estimates with prices and discounts to builders and the trade, forwarded on application, post free.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA COTTA to N. H. BLANCHARD, late of Coade's Original Works, for the successful manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornments of our noblest buildings. Groups, statues, Vases, Fountains, and Architectural Embellishments, at prices and qualities that will defy competition, will be found to be a different material to that now being imitated by pilfering manufacturers, with only three of the century's experience, and which greatest knowledge none of the work recently completed by N. H. B. can be referred to, three of the finest Embellishments to the external part of Oldham Church, are from the Duke of Sutherland's, a vase, Tottenham and Edmonton, the turrets to the Caledonian Chapel, Camden, containing from 3,000 to 4,000 feet cube; the colossal Britannias, 19 feet high, at the County Fire Offices, Cornhill and Regent-street; the Arabs, and Colonnade group, at the Kent Mutual Insurance Office, Strand; and other works elsewhere, too numerous to mention. A large Stock of newly designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

CROGGON AND COMPANY. PATENT ASPHALTE ROOFING. BOILER, RAILWAY, AND OTHER BITUMINOUS FELT. For Damp Walls, and Lining from Hollands. 2, DOWGATE-HILL, LOND. N.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 3/4 inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage roads 5s. 6d. per square yard. Railway Arches made waterproof at 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 39, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; establishes 1844. Every description of Flooring executed with the asphaltic material in the best manner. Asphalte for Railway Arches, 35s. per ton. Importer of Trinidad Asphalte.

Shipping Depôt, Devon Haytor Wharf, Rotherhithe.

G. H. CLARK, Agent.

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS. The head of every house taking upon the Weddington Estate, at the rate of 70*l.* per annum, will be entitled to a Free First-class Railway Ticket; and of every house of the rate of 50*l.* per annum, will be entitled to a Free Second-class Railway Ticket, for four succeeding years.—Apply to Mr. GEORGE MORGAN, 7, Chancery-lane.

ROYAL POLYTECHNIC INSTITUTION. Exhibition of the Thames Water, by the oxy-hydrogen Microscope, daily, at 4 and 9 o'clock.—The Effect of Russian Infernal Machines, at 3 45 and 8 45.—Lecture on the Relics of the Franklin Expedition, at the Afternoon Meeting.—Dissolving Views, at 1 and 7 30.—Lecture by J. H. Pepper, Esq. on the Tempest, and of Vocal and Instrumental Music. Brunel's Submarine Conduct illustrated by the Diving Bell on Monday and Wednesday and Friday at 3 and 8. Dissolving Views of the Late Battles, daily at 4 and Monday at 1. Wednesday Evening, at 8 30.—Diorama of Sam Slick, daily, at 3, and Tuesday, Thursday, and Friday Evenings at 7 45.—Monday Afternoon, the 6th inst. Lecture by Lewis Thompson, Esq. on Coal and Coal Gas.

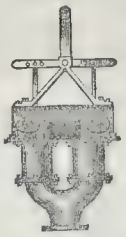
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for square and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold-diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

FARM AND COTTAGE PUMPS.

WARNER'S PATENT CAST-IRON PUMPS, for the use of FARMS, COTTAGES, MANURE TANKS, AND SHALLOW WELLS

Patent Pump..... £1 12 0
Patent Pump, with 15 feet of lead pipe ready for fixing..... 2 12 0
Larger sizes if required.

The smaller sizes are also much used for supplying Hot, Forcing, and Plant Houses, from underground Water Tanks, and can be readily fixed in any situation.

May be obtained of any Ironmonger or Plumber in town or country, or of the Patentees and Manufacturers,

JOHN WARNER AND SONS,
6, CRESCENT, JEWIN-STREET, LONDON.

Every description of Machinery for raising Water, Fire Engines, &c.

The usual allowance to the Trade.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinkers, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto ... 48s. per doz. galvanized.

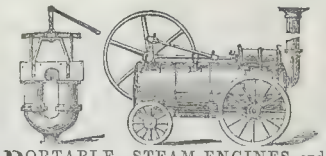
Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 7, Strand.

TO LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with the above or gas. Pumps set on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars Bridge (Surrey Side)

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work. Apply to Messrs. MEDWIN, HALL, and Co. Engineers, 26, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Any of these Engines may be purchased.

TO ENGINEERS and CONTRACTORS.—TO BE DISPOSED OF, a pair of 9-inch PUMPS, with two sprawls, connecting-rods, gunmetal work requisite to work the same; also, a 8-horse STEAM BOILER, with fire-in centre flue, the whole nearly new.—Apply at the Gas Works, Stafford.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has hitherto been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

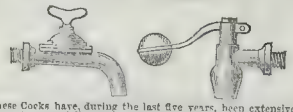
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leaking, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for obtaining direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last few years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

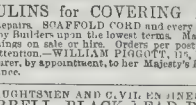
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an



EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 6s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD BROTHERS, sole Manufacturers, 156, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 178, Fore street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.

These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
	B B B B ditto ditto.
M medium.	

Sold by all the principal Stationers in town or country.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licenses for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and choice of litigation is avoided. The Company undertake arrangements for improving inventions on the superficial for the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to

WILLIAM HOWDEN, Secretary.

HARD RUBBER, as a Substitute for Ivory, Ebony, &c. Also, India Rubber Packing, Tubing, Mill Strips, and Printing Blankets. For sale by DANIEL BACON, and CO. 2, Coleman street, sole Licensees of GOODYEAR'S Patent for India Rubber Combs, and Importers of CROCKETT'S Patent Leather Cloths.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS in GROSS or RETAIL. WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT CHEAPER than any other House in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

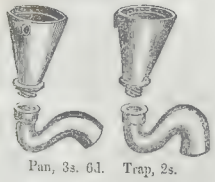
SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

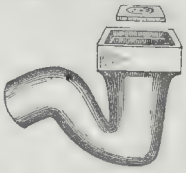
IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK



ALE STOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Bridge's-acre, Westminster-bridge, City-road Wharf, City Basin; Judd's-end, Sermon-lane; Danver's Wharf, foot of Battersea-bridge, Messrs. Pratt Wharf, Kingsland, Camden New Town; J. TURNER, 2, South Wharf, Praed street, Paddington; COLWELL, Brewers, 12, Bull's-court, Gt. Tower-hill; and at EDWARD COCKS, 94, Ward-ar street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

THE FARNLEY IRON COMPANY, WORTLEY, near LEEDS.

Manufacturers of FIRE BRICKS, TILES, QUARRIES, &c., White Building Bricks, Fire-clay CHIMNEY-TOPS, in Norman, Egyptian, Saxon, Tudor, Grecian, Gothic, and Elizabethan styles.

TERRA COTTA

Fountains, Vases, Pedestals, Capitals, Trusses, Brackets, &c., in great variety, which for beauty and elegance of design are unequalled The designs of Architects modelled with the greatest exactness.

Also of PATENT GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, &c., well adapted for pressure, being made extra pressed under "Spencer's Patent." Superior White Glazed CLOSET PANS, TRAPS, &c.

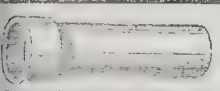
The Works of the Company are situated in the immediate vicinity of the well known bed of WORTLEY FIRE CLAY and their manufacture of FIRE BRICKS, for the use of Forges, Gas Companies, Foundries, Potteries, and Glass works, is confidently recommended for those purposes where extreme heat is required. Their GROUND CLAY is also particularly adapted for the manufacture of CRUCIBLES, MELTING POTS, &c.

OFFICES AND STORES:

LONDON .....No. 14 York chambers, York-buildings, Adelphi, No. 16, Hyde-place, New road; & 8, Arundel-wharf, Islington.
BIRMINGHAM.. No. 7, Lear row, Bull-st.
BRISTOL ..... No. 14, New-st.
LIVERPOOL... No. 5, Russell-street, 83, Renshaw-street, and Shipping-shed, Leeds-street.
NEWCASTLE....W. B. Wilkinson and Co. Prudhoe-street.
MANCHESTER..No. 46, Travis-street, and 23, 24, and 25, Birmingham-street, Ludgate, E.C.
HULL.....No. 20 Queen-street, and Wellington-street
BRADFORD ....Hall-road
LEEDS .....Wellington-street, adjoining the Midland Station, and Shipping-wharf, Victoria-street, Hunslet;
SUNDERLAND..W. B. Wilkinson and Co. Queen-street.

Where Drawings, with Prices, &c. may be obtained; and at the Great Industrial Exhibition, Dublin.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



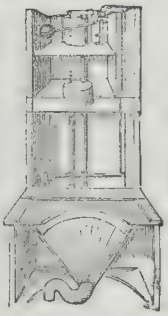
Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with the White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin.—the most effective Syphon-trap yet offered to the public.



This effective article has not any Crank or Wire to get out of order, and is all comprised in Pottery, use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN, Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. & HOGGA C, Engineer.

Royal Arsenal, Woolwich, June 21, 1852

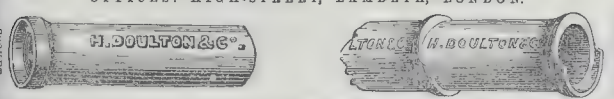
GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM,

OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

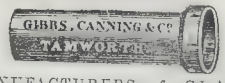
GLASGOW .....J. A. Mathieson, Hope-street.
DUBLIN .....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD....J. Sparrow and Co
CARNARVON .....Jno. Jackson.
DUNDALK .....J. Armstead, Hudson-street.
CROMLEY.....Thomas Saville
BLACKBURN .....W. Hopwood, Clayton-street.
WIGAN .....James Fairclough, King-street.
KENDAL .....Robt. Thompson
CARLISLE .....G. Armstrong, Lowther-street
WHITEHAVEN ..Hugh Todhunter.
COCKERMOUTH..John Bird
QUEENSBY .....Queen, Brothers.
LONDONDERRY..W. and A. M'Elwee.
LIMERICK .....W. Burgess and Sons.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.



MANUFACTURERS of GLAZED STONEWARE PIPES, &c.

FIRE BRICKS, Vitrified Bore Bricks, &c.; also Her Majesty's Patent Syphon Pans, White Glazed Pans, Bricks, &c. &c.

Agents—CHARLES RICHARDSON, 106, South Wharf, Paddington, London.

E. and W. STURGE invite special attention

to their Prices List of Patent Drain Pipes, Junctions, Traps, &c., and Stoneware Goods, Sinks, &c.; Sizes of the most approved Cylinder Chimney Pots and others supplied with all other manufactures appertaining to E. and W. STURGE, Bridge-wharf, City Road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for carriage is made.

January, 1855.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER-WORKS APPARATUS,

manufactured on improved principles, Brass work, cranks, wire, &c. &c. A large number of Closets can be supplied from one basin.

Also PATTEN'S improved powerful FLUSHING FOR PRESSURE WATER-CLOSETS, as recommended by the Board of Health, Government, and many large public establishments, in addition to numerous private houses, testimonials, &c. &c. Many of the highest importance forwarded by post.

Price for Closet and Apparatus complete from 2l. 5s. and perfect action guaranteed. Fresh specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish street, near St. Paul's, London.

Crown 6 ins., 18 tables, 10s. per Crate.

ISAAC PARRY'S

GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT
ESTABLISHED UPWARDS OF 100 YEARS.

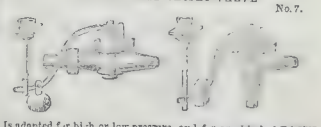
VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES on accordance with the rules established by the Commissioners of Sewers, Bends, Traps, Closet pans, Sinks, and every article in Stone Ware on the most moderate terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris, at Orchard House, Brickfield. Orders executed from the above places, from Faccon-wharf, 89, Bankside, Bloodfriars; and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE.

No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under service pressure of 100 to 200 feet. They are found to be free from all nuisance, and are cheaper than common cocks. Manufactured only by the Patentee,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New-Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 15s. 9d. each.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,

BENDS, JUNCTIONS, and STRAIGHTS. Plans warranted, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to merit the approbation of consumers.—Sole Agents, L. B. PEARSE and Co., Great Northern-wharf, York road, King's-cross.

BY HER MAJESTY'S ROYAL LETTERS PATENT, APRIL 27, 1855.

JAS. LEWIS'S PATENT STENCH-TRAP

FOR STREET USE.

Price, with Gutter Plate, 18 inches by 9 inches, cast, 24s.; weight about 2 cwt. Larger sizes made, if required.

FOR AREAS, &c.

Price, with Back Plate complete, 10 inches, cast 6s.

FOR COURTS, YARDS, &c.

10 inches by 8 inches, each 10s.

The above articles are protected from Pilferage by the British Government, on account of their peculiar construction.

For the many advantages they possess, being a perfect trap for preventing smell proceeding from the Drain, should the water evaporate in the pan. When our traps are put down no further attention is ever paid to them afterwards—this renders them useless. The above, therefore, are a desideratum, as they require no attention. It is well known when closets, especially in the country, it sometimes and hence a [illegible] that is situated by [illegible]

Any obstruction [illegible] can be remedied by the Sanitary Act to lay complaint before the public or private authorities [illegible] they are required. All persons [illegible] would be kind enough to write to the patentee [illegible] testimonials. Please order from [illegible] nuisance, or surveyor, or the Patentee, JAMES LEWIS, Ironfounder, Aylesbury. Specimens to be seen in the Courts of Invention, Crystal Palace, Sydenham

SALES BY AUCTION.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—
MONDAY, 6th AUG. „ | MONDAY, 1st OCT. 1855
MONDAY, 3rd SEPT. „ | MONDAY, 5th NOV. „
Catalogues and further particulars to be had on application one week previous to each sale.—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE.

HAMPSTEAD.—Building Materials; about a Ton of Lead, Four Miles of Copper Wire, 2 cwt. of Gutta Percha, &c.

MR. C. FURBER has received instructions from Messrs. Freund and Hamill to SELL by AUCTION, on the grounds of BELSIZE-PARK, between Hampstead and the New Finchley-road, on WEDNESDAY, AUGUST 8th, at ELEVEN for TWELVE o'clock, the excellent sound BUILDING MATERIALS, comprising the entire erection of Belsize Turnpike house, the pal[illegible] park gates, a good assortment of doors, sashes, rafters, tiles, stable fittings, miscellaneous assortment of brass-work, iron park fencing, large brewing coppers, [illegible] and roller blinds, van and other harness, and numerous effects to clear the estate. Catalogues may be had four days prior to the sale, on application to the Clerk of the Works' Office, on the estate; of Messrs. FREND and HAMILL, Contractors, 44, Bedford-row; and at the Auction Offices, in Warwick-court, Gray's-inn.

NEW HOUGHTON, within eight miles of the Fakenham Railway station, and twelve of the Port of King's Lynn.

MR. J. BECK has the honour to announce he has received instructions to SELL by AUCTION, on WEDNESDAY, AUGUST 8th, 1855, SPLENDID OAK TIMBER TREES, many of them of large dimensions, and all of first-rate quality, the property of the Most Noble the Marquis Cholmondeley, all lying by the side of gravel roads for convenience of removal. Three months' credit will be given to purchasers to the amount of 5l. and upwards, upon approved security.—Catalogues may be obtained of Mr. W. STANTON, Resident Agent; of the Auctioneer, Snettisham, near Lynn; and posted free on application.—Sale to commence at TWELVE o'clock.

IN SURREY.—The Westbrook Place Estate, close to the town of Godalming, the intended Station of the Portsmouth Railway being on the Estate. A Manorial Property, with capital Residence, Farm Buildings, and Eighty Acres of ornamental Building Land. Also, the extensive Mill Premises, with ample water power, and about Eighteen Acres of Land, and some smaller pieces of Land, about Four Acres.

MR. ROBINS is favoured with instructions to submit to PUBLIC COMPETITION, at the AUCTION MART, on THURSDAY, AUGUST 23rd, at TWELVE for ONE, in three lots, a singularly important Freehold Manorial Property, of which early possession may be had, long known as the WESTBROOK PLACE ESTATE, on the west side of the town of Godalming, famed for the irregularity and beauty of its position, which presents, perhaps, the only site in all England offering the same irresistible temptation for carrying out a building operation for villas, with land: the advantage of immediate proximity to the Station at [illegible] the Estate being [illegible] within an hour of London; whilst stone of excellent quality to almost any extent can be obtained from the quarry. The estate comprises a capital [illegible] residence for a family, seated on a terrace walk, with sufficient accommodation for an [illegible] [illegible] repaired, improved, and decorated, at an immense outlay, the numerous chambers [illegible] arranged [illegible] offices, six-stall stable, and coach-house. The pleasure grounds and walks command the most lovely and diversified scenery, are of unusual extent, ornamented by luxuriant shrubs, stately timber, and hanging woods, giving a park-like character to the eighty acres of rich and productive land, which [illegible] abode, would suggest the formation of a beautiful model farm. The approach [illegible] present road from the church; a level crossing of the line and a bridge [illegible] [illegible] arranged for the purpose, with ample water power; also a second water power, formerly appertaining to a paper mill, which may again be brought into use. This lot comprises altogether about eighteen acres of luxuriant land, a portion being lammas land, with a noble sheet of water, which receives the flushing water from the mill [illegible] [illegible] of Mr. OSBORN, Surveyor, Fareham; of Mr. [illegible] of W. G. ROY [illegible] Covent-garden.

TO SCULPTORS, MARBLE MASONS, BUILDERS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE [illegible] ANNUAL SALE by AUCTION (MARBLE) [illegible] finest qualities will [illegible] at the MARBLE WHARF, 17, Millbank-street, Westminster. 4, Parliament-street. [illegible]

TO BUILDERS AND OTHERS.—[illegible] Premises on the [illegible] Bartlett-street, St. Leonard's-road, Bromley, Middlesex (near the Bromley [illegible] ARMS, willes [illegible]

MR. TINDALE, at GARRAWAY'S, on WEDNESDAY, 22nd AUGUST, 1855, at TWELVE [illegible] sold by private contract, [illegible] particulars had of the Auctioneer, 1, Portland-place, Commercial-road, Stepney.

SIXTH SALE, for clearing ground of Battersea-park.

MR. W. R. GLASIER is honoured with instructions from the Commissioners of Her Majesty's Works and Public Buildings, to SELL by AUCTION, on the [illegible] TUESDAY, AUGUST 14th, at TWELVE for ONE, the BUILDING MATERIALS of four modern villa residences in Surrey-lane [illegible] Battersea, [illegible] [illegible] fittings and fixtures.—May be viewed [illegible] of the [illegible] Works, 12, Whitehall-place; of JAMES PENNETHORNE, Esq., 7, Whitehall-yard; at the Office of the Clerk of the Works, West Lodge, Battersea-park; at Garraway's; and at the Offices of the Auctioneer, 41, Charing-cross.

VOTES FOR THE COUNTY OF MIDDLESEX.—FINCHLEY.—Forty Plots of Freehold Building Ground, land tax redeemed, and tithe free.

MESSRS. PRICE and CLARK will SELL by AUCTION, at GARRAWAY'S, on TUESDAY, AUGUST [illegible], at TWELVE [illegible], several PLOTS of valuable FREEHOLD BUILDING GROUND, [illegible] situate at Finchley, on the high road to Barnet, opposite the Swan with Two Necks [illegible] sewers all complete, and average about 30 feet and 120 feet [illegible] with Two Necks, Finchley; at Mr. [illegible] Office, 14, George-street, New-road, St. Pancras; at the Office of [illegible]; and at Messrs. PRICE and CLARK'S [illegible], Chancery-lane.

SALES BY AUCTION.

ILFORD, ESSEX.—Building Materials of a Detached Residence, Stabling and Farm Buildings, to clear the ground for the City of London Cemetery.

PULLEN and SON have received instructions from the Hon. Commissioners of Sewers to SELL by AUCTION, on the PREMISES, on FRIDAY, AUGUST 17th, at TWELVE, all the excellent BUILDING MATERIALS and FIXTURES of Aldersbrook farm-house, stabling, cart-sheds, and farm buildings, situate at Little Ilford, about half a mile from the railway station, comprising about 100,000 good sound bricks, capital oak and fir timber, in rafters, joists and quartering, glazed sashes, and ornamental lead casements, useful doors, wainscoting, partitions, marble and other chimney pieces, sound floor-boards, closet fronts, York and other paving, excellent plain and pan tiles, and slates, stable fittings, 250 feet of railed fencing, lead gutters and pipes, stoves, coppers, and a variety of useful fixtures and fittings-up. May be viewed the day previous. Catalogues had of PULLEN and SON, 80, Fore street, Cripplegate.

CAMDEN-TOWN CEMETERY.—BUILDING ESTATE TO BE LET, on Building Leases for 99 years, very eligible SITES upon the above estate having good frontages into Camden-street, Pratt-street, and Bayham-street. There is a great demand for houses and shops of the third rate in this locality, which is enhanced by its near proximity to the North-Western and North London railway stations, and the Hampstead-road.—Plans may be seen, and particulars obtained by application to H. F. KENDALL, Esq. Architect, 17, Suffolk-street, Pall-mall East, or to JOHN DANGERFIELD, Esq. Solicitor, 26, Craven-street, Charing-cross.

FREEHOLD SITES, WANTED. — Each not less than 20,000 feet area, in second class thoroughfares, with double access if possible, in any of the densely populated districts, particularly the Strand, Clerkenwell, Westminster, or Lambeth. Full particulars to be sent to Messrs. ASHPITEL and WHICHCORD, Architects and Surveyors, 2, Poet's-corner, Westminster Abbey.

LOWER THAMES-STREET. — TO BE LET, by Tender by the Worshipful Company of Armourers and Braziers, on a Lease for Twenty-one years from Midsummer, 1855, the extensive Premises known as the GLOBE-YARD WAREHOUSES, situate in the above street, nearly opposite the Custom-house. The lessee will be required to pay all taxes and rates, including sewers and militia rates, and all assessments for sanitary purposes, and the expense of fire insurance, the land-tax being redeemed; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman-street, on or before the 3rd OCTOBER next, where parties making the same are required to attend the following day, at HALF-PAST TWO o'clock. The Company do not bind themselves to accept the highest or any other Tender.
JOHN PONTIFEX, Clerk.
5, St. Andrew's-court, Holborn.

DESIRABLE PREMISES in the CITY of LONDON.—The Trustees of Lord Viscount Sudbury's Charity Estates hereby give Notice, that they will receive TENDERS for the LETTING in one or separate leases, for a term not exceeding eighty years the PREMISES belonging to them, situate in Cradled Friars, John-street, and Gunpowder-alley, including the old Poor-house. Sealed proposals, indorsed "Tenders for Premises, John-street," are to be delivered on or before the 1st day of SEPTEMBER next, at the Office of the Architect and Surveyor to the Trustees, Mr. FREDERIC LETT, 36, Essex-street, Strand, from whom all further particulars may be obtained, between the hours of TEN and FOUR o'clock.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz.:—
FOREST HILL, Croydon Railway.
ST. MARGARET'S, near Richmond, South Western Railway.
OATLANDS GRANGE, Weybridge, Surrey, ditto.
HOUNSLOW, Middlesex, ditto.
TOTTENHAM-GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.
Part of the purchase-money may remain at 5 per cent. interest. Parties desirous to build on their own premises. Several Plots to be Let on Building Lease. Money advanced to respectable parties. — Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

WESTBY'S TRUST, HOXTON.—Eligible PLOT of FREEHOLD LAND, situated in Hoxton, with the Buildings thereon, TO BE SOLD by TENDER. Tenders to be delivered sealed on or before the [illegible] of AUGUST, 1855, to Mr. HENRY MASON, 7, Cateaton-street, [illegible], from whom cards to view may be obtained. The Trustees of this property reserve to themselves the right of rejecting any or all of the Tenders.

TO BUILDERS, MANUFACTURERS, and OTHERS.—TO BE LET, close to Portman-square, spacious PREMISES, many years in the occupation of a builder. They consist of large carpenter's shop, timber-shed, cart-shed, saw pit, loft and shed for materials, counting house, two stables and coach house, back entrance, large yard, and a capital eight-roomed house (another house, with [illegible], may be had if required). A few utensils and materials to be sold. For terms and to view, apply to Mr. LOMAX, Auctioneer, 8, Orchard-street, Portman-square.

EXTENSIVE PREMISES TO BE LET, in St. John-street, Clerkenwell, comprising a large area of ground, with dwelling-house, buildings, and large yards, fitted [illegible] League Bread Company for the baking business, but from their extent are admirably adapted for a builder or any trade requiring extensive premises in a convenient situation.—Apply to Mr. MURRELL, Auctioneer, &c. 1, Walbrook, City.

UPPER THAMES-STREET, and BREAD-STREET-HILL. — BUILDING LAND TO BE LET, with TWO FRONTAGES. [illegible] will be contributed towards the building by the Brewers—The Joint Estate Committee of Saint Giles Within, Cripplegate, and Saint Luke, Middlesex, will meet at the QUEST HOUSE, adjoining the parish church of Saint Giles, Cripplegate, on MONDAY, the [illegible] day of AUGUST next, at TWELVE o'clock, to receive TENDERS for taking on Lease a PLOT of LAND, on which stood No. 2 [illegible], Upper Thames-street, in the City of London, having a frontage in that street and in Bread-street-hill.—Printed particulars and conditions, with the form of Tender, may be had at the Office of Mr. A. J. BAYLIS, Solicitor, 22, Redcross-street, City.

BUILDING LAND TO BE LET, at

HALLSVILLE	Term 1,000 years,	for small cottages.	
CANNING TOWN	„	1,000	for small cottages.
NORWOOD	„	1,000	for villa residences.
STRATFORD	„	100	for small cottages.
POPLAR	„	98	for fourth-rate houses.

Advances 70l. to 100l. at 5 per cent. on each cottage.
Apply to Mr. Wm. ELLISON, Architect, Stansby-road, Limehouse.

ELIOT BANK and SYDENHAM-HILL, KENT.—TO BE LET, for 99 years, BUILDING GROUND on Eliot Bank, Sydenham hill, with a depth of [illegible] feet, commanding extensive and beautiful views, with a private road to Forest-hill; also to be let in the same term, a frontage [illegible] Sydenham-hill.—May be viewed on application to W. REID, Gardener, at Mr. Jas. Hunt's, Sydenham-hill, and for particulars apply to Mr. HUNT, 10, Mincing-lane, Great Tower-street.

TO BE LET, situate in Baker-street, Bagnigge-wells-road, excellent BUSINESS PREMISES, containing large yard, stables, workshops, saw-pit, counting-house, &c. inclosed with gates. Also a commodious dwelling-house attached. May be viewed, and particulars had by applying on the premises.

BUILDING LAND TO BE LET, in the Gloucester road and Princes-terrace, Regent's-park, and on the foot of Primrose-hill, a first-rate situation for third-rate eight roomed houses, which are much in request in that locality; for purchase or hire. The ground-rent is very low. Term, ninety-eight years.—Inquire of F. EILOART, Esq. No. 9, Harrington-square.

CLERKENWELL.—To BUILDERS and OTHERS.—TO BE LET, on a Building Lease, for the term of sixty one years, a small piece of GROUND, about 21 feet frontage in Ray-street, Clerkenwell, near to the New-street. Persons desirous of taking the same are requested to send TENDERS stating the yearly rental, description and cost of the house proposed to be built, to be laid before the Trustees at their meeting of the Board, on WEDNESDAY, the 15th day of AUGUST next, at the Vestry-room of St. James's Church, at SEVEN o'clock in the Evening. The Trustees do not pledge themselves to accept the highest Tender. The well and pump are to remain the property of the parish, and to be repaired at the parish expense.
By order, H. B. WAKELING, Clerk to the Trustees, [illegible] Great Percy-street, Clerkenwell.

RICHMOND, SURREY.—A small PLOT of FREEHOLD GROUND FOR SALE, at Upper Sheen, close to Richmond-park, and within five minutes' walk of the Mortlake Station on the London and Richmond Line, or TO LET on long Building Lease.—Apply to Mr. NEWBON, Auctioneer and Estate Agent, 5, Church-row, Islington, and 1, Walbrook, City.

LARGE PREMISES at very low rent, con-sisting of small house, five lofty workshops, 37 feet by 17 feet, 25 feet by 21 feet, 21 feet by 21 feet, [illegible] feet, and [illegible] 12 feet; seven-stall stable, large yard, pump &c.; entirely enclosed with an entrance gate. Very suitable for any business requiring a manufacturing business.—Apply on the Premises, 14, Beckford-row, Walworth-road.

MANUFACTURING PREMISES TO BE LET, with access to the Thames and railway conveyance. Also a WHARF with or without to any Building or Stabling.—Apply to Mr. [illegible], [illegible] Westminster; or, Messrs. HODGSON and BURTON, 1, Salisbury-street, Strand.

TO BUILDERS, MILLERS, STONE-MASONS, MACHINISTS, POTTERS, and OTHERS.—DESIRABLE BUSINESS PREMISES, substantially built of stone and brick, with horse power and engine, and good tubular boiler, and sawing machinery [illegible] Hastings, Sussex, three-quarters of a mile, level road, from railway station, TO BE LET or SOLD. The above property is newly built, has frontage to the road, and at the back to the beach, convenient for vessels to land at or take in goods, [illegible] floor, spacious saw-room [illegible] cellars and workshop, adjoining [illegible] building, with strongly-timbered floors and high-pitched roof. The premises are most advantageously situated for a manufactory or mill purposes, and, from its contiguity to the shore, coals may be landed at a low price. To POTTERS and STONE-WARE MAKERS an eligible opening offers itself, as there is a large supply of fine clay immediately on the spot, which has recently been proved to produce [illegible] specimens of which may be seen. The quantity of hard blue stone in blocks of large dimensions [illegible] the hard stone taking a polish equal to marble. For further particulars apply to Mr. C. SHARP, East Cliff and Quarries, Hastings, Sussex.

A SMALL COTTAGE WANTED, for a permanency, in the suburbs, and within fifteen miles of town. Its situation must be dry and sheltered, a southerly aspect would be preferred. Rent must not exceed 30l. a year. Address prepaid, with full particulars, to B. R. 8, Old Cavendish-street, Oxford-street.

HOUSE PROPERTY WANTED.—Money advanced by way of MORTGAGE, on freehold or leasehold properties, at 5 per cent. Wanted also to PURCHASE similar SECURITIES to a large amount. Parties desirous of effecting an immediate sale, and having a good investment to offer will be attended to [illegible] particulars, at M. SHEPPARD'S Offices, [illegible] Coal-road East, London.

TO CARPENTERS and OTHERS.— Several SIX-ROOMED CARCASES TO BE SOLD, situated in a commanding situation. [illegible] are in, and the lead is let close up to them. Part of the purchase money may remain, and advances may be had to finish if required. No objection to take the whole or part of the purchase money in [illegible]—Apply on the Premises, to BAUGHAN and MILLS, top of Carlton-road, Grafton-road, Kentish-town.

VALUABLE PAPER-MILL. — TO BE SOLD or LET, the PAPER-MILL called Moorsley Banks, situate on the Browney, near the City of Durham, with the Dwelling-house, Cottage, Workshops, and Closes of Land adjoining, containing 6 acres, or thereabouts. The machinery is nearly all new, and of the best construction and is adapted to work either with steam or water. It comprises paper-machine, steam-engines, steam and rag boilers, and the other necessary appendages. A new branch of the North-Eastern Railway will pass near the premises. Apply to Mr. BARNES, at Messrs. Backhouse's Bank; or at the Offices of WARD and STORY, Solicitors, Durham.
Durham, July 30, 1855.

MANSFIELD UNION.—Parish of Mansfield.—Survey and Valuation. Notice is hereby given, that the Guardians of the Poor of the Mansfield Union have received an order, under the hand and seal of the Poor-law Board, requiring them to appoint one or more fit Persons to MAKE a SURVEY and VALUATION, with a map, of all the rateable property in the Parish of Mansfield, in the said Union (containing about 1,8[illegible] houses, and [illegible] acres of land or thereabouts, also acres of which are cul[illegible] and the remainder inclosed in 18[illegible] [illegible] for the purposes of the Poor-rate, [illegible] to the Acts of Parliament now in force as to rating and assessments; and that the Guardians will accordingly at their Meeting, to be held in the Board-room, at the Workhouse of the Union, on THURSDAY, the 23rd day of AUGUST next, at TEN o'clock in the forenoon, proceed to appoint two gentlemen, one to value the said property, and the other the houses and buildings in the said parish. Gentlemen desirous of undertaking the said duties, are invited to forward to me their offers in writing, stating the sum for which they will make such valuation, [illegible] sealed, and marked outside, "Tender for Valuation," and to be sent to me not later than WEDNESDAY, the 22nd of AUGUST inst. Any gentleman canvassing the Guardians either personally or by letter, will be deemed disqualified, and his Tender rejected accordingly.—Further particulars, if required, may be obtained on application at my Office, in the Mansfield Union Workhouse aforesaid. By order of the Board, W. E. GOODACRE, Clerk.
Union Office, Mansfield, July 24, 1855.
N.B.—The Guardians do not pledge themselves to accept the lowest Tender.

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The Builder,

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BRITISH ARCHÆOLOGICAL ASSOCIATION.—The Twelfth Annual Congress will be held at NEWPORT, in the ISLE of WIGHT, AUGUST 20th to 25th, inclusive.

PATRONS.
H. R. H. PRINCE ALBERT, K.G.
LORD HEYTESBURY, G.C.B. Warden of the Cinque Ports.
PRESIDENT, THE EARL of PEMBROKE and MONTGOMERY.

Excursions will be made to various parts of the island, churches, castles, and barrows examined and discoursed upon. A meeting will be held at the Audit-room at Southampton, to examine the ancient muniments of the corporation, and an excursion made to Netley Abbey.—Programmes, and tickets to admit a lady and gentleman, One Guinea, Single gentleman's ticket, half-a-guinea, to be had of Mr. G. WRIGHT, Librarian, 60, Pall-mall; of the Local Secretaries at Newport and Southampton, and of the Treasurer, T. J. PETTIGREW, Esq. 16, Onslow-crescent, Brompton.

COMPETITIONS.

WHITE CROSS TAVERN, Weston-super-Mare.—PREMIUM of FIFTY GUINEAS The proprietors of this estate cannot, in justice either to themselves or to the competitors, furnish any separate plans of the estate. A plan may be seen, on application to Mr. JOSEPH WHIDBEY, at the Public Library, Weston super-Mare; and perhaps it is not saying too much to affirm, that it is impossible to make a correct or satisfactory plan or design for building on this estate, without an actual and personal survey. The time for furnishing designs is extended to the 29th SEPTEMBER next.
Weston-super-Mare, August 7, 1855.

CONTRACTS.

TO IRONFOUNDERS AND OTHERS

GAS MAINS WANTED.—The Directors of the Dorchester Gas and Coke Company are desirous of receiving TENDERS, at per ton, for 800 Yards, more or less, of 4-inch bore CAST-IRON SOCKET-PIPES, weighing 17 lbs. per foot, and 330 Yards, more or less, of 3-inch bore, weighing 11 lbs. per foot, of 9 feet lengths, with socket heads, brass nos, street receivers, &c. The pipes must be correctly to insure uniformity of thickness, cast vertically from good malleable metal, perfectly sound and free from pin and cold cracks, and be proved under a pressure of 100 lbs. per square inch. The space for lead joint in the socket to be 2½ of an inch all round, the heads in the middle of each of which are to be pierced for the socket-fresh. All faulty and unsound pipes and other castings will be rejected and returned to the contractor. Tenders to state whether shot or cold blast pipes are to be delivered at the Gas Works, Dorchester, market Place, for Marnes," on or before WEDNESDAY, the 29th AUGUST next.

TENDERS are also required for the supply of 1 Ton of soft Pig Lead, the above to be delivered either at the Railway Station, Dorchester, or at the Railway Wharf, Poole, on or before the 1st day of OCTOBER next.

TENDERS are also required for Laying the above Mains, including all labour for excavating, making good ground, &c. under the special inspection of the Company's Engineer.

The Directors do not bind themselves to accept the lowest Tender.

Dorchester, Dorset, 2nd August, 1855.

EDWARD BILLOWS, Engineer.

TO PAINTERS AND OTHERS.

PERSONS desirous of TENDERING for PAINTERS' and other WORK, to be done at the Holy Trinity Church, can see the specification at the Office of the Architect, Mr. HENRY JARVIS, 2, Trinity-square, Nottingham. The Tenders are to be delivered at the Vestry-room of the Church on the 15th inst. at SEVEN o'clock p.m. No Tender will be accepted unless deemed satisfactory.—Dated August 2, 1855.

SECOND EAST LONDON BUILDING SOCIETY.—Offices, 1, Hayfield-place, Mile-end-road. 10th August, 1855.—TENDERS wanted for the ERECTION of SIX SMALL ROOMED HOUSES, in Oately-road, Grover and Pleasant Speculations, will be at the Office of THOMAS HOGERS, Esq. 70, Fenchurch-street, City, from TUESDAY, the 14th AUGUST, until MONDAY, the 20th; and Tenders will be received at the Society's Office until EIGHT o'clock in the Evening of the last-named day.
CHARLES BRADLAUGH, Secretary.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office Dublin, 4th August, 1855. The principal Officers of Her Majesty's Ordnance hereby give Notice that they will receive PROPOSALS for the following CONTRACT, viz.—For the CONSTRUCTION and ERECTION of ONE HUNDRED and SIX WOODEN BUILDINGS for commissary, books, cisplains, married soldiers, &c.; together with 1,200 yards run of fencing, at the temporary barracks, on the Curragh of Kildare, in the Dublin district. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, 1, Ewer Castle-yard, Dublin, and may obtain specifications, with the terms of contract, upon making a deposit of 1l for the same, which deposit will be repaid when the specifications are returned uninjured. The whole of the work to be completed within eighty days after the acceptance of the Tender.—The Letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 31st day of AUGUST, 1855, and to be marked on the outside, "Tender for Works at the Curragh of Kildare."

NOTICE to BUILDERS.—Sealed TENDERS, addressed to J. WOOD, Esq. Secretary, Office of Ordnance, Pall mall, London, will be received until NOON of FRIDAY, the 17th AUGUST, 1855, from persons willing to CONTRACT for the performance of the WORKS required in ENLARGING the BARRACKS at WEYMOUTH, in the county of Dorset, Exeter District. Plans and specifications for the same may be seen, and forms of Tender obtained, at the Royal Engineer Office, Weymouth Barracks, between the hours of NINE and FIVE, from the 8th to the 16th AUGUST, 1855, both days inclusive. The Tenders to be endorsed "Tender for Enlarging Weymouth Barracks."—The Director General of Contracts reserves the right of rejecting the whole or any of the Tenders.
Royal Engineer Office, Exeter, 30th July, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives Notice, that Sealed TENDERS, addressed to J. WOOD, Esq. will be received at the Office of Ordnance, Pall Mall, on or before the 15th AUGUST, 1855, for the ERECTION of a GUARD-HOUSE on the West Face of the Tower of London. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer Office, Tower, between the hours of TEN and THREE o'clock, from the 6th to 13th AUGUST, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.
Royal Engineer Office, London District, 3rd August, 1855

ORDNANCE CONTRACT.—Notice is hereby given, that TENDERS will be received at the ORDNANCE OFFICE, PALL-MALL, London, on or before TUESDAY, the 14th AUGUST, 1855, from parties willing to CONTRACT for EXTENDING the FOUNDATION round a portion of the GLACIS of FORT MONCKTON, Gosport.—Plans and specification for the work may be seen, and forms of Tender obtained, on application at the Royal Engineer Office, Portsmouth, between the hours of TEN and FOUR o'clock (Sundays excepted).—The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall-mall, London, and endorsed "Tender for extending the Inundation round a portion of the Glacis of Fort Monckton, Gosport."—Royal Engineer Office, Portsmouth, July 27, 1855

Royal Engineer Office, Portsmouth, 3rd August, 1855.

TO IRONMONGERS and BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on MONDAY, the 20th day of AUGUST, 1855, from such persons as may be willing to undertake the CONSTRUCTION and ERECTION of an IRON BUILDING, at the Gun Wharf, Portsmouth. The plans, specification, and conditions of contract may be seen, and every information obtained, on application at the ROYAL ENGINEER Office, Works, at the Office, between the hours of TEN and FOUR each day (Sundays excepted). The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall-mall, London, and endorsed "Tender for Erection of Iron Building, at the Gun Wharf, Portsmouth, in the county of Hants."

TO BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for the ERECTION of FARM-BUILDINGS on a farm called Southwood Farm, in the parish of Otterham, Hants, may see the Plans and specifications at the Office of Messrs. DENTON and DRAKE, 22, Parliament-street, Westminster, at the Offices of Mr. LAMB, Solicitor, Basingstoke, and after the 10th day of AUGUST. Tenders to be forwarded to Messrs. DENTON and DRAKE, on or before the 25th day of AUGUST.

SCINDE RAILWAY COMPANY.—CONTRACT for PERMANENT WAY MATERIAL. The Directors of the Company are prepared to receive TENDERS for the supply of 1,000 TONS of RAILS, 1,000 TONS of CHAIRS or PONS of FISHING PLATES, 1,000 TONS of BOLTS, NUTS, SPIKES, and WASHERS; 180,000 compressed WOOD KEYS, and 40,000 CROSS-TIE SLEEPERS. Plans and specifications may be seen at the Offices of Mr. T. A. YARROW, the Company's Engineer, Gresham House, Old Broad-street, on and after MONDAY, the 13th of AUGUST. Tenders in sealed envelopes, and addressed to the Directors, are to be lodged at the Company's Offices before TWELVE o'clock on FRIDAY, the 31st day of AUGUST. The Directors do not bind themselves to accept the lowest or any Tender.—By order of the Board,
THOS. BURNELL, Secretary.
Scinde Railway Offices, Gresham House, Old Broad-street, July 27, 1855.

BUILDERS willing to CONTRACT for the immediate ERECTION of TWO SEMI-DETACHED COTTAGES, at Ambleside-park Road, Newcross, may obtain forms and any further particulars of JOSEPH R. W. HARDING, Esq. Professional Institute, Alpha-road, New-cross; or of HORACE JONES, Esq. Architect, 6, Furnival's-inn, Holborn, where plans and specification may be seen. Tenders may be sent in to be delivered on or before SATURDAY, the 18th inst. The proprietor does not bind himself to accept the lowest or any Tender.

CONTRACTS.

TO IRONFOUNDERS AND CONTRACTORS.

PERSONS desirous of TENDERING for IRONWORK required to be used in the ERECTION of a large SHED and ROOF over the intended new Market hall, and other works, in lieu of entrances-gates, iron window frames, guttering, down pipes, &c. for the Town Council of Warrington, may inspect the drawings at the Office of the Architect, Mr. JAMES S. EVENS, 39, Princes-street Manchester, and Chester-gate, Macclesfield, from the 13th to the 22nd of Aug.; but instead, and at the Office of the Borough Engineer, Market-street, Warrington, from the 23rd to the 1st day of SEPTEMBER. The quantities have been taken out by the Architect, who will furnish the same on application, and charge the contractor with the cost thereof, the Corporation not being responsible for the same. Sealed Tenders, endorsed "Tenders for Roof of Market-hall and Shed," addressed to the Chairman of the Market Committee, are to be forwarded to Mr. B. P. COXON, Borough Engineer, not later than SATURDAY, the 1st day of SEPTEMBER, The Corporation do not bind themselves to accept the lowest Tender.—Signed by order of the Corporation,
JOHN FITCHETT MARSH, Town-clerk.
Warrington, August 3rd, 1855.

COUNTY of GLOUCESTER LUNATIC ASYLUM. To ENGINEERS and OTHERS Persons desirous of CONTRACTING for the MANUFACTURE and SUPPLY of STEAM BOILERS, for offering Tenders for the same are required at this Institution, in Gloucester, heating water for baths, &c. stoves, and distributing drying clothes, and warming and ventilating a portion of the buildings, may send in their proposals, describing specifications, and cash terms, on or before the 24th of AUGUST, at the usual address (To the Visiting Justices of the Lunatic Asylum, Gloucester," endorsed "Tender for Works." The estimates to include the delivery of all the necessary valves, fittings, and pipes any gear to complete the work, and fixers' work only excepted. Plans of the buildings may be seen at the Office of Cosby Saunders, Eastgate-street, Gloucester, between the hours of TEN a.m. and SIX p.m. of whom further particulars may be obtained. The Committee do not pledge themselves to accept the low st Tender.
Gloucester, August 4th, 1855.

TO BUILDERS, &c.

THE BURIAL BOARD for the parishes of Astley, Bedford, Pennington, and Westleigh, in the county of Lancaster, are desirous of receiving TENDERS for the ERECTION of THREE CEMETERY CHAPELS, ENTRANCE LODGE, ENTRANCE GATES, &c. on the new Burial Ground, situate in the parish of Bedford; also, for a BOUNDARY WALL. The plans and specification may be seen at the office of Mr. BIRD, Architect, 3, Town-land buildings, King-street, Manchester, from the 14th till the 25th day of AUGUST inclusive, between the hours of TEN and FIVE, where all farther particulars may be obtained. Tenders to be sent to RICHARD MARSH, Esq. Solicitor, Leigh, Clerk to the Board, endorsed "Tenders for Chapels, or Boundary Wall," as the case may be, on or before the 30th day of AUGUST next. The Board do not pledge themselves to accept the lowest Tender.
July 8, 1855.

BORDER COUNTIES RAILWAY.—NOTICE to RAILWAY CONTRACTORS.—TO BE LET, the CONSTRUCTION of the following VIADUCTS, viz.
Viaduct of Wrought Iron and Cast Iron over the River Tyne near Hexham.
Timber Viaduct over the Erring Burn.
Timber Viaduct at Coanies Park.
Timber Viaduct over the River Rede.
Plans and drawings are now ready, and may be seen, and copies of the specifications, bills of quantities and of the borings may be obtained, at the Offices of Mr. JOHN E. TOWSE, C.E. Market-street, Newcastle-upon-Tyne, and Tenders are to be delivered without fail on or before MONDAY, the 20th AUGUST, 1855, after which day no Tender will be received or the Tenders.
Dated August 2, 1855.

TO BUILDERS, &c.

CHEVENING CHURCH.—It being intended to RE-SEAT and otherwise improve the above CHURCH, new offices, &c. TENDERS are invited by the Churchwardens for the execution of the same. The plans and specification may be seen at the Rectory, Chevening, Kent, after the 11th inst. and TENDERS are to be delivered, sealed, addressed to the Churchwardens, at the Rectory. It is to be understood that the Churchwardens do not bind themselves to accept the lowest or the Tenders, or any of them.
W. BARTON, }
R. HEYDON, } Churchwardens.
Chevening, August 7th, 1855.

TO BUILDERS, CONTRACTORS, AND OTHERS.

THE CORPORATION of WARRINGTON are desirous of receiving TENDERS for the ERECTION of a NEW MARKET HALL and SHED, consisting of the following description of works, namely:—Excavators, stonemasons, bricklayers, carpenters and joiners, plumbers and glaziers, painters, and slaters, and ironwork, the Tenders for which may be tendered together or separately. The drawings, specification, and a form of contract may be inspected from the 11th to the 22nd of AUGUST next at the Office of the Architect, Mr. JAMES STEVENS, 39, Princes-street, Manchester, and Chester-gate, Macclesfield, and afterwards at their office in the Borough Engineer, in Market-street, Warrington. The quantities of each have been taken out by the Architect, who will furnish the same on application, and charge the respective contractors with the cost thereof, the Corporation not being responsible for the same. Sealed Tenders, marked "Tender for Market Hall and Shed, Warrington," addressed to the Chairman of the Market Committee, are to be forwarded to Mr. B. P. COXON, Borough Engineer, not later than SATURDAY, the 1st day of SEPTEMBER. The Corporation do not bind themselves to accept the lowest Tender.—Signed, by order of the Corporation,
JOHN FITCHETT MARSH, Town-clerk.
Warrington, August 1, 1855.

[*For remainder of Contracts see next page.*

CONTRACTS.

TO CONTRACTORS AND OTHERS.

THE Local Board of Health for the district of Uxbridge, Middlesex, are desirous to treive TENDERS from persons willing to CONTRACT for the ERECTING and CONSTRUCTING of SEWAGE WORKS near the Grand Junction Canal in the parish of Hillingdon being Contract No. II. Specification and plans may be seen, and contract be found by payment of 5s. to the order of JAMES PILBROW Esq. C.E. Tottenham, Middlesex, or of Mr. GEORGE HYDES, Architect, the Surveyor to the Board, at whose office at Uxbridge the plans can be seen, between the hours of NINE a.m. and FOUR p.m. Tenders must be delivered at the TAILY Book of THURSDAY, the 16th of AUGUST, next, indorsed "Tender for Sewage Works," addressed to the Local Board of Health, Uxbridge, Middlesex.—By order of the Board,

CHARLES WOODBRIDGE, Clerk.

Uxbridge, August 2nd, 1855.

TO NURSERYMEN AND OTHERS.

Sewers Office, Guildhall, August 2, 1855.

CITY of LONDON CEMETERY.—The Commissioners of Sewers of the City of London, acting as the Burial Board for the said City, hereby give Notice that they will receive, at their Office in Guildhall, on TUESDAY, the 28th day of AUGUST, at TWELVE o'clock precisely for the purpose of receiving TENDERS for the supply of TREES and SHRUBS for the Cemetery now being formed at Little Ilford, in the county of Essex. Forms of specification, with which the tenders are to be affixed, may be obtained on and after the 24th day of AUGUST, at the Office of Mr. WILLIAM HAYWOOD, Surveyor to the Commissioners, 14 Old Jewry chambers; or at the Office of Mr. DAVISON, Landscape Gardener, 1, Great Russell-street, Bedford-square.

JOSEPH DAW, Principal Clerk.

LIGHTERAGE.—The SURVEYORS of HIGHWAYS for the Parish of Christ Church, Surrey, are ready to receive TENDERS for the LIGHTERAGE (including wharfage) of 2,000 tons of Stones of the size of BLUE GUERNSEY GRANITE, broken to a two-inch ring, and sifted free from small and dust, and delivered to them by vessels over the ship's screen the upper part of the Tunnel as per ton as follows:—into the Surveyors' Yard, the contractor to be responsible for the Surveyors' weighing gear when the same is on board the vessel. Tenders to be forwarded on or before the 11th of AUGUST, 1855, to the Surveyors' Office, 31, York-street, Blackfriars-road, London, sealed and endorsed "Tender for Lighterage."

BROKEN GUERNSEY GRANITE.—The Surveyors of Highways for the parish of Christ Church, Surrey, are ready to receive TENDERS from parties for the supply of from one to five thousand tons of GUERNSEY GRANITE, broken to a two-inch ring, and sifted free from small and dust, and delivered to them by vessels over the ship's screen the upper part of the Tunnel as per ton as follows:—into the Surveyor's yard, the contractor to be responsible for the Surveyors' weighing gear when the same is on board the vessel. Tenders to be forwarded on or before the 11th of AUGUST, 1855, to the Surveyors' Office, 31, York-street, Blackfriars-road, London, sealed and endorsed "Tender for Broken Granite" Contracts for 1000 tons and upwards may be delivered during the summer months. Payment 1 month on account.

THE CONSERVATIVE LAND SOCIETY.

Trustees.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col Lowther, M.P.
J. C. Colthurst, M.P.

TO ROAD CONTRACTORS.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINS on the Hounslow Heath Allotment. The crown and cambering of the roads to be in accordance with the Surveyor's specification, to be seen at the Office of the Surveyor, Mr. GEORGE MORGAN, on and after MONDAY, AUGUST 20; between the hours of TWELVE and FOUR. Tenders to be sent in on or before TWELVE o'clock on TUESDAY, AUGUST 28 addressed to the Surveyor, and indorsed "Tenders for Roads, &c. Round a Estate." The Executive cannot make themselves responsible for the acceptance of any Tender.

CHARLES LEWIS GRUNDISEN.

33 North-street Strand, 10th August, 1855.

MR. EMERSEN, of Porch House, Friern Barnet, wishes for a CONTRACT to compete for (would be one of necessity of the house, 30 feet by 40 feet, and 12 feet high, with a tall portico with a cupola roof, to be reared upon twelve pillars 10 feet high, in the form of a verandah, similar to and after the style of "The Builder."

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851. To invite the attention of Builders, &c. to his Stock of Iron-tiger, Brass Foundry, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilating Grate; and the new registered Victorian Ventilating Sash-bar, &c. &c. all cash

J. H. BOOBBYER (late TURCH and BOOBBYER), established nearly 20 years, for the supply of Goods from the best Manufacturers, at the lowest prices

14, Stanhope street, Clare-market, London.

No. 981, Class B, Section 10, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

AUSTIN'S IMPROVED PATENT SASH and BLIND LINE, can be obtained of all

ROLLMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY,

Established 1774.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This is now in operation upon Steam-engine Furnaces, of One, Two, or Three Boilers, and upon those of Glass-melting Furnaces, of Forges, such as Marine Boilers, Copper for Colour-works, Bakers' Ovens, Potters', the Iron Masters', &c. Effects are guaranteed by forms of Inspection to be signed by those parties of the inventor's Staff in which the Smoke Nuisance exists in many instances, with a diminished consumption of Fuel.

The furnaces of various construction, to which it has been applied, may be seen in operation at the Cement Works of Messrs. FRANCIS BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized & tee for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved Ventilators. BULLETT and CO. 5a, High-street, London.

IRON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Wood and Malleable Iron Roofs, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Pulley and other Wheels, Rigging Pulleys, Engine and Lathe Castings, Force Backs, Fire Bars, Balks, Paws, and other castings, to patterns or drawings.

LOSH, WILSON, and BELL,
NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, cast iron Girders, &c. and
STEWART'S PATENT CAST IRON GRADED WATER PIPES.
Office, No. 7, Sise-lane, London.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly adapted for warm climates.

1st. It is a non-conductor. 2nd. It is portable, being packed in rolls, and is durable to damage in carriage.—3rd. It effects a saving of half the timber usually required. 4th. It can be easily applied by any unpractised person. 5th. From its lightness, will bring only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor.

INODOROUS FELT, for damp walls and for damp floors, under carpets and for cellars. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING for Covering Ships' Bottoms, &c. and

DRY HAIR FELT, for Covering Steam Boilers, Pipes &c., preventing the radiation of Heat, saving 25 per cent. of Fuel and rendering Sound.

Samples, testimonials, and full instructions, on application to CROGGON and Co. 2, DOWGATE-HILL, LONDON

212 MILNER'S HOLDFAST and FIRE-RESISTING SAFES may be obtained of all dealers in Safes throughout the Kingdom, and of their Quadruple Safes of 30 to 54 and 38 to 60 inches in the Gunpowder Proof Solid Lock and Bolt without which no safe is secure.

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX IRON WORKS LIVERPOOL the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 17A, Mourgate-street, City.—Circulars free by post.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND SOUTH WESTERN RAILWAY COMPANY.

"London and North-Western Railway Company,
"Liverpool, May 17, 1853

"Gentlemen, I have much pleasure in forwarding to the office a pair of iron doors and locks from the strong room of this Company, which have completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is one of the most desirable for a thief to break open the door. I am, gentlemen, your obedient servant,

"GEORGE PALMER.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes; Fire-proof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Price lists, Illustrated Lists, with prices and sizes, will be sent on application to

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.

CORONAS, SCONCES, GAS BRACKETS, &c.

An Illustrated Catalogue on receipt of four postage-stamps.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished in application.

Experienced Workmen sent to all parts of the Country.

3, MANSION HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

Telegraphic address

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Span, and Sand Roofs, in any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutter Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Ironfounder, Mall-wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZING and CORRUGATING IRON WORKS. Improved Process.

WORKS—GLASS HOUSE YARD, opposite the Entrance to the London Docks

GALVANIZED SHEET IRON and WIRE of every description manufactured in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFING and BUILDING WORKS, best to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire proof. Drawings and estimates form shed

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LONDON OFFICE 4, RICHES-COURT, LIME-STREET.

MARK BERRY, established 1850, practical ZINC and GALVANIZED IRON WORKER. My motto is cheapness, durability, workmanship and punctuality. I recommend a scheme suited to all parts of the kingdom. Large stock kept, such as chimney-pots and cowls of all sizes, rain water pipes, heads and gutters, stable pails, house pails, baths, cans, and all sorts of articles in sheet galvanized iron work at MARK BERRY'S, Whitefriars Works, Whitechapel Churchyard, Wholesale, Retail, and for Exportation.

SKAIFE'S GALVANIZING WORKS, Commercial road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron is liable to rust in any way.

Patent Galvanized Iron supplied in every form.

Sheets obtained or executed. Roofs fixed complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron Plumbic Zinc, and Tiles.

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PLAIN, CORRUGATED, and Curved, Full Gauges

Manufacturers' Trade always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Tanks, Cisterns and Water Troughs, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Sand, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

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PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one fourth or one fifth, as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.			
12	"	20	"
13	"	23	"
14	"	26	"

Full particulars and the reduced price sent by post on application to

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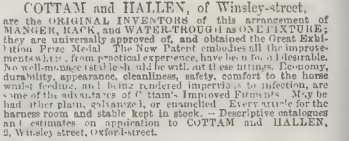
SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the New Railway Station. A large variety of buildings always on view, churches, chapels, shooting-boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores, sales, railway stations, trucks, and carriages made to any plan on the shortest notice.

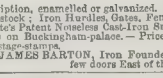
COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Patents. May be had in plain, galvanized, or enamelled. Every article for the harness room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 9, Winsley street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS

THIS IS THE ORIGINAL PATENT



forms the most improvements in stable-fittings, including a method to anticipate all others for removing the straw and bedding-materials to the back of the fittings, to prevent the horse reaching it in the stall. Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of Kirk's Patent Noiseless Cast-Iron Smoke-Curing Chimney-Caps,—200 on Buckingham-palace.—Price Lists sent on receipt of two postage-stamps.

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CHEAP GAS-FITTING WAREHOUSE.—The Trade supplied with every description of GAS CHANDELIERS, Hall Lamps, Pendants, Pillars, Brackets, Iron and Brass Tube, Tin and Composition Pipe, &c. &c. at J. JEAL'S, 2, and 24, Old-street, near St. Luke's Church, London.

P.S.—As large and choice an assortment as any house in London. Gas-fitting Contracts to any amount.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

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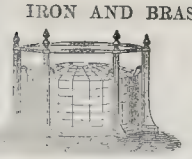
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the Late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 3 inches up to 10 inches each corrugation, in all lengths up to about 11 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS, also for ALL KINDS of ROOFING RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock, or galvanized to order.

The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves-Gutters plain and moulded, Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys; Copper Rope Lightning Conductors, with Points and Attachments complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, at 11 per square foot. Dry Hair Felt for Dead Lining Roofs, for Boilers, and Steam Pipes, made in rolls 32 yards long, at a reasonable price.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chains, Anchors, &c.

THE TRADE SUPPLIED ON LIBERAL TERMS.

Head Offices: 13, JAMES-STREET (late Coalbrookdale Company's Premises), LIVERPOOL; Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. All kinds of Iron and Ironwork Galvanized, and Sheet-iron Corrugated at very moderate prices.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, Oxford-road, near the Canal-bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and self-fitting spring, swing, double acting, gate, and other Hinges, Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 59 Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and Co. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coach-house, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-rising spring hinges, and scissor-gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-greases, sugar-mills, &c.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S office, 145, Regent-street, London.

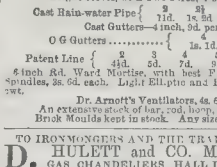
HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and CO. opposite to the Monument, London-bridge. Established A.D. 1700.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Sh. reditch.

A great variety of Fluptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Register Stoves, with Solid Backs, per in. 2½d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 31 per inch.

Best Solar ditto, with Fire Brick Back, per inch, 1½d.

Bright Stoves, with Two Fires, 4s. to 10s. each.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler, 3ft. 2ft. 4ft. 36 inch. 28s. 30s. 32s. 34s.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

41 in. 36 in. 38 in. 42 inch. 54s. 56s. 58s. 60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 3½d.

Cast Hain-water Pipe { 2 in. 2½ in. 3 inch. 1id. 1s. 8d. 1s. 4d. per yard.

Cast Gutters—4 inch, 9d. per yard.

O G Gutters ..... { 4 in. 4½ inch. 1s. 1d. 1s. 3d. per yard.

Patent Line { 2 in. 3 in. 4 in. 5 in. 6 inch. 44d. 5d. 7d. 9d. 1s. per knot.

6-inch Rd. Ward Moderne, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron Brick Moulds kept in stock. Any size made to order.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article is fixed in plain Drawing Rooms and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price-list, 10s. 6d. net. 149, High Holborn.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's. JONES and BRAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coops, Balconies, Window-boards, Verandahs, Ornamental Stoves, Panels, Iron Staircases, Tomb Enclosures, Steel in Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Flange Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS,

68, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Girders, Staircases, Wrought-iron Girders, Fire-proof Doors, Book-safes and Strong-rooms, Tanks and Boilers and every description of ironwork to specification, and the work executed with every attention to quality and despatch.

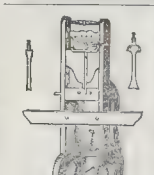
GLOVERS' IRONWORKS,

168, DRURY-LANE, and CHARLES-STREET

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kingsroad, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can, at all times, on short notice, supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished Engineering and Contractors in the world with their Machines for home and foreign use.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, desirous of work, are invited to call at the Patentees, POWIS, JAMES, and Co. Wholesale Bedstead and Cabinet Makers, Ironmongers, Carpenters, 98, Watling-street, City, and see a machine in every respect powerful, and expeditious machine, which is the only one yet brought out, for performing this, three separate kinds of work in one machine; and as to self-fitting, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.



MORTISING MACHINE. 12l. to 18l.

KIMBERLEY'S PATENT MORTISING MACHINE.

The Patentee feels justified in calling attention of all Builders, Cabinet-makers, and others to this simple, strong, cheap, and most effective machine. Hundreds are now in use all over the Kingdom, and after needless any extent can be given to prove it really is what it is represented, viz. the most valuable tool ever offered to the trade.

Amongst testimonials of the highest character he would respectfully invite attention to the following:—

"Dear Sir, In reply to your inquiry respecting the Patent Mortising Machine I purchased from you some months ago, I have to inform you I consider it a most SIMPLE, EXCELLENT, and DURABLE ARTICLE; nor do I think it possible to find anything when I state it is highly superior every way to one I was recently induced to purchase from a London house, which, although represented to be superior in its principle and make, has totally deceived myself and all others, as it is slow to work, and is useless in comparison with your own, upon which I believe not a sixpence has been expended since received from you, although in constant work. I candidly assert that its use in my shop is of GREAT VALUE, as it must, indeed, be to every builder who possesses it.

"I am, Sir yours faithfully,

"JOHN PARNELL."

London Agents: Messrs. PUGH and CO., Kingsland Shot-tower. Keep Stock of all Kimberley's Patent Tools, Hooping Cramps, &c.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbrück's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent Improved

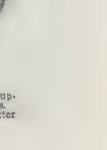
UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the most favourable terms.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Caiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of Ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards

Register Stoves, 3½, 4, 4½, 5, 5½, and 6d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings.

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 3s.; 4 ft., 3l. 18s.

4 feet Cottage Ranges, with ovens and back boilers, 45s. each

4-feet self-acting ditto, ditto, 5l. each

Air Bricks, 4 per doz.

Best Town Pipe, 6s. per yard. Ditto, Scotch, 6s. per yard.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	10s. per gross

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at on. shilling the foot.
R. S. NEWALL and Co.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
195, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron, and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at
RICHARD EVEREDS, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

THOMAS EDINGTON,
PURCHASER and INSPECTOR
OF
CASTINGS on COMMISSION,
17, GORDON-STREET, Glasgow.

NAILS and IRONMONGERY,
from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which
will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

ESTABLISHED 1817
WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 70, Hornsey-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the Lowest wholesale prices.
Cottage Ranges, with oven or boiler, complete, 22s. each.
Ne facing ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 45s. each.
Register Stoves, from 3d. per inch.
Elliptic ditto, with double backs, from 2½d. per inch.

Cast-Iron Rain-pipe	2 inch.	2½ inch.	3 inch.
	11d.	1s 3d.	1s. 4½ per yard.
4-inch Eaves Gutters, 9d. per yard.			
	3½	4	4½ 5 inch.
O G Gutters	1s.	1s. 1d.	1s. 3d. 1s. 4½ per yard.
Best Cut Clasp	1½	2	2½ 3 inch and larger.
and Rose	16s.	18s.	14s. 6d. 14s.

1-inch Best Cut Lath, 15s. 6d. per cwt.
Sheet Floor Brads, 13s. 6d. per cwt.
H sop Floor Brads, 1s. per cwt.
Sash Weights, 7s. 6d. per cwt.; 3-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 9s. per doz.; strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforate l Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

IRONMONGERY.
PFEIL AND STEDALL.
THE LARGEST STOCK AT
THE LOWEST PRICE,
5 AND 6, BROAD-STREET, BLOOMSBURY.

WANTED, a SUPPLY of SECOND-HAND TRAM-RAILS.—Address, quoting description and price, to RANDELL and SAUNDERS, Corsham, Wilts.

TO BUILDERS AND OTHERS.
ANY person having a good PUG-MILL, that has been used in making Mortar, for Sale, may hear of a Purchaser by applying to W. MELARS, Builder, Wandsworth.

TO BUILDERS.—TO BE SOLD, as under:—
200 m. 1½ inch 4lb. fine Patent Flat Point Rose, at 1s. 3d. per m.
5 cwt. 4oz. Short Wrought Flemish Tacks at 4½ per m.
100 m. 4 oz. ½ inch and 2 inch Wrought Joiners' Brads, at 10d. per m.
150 doz. assorted loose and Cast Butts, from 2 to 4 in. 1s 8d. per doz.
100 Register Stoves, some heavy metal, from 3 feet 2 in. to 3 feet, at 20s. each.
2 Iron Chimney-pieces, 20s. each.
1 each Marble and Magnus's Enamelled ditto, 40s. each.
5 cwt. light Hooks and Hinges, 30 in. up, 2½d per lb.
40 doz. H and HL Hinges, assorted, 6 to 10 in. 3s. per doz.
10 cwt. mixed Screws, 5½ per lb
2 7-feet Cross-cut Saws, 19s. each.
5 cwt. No. 6 Galvanized Fencing Wire, 23s. per cwt.
A Nott's Patent Stove, second-hand, 3l. 10s.
2 large new Hot-air Stoves, 4l.
1 Walker's Patent Self-feeding Stove, 3l. 10s.
1 4 feet 6 in. improved Kitchen Range, with oven and back boiler, complete, &c. 6l. 10s.
4 doz. Iron Sash Lifts, 1s. per doz.
5 3 cwt. Washing Machines, 30s. each.
50 sheets straight Corrugated Iron, 7 feet long, 2 feet 4 in. wide, at 3s per sheet.
20 Gas Cooking Stoves, from 25s. to 6l. 10s.
6 Gas Heating Stoves, 30s. each.
6 Sack Barrows, 10s. 6d. each.
2 Wrought-iron Cisterns, to hold about 200 gallons each, 4l. each.
1 doz. Brass Curtain-rods, with French ends, assorted lengths, 3s. 6d. each
Terms, cash, delivered at the Station of the Great Northern Railway. A reference, or a remittance, to be sent with orders, addressed to GEO BOWER, Saint Neots, Hunts.

EDWARD RUSSELL, ALMA TUBE WORKS, WALSALL, Manufacturer of Wrought Iron Tubing for Gas, Steam, and Water; Stocks, Taps, and Dies, and all kinds of Gas Fittings.

TO ARCHITECTS AND BUILDERS.
PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most simple and durable yet invented. Their power is equal to doors of any size and weight, as they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom. Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.
THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.	3	4	5	6
	5s. 3d.	6s. 9d.	8s. 9d.	9s. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Bloomfield-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and Tablets, of every size and description, may be had at the Company's Show-room, 29, Regent-street, Waterloo-place, and at the Quarries, Lizard, Cornwall.
HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Macclesfield-street, North, City-road, for the sale of CHIMNEY-PIECES, and other articles, useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.
July 25, 1855. C. ADENEY, Secretary.

MARBLE CHIMNEY-PIECES.—TO BE DISPOSED OF, about TWENTY or THIRTY, suitable for second or third-rate houses, at moderate prices.—Apply at No. 1, North Crescent-mews, Burton-crescent, Saint Pancras.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom selling Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt of Statuary, Veined, Sicilian, Dove, and Black and Gold Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, the foot of Vauxhall-bridge.

MARBLE and GRANITE RUNNERS.—Several Pairs, TO BE DISPOSED OF, with Water Wheel, Gear, &c.—Apply, by letter (in the first instance), to Mr. WILLIAM THOMAS, Builder, 73, York-road, Lambeth

TO THE MARBLE TRADE.
MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.
PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE PLACE.
SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.
THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Brocadilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

YATES'S MARBLE WHARF, Crescent-road, Millbank.—M. YATES begs to inform the friends of her late husband, W. Yates, and all persons connected with the Marble trade, that the business of the above premises will be carried on as usual under the superintendence of an able manager. A large quantity of Marble Slab; also a good stock of Chimney-pieces, and other marble works

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, Kings-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest price.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS, MILLBANK STREET, WESTMINSTER. Marble of all kinds and of best quality, in block and slab Marble mortars, &c.

YORKSHIRE STONE.
GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons, that they can supply to any extent all kinds of YORK STONE, including Paving, Bramley Fall, Park Spring, &c. of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms
GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter.—London Agent, C. HOAR, 4, Mill-bank-row, Westminster. This Granite was used exclusively in the Nelson Monument, Trafalgar-square; King William IV. Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terraces at the Crystal Palace, &c.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLAS and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 240, High-street, Southwark, near the Town-hall.

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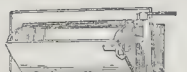

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At 1st March, 1847	£740,463	£26,604	£55,115
" 1849	1,167,578	41,196	137,735
" 1851	1,967,578	71,196	498,955
" 1853	4,492,731	165,564	910,845

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The Builder.

Vol. XIII.—No. 653.

IN concluding our last preceding contribution towards the Improvement of House Painters' Work,* we urged the importance to Art, of discovering a material or process, by which, whilst attaining complete durability of substance and surface, brilliancy might be avoidable. In our conception of these objects, we looked far beyond the limits of M. Chevreul's researches,—for the reason in regard to art, which was sufficiently given by reference to the advantage of fresco, as compared with oil-painting,—and in regard to durability, because all present processes, under the usual atmosphere of towns, required that early renewal which involved not only serious expense, but changes from the design of the original architect—always to be deprecated.

Hitherto the objects referred to have, we believe, not received the necessary attention, though their importance must be perceived by any who have thought much about the nature and capabilities of our art. But, the chemistry of vegetable and animal substances, to which the investigation of the properties of the oils belongs, is still in a nascent condition. There are, however, substances analogous to or produced from the oils used in painting, which might be made the subject of experiment; though the properties of which it is desired to have the benefit, are, perhaps, too much opposed to each other to be looked for in one and the same substance. They would be, in short, those of the fixed oil of linseed, and the essential oil of turpentine. A really "dead" *varnish*, colourless, and which would not require renewal, would otherwise answer all objects.

M. Chevreul seems to have had some idea of what was desired, although he has not given any particular reasons for choosing the substances upon which he makes his next experiments. The principal substance is one that he calls "*L'acide oléique hydraté*," otherwise the oleic acid, which we may state was discovered by M. Chevreul himself, and made known to the world in 1823, in his essay "*Sur les Corps gras*," which first established information as to the composition of oils and fatty substances. The acid is now abundantly produced in the manufacture of stearine candles. Till lately it was of very little value, as it burned ill in lamps. It appears not to have been obtainable except in a crude state. It is now found to be improved if agitated with dilute sulphuric acid, and other means are available by which it can be produced perfectly pure. When pure, it is a clear colourless fluid of oily consistence, inodorous and tasteless. It is distinguished by the property of rapid absorption of oxygen,—or, in other words, it dries very readily. Now, we must be careful not to attach great importance to a substance such as this, of which we ourselves certainly know but little. The oleic acid, indeed, were it to be tried in actual work, would have to be used with great caution. Taken alone, it dries too rapidly to admit of proper adherence to the surface, and very many of the mixtures, or combinations, into which it could enter are greatly deficient in this most essential quality for a pigment. Still it does seem not unworthy of notice, that other combinations have both the property of adherence, and that very advantage of which we are in search, viz. deadness of the surface. That this should be, would seem curious to many. It is stated in a little manual now before us,* issued by the Vieille Montagne Company, that the presence of acids in fatty substances will lead invariably to bad results, in the case of the pigments with which they are used. This, however, probably refers to the ordinary acids with which oils are clarified,—not to the organic acids.—When a quantity of the oleic acid is exposed, it has been noticed that a brown substance is produced, and that there is a disagreeable rancid smell, and such points would, of course, have to be taken into account. The acid also is said to decompose the carbonates,—though, as will be seen, M. Chevreul notes experiments on the acid mixed with carbonates, and he does not allude to such decomposition. This branch of the subject, however, is one which would deserve the extended research of an accomplished chemist like M. Chevreul. It only appears to us that considering the large quantities of the acid which must be produced in London, a case is made out for further investigation. What our author has done, forms a good opening,—even if his statements do not seem quite free from contradictions.

He mixes the acid with sundry lead, zinc, and antimony bases, and the results in the case of applied coats of paint are stated. First, as to lead. The compound of the acid and litharge adhered at once to the surface. Where the white of lead was substituted, forty-eight hours elapsed; but then, the coating began to harden. The experiments as to minium and chromate of lead, respectively, do not appear to have given satisfactory results. Next, as to zinc. The compound of the acid and anhydrous oxide of zinc, adhered at once. Nearly the same effect was noticed with the carbonate of zinc. The experiment on the simple chromate of zinc was not satisfactory; but the acid with the product obtained by boiling the bi-chromate of potash with oxide of zinc, adhered at once. In the case of the "Vert de Rinman" (oxide of zinc and oxide of cobalt), the coating adhered, though not immediately.

Passing over experiments with antimony and acetate of lead, we arrive at some made with litharge, white of lead, and white of zinc respectively, where the acid pure, or mixed with linseed oil, was used in place of the ordinary oil. In the experiments tried in the spring of 1849, on surfaces of oak, we have the acid and five different combinations of it, contrasted as to results, with a combination of linseed oil and litharge. M. Chevreul makes no allusion to the anti-siccative properties of the oak. By these, some of the contradictions we have referred to might have been shown to be only apparent. The several liquids and mixtures, with their results, are as under; it being understood that the acid is, in in all cases, in the hydrated form:—

1. *Oleic acid.* First coat absorbed by the wood, but that and the later coats would not dry.
2. *Oleic acid and white of lead.*—The second coat defective as to adherence; but the third very adherent. Dried "dead."
3. *Oleic acid and litharge.*—First coat set in six hours; second coat in about two days; third coat in about six hours. Perfect as to adherence. Dried dead. (Still M. Chevreul notices that the surface, though rough, was greasy to the touch; this he attributes to oleic acid in excess, and to the oleate of lead formed.)
1. *Oleic acid and white of zinc.*—Dried quickly; but not so readily as the last. Second and third coats defective as to adherence. Dried dead.
5. *Oleic acid, linseed oil, and white of lead.*—Dried quickly; but second and third coats defective as to adherence. Dried dead.
6. *Oleic acid, linseed oil, and white of zinc.*—Same as the last.

Whilst in the case of—

7. *Linseed oil and litharge.*—First coat set in three days; second coat in two days; third coat dry in twenty-four hours. When perfectly dry, the surface shining. Second and third coats very adherent to the wood.

Out of the above list, it appears to be M. Chevreul's opinion that besides No. 7, Nos. 2 and 3 might be safely used; but he says that those are the only mixtures so available, since they afford the only instances where the mixtures will dry and also adhere. Remarking that the last mixture (7) is the only one that dries with a shining surface, the reason is given thus:—In all the *others*, solidification operates more or less rapidly between the ingredients—whereof one is liquid, and the other solid—the particles taking up their places without regularity, or in the positions they happened to fall into; but in No. 7, the absorption of oxygen being produced by a liquid body, and being by consequence slow, greater homogeneity results; the solidified oil, whether it have affinity for white or not, reflecting the light in a more regular manner. Finding the rapidity with which the acid with litharge or white of zinc became solidified, he considered whether advantage might be derived from this in practice; but the result was not satisfactory: the solidification proved to be too rapid; therefore he added to the acid both linseed oil and turpentine. In June, 1849, he laid on two deal doors the mixtures as under:—

No. 1.—Oleic acid, 2 parts by measure.
Linseed oil, 1 "
Turpentine, 1 "
Manganesed oil, 0.5 "
And white of zinc.

No. 2.—Linseed oil, 4 parts by measure.
Manganesed oil, 0.5 "
Turpentine, 1 "
And white of zinc.

As to drying, the effects were precisely similar in both cases, the first coats being dry in two days, and the second coats in one day. In regard to appearance, there was some difference, No. 1 being "dead," as compared with No. 2. This result, however, was obtained at a serious disadvantage, No. 1 having the capital defect of want of adherence to the wood. We should at once admit that no practical conclusion has been got to, in regard to the use of the oleic acid; indeed, what has been just stated will show how much caution would be necessary before using it in the manner in which M. Chevreul, before undertaking the experiments, seems to have supposed it might be useful. But, with such properties as it has, and considering the large quantities of it which no doubt may be obtained at Vauxhall, it must be well worth the while of English chemists to continue the French researches. The result, at all events, might give us what we seek, from properties of some of the other organic acids, or bases, of which the oils are composed. There are also important differences in the several kinds of oils. The linseed oil is said to contain an acid of its own, which has been called linoleic acid, and, as obtained, has much mucillagineous impurity. Walnut oil is remarkable for a siccative property, superior to that of linseed oil, and its want of colour renders it a good vehicle for many kinds of paints. Hempseed oil is also in use. There is, consequently, a field for research considerably more extended than the area of the present researches. Our own abstract of these has now included nearly everything that we can expect will receive attention from practical house-painters.

* See page 337, continued from pp. 109, 193, 243, *ante*.

* Manuel des Peintures au Blanc de Zinc, ou Conseils aux Peintres en Bâtiments sur l'Emploi et les Avantages des Peintures au Base de Zinc. Paris: 1855.

The tables completing the series of experiments on oleic acid are too extended to be given entire, and chemists who would pursue the investigation, would do well not to be satisfied with any abstract. The subsequent experiments, indeed, appear to us of less immediate moment, since the material on which the coats of paint are laid, namely, oak, is still not in that place alluded to by M. Chevreul, as possessed of anti-siccative, and other properties, which might go far to modify some of the results. We may, however, say that he found on mixing the acid, or the acid and linseed oil, or acid, oil, and turpentine, in various proportions with ochres, or other colouring substances, without the ordinary lead, or zinc base, all were soft, and not adherent to the wood. In the following case, however:—

Oleic acid	2 parts
Linseed oil	1 „
Turpentine	1 „
And white of lead,	

though the first coat required eighteen days to be absolutely dry, the second coat requiring four days, the coating was ultimately hard, and very adherent. The white of zinc was not tried in those experiments. The reason why the particular combination above given, is the only one that will solidify, and at the same time adhere to the wood, our author says, is involved in the following:—First, the acid is capable of "a sort of combination" with the white of lead, though the product is not to be confounded with an oleate of lead; and, second, there is the property of drying slowly, which resides in the linseed oil.

In the last series of experiments, in the spring of 1849, several different oils and vehicles were tried on oak, with sundry bases and colouring substances. First, linseed oil and manganesed oil, were each mixed with umber, and in all cases the three coats dried in eight days, the adherence, however, being but middling. The oleic acid with umber was, indeed, imbibed, but remained sticky, and without adherence. Next, the acid was tried with an addition of one-fourth of turpentine, with oxide of zinc, red oxide of iron and yellow ochre. The three coats again required eight days, when they were perfectly dry, and with a dead surface, but the adherence was but middling. The acid, with the manganesed oil, "noir de charbon," and yellow ochre would not dry; whilst using the same colouring substances, and substituting linseed oil and litharged oil for the other ingredients, the three coats required seven days, when they dried, with a slightly shining surface, the adherence, however, being but middling. In the next case, litharged oil and manganesed oil were each treated with ivory-black, and those two compounds were mixed; and in that case the adherence was great, the surface being shining.—Two different mixtures were then prepared, and compared with each other. They were the following:—

A.		B.	
Linseed oil	2 parts.	Oleic acid	2 parts.
Turpentine	1 „	Linseed oil	1 „
Manganesed oil	1 „	Turpentine	1 „
		Manganesed oil	1 „

Three coats of each of these, mixed with whatever substances, dried in six days. With the chromate of zinc and Prussian blue, the adherence was satisfactory in the case of A and B. But whilst A dried with a brilliant surface, that of B was dead (*mâte tendre*). As regards the same vehicles with red ochre and "charbon" in place of the chromate and blue, A was brilliant and adherent; whilst the surface of B seems to have varied in the experiments—its adherence being slight. Substituting white of zinc, red ochre, yellow ochre, and umber, A was brilliant and adherent, whilst B was dead, with feeble adherence. Next, with white of zinc, chromate of zinc, and vermillion, the contrast between A and B was similar,—as also where there was white of zinc and Prussian blue, or white of zinc, blue, and vermillion. Thus it is seen, first, that all the mixtures where the acid exists in a state of purity or mixed with linseed oil, when laid on are dead, and on coming to the solid state have little adherence; secondly, were it desired to have the surface brilliant as well as adherent, a siccative oil (for example, linseed oil), should be present in such a proportion that the particles of the oil in absorbing oxygen should not be too far removed from one another by the interposition of the solid and opaque matter with which they are incorporated.

When oleic acid is mixed with oxides capable of solidifying it, the acid passing almost instantly to the solid state, can present no uniformity in the mass of particles of the oleate produced. The case is different with a siccative oil passing progressively to the solid state by the absorption of oxygen. The slowness of the change permits the oily particles to take a symmetrical arrangement which would render them transparent, did they not include amongst them opaque particles. If the latter do not predominate, the arrangement is such that the surface of the dry oil reflects light.

Such is the *rationale* of the subject, according to M. Chevreul, and it must be allowed that, together with the experiments, they do not leave our object of attaining a durable and dead surface in a highly satisfactory position, though in one which seems far from conclusive against us. We rather think that these researches give a better starting-point for the pursuit of the subject, than had before existed.

With the investigation into the influence of the physical properties of wood, in the second memoir, yet unpublished, the knowledge of the circumstances attending the drying will be complete. It is clear that vast improvements might be made in the execution of work, if painters would apply the information above afforded them in regard to the composition of the ordinary "driers," and those other siccatives by which it has been shown, in numerous cases they might be advantageously replaced. As it is, even in large establishments, no attention is given to the subject, and any kind of "patent drier," wherein the extensive adulteration is the only thing *patent*, is thought to answer the purpose. Whilst, however, these researches show that there may be considerable improvements, commercially considered, in the ordinary "driers," they show also that slight changes in the materials and proportions of pigments may lead to very important results. If such improvements result from the consideration which we venture to say, the particulars we have given well deserve, our general readers will have no reason to regret that we have occupied our pages with matter of such moment in regard to the comfort, and durability of their dwellings, as well as to the interests of art.

We take this opportunity to say that a former article, noticed by a correspondent in our last number, seems not inconsistent with the experience as to the mode of using zinc paint. M. Chevreul's researches were as to painters' work in general. We referred to the mistake made in the mixture of a very large proportion of oil with the white of zinc; and the admixture of turpentine seems to have a possible advantage, or one beyond what it has with a lead base, which tendency, however, where the quantity of turpentine is further increased, brings with it the very disadvantages, resulting from excess of turpentine in the case of white of lead. We have refrained in the present state of the inquiry from expressing any opinion as to the white of zinc; but the use which has been made of it in other countries leads us to take great interest in the question of its advantages; and we may at least say it is clear to us, that the applications of it in England have been made under great ignorance of the best understood methods of using it, and have given it no fair chance of success.

ACCOUNT OF THE EXPENSES OF A JOURNEY TO PARIS AND BACK, INCLUDING A DETENTION AT LILLE.

The following account of the expenses of a short trip to Paris during last July may interest such of your readers, especially those of moderate means, who contemplate visiting that city. It is a *bonâ fide* copy of the entries made in my pocket-book each day, and I have inserted every item that I find there.

I add also a few notes and suggestions, which will, perhaps, be of some use to those who are unacquainted with Parisian life and customs, premising that I am a *poor* gentleman, that is, an artist, and that my notes are intended for that class:—

Date. July.		French Fr. c	English £. s. d
1.	Steamboat and rail to Lille	15 0	0 12 0
	Breakfast and steward's fee, &c.	3 75	0 3 0
	Dinner at Dunkirk	3 25	0 2 7
	Porterage and small sums	1 75	0 1 5
	Commissionnaire at Lille	0 50	0 0 5
2.	Hôtel de l'Europe, at Lille	7 0	0 5 7
	Soap, porter, 'bus to rail, &c.	2 0	0 1 7
	Rail from Lille to Paris (express)	28 0	1 2 1½
	Small sums and postage	1 30	0 1 0½
	Refreshment on rail	1 50	0 1 2½
	'Bus to la Bourse	0 30	0 0 3
	Dinner (in the Passage Choiseul)	1 70	0 1 4½
	Four set squares (1 sou each!)	0 20	0 0 2
	Cirque de l'Impératrice	1 0	0 0 9½
	Café Chantant	1 60	0 1 3½
	Timbres-postes (postage-stamps)	1 0	0 0 9½
	Small sums	0 75	0 0 7½
3.	Breakfast	1 35	0 1 1
	Great Exhibition	1 0	0 0 9½
	Dinner	1 50	0 1 2½
	Small sums	1 0	0 0 9½
4.	Breakfast, 2f.25c.; dinner, 1f.70c.	3 95	0 3 2
	Small sums	1 0	0 0 9½
5.	Fine Arts Exhibition	1 0	0 0 9½
	Catalogue of ditto	2 50	0 2 0
	Breakfast, 1 25; dinner, 1 70	2 75	0 2 2½
	Postage, 1 60; small sums, 70	2 30	0 1 10
6.	Breakfast, 3 20; dinner, 2 10	5 30	0 4 3
	Catalogue, Musée de l'Hôtel Cluny	2 0	0 1 7
	Theatre, 2; small sums, 1 75	3 75	0 3 0
7.	Breakfast, 1 50; dinner, 2	3 50	0 2 9½
	St. Denis, 1 10; expenses there, 1 40	2 50	0 2 0
	Café, 1 50; 'buses, 60	2 10	0 1 8
	Gloves, 14; kepi (cap) 5	19 0	0 15 2½
8.	Breakfast, 3 15; dinner, 2 60	5 75	0 4 7½
	Versailles and back	2 94	0 2 4
	Expenses there, 1 45; small sums, 1	2 45	0 1 11½
9.	Breakfast, 1 35; dinner, 2	3 35	0 2 8½
	Exhibition	1 0	0 0 9½
	Bonbons, 2; 'bus, 30	2 30	0 1 10
10.	Breakfast, 1 35; dinner, 2 15	3 50	0 2 9½
	Eau de Cologne, 2; concierge, 1	3 0	0 2 5
	Small sums, 40; indicateur, 25	0 65	0 0 6½
	Bill for eight days' lodging and service	27 60	1 2 1
	Cab to railway	2 0	0 1 7
	Railway and steamer to London, *viâ* Dieppe, saloon and second-class	28 75	1 3 0
	Geneviève, 1; Journal pour Rire, 50	1 50	0 1 4½
	Refreshment at Rouen	1 50	0 1 2½
	'Bus at Dieppe, 50; Permis d'embarquement, 10	0 60	0 0 6
	Loss by change to English money at Dieppe, and small thefts	1 75	0 1 5
11.	Expenses on board, and steward's fee	1 85	0 1 6
	Black mud at Newhaven, sold as coffee	0 85	0 0 8
	Error in excess, from reckoning the sou as equal to 1d. 95 of a halfpenny being nearer the tenth	219 40	8 11 11 0 0 2
			8 11 9
	Journey to Paris, including expenses at Lille		2 11 5½
	Eight days' expenses at Paris		4 12 2½
	Journey to London		1 11 1
	Total		8 11 9

NOTES FOR STRANGERS IN PARIS.

A stranger arriving in Paris, if he purposes staying more than a couple of days, and desires to economise, will do well to take a lodging rather than stay at an hotel. In Paris are a great number of *maisons meublées*, or houses let off in single rooms, or suites of apartments. Several of them will be found in the Rue Neuve S. Augustin, near the Rue de la Paix, as the Maison de Goest, No. 46; Hôtel d'Orient, No. 48; Hôtel d'Amirauté, Maison d'Alma. The situation is central and convenient, as Pat says, to the principal places of resort. A single room to serve as bed and sitting room, may be had from about (at present) 3 francs a day, to 5 francs or more: an *appartement*, or suite of two or more rooms, of course, will be charged higher. A traveller should take soap with him: it is seldom to be found in the hotels in France. On arriving in Paris in the afternoon from Lille, I took a 'bus to La Bourse, and walked thence to the Maison de Goest, 46, Rue Neuve S. Augustin (I had been there before), carrying my small travelling-bag myself, and in five minutes I had engaged a room, and had a supply of hot water to assist in removing the dust I had gathered on the road. I was certainly lodged nearer heaven than I ever was before, viz. *au cinquième*, but there was the "*mansarde*" above me, and I had every accommodation I wanted.

During my stay I dined usually at one restaurant, "Courrieux, au Grand Gastronome," in the Passage Choiseul (where a very good

SEDILIA, &c. CHURCH OF ST. MARY MAGDALEN, MUNSTER-SQUARE, LONDON.

linner is given for 1 franc 60 centimes, plus sous to the *garçon*), and seldom before seven r eight o'clock, when my day's work or pleasure vas over. I breakfasted where I happened to e at ten o'clock — sometimes cheaply, but ftener the reverse; and I found these two meals ufficient except as regards thirst; but cool everages are plentiful in Paris, and I was not o proud to step into a wine-shop, and get two ous of wine, which, mixed with a demi-siphon of au de Seltz, is a most refreshing drink. I did ot visit any of the great restaurants, as the estaurant de l'Europe, the Diner de Paris, as came to Paris for an intellectual feast, and ot for bodily indulgence, and besides, had no oney to spare. A traveller will save himself uch trouble if he can stow all his baggage in ie parcel, and that not larger than he can rry with ease: a few shirts, abundance of ocks, a pair of shoes, and change of clothes, are l he requires for a week or ten days. He need t even take his shaving tackle, for I noticed l the English in Paris had left off shaving on hding in France, and you could tell how long ace they had left home by the length of their ards. If he purposes making a longer stay, can easily get his linen washed—even day by y. No sensible person would attempt to uggle anything over either way: a pint of ench brandy is allowed on landing in England, d it would be difficult to pass more without tection, and half a dozen of French gloves will t be taken unless *concealed*.

A person tolerably conversant with French liable to a few errors, which make one look lall: *e.g.* at a café, for instance, do not call for *café*, or *de la groseille*, but *un café—une seille*. Also after dining, do not ask for *n billet*, but *mon addition*. There is also this tinction between a café and a restaurant—first is a place for drinking, the second for ing. As regards lodgings, all the notices for *nished* apartments, are on *yellow* paper, se for *un*furnished apartments on *white*—*appartement* is a suite of rooms—*une chambre* is one room. "Voitures de Place," are the cabs with big red numbers on the back—they are found on stands. "Voitures de Remise," have small red numbers, and drivers in livery,—indeed are stylish-looking affairs, but dearer, 1fr. 75c. par course, the others 1fr. 25c.

At the theatres you keep your place by tying a handkerchief round your seat: no one will take either in your absence. D. W. R.

SEDILIA, ST. MARY'S, MUNSTER-SQUARE.

The accompanying engraving shows more in detail the sedilia, &c. in the church of St. Mary Magdalen, Munster-square, built under the direction of the late Mr. Carpenter, and illustrated in a recent number of the *Builder*.* The carving was executed by Purday, the polychrome by Messrs. Crace. The material is Caen stone, with shafts and panels of St. Ann's marble.

SOME MEMORIALS OF FATHER THAMES.

"The Thames," says a historian who wrote in 1794, "refreshes with its gentle waves the seats of learning, the palaces of kings, connects the commerce of the provinces which it adorns with the metropolis which it dignifies, and rolling on, with each returning tide, through those superb arches which unite its opposite shores, connects the commerce of the metropolis with that of the world, and continuing its course through the vast operations of trade on its banks, and by the royal arsenals, the manufactories of that strength which forms the national defence and protection, it expands at length, till, itself a sea, it mingles with the ocean." Old Father Thames was then a glorious fellow—stronger than he is now, and in comparatively decent condition. The Lord Mayor could then take his barge, and with pleasure and safety entrust himself for three or four days in his bracing atmosphere, not forgetting, in the midst of enjoyment, to cast an eye to abuses, and to listen as to necessary improvements, ordering the destruction of weirs and other obstructions. Things are changed now—more's the pity: we will not, however, pause at present to grumble, but wander to where we can enjoy the wholesome air, see the fresh green hawthorn bushes, where the "Birdesses," as Chaucer says, "singge clear," and stand beside that which is to us an inexhaustible subject for thought and enjoyment—the spring of a famous river.

Old Father Thames, like many men of great name, and nations of high renown, is traced to a humble source — a picturesque little valley near Cirencester, in the county of Gloucester. It presently joins three or four neighbouring rills, and many a tributary stream forms the chief of British rivers, which for several miles preserves a rivuletish appearance. It reaches Cricklade, in Wiltshire, where, being increased, it assumes a more important appearance. Approaching Kemsford, it re-enters its native county, dividing it from Berkshire, at Inglesham. The river enlarges as it approaches Lechlade, in Gloucestershire, situated on the confines of Berkshire and Oxfordshire, and receiving the waters of the Colm, it becomes capable of carrying vessels of from eighty to ninety tons burthen.

We must not, however, pass on without noticing the finger which Father Thames has thrown out to rapid Severn. This was an important junction, which, although contemplated as long ago as the reign of Charles II., was only completed by private enterprise about the year 1789. Even at the present time this is considered a great enterprise, and the tunnel looked upon as a good example of engineering skill; and as it has been thought by some that the Severn may be still further used with advantage in strengthening the exhausted resources of the

* See p. 355, *ante*.

Thames, we give the levels of the canal, and also the distance between navigable points of the two rivers:—

	Length.			Rise.		Fall	
	m.	f.	p.	f.	p.	f.	p.
From the head of the Stroud Canal at Wallbridge to Dana's way bridge	7	0	5	241	3	—	
From Dudbridge bridge to the entrance of the tunnel	0	2	5	Level.		—	
The length of the tunnel	2	3	5	Ditto.		—	
From the end of the tunnel to Upper Sapperton	5	3	3	Ditto.		—	
The branch to Cirencester	1	2	6	Ditto.		—	
From Upper Siddington to near Cricklade	5	4	1	—		102	2
From Cricklade to near Lechlade	8	0	5	—		28	4
	30	0	7	241	3	130	6

The Thames glides pleasantly along, and divides the counties of Berks and Oxfordshire, passing by Buscal-Harcourt, &c. to Oxford; from thence to Ifley, then on to Nuneham and Abingham, through the bridge of Wallingford, past the sweet village of Goring, the woods of Hardwick, the magnificent Maple Durham, and the pretty village of Caversham, to the vicinity of Reading.

The Thames then continues its course through Henley and Maidenhead bridges, and before it reaches Marlow serpentines through its vale in a variety of pleasing courses; then through a delightful piece of country, rich in old associations, to Windsor, where the noble castle crowns one brow and the academic groves of Eton College the other. Fine views of the stately Castle may be seen as we follow the Thames to Runnymede, that spot so intimately associated with the liberty and progress of England; from Runnymede to Cowper's-hill, standing on which,

"My eye, descending from the hill, surveys
Where Thames amongst the verdant valleys strays."

Let us look at Conway Stakes, where it is said the Roman general and his army crossed the river. There is, however, a good deal of controversy about this. Space will not allow us to wait and go very deeply into this matter, but we may say that these stakes, which at times we believe are still visible, are acknowledged to be the work of people earlier than the Roman conquerors, and that no little engineering skill has been used in driving the piles into the solid earth.* Some writers say that these piles were placed there to bother the Romans, and others argue that the depth of the water here would prevent the army from fording the river; and it is mentioned by the chronicler of the event that the infantry marched across with their heads and shoulders above water.

Staines, Chertsey, Kingston—the place of the Saxon kings—the magnificent Hampton-court, Twickenham, with its pleasant memories, its garden, and meads, to Teddington (tide-ending town), where a last feeble wave but faintly reaches—it forms a pretty picture, with its little church, villas, and ornamental gardens. We take the tide past Richmond and Kew—and here let us say, that with a week's time, a small knapsack, a light heart, and almost as light a purse, staff in hand, a man might, either with sketch-book or fishing-rod, travel most delightfully from Richmond, along the banks of Father Thames, to Oxford. However, we come to Fulham, and Putney, and then our enthusiasm begins to slacken: even Chelsea does not cheer us; and, rather melancholy than otherwise, we stop before "Paul's," and shutting as well as we can both eyes and nose, let us look back to the time when no spires, no bridges, not even houses or huts stood on the site of this now huge mass of buildings, and varied conditions of struggling humanity.

When Sir Christopher Wren began to build the new St. Paul's, in digging for a foundation, he came to a layer of Saxon graves lined with chalk, some in stone coffins; and at some distance below, the bodies of the British, only lapped in woollen shrouds, fastened with pins of hard wood, most probably box-wood. In the same row, yet deeper (this was 18 feet and more), were the ashes of the Romans, in urns—Britons and Romans together—the conquerors and the conquered, both vanquished. Lower than those graves stood the foundation of old St. Paul's, resting on very close pot-earth; and still lower, nothing but dry sand sometimes mixed unequally, but mostly so loose that it would pass through the fingers; then water and sand mixed with periwinkles and other sea-shells,—this was about the level of low-water mark. The gradual rise of the site of London by the formation of shoals, &c. will be readily understood by the above account. It grew by natural causes, and at the time of the arrival of the Romans, was probably a rude British stronghold defended by earthworks, and backed by thick woods towards the north, and surrounded on other sides by an immense extent of water, amid which the present course of the Thames could scarcely be defined.

So far as we can gather from the best authorities, and also from consideration and examination of the neighbourhood, it is probable that the place now called St. George's-in-the-Fields had begun, at the time to which we refer, to have an appearance something similar to what we can fancy was presented by the Isle of Dogs 500 or 600 years since—a shade of land above the water. In consideration of the large quantities of Roman remains which have been dug up in the Borough, in the neighbourhood of Kent, &c. &c. some antiquaries have supposed that the Romans first established themselves there, and not in London. However, the probabilities are, that the site to which we have alluded was at an early period of the Roman occupation used as a place of burial for the dead. Maitland, a historian who did not write without having carefully examined matters, says, "It can hardly be supposed that the sagacious Romans would have made choice of so noisome a place for a station as St. George's-in-the-Fields must then have been, for to me it is evident, that those fields must have been overflowed by every spring tide. For, notwithstanding the river being at present confined by artificial banks, I have frequently at spring tides seen the small current of water which issues from the river Thames through a common sewer at the Falcon not only fill all the neighbouring ditches, but also at the upper end of Gravel-lane, overflow its banks into St. George's-fields; and considering that about a twelfth part of the water of the river is denied passage by the piers and starlings of (old) London-bridge (it flowing at an ordinary spring-tide upwards of 19 inches higher on the east than on the west side of the said bridge), I think that this is a plain indication that before the Thames was confined by banks, St. George's-in-the-Fields must have been considerably under water every high tide, and that that part of the said fields called Lambeth-marsh was under water not an age ago."

The embankment of the river, a most gigantic work, was, although we have no particular account, executed, or at least directed, by the Romans. Few of the thousands who enter the Thames think that the great stream on which vessels of the largest size are afloat, is, in fact, an artificial canal, raised in many places considerably above the level of the surrounding country. It is a wonderful work, and it is singular that we should have no record of its first execution. The artificial bank of river extends either on one side of the river or the other, almost from the Nore to Richmond in Surrey, and some judgment may be formed of its magnitude, by the difficulty of repairing a breach made by a high and violent tide at Dagenham, in Essex. On this occasion (1707), a breach was made in this bank of the river of 100 yards wide, and nearly 20 feet deep, by which alarming accident 1,000 acres of rich land in Dagenham level were overflowed, and nearly 120 acres of land washed into the Thames, forming a sandbank nearly a mile in length, that extended over one half of the channel. After several unsuccessful attempts, Captain Perry, who had been employed in similar works by the Czar Peter, in Russia, at an enormous expense and with much difficulty, completed a wall. In carrying on these embankments, there were discovered, about 4 feet under the surface of the earth, great numbers of trees with roots, boughs, and some parts of the bark, which may be supposed to have been thrown down by storms and floods. They were principally brushwood, willows, and yews. Large quantities of hazel-nuts have also been found here, and horns of stags of unusual dimensions.*

It is difficult to estimate the advantages of the Thames embankment. After that was completed, many districts would be gradually gained from the waters; and *Thorney Island* (the site of Westminster Abbey), a small place, partly covered with scrubby bushes, and on which at an early period a hermit established his cell, extended in various directions. Southwark also increased; but then Lambeth, Vauxhall, and Battersea, now occupied by so many thousands, were under water, as was the greater portion of the land from Wandsworth to Woolwich, to Dartford, to Gravesend, and to Sheerness; and from the north range from Poplar to the Isle of Dogs. Scores of miles of that waste are now covered by multitudes, or converted into rich pastures or corn-fields; and year after year, in our own days, we see the skill of man in all directions, either making a scene of industry, or a "garden of a desert waste." It is truly wonderful to think that a little more than twenty years ago the greater portion of the ship-building yard of Mr. Mare, at Blackwall, where from 4,000 to 5,000 persons are busily employed, was a swampy marsh, overflowed by every spring-tide. A small establishment, for the purpose of building steamers of a moderate size, was planted on a somewhat suitable spot, and then the works grew; and by skill, industry, and capital, old Father Thames was slowly and surely driven back. At times he has made vigorous sorties, in order to recover his lost ground; but by piles of wood, on which most of the buildings stand; by the busy hands of man, and the help of the steam-engine, he has been successfully repulsed; and on his lost territories Nasmyth's hammers thunder and work, furnaces blaze both day and night, and thousands of smaller hammers fashion great ships, like the *Himalaya*, capable of carrying at one time a small army. A large town will soon spring up in the neighbourhood, and before long some miles of docks, filled with shipping, will extend eastward.

The Isle of Dogs is also rapidly being covered with houses and manufactories. In other places, in Lincolnshire, for instance, the land is becoming greater and the water less. The growth of populations on flat districts, urges the strong necessity of improved methods of draining and purifying towns, for it will not do for long to convert our rivers into sewers, and to waste that which, if applied to agriculture, would add to the fertility of the country. East of Dowgate, the first London-bridge was built. The date of this important event is uncertain, but was most probably between 993 and 1016. The importance of other matters in connection with Father Thames obliges us to pass slightly over the fearful invasions of the Danes, the ravaging and burning, the destruction of the early London bridge, the difficulty of keeping it in repair, and the story of the ferryman's daughter. We may, however, mention that it was burnt down in 1136, and in 1163 it was in such ill condition that directions were given to Peter, the curate of St. Mary's Cole Church, for building a new bridge.

The money required for the works at London-bridge was levied in various ways, not from London alone, but also from the provinces. In 1097, William Rufus exacted large sums of money in all parts of the kingdom, towards the carrying on his works at the Tower of London, at Westminster, and also in rebuilding London-bridge anew, with wood, which some time before (1091) had been carried away by a great flood: it would thus appear, that for upwards of six years London was left without a bridge.

That these levies were continued, with but few exceptions, in the time of Henry I. is shown by the following order:—

"Henry, King of England, to Ralph, Bishop of Chichester, and all the ministers of Sussex, sendeth, greeting. Know you, &c. * *. I command by my kingly authority, that the

* Mr. G[illegible] wrote a dissertation on the County stakes [illegible] the great difficulty experienced by a [illegible] quarry in obtaining a specimen of the stakes. He tried various plans; amongst others, fastening a rope to one of the stakes, and [illegible] however, [illegible] and black as ebony.

* Some [illegible] were turned up at the [illegible] for the Victoria Docks, at Poplar. See account in *Build.*, vol. xii. p. 44.

manor called Alchester, which my father gave with other lands to the Abbey of Bath, be free and quiet from shires and hundreds, and all other customs of earthly servitude, as my father held the same most freely and quiekly, and, namely, from the work of London-bridge," &c.

At about this time two or three important events occurred on the Thames, which we are bound to mention.

In 1099, a very high tide happened, which occasioned the River Thames to overflow its banks in divers places, whereby several towns and villages were laid under water, and many of their inhabitants, with an infinite number of sheep and oxen, were drowned; at which time the Godwin Sands were swallowed up by the sea.

In 1114, there happened such a defect of water in the River Thames, that great numbers of persons crossed, not only above and below London-bridge, but likewise through several of its arches, upon the ground with dry feet. This is a curious circumstance, and shows that the confinement of the river to a distinct channel has deepened its bed, for it would be next to an impossibility to ford at London-bridge now. We might infer the same thing, if *Hungerford* was, as it name implies, formerly a ford.

In 1150, after a wet season, the River Thames was frozen. Here, however, we must for the present pause, somewhat refreshed by even the idea of the benefit to Father Thames (if such a thing could be), of a sharp frost in these dog-days,—an idea that brings to our recollection the following petition, which we find reported in the *Gentleman's Magazine*, for the winter of 1740. It is as follows:—

"To the venerable sages of Westminster-hall, the humble petition of the River Thames, sheweth,—

"His complaint is of North and East, a couple of boisterous and mischievous bailiff's followers, who deprive him of the use of his limbs, and in one February night turn him as grey as a cat. * * * * He has become so hard and unnatural, that thieves and others trample upon him. * * * *" But we must cut short this old complaint, suggesting to him to try the use of a petition in his present unfortunate position, — which is worse for him and for others than the attack of the boisterous fellows he alludes to.

COLOUR IN THE CONSTRUCTION OF BUILDINGS.

At the present day there is, I think, absolutely no one point in which we fail so much, and about which the world in general has so little feeling, as that of colour. Our buildings are, in nine cases out of ten, cold, colourless, insipid, academical studies, and our people have no conception of the necessity of obtaining rich colour, and no sufficient love for it when successfully obtained. The task, therefore, and duty of architects at the present day is mainly that of awakening and then satisfying this feeling; and one of the best and most ready vehicles for doing this exists, no doubt, in the rich-coloured brick so easily manufactured in this country, which, if properly used, may become so effective and admirable a material.

The other mode of introducing colour in construction, by means of the use of marbles, deserves also some notice. In my notes upon the buildings as they were passed on my journey, I have described two modes in which this kind of work was treated: the first was that practised in Venice, the vencering of brick walls with thin layers or coats of marble; the other, that practised at Bergamo, Cremona, and Como, in which the marble formed portion of the substance of the wall.

These two modes led, as would naturally be expected, to two entirely different styles and modes of architecture.

The Venetian mode was probably rather likely to be destructive of good architecture, because it was sure to end in an entire concealment of the real construction of the work: the other mode, on the contrary, proceeded on true principles, and took pleasure in defining most carefully every line in the construction of the work. It might also be said that one mode was devised with a view to the concealment, and the other with a view to the explanation, of the real mode of construction.

I have already described, at some length, the main features of these old works in marble, and I feel, therefore, that all that need now be done is to point out the degree to which they afford matter for our imitation with the coloured materials and marbles which we fortunately have in Great Britain fit for the purpose, though not in very great variety.

There certainly appears to me to be a certain extent to which we may safely go in the way of inlaying or incrustation: we may, for instance, so construct our buildings as that there may be portions of the face of their walls in which no strain will be felt, and in which this absence of strain will be at once apparent: obviously, to instance a particular place, the spaces enclosed within circles constructed in the spandrels of a line of arches can have no strain of any kind: they are portions of wall without any active function, and may safely be filled in with materials the only object of which is to be ornamental. All kinds of sunk panels enclosed within arches or tracery would come under the same head: so also the spaces between string-courses might very frequently, if, as in old examples, the string-courses were large slabs of stone bedded into the very midst of the wall, and so capable of protecting the thin weak slabs of marbles encrusted between them.

In Venice we have some grand examples, at S. Mark's, of this system of incrustation filling in the whole of the space within large arches: here it is lawful, because there is no weight upon it to thrust it out of its place or disjoint it, as the least pressure most certainly always will. So far in praise of the Venetian system. But in other parts of the same building we have this system carried to a length which I cannot but think most mistaken, and which I most heartily trust may never find imitators here. In these they constructed their arches in brick, and then entirely covered them with marble. Of course there was some difficulty in doing this, and the way in which the difficulty was met was sufficiently ingenious: a succession of thin slabs of marble were placed round the soffit of the arch, having perhaps enough of the cohesion given by the form of the arch to enable them to support their own weight, and further supported by metal staples let into the joints of the brickwork. The edges of these thin slabs projected sufficiently in advance of the face of the brickwork to allow of their being worked with some kind of pattern—generally, as has before been said, a sort of dentil—and giving some support to the thin slices of marble with which the walls were then covered. The whole system was excessively weak; and this can nowhere be better seen than in the Fondaco de Turchi, where almost the whole of the marble facing and beautiful medallions, in which it was once so rich, have peeled off, and left nothing but the plain and melancholy sub-stratum of brick. Few architects, I should think, would like to contemplate their work perishing in this piecemeal manner, nor any more would they enjoy the thought of a west front left, like that of Sta. Anatasia at Verona, unfinished and prepared only for marble with rough, irregular, and unsightly brickwork.

It would be unjust not to say that often, very often, this system of incrustation, even when carried to the extreme limits of what seems to be lawful, wins upon our love by the exquisite delicacy and taste of the sculptured patterns, worked in low-relief, with which it is covered. The men who did this work were, perhaps, more of sculptors than of architects, and certainly it must be confessed that never in buildings in which the construction is mainly thought of, so far as I know, is so much elaborate thought and skill exhibited in the decorative part of the work as in buildings such as these.

Sometimes, too, the sculptured medallions set in the centre of a plain surface of marble are of exquisite taste and beauty; whilst here and there, as *e. g.* in S Mark's, and in one or two spots in the water-front of the Ducal Palace, are examples of great beauty, of medallions formed of marbles of various colours, arranged with great refinement in some kind of geometrical pattern, which show another and equally beautiful mode of relieving plain spaces of walling.

The surfaces of the walls in Venetian work were either entirely inlaid, or else inlaid within a square enclosing border of projecting moulding. The inlaying was composed of a number of rectangular slabs of marble, not by any means always of the same size, supported to some extent by the projections of the enclosing marbles or by those of the archivolt, but always dependent mainly on metal cramps let into the fabric of the wall; and, when possible, these marbles were slabs cut out of the same block, and put side by side, so as to produce a kind of regular pattern wherever the veining of the marble was at all positively marked.

The other mode of introducing constructional colour in marble commends itself to one's reason as that which is most likely to endure for ages, and as that, therefore, which ought, wherever it may be, to be adopted. The first idea of the architects of these buildings seems to have been to arrange their material with as much regard to strong contrasts of colour as was possible. The first thing they did, therefore, was to alternate the colours of every course of masonry, either simply as in the Broletto at Como, and in Sta. Maria Maggiore at Bergamo, or as in the west front of the cathedral at Cremona, where very narrow layers of white marble are laid between each of the other courses, which are of course so much the more defined.

The description which I have already given of these works, as well as of the porch at Bergamo, will show how regular is the way in which this system of counterchanging the colours was carried out by the purely constructional school: this is, in fact, the great mark of difference between the constructional and the encrusting school of Italian architects, the whole arrangement of coloured materials by the two schools being quite different, and producing singularly different results. The most common faults of the Venetian system of incrustation must have been that upon a general surface of plain wall you had here and there a square patch of marble surrounding a window opening: that of the other system would be, in the opinion of many, that you have too stripy an effect of colour, and that all the divisions, moreover, are horizontal.

The former must certainly have been the case wherever the incrustation did not extend over the whole surface of the walls; and this was very frequent: but the latter is not really a fault; it was only an elaboration in a more beautiful material of the same system which we have seen pursued with such happy results by the builders of Verona in brick and stone,* and which we find adopted by the architects of Northern Germany in the frequent alternation of courses of red and black brick, and sometimes by our own forefathers in the coursing of flint-work with stone, or in the counter-charging of red and white stones which we see in some of the Northamptonshire churches. The system was a thoroughly sound one, because it not only proceeded from and depended on the natural arrangement of the material, but afforded the best possible means for displaying the various colours which were to be used.

Probably all these systems are mainly useful now as showing us certain principles which we may work out and apply to our own somewhat different circumstances; and surely one of our first objects ought to be the discovery of the extent of our means and opportunities, which in this matter are at the present day far beyond what is generally imagined.

It must never be forgotten by us that our forefathers had very limited means of obtaining materials from one locality and transporting them to another; and were, moreover, to a great extent, unacquainted with the materials which might, if necessary, be obtained. We have not this excuse: we not only know what materials we may obtain, but we have at the same time marvellous facilities for their conveyance between all parts of the country; and we know

* Some of the mediæval buildings in Greece have small [illegible] courses on low relief all round the walls in courses and courses, which is evidently intended to produce the kind of effect referred to above.

also how much has been done of old in other countries by using them in a proper way.

No excuse therefore can be found for us if we continue to neglect to avail ourselves of them, as though they were still undiscovered. We have alabaster, which may be wrought at a really trifling expense; large fields of marbles, of which those of Devonshire and Ireland are particularly valuable for architectural decoration, and those of Derbyshire and Purbeck for the formation of shafts and columns: we have, moreover, an exhaustless supply of granites of various colours; of magnificent serpentine; and, lastly, of building-stones of various colours, very effective when contrasted. In addition to these natural materials we have every facility for making the most perfect bricks; and, owing to the excellence already achieved by our manufacturers of pottery, we have no difficulty in making tiles, either for roofing or inlaying, of any degree of beauty either of colour or form.

With such advantages we ought long since to have effected far more than we have ever attempted, or apparently ever thought of. Our buildings should, both outside and inside, have had some of that warmth which colour only can give: they should have enabled the educated eye to revel in bright tints of Nature's own formation, whilst to the uneducated eye they would have afforded the best of all possible lessons, and by familiarizing it with, would have enabled it to appreciate, the proper combination of colour and form.

Besides this, if ever the day shall come when our buildings thus do their duty and teach their proper lesson to the eye, we may hope that we shall see a feeling, more general and more natural, for colour of all kinds, and for art, of every variety, in the bulk of our people. At present it is really saddening to converse with the majority of educated men on any question of colour: for them it has no charms and no delight. The puritanical uniformity of our coats, indeed of all our garments, is but a reflection from the prevailing lack of love of art or colour of any kind. A rich colour is thought vulgar, and that only is refined which is neutral, plain, and ugly.

Perhaps in all this there may be something more than art can ever grapple with: it may be ingrain and part of the necessity of the present age; but, if so, oh! for the days when, as of yore, colour may be appreciated and beloved, when uniformity shall not be considered beauty, nor an ugly plainness be considered a fit substitute for severity! Oh! too, for the days when men shall have cast off their shame-faced dependence on other men's works and the art of other ages, and, like true men and faithful, shall honestly and with energy, each in his own sphere, set to work to do all that in him lies to increase the power of art and to advance its best interests. All these aims and objects are more or less bound up with the best interests of a people, however old and however powerful, because they depend for ultimate and real success upon the thorough belief, on the part of all its votaries, in certain great and eternal principles, which, if always acted upon, would beyond all doubt sometimes make great artists and always good men.*

ART-UNION OF LONDON EXHIBITION.

The annual exhibition of works of art selected by the prizeholders in the Art-Union of London is now open at the Gallery of British Artists, Suffolk-street. "The Fortune-teller," by J. Sant, "Dante begging his Bread," by Hurlstone, "Relenting," by T. Brooks, and "Autumn in the Highlands," by S. Percy, occupy the principal centres in the large room, and Mr. Buckner's "Family at Saraginesco" has the place of honour in the second room. As we have already given a list of the principal pictures purchased by the prizeholders, and mentioned many of them in our notices of the various exhibitions, it will not be necessary now to particularize to any extent. There are some very excellent landscapes by Gilbert, H. J. Boddington, Hulme, Witherington, Willis, G. Stanfield, J. Danby, and others, and "Free Sittings," by J. Underhill; "Cuddie Headrigg," by D. W. Deane; "The Truant," by G. Smith; "Lalla Rookh," by F. Wyburd; "The Keeper's Companions," by Harry Hall; "An Italian Mother Praying," by H. Pickersgill; and "Haymaking," by G. E. Hicks, will not escape notice. In the water-colour room, there are some excellent drawings by Gastineau, Absolon, Taylor, Callow, John Gilbert, Mole, Bennet, H. Warren, E. Warren, Robins, and others.

The engraving for the current year, "Harvest in the Highlands," after Landseer and Callcott, is a very fine work.

A glance over the Society's published report might lead some of our readers to say, with the *Morning Advertiser*, that "whatever difference of opinion may exist as to some of the plans adopted by the Society, it must be universally acknowledged to have been carried on with an energy never surpassed, at all events by an amateur corporation—with no feuds and increasing success."

* From "Brick and Marble in the Middle Ages: Notes of a Tour in the North of Italy." By G. E. Street, Architect. London: John Murray.

SHOPS AT AUDLEY, CHESHIRE.

We here give the plan and elevation of a block of village shops now in the course of erection at Audley, in Cheshire, from the designs of Mr. W. White. The row forms the side of a very narrow street (16 feet wide), and, to make the most of the space, the ground-floor is made to recede beneath an arcade, thus forming a covered way 3 feet 2 in. wide for the protection of foot-passengers—somewhat after the fashion of the rows at Chester. Between the third and fourth houses is an arched entrance to the stable-yard.

The whole is built of red brick, with a few bands of black headers, the arches being relieved by the introduction of a few black and buff bricks, the arrangement of which is shown to a half-inch scale in the elevation of the lower part. The roofs are to be covered with red tiles. The ground falls rather rapidly, and thus gives occasion for a little picturesque deviation from the uniformity of the general treatment.

THE DESIGNS OF THE BOARD OF ORDNANCE.

A writer in the current number of the *Ecclesiologist* draws attention, as we have done before, to the evil effects resulting from the course pursued by the Board of Ordnance, who persist in compelling the members of a military corps to fulfil the duties of civil architects. He gives the barracks now in course of erection at Devonport as an example. The recent offer of premiums by the Board for designs for barracks, to be sent in by the 30th of September next, may be regarded as an indication of their willingness to adopt another system. We hope to see some thoroughly good designs amongst those sent in. The fullest information should be obtained, both at home and abroad; and then, working on this, skill, attention, and intelligence will achieve success and found a reputation.

As regards the decision, we shall expect to find in the Board that acute sense of honour which we associate with the character of English soldiers.

STAINED GLASS.

Two windows in St. Peter's College, Cambridge, have been filled with stained glass, from the royal manufactory at Munich. They are treated pictorially, we understand, and without regard to the mullions.

The large west window of the new church at Ambleside,—a window of four lights, of the Decorated period, has now received the stained glass prepared for it by Mr. Warrington. The subjects relate to baptism and regeneration, and are as follow:—

1. St. John preaching in the Wilderness.—Inscribed, "Repent ye, for the kingdom of heaven is at hand."

2. Our Lord's Presentation in the Temple.—"Lord, now lettest thou thy servant depart in peace, according to thy word, for mine eyes have seen thy salvation."

3. The Baptism of Our Lord.—"This is my beloved Son, in whom I am well pleased."

4. Our Lord inspiring the Apostles, and commissioning them.—"Receive ye the Holy Ghost: whosesoever sins ye remit they are remitted unto them."

These subjects are all surmounted with tabernacle work, interspersed with the symbolic vine, and containing, in various niches, Evangelistic figures.

If we remember rightly, there is some very indifferent glass in other windows of this charmingly-situated church, and we shall be glad to find that we can endorse the praise given to Mr. Warrington's work by the local press.

We do not make the progress in stained glass that might be looked for. The majority of windows put in are poor things, and, unluckily, it is not the best that the public praise most. What we want is a glass painter who will combine religious feeling, earnestness, invention, good drawing, and good colouring. Years ago, the writer of this notice sought to convince the English public that, with enlightened patronage works, in stained glass, rivalling anything of previous times, might be produced; and we still believe it, though certainly they come slowly. "The only way in which the regeneration of stained glass," says Mr. Oliphant, in his modestly-written "Plea for Stained Glass,"* "is by insisting upon all those qualities of design and composition in glass which are deemed indispensable in other arts; the same correct drawing—and in the attainment of this, there is no need to destroy any conventional propriety,—the well discriminated but low relief which softens, without injuring the flatness of the surface—the distinctness of its gradations and contrasts; and, lastly, that the quality and beauty of its material be fully developed in all its brilliant scale of light and colour; and the cost, rely upon it, will regulate itself in glass as in every thing else. In other words, accept nothing but good glass, good design and execution, good and correct drawing, a composition suited to the place and subject, and an artistic treatment of colour, worthy of the splendour of the material employed. Do this, and you will speedily have glass worthy of the art-enlightenment of the time, worthy of its own scope and opportunities, and which will add a fair and brilliant flower to the wreathed coronal of art."

Mr. Oliphant discusses in his little volume on "Painted Glass," first, the field it has to work on; secondly, the material it has to work with; thirdly, the purpose for which it is introduced; fourthly, its scope, capabilities, and distinctive qualities; and lastly, its universal applicability. We gladly take this opportunity to recommend it for wide perusal.

* Published by J. H. Parker, Oxford and London.

UNDERGROUND ROOMS AND CELLARS IN THE METROPOLIS.

The provisions which have now existed for about ten years in the Metropolitan Buildings Act, with reference to the occupation of cellars and rooms unfit for habitation, will be, we are glad to observe, re-enacted in the new Metropolitan Buildings Act and Metropolis Local Management Act, being made more stringent, and capable of being carried out. An Inspector of Nuisances will be appointed by every vestry or Local Board, who will see that such cellars and rooms, unfit for habitation, are not so used, and will enforce the penal clauses of the Act in cases of infraction. We were gratified at hearing Lord Wodehouse, who had the conduct of both Bills for the Government in the House of Lords, remark, on Monday night, in the House, that it was not proper that the district surveyors should have the duty of enforcing the penalties imposed in that behalf, and so retracting, on behalf of the Government, the charge which had been made against these officers at the commencement of the session, that such a duty is imposed upon them by the present Buildings Act, and that they had failed to discharge it.

The Gloucester City Surveyorship.—Mr. J. Hauvey, of Burslem, C.E. has been appointed surveyor to the City of Gloucester.

SHOPS, AT AUDLEY, CHESHIRE.—Mr. W. White, Architect.

ON HYDRAULIC LIMES AND HARDENING STONE.

In the "Journal of the Society of Arts," we find some observations by M. Kuhlman, from *Cosmos*, which deserve attention. The writer says:—

"Entrusted, about the close of the year 1840, with some trials relative to some abundant efflorescence, which was formed on a perfectly new building, and which was considered to be due to the formation of nitre, I was soon convinced that the efflorescent salts were formed to a great extent of carbonate of soda, and that the lime which had been used (hydraulic lime, from the neighbourhood of Tournay), was the cause of the efflorescence which had been observed. A closer examination soon taught me that all limes, and particularly hydraulic limes and natural cements, contained appreciable quantities of potash and soda.

Theory of Hydraulic Limes.—In a work which I had the honour of presenting to the Academy, at a meeting held on the 5th of May, 1841, I endeavoured to explain the part which potash and soda might play in stones and cements, and I admitted that these alkalies served to bring the silica to the lime, and thus to form silicates, which, by means of the application of water, solidified a portion of the mass, producing the formation of a hydrate, analogous to that which takes place with plaster. I have pointed out since then to the Academy numerous facts as the basis of this theory, and that, among others, of the immediate change from fat lime to hydraulic lime, by simply treating with a solution of silicate of potash. If, after the burning of the limestone, potash is in contact with silica, the silicate which is formed must necessarily react, and this can only take place as soon as the burnt lime is brought into contact with water.

I have greatly added to my experiments on this head, and I have established the fact that, with fat lime and silicate of potash, both of them pulverised and mixed in the proportion of 10 or 12 of silicate to 100 of lime, a lime can be obtained which shall have all the characteristics of hydraulic lime. If these substances are not well pulverised the reaction will be very incomplete, and an effect will subsequently be produced, bringing on disintegration. If from my former trials there results the possibility of converting a fat lime into an hydraulic mortar, by sprinkling it with a solution of an alkaline silicate, in my more recent trials I have found a means of producing at once, with a vitreous silicate and lime, hydraulic cements of any required degree of strength. This will enable us to form, at a reasonable expense, buildings to stand the action of water, in places where fat limes alone are now found. Powdered silicate of potash in some sort becomes an agent for producing this hydraulic property, of which future experience will determine the value.

Artificial Stones.—Looking at the great affinity of lime for silica dissolved in potash, I was naturally led to examine the action of alkaline silicates on calcareous stones. Here I was still more fortunate, for the alkaline silicates became at once the means of a variety of applications of the highest utility. Let us look at what is said on this point in the 'Comptes Rendus' of the Society's meetings:—

'By mixing some powdered chalk in a solution of silicate of potash, a cement is obtained, which hardens slowly in the air, assuming a degree of stiffness, which, under certain circumstances, renders it applicable for the restoration of public monuments and the manufacture of moulded articles.

Chalk, whether in an artificial paste or in its natural state, plunged into a solution of silicate of potash, takes up, even when cold, a quantity of silica, which may be increased considerably by exposing the chalk alternately to the action of the siliceous solution and the air. The chalk assumes a smooth appearance, a compact grain, and a colour more or less yellow, according as it is more or less impregnated with iron.

Stone thus prepared is susceptible of a high polish. The hardness, which is at first but superficial, penetrates by degrees into the centre, even where there is considerable thickness. It appears capable of becoming of incontestable utility in the formation of works of sculpture, and ornaments of the most delicate workmanship; for when the silicifying process—"*silicatisation*"—has been effected on well-dried chalk, without which good results are not possible, the surface remains unalterable.

Some attempts made to render this stone applicable for lithography give promise of great success.

This method of converting soft limestone into siliceous limestone is likely to become a great acquisition in the art of building. Ornaments, unaffected by damp, and of great hardness, may thus be obtained at little cost; and, in many cases, a plaster made with a solution of silicate of potash will preserve from subsequent decay ancient monuments formed of soft limestone. This same plaster may become of general application in those countries where, as in Champagne, chalk forms almost the only building material.'

I have shown experimentally that one part of the silica from the silicate becomes separated by the action of the carbonic acid of the air, but that those parts of the silicate which have come into contact with a sufficient quantity of carbonate of lime pass into the state of silicate of lime. My work, presented to the Academy in 1841, pointed out numerous industrial purposes to which the impregnating of porous bodies of mineral substances might be applied, whether the objects operated upon were organic or inorganic. Considering these applications of the art as of the first importance in building, I have attempted to extend them, and I have just laid before the Academy a new series of observations.

Harmonizing the Shades of the Silicified Stone.—I have given the name of '*silicatisation*' to this remarkable conversion of soft and porous limestone into siliceous and compact limestone. As the operation of this process to articles of sculpture and building materials gives rise to a colouring very frequently so marked as to render the joinings more apparent and the veins more distinct, I have been compelled to seek a remedy for this objection.

There are two essential and general points to be met. Chalk walls are too white, while some kinds of ferruginous limestones are too sombre in their shades. To obviate this inconvenience, I perform the *silicatisation* of limestones which are too white with a double silicate of potash and magnesia. This is a vitreous substance, which forms a brown solution, and which when used in the process causes a little oxide of manganese to be deposited in the artificial siliceous paste. Oxide of cobalt, too, will combine, though in very small quantities, with silicate of potash. Silica precipitated by a current of carbonic acid is of a brilliant azure blue. This silicate may be used in the treatment of white marbles.

When the shades of the stone are too decided, and that is the most common defect, I obtain good results by mixing in the silicate solution a small quantity of artificial sulphate of barytes, which, in penetrating the porous stone, whilst it forms a layer of silica remains fixed, entering into a state of chemical combination. As regards the joints, they may be made with common cements, the shades of which may be rendered lighter by means of some white substances, but they may be still more entirely concealed with broken pieces of the stone itself mixed with silicate of potash, the whole being well pulverized previous to its use, and applied in a state of liquid paste.

WILD-COURT, DRURY-LANE.

IMPROVEMENT OF DWELLINGS.

At the close of last year we gave an account of a block of miserable dwellings forming Wild-court, Drury-lane, with a number of sketches to illustrate their appearance and condition.* We related how that the Society for Improving the Condition of the Labouring Classes had taken these premises on lease, and were about to fit them for healthful habitation. This has now been effected: the sum of 2,000*l.* has been expended upon the thirteen houses, under the direction of Mr. Henry Roberts and the superintendence of Mr. Baxendell: walls have been underpinned, hundreds of loads of decomposing filth removed, drainage, water-supply, and ventilation attended to, and a water-closet in an open gallery provided *for each floor*. Eighty-three families are occupying ninety-two of the rooms, at rents varying from 1s. 3d. per week per room to 3s. Those who take the apartments are obliged to subscribe to the following rules:—

No tenant can take lodgers, nor allow any soil or refuse to remain in front of the house. They must close the street-doors before dark every night; and no one will be allowed to remain in the lobbies or landings, or on the staircases at night. They must keep their rooms clean and well scrubbed, once a week at least. They must keep their windows clean, have their chimneys regularly swept, and deposit all dust and refuse in the shaft in the galleries for that purpose. The stairs and the landings must be scrubbed and washed down at least once a week; and the water-closets and galleries must be kept quite clean by the tenants in turn; while the tenants on the ground floors are to keep the lobbies and yards well cleaned and scrubbed; and the back cellar kitchens are to be kept properly cleaned up by the tenants when they have done their washing. The tenants are not to wash their clothes in their rooms, but in the back cellar kitchen, which is fitted up for the purpose, and to dry them as much as possible in the yards. There are also bye-laws, prohibiting the use of poles or cords for drying clothes out of window, the chopping of wood or breaking of coal or coke on the hearth, or driving of hooks or nails into the walls of their rooms, or pasting pictures against them. The ventilators are not to be covered over or stopped at any time. All slops and waste water must be thrown down the water-closets, and are not upon any account to be thrown through the attic windows into the gutters. Tenants who follow the markets must not keep their goods under their beds or in their bed-rooms; nor may rabbit-skins or hare-skins be kept in the rooms or hung out at the windows. No persons will be allowed to make their beds on the floor; nor will drunken and disorderly conduct be allowed, nor card-playing or gambling of any kind. The penalty for an infringement of any of these rules is *instant dismissal*; and it is expressly stipulated that free access shall at all times be given to the members of the committee, the secretary, the superintendent, or the workmen employed by them.

* Vol. XII. pp. 389 and 395.

PROVINCIAL NEWS.

Melbourn.—On Monday before last, the foundation-stone of a building now erecting here as boys' and girls' schools, for the trustees of the late Mr. John Trigg's charity, was laid by Miss Fordham, of Melbourn Bury. Mr. Nash is the architect, and Mr. Wm. French the builder.

Guilsborough.—On Wednesday in week before last, Holywell School, near Guilsborough, was inaugurated. The school is an oblong building, 30 feet by 16 feet, has a high-pitched open roof, the timbers stained and varnished: it is lighted by trefoil-headed lights, in groups of two, three, and five lights, with a trefoil in the south gable. Provision is made for a porch and cloak-room, but at present they are not built, owing to the want of funds. The south gable is surmounted by a metal cross. The building is erected of Guilsborough and Spratton stone, with Bath stone dressings. The floor is laid with Staffordshire quarries, and the roof covered with Staffordshire tiles. The school has been built after a design prepared by Mr. J. W. Hugall, of Cheltenham. The expense of the building has been defrayed by the patron of the living and his personal friends, and those of the incumbent, aided by the landed proprietors of the parish. Mr. Hart, of Leamington, was the contractor, and Mr. Richard Reeve, jun. clerk of the works.

Windsor.—Considerable improvement, says the *Windsor Express*, are being effected at Wentworth's Virginia Water, under the direction of Messrs. Cubitt and Co. Between seventy and eighty men are employed in making alterations which are expected to cost not less than 12,000*l.* This estate, it may be remembered, was purchased some time since for Cabrera, by his wife, formerly Miss Richards, now the Countess Morella.

Canterbury.—Messrs. Kirk and Parry, the contractors for the chapel-school to be erected at the rear of the Artillery Barracks, have commenced operations. The building is to be 105 feet in length, within the walls, with a depth of 57 feet, and is to be surrounded by a boundary-wall, surmounted with iron palisading. The style is Gothic, and the walls are to be built with Kentish rag-stone, with stone quoins. It is calculated for the accommodation of about 600 persons. The schoolmaster's residence is to be within the Artillery-gates, on the opposite side of the road to the spot selected for the school.

Bristol.—The local Society for the Improvement of Dwellings is about to commence immediate operations, having completed negotiations for the Old Queen Elizabeth's Hospital, Christmas-street, where they intend to erect a large number of dwellings, with all the latest sanitary improvements. The committee are also in treaty for other eligible sites.

Birmingham. — The Wesleyan Provident Assurance Society lately purchased a plot of freehold land in Moor-street, for the purpose of erecting thereon offices, board-room, &c. for their use, and the foundation-stone was laid on Wednesday in last week. The principal façade of the building is designed in the Renaissance style. It is divided into three bays, arched over, to receive the pediment and entablature. There is a balcony over the principal entrance. The whole will be executed in Portland cement. The building is from the designs of Mr. Samuel J. Smith, architect. Mr. Thomas Pashby is the builder. The cost will be 2,220*l.*

Wallasey. — The Works and Health Committee of the Wallasey Commissioners have reported that the tender of Messrs. Allen and Craven, for sewering the district comprised in contract No. 1, for 780*l.* was accepted; as also that of Mr. John Lane, for the sewerage of the district comprised in the contract No. 2, for 641*l.* 10s. The parish has been divided into three districts, Wallasey, Poulton, and Egremont, for drainage and other sanitary purposes.

Oldham.—The committee of the new market company, in Tommy Field, have accepted the contract of Mr. Walter Mahon, of Manchester, for the erection of the new market. The cost is estimated at between 3,000*l.* and 4,000*l.*; and it is intended that the market should, if possible, be opened about Christmas.

Durham.—On Wednesday before last, the Durham baths and washhouses were opened for the use of the public. The erection of the building has taken nearly two years, during which time various causes have prevented its earlier completion. The site is near Elvetbridge. There are two swimming baths.

CHURCH-BUILDING NEWS.

Windsor.—It is proposed to erect a Chapel-of-ease to the mother Church of St. John, Egham, on or near Englefield-green, for the accommodation of the inhabitants who live in the Sand-pits, Bond-street, Blay's-lane, Bishopsgate, Middle hill, and around Englefield-green. The cost of the church is estimated at about 4,000*l.*: this will include a small residence connected with it, as part of the provision for an additional curate. The subject has only been mooted, and already 700*l.* have been promised.

Akely.—On Tuesday before last the consecration of the newly-built Church at Akely was performed by the Bishop of Oxford. The church is a Gothic structure, with a tower and turret spire. A font has been presented by the incumbent's brother, the Rev. W. C. Risley, of Deddington. The church has been erected by Messrs. Franklin, of Deddington, from the designs of Mr. Tarring.

Canterbury.—The alterations and improvements in St. Paul's Church are now progressing in the hands of Messrs. Cozens and Lancefield, of this city. The works now in progress will add a third aisle, with a vestry on the south side, open to the church itself, and available for hearers when the other parts of the edifice are filled. Under this vestry the necessary apparatus will be erected for heating the church with hot air, on the principle now in use in St. Margaret's Church. The large old-fashioned pews will be succeeded by open, stained seats, and the dingy whitewashed ceiling give way to a modern panelled one. The outer walls are faced with flint, with Bath stone quoins and windows, in keeping with the other parts of the structure. The cost of the alterations will amount to about 2,000*l.* certain additional contingencies having arisen since the first estimate, such as the difficulty experienced in obtaining a good foundation for the south-west wall, two wells having been discovered in its line, and the apparatus for heating the building having been subsequently determined on. Of that sum, the vestry have resolved to borrow 800*l.* on the rates, thus leaving 1,200*l.* to be raised by voluntary subscription. The incumbent has already obtained about 600*l.* towards the amount required.

Drayton.—The church of this parish having been for many years in a dilapidated condition, some of the most influential and leading landowners have determined to put it in good order, which is now being done, under the superintendence of Mr. Maurice Davis, of Langport, architect.

Almondsbury. — The consecration of a new church at Cross Keys, near Northwick, in the parish of Almondsbury, was to take place on Wednesday last. This church, which has been raised by the exertions of the vicar, the Rev. Henry Gray, and at his own expense and that of his friends and relatives, will accommodate 700 persons. It is situate in a remote part near the Severn, four miles from the mother church. There is still a debt of 200*l.* due on the building. The architect of the new church was Mr. Crisp, son of the Rev. T. Crisp, principal of the Baptist College, Stokes'-croft.

Idridgehay. On Thursday before last the new church at Idridgehay, the foundation-stone of which was laid on 22nd April, 1854, was consecrated by the Bishop of Lichfield. The edifice (which has been dedicated to St. James) has been designed with reference to the site, which is rather limited in area. It consists of a nave 39 feet long, 21 feet 4 in. wide, and 38 feet high to ridge of roof; a north aisle (separated from nave by two arches), 27 feet long, 11 feet wide, and 32 feet high to roof point; a chancel, 20 feet long, 16 feet wide, and 32 feet high; a tower, attached to the east end of aisle, the lower story of which forms the vestry, 9 feet square internally. There is a south porch, 9 feet long by 6 feet 6 inches wide. The style adopted by the architect is Gothic of the fourteenth century, and the whole of the walls, internally as well as externally, together with the doors, traceried windows and details, are all executed with a stone from Mr. Milnes's quarries, of a reddish grey colour. The roofs are all high pitched, and the principals, as well as the other timbers, clean wrought and oil stained. The covering of the top is of Burlington slates. There is a reredos under the east window, of carved stone. The sittings are all open and roomy. The chancel is fitted with stalls on each side. The windows are all filled with plain glass, at present, in lead. The tower is surmounted by a broach spire, the extreme height being 94 feet. The porch is of stone, with open traceried timbers for the sides, front, and roof. The churchyard is surrounded by a wall, with ridged coping, and there are two entrances, with stone piers, gabled heads, and wrought-iron gates. The design of the architect, Mr. H. I. Stevens, has been carried out under the gratuitous superintendence of Mr. Parker. Messrs. Robinson and Co. are the builders. The church is fitted up with a heating apparatus, by Sylvester and Co. of London. The cost of the whole, according to the *Derbyshire Advertiser*, is about 2,000*l.*

Stockport.—On Wednesday before last the foundation-stone of a church, dedicated to St. Matthew, was laid, amid much rejoicing, in Edgeley, by Mr. W. T. Egerton, of Mere hall, Knutsford, M.P. The ecclesiastical district of St. Matthew embraces the hamlets of Edgeley and Brinksway, and a small portion of Stockport proper. The style of the church is Transitional Geometric; the windows containing fully developed tracery, each member of the tracery springing out of the soffets of each other. The plan of the church consists of a nave with north and south porch, and fully developed chancel. The sacristy is on the north side, and at the western end of the nave is a tower and spire reaching an elevation of 165 feet, and surmounted by a floriated metal cross and weather vane. The nave will be pewed with open seats, and the chancel will be arranged for the clergy and singers, and with movable seats for the accommodation of Sunday-school children. There will be no galleries. The church is expected to be completed about September, 1856. The design is by Mr. J. S. Crowther, of Manchester, architect. Messrs. J. and J. Longson, of Stockport, are the contractors for the whole of the work, except the masonry, that having been taken by Mr. Haywood, of Alderley. The estimated cost will be about 4,000*l.* of which 1,400*l.* are still to be provided for. The church is intended to afford accommodation for about 600, one-half free.

Loversall.—The ceremony of laying the first stone of the new south aisle and nave of Loversall Church, took place on 27th July. The stone was laid by Mrs. Banks, of St. Katherine's. A considerable portion of the stone for this work, it seems, has been given by Mr. G. S. Foljambe, of Osberton. The architect is Mr. Scott, and the builder Mr. John Athron, of Doncaster.

Grimsby.—The Grimsby Cemetery was consecrated on Tuesday in week before last, by the Bishop of Lincoln.

Lincoln.—The new cemetery was consecrated on Tuesday week, so far as regards the Episcopalian chapel and ground. Though presenting a very different appearance, the chapels are the same in plan, viz. a parallelogram, thirty feet in length by sixteen in width, with robing-rooms attached, in which a fire-place is provided. The walls are eighteen inches thick, strengthened with double buttress at the angles, and are faced with red stock-bricks, with Ancaster stone dressings in the less exposed parts, and hard Yorkshire in the plinths, base, and stringcourses, weatherings, copings, &c. Each chapel is situated on a slightly elevated terrace, approached by two steps. The walls, internally, are about fifteen feet high from floor to wall-plate, and finished in rough stucco. The woodwork of the roofs, the timbers of which are exposed and boarded over, is of fir, stained, and varnished, as are also the fittings. The windows are glazed with cathedral glass, in a plain margin; and the floors are laid to a pattern, with blue, red, and buff Staffordshire tiles. The west elevation of the Episcopalian chapel faces the visitor on entering the grounds. The style is decorated (1340). The western gable carries a bell turret, terminating in an ornamental metal cross, the top of which is 52 feet from the ground. The sum expended on each chapel was nearly the same. The style chosen for the Dissenters' chapel is the geometrical. The buttresses are capped with curved and weathered hoods, the apex of the gable terminating with a stone cross, an octagonal bell-turret being carried on the buttresses of the north-west angle in brickwork to the coping of the gable, and then terminating with a stone spire. The entrance-lodge and dead house are also built of stock-brick and stone dressings. The dead-house is lighted and ventilated by dormer windows in the roof. The grounds are nearly equally divided between Churchmen and Dissenters. The whole is surrounded by a brick dwarf wall, stone coping, and iron palisade fencing, 8 feet high. The works were contracted for by Mr. Hollingworth, jun. of Grimsby. The sub-contractors were Mr. John Goddard, for the stonework; Mr. Thomas Enderby, for the brickwork; and Mr. West for the plumbing, glazing, &c., all of them residents in Grimsby; and Mr. Green, of Leeds, for the ironwork. Messrs. Maughan and Fowler are the architects who furnished the designs.

Brechin.—The foundation-stone of the East Free Church, Brechin, was laid on 23rd ult by the Earl of Kintore. Amongst the visitors was Dr. Guthrie, a native of the ancient city of Brechin, who, in addressing those present said,—"I congratulate you on this building, which, from the plan, I see, is to be a very tasteful building. I put up, myself, in Edinburgh, a very pretty church, not so tasteful in the outside, however, as in the inside. It so happened that a lady came to me one day, and said, 'Oh! Mr. Guthrie, I am sorry to see you spend so much money upon the mere edifice.' Well, she had on a very magnificent silk gown, it was so gorgeous that it would have stood

itself. I most politely laid my hand on her gown, and said, 'How many Bibles would this dress buy, ma'am?' I think everything connected with the house of God should be respectable; and I will say, for the credit of the common people whom I love, that this is their feeling. What is the best dress they wear? It is that which they put on upon the Sunday. Which is the best bound book in the poor man's library? His Bible. I do think that everything connected with the Church of God should be superior? What remains of the grandeur of the Assyrian empire? What remains of the kingdom of Egypt? What remains of all the most celebrated of ancient nations?—their temples. I would serve God with the best of my time, with the best of my tongue, with the best of my heart. There is nothing deformed in God's creation. Go down to the nursery of my worthy friend Mr. Henderson there, and if you will produce an ugly flower in it, I will give up the whole concern." The architecture of this church is Middle Pointed. The area of the edifice is a simple parallelogram, the length twice the width, and the steeple in height three times the width. The principal entrance is by a tower porch, deeply recessed and richly moulded in the thickness of the walls. The church is from a design furnished by Messrs. Hay, of Liverpool.

ARCHITECTS' DRAWINGS: TO WHOM DO THEY BELONG?

As there appears to exist amongst professionals some incertitude on the question of property in plans, elevations, sections, and drawings,—that is, whether, on the completion of a building, they belong to the architect, or to the owners of new structures, I take the liberty of submitting the point for your opinion.

In order to render the question more distinct, we will suppose the case to stand thus,—the structure to have been completed, and the architect's fees or commission to have been paid.

"ARCHITECT."

*** Under ordinary circumstances, the drawings belong solely to the architect. He is employed to design and erect the structure, whatever it may be, with due regard to expenditure, and for that he is paid: the drawings are simply his means of proceeding.

ARCHITECTS' CHARGES.

JOHNS *v.* FREEDMAN.

In this case, tried at Cardiff, according to the statements made, Mr. J. W. Johns was an architect, formerly residing at Cardiff, but now carrying on his profession in London; and the defendant, Mr. Solomon Freedman, was a pawnbroker, residing in Bute-terrace, Cardiff. In April, 1854, the defendant engaged Mr. Johns to draw up plans and specifications for erecting three houses and a malthouse, and made various alterations in the plans from time to time. The plaintiff was also employed to negotiate a loan on mortgage of 600*l.*; but when the loan was offered, after considerable time had been occupied in effecting it, the defendant declined to accept it, because the mortgagee would not accept repayment by instalments of 20*l.* After having received the plans, the defendant resolved to build the houses without the plaintiff's assistance, and when the latter presented his bill for professional services, which amounted to 21*l.* the former refused to pay it.

Plaintiff said, in cross-examination, I supplied him with three plans and various pencil sketches. I have not made any specific charges for each drawing, but it is usual to charge 2½ per cent. on amount of contract. I have entries for twenty-four days on which I was consulted. I spent the most part of some of these days in consulting with small builders, as he was anxious to have it done very cheaply. He also consulted me on various other occasions about breaking agreements with different builders and contractors. I charged him much below my usual charges.

Mr. Thomas, architect, of Newport; Mr. Hartland, architect; and Mr. James, builder, supported the charge.

The counsel for the defence amused himself by abusing the plaintiff, and called the defendant, who said, I declined taking the plan, because it had no economy of ground. I found that I could myself design a plan by which a good deal of ground could be saved, and I employed no architect. I consider that five guineas is quite sufficient, and I have paid that sum into court.

Mr. Price, builder; Mr. D. Thomas, architect and builder; Mr. Bernard, the town surveyor; and Mr. Pritchard, architect, were examined on the part of the defendant.

The jury, after a brief consultation, returned a verdict for the plaintiff for the amount claimed, 21*l.*; and the foreman added, "We consider the amount charged very reasonable."

DOWNING-STREET IMPROVEMENTS.

The proposal of Government for taking down the present offices, and rebuilding them upon a large scale, appears to have had a check in the House of Commons. The grant is now confined to clearing a large plot of ground. The buildings are to be postponed until plans approved by Parliament are agreed upon. It is therefore to be hoped, that a fair competition for designs may be adopted, and that Sir Benjamin Hall will commence his reign by giving the profession a fair chance. By the proposal submitted to the House of Commons Committee, there appears but a very small plot appropriated to offices now planted out in various parts of town; and when it is known that 25,000*l.* are now paid for office rent, it surely is not too much to expect, that before accommodation for the entertainment of illustrious sovereigns is considered necessary, the enormous annual rental should be (if not altogether saved), at least, very greatly reduced. The observation of Lord Redesdale being so fully responded to by ministers in the House of Lords, let us hope, that this opportunity for an evidence of the skill and talent of the profession at large, will have its proper chance.

The necessity is now admitted on all sides, for not only rebuilding the present dangerous and dilapidated offices, but also for a great and comprehensive centralization; and if, instead of laying out 11,000*l.* in buying up the lease of Buckingham House, the present Ordnance-office had been sold, and accommodation in immediate connection with the War Department and Commander-in-Chief provided, an immense sum would have been realized in furtherance of a truly national structure. The estimated outlay is, or rather was, little short of 600,000*l.*; and when to that is added a sum necessary for the accommodation of all outlying departments, with their external structure, it is not too much to suppose an expenditure of three times the amount will be required. Surely this is a prize worth contending for, and one, from its position, that will not fail to enlist in competition the first talent of the country.

A. M.

COMPETITIONS.

Blandford Cemetery.—The designs of Mr. Wm. John Pinch, of London, for the chapels, and laying out the ground, have been selected.

Intended Cathedral at Lille.—The designs will not be required till March 1, 1856.

Newcastle-on-Tyne.—The design of Mr. W. Botterill, of Hull, has been selected in competition for the proposed new Orphan House Schools, Northumberland-street, Newcastle-on-Tyne.

Warwick.—We are informed that the premium of 10*l.* offered by Messrs. Roberts and H. Whittell, for the best design for laying out Copps'-yard, adjoining the Great Western Railway, for cottage residences, has been awarded to Mr. G. Punshon, assistant surveyor, of Leamington. These cottages are forty-five in number, and form a kind of square, in the centre of which there is to be a fountain, surrounded by shrubs and green sward.

THE ARCHITECTURAL MUSEUM.

It is intended to open a distinct list of subscriptions to the museum by artist workmen. They are to be entitled to all the benefits of the museum, as lectures, meetings, means of study, and reference. The annual subscription is to be five shillings per year, to commence from the 1st of January next. It is also intended to open the museum to art workmen on the Monday and Wednesday evenings in each week, as soon as arrangements can be made adequately for that purpose. These arrangements, it is hoped, will be completed by the first week in October. We may further mention, that the whole of Mr. Ruskin's valuable collection of casts from the Doge's Palace, Venice, and other places, is now in the museum, and in course of arrangement.

Notices of Books.

On the Smokeless Fire place, Chimney-valves, and other Means, old and new, of obtaining healthful Warmth and Ventilation. By NEIL ARNOTT, F.R.S. &c. London: Longman and Co. 1855.

DR. ARNOTT, having retired from professional life, is devoting his leisure to those useful and important inventive studies to which he has for many years given his attention. The present volume is the first fruits of that leisure. The particular subjects of which it treats are,—the smokeless fire,—the ventilation of ordinary dwellings,—warming in general,—the new self-regulating stove,—ventilation on a large scale, by pumps, fan-wheels, shafts, &c.—ventilating and warming by transfer of heat from used air passing away to fresh air entering,—giving moisture to air,—gas-lighting in houses,—and apparatus for churches, schools, hospitals, ships, &c. There is also an appendix containing reprints of reports and papers on various cognate subjects. The design of the whole is to make intelligible to popular apprehension the scientific principles concerned in the successful execution of all such undertakings as those to which it refers, and so to remove many prejudices, obstacles, and difficulties, and to benefit society at large. The explanations given are clear and simple, so that any intelligent person may be able to understand not only the action but the purpose of, and the benefit to be derived from, the various inventions described.

One of the most important of these inventions is the smokeless fire-grate. Dr. Arnott does not claim the general principle of this invention as anything new. A modification of it was invented some thirty years since, and known as Cutler's fire-grate. But even Mr. Cutler was not the originator of the idea, as Benjamin Franklin realized the same principle by means of a simple cage of iron bars, hung on pivots, and the empty space left in which by the waste of fuel he filled, after opening the top, and then wheeled round so that the cold fuel was below, and the blazing remainder was then above it, and consumed the smoke arising from the fuel as it heated. In Dr. Arnott's modification of the invention, an iron coal-box is affixed to the grate below the usual bars, with a false bottom or piston. This box is filled in the morning with a day's supply of fuel; and after the fire in the grate or within the bars is lighted and wasted, the coal in the box is lifted or pushed up by the false or moveable bottom, acted on by a common poker, thrust into one or other of a series of holes, in a piston rod with ratchet catches. The bars are higher up from the hearth than usual, but not from any mere necessity in the nature of the invention itself, but from preference and on principle, as better adapted to warm the room, carpet, &c. than the ordinary low modern grate. Air is recommended to be supplied mainly from a tube opening in the hearth so as to obviate draughts in front of the fire-place; and for the saving of heat as well as for the better management of the draught, &c. the fire-grate is covered by a hood, of brick, or iron faced with slate, and narrowing to a neck, with a regulating-valve in it, and accompanied by a blower, which descends, so as, if required, to cover the whole or any part of the small open front space above the bars. This narrowing hood is regarded by Dr. Arnott as a necessary adjunct to the efficient action of his well-known ventilating-valve inserted into chimneys just below the ceilings of rooms. These valves have not been found to act well on all occasions, and it is but fair to note that the inventor attributes their want of proper action to the absence of this hood, and sometimes to the way in which the valve is made, with hinges inside in place of out, and so liable to be choked up, and thus to fail in their proper action.

Dr Arnott adduces several striking instances of the benefit derived by families from the insertion of his ventilating valve, and hence the clearing of bed-rooms, parlours, &c. from foul air; and he remarks that the healthful appearance of children in crowded Irish hovels, can in many cases only be attributed to the fact that foul air so freely escapes through the usual hole in the roof for the egress of smoke; while, on the contrary, the low modern grates are even an aggravation of the previous defects in the ventilation of town dwellings, and but too apt to destroy the health of both young and old.

The author has proposed that the president of the Board of Health for the time being should cause to be nominated a commission of a few men representing medical, chemical, and engineering science, and acquainted with the subject generally, to examine what has been done in regard to the ventilation and warming of dwellings, &c. and to report thereon, and recommend

such improvements as may be suggested and may meet their approbation.

In one important respect, Dr. Arnott's present work well merits the public patronage. His inventions are not appropriated to his own self-interest by patent or otherwise. He has made a free gift of them to the public, and is perfectly disinterested in his advocacy of what he regards as improvements, except, of course, in respect to the interest which every inventor cannot but feel in favour of his own inventions. But that the public, too, will have their interest in such inventions not a little increased by the present popular exposition of sanitary principles and practice, we have not the least doubt.

Architectural Publication Society. 14A, Great Marlborough-street.

Part I. of the volume of Illustrations to the Dictionary of Architecture for 1854-5, contains contributions by Mr. G. R. Clarke, Mr. Mocatta (the bath-room in the Palazzo Pitti, at Florence), Mr. Hirst, Mr. Lockyer, Mr. Hansard, Mr. Horace Jones, Mr. Shout, Mr. Walton, and Mr. T. H. Lewis. Part V. of the Dictionary (1853-4) is in progress. There ought to be many more subscribers to this society than there are, and then the work would go on much more rapidly.

VARIORUM.

The *Freemasons' Monthly Magazine* (Routledge; and Spencer), commends itself to the Brethren, and should have their aid. Antiquarian matters very properly find a place in it. Although well conducted, there is still room for that improvement which the Masonic body outside could and should by their assistance produce.——The *Art-Journal* of the present month, contains, amongst a number of good papers, an interesting collection of French criticisms on the works of English art in the Paris Exhibition. Although the notices are for the most part ill-natured, it is evident that the French critics have found more to admire in the works of our artists than they expected. Some of the notices are very acute and discriminative, and all are very readable, as French criticism generally is.

Miscellanea.

International Archæological Conferences will be held in Paris, on the 25th and 26th of the present month. The subjects to be discussed are interesting.

City of London Cemetery. — The landscape gardener, to whom the laying out is intrusted by the commissioner, as mentioned in a paragraph in our columns of July 28th, is Mr. Davidson, of Great Russell-street, Bedford-square. We observe in our advertising columns, that notice is given of the day fixed for receiving tenders for the supply of trees and shrubs.

School of Art at Dunfermline.—"A Tourist," writing us from Dunfermline, informs us that a very successful endeavour has at length been made to establish a school of science and art in that city. The classes, he remarks, are already self-supporting, although the school has not been established more than eighteen months,—a fact which speaks well for the master, Mr. Leonard Baker, who, it appears, is in connection with the Government department of science and art. The inhabitants have expressed their approbation of his exertions, by erecting, at considerable expense, a commodious school building, which, notwithstanding a little disproportion, our correspondent remarks, does credit to the town, and to the subscribers to its erection. The black board system of teaching at the public schools, which has done much toward the generalization of taste, appears not to be carried out as it ought to be at Dunfermline. Out of a much greater number of schools, there are only three, our correspondent is informed, receiving this instruction.

Royal Academy Hangers.—I wish you would call the attention of the governing body at the Royal Academy to the manner in which pictures for the Exhibition appear to be treated by those who hang them. I have just received my works from the Academy, and there is not one of them whose frame is not more or less injured; and in one case, a large nail has been driven right *through* the wooden frame (a new one). Of course, artists must expect a certain amount of legitimate wear and tear, but they have surely a right to be protected from wanton carelessness.

An Exhibitor.

Royal Polytechnic Institution.—A bar of the metal aluminium has been presented to this active institution, by the Emperor of the French, at the request of Mr. Pepper, the able manager, who has been lecturing on the subject to interested audiences. The bar, we believe, may be seen by any one who visits the Polytechnic. There appear to be still doubts as to the possibility of its cheap production, notwithstanding the inexhaustible abundance of its oxide, alumine, or common clay. Cannot Mr. Pepper decide this question for us himself? We are not aware that there is any mystery about M. St. Claire Deville's mode of evolving it from the oxide.

American Patents.—The following are from the June number of the Journal of the Franklin Institute of Pennsylvania:—For an Improvement in Cast-Iron Pavement; George Neilson, assignor to self, and Nehemiah Hunt, Boston, Massachusetts. Claim—Making a paving block with a perimeter of thirty faces, and formed by sixteen hexagons or hexagonal prisms, disposed with respect to one another, the same enabling such block, where it abuts against a contiguous block when laid in a pavement, to be supported laterally by a semi-hexagonal projection and recesses.——For an Improvement in Drills for Artesian Wells; J. Andrews, Winchester, Mass. Claim—The use of a stiff chain, for the purpose of operating a rock drill, or other artesian borer. Also, the device for rotating the drill, consisting essentially of the cog wheel and pinion, with the parts which set them in motion. ——For an Improvement in Furnaces for Burning Wet Fuel; Moses Thompson, Henrico County, Virginia. Claim—The combination, for the purposes of a high degree of heat, of bogasse, refuse tan, saw-dust, and other refuse substances, or very wet and green wood, by the employment of a series of five chambers, arranged, in any manner, to communicate with one flue, when any number of the said chambers are nearly closed to the flue, and to the admission of air, when first charged, while the remaining chamber or chambers are in free communication with the flue, and have a free supply of air admitted, and each chamber in its turn is nearly closed and then opened, and has air admitted, whereby the heat required is furnished by the combustion of the fuel in one or more chambers, while the fuel in the other chamber or chambers is being heated and decomposed to a desirable degree, no artificial blast being used.

A Cottager's Sun Dial.—Nail a round, thick, well-seasoned board, about eight or ten inches in diameter, level on the top of a post, so that water will not be inclined to run off one way more than another, and cover it with paint, zinc, tin, or lead, as you please. Then, with a pair of sharp-pointed compasses, draw a large circle nearly to the extent of the board, in the centre of which stick a common pin, and in the morning, when the sun throws the shadows of the pin's head just to touch the circle, make there a small mark; so, also, in the afternoon, when the shadow of the pin's head touches the same circle, make another mark, and from these two marks draw a straight line, and then another line perfectly square across it: this will be the true north and south of your dial. The next thing will be to find the shape of your guomon. Divide the large circle (which represents the circumference of our globe of 360 degrees) into twelve equal parts, containing 30 degrees each; then set your sharp-pointed compasses so as to make thirty points in that space of 30 degrees. The next thing to be considered is the degree of north latitude, where the dial is to be placed; and with your compasses thus set, make just that number of points or spaces on the circle from the north, and from the last point or space draw a straight line to the centre of your circle, which will be the true slope of your gnomon. When fixed I should recommend you from twelve o'clock to mark out the hours by a well-regulated watch or timepiece, and your dial is complete.—*Worcester Herald.*

Boxes of Bricks.—For beginners in architecture, these scientific toys would be very useful, as machinery could readily make them to great nicety, including capitals of columns, mouldings, parts of arches, &c. If made of hard wood, a little stiff gum arabic and water would connect those parts requiring support, as arch-pieces. They could be readily broken asunder, and by merely wetting would join again. This is worth a thought at Marlborough House. My little boy has a bad box of bricks, and a few experiments with them convince me of the great value for school, and more advanced purposes, of the bricks. They can be made cheaply and yet accurately, can be put together rapidly, and while with a drawing we have to rub out, rule afresh, &c. &c. and only get a one-sided view of a building, with bricks we discover many points of view at once; and if the model falls down, a learner of quick thought discovers something. I am sure some of our architects would see the force of this if they had boxes of bricks of the right sort made, and tried their capabilities.—W. R.

Masters and Foremen.—*Clarke* v. *Earle*, v. *Dowson and Co.*—In the Southwark County Court, from the plaintiff's statement, it appeared that he had been engaged by the defendant as clerk of works, to superintend the erection of an extensive saw-mill. The firm at the same time wishing to carry out other works without the aid of a builder, instructed the plaintiff to employ men for that purpose, and by the desire of the defendant, men were employed at night as well as in the day: a portion of the work being in the Thames, could not be done otherwise than as tide-work, the extra time thus given by plaintiff, amounted, in thirteen months, to sixty-two days, according to the time paid to the workmen, and for which plaintiff had not made any charge during the progress of the works, in consequence, as he said, of a promise held out that any extra exertions would be rewarded. After thirteen months' labour, without any sign of a reward, plaintiff gave a month's notice, and left the firm, at the same time applying for the wages that he considered due to him. The defendant refusing to acknowledge the claim, or to make any compensation, a summons was taken out against him. It was admitted that it was not usual for foremen or clerks of works to charge for overtime, and the judge directed a nonsuit against the plaintiff.—A. B.

Tenders.—Builders have their singularities like other men, and among them is the not particularly rare one of giving tenders without any intention of abiding by them. I have observed this frequently in cases where the quantities are supplied, the idea, with men who have not a leading reputation, seeming to be, that by appearing in the lists with those who have such reputation, they gain an apparent standing in advance upon their real position, and no doubt the publication of the lists encourages this practice. It is easy to price the quantities so as to ensure the not getting the job, and then all goes right; but if it happens that one of these lesser builders be lowest, and the tender be accepted, he is obliged to decline carrying out the work, to the great inconvenience of the architect and his employer. Causes, besides that of inability, may sometimes arise for not carrying out the work of an accepted tender; and when they are reasonable, and are at once openly stated, the grievance must be borne, but the system above alluded to should be discouraged. The tenders reported in the *Builder*, for additions to the South Metropolitan Schools, are illustrations of these remarks, the lowest tender having been accepted, and the tenderers soon afterwards excusing themselves, on the ground of being too busy to execute the work, upon which it became necessary to apply to the next, who being of the capable sort, were willing to keep to their tender, and signed the contract; but it is not always that the dilemma is so easily overcome.—N.

Testimonials to Workmen.—It has often occurred to me (having much to do where bricklayers and their labourers are employed), that it would tend to raise the character of such men, and place the sober and well-disposed workman on vantage-ground, if their employers, generally, were to require some written testimonial from previous employers, as to the habits and conduct of workmen offering their services. At present, for example, the willing and sober bricklayer may have a drunken labourer, and, at a moment, when despatch may be required, the latter leaves his fellow-workman on some drunken spree, as it is termed, and thus compels the bricklayer to be idle and causes serious interruption to the works: and, *vice versâ*. I see no difficulty in the way of carrying out,—to some beneficial extent at least—an alteration in the present way of engaging workmen -not omitting groundmen or excavators.—A Builder's Clerk.

Inauguration of the Statue of Dalton, at Manchester.—On Thursday before last, the bronze statue of Dalton was inaugurated. The statue is of bronze, and executed by Mr. William Theed, R.A. It has been placed on an angle pedestal in the parapet wall separating the public esplanade from the grounds of the infirmary. The cost of the monument in the Ardwick cemetery was 1257.; about 4,1377. were appropriated to the Dalton Scholarships and Prize; and the bronze statue has cost about 900/. The statue is about 3 feet larger than the marble one by Chantrey in the Royal Institution. If, instead of being seated, the statue was upright, Chantrey's would be between 6 and 7 feet in height; Theed's full 10 feet high,—so that in scale it is heroic.

Street Decorations at Carlisle.—Mr Clarke, of Gloucester, is said to have given satisfaction by the designs for arches, &c. with which Carlisle was decorated on the occasion of the meeting of the Royal Agricultural Society in that city. Amongst the chief decorations were three lofty arches, dedicated respectively to England, Scotland, and Ireland, and a Gothic arch of 60 feet in height, in Scotch-street. The materials were merely poles and strips of wood, evergreens and coloured calico, and the whole was got up in five days.

St. Peter's Church, Walworth.—The tenders for repairs here, under Mr. Jarvis, architect, ranged from 520*l.* to 199*l.* Mr. Thornhill's tender' 284*l.* 19s. was accepted.

The Workmen at Shorncliffe.—We regret to hear that at the works at Shorncliffe for the reception of the foreign legion, the conduct of some of our workmen offers a very disparaging contrast with that of the foreign soldiers, of whose presence John Bull, true to his prejudices, was so apprehensive. Some of the former, we are told, have proved a plague and scandal to the neighbourhood: the latter are orderly, decorous, and even gentlemanly in their bearing. There are upwards of 1,500 already encamped there, and not a single complaint against any one of them has yet been brought before the authorities. They are chiefly from the northern parts of Europe—Finns, Swedes, Danes, Holsteiners, &c.

Accidents.—At Brentford, on Tuesday evening before last, a fatal accident occurred at the Royal Brewery, owing to the fall of a portion of a wall, enclosing a piece of waste ground. Outside the wall an alley runs down to the Thames, and of five or six children who were playing there, two were killed. A third was buried, but crawled out uninjured. The accident was caused by the fall of some recently-built arches which rested against the wall.——At Halifax, a portion of a wall, about 30 yards long and nearly 40 feet high, on the newly-erected shed of Messrs. Robert Crossley and Co. carpet manufacturers, Albion Mills, fell on Sunday morning before last. The loss cannot be much less, it is said, than 3,000*l.* A flood is blamed as the immediate cause of the accident.

Yorkshire Architectural Society.—A meeting of this society will be held in the Town-hall, Pontefract, on Tuesday, the 28th inst. at noon, when several papers will be read, including one on the Priory of St. Oswald, at Nostel, by the Rev. R. E. Batty, incumbent of Wragby; and another on Ackworth Church, by Mr J. W Hugall, architect Previous to the meeting the members of the society will view the various objects of antiquarian interest in Pontefract, and after the meeting the church at Birkin. On the following day they will proceed to inspect the remains of the priory at Nostel, the churches of Wragby, Ackworth, Darrington, &c.

The projected Tunnel Railway in the British Channel.—Mr. Morris, the projector of a cast-iron tunnel railway from Dover to Calais, it appears, first proposed such a tunnel to cross the river Tamar, in Cornwall, so far back as 1841. His idea is, that by forming a cast-iron tunnel, the railway could be simply laid down on the surface of the Channel without any actual tunnelling, and he trusts to the cast-iron tunnel itself being strong enough, in such a position, in the midst of sea water, and at such a depth, to span any local ravine that might lie in the way. No diving, he remarks, would be necessary in the laying down of the tunnel, as he proposes to effect this by a method originating with himself. Stationary engines, he suggests, could be erected at every five miles apart, to propel by Clegg's system, if not by locomotive throughout. The leakage and ventilation, he adds, would be effected by motive power.

Tavistock square.—Will you pardon my intruding upon the subject so well treated of lately—the interest of our squares. You mention Mr. Perry's house, which stands round the corner of Tavistock-square, between it and Burton-crescent. One point of interest you have omitted: next door to *the* novelist of the age (only second to him who will never be surpassed—Dickens), resides at present the accomplished author of "Ten Thousand a Year,"—a pleasing juxtaposition of kindred minds! Mr. P.'s house, by the way, is not what I remember it when a child—enclosed in its own walls, and with ever-open hall-door, and almost surrounded on three sides by a fine sunny ground. It is now four houses, by the remodelling and extending the old. And I am not quite certain but Mr. C. D. *does* occupy the *very* part once illustrated by the presence of our greatest Whig statesmen. I think an eminent solicitor, Mr. Curdale, is *its* occupier; but I will not *absolutely* affirm it. Mr. Perry's grounds at the back meet Mr. Baily's: in the latter house still resides the sister of an eminent brother, and herself, I think, not unaccomplished in the same elevated science. Close by, in Bedford-place, the learned and modest and esteemed scholar, Dr. Roget,* is still engaged in assisting to make the path more easy for future writers by a late work, in which he has stepped a little out of his ordinary path to facilitate the labours of those in every path. This being the locality, though not of my birth, yet of all my life beside, I could lengthen out this letter to an extent that would, perhaps, be tedious.—J. A. G.

*** The article in question did not pretend to mention all the eminent men *now* living in the squares.

* Nephew of Sir S. Romilly.

The Carvings in Bedminster New Church, Bristol.—This church remains unconsecrated. The bishop, without *directing* the removal of the sculptured screen at the east end of the chancel, requests "earnestly and affectionately" that it may be taken away. The churchwarden, on the part of those who gave the screen, declines to act, unless, by the bishop's "positive command." The bishop says in his letter,—

"The complainants refer to—first, 'a very prominent crucifix immediately above the place for the Communion Table;' secondly, 'a fantastic representation of our Lord's Nativity, with winged minstrels on the roof of the stable; groups of figures elaborately decked with the well-known appendages of Romish superstition, not excepting the symbol of the Papal supremacy;' and, thirdly, 'a Credence-table.' It appears that there is introduced into the chancel behind the Communion-table a richly-sculptured screen, called a *reredos*, representing in relief three great events in the Gospel history—the Nativity, the Crucifixion, and the Ascension. The figure of our Saviour upon the Cross, being in the centre of the middle compartment is of course prominent, but ought not to be confounded with the crucifix as it is used by Romanists, and was excluded from our churches at the Reformation. An image which is blended in an historical representation of our Lord's suffering seems unlikely ever to be regarded as an object of idolatrous worship. Upon the other parts of this screen, described to be a beautiful work of art, I shall not dwell. The complaint respecting the 'Emblem of the Papal Supremacy,' if it is intended to apply to the designation of St. Peter among the Apostles, by the keys, is unsubstantial, the evident reference being to a well-known passage in the Gospel narrative. The sculptured representation of the Heavenly Host at the Nativity, the omission of figures which we know to have been present in the real scene of the Crucifixion, and the insertion of a person, at the Ascension, in addition to the Eleven Apostles (supposed to be intended for the Virgin Mary), all prove that the artist considered himself entitled to exercise the common license of painters and poets, and to embellish historical representations from his own fancy. For this, among other reasons, I cannot admit the danger of these carved figures ever becoming objects of adoration. Being now called upon for my opinion, I must express an objection, on the score both of taste and propriety, to the introduction of the figures of the four Evangelists between the compartments of a representation which varies in any degree from the truth and simplicity of their narrative. Again, it must not be omitted as a material objection to the proposed decoration, that it occupies the space at the east end of the church, where it has been the general practice to place the Lord's Prayer, the Creed, and the Ten Commandments, the last of which are ordered by the Canons to be legibly exhibited in this part of the fabric. * * * It is scarcely worth naming the mistake respecting the Credence table. There is no such piece of furniture: there is an aperture in the wall intended to serve as a shelf to deposit the elements before they are placed upon the Lord's Table; a provision of obvious convenience, and exposed to no objection which I can comprehend."

Railway Matters.—A Board of Trade report states, that during the year 1854, the expenditure of the Great Western, including the Shrewsbury and Birmingham, and the Shrewsbury and Chester, was 1,266*l.* per mile, and the receipts, 3,302*l.* per mile. London and North-Western, expenditure, 2,004*l.* receipts, 5,001*l.*; Oxford, Worcester, and Wolverhampton, expenditure, 240*l.* receipts, 1,741*l.* The total expenditure on these lines was as follows:—Great Western, 733,679*l.* exclusive of rent to Gloucester and Dean Forest, and Wycombe Railways; London and North-Western, 1,684,712*l.*; Oxford, Worcester, and Wolverhampton, 118,685*l.* exclusive of 2,537*l.* for the rent of Stratford and Moreton Railway.——The total amount received for traffic on the London and North-Western, for the week ending July 22, was 57,646*l.* (corresponding week in 1854, 59,855*l.*); Midland and Bristol and Birmingham, for same week, 28,276*l.* (corresponding week in 1854, 29,864*l.*); Great Western, 27,677*l.* (corresponding week in 1854, 24,800*l.*); Great Northern, week ending July 15, 19,622*l.* (corresponding week in 1854, 18,489*l.*) ——The English railway revenue for week before last amounted to 111,117*l.* 10s. acquired on 7,165 miles, and equalling 57*l.* 7s. 6*d.* per mile. For the corresponding period last year the income was 396,573*l.* on 7,053¾ miles, or 56*l.* 4s. 4½*d.* per mile. The increase in favour of this year is thus 1*l.* 3s. 2½*d.* per mile.

Importance of Ventilation and Drainage: Seeds of a New and Deadly Disease.—A singular instance of evil resultant from contamination of the air of places ill ventilated and undrained has just occurred at Stephen's-mews, Rathbone-place, Oxford-street. A horse, belonging to one "Jemmy Massey, the well-known pugilist," had glanders how originated is not stated; but the horse was kept in an undrained and ill-ventilated stable, over which Massey and his wife lived. The latter, *although she never had anything to do with her husband's horses*, was smitten with glanders; and after suffering all the horrors of this dreadful disease, has recently died of it in Middlesex Hospital. Had this poor woman been allowed to remain in the unwholesome locality where she was seized, those attending her might have also suffered, and in this way a new plague might have been introduced amongst human beings, in consequence of this single instance of the neglect of sanitary laws: and once established by a succession of victims, it is hard to say, in a populous district reeking with stagnant sewers and filthy streams, such as the metropolis is, where or when so horrible a visitation might have ended. How urgent such an instance ought to make one and all of us to force on the drainage question to a final and satisfactory issue! Here is an evil still more dreadful even than the virulent cholera and typhus, with which we now seem to stand in peril of being afflicted. Was it not thus the scarcely less loathsome and deadly small-pox originated amongst human beings? There was a time when it, too, was only a bestial evil. No sooner had it established itself as a human disease, however, than it was fostered in filth, close dwellings, and ill-drained towns, and at length became a scourge to the whole human race. God forbid that so strange and evil an omen as the occurrence of glanders in a human being without contagious communication with the beast afflicted with it, should be denotive of the like beginnings of a human plague ten-fold more loathsome even than small-pox. Nothing but thorough drainage and ventilation, it may be, can secure us against so terrible an affliction, now that it has shown itself capable of making so ominous a beginning, as a strictly human scourge, transmissible by mere infectious contamination of the atmosphere in foul localities.

Mechanical Inventions.—In the Commons, on Friday week, Mr. Ewart asked the Clerk of the Ordnance whether satisfactory progress continued to be made in the inventions laid before the select committee, with a view to shortening the duration of the war. Mr. Monsell, in reply, stated that 974 inventions had been laid before the committee, of which 696 had been rejected, and the remainder were under consideration: many of great importance were being carried into effect.

The Byzantine and Mediæval Courts.—On the principle "*palmam qui meruit ferat*," I cannot help expressing my regret that you should have published, in the last number of the *Builder*, without any corrective comment, a paper by Mr. R. P. Pullan "On Polychrome," by which the impression is produced (though I trust unintentionally) that the decorations of the Byzantine and Mediæval Courts were *designed* by Mr. Pullan; whereas, as you must be aware, the merit of that work is due to the talent and research of Mr. Digby Wyatt, from whose original sketches a large proportion of the decorations were carried out. I am certain that Mr. Wyatt (who is at this moment from England) fully appreciated and acknowledged the value of Mr. Pullan's assistance in this work, and I therefore regret the more that Mr. Pullan should have entirely omitted Mr. Wyatt's name in the paper alluded to. I trust you will correct the false impression produced, by a few words in your next number.—C. F. Jun.

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For the Greenwich Cemetery. Mr. S. Hewett, architect. Quantities furnished:—

	Chapels and Lodge.	Oak Fences.
Ariss	£2,797 0 0	.....
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For Masonic Hall and Chambers, Newport, Monmouthshire. Mr. R. G. Thomas, Newport, Architect. Quantities furnished:—

Tames and Price (Cardiff)	£2,095 0 0
Toogood and Beckingham (Newport)	1,975 0 0
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William Williams (Newport)	1,810 0 0
H. P. Bolt (Newport) (accepted)	1,770 0 0
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Piper	£6,060 0 0
Lucas, Brothers	5,863 0 0
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A STEADY, respectable Young Man, of temperate habits, and low wages, is willing to APPLY HIMSELF to either of the above for three years. He can be highly recommended, and has a good standing character.—Address, to J. COSPORD, 5a, Bedford-square, Fenchurch-street, London.

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TO ENGINEERS, BRASS-FOUNDERS, MACHINISTS, &c.—The PATENT RIGHT of a LUBRICATOR, adapted for steam cylinders, &c. TO BE DISPOSED OF, on a long or short period. Particulars may be had on application, by letter, to A. B. care of F. Haines and Co. 22, Limestreet, City. Full-sized models of the above are to be seen in the Gallery of Inventions, Crystal Palace, Sydenham.

TO GASFITTERS AND OTHERS.—ISLINGTON.—TO BE DISPOSED OF, the GOOD WILL, TRADE and old-established BUSINESS in the Upper-street, in which the principal trade in the parish has been successfully carried on by the present proprietor for the last five years, who is retiring.—Apply to Mr. NEWMAN, Auctioneer and Valuer, 8, Churches-row, Upper-street, Islington opposite Theberton-street.

TO CARPENTERS AND JOINERS.

ALTERATIONS to WORKSHOP for a Pianoforte Maker are wanted. Any person in the above requiring a first rate pianoforte, that can take one in part payment will find this a favourable opportunity. Good references can be given.—Address, J. LEG 7, 40, Robert-street, Hampstead-road.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA COTTA to M. H. BLANCHARD, late of Cook's Original Works, and successor to them in the Establishment of that double interest, that has been successfully adopted for nearly a century in this country, by our eminent artists and others, in the adornment of our noblest buildings. Groups, statues, Vases, Fountains, and Architectural Embellishments, at prices of quality that will defy competition, and will be found to be a different material to that now being used by public and private parties, only three years of our experience, and without practical knowledge. Some of the works recently completed by M. H. Blanchard are referred to, viz.—Those of the Embankments of the external part of Chiden House, his grace the Duke of Sathe land's; also Tottenham and King-land Churches, the turrets to the Camden and Canonbury Mansions, Upper and Lower Holloway; Broad-sad Brewhouse, Hertfordshire; County Fire Offices, Cornhill; and Lombard-street; the Arms with the allegorical groups, at the Kent Victoria Dispensary, Gravesend; and other works elsewhere, too numerous to mention. A large Stock of newly designed Chimney Shafts and Pots to suit the various style of buildings, at very low prices, and worthy of notice.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazzas, Busts, Consoles, Bas-reliefs, &c. by J. M. BLASHFIELD, of Millwall, near the West Indies Docks Station, and also at No. 1, Pratt-street, Paddington-basin, where prices and designs can be obtained. Examples of Terra-cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Musical Court. The statues of Australia, Victoria of Wedlock, and the colossal Lions in the grand centre staircase, are Terra-cotta, as are the fountains at the Renaissance Court and the roof of the alhambra Court. The Pompeian roofs of Terra-cotta and red cement combined. Since the execution of these works, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

TODD'S PATENT METALLIC PROTOXIDE PAINT.

THIS PAINT POSSESSES IN AN EMINENT DEGREE THE FOLLOWING ADVANTAGES OVER ALL OTHER KNOWN PIGMENTS:—

INDESTRUCTIBILITY BY HEAT -PRESERVATION OF IRON FROM OXIDATION, WOOD FROM DECAY, AND MASONRY AND BRICKWORK FROM DAMPNESS—PERMANENCE OF COLOUR AND FREEDOM FROM DELETERIOUS PROPERTIES—SUPERIORITY OF BODY.

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The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' col ic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil, also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped -HUBBUCK LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

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STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A newly-plastered room can be papered for 2s. 6d.

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PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Blastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c. — J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement out of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by H. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly exceeds them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from Mr. Blake. JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent. KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland Cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

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PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent, and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs. Fire-bricks, Cornices, Cement Chimney-pots, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone. CHARLES RICHARDSON, 6 South Wharf, Paddington.

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SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS.—OLDHAM and TATHAM are now prepared to receive orders from Contractors, Builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and will be improved by the addition of two or more parts of sand to one of cement. 10. and T.'s boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention Office, Warwick

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement The shell lime for mortar is burned on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS, STOCKS, and other BRICKS.

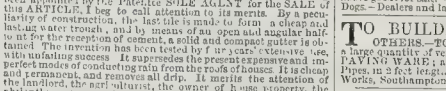
CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 26, 1855.—CHARLES RICHARDSON begs to inform his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

BLUE LIAS LIME.—J. EASTWOOD and SONS take this opportunity of informing their customers that they have now BLUE LIAS LIME always in stock, ready for delivery, at Belvidere road, Lambeth

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and RENGOUGH, Manufacturers.—Office, 4, George yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.



BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures Sole agent, J. B. LAWES, 10, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and instant water trough, and by means of an open and angular half-pipe for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the retail publican, the owner of house property, the philanthropist, and the coal merchant. Delivered free on rail or canal, at the works, Velvet-dit, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d per Tile, of about 13 inches long. Stop-ends and Outlets, 6d

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Corridors, Balconies, &c.; Antique, Geometrical, and Alhambra Mosaics, manufactories of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Mural Tiles for Dados, Panels, and Kitchen Ranges, may be had in great variety at their Warehouse, 5, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade name, "TERRO-METALLIC," is the exclusive right of the Proprietor, and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 30s. per 1,000; floor bricks and 6-inch pavings, at 40s. per 1,000; 8-inch pavings at 60s. per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

DUTCH CLINKERS, 32s. per thousand, by the best Makers

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices; will be SOLD by PRIVATE CONTRACT. The BUSINESS to be DISPOSED OF, with the valuable connection, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Honduras Wharf, Bankside, Southwark, London.

BRICKS.—Excellent hard-burnt RED BRICKS, of deep colour and perfect shape, 25s. per 1,000, cash, delivered into the railway trucks or carts. Stocks, malms, seconds, place, &c. at low prices; cutters, footlers, snub, and other fancy bricks to order. Agricultural draining tiles.—Address, Mr. LEVETT, at the Railway Brick and Tile Works, Brentwood, Essex, where a large stock may be inspected.

N.B.—The Works adjoin the Goods Station of the Eastern Counties Railway, at Brentwood.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and flare, bricks fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf Ribs at Bow-bridge, Stratford, E. or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE, BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 28s. per thousand; Grizzles, 32s.; Rough Stocks, 32s.; Place, 36s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests a purchaser to favour him with a visit, in order to inspect his stock, and to judge for himself of its merits.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c Stourbridge fire-goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 29, Nelson square, Blackfriars-road.

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on H. PARKS, Lewisham, and see the quality at low prices. Carriage within six miles on the most reasonable terms. Red facing bricks at 32s. All kinds of tiles, paving bricks for oven building, salt glazed stone pipes manufactured, also all kinds of red pipes and pots.—Application by letter punctually attended to.

FOR IMMEDIATE SALE.—FIRE BRICKS, LUMPS, TILE, and TERRA COTTA.—SAMUEL TRICKETT has received a large consignment of the above goods for sale.—Apply on the premises, Stone-wharf, Isle of Dogs.—Dealers and large consumers liberally dealt with.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 8, 9, and 12 inch red Socket Drain Pipes 2 feet length.—Apply to St. JOHN HEWITT, Redhill Works, Southampton.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

TO BUILDERS or PHOTOGRAPHERS.—TO BE DISPOSED OF, the SASHES covering a room lately occupied by one of the first photographers. They are about 6 feet by 5 feet 6 in. with iron moulded bars, balance ventilating compartments, &c &c. and will be sold a great bargain.—Apply at 231, Regent-street.

CLAY ARCHITECTURE.—To NOBLEMEN, ARCHITECTS, BUILDERS, and OTHERS.—A PATENT has been taken out by JOSEPH ARNOLD, Tamworth, the Brick and Tile Manufacturer, for producing ORNAMENTAL BRICKS, of any pattern whatever, on a raised ground, with the same accuracy as a seal upon wax. By this novel invention the patterns is made with the brick, the clay is prepared by steam power, which produces, when burnt, an imperishable article, ornamental window heads and sills, large bricks for panelling, and facings chamfered, ogeaned, or in zig zags, grape and vine, Elizabethan, or any other pattern. The patentee can make them blue, red, or strawberry colour. His large paving bricks, 9 by 9 inches, and 3 inches thick, on a depressed Roman pattern, to prevent slipping, and carry off the rains, only require being seen to supersede the flagging now in use, being imperishable. For the foundations of large public buildings, bridges, Government offices, bricks are made 18 by 6 inches, 6 inches thick, weighing nearly 50 lbs of this superior material. The time has now arrived when the exterior of our public and private buildings may equal, if not exceed the interior decorations in the hands of architects, as there is no limit to design. Specimens of these articles may be seen in the Inventor's Gallery, Crystal Palace, Sydenham; or at his Metal of Earth Works on the Watling-street road, Wilnecott, within three minutes' walk of Wilnecote station, on the Midland Railway, and two miles from Tamworth Station, Trent Valley line.—Church-street, Tamworth, August 8, 1855.

METALLIC PROTOXIDE PAINT.—This Paint has been in extensive use and severely tested on the Great Western, North and South Western, Midland, York and North Midland, and other railways; the new Houses of Parliament, British Museum, Lock Hospital, and West India Docks, &c. The Protoxide Paint unites most intimately with iron, preventing oxidation, and rendering it equal to galvanized. It is of great value when applied to the interior of steam and water pipes, and their joints, and for coating the inside of sugar moulds. It is not affected by foul air or gas of any kind, and dwelling houses, hospitals, &c. can be painted during occupancy without the least risk to the health of the inmates. It preserves wood from decay, and will be found effectual in preventing discolouration on stuccoed buildings, and keeping out all dampness.
D. and G. BRAMMER, Agents for Scotland.
Greenock, August 2st, 1855.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is not rendered discoloured by any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without the slightest danger to the inmates.
The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the materials employed or abuse of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase of weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.
The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark in Hull by Messrs BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs T. B. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs CHARLES DEVAUX and CO. Wholesale Agents, 63, King William-street, City; and BLACK BRADBY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bushes and in Southampton, by Mr. H. J. BUCHAN. Zinc OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.
The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.
For further particulars, apply to the Company's General Agency in London, 19, Manchester-buildings, Westminster.

TO ARCHITECTS.
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ARCHITECTURAL OUTLINES COLOURED, for Competition or Exhibition, in the first style, by GEORGE CHILDS (removed to 11, Sussex street, Warwick-square, Pimlico.

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instruments, and considerably cheaper. Apply to Mr. S. BARLOW, 9, Thurloe-line, Holborn (between 1 and 2 p.m.); or to Mr. H. B. BARLOW, Office for Patents, Ducie-place, Exchange, Manchester.

MATHEMATICAL DRAWING INSTRUMENTS. JOHN ARCHBUTT, 20, Westminster-Bridge-road, Lambeth (near Astley's Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen His prices will be found considerably lower than those usually for articles of similar quality and workmanship. Rules, scales, tapes, &c at equally low prices. An illustrated price-list will be immediately forwarded, free, on application.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Drawing, and Colouring. Making Finished and Working Drawings, Preparing Specifications, Taking out Quantities, Estimating, &c. &c. Terms: Day Pupils, three Guineas per Quarter; Evening Pupils, One Guinea per Quarter, which includes Drawing Boards, T Squares, Plans, Drawings, Models, &c. For Prospectuses apply at the Offices, 34, Guildford-street, Russell-square.

PHOTOGRAPHY.—A complete set, 37. 5s. 8s. and 11l. 11s.—Send for a List at GILBERT FLEMING'S, 498, Oxford-street, Author of "First Steps in Photography," price 6d.; by post, 7d.

AN ARCHITECT, in Edinburgh, intends to commence, in OCTOBER next, a Course of PRIVATE LECTURES on Architecture to Pupils, who may thus have the benefit of systematic instruction in addition to the training usual in offices.—Particulars to be learned on application to No. 56, Office of "North British Advertiser," Edinburgh.

HANSON and CHADWICK'S PATENT HIGH-PRESSURE WATER-METERS HERBERT FROST and CO. are now prepared to execute orders for the above. Descriptive circulars and lists of prices forwarded on application.—Angle-street Works, Clarendon-street, Oxford-street, Manchester

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The head of every house built upon the Waddinton Estate, of the value of 30l per annum, will be entitled to a Free First-class Railway Ticket; and of every house of the value of 20l per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the following greatly reduced prices:—

Pine Planks, 12 ft. 3 in. by 9 in.	from 3s. 6d.	each
Spruce Deals 3 in. by 9 in.	„ 2s. 9d.	„
Yellow ditto	„ 4s. 6d.	„
Yellow Battens, 9 in.	„ 0s. 2½d.	per foot.
Honduras Mahogany, in logs	„ 0s. 4½d.	„
Ditto ditto, in planks and boards	„ 0s. 6d.	„
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Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

A CORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and fir cut deals, slating battens, laths, English oak plank, and sash sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark bridge Wharf, Bankside.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Pasin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL FRENCH and ENGLISH FLOORING BOARDS, and MATCH BOARDING of all sorts, from ½ inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Bills, Mouldings prepared by Machinery, Laths, &c. Apply at E. SIMMS'S (late W. Cleave's Flooring Manufactory Wilton-road, Pimlico Basin.

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

¼ inch White, 13s. 6d. per square.		¼ inch Yellow, 16s. per square.	
½ ditto	15s. „	½ ditto	16s. 6d. „
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Laths, 3d. per bundle.
Also Timber, Deals, Battens, &c. Mouldings by machinery in Very great variety.
ST. PANCRAS SAW-MILLS, Camden-place-street, Old St. Pancras-road.

UNIVERSAL MOULDING-MILLS, 24, Portpool-lane, Holborn-hill.
WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L. are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade.—N.B. All customers having an account at the above establishment can be supplied with mouldings at their own design, at the shortest notice, free of any extra charge.

IMPROVEMENT in WOOD MOULDINGS.—J. SIMMONS'S improved WOOD MOULDINGS are acknowledged by all who have tried them to be the best ever produced by machinery. J. S. in returning thanks to his friends and customers for the liberal patronage already bestowed upon him, begs to call their attention to his large stock of Mouldings now on hand, feeling assured that one trial will insure a continuance of their favours. Price lists can be obtained on personal application, or by letter, enclosing six postage stamps, the cost of postage.
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N.B. Builders supplied with all kinds of Marble and Stone Chimney pieces, at prices lower than any house in London.

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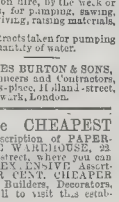
The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP,
which is recommended for the simplicity of its construction, and the ease with which it works.



By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, and the price consequently less than pumps made on the old plan.
Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.
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8, Crescent, Jewin street, London,
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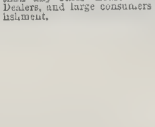
STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile driving, raising materials, &c. &c.



Contracts taken for pumping any quantity of water.
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Engineers and Contractors,
John's-place, Pimlico-road, Chelsea, Southwark, London.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSS'S WHOLESALE WAREHOUSE, 23, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

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CHARLES MACINTOSH and CO. Patentees and Manufacturers of the VULCANIZED INDIA-RUBBER in all degrees of elasticity, recommend this material as capable of sustaining the action of hot or cold water, gas, steam, acids, and grease. It is used advantageously for fires in marine and land engines, railway buffers and springs, washers for flanges, hose and tubing; also for sand-bolters, acid pumps, alkali cisterns, &c. &c. Articles moulded or otherwise, made to any size or figure.—Address, 3, Cannon-street West, London; and Cambridge street, Manchester.

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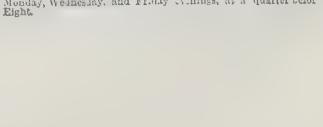
Diving dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

DURABILITY of GUTTA PERCHA TUBING. Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR RAYMOND JARVIS, Bart., VENTNOR, ISLE of WIGHT.—Second Testimonial.—"March 10th, 1853.—In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately examined and inquired into the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."
N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.
THE GUTTA PERCHA COMPANY, PATENTEES,
18, WHARF-ROAD, CITY-ROAD, LONDON.

HARD RUBBER, as a Substitute for Ivory, Ebony, &c. Also, India Rubber Packing, Tubing, Mill Straps, and Printing Blankets. For sale by DODGE, BACON, and CO 23, Coleman street, sole Licensees of GOODYEAR'S Patent for India Rubber Combs, and Importers of CROCKETT'S Patent Leather Cloths.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other Continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 6s per foot superficial, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 9, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 58, New Bond-street.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 9.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 10 to 150 feet; their efficiency and durability by experience established.
The Equilibrium Ball-valve is simple and certain in its action, and much less liable to get out of order than the common Cock now in use.
Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

ROYAL POLYTECHNIC INSTITUTION. Patron: H.R.H. Prince ALBERT.—Lecture at 3 30 and 8.30, by J. H. Pepper, esq. on the largest Bar of the Metal Aluminium yet produced from Clay, being a present from his Imperial Majesty the Emperor of France. This unique and rare specimen is on view daily and in the evenings.—Thames Water, in the Microscope, daily, at Four and Nine o'clock. Russian Infernal Machines, at 3 45 and 8 45.—Lecture by Dr. Brown, F.L.S. &c. on the Adulterations of Food, Tuesday, Thursday, and Saturday, at One o'clock.—Lecture on the Fissaco of Sound through Conductors, illustrated by the Orpheus Glee Union, Monday at Three, and Wednesday and Friday at Three and Eight. Artist Collection.—Dissolving Views and Diorama of Sam Slick, &c.—Re-engagement of George Buckland, esq.—Musical Lecture on Monday, Wednesday, and Friday evenings, at a quarter before Eight.

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IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

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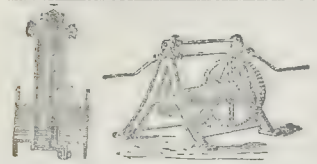

IMPROVED SLUICE-COCKS, for Water, Gas, or Steam, brass faced, and sluices raised by square threads, engine turned screw, working in brass nut, in every respect as good as can be manufactured, are offered at the following prices per inch:—

2-inch.	3 and 4 inch.	5 to 9-inch.	10 to 15-inch.
16s	1l	1l8s	1l9

Lithographs of the improved self-lubricating and various other constructions, with descriptions and prices attached, may be had on application.

Single purchase Builders' Crabs, as above, fitted with two handles, and wrought-iron braces and spindles, with set to throw in and out of gear.

Price	70s each.
Stronger and larger ditto	6l 10s do.
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PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10 horse, 12 horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs MEDWIN, HALL, and CO. Engineers, 93, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Any of these Engines may be purchased.

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Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, or as well sunk up, & adapted for any depth. Hydraulic Rams for deep wells

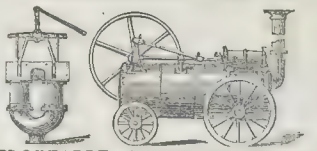
PUMPS ON HIRE.

Pumps of any size, single or double barrel, to draw 6 to 12 in diameter, kept ready for use at reduced prices

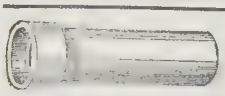
N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 9s per doz. painted.
Ditto .... 48s per doz. galvanized.

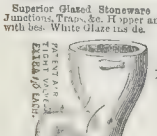
Upper Ground-street, Blackfriars Bridge. Surrey Side.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for future at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).



Superior Glazed Stoneware Pipes, Bends, Junctions, &c. Hopper and other Pans, with best White Glaze inside and out.



Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

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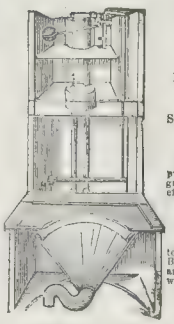

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

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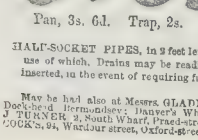

Pan, 3s. 6d. Trap, 2s.

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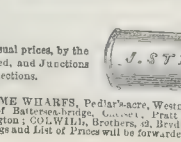

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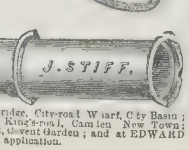

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which. Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL Brothers, 3, Bridges-street, Covent Garden; and at EDWARD COCKS, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

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PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 7, Strand. To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES FREEMAN ROES PATENT SLIDE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps for sale or hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

LARGE PUMPING-ENGINE WANTED, immediately, 60 to 72-inch cylinder, and 9 or 10 feet stroke. Address, with price and specification, to WHEATLEY KIRK, Cross-street of market, Cross-street, Manchester.

TO ENGINEERS and CONTRACTORS.—TO BE DISPOSED OF, a pair of 12-inch PUMPS, with two spur-wheels, connecting-rods, guides, &c. requisite to work the same; also, an 8 horse STEAM BOILER, with fire-in centre flue, the whole nearly new. Apply at the Gas Works, Stafford.

THE BRITISH SLAG COMPANY.—(Provisionally Registered.)

Capital 120,000l in 24,000 Shares of 5l each. Deposit, 1l.

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BANKERS.—The Commercial Bank of London.

SOLICITORS.—John Longworth, Clarke, & Co.

SOLICITOR (in Dublin).—James Neale Mackrell, esq. 20, Middle Gardiner-street, Dublin, and Dundalk.

SECRETARY.—Charles Francis Cameron, esq.

BROKERS.

London—Messrs. Joshua Hutchinson and Son.
Messrs. P. Cazenove and Co.
Dublin—Messrs. Bruce and Symes.

Offices—Cannon-street Chambers, 3, Cannon-street, London.

In the manufacture of iron from the ore an amount of refuse is thrown out in the proportion of from one to three tons to each ton of iron metal. In lead and copper this proportion is considerably greater. This refuse, variously termed scoriæ, lava, slag, &c. has hitherto remained not only valueless, but a source of increasing embarrassment to the manufacturer, from its vast accumulations. To utilize this product is the object of the operations of this Company.

Dr. W. H. Smith has succeeded in establishing a method by which this refuse, through a simple and most inexpensive process, may be converted into a material that in its rough-moulded state serves admirably, from its texture and durability, for paving, flagging, flue, and general building purposes, and the surface of which, when polished, resembles the best specimens of variegated marble for its beauty and absence from defect, and is, moreover, capable of artistic design by the incorporation of colour at will in the substance of the material itself, and, therefore, indestructible. The material can be moulded in any given shape or size, and the cheapness of its cost, compared with that of stone or marble, will render its application for building, household, and ornamental purposes very general.

This important invention has been patented by Dr Smith in Great Britain, where rights therein have been purchased by this Company for a fixed sum, the payment of which entirely depends on the complete success of such further testing as hereinafter referred to.

The great value of this invention may be in some measure computed, when it is considered that there are annually in the United Kingdom six or eight million tons of the Iron Slag alone thrown aside as a refuse material, the utilisation of a fraction of which only would be sufficient to render the invention a most valuable property.

The practical working of this invention has been tested, with a view to ascertain the necessary capital required for the cost of construction and machinery, and for the cost of production of the material.

The cost of the article in its rough-moulded state, as applicable to general building purposes, will, at the place of manufacture, not exceed 5s. per ton, as far as the testing which has taken place will permit the direct results to judge; but, before any later estimate is made, they propose erecting limited works at first, which will enable them to say with perfect certainty the exact cost. This estimate, in their judgment, leaves a large margin to cover every possible contingency, and, taking London as a central market, there must be added 15s. per ton for the cost of transport, making 20s. per ton delivered in London.

In its polished state it is estimated that it can be manufactured at the rate of 3d. per square foot of one and a half-inch thickness, and 4½d. per foot 1-inch thickness. Polished marble of similar thickness sells on an average at 6s. per square foot. Supposing that the polished manufactured article was sold at 5s. 6d. per square foot, and as the ton contains 14 feet of 1-inch thickness, it follows that there would accrue a profit of above 9l. per ton. A comparison of these figures may fairly suggest a general average profit of 3l. per ton on the rough-moulded and the polished article taken together.

The question is simply one of consumption; and with the immense advantages which this article affords in point of economy and universal utility, there is little doubt that in a short time the manufacture of 100 tons daily would far from suffice to supply the demand.

Another branch of profit may fairly be expected from revenue to be derived from royalties at different iron-works throughout the kingdom.

Arrangements can be made with several large ironmasters for the erection, on their premises, of the necessary works, so that within a few months after the constitution of the Company the manufacture of the material may be commenced, and the returns will be almost immediate.

Applications for Shares to be made to the Brokers, or the Secretary of the Company, in the form annexed.

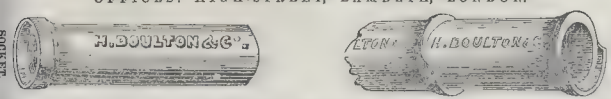
APPLICATION FOR SHARES.

To the Directors of the British Slag Company.

Gentlemen,—I request that you will allot to me shares of 5l. each in the British Slag Company; and I hereby agree to accept such shares, or any less number that may be allotted to me, on the terms and conditions of the deed of settlement of the Company, and to pay the deposit thereon of 1l. per share when called on.

Name .....
Profession .....
Residence .....
Reference .....
Date .....

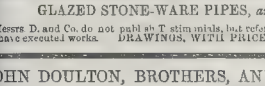
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE
DRAIN-PIPES
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs D. and Co. do not publish T stimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

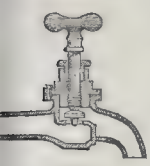
JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—
LIVERPOOL STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.	WIGAN .....James Fairclough, King-street
DUBLIN .....Robt. Lovell, Poolbeg-street.	KENDAL .....Robt Thompson.
CORK .....J. and J. Hadley.	CARLISLE .....C. Armstrong, Lowther-street
WATERFORD....J. Sparrow and Co.	WHITEHAVEN...Hugh Tolhunter.
CARNARVON ....Jno Jackson.	COCKERMOUTH...John. Bird
PRESTON .....J. Armstead, Hudson-street.	GUERNSEY .....Guerin Brothers.
CHORLEY .....Thomas Saville	LONDONDERRY...W. and A. M'Elwee.
BLACKBURN ....W. Hopwood, Clayton-street.	LIMERICK .....W. Burgess and Sons.



CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM,
and 37, SOUTHAMPTON-STREET, STRAND, London
Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS
Bateman and Mosse's, and Chrimes'
Patent Hydrants, or Fire Cocks. Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.
Siemens' Patent Balance Water Meter.
Pillbrow's Patent Water-Waste Preventer.
Morris's Patent Water Supply Regulator.
Rawlinson's Patent Self-acting Drainage Valves.
Higginbotham's Patent Slide Stop Cocks.
Lowe's Patent Steam Trap, Boilers Improved.
And all other Articles required for Water-Works Purposes, &c.
LONDON Hollies.
Mr THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for grease and fat walls, as fitted at the King's College Hospital, and other Public Institutions.
Plumbers' Brass Work of every description.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.

DOULTON & WATTS,
LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,
AND
LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,
With Handle, Lever, and Weight, ready for fixing,
Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

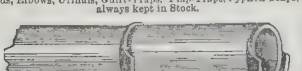
NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the best quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to
THE AGENTS.—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d each.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 9-FEET LENGTHS
Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

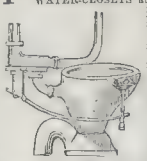


Watercloset Pan with Syphon-Trap complete, price 8s. 6d. each

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

SUPERIOR GLAZED STONEWARE
DRAIN PIPES, invented and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.
W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.
W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering it, peace in the drains impossible.
W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—
Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britton-street, Chelsea: and at the Pottery.

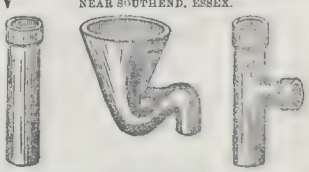
PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead traps, &c. Any number of Closets can be supplied from one main



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post.
Price for Closet and Apparatus complete from 2l. 8s. and perfect action guaranteed. Fixed by engineers to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish-street, near St Paul's, London.
Crown Glass, 18 tables, 30s. per Crate.

ISAAC PARRY'S
GLAZED STONE SEWER PIPES,
RED DRAIN PIPES, AND CHIMNEY-POT MANUFACTORY,
CHURCH-STREET, DEPTFORD, KENT.
ESTABLISHED UPWARDS OF 100 YEARS.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article of Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at 9s. per hard House, Blackwall. Orders executed from the above places from Falcon-wharf, 80, Bankside, Blackfriars and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING
LAVATORY AND CLOSET VALVE
No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.
N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, I. H. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

DRAIN-PIPES. — STONE-WARE of the most superior quality made.—E. and W. STURGE are enabled to supply every kind of PIPES and JUNCTIONS at a very low price for cash, and of such a quality as they feel convinced must give the greatest satisfaction. E. and W. S. invite an inspection, and will be happy to supply a price list to those in the trade. Paving, &c. Sinks, slabs, and coping. Bridge Wharf, City road.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 3½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 3s. per square yard. Railway Arches made waterproof, 3s. per square yard. Every description of pavement laid down, and the work guaranteed. Apply to Messrs. WRIGHT and BROWN, 39, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Footing laid with the above durable material in the best manner. Asphalte for Railway Arches, 30s. per ton. Importer of Trinidad Asphalte.
Shipping Depôt, Deron Haytor Wharf, Rotherhithe.
G. H. CLARK, Agent.

SALES BY AUCTION.

BUILDING MATERIALS.—City of London.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, No. 11, Pancras-lane, Queen-street, Cheapside, on FRIDAY, AUGUST 17th, 1855, at TWELVE, to clear the ground for rebuilding, the MATERIALS and FITTINGS of a large House belonging to the Corporation of the Sons of the Clergy, comprising several tons of lead, a large quantity of sound timber, doors, sashes, and other fittings, old oak wainscotting, handsomely carved mouldings and enrichments, antique closets, a pair of fireproof repository doors and frame, stoves, ranges, paving, brickwork, and other effects. May be viewed one day previous, and catalogues had on the Premises, and of the Auctioneers, 46, Parliament-street, or Coal Exchange.

TO SCULPTORS, MARBLE MASONS, BUILDERS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE beg to announce that they have received instructions from the Consignees to SELL by AUCTION, on the PREMISES, 17, Millbank-street, Westminster, on TUESDAY, 21st AUGUST, at ELEVEN, several parcels of MARBLE, comprising statuary (shelf lengths), Sicilian, vein, and coloured marbles, of fine quality and size.—May be viewed, and catalogues had on the Premises, and of the Auctioneers, 46, Parliament-street, or Coal Exchange. Approved bills at six months taken in payment.

UNCLEARED LOTS of PAPERHANGINGS.—To BUILDERS, HOUSE DECORATORS, AND OTHERS.

MR. EDWIN WHITE will SELL by AUCTION, without reserve, on WEDNESDAY, the 15th of AUGUST, at TWELVE for ONE o'clock precisely, at his spacious ROOMS, 170, Bishopsgate-street Without, a Quantity of PAPERHANGINGS, uncleared from last Sale, comprising rich French tarsings and decorations, elegant satins, flocks and damasks, superior marbles, chintzes, and others, in great variety. At THREE o'clock will be SOLD unreservedly, FOUR brilliant-toned COTTAGE PIANOFORTES, in elegant rosewood cases, and 40 lbs of choice CIGARS in neat boxes. May be viewed day prior and morning of Sale, when catalogues may be had.

TO ROPE AND TWINE MAKERS, BUILDERS, AND OTHERS.—Valuable Leasehold Property and Residence, with immediate possession, or for Building Purposes.

MR. ELLIS is directed by the Administratrix of the late Mr. J. M. Paterson to SELL by AUCTION, at GARRAWAY'S, Cornhill, on THURSDAY the 30th of AUGUST, at TWELVE, the valuable PREMISES, having a depth of about ninety yards, with Tar-house, Dressing-shop, Stable, and Buildings, being in the Fairfield-road, Bow, about two and a half miles from the City, with modern Residence and Gardens thereto belonging, and recently occupied by the deceased as a rope and twine ground; and the same is well worthy the attention of parties desirous of building for investment, the site being of unusual extent, with valuable frontages, held for an unexpired term of fifty-one years, at a ground-rent of 5*l.* 10*s.* per annum. May be viewed until the sale. Particulars, with conditions, obtained of Thomas Rogers, Esq. Solicitor, 7, Fenchurch-street; at GARRAWAY'S; on the Premises; and of the Auctioneer, 154, Minories, City, where a plan of the property can be seen.

TO BUILDERS AND BRICKMAKERS.—Valuable Manufacturing Plant, Stock, and beneficial Interest in the Lease, of a first-rate Brickyard, Leigh, North Malvern, Worcestershire, in the vicinity of the rapidly improving town of Great Malvern, and in the immediate route of the proposed Worcester and Hereford Railway, to be SOLD by AUCTION, by

J. MATTHEWS, on WEDNESDAY, AUGUST 22, 1855, at the BRICKYARD, Leigh, North Malvern, Worcestershire, ONE HUNDRED THOUSAND BUILDER BRICKS, 5,000 WIRE and COPING BRICKS, FLOOR SQUARES, CRESS and other TILES, DRAINING-TILES and PIPES, in lots to suit purchasers. Sale to commence at ELEVEN o'clock. And in the evening of the same day, at the BELVOIR HOTEL, North Malvern, subject to conditions to be then produced, all that capital MANUFACTURING BRICK, FLOOR SQUARE, TILE, and DRAINING PIPE PLANT, comprising a five-horse power steam engine, rolling and pug mills, two four-hole drying stoves, one of which was recently erected at a great cost, two ten-hole brick-kilns, stock, barrows, planks, and all requisite appliances, a comfortable cottage residence, large stable, together with the beneficial interest in the lease, of a first-rate brickyard, nearly fourteen years of which are unexpired. This yard contains a fine mine of clay, strongly impregnated with iron, has acquired an imperishable name, to which none of its contiguous competitors however sound can have the least pretension. Sale to commence at SIX o'clock. Further particulars may be obtained of Messrs. GILLAM and SONS, Solicitors; Mr. GEORGE GARLAND, Solicitor; or the Auctioneer, all of Worcester.

TO SHIP-BUILDERS, TIMBER-MERCHANTS, and OTHERS.—Important SALE of 250 capital oak timber TREES, consisting of about 50 trees of large dimensions, some very superior, containing from two to three loads each; also about 150 other fine oak trees, all of good quality, and hearty, a fine large piece of ash, a few limes, horse chesnut, recently cut down and lying in Langley-park and other lands, near Beckenham, Kent, which will be SOLD by AUCTION, by Mr. T. BAXTER, on THURSDAY, AUGUST 16th, 1855, at TWO o'clock, at the GEORGE INN, at Beckenham, Kent. May be viewed four days preceding the sale, by applying at Stone farm, near Beckenham, and catalogues had at the Dover Castle Inn, Deptford; Coopers' Arms, Woolwich; Greyhound Inn, Croydon; Lion, Camberwell; Place of Sale; and of the Auctioneer, &c. Bromley, Kent.

ILFORD, ESSEX.—Building Materials of a Detached Residence, Stabling and Farm Buildings, to clear the ground for the City of London Cemetery.

PULLEN and SON have received instructions from the Hon. Commissioners of Sewers to SELL by AUCTION, on the PREMISES, on FRIDAY, AUGUST 17th, at TWELVE, all the excellent BUILDING MATERIALS and FIXTURES of Aldersbrook farm-house, stabling, cart-sheds, and farm buildings, situate at Little Ilford, about half a mile from the railway station, comprising about 100,000 good sound bricks, capital oak and fir timber, in rafters, joists and quartering, glazed sashes, and ornamental lead casements, useful doors, wainscoting, part of the marble and other chimney-pieces, sound floor-boards, closet fronts, York and other paving, excellent plain and pan tiles, and slates, stable fittings, 250 feet of railed fencing, lead gutters and pipes, stoves, coppers, and a variety of useful fixtures and fittings-up. May be viewed the day previous. Catalogues had of PULLEN and SON, 80, Fore-street, Cripplegate.

BUILDING MATERIALS.—CRUTCHED-FRIARS.

PULLEN and SON will SELL by AUCTION, on the PREMISES, on THURSDAY, the 16th of AUGUST, at TWELVE, by order of the Governors of St. Thomas's Hospital, all the BUILDING MATERIALS of TWO HOUSES, Nos. 52 and 53, Crutched-friars, comprising sound brickwork, boarded and timber floors and roofs, plain and pan tiles, sashes, shop-fronts, doors and fittings, stone paving, coping and cills, lead gutters and pipes, and useful fittings up.—May be viewed the day previous. Catalogues had of H. Currey, Esq. Architect, Lancaster-place, Strand; and of PULLEN and SON, 80, Fore street, Cripplegate.

TO ENGINEERS, MINERS, MANUFACTURERS, CONTRACTORS, SHIPBUILDERS, MACHINE AND BOILER-MAKERS, AND OTHERS.

WHEATLEY KIRK respectfully calls the attention of the above-named parties, and of purchasers of Tools and Engines generally to his large stock of improved HORIZONTAL STEAM-ENGINES, suitable either for collieries or for manufacturing purposes, and which give universal satisfaction; and also to his extensive stock of new tools of every description, [illegible] lathes of various kinds, planing, [illegible], boring, [illegible] [illegible] engines; [illegible]. W. KIRK is prepared to [illegible] [illegible] of Engines or Tools, and to execute the same promptly. [illegible], [illegible] street Chambers, Manchester.

SALES BY AUCTION.

To BUILDERS, CONTRACTORS, and OTHERS.—St George's Workhouse, Fulham-road, Little Chelsea.

MR. C. LOUIS KELLY (of the firm of Bennett Kelly, Builders, Auctioneers, Land and Estate agents) has been honoured with instructions from the Right Hon. and Hon. the Governors and Directors of the Poor of the parish of St. George, Hanover-square, to SELL by AUCTION, on the PREMISES as above, on TUESDAY, the 21st AUGUST, at TWELVE for ONE o'clock, in sundry lots, all the excellent BUILDING MATERIALS forming the old Workhouse, including the wing, formerly the property and residence of the Earl of Shaftesbury, and comprising upwards of 100 rods of sound stock brickwork, a vast quantity of slates and tiles, some capital York and Portland stone copings, steps, and paving; a large assortment of sound well-seasoned timber and boarding, including principals, joists, rafters, floor-board, extra stout panelling, doors and door frames, oak staircases, &c. &c.; also a large quantity of glazed window-sashes and sash frames, together with all the old lead and lead piping, iron and copper boilers, with brass taps, &c., stoves and ranges, and a large assortment of fittings. On view three days prior to the sale, and catalogues had upon application to R. W. Jearrad, Esq. Architect and Surveyor, 1, Sussex-street, South Belgravia; at the Entrance Lodge, and at the Offices of the Auctioneers, Lower Belgrave place, Pimlico.

STEVENAGE, HERTS, on the Great Northern Railway.—Handsome Freehold Enclosure of fine old PASTURE LAND (containing brick earth), situate on the south west side of the Town of Stevenage and Great Northern Railway, containing about Two Acres, in the occupation of Mr. Bates, TO BE SOLD by AUCTION by

G. JACKSON, Jun. at the COACH and HORSES, Stevenage, on FRIDAY, AUGUST 17th, 1855, at THREE for FOUR o'clock precisely, by direction of the Executors of the late Mrs. Warr, subject to such conditions as will be stated at the time of sale. Particulars: A valuable enclosure of very rich and productive meadow land, containing brick earth, situate on the south west side of the town of Stevenage and railway, bounded north by land belonging to Mrs. Timmuss, east by accommodation road, and west by land belonging to J. and G. Smith, Esqrs. Land tax, 3*s.* per annum. May be viewed at any time previous to the sale; and further particulars obtained of Mr. Bentley, Conveyancer, Hitchin; of Mr. Jackson, Auctioneer and Estate Agent, Hertford; and of G. Jackson, Jun. Auctioneer and Appraiser, Hitchin and Baldock, Herts.

GREAT GRIMSBY DOCKS.—To Railway and Dock Contractors, Ironfounders, Ironmongers, and Others.

MR. MARSH has been favoured with instructions from the Directors of the Manchester, Sheffield, and Lincolnshire Railway Company to SELL by AUCTION, on the PREMISES, the Great Grimsby Docks, Great Grimsby, on WEDNESDAY next, AUGUST 15th, at TWELVE o'clock, the valuable PLANT and SURPLUS STOCK, comprising a 28-feet lighter, 10-inch pumps, nine pile-engines, forty stone trucks, fifty contractor's waggons, bodies, and frames; timber trucks, tip carts, turn tables and frames, pit and gantry cranes, double and single purchase crabs, sling and other chains, iron and wood sheave blocks, lewises and shackles, jagged spikes and plates, pile-shoes, truss-rods, anvils, bellows, smiths' tools; large quantity of useful castings, various, new square bar iron, wrought and cast scrap ditto, and numerous effects. May be viewed three days prior to sale, and catalogues obtained at the Yarborough Hotel, and principal Inns in Great Grimsby; at the principal Hotels in Leeds, Sheffield, Birmingham, and Manchester; of E. Ross, Esq. Secretary, London road Station, Manchester; ADAM SMITH, Esq. Resident Engineer, Grimsby, and at Mr. Marsh's Office, Great Grimsby Docks, and 2, Charlotte row, Mansion house, London.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—

MONDAY, 6th AUG. ,, | MONDAY, 1st OCT. 1855
MONDAY, 3rd SEPT. ,, | MONDAY, 5th NOV. ,,

Catalogues and further particulars to be had on application one week previous to each sale.—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE.

TO PIANOFORTE, BILLIARD-TABLE, AND CABINET-MAKERS, MARQUETRY AND BUHL WORKERS, BRUSH-MAKERS, &c.—Attractive Sale of Mahogany, Tulip-wood, Rosewood, Walnut, and Wainscot Veneers.

MR. THOMAS will OFFER for SALE, on WEDNESDAY, AUGUST 22nd, at TWELVE o'clock, at his ROOMS, No. [illegible], Leicester-square, the following choice collection of VENEERS, on account of the owners, viz. about

1,000 Feet Rosewood Veneers.
1,000 Feet Wainscot Veneers.
2,000 Feet Tulip-wood Veneers.
4,000 Feet Walnut Veneers; and
5,000 Feet Mahogany Veneers of good size and figure.

Catalogues in due time.

SIXTH SALE, to clear the ground for Battersea-park.

MR. W. R. GLASIER is honoured with instructions from the Commissioners of Her Majesty's Works and Public Buildings, to SELL by AUCTION, on the PREMISES, on TUESDAY, AUGUST 14th, at TWELVE for ONE, the BUILDING MATERIALS of four modern villa residences in Surrey-lane and Marsh-lane, Battersea, and consisting of about 200,000 stock and other bricks, slates, timber in useful scantlings, flooring, York paving, marble and other chimney-pieces, kitchen range, register stoves, iron railing, force and other pumps, lead, capital folding and other doors, sashes and frames, fittings and fixtures.—May be viewed the day prior, and morning of sale, and catalogues had at the Office of Works, 12, Whitehall-place; of JAMES PENNETHORNE, Esq. 7, Whitehall-yard; at the Office of the Clerk of the Works, West Lodge, Battersea-park; at Garraway's; and at the Offices of the Auctioneer, 41, Charing-cross.

VERY extensive MANUFACTURING PREMISES at Limehouse, with excellent frontage to the Limehouse cut, well adapted for engineers, contractors, founders, builders, or saw mills. TO BE LET on lease, with immediate possession, the very extensive range of PREMISES situate at the western end of Copenhagen place, Commercial-road, near Limehouse Church, and the Limehouse station, on the Blackwall Railway, and bounded on the south by Limehouse-cut, to which there is considerable wharfage. The buildings, which are in excellent repair, and partly fire-proof, are fitted with machinery worked by an excellent Boulton and Watt's engine, of 30 horse power, and comprise entrance lodge, convenient residence, with offices, &c. large wharf, stabling for nine horses, waggon-sheds, several ranges of warehouses, sheds, workshops, carpenter's and blacksmith's shops, convenient counting houses, engine and boiler houses. The engine house and several other buildings are fireproof, and fitted with iron floors and doors. Additional land may be hired with the premises. For further particulars, and cards to view apply to Messrs. BEADEL and SONS, 25, Gresham-street, London.

BUILDING LAND.—TO BE LET, on building lease, for a long term, PLOTS of FREEHOLD LAND, in LAMBETH, for fourth class houses, for which there is a great demand in the neighbourhood. Also several DRY RAILWAY ARCHES. Apply to Mr. ROGERS, Surveyor, 13A, Cannon row, Westminster, or Pratt street, Lambeth, where the plans can be inspected, or to Messrs. HODGSON and BURTON, 10, Salisbury-street, Strand.

CAMDEN-TOWN CEMETERY.—BUILDING ESTATE.—TO BE LET, on Building Leases for 99 years, very eligible SITES upon the above estate, having good frontages into Camden-street, Pratt street, and Bayham-street. There is a great demand for houses and shops of the third rate in this locality, which is enhanced by its near proximity to the North Western and North London railway stations, and the Hampstead-road.—Plans may be seen, and particulars obtained by application to H. E. KENDALL, Esq. Architect, 17, Suffolk-street, Pall mall East, or to JOHN DANSERFIELD, Esq. Solicitor, 25, Craven-street, Charing-cross.

LOWER THAMES-STREET.—TO BE LET, by Tender, by the Worshipful Company of Armourers and Braziers, on a Lease for Twenty-one years from Midsummer, 1856, the extensive Premises known as the GLOBE-YARD WAREHOUSES, situate in the above street, nearly opposite the Custom-house. The lessee will be required to pay all taxes and rates, including sewers and militia rates, and all assessments for sanitary purposes, and the expense of fire insurance, the land-tax being redeemed; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman-street, on or before the 3rd OCTOBER next, where parties making the same are required to attend the following day, at HALF-PAST TWO o'clock. The Company do not bind themselves to accept the highest or any other Tender.

JOHN PONTIFEX, Clerk,
5, St. Andrew's-court, Holborn.

DESIRABLE PREMISES in the CITY of LONDON.—The Trustees of Lord Viscount Sudbury's Charity Estates hereby give Notice, that they will receive TENDERS for the LETTING in one or separate leases, for a term not exceeding eighty years, the PREMISES belonging to them, situate in Crutched Friars, John street, and Gunpowder alley, including the old Poor house. Sealed proposals, indorsed "Tenders for Premises, John-street, &c." are to be delivered on or before the 1st day of SEPTEMBER next, at the Office of the Architect and Surveyor to the Trustees, Mr. FREDERIC LEFT, 36, Essex street, Strand, from whom all further particulars may be obtained, between the hours of TEN and FOUR o'clock.

BUILDING-GROUND in the CITY.—TO BE LET on lease, FRONTAGES 60 feet 6 in. by average depth, 40 feet; 58 feet by average depth 100 feet.—For further particulars, apply to THOMAS SMITH, Esq. Architect, 14, Hart-street, Bloomsbury.

TO BUILDERS and OTHERS.—CECIL-STREET, STRAND.—TO BE LET, on a Building Lease, No. 25 in this street.—For terms, apply to Messrs. GEORGE NICHOLSON and SON, Solicitors, 5, Old Palace yard; or to THOMAS SMITH, Esq. 14, Hart-street, Bloomsbury.

ELIGIBLE PLOT of LAND TO BE LET, at Ward's Corner, Hackney.—63 FEET FRONTAGE, suitable for good shops. Money advanced if required, as building proceeds, to the extent of two-thirds value, which may remain on mortgage at 5 per cent.—Particulars of Mr. WALES, Surveyor, 8, Great St. Helen's.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz.:—

FOREST-HILL, Croydon Railway.
ST. MARGARET'S, near Richmond, South Western Railway.
OATLANDS GRANGE, Weybridge, Surrey, ditto.
HOUNSLOW, Middlesex, ditto.
TOTTENHAM-GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.

Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Several Plots to be Let on Building Lease. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

WESTON-SUPER-MARE, SOMERSET.—TO BE SOLD, FOUR ACRES of FREEHOLD BUILDING LAND, on which 100 houses might be built, in the centre of the town, abutting on the public esplanade and the sea, the only frontage to the sea remaining unbuilt upon in this rapidly-increasing bathing-place. The Vendor would willingly join a purchaser (if wished) in expending 20,000*l.* in erections thereon.—Plans, &c. of B. G. PHILLIPS, Esq. Weston-super-Mare.

FREEHOLD BUILDING LAND, with excellent Brick Earth, ISLINGTON, TO BE SOLD or LET, in large or small lots, about TWENTY-TWO ACRES of LAND, between the Upper Holloway and Hornsey roads, in a most eligible situation.—Apply to Mr. PEACHEY, 17, Salisbury-square, Fleet street.

PROFITABLE LEASEHOLD PROPERTY.—To BUILDING SOCIETIES and OTHERS. Houses for investment or occupation.—TO BE SOLD, two capital RESIDENCES, with gardens, coach-house, and stable, of the value of [illegible] and [illegible] per annum, respectively, situate in Lillie-road, at North end, Fulham, near the Cemetery, Brompton. May be viewed.—For terms, apply at Messrs. GADSDEN, WINTERFLOOD, and ELLIS'S Offices, 18, Old Broad-street, City.

VOTES for SURREY.—Two plots of FREEHOLD LAND for building purposes, TO BE DISPOSED OF, pleasantly situate on Forest-hill. For particulars apply to H. B. "Banker's Circular" Office, 32, Lombard-street.

VALUABLE PAPER-MILL.—TO BE SOLD or LET, the PAPER-MILL called Moorsley Banks, situate on the Browney, near the City of Durham, with the Dwelling house, Cottage, Workshops and Closes of Land adjoining, containing 6 acres, or thereabouts. The machinery is nearly all new, and of the best construction, and is adapted to work either with steam or water. It comprises paper-machine, steam engines, steam and rag boilers, and the other necessary appendages. A new branch of the North-Eastern Railway will pass near the premises.—Apply to Mr. BARNES, at Messrs. Backhouse's Bank; or at the Offices of WARD and STORY, Solicitors, Durham.

Durham, July 30, 1855.

POTTERY TO BE LET.—TO BE LET, with immediate possession, a POTTERY, at Parkstone, near Poole, Dorset, standing on about an acre of land, with an abundant supply of excellent clay. There are two kilns, pipe-machines, and every requisite for the manufacture of stoneware; also a brick-kiln. Business may be commenced with a small capital.—Apply to Mr. BRYANT, on the Estate, and at 107, Holborn hill, London.

MANUFACTURING PREMISES, WHARF, &c.—TO BE LET, spacious Manufacturing PREMISES, with access to the Thames and railway conveyance. Also a WHARF, with or without roomy buildings or sheds.—Apply to Mr. ROGERS, 13A, Cannon-row, Westminster; or Messrs. HODGSON and BURTON, 10, Salisbury street, Strand.

IRONMONGER'S BUSINESS, in the Town of Bedford.—TO BE DISPOSED OF, on moderate terms, by order of the Trustees of Mr. Thomas Morton, Furnishing and General Ironmonger, the valuable and modern STOCK IN TRADE, together with the LEASE of the PREMISES, situate in the best part of the High-street, in the town of Bedford. This is a capital opening for a party seeking such a business. A purchaser will enjoy the privilege of free education for his children at the noble Harpur schools, in Bedford. For further particulars, apply to Messrs. KEEP and SONS, Merchants, Russell street, St. Mary, Birmingham; to Mr. KILPIN, Ironmonger, Bedford; or to Messrs. TURNLEY and SHARMAN, Solicitors, Bedford.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, August 11, 1855.

The Builder.

A JOURNAL FOR THE Architect, Engineer, Operative & Artist.

VOL. XIII.—No. 654. AUGUST 18, 1855. PRICE FOURPENCE Stamped 5d.

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BOROUGH of WAKEFIELD.—The Council of the Borough of Wakefield, being also the Wakefield Local Board of Health, are in want of a SURVEYOR, who must have a thorough practical knowledge of his profession. He will be required to devote the whole of his time to the duties of his office, which may be specified as follows:—To take the management of all streets, highways, sewers, and house drains under the direction of the Local Board; to make all plans, estimates, valuations, and superintendents, and to conduct all works directed by the Local Board; to see that all contracts for works entered into with the Local Board are properly carried out; to keep all accounts, and make all reports connected with his office; to perform all the duties specially imposed upon the surveyor by the Public Health Act, 18.8, or which by that Act or any Act supplemental thereto or amending the same, the surveyor may be authorised or required to do; and to perform such other duties as are set forth in a general statement, printed copies whereof may be obtained on application at the Board Office, Wakefield. Salary, 130£ per annum. All applications, with testimonials, to be addressed to the General Purposes Committee of the said Borough, endorsed, "Application for Office of Surveyor," and to be forwarded, prepaid, under cover to the Town-clerk of Wakefield, on or before 1st SEPTEMBER next.—By order

JAS. WHITHAM,
Town-clerk, and Clerk to the Local Board of Health.

Wakefield, August 9, 1855.

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

Sir Robert Smirke, R.A. | George Stanley Repton, Esq.

PRESIDENT—Sydney Smirke, A.R.A.

TRUSTEES.

Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq.
Philip Hardwick, Esq. R.A.

TREASURER William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM WHITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE Burial Board for the parish of Newark-upon-Trent, in the county of Nottingham, is desirous of receiving DESIGNS, to comprise plans elevations, sections, and specifications, with estimates, for MAKING ROADS and PATHS, and LAYING OUT and PLANTING about BURIAL-GROUND, containing about six and a half acres, ENCLOSING the GROUND, BUILDING a LODGE, with entrance gates, BUILDING TWO CHAPELS, either separate or attached, with complete fittings and accommodation for not less than 1,000 persons, the total cost of the whole not to exceed the sum of 2,500£. A premium of 10£ will be paid for the best Design, and a premium of 5£ for the second best. The designs, with estimate of the costs, accompanied by working drawings and specification complete without the author's name, but with a motto and sealed letter) to be delivered (free of expense) on or before the 7th day of SEPTEMBER next, at my offices, in Kirk-gate, Newark, of whom a plan of the locality and further particulars may be obtained. The Burial Board do not bind themselves to carry out any of the designs. The architect will be required to undertake and complete the works according to his plans, for the amount of his estimate, if required by the Board to do so; but the Board do not pledge themselves to carry out the architect whose designs may be accepted.—By order of the Board,

WILLIAM NEWTON, Clerk to the Board.

Offices, Kirk-gate, Newark, 9th August, 1855.

N.B. The locality yields Ancaster stone for dressings, and white and red Trent bricks.

WHITE-CROSS ESTATE, WESTON-SUPER-MARE PREMIUM of FIFTY GUINEAS. The proprietors of this estate cannot, in justice either to themselves or to competitors, form any separate plans of it; but they will be happy to receive, on application to Mr. JOSEPH WHEREAT, at the Public Library, Weston super-Mare; and perhaps it is not saying too much to assure, that it is impossible to make a correct or satisfactory plan or design for building on this estate, without an actual and personal survey. The time for furnishing designs is extended to the 20th SEPTEMBER next.

Weston-super-Mare, August 7, 1855.

COMPETITIONS.

WHITE-CROSS ESTATE, WESTON-SUPER-MARE. Parties desirous of competing for the PREMIUM of FIFTY GUINEAS for the best PLAN of laying out the above estate, may be furnished with a correct plan to the scale required, for the sum of One Guinea, together with every information as to the locality, on application to Mr. GEORGE PARMINTER, 81, St. Martin's-lane, London.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office, Dublin, 11th August, 1855.—The Principal Officers of Her Majesty's Ordnance hereby give notice that they will receive PROPOSALS for the following CONTRACT, viz.:—For the CONSTRUCTION and ERECTION of STABLING for fifty troop horses, forage stables, an infirmary stable, at the Temporary Barracks in the Curragh of Kildare, in the Dublin district. Persons desirous of tendering for the same, will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin; and may obtain specifications, with the terms of contract, upon making a deposit of 1£ for the same, which deposit will be repaid when the specifications are returned unsoiled. The whole of the work to be completed within forty days after the acceptance of the Tender.—The letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, ordnance office, Pall-mall London," so as to be received on or before the 26th day of AUGUST, 1855, and to be marked on the outside "Tender for Work at the Curragh of Kildare."

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office, Dublin, 9th August, 1855.—The Principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz.:—For the CONSTRUCTION and ERECTION of ONE HUNDRED and SIX WOODEN BUILDINGS for commissariat, sick ots, chaplains, married soldiers, &c., together with 1,300 yards run of fencing, at the temporary barracks on the Curragh of Kildare, in the Dublin district. Persons desirous of Tendering for the same will receive every information on applicati n at the Commanding Royal Engineer's office, Lower Castle-yard, Dublin, and may obtain specifications, with the terms of contract, upon making a deposit of 1£ for the same, which deposit will be repaid when the specifications are returned unsoiled. The whole of the work to be completed within eighty days after the acceptance of the Tender.—The letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 21st day of AUGUST, 1855, and to be marked on the outside, "Tender for Work at the Curragh of Kildare."

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District, hereby gives Notice, that Sealed TENDERS, addressed to the DIRECTOR GENERAL of CONTRACTS, will be received at the Ordnance Office, Pall-mall, on or before the 24th of AUGUST, 1855, for the performance of MASONS', CARPENTERS', BRICKLAYERS' and PLASTERERS' WORK, at the Cavalry and Infantry Barracks, Windsor, to the 31st of MARCH, 1856. Printed schedules of prices, and forms of Tender, may be obtained on application at the Royal Engineer's Office, 11, James-street, Buckingham-gate, between the hours of TEN and THREE o'clock. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 17th August, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District, hereby gives Notice, that Sealed TENDERS, addressed to the DIRECTOR GENERAL of CONTRACTS, will be received at the Office of Ordnance, Pall-mall, on or before the 7th AUGUST, 1855, for the ERECTION of a BUILDING for a STEAM-WASHING ESTABLISHMENT, at the Artillery Barracks, St. Johnwood. The specifications and plans for the above service may be seen, and forms of Tender, obtained at the Royal Engineer's Office, 11, James-street, London, between the hours of TEN and FOUR o'clock, from the 2d to the 6th of AUGUST, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 17th August, 1855.

Royal Engineer Office, Portsmouth 9th August, 1855.

TO IRONMONGERS and BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Palmall, London, on MONDAY, the 20th day of AUGUST, next, from such persons as may be willing to undertake the CONSTRUCTION and ERECTION of an IRON BUILDING, with Iron Wharf, Portsmouth. The plans, specification, and conditions of contract may be seen, and every information obtained, on application to Mr. KIRTON, Clerk of Works, at this Office, between the hours of TEN and FOUR o'clock, on any day except Saturday. The Tenders to be addressed to J. WOOD, Esq. Ordnance Office, Pall-mall, London, and endorsed "Tender for the Construction and Erection of an Iron Building, at the Gun Wharf, Portsmouth, in the county of Hants."

BOROUGH of READING LOCAL BOARD of HEALTH.—To CONTRACTORS, ROAD MAKERS, SAWYERS, and OTHERS.—The Local Board of Health for the district of Reading, Berks, are desirous of receiving TENDERS for RIVETTING and MAKING AND LAYING the ROADS, for WATERING and SCAVENGING the same, and for LAYING DOWN the FOOTWAYS within the said borough, for a period of SIX YEARS from the 1st day of OCTOBER next. Persons desirous of tendering for the same, can obtain the necessary forms at the office of Mr. J. H. CLAVEY, the Surveyor to the Board, No. 3, Broad-street, Reading, after TUESDAY, the 14th INSTANT. Before the hours of TEN and FOUR o'clock. Sealed Tenders, indorsed "Tender for Highways," to be delivered free on or before SATURDAY, the 8th of SEPTEMBER next. The Board will not bind themselves to accept the lowest Tender, or any Tender of the Board.

THOMAS ROGERS, Clerk.

10, Friar-street, Reading, August 10th, 1855.

CONTRACTS.

TYNEMOUTH LOCAL BOARD of HEALTH SEWERAGE.—TO CONTRACTORS, EXCAVATORS, EARTHENWARE PIPE LAYERS, & OTHERS.—The Local Board hereby give Notice, that they are prepared to receive TENDERS from persons willing to undertake either of the following CONTRACTS:—

CONTRACT No. 3.—For EXCAVATIONS and LAYING SEWER and DRAIN PIPES, also for the CONSTRUCTION of BRICK SEWERS, GULLIES, MANHOLES, and other WORKS, in the District of TYNEMOUTH.

CONTRACT No. 4.—For EXCAVATIONS and LAYING SEWER and DRAIN PIPES; also for the CONSTRUCTION of BRICK SEWERS, GULLIES, MANHOLES, and other WORKS, in the District of NORTH SHIELDS.

The drawings and specification may be examined on and after THURSDAY, the 23rd instant, and duplicate forms of Tender, Schedules, and Bills of Quantities (as the case may be) obtained, together with any further information required, on application at the Town Surveyor's office, North Shields, or at the Offices of ROBERT RAWLINSON, C.E. 14, Parliament-street, Westminster. Sealed Tenders to be delivered at the Town Clerk's Office, North Shields, before TWELVE o'clock on THURSDAY, the 6th day of SEPTEMBER next, endorsed "Tender for Contract, No. 3 or 4," as the case may be. (Signed)

THOMAS C. LIETCH, Town Clerk.

North Shields, August 16th, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh.
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Disbrowe, Esq., M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS on the Building Land on the Manor Estate, Maidstone. The drawings and specification may be seen at the offices of the Surveyor, Mr. GEORGE MORGAN, on and after MONDAY, AUGUST 13, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on TUESDAY, AUGUST 28, addressed to the Surveyor, and indorsed "Tender for Roads, &c." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, 10th August, 1855.

ALL SAINTS' CHURCH, MAIDSTONE.—TO GAS-FITTERS and OTHERS.—TENDERS are required by the Churchwardens for LIGHTING the above CHURCH. A copy of the drawings and specification may now be seen at the Vestry Clerk's Office, 21, High-street, Maidstone; or at the Office of the Architect, Mr. WILLIAM SLATER, 4, Clifton-chambers, Regent-street, London; and the Tenders registered to the Vestry Clerk on or before the 24th instant, endorsed "Tender for Lighting." The Churchwardens will not bind themselves to accept the lowest or any other Tender.

Maidstone, August 3, 1855.

TO BUILDERS.

BRISTOL ACADEMY for the PROMOTION of the FINE ARTS, and BRISTOL SCHOOL of PRACTICAL ART.—NEW BUILDING.—Persons desirous of sending in TENDERS for the various ARTIFICERS' WORKS required to be done in the proposed NEW BUILDING, may see the drawings and specifications on application at the Rooms of the Academy, 27, Queen's-parade, on and after MONDAY next, the 20th instant, when, after which they will be received by NINE o'clock on TUESDAY, the 28th instant, and sent in on or before that hour to the Building Committee, and sent in on or before MONDAY, the 27th instant, addressed to the Secretary of the Committee do not bind themselves to accept the lowest or any Tender. Any further information required may be obtained of the Architects, C. UNDERWOOD, 4, Sydenham-buildings, Clifton; J. H. HIRST, St. Nicholas-chambers, Bristol.

GERE HILL, Hon. Sec. Fine Arts Academy.

Bristol, Aug 8th, 1855.

TO NURSERYMEN AND OTHERS.

Sewers Office, Guildhall, August 2, 1855.

CITY of LONDON CEMETERY.—The Commissioners of Sewers of the City of London, acting as the Burial Board for the said City, hereby give Notice, that they will meet at Guildhall, on TUESDAY, the 11th day of SEPTEMBER, at TWELVE o'clock precisely, for the purpose of receiving TENDERS for the supply of TREES and SHRUBS for the Cemetery now being formed at Little Ilford, in the county of Essex. Forms of specification, with calculations to which prices are to be added, may be obtained on and after the 9th day of AUGUST, at the Office of Mr. WILLIAM HAYWOOD, Secretary to the Commissioners, 14, Old Jewry chambers; or at the Office of Mr. DAVIDSON, Landscape Gardener, 21, Great Russell-street, Bedford-square.

JOSEPH DAW, Principal Clerk.

TO BUILDERS AND CONTRACTORS.

THE BURIAL BOARD for KING'S LYNN is desirous of entering into a CONTRACT for the ERECTION of MORTUARY CHAPELS and OFFICES, and for the following boundary walls, &c., viz.:—Entrance gates, special attachments, and all other works connected therewith. On SATURDAY, the 8th inst. at my Offices, in Purfleet-place, King's Lynn, where it is requested that Tenders may be delivered free of expense, on or before TWELVE o'clock, on WEDNESDAY, the 26th inst. Any further information may be obtained of Messrs. AIRIN and CAVES, Architects, King's Lynn, Norfolk, the Architects. The lowest or any Tender not necessarily accepted.

T. G. ARCHER, Clerk to the Burial Board.

King's Lynn, August 9th, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

RIVER TYNE.—PIERS at ENRANCE.—To CONTRACTORS.—Notice is hereby given that the plans, estimates and specifications are now lodged with Messrs. WALKER, BURGES, and COOPER, Engineers, for the FORMATION of a portion of the intended PIERS at the entrance of the river Tyne, may now be seen by entering contractors at the office of the Tyne Improvement Commissioners, 8, Mosley-street, Newcastle-upon-Tyne. Tenders for the execution of the above works will be received at the Exchange, Newcastle, on or before the 31st day of MARCH next. Form of Tender and conditions to be obtained at the above offices. The Commissioners do not bind themselves to accept the lowest or any other Tender.—By order, Tyne Auguste, 1855.

NOTICE.—To BUILDERS.—Persons desirous of TENDERING for the ERECTION of a second missionary WAREHOUSE for Bethnal Green Mission, situate near St. George's-in-the-East, are informed that the plans, specifications, and bills of quantities, will be for inspection at the Premises, in the occupation of Mr. SPILL, from the hour of TWELVE o'clock, on MONDAY next, the 20th AUGUST.—Mr. SPILL will attend with the Plans at the above hour on the Premises.

To BUILDERS.

THE BURIAL BOARD for the township of Ince in Makerfield, near Wigan, is desirous of receiving TENDERS for the ERECTION of TWO MORTUARY CHAPELS, LODGE, and ENTRANCE GATES, from the designs, drawings, &c. for the same, at the Vestry Room, Ince, where the Plans may be seen, and any further information obtained, at any Office Time. Sealed, and endorsed "Tender for Chapels, &c.," to be addressed to me, and sent or left on SATURDAY the 25th of AUGUST 1855. The Board does not bind itself to accept the lowest or any of the Tenders.

ALFRED WATERHOUSE, Architect.
Crossstreet Chambers, Manchester.

TENDERS for EXCAVATION, MASONRY, and TANK. To BUILDERS, CONTRACTORS, and IRON FOUNDERS.—The Directors of the Bristol United Gas Company are desirous of having TENDERS for the following WORKS to be executed at their Premises, Maudlin-street, in the city of Bristol.

1st. For an Excavation of fifty feet diameter, or thereabouts, and 23 feet deep, for a TANK to receive a Gas-holder, together with certain Boundary and Retaining Walls at the same, and a certain Building with work appertaining thereto; also for a BRICK TANK and PIERS, proposed to be built in the said last mentioned Tank, all of which are to be in accordance with the plans and drawings now deposited at the Offices of the Company.

2nd. As the Directors of the Company have not decided whether they will erect an iron or a brick tank, they are willing to receive Tenders for a CAST IRON TANK of 100 feet diameter and 27 feet deep, with a cast iron cap roofed the inside of which is to be 12 feet high, net of rafters, &c., when complete, to be erected in the Premises.

The parties tendering for the iron Tank may do so upon Plans prepared by the Company's Engineer, or further particulars which may be seen at the Station of the Company, Jamaica-street, St. Philip's, Bristol. Tenders for each, if the parties so wish, to be sent in according to a prescribed form, to be delivered at the Office of the Company, No. 1, Bridge-street, Bristol, not later than Noon on TUESDAY, the 28th day of AUGUST instant.

By order of the Directors, EMANUEL WADE, Secretary.
H. H. POWNALL, Engineer.

The Directors do not pledge themselves to accept the lowest or any Tender.—Gas-light Offices, 3rd August 1855.

TO BRICKLAYERS, CONTRACTORS, AND OTHERS.

STRATFORD-UPON-AVON LOCAL BOARD of HEALTH IMPROVEMENT WORKS.—The Board hereby give Notice, that they are prepared to receive TENDERS for an parties who may be willing to undertake the following CONTRACT

CONTRACT No. 3.—For EXCAVATIONS, and the CONSTRUCTION of BRICK SEWERS, GRIDLES, MAN HOLES, LAYING PIPES, and OTHER WORKS.

The drawings may now be examined and copies of the specification, and forms of Tender, may be had, together with further information required, at the Office of Mr. EDWARD GIBBS, Engineer and Surveyor to the Local Board, Stratford-upon-Avon. Tenders must be sent to the undersigned, and not any address to.

The Contract No. 3 will be let on the 31st day of AUGUST next, and the Board do not bind themselves to accept the lowest or any Tender. This advertisement will not be repeated.—By order of the Board,

HENRY O. HUNT, Clerk to the said Local Board.
Stratford-upon-Avon, August 13, 1855.

TO BUILDERS, &c.

THE BURIAL BOARD for the parishes of Astley, Bedford, Pennington, and Westleigh, in the county of Lancaster, are prepared to receive TENDERS for ERECTING and THREE CEMETERY CHAPELS, ENTRANCE LODGE, ENTRANCE GATES, &c. at Leigh, Bedford, and, situate in the parish of Bedford; also, for a BOUNDARY WALL, the same specifications, plans, and drawings, prepared by Mr. BIRD, Architect, Bowland Buildings, Bridgefield, Manchester, from the 11th till the 25th day of AUGUST inclusive, between the hours of TEN and FIVE, where all further plans may be obtained. Tenders to be sent to RICHARD MARSH, Esq. Solicitor, Leigh, Clerk to the Board, endorsed "Tenders for Chapels, Boundary Wall," at the Vestry, Leigh, not later than the 30th day of AUGUST next. The Board do not pledge themselves to accept the lowest Tender.

July 8, 1855.

TO BUILDERS, CONTRACTORS, AND OTHERS.

THE CORPORATION of WARRINGTON are desirous of pulling DOWN and REBUILDING a NEW MARKET HALL and SHED, together with the following description of works, namely:—Excavators, masons, bricklayers, carpenters and joiners, plumbers and glaziers, plasterers, and slaters and tilers. The Tenders for which may be in separate or separate. The drawings, specifications, and conditions of contract may be inspected from the 13th to the 23rd of AUGUST next, at the Office of Mr. JAMES STEVENS, 32, Princes-street, Manchester, and Chester-gate, Macclesfield, and afterwards at the Office of the Borough Engineer, in Barrow-street, Warrington. The quantities of each trade have been taken out by the Architect, who will furnish the same on application, and charge the respective contractors with the cost thereof, the Corporation not being responsible for the same. Sealed Tenders, marked "Tender for Market Hall and Shed, Warrington," addressed to the Chairman of the Market Committee, to be forwarded to Mr. R. P. COXON, Borough Engineer, not later than SATURDAY, the 1st day of SEPTEMBER. The Corporation do not bind themselves to accept the Lowest Tender. Signed, by order of the Corporation,

JOHN FITCHETT MARSH, Town-clerk.

Warrington, August 1, 1855.

COUNTY of GLOUCESTER LUNATIC ASYLUM. To ENGINEERS and OTHERS.—Persons desirous of CONTRACTING for the MANUFACTURE and SUPPLY of TUBULAR BOILERS, for effecting the various purposes required at this Institution, in cooking, heating water for baths and washhouses, drying clothes, and warming and ventilating a portion of the buildings, may send in their proposals, describing specifications, and estimates, on or before the 24th of AUGUST, sealed and addressed to "The Visitors of the Lunatic Asylum, Gloucester," endorsed "Tender for Works." The estimates to include the delivery of all pipes, cocks, valves, fittings, and necessary gear to complete the work, finders' work only excepted. Plans of the building may be seen at the Office of County Surveyor, Barton-street, Gloucester, between the hours of TEN a.m. and SIX p.m. of whom further particulars may be obtained. The Committee do not pledge themselves to accept the lowest Tender.

Gloucester, August 4th, 1855.

CONTRACTS.

PERSONS desirous of CONTRACTING to BUILD TWO HOUSES at Upper Holloway, may obtain full particulars of the same, and inspect the plans and specifications, at No. 4, CLARENDON-SQUARE, Pentonville, every day before FRIDAY next, the 24th INSTANT, on which day the Tenders are to be delivered at SIX o'clock in the evening precisely.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of SCHOOLS, TEACHERS' RESIDENCE, and OUT-OFFICES, for the Parish of St. Mary Stoke, may see the plans and specifications, on and after MONDAY the 20th day of AUGUST next, on application to the Schoolmaster at the National School, Bagtrow Road, Stafford. Tenders to be sent, sealed and endorsed, to The Rev. A. T. BONNER, Stafford, on or before the Monday of AUGUST.—The Committee do not undertake to accept the lowest Tender.

Stafford, August 1st, 1855.

TO STONE MERCHANTS, PAVIORS, &c.

NOTICE is hereby given, that the Board for Regulating the Police in the Parish of Bromley (Middlesex) intend to APPLY at the next VESTRY of CLERK'S OFFICE on TUESDAY Evening, the 21st instant, at SEVEN o'clock precisely, for TENDERS for the SUPPLY and LAYING in the Streets of YORK PAVING, GRANITE CURB, and CHANNEL STONES.—Particulars and terms of Contract may be seen on application to—By order,

JAMES DUNSTAN, Clerk.

Dated the 11th of August, 1855.

TO BUILDERS.

PERSONS desirous of CONTRACTING for the ERECTION of a SCHOOL, in the parish of St. Mary Bourn, Hants, may see the plans and specifications at the Vestry, on Tuesday next, the 21st instant, at 12 o'clock, when proposals for the same will be received by the Rev. J. Jones, the Rector, at the Vestry.

TO IRONFOUNDERS AND CONTRACTORS.

PERSONS desirous of TENDERING for IRONWORK required to be done in the ERECTION of a COVERED and RO Fover the open roof over Market-hall, and other works, including an iron gates and wrought iron framing, entering, which proposals for the Town Council of Warrington, may inspect the drawings at the Office of the Architect, Mr. JAMES EVENS, of Preston, or Manchester, and Chester, and Chester, and a large plan SATURDAY, the 1st day of SEPTEMBER next, at the Office of the Borough Engineer, Mr. Stretch Warrington, from the hour of 10 till 4 o'clock. Tenders for Roof of Market-hall and Sheds, addressed to the Chairman of the Market Committee, to be forwarded to Mr. R. P. COXON, Borough Engineer, Warrington, on or before the 25th day of AUGUST next, and endorsed "Tenders for Roof of Market-hall and Sheds." The Committee do not bind themselves to accept the lowest Tender or any Tender. By order of the Corporation,

JOHN FITCHETT MARSH, Town-clerk.

Warrington, August 1, 1855.

TO BUILDERS.

PERSONS desirous of TENDERING for the new ST. MICHAEL'S SCHOOL and INSTITUTION, at Wantage, Berks, can see the plans either at the Alfred's Head, Wantage, or at 8, Argyll-place, London, where sealed Tenders will be received by me till TEN a.m. on SATURDAY, SEPTEMBER 1st. WILLIAM WHITE, Architect.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, buff, and all colours, in Scagliola, Alabastrine, serpentine, Portland antique, &c. Portland, Harehill, Park spring, and other stone, in blocks slabs landings and headstones. Yorkshire paving, granite curb, &c. Allow me to finish cooked and forwarded Lump purchases of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now got from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 20, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Macclesfield-street N. th. City-road, for the sale of CHIMNEY-PIECES and other articles, suitable for internal, and ornamental purposes, Builders, and the trade generally, to inspect the same. A large assortment of lamp articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

July 25, 1855. C. ADENEY, Secretary.

MARBLE—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLES is received direct from the principal quarry owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

MARBLE.—Mr. B. FABBRICOTTI, of Carrara, Italy, Proprietor of Marble Quarries, and the only person in the United Kingdom resident in Italian Marble the produce of his own quarries, begs to inform the gentlemen connected with the Marble Trade that he has established, in London, the most extensive Depôt for Statuary, Sculptors, Builders, Decorators, and Block and Slab Marbles, at CARRARA WHARF, THAMES BANK, PIMLICO, at the foot of Vauxhall-bridge.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.

SAMUEL CUNDY,

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CHEAPLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, Kings-cross, London, continue to supply the trade with all descriptions of Marble in Block and Slab, at the lowest prices. N.B. A good stock of Statuary Slab on hand, available for shelves.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,
MILLBANK-STREET, WESTMINSTER.
Marble of all kinds and of best quality, in block and slab. Marble mortars, &c.

BATH STONE DEPOT, BOX STATION. ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Box Ground Stone, Sealed Blocks, Ashlar, Rougework, &c. &c. supplied direct from the Quarries: Also every description of Stonework for Building purposes, both plain and ornamental, prepared ready for Laying, and forwarded to any part of the Kingdom. Vases in elegant variety always on view; Urns, Fountains, Chimney-pieces, Tombs, &c. &c.

BANGOR WHARF, King's-road-bridge, Camden-town. STRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cement, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials landed, wharfed, and carted.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, surveyors, Contractors, Builders, and Masons that they can supply to any extent Silkstone, YORK STONE, including Paving, Bramley Fall, Park Spring, &c. of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms. GEO. VINT and BROTHERS will also be forward prices by post on application.—Address, Idle, near Leeds.

HAYTOR GRANITE COMPANY.—Incorporated by Royal Charter. London Agents, C. HOAR, 4, Millbank-row, Westminster.—This Granite was used exclusively in the Nelson Monument, Trafalgar-square, King William Monument, City; and extensively for the plinth and steps at the Royal Exchange, and terrace at the Crystal Palace, &c.

CAEN and AUBIGNY STONE.—GATES, of J. P. PODCARD, Stone Merchant and Quarryman. Carriage shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE—GATES of J. EDRIDGE, late Lind, Beecham, and Lind, Caen Quarry, Rothersthorpe, Northampton, and Caen Stone Merchants and Quarry owners, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND and YORKSHIRE STONE.

MARKET-WHARF, REGENT'S-PARK-BASIN WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Paragon Slates, Sills, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. Builders are invited to the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tunfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truckloads of any kind, Landings, Landings, cut to steps, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall. London Agents, TREWELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard. This Granite is selected for the New Westminster-bridge.

By Her Majesty's — Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Illustrations, Tombs, Fonts, &c. at the new premises. Whitehall Wharf, Cannon-row, Westminster.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

BOW-BRIDGE SLATE WORKS, Stratford, Essex.—Mr. V. A. ROBINSON begs to inform Architects, Builders, Contractors, and Others, that his Price Lists for Welsh and Slate Work can be had on application, enclosing a postage-stamp. Country and export orders promptly attended to.—N.B. A liberal discount to the trade.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Brewhouses, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

BANGOR SLATES, of all sorts and sizes; SLABS of all dimensions, and of superior quality.—For prices and particulars, apply to J. EASTWOOD and SONS, Surrey Canal-bridge, Old Kent-road.—Export orders supplied promptly.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size. ROWELL, Manufacturer, 8, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work. PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave-place, Pimlico.

SLATING, 22s. per square, net cash on completion.—T. B. HANNAFORD, Slate Merchant and Slater, Trevelan Wharf, Ratcliff Cross, is enabled to execute Slating to any amount in Town, for Builders of position, at the above low price. Slate Paving, 1½ inches thick, planed one side, and squared ready to lay, 4d. per foot super.

LLANGOLLEN FLAG and SLATE COMPANY. The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and the Llantysilio Slate Company, are now prepared to supply in connexion, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney pieces, Baths, Filters, Lavatories, Ridging, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices. Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VERABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE F. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MOUNTENT CHAMBERS, 14, FISH-STREET HILL.

N.B. Country Agents and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

TO BUILDERS, SCULPTORS, AND MASONS WHOLESALE STONE DEPOT No. 1, KING'S CROSS RAILWAY.

SAMUEL TRICKETT begs to inform his friends and the public, that he has OPENED a DEPOT at King's Cross Station, where he has a stock of HEADSTONES, Blue Vein Rockdale, Harehill, and Patrington, in block, Caithness Scotch and London, Coping, Curb, Sills, Slabs, Steps, and Paviors on the most reasonable terms A single truck load direct from the Quarries, at wholesale prices -Address E. TRICKETT, Manager, at the Depôt; or S. TRICKETT, Stone Wharf, Isle of Dogs.

FIRE GOODS, TERRA COTTA, AND GRINDSTONES.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS. J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to largely increase the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal London architects, and others with whom he has dealt them to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments, tombs, and every description of work sent to the country carefully packed. Steam Planing and Sawing Mills, NEW WORKS, No. 30, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about two yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage stamps.—Please note the address, No. 30, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

VALUABLE QUARRIES, &c. in FORFARSHIRE, TO BE LET — To be let for such number of years as may be agreed on with entry at Martinmas next (if necessary) and known FLAG or PAVEMENT and FREESTONE QUARRIES of LEASMILL, and BURDEN, belonging to W. F. Lindsay Carnegie, Esq. and situated on the line of the Arbroath and Forfar (Aberlemno) Railway, and near to the Leysmill Station, about five miles from the Seaport Town of Arbroath. And along with them will be disposed of the whole MACHINERY, comprehending one Stone Planing Machines, with the Polishing Apparatus; one Steam Engine of 20 horse power in full operation. The FARM of LEASMILL, extending to 178 acres, or thereby, of arable land all enclosed and thoroughly drained, and in a high state of cultivation; and the Dwelling-House and steading of farm offices, may, if desired, be let along with the Quarries.

The Leysmill Quarries have been long established, and worked upon a large scale by the present proprietor; and an extensive trade is now carried on from them both in the home and export branch, for which there are extraordinary facilities. There is a railway even in at the quarries, and direct railway communication with and to all parts of the kingdom. The neighbouring harbour of Arbroath and Dundee are also accessible by direct railway conveyance. The flags are well known at home and abroad as Arbroath pavement, and the freestone is of the first quality, and can be raised of great size. These quarries were the seat of the invention of Hunter's stone planing-machine, now in such general use for reducing stone artificially, and of working the machinery, and the invention of Mr Hunter's, for sawing blocks and gabbing work, recently patented, and which promises to be of equal importance to the public at large, may be seen in operation there during working hours.

To capitalists wishing to embark in the stone trade, or to accompany which it might be found desirable for the purpose, they offer a unique opening which, is deserving of attention For further particulars apply to JAMES LESLIE, Esq. Civil Engineer, George-street, Edinburgh; Messrs. LINDSAY, MAY, and HOWDEN, W.S. Edinburgh, or to Messrs. LOUDON, MACDONALD, and BLACK, Writers, Arbroath, the last of whom will give directions for showing the quarries, and to whose agent offers may be lodged on or before the 1st of SEPTEMBER next

Knabblemont, near Arbroath, 20th June, 1855.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its principles have been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the Kingdom are now in course of erection upon this principle, which is recommended to the notice of the public, not only on the score of economy, both as superseding the necessity for cast iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent,—Mr BARRETT, 15, York-buildings, Adelphi

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN, We have great pleasure in communicating to you, that the large 'Patent Fire proof Safe' that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subjected to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

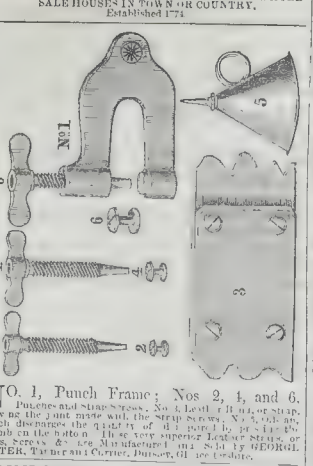
"RYLANDS and SONS.

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; also Safes fitted with the Detector Lock. Complete illustrated Lists, with prices and testimonials, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

FIVE HEAVY LATHES for SALE, one Screw Cutting and Surface Lathe, 20 feet bed, 8 feet surface price 65*l.*; one Self-acting, with four-face plate, 25ft. plates, &c. 20 feet bed, 16 in. centres, price 70*l.*; one Slide Lathe, by Fox of Derby, 16 feet bed, 18 in. centres, price 40*l.*; one Screw-cutting Lathe, 25 feet bed 13 in. centres, price 110*l.*; one Boring Lathe, with dogchuck, &c. 8 feet bed, 14 in. centres, price 40*l.* Other MACHINES and STEAM ENGINES for SALE.—To be seen at H. FAIRBURNS, 141 and 142, Old-street, St. Luke's.

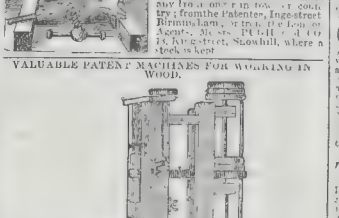
AUSTIN'S IMPERIAL PATENT SASH and BLIND LINE, can be obtained of all ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY. Established 1774



NO. 1, Punch Frame; Nos 2, 4, and 6. Punches and strain screws. No 3, Lead Pin, or staple, to use the joint made with the strap screws. No 5, Oak mallet, which discharges the quality of the pencil by striking the thumb on the bottom. These very superior Heather cords, for Sash Lines, Blind Cords, Bells, Screws, &c. are Manufactured and Sold by GEORGE LISTER, Turner and Cordier, Dunscar, Glossop, Derbyshire.

KIMBERLEY'S PATENT FLOORING CRAMPS, Scaffolding Brackets, Dog or Spring Bars, Mortising Machines Casement Fasteners and Stays Shutter Screws, &c. &c. Also, KIMBERLEY'S PATENT GAS STOVES, may be had from any Iron monger or contractor; from the Patentee, Inge-street Birmingham, or the Sole Agents, Messrs. PUGH and CO. 10, Regent-street, Snowhill, where a stock is kept

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



PLANING MACHINE.

PRIZE MEDALS have been awarded to these electrical machines, both in the Great Exhibition in London, and in many other parts of the world. They are extensively used throughout the United Kingdom by gas companies, coach and railway makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders; and also in the British and French Governments, for punching and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing and boring. They can be worked by power, either in hard or soft wood, and will perform all the various descriptions of work required in the above trades in a very rapid and superior manner and at a greatly reduced cost. Sole only to WILLIAM FURNESS. Patentee, No. 9, Lord-street, Liverpool from whom full particulars may be obtained

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.

LOCKS, HINGES, HANDLES, BOLTS, &c.

Paris Exhibition, No. 1717.

Illustrated Price-catalogues on receipt of four postage stamps.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c. THE following are the PRESENT PRICES of PATENT SASH LINE—

No. 2	4	5	6
5s. 3d.	6s. 6d.	8s.	9s. 9d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by the Government Inspector to be one of the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

To furnaces of every description to which it has been successfully applied, it may be seen in operation at the Cement Works of Messrs. FRANCIS, BRIDGES, and Co. Nine Elms, Vauxhall.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London

TO IRONMONGERS, BUILDERS, &c. PATENT WROUGHT-IRON WELDED TUBE for GAS; extremely little for water; high-pressure Steam Manufacturers of Dr Arnott's improved ventilating BULLETT and CO'S PATENT Hooks in

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE, Manufacturers of Bar Iron, Railway Plate Force and Engine Work, Boiler Plates, &c. and STEWART'S PATENT CAST IRON GIRDER and WATER PIPES. Office No. 5 Sise Lane London

212 MILNER'S HOLDFAST and FIRE-RESISTING SAFES, all condemned as unsparing with all the improvements, and at their Quarterage patents of 1854 and 1855, are now ready for delivery at Prices of Solid Look and Door with Quarter of a Safe less than

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS

MILNER'S PHOENIX 212 SAFE WORKS, LIVERPOOL, Gained the Gold Medal over all the World. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 27a, Moorgate-street, City.—Circulars free by Post

TO SAW MILL PROPRIETORS AND OTHERS TO BE SOLD, a CIRCULAR SAW BENCH with a 4 feet SEGMENT-SAW, complete, a 4 feet cut, with spindle, &c. complete, a pair of new Lined SPINNING LAPPS, and several other Lots. Apply or Address Mr. BOWER, Wood-yard and Retail Ironmonger, opposite the Hitchin Station, Eastern Counties Railway, Cambridge road, Hitchin.

CHEAP GAS-FITTING WAREHOUSE.—The Trade supplied with every description of GAS CHANDELIERS, Hall Lamps, Pendants, Pillars, Brackets, Iron and Brass Tubing, Union and Inspection Plugs, &c. and DEALS, Sawed, of street, near St. Luke's Church, London.

Address as above, who can assortment as any house in London, gives firm contracts to any amount

COLLINGE'S PATENT HINGES.—Manufactured by CHARLES COLLINGE and CO. 81 and 83, Bridgeway, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a few weight moving with these hinges and swinging a wicket, ornamental hinges, adapted for drawing-rooms, &c; doors fitted with them may be trapped and carpeted in an instant. Rising and double-acting spring hinges and superseded fastenings, at moderate prices Japanning unlike painted Counter Collinge, Patentee, Lambeth Palace, ornamental cast and wrought iron work, for railing and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

TO BUILDERS, CARPENTERS, CABINET MAKERS, &c.—The Trade is informed that FRY'S IRONMONGERY WAREHOUSE, 56, Compton-street, Rathbone-place, Selfacting Cottage Ranges, 20 in. 22 in. 24 in. 26 in. each. Register Stoves, 8d. per inch.; Elliptic ditto, 3½d. per inch Floor Brads, steel, 12s. per cwt. Cash Weights, 1½ per cwt. Chest Nos. 1 to 15, 2 to 14, 3 to 13, 4 to 12, 5 to 11, 6 to 10, 7 to 9, 8 to 8, 9 to 7, 10 to 6, 11 to 5, 12 to 4, 13 to 3, 14 to 2, 15 to 1, Glue, Tar, and Pitch per cwt. Screws, Nails, and Tacks at the lowest possible prices for Cash.

Terms, net cash, on or before delivery.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY have pleasure in stating that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their already extensive and valuable Steam Machinery and Models for making all kinds of Machines for sawing, Planing, Grooving, and Moulding Wood. They are constantly on hand Machinery both wholly and partly made, so that they can, at all times, carry out large supplies with SAW and COLLAR MILLS that they can fully depend upon for their workmanship, and have had much labour lately of supplying some of the most distinguished companies in the kingdom, for the use of which their Machines for home and foreign use.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD or BORING WOOD or IRON.—House and Coach Builders, Joiners, Cornice makers, and others doing similar work, are hereby informed that Patentee JOHN JAMES, 34, Little White-lion-street, Seven Dials, Builders and Cabinet Makers Ironmongers, Established 1807, Wholesale and Retail, begs to call their attention to the very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work in one machine; and as it is self-feeding, it does not require any skilled care in using like the other inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S Steam Engines and Machinery contracted for.

STEAM BOILER.—Wanted, a second-hand CORNISH BOILER with fittings, about 8 horse power; Particulars as to time in use, price, &c. by letter, to 56, Great Russell-street, Bloomsbury.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 190, Shoreditch. A great variety of FIRE, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Selfacting Cottage Ranges, with Large Oven and Boiler, 20 in. 22 in. 24 in. 26 in. each.

Best Selfacting Ranges, with Oven and Hash Boiler, Bright Wrought Bars:—

14 in.	16 in.	18 in.	42-inch.
54s.	58s.	68s.	90s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, 12 in. 24d.

Register Stoves, with Solid Bars, per inch, 8d.

Improved New Pattern Circular Back Register, with strong Bars and Trivets, 9d. per inch.

Best Solar dditto, Fire Brick Back, per inch, 10d.			
Bright Stoves, with Two Fires, 40s. to 90s. each.			
Cast Hand-water Pipe {	2 in.	2½ in.	3 inch.
	1½d.	1s. 2d.	1s. 4d. per yard.
Cast Gutters—4 inch, 3d. per yard.			
O G Gutters {	4 in.	4½ inch.	
	1s. 1d.	1s. 3d. per yard.	
Patent Line {	2 in.	3 in.	4 in.
	4½d.	5d.	7½d.
6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.		6d.	1s. per knot.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

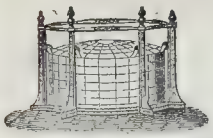
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

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The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

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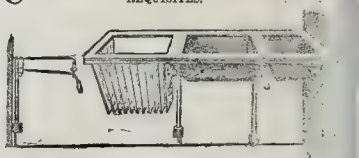
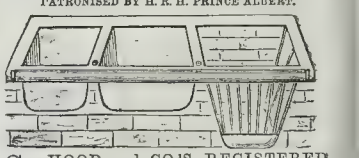
SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

COTTAM'S NEW PATENT for STABLE REQUISITES.



COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fitments. May be had either plain, galvanized, or enamelled. Every article for the harness-room and stable kept in stock.—Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.
Castings Warehouse removed from 81 to 68, Upper Thames-street.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

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HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 8, Bankside, London, near the Southwark-iron-bridge.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42, Poland-street, Oxford street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

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JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO., opening to the Monument, London bridge. Established A.D. 1700

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W. B. BARTLETT, manufacturer of Girders, Columns, Cast-levers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
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TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.
Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.
IRON ROOFS.
Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.
Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.
Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,
Builder, Contractor and Ironfounder, Mill-wall, Poplar.
Offices: Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.
N.B. Galvanized and painted Sheet Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).
WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
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JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR, IRON BUILDING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM.
LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated. Roofs fixed complete.
J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
An Allowance to the Trade.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham,
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets,
PLAIN or CORRUGATED, and Curved, of all Gauges.
Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.
Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building, at the
OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.
PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.			
12	"	20	"
13	"	24	"
14	"	26	"

Full particulars and the reduced price sent by post on application to
A. MOREWOOD and CO. DOWGATE-DOCK, LONDON,
to whom all letters must be addressed.

PATENT IRON ROOFING and IRON BUILDING MANUFACTORY (late the Coalbrookdale Company's premises), 18, James-street, Liverpool. N.B. Parties are particularly requested to note the address, LIVERPOOL. FRANCIS MORTON and Co. will supply estimates, plans, &c. for Iron Roofs and Iron Buildings, painted or galvanized, to be erected in any part of the United Kingdom. Roofs and buildings prepared for shipment abroad. F. M. and Co. possess advantages from their long experience, and are enabled to execute work on the most moderate terms consistent with good materials and workmanship.
N.B. The attention of Agriculturists and Landed Proprietors is particularly invited to their Corrugated Iron Farm Buildings, Sheds, Roofs, &c.

TO BUILDERS and OTHERS, requiring the most compact, efficient, simple, and cheap, double-purchase BUILDERS' CRABS, on improved principle, may obtain the same on application to ROBERT TREW, No. 14, Huntley-street, Torrington square, where they may be seen ready for work.
Crab without Frame £5 5
Ditto, with Frame 6 15
N.B. Tackle kept on hand for hire.

TO IRONMONGERS AND THE TRADE GENERALLY.
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s. 6d. 35 and 36, High Holborn.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK.
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street,
Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.
Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 51d. 6d. 7d. 9d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 12s.; 3 ft. 6 in., 3l. 3s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
4-feet self-acting ditto, ditto, 26s. each.
Air Bricks, 4s. per doz.
Best Town Grate, 5s. Ditto, Scotch, 65s. per cwt.
Best Patent Sash Line.
1 2 3 4 5 6
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BANK of LONDON. — Incorporated by Royal Charter. —Capital, 6,000,000*l.*

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By order,
MATTHEW MARSHALL, jun. Manager.

Threadneedle-street, August 16, 1855.

EQUITY and LAW LIFE ASSURANCE SOCIETY, No. 26, Lincoln's-inn-fields, London.

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Date of Policy	18th March, 1845	24th April, 1845	7th Nov. 1845
Age at Entry	40.	32.	51.
Annual Premium	£25 7 6	£25 16 8	£49 8 4
Sum Assured	1,000 0 0	1000 0 0	1,000 0 0
Bonus added	157 10 0	184 0 0	211 10 0

Copies of the last Report, Prospectuses, and every information may be had upon written or personal application to the Office.

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Full Securities to Parties Assured by means of a Capital of ONE MILLION STERLING, for the last Fifty Years all Paid up and Invested.

Premiums particularly favourable to the younger and middle periods of Life.

Two-thirds of Profits as Bonus.

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WILLIAM NEWMARCH, Secretary.

N.B. Life Insurance Premiums are allowed as deductions in Income Tax Returns.

SCOTTISH EQUITABLE (MUTUAL) LIFE ASSURANCE SOCIETY.

Incorporated by Special Act of Parliament.

THE TWENTY-FOURTH ANNUAL GENERAL MEETING of the Society was held at Edinburgh, on Tuesday, May 1, 1855. The Report, by the Directors, among other information, contained the following particulars:—

During the year closed on 1st March last—

928 Policies have been issued;
The Sums Assured thereby amount to 284,670*l.*;
And the Annual Premiums thereon to 9,411*l.*

The position of the Society at 1st March was as follows:—

Existing Assurances	£4,452,734
Annual Revenue	76,304
Accumulated Fund	910,845

This Corporation has been in existence twenty-four years. It proceeds on the principle of mutual contribution, the surplus or profit being wholly divisible among the Members.

The total additions to Policies made at and preceding March 1, 1854, amounted to SIX HUNDRED AND SIX THOUSAND EIGHT HUNDRED AND FIFTY FIVE POUNDS.

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Copies of the report, and all other information, may be had on application at the Head Office, or Agencies.

Agent in London—W. COOK, 126, Bishopsgate-street Within.

VIEW OF THE PROGRESS AND POSITION OF THE SOCIETY.

	Amount Assured	Annual Revenue.	Accumulated Fund
At 1st March, 1837	£710,483	£26,993	£56,113
" 1843	1,707,781	64,089	237,755
" 1849	2,997,576	114,196	456,545
" 1855	4,392,734	163,494	910,845

ROBERT CHRISTIE, Manager.
WILLIAM FINLAY, Secretary.
Head Office—26, ST. ANDREW-SQUARE, EDINBURGH.

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THE TIMES ASSURANCE COMPANIES.

To Clerks and others guarantees at the lowest rates.

Plate Glass Assurance. Windows, mirrors, &c. insured against breakage.

Every description of life and fire assurance.

Apply to the Manager, 39, Ludgate-hill.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licenses for their use. For in the facilities thus afforded to companies to meet their future a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to

WILLIAM HOWDEN, Secretary.

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MESSRS. BENNETT and KELLY (Builders' Auctioneers, LAND and ESTATE AGENTS, respectfully solicit the patronage of the above, whether for the disposal of Houses, Carcases, Building and Timber Stocks, Saw mills, Steam Machinery, &c.; and in the measuring, valuing, and many of which Messrs. B. and K. have to offer the benefit of a long experience, and which has hitherto enabled them to conclude their transaction with satisfaction and success.—Grosvenor Office, Lower Belgrave-place, Pimlico.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 194, New Bond-street, and 3, Queen's-court, Clerkenwell, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9*d.*; best holland blinds, on rollers, 6*d.*; best ditto, on spring rollers, 9*d.*; gauze wire blinds, in mahogany frames, 3*s.*; perforated zinc blinds, in ditto, 1*s.* 10*d.*; outside blinds of striped cloth, 2*s.* Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

A GOOD CARPENTER'S CHEST and TOOLS TO BE SOLD, complete in every respect, for the sum of seven pounds. Inquire at No. 31, Hopkinson's Almshouses, Green-walk, Holland-street, Blackfriars-road, where it may be seen.

PHOTOGRAPHY.—A complete Apparatus, 3*l.* 3*l.* 5*s.* and 11*l.* 11*s.* Send for a List, post free, at GILBERT FLEMING'S, 498, Oxford-street, Author of "First Steps in Photography," price 6*d.*; by post, 7*d.*

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BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by trave ling cranes, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate.

The Builder.

Vol. XIII.—No. 654.

"PITY the poor prisoners!" This cry is not so often heard now as in past times; nor is there so much reason for it. Nevertheless, we raise it—and we hope it will not be in vain.

There are few things in the history of the country which impress us with more horror than the former condition of the prisons—not only of London, but the provinces. These were dens of vice, misery, and wickedness: men and women of all ages were huddled together: the jailor was also the publican; and night and day those who would, in the next week, be hanged at Tyburn, caroused with the newly-made thief, and others of different degrees in crime: the debtors—even the untried, and possibly innocent—were mixed with the worst of wretches; and many a man and woman who have by juries been acquitted, have been kept in jail until the day of their death, for no other reason than not being able to *pay the prison fees*. Sums were demanded on the entrance of every fresh person, and in many instances the clothing was taken from the backs of unfortunate creatures to raise this money, which was invariably spent in drink—the fearful father of uncounted crimes. In the cold winters many perished through lack of clothes. In some of the London prisons no allowance of food was made to those who were destitute, and it was not uncommon for persons to die of hunger. The misery of the prisoners was not usually continued long, for jail-fever and similar diseases were regular visitants, which, not content with the destruction of those in confinement, have been known to sweep away magistrates, counsel, and jury from the neighbouring courts. Words would, however, fail to give a clear idea of the condition of the London prisons when John Howard came forward in the cause of humanity.

Before the philanthropist who "lived an apostle and died a martyr" began his work, nothing in the way of substantial improvements had been effected: the endeavours of charitable individuals had been spasmodic only, and the evils were too great and too deeply seated to be thus reached. As Mr. Hepworth Dixon says, in his excellent and interesting memoir of Howard,—

"So gigantic were the vices which tainted the entire administration of the criminal law—so hopelessly corrupt and inculpated were all ranks of prison-officers,—so irredeemably indifferent were the convicts themselves to their debased condition,—so filthy and fever-haunted were the buildings in which they were confined,—it is not at all surprising that, after a short but fruitless crusade against the festering mass of moral plague, even benevolence itself should have shrunk from the peril and the pollution."

A Report, written in 1728, on the Marshalsea (now merged, together with the Queen's Bench and the Fleet, in the Queen's Prison, to which we are about briefly to refer), says—"In it are now confined upwards of 330 prisoners, most of them in the utmost necessity: they are divided into particular rooms called wards, and the prisoners belonging to each ward are locked up in their respective wards every night, most of which are excessively crowded, thirty, forty, nay, fifty persons having been locked up in some of them, not 16 feet square!" In a room called George's Ward, 16 feet by 14 feet, and about *eight feet high*, there were sometimes forty persons locked up, never less than thirty-two; and as the surface of the room was not sufficient to contain that number when laid down, one half were hung up in hammocks, while the other half lay on the floor under them; whereby, as the Report shows, the air was so wasted by the number of persons who breathed in that narrow compass, that it was not sufficient to keep them from stifling, and during the heat of summer several perished for want of air! At the end of the last century, dens were used in which life could not be maintained: human beings were locked up for the night in small cells, without chimney or other means of ventilation, in buildings polluted throughout by vilest emanations from defective drains. It is not to be wondered at that amongst the mass of filth, disease, and licentiousness, fostered if not induced by such conditions, the jail distemper raged with frightful virulence.

In the "chink" at Plymouth, 17 feet long, 8 feet wide, and *five and a half feet high*, dark and stifling, having neither air nor light but through a wicket 5 inches by 7 inches! three men were confined, under a sentence of transportation, for nearly two months! "They could neither see nor breathe freely, nor could they stand upright. To keep alive at all, they were forced to crouch—each in his turn—at the wicket, to catch a few inspirations of air; otherwise, they must have died of suffocation, for the door was rarely opened.' *

It is not of such things we have now to speak: the change since that time has been very great, and shows in a tolerably satisfactory way how much progress we have made in civilization; yet still—

"A prison is a house of care,
A place where no man thrives."

And it is both unjust and unfeeling to add unnecessarily to the damage of those pent up within the grim walls of the Queen's Prison and other metropolitan prisons. We are induced to make this observation by a statement which has reached us from inmates of the Queen's Prison, complaining of the unwholesomeness of some tallow-melting and other manufactories in the neighbourhood of the building in which unfortunate circumstances confine them. So unpleasant was the smell from these places, that the prisoners addressed a "round robin" to parties in authority on the subject. The nuisance, however, still continues, and several have been sick and ill: they say that loss of liberty is bad enough to bear, without the evil of an unpleasant and poisonous atmosphere. Several gentlemen who have been useful to the community are incarcerated here through various causes. One person has been shut up more than forty years, for contempt of the Court of Chancery. He is now a feeble old man, but must have had naturally a strong constitution to have lived so long under the contempt of that unforgiving tribunal. Whether he has outlived all ties beyond the walls, and has ceased to desire liberation, singing with him of Chillon,—

"——The whole earth would henceforth be
A wider prison unto me,"—

we cannot say. Works which have delighted the public have been produced within these walls, and here have dwelt some who, through misfortunes or defective organization, have been less able to command applause when living than when dead:—

"——The vision fades.—He dies.
Then comes renown,—then fame appears,—
Glory proclaims the coffin hers!
Aye, greenest over sepulchres,
Palm trees and laurel rise."

But not to go further into these particulars, we are anxious, for the health of "the poor prisoners," that they should be able to open the windows of their little rooms in this hot weather, and to walk in their circumscribed recreation space, without the annoyance and danger of breathing a foul and polluted atmosphere.

* Hepworth Dixon.

We have since made an examination of the neighbourhood of the Queen's Prison. The bone-boiling, melting, and "knackers'" yard is well known to the crowds of people who live in the numerous small houses round about it. For the sake of those outside as well as those in the prison, manufactories such as those now complained of should be removed without loss of time: the keeping of pigs should also be prevented, and some large yards more carefully seen after. Most of the property reaching from the prison towards the gasworks consists of houses two stories high, in long, straight streets, in many parts inhabited by dangerous characters. Strong men who might make capital soldiers are lounging in all directions in the dust and hot sunshine, gambling or in other ways *killing time*. There is scarcely any drainage, and several persons told us that at the commencement of the late rains the smells arising from the cesspools and surface drains, and from the manufactures alluded to, were intolerable. We found in every case of inquiry the same results — fever and other illness. Close by, in this district, one cesspool is made to serve for three or four houses, and the channel of communication is constantly being stopped up. The neighbourhood of all London prisons in time of summer heat should be carefully examined, and as far as possible all offensive matters should be removed: and so indeed with all neighbourhoods.

The fearful Shadow is again nearing our land; and once more we would urge on every influential man in every parish throughout the United Kingdom, that Poverty, Crime, Disease, and Death, are closely related to Dirt, Bad air, and Want of drainage.

ON THE PROGRESSIVE CHANGES IN ORNAMENT,

IN THE SUCCESSIVE STYLES OF MEDIÆVAL ARCHITECTURE.

The series of lectures at the Architectural Museum were closed by the following discourse from Mr. G. G. Scott, on "The Progression of Styles in Architectural Ornament."

It may be thought, said he, that a practical or professional man is the best person to lecture or to write essays on subjects connected with his calling. The very contrary, however, is usually the case, as the turmoil and disturbance of business really leave him scarcely a chance of giving the subject, whatever it may be, that quiet thought which is necessary to enable him to place it before his hearers or readers in anything like a perfect or systematic form.

In the present instance I have really found it impossible to make due preparation, the time fixed being the very busiest in the whole year, and I therefore need excuse for the desultory and imperfect form of what I may lay before you.

In my former lecture * (which was merely introductory to the subject) I gave a general sketch of the rise of Romanesque architecture, partly out of the *débris* of Roman art after its destruction by the northern tribes, and partly from the architecture which during the interval had developed itself in the Byzantine empire. I showed that the carved work of the Romanesque style was mainly derived from the latter (the Byzantine) source. I then showed how Pointed or Gothic architecture arose by a natural transition from the Romanesque. This led to a description of the foliage prevalent during the early days of Pointed architecture, which, though infinitely superior to that of the Romanesque period, and really not very much like it, still grew out of it by a gradual transition—a progressive and constant striving to assimilate their foliage to that of nature without as yet any direct attempt to imitate individual leaves,—an ideal representation or symbolizing of foliage in the abstract, without descending into particulars. The next step, and the crowning one of the ascending series, was the direct imitation of nature herself, without any idealizing or any further conventionalism than was necessary to

* See Vol. XII. pp. 474 and 483.

fit it to its uses, and the material in which it is executed. This we find to have been the point arrived at just when Gothic architecture had attained its highest perfection in other respects; and well did this attainment accord with its other perfections! From this point I briefly showed the gradual departure from nature during the latter part of what is called the "Decorated period," and its almost entire relinquishment during the prevalence of the Perpendicular style; and the adoption of a conventionalism which I attempted to distinguish from that of the early period as being one of *departure from* the standard of nature, while the other had been one of *striving onwards towards* that great standard of excellence. I further expressed my opinion that, inferior as is this latter class of conventionalisms to the other, the foliage of the late period is, nevertheless, replete with beauty, and that there is an immense deal to be learned from it which may be attended with great practical advantage to the student.

I will now illustrate the progression of which I then drew an outline by a series of specimens which I have selected as suited to place it in a clear and intelligible light.

Mr. Scott then illustrated the consecutive changes by a great number of examples; among which the following may be mentioned:—

1. *Capitals.*—The beautiful overhanging Early English capital, by specimens from Ely and Lincoln. The early use of natural foliage, in conjunction with the stiff overhanging crocket, or stalk, by French specimens in the Museum, and by a number of drawings enlarged from his own sketch-books. The use of natural foliage without this conventional feature, by specimens from Southwell, Ely-place Chapel, the Sainte Chapelle at Paris, Oppenheim, &c.; and the softened foliage of a somewhat later period, by specimens from Beverley, &c. The Perpendicular style is not remarkable for its foliated capitals. In early specimens they resemble (when foliated) those of the preceding style; but later, they are often enriched with square patera-formed leaves.

2. *Continuous Enrichments in Mouldings.*—Those in the Early or Conventional style, by specimens from Ely Cathedral, and the Chapter-house, Westminster. The perfect natural foliage, by specimens from Southwell, Archbishop Peckham's monument, &c. In its softened form by specimens from the famous screen facing the Lady Chapel at Winchester, and the Conventional style of the fifteenth century, by many examples in the Museum.

3. *Detached Enrichments in Mouldings.*—Toothed ornaments, simple and enriched; and the rose enrichment, by specimens from Stone Church and Ely; detached foliage in mouldings by various specimens. The use of the overhanging crocket in mouldings, by various French and German specimens. The same used in union with natural foliage in various forms, ditto.; detached natural foliage—various specimens. The ball-flower, and the four-leaved flower—specimens from Hereford Cathedral, &c. The square patera-formed leaf from Ely, &c.

4. *Crockets.*—The Early English crocket, by fine specimens in the Museum. The same form united with natural foliage, by numerous specimens from France and Germany. The early form of the natural crocket, or that formed from natural leaves, by specimens from Waltham-cross, Archbishop Peckham's monument at Canterbury, De Luda's monument at Ely, Southwell, St. Mary's Abbey, the Porte Rouge at Paris, the Sainte Chapelle, Strasburg Cathedral, Cologne Cathedral, &c. &c. The softened form of the later decorated, by specimens from Ely,—the screen at Winchester, St. Stephen's Chapel, &c. And those of the Perpendicular style, and the contemporary French crockets, by specimens in the Museum.

Bosses.—Of the Early style, there are many in the Museum which were referred to (being too large to be brought forward). Particular mention was made of a usual form in France where the foliage seems attached to a circular disk of plain stone, and is sometimes of wood attached to the stone (as in the crypt of the Sainte Chapelle); also to the peculiar form of boss used in wood ceilings of the Perpendicular period, as being remarkably well suited to its purpose. A specimen from Crosby Hall was shown, but the Museum is rich in specimens of this kind. Of bosses of the best periods, those over the choir at Westminster Abbey, and those at St. Mary's Abbey, may be mentioned as among the finest; and those in the Museum from the cloisters at Lincoln are fine instances of the introduction of figure sculpture.

Mr. Scott went in the same way through nearly every form of ornament, illustrating his remarks by specimens too numerous to be mentioned, and particularly calling attention to the peculiar adaptation of the late foliage to wood-carving: also instancing brattishing, poppy-heads, enriched panels, &c. as having been especially developed at those periods, and calling attention to the fact that, though the foliage of that style is generally treated conventionally, it is sometimes as perfectly natural as at any period. Of this, there are many fine examples in the museum, both French and English.)

But what do we learn from this long series of transitions? Is art for the future to become a mere resultant of antiquarianism? I trust not! If this were to be the end of our researches, it would be better for us to give them up without more ado, and, forming ourselves at once *in art*—as the Americans are in politics—into a "KNOW-NOTHING" party, to start afresh from first principles, ignore all antecedent, and shut our eyes to everything which our forefathers have done! This, however, is not a very easy thing to do, so that our best course will be to take as impartial a view as we can of the historical series we have in review before us, and to deduce from it *so much*, and *only so much*, as will aid us in our own work. What, then, is it that we find?

First, we find our forefathers, while erecting a new fabric of civilization from the ruins of an ancient world, gradually elaborating out of materials, once refined but subsequently barbarized, a new system of ornamentation of extreme beauty—I mean what we call the Early English foliage:—we find that system of ornament so far like nature as to convey the *idea* of natural foliage, without being exactly like it. We also find in that system a wonderful adaptation to the *uses* of the ornament: we find it, in short, to be thoroughly *architectonic* in its character. We find in the capitals a *strong, firm* contour, growing well out of the shaft, and lending a firm support to the abacus. We find light and shade to result spontaneously from the nature of the foliage, and that the foliage seems invented on purpose for stone carving and for architectural uses. It is so like nature, that one searches in all directions for its living type, and can scarcely believe that none exists; yet it meets so perfectly all the exigencies of architecture, that if it had a type in nature, one would be fain to believe that it had been created expressly to be copied in stone.

We find next a direct copying from nature, accompanied by a certain degree of adaptation, both in grouping into mechanical arrangements, and also in shaping leaves into crockets and other regular forms, as well as in adding boldness of relief where needed for architectural effect. We find, however, that in capitals and many other positions, the natural foliage did not of itself produce so decided and architectural an effect as that which it had supplanted, unless it were used *conjointly* with the strong stiff stalk which Nature did not supply, but which some of her forms may have *suggested* to the older carvers. By this union the highest perfection of architectural ornament was attained.

We find in this early adoption of natural types that the forms are usually given *hard* and *crisp*, without the softness and flexibility which is frequent in natural leaves, and that such leaves are especially selected as are *decided* and *rigid* in their outline. Relief and indentation of surface are often strongly represented, and even exaggerated, but not those accidental flexures which disturb the hard symmetry of the outline. This was well judged, as, in most positions in which foliage is introduced, this rigidity of form is of great importance to architectural effect. In the French carving of this period this severity of outline is carried much further than with us; for where the conventional stalk or crocket form is not used, the foliage is made constantly to reproduce certain symmetrical arrangements at equal intervals, and usually so placed as to agree with the angles or faces of the capital, while in the intervening spaces the leaves run freely as they will.

The first falling off may be traced to the departure from this severe mode of treatment, and the introduction of a greater amount of flexibility than is suited to architectural ornament. There are positions in which this is suitable enough, but in others it destroys the dignity and force of the ornament. At first this *softening* in the treatment of the foliage appears rather to add to its beauty, as in the screen at Winchester; but this beautiful phase is soon succeeded by one of great weakness, in which an enervated sentiment pervades everything. This is strikingly the case in the Lady Chapel at Ely, though the foliage there is often of exquisite beauty.

We next find what seems to be an attempt to regain the energy which had thus been lost; and though usually inferior in beauty, the carving of the Perpendicular period seems generally to have a more forcible character than that of the *later* portion of the previous style. We again find rigidity of outline and strong relief of surface united. The forms, however, are mostly conventional, and, though natural leaves are sometimes faithfully copied, they are more frequently so disguised as to be scarcely recognised, and still more usually lost sight of altogether. Is beauty, then, lost at this period? On the contrary, the genius of the carver often displays itself more strikingly than at any former period. In the *early* style, we see not so much the genius of the *individual* artist as of the *fraternity*, all the foliage being of one kind. In the second period, *nature* shares with the artist the admiration which the work may inspire; but in the third, the artist may lay claim to the whole, as he seems neither beholden, in any great degree, to nature, nor to masonic agreement, but invents for himself, or at least, has so large an assortment of conventional types that he appears to do so, and certainly his success depends wholly on himself, for the same types which in the hand of one carver are offensively ugly, we find in other hands invested with a beauty quite startling. It is certain that no style adapted itself so perfectly to the exigencies of *wood carving* as this. The peculiar sharpness of cut which prevails in this style is eminently suited to give that brightness of light and shade which are essential to bring out the carving in a dark material, such as oak, and is also peculiarly adapted to the tools of the wood carver. A few sharp cuts with the gouge will often, in this style, give more effect, when seen from a distance, than hours of labour in closely imitating natural leaves.

What, then, I repeat, are the lessons which we are to learn from all this?

Are we to fall back upon the conventional foliage of the Early Pointed Style, because we find it more perfectly architectural than perhaps any other? Or are we to imitate the carving of the fifteenth century, because of the merits we find in it, and its peculiar adaptation to wood carving? Certainly not. It may be laid down as an axiom that no *merely* conventional forms of decoration should be *imitated* from bygone times, unless, indeed, they so naturally arise from prescribed conditions, that by working out the problem for ourselves, we arrive at the same result. They may give us useful lessons, but they are not to be revived. *Nature alone* is the permanent source of artistic types. The early foliage had been generated by centuries of labour from a source with which we have no concern, and only became really beautiful when it approached nature. When that goal was reached, the restless spirit of the age led the artists to leave their model too soon to perfect themselves in the use of it. We are now literally without a style of our own; but, so far as relates to foliated ornament, have a truly glorious prospect before us, if we would really exert ourselves to attain it! Our course is clearly *to throw aside all past conventionalisms*, and to *fall back upon nature*, as our sole refuge from the slavery of precedent, and the enervating

effects arising from the knowledge of too many styles. In architecture itself, we have not this resource, but in its decorative portions, at the least, we are free.*

SOME MEMORIALS OF FATHER THAMES.†

Peter, the curate of Colechurch, having become old and infirm, or, from some other cause, unable to continue the works of London-bridge, the work was committed to Serle Mercer, William Almaine, and Benedict Botewith, merchants of London, under whose inspection the first stone bridge was erected about 1209. When the building of the bridge was finished, a chapel was erected thereon, which was dedicated to St. Thomas, and endowed for two priests and four clerks. This chapel was erected on the ninth pier from the north end, and was 60 feet long, 20½ feet wide and 14 feet high. Besides the entrance to this chapel from the bridge there was another from the river, both of them paved with black and white marble. A commodious dwelling-house having been built over this chapel, it was occupied from time to time by various persons in trade, and the last tenants before the total demolition of the bridge were Wright and Gill, wholesale stationers, by whom this venerable chapel was converted into a warehouse. Chamberlain tells us that a survey of the bridge was made in 1730, when it appeared that the exterior part of the foundation on which the stone piers were laid consisted of huge piles of timber driven close together, on the top of which were laid planks ten inches in thickness, whereupon the bases of the stone-piers were laid, 3 feet below the starlings and 9 feet above the bed of the river.

It likewise appeared that the lowermost stones were placed with pitch instead of mortar. At that time the method of building within a caisson had not been adopted.

In 1280, only seventy years after its completion, the stone bridge had become ruinous. This was partly caused by a great fire, which, breaking out in Southwark, burnt a part of St. Mary Overy's Church, and a strong south wind driving the fire to the north side of the bridge, prevented the return of great numbers of people who had run from London to assist in extinguishing the flames, and when they attempted to get back, the flakes of fire had taken hold of the London side, and it is said that more than 3,000 persons either perished in the flames, or were drowned.

Edward I. granted to the keeper of the bridge his license to solicit charitable donations towards the repair of the bridge, but this proving quite insufficient, the king granted letters patent requiring that "every man on foot bringing merchandize or other things saleable, and passing over the said bridge, and he taking himself to other parts as aforesaid with merchandize or other saleable thing, pay one penny." A halfpenny was also charged for every saleable pack carried over the bridge.

This bridge would seem to have been doomed to misfortune, for in 1282 a frost, accompanied by a great snow, produced such floods and masses of ice, that five of the arches were broken down and destroyed.

King John, having taken the custody of the bridge from the mayor of London, and given it to Friar West, his royal successor claimed the disposal of it, and in the year 1269 Henry III. granted it, with its liberties, to his queen, who pocketed the profits, but left the bridge to fall out of repair.

Edward I. at the earnest intercession of the citizens, granted them repossession of the bridge.

In 1632, a fire destroyed the greater part of the houses on London-bridge: in 1645-6, those on the north side were rebuilt with timber, but were again destroyed by the Great Fire of 1666. The history of the bridge has, however, led us too forward, and we must go as far back as the year 1535, when, owing to the encroachment of buildings on the fresh-water streams about the City, a great want of water was felt, and many substantial citizens contributed towards a scheme for bringing water from six fountains in *the town of Tyburn*, which was carried into execution, and is the first instance on record of water being conveyed to the City by means of pipes.

In 1197 Richard I. had granted the following charter to the citizens of London:—

"Richard, by the grace of God King of England, Duke of Normandy, and Earl of Anjou, to his archbishops, bishops, abbots . . Know ye all that we, for the health of our soul, and for the soul's health of our father, and all our ancestors' souls, and also for the commonweal of our city of London, and of all our realm, have granted and steadfastly commanded that all wears that are in the Thames shall be removed wheresoever they shall be within the Thames; and that no wears be put up anywhere within the Thames; also, we have quit-claimed all that which the keeper of our Tower of London was wont yearly to receive of the said wears. Wherefore we will and steadfastly command that no keeper of the said Tower at any time hereafter shall exact anything of any one, neither molest or burden. . . . It is sufficiently given us to understand, that great detriment and discommodity hath grown to our said city of London, and also to the whole realm by occasion of the said wears." In consideration of this charter, the City paid the King 1,500 marks,—a large sum, but considering the importance of the grant, money well bestowed.

The jurisdiction of the lord mayor of London over the river Thames extends from Colneditch, a little to the westward of Staines-bridge, to Yendall or Yenleet to the east, including part of the rivers Medway and Yell; and his lordship has a substitute as water-bailiff, whose office is to search for and punish all persons infringing the laws made for the preservation of the river and the fish therein.

The lord mayor and aldermen hold courts of conservancy eight times in the year, in the counties of Middlesex, Surrey, Kent, and Essex, in order to maintain the rights and privileges of the river Thames; and to charge four juries on oath to make inquiry after all offences committed in the river, in order to proceed to judgment against such as may be found offending. There are many laws respecting the fishery and the preservation of the spray and spawn: the following are amongst the most important:—

"No fisherman shall use any net under 2½ inches in the mesh above Richmond-bridge crane, nor any net in the work called beating of the bush, flag, or reed, or less than three in the mesh; nor use any weights or stones to their nets, upon the forfeiture of 40s. for each offence.

That no pike-net or other net or engine be drawn over the weeds, &c.

That no fisherman shall bend any net by anchors across the channel, so as to draw another net within it, whereby the spawn of barbel or other fish will be destroyed.

That no person shall draw any net for salmon of less than 3 inches in the mesh, from the 10th of March till the 14th of September, from Kew pile westward to the City of London mark stone above Staines-bridge.

For each of these offences a fine of 40s.:—No person shall sell any fish contrary to the ancient assize—pike, 14 inches; trout, 8 inches; tench, 8 inches; roach, 6 inches; dace and flounders, 6 inches.

That every fisherman shall have in his boat both his Christian name and surname, and the name of his parish, legibly painted where any one may see it, on the forfeiture of 20s.

The water-bailiff appoints the proper season for fishing, and licenses are to be obtained for going to fish of the bailiff, at the chapel at Guildhall. The powers of search were very strict, and the nets, &c. of offenders seized, the fish distributed amongst the poor, and a forfeit of 20 marks."

Chamberlain, in his "History of London," gives a list of the fishes in the Thames as under:—"The salmon, flounder, smelt, shad, trout, graylin, perch, carp, tench, barbel, chub, roach, dace, gudgeon, pike, eel, lamprey [Pennant describes the catch of the latter fish as of the greatest importance, immense quantities being sent and exchanged with the Dutch fishermen for other descriptions of fish], bleak, ruffee, sturgeon, bass, mullet, turbot, sole, maid, place, dab, skate, thornback, halibut, pearl, whiting, haddock, oyster, muscle, cockle, bunter, crab, prawn, red and white shrimps, crawfish, and others."

In 1534 another Act of Parliament was passed for the better conservation of the river Thames; it was enacted, "That if any person or persons do, or procure anything to be done in the annoying of the stream of the said river of Thames, making of shelfs, by any manner of means, by mining, digging, casting of rubbish, or any other thing into the said river, or take, pluck, or convey any boards, stakes, piles, timber-work, or other thing from the said banks or walls, except it be to amend, and the same to repair again; or dig or undermine any banks or walls on the waterside of the Thames, &c. under a fine of 100s." And it was further enacted, "That if any person that shall have the office and ordering of ballasting of ships near the said river of Thames, and do not take for parcel of the said ballasting the gravel and sand of the shelves between Greenwich and Richmond within the said river," parties offending liable to be brought before the Lord Chancellor, and subjected to fine and imprisonment. Provision was made in this Act, that any person might dig, carry, and take away any sand, gravel, or rubbish, earth, or anything lying or being in or upon any shelf or shelves within the river.

In 1537, the common council of the city of London proceeded to carry out the above enactment, and parties were encouraged to take away materials from the "shelves or shelfts" within the river, and dispose of them at moderate prices; and it was ordered "that all paviours, bricklayers, tilers, masons, and all others that occupy sand and gravel, shall endeavour of themselves with all diligence to *occupy the said sand or gravel, and none other*, paying for the said reasonable, as they should pay, and ought to pay, for other sand and gravel digged from other men's grounds about the said city; that further application be made to his Majesty, that all persons having lands and tenements along the said river-side, shall well and sufficiently repair the same." Orders were also given that strong grates of iron along the said waterside, and also by the streetside, where any water-course is had into the said Thames, be made by the inhabitants of each ward, so along the said water, as has been in old times accustomed; and that every grate be in height 24 inches, at the least, as the place shall need, and in breadth one from another 1 inch; "and if occupiers of lands and tenements, in case of great rains, do sweep their soilage, or filth of their houses into the channel, and the same is afterwards conveyed into the Thames, every person so offending shall forfeit for each offence 1s. 8d."; and like penalties to be paid by all persons that burn ashes and straw in their houses, or wash in the common streets or lanes: persons having wharfs or houses by the waterside were ordered not to lay their refuse where the *rakers* accumulated matters to be conveyed away in boats.

Notwithstanding all these measures to purify the Thames, we read, in the London chronicles, of frequent and terrible ravages by the plague, sweating sickness, and other disorders. The Thames was then a pure and pleasant stream; yet still the plague raged and carried off thousands, and that at a time when the population of London was probably under 300,000 persons—not many more than the population of St. Pancras at present. This shows as clearly as anything can show that the purity of the Thames alone will not prevent the pestilence; for, notwithstanding the present deplorable condition of the Thames, by the introduction of drainage, and other sanitary measures, the health of the metropolis is now more certain, and the duration of life greater.

In 1574, a very high tide happened on the 6th November: after having ebbed about an hour, a reflux returned with such impetuosity, that the Thames, by filling the marshes and neighbouring cellars, did great damage.

It would have been well for many at the present time if the wholesome custom of the citizens of resorting to country springs, for the water supply of London, had been continued; but in 1582 a water-engine was put up by Peter Morris, a Dutchman, to supply London with water from the Thames. Even this engine, although it was afterwards improved by

* To be continued.

† See p. 375, *ante*. For "Conway-stakes," in last article, read Coway stakes.

several ingenious persons, was insufficient for its purpose, for we find Lilly, the astrologer, who had in his youth resorted to London in search of his fortune, going to the Thames, accompanied at times by city apprentices, to carry water from the Thames, in buckets, for domestic purposes.

In 1604, James I. granted a most important charter in connection with the river Thames to the corporation. This charter was an extension of that of Henry VIII. and confirms the right of the corporation to the conservancy of the Thames from the bridge of the town of Staines, and toward the east unto London-bridge, and from thence to Yendall or Yenleet, towards the sea and towards the east, and in the Medway,—the corporation to exercise the office of measurer of all kinds of salt, fruit, eatable roots, merchandizes, wares, &c. "And," says the charter, "notwithstanding they, the mayor and commonality and citizens of late times thereof, have been disquieted, and, in some measure, aforesaid, unjustly hindered, and especially in the said office of measuring coals, supposing that office to the mayor and commonality and citizens not to appertain and belong, whereas it doth manifestly and plainly appear that the said offices, and all other premises to them of old time belonging and do now appertain, and that they lawfully received and enjoyed, and ought to have taken and enjoyed the wages and rewards, fees, and perquisites thereof." This charter at considerable length confirms these various tithes to the city, and also directs the appointment of officers, bailiffs, &c. Next year the king borrowed 60,000*l.* of the city.

In 1606 it is recorded that the river Thames was frozen over, and had become a place of public entertainments and diversions; and on the 19th of February following, the tide ran so contrary to its natural course, that it was high water at London-bridge at the time it should have been low water. This preternatural tide, after it had ebbed half an hour, returned with such force that it arose 2 feet higher than at first. It gradually ebbed and flowed a second and third time, and then returned to its natural course.

1613 was a great year for London, for then Sir Hugh Middleton completed his scheme for supplying London with water from the New River. The difficulties and advantages of that important work are too well known to need mention.

By another charter of King James I. the corporation was empowered "to ask and demand, take and receive a fee of 8d. of lawful money of England to the use of the said mayor, &c. for the weighing of every such like ton of coales." This charter, among other matters, which it is not to our present purpose to mention, recites that no one "shall sell or measure coales from lighters, to the great harm and choaking up the stream of the same river, and the passengers on the water of the same river."

On the 7th of December, 1663, a flood of the Thames took place. Respecting this occurrence, Pepys, in his "Diary," says,—"6th. My wife all the afternoon at arithmetique, and she is come to addition, subtraction, and multiplication very well."

"7th. I hear there was last night the greatest tide that ever was remembered to have been in this river; all Whitehall having been drowned."

It would appear, that about the same time a raid was made against the wooden *causeways* on the river, &c. for Mr. Pepys says:—

"Home thinking to get Mrs. Knipp, but could not, she being busy with company, but sent me a pleasant note, writing herself, 'Barbary Allen:' a discourse about the river Thames. The reason of its being choaked up in several places with shelves, which is plain, is by encroachments made upon the river, and running out of causeways into the river at every wood wharf, which was not heretofore, when Westminster-hall and Whitehall were built, and Redriffe Church, which are now sometimes overflowed. These encroachments on the Thames along the line of London, have been very considerable; for Maitland is of opinion, that the houses of the City did not extend formerly, near so far south as the present wharfs do."

Mr. Pepys does not give us many other particulars respecting the Thames, except an account of its dismal appearance after the *Great Fire*—without churches from the Temple; when it "was fine to see the women sweeping up the water in the cannels," and getting so drunk; Mr. Pepys himself dirty, and not able to buy a pair of gloves. He proceeds, however, by the Thames to Blackwall, with property, and dines on cold mutton, being the first, as he says, he had tasted since last Sunday; forgetting, as his editor observes, the shoulder of mutton of the previous day.

Notwithstanding the efforts made at various times to prevent encroachments on the Thames, these would seem particularly at London to have been considerable, viz. from the original river wall to the present edge. Fitzstephen tells us, that there was a Tower Palatine on the east of the City, and two castles on the west; the first whereof was the square white Tower of London, built at the south-east angle of the City wall, and the castles on the west were those of Baynard and Mountfitchet.

"And, considering that the modern wharfs on the west side of London-bridge run into the river as far as the fourth pier of the said bridge—which piers being all erected in the Thames—I think they are sufficient to show, that the City wall could not extend so far south as the said wharfs do at present (1756), nor nearer the river than the north-end of the bridge adjoining to Thames-street. Wherefore, these wharfs must be so many encroachments on the river since the erection of (old) London-bridge."*

The Company of Watermen on the river Thames was established by Act of Parliament, in the 2nd and 3rd of Philip and Mary, wherein it is expressed that there shall be yearly appointed and elected by the mayor and aldermen of the city of London for the time being, the number of eight persons, "of the most wise, discreet, and best sort of watermen, being householders, and occupied as watermen upon the said river between Gravesend and Windsor.

* * * *

And the same and persons so elected, shall use, occupy, or exercise any rowing upon the said river of Thames, between Gravesend and Windsor aforesaid, which said overseers and rulers shall maintain good order and obedience amongst the said watermen, according to the true meaning of the present Act." A further enactment in the reign of William III. gives the body above mentioned authority to punish persons for throwing ballast, &c. into the river, and to keep a book for the true registration of all lightermen, watermen, &c. This company are more particularly under the dominion of the lord mayor.

Strype, the London historian, says that he was told by a member of the company that there were in his day (about a century ago) 40,000 watermen on the rolls of the company, and that upon occasion they could furnish 20,000 men for the fleet, and that there were then 8,000 in service.

In December, 1732, the river Thames rose with such a high tide that it overflowed Wapping, Tooley-street, and many other places, and did great damage to warehouses, &c.

In the 24th Geo. II. an Act for the better carrying on and regulating the rivers Thames and Isis, from the city of London westward, to the town of Cricklade, in the county of Wilts, the preamble sets forth "that the rivers of the Thames and Isis have time out of mind been navigable from London to Bercatt, in the county of Oxford, and from thence westward beyond Lechlade, in the county of Gloucester, and that by an Act of 21st Geo. I. intituled 'An Act for making the River of Thames navigable for Barges, Boats, and Lighters, from the Village of Bercatt, in the County of Oxford, unto the University and City of Oxford,' the said rivers were made navigable from the village of Bercatt to the city of Oxford, and that divers abuses had been and still are committed by the owners of the several towing-paths and other passages on the banks of the said rivers, and by the owners of the locks, weirs, turnpikes, dams, floodgates, and other engines thereon, by reason whereof, and other exactions, the price of water-carriage hath of late been very much raised," &c.

* Respecting the river wall, Fitzstephen, who wrote in the reign of Henry II. says that "the wall is high and great, well towered on the north side, with due distances between the towers. On the *south side also* the city was walled and towered; but the Fish abounding, River Thames, with his ebbing and flowing, has long since subverted them."

THE NEW DOCK OF THE COMMERCIAL DOCKS, ROTHERHITHE.

The rapid and extraordinary increase in the size of merchant vessels was rendering useless some of the old lock entrances in the Thames; to remedy which, and to give greater facilities to the Commercial Docks, and the trade of the port of London, this company, three years since, purchased the East Country Dock; and, under the plans of Messrs. Walker and Burges, engineers to the Admiralty, and the execution of Mr. Kelk, contractor, it has been enlarged and finished in the most efficient and satisfactory manner, exhibiting one of the best specimens of dock building now extant. Not long ago (Vol. XII. p. 625) we gave some particulars of its construction, and a sketch of the history of the docks.

This new or south dock is 27 feet deep below Trinity datum over the cill of the gate and throughout the dock. The lock is 220 feet long by 48 feet wide, and at the neap, or lowest tide, 22 feet deep, admitting vessels of more than 26 feet draught of water at spring tide, and the facility of lying at the quays at all times. It forms one of seven docks in connection, covering altogether 150 acres, of which about one-half is water.

On Monday last, the 13th, the new dock was opened, and at 2 p.m. two large vessels, the *Premier*, from Quebec, of 1,000 tons, and the *Oriental*, 1,640 tons, from St. John's, N.B. dressed with the flags of all nations, were towed to the lock-entrance, through which they were hauled into the dock, amid the cheers of the officers and labourers, and with a royal salute, the *Oriental* having the precedence. The cargo of the *Oriental* alone consists of 700 Petersburgh hundreds of deals, equal to 126,000 pieces, of 12 feet long by 11 inches wide, and 1 inch thick, and would cover 32 acres of ground, placed side by side.

These docks being on the south side of the river, are but little known to the public, though the oldest docks in Europe for commercial purposes. In 1660, they existed as Howland Great Wet Dock, and for many years were the only docks privileged for bonding timber in the port of London.

The directors have been exerting themselves of late, to make these docks more applicable to the increasing wants of the trade of the port of London, by augmenting their space of both land and water, giving greater depth, width, and length to the locks; and by a railway to the Royal Dockyard at Deptford, and connection with the Brighton and South-Eastern and South-Western Railways, forming a communication easy, rapid, and cheap, between the victualling yards of Deptford and Gosport. We saw a large Government transport taking in a cargo of provisions from the Company's warehouse for the Crimea, the authorities at Deptford having for convenience housed 15,000 barrels in these warehouses. This fact may perhaps influence importers of goods intended for Government supplies, to warehouse them in these docks, at least such as can be legally deposited there.

The warehouses of the company, besides the provisions noticed, have capability of holding 150,000 quarters of corn, as well as tar, pitch, hemp, oil, &c. Their ponds will float above 50,000 loads of timber, and their yards will hold about 4,000,000 pieces of deals, and staves *ad libitum*. We were shown a splendid granary, to hold about 15,000 quarters of grain, which was built thirty years since of Canada yellow pine, and appears to be as perfect as it was in the year it was built. This would seem to point out to her Majesty's Government and others the value of this timber, especially for military huts.

Huts for the Crimea.—Mr. Eassie, of Gloucester, is said to have contracted with Government for 500 houses for our soldiers, and 100 of a superior kind for officers.

CHURCH BUILDING NEWS.

Lincoln.—At the local burial board last week, the clerk stated the following as the items of expenditure on the cemetery:—Chapels, 1,500*l.*; lodge and dead-house, 400*l.*; drainage, formation of roads, walks, fences, laying out ground, planking, &c. 2,000*l.*; architects' commission (5 per cent.), 175*l.*; purchase of land, 1,125*l.*; Vicar of Canwick's right, 100*l.*; hearses, &c. 200*l.*; law expenses, premiums, and extras, 200*l.*; total, 5,700*l.*

Margaret Roothing.—The church of St. Margaret, Margaret Roothing, which had been closed for several months, for the purpose of undergoing extensive repairs and a thorough restoration, was re-opened for divine service on 2nd inst. The exterior walls have been stripped of plaster, and the original stone and rubble, with some stone tracery, brought to light. The Norman doorway has been cleansed. The inner walls have been freed from whitewash and faced with liquid cement. The whole has been repaved with Staffordshire chequered paving-tiles. The sittings in the body of the nave are new, of uniform height, size, and direction. The stonework, both externally and internally, has been refaced. An oak door has replaced the old decayed one, retaining the primitive iron work. The tiling has been repaired, and the inner roof has been cased with new wood of the ancient pattern. A new vestry-room has been built, and a stone wall round the south and east sides of the churchyard displaces the patched-up wooden fence. The surface of the churchyard, which had accumulated several inches above the level of the floor of the church, has been reduced to one uniform slope, care having been taken to retain each grassy mound, and repair the decaying tombstones. Two years ago, in consequence of its dilapidated condition, the wooden spire was taken down, and replaced by a small bell-turret. Mr. Dowsett, of Good Easter, was the contractor and builder employed.

Barnet.—Christ Church, Barnet, was re-opened on 3rd inst. The size of the church has been almost doubled by the addition of a north aisle, with a gable roof of nearly the same height as that of the nave. It has been carried out in accordance with the original style of architecture. The material employed is flint and stone quoins, buttresses, &c. The old and new parts are united by a line of decorated octagon piers and arches, with moulded caps and bosses. The design of the roof, unlike that of the nave, has arched principals descending low upon the walls and resting upon stone corbels. The whole of the timbers are exposed and stained, and the roofs are boarded diagonally. The two large traceried windows at the east and west ends of the aisle, and that in the chancel, and the western door, with its circular shafts, supporting a moulded and arched lobel, are chief features. There is extra accommodation for nearly 300 persons, allowing for each full 20 inches. The church is heated by hot water, and lighted with gas. The work has been carried out from designs by Messrs. Habershon, and executed by Messrs. Hill and Ladds, of Barnet. Both the parsonage and schools have been much enlarged by the same architects during the past year, the latter having been made capable of holding a large number of children. The cost of the new works has been nearly 1,500*l.* about 600*l.* of which have yet to be raised.

Farnborough (Kent).—The church of this village having been repaired and refitted, was reopened on the 8th inst. for divine service by the Archbishop of Canterbury, who also consecrated a new piece of burial-ground. We are told that while some portions of the work are of good character, others are less satisfactory, and this arises, we are further informed, from an architect having been consulted for one part only, and not for the entire work, a practice which must always result in incongruities.

Leigh.—The church here, during the last five or six years, has undergone much alteration and restoration. The east window has been taken out, and a geometrical one of five lights substituted. A gallery which obstructed the tower arch has been removed. The plaster ceiling of the nave has been pulled down, and the timbers of the roof opened to view. The southern wall and roof of the aisle have been rebuilt, the roof being open like that of the nave. The wall is of rubble-work, with squared stones for the buttresses and dressings. A south door, which had been blocked up in the old wall, has been reinstated in the new one, and the windows, buttresses, and other particulars, have been copied from their old predecessors. The chancel is repaved with encaustic tiles. A quantity of broken old tiles which formed the pavement of the chancel, and which are supposed to have been manufactured at an ancient tile-work at Malvern, have been laid in the aisle. The whitewash has been scraped off the walls in the interior of the church, and the work repointed, and coated with colour to imitate red stone. Crosses have been placed upon the gables. Mr. Harrington, of Worcester, builder, has executed the repairs; and Mr. Day, architect, furnished drawings. The expense of the improvements and repairs has been borne chiefly by the parish, but the rector has contributed towards the fund.

Clent.—A memorial of the late vicar, the Rev. A. Hopkins, is being erected in the church of this village. It is a mural monument in white marble upon a black ground, ornamented, and relieved by drapery falling in folds over one corner. At the top is an open volume, inscribed with the text from which the rev. gentleman preached his last sermon. Mr. Joseph Stephens, of Worcester, sculptor, executed the monument.

Tewkesbury.—The plans of the proposed new burial-ground and chapels have been exhibited at the Townhall here for the inspection of the ratepayers, previous to their being submitted to a vestry-meeting. They have been prepared by Messrs. Medland and Maberley, of Gloucester, and include two chapels, united by a central spire.

LONDON STREET ARCHITECTURE.

NEW BUILDING AT THE JUNCTION OF CHANCERY-LANE AND FLEET-STREET.

THIS building is erected for Mr. Hodgson, the book-auctioneer, from the designs and under the superintendence of Mr. Knowles.

It is appropriated on the ground-floor to Mr. Hodgson's auction-rooms, a law bookseller's, and a stationer's: the upper floors are intended for chambers and offices.

It covers an area of about 115 feet by 41 feet, and rises 60 feet from the pavement to the cornice. The level of the pavement falls, from the upper end in Chancery-lane, 16 inches to the angle of the building next Fleet-street.

It is constructed of Portland stone from the ground line to the first-floor level; above and below that of brickwork in Portland cement, the upper part being faced with white Suffolk bricks.

The great cornice projects 3 feet 8 inches from the face of the wall, and is corbelled back for a counterpoise, so that the mass carries itself, having cores of York stone brackets, which penetrate its whole height and breadth, resting upon a continuous York bed at the foot of the cornice. The cornice is of Portland stone, with the gutter hollowed in it. The roof is covered with the Italian tiling made by Mr. Brown, of Surbiton. The contractor for the work is Mr. Myers, of the Belvidere-road, and the whole cost of the building, when completed, will be about 15,000*l.*

In the design of this building, the architect has consulted but little that antiquaries' Bible, the book of "Styles." He has endeavoured to produce a building fit for its purpose and substantially beautiful, at the same time a business pile, and not a palace. It is a good step towards that goal which the commercial architecture of London may reach. Fleet-street and the Strand, transformed into a succession of such edifices, might become a worthy Corso for the trading Rome, and make a grand connecting artery between the region of docks and warehouses at one end, of mansions and palaces at the other.

A building of this kind will read, and read rightly: of how many commercial street edifices can we say the same? It is indeed time that the better elements of mercantile life be represented in its habitations. We have surely had enough of catchpenny advertisements done in stucco and paste. Sober, straightforward, not ungraceful nor uncomely, are the operations of upright tradesmen; so let their offices, warehouses, and shops, be truthful, substantial, cheerfully ornamental piles. Thought is not thrown away, lavished upon the improvement of our streets and mercantile edifices. A man will do his business with a healthier and clearer mind, surrounded by buildings of the class illustrated this week, than in such dens of darkness as line its next door,—Chancery-lane.

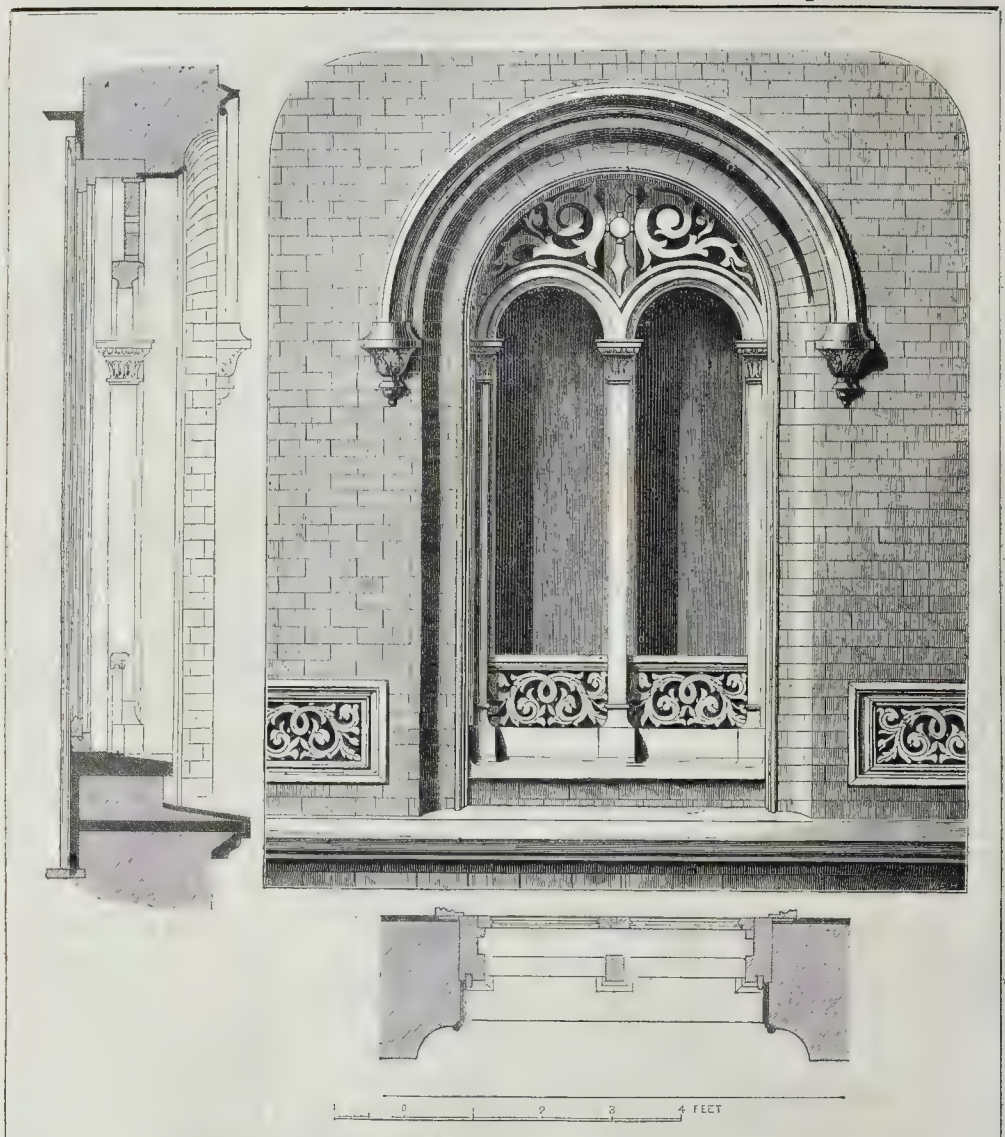
There is such correspondence between outward forms and shows and inner feelings and emotions, in all truthful matters, that it is far from an affair of indifference in what manner of form we transact our commerce, with what impress of form we endow our churches, or in what fashion of apartments we meet our friends and children. Providence has arranged this world upon these considerations (so to speak), and surrounded "the habitable parts of the earth" with cheerfulness and healthful beauties. We, who in our offices and ledgers have often little enough thought of Providence, shall we esteem it indifferent whether or not we follow His precepts here, where, perhaps, we need their healthful influence most?

To architects, at least, this question is not unimportant in an architectural point of view, for it is of such we speak: as a sanitary question these things are happily decided.

The importance of street architecture must be held in a very different estimation to what it has been by any one who hopes to assist in the revival of all architecture dead since the 16th century in our country. So truly is architecture a reflection and monument of a people, that never yet a work worthy the name of noble art was produced by a man not fulfilled with the spirit of his age; and for learning the character of our own day, where shall we find a better school than the streets and shops? We *are* a commercial people, a common-sense trading race, a nation of shopkeepers. But are these epithets, then, so damnatory? Enthusiasts for this or that opinion, and fanatics of this or that sect, may bewail the verdict which describes us; but he who can find in this judgment a brotherhood with the great republics of mediæval Italy, the commercial communities of Florence, Genoa, Sienna,—will perceive in the decision nothing but a source for the highest gratulation. We, too, shall have our di Lapo, our Donatello, our Bartolomeo,—perhaps our Savanarola. We, too, may become, amid this kaleidoscope Europe, a stand-point of light for the after times to reckon from.

But to achieve this we must recognise and know ourselves. We must develope and not conceal our nationality in arts as in all things else. From the streets of our cities and manufacturing towns our wealth and power proceed. Let these become the stepping-stones to our temples, as they must do, if our temples and our worship are to be sincere,—for "where the treasure is," was said of old by Wisdom. It is not by forgetting, but remembering our commercial real street life, that we shall become a people great in wisdom as in wealth. And, indeed, why should words be multiplied about the matter? It is from these things that we *are* growing a wise and (so much as there is of it) a holy people. From counting-houses, offices, warehouses, and chambers, come the schemes for baths and washhouses, and model dwellings, ragged schools, and reformatory asylums. These on one side, the genius of the shopkeeping people makes them: beyond them burns the glory of future England. What if, on the other side, those who have no work to do embroider mediæval patterns and multiply Gothic churches over the land? Let us be grateful that they do so much. By and by, when the people begin to go to church in earnest, as now to their shops, then, whatever "potichomanie" may be the fashion of the day, "*ça ira!*" for we shall no longer play at church in any sense or way.

But meanwhile we architects have work to do *en préparatif*. The public demands its streets and warehouses. Let us bear in mind how great these things are in their destinations; not truly *all* cheating, lying, and adulteration. Let us remember that we are building *streets* to-day, through which the future is to walk towards its *altars* and *shrines*, as the



BUILDING, CHANCERY-LANE.—WINDOW, TWO-PAIR STORY, AT LARGE.

dwellers in these streets, in these cities, are preparing the paths of Truth by their duties and their charities.

Let us look upon these streets, then, in their noble light, and build as if building for honourable merchants, not for tricking knaves; and to give our minds a proper tone, let us discipline them to see in this shopkeeping what promise of greatness it encloses; and, recognising the nature of the time, perceive that it is in these very streets that the way is opened for us to commence our stone daguerreotype of the 19th century.

We architects are the limners for the future. To us is, perhaps, entrusted the verdict which remotest time will form. All else will go, as it has gone, of art and man's productions. But architecture, that substitute for nature, is nourished by Time, as the fossil history of mankind; and as the shells which the nautilus and ammonite of the primæval world have formed become to us the sure records and interpreters of their far-departed times, so these shells, under which humanity has dwelt, which religion has formed and inhabited, will become, may be, to future races, the only and fossil records whence the "epoch of man" shall be clearly read.

For us, then, who have to mould these latest "medals of creation," there is the responsibility that we rightly represent our race, our age: it is not, surely, all a lie. We forge the long chain of antique history link by link, almost entirely from architectural remains. From these we deduce a people and a history, which we read for our edification, instruction, *example*. How much lies at the door of those architects of old!

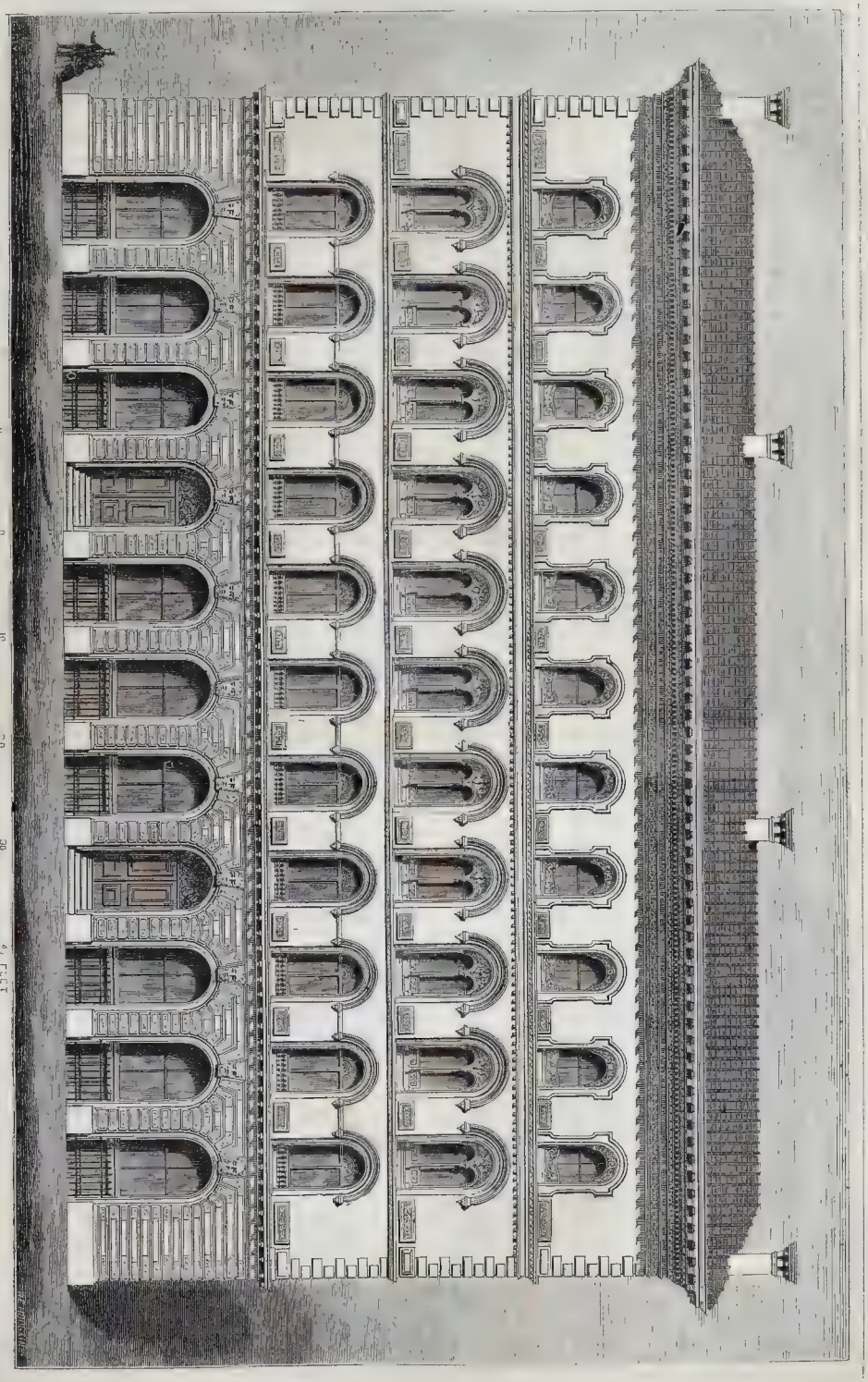
Regarded in this religious light, the only art in which art was ever noble, a little study will soon disclose to us what valuable and unique opportunities street architecture affords in our time.

There are yet other higher views under whose radiance the architect begins to perceive of what influence, of what responsibility, his works consist. But the consideration of what and how great effect upon the mind external objects exert is reserved for another occasion.

Perhaps enough has been said to show that there are points of view from which street architecture may be considered as a higher thing than an advertisement; that the streets are peculiarly the field wherein the character of our own time is forming, and, therefore, peculiarly the best school for the architect who is not also a liar.

James Knowles, Jun.

Cirencester.—The Roman Pavements.—The spacious building situated within Earl Bathurst's park, immediately opposite the railway-station, destined for the final reception of these valuable remains, is now completed, and the pavements, under the superintendence of a foreman from the encaustic tile manufactory of Messrs. Minton, have been laid down. It will be some time before the floor surrounding the pavements can be added and the whole made perfect. Cirencester is rich in remains of the Roman time.



NEW BUILDING, CORNER OF CHANCERY-LANE, LONDON.—Mr. Knowles, Architect.

THE ARCHÆOLOGICAL INSTITUTE AT SHREWSBURY.

When the curtain rose at Shrewsbury, that is to say, when I arrived, I was forcibly reminded by the old domestic architecture of this place, of the scenery at the Princess's Theatre, in the play of Henry VIII.; but it was seen through a much more gloomy atmosphere than that which shines on the gay costumes of those in the mimic scene, and as I proceeded through the heavy rain that was falling, I could not help feeling, notwithstanding the object of my visit was to admire the records of the past, that my mackintosh and cork soles were much more serviceable, though perhaps not quite so picturesque, as a velvet jerkin, with red hose, and russet shoes. The wet seemed to forbode a gloomy meeting, but the result has not proved so, and the visit to Shrewsbury must be remembered by the members of the Institute as one of if not the most successful meeting they have had. I do not mean only in connection with the hospitality we have received, but the proprietors of all the places and objects that we have visited have, I am certain, been induced to estimate more highly the monuments they possess, and will endeavour to preserve them with more rigorous care and attention.

On Monday evening, the inaugural meeting was a very brief affair, but the mayor received us with such sincerity, that we felt quite at home; and he promised us the hospitality for which the county has ever been famous. On Tuesday morning, the sections were opened, and a paper by Mr. Salt, on "The Honour of the Hundred of Clun," was read by Dr. Kennedy. It gave evidence of great research, but it was rather too heavy for a commencement, and I am afraid gave strangers the impression that we were rather a dull, dry set. This was followed by an interesting paper by the Rev. J. L. Petit, on Buildwas Abbey, which prepared us for our visit to the ruins on the following day. After this we started for Hawkestone, where we had been invited by our patron, Viscount Hill. A very heavy rain was falling at the time, but no one was daunted, and our determination was rewarded by a few glimpses of sunshine, which enabled us to enjoy the extensive views and picturesque beauty with which this place abounds. On the road we visited Morcton Corbet, an ancient mansion of the family of Corbets. We left Hawkestone much delighted by the kindness and *bonhommie* of Sir Robert Hill, who received us in consequence of the absence of Lord Hill. In the evening there was a sectional meeting, at which Mr. J. M. Kemble read a paper on "The Heathen Graves of the North of Europe," and in which he made a furious onslaught on the theory of the stone, bronze, and the iron ages; but as this paper will be published as well as that which he subsequently read, it will not be worth while to occupy your space by noticing its novelties.

On Wednesday we started for Wroxeter, and the remains of the Roman city of Uriconum. The Rev. H. M. Scarth, who had formerly been curate at this place, gave us the benefit of the result of his researches during his residence. The remains of the Roman wall attracted much attention, and the fragments of columns that have from time to time been turned up, show that there is a most interesting field of inquiry that would, without doubt, repay a more extended inquiry than that which Mr. Scarth was enabled from his position to make; but as I before said, I hope that our visit may be effective in awakening the interest and curiosity of proprietors. From thence we had a beautiful ride to Much Wenlock, much in these parts meaning great. Here we were received by the mayor. The Rev. C. H. Hartshorne pointed out the striking features of the abbey, and the members occupied themselves by examining its details, and in speculations on its various parts. After this we proceeded to a bountiful lunch, which had been provided for us, and of which we partook under the presidency of Mr. Dickinson, the mayor. The Town-hall possesses great interest. It is a wooden building in a perfect state of repair, and the interior reflects great credit on the town, for the preservation of the old wood-carving, and for the judicious manner in which the additions have been made to it. The Council Chamber is quite unique, and the whole building will well repay a visit to any one desirous of seeing what a Town-hall was in the olden time. After viewing the Museum, in which were the corporation plate, and several deeds and charters connected with the town, we proceeded to Buildwas Abbey; but the weather which had favoured us thus far, became very unpropitious, and Mr. Petit had to illustrate his paper of the previous day amidst a forest of umbrellas and the pelting of a pitiless shower. The way in which these ruins are preserved was the source of great satisfaction. On our return the members visited the seat of Mr. Robert Burton, where the members were entertained at dinner with real old English cordiality; and lest the presence of so much science should produce *ennui*, he had invited many "fair women and brave men," and "there was a sound of revelry by night," in consequence of which some of the lighter-spirited members of the Institute did not get to their beds till a very late hour.

On Thursday morning there were sectional meetings. Mr. R. K. Penson read a paper on Ludlow Church, which he concluded by expressing his regret "that the inhabitants did not display more care in the preservation of their church,"—a remark which an ill-natured writer (I am not) would say, might have been left to some one else, as he is not quite a disinterested person, having been employed to "restore" the reredos which was accidentally discovered by Lord Dungannon. And I may as well here mention, that he took occasion, on our visit to the church the following day, to dwell on the remark of one of the members, "that restoration was often destruction;" and to my mind (perhaps I may be very wrong), I think the reredos in question is a confirmation of the assertion, and I would rather have seen it in its fragmentary state, than filled up with statues that can be bought by the dozen.

Mr. M. H. Bloxham then read a paper "On St. Mary's Church, Shrewsbury," which will have the effect of calling the attention of the inhabitants to its beauties, and teach them to value what they possess. Mr. George Scharf, jun. read a paper "On the Pictorial Decoration of Ancient Churches," and another brief essay "On the Painted Glass in St. Mary's Church." He was clear, fluent, and instructive, and in the peripatetic lecture at St. Mary's Church, where he pointed out the principles which he had previously enunciated, he proved himself the very Willis of the meeting.

Papers were also read by the Rev. J. G. Cumming, "On certain British and Scandinavian Crosses in the Isle of Man, hitherto undescribed," "On the Roman Vestiges at Wroxeter," by the Rev. H. M. Scarth, and "Some Notices of Church Goods belonging to the Churches in Shrewsbury at the Time of the Reformation," by Mr. Hunter. After these, the Institute received deputations from the Historic Society of Lancashire and Cheshire, and the Cheshire Architectural, Archæological, and Historical Society, when kind expressions of intention and mutual interest were reciprocated.

In the evening, the annual dinner took place in the Music Hall. About 200 sat down, under the presidency of Lord Talbot de Malahide, who was supported by the Earl of Powis, Viscount Dungannon, the Mayor, and some other magnates. The dinner did not present any remarkable feature, and the speeches did not possess such originality as to make us forget that they were a little too long.

The museum was shown in a very appropriate gallery belonging to the school. Dr. Kennedy, the head master, who has taken the most lively interest in our proceedings, invited us in the evening to a *conversazione*, and on our arrival we found the museum lighted and the library tastefully decorated, with a band of music in attendance. As a tribute to antiquity, the evening's proceedings commenced with a country dance, in which the President and others joined. This afterwards gave place to polkas and waltzes, which were joined in with great spirit by the younger votaries of archæology. We all left greatly impressed with the kindness of Dr. Kennedy, and convinced that the eulogiums on his good nature which we had heard at the dinner were as much deserved as his distinguished position is from his great ability. On Friday morning we started by a special train to Ludlow, viewing on our way Stokesay Castle, a beautiful castellated mansion, which has been illustrated in Britton's "Domestic Architecture," and in the first volume of Parker. Great pains had been taken to put it into a proper state for our visit; and the thanks of the Institute were subsequently voted to Mrs. Stackhouse Acton for the excellent way in which it had been done. Mr. Hartshorne called our attention to several circumstances and facts in connection with the building, and the appropriation of its date. From Stokesay we went to Bromfield and Stanton Lacy. At the former place there was absolutely nothing to see except a few abominations, such, for instance, as the painted or rather bedaubed ceiling; and at the latter the church has been "restored," with a stone altar in the regular "high and dry" style, and with all that Minton and others can supply. A discussion arose on the outside about some "long and short work," but its authenticity was very much doubted, seeing what great alterations have been made in the structure. After a beautiful ride we arrived at Ludlow, where we were entertained by the mayor, Mr. Rodney Anderson. Having partaken of the good things provided by him, we proceeded to the church, where we were addressed by Mr. Penson, to whom I have before alluded. After this we proceeded to the Castle, a magnificent ruin, and well worthy of a pilgrimage even made under less favourable circumstances than those we experienced; and the impression made on my mind by the visit to this spot will not be easily effaced. In the evening the mayor of Shrewsbury invited the members of the Institute to dine with the members of the corporation, and we thus had an opportunity of observing how the civic dignity of this ancient town is maintained. On Saturday there was another sectional meeting, at which Mr. J. M. Kemble read a paper, in continuation of the subject he had previously treated. It displayed great research, and much of that analytic criticism, which distinguishes the German school, and which he has doubtless acquired a taste for from his residence in Hanover. He demolished some of the pet theories of our old antiquaries in the most relentless manner. The Celts, to use a sporting phrase, were nowhere, his statement being, and for which he quoted many authorities, that those implements of bronze which we are in the habit of considering vestiges of that race, were the production of the Iberians, for the reason, among others, that they were a race that "knew no other metals but copper and gold." His propositions would have inspired more consideration, and, perhaps, more faith, had he not, in the discussion that took place, "snubbed" everybody, from the president downwards.

After this we proceeded on an excursion to Battle-field, the site of "the great battle of Shrewsbury, July 21, 1403;" and from thence we proceeded to Haughmond Abbey, on the estate of Mr. A. W. Corbet, of Sundorne Castle. The remains, which are situated in a most picturesque spot, have been much neglected, but the announcement of our visit had caused them to be cleared of all the objectionable adjuncts. Several excavations had been made by one of our members, Mr. Baker, by which we were enabled to get a general plan of the abbey. Nothing could exceed the kindness of Mr. Corbet, who very happily said, "that as it was the custom in the olden time for the abbot to entertain all travellers, he, as the possessor of the ruins of the abbey, felt it his duty to give us all a hearty welcome." After partaking of a very elegant lunch, we were delighted to see that the good old English gentleman, "Though he feasted the rich, he ne'er forgot the poor;" for while we were pursuing our searches, for objects in illustration of other pursuits, the charity children were entertained, and their cheerful faces and red cloaks, while they added to the picturesqueness of the scene, made us estimate more highly the bounty of the lord of the soil. And, while on this subject, I cannot help expressing my gratification at observing in the play-ground of the school,—which, I believe, Mrs. Corbet takes under her especial charge,—many objects, such as "swings, round-abouts,

and see-saws,"—thus contributing to the children's amusement, and not making school a place to be dreaded.

On Sunday the majority of the members met at the Town-hall, and went to church with the mayor.

On Monday we started in a special train, and after visiting Whittington Castle, we proceeded to Park Hall, a beautiful house, built about 1550, and which Nash has illustrated. Mr. Caton, who was the representative of the proprietor, Mr. Kynsbint, received us at the station, and conducted us to the house. The whole of the mansion is in the most perfect keeping: the only thing to suggest, perhaps, would be a little attention in the way of repairs and varnish to the outside, to repel the encroachments of time. We left highly delighted with our visit, and much impressed with the graceful courtesy of the ladies of the establishment, whose attention was in unison with everything around us. To Mr. Caton too much praise cannot be awarded, for he was our harbinger, and the great success of the excursion was owing to the excellent arrangements he had previously made. We then proceeded to Chirk Castle, the seat of Colonel Middleton Biddulph. We were struck by the grandeur of the view, more than by the architecture, which has been restored. But if we were indifferent to the exterior, our horror was great at the interior. Ionic columns, supported on deep blue balusters, led us into a room the walls of which were bright green and gold, and the ceiling of bright blue. It was stated that it is a moot point whether the responsibility of these decorations rests on Mr. Pugin or Mr. Crace: whichever way the question is settled, the result will certainly bring no fame to either.

We did not go to the seat of Lord Dungannon, but proceeded by the train to Llangollen-road station, where we entered a canal-boat, which had been kindly lent to us by Mr. Shipton, the mayor of Wolverhampton. The ride was charming and novel; and, having partaken of refreshment, which the foresight of Mr. Caton and the skill of mine hostess of the "Hand" had provided for us, we proceeded to the Abbey of Valle Crucis. Many excavations and clearings have been made by Lord Dungannon, of which there is notice given to the visitors on a very fine slab, inserted in the walls. Having examined the beauties and the peculiarities of these remains, among the former of which is a circular window, and the latter a buttress, running round the windows at the exterior of the east end, we returned to Shrewsbury. The next morning the usual meeting took place for auditing the reports, and other business, and thus concluded this most delightful congress. I cannot conclude without offering a tribute to the mayor of Shrewsbury, Mr. Butler Lloyd, whose buoyancy of spirit and untiring energy contributed so very much to our success, offering to other authorities a proof that to be dignified it is not necessary to be dull.

With all this pleasure, however, there was this alloy. My hotel was dirty and disagreeable; and I mention this to enunciate a crotchet that I have, viz.—that I consider the magistrates of any place would be justified in refusing a license to any house of which such a character as this is given. If I go to the British Emblem, whose license is a monopoly, and experience vile smells, an animated bed, dirty rooms, and bad attendance, it, to my mind, much more fully embodies the notion of a disorderly house than one the proprietor of which supplies a little beer after the regular hours. This, however, is only a whim of mine, but I hope it will be long before I have it brought to mind by such discomfort as that I experienced at Shrewsbury.

Filtration by Atmospheric Pressure.—Mr. Partington, in one of his late lectures in the Royal Panopticon of Science, Leicester-square, pointed out a new description of filter, of which, hereafter, important use may perhaps be made. A pint of water, dark and turbid, was poured into a glass vessel, and in an instant it was poured forth pure as crystal. This very rapid process of filtration was produced by atmospheric pressure on the water; and it was stated that a thousand gallons might be filtered by the same process in an hour.

PROVINCIAL NEWS.

Oxford.—During vacation the works in progress in connection with several of the colleges have been progressing. The most extensive of these is the erection of a new building in connection with Exeter. The whole of the Broad-street frontage is now complete to the roof. The additions completing the line exhibit a studied irregularity in the arrangement of the windows, &c. At Jesus College the work undertaken is the refacing of the frontage. The second story is completed. The gateway has been pulled down, the plain windows knocked out, and the whole is being restored in what may be called the House-Gothic style, so generally adopted by the colleges now. It dates from Elizabeth, and its chief characteristic is the square mullion and the depressed arch. The only other works in progress are those of Magdalen, confined to the range of rooms on the High-street side of the tower: these are being reroofed, put into repair, and otherwise improved.

Hook-Norton.—A new National School has been commenced here, from a design by Mr. Bruton, of Oxford, architect. For this the village is chiefly indebted to Miss Davis, daughter of Mr. Samuel Davis, of Swerford-park, who has given the site and two-thirds of the requisite sum of money, and who lately laid the foundation stone. The building will comprise a school-room for boys and girls, 36 feet long by 16½ feet wide, a class-room, and a room which, together with the class-room, will form a boys' school on Sunday, when the usually mixed school-room will be appropriated to girls alone. A mistress's house and the necessary offices complete the group.

Cradley.—A new building for a girls' school has been commenced by direction of the Bishop of the diocese. The rector presented the site.

Bromsgrove.—Catshill Schools, intended both for general use on Sundays, and for teaching infants on other days, were opened on Wednesday week. The builder was Mr. Freeman, of Belbroughton. The estimated cost of the whole is 500*l.* about two-thirds of which have been raised by subscription, leaving a considerable sum to be provided.

Corse.—The opening of the New National schoolroom at Corse took place on 2nd instant. This little schoolroom has just been constructed under the superintendence of Mr. A. McGachen, architect. The school children are sixty in number.

Grimsby.—The local board, by the Improvement Act, have powers granted them to raise and expend 15,000*l.* on market improvements, a cemetery, and a new town-hall. To carry them out fully, according to the *Lincolnshire Chronicle*, an expenditure of 18,883*l.* will be required. Property has already been purchased from Lord Yarborough for market improvements, and for which 4,231*l.* have been paid. The new market-house and corn-exchange will cost 3,500*l.*: the old materials are set down at 700*l.* It is in contemplation to lay out 600*l.* in improving the market at the lower end of the town. The new town-hall, with police-offices, &c. is set down at 3,000*l.* The cemetery has cost 2,300*l.*

Gateshead.—The local *Observer* says,—It is seriously contemplated, we understand, to establish several new boards of health in this borough, in the shape, *not* of town councillors, police constables, or anything of the sort—but in that of veritable *boards*—deal boards—on which the sanitary inconsistencies of the population may be chalked daily;—on which the middens which require to be emptied—the houses which require to be drained—the pigs which require notice to quit—the quagmires which require to be filled up—the slaughter-shops which require to have their bloody deeds concealed—may be duly recorded for the edification of the authorities, and as warnings to the unwary passengers in our thoroughfares. Thus, each street, every morning, will have its magazines of pestilence pointed out, so that nuisances, if they may not be removed, may, at least, be avoided. We commend the project, and recommend its adoption in other towns than Gateshead.

Corby.—Mr. W. H. Woodhouse, of Irnham Hall, has, at his own expense, conveyed through the centre of this town a flow of spring water, which is supplied by three self-closing hydraulic pillars. A pillar is to be placed in the market-place, surmounted by a lamp, to be lighted in the winter months. The works have been under the management of Mr. John Tebbutt, of Sleaford, engineer.

Elgin.—The *Forres Gazette* states that Mr. Goodwillie, sculptor, has just finished a suitable tombstone, to be placed over the remains of the late Mr. Thomas M'Kenzie, architect, in the cathedral burying-ground at Elgin. It is a free-stone slab, 7½ feet long by 3½ feet broad, bordered by Gothic ornaments, and bearing the following inscription in old English characters, in Mediæval style, running continuously round the stone:—"Sacred to the Memory of Thomas M'Kenzie, Architect in Elgin, who died at Ladyhill on the 15th day of October, 1854. Aged 39 years." The slab rests on two Gothic pillars, carved. The design is by Mr. James Matthews, of Aberdeen, architect.

THE NEW METROPOLITAN BUILDING ACT.

The new Act to amend the laws relating to the construction of Buildings in the Metropolis and its neighbourhood, has received the royal assent, and will come into operation on the 1st day of January, 1856. Fears are entertained as to the sufficiency of the legal machinery for carrying out its requirements, but we will not foreshadow difficulties.

We shall next week give the new Act *in extenso*, without trenching on our usual amount of matter. To prevent disappointment, we would suggest an early order through the booksellers, on the part of those who do not receive our journal regularly.

THE LEWISHAM DISTRICT.

The district of Lewisham, so far as respects the Metropolitan Building Act, appears to be left in a very unsatisfactory condition. It will be remembered that on the information of Mr. Willoughby, to the effect that the district surveyor, Mr. Badger, had demanded and received a fee to which he was not entitled, the Justices of the Peace for the county of Kent dismissed the district surveyor from his office. Mr. Collis was appointed surveyor, *ad interim*; and afterwards the justices elected Mr. G. B. Williams, to fill the declared vacancy. Mr. Badger then obtained a rule *nisi* for a writ of *certiorari*, to bring up the order of the justices to the Court of Queen's Bench. Mr. Pashley (Q. C.) showed cause against the rule on the 13th of June, but the Court made the rule absolute, Lord Campbell remarking, that the questions raised were of considerable importance. This was at the end of the term, and the matter consequently stands over until November.

As no appointment of a surveyor is valid until ratified by a Secretary of State, the dismissed surveyor memorialized that officer, stating the circumstance that the writ of *certiorari* had been granted, and he received for reply,—that, pending the decision, the office would not be considered as vacant. Upon this the surveyor was advised, that it was his duty to discharge the duties of his office, and accordingly, amongst other steps, he summoned a builder a few days ago, for not giving him notice.

The builder's defence was, that he had given notice to Mr. Collis, and the magistrate considered it sufficient.

The result of this unfortunate state of things is, we are told, that some of the builders pay no attention to any one, and that irregularities are committed.

The Decorator of the Byzantine-court, Sydenham.—I am much obliged to your correspondent ("C F. jun."), for pointing out that the expressions contained in my paper on "Polychrome" tended to convey the erroneous impression, that the decorations of the Byzantine and Mediæval Courts were entirely designed by me. I must say, by way of explanation, that the word "designs," when used by me, had reference only to those ornaments that I had to design, in order to carry out fully Mr. Wyat's general scheme. I trust that this explanation will satisfy you.—R. P. Pullan.

DOINGS IN IRELAND.

The church of Lisadell, County Sligo, is to be rebuilt.

A new court-house for the county Down is to be built at Downpatrick. The style is Italian, with Corinthian pilasters on the front elevation, surmounted by a pediment, with figures on the acroteria. The interior is approached by two flights of steps, and comprehends a large hall, off which the various committee, jury, petty jury, and other apartments branch. Mr. Smith, county surveyor, designed the building.

The new parish church at the south end of Castle-street, Ballymena, is completed. It will accommodate nearly 1,000 persons. All the windows are stated to be of stained glass.

A new Protestant hall is about to be erected at Limerick, and tenders are being received. Messrs. Fogerty and Son furnished the drawings.

Extensive works are to be executed in connection with the church of Drumholm, county Donegal.

Additional buildings for the accommodation of officers are to be erected at the new barracks, Limerick.

The Board of Ordnance intend erecting, on the Curragh of Kildare, one hundred and six wooden buildings, for constabulary schools, married soldiers, &c. These structures, which have been for some time in progress, are nearly complete. The officers' quarters, without offices, are ready for occupation. The 60th rifles, County Dublin, and North Cork militia, &c. are at present encamped there.

A new Roman Catholic church is to be built at Tipperary.

A new banking-house is to be built at Skibbereen, County Cork, from the designs of Sir John Benson, architect.

Moyrus, County Galway.—The church lately erected in this wild, romantic spot, was consecrated on Tuesday, 31st July, by Thomas Lord Plunket, the Bishop of Tuam. The funds for the building, together with those for the parsonage and schools adjoining, have been raised from small subscriptions by the untiring energy and perseverance of Miss Moore, of Lisburn. The style attempted is English Gothic, of the twelfth century, and has been carried out in granite, quarried on the site, dressed with the beautiful grey limestone peculiar to the neighbourhood, and red bricks. Near the site are the remains of a church, apparently, according to our informant, built in the eleventh century. The new buildings cost 1,700*l.* General Thomson, of Salruck, gave the site. Mr. Minton —always generous—presented the tiles for the chancel. Mr. T. H. Carroll, of Dublin, was the contractor, and Mr. Lamorock Flower, of London, the honorary architect.

COMPETITIONS.

Saffron Walden Cemetery.—The design of Messrs. Middleton and Pritchett, of Darlington, has been elected for execution.

The Barracks' Competition.—We continue to receive strong objections to the notice, that "*all plans sent in will remain the property of the War Department.*" As we have already said, it is a very unfair requirement, and ought to be abandoned forthwith. The premiated drawings alone should be retained.

Blandford.—Sir,—It was stated in the last number of the *Builder*, that Mr. Pinch's designs had been selected for the chapels in Blandford Cemetery. I beg to say that, at a meeting of the Blandford Burial Board, which Mr. Pinch attended, on Wednesday, 1st August, it was resolved that the designs of Mr. James B. Green, of Blandford, should be adopted, in reference to those by Mr. P., and he (Mr. Green) was instructed to prepare the specification and detail drawings, which are now open to builders.

An Observer.

*** All we need say is, that the statement in question came to us as from Mr. Pinch himself.

Another correspondent, "E. E. Pennington," complains of the conduct of the Board to him. He says,—"On the 19th of July, I received a letter from the clerk to the Board, apprising me of the acceptance of my designs, subject to the following conditions, viz. :—1. A complete set of working drawings to be furnished, with divers alterations from the original plans. 2. A detailed specification to be forwarded, so as to enable the Board to advertise for tenders. On furnishing the above, I was informed I should receive the munificent sum of 10*l.* the premium advertised. I of course at once declined these humiliating terms; but thinking the Board might possibly err from ignorance of the usual professional charges, I wrote and offered my services at the usual rate of 5 per cent. on the outlay, and my travelling expenses. By the next post I received a letter from the clerk to the board, expressing the regret of the borrd that they could not avail themselves of my proposals, and the same day I received my drawings, without even the carriage having been paid."

MASTERS AND WORKMEN.

In your last impression there is a suggestion offered by a builder's clerk, which if carried out I think would be of great advantage to all parties concerned, but especially so to those who ought to have the benefit, viz. really *deserving* workmen.

The present mode amongst builders of engaging workmen I think must be held to be very objectionable, inasmuch as the able, industrious, sober, and civil mechanic, in offering his services, has no advantage over a fellow workman possessing the very opposite to the necessary qualifications above mentioned. I think with your correspondent that it would be a better plan if each workman, in offering himself for employment, had to produce a written character from his last employer, bearing testimony to the applicant's ability, regularity, sobriety, civility, &c. and stating the length of service. This would enable an employer to select the best men, and would serve to encourage good conduct in all.

I also think the present custom of masters and workmen separating without a moment's notice disadvantageous to all, and especially injurious to the employer when men work in pairs, and one leaves suddenly, as mentioned by the builder's clerk in the case of bricklayer and labourer: to the great evil of this I can speak from personal experience, having often had to submit to the inconvenience and loss that always ensues. To remedy this, I would propose that three days' notice be given on either side, and such time in all cases to expire at the end of the week.

I, like your correspondent, see no difficulty in carrying out such a measure, provided it become general in the building trade, and be made to apply to all branches of it alike.

A Builder.

Notices of Books.

Paper and Paper-Making; Ancient and Modern. By Richard Herring: with an Introduction, by the Rev. George Croly, LL.D. London: Longman and Co. 1855.

Wonderful as the progress of paper manufacture and its correlatives, book-making and the printing-press, have been from the period when fifty years of a man's life were spent merely in making a single copy of the Bible, down to the present day, in which a copy of this book of books is printed by one machine in a single minute, and in which, accordingly, the divine command to teach the Gospel to every people is obeyed (to adduce but a single instance) by the British and Foreign Bible Society, in their annual issue, in nearly 150 known languages, of an average circulation of a copy for every minute of every hour and day throughout the year,—we do not seem to have reached the climax of at least the paper manufacture, inasmuch as there now seems a pretty fair prospect of an entirely unlimited supply of paper from the most abundant and otherwise most valueless sources, as from wood-shavings, and even from peat-turf, by means of simple enough and seemingly cheap enough processes, of maceration with alkalis, washings with chlorine, muriatic acid, and pure water, and pulpification (if we may use the term) by means of new applications of alkali, or otherwise. By such means, paper, pasteboard, *papier maché*, and other forms of the material will soon probably be had at a still cheaper rate, and in immensely more abundant quantity than heretofore. Architectural decorations in *papier maché* will probably become more general, paper-hangings for cottage walls be improved in design and yet not increased in price, less fragile copies of sculptured art works than those of plaster of Paris be multiplied, and many other art improvements be effected.

The subject of paper-making is an interesting one, and the author of the volume under notice has had the benefit of the experience of his father, extending over a period of nearly half a century, to enhance the interest and importance of what he has to say on the subject. The treatise itself is an extension of lectures recently delivered at the London Institution, and it is graced by an Introduction from the pen of Dr. Croly, in which that reverend writer gives an eloquent exordium in favour of the press of England. The work is also illustrated with various engravings, and an appendix of leaves forming numerous specimens of paper, fine and coarse, with ornamental and other water-marks, &c. and the whole constitutes a very interesting volume, in which the history of the paper manufacture is traced from its more primitive antetypes, through its own earlier progress, onwards to its most recent improvements.

Miscellanea.

The Yarmouth Surveyorship.—Mr. Laing, C.E. has resigned his office of town surveyor at Yarmouth. The office will be vacant in November next.

Derby Baths and Washhouses.—The town council have adopted the plans of Mr. Henry J. Stevens, of Derby, for converting an old house in Full-street into baths and washhouses, and he has had orders to advertise for tenders.

Stone for Doncaster Church.—So important does it seem to the owners of stone quarries, to have the use of their particular stone at an important building known, that the little paragraph on this subject in our last number but one (p. 371), has brought us nearly a dozen letters, and cost us the writing of three. Mr. Rutherwood, of Worksop, denies that the stone used is from the quarries of Mr. Wilson, saying, that it is supplied by him. On referring to Mr. Wilson, he confirms the correctness of the paragraph in question, by forwarding a copy of invoices sent with stone to the church. A letter from the architect, however, explains the disagreement. Mr. Scott says,—"Owing to a difficulty, I believe only temporary, of obtaining blocks of the thickness we wanted for the tracery of the larger windows, I did sanction, to avoid delay, the use of Ancaster for four of the windows on the side less seen than the others. Since then we have reason to believe, that stone of the regular thickness will be found at Steetley; so that the tracery may, as I much wish, be of the same material with the rest of the exterior."

Bucks Architectural and Archæological Society.—The annual meetings of this society were held in Buckingham this year, and their excursions made to places of interest in that neighbourhood. The members took part in the consecration of Akely Church, three miles from Buckingham, on Tuesday before last. About 150 ladies and gentlemen partook of refreshments on the grounds of the rector, a few of whom afterwards proceeded on an excursion to Maid's Moreton Church. At eight o'clock the same evening a *conversazione* was held in the Town-hall, Buckingham, when the tables and walls of the room were covered with objects of interest belonging to the society's museum and to persons who had lent them for the occasion. The business commenced by appointing Sir Harry Verney to the chair. Sir Henry then addressed the meeting, and the Rev. W. J. Burgess read a paper entitled "Notes of Roman Interments in Britain, as introductory to the Description of the Sepulchral Remains found near Weston Turville." On Wednesday morning an excursion party visited Hillesden Church, about four miles from Buckingham, when Mr. Scott, architect, accompanied the party, and explained what of interest there exists. About four o'clock the annual meeting for the election of officers, &c. was held in the Town-hall. The meeting was not numerously, though respectably attended. Archdeacon Bickersteth occupied the chair. Mr. H. Hearn then read the second part of a paper on "The Modern History of Church Bells," written by the Rev. R. E. Batty. The first part of the paper treated of "The Ancient History of Church Bells," and it was announced that that part would be read at eight o'clock the same evening. This paper was read at Aylesbury last year, and published in the society's annual report. Captain Burgess then made sundry explanations as to the manner in which a certain sum of money had been expended in opening mounds at Hampden. They had not as yet been successful in finding any articles of interest. At Little Kemble, Bucks, some tesselated tiles had been found, and it was thought that others would also be discovered were diligent search made. A large number sat down to a *déjeuner* in the Swan and Castle Inn. The room was bedecked with leaves and flowers. At eight o'clock the adjourned public meeting was held in the Town-hall, for the purpose of reading the first part of the paper on "Church Bells."

LARCH.—How true it is that almost "everything is done by fits and starts," and that "it never rains but it pours." A few years since, when larch poles could be had in abundance at low prices, large quantities of young larch were planted every year: now, when the demand for rails and posts, created by railroads and inclosures, has made larch so scarce that it cannot be procured in sufficient quantity for farmers' purposes, and it has almost doubled in price, there is hardly any planting going on, at any rate in the midland counties. In a few years no doubt the owners of land will become awake to the fact, and then, perhaps, the large Scotch growers will be hardly able to meet the demand, and will reap a harvest in advanced prices. Few things are more important to good farming than a good supply of fencing.

J. R. PEARSON.

CONVERSION OF SEWAGE.—We learn that the Sanitary Committee of Glasgow are about to construct three or four large reservoirs on the Pinxton Burn, on a site immediately before it discharges its waters into the Kelvin, into which the now polluted waters of the Burn will be conducted, and there undergo the process of deodorising and clarification. This will be worked out by the application of Mr. Manning's process. The plan is to employ a chemical agent, which, when mixed with the sewage fluid, has the effect of precipitating all the organic matter to the bottom, and leaving the water with which it was mixed, and which it polluted, perfectly clear and colourless. The residuum is valuable as forming the basis of a manure.

STAINING-LANE, CITY.—As a constant reader I have been much pleased, from time to time, with your exposure of buildings being spoilt from the niggardliness of the owners, and have often thought, as I walk the streets of London, how a little attention on the part of the City authorities would smooth down those ugly projections and zigzags in the lines of streets; but it is unpardonable when our wealthy companies rebuild and still keep to the old landmarks, just to save a few inches of room. Witness the west front of Haberdashers'-hall, in Staining-lane, Gresham-street: there you will see a good building first project, then indent, and then project again. A COCKNEY.

COLOUR IN BRICKS.—Having read the article on Colour in the Construction of Buildings, I think if our common clamp bricks, which are so much used in London and its suburbs, were made of a richer colour than merely grey stocks, it would be better for brick merchants, and perhaps for buildings. When a building is to be compoed, it is often that very inferior bricks are used, for cheapness, of course; but on this I have no right to say anything. I am a working-man, and wish for information; and perhaps some of your many practical readers may inform me how we may get a better colour to our bricks. The only way I am aware of—and I do not think there is any other used by brickmakers—is to mix chalk with the earth, that is to say, chalk ground in water, and let run over the earth, the earth being laid two or three feet thick, or, according to the quality of the earth, sometimes thicker, if the earth is very porous, so that the liquid may go regularly through it, and sometimes stony inferior earth is washed, chalk water being mixed with it, which is to give the brick a bright yellowish tint, being performed in the burning. Now, I think there might be a better mixture than chalk—I do not suppose cheaper,—or something besides chalk, that would improve the colour, either to be mixed with the earth, or burnt at the bottom of the clamps. It may be said, you can glaze the bricks, but that is too tedious and expensive an operation: it might be done in a small yard, but could not answer generally at large; but should any of your readers know of a chemical process, I should be happy to try it.—D D.

DWELLINGS FOR THE LABOURING CLASSES.—A Bill brought from the Lords facilitates the erection of dwelling-houses for the labouring classes, by allowing any number of persons not less than six to form a company for the purpose of providing dwellings for the labouring classes, with or without private or common gardens, the company being empowered to accept grants and leases of, and to purchase lands, and to erect thereon dwellings, and to let them out to lodgers. The company must not hold at one time more than ten acres of land, except with the license of the Committee of Privy Council for Trade. The dwellings must be constructed and provided in such a manner as the General Board of Health may approve, and must be open to the inspection of its officers. If any of the company's dwellings be insufficiently drained, ventilated, or supplied with water, or be in a bad state of repair, the Board of Health may require the company to remedy the evil, and if it be not remedied within a reasonable time allowed, a penalty of 5*l*. per day will be levied as long as the default continues. The Act does not extend to Scotland.

STOCK-EXCHANGE.—Mr. J. J. Cole has been elected architect to the Stock-exchange, in the place of Mr. T. G. Allason, resigned.

WROUGHT-IRON GUN.—We understand that the first of the two gigantic pieces of artillery to be made at the Bridgwater Foundry, Patricroft, is now nearly forged, but how long the succeeding operations of turning and boring may take, and the gun be ready for shipment, is more than we can tell. The mass of iron, composed of small slabs, welded together by the four-ton steam hammer, is at present a huge lump, apparently some 8 or 10 feet long by 3 or 4 feet in diameter. Mr. Nasmyth tells us, he believes it to be the largest piece of wrought iron ever made

ACCIDENT AT WESTMINSTER-BRIDGE.—A singular and unfortunate accident occurred on Tuesday last at the Westminster-bridge works, while a diving-bell was in the act of being drawn up from the bottom of the river. The travelling-purchase, though said to be capable of sustaining sixteen tons, gave way under the weight of six tons; and the cogs being scattered across the carriage-way of the bridge, a gentleman was struck in the chest and killed while passing, and one of the workmen was also injured. The divers had just left the bell, and so narrowly escaped.

ESTABLISHMENT OF PEOPLE'S LIBRARIES IN RURAL DISTRICTS.—A public meeting was held in the riding-school at Hatfield House, Herts, on Wednesday in last week, at which Lord Stanley, M.P. who was at the time a guest of the Marquis of Salisbury, delivered a lecture in support of the establishment of a people's library for the village of Hatfield and the surrounding districts. The attendance was numerous, and included all the principal gentry of the neighbourhood, amongst whom the feeling is universally favourable to the object for which the meeting was convened. The Marquis of Salisbury presided, and Lord Stanley delivered a long and able address on the subject in hand. He recommended that a collection of some 1,500 books should be made, at an average cost of, say 4*s*. each volume, which would require a subscription of 300*l*. and this, together with cost of fitting up a room, and other incidental expenses, say in all 350*l*. or 400*l*. should be collected within a definite period, such as six months, otherwise it would not be worth while to proceed. The income should not be less than 40*l*. or one-tenth of the capital. At 4*s*. a year of subscription, 200 subscribers would be required.

TENDERS FOR ENGINE.—The enclosed tenders for St. Leonard's, Shoreditch, for a 4-horse table engine and Cornish boiler, &c. according to drawings, advertised in *Builder* of 7th July, may be usefully inserted.—P.

Fairburn, Old-street	£450
Ramsden, Kingsland-road	450
Symons, Southwark-bridge	290
Bennett, Kingsland-road	275
Dunn, Allersby, and Co. Westminster	267
Gilbert and Co. (patent engine) Hackney-road	265
Worssam, Kingsland-road	190
Gerish, East-road (accepted)	185

ART AT BIRMINGHAM.—Twenty-one pictures have been sent by local artists for competition, at the Society of Artists, Birmingham, in response to the offer of a 50*l*. prize, made at the suggestion of Sir Charles Eastlake, when he declined the prize awarded him last year. Sir Charles was to have made the award, but some other engagement has interfered with this arrangement; and he has nominated Mr. E. M. Ward, R.A. as the arbitrator of the competition.——Mr. Underwood, of Union-passage, has provided a studio and a collection of paintings, engravings, casts, and other art-works for purposes of study and reference for behoof of local art-students, artizans, &c.

SHARP PRACTICE.—I did not see the *Builder* of the 4th of August until Tuesday last, when the perusal of the denial by Mr. Wily Wesleyan ("A Town Architect"), of the facts mentioned in my former communication to you, staggered me in no small degree. I feel annoyed that I have necessarily been obliged to allow a fortnight to elapse before I could meet this audacious attempt at contradiction by any other means than the reiteration of my previous statement. But it occurred to me that I should more satisfactorily substantiate my case by an application to Mr. Wily Wesleyan's "personal friend, of twelve years'" standing. I, therefore, wrote to that gentleman, and I put two questions to him, which I transcribe with his answers:—"Mr. W. states that he had no idea of your intention to build a cemetery chapel, until you named it to him, and asked him to make a design. Is this true?—No." "He says no other architect's name was ever mentioned to him as having been applied to. Is this the fact?—No." Your readers will now probably duly appreciate Mr. Wily Wesleyan's unctuous remark that he noticed the paragraph merely "for the sake of TRUTH."

A COUNTRY ARCHITECT.

THE METROPOLIS LOCAL MANAGEMENT ACT has received the royal assent.

THE IRON TRADE appears to be reviving a little, although no alteration in prices has taken place. The steel trade is tolerably active.

PROGRESS OF TURIN.—A correspondent of the *Athenæum* writes,—Among other visible signs of the new state of things here, is a pretty little bran-new Gothic Protestant church, which has coquettishly placed itself among the trees that shade the Corso Reale, or "Rotten-row" of Turin. It might seem a small attempt at "tit for tat" to the splendid Jesuits' church in the midst of May-fair. Its locality, at all events, would seem to indicate that any proselytism which Protestantism may hope to make here, is expected rather among the hundreds than among the millions. I am told, that the neat little building in question owes its existence entirely to the Vaudois. . . . . It is impossible for the most unobserving traveller even to pass through Turin at present without being struck by the evidences of increasing material prosperity. Building is going on in every direction. In the vicinity of the railway station, which is common to the four or five lines that now connect most parts of the kingdom with each other, an entire new quarter of the city has started into existence. Large masses of building, with handsomer *façades*, alas! than can easily be met with in Belgravia or Tyburnia, stretch away in every direction. The system of making family dwellings consist of one story—or flat, as they call it at Edinburgh—instead of an entire house, permits an architect to realize a far grander result than can be accomplished when it is necessary to limit each mansion to the needs and means of one household. Almost all the new blocks of building, forming the new quarter of Turin, consist of handsome and high-priced dwellings, many of which command a rent higher than that for which a large house may be had in some parts of London.

TENDERS

For Catholic Training College, Hammersmith. Messrs. Hansom, architects. Quantities furnished by Mr. R. L. Curtis:—

W. Elston	£10,284 0 0
Smith and Appleford	10,059 0 0
Bird	9,629 0 0
Bennett and Holdsworth	9,432 0 0
Henevman	9,224 0 0
Chamberlain and Hurst	9,118 0 0
Delay	8,386 0 0
Perry	8,380 0 0
Hill	8,029 0 0
Williams	7,896 0 0

For new market-hall and corn-exchange, Great Grimsby. Messrs. Bellamy and Hardy, Lincoln, architects. Quantities not supplied:—

Kirk	£3,797 0 0
Marginson	3,795 0 0
Hollinsworth	3,719 0 0
Dales	3,688 0 0
Hollinsworth, jun.	3,675 0 0
Brown	3,580 0 0
Enderley	3,572 0 0
Good	3,439 0 0

Architect's estimate, 3,590*l*.

For an additional story and repairs to St. Luke's Workhouse, City-road. Mr. W. Christie, architect. Quantities furnished:—

Sabey	£1,744 0 0
Elston	1,584 0 0
Scott and Cornwall	1,507 0 0
Green	1,500 0 0
Robson	1,453 0 0
Smith	1,386 0 0
Lawrence	1,368 14 0
Taylor	1,337 0 0
Fowler	1,273 0 0
Grist	1,213 0 0

For building a villa and stables, &c. for Mr. Thomas Lawrence, at Trotsworth. Mr. T. C. Clarke, architect. Quantities supplied:—

	Villa.	Stables, &c.
Messrs. Smith	£4,259 15 6	£786 0 0
Oades and Son	3,987 0 0	807 0 0
Gammon	3,877 0 0	733 0 0
T. Anson	3,864 0 0	738 0 0
Low and Sons	3,833 4 10	702 11 0
Piper and Sons	3,780 0 0	720 0 0
Colls and Co.	3,750 0 0	750 0 0
Lawrence and Sons	3,690 0 0	694 0 0
Westacott	3,654 0 0	620 0 0
Mills (accepted)	3,490 0 0	670 0 0

For villa at Reigate, for Capt. Ingram. Mr. S. Dyball, architect. Quantities supplied by Mr. Crocker:—

Haynes and Eyre	£2,847 0 0
Macey	2,749 0 0
Green	2,540 0 0

For alterations at the Limehouse Children's Establishment. Messrs. Dunch and Son, architects. Quantities by Mr. Richard Carter:—

J. Wilson	£1,078 0 0
E. Curtis	1,068 0 0
Wood and Sons	1,030 0 0
Keast and Moon	1,025 0 0
J. Tarrant	1,017 0 0
Munday and Son	1,000 0 0
John Runor	955 0 0
John Hall	949 0 0
G. Blackburn	944 0 0

For addition to the convent, Rochampton. Quantities not supplied :—

Smith	£4,420	0	0
Chamberlain	4,140	0	0
Sims	3,610	0	0
Pollock	3,395	0	0
Carless (accepted)	3,278	0	0
Seal	3,150	0	0

For alterations to the South Sea House, Threadneedle-street, for the Royal British Bank. Messrs. Nelson and Innes, architects :—

Lucas	£8,950	0	0
Rigby	6,785	0	0
Holland	6,720	0	0
Jay	6,654	0	0
Lawrence	5,940	0	0
Burton	5,885	0	0
Myers	5,875	0	0

For public-house and two houses adjoining, in the Commercial-road, for Messrs. Truman, Hanbury, and Co. Mr. W. E. Williams, architect :—

Piper	2,612	0	0
Bird	2,398	0	0
J. and J. Coleman	2,350	0	0
Patrick and Son (accepted)	£2,065	0	0

TO CORRESPONDENTS.

"J. B."—"W. W."(shall hear from us).—"H. H." (thanks).—"J. J."—"Nemo."—"An Old Subscriber."—"J. B."—"W. A."—"W. M." thanks. The *Herald* for August 1st has not reached us.—"R. R. B." we do not know the cement in question).—"A. M." "C. R. B." "J. W. P." "W. S."—"T. N." "T. J. P."—"W. H. P."—"W. H."—"J. B. G."—"T. T. C."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO ARCHITECTS and SURVEYORS.—A Gentleman of many years' practice, and fully competent to take the entire charge of an office, is desirous of entering into an ENGAGEMENT. Expectations not extravagant.—Address, A. W. L. Office of "The Builder."

TO CIVIL ENGINEERS, LANDOWNERS, ESTATE AGENTS, AND SURVEYORS.—A SURVEYOR, who has had considerable experience in very extensive parish, railway, and mining surveys, and in taking parliamentary and contract sections, setting out, superintending, measuring and estimating every description of railway work, bridge drawing, and agency accounts, is open to an ENGAGEMENT, or will be glad to enter into partnership with an Estate Agent and Surveyor, who requires energetic assistance. Testimonials and references satisfactory. Address, A. B care of Mr. SHERWOOD, Solicitor, Anderby Villa, Leamington.

TO CARPENTERS' AND JOINERS' FOREMEN.—WANTED, a steady, experienced Man (a few miles from town).—Address, stating reference, wages, &c. to S. T. Office of "The Builder."

TO FOREMEN.—WANTED, a Person to Superintend a Building a few miles from town.—Address, stating reference, wages, &c. to S. W. Office of "The Builder."

WANTED, a Person who can be well recommended to take the MANAGEMENT of a RETAIL TIMBER-YARD in London. He must be thoroughly conversant with his duties from actual experience, and his capabilities, activity, and integrity, must bear the strictest scrutiny.—All answers to this advertisement must state particulars of the writer's former employment, his age, the salary expected, &c. and be addressed, pre-paid, to A. Z. care of Mr. Gooch, 85, King William-street.

WANTED, immediately, a competent Person to take the entire management of some extensive SEWER WORKS.—Apply to WILLIAM BAKER, Builder, Bristol.

TO SMITHS.—WANTED, a respectable middle-aged Man, in an IRONMONGERY establishment. He must be a good workman, and thoroughly acquainted with stove, range, and hot water work. Constant employment, and liberal wages. Reference required.—Apply to H. C at Mr. Harvey's, 95, Hatton-garden.

WAGES 2*l.* per week.—To POTTERS.—WANTED, a steady, respectable, MARRIED MAN, who thoroughly understands the burning and turning of saucepipes, spirit bottles, &c. and preparing the clay. No person need apply who cannot be well recommended, and who is not fully competent to undertake the business. Address, H. CANNING, Pillow Pottery, West Willow, Romsey, Hampshire.

WANTED, in an Engineer's Office, in London, a DRAUGHTSMAN, accustomed to making working drawings.—Apply, by letter only, stating age, former employment, and wages expected, to Messrs. SIMPSON and CO. Pimlico Works, Belgrave-road, Pimlico.

TO CARVERS.—WANTED, for two months, a GOTHIC CARVER, accustomed to freestone work. He must give reference to previous employers.—Application to be made by letter, stating terms, to Mr. THOMAS PARISH, Tiverton, Devon.

WANTED, by a highly-respectable Man, a SITUATION as CLERK of WORKS, or GENERAL FOREMAN. Has a thorough practical knowledge of the whole building business. Can produce good references from Architects and Surveyors.—Address, S. W. Flora-cottage, Middle-road, Brixton.

TO PLUMBERS, BUILDERS, &c.—WANTED, by an experienced PLUMBER, a SITUATION; has no objection to fill up his time at fitting. Satisfactory reference can be given.—Apply to B. M. 7, BARNES, Stationer, &c. Park-street, Baker-street, New-road.

WANTED, by an experienced Person, a RE-ENGAGEMENT as FOREMAN of PLASTERERS. Address to G. H. Office of "The Builder."

TO PLUMBERS AND BUILDERS.—WANTED, a SITUATION, by an experienced Plumber and Lead Glazier. Can turn his hand to any part of the business. Good references.—Direct, A. B. C 7 Vernon-mews, Portobello-lane, Notting-hill, Bayswater.

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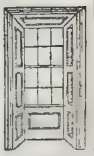

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FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 28th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Plastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED the Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington. 6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; can be used with less than ordinary hydraulic proportions, stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by C. REEVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Accounts of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with special reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise. London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no coloring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Stone Lime, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Plastic, Hair, Lias Lime, Laths, Slates, and Slate Slats, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Rubbing Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by J. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly impervious to wet, and when moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above. 11, George-yard, Lombard street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent. ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also BRICK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS.—OLDHAM and TATHAM are now prepared to receive orders from contractors, builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and will be improved by the addition of two or more parts of sand to one of cement. 10, and T.'s boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

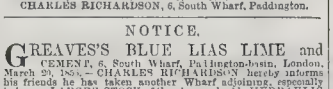
CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or al ngside rivers, canals, or railway stations, should be given a few days before required.

BLUE LIAS LIME.—J. EASTWOOD and SONS take this opportunity of informing their customers that they have now BLUE LIAS LIME always in stock, ready for delivery, at Belvidere-road, Lambeth.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON ABSORBENT impervious to rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers (office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.



BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agent, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street, North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Records of the Tenax," page 1, of the first Exhibition, rank the Manufactories known so long as "The Talents," Lunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wilnecote, Cauldon-place, begs to offer pantiles at 50s. per 1,000; floor bricks and 6 inch pavings, at 40s. per 1,000; 8-inch pavings, at 60s. per 1,000; 9 inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

DUTCH CLINKERS, 32s. per thousand, Hollow Bats.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices; well-established PRIVATE PRACTICE. THE BUSINESS to be DISPOSED OF, with the valuable connection, and a portion of the PREMISES to carry it on at once. TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Hon-duras Wharf, Burns-st, South-wark, London.

BRICKS.—Excellent hard-burnt RED BRICKS, of deep colour and perfect shape, 28s. per 1,000, cash, delivered into the railway trucks or carts. Stocks, malms, seconds, place, &c. at low prices; cutters, footings, arch, and other fancy bricks to order. Agricultural draining tiles. Address, Mr LEVETT, at the Railway Brick and Tile Works, Brentwood, Essex, where a large stock may be inspected.

N.B.—The Works adjoin the Goods Station of the Eastern Counties Railway, at Brentwood.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, pavors, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and flare, bricks, tile-goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and Co. Gray's, Essex, executed with despatch.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 25s. per thousand; Grizzles, 30s. per thousand; Rough Stocks, 20s.; Place, 18s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Countinghouse, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 8, ADELAIDE-PLACE, London-bridge.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality. Wood and SON, Manufacturers, Dudley, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

BRICKS.—Builders wanting Bricks of good quality, are solicited to call on PARKS', Lewisham, and see the quality at low prices. Carriage within six miles on the most reasonable terms. Red facing bricks at 40s. All kinds of tiles, malm bricks for building, and glazed stable pipe manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

FOR IMMEDIATE SALE.—FIRE BRICKS, LUMPS, TILE, and TERRA COTTA.—SAMUEL THICKETT has received a large consignment of the above goods for sale.—Apply on the premises, Stone-wharf, Isle of Dogs. Dealers and large consumers liberally dealt with.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BRICKS, PAVIORS', and PAVING WARE; also, 3, 4, 5, 6, and 12 inch red Socket Drain Pipes, in 2 feet lengths. Apply to St. JOHN HEWITT, Redhill Works, Southampton.

TO BRICKMAKERS, BUILDERS, and OTHERS.—TO BE SOLD, a substantially-made and nearly new WASH-MILL, with chain pan and sweep complete. Cost within the last nine months 70l. in its erection, and to be now sold for less than one third its cost.—May be seen by applying to Mr. HAYWARD, at the White Hart, High-road, Tottenham.

CLAY ARCHITECTURE.—To NOBLEMEN, ARCHITECTS, BUILDERS, and OTHERS.—A PATENT has been taken out by JOSEPH ARNOLD, Tamworth, Staffordshire, for a new and improved method of making ORNAMENTAL BRICKS, of any pattern whatever, on a raised ground, and the same accuracy as a seal upon wax.—By this novel invention the pattern is made with the brick, the clay is prepared by steam power, which produces, when burnt, an impershable article, ornamental window heads and sills, large bricks for panels, and facings chamfered, common size bricks, cramp and vine, Elizabethan, or any other pattern. The patentee can make them blue, red, or strawberry colour. His large paving bricks, 9½ inches square, are inscribed with a screwed line, to prevent slipping, and carry off the rains, only require being seen to supersede the flagging now in use, being imperishable. For the alterations of large public buildings, likely to be frequent offices, bricks are made by 5, inches, and cut to, weighing nearly 5 lbs., of the superior material. The time does not admit the extension of our public and private buildings equal, if not exceed the antient, unless the art in the hands of architects, as there is a limit to design. Specimens of these bricks may be seen by the Inventor's Gallery, Crystal Palace, Sydenham; or at his Metal of Earth Works, on the Watling-street-road, Wilnecote, within three minutes' walk of Wilnecott Station, on the Midland Railway, and two miles from Tamworth Station, Trent Valley line. Church-street, Tamworth, August 8, 1855.

O. MCARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Pipe sand delivered per barge, in any quantity, almost at the Thames.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage from 6 to 8s. per square yard. Railway or pleasure walks, 2s. per square yard. Every description of pavement laid down, and the work guaranteed. Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Rotherhithe; established 1834. Every description of Flooring laid with the above durable material in the best manner. Asphaltefor Railway Arches, 45s. per ton. Importer of Trinidad Asphalte.

Shipping Depôt, Devon Harbor Wharf, Rotherhithe.

G. H. CLARK, Agent.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast iron, copper and brass, for hot or cold liquors &c. &c. Long barrel and hydraulic lift pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.
Wrought-iron Pails, Galvanized or Painted.
Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 38s per doz. painted.
Ditto .. .. 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

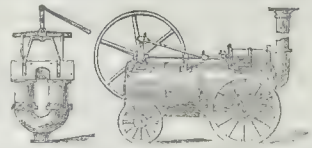
WARNER'S PATENT VIBRATING STANDARD PUMPS. PATENT CAST IRON PUMPS, for the use of farms, cottages, manure-tanks, and wells of a depth not exceeding 26 feet.

Diameter of Barrel.	Length of Barrel, under nose.	£ s. d.
2½ in. short	1 ft. 7 in.	Fitted for lead, 1 19 0
2½ „ long	3 3	gutta percha 1 15 0
3 „ ditto	3 6	or cast iron 2 19 0
3½ „ ditto	3 6	flanged pipe, 3 18 0
4 „ ditto	3 6	as required. 4 3 0
5 „ short, with 15 feet of lead pipe attached, ready for fixing		2 19 0
5½ in. long ditto ditto		3 15 0

The short-barrel Pump is very convenient for fixing in situations of limited head room or space, for the supply of coppers and sinks in washhouses, and water from underground tanks or in hot forcing and plant houses; they may be fixed, when desired, under the stage. May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c. Engravings sent on application.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 3 horse, 10 horse, 12 horse, 16 horse, 25 horse, and 40 horse power, adapted for contract work generally. These engines are new, specially employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work. Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 92, Blackfriars road, Sole Patentees and only Manufacturers. N.B Any of these Engines may be purchased.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which the parts liable to manufacture Bells of any size, note, or weight, of unexceptionable truth in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and hung on a new system, which gives a superior tone and facility for ringing.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 7, Strand.

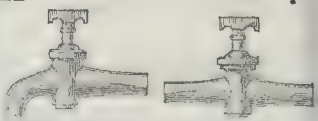
To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 7a, Strand, London.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 20,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.



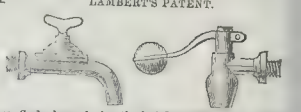
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin street, London.

PRIZE MEDAL, CLASS 2.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



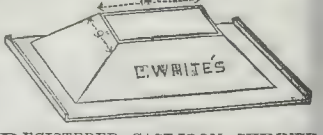
These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 15 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valves are simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self acting, and other closets, upon economic arrangements, suitable for public buildings, villages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

IMPORTANT TO BUILDERS.



REGISTERED CAST-IRON CHIMNEY-HOPPER and CHIMNEY-BAR COMBINED, ensuring a perfect formation of the Flue, and rendering smoky chimneys impossible. One trial will cause their adoption in every building. Price from 6s. 6d. each, according to size.

IRON GIRDERS and COLUMNS to MODEL or DRAWING.

IRON PIPES and connections for gas, water, and liquid manure.

RAIN WATER PIPE and EAVE GUTTERS, at wholesale prices. Also, O-G Gutters, Sash-weights, STABLE FITTINGS, pumps, tomb railing, cattle and pig troughs, and COLUMNS with caps and bases, and every kind of builders' castings, in stock, at LYNCH WHITE'S Iron Wharf, Upper Ground-street, London, near Blackfriars-bridge.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment. Particulars and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London; or on application to BENJAMIN LOOKER, the Patentee, Kingston-on-Thames.

SMOKE! SMOKE! SMOKE!—The only cure for smoky chimneys is MARK BERRY'S IMPROVED VENTILATOR: price, for 10-inch pot, 7s. 6d; 11-inch, 8s. 6d.; 12-inch, 9s. 6d.; at MARK BERRY'S Wholesale and Retail Zinc and Galvanized Iron Works, Whitechapel Church-yard, London.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 6s. 6d. These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 106, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 116, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

PATENT METALLIC LAVA.

A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

GENUINE SEYSSEL ASPHALTE.

ORSI AND ARMANI.

THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

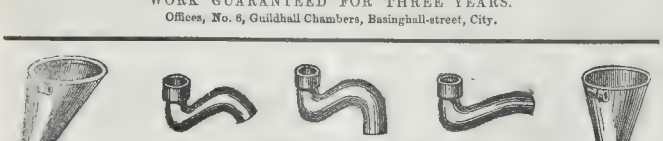
DIRECT FROM THE MINES.

REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

AND THE

WORK GUARANTEED FOR THREE YEARS.

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.



WILLIAM NORTHEN'S

WHITE ENAMELLED STONEWARE,

UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

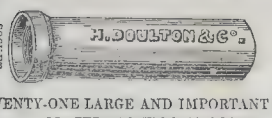
W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLRY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

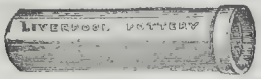
SOCKET.  HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs Doulton and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF



DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—ST. JRES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD.....J. Scarrow and Co
CARNARVON.....Joe Jackson.
PRESTON.....J Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN.....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.
CARLISLE.....C. Armstrong, Lowther-street
WHITEHAVEN.....Hunt T. Hunter.
COCKERMOUTH.....John Hird
GUERNSEY.....Guerin Brothers.
LONDONDERRY.....W. and A. M'Elroy.
LIMERICK.....W. Burgess and Sons.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

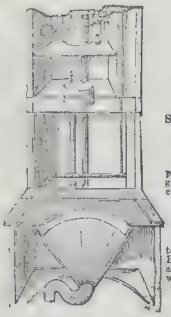
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

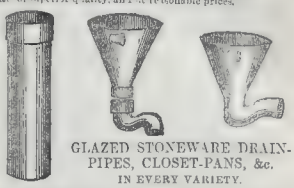
May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danyer's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 92, Bryd ges-street, Covent Garden; and at EDWARD COCK'S, 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

STONEWARE GLAZED POTTERY,

LYTCHETT, near POOLE, DORSET.—TO BE DISPOSED OF, by PRIVATE CONTRACT, the Lease, Plant, and Stock of the above Premises. The land contains a great depth of the finest clay, fit either for shipping or manufacture. The Glazed Drain Pipe and Fire Brick are equal if not superior to any yet in the market. Further particulars may be obtained on application to H. WHISHER, Blandford, Dorset.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.
DAVIS and NORMAN, Agents.
Cements, Plaster, Lime, Bricks, and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.
IN EVERY VARIETY.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE

No 7.

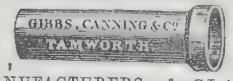
Is adapted for high or low pressure, and for any kind of BASIN. Many houses are now supplied with continuous pressure of 160 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Shot-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

COLLIER'S TERRO-METALLIC and RED BARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. Price for Closet and Apparatus complete from 2½ and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.
Crown Glass, 18 tables, 30s. per Crate.



MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks used by her Majesty's Commissioners of Sewers. White Fire Clay, Fire Bricks, &c. &c. Agents,—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

DRAIN-PIPES. — STONE-WARE of the most superior quality made.—E. and W. STURGE are enabled to supply every kind of PIPES and JUNCTIONS at a very low price for cash, and of such a quality as they feel convinced must give the greatest satisfaction. E. and W. S. invite an inspection, and will be happy to supply a priced list to those in the trade. Paving, &c. Sinks, sills, and coping.—Bridge Wharf, City road.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LADDERS, BARROWS, &c. for SALE or HIRE.—GEORGE ELL, Wheelwright, &c. 3, Tottenham-court, New-road, opposite the Hampstead-road, and corner of Pratt-street, Paddington, has on hand at all times a large Stock of Excavators', Brickmakers', and other Barrows. Builders' and Painters' Ladders, Trestles, Steps, &c.—A price-list sent on application to 3, Tottenham-court.
Waggons, Carts, &c. on the shortest notice.

SALES BY AUCTION.

IN SURREY.—The Westbrook Place Estate, close to the town of Godalming, the intended Station of the Portsmouth Railway being on the Estate. A Manorial Property, with capital Residence, Farm Buildings, and Eight Acres of ornamental Building Land. Also, the extensive Mill Premises, with double water power, and about Eighteen Acres of Land, and some smaller pieces of Land—almost Four Acres.

MR. ROBINS is favoured with instructions to submit to PUBLIC COMPETITION, at the AUCTION MART, on THURSDAY next, AUGUST 23rd, at TWELVE for ONE, in three lots, a singularly important Freehold Manorial Property, of which early possession may be had, including known as the WESTBROOK PLACE ESTATE, on the west side of the town of Godalming, famed for the irregularity and beauty of its position, which presents, perhaps, the only site in all England offering the same irresistible temptation for carrying out a building operation for villas, with the advantage of immediate proximity to the Station about to be erected on the Portsmouth Railway, ranging the property almost within an hour of London; whilst stone of excellent quality is almost any extent ready to obtain from the quarry. The estate comprises a capital and spacious residence for a family, seated on a terrace walk, with sufficient accommodation for an extensive establishment; it has recently been carefully repaired, improved, and decorated, at an immense outlay; the numerous chambers being of excellent proportions, admirably arranged, appropriate offices, six-stall stable, and treble carriage house. The pleasure grounds and walks, commanding from various points the most lovely and diversified scenery, are of unusual extent, ornamented by luxuriant shrubs, stately timber, and hanging woods, giving a park-like character to the eighty acres of rich and productive land which form lot 1, and, with the newly-built and well-arranged Farm-house, Barns, and Bailiff's abode, would suggest the formation of a beautiful model farm. The approach from the town will be much improved by widening the present path from the church; a level crossing of the line and a bridge are being constructed for the estate. Also, on the opposite side of the river Wey, are the important freehold premises occupied by Mr. Baldey as a Fulling and Weaving Mill, very extensive and well arranged for the purpose, with ample water power; also a second water power, formerly appertaining to a paper mill, which may again be brought into use. This lot comprises altogether about eighteen acres of luxuriant land, a portion being lammas land, with a noble sheet of water, which receives the flushing water from the mill, and might be made a capital preserve for fish. There are also some outlying pieces of meadow land, about four acres, forming lot 3. Cards to view the estate may be had on application to JAMES HASSELL, the Bailiff, at Westbrook Place; and particulars and plans had of him twenty-eight days prior; also at the King's Arms, Godalming; of Mr. Osmond, Surveyor, Farnham; of Mr. KEY, Surveyor, Godalming, and 8, Canton-row, Westminster; of W. G. HOY, Esq. Solicitor, 38, Great George-street, Westminster; at the Auction Mart; and at Mr. ROBINS's Offices, Piazza, Covent-garden.

TWICKENHAM.—To Builders and Persons wishing to build for their own occupation or as an investment.—Valuable Land, with extensive frontage, and Two Ground Rents, amounting to 70l. per annum.—Bi

MR. MASON, at GARRAWAY'S, on TUESDAY, SEPTEMBER 4th, FIFTY PLOTS of FREEHOLD BUILDING GROUND, delightfully situate, near the new church, Twickenham, a short distance from Pope's Villa; 40 acres are opposite Orleans House, finely adjoining St Mary Clay's Park; 24 acres are between the upper and lower roads; gravelly soil and good water; eligible for villa residences, with a railroad station but a mile distant. Also a well-let Ground rent of 16l. issuing from two houses already built on part of the estate, annual value, 70l.; and another ground rent of 22l. from a piece with 56 feet frontage, let on lease for 80 years at 6l. 6s. per annum, worth 80l. a year. May be viewed on application to Mr. PYDDAY, at the Prince Albert. Particulars had of the Auctioneer, No. 10, Fulgate

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:

MONDAY, 3rd SEPT., 1855 | MONDAY, 1st OCT. 1855.
MONDAY, 5th NOV. 1855.

Catalogues and further particulars to be had on application one week previous to each sale. The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE.

TO ROPE AND TWINE MAKERS, BUILDERS, AND OTHERS.—Valuable Leasehold Property and Residence, with immediate possession, or for Building Purposes

MR. ELLIS is directed by the Administratrix of the late Mr. J. M. Paterson to SELL by AUCTION, at GARRAWAY'S, Cornhill, on THURSDAY, 30th of AUGUST, at TWELVE, the valuable PREMISES, having a depth of about ninety yards, with Dwelling-house, Shop, Stable, and Building, being in the Parish of Rainham, but one mile and a half from the City, with excellent Residence and Gardens thereto belonging, and recently occupied by the deceased as a rope and twine ground; and, at the same time, by the attention of parties desirous of building for investment, the site being a good one for the purpose, with upwards of 100 feet of road frontage, held for an unexpired term of fifty-one years, at a ground-rent of 8l. 10s. per annum. May be viewed until the sale. Particulars, with conditions, obtained of Messrs. ROBINS, Esqs., Solicitors, Finsbury-circus; at Garraway's; on the Premises; and of the Auctioneer, 150, Minories, City, where a plan of the property can be seen.

TO BUILDERS AND BRICKMAKERS.—Valuable Manufacturing Plant, Stock, and Leasehold Property, for Sale, in a first-rate Brickyard, Leigh, North Malvern, Worcestershire, in the vicinity of the rapidly improving town of Great Malvern, and at the nearest route of the projected Worcester and Hereford Railway, to be SOLD by AUCTION, by

J. MATTHEWS, on WEDNESDAY, AUGUST 29, 1855, at the BRICKYARD, Leigh, North Malvern, Worcestershire, ONE HUNDRED THOUSAND BUILDER'S BRICKS, 20,000 WIRE and COPING BRICKS, FLOOR SQUARES, GRESS and other TILES, DRAINING-TILES and PIPES, and to two Powerful Steam Engines, for sale to commence at ELEVEN o'clock. And in the evening of the same day, at the BELVOIR HOTEL, North Malvern, subject to conditions to be then produced, the Freehold Messuage, MANUFACTORY, BRICK-FLOORS, TILE, and DRAINING-PIPE PLANT, comprising a five-horse power steam engine, rolling and pug mills, two Patent Machines for the making of bricks, tiles, and pipes, a recently-erected two-kiln brick-and-tile shed, barrows, planks, and all requisite appliances, a comfortable cottage residence, large shed for the reception of moulds, and the leasehold interest, of a desirable brickyard, held for fourteen years of which are unexpired. The sale will be held in the course of May, should not the property be disposed of by private contract previously, of which due notice will be given. The Premises have a frontage to the road of 100 feet, and its Cottage Residence has a large garden in front, and is in every respect replete with comforts and conveniences, and is not without some pretensions. Sale to commence at SIX o'clock. Further particulars may be obtained of Messrs. GELL and HOPKINS, Solicitors; Mr. GEORGE GARLAND, Solicitor; or the Auctioneer, all of Worcester.

TO BUILDERS, CONTRACTORS, and OTHERS.—St George's Workhouse, Fulham-road, Little Chelsea.

MR. C. LOUIS KELLY (of the firm of Bennett and Kelly, Builders' Auctioneers, Lowndes's Estate Agents have been favoured with instructions from the Right Hon. and Rev. the Governors and Directors of the Poor of the parish of St. George, Hanover-square, to SELL by AUCTION, on the PREMISES as above, on TUESDAY, the 21st AUGUST, at TWELVE for ONE o'clock, in sundry lots, all the excellent BUILDING MATERIALS, forming part of the Workhouse, and the next week, forming the property and residence of the Earl of Shaftesbury, and comprising upwards of 100 rods of sound stock brickwork, a large quantity of slates and tiles, some capital York and Portland stone copings, steps, and paving; a large assortment of sound well-seasoned timber and boarding, including principals, joists, rafters, floor-boards, extra stout panelling, doors and door linings, oak staircases, &c. &c.; also a large quantity of cast-iron and wrought-iron sash frames, together with all the cast-lead and zinc gutters, pipes, and copper boilers, with brass taps, &c., stoves and ranges, and a large gas lamp and fittings. On view three days prior to the sale, and catalogues had upon application to H. Wilcocks, Esq., Architect and Surveyor, 1, Sussex-place, South Lambeth, at the Entrance Lodge, and at the Offices of the Auctioneers, Lower Belgrave-place, Pimlico.

SALES BY AUCTION.

PEREMPTORY SALE.—The Royal Albert Tavern, near North Woolwich; a Carcase and a Plot of Building Ground, all Freehold

MR. MOXON will SELL by AUCTION, at the MART, on THURSDAY, AUGUST 30th, by direction of the Mortgagee; the above desirable FREEHOLD PROPERTY, situate on the North Woolwich road, about five minutes' walk from the railway station, a locality rapidly increasing in population, and from its contiguity to several large factories, the Victoria Docks, and other public works, daily improving in value.—Particulars at the Mart; of E. DOLMAN, Esq. Solicitor, 39, Jermyn-street; and of the Auctioneer, 3, St. Martin's-place, Trafalgar-square (removed from West Strand).

TO SCULPTORS, MARBLE MASONS, BUILDERS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE beg to announce that they have received instructions from the Consignees to SELL by AUCTION, on the PREMISES, 17, Millbank-street, Westminster on TUESDAY, 28th AUGUST, at ELEVEN, Several parcels of MARBLE, comprising statuary and Sienitic, Sicilian, Devonshire, and coloured marbles, of fine quality and sizes. May be viewed, and catalogues had on the Premises; and of the Auctioneers, 40, Parliament-street, or Coal Exchange. Approved bills at six months taken in payment.

CAMDEN-TOWN CEMETERY.—BUILDING ESTATE.—TO BE LET, on Building Leases for 99 years, very eligible SITES upon the above estate, having good frontages into Pancras-road, Pratt-street, and Bayham-street. There is a great demand for houses and shops of the third rate in this locality, which is enhanced by its near proximity to the North-Western and L. N. W. London railway stations, and the Hampstead road. Plans may be seen, and particulars obtained by application to H. E. KENDALL, Esq. Architect, 17, Suffolk-street, Pall-mall East; or to JOHN DANGERFIELD, Esq. Solicitor, 20, Craven-street, Charing-cross.

LOWER THAMES-STREET.—TO BE LET, by Tender by the Worshipful Company of Armourers and Brasiers, on a Lease for Twenty-one years from Midsummer next, the extensive Premises known as the GLOBE-YARD WAREHOUSES, situate in the above street, nearly opposite the Custom-house. The lessee will be required to pay all taxes and rates, including sewers and militia rates, and all assessments for sanitary purposes, and the expense of fire insurance, the land-tax being excepted; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman-street, on or before the 3rd of OCTOBER next, where parties making the same are required to attend the following day, at HALF PAST TWO o'clock. The Company do not bind themselves to accept the highest or any other Tender.
JOHN PONTIFEX, Clerk.
5, St. Andrew's-court, Holborn.

BUILDING-GROUND in the CITY.—TO BE LET on lease, FRONTAGES 60 feet 6 in. by average depth, 49 feet; 88 feet by average depth 100 feet.—For further particulars, apply to THOMAS SMITH, Esq. Architect, 14, Hart-street, Bloomsbury.

ELIGIBLE PLOT of LAND TO BE LET, at Ward's Corner, Hackney.—68 FEET 4 FRONTAGE, with a depth of 120 feet. Moses advanced if required, on building on part of the land.—Apply to Mr. WARD, Wardsbridge, Surrey, ditto.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD on some of the most eligible building estates in the immediate neighbourhood of London, viz.:—
PORTESHILL, Orpington Railway.
ST MARGARETS, near Richmond, South Western Railway.
DAVIS'S ESTATE, Wood, Wandsworth, Surrey, ditto.
HOUNSLOW, Middlesex, ditto.
TOTTENHAM GREEN, Eastern Counties Railway.
TURNEY'S ESTATE, South Western Railway.
HIGHBURY ESTATE, EALING, Great Western Railway.
WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD GREEN, Green-lanes, Hornsey, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.
Part of the purchase-money may remain at 5 per cent. interest. Parties residing in the building of their own residences. Several Plots of Land on Building Leases. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

TO BE LET, with immediate possession, a spacious WHARF and GRANARIES, an eight-roomed House, with stabling for twenty horses, and to let for a term to the river Lea at Limehouse, near the Commercial road.—For particulars, Rogers and Sons, BRISTOW and TARRANT'S Offices, Basinghall-street, West.

BUILDING FRONTAGE, STAINING-LANE, CITY.—The Hall-reach Company are desirous of receiving TENDERS for taking, on building lease, for a term of 80 years, the site of their old Chapel, fronting 68 feet to Staining-lane, containing a frontage of 68 feet, and a depth of 70 feet. Tenders must be sent in not later than SATURDAY, SEPTEMBER 8th.—Particulars may be obtained at Haberdashers' Hall, Maiden-lane, West; or of Mr. SNOOK, Architect, 6, Duke-street, Southwark. JOHN CURTIS, Clerk.

BUILDER'S PREMISES TO BE LET, in London, situated near Westminster Bridge, consisting of a spacious OFFICE, with back Premises, having a wide entrance-gates, a dwelling, workshops, and stabling; all for 38l. a year, in consequence of the proprietor having retired. Mr. GEO. DOUGAL has let, during the last twelve months, at the above, eligible and compact premises, which have been established for twenty years, and 45l. will be taken for the improvements, fixtures, connection, &c. A rare chance for a young man to commence business in London. Apply to Mr. GEO. DOUGAL, 17, Milton-place, Westminster-road.

FREEHOLD LAND FOR SALE, in the Parish of Acton, near Turnham green, upwards of Twelve Acres.—Particulars of Mr. DEVEY, Architect, 16, Great Marlborough-street, Regent-street.

PREMISES TO LET.—Extensive Workshops, either separately or together, in Beaumont-place, in the New-road, or Offices in Osnaburgh-street, Regent's-park, in the New-road. For terms apply at 11, Newton's, Osnaburgh-street North.

POTTERY TO BE LET.—TO BE LET, with immediate possession, a POTTERY, at Parkstone, near Poole, Dorset, standing on an extensive bed of brick earth, and supplied with clay. There are two kilns, pipe machines, and every requisite for the manufacture of stoneware; also a brick-kiln. Business may be commenced with a small capital.—Apply to Mr. BRYANT, on the Estate, and at 107, Holborn-hill, London.

TO SECRETARIES of BUILDING and other SOCIETIES.—COMMODIOUS ROOMS, well adapted for Committee Meetings or Ballots, TO BE LET, on moderate terms, at No. 11, Bridge's-walk, Upper-street, Islington.—Apply to Mr. NEWSON, Estate Agent, No. 1, Chapel-row, Upper-street, and 30, Walbrook, City.

COTTAGE WANTED, within Ten or Twelve Miles of the Bank, containing about six or seven rooms, large garden, or a small garden with paddock, easily accessible by omnibus or rail. Rent and taxes, 25l. to 30l. per annum. Full particulars, prepaid, to Dr. W. Miles's Library, Upper-street, Islington.

IRONMONGER'S BUSINESS, in the Town of Bedford.—TO BE DISPOSED OF, on moderate terms, by order of the Trustees of Mr. Thomas Morton, Furnishing and General Ironmonger, the valuable and modern STOCK IN TRADE, together with the LEASE of the PREMISES, situate in the best part of the High-street, in the town of Bedford. This is a capital opening for a party seeking such a business. A purchaser will enjoy the privilege of free education for his children at the noble Harpur Schools, in Bedford.—For further particulars, apply to Messrs. KEEP and SONS, Merchants, Russell-street, St. Mary, Birmingham; to Mr. KILPIN, Ironmonger, Bedford; or to Messrs TURNLEY and SHARMAN, Solicitors, Bedford.

TO PLUMBERS, PAINTERS, GLAZIERS, &c.—An ESTABLISHED BUSINESS in the above line TO BE DISPOSED OF, in a main road to the City, a good trade attached, and capable of doing a first-rate business. Domestic affliction the cause of leaving. If taken immediately, can be had a bargain.—Apply to the Tyne Glass Company, Bridewell-wharf, William-street, Blackfriars, London.

TO ESTATE OWNERS AND ALLOTTEES

MR. JAMES WYLSON, ARCHITECT and SURVEYOR, 31, Church Row, Bedford Square, Kane-land (Copyhold) Surveyor to the National Freehold Land Society), ADVISES as to LAND and BUILDING SPECULATIONS.—A VACANCY for an OUT-DOOR ARTICLED PUPIL.

SWISS DRAWING INSTRUMENTS, Exhibited at the Soirées of the Institution of Civil Engineers, Royal Society, and Royal Institution, to be had of Mr. S. BARLOW, 2, Thavie-inn, Holborn-hill (at home from 1 till 3) p.m. and Mr. H. B. BARLOW, Patent Agent, Ducie-place, Manchester.
"Remarkable for beautiful workmanship and economy in price." *Illustrated London News*

TO ARCHITECTS.

COMPETITION and other DRAWINGS.—Mr THOMAS S. BOYS, Member of the New Society of Painters in Water Colours, and author of "The Picturesque Architecture of Paris, Ghent, Rouen," &c. and of "London as it is," offers his services in Tinting Backgrounds, Landscapes, Perspective, &c. From the long experience he has had in such subjects, he is fully aware of the points essentially necessary to be attended to. Drawings and designs lithographed in superior manner.—Address, Mr BOYS, 32, Albany-street, Regent's park.

MATHEMATICAL DRAWING INSTRUMENTS. JOHN ARCHBUTT, 24, Westminster Bridge-road, Lambeth near Astley's Theatre, begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c at equally low prices An illustrated price-list will be immediately forwarded, free, on application

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES Established by Messrs. HUDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Drawing, and Colouring. At Mr. Hude's and Working Drawings, Prepare Specifications, Take out Quantities, Estimating, Plans, Day Pupils. Three Guineas per Quarter; Evening Pupils, One Guinea per Quarter, which includes Drawing Boards, T Squares, Plans, Drawings, Models, &c. For Prospectuses apply at the Offices, 24, Guildford-street, Russell-square

AN ARCHITECT, in Edinburgh, intends to commence, in OCTOBER next, a Course of PRIVATE LECTURES on Architecture to Pupils, who may thus have the benefit of systematic instruction in addition to the training gained in offices. Particulars to be learned on application to R. S. 6, Office of "North British Advertiser," Edinburgh.

MONEY on LOAN, at 3*l.* per Cent. per Annum.—ARNEWAY'S CHARITY. NOTICE IS HEREBY GIVEN, that the Trustees of the Charity are enabled to lend out the Trust Moneys to Householders of unexceptionable character within the City and Liberties of Westminster, and to such within the parishes of St. Margaret and St. John the Evangelist, St. Anne, Soho, St. Clement Danes, St. George, Hanover-square, St. James's, St. Martin in the Fields, St. Mary-le-Strand, and St. Paul, Covent-garden. The amount of each loan is not to exceed 15*l.*, to be at interest after the rate of 5*l.* per cent. per annum, and to be repaid by the borrower by weekly payments. Printed Forms of Application, and all necessary information, may be obtained by applying personally, between the hours of ten and three o'clock, at the office of the Clerk to the said Charity, at the Trustees, No. 14, Great Queen-street, St. James's Park.
By order, EDWARD S. STEPHENSON, Clerk to the Trustees.

NOTE.—The Trustees meet on the second Wednesday in every month, to consider such applications for loans as may have been left in their office at the least before the first day of the month.—The sureties must be unexceptional ie.

LOANS at 5 per Cent. on personal security, in connection with Life Assurance. 200*l.* to 3000*l.* preferred. No delays.—English and Foreign offices, 15, Cornhill.
LEWIS C. HERTSLET, Secretary.

SOUTH WALES RAILWAY.—Notice is hereby given, that the next HALF-YEARLY ORDINARY MEETING of the Proprietors of the Company will be held at the GREAT WESTERN ROYAL HOTEL, Paddington, on FRIDAY, the 31st day of August inst. at ONE o'clock precisely, for the general purposes of business.

Resolutions will be submitted by the Meeting for the Directors to borrow on mortgage of the Tolls, Rates, and Duties of the Undertaking, and to direct the shares so forfeited to be sold or otherwise disposed of. To authorise the Directors to borrow on mortgage of the Tolls, Rates, and Duties of the Undertaking, and to direct the shares so forfeited to be sold or otherwise disposed of. To authorise the Directors to borrow on mortgage of any new shares, or any part thereof, such rate of interest or dividend, and with such preference, as may be determined by the said Meeting, and as may be authorised by the said Acts of the Undertaking. And also, if deemed expedient, to authorise the conversion of any portion of the borrowing capital of the Company into perpetual irredeemable annuities, under the powers and provisions of the said Acts.

The Transfer-books will be closed on the 17th inst. and will not be reopened until after the said Half-yearly General Meeting, to the 31st inst.—By order,

FRED. G. SAUNDERS, Secretary.

Offices, South Wales Railway Company,
10, Eastborne-terrace, Paddington, August 8, 1855.

LONDON: Printed by CHARLES WYMAN, of 11, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-offices of COX (Brothers) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields, and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent-garden, all in the County of Middlesex.—Saturday, August 18, 1855.

The Builder.

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COMPETITIONS.

TO ARCHITECTS AND OTHERS

THE Burial Board for the parish of Newark-upon-Trent, in the county of Nottingham, is desirous of receiving DESIGNS, for surprise plans, elevations, sections, and specifications, with estimates, for MAKING ROADS and PATHS, and LAYING OUT and PLANTING a new BURIAL-GROUND, containing about six and a half acres, ENCLOSING the GROUND, BUILDING a LODGE, with entrance gates, BUILDING TWO CHAPELS, either separate or attached, with complete fittings and accommodation for not less than fifty persons, the total cost of the whole not to exceed the sum of 3,000*l.* A premium of 10*l.* will be paid for the best Design, and a premium of 5*l.* for the second best. The designs, with estimate of the costs, accompanied by working drawings and specification complete (without the author's name, but with a motto and sealed letter) to be delivered free of expense on or before the 7th day of SEPTEMBER next, at my Offices, in Kirk Gate, Newark, of whom a plan of the locality and further particulars may be obtained. The Burial Board do not bind themselves to carry out any of the designs. The architect will be held bound to undertake and complete the works according to his plans, for the amount of his estimate, if required by the Board to do so; but the Board do not pledge themselves to employ the architect whose design may be accepted.—By order of the Board.

WILLIAM NEWTON, Clerk to the Board.

Offices, Kirk Gate, Newark, 9th August, 1855.

N.B. The locality yields Ancaster stone for dressings, and white and red brick.

TO ARCHITECTS.—That part of the Church and Congregation which recently withdrew from Mr. Davies, of Caledonian-road Chapel, intend ERECTING a PLACE of WORSHIP in the Gothic style, and have instructed me to communicate with a select list of the profession in furnishing GRATUITOUS PLANS for a CHAPEL, in the Gothic style, at a cost of about 2,500*l.* to seat 600 adults and 200 children, with school-room, vestries &c. As the time is urgent, the committee feel that it is necessary to have days for receiving and communications at this appeal may bring forth, and for that purpose they beg to appoint the 5th of SEPTEMBER next as the day. Architects will please address their communications to Mr. WM. DRAPER, Secretary, No. 5, Richmond-terrace, Barnsbury; or to Mr. CUTHBERTSON, Wharfroad, Kingsgate.

CONTRACTS.

BEDFORD ESTATE, ST. PANCRAS.—To PAINTERS and OTHERS.—The Commissioners of this Estate are prepared to receive TENDERS for CLEANING and PAINTING the IRON RAILINGS of Fairhold, Gordon, and Huntingdon squares. The specification and forms of Tender may be seen at their Office, below, to which TENDERS are to be delivered on or before the 1st instant.

JOHN WOOD, Clerk to the Commissioners.

20, Gordon-street, Gordon-square, August 15 1855

TO BUILDERS.

THE BURIAL BOARD of the PARISH of ST. NICHOLAS, RICHENER, will meet at their Offices, Rosemary-street, WELVE o'clock at noon on MONDAY, the 10th day of SEPTEMBER next, to receive TENDERS for the ERECTION and COMPLETION of an EPISCOPAL CHAPEL, A DISSENTERS' CHAPEL, a SEXTON'S HOUSE, and Boundary Enclosures, with Entrance Gates &c. on the site of the new burial ground situate in the Maidenmead Tenements and other lands, as may be selected as the Office of the Board, on and after the 27th day of AUGUST instant, between the hours of TWELVE and FOUR. The Board do not pledge themselves to accept the lowest or any Tender. The contractor will be required to enter into sureties for the due performance of the work. No Tender will be received after TWELVE o'clock at noon on the said 10th day of SEPTEMBER next. By order of the Board.

Rochester, 24th August, 1855. RICHARD PRALL, Clerk.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office, Dublin, 11th August, 1855.—The Principal Officers of Her Majesty's Ordnance hereby give notice that they will receive PROPOSALS for the following CONTRACT, viz.—For the CONSTRUCTION and ERECTION of STABLING for fifty troop horses, officers' stables, and infirmary stable at the Pensionary Barracks on the Curragh of Kildare, in the Dublin district. Persons desirous of tendering for the same, will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin; and may obtain specifications, with other documents, on application making a deposit of 1*l.* for the same, which deposit will be returned when the specifications are returned uninjured. The whole of the work to be completed within forty days after the acceptance of the Tender. The letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance-office, Pall-mall, London," so as to be received on or before the 30th day of AUGUST, 1855, and to be marked on the outside "Tender for Work at the Curragh of Kildare."

ORDNANCE CONTRACT.—NOTICE to CARTERS and EXCAVATORS.—Sealed Tenders addressed Major-General Sir FREDERIC SMITH, K.H. Commanding Royal Engineer, will be received at the Royal Engineer's Office, at the Camp at Aldershot, on or before THURSDAY, 30th AUGUST, 1855, from such persons as may be willing to undertake to EXCAVATE on the HEATH, and DELIVER at the TEMPORARY BARRACKS, at ALDERSHOT, Hants 11,000 CUBIC YARDS of GRAVEL, at the North Camp, and 11,000 CUBIC YARDS in the South Camp, in separate contracts, each to be completed in three months from the date of the order for commencing the work. A map may be seen at the Royal Engineer's Office, Aldershot, showing the places where the gravel is to be excavated, and the relative distances for the cartage to the camp, and where may be obtained specifications and forms of Tender.

Royal Engineer Office, Aldershot Camp, August 23, 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office, Dublin, 4th August, 1855. The principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the above CONTRACT, viz.—For the Works proposed in the CONSTRUCTION of LAND REFUGE DRAINAGE in the temporary barracks at the Curragh of Kildare, in the Dublin district. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin, and may obtain specifications, with the forms of contract, upon making a deposit of 1*l.* for the same, which deposit will be repaid when the specifications are returned uninjured. The whole of the work to be completed within sixty days after the acceptance of the Tender. The letter of Tender to be sealed, and transmitted, under cover, to "The Director General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 31st day of AUGUST, 1855, and to be marked on the outside, "Tender for Work at the Curragh of Kildare."

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives Notice, that sealed TENDERS, addressed to the DIRECTOR GENERAL of CONTRACTS, will be received at the Office of Ordnance, Pall-mall, on or before 4 P.M. SEPTEMBER 10th, for the ERECTION of a MILITARY PRISON, OFFICERS' and BARRACK MASTER'S STORES, &c. at the Wellington Barracks, St. James's park. The specifications and plans for the above service may be seen, and forms of Tender may be obtained, at the Royal Engineer's Office, 11, James-street, Pimlico, between the hours of TEN and THREE o'clock, from the 27th AUGUST to the 8th SEPTEMBER, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 23rd August, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 26, Greek-street, Soho-square, on TUESDAY, the 4th day of SEPTEMBER next, and on 3rd each succeeding day, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN certain IRON PIPES, and to execute other Works in connection therewith in extension of the Battle bridge outlet, Mill-lane, Tooley-street, Southwark, and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and specifications of the Works to be done, together with the form of Tender, may be inspected, and other particulars obtained, at the printed, at Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. on and after MONDAY, the 27th day of AUGUST instant, until MONDAY, the 3rd day of SEPTEMBER next. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.

Dated this 22nd day of August, 1855.

WICKLOW HARBOUR.—NOTICE to CONTRACTORS.—The Commissioners for Improving the Harbour of Wicklow are prepared to receive TENDERS from competent parties for the EXECUTION of the undermentioned WORKS, viz.—CONSTRUCTING a PIER and BREAKWATER of TIMBER PILING and MASONRY, DREDGING out the Bar and CHANNEL to a depth of EIGHT FEET at low water, and to REPAIR the existing QUAY WALL. The contractors are to set forth in their Tenders the period within which the works are to be executed and delivered in complete, according to plans and specifications prepared by HENRY BRETT, Esq. C.E. and which may be seen at the Office of the Secretary to the Harbour Commissioners. Wicklow, and upon application to Mr. BRETT, Engineer, 4, Harrington-street, Dublin. The Tenders to be sent in, sealed and addressed to the Chairman of the Harbour Commissioners, at or before TWELVE o'clock, on MONDAY, the 17th of SEPTEMBER, 1855.—By order,

ROBERT HARPUR, Secretary to Harbour Commissioners.

Harbour Office, Wicklow, August 16, 1855.

CONTRACTS.

TYNEMOUTH LOCAL BOARD of HEALTH.—SEWERAGE.—TO CONTRACTORS, EXCAVATORS, EARTHENWARE PIPE LAYERS, & OTHERS.—The Local Board of Health, give Notice that they are prepared to receive TENDERS from persons willing to undertake either of the following CONTRACTS:—

CONTRACT No. 3.—For EXCAVATIONS and LAYING SEWERS and DRAIN PIPES; also for the CONSTRUCTION of BRICK SEWERS, GULLIES, MANHOLES, and other WORKS, in the District of TYNEMOUTH.

CONTRACT No. 4.—For EXCAVATIONS and LAYING SEWERS and DRAIN PIPES; also for the CONSTRUCTION of BRICK SEWERS, GULLIES, MANHOLES, and other WORKS, in the District of NORTH SHIELDS.

The drawings and specification may be examined on and after THURSDAY, the 23rd inst., and duplicate forms of Tenders, Schedule, and Bills of Quantities &c. for each contract obtained, together with any further information required, on application at the Town Surveyor's office, North Shields; or at the offices of ROBERT RAWLINSON, Esq. C.E., Parliament-street, Westminster—Sealed Tenders, to be delivered at the Town Clerk's Office, North Shields, before TWELVE o'clock on THURSDAY, the 6th day of SEPTEMBER next, addressed "Tender for Contract No. 3 or 4," as the case may be.

Signed,

THOMAS C. LIETCH, Town Clerk.

North Shields, August 16th 1855

TO BUILDERS.

THE BURIAL BOARD for the PARISH of FARNHAM, Surrey, are prepared to receive TENDERS for the ERECTION of TWO CHAPELS, ENTRANCE LODGE, BOUNDARY-WALL, and IRON GATES and RAILING, on land purchased by them as a burial ground for the said parish. The plans and specifications, with conditions of contract, may be seen at the Offices of the Architects, Messrs. BARNETT and BIRCH, 3, Verulam-buildings, Gray's-inn; or at my Office, in Farnham, on and after the 20th inst. and sealed Tenders addressed "Tenders for Burial Ground Buildings," to be delivered to me on or before noon of WEDNESDAY, the 5th day of SEPTEMBER next. The Board do not bind themselves to accept the lowest or any Tender, and the contractor will be required to provide sureties for the due performance of the works.

By order of the Board,

CHAS. W. NIBLETT, Clerk.

Farnham, August 18, 1855.

TO BUILDERS.

PARTIES desirous to TENDER for the ERECTION of a HOUSE, with COACH-HOUSE, STABLES, and OFFICES, to be built on the Eastern Road, near Newport, Monmouthshire, are to the plans and specification now at my Office. Also to the plans of Messrs. JONES and PARNELL'S Offices, Newport, to which sealed Tenders are to be delivered, on or before the 5th of SEPTEMBER next. The lowest or any Tender will be necessarily be accepted. JAMES WILS N, F.S.A. Architect,

1, Belmont East

BRISTOL LOCAL BOARD of HEALTH.—To BUILDERS, CONTRACTORS, and OTHERS.—The Committee of the Bristol Local Board of Health hereby give notice, that they are ready to receive TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING and COMPLETING, in a substantial manner, certain intended Main Sewer, No. 1, from Which-lane into the river Avon, about 843 yards in length; Main Branch Sewers from Dean-lane, along North street, to the Hill and Chickens Public-houses, about 1,031 yards in length; from Mill-lane, along East-street, to Baccas-court, about 738 yards in length; from Mill-lane, along Easton-street and West street, to Alma-house, about 1,188 yards in length; Main Sewer, No. 2, from Parson-street to the river Avon, about 2,970 yards in length. Any person or persons willing to engage for making the before named sewers, are requested to deliver Tenders for the same at the Offices of the Local Board of Health, No. 1, Prince-street, on THURSDAY morning, the 6th day of SEPTEMBER next, at ELEVEN o'clock precisely, when the Committee will meet to determine upon the same. Trial shafts have been sunk along the several lines of sewers, and are now open for inspection, and the plans with the specifications of the works to be done may be seen at the Offices of the Local Board of Health, No. 11, Prince-street, Bristol; and any further information may be obtained either on personal application or by letter, post-paid, addressed to the Surveyor, Mr. FREDERICK ASHMEAD, C.E. The party tendering will be required to give the names of two responsible persons willing to become sureties for the due performance of the works. The Committee will not bind themselves to recommend the acceptance by the Local Board of the lowest or any Tender, nor until the proposed sureties are approved. By order of the Committee,

JOHN G. HEAVEN, Clerk

Local Board of Health Offices, 13, Prince-street, Bristol,

August 16, 1855.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Raincath,
Right Hon. R. A. Christopher, M.P.
Hon. C. J. Leather, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS and DRAINS on the Society's Estate, Mindrum. The drawings and specification may be seen at the Office of the Surveyor, Mr. GILBERT MORGAN, on and after MONDAY, AUGUST 20, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on TUESDAY, AUGUST 28, addressed and sealed to the Surveyor, and inscribed "Tenders for Roads at Mindrum Estate." The Parent or Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, North Bank-street, Stamford, 16th August, 1855.

[For remainder of Contracts see next page.

TO IRONFOUNDERS AND CONTRACTORS.

PERSONS desirous of TENDERING for IRONWORK required to be done in the ERECTION of a large SHED and ROOF over the intended new Market-hall, and other works, including entrance-gates, iron wind w-frames, guttering, down pipes, &c. for the Town Council of Warrington, may inspect the drawings at the office of the Architect, Mr JAMES S. EVENS, 32, Princess-street, Manchester, and Chestergate, Macclesfield, from the 15th to the 22nd of AUGUST instant, and at the office of the Borough Engineer, Market-street, Warrington, from the 23rd to the 1st day of SEPTEMBER. The quantities have been taken out by the Architect, who will furnish the same on application, and charge the contractor with the cost thereof. The Corporation do not hold themselves responsible for the same. Sealed Tenders endorsed "Tenders for Roof of Market-hall and Shed," addressed to the Chairman of the Market Committee, are to be handed to Mr B. P. COOK, Borough Engineer, not later than SATURDAY, the 1st day of SEPTEMBER. The Corporation do not bind themselves to accept the lowest Tender. Signed by order of the Corporation,

JOHN FITCHETT MARSH, Town-clerk.

Warrington, August 1 & 1855.

N.B. The day appointed for sending in Tenders is POSTPONED until the 8th day of SEPTEMBER.

TO BUILDERS, CONTRACTORS, AND OTHERS.

THE CORPORATION of WARRINGTON are desirous of receiving TENDERS for the ERECTION of a NEW MARKET HALL and SHED, consisting of the following description of works, namely:—Excavators, masons, bricklayers, carpenters and joiners, plumbers and glaziers, painters, and slaters, and masons, the Tenders for which may be made either or separate. The drawings, specification, and conditions of contract may be inspected from the 15th of the month of AUGUST at the Office of the Architect, Mr JAMES STEVENS, 32, Princess-street, Manchester, and Chestergate, Macclesfield, and afterwards at the Office of the Borough Engineer, in Market-street, Warrington. The quantities will shortly be taken out by the Architect, who will furnish the same on application, and charge the respective contractors with the cost thereof. The Corporation will not become responsible for the same. Sealed Tenders, marked "Tenders for Market Hall and Shed, Warrington," addressed to the Chairman of the Market Committee, are to be delivered on or before SEPTEMBER 8, 1855. Sample is given to accept the lowest or any Tender

JOHN FITCHETT MARSH, Town-clerk.

Warrington, August 1, 1855.

N.B. The day appointed for receiving Tenders is POSTPONED until the 8th day of SEPTEMBER.

TO BUILDERS.

TENDERS are required for the ERECTION of a HOUSE and SHOP, at Wood green, Tottenham. Plans and particulars may be seen at the Offices of Mr. KNIGHTLEY, Architect, 25, Cannon-street, London. Tenders are to be delivered on or before SEPTEMBER 8, 1855. No sample given to accept the lowest or any Tender

BOROUGH of READING LOCAL BOARD of HEALTH.—To CONTRACTORS, ROAD MAKERS, SCAVENGERS, and OTHERS.—The Local Board of Health for the district of Reading in the county of Berks, are desirous of receiving TENDERS for REPAIRING and MAINTAINING the ROADS, for WATERING and SCAVENGING same, and for EXECUTING other WORKS within the said borough, for a period of SIX YEARS from 1st of October next.—Persons desirous of tendering for the same, can obtain the specification at the office of Mr J. B. CLAY, the surveyor to the Board, in Broad-street, Reading, after TUESDAY, the 28th INST. Tenders to be sealed and addressed to the Board of Health, Reading, and to be sent to me on or before SATURDAY, the 8th of SEPTEMBER next. The Board is not bound to accept the lowest or any Tender.

THOMAS ROGERS, Clerk.

10, Friar-street, Reading, August 16th, 1855

TO BUILDERS.

BRISTOL ACADEMY for the PROMOTION of the FINE ARTS, and BRISTOL SCHOOL of PRACTICAL ART.—The Building Committee of the above are desirous of receiving TENDERS for the various ARTIFICERS' WORKS required to be done in the proposed New Buildings, may see the drawings and specification on application at the Hall of the Academy, St Augustine's-place, on and after MONDAY next, the 20th instant, where attendance will be given daily from NINE a.m. to FIVE p.m. Tenders either general or separate, are to be addressed to the Hon. Secretary, Committee-room, on or before MONDAY, the 27th instant, by twelve o'clock at noon. The Committee do not bind themselves to accept the lowest or any Tender. Any further information required may be obtained of the Architects, C. UNDERWOOD, Chesterfield buildings, Clifton; J. H. HIRST, St. Nicholas-chambers, Bristol.

JERI. HILL, Hon Sec. Fine Arts Academy.

Bristol, Aug 8 h, 1855

TO BUILDERS.

PERSONS desirous of TENDERING for the new S. MICHAEL'S SCHOOL and INSTITUTION, at Wantage, Berks, can inspect the plans either at the Alfred's Head, Wantage, or at Mr Angel's-place, London, where select Tenders will be received by the full TEN o'clock on SATURDAY, SEPTEMBER 1st. WILLIAM WHITE, Architect

TO BUILDERS.

THE BURIAL-BOARD for the Parish of BRADFORD, Wilts, is desirous of receiving TENDERS for the ERECTION of TWO CHAPELS, a LODGE, ENTRANCE-GATES, a PALISADE FENCE, and the LAYING OUT the ROADS and WALKS, at the proposed Cemetery, near the town of Bradford. Plans and specifications may be seen at the Office of the Clerk to the Board, at Bradford; and copies of the same at the Office of Mr FULLER, Architect, No. 14, Vincent-st. Bath, on or after the 3rd of SEPTEMBER next. Sealed Tenders to be delivered at the Office of the Clerk on or before the 17th of SEPTEMBER next. Tenders will be received for separate parts of the work; and the Board will not necessarily accept the lowest Tender

WILLIAM TIMBRELL, Clerk to the Board.

Bradford, Wilts 22nd, August, 1855

TO BUILDERS.

THE BURIAL BOARD of the PARISH of BUCKINGHAM is desirous to receive TENDERS for BUILDING TWO CHAPELS, a LODGE, and RECEIVING-HOUSE, on the new Burial-ground. The plans and specification may be seen at the Clerk's Office, in Buckingham, and Tenders must be delivered on or before TUESDAY, the 4th day of SEPTEMBER next, to be laid before the Board at the meeting the next day. The Board does not bind itself to accept the lowest or any Tender

E. NELSON, Clerk to the Board.

Buckingham, August 16 1855

TO BUILDERS.

NEW GAOL at BODMIN, for the COUNTY of CORNWALL. Notice is hereby given, that the TIME has been EXTENDED to the 31st inst. for receiving applications for the quantities of the above work. All persons desirous of Tendering are requested to communicate before that day with the Architect, Mr. F. W. FORTESCUE, 11, Charlotte-street, Bedford-square, London, who will furnish full particulars as to the terms of the competition, &c. E. COODE, Clerk of the Peace.

St. Austell, August 21, 1855.

SAMUEL HEMMING'S PATENT much improved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings, riding-schools, churches, chapels, shooting-boxes, lodges, bazaars, ornamental villas, iron-framed houses, farm buildings, and bungalows, &c. &c. Also, railway stations, trusses, and carriages made to lay plan on the shortest notice.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to these new patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any public building, or business establishment in the kingdom. Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.

LOCKS, HINGES, HANDLES, BOLTS, &c.

Paris Exhibition, No. 1717.

Also Specimens at the Crystal Palace, Sydenham.

Illustrated Price catalogues on receipt of four postage-stamps.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PALNGD, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country

3, MANSION-HOUSE-PLACE, and LIMEHOUSE, LONDON; BERKELEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON, For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c

To be obtained only at TUPPER and CARR'S WORKS, near the REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKELEY STREET, BIRMINGHAM

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pans, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS,

Patent Corrugated, Galvanized, or Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast-Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER,

Builder, Contractor, and Iron-founder, Mill wall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be forwarded on application.

N.B. Galvanized and painted Sheet-Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).

WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks

GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished

Island Foundry and Ironworks, Millwall, London.

Offices, 19, Fenchurch-street, City.

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR, IRON BUILDING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM.

LONDON OFFICE, 1, RICHES-COURT, LIME-STREET.

SKAIFE'S GALVANIZING WORKS, Commercial road, Lambeth, London

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Skaife's galvanized corrugated Roofs fixed complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tubes.

An Allowance to the Trade.

A. MOREWOOD and CO. (late Morewood and Rogers),

Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets

PLAIN or CORRUGATED, of a Curved, Tall Gauges

Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Pipes, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hoopiron, Nails, Rivets, &c.

Estimates given for Roofing and every description of Galvanized Building, at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.
12 " " 20 "
13 " " 23 "
14 " " 26 "

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO DOWGATE DOCK, LONDON, to whom all letters must be addressed.

LIVERPOOL and MANCHESTER PATENT GALVANIZED IRON WORKS.—FRANCIS MORTON and CO.—Galvanized Sheet Iron of the best quality; ditto, expressly prepared for Tanners and Brewers. Corrugated Sheets, Painted or Galvanized, of all sizes, for Roofing, Fire-proof Partitions, Ceilings, &c always kept in Stock. Tinned Water Tubing, Rain-water Gutters and Pipes; Wire of all numbers; Nails, Screws, Spikes, Hoops, &c.; Wrought Iron Hurdles, Field Gates, &c.—An allowance to Shippers and the Trade. Head Offices, 13, James-street (late Colnbrookdale Company's Premises), Liverpool, and 16 St. Mary's-gate, Manchester.

N.B. Parties are particularly requested to note the address, LIVERPOOL.

ESTABLISHED 1817

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 13, Howsefield-road, and 1, N w Penfold-street, Westminster—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven or boiler, complete, 22s. each.

Self-acting ditto, with ditto, from 25s.

Self-acting Oven and Boiler Ranges with all modern fittings, &c. complete, from 4l. each.

Register Stoves, from 5d. per inch.

Elliptic ditto, with double backs, from 3d. per inch.

Cast-iron Rain-pipe	2	2½	3 inch	
	11d.	1s 3d	1s 4l per yard.	
	4 inch Eaves Gutters, 9l per yard			
O G G utters	¼	½	¾ inch.	
	1s	1s 1d.	1s 3d.	1s 6d per yard.
Best Cut Clasp	1½	2	2½	Each and larger.
and Rose	10s.	13s.	14s 6d.	1l.

1 inch Best Cut Lath, 15s 6l per cwt.

Sheet Floor Brads 1s 6d per cwt.

Hoop Floor Brads, 1s 8d per cwt.

Sash Weights, 7s 6l per cwt.—2-inch Air Bricks, 3s 6d. per doz.; 6 inch Sink Traps, 4s. per doz.; stone Gul plates, with hooks, 9s. per cwt. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.—W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Piping, Flat Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rimers, Pinions, Engine and Lathe Castings, Fire Backs, Furnace Bars, Kilns, Pans, and other castings, or patterns or drawings.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they are now supplied with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Casteleyes, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c

BAKERS' OVEN Work, Paver Picks and Trowels, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS, 88, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent cheaper than Terra-cotta.

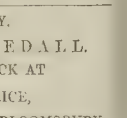
Estimates given for Iron Buildings, Wrought-iron Roofing, Orangeries, Staircases, Wrought-iron Girders, Fire-proof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS, 168, DRURY-LANE, and CHARLES STREET.

CAST-IRON PIPES, &c.—TO BE DISPOSED OF, about 200 yards 6 inch, 150 yards 7 inch, 200 yards 9 inch Socket Pipes; 6 inch and 9 inch Bell Pieces; various size Branches, Hydrant and other Connections. Also some Sluice Cocks, Hydrants, and Stand Cocks; a small Hot-water Apparatus, Iron Sashes, &c. Apply to Mr. J. CATTERMOLE, 324, Manor-street, Chelsea, London.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

3-feet self acting ditto, ditto, 38s. each.

Air Bricks, 4s. per 100.

Best Town Glue, 5½. Ditto, Scotch, 6½ per cwt.

Best Patent Sash Line.					
1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, fall hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

January 1, 1855.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

PLATE GLASS AT GREATLY REDUCED PRICES.

THE UNION PLATE GLASS COMPANY,

RESPECTFULLY INFORM THE TRADE, THAT IN ORDER TO MEET THE PRESENT DEPRESSION, THEY HAVE MADE A VERY CONSIDERABLE

REDUCTION IN THE PRICES OF POLISHED PLATE GLASS

FOR GLAZING PURPOSES.

Lists of Prices may be obtained at the places named in another advertisement in this publication.

THE WORKS—POCKET-NOOK, ST. HELEN'S—JULY 2, 1855.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK

Take leave to inform the Trade that they have

Opened an Establishment for the supply of Plate and Window Glass, Shades, Potiche, Lamp and other Glasses; also Wine, Spirit, and Beer Bottles, at

131, UPPER THAMES-STREET, LONDON-BRIDGE.—WORKS: SEVRES, NEAR PARIS.

ARCHITECTURAL AND ORNAMENTAL DECORATIONS.

Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of 2 lbs. to the square of 100 feet, the cost of carriage is small.—4th. From its lightness, weighing only half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel.

and deadening Sound.

ODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

PLATE-GLASS for GLAZING PURPOSES.

C. NOSOTTI respectfully informs Architects, Builders, and others, that he can supply them with PLATE GLASS for windows and shop fronts, at prices not to be excelled, the glass being of more brilliant colour than generally used. List of prices free.

Mouldings for rooms, and every article required for general glazing ready for immediate delivery.

NOSOTTI (Established 1829), 393 and 399, Oxford-street, Soho.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of Builders and the trade in general to his prices of British and Foreign Sheet Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz. Sheet Glass, in crates, 21d. per foot; CCC Crown, 18 tables, 32s. per crate; Foreign Crown Glass, in cases of 200 feet each, large sizes, 30s. 6d. and 40s. per case; Ground ditto, 31d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is offered.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.

Their Warehouse, 89, Hatton-garden, London.

" 46, Piccadilly, Manchester.

Messrs. C. and J. Malloch, 39, Turner's-court, Glasgow.

" John Dix and Co. Bath-street, Bristol.

" H. Sibthorpe and Son, Cork hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ¾ in. thick, suitable for the sides and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE GLASS, for fronts and all superior glazing purposes, and for silvering. Superior silvered Plate-glass Mirrors of all sizes.

CRYSTAL WHITE SHEET GLASS, first, second, and third quality, in cases of 200 feet, at 4d. 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps, Water-closet Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 87, Bishopsgate-street, London. Established more than 100 years.

GLASS PAN-TILES, packed in cases of fifty, one-quarter of an inch thick, 1l. 17s. 6d.; three-sixteenths, per case of sixty, 2l. 1s. 3d.; one-eighth, per case of sixty, 1l. 17s. 6d. Crown Glass, in cases of 200 feet, 36s. 38s. and 40s. per case. Crown Glass, in crates of eighteen tables, from 23s. Crystal White Glass, for pictures, at 4d. 6d. and 8d. per foot.—JAMES PHILLIPS and CO. 118, Bishopsgate-street Without, London.

E. LEROUX and CO. Custom-house Importers of Foreign Plate, Sheet, Coloured and Ornamental Window glass, respectfully invite Merchants and Wholesale Dealers to an inspection of their BELGIAN CRYSTAL SHEET, of which they have always a large and varied stock on hand, as an article much whiter and more resembling plate than any other yet imported into this country. Samples and price-lists forwarded on application.

GOOD FOREIGN SHEET-GLASS.—Thirds, 40s.; common thirds, 36s.; fourths, 32s.; in cases 200 feet each, average size, 40 by 30. English or foreign ground ditto, 31d. per foot. Crown and shades squares, in 100 feet boxes, from 14 by 10 to 22 by 14, 2d. per foot. ¼ inch rough British plate tiles, 11s. per dozen. Also, crown and sheet glass in crates; British and patent plate, fluted, and stained glass; glass slates, &c. Sheet lead, pipe, white-lead, oils, turpen ine, colours, &c.

G. FARMILOE and SON, 118, 54 John-street, West Smithfield, London.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 293, Oxford-street.

REDUCED TARIFF.

CCC CROWN, 18 Tables, per crate, 32s.; H 15 oz. SHEET, 2d. per foot; FOREIGN SHEET, 200 feet cases, 34s. per case; CROWN or SHEET SQUARES, 100 feet boxes, 2d. per foot; HARTLEYS PATENT ROUGH PLATE, from 6l. and PERFORATED VENTILATING GLASS, 1s 6d. per foot; CHANCE'S SHEET GLASS, 4d. 6d. and 8d. per foot. FLASHED RUBY, 1s. GROUND SHEET, 3d. ENAMELLED, 3d. per foot. Sashes primed and glazed, 3d. per foot.

Catalogues free, on application to the Managers, as above.

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence Shop-front builder and Manufacturing Joiner, has 1½ and 1¼ four-panel doors ditto from 6d. each; 14 sashes and frames from 7s. per foot; 2-inch ditto from 8d. Windows fitted with Grisbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned.—Workshops, 100, Broad-wall.

JAMES RHODES, No. 6, Macclesfield-street North, City-road, London, Manufacturer of Sashes, and Frames, Doors, &c. and every description of House Joinery. Glazed goods securely packed for the country. Prices on application at the Counting-house, as above.—N.B. This is the cheapest manufactory in London, and well deserving the attention of all engaged in building.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment.—Particulars and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d. These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars-road, and 117, Union-street, Borough, and of all respectable ironmongers, builders, &c.

SMOKE! SMOKE! SMOKE!—The only cure for smoky chimneys is MARK BERRY'S IMPROVED VENTILATOR; price, for 10-inch pot, 7s. 6d.; 11-inch, 8s. 6d.; 12-inch, 9s. 6d.—At MARK BERRY'S Wholesale and Retail Zinc and Galvanized Iron Works, Whitechapel Church-yard, London.

DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR RAYMOND JARVIS, Bart., VENTNOR, ISLE of WIGHT.—Second Testimonial.—"March 10th, 1852.—In reply to your letter, received this morning, respecting the Gutta Percha Tubing Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N.B. From this Testimonial it will be seen that the CORROSIVE WATERS of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.

Diving-dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

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IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

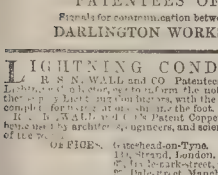
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

LIGHTNING CONDUCTORS.—R. S. N. WALL and CO. Patentees of the Copper Rope Conductor, beg to call the attention of the nobility, clergy, &c. that they supply their conductors, with the point and all staples complete for fixing at one shilling per foot.

R. S. N. WALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES, Gateshead-on-Tyne,
19a, Strand, London.
67, Jamaica-street, Glasgow.
Duke-street, Manchester.

TO BELL-HANGERS, GAS-FITTERS, &c.

IRONMONGERS, &c.—The Trade supplied on the usual terms with Bell Wire, Tube, and Copper Wire. Gas Pendants, and Brackets of all descriptions for gas-fitting, in Brass and Bronze Tube, Cocks, Iron and Brass Tubing, Glass Shades, Globes, and Lackered Case Tube for Picture Rods. Lists free.

Engravers' Bed Rests for Engravers, Castings in Fine and Common Brass, Bronze, &c. at

RICHARD EVERED'S Brass and Bell Foundry and Metal Warehouses, Nos. 11, 12, and 13, Charles-street, Long-acre, London

NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES

a complete List of which will be forwarded upon application.

FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Orchard-street, LONDON.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend, with confidence, their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, and, instead of the large amount of fuel with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and heater department of the New Drapery establishment; where may also be seen engravings with prices, or forwarded by the post. DEANE, DRAY, and CO. opposite to the Monument, London-bridge. Established A.D. 1700.

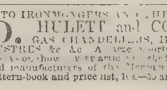
ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and JEFFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accident from fire are all entirely prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at JEFFRIES'S Office 14, Regent-street, London.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen in full operation, heating building measuring 400 feet in length, at the small expense per day of 1s. 6d. Estimates, &c. The achievement in heating by hot water is unprecedented.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS

THIS IS THE ORIGINAL PATENT



Improvements in stable fittings, including a method of preventing the stamps and latter-rests from the back of the fittings, to prevent the horse being cast in the stall. Stable Fittings of every description, enamelled or galvanized. Milk pails, Pitchers, Funnels, and Strainers in stock; Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of King's Patent Stables, Cast Iron Smoke Curing Chimneypots, 2½ in. Patent Sunshine palace. Price Lists sent on receipt of two postage-stamps.

JAMES BARTON, Iron Founder, &c. 37, Oxford-street, a few doors East of the Pantheon.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

The invention is now in operation upon Steam engine Furnaces, of Cornish and Warson Boilers, and upon them it is adapted to other descriptions of Furnaces, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions that have sought to prevent Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various description, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, and Co., Essex, London.

Address, THE SMOKE-BURNING COMPANY, Adelaide, London.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTHORNS, GLASS LUSTRES &c. &c. A large assortment of the newest designs always on view, every article priced in plain figures. Patentees and manufacturers of the Improved Gas Regulator. Complete pattern-book and price list, 1s.—3s. and 5s., High Holborn.

CHUBB'S LOCKS & FIREPROOF SAFES.

CHUBB'S LOCKS & FIREPROOF SAFES.

EFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY COMPANY.

"London and North-Western Railway Company,
"Liverpool, May 17, 1854.

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office and which, notwithstanding the great efforts of one or more burglars to get at the money chest in the night of Tuesday last, although it is evident that a most determined force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs Chubb and Son."

FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

"8, Great Vine-street, May 3, 1853.

"Gentlemen, I have the pleasure to inform you, that my house one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, and shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant, "C. OTWAY.

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes, Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock.

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 16, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley-fields, Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS

was awarded to J. H. BOOBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr Arnott's Ventilator, 4s; and the new registered Venetian Ventilator, so much admired, &c. &c. 6d. each.

J. H. BOOBYER (late STURCH and BOOBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1067, Class 6, Section 16, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

COLLINGE'S PATENT HINGES.—

Manufacturers, CHARLES COLLINGE and CO 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c; doors fitted with them may be removed and replaced in an instant. Rising and double-acting screw hinges, and superior gate fastenings, at moderate prices Nage genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

REDMUND'S PATENT HINGE

MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, Oxford-road, near the Canal-bridge. Established thirty years.—E. GOLLOP, widow of the late J. Gollop, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and not rising spring, swing, double action, cast, and other Hinges, Floor Centres &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Warehouse, 59 Greek-street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

TO BUILDERS, CARPENTERS,

CABINET-MAKERS, &c.—To be had, at FRENCH'S IRONMONGERY WAREHOUSE, 56, Great Portland-street, Oxford-street:—Self acting Cottage Ranges, 30-in. 28s.; 32-in. 30s.; 34-in. 33s. each. Register Stoves, 6d. per inch.; Elliptic ditto, 9d. per inch. Floor Brads, 4s. 6d. per cwt.; Sprigs, 4s. 6d. per cwt. Clasp Nails, 1½ in. 15s.; 2 in. 14s.; 2½ in. 13s. 6d.; 3 in. 13s. per cwt. Sash Line, Patent, No. 4, 5s. 6d.; No. 5, 8s.; No. 6, 9s. 9d. per gross. Glue, Brown, 46s. per cwt.; Scotch, 65s. per cwt.

Terms, net cash, on or before delivery.

SAWING, PLANING, and MOULDING

MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Joiners' or Cabinet Work, Sawing, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. As they will continue to give that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

NEW PATENT MACHINE for

MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.—Horse and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentee's, JOWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 36, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work in one machine; and as it is self feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

F.S. Steam Engines and Machinery contracted for.

TO IRONMONGERS, BUILDERS, &c.

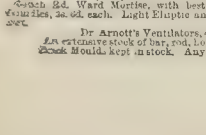
PATENT WROUGHT-IRON WELDED

TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c Manufacturers of Dr. Arnott's improved ventilating Cocks.—HULETT and CO. 55, High Holborn.

CLARK and HUNT'S IRONMONGERY,

STOVE, and METAL WAREHOUSE, 156, Shoreditch.

A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

24	27	30	36 inch
28s.	30s.	32s.	34s

Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

24	36	38	42-inch
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Backs, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivits, 5d. per inch.

Best Solar ditto, with Fire Brick Backs, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 60s. each.

Cast Rain-water Pipe	2 inch.	3 inch.
	11d. per yard.	1s. 2d. per yard.

Cast Gutters—4 inch, 9d. per yard.

G G Gutters	4 inch.	4½ inch.
	1s. 1d.	1s. 3d. per yard.

Patent Line	2	3	4	5	6	
	4½d.	5d.	7d	9d.	1s.	per knot.

Each 2d. Ward Mortise, with best Furniture and Patent Fastenings, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per set.

Dr Arnott's Ventilators, 4s 6d. each.

An extensive Stock of bar, rod, hoop, and sheet iron.

Stock Moulds kept in stock. Any size made to order.

AUSTIN'S IMPERIAL

PATENT SASH and BLIND LINE,

cash 6 dozen of 6 ft

ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY.

Established 1774

TO BUILDERS, CARPENTERS, FURNISHERS &c

THE following are the PRESENT PRICES

of PATENT SASH LINE:—

No.	3	4	5	6
£ s. d.	6s.	6s. 6d.	7s.	9s. 9d. per gross.

At JOHN YOUNGS', Birmingham and Wolverhampton. Agent, Victor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker street, Portman-square. Every other article equally reasonable.

LOSH, WILSON, and BELL,

NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron Railway Bars, Forge and Engine Work, Cast-iron Pipes, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES

Office, No 7, Sise-lane, London.

212° MILNER'S HOLDFAST and FIRE-

RESISTING SAFES (non-conducting and vaporizing) with all the improvements, under their Quadruple patents of 1849-1854 and 1855 including their Gunpowder Proof Solid Lock and Door (with out which, no safe is secure)

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX (212°) SAFE WORKS, LIVERPOOL, the most complete and extensive in the world Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47A, Moorgate-street, City.—Circulars free by post.

CHEAP GAS-FITTING WAREHOUSE.—

The Trade supplied with every description of GAS CHANDELIERS, Hall Lamps, Pendants, Pillars, Brackets, Iron and Brass Tube, Tin and Composition Pipe, &c. &c at J. JEAL'S, 20 and 21, Old street, near St. Luke's Church, London.

P.S.—An large and choice an assortment as any house in London. Gas-fitting Contracts to any amount.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY,

PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

THOMAS EDINGTON,

PURCHASER and INSPECTOR

OF

CASTINGS on COMMISSION,

17, GORDON-STREET, Glasgow.

ACORN TIMBER WHARF.—

AT RICHARD MAY'S extensive Waterside Premises and Saw-mill Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER: planks deals, and battens on sale, direct from the importers; prepared floorboards, moulding, sash and cut deals, sawing battens, laths, English oak plank, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

ALFRED ROSLING begs to inform his

Customers and the Building Trade generally that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark bridge Wharf Bankside.

REDUCED PRICES.—EDWARD SIMMS

(late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that the has now on hand at his Manufactory the first of its kind ever established, a very large Assortment of Dry and Well seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's Flooring Manufactory Wilton-road Pimlico Basin.

GREAT REDUCTION of PRICES.—

SAMUEL PUTNEY respectfully solicits the attention of buyers to the following greatly reduced prices.—

Pine Planks, 12 ft. 3 in. by 11 in.	from	3s. 6d.	each.
Spruce Deals	"	2s. 2d.	"
Yellow ditto	"	4s. 6d.	"
Yellow Battens, 2½ in. 12f per 100.			
Honduras Mahogany, in 1863	"	0s. 4½d.	per foot.
Ditto ditto, in planks and boards	"	0s. 6d.	"
Spanish ditto	"	0s. 7d.	"

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.

Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

SEASONED FLOORING.—GEO. NOKES

and CO. late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

¼ inch White, 13s. 6d. per square.	⅜ inch Yellow, 15s. per square.		
⅜ ditto 15s.	"	½ ditto 16s. 6d.	"
½ ditto 18s.	"	1 ditto 30s.	"

Laths, 3s6. per load.

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.

ST. PANCRAS SAW-MILLS, Camdenridge-street, Old St. Pancras-road.

UNIVERSAL MOULDING-MILLS, 24,

Periwinkle-road, Notting-hill.

WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Skirting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade.—N.B. All customers having an account at the above establishment can be supplied with mouldings to their own design, at the shortest notice, free of any extra charge.

MACHINE CARVING, JOINERY, and

MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above Works begs respectfully to apprise the nobility, clergy, & others, Builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Examples of Carved Work and Tracery, executed out by the hands next for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails Tables, Chairs, & c. executed at the shortest notice. Specimens of Carved Work, available for various purposes, can be seen at the Works, and Estimates furnished upon application.

TIMBER and DEAL YARD.—A large

CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

PADDINGTON TIMBER-YARD.—

SAWING, PLANING, and MOULDING. Ironstone Wharf Board street, Paddington, and 1 St. John's-wood-terrace, St. John's-wood.—GEORGE WILLIAM PRY begs to draw attention to his large stock of SEASONED and PREPARED WOOD GOODS at the lowest current prices. Liberal allowance for cash, and facility for immediate despatch by rail or canal, which affords every advantage to country as well as town buyers. Illustrated and priced sheets of moulding designs and general price lists of goods forwarded post free on application. Goods free to any part of town, including the various railway and canal stations.

N.B.—Sawing and planing for the trade.

TO TURNERS, TIMBER-MERCHANTS, AND OTHERS.

TO BE SOLD, 1,000 large PEAR-TREES,

in sound condition.—Apply to W. BRANDON, 9, Portland-terrace, Rotherhithe, Surrey.

STEPHENS'S STAINS for WOOD.

Testimonial to the value of:—

"Northgate, Colchester, February 5, 1855.

"Sir,—I have just finished a new church with your oak stain, and I consider it the best adapted for the purpose, being the nearest approach to the real wood of any I have ever used.

"I am, sir, your obedient servant,

"SAMUEL GRIMES, Builder.

"To Mr. Hy. Stephens, 54, Stamford-street, London."

NOTICE.—IMPROVED WOOD MOULD-

ING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments, tombs, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps.—Please note the address—20, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

ANNUAL DIVISION OF PROFITS.

GREAT BRITAIN MUTUAL LIFE

ASSURANCE SOCIETY,

14, Waterloo-place, London, and 30, Brown-street, Manchester.

DIRECTORS.

THE CHISHOLM, Chairman.

RICHARD HARTLEY KENNEDY, Esq. Alderman, Deputy-Chairman.

Major-Gen. Michael E. Bagnold	William Morley, esq.
Francis Brodigan, esq.	Robert Francis Power, esq. M.D.
Alexander Robert Irvine, esq.	Archibald Spens esq.
John Inglis Jerdan, esq.	Frederick Valiant, esq.
James John Kinloch, esq.	Rev. F. W. J. Vickery.
Henry Lawson, esq.	

This Society is established on the tried and approved principle of Mutual Assurance. The funds are accumulated for the exclusive benefit of the Policy holders, under their own immediate superintendence and control. The profits are divided annually, and applied in reduction of the current premiums. Policy-holders participate in profits after payment of five annual premiums.

The Annual General Meeting of the Society was held on the 30th of May, 1855, when a Report of the business for the last year was presented, exhibiting a statement of most satisfactory progress. It appears that during the two last years, 1853 and 1854, between 800 and 900 new Assurances had been effected, producing an increase of premium income amounting to 1,600l. per annum. It also appeared that, notwithstanding the extraordinary mortality which prevailed during the last year in consequence of the visitation of the cholera, it had not been found necessary to reduce, by the slightest, the allowance previously awarded to the Policyholders.

The Members present at the Meeting were fully satisfied with the Report, and resolved unanimously that a Reduction of 31½ per Cent should be made in the current year's Premium payable by all Policy-holders now entitled to participate in the profits.

Credit is allowed for half the Annual Premiums.

The following Table exemplifies the effect of the present reduction:—

Age when Assured.	Amount Assured.	Annual Premium originally paid.	Allowance of 31½ per cent.	Annual Premium now payable.
	£	£ s. d.	£ s. d.	£ s. d.
20	1,000	20 17 6	6 11 6	14 6 0
30	1,000	25 13 4	8 1 8	17 11 8
40	1,000	33 18 4	10 13 8	23 4 8
50	1,000	48 16 8	15 7 8	33 9 0
60	1,000	75 17 6	23 18 0	51 19 6

A. R. IRVINE, Managing Director.

14, Waterloo-place, London.

THE ASYLUM LIFE ASSURANCE

OFFICE, 72, CORNHILL, LONDON.

Established 1824.

CHAIRMAN—JOHN CLARMONT WHITEMAN, Esq

Policies on healthy and diseased lives, at home and abroad, for civil, military, and sea appointments.

The only office on purely proprietary principles, involving therefore no partnership among policy-holders.

For prospectuses, proposal papers, &c. apply to

MANLEY HOPKINS, Resident Director.

EQUITY and LAW LIFE ASSURANCE

SOCIETY, No. 26, Lincoln's-inn-fields, London.

TRUSTEES.

The Right Hon. the LORD HIGH CHANCELLOR.
The Right Hon. LORD MONTEAGLE.
The Right Hon. the LORD CHIEF BARON.
The Hon. Mr. JUSTICE COLERIDGE.
The Hon. Mr. JUSTICE ERLE.
NASSAU SENIOR, Esq Master in Chancery.
CHARLES PURTON COOPER, Esq. Q.C. LL.D. F.R.S.
GEORGE CAPRON, Esq

Examples of the Bonus upon Policies declared to the 31st December, 1854:—

Date of Policy...	18th March, 1845	24th April, 1845	7th Nov. 1845.
Age at Entry	30.	42	61.
Annual Premium	£23 7 6	£35 16 8	£19 8 4
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The Builder.

Vol. XIII.—No. 655.

IN our view of the kaleidoscope changes of French art, we have reached the last two years of the eighteenth century.* Now, in the words of Napoleon, forty centuries looked down upon the Gallic host from the summit of the pyramids. It is said that when the army arrived within sight of the vast remains of Thebes—though Karnak, Luxor, and Medinet-Abou were then viewed as separate cities—the troops stopped, awe-struck by the sublimity of the spectacle. That story may be apocryphal; but of the impression produced on one "corps" of the army, the folio volumes of the great French work are fortunately a standing monument.—We can but regret that in the case of the recent British expeditions, representations made at the opening of the campaign were unattended to, and that our *savans* were not at hand at Kertch, to do their part in the way of preserving record, and preventing the disgrace to the British name of wanton spoliation. In France, the result of the expedition to Egypt was, that architects, sculptors, and painters, were now fired with enthusiasm for everything Egyptian. The work of making Paris a new Thebes, was actually commenced by buildings in the Rue des Colonnes and the Place du Carre, of which there were lately some remains. There can be no doubt of the value of the lessons to be derived from Egyptian architecture; but it seems the fate of all attempts to imitate the details of the style out of its country, to be simply ridiculous; and that result was attained in France. The better influence of David in painting regained sway, and prevailed till 1806; beyond which time, the growth of art was more decidedly progressive; the improved colouring of Gros, and the natural treatment of Granet being employed on subjects nearly allied to the interests of daily life. From the exhibition in 1806, of the picture of the Plague at Jaffa, by Gros, we may date the commencement of an opposition to the doctrine of The Ideal held by David; and again, by the law of progress, as we may call it, observed in other cases, the pupils of the new master, accustomed to regard truth without making the beautiful a necessary condition, fell into the apparent choice of deformity, which has been noticed in a much canvassed English section of artists during the last few years.

We, however, did not intend to pursue the history of painting in France, further than it might elucidate the history of general art. Could we do so, the names of H. Vernet, Géricault, E. Delacroix, L. Robert, Ingres, Delaroche, and Ary Scheffer, would be suggestive of some interesting speculations on the different changes of manner which have occurred down to our own time. But, it is desirable to revert to the fact of long continued maintenance of some order of classicism by the David school. This, beginning with the republic, received new importance from further political events. The formation of a governing power under the designation of "consulate"—the choice of the eagle standards—the *imperial* dignity assumed in 1804—all are obvious exemplifications of a prevalent tendency in thought; and the robes and other insignia of power and office, were modelled expressly with a view to perpetuate the association of ideas which had grown out of the admiration for the Roman name. Furniture, which had retained much of the Louis XV. character, though with greater rigidity, during the reign of Louis XVI. became stiff in outline, and often tasteless where ornament was attempted. The style referred to was not of very long duration, but prevailed to a sufficient extent to be well known. Rigid forms; the *lictors' fasces* used for support; the Napoleonic emblems and insignia, and a constant use of gilding, appear to us amongst the characteristics. Straight-backed, straight-armed chairs, wholly gilt, or black with gilt beadings or star-shaped ornaments, were not uncommon in England. They are due simply to the absence of any real taste.

In general architecture and decoration, the most important works of the empire are those of Percier and Fontaine. The style of these men, profusely exemplified both in buildings and published designs, has been characterized as the affectation of the antique: but whilst it is founded on a classical basis, it displays original merit. As others have done, the new emperor—by no means secure from conspiracy—sought to occupy the public mind with works of art, and the men just named were at once set to the old *pièce de résistance* of French architects—the still unfinished palace of the Louvre. The elaboration of designed details in the "Arc de Triomphe" of the Tuileries, and in the celebrated publication, the "Recueil de Décorations Intérieures," is is more wonderful than anything in the works of English architects,—unless we except some one or two buildings of very recent date, and different style.

The puritan Palladian element disseminated from Italy over Europe, had been supported in France mainly by Gondouin, the architect of the Ecole de Médecine. In England the general architecture at the end of the eighteenth century, must have been at a very low ebb. We are apt to speak slightingly of many later efforts, let us look at some of those during the period we allude to. About that time, increased church accommodation had been needed. Many chapels-of-ease and proprietary chapels were therefore built. We find the following dates:—Percy Chapel, 1769; Bentinck Chapel, 1772; Titchfield, now Welbec Chapel, about 1774; Fitzroy Chapel, 1778; Portland Chapel, 1779; Quebec Chapel, 1788; Margaret-street Chapel, 1789; St. James's Chapel, Hampstead-road, 1792; and Brunswick Chapel, about 1795. The architects living, were most of them men of skill; but whenever a fair proportion of building has to be done, it requires a considerable number of architects to produce any general character in public taste. The ordinary houses, therefore, remained either wholly guiltless of an attempt at art, or were mere *caricatures* of one or other style. Those who were employed on the more important public and private buildings, were indeed artists of no mean pretension. Henry Holland, and James Gandon, of Dublin, used the Palladian, or columnar Italian architecture, with considerable success. In striking contrast to such men was the style of Sir John Soane, whose long professional life may be taken as commencing with the year of his return from Italy, as early as 1788,—the year of the death of "Athenian" Stuart, of Sir Robert Taylor, and of Gainsborough, the painter. Within the next four or five years, Soane had published designs, commenced many buildings, the Bank of England included, and made designs for a new House of Lords and entrances, and for new courts of law.

An opinion from Sir William Chambers, who was living till 1796, upon the new manner, would be interesting, and perhaps valuable. If the labour of the architect's profession be somewhat onerous, the ranks of the profession have included men who have passed beyond the threescore and ten. What might be the interest and value of the autobiography of some of them? Soane had made his design at Parma for a triumphal bridge, before either Schinkel or Klenze were born, and before what is perhaps the greater portion of the architectural work of England and France—whatever its merits—had been thought of.

The earliest portion of the Bank of England—of which, part (the back of the Threadneedle-street front, towards the court) is yet remaining—was by an architect named Sampson. To this building Sir Robert Taylor had added two wings of columns, with projections surmounted by pediments, and other parts. Some of Taylor's work is still to be seen in the architecture of the Garden-court, and we believe near the Bullion-office. Taylor, we may remark, was the architect of the triangular block of buildings which were removed on the erection of the Royal Exchange. The basement of these was in excellent taste, and the plan was a most skilful application to a difficult site. Of the same architect's style, an example which may be readily referred to, is the Pelican Fire-office in Lombard-street; the good stonework of which, with the sculpture by Lady Diana Beauclerc, has just lately been daubed with a needless coat of yellow paint. Soane's style differed not only from Taylor's, but that of all his contemporaries. He supported the doctrine of predominant novelty, and with much success. His style is valuable, not merely in showing what may be done at all times, even under the perplexities of modern art; but it is often suggestive of new ideas in matters of detail; whilst admittedly, the architect has realized many beautiful pieces of effect, especially in his interiors. Here, in domical vaultings, and the management of the lighting, he is often singularly happy; and his house in Lincoln's-inn-fields is full of novel contrivances, deserving of study with reference to more important buildings for like purposes. Where the style failed, the failure seems to us due to the regard for novelty, as though it were the *sole* end of art. The details used by Sir John Soane were produced by very simple means. They usually consisted in the reverse of the ordinary, or *relievo* mode of decoration; and as in the leaves of the particular Corinthian capital which he generally followed, ornament was expressed by incision rather than projection. Thus, much of his work has been scored over till all his stock of patterns was exhausted, and he has been obliged to hit upon any childish form of line or curve, like that round the arches of the Rotunda in the Bank. Frets; panels chased with lines; honeysuckle acroteria; paterae; and ornaments, made up of rows of beads; flutings; or rope ornament; he was very fond of. Chimney-openings were often treated by him with a simple fret, or other incised pattern, in place of jambs and mantel; an idea that might be worked upon with advantage,—having regard to the tasteless manufactured chimney-pieces which are often the architect's only alternative. He commonly placed his orders on a stylobate, the bases being without plinths. He used pilasters, or antæ, of the slightest appreciable projection, though Sir Wm. Chambers had laid it down as an axiom, that these members should never project less than one-fourth the diameter. Archivolts carried to the ground as architraves, imposts being omitted, and square-headed niches are general. In the use of horizontal rustic work, or that sort where the perpendicular channellings are omitted, he occasionally grouped the divisions with effect. In monuments and tombs, he seems to us to have given the sepulchral character with considerable originality and taste,—though some details may be open to objection. His own tomb in St. Giles' Cemetery, Old St Pancras-road, and the structure at the back of the National Debt Office in the Old Jewry, now fast perishing, and which, if we recollect rightly, was called a Cenotaph to the Memory of William Pitt, may be quoted as examples. We should not omit to notice, that the archi-

* See p. 393, *ante*.

tecture of the Bank would, strictly speaking, be at issue with some commonly asserted principles. Columns, unrequired by any original disposition of plan, and doorways which cannot be entrances, are scarcely consistent with the letter of architectural law; still the result is pictorially effective—the north-west corner, indeed, in spite of uselessness, is highly so—and the whole is really a clever mode of treating what is mere wall,—a solution of a problem such as might be attempted often in street architecture with different means, and with great advantage. In short, what Soane did, whilst it does not affect the importance of rules, shows that rules are insufficient to make the work of an artist, and that it is inadvisable to dogmatize about them. It is to be regretted, as in many similar cases, that the iron railing is so placed, as often to obscure the designed proportions of the order. Soane had many imitators during his lifetime: it is perhaps not to be regretted that these have now decreased. The Bank was in progress for several years, and the south front was not commenced till 1823. Its chief defect, the want of height, has been cleverly remedied by Mr. Cockerell. Soane had been long before, elected a Royal Academician, and as one of the architects of the Board of Works, was entrusted with some of the chief Government commissions, a few of which may call for notice hereafter.

Other architects of the Italian school practising at the end of the eighteenth century, were Joseph Bonomi and James Paine. The work of the former which lies nearest for reference, is at Uxbridge House, Burlington-gardens; for, to this architect must we ascribe the front of the building, generally due to the architect Vardy. It has an odd number of pilasters; but is more remarkable for the injudicious use of a mere casing of stone, and on what is not even the front of entrance. This practice of making "show fronts" is not altogether a recent one, as it has been said to be, the late Roman churches having almost universally such fronts. Paine was employed both in London and the country, but is chiefly known for his published designs. There were, however, two men whose works deserve somewhat longer notice. These architects were Henry Holland and James Wyatt. The former has, perhaps, never received full justice: the latter was assuredly in his time greatly overrated. The notice, however, must be deferred till another article, in the course of which we hope to get fairly launched in something like a consecutive current of progress with the works dating in the nineteenth century.

MAIDEN-LANE AND VALLEY OF THE FLEET.

HOW WE IMPROVE.

Along the valley of the Fleet, from Coppice-row to Farringdon-street, the work of demolishing old and rotten dwellings is carried vigorously forward, and on the opposite side of the street, a little to the south of the Clerkenwell Sessions House, many dwellings of a date anterior to the Fire of London are now being removed. The west side of the street from here towards Cow-cross-street, and then towards the Fleet, would seem to have been built long before the Sessions House. Rose-alley, Frying-pan-alley, and the numerous narrow courts in this neighbourhood have been before mentioned by us. Bear and Staff yard, Vine-street, and other old names of the streets west of the Sessions House, remind us of the time when they looked into the fields. It is curious to stand now at Coppice-row and see the fine view of St. Paul's Cathedral which is opened out by the removal of these buildings. Eighteen or nineteen years since it was by no means even safe to venture into the neighbourhood which is now cleared. It was a dreadful place, filled to overflowing with the worst sorts of wretchedness and vice. When the removal of some of the houses in Field-lane discovered this comparatively unknown region to the sight of the thousands of passengers who pass along the great thoroughfare of Holborn, great was the astonishment of those who then came to take a peep at the unnatural-looking buildings which stood by, and in some instances were built over, the Fleet river. Many a story of Jack Sheppard, Jonathan Wild, and other well-remembered and not sufficiently despised vagabonds, was told to curious listeners, and tales of murders and robbery; of deceitful trap-doors, through which unwary visitors had been slipped into the Fleet; of bones and fragments of bodies buried in the basements of the dwellings. These and such like legends were commonly circulated about the place, and some of the houses near the top of Field-lane were exhibited to those who were curious, on the payment of a certain sum, and hundreds thronged to see the house of Jack Sheppard, which had thus, it was said, been brought to light. This, no doubt—bad as was the taste that prompted it—was attended with good, for many were here brought to see dwellings such as they could never have dreamt of, and children and men of such a stamp as would make all, except the most thoughtless, shudder. But dark and dismal as were the traditions which lent a sort of romance to the place, we believe that many a deed of horrible importance had been acted there which was never brought to light. In the heart of this region were filthy shops, in which loathsome food was offered to scores of those who for years had not ventured forth into the public streets, who had not made a trade of begging, but by their squalid looks and clothing defied the imitation of those artistic individuals who prey to such a considerable extent on the street alms-giver.

The public-houses were pandemoniums; the Jew lodging-houses could not be passed over without notice, nor the numerous shops of the dealers in old iron and other matters standing open for the convenience of the light-fingered.

We do not remember noticing a school (as we understand the word) within this dark "shadow." Let us forget it, with the pauper grave-yard, which was thought, in the times when thousands could be found who believed in the salubrity of such places in the midst of our cities, to be conveniently near the Fleet; also, the manufactories, dust-yards, the crowded tenements, such as those in the Sand-yard, and look with pleasure at the beautiful dome of St. Paul's, and at the great thoroughfare which is now being opened; and having at hand Chamberlain's map of 1770 (which, by the way, is worth reproducing), we notice it shows Hockley-in-the-Hole, Bay-street, and a few houses on the west side of Coppice-row, *the Small-pox Hospital*, and then no houses until we reach the Bagnigge-well Tea-gardens, near which is a place marked "Black Mary's Hole." The origin of this name we have not been able to discover.

Since 1770, the Small-pox Hospital has been twice removed, first to King's-cross, and thence into the country;* and during the last five or six years, the houses and population which we have faintly sketched (the houses at any rate) have been dispersed and destroyed; and as we believe that nothing, taking all circumstances into consideration, could be worse than the state of the Fleet-valley, we may expect that the people will be better off: but no time should be lost in providing wholesome lodgings, for such as are thus driven forth.

Glancing from time to time at places which have been formerly referred to in the *Builder*, we find in Frying-pan-alley, and elsewhere, that the population is as thick as ever; almost invariably the people say that they are unable to find suitable accommodation. Some of these places have been drained, and were comparatively free from disease during the last attack of cholera, but the dwellings are still dilapidated, and, for such accommodation, expensive. The water comes in on the Sunday, and all say that this is a great blessing to them, only that it runs for too short a time. In many of these poor neighbourhoods, the water-casks and tanks have been cleared away, and a small leaden pipe, not more in many instances than 8 or 9 inches from the ground, supplies each court for a limited time: this mode is, to a certain extent, more wholesome than the tanks and water-casks, so closely placed to the "closets;" and yet even this plan is very inconvenient and insufficient: for instance, let us take a court or alley containing twenty-five houses, let into tenements, eight families in each house—we should thus have 200, or if we say six families in each house, we should have 150 families. Imagine these rushing to the water, which, perhaps, does not run more than half an hour, and the scene of confusion and quarrelling which takes place. Then, again, many have few vessels in which water can be kept; these come down, perhaps, with an old tea-kettle, or broken stone bottle; and the contents of this will be all the water a family will be able to collect until the next day, unless they borrow it or fetch it from other places. It is needless to say how completely this puts cleanliness out of the way of many who may be even well-disposed. We inquired at several of the houses between five and six in the evening, and found three out of four without water; and it seems barely necessary to repeat, that such as was preserved in such an atmosphere could not be wholesome.

In Apollo-court, Bell-yard, Temple-bar, and many other places in this neighbourhood, this plan has been brought into use, and the same complaints are to be heard: there are no taps on the leaden pipes. Bailey-court, Bell-yard—described in the *Builder* five or six years since—is still undrained: even the surface-water passes down Bell-yard in front of the shops, &c. into the great thoroughfare of Fleet-street at Temple-bar. In all these thickly-populated courts there should be, if not cisterns, at least a supply of water from a tap at the main for say three hours in the morning and three hours in the evening of every day; and we believe that but little water would be wasted: the best-disposed of each locality would act as a sort of police, and prevent the waste of this necessary of life.

If we cannot tell what has become of the population of the Fleet valley, we are unfortunately in no doubt about the place to which several of the *manufactories* have been shifted, and that is no farther off than Belle Isle, Maiden-lane. Here horses are melted, not in rotten looking sheds such as those were by the Fleet, but in solid-looking buildings which seem to be intended to carry on the work for years, independent of considerations of the health of the neighbourhood, public opinion, or the law. A year or two ago a few words were said in this Journal about Maiden-lane, and since then the manufactories have increased in numbers, and in size; and the place, particularly towards the east, has become covered with streets. The smells which come from this district when the wind blows from the "balmy west" (the reverse now, however, to the inhabitants of this part of Islington), are most sickening, and from some of the large chimneys of Maiden-lane come like huge clouds of black smoke over the place. Nor is the evil confined to Islington; for, of course, as the wind shifts, Camden-town, Somerstown, &c. are visited by the poisonous vapour.

If, however, you venture in the course of inquiry to state to any of the manufacturers the complaints heard from the neighbours, you will probably be laughed at as the veriest jester. "Ha, ha, ha! I cannot help laughing, sir. Why, this is a *nuisance neighbourhood*. What business have you to interfere? Leave us alone, sir—we neither hurt ourselves nor anybody else." Let us, however, say, in reply, that what seems sport to him, is death to many; and it is worthy of remark, that one person who so replied, careless of others, and strong in the opinion of the wholesomeness of his trade, was himself carried off by the last attack of cholera.

The report of the health of the metropolis for the week ending the 11th August, mentions that the wind had blown for some time from the west and south-west, and that "of the five divisions of London, the greatest number of deaths from diarrhœa occurred in the north and east districts; and it deserves to be remarked

* "In 1746 an hospital was founded for relieving poor people afflicted with the small pox and for inoculation, and this was the first of the kind in Europe. It consisted of three houses,—one in Old-street, for preparing patients for inoculation; another in Frog-lane, Islington, where the disease first broke out; and the third in the Lower-street, Islington, for patients in the natural way."—*Chamberlain.*

that of thirty-seven registered in the north division, fourteen occurred in the district of Islington, only two occurred in Wandsworth, and none in Camberwell."

Not, however, to enlarge upon this matter, we assure our readers that the manufactories of Maiden-lane are most injurious, and that many of our improvements are but temporizings, and, instead of curing, soon add to the extent of the evil.

In concluding these remarks, we would strongly urge all who dwell where sewers are being constructed, to see that the cesspools are properly emptied and filled up (not merely covered over), and that communications be made with the drain.

It would be a useful guide to those in search of a house if the landlord were asked to produce a certificate that the drainage had been properly attended to, for it is most difficult to know, until after a short residence, whether the drainage is perfect or not; or, if there be one of the disguised cesspools, to which we have before directed attention, and which have been attended with such serious effects. We know of a case, where, soon after taking possession of a fresh house, a strong healthy young man was stricken with fever and died. This led to inquiry, and a cesspool, to which three other houses communicated, was found in the house with a rotten drain; and underneath the floor of the passage lay putrid water in large quantities. Then the workmen were sent for, the road opened to the inconveniences of passengers, and the filth removed in the hot weather; and now some of the other members of the family are ill of fever.

Strange that, notwithstanding our repeated statements and incontrovertible evidence, thousands, not without education, are still to be found who doubt, or at any rate deny, the injurious effects on health of defective sanitary arrangements.

In connection with the nuisances at Belle Isle, near the New Cattle Market, a crowded and influential meeting of the inhabitants was held at the Offord Arms, Caledonian-road, on Monday, when a carefully drawn up report of the "Beautiful Island" was submitted. After mentioning that the district complained of is only of small extent, occupying, in fact, not much more than seven or eight acres, and that it is without drainage in most parts, the report proceeded to describe the various manufactories, &c. which are here collected together; amongst them are pig-dealers, pig-killers, pig-feeders, "one knacker's (very clean), the rear of the premises suspicious;" "two knackers' premises very dirty," sausage-skin maker, oil and varnish manufactories, "the patent sundries process manufactory," baked "night-soil manufactory," patent manure manufactory, baked manure, melters, soap-boilers, lucifer-match manufactory, &c. &c. &c. From these numerous works—each useful in its way, but sadly out of place—fumes are passed by the south-west winds, amongst a population of from 60,000 to 100,000 persons. Twenty medical men have given their opinion of the danger of the gases which are thrown from this pestilent place; landlords complain of the difficulty they meet with in letting houses—some, in fact, having lost their best tenants: a mass of letters, too numerous to be read to the meeting, from people of all classes, complaining of the nuisance, lay upon the table. After a short discussion the report was adopted, and a committee formed to proceed at once against the various matters complained of. This determination will give us an early opportunity of testing the working of Sir Benjamin Hall's Bill; and we hope that the committee will deal with success and vigour with this place of pestilence.

We do not attempt to individualise any of the manufactories, but an idea of the effect of the whole may be gained from one example. A medical gentleman says:—"I have many a time passed in my carriage: the effect of some of the gases is to produce asphyxia. I have shut the windows to endeavour to get a little relief, but have been glad to open them in order to be able to breathe. It affects persons according to their different constitutions: in some it causes violent headache and oppression; in others nausea; in many downright sickness, &c."

If the air from Belle Isle thus affects the strong and healthy, it is evident how great must be the evil to the very young and to the old, and to those in delicate health.

In Clayton-street, Caledonian-road, diarrhœa has been prevalent, and many of the cases dangerous and bordering on cholera. These cases have occurred when the wind blows from the south-west. Many persons say that the smell can be distinctly "felt" beyond the High-street, Islington.

We have received some letters on the subject, and print a portion of one of them:—

"From inquiry made by me, I find that the trade which has sprung up of late is that of manure manufacturing from blood and bones, decomposed by oxalic acid, and baked into cakes. The effluvia from this reaches to a distance of two miles all round, and is at times, to those living in the direction of the wind, most hurtful, causing sickness and head-ache, with loss of appetite. The stench is observable, according as the wind blows, at King's-cross, Camden square and villas, Holloway-road, Barnsbury-park, and Pentonville-hill.

Several medical men attended the meeting, and complained of its effects. One of them who lives in Thornhill-square stated he must leave unless the nuisance was removed.

Now, I ask, is it not a most disgraceful thing that such a nuisance as this should have been allowed to grow up in the parish of Islington, and no notice taken of it by the trustees, but the inhabitants allowed to be annoyed and inconvenienced, and their health endangered, and compelled for their protection to call a public meeting, when the trustees under their Act of Parliament have full power to remedy it?

To administer this Act there are sixty trustees, two solicitors, who act respectively as vestry clerk and clerk to the trustees, and a surveyor and an assistant surveyor, and an inspector of nuisances.

With such an Act of Parliament and such a numerous body of trustees and others, persons would naturally conclude that the parish of Islington is well managed, paved, cleansed, watered, and free from all nuisances and annoyances; but let any one look at the neighbourhood of Belle Isle, and they will there see a district that would disgrace any parish not having the good fortune to possess so useful an Act,—streets and lanes without roads or pavements, receptacles of all kinds of filth rotting and putrifying, without drains—a pestilence to the neighbourhood, and productive of the most baneful consequences to the health of the inhabitants.—C. J. Fache."

ON THE PROGRESSIVE CHANGES IN ORNAMENT,

IN THE SUCCESSIVE STYLES OF MEDIÆVAL ARCHITECTURE.*

However degraded taste may now be, in many respects, we may still, happily, claim the love of nature as one of the characteristics of our day. How many a vile building, which would of itself be a perfect plague-spot on the landscape, do we see rendered endurable by the taste shown in laying out the gardens around it. The love of trees, shrubs, and flowers is, indeed, the most hopeful feature in the taste of our age, and one which may fairly cover a multitude of sins. Let us import this one hopeful symptom into our architecture. Let our love of nature show itself in our decorative arts. If we do this, we know that we shall not go far wrong. The same power which endowed us with the love of beauty and with a certain subordinate power of creating it, and supplied us with an infinity of materials in which to exercise this faculty, has not left us without models for its guidance. The direction given for the first structure for divine worship was, "*See that thou make all things according to the pattern shewed thee in the mount:*" and *we*, happily, have on every mount and in every valley patterns given us by the same authority as our perpetual guides. We are not, it is true, strictly bound to them, and we have powers of invention which enable us, often wisely, to vary from our models so as to suit our decorations to the functions they have to perform; but this does not affect the great normal fact that *nature alone* is the great primary guide to decoration, and that at those periods, which will ever be recurring when humanly-invented styles become enervated and fall to decay (and it is evident, to all who think deeply, and observe clearly, that we are living at such a period), the only hope for a revival of energy is by falling implicitly back upon *nature*, and by faithfully and lovingly following her guidance, to throw off the worn-out arts which are vernacular among us, and to generate others more worthy of a rational and cultivated age.

This, I think, we might all make a *simultaneous* effort to attain. We have no Freemasonry to enable us all at once to press onward in one architectural style; but so far as architectural *decoration* is concerned, we have that freemasonry, and its one password should be "*nature*."

I am not, let it be understood, expressing any disapproval of what is called conventional ornament. So far from this, I have the greatest admiration for that of both the early and late period of Gothic architecture; but the artists of those vigorous periods used *their own* conventionalisms—forms which had spontaneously grown with their own growth, or had been intelligently introduced by themselves for specific purposes of their own. What I argue against is the revival of these ready-made conventionalisms. We probably *need* conventionalism, but let it be *our own*; or, if the old results are to be adhered to, let us, to say the least, work out the problems afresh for ourselves. In applying the only types we can in reason fall back upon,—those supplied by nature,—to the particular purposes for which we want them, we shall find that nature has only supplied the *normal types*, but that it is for us to use and adapt them. This adaptation will force us to conventionalize; but we must never do this otherwise than to answer some reasonable use, and to satisfy some intelligible requirement. When we practically find the necessity of such adaptations, it is then that a reference to old conventionalisms will become useful: we shall then understand their purpose, and (without copying them) we shall receive from them hints of the most useful and practical kind.

Thus, we must learn, by our own study, to arrange foliage in the most effective manner, according to its particular purpose: we must (as Mr. Ruskin says) "bring it into service." In this we shall receive many useful hints from the *early* conventional foliage. Again, in the more essentially architectural features, such as capitals, we must learn so to dispose our foliage as to produce an elegant and strictly architectural outline. The most perfect among the many kinds of outline which may be used is that natural curve such as would be suggested by a jet of water curling over elegantly at the top, like the crest of a wave. This exact outline is assumed by many plants, and it was this habit in the acanthus-leaf which recommended them to the Greek and Roman artists as the most appropriate for their capitals. This outline we have in perfection in the early capitals of the thirteenth century, during the conventional period, and from them we may derive important aid in the distribution of our *natural* foliage, so as to produce the same outline. Again, the majority of the leaves we use as models have not that depth of light and shade produced by relief of surface, which we may need to render our foliage effective at a distance. Here we must use our own judgment, aided by hints from old works, in remedying this want, or we may bring to our aid leaves not used in old times, and which afford greater relief than those more commonly in use.

Then, again, at great distances from the eye it may not be necessary to make a perfect representation of a natural leaf: indeed, a perfect copy might fail in conveying a proper resemblance: we must, therefore, learn how to use such a bold treatment, as, by a few judicious and well-placed cuts, to produce the effect desired when seen from a distance,—so that it may, when *in its place*, really appear more like the true leaf than if it had been actually a perfect representation of it. This we may be helped in doing by the study of the *later* conventional foliage, in which the art of producing effect by simple mechanical means often shows itself in great perfection.

The same may be said of adapting foliage to the requirements of wood carving. I think a system might be developed of uniting the sharp effective cutting, so frequent in late Gothic foliage, with the use of natural leaves. I would

* See p. 353, *ante*.

never adopt (except in old buildings) the conventional *forms* of the fifteenth century woodwork, but I would adopt their conventional *method*, uniting it with natural forms: by this we might produce a system of wood carving perfectly suited to the material. The question of whether or not it is according to the rules of sound taste to conventionalize animals used in decoration is a difficult subject. No one, however, can do it so as to be tolerable but a first-rate artist. We often find heraldic animals drawn with wonderful skill, though by no means like nature. Those, for instance, in the enamelled shields, on the monument of Edward III. are inimitably drawn. Heraldry being, from beginning to end, a conventional art, and being one which has come down to us without having ever become obsolete, I would continue to treat it conventionally; and whenever purely heraldic animals are brought in architecturally, I would retain their heraldic treatment. I think, too, when we introduce animals to do such unnatural duty as acting as water-spouts, we may also fairly follow up the liberty we are taking with them; but, if we use conventional or grotesque animals at all, let us at least import into them so much good anatomy as to make it appear possible that such creatures might exist! Let us, however, usually show them as they really are; and, for this reason, I would recommend our carvers to draw occasionally at the Zoological-gardens, or even from our domestic animals. Another thing I would advocate is the enlargement of our range in the selection of natural types.

I think that we shall always render our carving more pleasing by adhering, *in the main*, to the indigenous productions of the country in which we are at work; and I would advise it as a general rule that the carver should, wherever he is engaged, study carefully the prevailing productions of that country, and derive from them the principal objects which he uses. By doing this, he will be able to introduce great variety into his work, and to bring in many plants not used in ancient work. This is the true principle to go upon, and I would consider it as the established *rule*. I would, however, admit, and even encourage exceptions. The cultivation of an infinity of beautiful exotics is perhaps one of the most remarkable characteristics of our age, and I would admit its claim to be represented in our architecture. I would, however, treat it as an exception in its use in decoration, as it is *in fact*. I would not use it in a country village where no floricultural luxuries are to be found: *there*, I would use the simple productions of the neighbourhood; but in the mansion of a person who delights in such pursuits, or in a church built near his gardens, or under his influence, nothing could be more appropriate than to admit the influence of such taste or proximity into the architectural decorations.

If I am right in urging the general relinquishment of bygone conventionalism, and the falling back upon nature as the great characteristic we should aim at impressing upon all the decorative arts of our day, how important does it become that our art-workmen should make themselves thoroughly acquainted with natural productions! Let me, then, urge upon them the constant and careful study of the types with which they are on all hands surrounded. It is now the very height of the season for this study: do not let it slip by you. Remember that for nearly seven long months you can scarcely find a leaf when you want it; study them, then, while you have got them. Give yourselves an occasional holiday expressly for this purpose, and go out with your sketch book and your modelling clay, and sketch either on paper or in relief, or both, the leaves *as you see them* growing. Study the *habits* of the plants—the different modes in which their leaves and flowers group themselves. These you will often find to give you naturally just those symmetrical arrangements which you so often need: study even what animals, as *birds*, caterpillars, or butterflies, most frequent each plant: for their occasional introduction is true to nature, and gives life and spirit to your productions; but above all, train your hand and eye to the drawing and modelling of them freely. You may know all about them as a naturalist, without being able to produce a representation of them when wanted. You will gain more by this than by taking casts of them, though that is important. Dried leaves will be useful *if you have sketched them while living*, but if not, they will be of little service. But, whatever mechanical means you may use, pray in some way or another take the matter energetically in hand. And while architects and amateurs are quarrelling about whether the round arch, the pointed arch, or the horizontal architectrave is to be our future type of construction, and whether the architecture of the future is most to resemble that of Greece and Rome, or that of our own northern lands, *you*, as *decorative* artists, will have settled that part of the question which belongs to you, by boldly, and with one heart and soul, falling back upon that one great and glorious Freemasonry which belongs alike to every country and every age, and whose only rule of art is the study of *nature*.

G. G. Scott.

STATUES AT LARGE.

Peel.—We have not seen any objections in print to the City statue of Sir Robert Peel, by Mr. Behnes, which has been erected between St. Paul's and the Post-office, and so we ought to conclude perhaps that all are tolerably well satisfied with it, and that we ought to be so too. Truth to say, however, it gives us very little pleasure: we ought to say, it gives us a great deal of pain,—to see so much good metal wasted. The statue has not a thought in it or about it—to say nothing of the way in which the head is set on the neck,—and with its "that-will-do" sort of pedestal (equally guiltless of a thought), and the two beggarly double lamps at the sides, is as sad a specimen of an abortive attempt to be tasty as we can show in this metropolis of artistic failures.

The Houses of Parliament.—The marble statue of Walpole has been placed upon its pedestal in St. Stephen's Gallery, leading from Westminster Hall to the entrance of the Houses of Lords and Commons. The work is from the chisel of Mr. John Bell. It is to be hoped that these statues are not being produced too fast,—as per order.

THE "SQUARES" OF LONDON.

The interest which we usually feel in regard to the scenes of our childhood will, I trust, be sufficient excuse for a few remarks which I wish to make on your article on the "Squares" of London. I was born, and passed the first forty years of my life, in that district, and can, from my own knowledge, make some slight remarks on your statements. You give the date of Russell-square about 1804. I am certain the enclosure was commenced *not later* than 1802. The ground where the north side of the enclosure stands was about eight or ten feet below the present level, and the coping was placed on a series of brick piers and arches, which, being erected in the open field, without apparent connection with any other object, puzzled me exceedingly. The ground was subsequently raised, and the surrounding houses erected. Bedford House and premises, occupying the north side of Bloomsbury-square, with a dead wall and gates, with sphinxes on the piers, extended northward to the line of houses forming the south side of Russell-square, where a "ha-ha" formed the boundary, enclosing the stables and yard. The garden was nearer the house, and not on the site of Russell-square. Bedford House stood across the present Woburn-place, and I have a perfect remembrance of seeing the cartoons at the time of the sale. At that time Bolton House, which occupied the north extremity of the single line of houses forming Southampton-row, was the extreme of London in that direction, for there was no building in the then clear open "Long-fields" between Bolton House and the Southampton Arms Tea-garden at Camden-town, to which there was a footpath crossing the New-road, leaving the "Boot," immortalised by Dickens in "Barnaby Rudge," at some distance on the right. The view northwards from Queen-square was then quite uninterrupted, as stated by Dodsley. I remember with pleasure the many a roll on the grass which I have had, where there is now an entire town, of which I believe the first house was built by Mr. Burton for his own residence. Near about the spot occupied by Gordon-square, a circular enclosure was constructed, I think about the year 1803, for the exhibition of the "first locomotive," the production of Trevithick. I remember listening with wonder to the description of its performance, which was *then* so satisfactory that a bet was offered by the proprietors to match the engine to run a greater number of miles in twenty-four hours than any horse that could be produced, but there were no takers.

The boundary between St. Pancras and St. George's, Bloomsbury, parishes runs east and west, about half way between Russell and Tavistock squares. I have heard it stated that the boundary was formerly more to the south; but on the occasion of an unknown man being found dead in the fields, the authorities of St. Pancras refused to bury him, on the plea that he did not die in their parish; but the authorities of St. George's, then St. Giles-in-the-fields, out of which it was taken, buried the man without hesitation, and placed the boundary mark where he lay, thus adding a space now occupied by important houses.

The statue of Francis, Duke of Bedford, in Russell-square, was erected by subscription, which so far exceeded the requisite sum, that the surplus sufficed to procure the sitting figure of his friend Charles James Fox, which faces the former, in Bloomsbury-square.

Bedford-square dates somewhat further back than you state. I have known it in precisely its present condition nearly sixty years. I passed daily to school in the year 1799, and from circumstances I have heard my father relate, I know the erection must have been about 1780. The centre house on the east side used to be the official residence of the Lord Chancellor. Lord Loughborough lived there, and at the time of the Corn-law riots it was occupied by Lord Eldon. The mob made an attack on the house at night, and I remember on the following morning seeing the whole of the pallisading lying down in the area, the stone coping having been driven in with a pavior's rammer. Lord and Lady Eldon escaped over the back wall into the British Museum Gardens, and took refuge in the guard-house.

J. J.

Only one half of Russell-square, I think, formed the gardens of Bedford House, for there was a footpath leading from Southampton-row, at the back of the gardens of Bedford House and the British Museum, to the north-east corner of Bedford-square, which I have often traversed in my boyhood,—half of the site of Russell-square being a field, on my right, and the gardens of Bedford House and the Museum on my left. In the gardens of Bedford House, enclosed by park paling and a row of trees from Southampton-row, I have seen the Bloomsbury and Inns of Court (called the B. I. C. A.) Association, or Volunteer Corps, exercising before they were accustomed to assemble at the Foundling Hospital.

Bedford-square was built, your authorities say, between 1800 and 1806. Now on reference to Horwood's Map of London, published in 1799, you will find this square and the surrounding streets completely laid down and numbered, and I remember it completely finished at a date anterior to that. I believe several houses about there were built by Sir William Chambers: they bear marks of his hand.

I have no doubt Dodsley was right as to Queen-square, and that the north side was left open for a view of Hampstead and Highgate. I remember the beautiful view when there was not a house to intercept the prospect of these lofty districts, and have not seldom stood in Queen-square to admire them. The garden at the north end of the square was at that time sunk some ten feet below the square, agreeing with Malcolm's observation. In the original* construction of the Foundling Hospital, the grounds extended southward in the convex considerably, viz. eighty feet more than they do now, as shown by a map in my possession, dated 1790, and another dated 1769, and in which

* This must have been an after arrangement, for in a map I have since referred to, dated 1745, the grounds are shown straight with present line, with fastions at the four corners.

is shown the pathway*. Malcolm refers to, which in the plan of 1790 is marked "footpath from Tottenham Court-road to Lamb's Conduit-place," with a "sewer" by its side. With respect to your note on Hanway and umbrellas, I may, *en passant*, add that I have heard a lady say, in reference to their introduction in her early days, that on carrying one, she was accosted by a hackney coachman with "Pray, ma'am, do put down that thing, you'll frighten my horses."

Old Subscriber.

PROVINCIAL NEWS.

Fakenham. — Last year a company was organised for the erection of a building to include a corn hall, assembly room, magistrates' room, reading room, and other accommodations. Shares of 25*l.* each were taken by 160 subscribers, thus raising a capital of 4,000*l.* Sir Willoughby Jones gave a site in the centre of the town. Mr. Brown, of Norwich, architect, supplied a design which was approved by the committee; and Mr. Pettit, of Ipswich, obtained the contract, the amount being rather more than 3,000*l.* Mr. J. Pilkington, of London, supplied the asphalte, &c. for the roof, and Mr. Land, of Norwich, the gas fittings. The building was finished during the present month, and it is of red brick, externally nearly of a square form. The amount of the contract did not admit of so much stone-work as was arranged in the original design, and consequently, according to the *Norfolk Chronicle*, the building presents rather a heavy appearance. It consists of the corn-hall, 85 feet in length, 35 in width, and 26 in height. It is lighted by nine windows round, and a dome light in the centre. The dome comprises eighteen main compartments, with moulded wrought-iron ribs, and these compartments are sub-divided by lighter moulded bars glazed with Hartley's opaque glass, in five squares deep. The dome is ventilated. The interior of the corn-hall is ornamented by a cornice, and the finishings of the windows and scantlings are of Persian cement, in imitation of marble. The east side of the corn-hall opens into the assembly-room, the height of which is much lower. The dimensions of this room are 48 feet in length and 27 in width. There is a stone staircase to the rooms above, the magistrates' room, and the reading-room. Both are spacious, it is said, but deficient in height.

Stalham.—Here also a corn-hall and reading-room, &c. have been erected. About eighty-two gentlemen took as many shares at 5*l.* each to raise a sufficient sum. A committee was appointed and advertisements were published for tenders for the erection of a building. A site was purchased for 40*l.* and the tender of Mr. Pestell was accepted, to erect a brick structure, including vaults, a corn-hall, and reading-room, &c. for 333*l.* The building has been completed. The corn-hall is adapted for meetings or concerts, as well as business purposes. On Tuesday in last week, the opening was celebrated by a dinner held in the hall.

West Ham.—The enlargement of the gas works here is progressing towards completion.

Tewkesbury.—The Abbey Gate House, Tewkesbury, which a short time since was much dilapidated, has, within the last six years, been almost restored to its original state, by the present owner, Mr. John Martin, M.P. The gateway leads to the Abbey House, the residence of Miss Terrett. A view of this gateway will be found in our 8th vol. p. 114. It was partially restored by Mr. Martin in 1849, at a cost of nearly 450*l.* under the direction of Mr. Medland, of Gloucester, architect. A considerable portion of the walls was taken down and rebuilt, the stones being replaced precisely in their former position, and the whole of the stonework repaired. The gateway has been roofed with wrought timbers in panels, with curved and moulded brackets, supported by stone corbels with carved heads, and shields bearing appropriate devices. It has been further improved, according to the *Gloucester Chronicle*, by the addition of a set of doors, consisting of a large pair of folding-doors and a small side door, which have just been completed by Mr. Joseph Knight, of Gloucester. The large doors are 15 feet in height and 12 feet across, and weigh about half a ton each: the hinges were made at Mr. Savory's foundry. The doors, which are of oak, were designed by Mr. Medland, and are intended to accord with the style of the structure and the date of its execution.

Bath.—The Bath Board of Guardians lately received a report from the committee appointed to examine the tenders for the erection of the proposed lunatic asylum. There were twenty-five tenders, very few for the whole work, and these much higher than the contracts for separate portions. The committee recommended the following:—Mr. Hill, masonry, 1,067*l.*; Mr. Hodges, carpenter, 995*l.*; Mr. Mansfield, plasterer, 387*l.* 10s.; Mr. Kerslake, plumber, 287*l.*; Mr. Tuck, smith's work, 77*l.*; Mr. Axford, painting and glazing, 60*l.*; and estimate for raising the walls through to the roof, and other work as a protection against fire, 30*l.*; making a total of 2,903*l.* 10s. The architect's rough estimate was 2,530*l.* The contemplated outlay stands thus:—Building, 2,903*l.* 10s.; architect's commission, 150*l.*; furniture, &c. 300*l.*; purchase of land, 420*l.*; making 3,773*l.* 10s. The recommendations of the committee were unanimously adopted.

Taunton.—Tuesday in last week was a great day here, the foundation-stone of the new Assize-Hall having been laid with due ceremonial, and amid a display of banners and other decorations, and with music, feasting, and other observances. The site of the new building is at "the Grove," on the south side of Shutters, and opposite Wilton Jail. The Hall will be erected in the Perpendicular style of architecture. The materials of the exterior walls are to be Devonshire marble, and Combe-down stone dressings. The length of the building is about 200 feet; 140 feet in depth, and about 100 feet in height to the pinnacle of the ventilation turret, over the grand entrance to the courts at the south-eastern front. Over this portico a bay window from the grand jury room will communicate with a balcony. The edifice will stand back 100 feet from the road, be enclosed with iron gates and palisades, and will be approached by carriage drives leading to the principal entrances. The estimated cost of the building, exclusive of the land and approaches, is about 20,000*l.* The architect is Mr. Moffatt; the builder, Mr. George Pollard, of Taunton; clerk of the works, Mr. Thomas Jewell; Mr. Richard Carver, the county surveyor, being entrusted with the superintendence of the whole, under the direction of the building committee of magistrates, of which Mr. Richard King Meade King is chairman. On entering the grand portico leading to the courts, there is an entrance-hall on the ground-floor, 41 feet 6 inches by 30 feet. By a flight of stone steps the entire width of the hall, the inner entrance-hall is approached. This apartment, round which is a gallery, is 40 feet by 30 feet, and from this second hall the grand jury chamber (the size of, and extending over, the outer entrance-hall), lighted by a bay window over the portico; witnesses' waiting-rooms; magistrates' retiring-rooms; county treasurer's offices, and other suitable apartments are reached by a grand staircase. From the inner hall, on the right, is the entrance to the crown court, and that of the Nisi Prius on the left. Both courts, as well as the grand jury room will have open roof timbers of stained wood, moulded and carved. The courts are of equal size, 43 feet by 34 feet. On the basement story, immediately beneath the inner entrance-hall, a space will be occupied by heating apparatus for the building, which will be constructed by Messrs. Haden, of Trowbridge. On each side of the inner hall, leading down under the grand staircase to the basement floor, are robing and consulting rooms for counsel, and beyond these are apartments for the judges' associates, and clerk of the peace; also a fire-proof muniment-room for county records, and jury retiring-rooms. There will also be seven cells for prisoners, who will be brought from Wilton Jail by a passage under the road. The judges' lodgings occupy the west end of the main entrance, being at the south-west angle, with porch and turret over, and two oriel windows to the principal apartments. The basement is occupied by the servants' hall, kitchen, scullery, pantries, larders, beer and coal cellars, and the usual offices, &c. On the ground-floor is the porch and hall, leading to the principal staircase: the drawing-room on the right will be 26 feet by 18 feet; and on the left the dining-room, 36 feet by 25 feet; also breakfast-room, clerk's-room, &c. &c. The upper story contains numerous bed-rooms, bath and dressing-rooms, for the judges and their attendants.

Newcastle-upon-Tyne. —The foundation-stone of the St. Nicholas's-square Buildings will be laid on 29th instant, by the mayor.

Edinburgh.—It is proposed to light up the statue of the Scott Monument with gas, by suspending a lamp within the arch; and the matter has been remitted to a committee of the Council.

CHURCH-BUILDING NEWS.

Lincoln.—Workmen are busily engaged in erecting scaffolding for placing the new east window in the cathedral.

Norwich.—The corporation of this city have resolved to rescind their previous resolution to have two cemeteries, great difficulties having been met with by the burial-board in procuring two separate sites. It has therefore been resolved to have only one, the western, which, however, is to be thirty-five acres in extent. The committee have received tenders for building the chapels, lodges, and gates for the cemetery. The lowest tender was that of Messrs. Ling and Balls, being 1,855*l.* exclusive of 135*l.* for moulded bricks; total, 1,990*l.* This sum was 135*l.* more than the estimate of the surveyor, whose estimate only included one gate instead of two. The estimate of Messrs. Ling and Balls was accepted, and the city seal affixed.

Henfield.—The tower of the old church here has been put in a state of repair, and surmounted by a cock presented by the vicar. It is to be hoped that the reformation which has begun may extend to the interior, and that the Gothic arches may not be much longer disgraced with an elaborate coat of whitewash.

Dorchester.—At a recent meeting of the local Burial Board the contracts for the cemetery works were opened, and that of Mr. Mondey accepted. Operations have been commenced, workmen being employed in inclosing the ground, which lies on the Weymouth-road, a short distance beyond the railway station. It is easily accessible from the town, and when the mortuary chapels are constructed, and the grounds laid out, it will be an attractive spot.

West Charlton.—The reopening of the parish church of St. Mary, West Charlton, Somerset, took place on Wednesday before last. Previous to his decease, the late Archdeacon Brymer had intended to carry out certain repairs and restorations in this church; and these have now been completed on a more extensive scale, at the sole cost of his two brothers. New roofs of English oak, corresponding in date with the respective parts of the building, have been placed on the nave and the north and south transepts. The whole of the church has been fitted with open seats of same material. The floor of the chancel has been laid with encaustic tiles. The reredos is of Caen stone, with columns of serpentine marble. New brass communion-rails have been furnished by Messrs. Potter and Co. of London. Three painted windows, by Bell, of Bristol, representing the birth, death, burial, and resurrection of our Lord, have also been placed in the chancel. The south porch has been rebuilt. Other repairs and minor restorations have been made; and the whole has involved an expenditure of about 2,000*l.* The plans and designs were supplied by Mr. C. E. Giles, of Taunton, architect. A new organ, by Sweetland, of Bath, the separate gift of Mr. James Brymer, has likewise been erected.

Aldmondsbury.—The site of St. Peter's Church, Cross-keys, consecrated on 8th instant, was given by Col. Master, of Knole-park, and the cost of the building was defrayed by the Rev. Henry and Lady Emilie Gray, with the assistance of friends, aided by a grant from the Diocesan Church Building Society. The roofing is timbered and open, and the walls are decorated, or rather illuminated, with numerous texts of Scripture in black and red letters; and above the archway leading to the communion is a single Latin cross, painted in red beneath a

* Doubtless a continuation of the footpath I have before referred to.

scroll text of Scripture. All the seats are open and all free. The east window, painted by O'Connor, is composed of three lights, the centre one setting forth our Lord crucified, and on either side St. Luke and St. Matthew. A window in the south wall of the chancel was painted and presented by the Rev. Mr. Hilton, lately curate of Lower Easton.

Swansea.—A social gathering was got up at Sketty, on Monday and Tuesday before last, by the clergy combinedly, on behalf of a new church which is intended to be built for the accommodation of part of the Welsh population of this parish. It is said to be the intention of the vicar of Swansea to erect this church specially for the Welsh population between Sketty and the Carmarthen road, and on a piece of ground given by Mr. J. D. Llewelyn, of Penllergare. It is proposed that the church shall contain 300 sittings, and become a chapel-of-ease to the mother church of St. Mary. The fabric is expected to cost from 1,000*l.* to 1,200*l.* The architect is Mr. R. Kyrke Penson.

Barlestone.—On Wednesday before last, the village church here, according to the *Leicestershire Advertiser*, was reopened, after having been rebuilt, with the exception of the chancel (which has been repaired), and at a cost of upwards of 1,200*l.* The edifice is of granite, covered in with Staffordshire tiles, and is of the Early English style of architecture, from a design by Mr. Ferrey. On the south-west side there is a porch of oak on a basis of stone. The church was built by Messrs. J. and G. Lilley, of Measham, and Mr. Elliott, of Ashby. The pulpit and font are in carved Ancaster stone, and provision is made for 140 free, and 130 private, sittings or open seats, besides room for 90 school children. There are a nave and two side aisles, having pillars and arches of dressed stone, and a small gallery at the west end. The whole cost has been defrayed principally by subscriptions from the parishioners.

York.—The Dean and Chapter have just had repaired the old stained glass windows which adorned the six sides of the Chapter-house of the cathedral. By means of the scraps of ancient stained glass found in the store-house of the cathedral, Mr. Noton has filled up each chasm with strict regard, it is said, to the original design of the windows. Means have been taken for cleansing and preserving them. Mr. Noton has also been instructed to repair the windows in the vestibule, connecting the north transept with the Chapter-house. These windows contain some of the earliest glass in the cathedral, but they are now greatly dilapidated.

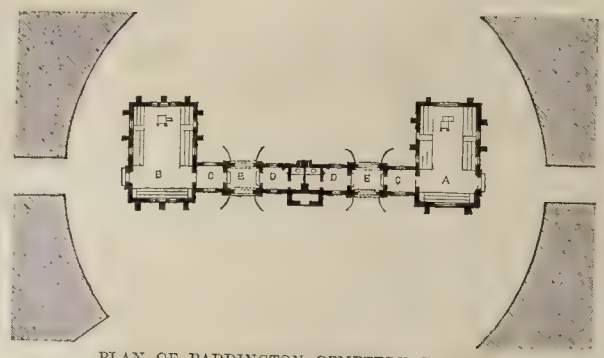
Seaham.—On Monday before last the Marchioness of Londonderry laid the foundation-stone of a new church at Seaham Colliery. The new church, which, according to the *Gateshead Observer*, is designed by her ladyship to be a memorial to the late marquis, is to be in the Early English style, with decorated windows. It will have a nave, chancel, and side aisle. The seats will be open and free for between 400 and 500 people. The architect is Mr. P. C. Hardwick. Mr. R. Robson, of Durham, is the contractor.

Gateshead.—The Wesleyan New Connection are about to erect a new chapel, on Mount Pleasant, Gateshead, from designs by Mr. M. Thompson, architect. The style is Decorated. The chapel will have an open timbered roof, and stained-glass windows. Mr. Edward Bruce, of Gateshead, is the builder.——On Monday before last, the foundation-stone of a new Wesleyan chapel was laid at the Teams, near Gateshead.

Wigton.—The new cemetery at Wigton has been opened. The chapels and other works are now finished, excepting a portion of the walk and the palisades at the entrance.

Shepton Mallet.—The inhabitants of this town have determined to borrow 2,500*l.* for the purpose of forming a public cemetery.

Fire at Messrs. Donkin's Engineering Works.—A serious fire occurred in the night of Wednesday last, on the premises occupied by Messrs. Bryan Donkin, and Co. in the Blue Anchor-road, Bermondsey. The origin of the fire is unknown.



PLAN OF PADDINGTON CEMETERY CHAPELS.

COMMISSION OF INQUIRY INTO ERECTION OF IRISH LUNATIC ASYLUMS.

A measure was passed through Parliament during the last session, and was one of the last to receive the royal assent, to enable the Government to recover from the several Irish counties certain moneys which had been irregularly advanced for some of the lunatic asylums recently erected. Owing, however, to remonstrances made to the Chancellor of the Exchequer, that the outlay had been extravagant in some cases, and the work very imperfectly executed, the Lords of the Treasury have appointed an architect, Professor Donaldson, and a medical officer, Mr. James Wilkes, of the County Lunatic Asylum, Stafford, commissioners, for the purpose of inquiry into the matter, with Mr. Spencer Shelley, of the Treasury, as secretary, to inspect the following asylums,—Richmond (Dublin), Mullingar, Belfast, Londonderry, Omagh, Sligo, Ballinasloe, Limerick, Kilkenny, Clonmel, Cork, and Killarney. They are empowered to call for all necessary evidence and papers, and to take *viva voce* evidence, and proceed to Dublin on the 25th of this month, when their first court will be held at the castle.

After an inspection of the several asylums, and their inquiries on the spot, they will have to report the result to Government.

DECORATION OF BIRMINGHAM TOWNHALL.

The decorations of the Birmingham Townhall are approaching completion. The building is to be used for the approaching musical festival. The work was undertaken by Mr. Ingram for the sum of 2,000*l.* The lighting and ventilation are in the hands of Messrs. Winfield, and will cost 500*l.* more. *Arris's Gazette* gives the following particulars:—"The ceiling is a mixture of Roman and Italian ornaments. The mouldings are of a Greek character, especially in their arrangement. The rosettes are strictly Roman. The ceiling is composed of three circles, each divided into four portions, separated by tapering ribs, on which are painted Arabesques in the manner of Raffaelle, with musical trophies, vases of flowers, and other ornaments introduced. Each compartment is again divided into nine coffers or sunk panels; the extreme depth of these being painted in rich crimson, with a gold radiating star. The framework of each compartment is a maize colour, with Roman ornaments in soft carmine. The junction of the rib of each circle is a Roman rosette of white and gold, with a rich orange centre upon a blue ground. The first coffer is painted a deeper maize than the framework, with a terra-cotta ornament. The next receding coffer is of blue and gold, and the extreme depth of crimson and gold. In all there are thirty-six coffers in each circle, forming a splendid enrichment for the centre, which consists of a sun-light composed of 430 burners. Of these there are three in the ceiling. The framework of the ceiling is richly decorated with large rosettes, of singular beauty, especially as regards their execution. These are emblazoned with a profusion of gold, and relieved with glowing colours. The cornice is white: the cantilevers and the mouldings are etched with gold; but the peculiar character of the treatment is that every portion is distinct. On the frieze around the building is painted the honeysuckle ornament from the temple of Jupiter Stator. The walls are Sienna marble. The pilasters are highly polished, resembling enamel. The capitals are gilded. The basement of the building is of that peculiar grey tint which brings it in relief to the richer hues of the remainder of the decorations. The front of the gallery is bronze and gold. The decorations of the organ correspond with those of the building. The framework, excepting the base, is gilded: the pipes are of a rich cobalt blue, diapered with gold, and the whole presents a mixture of the Greek and Italian styles.

PADDINGTON CEMETERY, WILLESDEN LANE-ROAD.

This Cemetery, formed under the direction of the Burial Board of the Parish of Paddington, was consecrated on the 31st ult. by the Lord Bishop of London, attended by the Rev. A. M. Campbell, the rector of Paddington, the clergy of the parochial districts, and the members of the Board, with the usual ceremonies.

The cemetery contains twenty-five acres of land, situated on the road leading from Kilburn to Willesden, lying on a hillside sloping to the south. Two-thirds of the land have been appropriated to the Church of England, but the whole has been laid out on symmetrical plan, the roads and paths intersecting each other at right angles, or radiating from a common centre, intersecting concentric circles.

The chapels, for the Church of England and for the Dissenters, form an architectural group nearly in the centre of the ground. They are connected by means of porches, covered gateways, and robing-rooms, attached to each chapel, and constitute a range of building 144 feet in extent. This arrangement is to obviate the unsatisfactory and diminutive appearance which small detached chapels in large open spaces always present. In the centre is a belfry. Each chapel is about 40 feet long by 20 feet wide: the whole of these buildings is executed in Kentish rag and Bath stone. The style of the architecture is of the early geometric period.

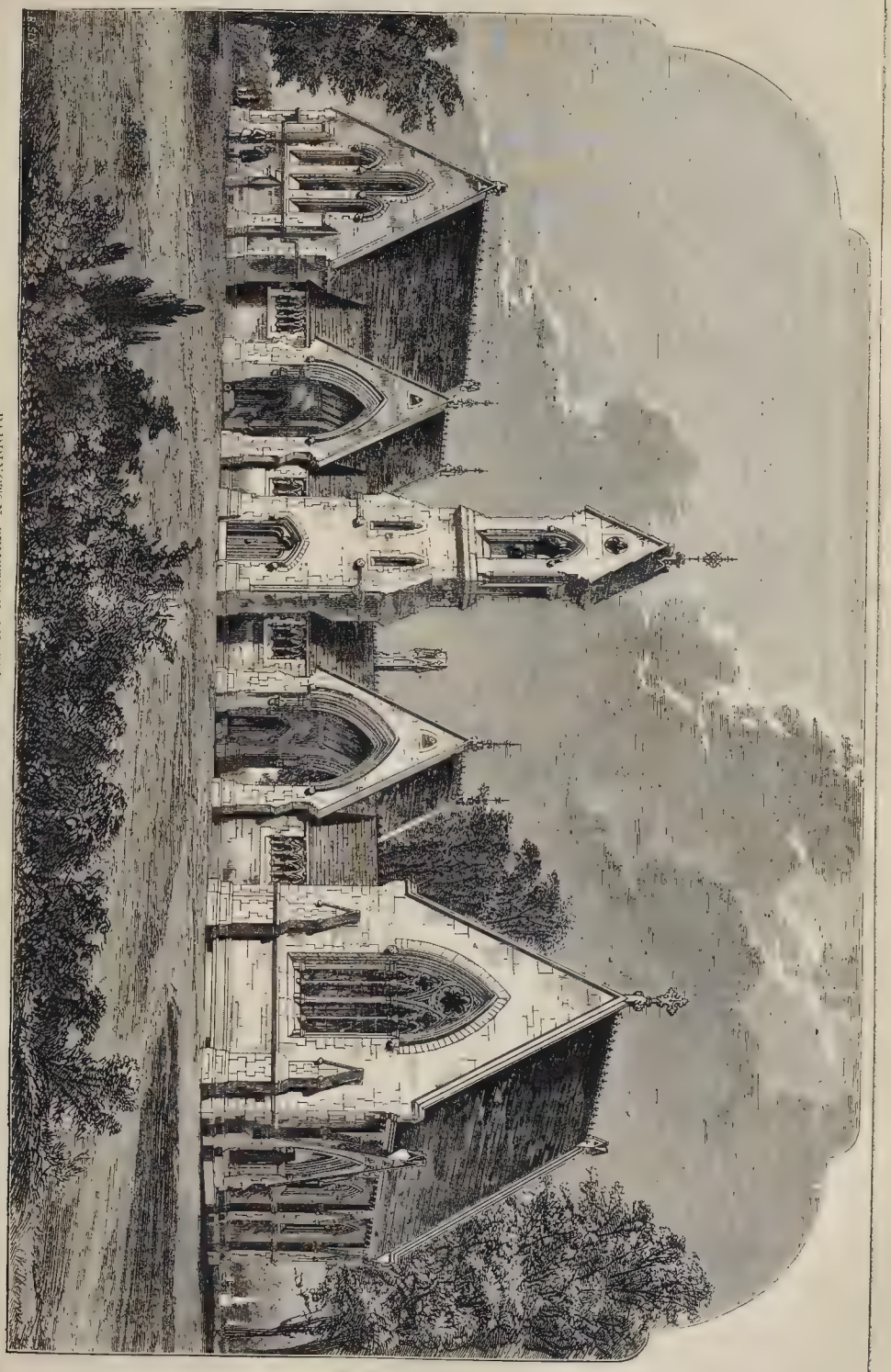
Two lodges for the cemetery-keeper and sexton are erected at the entrance: the approach is by iron gates, in a circular sweep of the boundary wall.

The buildings and boundary wall have been executed by Mr. Batterbury, of Camden Town, and the drainage and roads by Mr. Campbell, of Hackney. The total amount of the contracts is 9,159*l.* Mr. Miller was clerk of works.

The ground has been laid out, and all the works to the chapels, lodges, &c. have been executed from the designs and under the superintendence of Mr. Thomas Little, of Northumberland-street.

REFERENCES.

A. Episcopal chapel.
B. Dissenters' chapel.
C C. Porches.
D D. Robing rooms.
E E. Gateways.



PADDINGTON CEMETERY CHAPELS.—Mr. Thomas Little, Architect.

THE ARCHITECTURAL EXHIBITION.

It may be useful to mention that the Exhibition will be opened to the public, in Suffolk-street, on the 17th day of December next, and that all drawings, and other objects intended for the Exhibition, must be delivered at the Gallery on the 3rd and 4th of December. Two rooms, as before, will be set apart for manufactures, patents, and similar matters, bearing directly upon architecture.

In a report which the committee have issued, it is shown that, although in addition to the regular subscriptions, the sum of 38*l.* 14*s.* 6*d.* was specially subscribed towards extraordinary expenses, the committee still owe the treasurer about 65*l.*

The profession at large have much to do before the Exhibition is advanced to a proper status: the committee will carefully administer the means put at their disposal, so as to produce the best result attainable—as far as they are concerned. The real success of the Exhibition, however, depends more on the exertion of the architects of England, who must, to insure this, cover the walls with drawings. If the members of the profession will exert themselves worthily in the preparation and exhibition of drawings, the committee have no fear as to certain success, both in a pecuniary and artistic point of view; but without this they feel that it is impossible to achieve it in either.

After much consideration, the committee have determined this year not to *admit any drawing before exhibited* in London; and we think they are right.

A COTTAGER'S ROOM.

It is pleasant to observe the charming effect which it is often in the power of a poor labourer to give to his cottage, by making some of the most simple productions of nature subservient to the decoration of his home. That home may be small, and yet the source of great comfort and refinement to him, who, following the inclination of his taste for beauty, and being an unsophisticated lover of Nature, culls here and there, as often as the blessed opportunity offers, from the immense variety of the vegetable kingdom,—

> "Seeks for the beautiful in cozy caves,
> In rocks, uncovered by receding waves,
> Where the sea-weed grows;"

and, after a healthy ramble, and the enjoyment of that peacefulness which the tumult of a crowded city or toil forbids, he has something that rewards his search, that gratifies his eye, and reminds him of well-spent time and past pleasures. We have seen the walls and ceiling of a peasant's home thickly studded with shells of all kinds and colours, displayed in agreeable forms; and, in conjunction with flowers, dried plants, sea-weed, and mosses, the whole had a most delightful appearance. F. L.

PICTURES AMONGST THE LONDON POOR.

WILD-COURT.

I READ with very great pleasure your remarks in a recent paper on the improved condition of Wild-court, Drury-lane, and every one who understands the subject will feel thankful to those gentlemen who have conferred so great a benefit on a large body of the struggling classes, and set such an excellent example to others. While admitting generally the wisdom and utility of the regulations issued by the association which has so wonderfully changed Wild-court and other neighbourhoods, I must ask you to allow me the powerful aid of your journal in directing attention to one part of the regulations, which seems to me to require consideration, viz. that which says "no papers shall be stuck upon the walls, or nails driven in." You have, Sir, yourself noticed, and it cannot fail to cause a feeling of pleasure to most of those who have paid any attention to the dwellings of the London poor to note, a sort of natural love for art amongst the very poorest. In your "Shadows" you mention that however scanty the furniture may be, few of the poorest homes are without a humble gallery of art. This is so, and I have seldom seen, placed upon the walls of the worst classes, any print or picture of an immoral tendency,—the Queen and Prince Albert, passages from the life of Christ, the children of the royal family, and such like subjects, forming the chief. Thoughts of this inherent taste, however feebly developed, have often cheered me in places overwhelmed with misery and neglect. Pictures in these poor people's houses cannot possibly do any harm: on the contrary, they must do good to both the children and those of older growth; but how will they be able now, in Wild-court, to "hang" their little collections, when they are not allowed paste or a nail for that purpose? I would be the last to advise anything which might be likely to do serious damage to such property, but think, from my knowledge of the people, that a license as regards the arts will not be abused. We ought, in connection with the supply of dwellings to the industrious classes, to let them feel a certain amount of independence. They should pay a fair value for the accommodation supplied, and not be too much fettered with rules which might be liable to make them feel that they were there on sufferance or charity. AN ARTIST.

THE BIRMINGHAM AND MIDLAND INSTITUTE COMPETITION.

THIS institute has been empowered by Parliament to erect a building which shall combine three departments;—1st. A general one with museums, lecture theatre, large library, newsroom, and other subordinate accommodations; 2nd. An Industrial Department, with reading-room, library, and three class-rooms; and, 3rd. A Government School of Art, with modelling class-rooms, painting and drawing classes, and accommodation for the study of perspective, antique ornament, antique figure, and various other minor divisions. The committee called in the assistance of Professor Donaldson to advise them, and a minute paper of instructions was drawn up, and sent to several eminent professional men, inviting them to compete. On the 18th inst. sets of designs were received from Messrs. Hemming, Bateman, Yeoville, and Bland, architects, of Birmingham; from Mr. Bowman, of Manchester; and from Messrs. Gibson, Edward M. Barry, Edward I'Anson, Lockyer and Martineau, and Mr. James, of London. The series of drawings are now exhibiting in the High-school, and exciting great interest. Prince Albert has graciously consented to lay the first stone in November.

COMPETITIONS.

Atherton, Lancashire.—The burial-board have approved the plans of Mr. T. D. Barry for the cemetery chapels, lodge, &c. and the buildings are to be forthwith commenced.

Blandford Cemetery.—We have received a letter from Mr. Pinch, showing that his design *was* selected, and that he was so informed by the clerk of the board, and that the gentleman who is now pointed out as the successful competitor was employed by the board to make alterations in his, Mr. P.'s, design. Mr. Green, the architect in question, makes a directly contrary assertion, and we shall leave them to settle it between themselves. We are not disposed to go farther into the matter. The board appear to have exhibited great want of knowledge as to the position and duties of an architect.

THE ACT FOR LIMITED LIABILITY IN PARTNERSHIPS.

THIS Act, notwithstanding a formidable opposition on the part of the great commercial, trading, and capitalist interests, not only in the Commons, but also in the Lords, has been fairly passed, and is now the law of the land, a boon to the working and the middle classes, for which they are indebted to the steady determination of Lord Palmerston and his Government, who literally forced it through all its stages, in the face of all opposition, threatening to keep hon. members from their green fields and their "game" for a fabulous length of time if they did not swallow the dose. Doubtless, although the Act is not faultless, and various objections have already been made to some of its clauses and omissions, it is destined shortly to do much good, and at least it was designed to do so, especially to the working classes, for whose benefit it was, mainly, that such an Act was urged.

The capital of joint-stock companies under the new Act is to be divided into shares of a nominal value, not less than 10*l.* each. The following are the conditions, "in addition to doing all other matters and things now required," in order to obtain a certificate of complete registration:—

"1. The promoters shall state on their returns to the Office for Provisional Registration that such company is proposed to be formed with limited liability.

2. The word 'limited' shall be the last word of the name of the company.

3. The deed of settlement shall contain a statement to the effect that the company is formed with limited liability.

4. The deed of settlement shall be executed by shareholders, not less than twenty-five in number, holding shares to the amount in the aggregate of at least three-fourths of the nominal capital of the company, and there shall have been paid up by each of such shareholders on account of his shares not less than 20*l.* per centum.

5. The payment of the above per-centage shall be acknowledged in, or endorsed on, the deed of settlement, and the fact of the same having been *bonâ fide* so paid, shall be verified by a declaration of the promoters, or any two of them, made in pursuance of the Act made in the 6th year of the reign of his late Majesty King William IV. chap. 62."

The thirteenth clause provides that "whenever, on taking the yearly accounts of such company, or by any report of the auditors thereof, it appears that three-fourths of the subscribed capital stock of the company has been lost, or has become unavailable in the course of trade, from the insolvency of shareholders, or from any other cause, the trading and business of such company shall forthwith cease, or shall be carried on for the sole purpose of winding up its affairs."

It is also provided, of course, that "no shareholder shall be liable to pay, in satisfaction of any one or more execution, sequestration, or other process, a greater sum than shall be equal to the portion of his shares not paid up."

By this short, but important Act, then, free-trade in capital, as it has long existed and worked well in France, may be said to be at length fairly inaugurated in this free-trade country.

THE TOWER OF ST. MARY'S, TAUNTON.

THE condition of this fine tower continues to cause uneasiness. A certain amount of work has been done in the shape of one buttress (the north-west), and the architect (Mr. Giles), not feeling satisfied, wrote a letter on the 31st ultimo, in which he said:—

"I consider there will be great danger if the tower is left in its present condition for any length of time; indeed, it seems to me to be absolutely necessary that a final decision should now be made on the whole subject. If the parish should determine not to alter their last decision, viz.—to carry into effect certain repairs, according to my letter of advice of August 24th, 1854, with a view only to a very partial repair of the dangerous portions, I must beg to inform you that I have found it impossible, from the state of the tower, to confine the works to the limits proposed by the letter, and I must ask your further instructions."

A meeting of the parishioners was held on the 16th, when the discussion was somewhat stormy and unpleasant. It ended simply in a resolution, empowering the churchwardens to complete the buttress.

Mr. Giles said, in answer to questions, that he would not pledge himself that it could be proceeded with without danger. Mr. Scott had also strongly advised him not to go on with it. The danger arose from the disturbance of the tower caused by the operations of repairs. If the work were suspended altogether, the danger would not be greater, but it was now much more imminent than was generally imagined. The whole of the details were separating from one another, and it was impossible to bond them with iron work. There was no difficulty in the buttress itself, but in the quoin at the angle, where the danger was. There was a fissure extending half the height of the buttress, and he thought it possible to take that down to the bonding, but it turned out there was no bonding at all.

It seems very desirable that a more satisfactory understanding should be arrived at forthwith. It is unquestionably a very serious matter.

SANITARY WORKS IN PENRITH.

MR. ROBERT RAWLINSON, engineer to the Local Board of Health in Penrith, has recently completed their sanitary works of water-supply and sewerage, the particulars of which are as under:—

Water-works.—44,098 lineal feet of cast-iron pipes, from 12 inches to 2 inches diameter, or 394 tons; seventy-two hydrants or fire-plugs; seventy-seven supply and wash-out valves; a lower and upper covered reservoir; filter-beds; masonry, weir on the river Eamont; wheel-house; water-wheel, 18-horse power, undershot, 14 feet diameter, and 14 feet wide; double-acting pumps, &c. complete. The lower reservoir is of masonry, 61 feet by 60 feet by 19 feet deep, arched over and covered with soil. It will contain 370,000 gallons of water. The lift into it is 154 feet vertical. The upper reservoir is also of

masonry, 40 feet by 40 feet by 16 feet deep, holding about 150,000 gallons of water, also arched and covered with soil; the lift into it being 365 feet vertical. Water is pumped into these reservoirs from the river Eamont, and is from them distributed through the upper and lower parts of the town.

Sewerage.—The sewers are of earthenware pipes, with a brick sewer outlet, 20 inches internal diameter. The earthenware pipes are from 15 inches to 4 inches diameter, the latter being house and yard drains. The total length of sewers proper is 7,152 lineal yards. The sewers are laid in straight lines, and gradients throughout from point to point. At any alteration of line or of gradient there is a man-hole or lamp-hole to allow of inspection, and if need be of cleansing. There are forty-eight gullies, with movable sediment traps fixed.

Expenditure.—Total water-supply, 8,503*l.*; ditto, sewers, 3,109*l.*: total, 11,612*l.*

There are upwards of 1,200 houses in Penrith. In May last 433 houses were supplied with water, or about one-third the total number; the annual income from them being about 284*l.*

Most of the local wells and pumps in Penrith, besides being excessively hard, were tainted with cesspool and graveyard matter: the trenches for the sewers drained many of these, as also the surrounding subsoil, and the water first passing off, after the ground was opened, was most offensive.

Agricultural drain-tiles have been used below the sewer-pipes, to drain the sub-soil and house basements.

The money required to be raised to pay interest on the capital borrowed, and to repay the principal in thirty years, will be:—For sewerage, 179*l.* 17*s.*; for water, 490*l.*; or, on the rateable value, 11,612*l.*, a rate of 4*d.* in the pound for sewers, and of 10¾*d.* for water, making a total rate of 1*s.* 2¾*d.* in the pound to be paid, if no rent should be received for the water. It is, however, shown, that the voluntary rental paid for the water, when the whole are supplied, will alone more than pay the required principal and interest upon the money borrowed. The saving to the inhabitants, in soap and tea, will be several times the interest required.

Many opponents to sanitary improvement in Penrith declared publicly at the commencement that the rates would exceed 5*s.* in the pound for the works now completed.

SHAM BUILDERS.

Scott *v.* Greatorex.

The plaintiff in this case (tried at the Westminster County Court) turned out to be an "American architectural modeller," and the defendant is the proprietor of the Prince of Wales Hotel, Leicester-place, Leicester-square. The action was brought to recover the sum of 37*l.* under the following circumstances. In the month of November last the defendant required an alteration in two porticoes belonging to his house; moreover, he required a wall to be built, and some minor alterations. The plaintiff was introduced to him in the ordinary way, as "a person in the trade," and eventually a contract was entered into, by which the plaintiff agreed to do the work for the sum of 50*l.* Shortly after the men were set to work it was discovered by the defendant that the plaintiff was neither surveyor nor builder, nor anything of the kind, and that he was not acquainted with the business. The men, too, employed by him, were manifestly incompetent. From time to time he expressed his fears about the matter: the plaintiff, however, said he would rectify it, and the defendant allowed the matter to proceed. Thus things went on until shortly after Christmas, when one Saturday, having given the plaintiff a check on account, the men were left unpaid, and they having made a disturbance at the hotel, he (defendant) was compelled to give them a sovereign each. Upon that he determined, if possible, to bring the contract to an end, and when the plaintiff came to him in the following week, he remonstrated very strongly with him. The plaintiff then required him to advance the money for the labour, as it was necessary, and after considerable difficulty the plaintiff consented, in writing, to recede from the contract, and leave it in the defendant's hands. Shortly after this one of the men that had been sent by the plaintiff had to be given into custody upon the charge of stealing an umbrella from the defendant's premises, and the defendant then got rid also of the other men, and completed his alterations with other assistance. Some time after, to the defendant's surprise, he received a bill from the plaintiff for 37*l.* over and above the sum he had actually paid him. This claim he naturally resisted, and the plaintiff now brought his action. Mr. Scott (the plaintiff) was put into the box, nominally to prove his case, but he evidenced such ignorance of the ordinary details of building, as to excite the risibility of the audience. Another witness attempted to prove the value of the work. He turned out to be a picture-dealer, and the mode he had adopted to arrive at its value was by outward inspection merely. He had not measured it, and did not know how. The defendant (Mr. Greatorex) was then put into the box, and proved the facts which have been previously detailed, and that in all he had paid 61*l.* Mr. Russell, a surveyor of thirty years' standing, was then examined. He proved that he carefully examined the work done by the plaintiff, and that, as to the greater part, it would be impossible for him as a surveyor to have passed it. The judge (Bayley) then summed up the evidence, and returned a verdict for the defendant.

RAILWAY MATTERS.

A strike of railway labourers has occurred on the new works in connection with the Great Southern and Western Railway, Lower Glanmire-road, Cork. They have been receiving 10*s.* a week each, and their demand is for 12*s.*——The extension of the Newport, Abergavenny, and Hereford line, called the Taff Vale Extension, was to have been opened on Monday last from Pontypool to Crumlin, there forming a junction with the Western Valleys Railway. The Crumlin Viaduct is upwards of 200 feet high. It spans the Crumlin valley, supported by piers at distances of 200 feet, and is made entirely of iron. Its length is 1,515 feet. The work has been constructed by Mr. T. W. Kennard, of London.——Preparations are being made at Weymouth by Mr. Gillingham, ironfounder, towards getting the iron work ready for the railway station-house there, which is to be built principally of iron and glass, and will soon be required for use. The station-house alone will cost nearly 20,000*l.* Mr. Brunel, the engineer of the Great Western Company, went to Weymouth on Wednesday week, to witness the driving of the first pile for the foundation, but in consequence of the work not being in a sufficiently forward state, it could not be proceeded with.——The Great Northern Company have undertaken to supply a gas company in London with 3,000 tons of coal weekly. The average quantity weekly conveyed on the line is 17,000 tons. The managers of this company have supplied the company's servants with red neck-ties, in order that they may be more easily discerned by the passengers, and that in case of danger the neck-ties may be taken off and waved as signals.——Mr. W. Barningham, iron manufacturer, Salford, has patented a method of connecting rails. The inventor describes several methods of forming chairs, the chief of which consists in making them in two halves.——The culvert lately erected at the Glendon works, on the Leicester and Hitchin line of railway, has given way, it is stated, and must be rebuilt. It is said to have cost some 500*l.*

CRACKS IN LEAD.

In answer to "G. S." I am of opinion that gas tar, if properly mixed with very fine sifted ashes or sand, to the consistence of mason's mortar, and firmly put into the cracks (the wider the cracks the better the joint), and then rubbed over with a tarred brush, and afterwards slightly covered with dry sand, will become firm in a few days, or as soon as the naphtha in the tar has evaporated: this, I have no doubt, will effectually resist rain for a considerable period, and can be easily repaired by the same process. The tar may previously be boiled with a little rosin: if much is added, it will make the composition crack.

There is also another substance sometimes used by painters and others,—patent mastic, a powder: this is to be mixed with boiled oil to the consistence of painter's putty, and sets very hard in a few days. Either the one or the other I have no doubt will answer very well. I give the preference to the tar.

But if the edges of the cracks, as stated by "G. S." from some cause are disturbed by the springing of the lead, then I fear there is little hope of an effectual remedy: the lead should first be made firm.—H. H.

THE PROPOSED WELLINGTON COLLEGE, NEAR SANDHURST.

The site (of 132 acres) which has been obtained for the proposed Wellington College, is on the line of the Reading and Reigate Railway, not far from Sandhurst. The design decided on is by Mr. John Shaw, and is similar in architectural character to the Naval School at Deptford, by the same architect,—the style of Queen Anne, perhaps it may be called. The lowest tender for the execution of this design is barely under 40,000*l.* for the building itself, including the principal fixtures and fittings, to which must be added, the sums required for the purchase of the site, for the erection of a chapel and infirmary, for boilers and steam-machinery, for kitchen apparatus, and for ensuring an abundant supply of pure water, making the estimated total outlay 55,000*l.*

The design for the college consists of two quadrangles, surrounded by arcades of communication, the first being the school quadrangle, and the second the hall quadrangle. In the former, on the north side, is the entrance gateway in the centre, with the porter's lodge and office on each side of it; also the head master's residence on one side, and the secretary's or steward's residence on the other. On the south side is the school, in the centre of the building, and on the east and west sides are the class-room and the boys' library. In the second, or inner quadrangle, on the south side, is the hall; on the east side are the kitchen and domestic offices for the female department, communicating with a kitchen court; and on the west side the under-masters' rooms, their library, and the domestic male department. In a line with the hall, and facing the south, is placed the chapel on one side, and the infirmary on the other, a little removed from the main building, but communicating by covered ways. The dormitories are divided into separate rooms, one for each boy, about 10 feet by 7 feet.

THE MOVEMENT OF ATMOSPHERIC AIR IN TUBES.

A few weeks ago Dr. Chowne communicated to the Royal Society an account of some "Experimental Researches on the Movement of Atmospheric Air in Tubes," which bear very materially on the subject of ventilation. It is printed in Vol. VII. of the "Proceedings of the Royal Society," p. 466. The object was to ascertain whether the ordinary state of atmospheric air, contained in a vertical cylindrical tube, open at both ends, and placed in the still atmosphere of a closed room, is one of rest or of motion; and if of motion, to investigate the influences of certain changes in the condition of the atmosphere which either produce, promote, retard, or arrest the movement.

The experiments would seem to demonstrate that the ordinary condition of atmospheric air within vertical tubes, open at both extremities, is one of continual upward movement:—

"If the atmosphere were a strictly homogeneous elastic fluid, and in a state of perfect equilibrium, any portion of it contained in a vertical tube would of course be perfectly stationary unless some adventitious cause produced disturbance of its equilibrium. But our atmosphere being a mixed fluid, and the aqueous vapour being of a much lower specific gravity at all atmospheric temperatures than the compound of which it forms a part, it is constantly rising within a tube, as in the free air; entering at the lower, and making its exit at the upper orifice of the tube.

The experiments appear further to demonstrate, that the presence of aqueous vapour in the atmosphere is essential to the production of the current within the vertical tubes; since, by the abstraction of vapour from the air by quicklime, the rotations of the discs were invariably either diminished or caused to cease; while, on the other hand, when the proportion of aqueous vapour in the air was increased, the currents and the rotations of the discs were simultaneously accelerated.

In concluding the details of these experiments, the author considers that they all tend to prove the existence of an upward current, under the circumstances described in the commencement of this paper.

They moreover yield a series of results which he hopes the society will deem to be not without interest.

These results show it to be probable, if not certain, that the ordinary temperature of air within tubes, under the circumstances in which these were placed, is higher than of that external to them, all other relations of the tubes and surrounding objects being the same: they also show that in eight instances, when the thermometers indicated an equality of temperature within and external to the tube, the rotations of the discs still continued; and that when four coils of tape, moistened with water, were applied round the external surface of the tube, the rotations of the disc did not wholly cease.

They also show, that when the atmosphere of the room, in which the tubes were immersed, contained a larger or smaller proportion of aqueous vapour, all other things being equal, the discs revolved with more or less velocity; but that when the atmosphere was deprived in a great degree of aqueous vapour by the

presence of quicklime, the thermometric state in all other respects remaining the same, the revolutions of the discs ceased.

Adverting to the indications cited above, of a minute excess of temperature in the interior of the tubes, and assuming that even that slight excess would be sufficient to rotate the discs, still the rotations diminished or ceased in proportion as the aqueous vapour was withdrawn.

Any increase of temperature which might have been produced by the quicklime would have had a tendency rather to increase than diminish the revolutions of the discs, but we have seen that the abstraction of the vapour entirely arrested their rotation.

With regard to the specific influence of each of the circumstances and agents most probably concerned in producing the phenomena described above, such as protection of the air within the tube from lateral expansion and mechanical agitations, to which the external air is exposed; gaseous diffusion; the unequal specific gravity of air and vapour; and the subtle operations of temperature at all times, the author is fully conscious that he has not ascertained their respective values."

Notices of Books.

Examples of Building Construction; intended as an Aide-mémoire, for the professional Man and the Operative. Part I. By Henry Laxton. London: Arundel-street, Strand.

In this work, to be published monthly, Mr. Laxton proposes to bring together a collection of working drawings used in erecting various edifices,—public and private. Thus we have, in the present part, casement window and shutters, as executed by Messrs. Cubitt and Co.; the entrance-lobby of Reform Club-house, with outer and inner doors (Barry), &c. &c. The work is of large size, perhaps too large, and is published at a very low price, so that junior members of the profession, as well as mechanics, can have the advantage of possessing the result of the scientific labours of the many eminent men who have promised to aid the author in his undertaking. In connection with the *Civil Engineers' Journal*, and his "Price Book," Mr. Henry Laxton has been long a hard-worker, and has entitled himself to the hearty support of his professional brethren.

Observations on the Fisheries of the West Coast of Ireland and the London and West of Ireland Fishing Company. By T. E. Symonds, R.N. Chapman and Hall, Piccadilly. 1855.

We have repeatedly pointed attention to the rich mines of wealth on the west coast of Ireland, which are only waiting to be fairly broached, in order to enable them to yield a most abundant harvest, and to attract the attention and the capital of England, as well as the waste industrial energies of Ireland towards them. One great hindrance, we believe, to the opening up of these valuable fisheries has been the want of some such Limited Liability Act on Partnership as that just passed. Had it not been on this account, partly at least, a "London and West of Ireland Fishing Company" would have now doubtless been not only in existence, but in a highly flourishing condition, and conferring an immense benefit not only on the poor inhabitants of the west of Ireland, but on even those of the east of England and London itself, in showering on its shores a never failing supply of cheap and wholesome food. The requisite Act being now passed, a start has already been made towards the realization of this desirable state of things, by the publication of the "Observations" under notice, which are dedicated, by permission, to his true Excellency Lord Carlisle, the Lord Lieutenant of Ireland, by Captain Symonds, a gentleman whose public efforts in this and other good causes will make his name well known. The proposed company will carry on their operations by the aid of steam and other suitable vessels, so as to combine also the now isolated efforts of the small fishermen on the west coast of Ireland. The capital required to make a start is 30,000*l.*

Besides the supply of numerous kinds of fish, including salmon from the rivers and shell-fish from the shoal-banks, it is proposed that the coarser fish always caught, and always cast adrift again heretofore in fishing, and also any otherwise unsaleable abundance even of the more edible sorts—such as sprats,—shall be converted into an artificial guano of a very rich description, and indeed closely analagous to the real guano, which is essentially based on digested and semi-digested fish picked up by sea-fowl. Here, therefore, is a second source of valuable manure, heretofore as much waste in Ireland as the bogs, which are now yielding the valuable "peat charcoal;" and perhaps the new company may find it an additional advantage to combine the two, for all that we know: at all events, we should advise a trial of the effects of so feasible a conjunction of valuable materials for manure, since the charcoal would absorb, and so retain or save, an immense proportion of the valuable gases and fluids of decomposing fish, besides neutralising its offensive odours.

We are disposed to prognosticate a speedy and a permanent success to Capt. Symonds's excellent project.

VARIORUM.

We have just been speaking of peat charcoal. Mr. James Cuthill, in the second edition of his little pamphlet on "Market Gardening round London" (Hamilton and Adams, Paternoster Row), draws our attention to the excellence and importance of peat charcoal, or charred peat, as he calls it, as a manure for market-gardens. He tells us that it produces fine mealy potatoes, promotes quick growth, brings out the colours of flowers (this we pointed out some years since in reference to charcoal in general, a ring of which laid round the root of a dahlia, vivified, changed, and diversified its colours in a singular way, and we also suggested its application to the potato plant), and finally, this experienced market-gardener, having fully and fairly tried it, gives his opinion of it to the effect that it forms a "splendid manure,"—that is of itself, of course, and independently, altogether, of its other advantages in the way of manure as when mixed with decomposing animal matters, sewage, &c. ——In the Fifth Quarterly Report to the Dudley Local Board of Health, on the sanitary state of the parish, Mr. J. H. Houghton, the active officer of health at Dudley, gives a history of the occurrence of cholera in that town last year, and an instructive history it is, tending, as all such histories do, to establish the eternal association of cholera with filth. It is satisfactory to learn from this report that Dudley is making progress, slowly but steadily, towards a better sanitary state than heretofore. —— Messrs. Hodges and Smith, of Grafton-street, Dublin, have published a tract on "Schools of Industry," by Mr. Cheyne Brady, M.R.I.A. in which some account is given of various foreign institutions of this kind. The tract consists of a paper read at the Royal Dublin Society, and his commendable object seems to be their promotion in Ireland itself, which so much needs them, and which, however, appears to be now in progress of industrial resurrection.——A Quebec "Blue Book," on the "Condition and Prospects of Canada in 1854," has been printed there by Derbishire and Desbarats, her Majesty's printers. It contains several valuable communications or reports on the state of this now populous and rising colony, by Lord Elgin, the late Governor-General of the Canadas. From one of these we note that the total cost of public works of a productive kind, such as canals, down to 1852, was 2,834,234*l.* odds. The net revenue from these in 1851, was under two per cent. but it is progressively increasing. A strong feeling exists in favour of a ship canal from Montreal to Lake Champlain, and one from Lake Huron to Lake Superior, at the Sault St. Marie.—— "Gilbert's Official Guide to the New Newspaper and Book Acts and Warrants," is a sixpenny publication, by Gilbert, of Paternoster-row, which will be useful to all classes, trades, and professions.

Baths and Washhouses for the City of London.—A petition to the corporate authorities for the establishment of baths and washhouses in the City of London, has been unanimously adopted by the guardians of the West London Union.

Miscellanea.

Projected Tunnel Railway to France.—It is not Englishmen alone who propose to join France and England in closer physical connection than heretofore, and so promote their permanent intercourse and amity. M. Favre, an engineer, according to *Galignani*, has lately published some observations relative to the possibility of making a railway under the Channel. Its length, he says, would be 30 kilometres (18¾ English miles). He proposes that the tunnel be pierced so as always to leave 25 metres at least between the arch and the bottom of the sea, and be lined with a double archway, one of bricks, and the other of iron, this latter pierced with narrow openings, to at once allow the slightest infiltration to be perceived. Engineers, M. Favre states, are estimating the cost of such a tunnel.

Windsor Castle.—The extensive works commenced at Windsor Castle in April last, will, it is expected, be completed in October next. They consist of the digging out and carrying away upwards of 6,000 loads of chalk for the formation of a subterranean passage 300 feet in length, and varying from 7 to 30 feet in width, extending from the northern wing, and passing beneath the quadrangle to the southern wing of the castle. The passage will derive light from ten or twelve glass openings in the quadrangle, covered by iron gratings so arranged as to escape particular observation. Connected with these passages will be a number of large coal-cellars, having thus access to her Majesty's private apartments and numerous other rooms in the southern side of the castle. The works are being carried on by Mr. Strong. The stone pedestal which supported the equestrian statue in bronze of Charles II. at the west end of the quadrangle has been removed, and one of red granite substituted. The stone wall at the Castle boundary, leading from Henry VIII.'s gateway to the bottom of the Hundred Steps, is now progressing towards completion. It is said that the Commissioners of the Board of Works contemplate lowering the terrace-wall looking from the Lower Ward into Thames-street, and placing cannon in the battlements.

The Officers under the Metropolitan Management Act.—Since Sir B. Hall's Bill has been framed with the main object of a thorough revision of the executive, as regards the employment of inefficient persons in the superintendence of parishes and parochial work, may I suggest to those with whom the power will be vested of engaging the necessary officials, the propriety of a personal examination of each candidate; so that those only who are practically acquainted with the working of the different branches may be engaged to superintend. There are many surveyors' and builders' clerks, without patronage or influence, who would be satisfied with a moderate salary, and be of infinitely more use than the staff at present employed, which seems to have been called from all trades and profesions under the sun.—Spes.

The late Mr. Hoof, the Contractor, was known to so many of our readers, that a reference to his death, and the sad circumstance attending it, seems called for. Mr. Hoof died suddenly at his house, the corner of Victoria-road, in the Kensington-road, on Saturday, 11th, and on the same day, Mrs. Hoof, overcome by the shock, died too. They were both buried on the following Saturday, in the cemetery at Brompton. Mr. Hoof was one of those whom the world calls lucky, and with apparent justice. He had made a large fortune—some say half-a-million of money, and had put himself down amongst his family to enjoy it. Some time ago he lost a favourite son by cholera, and now,—Alas!

The British Archæological Association are holding their meetings in the Isle of Wight. We will give some particulars hereafter.

The Shrewsbury Burial-board Tenders.—We have received strong complaints of the way in which the contractors who tendered for the erection of chapels and gates for the cemetery have been treated. Three tenders were received,—Messrs. Groves, Shrewsbury, 5,120*l.* for stone, and 5,471*l.* for brickwork; Mr. R. Dodson, Shrewsbury, 5,049*l.* for stone, and 5,031*l.* for brickwork; and Messrs. J. Dickson and Co. Wellington, 4,393*l.* 3s. 7d. for stone, and 4,325*l.* 18s. 10d. for brickwork. It was resolved that the buildings should be erected with stone. Mr. E. Hughes then moved, and Mr. R. Davies seconded, a proposition that Messrs. Groves's tender should be accepted, *on the ground that they were townsmen.* Upon this the Rev. James Colley moved, and Mr. Timotheus Burd seconded an amendment, that Messrs. Dickson's tender be accepted. Upon the amendment being put, it was lost by nine to five. The original motion was then carried by nine to eight. In all justice, when responsible contractors have taken the trouble and incurred the expense of preparing tenders, the lowest should be accepted. Mr. Dodson is also a *townsman*, so that the plea here for taking the highest fails.

Electro-telegraphic Progress.—The Mediterranean Telegraph Company have announced a plan of extensions from Algiers *vid* the Red Sea, to the western coast of India, and from Pegu to Australia and Van Diemen's Land. In a few weeks their line will connect London with Algiers, in Africa, *vid* Corsica, Sardinia, and Cape Spartivento, whence it is proposed also to run a branch to Malta, Corfu, and Constantinople. ——For some time past, a submarine cable has been in process of manufacture at the works of Messrs. Newall and Co. North Docks, Sunderland, which is intended to be laid down from Constantinople to Varna. This cable is 160 miles in length, and weighs upwards of 300 tons. It will be connected with the main line of telegraph from the seat of war, and by this means the palace of the Sultan will be in communication with the head-quarters of the allied armies now before Sebastopol, as well as with London and Paris. The *Gateshead Observer* reports the embarcation of this cable on board an iron screw-steamer, named the *Elba*.——In a few weeks, the New York, Newfoundland, and London Telegraph Company will have their line finished as far east as St. John's, Newfoundland. The wire for this line left London on the 28th ult. and a steamer is to be chartered to tow the vessel containing the wire, in the process of laying it down.——M. F. V. Guyard, Gravelines, France, according to the *Mechanics' Magazine*, has secured a patent, by which he claims—1. Constructing apparatus for effecting electro-telegraphic communications with trains or railways, in such manner that the distance from the train to which such communications extend is regulated by adjusting the intensity of the current of electricity; 2, 3, and 4, other modes described.

Stone for Lithographic and Architectural purposes in Jamaica.—A printed prospectus of "The Jamaica Stone Company" has been forwarded to us, from which it appears that a discovery has been made of extensive quarries of lithographic and other valuable stones, suitable for monumental statuary, and various purposes, on estates in the parish of St. George, and within three miles of a shipping port. A report, by Mr. E. C. Lewis, of Church-street, Kingston, states that there are fully 1,000 tons now ready to be removed, on the formation of proper roads, &c. and that some of the material is similar to the *Builder's* description of the stone of the Houses of Parliament, and to the stones of which the Palace of the Carousel at the Tuileries, and the Grand Mosque of the Turks are built. Specimens are being, or have been, forwarded to the International Exhibition at Paris, and a small fragment of the lithographic stone was enclosed to us with the prospectus, which seemed of the right sort.

Building Accidents.—On Saturday before last two men were killed at the railway-bridge works now in progress at Rochester, for the East Kent Railway, which is here to cross the Medway. The men were at work in a cylinder sunk in the bed of the river, with a diving-bell and stageing above, when the buckets carrying up soil gave way, and the stageing, bell, &c. fell on them, and crushed them to death. It is rather singular that this is the second instance within the last month in which fatal accidents have occurred at bridge works, in connection with diving-bells, and yet that neither in the case at Westminster, nor in that at Rochester, can the bell itself be said to have been in fault, or really the cause of the accident.——Mr. John Sinclair, the sub-contractor of the Durham viaduct, on the Bishop Auckland Railway, now in course of construction, was killed on Monday before last, by a fall of stone.——On Wednesday week, two children, at Teignmouth, were playing near some blocks of stone, in the station-yard, when one of the blocks, which weighed 2½ tons, fell on them, crushing both to death. The mother is said to have since become insane in consequence. ——A western paper, chronicling the lamentable occurrence of a stageing attached to a church being blown down, very feelingly adds,—"We are happy to state that over twenty persons were suddenly brought to the ground—safe, and one man, Mr. Willkins, had his neck broke! Mr. W. was an estimable young man, and the father of a good many children, besides a large farm, well stocked. He was fatally injured."—If the neck of the poor man was broken, we should think he *must* have been "fatally injured,"—and doubtless he died.

The Northampton Surveyorship.—Mr. Jones, of London, has been elected surveyor to the town of Northampton, and also inspector of nuisances, with an assistant to act as inspector for six months, after which to provide for the latter's duties himself. The salary of the surveyor is 200*l.* a year. Mr. Law, a local improvement commissioner, protested against the intention to call upon the surveyor either to provide an inspector of nuisances, or to act as such himself, although he did not object to the surveyor being the superior, and responsible for the right fulfilment of the duties of the Board's inspector.

The Iron Trade.—"We hear with regret," says the *Birmingham Gazette*, "that some of the iron-masters talk of an advance of 2*l.* a ton (!). These sudden jumps have seldom been maintained, and are always productive of mischievous consequences. A rise of this kind will in all probability increase the make in America by a hundred thousand tons next year, and so help to remove a valuable portion of the trade from South Staffordshire. [That is not now to do, we fear.] The masters urge difficulties with the men as a reason for this large advance: in reply we have only to state that an opinion is very generally entertained, that by union and confidence amongst the members of the trade, the men might be properly controlled, with advantage to themselves, and equally so to the trade itself."

Holy Trinity, Newington.—The tenders for repairs at the Holy Trinity Church, Newington, under Mr. Henry Jarvis, architect, were as follow:—Cook, 543*l.*; Fisher, 493*l.*; Ott, 400*l.*; Thornhill, 339*l.*; Thorpe, 327*l.*; Mills, 314*l.* 9*s.* Mr. Thornhill's was accepted.

Science and the Government.—The special parliamentary committee of the British Association for the Advancement of Science, charged to inquire "Whether any measures could be adopted by the Government or Parliament that would improve the position of science or its cultivators in this country?" has collected from men of science a body of interesting information, which has been embodied in the form of a report, to be presented to the members of the Association at their Glasgow meeting. This report appears to have been adopted unanimously; and its suggestions cannot fail to command the instant and serious attention of the scientific world. The *Athenæum* of last week quotes its principal passages.

The Inns; Shrewsbury Congress.—Our correspondent's comment on the charges and discomforts of his inn at Shrewsbury, during the recent archæological congress, has been borne out by several letters to us on the subject. One writer tells us that he was charged fifteen shillings per night for three beds,—self, daughter, and servant. Such charges, coupled with inattention, should be reprobated: they will deter prudent people from attending these excursions.

The late Mr. Patrick Park. Mr. Park, the sculptor, who died prematurely a few days ago at Warrington, was a native of Glasgow, and studied under Thorwaldsen at Rome. He was remarkable for the vigorous and faithful expression of his busts. He was something more, however, than a bust maker: he had much poetic feeling, and has left some works which approach the heroic.

Water-supply.—It is a singular fact, that since the introduction of the new supply of Thames water within the last month, from the new works of the Vauxhall and Southwark Company at Hampton, to the inhabitants of Lambeth, South Lambeth, Clapham, and Southwark, by the statement of the sanitary condition of the metropolis in the *Times* of 22nd inst. the *south side* of the Thames has all at once become the *most healthy*, and this has been stated for the two last weeks; thereby proving, in a sanitary point of view, the value of a pure water supply to the inhabitants of London; and as I have not seen any notice from that company advertised, stating the supply to come from the new source, although we have had it now for nearly a month, I thought it worthy of remark in your valuable journal, that the inhabitants might become acquainted with it more generally, and note from week to week the results of the new supply.—X. Y.

The Glass Trade. — Mr. A. Quertinier has patented a method of causing heat, ignited gases, hot air, and products of combustion to pass from the fire-place of glass furnaces through side channels or apertures, and to circulate under the floor of the melting-chambers, so that the greatest possible transmission of heat to these chambers shall be obtained. ——The glass-works recently carried on at South Shields by the Tyne and Tees Glass Company have passed into other hands, under whose management they will shortly resume work.

File-Making by Machinery. — A file-cutting machine has just been patented by a Mr. Ross, of Glasgow. By its agency, says the *North British Mail*, files can be struck, and that in a superior manner, with an advantage in labour alone of at least 200 per cent. over the old process of hand-striking. A skilled file-cutter will strike by the hand somewhere about twenty common 40-inch flat bastard files in a day. One of Mr. Ross's machines, under the direction of a boy, will strike sixty files in the same amount of time. The machine is so simple, too, that an uninitiated boy can in a few hours be instructed to attend it. A one-horse steam-power is capable of driving six of these machines, and with some practice, a lad might be able to attend two of them, for they stop of themselves when a certain portion of work has been completed. The machine-made files have already found their way extensively into use, even on the other side of the Atlantic.

Fire at Mr. Myers's Premises.—The premises at Lambeth occupied by Mr. Geo. Myers, the contractor, caught fire on Tuesday last; but, fortunately, the damage done is inconsiderable.

Architects' Benevolent Society.—Considering that the appointment of an influential member of the profession in each of the most populous provincial towns, to act on behalf of the Architect's Benevolent Society, and in furtherance of its objects, would tend materially to extend its usefulness, the council have created an office to be styled that of Corresponding Member of the Council; the appointment to be for three years, and to be renewable at the end of that period. The duties of such officers are,—to obtain new members; to communicate to the honorary secretary any cases within their own knowledge that may be deserving of the attention of the council, and otherwise to promote the benevolent objects of the society in every way in their power.

Naval Raft Building.—The difficulties which have occurred in the prosecution of the present war from the deep draught of our line-of-battle ships, says the *Times*, may, perhaps, secure attention to the following design for a great raft, propelled by an immense steam-power, which has occupied the thoughts of its projector, Mr. Daft, civil engineer, for a period of thirteen years. It is proposed that the raft should be composed of a deck of timber 6 inches thick, resting on 300 pontoon-shaped iron boats, nearly all 100 feet long, by 10 feet wide and 7 feet deep, having semi-circular bottoms and sides, and hatchways opening into each. The deck area would be little short of ten acres. Bulwarks are contemplated, 12 feet 6 inches high, and consisting of hollow iron stanchions, with iron compartments between. It is proposed to propel this raft by twenty-two steam-engines of at least 200 horse-power each, eleven on each side, with paddles and screws alternately. The raft would, it is added, carry a freight of 20,000 tons, obtain a speed of fifteen knots an hour, draw only 3 feet 6 inches of water, and give a surface sufficient to act as a floating breakwater in the roughest sea. The projector contends that it will be impossible to founder such a structure; that in case of running ashore the boats grounded can readily be drawn off by the power of the engines; and that the principle of the design involving the repetition of so many given parts, as in the architecture of the Crystal Palace, these can be let out to different contractors, and the whole got together with the greatest rapidity and ease. In the Black Sea, or Sea of Azoff, and the Baltic smaller rafts so constructed might be of advantage, but we can scarcely see what use could be made of so unwieldy a structure as this, unless it were for the mere transport of an army. It is fitter for taking whole colonies of emigrants to Australia or America than for war with Russia.

Greek Antiquities at Calymnos.—At the recent meeting of the Archæological Institute at Shrewsbury, a letter from Mr. Charles Newton, late of the British Museum, and now her Majesty's consul at Mytelene, on some "Interesting discoveries in the Greek island of Calymos," was read. The paper detailed the result of certain excavations made in the neighbourhood of Damos, where a number of Greek tombs have been discovered, containing pottery, &c. Sepulchral jars had also been found; and Mr. Newton stated that he did not know that this method of interment in jars had been elsewhere explained. This, he thought, might elucidate a disputed passage in Pliny. What was called the tub of Diogenes was, in his opinion, no tub at all, but a large sepulchral jar. In other parts he had found graves which presented evidence that they were graves of Romans. The vases found in the graves were of a date considerably anterior to the Christian era, and in many of the graves were discovered lamps or cups. The paper next went to describe researches on the site of the Temple of Apollo, where the small church of Christos had been built, chiefly out of the old materials of the temple. Here a number of antiquities had been discovered, including a very fine sword handle.*

"To Lichfield.

"Old rural city, how thy pointed spires,
So chastely etched, spring from the rising knoll,
Salute the morn and day's departing fires,
And moon or sun-lit seem a breathing whole.
Thy swinging bell resounds upon the lea,
And tells of worship to the far-off Trent,
And of the short-breathed hours that passing be,
By whose small thefts the richest life is spent.
Yet the brief day of man has cultured been
Beneath thine auspices. Yon school below
Has nourished pupils for the tragic scene,
And ample lists of essayists can show.
Here Addison first learnt to fashion prose,
And Johnson, lord of common-sense, arose."

Feltham Burghley.

* We will take the opportunity to say, that the archæological meeting has been fully and ably reported in the *Gentleman's Magazine* of August 10th and 17th.

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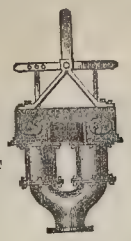

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ENAMELLED SLATE.—REDUCTION IN PRICE. Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work—PIMLICO SLATE Works, 39 and 40, Upper Belgrave-place, Pimlico

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to COLES and WOOD, Market Wharf, Regent's-park.

LLANGOLLEN FLAG and SLATE COMPANY. The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and the Llantysilio Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description: Cisterns, Chimney-pieces, Baths, Filters, Larders, Mangers, Ridging, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c can be supplied at very moderate prices.—Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE P. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

TO BUILDERS, SCULPTORS, AND MASONS—WHOLESALE STONE DEPOT, No. 3 KING'S-CROSS RAILWAY.
SAMUEL TRICKETT begs to inform his friends and the public, that he has OPENED a DEPOT at King's-cross Station, where he has a stock of HEADSTONES, Block York, Rawdon-hill, Harehill, and Potternewton, in block, dressed and self-faced Landings, Copings, Cills, Sinks, Slabs, Steps, and Pavings, on the most reasonable terms. A single truck load direct from the Quarries, at wholesale prices.—Address, S. TRICKETT, Manager, at the Depôt; or S. TRICKETT, Stone Wharf, Isle of Dogs.
FIRE GOODS, TERRA COTTA, AND GRINDSTONES.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Blocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

STAINING DEAL TO IMITATE ALL KINDS of WOODS it requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had of the Factory, 4, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, finished away and paid for at the time, at C. LEETHICH'S Lead, Glass, and Colour Warehouse, 21, Munster-street, Regent's-park. A large quantity of PAPER-HANGINGS, CHEAP. 18s. per cwt. given for old lead.

SHOP FRONT.—TO BE SOLD, a nearly NEW SHOP FRONT, glazed with British Plate in large panes, and having shutters, door, &c to the same.—For particulars apply to Mr. THOMAS TAYLOR, Builder, Staines

TO BUILDERS AND OTHERS.
WANTED, a PAIR of good Second-hand IRON GATES, seven or eight feet high, to suit opening nine feet wide.—Address, Messrs. GARSTIN, Furnishing Undertakers, 5, Welbeck-street, Cavendish-square.

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.
Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders Short-street Newcutt, Lambeth

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 3, Crescent, Jewin-street, London.

WARNER'S PATENT VIBRATING STANDARD PUMPS.—PATENT CAST-IRON PUMPS, for the use of farms, cottages, manure-tanks, and wells of a depth not exceeding 30 feet.

Diameter of Barrel.	Length of Barrel, under nose.		£ s. d.
2½ in. short	1 ft. 7 in.	Fitted for lead,	1 12 0
2½ „ long	3 3	gutta percha	1 13 0
3 „ ditto	3 6	or cast iron	2 12 0
3½ „ ditto	3 6	hinged pipe,	2 18 0
4 „ ditto	3 6	as required,	3 5 0
4½ „ short, with 15 feet of lead pipe attached, ready for fixing			2 12 0
4½ in. long ditto ditto			2 15 0

The short barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from underground tanks, or in hot, forcing, and plant houses; they may be fixed, when desired, under the stage. May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 3, Crescent, Jewin-street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells. PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

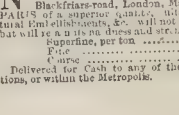
Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.
PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 70, Strand.
TO LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLIDE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.
W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

TO CONTRACTORS.
PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 62, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars Bridge Surrey Side

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile driving, raising, &c. &c.



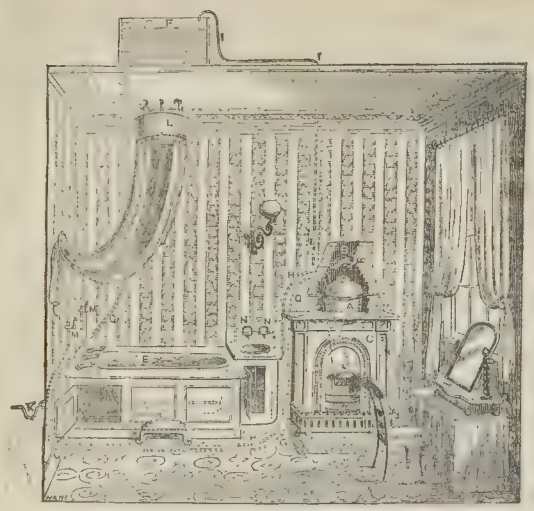
Contracts taken for pumping any quantity of water.
JAMES BURTON & SONS, Engineers and Contractors, John's-place, Holland-street, Southwark, London.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTIC PARIS of a superior quality, suitable for Sculptors, Architectural Embellishments, &c. will not warp, or crack, and is not liable to vermin, but will be found dense and strong.

Superfine, per ton	£7 0 0
Fine	3 0 0
Coarse	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

J. TYLOR AND SON'S BATH APPARATUS.



To fix a Bath, the apparatus for heating which can be fixed in the same room, and the luxury of an Open Fire retained.

A. Copper Boiler of sufficient capacity to make a warm bath, clasped by an iron band to support it, and fixed in the breast-work of a chimney. A flue is carried all round, and the draught is regulated by a revolving damper, *B*, which covers the opening into chimney. When set, the Boiler is entirely concealed from view.

This Boiler can be adapted for any chimney, by making it of an oval or elongated form.

A soot-door is fixed just underneath the damper for the convenience of cleaning, which, however, is rarely required, on account of the great draught round the boiler preventing any deposit of soot.

C. An ordinary stove front with sliding blower for the additional regulation of the draft.

E. Copper or tinned iron Bath, enamelled white marble inside, having three copper pipes, for the hot, cold, and waste water, which are indicated by the engraved levers on the cocks. The overflow is carried into waste-pipe *K*.

F. Cistern for cold water, say 100 gallons, which can be made of tinned iron, or any suitable material, either fitted into a recess or made of a cylindrical shape to stand on the floor of any room above the bath. The overflow can be carried into the waste or other convenient outlet.

G. Inch pipe from cistern to the pipe which goes to the bottom of boiler to fill it with water. A branch from this pipe also supplies the bath with cold water.

H. Inch pipe from the top pipe of boiler, to deliver the hot water into bath.

I. Half-inch pipe taken from the hot pipe *H*, and turned over the top of cistern to relieve the boiler.

K. Inch or 1¼-inch pipe to take away waste water from bath into soil-pipe or drain, as may be most convenient, and must be well trapped before entering.

L. Round copper or tinned iron Shower Bath, suspended from ceiling, and filled with hot or cold water by branches from the pipes *G* and *H*, the supply being regulated by the two cocks *M M*, which are let in the wall, and the levers fixed on them, engraved, "hot and cold shower."

A thermometer can be fixed in the shower-bath to regulate the temperature.

N N. Wash-hand basin supplied with hot and cold water, by branches from the pipes *G* and *H*, the waste being carried into the overflow of bath.

By this simple arrangement, the boiler is always kept full of water, and cannot, by any means, be emptied by the action of the fire. The draught is so regulated by the blower and damper, that a bath can be made in twenty minutes, or an open fire kept continually alight.

WARWICK-LANE, NEWGATE-STREET, LONDON.

CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM, and 7, SOUTHAMPTON-STREET, STRAND, London, Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE GUARDS,

Baths, and Mops's, and Chrimes'
Patent Hydrants, or Fire Cocks. Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.
Siemens' Patent Balance Water Meter.
Pilbrow's Patent Water Waste Preventer.
Marriott's Patent Water Supply Regulator.
Rawlinson's Patent Safety Drainage Valves.
Higginbotham's Patent Slide Stop Cocks.
Lowe's Patent Stench Trap, Beggs's Improved.
And all other Articles required for Water Works Purposes, &c.
LONDON HOUSE,
Mr. THOMAS BUGGS, 7, Southampton street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Traps, &c. The attention of Architects and Builders is particularly requested to the various appliances for applying to mains, Cesspools, and Drains, including three-quarter and Chimney Cans, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.
Plumbers' Brass Work of every description.

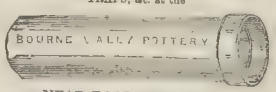
TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA COTTA was AWARDED to HENRY HARD, late of Doulton's Original Works, and has been confirmed on the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in the country, and eminent architects and others, in the adornment of their buildings. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition, and will be found to be a different material to that now being imitated by puffers and manœuvrers, with only three or four years' experience, and without practical knowledge. Some of the works recently completed by H. H. can be referred to, which, at the solicitation of the subscribers to the external part of Child's House, as near the Duke of Sutherland's, also Tottenham and Hampstead Churches; the turrets to the Camden-road Chapel, extending from 70 to 75 feet cube; the colossal Britannias, 25 feet high, at the County Fire Offices, Cornhill and Lombard-street; the Arms, with the allegorical group, at the Kent Mutual Insurance Office-street; and other works elsewhere, too numerous for mention. A large Stock of newly designed Chimney Shafts, Pots, to suit the various castles of the Nobility, at very low prices, and Models of both.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.
TUNED BY MACHINERY
Stocked and Steeled ready for fixing. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and hedged on a new system, which gives a superior tone and facility for ringing.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are found superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality. Pattern of the article, and will be sent on application to
THE AGENTS:
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

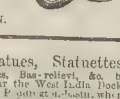
HENRY MILLICHAMP,

MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap connected.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 2 FEET LENGTHS.
Bends, Elbows, Urinals, Gulli-Traps, Flap Traps, Syphon-Traps, &c. always kept in Stock.

Watercloset Pan with Syphon-Trap connected, price 5s. 6d. each.



DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

ASPHALTE PAVEMENT, 2s. 3d. per yard, [illegible] for Footpaths, railway platforms, [illegible] Carriage Roads; 3s. 6d. to 5s. per yard. Lay a description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City.

ASPHALTE.—GERVASE FOOTTIT, Trinidad Asphalte Works, Kirkpatrick-street, Limehouse, begs to inform Engineers, Architects, and Builders that he has now on hand a large supply of Asphalte, suitable for Railway Arches, 35s. per ton; Flat Roofing, 3d. per foot. Depôt, Devon Harbor Wharf, Rotherhithe.
C. H. CLARK, Agent.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazze, Busts, Consoles, Bas-reliefs, &c. by J. M. BLASHFIELD, of Millwall, near the West India Docks Station, and at No. 1, Pearl-street, Bedford-square, where prices and designs can be obtained. Examples of Terra-cotta by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Mineral Court. The statues of Ariadne, Venus di Medici (colossal), the Fauns in the gardens at Sydenham, are in Terra-cotta, as are the Fauns in the Renaissance Court and the roof of the Alhambra Court. The Pompeian roofs of Terra-cotta and Cement combined. Since the execution of these works, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

TRELOAR'S COCOA-NUT FIBRE MANUFACTURES, consisting of Matting, Mats, Mattresses, Brushes, Nettings, &c. are the most cheap for quality and excellence of workmanship, combined with moderate prices. Prize medal in England and America, at the Exhibition of all Nations.—T. TRELOAR, Cocoa-nut Fibre Manufacturer, 42, Ludgate hill, London.

SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION-PLACE, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed a new and improved patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it secures perfect uniformity in form and size both in pipes and sockets, the accidental existence of a different and better construction than any now in use, and the pipes and sockets being made by one process are secure from separation.

W. NORTHEN invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to obviate the possibility of any stoppage in the drains.

NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Morton and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horseshoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharf, Battersea Bridge, and Creek Wharf, Hammersmith.—J. Corbett's Depôt, Britton-street, Chelsea; and at the Pottery.

[ADVERTISEMENT.]

BURGLARS DEFEATED.—CHUBB'S GUNPOWDER PROOF SAFES.

"9, Cousin-lane, Upper Thames-street, London, July 6, 1855.

"GENTLEMEN,—The safe you fixed here some years ago has indeed proved a good one, and done good service. Last week some thieves broke into our office, and tried their knives and then gunpowder, but both proved vain; for money, bills, and deeds were all safe enough in your 'safe,' and under your lock and key. We have great pleasure in informing you of this, of which you can make any use you please. — We are, gentlemen, your obedient servants, — JAMES NICHOLSON and Co.

"Messrs. Chubb and Son, 57, St. Paul's-churchyard."

Chubb and Son, 57, St. Paul's-churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

TENDERS

For building eleven shops, in First and Second streets, Milford, Pembrokeshire; and also for additional stabling to the Nelson Hotel, in First-street, for Captain George Clarke, on the estate of Colonel the Honourable R. Fulke Greville. Mr. W. H. Lindsey, architect. Quantities supplied:—

Williams and Greenish, Milford	£16,458 5 0
Lewis, Haverfordwest	13,326 17 8½
John and Thomas Thomas, Tenby	12,110 0 0
Rowland and Evans, London	11,210 0 0
Austin Maggs, Bristol	11,151 0 0

For rebuilding house in the Poultry, City, for Messrs. Wheelers. Mr. Thomas Burton, architect. Quantities furnished:—

Little and Sons	£2,680 0 0
Ashby and Son	2,499 0 0
Pritchard and Son	2,464 0 0
Lawrence and Son	2,457 0 0
Lindsey	2,440 0 0
Downs (accepted)	2,380 0 0

For building a pair of villas at New-cross. Mr. Horace Jones, architect:—

Parrant	£1,705 0 0
Keast and Moon	1,615 0 0
Dover	1,580 0 0
Sutton	1,434 0 0
Lawrance, Barnet	1,433 0 0
Wallburton (withdrawn)	1,140 0 0

TO CORRESPONDENTS.

ERRATUM.—For "Uxbridge," p. 563, read *Uxbridgeum*.

"W. H."—"M. A."—"W. E." under our mark.—"P. C." (Leeds).—"J. L."—"B. B."—"J. B."—"G. S."—"D. W. R."—"J. E."—"P. K." (name is already in type).—"T. W. I."—"Constant Reader" (an article on slime will be found in a previous number).—"J. M."—"Mr. A." (the churchyards around many of our parish churches must now considerably the level has been raised).—"C. B."—"W. W."—"J. K. junr."—"S. J. N."—"W. R." (see the "Builder").—"Constant Reader."—"C. S. H." (inquiry shall be made).—"W. A."—"Quondam."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

AGRICULTURAL MACHINES.—A CLERK and BOOK-KEEPER WANTED. Salary required, and testimonials of character in this particular trade, to be sent, prepaid, to "CLERK," care of WHITLEY, Advertising Agents, 5, Lombard-st., London.

BUILDER'S CLERK.—WANTED, a few miles from town, a CLERK who thoroughly understands Builders' accounts, and a good letter, prepaid, stating age and how formerly employed, with salary required, to E. B. care of Mr. Booth, 4, Lyon's-inn-chambers, Newcastle-street, Strand.

SAW-MILLS.

WANTED, a Person competent to take the CHARGE of a SAW MILL, in the occasional absence of the Proprietor. He would be required to assist in the trade when not employed in the Mill. He would be required to keep the books.—Address, by letter, stating full qualifications and terms, to M. N. Mr. Baker's, 12, Clement's-lane, City.

WANTED, an experienced BUILDER'S CLERK, competent to make estimates, measure works, and undertake the general routine of the office. One with a thorough knowledge of carpenters' and painters' works will be preferred. Address, stating salary required, and where last employed, to A. Z. Messrs. Farmiloe, Rochester-row, Westminster.

WANTED, an experienced BUILDER'S FOREMAN, with a thorough knowledge of every branch of the business.—Address, stating age, salary required, and where last employed, to A. Z. Messrs. Farmiloe, Rochester-row, Westminster.

WANTED, THREE or FOUR GOOD JOINERS and CARPENTERS. Liberal wages will be given.—Apply to Mr. WM. SHEARBORN, Dorking, Surrey.

WANTED, in the country, about thirty miles from London, a WORKING FOREMAN of CARPENTERS, to take charge of a job.—Apply to S. C. Office of "The Builder."

WANTED, a CLERK of the WORKS, to superintend a mansion near Southampton.—Apply to Mr. ALFRED C. LUCK, Architect, Offices, Onslow-road, Southampton.

WANTED, a FIRST-CLASS GRAINER, to fill a permanent situation.—Patterns, with terms, addressed to JAMES BIRKETT, Decorator, 9, St. James's-square, Bristol, will receive immediate attention.

TO BUILDERS' YARD FOREMEN.

WANTED, an active, intelligent Person, as YARD FOREMAN, and capable of superintending timber framing and rough carpenters' work.—Address stating age, particulars, and wages required, to B C Office of "The Builder."

TO SHOP-FOREMEN.

WANTED, as WORKING FOREMAN of CARPENTERS and JOINERS, a practical Man, thoroughly acquainted with the trade in all its branches, competent to set out working drawings, and convert materials to the best advantage. Apply, stating age, wages, and reference, to GEO. ROBINSON, Builder, Redditch, Worcestershire.

TO ENGINEERS, WATCHMAKERS, &c.

WANTED, a Young Man who thoroughly understands turning and fitting German silver and other metals. A clever mechanic will be instructed in the branch of work for which he is required, and receive good wages. Apply to BOOSEY and SONS, 24, Holles-street, Cavendish-square.

TO STONE-MASONS.

WANTED, for a permanency, a MASON, competent to undertake general stonework, including church and cemetery work. First-rate references will be required. Apply by letter to JOHN BOYD, Builder, Huntingdon.

TO CLERKS.

WANTED, an experienced Young Man as BOOKKEEPER and COLLECTOR. Must be thoroughly acquainted with a timber merchant's or builder's office. Situation permanent. Salary moderate.—Apply by letter, with full particulars, to Mr. G W. FRY, 16, St. John's wood terrace.

TO MARBLE MASONS.

WANTED, by the Advertiser, a SITUATION in a Marble Mason's Shop. The Advertiser could assist to keep the books, being a good accountant. Wages not so much an object as employment. Good references.—Apply to A. B. C. 5, Molyneux street, Edgeware-road.

TO LAND OWNERS, BRICK MERCHANTS, AND OTHERS.

WANTED, by a Young Man of good Testimonials, a SITUATION to take the Management of Brick and Tile Works, at a weekly salary or at per thousand Red or White Bricks. Drain-pipes, Tiles, &c.—Address, E. W. Mr. Wm Wright's, Brick and Tile Kilns, Barnet Common, near Barnet, Herts.

CLERK OF WORKS OR SUPERINTENDENT.

WANTED, by a Person of long practical experience in the Construction and Superintendence of Railways, Churches, Prisons, and other Public Buildings, an APPOINTMENT under an Architect, Builder, or Private Party. Will be at liberty in a week. The best reference given from former employers and standing buildings.—Direct, L. C. B. 14, Gillett street, Grosvenor square, London.

WANTED, by a Practical Man, aged 31, a SITUATION, either as Clerk of Works, Draughtsman, or to take charge of a Business. Salary expected moderate, and unexceptionable references given.—Apply to P. L. B. Chetwynd-end, Newport, Salop.

TO BUILDERS, PLUMBERS, &c.

WANTED, constant EMPLOYMENT by a respectable Young Man, as PLUMBER and GASFITTER, &c. No objection to fill up his time with glazing, if required. Can be well recommended by his last employer. No objects in the country.—Address, W. B. 24, Trafalgar-road, Greenwich.

TO GRAINERS AND DECORATORS.

WANTED, to APPRENTICE a respectable YOUTH, sixteen years of age, to the above trades.—Address, prepaid, to R. care of Mr. Greaves, Wax Chandler, 30, New-street, Covent-garden.

TO SURVEYORS AND LAND AGENTS.

WANTED, by a Young Man, who has served his articles with a surveyor, and is generally acquainted with the routine of agency business, an ENGAGEMENT in either of the above departments. Respectful references given.—Address, E. Y. P. Post office, Knowle, Birmingham.

WANTED, by a practical CARPENTER, aged 30, a SITUATION as shop or general FOREMAN OF WORKS. Has no objection to the country, or to go abroad.—Address, G. H. at Mr. Pearce's, 3, High street, Hampstead.

TO WRITERS, BREWERS, AND DECORATORS.

WANTED, by an experienced Young Man, a SITUATION as WRITER and PENCIL HAND, thoroughly understands embossing, oil gilding, &c. No objection to the country.—Address, S. M. 26, Goldington-street, St. Pancras-road, Camden town, London.

TO BUILDERS AND CONTRACTORS.

WANTED, a SITUATION as CLERK of WORKS, or GENERAL FOREMAN, by a person who has just completed an engagement in the carrying out of some extensive works; can produce the first of testimonials.—Address, R. S. 2, Tower Royal, City.

WANTED, immediately, by a Builder in the Midland Counties, employing from 100 to 200 men, a CLERK, fully qualified in all the branches, for keeping accounts, measuring all works, taking out quantities, and preparing estimates; also capable of giving working drawings for workmen. References, age, and salary, to be stated to the parties applying.—Address, R. L. Office of "The Builder."

AS CLERK OF WORKS.

WANTED, by a respectable Man, a RE-ENGAGEMENT in the above capacity, in or near London. Good references given. Address, A. C. B. Office of "The Builder."

TO BUILDERS AND CONTRACTORS.

WANTED, by an experienced Builder's Foreman, a SITUATION as Walking or General Foreman, or charge of Works. Present engagement terminating shortly.—Address, J. P. Mr. Seward's, Undertaker, Bath-street, City-road.

TO MASTER BUILDERS AND HOUSE DECORATORS.

WANTED, by a Young Man, a PAINTER and GRAINER, a CONSTANT SITUATION. Wages 25s. per week. Address, J. W. Office of "The Builder."

STAIRCASE and HANDRAIL WORK.—The Advertiser, who is competent to undertake every description of the above, wishes for an ENGAGEMENT as LEADING HAND, or to take the work at fair price. The highest testimonials given. Address, JOHN WESTON, 8, South-row, Earl's-court, Old Brompton.

TO ARCHITECTS, &c.

AN Assistant a first-rate Draughtsman, accustomed to prepare finished and working drawings, superintending works, write specifications, and making surveys of dilapidations, wishes for an ENGAGEMENT, either temporary or permanent. No objection to the country.—Address, ARCHITECT, 35, Abergavenny-street.

A CLERK of WORKS, of great practical experience, is open to an ENGAGEMENT.—Address, A. L. 3, Water-place, Francis-street, Newington butts.

TO ARCHITECTS, &c.

AS CLERK of WORKS, the Advertiser, aged 38, is desirous of an ENGAGEMENT. Is fully competent to carry out the intentions of an architect in Gothic, Italian, or Elizabethan designs. Good reference.—Address, T. R. S. Post-office, Great Portland-street, London.

TO ARCHITECTS AND SURVEYORS

A GENTLEMAN is open to an ENGAGEMENT as Draughtsman or Assistant. Terms moderate.—Apply X. Y. Z. 17, Granby street, Hum, dent road

TO GLASS CUTTERS AND OTHERS.

A RESPECTABLE YOUTH, aged 18, wishes for a CONSTANT SITUATION, as Cutter and Glazier.—Address, W. H. J. 16, Long acre, London.

AS BELL-HANGER.—A respectable Young Man, who thoroughly understands his business, with a good reference, if required, from his last situation. Direct, P. W. 10, Harrison-street, Gray's-inn-road.

TO CIVIL ENGINEERS, LANDOWNERS, ESTATE AGENTS, SURVEYORS, AND OTHERS.

A SURVEYOR of many years' general experience, also having had considerable practice in civil engineering and architecture, and competent for the management of an office, or of works, is open to RE-ENGAGEMENT, at home or abroad, or to enter into partnership therewith, where capital is required.—Address, post-paid, W. J. Newspaper-office, 10, Tottenham court-road.

PARTNERSHIP.—A London Architect, well understanding Gothic design, with Practice in Country, wishes to purchase into an old established Architectural Business. None but those with good practice need apply.—Address, H. R. Office of "The Builder."

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on the COMMISSION ONLY, and that they can consequently supply the Trade with the finest marbles at the lowest prices. Sawn Slab, Mortars, Vases, &c.; Yorkshire and Portland Stone for sale on commission.

The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Mill-pits, to offices on his own premises, at Carrara Wharf, Thames-bank, Pimlico, where he continues to carry on the marble trade solely on his own account.

Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE PLACE.

SAMUEL CUNDY,

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Micklefield-street, North, City-road, for the sale of GRILLE and other ornamental iron articles, useful, architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

C. ADENEY, secretary.

July 25, 1855.

THE LIZARD SERPENTINE COMPANY manufacture and sell in blocks, slabs, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works to any size, 29, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent to London.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.

THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble in Chimney Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble, Sculptured Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Alo's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Bed and Breakfast Rooms, Best and secondary Bed-Rooms, &c.; also Hall Pavements, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

TO SCULPTORS, MARBLE MASONS, and BUILDERS.—Now landing, from barges at Whitehall-wharf, ex *Conquest*, from Leghorn, part of a cargo of BLOCKS of fine SEA-GREY dove marble, VEIN and SICILIAN. Mr. FRANKLIN begs to call attention to the above, also to his extensive stock of marbles in books and slabs, consisting of statuary, vein and Sicilian, Irish Green and Black, Dove, Barbilla, Sienna, Brocatella, Rance Royal, St. Ann's, Emperor's Red, Black and Gold, &c. which he is enabled to offer on advantageous terms.

TO BE SOLD CHEAP, about 1,000 cubic feet of STONE BLOCKS, several 7 feet by 3 feet 6 inches, by 1 foot 2 inches thick; ditto, 6 feet to 7 feet, by 1 foot 6 inches, by 1 foot 2 inches; ditto, 3 feet to 6 feet, by 1 foot 6 inches, by 9 inches. Apply from TWELVE to ONE, at 34, Buckingham-street, Caledonian-road, Islington.—N.B. Can be viewed on the premises.

TO BUILDERS, BUILDING MATERIAL DEALERS, AND OTHERS.

TO BE SOLD by TENDER, a quantity of YORKSHIRE, PORTLAND, and GRANITE STONE, in slabs, blocks, and landings. Also a quantity of marble, about railway blocks, a quantity of granite curb and sundry other building material.—May be viewed on the premises, Cambridge-place, at SAUGHALL'S, No. 2, on MONDAY, the 27th, and TUESDAY, the 28th inst. from TEN o'clock to FOUR, and the Tenders to be sent to Messrs. SAUGHALL and SON, 34, Tottenham court-road, on or before WEDNESDAY, the 29th inst.

PORTLAND STONE.—NORTON and WHITLEY beg to solicit the attention of the building trade generally to their extensive STOCK of PORTLAND STONE, comprising every useful size, which they are now offering upon most advantageous terms. York Landings, Paving, Sills, Sinks, &c.—Address, 24 Wharf, Harrow-road, Paddington.

TODD'S PATENT METALLIC PROTOXIDE PAINT.

This Paint possesses in an eminent degree the following advantages over all other known Pigments:—
INDESTRUCTIBILITY BY HEAT—PRESERVATION OF IRON FROM OXIDATION, WOOD FROM DECAY, AND MASONRY AND BRICKWORK FROM DAMPNESS—PERMANENCE OF COLOUR AND FREEDOM FROM DELETERIOUS PROPERTIES—SUPERIORITY OF BODY.

The Protoxide Paint, as at present produced, is of one shade of colour, viz.: Any Tint may be produced with any shade to suit the taste, but for which it may be required. It is not affected by sulphuretted or carburetted hydrogen gas, bilge water, or indeed foul air of any kind, and is therefore well adapted for the interior of Ships, Warehouses, Offices, Steamboats, &c.; and from its total freedom from deleterious properties it will be found of great value for painting the interior of Hospitals, Asylums, Unions, Gaols, and other Buildings which may require to be painted during occupation.—Sole authorized Agents for England:—

MESSRS. C. GRABHAM AND CO. 4, BARGE-YARD, BUCKLERSBURY, LONDON.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to the heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Rendered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK LONDON PATENT. And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of this manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Pinsel-street, Paddington.

PORTLAND CEMENT.—6, South Wharf, Paddington. CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle by those who have hitherto had the monopoly. Manufactured by to all parts of the kingdom per boat or rail, at a reduced price to the trade.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. An count of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent. KNIGHT, BEVAN, and STURGE, trade. Portland cement is manufactured at these works with especial reference to its destination, whether for standing brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a non-setting Cement, requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Parian, White, Stucco, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grinding Stones, Cement Mortars, Chimney-pots, Quito Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT STOCK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS—OLDHAM and TATHAM are now prepared to receive orders from the Contractors, Builders, and Merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and will be supported by the addition of two or more parts of sand to one of cement, 10 and 12 boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick

GREY STONE LIME WHARFS, 12, UPPER GROUND STREET, Blackfriars (Surrey side). 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

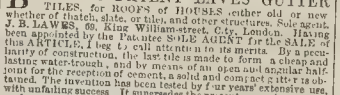
SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, specially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, and in future all orders may be punctually attended to Orders for export, or along the Thames, canals, or railway stations, should be given a few days before required.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT in quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers. Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.



BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough, and by means of an open and angular halftained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting away from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvertoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Reports of various eminent Authorities," page 201, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Corridors, Ball-rooms, &c.; Antique, Geometrical, and Adamantine Mosaics, manufactures of a highly decorative character, and Coverings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Panels, and Kitchen Ranges, may be had of their Agents at their Warehouse, 9, Alsop place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach Cambridgeshire, begs to offer pantiles at 35s. per 1,000; floor bricks and paving, at 4s. per 1,000 inch pavings, at 60s. per 1,000; Cash prices. Delivered on trucks in London on Eastern Counties Railway.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices; will be SOLD by PRIVATE CONTRACT. The BUSINESS to be DISPOSED OF, with the valuable connexion, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Hundaras Wharf, Bankside, Southwark, London.

BRICKS.—Excellent hard-burnt RED BRICKS, of deep colour and perfect shape, 28s. per 1,000, cash, delivered into the railway trucks or carts. Stocks, malms, fancy bricks to order. Agricultural draining tiles.—Address, Mr. LEVETT, at the Railway Brick and Tile Works, Brentwood, Essex, where a large stock may be inspected.

N.B.—The Works adjoin the Goods Station of the Eastern Counties Railway, at Brentwood.

BRICKS.—To Builders and Contractors.—Capital Hard-burnt GREY STOCKS, of good colour, GRISEES, and PLACE, at very reduced prices. Cash.—J. F. SMITH, Further Field, Acton Bottom, near Shepherd's Bush.

BRICKS, LIME, WHITING TILES, FLINTS, GRAVEL, &c.—Messrs MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on the usual terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail; any station on the Eastern Counties Line, or any railway connected with it. Also, which one trial of their supreme mass be saved. Also, lime, chalk, best quality, lime, both white and blue, for fire-goods, &c. can be obtained at Messrs MEESON's Wharf Kilns at Bow-bridge, by letter, to Messrs. MEESON and CO. Gray's, Essex. Orders, with despatch.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and Co. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea bridge, at the following prices, viz.:—Grey stocks, 25s. per thousand; Rough Stocks, 23s. per thousand; Grizzels, 20s. per thousand, Cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place Sand-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Countine-house, Hoxton Brickfields, Grouze-walk, near the Rosemary Branch, Hoxton.

N.B. Red-coloured Sand, fat for mould purposes constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS, COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

Depôt, Agar Wharf, Kings-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Footway, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-rd.

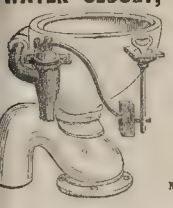
BRICKS.—Builders wanting Bricks of good colour, are solicited to call on B. PARKS, Lewisham, and see the quality at low prices. Cartage within six miles on the most reasonable terms. Red facing bricks at 30s. All kinds of tiles, paving bricks for oven buildings, silk glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

FOR IMMEDIATE SALE. — FIRE BRICKS, LUMPS, TILE, and TERRA COTTA.—SAMUEL THICKETT has received a large consignment of the above goods for sale. Apply at the premises Stone wharf, Isle of Dogs. Dealers and large consumers liberally dealt with.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch red Socket Drain Pipes, in perfect lengths. Apply to St. JOHN HEWITT, Redhill Works, Southampton.

CLAY ARCHITECTURE.—To NOBLEMEN, ARCHITECTS, BUILDERS, and OTHERS.—A PATENT has been taken out by JOSEPH ARNOLD, Tamworth, Blue Brick and Tile Manufacturer, for making ORNAMENTAL BRICKS, of any pattern, whatever, on a raised ground, with the accuracy as a seal upon wax. By this novel invention the pattern is made with the brick, the clay is prepared by steam power, which produces, when burnt, an impenetrable article. Ornamental window heads and sills, large bricks for plinths, and facings for polerals, common size bricks, grape and vine, Elizabethan, or any other pattern. The paste for the ground can be of red, or strawberry colour. His large paving bricks, 18 by 9 inches, and 2 inches thick, can be depressed in Mosaic patterns, to prevent slipping, and carry off the rains, only require being set on the flagging pow in use, be a great economy. For the foundations of large public buildings, Asylums, Government sheds, bricks are made 18 by 6 inches and 2 inches thick, weighing nearly 70lbs of this superior material. The time has now arrived when the exterior of our public and private buildings may equal, if not excel the interior decorations in the hands of architects, as there is no limit to design. The means of these articles may be seen in the Metallic Earth Works, on the Watling-street road, about a mile within three minutes' walk of Wilnecote Station, on the Midland Railway, and two miles from Tamworth Station, Trent Valley line.—Church-street, Tamworth, August 8, 1855.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.



DOULTON & WATTS,

LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

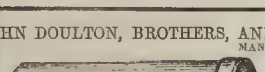
AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF



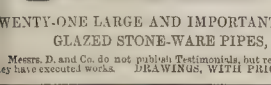
DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

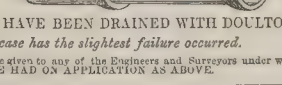
May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW .....J. A. Mathieson, Hope-street.
DUBLIN .....Robt. Lovely, Foolleg-street.
CORK .....J. and J. Harley
WATERFORD.....J. Sparrow and Co
CARNARVON ....Jno. Jackson.
PRESTON .....J. Arinstead, Hudson-street.
CHORLEY .....Thomas Saville.
BLACKBURN ....W. Hopwood, Clayton-street.
WIGAN .....James Fairclough, King-street.
KENDAL .....Robt. Thompson.
CARLISLE .....C. Armstrong, Lowther-street.
WHITEHAVEN...Hugh Todhunter.
COCKERMOUTH..John Hird
GUERNSEY .....Guerin Brothers.
LONDONDERRY ..W. and A. M'Elwee.
LIMERICK .....W. Burgess and Sons.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.

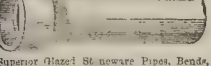
SOCKET. 



HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.



Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Slate Seats.

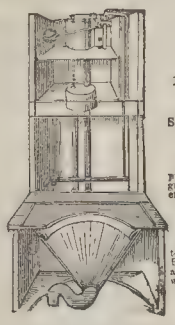
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAU, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

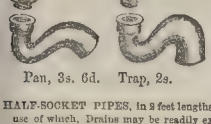
GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Selfacting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

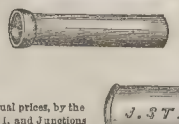
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE



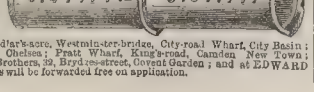
Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.



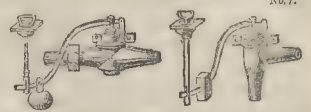
May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Cock's-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; TURNER'S, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 39, Bryd ges-street, Covent Garden; and at EDWARD COCK'S 93, Ward-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

GEORGE BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.
DAVIES and NORMAN, Agents.
Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.
IN EVERY VARIETY.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE
No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 10 to 200 feet, they are found to be exceedingly durable and much cheaper than common cocks. Manufactured solely by the Inventors,
THOS. LAMBERT and Co.,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.
NB. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 11s. 6d. each.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, moved by all to be of the best manufacture, by the improved clay, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co. Great Northern-wharf, York road, King's-cross.

STONEWARE GLAZED POTTERY, LYTCHETT, near POOLE, DORSET.—TO BE DISPOSED OF, by PRIVATE CONTRACT, the Lease, Plant, and Stock of the above Premises. The land contains a great depth of the finest clay, fit either for shipping or manufacture. The Glazed Drain Pipes and Fire Bricks are equal if not superior to any yet in the market.—Further particulars may be obtained on application to H. F. FISHER, Blandford, Dorset.

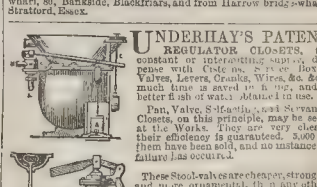
PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with stem, cranks, wire, lead traps, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER CLOSETS, patronised by the Board of Health Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 39, Old Fish-street, near St. Paul's, London

CROWN GLASS, 18 TABLES, 42s. PER CRATE.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality for Roofing and Vessel Counts; Builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.
N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.
January, 1855.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on reasonable terms. Also, MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 89, Bankside, Blackfriars, and from Harrow bridge-wharf, Stratford, Essex.

UNDERHAY'S PATENT REGULATOR CLOSETS, for constant or intermittent supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-cleansing, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stool-valves are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

Manufactured by
CHARLES BUTTES and SON,
Brass Founders, Crawford passage, Clerkenwell, London.

SALES BY AUCTION.

MARBLE, &c.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—
MONDAY, 3rd SEPT. 1855.
MONDAY, 8th NOV 1st
Catalogues and full particulars to be had on application one week before each sale—The Stores, MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE.

NOTTING-HILL.—Long Leasehold Property, of the value of £90 per annum, to be sold by auction.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the MART, on FRIDAY, SEPTEMBER 21st, at TWELVE, in four lots, a LEASEHOLD ESTATE, comprising four substantially erected family residences, containing twelve rooms each, being Nos. 21, 22, 23, and 24 Portland-road, of the extensive estate of Lord Ladbroke, held under lease for long terms at very low ground rents.—May be viewed, and particulars obtained of Messrs. Wyatt and Sons, Solicitors, 7, Great James-street, Bedford-row; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

MR. D. A. RAMSAY begs respectfully to announce to his numerous friends and the public, that he has RESUMED the BUSINESS of an AUCTIONEER, Valuer, Estate and Land Agent, and from his long practical experience of the value of property, feels great confidence in soliciting the support of his former patrons and friends, and in doing so begs to call their attention to the central position of his offices, and to assure them that all business entrusted to his charge shall be conducted with the greatest promptitude and despatch, and to their entire satisfaction. Mr. D. A. R. respectfully invites the attention of all parties having property for sale or to let, to furnish him with full particulars, when the same will be duly registered, free of charge—Auction and Estate Agency Offices, 79, King William-street, City.—Agreed 24 1855

HARROW-ROAD.—Leasehold Carcases, in Private Residences and Shops

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the MART, on FRIDAY, SEPTEMBER 21, at TWELVE, in six lots, SIXTEEN well-built CARCASES of twelve rooms each, with convenient fronts, situate in Belsize-crescent, Westbourne-park-villas, within three minutes' walk of the Paddington Station on the Great Western Railway, and over the Regent's Canal. Held on lease for a long term unexpired, at low ground rents. May be viewed, and particulars obtained in due time of Messrs. RHODES, LANE, and Manners, Solicitors, 62, Chancery-lane; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

TO CABINET, PIANOFORTE, BILLIARD-TABLE, BUHL, MARQUETRY, FANCY BOX AND BRUSH MAKERS.

MR. E. THOMAS will SELL by AUCTION at his GALLERY, No. 38, Leicester-square, on THURSDAY next, AUGUST 30th, 1855, at TWELVE o'clock, about 20,000 feet of VENEERS, comprising—
1,000 feet of Rose Wood Veneers.
1,400 feet of Walnut and Pollard Oak ditto.
1,800 feet of Tulip-wood ditto.
2,000 feet of Spanish Mahogany Curl ditto.
5,000 feet of Honduras and Spanish ditto, of rich figure and various sizes.
1,000 feet of Walnut Curl Veneers.
4,000 feet of small Walnut-burr Veneers, of splendid figure; and
One Plank of the richest Mottled Mahogany in London.
In lots of six veneers, cut by hand. Also Maple, Ash, and Satin-wood prepared Veneers for brush-makers, &c.—May be viewed the morning of sale, and catalogues had of Mr. E. THOMAS, Auctioneer, 38, Leicester-square.

TWICKENHAM.—To Builders and Persons desirous to build for their own occupation or as investments.—Valuable Land, with extensive frontage, and Two Ground Rents, amounting to 70l. per annum.—By Mr. MASON, at GARRAWAY'S, on TUESDAY, SEPTEMBER 25th.

FIFTY PLOTS of FREEHOLD BUILDING GROUND, delightfully situate, near the new church, Twickenham, a short distance from Pope's Villa; fourand a half acres open, with Wellesley House nearly adjoining Sir Wm. Clay's Park; two and a half acres are between the upper and lower roads; gravelly soil and good water; eligible for villa residences, with a railroad station half a mile distant. Also a well-secured rent of 18l. issuing from two houses, lately built on part of the estate, annual value, 70l.; and another ground rent of 32l. from a piece with 18 feet frontage, let to Mr. Legge, who is to erect a shop, value, worth 120l. a year.—May be viewed; and particulars of Mr. PENNY, at the Prince Albert. Particulars had of the Auctioneer, Nortonfalgate.

CAMDEN-TOWN CEMETERY.—BUILDING ESTATE—TO BE LET, on Building Leases for 99 years, very eligible SITES upon the above estate having good frontages into Camden-street, Pratt-street, and Buchanan-street. The rents are at present moderate, but will increase in the ratio of the locality, which is evidenced by its near proximity to the North-Western and North London railway stations, and the Hampstead road. Plans may be seen, and particulars obtained by application to Mr. KENDALL, Land Agent, &c., 17, Suffolk-street, Pall-mall East; or to JOHN DANGERFIELD, Esq. Solicitor, 293, Strand-street, Charing-cross.

LOWER THAMES-STREET.—TO BE LET, by Tender by the Worshipful Company of Armourers and Brazers, on a Lease for Twenty-one years from Midsummer, 1855, the extensive Premises known as the GLOBE-YARD WAREHOUSES situate in the above street, nearly opposite the Custom-house. The lessee will be required to pay all taxes and rates, including sewers and militia rates, and all assessments for sanitary purposes, and the expense of fire insurance, the land-tax being redeemed; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman-street, on or before the 3rd OCTOBER next, where a plan may be seen, and further particulars obtained the following day, at HALF-PAST TWO o'clock. The Company do not bind themselves to accept the highest or any other Tender.
JOHN PENTHEN, Clerk.
5, St. Andrew's-court, Holborn.

FREEHOLD LAND.—To BUILDERS or others.—Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz.—
FOREST-HILL, Croydon Railway.
ST. MARGARET'S, Loyd's-road, South Western Railway.
OAKLANDS GRANGE, Weybridge, Surrey, ditto.
HOLNA-LAW, Maidenhead, ditto
TOTTENHAM GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.
Part of the purchase money may remain at 5 per cent. interest.
Parties assisted in the building of their own residences. Several Plots to be let on Building Lease. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 3, Chancery-lane.

HAVERSTOCK-HILL.—To BUILDERS.—TO BE LET, in the MALDEN and QUEEN'S ROAD (both made roads), some commanding FRONTAGES for Shops and Private Houses. All the sewers are now in the estate, roads all formed, and now making. Term, ninety-nine years. Low ground-rents. Bricks supplied at a low price and liberal conditions.—Apply to Mr. JOHN MOORE, 8, Chalton-street, Euston-square.

BUILDING GROUND, with liberal CASH ADVANCES TO LET, at Old Ford, for the erection of Fourth-rate Houses, which are much required in this rapidly improving neighbourhood, and which let and sell rapidly. Cash liberally advanced as the buildings proceed. Term, 80 years. Ground-rent low.—For further particulars, apply to Mr. GEORGE CLARKSON, Surveyor, 48, Pentonville, Pentonville

TO BE LET, with immediate possession, a spacious WHARF and GRANARIES, an eight-roomed House, with stabling for twenty horses, and 100 feet frontage to the river Lea at Lowhouse, near the Commercial-road.—For particulars apply on the premises, or at Messrs. BRISTOW and TARRANT'S Offices, Bond-court, Walbrook.

POTTERY TO BE LET.—TO BE LET, with immediate possession, a POTTERY, at Packstone, near Poole, Dorset, standing on about an acre of land, with an abundant supply of excellent clay. There are two kilns, pipe-drying, and every requisite for the manufacture of stoneware; also a brick-kiln. Business may be commenced with a small capital. Apply to Mr. BRYANT, on the Estate, and at 107, Holborn-hill, London.

MAITLAND-PARK, HAVERSTOCK-HILL Hamp-tead road.—LAND-LAS REDEEMED TO BE LET, upon Building Leases for ninety-nine years, from Christmas 1852, desirable BUILDING SITES upon the above Estate. The continued demand for houses in this locality, and the picturesque position of the property adjoining the grounds of the Orphan Working School, render this a desirable opportunity for builders or gentlemen wishing to erect villas for themselves. For terms and to view plans apply to the Secretary of the Orphan Working School, 32, Ludgate-hill; Messrs. TERRELL and CHAMBERLAIN, 30, Bedford-street; the Architects, Messrs. WEBNERT and ASHDOWN, 29, Charing-cross; or at the Porter's Lodge, on the Premises.

TO BUILDERS and OTHERS.—TO LET, near St. Paul's a large old established BUILDERS' PREMISES, or the Lease TO BE SOLD, 20 years for the whole term for more than the rent, leaving the Yard, Workshops, Offices, &c. in hand.—For particulars inquire by post, of H. B. 14, Chatham-place Blackfriars

BUILDING FRONTAGE, STAINING-LANE, CITY.—The Haberdashers' Company are desirous of receiving TENDERS for the Site of their Old Chapel, fronting on Staining-lane, containing a frontage of 20 feet, and a depth of 74 feet. Tenders must be sent in not later than SATURDAY, SEPTEMBER 8th. Further plans may be obtained at Haberdashers' Hall, Gresham-street West; or of Mr. SNOOK, Architect, 6 Bakestreet, Southwark. JOHN CURTIS, Clerk.

FREEHOLD LAND TO LET, on BUILDING LEASES.—The Rev. WILLIAM FORD, and Mr. HENRY WEBBER, executors of RICHARD BARFORD, Esq. late of Tollington-park, have to offer TWO valuable Plots of FREEHOLD LAND for Building Leases, for a term of ninety years, in Barford-street, Liverpool-road, Islington. The land-tax is redeemed and the sewer is made.—For particulars apply to Mr. HENRY WEBBER, Timber-merchant, 31, Old-street, St. Luke's.

BUILDING LAND for SHOPS, opposite the New Cattle Market, TO BE LET. Liberal advances will be made.—For particulars apply to Mr. ABRAHAM BOOTH, Auctioneer and Estate Agent, No. 1, Carlton-hill Villas, Camden-road, opposite the Brecknock Arms.

WORTHY of NOTICE.—TO BE LET, situated in the Clarendon-road, Notting-hill, both sides of the road being built on, some BUILDING CARCASES, adapted for shops or private houses, at a low ground rent, no charge being made for the roads or for the road or sewer. Terms can be had direct from the freeholder. For particulars apply to Mr W PILBEAM, Builder, Talbot Inn, Clarendon-road, Notting hill

CHELSEA.—Town and country semi-detached Residence, free from noise or nuisance, and easy of access to the City. It Twenty Rooms; seven are 18 to 28 feet long, with 45 feet shed, and acre of well planted lawn and garden, not overlooked; all easily divided into two or three lots; gravelly soil. Rent 100l. reducible to 75l. by fine premium warranted worth double for investment and lease of three to eleven years, which may be extended to ninety. The long lease will produce a handsome profit on ground-rents, besides valuable materials, fixtures, and gravel, worth 200l.—Mr. ALFRED COX, Agent, 66, New Bond-street.

TO BE SOLD, TWO eligible PLOTS of FREEHOLD BUILDING LAND, with a frontage each 15 feet 2 inches by 91 feet deep, pleasantly situated at Peckham, contiguous to the Rye.—For particulars apply to Mr. ARCHER, 2, St. Leonard's-square, Maiden-road, Haverstock-hill.

SAFE and PROFITABLE SPECULATION. TO BE DISPOSED OF immediately, a very valuable BUILDING AGREEMENT direct from the freeholder, partly executed some of the houses are completed, and the whole including some Leases now in progress, together with the scaffolding, wood, stone, &c. The advertiser being engaged to another business at a distance requiring all his time, will deal liberally, regardless of the value, with a prompt purchaser.—Apply to Mr. GLAZIER, Auctioneer, 41, Charing-cross.

BUILDER'S PREMISES.—WANTED, in Westminster or the neighbourhood, Large PREMISES, a wharf preferred. A stock would be taken.—Address, stating full particulars, to D. A. M., Messrs. Widnell and Trollope, 9, Upper Charles-street, Westminster.

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The land of every house built upon it must be of the value of 40l. per annum, will be entitled to a Free First-class Railway Ticket; and of every house of the value of 25l. per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years.—Apply to Mr. GEORGE MORGAN, 3, Chancery lane

TO PLUMBERS, PAINTERS, GLASS-CUTTERS, &c. TO BE DISPOSED OF, an established CONCERN in the above line, in a first-rate situation, and doing a good trade. Domestic affliction is the cause of leaving. Premises easy.—Particulars of the Tyne Glass Company, Bridge-waterhead, Wilmington-street, Blackfriars.

ROYAL POLYTECHNIC.—Lecture on the New Metal, Aluminium, by J. H. Pepper, esq. daily, at 3 and 9. The largest bar yet produced, presented by the Emperor of France, on view.—Musical Entertainments, by G. Buckland, Esq. Monday, Wednesday, and Friday, at 7.45.—Transmission of Sound through Solid Substances, with Musical Illustrations, by Professor Wheatstone, Esq. Tuesday, Thursday, and Saturday, at 1.—Chambers Water, in the Microscope, daily, at 1 and 9.—Rose's Infernal Machines, at 3.45 and 8.45.—Relics of the Franklin Expedition, and Arctic Collection of J. Barrow, esq.—Dissolving Views of the Crimean Battles.—Diorama of Saint Rick.

LEVEL WANTED.—Wanted, a good 10, 12, or 14 inch DUMPY LEVEL, with Tripod and Inverted Staff complete.—Address, stating lowest price, to Mr. SLACK, 187, Piccadilly, London.

SWISS DRAWING INSTRUMENTS, of equal in quality to the very best London-made instruments, but considerably cheaper.—Apply to Mr. S. BARLOW, 9 Theobalds, Holborn (between 1 and 3 p.m.); or to Mr. H. B. BARLOW, Office for Patents, Ducie-place, Exchange, Manchester.

TO ARCHITECTS.

COMPETITION and other DRAWINGS.—Mr THOMAS S. BOYS, Member of the New Society of Painters in Water Colours, and author of "The Picturesque Architecture of Paris, Ghent, Rouen," &c. and of "London as it is," offers his services in Tinting Backgrounds, Landscapes, Perspective Views, Interiors, &c. From the long experience he has had in such subjects, he is fully aware of the points essentially necessary to be attended to. Drawings and designs lithographed in a superior manner.—Address, Mr. BOYS, 32, Albany-street, Regent's park.

MATHEMATICAL DRAWING INSTRUMENTS.—JOHN ARCHBUTT, 20, Westminster-Bridge-road, Lambeth (near Astley's Theatre), begs to call attention to his Sole of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. An illustrated price-list will be immediately forwarded, free, on application.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. HYDE & HALL, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Drawing, and Colouring. Models Finished and Working Drawings Preparing. Specifications, Taking out Quantities, Estimating, &c. &c. Terms: Day Pupils Three Guineas per Quarter; Evening Pupils, One Guinea per Quarter, which includes Drawing Boards, T Squares, Plans, Drawings, Models, &c. For Prospectuses apply at the Offices, 24, Guildford-street, Russell-square

TO ARCHITECTS.

EXHIBITION and COMPETITION DRAWINGS, coloured or tinted, and superior LITHOGRAPHY, &c. executed by Mr. T. J. RAWLINS, Author of "Elementary Design," adopted at Marlborough House; "Outlines of Sculpture," "Modern Architecture," &c. Two hundred Lithographs (including all charges), from 3l. cash. 3s. University-street, University College, London.

PHOTOGRAPHY.—A complete Apparatus, 3l. 3s. and 11l. 11s.—Send for a List, post-free, at GILBERT FLEMING'S, 428 Oxford-street, Author of "First Steps in Photography," price 6d.; by post, 7d.

GILBERT'S DRAWING-PENCILS are the best, perfectly free from grit, and maintain a firm point. Price 2s. per dozen. Specimen set of five, 1s. or post free, four stamps. Woodley's complete Drawing Book, 2s. 6d. post free. Economic Sketching Books to copy in, 3d. 6d. 1s. 6d. and 2s. each. Case of Juvenile Drawing Pencils, 4d.; post free, 6d. Best Carpenters' Pencils, 1s. per dozen. Trade supplied.
London: J. H. WOODLEY, 30, Pore-street, City.

WOOD-CARVING and FRET-CUTTING. T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Frame-makers, Cabinet and Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch. T. H. particularly solicits the attention of Pianoforte Makers, having had many years' experience in Ornamental pattern making. Estimates furnished.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 1s. per foot superficial, together with particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and Co. 80, New Bond-street.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Cheu, Bath, and Yorkshire Block Stone always in stock; Landings, Paving, &c. Also, Marble in Slabs, Chimney pieces, &c. Slate and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Lines, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and maintenance of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licenses for the use. From the facilities afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions under the notice of the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager, or to
WILLIAM HOWDEN, Secretary.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 1s. best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze or muslin blinds, in mahogany frames, &c.; perforated zinc blinds, in ditto, 3s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on applicati n. post free.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over any number of years, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and all information may be obtained on application at the Brit. Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 1s. per post.
CHARLES JAMES THICKE, Resident Secretary.

LOANS, at Five per Cent. in connection with Life Assurance, on personal security, for one, two, or three years, repayable by instalments.—ENGLISH and FOREIGN LIFE ASSURANCE OFFICE, 13a, Oxford-street.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, August 25, 1855.

The Builder.

Architect, Engineer, Operative & Artist.

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BUILDERS' BENEVOLENT INSTITUTION. THE EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate-street, in the month of OCTOBER next.

CHARLES LUCAS, Esq. President, in the chair.

Gentlemen desirous of promoting the interests of the institution by becoming stewards, will be pleased to forward their names to the Treasurer, Mr. GEORGE BIRD, 38, Edgware-road; or to the Secretary, at the Office, 19, Southampton street, Bloomsbury.

A. G. HARRIS, Secretary

BUILDERS' BENEVOLENT INSTITUTION. An ELECTION of PENSIONERS will take place in NOVEMBER next. Candidates may obtain forms of application to be returned on or before 30th SEPTEMBER at the Offices of the institution, 19, Southampton street, Bloomsbury.—Pensions, 24*l.* per annum for males, and 24*l.* for females.

August 30th, 1855. A. G. HARRIS, Secretary.

PADDINGTON.—Notice is hereby given, that the CHURCHYARD of this parish will be CLOSED (except for vested rights) on FRIDAY, the 31st inst.: that the new CEMETERY, in Willesden-lane, Kilburn, will be OPEN for interments on the following day. All applications to be made to the Parish Clerk, Mr. HOGG, No. 6, Park-place-terrace, Paddington-green.

By order,

August 29, 1855. ROBERT FORD, Clerk to the Board.

CONTRACTS.

TO BUILDERS.

THE BURIAL BOARD of the PARISH of St. NICHOLAS, ROCHESTER, will meet at their Office, Common, Rochester, at TWELVE o'clock at noon on MONDAY, the 10th day of SEPTEMBER next, to receive TENDERS for the ERECTION and COMPLETION of an EPISCOPAL CHAPEL, a DISSENTERS' CHAPEL, a SEXTON'S HOUSE, and Boundary Enclosures, with Entrance gates, &c. on the site of the new burial-ground, situate on the Maidstone-road. The drawings and specifications may be inspected at the Office of the Board, on and after the 27th day of AUGUST instant, between the hours of TEN and FOUR. The Board do not pledge themselves to accept the lowest Tender. The contractor will be required to enter into security for the due performance of the work. No Tender will be received after TWELVE o'clock at noon on the said 10th day of SEPTEMBER next. By order of the Board,

Rochester, 9th August, 1855. RICHARD PRALL, Clerk.

WICKLOW HARBOUR.—NOTICE to CONTRACTORS.—The Commissioners for Improving the Harbour of Wicklow are prepared to receive TENDERS from competent parties for the EXECUTION of the under-mentioned WORKS, viz. CONSTRUCTING a PIER and BREAKWATER of TIMBER PILING and MASONRY, DREDGING out the BAR and CHANNEL to a depth of EIGHT FEET at low water, and to REPAIR the existing QUAY WALLS. The Contractors are to be executed and delivered up complete, according to plans and specifications prepared by HENRY BRETT, Esq. C.E. and which may be seen at the Office of the Secretary to the Harbour Commissioners, Wicklow; or by application to Mr. BRETT, Engineer, 4, Harrington-street, Dublin. The Tenders to be sent in, sealed and addressed to the Chairman of the Harbour Commissioners, on or before TWELVE o'clock, on MONDAY, the 17th of SEPTEMBER, 1855.—By order,

ROBERT HALPIN, Secretary to Harbour Commissioners.

Harbour Office, Wicklow, August 16, 1855.

BOROUGH of BIRMINGHAM.—To SURVEYORS and VALUERS.—The Assessment, Rate, and Appeal Committee of the Council, desirous of CONDUCTING to make a NEW VALUATION of all the RATEABLE PROPERTY within the borough. Surveyors desirous to Tender may inspect the specifications and obtain all necessary information on application at my office, on and after the 1st day of SEPTEMBER next. Sealed Tenders, marked "Tender for new Valuation," to be delivered to me on or before the 15th day of SEPTEMBER next. The Committee does not bind itself to accept the lowest or any Tender.

By order, THOMAS STANDRIDGE, Town Clerk.

Temple-street, Birmingham, August 25, 1855.

CONTRACTS.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives Notice, that sealed TENDERS, addressed to the DIRECTOR GENERAL of CONTRACTS, will be received at the office of Ordnance, Pall-mall, on or before the 10th SEPTEMBER, 1855, for the ERECTION of a MILITARY PRISON, OFFICERS' and BARRACK MASTERS' STORES, &c. at the Wellington Barracks, St. James's park. The specifications and plans of the above service may be seen, and forms of Tender may be obtained, at the Royal Engineer's office, 11, James-street, Buckingham-gate, between the hours of TEN and THREE o'clock, from the 27th AUGUST to the 9th SEPTEMBER, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 23rd August, 1855.

ORDNANCE CONTRACT.—NOTICE to BUILDERS and EXCAVATORS.—Sealed TENDERS, addressed to the Director-General of Contracts, Ordnance Office, Pall-mall, London, and endorsed, "Tenders for Excavating Work at Aldershot," will be received on or before TWELVE o'clock noon on FRIDAY, 7th SEPTEMBER next, from parties willing to CONTRACT for the supply of LABOURERS, HORSES, CARTS, and DRIVERS, required from time to time in forming roads and similar work at the camp at Aldershot, Hants, from the date of the acceptance of the Tender to the 31st March, 1856. Specifications, forms of Tender, and all further information may be obtained on application at the Royal Engineer's office, Aldershot.—Royal Engineer's Office, Aldershot August 24, 1855.

Royal Engineers' Office, Portsmouth, 30th August, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 24th day of SEPTEMBER, 1855, from such persons as may be willing to enter into a contract with the Ordnance for the ERECTION of proposed OFFICERS' QUARTERS, MESS ESTABLISHMENT, and SOLDIERS' PRIVIES, at Winchester Barracks, county of Hants, agreeably to the plans and specification to be seen, (or applying at the Royal Engineers' Office, Portsmouth, every day (Sundays excepted), until the 22nd day of SEPTEMBER, 1855, and where also forms of Tender may be obtained.

N B The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office, Dublin, 28th August, 1855. The principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz.:—For the CONSTRUCTION and ERECTION of PROPOSED BUILDING, to contain Steam Washing and Drying Apparatus, with out for Manner and Engineer, at the temporary barracks on the Curragh of Kildare, in the Dublin district. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's office, Lower Castle-yard, Dublin, and may obtain specifications, with the terms of contract, upon making a deposit of 1*l.* for the same, which deposit will be repaid when the specifications are returned uninjured. The whole of the work to be completed within one hundred days after the acceptance of the Tender. The letter of Tender to be sealed, and transmitted, under cover, to "The Director General of Contracts, Ordnance office, Pall-mall, London," so as to be received on or before the 12th day of SEPTEMBER, 1855, and to be marked on the outside, "Tender for Work at the Curragh of Kildare."

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London district hereby gives Notice, that sealed TENDERS, addressed to the Director General of Contracts, will be received at the Office of Ordnance, Pall-mall, on or before the 11th SEPTEMBER, 1855, for RAISING the BUILDINGS over the Riding school) a story, west boundary, at Regent's park barracks. The specifications and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's Office, 11, James-street, Buckingham, between the hours of ELEVEN and THREE o'clock, from the 3rd to the 7th of SEPTEMBER, 1855, inclusive. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 31st of August, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer in the London District, hereby gives Notice, that sealed Tenders, addressed to the Director General of Contracts, will be received at the Office of Ordnance, Pall-mall, on or before the 12th SEPTEMBER, 1855, for OPENING DOWN, and FIXING the necessary GAS PIPES and FITTINGS to the several BUILDINGS at the TOWER of LONDON. The specifications and plans for the above service may be seen, and forms of Tender obtained at the Royal Engineer's Office, Tower, between the hours of ELEVEN and THREE o'clock, from the 3rd to the 8th of SEPTEMBER, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 31st August, 1855.

Royal Engineer's Office, Portsmouth, August 28, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 24th of SEPTEMBER, 1855, from such persons as may be willing to enter into a contract with the Ordnance for the ERECTION of proposed TANKS, with supply pipes, pumps, &c. at Albany Barracks, Isle of Wight, agreeably to the plans and specification to be seen by applying at the Royal Engineer's Office, Portsmouth, every day (Sundays excepted), until the 22nd day of SEPTEMBER, 1855, and where also forms of Tender may be obtained.

N B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders

TO IRONFOUNDERS.

THE GERANT of the ANGLO-ROMANA GAS COMPANY requires TENDERS for about 200 TONS of CAST-IRON PIPES.—Specifications to be obtained at the Offices of the Company, No. 1, New Broad-street, London.

CONTRACTS.

TYNEMOUTH LOCAL BOARD of HEALTH.—SEWERAGE.—TO CONTRACTORS, EXCAVATORS, EARTHENWARE PIPE LAYERS, & OTHERS. The Local Board hereby give Notice, that they are prepared to receive TENDERS from persons willing to undertake either of the following CONTRACTS:—

CONTRACT No. 3.—For EXCAVATIONS and LAYING SEWER and DRAIN PIPES; also for the CONSTRUCTION of BRICK SEWERS, CULLIES, MANHOLES, and other WORKS, in the District of TYNEMOUTH

CONTRACT No. 4.—For EXCAVATIONS and LAYING SEWER and DRAIN PIPES; also for the CONSTRUCTION of BRICK SEWERS, CULLIES, MANHOLES, and other WORKS, in the District of NORTH SHIELDS.

The drawings and specification may be examined on and after THURSDAY, the 23rd instant, and duplicate forms of Tender, Schedules, and Bills of Quantities as the case may be obtained, together with any further information required, on application at the Town Surveyor's office, North Shields; or at the Offices of ROBERT HAWLINSON, C.E. 34, Parliament-street, Westminster.—Sealed Tenders, to be delivered at the Town Clerk's office, North Shields, before TWELVE o'clock on THURSDAY, the 4th day of SEPTEMBER next, endorsed "Tender for Contract, No. 3 or 4," as the case may be.

(Signed) THOMAS C. LIETCH, Town Clerk.

North Shields, August 16th, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 4th day of SEPTEMBER instant, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING down certain IRON PIPES, and to execute other Works in connection therewith, in extension of the Battle-bridge Outlet, Mid'ing, Tooley-street, Southwark, and for the maintenance of such Works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, to either with the form of Tender, may be inspected, and other particulars obtained at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE A.M. and FOUR P.M. on and after MONDAY, the 27th day of AUGUST instant, until MONDAY, the 3rd day of SEPTEMBER next. The Commissioners do not bind themselves to accept the lowest or any Tender; but the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho square.

Dated this 22nd day of August, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 11th day of SEPTEMBER next, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN certain IRON PIPES, and to execute other works in connection therewith in extension of the Arnold Outlet, near Waterloo-bridge, in the County of Surrey; and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, to either with the form of Tender, may be inspected, and other particulars obtained at the principal Office of the Commissioners, No. 1, Greek street, Soho-square, between the hours of NINE A.M. and FOUR P.M. until the 10th day of SEPTEMBER next. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the works No Tender will be received after the hour above mentioned. E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.

Dated this 30th day of August, 1855.

METROPOLITAN COMMISSION of SEWERS.—TO BE SOLD by PRIVATE CONTRACT, a TIMBER-BUILT ERECTION, with the fixtures attached to the same, situate on the premises, No. 19, Whitehall-place. The erection consists of two stories, weather boarded outside, and roughly and headed inside, with a roof covered with slating.—The same may be viewed on application on the Premises, No. 19, Whitehall place, between the hours of TEN and THREE o'clock. Written Tenders to be delivered at the Principal Office of the Metropolitan Commissioners of Sewers, No. 1, Greek-street, Soho, on or before TUESDAY next, the 4th SEPTEMBER, at ELEVEN o'clock in the forenoon, after which hour no Tender will be received.—Dated this 30th day of August, 1855.

E. H. WOOLRYCH, Secretary.

TO BUILDERS.

BRISTOL ACADEMY for the PROMOTION of the FINE ARTS, and BRISTOL SCHOOL of PRACTICAL ART.—NEW BUILDING.—Persons desirous of sending in TENDERS for the various ARTIFICERS' WORKS required to be done in the proposed new buildings, may see the drawings and specification on application at the Room of the Academy, 44, Augustus's-parade, or, on and after MONDAY next, the 3rd instant, where they may be seen daily from NINE a.m. to FIVE p.m. Tenders, either general or separate, are to be addressed to the Building Committee, and sent in on or before MONDAY, the 3rd instant, not later than TWO p.m. The Committee do not bind themselves to accept the lowest or any Tender. Any further information required may be had of the Architects, C. UNDERWOOD, Chesterfield-buildings, Clifton; J. H. HIRST, St. Nicholas-chambers, Bristol.

HENRY HILL, Hon. Sec. Fine Arts Academy.

Bristol, Aug. 9th, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

BRISTOL LOCAL BOARD of HEALTH.—TO BUILDERS, CONTRACTORS and OTHERS.—The Committee of the Bristol Local Board of Health ordered to give notice that they are ready to receive TENDERS from parties who may be willing to CONTRACT, together or SEPARATELY, for LAYING DOWN, CONSTRUCTING and COMPLETELY FINISHING certain intended BRICK SEWERS, in the parish of Bedminster, as follows viz:—Main Sewer No. 1, from Mill-lane, along Fair-street, to Bargecourt, about 228 yards in length; from Mill-lane, along East-street and West-street, to Alma-house, about 1,188 yards in length; Main Sewer No. 3, from Parson-street to the river Avon, about 2,670 yards in length. And persons proposing to enter for the making of the said Sewers are requested to leave Tenders for the same at the Office of the Local Board of Health, No. 13, Prince-street, on THURSDAY morning, the 30th day of SEPTEMBER next, at ELEVEN o'clock precisely, at which time an interview will be had with the Contractors upon the Tenders then become open, as to the several lines of Sewers and the mode for the execution, and the plans, sections, and specifications of the works to be also then and there produced. Sealed Tenders, addressed to the Clerk, No. 13, Prince-street, Bristol, and duly further addressed to be left or sent by post as hereinafter mentioned, to be delivered or posted, addressed to the Surveyor, at Bedminster, aforesaid. The parties tendering will be required to give the names of two responsible persons as their sureties for the due performance of the works. The Committee will not be bound to accept the lowest or any Tender, but will recommend the acceptance of the Tender which they may consider most eligible. Plans, sections, and specifications may be seen at the Office of the Surveyor, at Bedminster, aforesaid, on and after THURSDAY, the 23rd day of SEPTEMBER next. No Tender will be received after the hour appointed for the opening thereof. Each Tender must be accompanied by a letter, signed by two responsible persons, engaging that they will become bound with the Contractor, in the sum of £1,000 each, for the due performance of the contract. By order of the Committee,

JOHN G. HEAVEN, Clerk

Local Board of Health Office, 13, Prince-street, Bristol,
August 16, 1855.

BOROUGH of READING LOCAL BOARD of HEALTH.—To CONTRACTORS, ROAD MAKERS, SCAVENGERS, and OTHERS.—The Local Board of Health for the above Borough are desirous of receiving, in the month of October next, TENDERS for the PAVING, REPAIRING, and MAINTAINING the ROADS, for WATERING and SCAVENGING the same, and for EXECUTING other WORKS within the said Borough, for the period of SIX YEARS from the 1st day of OCTOBER next. Persons desirous of tendering for the same, can obtain the specification at the Office of Mr. J. B. CLARK, Surveyor to the Board, No. 1, Broad-street, Reading, after TUESDAY, the 11th INSTANT, between the hours of TEN and FOUR o'clock. Sealed Tenders, indorsed "Tender for Highways &c.," to be sent to me before SATURDAY, the 8th day of SEPTEMBER next. The Board will not bind themselves to accept the Lowest Tender. By order of the Board,

THOMAS ROGERS, Clerk.

10, Friars-street, Reading, August 14th, 1855.

BRAINTREE CEMETERY.—To Builders and others. The Burial Board for the Parish of Braintree, in the county of Essex, are desirous of receiving TENDERS for BUILDING, ERECTING and COMPLETING, TWO CHAPELS, ENTRANCE LODGE, and GATES, at their new Burial ground. The plans, specifications, and estimates may be seen at the office and of the officers of the Vestry, of JOHN JOHNSON, Esq., No. 8, Winsell-st, Bayne Edmonds, of whom further particulars and blanks of printed forms of tender may be obtained. Such Tenders as choose to send in, must send Tenders for Cemetery Works" to be sent free, to or before THE ABOVE-named day, on or MONDAY, the 24th day of SEPTEMBER next. The Board will require approved security for the due performance of the contract, but do not pledge themselves to accept the lowest or any Tender.

A. CUNNINGTON, Clerk to the Board.

Braintree, August 28, 1855.

TO BUILDERS.

THE BURIAL BOARD of the PARISH of BUCKINGHAM is desirous to receive TENDERS for BUILDING TWO CHAPELS, a LODGE, and RECEIVING-HOUSE, on the new burial-ground. The plans and specification may be seen at the Clerk's Office, in Buckingham, and Tenders must be sent to him on or before TUESDAY, the 4th day of SEPTEMBER next, to be laid before the Board at the meeting the next day. The Board does not bind itself to accept the lowest or any Tender.

GEO. NELSON, Clerk to the Board.

Buckingham, August 16, 1855.

TO BUILDERS.

PERSONS desirous of TENDERING for ADDITIONS to be made to the "SUN" PUBLIC-HOUSE, Southwark-bridge-road, can see the drawings and specification on the Premises, by application to the landlord, Mr. WILLIAMS, on TUESDAY next, SEPTEMBER 4. Tenders to be delivered on or before SATURDAY, the 8th SEPTEMBER, 1855. No pledge is given to accept the lowest or any Tender.

TO CONTRACTORS and OTHERS.—For SALE, two excellent NARROW GAUGE LOCOMOTIVE ENGINES, on 3-inch rails, now at work.

No. 1. A FOUR WHEELED COUPLED ENGINE, by Banks. Diameter of wheels, 5 feet 3 inches; cylinders, 13 inches; stroke, 20 inches.

No. 2. A FOUR WHEELED COUPLED ENGINE, by Hawthorne. Diameter of wheels, 3 feet; cylinders, 11 inches; stroke, 20 inches.

The above Engines are being disposed of owing to the near completion of the contract. Further information can be obtained from JOSEPH FIRBANK, Contractor, Newport, Monmouthshire.

TO BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for the ERECTION of a FARM HOUSE on a farm called Highway Farm, near Maidenhead, Berks, may see the plans and specification at the Office of Messrs. DENTON and DRAKE, 2, Parliament-street, Westminster, and at the Office of T. P. WARD, Esq., Maidenhead, on and after the 1st of SEPTEMBER. Tenders to be forwarded to Messrs. DENTON and DRAKE on or before the 17th SEPTEMBER, 1855.

TO BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for the ERECTION of a FARM-HOUSE and HOMESTEAD, and also TWELVE DOUBLE COTTAGES, all in the parish of St. Giles in the county of Dorset, for the Right Hon. the Earl of Shaftesbury, may see the plans and specifications at the offices of Messrs. DENTON and DRAKE, 2, Parliament-street, Westminster, or at the Bull Inn, St. Giles, Dorset, on and after the 1st of September. Application may also be made to H. W. WATERS, Esq., of St. Giles. Tenders to be forwarded to Messrs. DENTON and DRAKE on or before the 22nd of SEPTEMBER, 1855.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the Association and other Filters at trade prices. These filters, one, two, three, and four guineas each, yielding 60, 120, 180, and 240 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

212 MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporising) with all the improvements, under their Quadruple patents of 1854 and last month, and their Gun-proof Steel Locks. These are the STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX SAFE-WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 7, London-st., Fenchurch-st., London. Manufactory, Cable-street, Liverpool.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.—To be had, at FREEND'S IRONMONGERY WAREHOUSE, 58, Church-street, Bethnal green:—Self-acting Cottage Ranges, 20 in 28s.; 22 in 30s.; 24 in 35s. each; Registers of Stoves, 5d. per inch; Elliptic ditto, 9d. per inch. Floor Brads, sheet, 12s. per cwt.; Lath Nails, 11s. 6d. per cwt. Clasp Nails, 9 in 15s.; 8 in. 14s.; 6 in. 12s. 6d.; 5 in. 12s. 6d.; 4 in. 12s. per cwt. Sash Line Patent, No. 4, 6s. 6d.; No. 5, 8s.; No. 6, 9s. 6d. per gross. Cut Tacks, 4s. per cwt.; Sprigs, 6s. per cwt.

Terms net cash, on or before delivery.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE, Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Iron Boats, and STEWART'S PATENT CONSTRUCTION of SCREW and WATER PIPES

Office, No. 7, Sise-lane, London.

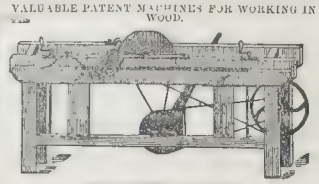
LARK'S PATENT SMOKE-BURNER: an improved means of effecting Combustion, and thereby preventing Smoke.

This invention is now in operation upon Steam engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted for other descriptions of Furnace, as Iron Melting Furnaces, Coke Ovens, Brewers' Coppers, Glass Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant for saving the public Nuisance, and in many instances with a diminished consumption of fuel.

The furnaces, of any construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BEDFORD, and SONS, Pimlico, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



SASH AND MOULDING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used by each of the United Kingdom, by joiners, cabinet-makers, coach builders, railway carriage and wagon builders, mangle, patent curd mill, and pump makers, shipbuilders, and also by the British and French Governments, for planing and dressing, moulding, tenoning, mortising, sawing, and boring. Their operations are in every respect perfect, either in solid or veneered work, and will perform all the ordinary description of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost. Sold only by WILLIAM FURNESS, Patentee, 29, Lawson-street, Liverpool, from whom full particulars may be obtained.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND

LOCKS, HINGES, HANDLES, BOLTS, &c.

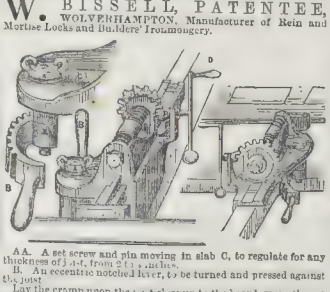
Paris Exhibition, No. 1717

Also Specimens at the Crystal Palace, Sydenham.

Illustrated Price-catalogues on receipt of four postage-stamps.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES

W. BISSELL, PATENTEE, WOLVERHAMPTON, Manufacturer of Rein and Mortise Locks and Builders' Ironmongery.



AA. A set screw and pin moving in slab C, to regulate for any thickness of slab, from 2½ inches.

B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist, then let the set screw rise. Turn the notched lever B against the joist, then by taking the handle D, the lever will gradually fix itself and hold the cramp firm: the greater the strain, the more tightly, by its eccentric action, will the lever bind. The Patentee, in asking the attention of Builders and others, assures them that he can supply a well-suited cramp for doors and sashes of all sizes. From its superior mechanical principle, it has a greater power, and will bind more quickly and safely used than any yet brought out, and at the same time it is light and portable.

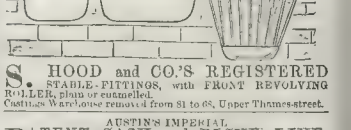
KIMBERLEY'S PATENT FLOORING CRAMPS, Self-fixing

Brackets, Door Springs, Mitring Machines, Cement Pasteers and Stays, Skylight Screws, &c. &c. Also, KIMBERLEY'S PATENT GAS STOVES, may be had from any Ironmonger in town or country; from the Patentee, Inge-street, Birmingham; or of him in the London Agents, Messrs. PUGH and CO., 14, King-street, Snow-hill, where a stock is kept.

COTTAM'S NEW PATENT for STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH in ONE FIXTURE; they were universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well-managed stable should be without these articles. Economy, durability, appearance, cleanliness, safety, and rest to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Mangers. May be had either plain, galvanized, or enamelled. Every article for the harness room and stable kept in stock. — Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2 Winsley-street, Oxford-street.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plans or counselled.

Castings Warehouse removed from 81 to 68, Upper Thames-street.

AUSTIN'S IMPERIAL PATENT SASH and BLIND LINE, can be obtained of all ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY. Established 1774.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, and the Institution of Builders, &c. to the Stock or Ironmongery, Brass Foundry, Nails wrought and cast, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnishers of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c. &c. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Shaftesbury-street, Clare-market, London.

No. 1081, Class 6, Section 16 BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof constructions, even for ordinary dwelling-houses and domestic buildings, within the reach of everyone.

Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 12, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE.—Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat. COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"GENTLEMEN,—We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 13 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edges.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes of all sizes; Fireproof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.

W. R. HARTLEY, manufacturer of Girders, Columns, Chaffelers, Sash and Railing Bars, Panels, Iron Piers, Hot Plates, Tank Plates, Area Coverings, Sash Weights, Pig and Bar Metals, Rolling, Planing, Lathe and Light Castings, Iron Backs, Cheese Bars, Rams, Tubs, and other Castings, to patterns or drawings.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

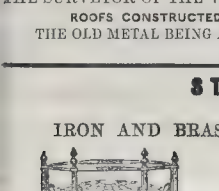
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.
Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.
DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver Railway Stores and Lamps of every description.

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

SKAIFE'S GALVANIZING WORKS,

COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.—Sheets plain and corrugated.—Roofs fixed complete.

J. SKAIFE is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

AN ALLOWANCE TO THE TRADE.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 18, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches up to 6 inches each corrugation, in all lengths up to about 11 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; also for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock, or galvanized to order.

The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size, Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters plain and moulded, Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys; Copper Rope Lightning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, at 1½ per square foot. Dry-hair Felt for Deadening Sound, for Boilers and Steam Pipes, made in rolls 20 yards long, at a greatly reduced cost.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chains, Anchors, &c.

THE TRADE SUPPLIED ON LIBERAL TERMS

Head Offices: 13, JAMES-STREET (late Coalbrookdale Company's Premises), LIVERPOOL;

Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. All kinds of Iron and Ironwork Galvanized, and Sheet-iron Corrugated at very moderate prices.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kings-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Screwing, and Moulding Wood. They have constantly on hand Machines either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world, with their Machines for home and foreign use.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', DOWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 28 Watling-street, City, and see it, actout this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing the three separate kinds of work by one machine, and as it is self-feeding, it does not require any skill or care in using like the other inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

UNDER PATRONAGE of the ENGLISH and FRENCH GOVERNMENTS.

Portable Galvanized or Painted Corrugated Iron Dwellings, Barracks, Hospitals, Stables, Warehouses, Theatres, Billiard and Concert Rooms, &c.

IRON ROOFS.

Patent Corrugated, Galvanized, and Painted, Wrought-iron, principal, Glass and Slated Roofs, to any span.

Wrought and Cast Iron Bridges, Girders, Fire-proof Floorings, Shutters, Doors, &c.

Engineers' and Builders' Castings of all kinds manufactured by JOHN WALKER.

Builder, Contractor, and Ironfounder, Millwall, Poplar.

Offices—Arthur-street West, London-bridge, where experienced draughtsmen are kept to furnish designs and estimates, which may be obtained on application.

N.B. Galvanized and painted Sheet Iron, both plain and corrugated, supplied at the lowest possible prices, and a considerable allowance made to the trade.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).

WORKS GLASS-HOUSE YARD, opposite the Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description sweet or in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Island Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY REMOVED from BRISTOL to LOW, near London, close to the Bow Railway Station. A large variety of handsome villas on view, churches, chapels, shooting boxes, lodges, baths, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Swethouse-lane, Birmingham.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON, or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR,

IRON BUILDING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM.

LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

A. MOREWOOD and CO. (late Morewood and Rogers), Dowgate Dock, Upper Thames-street, London, and Bankerville Works, Birmingham,

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets

PLAIN or CORRUGATED, and Curved, of all Gauges

Manufactured articles always kept in stock, such as pails, scoops, bowls, trifles, skips, &c. of all sizes

Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

OFFICES and WAREHOUSES, DOWGATE DOCK, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 14	gauge weighs about	18	oz. per	foot super.
12	"	20	"	
13	"	23	"	
14	"	26	"	

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c.—The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire. Gas Pendant, Brackets, and Glands of all descriptions for Gas-fitting, in Brass and Iron. Tin, Composition, Iron and Brass Tubing, Gas-steps, Rings and Lacquered Case Tube for Picture Rods, Bell Pulls, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c., supplied with General Ironmongery at the lowest wholesale prices

Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 28s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 47s. each.
Register Stoves, from 5d. per inch.
Elliptic ditto, with double backs, from 2½d. per inch.

Cast-Iron Rain-pipe { 2 2½ 3 inch. 1s. 1d. 1s. 2d. 1s. 4d. per yard.

4-inch Eaves Gutters, 9d per yard

O G Gutters { 3½ 4 5 inch. 1s. 1d. 1s. 2d. 1s. 6d. per yard.

Best Cut Clasp { 1½ 2 3 inch and larger. and Hook.... } 16s. 18s. 14s. 6d. 14s.

1-inch Best Cut Lath, 17s. 6d. per cwt.
Sheet Floor Brads, 13s. 6d. per cwt.
Hoop Floor Brads, 14s per cwt.

Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 3s. per doz.; strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 16s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 0d.	11s. per gross.

And every material used in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 5s. shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
179, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

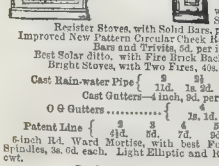
NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
A complete List of which will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Meroarial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with their hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self acting Cottage Ranges, with Large Oven and Boiler,

30	32	34	36 inch.
26s.	30s.	32s.	34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch.
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 5d.
Bridge-road, Lambeth, with Oven and Back Boiler, Bright Wrought Bars, 5d. per inch.
Improved New Pattern Circular Check Register, with strong
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe { 2 2½ 3 inch. 1½d. 1s. 2d. 1s. 4d. per yard.

Cast Gutters—4-inch, 9d. per yard.

O G Gutters ..... { 3½ inch. 1s. 1d. 1s. 3d. per yard.

Patent Line {	3	4	5	6
	4½d.	7d.	9d.	1s. per knot.

6-inch R4. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
4s.	5s.	6s. 3d.	7s. 6d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbrook's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

THOMAS EDINGTON, PURCHASER and INSPECTOR of CASTINGS on COMMISSION, 17, GORDON-STREET, Glasgow.

OLD CAST-IRON TANKS or TANK- PLATES WANTED.—The Tanks may be of any shape except circular.—Tenders, stating full particulars as to size and thickness of the Plates, and the price per Ton, to be addressed to PRICE'S Patent Candle Company, Belmont, Vauxhall, London.

WANTED, a SUPPLY of SECOND-HAND TRAM-RAILS.—Address, quoting description and price, to RANDELL and SAUNDERS, Corsham, Wilts.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron bridge.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by P. EDWARDS, SON and CO. 42, Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED ECONOMIC STOVE, the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be seen their new engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO. (opening to the Monument), London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

BY HER MAJESTY'S ROYAL LETTERS PATENT, APRIL 27, 1855.

JAS. LEWIS'S PATENT STENCH- TRAP.
FOR STREET USE.
Price, with Gutter Plate, 13 inches by 12 inches, each 25s.; weight about 2 cwt. Larger sizes made, if required.
FOR AREAS, &c.
Price, with Back Plate, 6 inches by 7 inches, each 6s.
FOR COURTS, YARDS, &c.
10 inches by 8 inches, each 10s.
The above articles are protected for the Patentee by the British Government, on account of their construction, for the advantages they possess, being a perfect trap for preventing smell proceeding from itself or the drain, should there be water or not in the pan. When stench-traps are put down generally speaking no attention is ever paid to them afterwards—this renders them useless. The above, therefore, are a desideratum, as they require no attention. It is well known that cholera has visited this country, it commences and leaves last those places where the air is vitiated by choleraic gases proceeding from drains, &c.
Any inhabitant suffering any inconvenience, is entitled, by the Sanitary Act to lay complaint before the public or private authorities of the property, to lay down stench-traps where they are required. Any persons interested in this advertisement will be kind enough to write to the patentee for drawings, and if wanful, testimonials. Please order from any respectable ironmonger, contractor, or (the Patentee, JAMES LEWIS, Ironfounder, Aberavenny. Specimens to be seen in the Court of Inventions, Crystal Palace, Sydenham

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the following greatly reduced prices:—

Pine Planks, 12 ft. 3 in. by 11 in.	from	3s. 6d. each.
Spruce Deals	,,	2s. 9d. ,,
Yellow ditto	,,	4s. 6d. ,,
Yellow Battens, 24 in. 12l. per 120.		
Honduras Mahogany, in logs	,,	0s. 4½d. per foot.
Ditto ditto, in planks and boards	,,	0s. 6d. ,,
Spanish ditto	,,	0s. 7d. ,,

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry Flooring at low prices, Southwark-bridge Wharf, Bankside.

A CORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, slating battens, laths, English oak timber, and cash sills, at reduced prices for cash. The Monthly Price Current forwarded on application

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Bills, Mouldings prepared by Machinery, Laths, &c.—Apply at E SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

¾ inch White, 13s. 6d. per square.			¾ inch Yellow, 15s. per square.		
¾	ditto	15s.	¾	ditto	16s. 6d. ,,
1	ditto	18s.	1	ditto	20s. ,,

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.
ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Cills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

FINE NAVY OAK TIMBER, Billingbear-park, Wokingham, Berks.—TO BE SOLD by PRIVATE CONTRACT, about 146 TREES, recently felled, very large, and of good quality, convenient for railway or water carriage. May be viewed by applying to JAMES GROVE, Pond-wood Cottage, Wokingham, Berks, and particulars and price known on application to Messrs. NOCKOLDS and KING, Saffron Walden, Essex.

UNIVERSAL MOULDING-MILLS, 24, Portobello-road, Notting-hill.
WILLIAM LEE, having commenced business at the above Premises as Moulding Manufacturer, with the latest improvement in machinery by C. Chambers, begs to offer to the Public, Architects, Builders, &c. his new and fashionable designs for Architraves and Slitting Mouldings, of which only a trial is required to gain their patronage and support. Also, that all goods manufactured by the said W. L are of the best seasoned timber, and at such a price and quality as not to be surpassed by any other house in the trade.—N.B. All customers having an account at the above establishment can be supplied with moulding to their own design, at the shortest notice, free of any extra charge.

NOTICE.—IMPROVED WOOD MOULD- ING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments, tombs, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No. 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps. Please note the address 20, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.—Address, E. SIMMS, Sawing, Planing, and Moulding Mills, King's-road, Chelsea, and Wilton-road, Pimlico

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprize the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery executed by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

TIMBER and DEAL YARD.—A large CONSIGNMENT of PREPARED FLOORS (dry), DEALS, BATTENS, &c. for SALE on COMMISSION, at very low prices for cash. Timber Deals, &c. received for Sale on Commission.—THOMPSON and HOLMES, Wood and Stone Brokers, the Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

PADDINGTON TIMBER-YARD.— SAWING, PLANING, and MOULDINGS.—3, Irongate Wharf, Praed-street, Paddington, and 96, St. John's-wood-terrace, St. John's-wood.—GEORGE WILLIAM FRY begs to draw attention to his large stock of SEASONED and PREPARED WOOD GOODS, at the lowest current prices. Liberal allowance for cash, and facility for immediate despatch by rail or canal which affords every advantage to country as well as town buyers. Illustrated and priced sheets of moulding designs and general price lists of goods forwarded post free on application. Goods free to any part of town, including the various railway and canal stations.
N.B.—Sawing and planing for the trade.

STEPHENS'S STAINS for WOOD.
Testimonial to the value of:—
"Northgate, Colchester, February 5, 1855.
"Sir,—I have just finished a new church with your oak stain, and I consider it the best adapted for the purpose, being the nearest approach to the real wood of any I have ever used.
"I am, sir, your obedient servant,
"SAMUEL GRIMES, Builder.
"To Mr. Hy. Stephens, 84, Stamford-street, London."

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, fetched away and paid for at the time, at LEETWICHS' Lead, Glass, and Colour Warehouse, 31, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 18s. per cwt. given for old lead.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK

Take leave to inform the Trade that they have

OPENED AN ESTABLISHMENT FOR THE SUPPLY OF PLATE AND WINDOW GLASS, SHADES, POTICHE, LAMP AND OTHER GLASSES, ALSO WINE, SPIRIT, AND BEER BOTTLES, AT

131, UPPER THAMES-STREET, LONDON-BRIDGE. —— WORKS: SEVRES, NEAR PARIS.

ARCHITECTURAL AND ORNAMENTAL DECORATIONS.

Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Fronts, Table-tops, Panels, &c. &c.

Show-rooms, 46, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

CHARLES WM. WATERLOW AND CO.

MANUFACTURING JOINERS,

121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

N.B. — ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

SANDS AND EMERY,

CURSITOR-STREET, CHANCERY-LANE.

MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

Lists of Prices and Estimates forwarded on application.

A CONSERVATORY for SALE, 20feet long, 11 feet wide; likewise several small Greenhouses.—Address to Mr SMITH, Greenhouse builder, Painter, and Decorator, 4, Canonbury Cottages, Lower road, Islington.

Greenhouse Lights and Window Sashes made and glazed at 8d. per foot. All kinds of Joiners' Work estimated for. Reference given.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz Sheet Glass, in crates, from 21d. per foot; C C C Crown, 18 tables, 32s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 32s. 6d. and 40s. per case; Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.
The Warehouse, 99, Hatton-garden, London.
" 45, Piccadilly, Manchester.
Messrs C. and J. Malloch, 30, Turner's-court, Glasgow.
" John Dix and Co. Bath-street, Bristol.
H. Bibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ¾ inch, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

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The Builder.

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AT the opening meeting of the British Archæological Association, at Newport, in the Isle of Wight, on Monday, the 20th ult. Mr. Pettigrew took the chair in the absence of the Earl of Perth, and delivered an able introductory address upon the antiquities of the Isle of Wight. He observed that the original inhabitants, according to Suetonius, who was the first Roman author who described the island, were Belgæ. It was conquered A.D. 43 by Vespasian, one of the generals of the Emperor Claudius, who named it Vecta or Vectis. In the year 530 it was invaded by Cerdic, the Saxon chief, and founder of the kingdom of Wessex, who, according to the "Anglo-Saxon Chronicle," slaughtered the inhabitants of Carisbrook and repeopled the island with Jutes. From the Jutes descended the Kentish men and those who now dwelt in the island. At the time of the Conquest the island was granted to William Fitz-Osborne, afterwards Earl of Hereford, one of the most powerful of the Norman barons. In the reign of Henry VI. it was erected into a kingdom, and bestowed upon Henry de Beauchamp, Duke of Warwick, who was crowned by Henry's own hand; but he dying without issue, it passed again to the Crown of England. Sir Henry Englefield had remarked, that not a vestige of the Romans remained in the island. Since his time, however, various barrows had been examined, and the result was that Roman funeral practices had been discovered to have been adopted, while Roman coins and other remains had been found. The most remarkable antiquities of the island were tumuli, which were known to be the tombs of Britons, Romans, Saxons, and Danes. They were the depositaries of the remains of the most ancient potentates, chieftains, and warriors. The tumulus was more ancient than the pyramid. The simplicity of the original mound, consisting of little more than a heap of stones or a pile of earth, had served to perpetuate its existence; and while the pyramid, the arch, or the obelisk had decayed and sunk into oblivion, the tumulus still remained to impress us with the reverence which in the earliest times was paid to the dead, and to place before us the significant fact, that while the irresistible and never-ceasing action of the elements or the fury of man had demolished splendid temples and grand mausolea, the more humble tumulus had escaped, and had even been permitted to retain its pristine shape. Tumuli were found in all parts of the world, and they were the most permanent memorials, for nothing but an earthquake or a deluge, "those great winding-sheets," as Lord Bacon had happily expressed it, "which bring all things to oblivion," could destroy them. The ancient poets and historians all spoke of the mounds or tumuli. The most ancient barrows of this country were to be regarded as British: although there existed much difficulty in pointing out distinctly their essential difference from others perhaps of a period more recent, there yet appeared good ground for appropriating to this people those mounds in which a stone chamber, formed in a rough and crude manner, and varying in dimensions, was contained within. The earth of many of these mounds having in the course of time been removed, the stones had been exposed, and constituted what were termed cromlechs. But in addition to tumuli, there were other matters of great antiquarian interest in the Isle of Wight, among which were the old manorial and religious houses. A peculiar interest attached to that of Barton Oratory, from its having become the property of Her Majesty. It was founded at the close of the reign of Henry III. or the commencement of Edward I. under the Augustine rule. It was a simple, massive, and noble erection, but the greatest portion had been levelled with the ground. Two of the fronts had, however, been preserved. In the course of his address, Mr. Pettigrew described fully some of the results of investigations of the barrows and other antiquities of the island which had been made.

Mr. W. H. Black then commenced a running account of the Newport Records, many of which were produced and read by him in the course of it. The original charter of Richard de Redvers was produced and read, establishing the freedom of the borough. The next was the charter of Isabella de Fortibus, "the Lady of the Island," setting forth the original at greater length. Afterwards was exhibited a mass of other confirmatory charters, by our various sovereigns, from the time of Richard II. setting forth and certifying the charter of Lady Isabella de Fortibus, down to the youthful Edward VI. There seem to be some missing from this date, as the next was in the time of Cromwell, and was recited as that of "the keepers of the liberties of England." The last was that of Charles II. which from the contracted dimensions of a foot square, the size of the original one of Henry II. was now lengthened to about 3 yards, describing the further rights and liberties of the borough. Mr. Black showed himself a thorough master of his subject.

In the evening Mr. C. E. Davis, architect, read a useful paper "On the Characteristics of the various Styles of Ecclesiastical Architecture," as an introduction to his description *en route* of the several churches in the island intended to be visited. He described the various changes, explaining the peculiarities of the mouldings and caps, doorways, windows, buttresses, columns, arches, spires and pinnacles, towers, roofs, &c. connected with the various styles, showing how one style may be distinguished from another—when you *know* how.

Afterwards, an important paper was read by the Rev. Mr. Heath, on the Jewish Exodus, as illustrated by certain Egyptian papyri translated within the present year. In these papyri many points of the political history of Egypt at the time of the exodus are treated of, and are strongly corroborative of the Mosaic account. Thirteen hieratic papers have been published by the British Museum, of which five more or less, Mr. Heath said, illustrated the exodus, and portrayed the events of the day and the customs of the country.

Dr. Lee, Mr. Pettigrew, and others, were unanimous as to the value of the papyri, and the importance of directing attention to them.

On Tuesday the Association went to Carisbrook Castle (the majority of our readers doubtless know it, with its gateway, donjon, and well), and a descriptive paper on the subject, by Dr. Beattie, was read. The keep, he said, was either Saxon or British, the basse court being a Norman addition by Fitz Osborne.

Mr. Hearn, a local antiquary, guided the visitors over the remains, and afterwards read a paper on the imprisonment of the Princess Elizabeth, the second daughter of Charles I. with her brother, the Duke of Gloucester, within those walls, the object of which was to show that the historian Hume had given a false colouring to the subject, and raised an erroneous interest in the fate of that princess. He denied the statement that it was the intention of Parliament to apprentice the young princess to a button-maker in Newport. She was sent under especial care, with servants and furniture, but within a week after her entrance into the castle, being at bowls, a sport she much delighted in, there fell a sudden shower, and, being of a sickly constitution, it caused her to take cold, and she died on Sunday, the 8th of September, 1650. The body was interred in St. Thomas's Church, Newport. Knowledge of this fact died away, and it would have been wholly forgotten but for the discovery of the coffin and its plate in 1793. The queen has recently given directions for the erection of a monument to her memory in the new St. Thomas's Church.

Mr. Planché expressed himself strongly as to the value of Mr. Hearn's researches in correcting a perverted account.

Carisbrook, Shalfleet, Brightstone, Calbourne, and other churches were visited, but we will not attempt to give a complete account of all that was done. At the evening meeting—

Mr. Planché read a paper "On the Lords of the Isle of Wight." No public grant, he observed, of the island had been made before the Conquest, the land in the time of Edward the Confessor being held by the tenants of the Crown. The first Norman lord was William Fitz-Osborne, and it was stated by Dugdale that this baron had two sons, John and Richard, who died in their father's lifetime, and that after their death and the death of their father the estate descended to Richard de Redvers. Such was the account given by historians; but the real fact was, as proved from a perusal of the ancient documents, that William Fitz-Osborne had three sons,—William, who succeeded to the estates in Normandy; Ralph, who became a monk at Cormeilles; and Roger, surnamed De Breteuil, who inherited the lordship of the Isle of Wight. This prince, having conspired against William the Conqueror, was thrown into prison. Mr. Planché then detailed the long line of successive lords of the island, pointing out inaccuracies in Sir R. Worsley's history of pedigrees, and in the book of Ford Abbey. He did not wish, however, to undervalue the labours of so reputed an antiquary as Sir Richard. Great were their obligations to any writer who first put into form the character and elements of a local history. It was an easy task, in after time, and by a better light, to discover an occasional error, but it was an herculean one to collect and arrange the original materials, and produce a volume which, criticise it as they might, must always be of the greatest importance to the inquirer into the annals and antiquities of this sea-girt garden of England.

Afterwards, a paper by Mr. H. S. Cuming was read, "On the Relics of Charles I." With the name of this monarch, he said, Carisbrook Castle, where the king underwent thirteen months' captivity, would ever be intimately associated. There stood the moss-grown, ivy-mantled walls within which he was incarcerated, the ramparts round which he moodily paced, the chamber where he slept, the iron-grated window through which he made a futile attempt to escape, and beneath which lurked the wily Edmond Rolf with murderous intent on the life of the King. Newport also was associated with his fate, for there, in the old room in the Grammar-school, sat the Parliamentary Commissioners—Hollis, Glyn, and Vane—when they held their conference, and secretly determined on the death of the King.

The relics described and exhibited during the week were numerous. After mentioning many, Mr. Cuming stated that none of them had gained such notoriety as the knives with handles believed to have been cast of the metal which formed the equestrian statue of Charles now standing at Charing-cross. This noble statue, the work of the famous Hubert Le Sœur, was, according to Walpole, cast in a spot of ground near the church in Covent-garden, in 1633, and, not being erected before the civil war, it was sold by the Parliament to John Rivet, a brazier, living at the sign of the Dial, near Holborn-conduit, with strict orders to break it in pieces.

Rivet, however, concealed both horse and rider under ground till the Restoration, producing some fragments of old brass and a number of knives, the hafts of which he declared were made of the identical metal of which the statue was composed, and these were eagerly bought up both by Royalists and Republicans—by the one class from affection for their dead master, and by the other as a badge of the triumph of their party.

The exhibition on Wednesday of a curious picture, by Giles Tilbury, made in 1670, of the presentation of the Tichborne Dole, produced a paper on the subject from Mr. F. Baigent. It seems that while a certain Lady Mabella, in the reign of Henry II. worn out with age and infirmity, was lying on her death-bed, she besought her husband, as her last request, that he would grant her the means of leaving behind her a charitable bequest, in a dole of bread to be distributed to all who should apply for it annually on the feast of the Annunciation of the Blessed Virgin Mary. Sir Roger, her husband, readily acceded to the request, by promising the produce of as much land as she could go over in the vicinity of the park while a certain brand or billet was burning, supposing that, from her long infirmity (for she had been bedridden some years), she would be able to go round a small portion only of his property. The venerable dame, however, contrived to crawl round an area of twenty-three acres. The distribution continued to be made till the end of the last century.

Knighton Church, the Roman encampment at Monk's Bay, and the Barrows on Wroxall Downs, occupied the members on Thursday morning.

The Rev. Mr. Kell read a paper on the ancient tin-trade of the island. It was generally admitted, he said, that the Phœnicians carried on a trade with the Scilly Isles in tin, the fact being mentioned by Herodotus and other ancient writers, and his object was to offer a few remarks in support of the opinion that the subsequent trade between the merchants of Marseilles, Narbonne, and Cornwall was carried on through the Isle of Wight. After the Phœnicians, and subsequently the Carthaginians, had carried on this very lucrative trade many years, the Greek merchants of Marseilles contrived to gain a share of it. The Massilians were a colony of Greeks, who abandoned their country on its conquest, and, being inferior to the Carthaginians at sea, and yet unwilling to relinquish this extremely profitable trade, they persuaded the Britons to bring the metal to the shore opposite Gaul, to be transmitted through Gaul to Marseilles. On the conquest of Carthage by the Romans, they aspired to a portion of this trade, and their colony at Narbonne commenced a joint prosecution of it. One of the chief authorities for supposing this tin was brought through the Isle of Wight was the ancient writer Diodorus Siculus, who, after describing its manufacture, stated that they carried it to a British Isle near at hand called Ictus, for at low tide, all being dry between them and the island, they convey over in carts abundance of tin. The reader then went into several arguments to prove his position, and the opinion of those who spoke afterwards was that the tin trade of the ancient British was really conducted through this island, and that the tin was brought on pack-horses across the strait, which the old writer said was dry when the tide was out.

At the evening meeting, Sir Fortunatus Dwarris in the chair, Mr. Black gave a lecture on the "Ancient System of keeping Exchequer Accounts by means of Tallies." And the next day (Friday), when the association crossed to Southampton, where they were received by the mayor, the same gentleman gave a discourse on the Charters of that Town. In the course of it, Mr. Black read the Norman French charter of Edward III. which first conferred the privilege of a constitution upon the town. By an error in the endorsement, it was made to appear that the date of this document was the time of Edward I. but Mr. Black detected the indications of an erasure, which seemed to have been made some hundred years since to serve some particular purpose. Other documents related to the tolls on articles brought to the port. Among these was plaster of Paris, mentioned as early as the reign of Edward III. In one document there was a charge for flowers, to place in the court as a preventive against the pest.

A general examination of the town was made, and in the evening a meeting was held in the audit office, when a paper by the Rev. Beale Poste was read, entitled an historical Sketch of the ancient British Belgæ, the Inhabitants during the Roman Period of various Parts of Great Britain, including the Isle of Wight. He commenced by tracing this ancient people from the continent. The Belgic Gauls began to make expeditions to Britain about 360 years before Christ. Those who succeeded in occupying the northern part of the kingdom were styled Iceni; those who possessed themselves of the centre portion called themselves Britons, and only a portion of the southernmost kingdom, including the inhabitants of Hampshire, Wiltshire, Somersetshire, and the Isle of Wight, retained the name of Belgæ. The Belgæ were finally driven into the most western parts of the kingdom, where they at length found refuge, and maintained a rude independence till the conquest of the whole kingdom by William of Normandy.

A paper by Mr. J. A. Repton, with reference to Roman and British urns, was also read; and Sir Chas. Fellowes, Mr. Wansey, and Mr. Atherley, of Southampton, made various exhibitions.

Saturday brought the congress to a close, and found the members amongst the picturesque ruins of Netley Abbey, where Mr. Brannan delivered a lucid and agreeable discourse on the architecture of the structure. Portions of many other buildings, he said, might display more striking features of the Early English style, but none exhibited more clearly the successive advances from Norman through all the gradations of Early English into the Decorated style. The building was represented as having been founded by a colony of monks from the New Forest, but no documents relating to the abbey had been discovered. All that was known about it was that its first abbot, Robert, flourished in the year 1235, and that he was succeeded four years after by Walter, the next abbot. The salient points of interest to which he drew the attention of the association were, first, the progressive development of style; and, next, the arrangement of the different offices. The architecture, he continued, was of the highest degree of correctness and purity, and the structure, being Early English, was simple in design, but exquisite in execution, and though there was little architectural ornament, what there was was of the best kind.

It is greatly to be regretted that the dilapidation of this ruin should be allowed to go on: in a short time hardly a portion will remain perfect to show its beauty. Many of the corbels, admirable in design, have been knocked off, and want of care is everywhere apparent.

A closing meeting was held in Southampton, on the return of the party, and then the congress was over. The week was spent both profitably and pleasantly.

THE FIRST TOWN TO BE LIGHTED BY ELECTRICITY.—The electric light was exhibited in Deal last week, preparatory to lighting the town generally with it. It is said to have been perfectly successful, and a vast improvement upon the gas lights.

SOME MEMORIALS OF FATHER THAMES.*

STANDING at Battersea, not far from the inconvenient wooden bridge, we note the river-dyke running along the south bank, and on the north the rudely-constructed quay and other works. Some picturesque houses of about Charles II.'s time stand pleasantly on the road; and here we learn from an intelligent man, who has for many years been engaged upon the Thames, that there has been no encroachment at this point during about 130 years, as the title-deeds of some adjoining property show. "These rains, sir," says he, "have done a power of good to the river." "I believe that a great deal of the damage to the Thames would be stopped if all the sewers were carried into the middle course in pipes. Some people have laid the late bad condition of the water to various causes: some said it was cleansing the Brentford Canal—but that was not the thing that did it; they have been cleansing out the docks,—why do they do so in the hot summer weather instead of winter?" This observer also told us that at the time the condition of the river was attributed to the Brentford Canal, the fish (the flounders, &c) had actually left the eastern part and gone to the neighbourhood of the canal. "The fish turn their tails to any impurity. You cannot, sir, have better judges than the fish; and they came at the time of the disturbance in immense shoals from the neighbourhood of the docks. The fishermen tried here for some days after that, but without success. The fish are now coming back again, which is a good sign. I cannot say that I know of salmon having been caught here, but I believe that they still come. I have often seen porpoises off Battersea: last winter I shot two." Our informant continues, "There was an open sewer close to here, which was not only foul itself, but was also the means of laying a quantity of unwholesome deposit on the shore. This has been taken by pipes into the river, and we have not had so much to complain of since."

Having already mentioned the anxiety which has been for so many centuries shown respecting the encroachments on the Thames, we will now direct attention to an evil which is suffered at the present day, and which evidently must cause a great deal of the accumulation of mud which is so much complained of near town. This fact seemed very evident when standing on the steam-boat pier on the north-east side of Blackfriars-bridge, at the time the tide was beginning to run out: immediately under the first north arch of the bridge, the water as it fell left, for a few yards towards the bed of the river, a deposit of cleanly-washed small gravel: as the tide receded, the covering became a mixture of sand and mud, and then that dark grey slime which so thickly coats the greatest portion of the Thames at low water. To the east of our point of view numerous coal-barges extend into the river, almost as far as the eye can reach, in two, and in some instances three tiers; the barges intermixed with great posts. This view shows us how some prominent encroachments in the neighbourhood of Thames-street have originated. In parts of London, as we have before noticed, the alteration of thoroughfares, in the first instance intended to have dwelling-houses with gardens in front, into rows of shops is very gradual: a speculative tenant takes down his garden-rails, and exposes a few goods, such as furniture, &c. for sale; another, emboldened by this example, marches a covered shop to the public foot-path; and then, in course of time, the gardens are all covered by shops, and then the houses walk out one after the other, until they are on a line with the shops, and in a few years none but "an old inhabitant" would credit that pretty gardens and trees had stood in the bustling and commercial-looking thoroughfare. The growth of the wharfs along the Thames has, in the same manner as the London shops, gone through its gradual course; and this is shown to us while standing on the pier at Blackfriars in a very distinct manner. In the centre of the stream, vessels of various kinds, pieces of waste wood, and branches of trees, dead dogs, and

* See p. 337, *ante*.

A Dog in the Thames.

other things as unpleasant, float smoothly away with the tide; and we hope that the dogs, at any rate, may reach the sea.

Nearer to the shore, however, matters do not proceed in such a satisfactory manner, and although not agreeable, we must for a practical purpose watch the movement of one of many other carcases within sight, which have not run into the strong current of the stream. Many a halfpenny, says an official of the pier, do I give little boys to take away dead dogs from our shore. We have placed our eye on one particular dog, which may be seen in the engraving. "He," says the official already alluded to, "will not come back; I am glad of it." However, after a time, and after whirling and resting amongst the posts and barges shown in the engraving, the dead dog comes again in sight, moving *against the tide*, but much nearer to the shore; he moves off again towards the sea, and returns this time much sooner than the last; and after describing various circles, as shown by the arrows in the engraving, he is deposited amongst the slime, together with specimens of his own and other families; and we fear that our official friend will find it necessary to expend more halfpence on the boys before the next tide gives a chance of the break up of the museum. Now it seems very certain, that if the posts and barges and steam-packet pier had not been placed in their present position, the dogs would have floated steadily past this point. Other refuse will surely, by the obstruction to which we refer, accumulate. If the barges and posts are allowed to remain here, it will only be at great cost in the removal of the mud that we can prevent an accumulation of materials which will in time make a piece of land in front of the present wharfs. This has to a considerable extent been the mode of the conversion of a large part of the domains of Father Thames in the neighbourhood of the City into massive and substantial buildings.

An artist living on the banks of the Thames, near Lambeth, says, "I like to look out at the beautiful river, for in an artist's eye it is still beautiful at many times of the day, and often my pleasure has been marred by dogs and cats: I have seen a dog one morning floating past—he has come back again with the next tide, and for several days I had only to look at my clock in order to know the position of my visitor; he was larger each visit, and at last disappeared." This would show that putrid matter floats to and fro in the Thames, in the neighbourhood of Lambeth, several times before it gets to sea.

In the neighbourhood of Thames-street, in former days, a little pitch would be made by a boatman or others as a landing-place; then a bit of a shed would be built of wood, or other frail materials; then some of the people would prosper, and their vessels would increase, and other posts to fasten them to would appear in front, as we now see them at Blackfriars and elsewhere; these would collect the mud, and in time form rather solid earth, and then the wooden building would be changed for one of brick or stone, and in course of time the more substantial buildings at the rear, like the London dwellings to which we have alluded, would march on to Thames, and that being made substantial, then fresh barges and posts would be put out in order to restrict the width of Father Thames still more. Notwithstanding the accumulations on the bank, and the thick, curious-looking fluid (few would call it water), which when the steamers pass dashes against the land, it is a fine sight to stand for a time and see in the centre of its current the great river rushing so freely along.

"Ah," says a waterman, "it is a pity to see the old place in such a state. Why, sir," pointing towards Hungerford, where numerous other barges are placed, "there's five foot of mud there—it would be a good thing to remove it. Why not employ some of our convict labour in cleansing the river? It would be more profitable, and no worse for the convicts than picking oakum." Vigorous efforts to cleanse the Thames by means of dredging would, no doubt, be to a certain extent beneficial, but measures of a scientific nature, properly directed, would do more good. Remove all the matters from the shores of the river, which will be the means of collecting fresh deposits — confine Father Thames within a clearly marked line of wall, with properly constructed docks, which can be supplied with water without detriment to the river, in which barges, &c. might be unloaded, and when once the width is defined, let us see that by the help of water from the Severn, or elsewhere, the Thames shall neither become *shallower nor narrower*.

An examination of a rough plan of the encroachments at Thames-street, which will be presently given, will show that Father Thames has been pinched in here like a too tightly-laced young lady. The tide having got sufficiently low, a little regiment of women of different ages—some so thinly clad, that it is wonderful how their clothing hangs about them—sally forth from Blackfriars with bare feet, through the mud, in search of coals, wood, and other things that may come ashore, which may be worth a farthing, or even the fraction of it. Numerous "mudlarks"—strange slang to call them so—it makes one's heart ache to look at them—also get to work, and it is worth while to mention that these—perhaps the most wretched and neglected of all classes in London—have gathered up amongst the coals and wreck many a choice specimen of art, not only valuable on that account, but also from the circumstance of their being thrown out by Father Thames, as it were, to hint that a thousand and more years since, when the Romans built their villas on his banks, he was then running clearly and gloriously along, and should now be attended to with care.

Before leaving our point of observation at Blackfriars, we may mention that in times of drought, and in spring-tides, the Thames tastes *brackish* even here,—at Gravesend it is so almost every tide. A coal-merchant says, "I know the posts and barges, as placed, must do damage to the river; but the posts are granted to us by the corporation, and how are we to carry forward our business without these conveniences. * * * No doubt we might transact this business in docks. The property you see, however, is valuable." (So also is Father Thames.)

We have in the course of this inquiry spoken to some scores of persons of various conditions on the banks of the river, and all of them have acknowledged that, year after year, it has become worse and worse. Nevertheless, some of the most intelligent of those of whom we have made inquiry say, "That bad as the condition of the river is, an unnecessary amount of alarm has been caused by the floods, which have brought down from the numerous streams great quantities of earthy matter,"—besides washing out existing *cesspools*.

There is an old superstition in the north of England, that when the Earl of Derwentwater, who was a great favourite with the people of his district, was executed for his rebellion, the river Derwent ran blood. There were great floods at that time, and the peculiar soil of the neighbourhood stained the water of the Derwent red, and the imagination of the people supplied the remainder of the idea. In like manner the rain, to a considerable extent, caused the thickening of the Thames water.

Passing from Blackfriars to the Essex Pier, near the Temple, those engaged about there say, that the passage of the gas-water into the river in this neighbourhood is a decided nuisance, and in their opinion would be quite sufficient to frighten any fish from this part: the water from the gas works is usually let off in the night time; and several respectable people living near the Thames, to whom we spoke, said, that "the smell and inconvenience were really shocking—they were obliged to shut their windows and doors, and even that had not much effect." The Essex Pier, and barges close by, form another obstruction which perhaps cannot be done away with, except by clearing away the mud; but at Blackfriars-bridge, at London-bridge, &c. a way for passengers could be easily made, when the steam vessels could stop in the mid-channel.

Passing on to London-bridge, we may mention a regulation of the olden times in connection with the "lay-stalls," which is worthy of mention.

In 1322, on the meeting of Parliament, the state of the lay-stalls of the City was again taken into consideration—and it was enacted, that "all the filth of a certain lay-stall upon the bank of the river Thames be forthwith removed, and that the butchers of London should, before the ensuing Easter, erect a house or houses in a proper place, to receive all their ordure; thence to be carried in boats into the middle of the said river, and to be thrown in at the turn of tide at high water, and that no person shall presume to throw any rubbish, &c. in at the sides of the said river, or lay any filth or nastiness on the banks of the same, between the Palace of Westminster and the Tower of London, under a penalty of 10*l.* (a large sum at that time).——At London-bridge, the watermen to whom we spoke confirmed the opinion of our intelligent informant at Battersea, both as regards the late extra pollution of the Thames, and also the good caused by the rains; and looking from London-bridge, we cannot help reflecting with a sort of horror, that close to waterworks erected by Peter Morice, the Dutchman, "to supply the Thames through wooden pipes," was the huge sewer shown in a former engraving; and it may be worth mentioning, that the wheels of these water-works were moved by the common stream of the Thames, one turn of the four wheels making 114 strokes, and when the river was at the best, the wheels went six times round in the minute, and but four and a half at middle water. The number of strokes in a minute was 684, and as the stroke was 10½ feet in a 7-inch bore, which raised three gallons, they raised 2,052 gallons in a minute, that is, 123,120 gallons in an hour, or at the rate of 46,896 hogsheads per day to the height of 120 feet, including the waste, which was computed as a fifth part of the whole. The machinery forced the water to a basin on the top of a high tower of wood, which stood near the first arch at the north-west end of the

bridge. Chamberlain says "This invention has, by many improvements, arrived at such perfection under the direction of that great master, the late Mr. Hadley, that these works are said to be superior to the most famed water-engine at Marli, in France, which costs 25,000*l.* sterling per annum to keep it in repair."

CONSIDERATIONS AS TO THE PROPRIETY OF CONFERRING A DIPLOMA UPON ARCHITECTS.*

In the few following remarks it will be my endeavour to establish some certain conclusions as to the desirability, or otherwise, of conferring a diploma upon architects; and, as it will be therefore matter of necessity that I draw such conclusions from better evidence than the caprice of public opinion, I shall found none of my arguments on expediency, nor on the spirit of the age, but simply endeavour to ascertain what is right and what is truth; for I think that if we can but prove that certain laws, or certain regulations, would be good in the abstract for architecture and architects, good they must be in every age and throughout all time, — for truth remains unchanged, though opinion varies continually: therefore, in the first place I shall attempt to prove,—

That the art or science of architecture can be taught; and in the second,—

That to restrict the practice of architecture, professionally, to those *only* who have been so taught, would be beneficial both to the profession and to the public.

I. That the art or science of architecture can be taught.

It may seem idle to some to attempt to prove that which is so universally acknowledged in practice; but objections have been urged against the diploma, founded on the opinion that a real architect is in the main an artist, one whose peculiar powers and distinguishing mental characteristics are innate, and neither to be bought with money nor acquired by study, and therefore, that to propose a diploma as the door of the profession, would exclude many of the very persons the most fitted worthily to fill it, while it would admit a multitude of others who would never attain to anything higher than scientific building. I think, like the chameleon in the fable, we might reply to these objectors, "You all are right, and all are wrong."

Architecture is truly what they suppose: its most successful efforts are not merely the scientific disposal of matter, but the triumph of mind *over* matter. The taking rough, cumbersome, ugly materials, to minister to wants which the lowest animals share with us, and first satisfying those wants in all their fulness, then soaring so far above and beyond them that the cause is hidden by the very glory of the effect; so that the log or clay roof of the wigwam or the hut is forgotten in the spire, and men spin out fine metaphysical theories to account for that which has its origin only in instinct.

Such, in truth, is architecture in her highest degree of excellence; but, if we regard the art as a whole, and from its requirements endeavour to ascertain the points to which its followers should turn their attention, we must not begin at the highest place,—that eminence to which so few can ever attain,—but commence at the lowest rather, and proceed as best we may in due order upwards.

Viewed in this light, it is the architect's first office to provide shelter, and for that purpose his first necessity will be a roof, then walls and a door, and at length windows, fireplaces, and chimneys. In other words, his first and principal want is,—constructive knowledge. This he must have at any cost, and fortunately for him it may be obtained without any too severe labour.

To be architects we must become builders, and I think no one will consider it matter of dispute whether the science of building can be taught or not. It is as purely a matter of education as any other science,—chemistry, for instance; and a great part of the community would fare very grievously if chemists fancied they could dispense their prescriptions by instinct. Civil engineers, too, do not trust to instinct, but to education; and the doctrines they propound are always heard with attention, and frequently acknowledged to be true. Now this primary constructive knowledge on which I am insisting, is but a kind of domestic civil engineering, which, therefore, it is possible to teach, and possible to learn. Nor can it be acquired instinctively: education only can procure it.

If, then, an architect is one who requires constructive knowledge, and if that knowledge can only be obtained by a course of education perseveringly followed, it is evident that such an education is indispensable, and the only thing required by the advocates of the diploma is, that the architectural candidate should give to the public a guarantee that he does possess such knowledge, by passing through an examination before competent authorities, who would, if he acquitted himself deservingly, grant him a certificate, empowering him to act as architect: such certificate being a diploma.

I believe that not only the state of the profession, but the state of architecture generally, renders some such measure imperative; for, in the opinion of most, our national architecture has been at a very low ebb for some time; and though we hear occasional rejoicings over some isolated public building, and in such cases are congratulated on the revival of taste, what in the mean time is the state of the architecture of everyday life,—that mass of domestic buildings which year by year so steadily increases? We hear very little rejoicing about it. And yet, is it not the root of the whole matter? While the people generally are content to live in houses possessing for the most part neither constructive science nor any approximation to beauty,—houses dwelt in through necessity, and not of choice,—there is little hope I think for much good in public building, or for any real improvement in our architecture whatsoever; and for my own part, I would much rather see one house in a bye-street built well and beautifully, than know that some wealthy community was lavishing its thousands over its public hall or temple. For in the first case we could say to all "Go and do thou likewise;" but what imitators could the second obtain? We hear continual lamentations about the scarcity of patronage, the smallness of means, the niggardliness of communities, and apparently we spend all our energies in expressing our grief; for day by day, in the outskirts of all our towns and cities, house after house, and street after street, spring into existence, and for the most part with very little if any evidence of the existence of any such calling as that of architect. I am not going now to enter upon the questions of beauty or taste, for though I have not seen many examples of modern street architecture that I can admire, others may be of a different opinion, but whether they be ugly and mean, or beautiful and sublime, why should the walls sink and the window-heads crack, the stucco peel off and the chimneys smoke, the roof let in the rain, and the doors and windows the wind? Why, if not because those who build them and design them are ignorant and incompetent?

I do not say that they are architects: I believe that in general architects have but little to do with this sort of building. But why have they not? Are they too great gentlemen to accept anything under a villa or a cemetery chapel? Must they, too, draw their line somewhere? or is it because the public think an architect's only duty is to draw something pretty, and as they only want to spend their little savings to the best advantage, they cannot afford to pay for anything so useless? So they invest their money in French arches and bad cement, and are ignorant that there are those who could inform them that, after all, such an investment of their funds is neither the most safe nor the most profitable; for the public generally is in the greatest state of ignorance, not only with respect to architecture, but of architects also. They neither know what we have to do, nor have they any guarantee that we can do it. Now I believe that this ignorance is a very fatal thing to the profession generally, looking to the mass of domestic building as the chief field for the architect's labour. That which is good for individuals must be good for communities also; and we all know that a professional man has but a poor chance of success unless he possess good connections, or in some way or other can contrive to raise himself out of obscurity; and so with our profession itself, until it is better and more extensively known, until its followers are respected, and its labours recognised, its measure of success will, I fear, be but very poor.

We want to emerge out of the darkness and come into the light, and the brighter the light the better, so only that we can bear it. Publicity is the light we require, and if we cannot obtain it in any other way, we ourselves must seek it out and endeavour to secure it. The way to do so is in itself easy enough. A public examination would go far towards solving the difficulty for us; and by it we could make manifest who and what we were, and the public would form a far more correct opinion concerning us than is now generally entertained. People do not often take the law into their own hands, and the foolishness of those who do so has grown into a proverb; neither in my belief would they take architecture into their own hands, had they better opportunities of knowing the advantages they would acquire by consulting an architect, or were they sure in case of their so doing that the architect of their choice would prove qualified and competent. And with respect to this latter objection, I do not think that we have to contend with any more formidable: so many persons have been ruined, so many have been crippled for life by meddling with building, that I do not wonder that so many others who would rather by far build for themselves than trust to the mercy of the speculator, are nevertheless so frightened at what they hear and see, that they give up their wishes and buy a house ready-made (and like most other ready-made things, ill-fitting), as a matter of wisdom and prudence.

And why is this, but because there are those nominally of the profession who are altogether incompetent; occasionally fraudulent — black sheep, in fact, whose evil name affects the whole flock? Any man may call himself an architect, even if he is ignorant of the art altogether, and has nearly as good a chance of success as the carefully educated; for, how can the public determine between the two? By their works? Certainly not in the present state of constructive skill; and even if Mr. Fraudulent does occasionally disgrace himself, few persons want to build more than once, and the world is wide, and the trick easily hidden; so he looks out for fresh clients accordingly.

But the mere fact of such men existing at all in a profession, must be a serious evil to that profession, a cause of distrust and refusal of confidence,—a perpetual barrier to its growth and increase; inflicting a stigma which must attach more or less to every one following that profession; lowering its rank more and more every day, and every day more closely threatening it with destruction.

But I am wandering from my first object; yet if what I have stated be correct, that constructive knowledge which is the architect's first requirement, is in the power of every one to attain, and probably with ease. For there is nothing so abstruse in the laws regulating construction, but that a moderate amount of industry may make plain, and I believe that even a course of constructive teaching, followed for only six months, by all concerned in building, would suffice to cure a very large number of the mal-practices now existing.

It will be said, "You are making builders, and not architects." But why so? for by saying that architects should possess certain fundamental knowledge, they are not excluded from bringing their artistic powers to bear upon such knowledge, and so convert good building into architecture. I would rely for this latter faculty on that instinctive love of the beautiful, which in its different degrees is so universal: and though I do not imagine that any other power besides nature can make an artist, yet education is every artist's help, and they would manage but poorly without it: so that I do not think I err in stating that as far as architecture is a science it may be taught, and can only be acquired by so being taught; and again, that in so far as it is a fine art and therefore to attain any excellence therein the architect

* Read at an ordinary meeting of the Architectural Association.

must possess a natural ability,—that ability is still but as the rough ore, which needs refining before it is fit for use, and will be, to him, without proper education, comparatively useless.

I will now touch upon my second position, namely:—

II. That to restrict the practice of architecture, professionally, to those only who have been so taught, would be beneficial both to the profession and to the public.

There is a very great and praiseworthy tendency in the present day to oppose restriction, that is, unjust restriction,—restriction which interferes with that measure of liberty which each man ought to enjoy. But the opponents of restriction must not confound its use with its abuse, nor that measure of it which may be laudable with that which is injurious. And certainly that measure which provides only that a man shall be fit for the office he assumes, can hardly be placed under the latter head,—so that we can advocate the exercise of restriction with respect to our profession, without wishing for one moment to make it an exclusive one, or to fence it round with laws which should make it difficult of access, the whole of our demand amounting to this only—that, as a certain amount of knowledge is necessary to enable any to rightly follow the architectural calling, all who are desirous of so following it shall be required to give proof that they are so qualified. And that such an enactment is not foreign to, but, indeed, in accordance with the spirit of the age, the increased rigour of the examination required of candidates for admission into any of the other professions seems to be proof amply sufficient.

The following are a few of my reasons for believing that a compulsory examination would be beneficial to ourselves.

It is within the experience of many, that to the architectural student, who is desirous of making progress in his profession, it is a serious puzzle to know what to learn; and almost as great a one to know how to learn it: his ideas of construction are mainly picked up by chance methods, gleaned from occasional glimpses of working drawings, gathered from insufficient specifications, acquired by a stray visit to the carpenters' workshop. He does not begin by securing certain recognised and simple facts, and so progress onwards from one towards another until he attain the more abstruse questions of construction; but a boundless field is at once opened to his observation, and he goes running over it, hither and thither, chance and his will his only guides,—not the very best in the world, either, for an emancipated schoolboy. So that it frequently happens (frequently indeed, if we may judge by advertisements) that at the expiration of the time allotted for his education, he has again to enter an office,—not that he may practise, or that he may assist, but in order to obtain improvement.

Now, such things must be injurious to us: there are plenty of natural difficulties lying in every man's path, without any being added voluntarily; and of all such difficulties, perhaps the very worst are those lying in the path leading to knowledge. But instead of casting stumbling-blocks in the way, or instead of hiding the path altogether, the acquisition of knowledge should be made easy by every method within our power; nay, rather should be surrounded by every possible allurement; and even then many will not pursue after it with very much enthusiasm. So that if restriction did no other good than that, by making education compulsory, a definite course of education would, as a natural consequence, have to be determined upon, the benefit would, I believe, be enormous.

Again, if we suppose these first difficulties successfully overcome, the architect finds immediately that his claims for employment are contested by a crowd of incompetent pretenders, destitute of either talent or experience, who injure him in a two-fold manner; for while their success robs him, yet, on the other hand, if they fail, as oftentimes they do, their ill-fame covers him with discredit. Again, an architect who *is* an architect is entitled to hold his own against any member of any other profession: he must be, and is, gifted, educated, and a gentleman; but I will ask all who have an insight into such matters, whether such is the general character of the profession, begging them to remember that the public at large make no subtle distinctions between town and country practitioners, but class them together as a whole; and thus aggregated throughout the breadth of the land, does the verdict of the country accord to them the qualifications I have just enumerated? For my own part, I think not. I can but speak from my own experience, and that is necessarily limited; but I have heard many unpleasant insinuations thrown out against architects, and more than once, by far, I have heard all title to rank among the professions denied them. Do such things as these make a profession attractive? Is there anything very pleasing in being unjustly regarded with contempt, and would it not be good for us, as a profession, were all such evils removed?

Then with regard to the public gain, we must remember that an enormous amount is spent every year in building; and it is not to be denied that a large part of this outlay is spent injudiciously; for that money can hardly be said to be wisely invested which goes to the providing many of those constructional blunders which a walk round the outskirts of any of our large and increasing towns will show us existing abundantly.

It cannot be a good thing for the public that, when it chooses to meet together for any cause, be it religious, political, or for amusement, the roof under which it takes shelter should form a prison house for heat, closeness, and poisonous gases; that the windows and the painted walls should stream down with moisture; that comfort should be annihilated, enjoyment abridged, health assailed and endangered; when, by proper skill on the part of those entrusted with the erection of the building, all such evils would generally be obviated.

It cannot be for the good of the public that the smoke should so often refuse to make any use of the chimney specially dedicated to its service, and forcing its way into the room (a most unwelcome visitor), blacken ceilings, deface books, prints, furniture, and very often destroy good temper too.

It cannot be for the good of the public that houses should be built especially to burn, so that whenever a fire breaks out in a crowded neighbourhood, the wonder is, not that so much property is destroyed, but, on the contrary, that anything is saved.

It cannot be for the good of the public that every two or three years scaffolds should have to be erected around its dwellings, to stop up cracks, readjust arches, patch up broken window-cills, or for any other of the thousand and one tinkering processes which modern houses so frequently require, and which for the most part arise, not from insufficiency or badness of materials, but from the unscientific methods in which they are huddled together.

If, then, all these things, and many more of like nature, are injurious to the building community at large—as indeed they must be—clearly it would be a good thing if they were reformed or removed; but, for my own part, I do not see how they shall either be reformed or removed, unless by a more careful and complete system of education on the part of their producers. Necessarily, so long as, either through ignorance or through a foolish and suicidal policy denominated cheapness, the public entrusts its requirements to incompetent and ignorant men, so will they obtain imperfect and insufficient buildings. Nor will they fare better till they consult others better qualified. But, in the present state of things, it is a problem even if an individual be desirous of consulting a qualified architect, whether he can obtain one: I know such are to be obtained, and many such too, but they are so intermingled with those of an opposite character, that it is no easy task to find them, and it is one of the easily understood causes why men, if they possess a tolerable share of prudence, flock to established names, to the detriment of the young beginner, who has to wait, wait, wait, for his opportunity. The burnt child fears the fire, and, in the matter of building, so many have burnt their fingers,—so many can give their assent to Cowper's couplet,—

> "By building and building, a man may be driven
> At last out of doors, and have no house to live in,"—

that it is no wonder that in the absence of anything approximating to a test by which an outsider can judge of an architect's ability,—judgment, prudence, and all other good, sound, grave faculties warn him from making rash experiments.

But now, to wind up these remarks (for I am far more anxious to promote discussion than to pretend to exhaust the subject), I think that the benefits of "restriction" may be summed up as follows;—

To the profession generally, a far higher rank than that which it now occupies.

Next, individually, increased facilities for learning. The way smoothed towards ulterior advancement. Protection from quacks and pirates.

To the public, security that money shall not be wasted through ignorance, or incompetence. Security that the discoveries and the triumphs of science shall be brought to bear upon its dwellings, and that some better laws shall regulate all building than customs of trade, or bricklayers' experience; and last, though assuredly not least, a far better prospect than now obtains that building would, while it grew scientific, also become beautiful, and the city street a source of pleasure and delight, and not a thing from which to escape as soon as we conveniently may.

The ready reply of many to all this will be,—"Impracticable." It may be so, but we can hardly know unless we try; and, if we ourselves could but agree upon the subject, I hardly think that the public would debar us from that privilege of education which it claims so strongly and so justly for itself, but would rather, perceiving that education was highly necessary to every architect, agree, for its own sake, only to employ those who possessed such education.

And although, in its ignorance of architectural necessities, it might at first deny this latter provision, the former, at any rate, it would never object to; so that to seek diplomas voluntarily is still open to us, and is a scheme which I believe many regard with favour. Indeed, so far as it goes, it would be a good thing, and would, in all probability, lead to still better, and in time secure "restriction" itself.

A diploma voluntarily obtained would be infinitely better than none at all; and I believe no very great time would elapse before the public would discern the difference between its possessors and those who are without.

Let us, then, if we can, ascertain the general feeling of the profession on the subject; and, having decided upon what course to pursue, let us leave off discussing, writing, and speaking, and try to act.

J. H. Chamberlain.

PROVINCIAL NEWS.

Hornchurch.—On 16th ult. the chief stone of national schools was laid here by the high steward of the liberty. The new building will consist of a teacher's residence, with girls' school, 30 feet by 17 feet 6 inches, on the north side, and boys' school of similar dimensions on the south. Each school-room will be entered by a lean-to porch, containing washing apparatus, book-closet, hat pegs, &c. A class-room is also added to each. The walls, on a foundation of concrete, will be constructed of stock bricks and malm facings, with red brick dressings; Bath stone-work to be used in mullions, copings, &c. The roofs inside show the stained trusses and purlins, and externally will be covered with tiles on bands of old and new alternately. The architect is Mr. Frederick Beesley, of Westminster, his design being chosen from those submitted in competition last year; and the builder is Mr. Joseph S. Hammond, of Romford, who has undertaken to complete the works in four months from the commencement. After the ceremonial the workmen had a dinner in the village, at the builder's expense.

Wellington (Shropshire).—New schools, with master's residence, are to be erected here immediately, for the Wesleyan body, from designs by Mr. Wigginton. The buildings have a frontage to two streets.

Dudley.—The Dudley Castle *fêtes* have not brought that amount of assistance to the committee of the Mechanics' Institute, for their new lecture-hall, post-office, &c. that was anticipated. The committee catered well for the

public, to the tune of 1,200*l*. We fear, however, that but little more than the expenses will be realized, although about 13,000 persons attended on the last day.——The local Board of Health have to combat great opposition. Notice of a motion has been given for *dismissing* the officers of health!

Tipton.—The election of officers for the new Board of Health took place on the 10th, when Mr. Peacock was appointed surveyor, and Mr. Waring (a non-professional man), as clerk. In consequence of the election having been made by *ballot*, a new election is necessary. The same mistake was made at Dudley, where the General Board interfered in like manner.

Kidderminster.—A building for the Stour Vale Mill Company is in course of construction, to form the large steam shed for which Lord Ward, in his desire to assist the Kidderminster manufacturers in commencing steam weaving, has advanced the money, Mr. Kiteley and Mr. Grosvenor guaranteeing him interest at five per cent. on the outlay, with the intention of letting the space in compartments to other manufacturers, and finding them steam power for working the looms. The shed is designed principally for Brussels power-looms; but it will be equally available for tapestry power-looms, or any other machinery of a kindred character requiring the agency of steam as a prime mover. The front of the building will face towards the New-road, the rear towards the copse. The front will have a width of 176 feet, and consist of two stories, which will be used as warehouses and offices. This elevation, which is of red brick, will be ornamented with pediments, and with rusticated quoins, string courses, dressings, &c. of white brick; the windows will have circular heads, and frames of iron. Behind these warehouses lies the shed itself, which consists of a single room, with an area within the walls of 140 feet by 238 feet, on 33,320 square feet. The roof of the shed will be broken up into narrow ridges, each 14 feet 6 inches in width, the ridges running from the front to the back of the building. The girders which support these ridges run in 26 feet lengths, each weighing about a ton, and these are again supported by ninety cast-iron columns, each 12 feet 6 inches high. Each girder forms a gutter to carry off the rain from the roof, and each column is hollow, and acts as a pipe to convey the water into drains below the floors. The slabs of glass covering in one face of each ridge will be 5 feet 2 inches long, by 3 feet in width, and ⅛ of an inch in thickness. Of these panes there are 720. Means have been taken to secure both ventilation and warmth, and the floor will be secured from damp by a thick substratum of ashes. There will be starching and other rooms under the same roof with the shed, and a mechanic's shop (75 feet by 18 feet) will be built, and an engine-house, boiler-house, chimney shaft, &c. The architect is Mr. J. R. Bland, of Birmingham; the builder, Mr. Henry Ankrett, of Kidderminster. The expense of the buildings, according to the *Worcester Herald*, will exceed the sum at which it was proposed they should be built. It is thought that the shed will be completed in four months for the reception of looms, and the building finished by the end of the year.

Chippenham.—The defective state of the drainage of this town is occupying the serious attention of the inhabitants. Many cases of fever exist, and some have proved fatal.

Merthyr.—At a recent meeting of the Local Board of Health, according to the *Cambrian*, Mr. Gant, the surveyor, presented his report, which contained the following estimate for naming the streets and numbering the houses:—400 tablets, consisting of a cast-iron frame galvanised, with separate letters, composed of a white porcelain on a black ground, would be 180*l*.: tablets of cast-iron, with raised letters, would be about 100*l*.: slate tablets, such as are used at Swansea, painted with black letters, would cost about 30*l*. but would present but a paltry appearance for a town of this importance. The surveyor stated that numbering the houses with small oval tablets of cast-iron, with the letters and a small oval moulding projecting from the plate, with the ground painted buff and the letters white, would cost from 81*l*. to 85*l*. in round numbers.

Kendal.—The chief corner-stone of the long-talked-of New Covered Market, was laid on Saturday before last, with great *éclat*. The building is erected upon a site which has been used for market purposes from ancient times. The church formerly called St. George's, but of late disused, and two shops adjoining, at the west end of the ancient market, have been also removed to enlarge the site. The contract is undertaken by Mr. John Fisher, jun. a councillor of this borough, for 510*l*.; the mason work by Mr. Robert Shaw. Messrs. Thompson and Webster are the architects. The total cost of the building, including iron pillars, railing, &c. not comprised in the above contract, will be about 700*l*.

Jarrow.—The Jarrow Docks have been commenced, upwards of 200 men having been set to work. The works have been let for 231,149*l*. to Messrs. Jackson, Bean, and Gow, who have undertaken to complete them by the summer of 1858.

Dunse.—On Wednesday in week before last, the election of a successor to Mr. Hosick, as surveyor of roads for the middle district of Berwickshire, took place in the Town-hall, Dunse. The candidates were Mr. Waite, Dunse, Mr. Strachan, Swinton, and Mr. Cuningham, Ninewar. On the vote taking place, the numbers were—For Mr. Strachan, 22; Mr. Waite, 20; Mr. Cuningham, 9. The latter being struck off, the second vote stood thus—Mr. Waite, 26; Mr. Strachan, 23. Mr. Waite was declared duly elected.

Kirkwall.—Mr. Stevenson, engineer, is now engaged in surveying Kirkwall Harbour, preparatory to drawing up plans for a new quay, for the erection of which an Act of Parliament is to be applied for next session.

WALTHAM ABBEY CHURCH, ESSEX.

Amongst the places of interest within easy reach from London, and offering attractions of many sorts, is the ancient Abbey Church at Waltham—a building contemporary, or nearly so, with the church at St. Alban's, part of Westminster Abbey, the Tower of London, and St. Bartholomew's, Smithfield,—and which in the progress of time has figured in the history of the country, and is, besides, a characteristic example of the architecture of the Norman period.

There are several means of reaching Waltham. From Shoreditch station you may be conveyed in a very short time. Let us, however, advise those making a holiday, to take an early omnibus, or other conveyance, to Edmonton—from the City, or the Angel at Islington. Going from the latter point he will not fail to notice the remnants of old times, which, more or less disguised, are still visible in "Merrie Islington:" he will see "The Green," fresh and pleasant looking, in spite of the heat and droughty weather, and will hope that it may remain there: he will, however, not fail to regret the number of London and suburban greens, which have been sacrificed to buildings and paving-stones.

It is a pleasant ride along the "Seven Sisters" Road, towards Tottenham—a place marked not only by memories of Queen Eleanor, and other historic personages, but also by its picturesque avenues of trees, lanes, and mixture of gardens, and buildings—some of old date: several schools and almshouses form prominent objects; and it is almost a pity to pass them by without notice. On the front of one of these buildings, which has a nicely kept garden, in which several old men and women walk leisurely about, is the following inscription:—

"1600.—Not vnto vs, Lord, not vnto us, but vnto Thy name, Give ye Glorie.—*Psalme* cxv. 1."

"Balthasar Sanchez, borne in Spayan, in the cittie of Sherez, in Eastremadeor, is the Founder of these Eight Almes Houses, for the Reliefe of Eight poor men and women of the Town of Tottenham High Cross."

The wrought-iron gateways and railings, houses of Charles II.'s time, and some but little changed since Queen Elizabeth may have passed that way,—the numerous hostelries, many of them now altered to other purposes—remind one of the old stage-coach times, when scores of vehicles passed along here and the Great North-road daily, to and from London. The painted signs of these inns are some of them superior as works of art.

"Away went Gilpin neck or naught,
Away went hat and wig:
He little thought when he went out,
Of running such a rig."

Here at Edmonton is the famous Bell Tavern, on the sign of which is a lively representation of the citizen's progress.

Those who have not travelled along the road from Edmonton to Waltham, will be surprised to find such simple rustic manners so few miles from Whitechapel. On the roads the oxen are working in yokes in the carts and other agricultural carriages. The market and flower gardens, and rich meadows, stretch forth on all hands. In the hay-making time, a journey to Waltham is delightful: although we cannot quite shut our eyes to numerous ditches bordering too closely about the cottages; we will not say more about them at present, except to mention the pleasure which we felt at certain parts of the road to see notices placarded from certain local boards of health.

Waltham-cross, the next from Tottenham towards Northampton, is a good example of Queen Eleanor's crosses; and is about a mile from the old abbey, which presents a picturesque object for some distance before we reach it.

Having already given several notices of the abbey itself, and the accompanying view furnishing further details, we need not enter into historical particulars. The church was built between 1062 and 1066 by Harold, but what we now see is more safely to be attributed to the early part of the following century. The west front was rebuilt early in the fourteenth century.

Since we published the view of the west door, as restored under the direction of Mr. Poynter (Vol. XI. p. 16), the door of the south aisle, and the window over it, have been restored, and some trifling matters (a new altar rail, for example) done inside; but there are no funds for any important work, although, as the architect has long since reported, the fabric is in such a condition, the result of centuries of neglect, that at no very distant period the ruins of Waltham Abbey will be all that will remain of it. Nothing can avert this consummation but a substantial repair of certain parts, and that applied speedily. We are all interested in preserving this important relic.

ARRANGEMENTS FOR VENTILATION.

We have received specimens of a ventilator patented by Mr. B. Looker, of Kingston-on-Thames. It consists of a porcelain tube, from 4 to 6 or 8 in. diameter, let in to the brick wall, and thus communicating between an apartment and the open air. Inside the room is another tube, pierced with numerous orifices and slides, terminated with an ornamental disc, which, when desirable, closes the apertures from the external air. When the sliding tube is drawn out, fresh air is understood to be admitted, and impure air to escape, without draught. They are constructed of all lengths, to suit any thickness of wall, and are small in cost.

Mr. M'Kinnell, of "The Athenæum," Glasgow, has patented another mode of ventilation. It is described as consisting essentially of two tubes, the one placed within the other, with an annular space between them, and both opening freely to the external air. The internal tube, destined to carry off the vitiated air, is placed in the chamber to be ventilated with its downward opening near the ceiling, towards which the air, from its superior lightness, naturally rises. The annular space is intended to supply the waste by permitting the external atmosphere to pass through it into the chamber. A flange, checking the entering air in its downward course, is introduced to cause it to spread equally over the whole area without producing sudden fluctuations of temperature.

Survey of Yarmouth.—The survey, with plans of Great Yarmouth, prepared by Mr. J. Laing, the Town Surveyor, has been tested by the General Board of Health, and sealed by them as a "first-class survey."

WALTHAM ABBEY CHURCH: INTERIOR.

PARIS DURING THE GREAT EXHIBITION.

The following somewhat desultory notes and observations, made during a short visit to Paris in the month of July, are transcribed for the *Builder*, under the impression that they may interest such of the readers of this journal as have lately visited, or are about to proceed to, that city:—

Partly from a desire to travel by a road that was new to me, but more from motives of economy, I chose the little-frequented route of Dunkirk and Lille, and starting from Irongate Wharf at midnight, on the 31st of June, in the screw-steamer *City of London*, on waking next morning I found myself off Margate,—the day bright, the sea curling under a light breeze, and our ship under all her canvass progressing at the moderate rate of about nine knots. There are few persons who would not, under such circumstances, experience an increased flow of spirits; and, as I paced the little quarterdeck, chatting pleasantly with the skipper (a regular old salt), I felt as happy as a mortal could desire, and prepared to view everything in the brightest aspect. This route to France has many recommendations to those who are not over fastidious, and are tolerable sailors. The accommodations on board are not superb, and the vessels are small, but you receive civil treatment: there are seldom many passengers, and the motion of a screw-steamer, especially when under sail, is far less unpleasant than that of a paddle-boat, the rumbling noise of the main shaft tending more to produce sleep than to disturb it: in my case I awoke when the engine was stopped to put out the pilot at Gravesend, and fell asleep immediately it was started again.

Owing to the weather falling calm when in sight of Dunkirk, we arrived a few minutes too late to catch the afternoon train, although I made a run for it,—encountering at the station three fellow-passengers, each with a "gamin," carrying his bag, and each, like myself, too late: we agreed to make common cause in our distress, to dine together, to see the town, and to proceed by the evening train. Directed by the least stupid of the three boys, we proceeded to the "Chapeau Rouge," apparently the best hotel in Dunkirk,—arranged for a dinner at four o'clock, and set out to explore.

Dunkirk, the most northerly port of France, is a place of considerable importance. The streets are wide and clean, and the houses are neat, but generally low. In the Grande Place, in which a fair was being held, is a bronze statue of Jean Bart, one of the boldest and most successful seamen France ever produced, who was born at Dunkirk in 1650.

The church, dedicated to St. Eloi, is, or rather has been, a large structure; but a wide street has been carried through it, just abaft the tower, as a sailor would say; reducing, of course, the length very considerably. The tower, which is of brick, and well proportioned, now stands isolated in a small square on one side of the street, and a grand Decastyle Corinthian portico has been added to the remainder, which abuts upon the street. Both tower and church have the French equivalent for "commit no nuisance"* largely and conspicuously painted on them, greatly to the amusement of my three companions, who were in France for the first time, and who were not acquainted with some of the minutiæ of French manners and customs. Internally, the church consists of a nave and aisles, vaulted with brick, of which the church is mainly built, the aisles running round the east end of the church, which is polygonal. There is a clerestory, but no triforium. The arch mouldings, which are poor and shallow, run down the piers without caps or impost, and stop upon bases which are slightly moulded. The window tracery is mostly removed. The church, despite its mutilation, is still a spacious edifice, and capable of containing a large congregation. Service was in progress while we were there, and we heard part of a sermon, in French, which, as far as doctrine was concerned, might have proceeded from the lips of Dr. Cumming or Mr. Bickersteth: it was, in fact, a plain exposition of Christian duties, drawn from the examples of the Holy Apostles, delivered in plain but forcible language, and perfectly adapted to the class of which the congregation was mainly composed.

We were so much interested in the discourse, that we were in danger of forgetting our dinner, had not one of our party, who did not understand French, recalled our attention to the time; so, quietly leaving the sacred edifice, we returned to the "Chapeau Rouge,"—dined, paid our bill, which was moderate, and proceeded to the station, where we started for our several destinations—one for Frankfort, a young Irishman from T. C. D.; two others for Paris; and myself for Lille, where I arrived about nine in the evening.

Lille is a large and handsome town, and has all the appearance of a thriving place. Here are large factories for spinning flax, of which a considerable quantity is cultivated in French Flanders; cotton-mills, foundries, &c. In the country around are great numbers of small windmills, chiefly for crushing seeds. I strolled through part of the town early in the morning, and visited the Champ de Mars, the Boulevards, and the Grande Place, in which is a large allegorical bronze statue. I entered also the churches of S. Etienne and S. André,—the former a late Gothic building, much mutilated; the second, a fine work in the Palladian style, divided internally into nave and aisles of equal height by screens of Corinthian columns. Externally, it is built of red brick, with a western façade of stone, which reminded me of Temple-bar, the lower part being much wider than the upper, with which it is connected by scroll buttresses. This front is a sample of false taste in architecture, not having any accordance with the internal arrangement or distribution of the building.

The material principally used in building at Lille is brick, (the proposed cathedral is to be of brick), though there are some buildings in white stone from quarries in the neighbourhood. The Magasin de Blé and some of the factories are noble specimens of brickwork, none of which, by-the-bye, are executed in Flemish bond, but in alternate courses of headers and stretchers.

I left Lille for Paris by the 10·25 train for Paris, having for fellow-passengers in the compartment I occupied an Austrian gentleman and his newly-married wife—at least, so I judged, from sundry little endearments which passed while I was looking out of window,—who were proceeding to Paris for the first time; and though rather shy of an Englishman, we became very good friends before arriving at our destination. At Amiens we were joined by three priests, who filled our compartment, and were at first regarded as great bores, but eventually turned out to be very agreeable fellow-travellers. In the midst of conversation they all three suddenly pulled out their breviaries, and began repeating their offices with great piety, and this occurred twice on the journey.

The country passed through from Dunkirk to Paris is flat, and by no means picturesque, but fertile and highly cultivated. The effects of the law of inheritance, which entitles all the children to an equal share of real property, are very conspicuous in the great subdivision of property, the country being broken up into very small farms, giving it the appearance of the field allotments which are found in some parts of England. The absence, also, of parks and gentlemen's seats,—so striking a feature in English scenery,—is very remarkable. A good deal of bog land lies near the line, and the turf is cut, dried, and stacked, exactly as in Ireland, and is called, I believe, "tourfe," evidently the same word as our own.

On the evening of my arrival in Paris I took a stroll in the "Champs Elysées," of all places the most striking to an Englishman,—especially at night: their great extent, the innumerable lights, the shows, round-abouts, stalls—above all, the *cafés chantants*, the crowds of people and carriages, and the universal air of gaiety and enjoyment which appears around, at first confound him, but he soon enters into the spirit of the place, and I believe, in his quiet and grave way, enjoys it as much as the natives. Walking leisurely up the central avenue I came abreast of the "Cirque de l'Impératrice," which externally greatly resembles the "Cirque Napoléon," near the Port St. Martin (illustrated in the *Builder*). I entered, and found an English clown (Bridges) performing some clever acrobatic feats, and greatly amusing the audience with his wittieisms, not one word of which they could understand. The interior arrangements and decorations are very much like those of the other circus, but the roof is supported by wooden columns, at about one-third of the radius inwards, reducing the span of the roof to two-thirds of the diameter of the building. On the close of the performance, I went out by the back entrance and came suddenly upon the stables, where accommodation is provided for forty horses, in stalls lighted with gas, paved with wood, and altogether models of cleanliness.

Coming down the "Champs Elysées," I entered a "café chantant," a place where coffee, ices, lemonade, sherbet, &c. can be imbibed to the sound of music and the strains of syrens, who, decked out in white muslin flowers and jewellery, occupy a raised and gaily decorated stage in the open air, the public being seated at small tables in front of the proscenium. Plants and variegated lamps are arranged at intervals, and give a fairy-like look to the whole, but there is more show than substance,—the singing is not first-rate, and the refreshments indifferent and excessively dear.

The next day I went to the Great Exhibition. I had seen the Hyde-park and Stephen's-green expositions, and of course expected great improvements upon both, but I was disappointed. As a building externally the effect is far less striking than the old Crystal Palace, and the *coup d'œil* on entering is by no means equal to that of the transept in Hyde-park. Internally the building appears much too low for its breadth; but that arises from the mind being instantly referred to the building of '51, which was much loftier than was at all necessary, as the galleries were but one-third of the total height from the floor. However, the arrangement and classification of products is excellent: a much more equal representation of each class is apparent; and the decorative accessories are in much better taste, with the exception of the flags intended for red ensigns hanging over the English department, which are so badly proportioned—to say nothing of false blazonry—as to be with difficulty recognized.

After all, I believe there are not a few drawbacks in an exhibition of this nature. As a collection of produce of mercantile value, it cannot be depended on, as many articles are manufactured solely for the Exhibition; and as a place for study, it is nearly unavailable, from its heterogeneous nature, the noise and crowd, and the difficulty of fixing the attention to one class of objects. For all practical purposes, collections of the different classes of products in *separate* buildings or sheds of no architectural pretensions whatever, would, I believe, be far preferable; and, perhaps, the different classes might with advantage be exhibited at different times. Whether as a measure of policy the preparation of a Great Exhibition is expedient, is a different affair:—whether an adequate return for the great expenditure of public money is found in the impulse given to trade, and the contented employment of a large number of the dangerous, or rather the neglected, classes;—whether the assembling together so vast a number of individuals of different nations furthers in any degree the cause of civilization, or the establishment of principles of universal peace,—are questions which I am not competent to discuss.

From my first visit to the Palais d'Industrie I derived very little advantage. I certainly saw a great number of beautiful, curious, and interesting objects; but, after wandering about for seven hours, I quitted the building with my ideas in a state of bewilderment and stupefaction, only equalled by the corresponding bodily fatigue. On the occasion of a second visit I was more judicious; and, conscious that I could examine but a small portion, I made my way to the machinery (stopping, however, in the Rotonde, to glance at the crown jewels of France), and examined the productions of France, Belgium, England, and America, the

* "Il est défendu de faire ou de poser aucun espèce d'ordure contre l'Eglise."

principal contributors in this class. As far as I am able to judge, the French, if not already taking the lead of all other nations in mechanical engineering, are fast approaching that relative position. The advance they have made since 1851 is astonishing, though of course something must be allowed for their being on their own ground. In locomotives the comprehensive trials they are making of several widely dissimilar systems bid fair to have great results. The arrangement patented by our countryman, Crampton, seems the favourite at present. But I was much struck with a model locomotive engine, in which the fire-box extends the whole length of the boiler, the tubes returning in the upper part, similar to those of a marine tubular boiler. The area of fire and tube surface obtained by this method is enormous, and of course the evaporative power corresponds. There are some very fair specimens of spinning machinery exhibited by French machinists, but the latest novelty, and seemingly the most attractive to the public, is the sewing-machine. A great number of these are exhibited in the American section, and they are as much crowded as De la Rue's envelope-folding machine was in 1851. I could not avoid noticing the difference of "manner," I suppose it is, of the French and English attendants employed by exhibitors, whose duty I conceive is to afford every information to visitors concerning the goods in their custody. The English generally are abrupt, concise, and barely respectful; while the French are quite the reverse, and appear annoyed if they are unable to satisfy the most pertinacious inquirer.

The fine arts department is entirely separate, and very properly so: and of this department your readers have already heard. The French pictures, of course, occupy much the largest space, MM. Ingrès and H. Vernet having each a *salon* to himself, in which to exhibit his great battle-pieces. Far before all others in the whole collection I would place Rosa Bonheur's "Hay-harvest." The light of heaven pervades the landscape, the breath of life the animals; while satisfying the most captious critic as respects all the rules of art, it appeals to the unlearned with a power quite unapproachable. Pass from this work to the pictures of some other celebrated animal painters, and how poor, how feeble, how conventional they seem. But the readers of the *Builder* can judge for themselves, for a picture by the same gifted lady is now in London, which, even if inferior to the "Hay-harvest," will, I have no doubt, verify my words.

Our English engravers take a high station in their walk of art, and the works of Doo, Robinson (J. H.), Pye, Burnet, Cousins, and Atkinson, bear comparison with the best productions of the French school; and in architecture, as you have already said, we have no need to be ashamed.*

* To be continued.

CHURCH-BUILDING NEWS.

Colchester.—A stone altar-piece, of the Perpendicular period, by Mr. Brandon, executed by Mr. H. Lufkin, stonemason, Colchester, has recently been erected in St. James's Church, in this town. The work is divided into three compartments, comprising the Decalogue, Lord's Prayer, and Creed, in illuminated church text. The whole is surmounted with a cornice, crowned with a Tudor flower. Over the altar-piece rises a stained five-light window, with figures of the Evangelists. The altar-piece was erected at the sole expense of Mr. G. Round, a parishioner.

Buckingham.—The boundary-wall of the new cemetery is now in course of erection, and the other works connected with it are being proceeded with. To meet the cost of construction, the committee have agreed to borrow of the Bucks and Oxon Bank 2,100*l.* The drawings of the proposed chapels having been laid before the committee, and agreed upon, an invitation was given by advertisement to contractors to tender for their erection.

Earl Shilton.—On Thursday before last, the foundation-stone of the new church was laid here by Earl Howe. The chancel and chantry nave and aisle of the old edifice, which were found in a dangerous state, have been pulled down, and in their place a more extensive building is to be raised. The new building will consist of a chancel, with north and south chantries, nave, with north and south aisles and porches. The design was by the late Mr. R. C. Carpenter, and is under the superintendence of Mr. W. Slater. It is in the style which prevailed about A.D. 1300. The nave is extended to five arches in length, and the width is such as to require a covering of three gable roofs. The chancel is divided from the nave by a chancel arch, and extends about 15 feet eastward of the chantries. The east window is filled with tracery, and is of five lights. The side windows are of two lights, with several varieties of tracing, adapted from another church in the same parish, now in ruins. The roofs are of open timber-work, covered with tiles. The walls are constructed of stone obtained in the parish, and a variety is derived from using the different coloured stones procured in ornamental patterns. The windows are of Ancaster stone, and the arcades of Hollington stone. The contractor is Mr. Rushin, of Leicester. The church will accommodate 800 persons, and the expense incurred will be about 3,000*l.* The walls are already several feet high.

Wimborne.—Mr. T. H. Wyatt, the diocesan architect, has prepared plans for the rebuilding of the choir and chancels of the minster, and tenders to the amount of between 3,000*l.* and 4,000*l.* have been taken to carry them into effect.

Swanage.—The new cemetery here was consecrated on Friday before last. The cemetery is situated a short distance at the rear of the church. It is divided into two parts, one connected with the Established Church, and the other with Dissenters. The ground is about two acres in extent. The gates at the entrance are the gift of Messrs. Mowlem and Burt.

Stourport.—On Monday before last the foundation-stone of a new chapel, for the use of the Primitive Methodists, was laid at Stourport.

Chippenham.—The new Roman Catholic Chapel at Chippenham, in course of erection near the railway station, was opened on Wednesday before last.

Gloucester.—One of the windows on the north side of St. Aldate's Church has been closed up, and a new vestry is in course of erection on that side of the building.

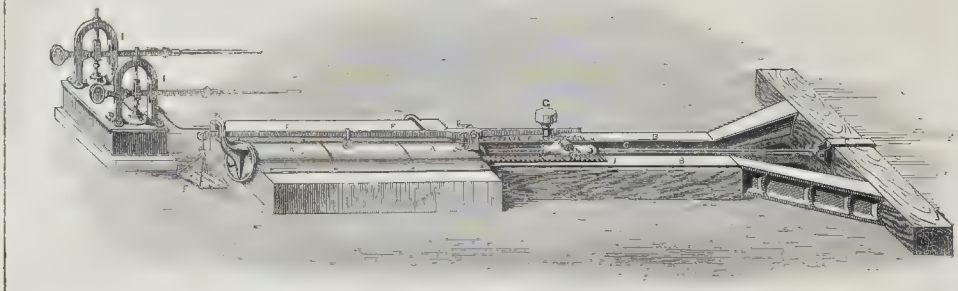
Trefuant.—The consecration of Trinity Church, Trefuant, in the parish of Henllan, by the Bishop of St. Asaph, took place on Thursday before last. This church is an offering by two sisters, Mrs. Townsend Mainwaring, of Galltfaenan, and Mrs. Mainwaring, of Oteley Park, to the memory of their parents. Mr. Scott was the architect.

Stoke.—The opening of the new Congregational Church, Stoke-upon-Trent, took place on Tuesday before last. The church is situated in Copeland-street, and has been erected from the designs of Messrs. Bidlake and Lovatt, of Wolverhampton, architects; Mr. Burkett, of that town, being the contractor for the works. The erection is of red brick, with Hollington stone dressings, and is of the style prevalent during the early part of the twelfth century. The front is gabled, having on one side the line of coping broken as an aisle roof, and the other terminated by an open worked parapet, from the outer angle of which rises a pinnacle. The original estimate was about 1,500*l.* The contract, trust deed, architect's account, gas-fittings, furniture, land, &c. amount to 1,499*l.* 11s.: towards this 935*l.* have been paid; and 210*l.* are yet due from subscribers, &c.

Castle-Cary.—The parish church of All Saints, Castle-Cary, was re-opened on the 8th ult. The old church only imperfectly provided for 400 persons, but the present structure is capable of receiving 650, or, including children, 700, and 250 sittings are to be free. The cost of thus enlarging the old church has been almost equal to the rebuilding a new one; the total cost of the works being estimated at about 2,600*l.* Of this sum 800*l.* have been raised by loan upon the rates; 300*l.* have been granted by the Church Societies; and the remainder has been furnished by subscription. A deficiency of upwards of 300*l.* still remains to be provided for, expended in necessary works not included in the contract. The church is in the Perpendicular style of Gothic architecture, the architect, Mr. Ferrey, having preserved the characteristics of the old church, which is ascribed to the early portion of the Tudor period. Mr. Davis, of Langport, was the builder employed. The chancel has been fitted with stall oak sittings, and is paved with Minton's encaustic tiles. Behind the altar is a stone panelled reredos, decorated by Hudson, of London. The high pews of the old church have been succeeded by a uniform arrangement of open sittings. The galleries (which, owing to the small area of the building, and the large increase of church-room needed, could not be dispensed with), no longer protrude beyond the piers. Three of the windows are of stained glass. The east window, by Mr. O'Connor, has been contributed by the vicar and a few friends: it has four principal lights, in which are represented, in three tiers—first, the Patriarchs; second, the Saints of the Apostolic age; third, the Representative Saints of Great Britain. The other two painted windows are obituary memorials; the one on the south side of the chancel executed by Mr. Wailes.

Brampton Bierlow.—The distance of the townships of Brampton and Melton from their parish church at Wath-upon-Dame, led the Rev. H. Partington, the vicar, and some of his parishioners, to act as a committee for the erection of a new church, in a convenient locality, and this has been recently consecrated by the Archbishop of York. The church is in the Decorated style, and consists of nave and aisles, 65 feet by 42 feet, and chancel, 24 feet by 18 feet, and has sittings for 500 adults, half of them free. The tower is 70 feet high, surmounted by eight pinnacles, and is attached to the west end. The building is erected with stone quarried in the church-yard, with the exception of some of the dressings, which came from the Darfield quarries. The ceilings are groined with stained deal ribs, springing from carved corbels representing angels with their wings extended, the span being filled up with lath and plaster. The seats are low and open, of English oak, presented by Earl Fitzwilliam, who also gave 1,000*l.* and the land. The reading-desk, communion-rails, and pulpit are of Ancaster stone, and the font of Caen stone: the two latter have carved panels, executed by Jackson, of York. The building is heated by hot-water pipes, circulating from a boiler in the basement, the flue from which is carried across the church-yard to a chimney built at the boundary wall. The cost of the building has been about 2,500*l.*,—including the fencing, bell, heating with hot water, and sundry expenses, about 2,800*l.* The principal contractors were Shaftoe, of York, for masonry, and Whitaker, of Woodlesford, near Wakefield, for carpentry. Messrs. Pritchett and Sons were the architects.

Ackworth.—The church of St. Cuthbert, Ackworth, the reopening of which took place on 2nd ult. is built upon the old line of foundation, with the exception of the chancel aisle, which is now of equal length with the chancel, opening into the north aisle of the nave by an arch carried upon carved corbels. The edifice consists of nave and two aisles, western tower, and chancel, and north aisle, the latter being in part seated, and the remaining and eastern portion forming the vestry and site for the organ. The style adopted in the restoration is the geometrical, the original south arcade and priests' door in the chancel being of that period. The arcades in the nave are of two bays each. An arch opens into the tower, and the chancel arch is of large size, moulded, and supported upon piers similar to those in the nave, being a quatrefoil on the plan. The capitals, which are carved, were presented by the Rev. R. E. Batty and his wife. The seats in the nave and aisles are of stained deal, and open. Five of the windows are filled with stained glass, and are memorials of deceased parishioners. The old font placed in the church by Dr. Bradley, who was chaplain to King Charles I. and was with him on the scaffold, is refixed near the south entrance. The chancel has open seats of oak. The floor is laid with encaustic tiles. The ancient sedilia are restored, and the original credence is replaced by one representing the clustering vine, wheat-ear, paten, and chalice. The old altar has been restored. The chancel is lighted by three windows; on the south a single light containing a figure of St. Alban, the gift of Mr. Spark, a former choir-



MACHINE FOR TESTING TIMBER AND CABLES.

master, and a two-light, containing SS. Hilda and Ebba. The large east window, of five lights, contains full length figures of SS. Edmund, Augustine, Cuthbert, Paulinus, and Oswald; and in the tracery are the subjects of St. Cuthbert as a shepherd reading the Scriptures, and St. Cuthbert administering the Holy Communion to Boisil, "the man of God." The three windows in the south aisle are memorial: the west contains "The Baptism of Our Lord," and "Christ blessing Children," with an angel bearing a scroll in the head. The south window contains "The Agony in the Garden," and "Bearing the Cross," with the emblem of St. Matthew in the head. The east window of this aisle is of three lights, and is the gift of Mr. T. Pearson: it contains "The Crucifixion," "Resurrection," and "Ascension," the tracery being filled with angels. In the north aisle, the west window is the gift of the family of Wilson, and contains "The Annunciation," and "The Presentation in the Temple." One of the north windows is filled with quarries, and angels in the head, and is the gift of Mrs. Leatham. The remaining windows in the two aisles have been presented, but are not yet inserted: the subjects are "The Nativity," "Adoration of the Magi," "Flight into Egypt," "Massacre of the Innocents," "The Crowning with Thorns," and "The Scourging:" the emblems of the other three Evangelists are in the heads. The whole of the stained glass is by Mr. Wailes. The length of the nave is 36 feet, the width of nave and aisles 51 feet, chancel 30 feet long, and 19 feet wide. The whole is now completed with the exception of the tower. A figure of St. Cuthbert is placed in the niche of the porch, the gift of a friend. Mr. Hugall was the architect employed in the restoration.

TIMBER AND CHAIN CABLE TESTING-MACHINE.

We have already quoted the result of some experiments made at the Paris Exhibition, with the machine invented by Mr. Dunn for testing the strength of chain cables and timber, p. 347, *ante*. We now give an illustration of the machine itself, which will be understood from the following references:—

A A. Hydraulic cylinder, with piston inclosed, made tight with double-acting leather.
B B. Cast-iron frame or trough, to prevent the materials from flying about when broken.
C C. Connecting rod, as shown attached to a log of timber.
E. Piston plunger under fulcrum to indicate the actual pressure.
F F F. Steelyard lever, marked for cwts. and scale for weights for tons.
G. Weight to balance the piston of the machine.
I I. Powerful hydraulic pumps, to force water into the cylinder.
J J. Rack and pinion to bring back the piston after the operation.

The operation commences by forcing water into the cylinder by the pumps: then the weights are lifted which indicate the tons, and the sliding weight on the steel bar indicates the smaller weights of fractions of a ton; so that the deflection of the timber can be taken at any part of the process or at any pressure. The textile strength of chains or bars can also be taken in the same way. Machines for the same purpose, but much more complex, formerly cost, we are told, from 5,000*l.* to 6,000*l.*: they can now be made for as many hundreds, so that any ship-builder, bridge-builder, or contractor, may have one and test his work. When we remember how many ships have been lost through a bad link in a cable, and how many buildings have suffered through bad iron or insufficient timber, the value of such a machine as this becomes evident at once.

COMPETITIONS.

Sudbury Cemetery.—The Burial Board of Sudbury have awarded the premium offered by them to the design of Mr. Pritchett, of Darlington.

Birmingham and Midland Institute Buildings.—We learn from the *Birmingham Journal*, that the elevation of Mr. Gibson's design is in the columnar Italian style, and consists of a projecting centre facing the Town-hall, with portico. It resembles the Town-hall in general treatment. Mr. E. Barry's elevation is Italian, with pilasters and portico. Mr. James's elevation is very elaborate, and is also in the columnar Italian style. The drawing is enriched with sculpture, but that does not necessarily form part of the building proper. The design of Mr. Lockyer is what is called Fenestrial Italian, that is, the windows form the chief features, and it differs very little from the ordinary domestic style. Mr. I'Anson's is strictly Greek; bold and simple in treatment, and without portico. Mr. Bowman's is in the Italian style, and is treated with considerable severity. The elevation of Mr. Hemming is in the plain Italian style, almost devoid of ornament. That of Mr. Bateman is technically columnar Italian, but the style is treated with greater freedom than is conventionally supposed to belong to the style. The extreme wings are surmounted by domes, and the windows are enriched with successions of columns and pilasters. Mr. Yeoville's elevation is also Italian. Mr. Bland's design is Italian, with a centre and two wings, the centre being treated in the classical style.

Gratuitous Plans.—I was struck by an advertisement in your last number, which possibly marks the commencement of a new era in competitions. The congregation of a Dissenting chapel who had, doubtless, been recently studying the text,—"The labourer is worthy of his hire," advertise for "gratuitous plans" "for a chapel to contain 1,000 persons." Surely it is a great oversight on their part, not to have specified that the competing architects should provide themselves with a *gratuitous* builder, and a minister to officiate without a stipend. I trust a clause to this effect will at once be added to the advertisement, and beg to inform the congregation that my advice is quite gratuitous.—Advice Gratis.

*** We have received four other letters to same effect.

The question of architectural competition is one so important as to deserve the most serious consideration. Committees grow more and more arbitrary and exacting—disposed to take every advantage of architects, knowing that the latter are fully in their power, and cannot help themselves; unless, indeed, they and those who speak for them make some strenuous effort to obtain redress. Feeble, and perhaps mere make-believe attempts to do so, are worse than nothing; for they only serve to confirm people in the notion that bad as things are, they cannot possibly be made better. Even as "faint heart never won fair lady," so neither can an occasional soon-forgotten squeak or two from individuals effect any real good in correcting competition and its manifold abuses.

Anti-Competitionist.

GAS IN ROME.

We have on several occasions alluded to the lighting of Rome with gas, and we prognosticated, before it was effected, from our knowledge of the energy of the *Gerant*, the success of the enterprise. It will be seen, from an advertisement in our columns, that the undertaking is already so far developed as to require a considerable extension of the mains, thus holding out to the proprietors (who have already received two dividends), the prospect of a very profitable investment.

We hail with pleasure this first great step of progress in the Eternal City; but we would ask if it is to be succeeded by no other,—if gas is to be the limit? Is Rome to be left without that essential to development and improvement—a railway? Is Mr. Shepherd, who has so successfully carried out his views as to lighting, in the face of deep-rooted prejudice, too much occupied to turn his attention to the subject? If not, we would augur for him success, and for Rome advantage.

THE WORKMEN AT SHORNCLIFFE.

We have received a letter "on behalf of the workmen at Shorncliffe," requiring us to give them the name of the writer of the paragraph headed as above, which appeared in a previous number, p. 384, and is designated by them a calumny. The statement contained in the paragraph came to us, in a stronger form than it appeared in, from more persons than one, both at Sandgate and at Folkestone. We are quite willing to believe, however, from the anxiety shown to deny the imputation, that the parties misbehaving formed exceptional cases, and that the body of workmen are as desirous as we are of maintaining the good character and position which belong to English artizans.

STAINED GLASS.

The design of Mr. Wales has been approved by the committee of the Wolverhampton Wellington memorial window to be placed at the west end of the Collegiate Church. It has not been deemed appropriate to represent anything referring to the great duke or his achievements, but an inscription will testify to the object designed.——A stained glass window has been inserted in the south transept of Trinity Church, Cambridge. The window consists of five compartments, each ornamented with a figure. The centre one is that of our Lord, with inscription. In the two compartments on the right are figures of St. Luke and St. John; and, in those on the left, of St. Matthew and St. Mark. The window, as adorned, has been presented by Mr. Claydon. The artist was Mr. W. H. Constable.——Mr. Hedgeland, of London, has filled the east window of Halifax parish church. The stonework was subdivided into compartments, each containing a distinct subject. The arched top is filled up by ornamental crockets, pinnacles, &c. enclosing niches for two emblematical figures, and below these are larger ones for the Four Evangelists. In the great centre compartment there is a representation of the Resurrection. On the left side of this there is the scene of the two

disciples at Emmaus; and, on the right, the incredulity of St. Thomas. The middle place of the lower division is filled by the Crucifixion. On the left there is the scene before Caiaphas, and on the right that where Jesus is led away, Pilate washing his hands of the guilt. In the tracery of the head of the window the screen work is carried up, and in it are seen figures of the Four Evangelists, and angels bearing shields. Besides the window there has also been added a reredos of Caen stone. The cost of the whole will, it is said, be about 1,000*l.*——A second stained window has been put up in the parish church of Berwick-upon-Tweed. The glass and stone-work were presented by Mr. Dudley Coutts Marjoribanks, M.P.; and the former was executed by Messrs. Baillie and Mayer, of London.

COLOUR IN BRICKS.

IN reference to a previous paragraph under this title, Mr. Wentworth L. Scott, who has of late favoured us with some communications under the signature of "An Analytical Chemist," says that the subject momentarily engaged his attention some years since, but not knowing any brickmaker who would undertake the necessary experiments, he disregarded the processes which had suggested themselves. He thinks the following salts, &c., if well dried, pulverized, and mixed with the clay, before moulding, or, if they are soluble, dissolved in the water employed to moisten it, very likely to produce the desired effect; at the same time, however, not vouching for their efficacy, as most of the results are as yet but little more than theoretical. No method, he observes, should be regarded as valueless from the failure of two or three trials only: *ten* at least should be performed in various ways, and with different quantities of the mixture, to be any fair criterion. The *proportions* of the substances to be added to the clay he has not given, as the per-centage will be very small, and must be ascertained by experiment. The methods would entail but a very slight addition to the price of the bricks when made—the most costly of the salts not mentioned as expensive being but 1d. per lb. retail:—

*Substances to be Mixed with Clay (in Powder).	Colour Produced (probably).	Remarks.
Phosphate of soda	Delicate blue	Perhaps too expensive.
Phosphates of lime—		
Bone-dust	"	
Oyster and other shells	"	
The mineral "phosphate of lime"	"	
Mixture of any of the above with one-fourth of its weight of alum	Ditto, better tint	
Mixture of three parts of sulphate of lime ("white vitriol"), with one part of biborate of soda ("borax" or "tincal")	Greenish	Doubtful, but worth a trial.
Sulphate of iron	Fine red	Pretty certain to succeed.
Ditto, with about 5 per cent. of nitrate of soda or potash ("nitre," "saltpetre")	"	"
Sulphur and oxide of tin, in equal proportions	Yellow	Perhaps rather expensive, but a good effect if successful.

*The salts are supposed to be quite anhydrous, and to be measured by weight.

WATER-TOWER, WORTHING.

THE Local Board of Health, Worthing, have recommenced their sanitary works, which had been at a stand since the appointment of Mr. Ranger (who commenced them) as one of the superintending inspectors, under the altered arrangements of the General Board of Health, requiring that his whole time should be devoted to his public duties. The foundation of a new water-tower has been put in: this structure will be of brick, supporting a cast-iron tank. The tower and tank will be forty feet square. From the ground line to the underside of the tank will be seventy feet. The tank will be thirteen feet in depth, roofed over. The total height, when finished, will be 110 feet. The weight of brickwork, tank, and water, will be about 4,000 tons. There will be a centre spiral staircase passing through the tank to a platform above it. When completed, this structure will be a landmark for many miles around. Mr. Robert Rawlinson is the engineer.

THE CAMBRIAN ARCHÆOLOGICAL ASSOCIATION met at Llandilo Fawr, on Monday, August 27th and five following days, when various excursions to places of antiquarian note in the neighbourhood were made.

GLASGOW, AND HOW TO PAVE IT.

THE Statute Labour Committee of the Town Council of Glasgow have under their consideration, "A scheme for permanently paving the streets of that city with a peculiar description of granite of such durability as to be almost indestructible."

The streets proposed to be operated upon extend to twenty miles in length; and these they propose to pave and put into a permanent state of repair within seven years, at a cost of 180,000*l.* And, with the view of laying on the future inhabitants a fair share of the expense, without increasing the present rate of assessment of 3d. per pound on rental, they propose to borrow the amount of capital required by annuity bonds, granted on security of the assessment, and terminable at thirty-five years.

According to the calculations of Mr. Gemmill Convener of the Committee on Finance, which have been tested by an actuary, it is found that by this scheme, at the end of thirty-five years, the whole of the borrowed capital would be paid up, and that the surplus saving would amount to 113*l.* 6s. 10d. besides the interest which would arise thereon.

Notices of Books.

Meteorological Essays, by FRANCOIS ARAGO; with an Introduction by Baron A. VON HUMBOLDT. Translated under the superintendence of COLONEL SABINE, V.P.R.S. London: Longman and Co. 1855.

A VOLUME with three such names as those of Arago, Humboldt, and Sabine on the face of it should need little recommendation to notice from any one. We draw the attention of our professional readers to it mainly on account of the large mass of useful and important facts with reference to lightning and lightning-conductors, the effects of lightning on buildings, and the peculiarities of its action on them, and other cognate subjects. Read in connection, especially, with Sir Snow Harris's treatise on lightning-conductors, and with the remarks of Professor Faraday and other competent authorities,—the present volume, one half of the 500 pages of which are occupied in its discussion, cannot but be both instructive and interesting. Arago, moreover, had himself the advantage of a perusal of Harris's treatise.

Miscellanea.

CRACKS IN LEAD.—I am not builder enough to say whether the following cement would be of use in stopping the "cracks in lead" complained of lately by one of your correspondents, but for everything *except* metal-work (which I have not tried) I am constantly using it. Mix well two parts of Keene's or Parian cement (or any good hydraulic cement), and one part of very fine sand, to the consistence of cream, with some of the hot solution of silicate of potash and soda I recommended in the *Builder* a short time ago for the cure of "salt and damp in walls," and apply to the cracks, &c. with a strong brush. Do not make too much at a time, as it soon sets.—W. L. S.

OUTSIDE PAINT FOR HOUSE WALLS.—A correspondent, "T. W." asks if there is any description of drab-coloured paint, or composition of any kind, that he could with advantage substitute for the more ordinary washes hitherto used,—a composition that would adhere better, and not be so expensive as ordinary paint, and would prevent the dirt and annoyance of lime-washing. Our correspondent remarks that he inquires every time in vain of his own painter, and he assures him there is nothing of the kind, but he is not satisfied with this answer, as he every now and then sees articles advertised in our columns as substitutes for paint for external walls. All we can say is that similar questions have been put in our columns by many correspondents, and as no satisfactory reply appears to have ever been given, we must conclude that "T. W.'s" painter is not far wrong. We allow our correspondent, however, to put the question in this form once more, and shall be glad if it brings him a satisfactory reply. The article he wants is a permanent stone-colour for outside walls.

CAUTION ON BUILDING COTTAGES.—The Committee of the Society for Improving the Condition of the Labouring Classes, having been informed that a gentleman in the country has paid the enormous sum of 450*l.* for the erection of a pair of cottages on their plan No. 4, and another gentleman in Lincolnshire paid about the same amount for the same plan, deem it right to state that the Windsor cottages on that plan cost only 210*l.* per pair, and, under ordinary circumstances, that amount ought not to be much exceeded.

THE LUDLOW REREDOS.—Sir: Your reporter may have reason for the ill-natured tone of his reference to the humble part I took in the recent proceedings of the Archæological Institute. I do not quarrel with him for his hit at me in connection with the general question of restoration. In fact, it is neither more nor less than a truism to aver that "restoration is destruction." But my present object is to say a word in defence of the credit and character of the late Mr. Rattee, of Cambridge, by whom the carvings in the Ludlow reredos were executed. He was not the man to feel such little interest in his work as to manufacture "statues that can be bought by the dozen."—R. K. P.

MONUMENTAL.—A cross memorial has just been placed in All Saints Churchyard, Hastings, over the grave of the late Lady Harriet Paget, relict of General the Honourable Sir Edward Paget, G.C.B. by direction of the family. The work was entrusted to Mr. Richardson, sculptor, and consists of an erect perforated cross, enriched with lily terminals, and an angel ascending in the centre.

THE WILTSHIRE ARCHÆOLOGICAL SOCIETY.—This association will hold their annual meeting at Chippenham, on September 11th, 12th, and 13th, under the presidency of George Poulett Scrope, esq. M.P. The general meeting will be held on the 11th, at the Hall, when papers on subjects of interest in the county will be read. There will be a dinner at the Angel Inn, and in the evening a meeting at the Hall, when addresses will be delivered, and the Temporary Museum explained. The excursions on the 12th will include Lacock Abbey, Bromham Church, Beauchamp Chapel, Whetham House, Bowood House and grounds (the privilege of visiting which has been kindly accorded by Lord Lansdowne), Castlecombe,—visiting the church and manor-house, the site of the ancient castle; returning through Gritteton and Sevington to Leighdelamere Church, and thence to Hubba's Lowe, a Cairn on Lanhill Farm, which it is proposed to open; to Bradford, visiting Chalfield House, South Wraxhall House, and Kingston House. In the evening a *conversazione*. On the 13th, some will go to Malmesbury Abbey, some to Bradenstoke Abbey, and Draycot Park. Collations are offered in all quarters.

MODEL LODGING-HOUSE, WINDSOR.—A correspondent states that the model lodging-house for single men, not answering the expectations of the promoters, has been converted into barracks, for which it is found to answer well. The model dwellings for families at Windsor, the same writer states, are all let, and realizing the results expected of them.

ISLINGTON LITERARY AND SCIENTIFIC SOCIETY.—Mr. W. E. Jenkins, formerly secretary of the Marylebone Literary Institution, has been elected librarian of this society, in the place of Mr. Joseph Simpson, who has resigned in consequence of having embraced a favourable opportunity of going into business. We are pleased to learn, that it is the intention of the committee and members to mark their sense of Mr. Simpson's zealous and valuable services, during a period of eight years, by presenting him with a testimonial on his departure.

ARCHÆOLOGICAL REMAINS DISCOVERED.—The street in Chester known as Whitefriars is being drained. In the garden in front of a house occupied by Mr. Job Harrison, and at a depth of 5 feet to 6 feet, besides a great number of human remains, the site was found to be crossed in all directions by solid stone masonry; and one small piece of stone that has probably been a portion of a window has been turned up. The inference is, that these remains occupy the site of the cemetery of the church of St. Mary, attached to the Carmelite monastery of White Friars, which stood here in the thirteenth century. Some few years ago, at the back of Mr. Harrison's premises, many mouldings of highly decorative character were discovered ——Near the small village of Crœwent, Chepstow, Monmouthshire, some interesting remains of the Romans have recently been discovered. Extensive excavations in an orchard near the ancient church have disclosed the entire ground-floor apartments of a Roman house: the stone bath, the kitchen, fire-place, and even the flues were in excellent preservation. In one part a Roman tesselated pavement, 8 feet long by 3 feet wide, was discovered. Further excavations have been determined on.

PROPOSED SUSPENSION-BRIDGE AT SCUTARI.—A private letter from Constantinople, of the 6th inst. says:—"The proposition to construct a suspension-bridge from the heights of Pera to Scutari, made to the Porte some time since by an English engineer (Mr. Kennard, of London), has been approved, and it is to be hoped that the necessary formalities will soon be completed between the contracting parties, and that the work will be commenced without delay. . . The funds for this undertaking will be subscribed by an English company. The cost of the bridge is estimated at between 600,000*l.* and 700,000*l.*"—*Leader.*

The Liverpool Gas Question.— A committee of the town council has of late been making inquiry into the supply of gas, &c. in Liverpool. At a recent meeting of the committee, it was stated that the United Gaslight Company refused to admit Mr. Clegg, at the committee's instance, to inspect their works, or to allow their officers to attend the meetings of the committee. Mr. Reay, on behalf of the Guardian Society, said, one of the arguments used in favour of the amalgamation whereby the United Company was formed, was, that gas could be supplied to the public cheaper, and yet a period of eight years had elapsed since the Act of Amalgamation, and a reduction of 6d. only had been made, and that under pressure. The greatest charge he had made against the Gas Company was the incorrectness of their meters, and examinations which had been made fully established these charges, for every meter examined, but one, had been found incorrect, registering against the consumer. A report was submitted by Mr. Clegg, in which he stated that inferior gas will register more rapidly on the meter than gas of the specific standard. If, he continues, the old Gas Company persist in producing an inferior article, I see no other remedy than by a new company, who might erect works and lay mains, equal to the present demand, for 300,000*l*. A new company would be able to sell gas of twenty candles per four cubic feet per hour, for 3s. 6d. per 1,000, and make a dividend of 10 per cent.——The Gas Company have recently divided their usual profit of 10 per cent. for the half-year last past.

Dwellings of Farm Labourers.—At the recent meeting of the Northumberland Agricultural Society in Alnwick, the Duke drew attention to the propriety of improving the dwellings of hinds and other farm labourers. His Grace has for some time past been expending upwards of 50,000*l*. a year in rebuilding cottages, farm-houses, and outbuildings, and in draining lands on his estates in Northumberland.

Female Provident Assurance.—Amongst the many forms which are now being assumed by the assurance principle, there is none perhaps more interesting or more important in this country of preponderating female population, than that of the Female Assurance Company, recently established at 40, King William-street, London-bridge. By means of this association, heads of families may provide, by comparatively small payments for a few years, say for five years, means for all daughters who may remain unmarried at the age of fifty; or may, by similar payments, secure doweries on their marriage, or, failing that, provision at a certain age, such as forty-five or fifty. The assurance, in fact, assumes in this case various forms to meet possible contingencies. Thus, a young woman may secure her own provision for old age, or a provision may be secured at the time of marriage for every daughter that may be born and live till the age of forty, forty-five, or fifty, with an assurance of doweries for those who may be married at an earlier age. For example, a man marrying a woman of twenty-five, by paying a single premium of 15*l*. 1s. 8d. may secure 1,000*l*. for every daughter of the marriage, however many, payable at the age of forty-five, if unmarried. Or, again, if a sum of 3*l*. 10s. 8d. be paid yearly for five years only by or on behalf of a young woman aged twenty, she will be secured the sum of 100*l*. at fifty, should she reach that age without marrying, or, if preferred, may obtain a proportionate sum even at forty. At the age of ten, a sum of 2*l*. 9s. 6d. only for five years will secure the same advantages, and so on, thus opening up a way also of rendering birth-day presents, for instance, of greater or more permanent advantage. The principle, though novel, is based, it is alleged, on sound calculations from the Registrar-General's population and other returns. The president of the society is the Earl of Harrowby, and the vice-president Mr. Labouchere; and amongst the directors we observe such names as those of Mr. J. Bullar, Mr. W. Hawes, and other gentlemen of equal standing.

The Limerick School of Art.—A handsome testimonial, consisting of books on architecture and ornament, has been presented to Mr. Raimbach, the head master, by the students of the Limerick School of Art, accompanied by an address expressive of their regret at his removal, and appreciation of his former services. This school (as well as those at Belfast and Cork) remains closed in consequence of differences with the Department of Science and Art, which we trust will, however, shortly be arranged in a satisfactory manner.

The Timber Trade of the Mersey.—The arrivals of timber from British North America into this port for the week ending 22nd August, this year, compared with the same period last year, have been as follows:—

	Vessels.	Tons.	Pine Timber. In Logs.	Deals. Pieces.
1855	25	20,793	4,247	417,804
1854	34	25,613	14,140	254,745

—*Liverpool Times.*

A Village lighted with Natural Gas.—In the western part of the State of New York, the village named Fredonia, has been lighted with gas, which ascends through fetid limestone strata, from beds of bituminous coal it is supposed. The flame is not very brilliant, but pleases the inhabitants, who have it supplied from a gasometer placed over an inch and half bore through the rock. One hundred lights are supplied at a dollar and a half yearly for each.

Antiquities discovered at Rome.—A letter from Rome mentions some fresh discoveries, among which are two columns, one of alabaster, and the other of marble, dug up in the Via della Scrofa, and a granite column, 20 feet long, with a well-preserved Corinthian capital of marble.

The Leeds Borough Surveyorship.— Mr. Tilney, the architect and surveyor to the Leeds corporation, has resigned his office, in consequence of their refusal to increase his salary from 300*l*. to 500*l*. The corporation resolved thereupon to advertise for a new surveyor, at a salary of 200*l*.

New Stucco.—M. Claudot, a French architect, has invented a composition of marble coating, of greater or less thickness, formed by the laying upon a surface of stone, plaster, or other analagous materials, of successive layers of milk of lime, compressed and smoothed, and then polished until the hardness and brilliancy of marble are obtained; also, the addition of carbonic acid thrown upon these surfaces, and the mixing of colours with the milk of lime, in order to produce coloured marbles, &c.

Fatal Accident at Durham.—Mr. J. Sinclair, contractor of the Aucland Branch Railway, Durham, has been killed, owing to the fall of a stone from a viaduct which is being erected. This, it is said, is the seventh life that has been lost since the commencement of these works.

Metropolitan Parks.—A parliamentary return published recently gives some particulars about the metropolitan parks. Their extent is as follows, in acres (omitting roods and perches):—Kensington-gardens, 261; Hyde-park, 388; St. James's-park, 91; Green-park, 60; Regent's-park, 472; and Victoria-park, 265. The total outlay upon the last-named has been—from the Department of Works, 8,809*l*.; and from that of Woods and Forests, 140,000*l*.

Sale of Gas Works.—According to the *Mining Journal*, Mr. W. Thompson submitted for sale by auction, at Garraway's Coffee-house, on Thursday week, a large plot of leasehold ground, with wharfage and frontage to the Thames, situate at Northfleet, in Kent. Upon the work are erected a retort-house, working six retorts, capable of being enlarged to fifteen, enclosed by iron doors; a gas-holder for 20,000 cubic feet, with condensers, two purifiers, and apparatus complete for carrying on the business of a gas manufacturer, together with a large coal-store, seventy-three consumers' meters, and about 220 chains of mains and pipes, together with a small gasometer for testing the accuracy of meters. The whole of the above were included in the purchase. The property was held for 151 years, from September 1851, and was sold for 2,350*l*.

Suggested Middlesex Archæological Society.—A society under this title is in course of formation, for the purpose of investigating the history and antiquities of the metropolitan county. With all respect for the opinion of some of the gentlemen who are named as forming the provisional committee, the establishment of this society would seem to be almost an act of supererogation. Middlesex is the seat of the parent Society of Antiquaries, of the British Archæological Association, and the Archæological Institute, and one or all of these bodies should be worked upon to do what may be necessary in this county.

Doncaster Church Fittings, &c.—The committee for rebuilding St. George's Church have accepted the tender of Mr. Ruddle, of Peterborough, for the execution of the whole of the oak roofs and seating. The amount of the contract is 10,259*l*.

Roads and Drains.— The following strange tenders were delivered at the office of Mr. Lee, for making roads and drains on an estate at Putney, for Mr. J. T. Leader:—

Yeoman	£1,361	0	0
Keys	1,100	0	0
W. and R. Aviss	1,057	0	0
Radley	1,019	0	0
Strickson	942	18	0
Simpson and Markwick	863	0	0
Brown	855	0	0
Rogers	839	0	0
Smith	832	0	0
Lee and Lavers	800	0	0
Adamson and Sons	793	19	0
Whitfield and Carnester	716	0	0
Harding	705	10	0
Carlyle and Co.	654	9	6
Culverhouse and Nicholson	596	0	0

Master and Workman in France.—A singular and important case of coalition on the part of journeymen, for the purpose of putting a stop to work in factories, occupied the Correctional Tribunal of Paris the week before last, and ended in the conviction and imprisonment of a number of workmen. The combination took place amongst the bronze-casters, who dreaded a return to the practice of powdering the moulds with charcoal, as productive of disease in the lungs. This practice had been discontinued in favour of meal (fécule), which, however, had been found to be otherwise objectionable. According to the French law, such combinations are illegal, whatever be their ostensible purpose. Sixty-one men, including, by the admission of the public prosecutor, some of the most respectable journeymen in Paris, were tried and found guilty, with the exception of four, and sentences of imprisonment, ranging from two years to fifteen days were pronounced. It is believed the Emperor will remit the sentences, or mitigate them at least.

The Somersetshire Archæological Society have been meeting at Dunster, but we are unable to afford space in our present number for any account of their proceedings.

Galvanized Iron Roofing.— Messrs. Tupper and Carr, of Mansion House-place, have patented some improvements in the construction and arrangement of coverings for buildings. The invention consists in constructing tiles of galvanized iron, or any other suitable material, each tile being turned up longitudinally at its two opposite sides, so as to form a species of tubular beading.

A simple Washing Machine.—At most American warehouses may be seen a simple contrivance for saving the knuckles of washerwomen, namely, a board about 18 inches by 14 inches, with the surface cut into smooth ribs on one side. The clothes are rubbed across the ribs of this board. The same plan is adopted in Germany and other parts of the continent

TENDERS

For a first-rate house in Finch-lane, City; Mr. Thos. Hague, architect:—

Jay	£7,737	0	0
Lucas	7,600	0	0
J. and C. W. Todd	7,559	0	0
Batterbury	7,390	0	0
Haynes and Eyre	7,382	0	0
Rowland and Evans	7,270	0	0
Ashby	7,127	0	0
Gammon	6,973	0	0
Burton	6,973	0	0
Myers	6,947	0	0

For building a fire-proof factory, situate in St. George-street, Whitechapel, for Mr. Spill; Mr. Chas. Aubrey, architect. Quantities supplied by the architect:—

Parker	£4,996	0	0
J. Wilson	4,884	0	0
Munday and Son	4,750	0	0
Ennor	4,749	0	0
Hocken	4,700	0	0
Robson and Moore	4,593	0	0
Perry	4,584	0	0
E. Lawrance	4,580	0	0
Wood and Sons	4,430	0	0
Purkiss (Kentish-town)	4,239	0	0

For a private residence at Kilburn; Mr. Horace Field, architect:—

Alcock	£2,437	0	0
Anson	2,430	0	0
Matthews	2,417	0	0
Thompson and Crosswell	2,399	0	0
Rowland and Evans	2,348	0	0

For residence and manufactory in Curtain-road, for Mr. Marchant; Mr. William Reddall, architect:—

Lewis	£1,531	0	0
Haynes and Eyre	1,460	0	0
Ashby and Sons	1,245	0	0
Scott and Cornwall	1,243	0	0
H. Burton	1,240	0	0
Pritchard and Son	1,237	0	0
Wheen	1,139	0	0

Delivered at Mr. Hayward's offices, Devizes, for building new farmhouses at Edington, Wilts, for Mr. S. W. Taylor; Mr. Cundy, architect:—

Brown (Frome)	£1,180	0	0
Randall (Devizes)	1,165	0	0
Rogers and Rawlings (Trowbridge) accepted	985	10	0

For the erection of warehouse, offices, &c. in Newgate-street, for Sir John Key, bart.; Mr. E. Woodthorpe, architect:—

	If the lower front is executed in Granite.	If the same is executed in Portland Stone.	If the same is executed in Brickwork and Cement.
	£.	£.	£.
Loat	5,300	5,680	5,500
Brass and Son	5,252	5,035	4,849
Jay	4,730	4,660	4,550
Myers	4,600	4,575	4,568
Lawrence and Sons	4,967	4,670	4,497
Brown and Co.	4,842	4,520	4,357
Haynes and Eyre	4,588	4,488	4,337
Piper and Son	4,800	4,484	4,330
Ashby and Sons	4,671	4,339	4,212

TO CORRESPONDENTS.

Mastic.—For new work linseed oil is used; for repairs, boiled oil. The brickwork should be thoroughly dry, and the will dressed with boiled oil. Mastic requires very careful manipulation.

"P. L."—"W. J. C."—"C. D." (not our province)—"G. O." (too wholesale) "W. L. S."—"T. L."—"J. G. A."—"W. S."—"Mr. H."—"R. D."—"J. W. and J. G. A."—"A Competitor"—"W. N."—"M. P."—"F. S."—"J. N."—"J. P. P."—"Mr. S."—"A. L."—"T. R."—"A Subscriber" in case was noticed in our pages recently—"A Young Architect"—"H. and R."—"H. C. W."—"C. S. H."—"Mr. P."—"J. W."—"A. L."—"H. A. L."—"F. A."—"A Young Architect."—"C. P."—"An Elder"—"G. R. F."—"F. A. D."—"C. B."—"Scrutator"—"J. H."—"A Builder" (next week).

"Books and Addresses."—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO ARCHITECTS AND OTHERS.

A GENTLEMAN who has been in practice for himself, desires an ENGAGEMENT as GENERAL CLERK, or to take the direction of an office. Undeniable references. Expectations moderate.—Direct, A. L. M. Office of "The Builder."

AGRICULTURAL MACHINES.—CLERK and BOOK KEEPER WANTED Salary required, and testimonials as to competence in this particular trade, to be sent, prepaid, to COOKE and WHITLEY, Advertising Agents, 58, Lombard-street, London.

TO PARENTS AND GUARDIANS

A TIMBER MERCHANT has a VACANCY for a youth as ARTICLED PUPIL, who will have unusual facilities afforded him of obtaining a thorough knowledge of the trade in all its branches. References to bankers and others. £1 per week allowed in lieu of board and residence with his employer. A premium expected.—Address, N. O. Roberts's Library, 2, Arabella-row, Pimlico.

TO PARENTS AND GUARDIANS.

AN Architect and Surveyor, in good practice, has a VACANCY for an ARTICLED PUPIL. A taste for drawing and genteel address indispensable.—Apply to J. G. Burr 81 Edmunds, Suffolk.

FOREMAN.—WANTED, a first-rate WORKING FOREMAN, to take entire charge of the repairs and alterations to two houses in the neighbourhood of Portman-square.—Apply, by letter only, stating qualifications and terms, to J. B. 72, Seymour-place, Bryanston-square.

TO CARPENTERS AND JOINERS

GOOD WORKMEN can find EMPLOYMENT by applying to Mr. J. WRIGHT, Foundation-street, Ipswich.

STONE CARVERS WANTED immediately. None need apply but those well acquainted with the Mediæval Art. A clever Youth wanted as an Apprentice.—Apply to Mr. BOULTON, 191, Carlisle-street, Lambeth.

TO CIVIL ENGINEERS.—Gentlemen of the above profession having a VACANCY for an ARTICLED PUPIL, are requested to apply by letter, pre paid, to H. E D. Office of "The Builder."

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TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and the Llantysilio Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney pieces, Baths, Filters, Larders, Mangers, Rudge &c. and every other article made of this beautiful material, all of superior quality. The Llangollen flags, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices.—Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE F. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

IMPERIAL LIFE INSURANCE COMPANY, 3, OLD BROAD-STREET, LONDON. Instituted in 1820.
WILLIAM R. ROBINSON, Esq. Chairman.
HENRY DAVIDSON, Esq. Deputy-Chairman.
The SCALE of PREMIUMS adopted by this Office will be found of a very moderate character, but at the same time quite adequate to the risk incurred.
FOUR-FIFTHS, or 80 per cent. of the profits, are assigned to policies every fifth year, and may be applied to increase the sum insured, to an immediate payment in cash, or to the reduction and ultimate extinction of future premiums.
ONE-THIRD of the premium on insurances of 500l. and upwards, for the whole term of life, may remain as a debt upon the policy, to be paid off at convenience; or the Directors will lend sums of 50l. and upwards, on the security of policies effected with this Company for the whole term of life, when they have acquired an adequate value.
SECURITY.—Those who effect insurances with this Company are protected by its subscribed capital of 750,000l. of which 140,000l. is invested, from the risk incurred by members of Mutual Societies.
The satisfactory financial condition of the Company, exclusive of the subscribed and invested capital, will be seen by the following statement:—

At the close of the last financial year, the sums assured, including bonus added, amounted to	£2,500,000
The premium fund to more than	800,000
And the annual income from the same source, to..	109,000

Insurances, without participation in profits, may be effected at reduced rates. SAMUEL INGALL, Actuary.

PELICAN LIFE INSURANCE COMPANY, established in 1797.
70, Lombard-street, City, and 57, Charing-cross, Westminster.

DIRECTORS.

Robert Gurney Barclay, esq.	Thomas Hodgson, esq.
William Cotton, esq. F.R.S.	Henry Lancelot Holland, esq.
John Davis, esq.	J. Petty Muspratt, esq.
Jas A. Gordon, M.D. F.R.S.	C. Hanbury Tracy, esq. F.R.S.
Henry Grace, esq.	Matthew Whiting, esq.
Kirkman D. Hodgson, esq.	M. Wyvill, jun. esq. M.P.

The Company offers—
Complete Security—
Moderate Rates of Premium with Participation in Profits—
Low Rates without Profits.
BONUS.—Four-fifths or Eighty per Cent. of the Profits are divided amongst the Policy holders.
LOANS in connection with Life Assurance on approved security.
ANNUAL PREMIUM required for the Assurance of 100l. for the whole term of life:—

Age.	Without Profits.	With Profits.	Age.	Without Profits.	With Profits.
15	£1 11 0	£1 15 0	40	£2 18 10	£3 6 5
20	1 13 10	1 19 3	50	4 0 9	4 10 7
30	2 4 0	2 10 4	60	6 6 1 0	6 7 4

For Prospectuses and Forms of Proposal, apply at the Offices as above, or to any of the Company's Agents.
ROBERT TUCKER, Secretary.

SECURITY TO EMPLOYERS.

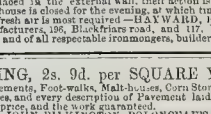
THE TIMES ASSURANCE COMPANIES:
To Clerks and others guarantees at the lowest rates.
Plate Glass Assurance.—Windows, mirrors, &c. insured against breakage.
Every description of life and fire assurance.
Apply to the Manager, 23, Ludgate-hill.

INDISPUTABLE LIFE POLICY COMPANY, 72, Lombard street, London.
LORD VISCOUNT TORRINGTON, Chairman.
The Policies of this Company, being indisputable in terms of the Deed of Constitution, registered in conformity with the Act, 7 and 8 Vict. c. 110, by which this Company is incorporated, form FAMILY PROVISIONS and NEGOTIABLE SECURITIES; their validity not being dependent (as in the case of ordinary policies) on the import of previous, and perhaps forgotten statements, reports, and other documents.
ALEX. ROBERTSON, Manager.

THE OBJECTS MOST TO BE DESIRED IN EFFECTING A LIFE ASSURANCE.—These are, Perfect Security and the Largest Benefits in proportion to the Contributions paid. They are both fully attained in the SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY, which is now of twenty-four years' standing and possesses accumulated funds, arising from the contributions of members only, to the amount of 700,918l. and an annual revenue of 165,294l.
The MUTUAL PRINCIPLE being adopted, the entire surpluses or "Profits," as ascertained triennially, are allocated in addition to the sums assured, and they present a flattering prospect to the members. For example: the sum now payable on a policy for 1,000l. effected in 1831, is 1,583l. 6s. 9d. being a return of seventy-one per cent on the premiums paid on middle-aged lives, and policies effected in later years are similarly increased.
The NEXT TRIENNIAL DIVISION OF PROFITS will take place on 1st MARCH, 1856, and policies effected previously will receive one year's additional bonus over those opened after that date.
ROBT. CHRISTIE, Manager.
WM. FINLAY, Secretary.
Head Office—26, ST. ANDREW SQUARE, EDINBURGH.
Office in London—126, BISHOPSGATE-STREET.
Agent—WILLIAM COOK.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment.—Particulars and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Bank-in-inn, LEEDS; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

VENTILATION.—PURE AIR.



EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 6s. 6d. These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed on the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

TODD'S PATENT METALLIC PROTOXIDE PAINT.

This Paint possesses in an eminent degree the following advantages over all other known Pigments:—
INDESTRUCTIBILITY BY HEAT—PRESERVATION OF IRON FROM OXIDATION, WOOD FROM DECAY, AND MASONRY AND BRICKWORK FROM DAMPNESS—PERMANENCE OF COLOUR AND FREEDOM FROM DELETERIOUS PROPERTIES—SUPERIORITY OF BODY.

The Protoxide Paint, as at present produced, is of one shade of colour, viz.:—a pale drab, but it may be tinted with any other colour to suit the taste and purpose for which it may be required. It is not affected by sulphuretted or carbureted hydrogen gas, bilge water, or indeed foul air of any kind, and is therefore well adapted for the interior of Ships, Warehouses, Offices, Stabling, &c.; and from its total freedom from deleterious properties, it will be found of great value for painting the interior of Hospitals, Asylums, Unions, Gaols, and other Buildings which may require to be painted during occupation.—Sole authorized Agents for England:

MESSRS. C. GRABHAM AND CO. 4, BARGE-YARD, BUCKLERSBURY, LONDON.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc can be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK, LONDON PATENT. And if not so marked, the quality is not warranted. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use *marked*; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to Inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, 6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly, is now supplied by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties. It is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS Millbank street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for home and foreign trade. Portland cement is manufactured at these works with special reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no grinding. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of this Parian under patent, and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Park, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Nails, Firebricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Carrolano

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by D. & J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied or shipment, on advantageous terms.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Coarse	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the quality manufactured on the above works. Also STOCK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise. Apply to G. BOOTH, Agent, as above.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enables them thereby to transmit all orders they may receive to any station on the before mentioned line, and confidently hope they shall be able to supply the public with a first-rate article, in both cement and lime, on a moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be sticked to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS OLDHAM and TATHAM are now prepare to receive orders from contractors, builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and will be improved by the addition of two or more parts of sand to one of cement. IO and T.'s boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), and NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Woodham hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality

SECONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 6a, King William street, City, London. Also has been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE. I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c. Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Maclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor, and, therefore, not the "Roman cement" of "Jurus," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tilleries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 28s. per 1,000; floor bricks and 6-inch pavings, at 25s. 6d. per 1,000; 9-inch pavings, at 37s. 6d. per 1,000; 8-inch pavings, at 27s. 6d. per 1,000; 7-inch pavings, at 22s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices. The BUSINESS to be DISPOSED OF, with the valuable premises, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Hondurus Wharf, Bankside, Southwark, London.

BRICKS.—To Builders and Contractors.—Capital Hard burnt GREY STOCKS, of good colour, GRISSELS, and PLACE, at very reduced prices. Cash. J. F. SMITH, Further Field, Acton Bottom, near Shepherd's Bush.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, using the chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and flare bricks, fire goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

GREAT NORTHERN WHARF, York-road, King's-cross. WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 26s. per thousand; Grizzles, 30s. per thousand; Rough Stocks, 28s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any white matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS

OOWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Fire Goods, &c. of the description required, and of best quality. WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 30, Nelson square, Blackfriars-road.

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on B. PARKS, Lewisham, and see the quality at low prices. Carriage within six miles on the most reasonable terms. Red facing bricks 20s. 30s. and 35s. per kiln of tiles, paving bricks for even building, salt glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

FOR IMMEDIATE SALE.—FIRE BRICKS, LUMPS, TILE, and TERRA COTTA.—SAMUEL THICKETT has received a large consignment of the above goods for sale. Apply on the premises, Stone-wharf, Isle of Dogs.—Dealers and large consumers liberally dealt with

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch red Socket Drain Pipes, in 2 feet lengths.—Apply to St. JOHN HEWITT, Redhill Works, Southampton

CLAY ARCHITECTURE.—To NOBLEMEN, ARCHITECTS, BUILDERS, and OTHERS.—A PATENT has been taken out by JOSEPH ARNOLD, Tamworth, Blue Brick and Tile Manufacturer, for making ORNAMENTAL BRICKS of any pattern, whatever, on a raised ground, with the same accuracy as a seal upon wax. By this novel invention the pattern is made with the brick, the clay is prepared by the moulder, which produces, when burnt, an imperishable article, ornamental window heads and sills, large bricks for plinths, and facings chamfered, common size bricks, grape and vine, herringbethon, or any other pattern. The patentee can make them blue, red, or strawberry colour. His large paving bricks, 18 by 9 inches, and 3 inches thick, on a depressed Mosaic pattern, to prevent slipping, and carry off the rain, only require being seen to supersede the flagging now in use, being imperishable. For the foundations of large public buildings, bridges, Government premises, bricks are made 18 by 6 inches, 6 inches thick, weighing nearly 36 lbs. of this superior material. The time has now arrived when the exterior of our public and private buildings may equal, if not exceed the interior decorations in the hands of architects, as there is no limit to design.—Specimens of these articles may be seen in the Inventor's Gallery, Crystal Palace, Sydenham; or at his Metal of Earth Works, on the Watling-street-road, Wilnecott, within three minutes' walk of Wilnecott station, on the Midland Railway, and two miles from Tamworth Station, Trent Valley line.—Church-street, Tamworth, August 8, 1855.

TO ALL POTTERS, CHINA, AND BRICK AND TILE MAKERS.

HANDS'S GREAT ECONOMISING PATENT KILN.—The merits of this kiln are so to economise the heat in time of burning and cooling for drying purposes, to enable one person so employed to keep up the works all the year round if he please, without any additional cost of fuel beyond the consumption of about six or seven tons of coal to burn off about 3,000 of goods in each kiln. Any persons engaged in the above works, and desirous of availing themselves of this opportunity for license or otherwise, apply to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom, Surrey.

LOANS, at Five per Cent. in connection with Life Assurance, on personal security, for one, two, or three years, repayable by instalments. ENGLISH and FOREIGN LIFE ASSURANCE OFFICE, 13, Oxford-street.

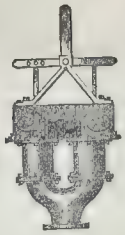
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for square and market-places, roads, reservatories, liquid manure, ship, barge, brickmakers, contractors, gold-diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors &c. &c.; Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



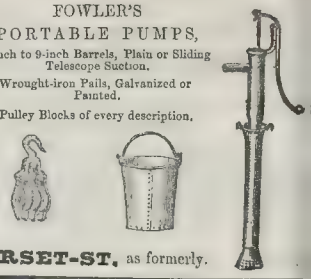
AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocks and wheels ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and regged on a new system, which gives a superior tone and facility for ringing

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject and to grant licenses for their use. From the facilities thus afforded to companies to negotiate for a number of inventions much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to WILLIAM HOWDEN, Secretary.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, elect-street, London.

These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.
H H H for architectural use.
H H for engineering.
H for sketching.
H B hard and black for drawing.
M medium.
F F light and shading.
F for general use.
B black for shading.
B B ditto ditto.
B B B ditto ditto.
B B B B ditto ditto.

Sold by all the principal Stationers in town or country.

TO WATER COMPANIES AND PLUMBERS

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 330 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

TO BUILDERS AND PLUMBERS.

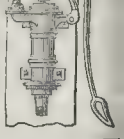
The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.



PATENT METALLIC LAVA.

A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

GENUINE SEYSSEL ASPHALTE.

ORSI AND ARMANI.

THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

DIRECT FROM THE MINES.

REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

AND THE

WORK GUARANTEED FOR THREE YEARS.

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

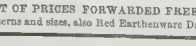
HENRY MILLICHAMP,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

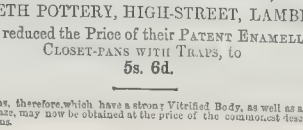
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.



A LARGE ASSORTMENT OF STRAIGHT TUBES IN 2 FEET LENGTHS

Bends, Elbows, Urinals, Gully-Traps, Flap Traps, Syphon-Traps, &c. always kept in Stock.

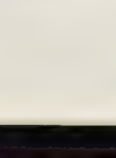


Watercloset Pan with Syphon-Trap complete, price 5s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

REDUCTION IN THE PRICE OF CLOSET-PANS.



DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 30s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

VACUUM PUMP.—WANTED, to HIRE (with option of purchasing) a PUMP, complete and ready to attach to vessel to be exhausted. It must not be too large to work by man.—Particulars to be sent to J. J. HEADLY, Eagle Foundry, Cambridge.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 70, Strand.

To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulic works. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8 horse, 10-horse, 12-horse, 14-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers. N.B. Any of these Engines may be purchased.

PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

WILLIAM NORTHEN'S

WHITE ENAMELLED STONEWARE,

UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—

LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD....J Sparrow and Co
CARNARVON ....Jno. Jackson.
PRESTON .....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN ....W. Hopwood, Clayton-street.
WIGAN .....James Fairclough, King-street.
KENDAL .....Robt. Thompson.
CARLISLE .....C Armstrong, Lowther-street
WHITEHAVEN ..Hugh Podhunter.
COCKERMOUTH .John Bird
GUERNSEY .....Guerin, Brothers.
LONDONDERRY..W. and A. M'Elwee.
LIMERICK .....W. Burgess and Sons.

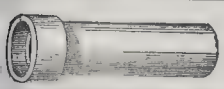
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

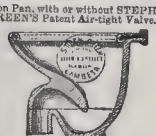


Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

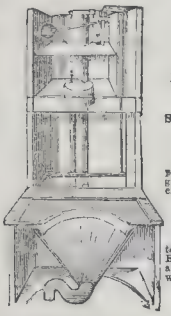
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



egistered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready to use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

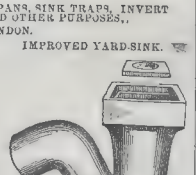
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Kirkhead, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryde's-street, Covent Garden; and at EDWARD COOKS 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1855.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Fire Bricks, &c. &c. Agents.—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster

DAVIES and NORMAN, Agents.

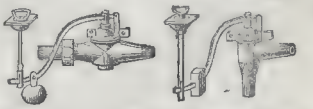
Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE

No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

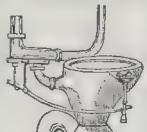
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d each.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York road, King's-cross.

STONEWARE GLAZED POTTERY, LYTCHETT, near POOLE, DORSET.—TO BE DISPOSED OF, by PRIVATE CONTRACT, the Lease, Plant, and Stock of the above Premises. The land contains a great depth of the finest clay, fit either for shipping or manufacture. The Glazed Drain Pipe and Fire Brick are equal if not superior to any yet in the market. Further particulars may be obtained on application to H. F. FISHER, Blandford, Dorset.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 28s. PER CRATE.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE.

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Black-wall. Orders executed from the above place, from Falcon-wharf, 80, Bankside, Blackfriars, and from Marion-bridge-wharf, Stratford, Essex.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 1, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

SALES BY AUCTION.

TWICKENHAM.—To Builders and Persons wishing to build for their own occupation or as an investment.—Valuable Land, with extensive frontage, and Two Ground Rents, amounting to 70l. per annum. By Mr. MASON, at GARRAWAYS, on TUESDAY, SEPTEMBER 25th.

FIFTY PLOTS of FREEHOLD BUILDING GROUND, delightfully situate, near the new church, Twickenham, a short distance from Pope's Villa; four and a half acres are open site Wellesley House, nearly adjoining Sir Wm Clay's Park, two and a half acres are between the upper and lower roads; gravelly soil and good water; eligible for villa residences, with a railroad station half a mile distant. Also a well-secured rent of 18l. issuing for two houses, already built on part of the estate, annual value, 70l.; and another ground rent of 52l. from a piece with 18½ feet frontage, 45 to the Legacy, this is an erect eight villas, worth 330l. a year.—May be viewed on application to Mr. PENDRY, at the Prince Albert. Particulars had of the Auctioneer, Northfalgate.

MARYLEBONE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days:—
MONDAY, 3rd SEPT. 1855. MONDAY, 1st OCT. 1855.
MONDAY, 5th NOV. 1855.

Catalogues and further particulars to be had on application one week previous to each sale.—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL BRIDGE.

ON THE HIGH ROAD, STRATFORD.—TO BUILDERS AND OTHERS.

MR. F. G. DEBENHAM will SELL by AUCTION, at the MART, on THURSDAY, SEPTEMBER 6, at TWELVE, FIVE UNFINISHED FREEHOLD HOUSES, desirably situate, facing the high road at Maryland Point, Stratford, Essex, capable of being completed at a small outlay, and moderately estimated, when finished, to produce a rental of 150l. per annum. The buildings are of a remarkably substantial character, and the ground possesses a frontage of 70 feet by a depth of 207 feet; 700l. may remain on mortgage for two years at 5 per cent. affording an admirable opportunity to a builder of small capital by completing the houses of becoming the freeholder of a valuable and remunerative property, without the necessity of a large outlay in the first instance.—May be viewed, and particulars obtained at the Angel Inn, Stratford; at the Mart; of D. HUGHES, Esq. Solicitor, 13, Gresham-street; and of Mr. DEBENHAM, Auctioneer, Land Surveyor, and Estate Agent, 89, Cheapside.

BUILDING MATERIALS, WINDSOR HOME-PARK.—By order of her Majesty's Commissioners of Works and Public Buildings.

MESSRS. CLEAVE and UNDERHAY (successors to the late Mr. Tebbott) are honoured with instructions to SELL by AUCTION, upon the PREMISES, near Frogmore House, Windsor-park, on THURSDAY, SEPTEMBER 6th, 1855, at TWELVE o'clock, about 100,000 of Saint's BRICKS, part stacked and part in boundary park wall, from the Rotten Row Gate to Windsor, about 50 yards; plate and iron bars and slates, a quantity of Dutch clinkers, several wrought-iron floodgates and frames, fir and oak quartering of various scantlings, rafters, doors, &c. &c. The whole is in good condition and close to the river Thames.—To be viewed the day before and morning of sale; and catalogues had, at the Auctioneers' Offices, Windsor; and 9, Upper Baker-street, Regent's-park, London; or forwarded by post, on application.

WESTBOURNE TERRACE NORTH.—To BUILDERS and OTHERS.—Seven unfinished Houses.

MESSRS. LOCKWOOD are directed by the Mortgagees to SELL by AUCTION at the STAFFORD ARMS, HARROW ROAD, on WEDNESDAY, SEPTEMBER 12, at TWO, SEVEN UNFINISHED HOUSES, situate and being Nos. 18, 20, 22, and 24, Westbourne-terrace North, and Nos. 4, 5, and 6, Cornwall-terrace, Chichester-road, Bayswater, all brick-built and substantially erected in a position most eligible, in close proximity to Westbourne-terrace, and the fashionable locality surrounding. The larger houses are estimated to realise 80l. and those each, and the three 55l. per annum. They are 1 in 3 living rms, at low ground rents. May be viewed and printed particulars obtained fourteen days before the sale, of Messrs. CRIPPS and COLLINS, Solicitors, 11, Bloomsbury-street, Cavendish-square; and at the Offices of the Auctioneers, No. 1, Barnard-place, Bryanston-square, and No. 44, Upper Baker-street. Part of the purchase-money may remain if required.

FREEHOLD BUILDING LAND, STRATFORD, ESSEX.

MR. JOHN COLLINGS will SELL by AUCTION, at the CASTLE TAVERN, near the property, on MONDAY, SEPTEMBER 10, at FIVE o'clock, FORTY FOUR PLOTS of VALUABLE BUILDING LAND, situate in Claudes-road, Church Estate, Angel-lane, Stratford. Particulars and conditions of sale may be had of H. D. Daukes, Esq. 45, Vincent-square, Westminster; King's Head Inn, West Ham; at the Castle Inn; of Mr. SHOWELL, Builder, Angel-lane, Stratford; and of Mr. JOHN COLLINGS, Estate Agent, Wordsworth place, Kingston, Surrey

TO CARPENTERS, BUILDERS, PIANOFORTE AND CABINET MAKERS, AND OTHERS

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 42, Union-street, Somers-town, on WEDNESDAY, SEPTEMBER 12th, at ELEVEN for TWELVE, about 2 very clean, white, pine and spruce PLANKS, DEALS, and BATTENS, 60 squares of prepared flooring, lap weather boards, mahogany hinges and planks, a perfect of seasoned, cedar pole, painting, ladders, harness, 1,000 pieces of paperhangings, dry out stuff, and miscellaneous useful items.—May be viewed the day prior, and catalogues had.

Auction Offices, 2, Cardington-street, Hampstead-road.

IN BANKRUPTCY.—SAINT LUKE'S.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 198, Upper Whitecross-street, on THURSDAY, SEPTEMBER 6, at ELEVEN for TWELVE, by order of the Assignees of Messrs. SAMUEL and ELIZA Hayes, Builders, the genuine STOCK-IN-TRADE, comprising mahogany, dry, and other stuff, quantity of soft deals, fifteen window frames, glazed, fourteen doors, two stoves, copper and other boilers, two pumps, lead and iron pipes, about 1,000 old bricks, two brick-carts, chaff engine, 2½ pairs of cart wheels, about twenty loads of old oak and fir timber, cart and other harness, and numerous other appertaining to the trade.—May be viewed the day prior and morning of sale; and catalogues had on the Premises; of A. DIGBY, Esq. Solicitor, 31, Chancery-lane, Finsbury; of Mr. WHITMORE, Estate Office, Lisson-grove, 2, Basinghall-street, City; and of the Auctioneer, 2, Cardington-street, Hampstead-road.

HAMMERSMITH.—Valuable Contractors' Plant, New Bricks, and Farming Stock, belonging to the estate of the late William Hoof, Esq.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, Brickfield Farm, Wood-lane, Shepherd's-bush, on TUESDAY, 11th, of SEPTEMBER, at TEN for ELEVEN, on account of the number of lots the sale of which will occupy the day, the useful young cart-horses, and sets of harness, three strong built lumber carts, stable and timber waggons, oil and water cans, iron tanks, mains, &c. a capital van, railway ballast trucks, sets of iron ladders, double-pitched timber, chaff engine, hoisting jacks, double-action pumps, well-boring tackle, blocks and falls, lengths of iron gas and water pipes, iron wheelbarrows, carpenters' benches, useful materials and working plant, new bricks, tiles, slates, &c. Also the FARMING STOCK, comprising cows and pigs, a steam plough, with engine and boiler, farming implements, meadow hay, straw, and other effects.—May be viewed one day previous, and catalogues had at the Offices of Messrs. Reed and James, Solicitors, 13, Bell-yard, Carey-street, Lincoln's-inn; of Messrs. FOSTER and SON, 54, Pall-mall; on the Premises; and of the Auctioneers, 3, Parliament-street, Westminster, or Coal Exchange.

SALES BY AUCTION.

HIGHGATE.—Capital Stock Bricks, Place, and Grissels.

MESSRS. PRICKETT and SON will SELL by AUCTION, at the BRICKFIELDS, on the west side of the Archway-road, on MONDAY, 3rd SEPTEMBER, at ONE o'clock, under a distraint for rent, about 314,000 capital STOCK BRICKS, 5,000 Stocks, Place, and Grissels, and 26,000 Rough Stocks.—May be viewed, and catalogues obtained at the Inns in the neighbourhood; and of Messrs. PRICKETT and SON, Auctioneers, 34, Southampton buildings, Chancery-lane, and Highgate.

FREEHOLD LAND, eligible for building, on Copthorne-common, now called Effingham park, in the county of Surrey, near the Effingham station, East Grinstead Railway.

MESSRS. FOSTER and SON will SELL by AUCTION, at the MART, on TUESDAY, SEPTEMBER 18th, at TWELVE, a PLOT of FREEHOLD LAND of eight acres, having roads on three sides, in the parish of Burstow, free of tithe and land-tax, on a gravelly soil, high and dry, within five prospects.—Particulars may be had, fourteen days before the sale, at the Fox Inn, Worth; at the Mart; of Messrs. S. F. MILLER and SON, Solicitors, Sussex-chambers, 10, Duke-street, St. James's; and of Messrs. FOSTER and SON, 54, Pall-mall.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, in some of the most eligible building estates in the neighbourhood of London, viz.:—
FOREST-HILL, Croydon Railway.
ST. MARGARET'S, near Richmond, South Western Railway.
OAKLANDS GRANGE, Weybridge, Surrey, ditto.
HOUNSLOW, Middlesex, ditto.
TOTTENHAM-GREEN, Eastern Counties Railway.
TUNNEL, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.
Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Several Plots to be Let on Building Lease. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

BUILDING GROUND, with liberal CASH ADVANCES.—TO LET, at Old Ford, for the erection of Fourth-rate Houses, which are much required in this rapidly improving neighbourhood, and which let and sell rapidly. Cash liberally advanced as the buildings proceed. Term, 160 years. Ground-rent low. For further particulars, apply to Mr. GEORGE CLARKSON, Surveyor, 48, Penton-street, Pentonville.

MAITLAND-PARK, HAVERSTOCK-HILL, Hamp-tead-road.—LAND-TAX REDEEMED TO BE LET, upon Building Leases for ninety-nine years, from Christmas 1852, desirable BUILDING SITES upon the above Estate. The central situation for houses in this locality, and the picturesque position of the property adjoining the grounds of the Orphan Working School, render this a desirable opportunity for builders generally, and for investors themselves.—For terms and to view plans, apply to the Secretary of the Orphan Working School, 33, Ludgate-hill; Messrs. TERRELL and CHAMBERLAIN, 59, Lincoln's-inn-fields; the Architects, Messrs. WEHNERT and ASHDOWN, 43, Charing-cross; or at the Porter's Lodge, on the Premises.

DOVER.—VICTORIA PARK.—FOR SALE, this valuable PLOT of FREEHOLD LAND, containing nearly seven acres, most delightfully situate on a gentle slope in the south west side of the castle, and admirably adapted for the erection of first-class semi-detached and detached villas. The early completion of a direct line of railway from the metropolis, which may now be safely relied upon, will restore to Dover its important advantages, and thus enable a successful issue to any judicious building enterprise.—Apply to Mr. JAMES WORSFOLD, Estate Agent, Dover.

ST. MICHAEL, CORNHILL.—TO LET, upon building leases, for a term of sixty-one years, the SITES of the NORTHERN PORTION of the GEORGE and VULTURE TAVERN, and Nos. 6, 7, 8, and 9, on the south side of St. Michael's-alley, Cornhill.—The Churchwardens and Committee of Overseers will meet in the Vestry-room, in St. Michael's Church, Cornhill, on THURSDAY, the 20th SEPTEMBER, at TWELVE o'clock precisely, to receive TENDERS from parties desirous of taking the above sites, which are divided into two lots. The terms and conditions may be seen, or printed copies of the same obtained on payment of 1s. upon application to Mr. W. A. MASON, Architect and Surveyor, Great St. Helen's; or to Mr. HENRY HOPPE, Vestry Clerk, Sun-court, Cornhill. Parties tendering must send in Tenders to the Vestry Clerk on or before the 19th SEPTEMBER, under cover addressed to the churchwardens, and indorsed "Tender for Ground in St. Michael's-alley," and must be personally in attendance at ELEVEN o'clock on the 20th SEPTEMBER. The churchwardens and overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign a memorandum, a form of which may be previously inspected upon application to the Vestry-clerk

FREEHOLD BUILDING LAND, with excellent Brick Earth, Islington.—TO BE SOLD or LET, in large or small lots, about TWENTY TWO ACRES of LAND, between the Upper Holloway and Hornsey Roads, within two and a half miles from the Angel, in a most eligible situation.—Apply to Mr PEACHY, 17, Salisbury square, Fleet street.

ON BUILDING LEASE.—TO BE LET, an eligible PLOT of GROUND, having Two Frontages, making together about 468 feet in length, with a considerable quantity of old materials on the ground.—Apply to W. C. READ, Architect, 4, Old Broad-street, where a plan may be seen and an order to view.

THE CAMP, ALDERSHOTT.—TO BUILDERS, BREWERS, and OTHERS.—FREEHOLD LAND TO BE LET, on building lease, with immediate possession, suitable for the erection of shops and a high-class tavern. It is a corner plot, possessing numerous advantages, fronts the turnpike-road to Farnham, and is in front of the Aldershott Camp, the permanent barracks, and two miles from the town of Farnham.—Further particulars may be obtained on application to Mr HAGGETTER, Westend Farm, Aldershott; and Mr. T. GOODCHILD, Architect and Surveyor, Guildford; and offers for same will be received by Mr. GOODCHILD up to SIX o'clock, SEPTEMBER 15th, 1855.

HAVERSTOCK-HILL.—To BUILDERS. TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some eligible FRONTAGES for Shops and Private Houses. All the sewers are in the estate, roads all formed, and now making. Term, ninety-nine years. Low ground-rents. Bricks supplied at a low price, and liberal cash advances. Apply to Mr. JOHN MOORE, 80, Chalk-st reet, Euston-square.

ABOUT ONE ACRE and a HALF of LAND TO LET, on the Eastern side of Devereil street, New Kent-road, adapted for contractors, timber merchants, dealers in building materials, or any business requiring space. For particulars apply to Mr. DAVIES, 9, Portland-place, New Kent-road.

FOREST-HILL.—BUILDING LAND TO BE LET, commanding most extensive views, beautifully picturesque, very eligibly and advantageously situate, three or four minutes' walk from the railway station. Further particulars of Mr. WM. RIDDLES, 54, Little Britain, City, between the hours of Twelve and Three.

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The head of every house built upon the Waddinton Estate, of the value of 50l. per annum, will be entitled to a Free First-class Railway Ticket; the head of every house of the value of 35l. per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

WANTED, at Islington, Highbury, or Canonbury, to PURCHASE a small genteel RESIDENCE, either Freehold or Leasehold, semi-detached preferred.—Address, R B No 1, Edward-street, St Peter's-road, Mile-end.

EXTENSIVE BUSINESS PREMISES, situate at No. 3, Union-street, East Spitalfields, consisting of a house, with lofty and commanding shop, warehouse in the rear, with separate entrance in Crispin-street, TO BE LET, on a Repairing Lease for Twenty-one Years, by PUBLIC TENDER, by the parish of St. Mildred, Bread-street, London. Sealed Tenders to be sent, marked "Tender for Lease of House No. 3, Union-street East," to Mr. STEINBERG, Vestry Clerk, 32, Broad-street, Cheapside, on or before FRIDAY, the 21st of SEPTEMBER, 1855. May be viewed on application at the Premises; and particulars of terms obtained, and specification of repairs inspected, at Mr. STEINBERG'S Office; and at Mr. HAWTREYS, No. 97, Cannon-street West.

WORKSHOPS or PREMISES.—TO BE LET, in the neighbourhood of Oxford-terrace, Edgware-road, TWO spacious WORKSHOPS, in thorough repair, suitable for any business, and possessing every capability. They are each 42 feet long, 21 feet wide, and respectively 16 feet and 16 feet in height. They have a range of lofty windows along the side, and the upper one has five large skylights. There are two fire places and ventilating shafts. The floors are wood, and under the lower one is a space for storage.—For further particulars and terms, apply to Mr GREEN, House-agent, Upper Southwick-street, in the immediate neighbourhood; or at 38, Bloomsbury-square.

TO BE SOLD, TWO substantially-built semi-detached VILLAS, situate near the Uxbridge railway station, on the Great Western Railway, about fifteen miles from London. They are in a forward state of completion each containing five large and lofty bed-rooms, two large sitting-rooms, two good kitchens and cellar, pantry, &c. well suited for respectable families, having a full south aspect, and standing on a high gravelly soil. The above property is leasehold, subject to a ground rent of 3l. 13s. 6d. each per annum.—For particulars, apply to T. HARDY and SON, Builders, Cowley, Middlesex.

TO BE DISPOSED OF, by PRIVATE CONTRACT, the GOODWILL, PLANT, and POSSESSION of ASHFORD MARBLE WORKS, DERBYSHIRE, with the STOCK-IN-TRADE thereon. These old established works are situate in the very centre of the marble district of Derbyshire, and combine the advantages of the cheapness of labour, in a country village, with an excellent business connection, comprising some of the first architects and builders in the large provincial towns. There are two excellent Black Marble Quarries close to the works, a Rosewood Marble Quarry within one mile, and quarries of the celebrated Fossil Marble within three miles. The river Wye runs close by the works, affording an ample supply of water for use in the manufactory, and a motive power for the machinery, unattended with the expense of steam. The works themselves consist of a manufactory about one acre in extent, with sawing and polishing mills, fitted with machinery, worked by two unrivalled water-wheels, workshops, show-room, counting-house, and apartments. There is a dwelling-house, with a garden and orchard adjoining the works, and about nine acres of land are also held therewith. The premises are about two miles from Bakewell, five miles from Rowsley Railway station, thirteen miles from Chesterfield, seventeen miles from Sheffield, nine miles from Buxton, and thirty-four miles from Manchester. From Rowsley Station is every facility for railway communication to all parts of the kingdom, except in the direction of Manchester; and when the railways are completed for connecting Derby with Stockport, direct railway communication with Manchester and the North west will be brought within ten miles of the works. It is rarely that such an eligible opportunity for business is presented to persons having the command of 1,500l. or 2,000l.—Further particulars may be known, on application prior to the 22nd day of SEPTEMBER next, at the Office of JOHN TAYLOR, Solicitor, Bakewell.

Aug. 25, 1855.

TO BUILDERS, CARPENTERS, AND OTHERS.

TO BE SOLD, the GOODWILL of an old-established BUILDER'S BUSINESS, employing on an average thirty men, in a good situation in the county of Hertford. There is also a small Builder's Plant and Stock, which will be taken at a valuation, or would be sold by auction on the premises, if declined by the person taking the business. The premises comprise convenient dwelling-house, with good garden, &c. yard and workshops, sheds, &c. four-stall stable and cart-house, &c. Rent, 30l. per annum, on lease, the present owner being the freeholder.—For further particulars and terms, apply to Mr. W. R. GLASIER, Auctioneer, &c. 41, Charing-cross.

TO PLUMBERS, PAINTERS, GLASS CUTTERS, &c.

TO BE DISPOSED OF, an established BUSINESS, in a first-rate situation, at all times commanding a good trade; Domestic affliction the cause of leaving. Coming in early particulars of the Tyne Glass Company, Bridewell-wharf, William-street, Blackfriars, London.

TO PLUMBERS, PAINTERS, GAS FITTERS, and OTHERS.—A BUSINESS to be DISPOSED OF, in the City of London, and may be had with lease of Premises for 50l.—Apply by letter to C. C. C. 18, Budge-row, City.

TO SMITHS, IRONMONGERS, FARRIERS, &c.—TO BE LET, with immediate possession, an old-established BUSINESS in the above trade, of forty years' standing, four miles west of London. Satisfactory reasons for leaving. For particulars, enquire on the Premises to Mr. GEO. CANE, opposite the Coopers' Arms, Putney, Surrey.

TO CARPENTERS and JOINERS, PIANOFORTE and CABINET MANUFACTURERS, PRINTERS, or any Persons requiring Business Premises.—TO LET, on lease, for seven, fourteen, or twenty-one years, a PEN-ROOFED HOUSE, with three workshops in the rear, situated 9, Rupert-street, Coventry-street.—Inquire of Mr. GRETTAN, 91, Hemingford-terrace, West Islington. Rent moderate.

TO ESTATE OWNERS AND ALLOTTEES.

MR. JAMES WYLSON, ARCHITECT and SURVEYOR, 31, Church Row, Beauvoir Square, Kingsland (Con-sulting Surveyor to the National Freehold Land Society), ADVISES as to LAND and BUILDING SPECULATIONS.—A VACANCY for an OUT-DOOR ARTICLED PUPIL.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either high boxes or carriages.—Portland, Caen, Bath, and Yorkshire Block Stone always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c. N.B. This wharf is very near the St. Margaret's estate.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX, Brook, & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 14, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, September 1, 1855.

The Builder,

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CRYSTAL PALACE.—The FOUNTAINS INSIDE the BUILDING are now playing DAILY.
By order,
C. GROVE, Secretary.
September 3rd, 1855.

BUILDERS' BENEVOLENT INSTITUTION.—The EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate-street, on TUESDAY, the 30th of OCTOBER next.
CHARLES LUCAS, Esq., President, in the chair.
Gentlemen desirous of promoting the interests of the institution by becoming stewards, will please to forward their names to the Treasurer, Mr. GEORGE BIRD, 38, Edgware-road, or to the Secretary, at the Office, 19, Southampton-street, Bloomsbury.
A. G. HARRIS, Secretary.

BUILDERS' BENEVOLENT INSTITUTION.—An ELECTION of PENSIONERS will take place in NOVEMBER next. Candidates may obtain forms of application (to be returned on or before 24th SEPTEMBER) at the Offices of the Institution, 19, Southampton-street, Bloomsbury.—Pensions, £24 per annum for males, and £20 for females.
August 30th, 1855. A. G. HARRIS, Secretary.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE GUARDIANS of the WHITECHAPEL UNION are desirous of receiving PROPOSALS from Architects as to the terms upon which they would supply PLANS for the ERECTION of a new WORKHOUSE, with necessary offices, upon the site of the present establishment in Christchurch, Mile-end, New-town, to contain 1,200 adult poor persons, male and female, but which works may be only partially carried out at present. The foundations will meet at the Board-room in the Workhouse, in Whitechapel-road, on TUESDAY, the 18th SEPTEMBER instant, at SIX o'clock in the Evening, to receive answers to the above. Further particulars may be obtained and a plan of the ground seen at the Office of the Clerk, No. 46, Leman-street, Goodman's-fields.
By order,
W. J. RUDGE, Clerk to the Guardians.
September, 1855.

CONTRACTS.

WICKLOW HARBOUR.—NOTICE to CONTRACTORS.—The Commissioners for Improving the Harbour of Wicklow are prepared to receive TENDERS from competent parties for the EXECUTION of the undermentioned WORKS, viz.—CONSTRUCTING a PIER and BREAKWATER of TIMBER PILING and MASONRY, DREDGING out the BAR and CHANNEL to a depth of EIGHT FEET at low water, and to REPAIR the existing QUAY WALLS. The Contractors to set forth in their Tenders the period within which the works are to be executed and the terms of complete measuring Plans and specifications prepared by HENRY BRETT, Esq. C.E. and which may be seen at the Office of the Secretary to the Harbour Commissioners, Wicklow; or by application to Mr. BRETT, Engineer, 4, Harrington-street, Dublin. The Tenders to be sent in, sealed and addressed to the Chairman of the Harbour Commissioners, on or before TWELVE o'clock, on MONDAY, the 17th of SEPTEMBER 1855.—By order,
ROBERT HALPIN, Secretary to Harbour Commissioners.
Harbour Office, Wicklow, August 16, 1855.

BOROUGH of BIRMINGHAM. — To SURVEYORS and VALUERS. — The Assessment, Rate, and Appeal Committee of the Council, is desirous of CONTRACTING to make a NEW VALUATION of all the RATEABLE PROPERTY within the Borough. Surveyors desirous to Tender may inspect the specification and obtain all necessary information on application at my Office, in and after the 3rd day of SEPTEMBER next sealed Tenders, mark'd "Tender for New Valuation," to be delivered to me on or before the 15th day of SEPTEMBER next.—The Committee does not bind itself to accept the lowest or any Tender.
By order, THOMAS STANBRIDGE, Town Clerk.
Temple-street, Birmingham, August 28, 1855.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office, Dublin, 28th August, 1855.—The principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz.:—For the CONSTRUCTION and ERECTION of PROPOSED BUILDING, to contain Steam Washing and Drying Apparatus, with Hot Air Machinery and Engineer, at the temporary barracks on the Curragh of Kildare, in the Dublin district. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Ostman-yard, Dublin, and may obtain specifications, with the terms of contract, upon making a deposit of 1l. for the same, which deposit will be repaid when the specifications are returned unsoiled. The whole of the work to be completed within one hundred days after the acceptance of the Tender.—The letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 10th day of SEPTEMBER, 1855, and to be marked on the outside, "Tender for Work at the Curragh of Kildare."

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London district hereby gives Notice, that sealed TENDERS, addressed to the Director-General of Contracts, will be received at the Office of Ordnance, Pall-mall, on or before the 10th SEPTEMBER, 1855, for RAISING the BUILDINGS (except the Riding-school) a story, west bun nary, at Regent's park barracks. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's Office, 11, James street, Buckingham-gate, between the hours of ELEVEN and THREE o'clock, from the 3rd to the 12th of SEPTEMBER, 1855, inclusive. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.
Royal Engineer's Office, London District, 31st of August, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer in the London District, hereby gives Notice, that sealed Tenders, addressed to the Director General of Contracts, will be received at the Office of Ordnance, Pall-mall, on or before the 12th SEPTEMBER, 1855, for SLEEPERING, LAYING DOWN, and FIXING the necessary GAS PIPES and FITTINGS to the several BUILDINGS at the TOWER of LONDON. The specifications and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's Office, Tower, between the hours of ELEVEN and THREE o'clock from the 3rd to 10th SEPTEMBER, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.
Royal Engineer's Office, London District, 31st August, 1855.

Royal Engineer's Office, Portsmouth, August 28, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 24th of SEPTEMBER, 1855, from such persons as may be willing to enter into a contract with the Ordnance for the ERECTION of 2 WOOD WATER TANKS, with supply pipes, pumps, &c. at Albany Barracks, Isle of Wight, agreeably to the plans and specification to be seen by applying at the Royal Engineer's Office, Portsmouth, every day (Sundays excepted), until the 22nd day of SEPTEMBER, 1855, and where also forms of Tender may be obtained.
N.B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

Royal Engineers' Office, Portsmouth, 28th August, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 24th day of SEPTEMBER, 1855, from such persons as may be willing to enter into a contract with the Ordnance for the ERECTION of proposed OFFICERS' QUARTERS, MESS ESTABLISHMENT, and SOLDIERS' PRIVIES, at Winchester Barracks, county of Hants, agreeably to the plans and specification to be seen by applying at the Royal Engineers' Office, Portsmouth, every day (Sundays excepted), until the 22nd SEPTEMBER, 1855, and where also forms of Tender may be obtained.
N.B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

THE ENFIELD LOCAL BOARD of HEALTH are prepared to receive TENDERS from persons willing to contract for MAKING, LAYING, or FIXING the HOUSE CONNECTIONS and SERVICES, WATER CLOSETS, &c. &c. for Drainage and Water-supply in the district of Enfield, including all materials and apparatus required, as well as labour, being Contract No. 9. Further particulars may be obtained by application at the Office of J. PILBROW, Esq. C.E. Tottenham, engineer to the said Boards, and where printed specifications and conditions of contract may be had upon payment of 2s. each. Tenders must be sent in on or before THURSDAY, the 20th day of SEPTEMBER instant, endorsed "Tender for House Services," and addressed to the Local Board of Health, Enfield, Middlesex.
By order of the Board,
JOHN SAWYER, Clerk.
Enfield, September 4th, 1855.

HARROW LOCAL BOARD of HEALTH.
To CONTRACTORS for GRAVEL, &c.—The Board hereby give Notice, that they are prepared to receive TENDERS from parties willing to contract for the supply and delivery of 450 yards of well sifted DAWLEY STONES (for roads); 120 yards of well sifted small DAWLEY STONES (for footpaths); 150 yards of well sifted HARROW WEALD STONES (for roads); 50 yards of well sifted small HARROW WEALD STONES (for footpaths). Both materials to be delivered at such places in the district of the said Board, in such quantities, at such time, and in such manner as the said Board, or their Surveyor, shall from time to time prefer. The Board will not object to receive separate Tenders for either the Dawley or Harrow Weald Stones, and do not bind themselves to accept the lowest or any Tender. Tenders endorsed "Tender for Gravel," to be sent in to me at or before ONE o'clock, p.m. on THURSDAY, the 13th instant.
By order of the Board
Harrow, September 1, 1855. WM. WINKLEY, Jun. Clerk.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 3, Greek-street, Soho-square, on TUESDAY, the 11th day of SEPTEMBER next, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING, certain intercepting BRICK and PIPE SEWERS, 9,457 feet in length, or thereabouts, with other works connected therewith, at and near Lambeth, Batchbath, and other places in the county of Kent, and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 17th day of SEPTEMBER inclusive. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.
E. H. WOOLRYCH, Secretary.
No. 1, Greek-street, Soho-square.
Dated this 6th day of September, 1855.

METROPOLITAN COMMISSION of SEWERS To BUILDERS, CONTRACTORS, and OTHERS The Metropolitan Commissioners of Sewers hereby give Notice that they will be ready at the Court-house, No. 3, Greek-street, Soho-square, on TUESDAY, the 18th day of SEPTEMBER instant, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING, certain intercepting BRICK and PIPE SEWERS, 9,457 feet in length, or thereabouts, with other works connected therewith, at and near Lambeth, Batchbath, and other places in the county of Kent, and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained, at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 17th day of SEPTEMBER inclusive. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.
E. H. WOOLRYCH, Secretary.
No. 1, Greek-street, Soho-square.
Dated this 6th day of September, 1855.

ATHERTON GENERAL CEMETERY.—To BUILDERS.—Notice is here given, that the Burial Board of the township of Atherton, in the county of Lancaster, intend CONTRACTING for the ERECTION and COMPLETION of TWO CHAPELS, LODGE, ENTRANCE GATES, and other WORKS, and that persons willing to Contract may inspect the plans and specification at the Offices of the Architect, Mr. THOMAS B. BARRY, 47, Bedford-street North, Liverpool, from the 10th to the 24th SEPTEMBER. Sureties will be required for the due performance of the contract. The Tenders to be forwarded, sealed, to the undersigned, on or before the 25th of SEPTEMBER, by TWELVE o'clock at noon. The Board will not pledge itself to accept the lowest or any Tender.
G. MARSLAND, Clerk to the Board.
Bolton-le-Moors, August 30th, 1855.

TO BUILDERS

PERSONS willing to CONTRACT with the Heap Burial Board for the ERECTION and COMPLETION of TWO CHAPELS, ENTRANCE LODGE, GATES, and other works, may inspect the plans and specification at the Offices of the Architect, Mr. THOMAS B. BARRY, 47, Bedford-street North, Liverpool, from the 10th to the 24th SEPTEMBER inclusive; where also bills of quantities may be had on application. Parties whose Tenders are accepted will be required to enter into a bond with two sureties for the due performance of the contract. The Board will not pledge itself to accept the lowest or any Tender. The Tenders must be delivered, sealed, to the undersigned, on or before TUESDAY, the 25th inst., by TWELVE o'clock at noon.
THOMAS WOLSTENHOLME, Clerk to the Board.
Heywood, Aug. 29, 1855.

BRAINTREE CEMETERY.—To Builders and Others.—The Burial Board for the Parish of Braintree, in the county of Essex, are desirous of receiving TENDERS for BUILDING, ERECTING, and COMPLETING TWO CHAPELS, ENTRANCE LODGE, and GATES, at their new burial-ground. The plans, specifications, and contract may be seen at my Office, and at the Offices of the Architect, JOHN JOHNSON, Esq., Whitney-street, Bury St. Edmunds, of whom further particulars and bills of quantities (price of 1s.) may be obtained. Sealed Tenders addressed to me, and indorsed "Tender for Cemetery Works," to be sent in on or before TWELVE o'clock at noon, on MONDAY, the 24th day of SEPTEMBER next. The Board will require approved security for the due performance of the contract, but do not pledge themselves to accept the lowest or any Tender.
A. CUNNINGTON, Clerk to the Board.
Braintree, August 28, 1855.

EXETER WATER COMPANY. — The Directors of the Exeter Water Company are prepared to receive TENDERS from parties who may be willing to undertake the following CONTRACT.—To make and erect STEAM-ENGINES, PUMPS, and APPARATUS at Pynes, near Exeter. The drawings may be examined, copies of the specification and form of Tender procured, at the Company's Office, No. 4, Bedford-circus, Exeter, on and after the 24th instant. The Company do not bind themselves to accept the lowest, or any Tender. The Tenders to be delivered on or before FRIDAY, the 14th day of SEPTEMBER next.
By order,
WM. TOMPSON, Clerk to the Company.
4, Bedford-circus, 23rd August, 1855.

[*For remainder of Contracts see next page.*

CONTRACTS.

TO BUILDERS

THE GUARDIANS of the POOR of the STRAND UNION are desirous of receiving TENDERS from parties who may be willing to CONTRACT for certain WORKS to be done at the Infirmary of their Infant poor Establishment, Millfield House, Tanner's-end, Edmonton.—Specification may be inspected at the Infant House, or at the Union Office, 6, Bow-street. Sealed Tenders to be delivered at No. 6, Bow street, at or before HALF-PAST SEVEN o'clock in the evening precisely, on TUESDAY, the 18th day of SEPTEMBER next, when the parties tendering, or their agents, are requested to be in attendance. The Guardians do not pledge themselves to accept the lowest or any Tender. By order,

JAMES KILNER, Clerk.

August 29, 1855.

HORNSEY DRAINAGE.—To BRICKLAYERS and GENERAL CONTRACTORS.—The Highway Board of the Parish of Hornsey hereby give Notice, that they are prepared to receive TENDERS for EXCAVATING and LAYING SEWERS and DRAIN PIPES as also the Construction and completion of other works connected therewith at the Maynard-street District, in that parish. The drawings and specification may be examined, and after THURSDAY the 13th inst. and form of Tender, with schedule and bill of quantities (to per copy), may be obtained at the Offices of the Board, No. 1, Tenders to be delivered before FOUR o'clock on MONDAY, the 17th SEPTEMBER, endorsed, "Tender for Drainage Works," addressed as under, to Mr R MALCOLM RAMSAY, Surveyor to the Board. The lowest or any Tender not necessarily accepted. By order,

TOLEMIN SMITH, Chairman.
W. POTTER, Clerk.

Offices of the Hornsey Highway Board,
17, High-street, Highgate.

TO TAR DISTILLERS and OTHERS.—The Directors of the Chartered Gas Company are desirous of receiving TENDERS for the PURCHASE of TAR to be taken from their several stations, viz. Horseferry-road, Westminster; from their Brick lane, Old-street; and Curtain-road, Shoreditch, during a period of twelve months. Quantity, about One Million Gallons, at per gallon. Payments to be made monthly, in cash.—Parties desirous to be treated with are requested to send in on or before SATURDAY, the 15th instant a list of their names and addresses to the Secretary, Horseferry-road, Westminster, and indorsed "Tender for Tar."

3rd September, 1855

ETON UNION, BUCKS.—To BUILDERS.—Notice is hereby given, that the Guardians of the said Union will at their Meeting, to be held at the CENTRAL WORKHOUSE at STOKE on TUESDAY, the 11th day of SEPTEMBER next at ELEVEN o'clock in the Forenoon, receive TENDERS to perform certain BUILDING and DRAINAGE WORKS, according to plans and specification to be seen on application to the Master of the Workhouse of the said Union at Slough. The Guardians will not pledge themselves to accept the lowest or any Tender. By order of the Board of Guardians,

C. P. BARRETT, Clerk

Eton, August 23rd, 1855.

TO CAPITALISTS, HYDRAULIC ENGINEERS, and Others.—The PATENT RIGHT of an APPARATUS for RAISING LIQUIDS to be DISPOSED OF, on most moderate terms. By the use of the apparatus, the refuse water, which has been used for baths or other purposes, is made to raise the same quantity from the basement of a building, to whatever elevation the waste water may be discharged from it; it may be also applied to many other purposes, such as raising gas, &c. as no pumping would be required; it would be found in point of steadiness and cleanliness greatly superior to the beer-engine. An early application is necessary.—Address, T. L. Mrs. Lima, 16, Grafton-street, Soho.

CHUBB'S LOCKS & FIREPROOF SAFES.

INEFFECTUAL ATTEMPT UPON THE STRONG ROOM OF THE LONDON AND NORTH WESTERN RAILWAY, LIVERPOOL.

"London and North-Western Railway Company,
"Liverpool, May 17, 1853

"Gentlemen,—I have much pleasure in bearing testimony to the efficiency of the iron door and locks of your make, which secure the strong room at this office, and which completely baffled the efforts of one or more burglars to get at the money chest on the night of Tuesday last, although it is evident that considerable force was used to break open the door.—I am, gentlemen, your obedient servant, "GEORGE PALMER.

"Messrs Chubb and Son."
FROM MR. OTWAY, SUPERINTENDENT OF POLICE, C DIVISION.

8, Great Vine street, May 3, 1853.

"Gentlemen,—I have the pleasure to inform you, that having one of your locks on the street door of my house prevented my being robbed last night. The thief tried to open it, but not succeeding, has so damaged it that I have sent it to you for inspection, as I shall feel obliged if you will have it repaired.—I am, gentlemen, your obedient servant, T. OTWAY.

"Superintendent C Division of Police.

"Messrs. Chubb and Son."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fireproof Safes and Chests, Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock

Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 18, MARKET-STREET, MANCHESTER; 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; and Horsley fields, Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Iron, Grey, Brass Fitting, Nail, Spike, Nail (cut), Copper, and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr Arn its Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope street, three-quarter, London.

No. 1051, Class 3, Sec. 2, in the BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior safe fastenings, of moderate prices. Beth's Pisan and ornamental cast and wrought iron work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

MORTISING MACHINE.
127 to 132

KIMBERLEY'S PATENT MORTISING MACHINE.

The Patentee feels justified in calling attention of all Builders, Cabinet-makers, and others to this simple, strong, cheap, and most effective machine. Hundreds are in daily use all over the kingdom, and references to any extent can be given to prove it really is what it is represented, viz. the most valuable tool ever offered to the trade.

Amongst testimonials of the highest character, he would respectfully invite attention to the following:—

"Rugby, June 14, 1855

"Dear Sir, In reply to your inquiry respecting the Patent Mortising Machine I purchased from you THREE YEARS AGO, I have to inform you I consider it a most simple, EFFICIENT and DURABLE ARTICLE; nor do I think it saying more than it deserves when I give it as highly approved every way to one I was recently induced to purchase from a London house, which, although represented to be unexcelled in its principal and most essential movement and all others, I assert that in my shop is of GREAT VALUE, as it must, indeed, be to every builder who possesses it.

"I am, Sir, yours faithfully,

"JOHN PARNELL"

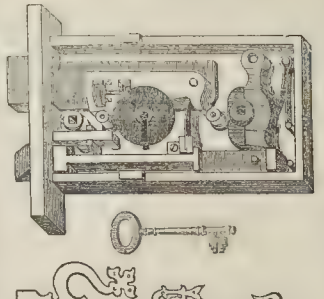
Local Agents: Messrs. PUGH and CO. 13, King-street, Snowhill, who keep stock of all Kimberley's Patent Goods, Flooring Cramps, &c.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.

RESTELL'S PATENT ENGLISH PROTECTOR LOCK.



LOCKS, HINGES, HANDLES, BOLTS, &c.

Paris Exhibition, No. 1717.

Also Specimens at the Crystal Palace, Sydenham.

Illustrated Price-catalogues on receipt of four postage-stamps.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged their improved Premises in the Kings-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.—Houses and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentee's, POWIS, JAMES, and Co. Wholesale Iron Merchants and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patent. Improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 9d. shilling the foot.

R. S. NEWALL and Co's Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
139, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

NAILS and IRONMONGERY, from BIRMINGHAM direct.

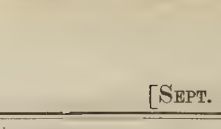
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES

a complete LIST of which will be forwarded upon application.

FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self acting Cottage Ranges, with Large Oven and Boiler,
30 33 36-inch.
26s. 30s. 32s. 34s.

Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 56s. 58s. 63s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 4½d.

Register Stoves, with Solid Bars, per inch, 8d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 5½ per inch.

Best Saloon ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 10 5s. each.

Cast Rain-water Pipes { 2 2½ 3 inch.
11d. 1s. 2d. 1s. 4d. per yard.

Cast Gutters—4-inch, 9d. per yard.

O G Gutters ..... { 4 4½ inch.
1s. 1d. 1s. 3d. per yard.

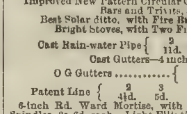
Patent Line { 2 3 4 5 6
4½d. 5d. 7d. 9d. 1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d each.

An extensive stock of bar, rod, loop, and sheet Iron Brick Moulds kept in stock. Any size made to order.

IMPERIAL IRON FOUNDRY, and ECONOMIC RANGE MANUFACTORY.



Three ft. wide	£6 10
Three ft. three in.	7 0
Three ft. six in.	7 15
Three ft. nine in.	9 0
Four ft.	10 10
Four ft. six in.	12 12
Five ft.	14 14

Coverings, 5s per foot.
Fixing, 5s. per foot.

This valuable KITCHEN RANGE, the Manufacturer has much gratification in stating, has been in use several years, and given the utmost satisfaction. It may be used either with the fire open or closed, thereby avoiding the objection so naturally felt against having the fire in all times shut up, which is well known to generate a close unwholesome vapour.

The Prize Medal and Honourable Mention was awarded to this Range at the Great Exhibition of 1851.

To be seen in operation at the Manufactory,

J. SHERWIN, 93, TABERNACLE-WALK, FINSBURY.

Castings of every description in Loam or Sand.

GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO. 1, Arthur-street East, London-bridge.

Testimonial respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and CO.

8, Ridgmount-place, Hampstead, March 9th, 1855.

Gentlemen,—I have great pleasure in bearing testimony to the capabilities of your extraordinary Gas Cooking Apparatus, being the largest and most perfect in use. Suitable for hotels mansions, club-houses, private houses, and the army; having cooked in one day 1,000 fowls, and many cwts. of ham, beef, veal, mutton, lamb, pastry, &c.; roasting in one department a baron of beef weighing 300 lbs. in nine hours, fifty-three minutes, presented by J. Banister, esq. Threadneedle-street, to the directors, for the banquet given to the foreign ministers. They have been in full operation for ten months, and are now in as perfect order as when first finished. "They have not cost one shilling for repairs."

I am, Gentlemen, yours respectfully,
EDWARD HORNE.

Messrs. Deane, Dray, and Co.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and feeder department of Deane, Dray, and Co's establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO. opening to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S office, 145, Regent-street, London.

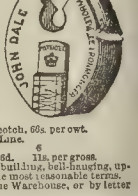
HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 8s. 6d. This achievement in heating by hot water is unprecedented.

DEELEY'S PATENT SELF-ACTING FURNACE, for melting pig-iron. A saving of 66 per cent. in fuel over the cupola method. Furnaces can be erected to produce from one to ten tons of molten iron per hour, as may be required.—For particulars apply to MR. R. L. CURTIS, Surveyor, 1, Nicholas-court, Lime-street, City.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

3-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 4s. per doz.

Best Town Gips, 56s. Ditto, Scotch, 60s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	10s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 35, High Holborn.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq R.A.

"18, Hyde-park Gate, Kensington, February 24, 1855

"My dear Sir.—The Air Warmer continues to work very satisfactorily indeed, with regard to the main body of the house, and during this weather is charming, even in the painting-room. Mrs. Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,

"Mr. J. Jobson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq. late M.P. for Sheffield.

"Stanhope-lodge, St. John's-wood, London, January 27th, 1855.

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in England, and this has increased with increasing years and decreasing strength; I have, therefore, had recourse, from time to time, to various stoves and other modes of warming the hall and passages of my house; but I have never succeeded till now in producing an equal temperature over every part, and having that temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and have the climate of May within doors in the months of December and January. The servants learnt its proper management in a few days without difficulty, and its economy in fuel is as remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall lose no opportunity of heartily advising its adoption to all who desire to protect themselves against the changes of temperature in their dwellings. I am, dear Sirs, yours faithfully,

"JAMES SILK BUCKINGHAM.

"To Messrs. Stuart and Smith, Roscoe-place, Sheffield."

M. E. HADFIELD, Esq. Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir, We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable oppressive odour produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective.—I am, my dear Sir, yours faithfully,

"Mr. J. Jobson Smith, Roscoe place." "M. E. HADFIELD.

WILLIAM RUTSON, Esq.

"Newby Wiske, Thirsk, 13th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the disadvantages incident to an unfinished and unfurnished house, with all the doors open into the apartment rooms, it is keeping up a very genial influence over the temperature, even during this severe weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 16s. 8d. per ton, the rate at which it has been fired for the last two or three months, is 1½ per hour.

"I am, Sirs, yours truly,

"Messrs. Stuart and Smith "WILLIAM RUTSON.

"P.S.—Mr. Rutson, on looking again, sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3s. 9d. for coke—say about 3d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop-road, February 27th, 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the late severe frost, the comfort has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase, and passages, being a reservoir of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the general run of the house without the fear of a relapse. To many invalids the invention will prove invaluable, giving them the freedom of their habitation instead of confining them prisoners to one apartment.—Believe me, my dear Sir, very truly yours,

"Mr. Jobson Smith." "EDWARD MARTIN.

E. F. SANDERSON, Esq.

"West-street, Sheffield, 27th March, 1855.

"Gentlemen,—The Gill Air Warmer you put up for me last year at Endcliffe, and which I recorded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been painfully sensitive of the damp and chilly air of this country; but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your effective plan of rendering dwelling-houses most equably comfortable in point of temperature.—I am, yours very truly,

"Messrs. Stuart and Smith, Roscoe-place." "E. F. ANDERSON.

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ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

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With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.,

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS. DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

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Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

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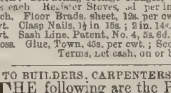
COTTAM and HALLEN, of Winsley-street, are the ORIGINAL INVENTORS of this arrangement of MANGER, RACK, and WATER-TROUGH as ONE FIXTURE; they are universally approved of, and obtained the Great Exhibition Prize Medal. The New Patent embodies all the improvements which, from practical experience, have been found desirable. No well managed stable should be without these fittings. Economy, durability, appearance, cleanliness, safety, comfort to the horse whilst feeding, and being rendered impervious to infection, are some of the advantages of Cottam's Improved Fixtures. May be had either plain, galvanized, or enamelled. Every article for the harness room and stable kept in stock. — Descriptive catalogues and estimates on application to COTTAM and HALLEN, 2, Winsley-street, Oxford-street.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.

THIS IS THE ORIGINAL PATENT



for important improvements in stable fittings, including a method of rendering all others for conveying the straps and leaden weights to the back of the fittings, to prevent the horse getting at them. Stable Fittings of every description, enamelled or galvanized. All kinds of stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of Kite's Patent Noiseless Cast-Iron Smoke-Curing Chimney-Cans.—200 on Buckingham-palace. — Price Lists sent on receipt of two postage-stamps.

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CABINET-MAKERS, &c.—To be had, at FREUND'S IRONMONGERY WAREHOUSE, 56, Church-street, Bethnal-green:—Self-acting Cottage Ranges, 30 in. 28s.; 33 in. 30s.; 34 in. 32s. each. Register Stoves, 9d. per inch. Elliptic ditto, 2½d. per inch. Floor Brads, sheet, 12s. per cwt.; Each Nails, 1s. 6d. per cwt. Clasp Nails, ½ in. 10s.; 2 in. 14s.; 2½ in. 13s. 6d.; 3 in. 13s. per cwt. Sash Line, Patent, No. 4, 5s. 6d.; No. 5, 8s.; No. 6, 9s. 9d. per gross. Glue, Town, 42s. per cwt.; Scotch, 60s. per cwt.

Terms, 1st cash, on or before delivery.

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4s.	5s.	6s. 3d.	7s. 9d. per gross.

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an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Coal-pits and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in all duties the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

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BARRIS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c always in stock.

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Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Seet Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

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Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

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Cast-iron Rain-pipe	2	2½	3 inch.
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4-inch Eaves Gutters, 9d. per yard.			
O G Gutters	¾	4	6 inch.
	1s.	1s. 1d.	1s. 3d. 1s. 6d. per yard.
Best Cut Clasp	1½	2	2½ 3 inch and larger
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1-inch Best Cut Lath, 12s 6d. per cwt.
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Sheets plain and corrugated—Roofs fixed complete.
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GALVANIZED SHEET IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
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14	26		

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RICHARD HARTLEY KENNEDY, Esq. Alderman, Deputy-Chairman.

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This Society is established on the tried and approved principle of Mutual Assurance. The funds are accumulated for the exclusive benefit of the Policy holders, under their own immediate superintendence and control. The profits are divided annually, and applied in reduction of the current premiums. Policy-holders participate in profits after payment of five annual premiums.
The Annual General Meeting of this Society was held on the 30th of May, 1855, when a Report of the business for the last year was presented, exhibiting a most satisfactory progress. It appeared that during the two last years, 1853 and 1854, between 800 and 900 new Assurances had been effected, producing an increase of premium income amounting to £1,903. per annum. It also appeared that, notwithstanding the extraordinary mortality which prevailed during the last year in consequence of the prevalence of the cholera, the Reserve found necessary for the risks in the slightest, the allowance previously awarded to the Policyholders
The Members present at the Meeting were fully satisfied with the Report, and resolved unanimously that a Reduction of 3½ per Cent. should be made in the current year's Premium payable by all Policyholders now entitled to participate in the profits.
Credit is allowed for half the Annual Premiums for the first five years.
The following Table exemplifies the effect of the present reduction:—

Age when Assured.	Amount Assured.	Annual Premium originally paid.	Allowance of 3½ per cent	Annual Premium now payable.
	£	£ s. d.	£ s. d.	£ s. d.
20	1,000	20 17 6	6 11 6	14 6 0
30	1,000	25 13 4	8 1 8	17 11 8
40	1,000	33 18 4	10 13 8	23 4 8
50	1,000	48 16 8	15 7 8	33 9 0
60	1,000	73 17 6	23 18 0	51 19 6

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To Clerks and others guarantees at the lowest rates.
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Every description of life and fire assurance.
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The MUTUAL PRINCIPLE being adopted, the entire surpluses or "Profits," as ascertained triennially, are allocated in addition to the sums assured, and they present a flattering prospect to the members. For example: the sum now payable on a policy for 1,000l. effected in 1831, is 1,538l. 9s. 9d. being a return of seventy-one per cent. on the premiums paid on middle-aged lives, and policies effected in later years are similarly increased.
The NEXT TRIENNIAL DIVISION of PROFITS will take place on 1st MARCH, 1856, and policies effected previously will receive one year's additional bonus over those entered after that date.
ROBT. CHRISTIE, Manager.
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Head Office—26, ST. ANDREW-SQUARE, EDINBURGH.
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SMOKE! SMOKE! SMOKE!—The only cure for smoky chimneys is MARK BERRY'S IMPROVED VENTILATOR: price, for 10-inch pot, 7s. 6d.; 11-inch, 8s. 6d.; 12-inch, 9s. 6d.—at MARK BERRY'S Wholesale and Retail Zinc and Galvanized Iron Works, Whitechapel Church-yard, London.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment.—Particulars and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

VENTILATION.—PURE AIR.
Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.
With single pulley, from 6s. each; with leading pulley, from 8s. 6d.
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD BROTHERS, sole Manufacturers, 196, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Stringing to any pattern for ingabelle tables.
Diving-dresses of superior make, and improved Vulcanized Rubber Apple-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
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January 1, 1855.

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The Builder.

Vol. XIII.—No. 657.

THE object Mr. Street has in his new work, "Brick and Marble in the Middle Ages," from which we have already given some extracts,* is to point out the peculiarities of the development of Pointed architecture in Italy, and especially to show in what way the materials so commonly used there—brick and marble—were introduced both in decoration and in construction. This should affect us practically. There is nothing connected with our art in which improvement is more needed and more practicable than the use of brick in architecture. And in this point of view particularly, we are disposed to welcome warmly Mr. Street's elegant volume, and to aid to the extent of our power in giving it circulation. The art of the bricklayer is at a very low ebb in England: compo and contracts have left us but little of it. Saying nothing of the rows beyond rows of unsubstantial structures reared throughout the suburbs simply to sell, the existence of which might be almost sufficiently explained by supposing that—

"Casual bricks in airy clime,
Encountered casual horsehair, casual lime,"—

in our most extensive and important buildings of brick, anything more than solid work is seldom if ever attempted.

From time to time, and for a long time, we have sought to turn the attention of architects and brickmakers to the use of clay, to which we are restricted as a material for building in so many parts of the kingdom, in other and more ornamental forms than a would-be rectangular parallelopiped 9 inches long, 4½ inches wide, and 2½ inches high, without a sharp arris, or a square side. Here and there endeavours have been made, and are being made, to effect an improvement in this respect. Hitch, of Ware, did something in this way very long ago; then Bakewell's screw presses for the formation of moulded bricks, good and cheap, were looked forward to. Messrs. Bowers, of Tunstall, patented a method of making brick ornaments, and, not to mention many others, at the "Poole Architectural Pottery," experiments in mixing different sorts of clays, colouring, &c. are now being made preparatory to commencing operations.† A leading architect in Nottingham, aided by the spirited owner of a fine bed of clay, and prompted admittedly by observations which have appeared in these pages, is introducing moulded brickwork to a considerable extent in that district. Mr. Street's book will, we have no doubt, help the movement. He went by the way of Zurich and Brescia to Verona, Venice, Mantua, and Milan, and he has illustrated his notes with seventy-four engravings from his sketches made on the road. Some of these we have been permitted to transfer to our pages, and the sample thus given will probably induce many of our readers to desire to possess the whole. Mr. Street is a determined mediævalist. He went away resolved not to look at any of the works of the Renaissance, for which, like the popular writer whom he imitates somewhat closely, he exhibits the greatest contempt. With Palladio he has of course no sympathy:—

"And is it possible, my readers will exclaim (he says), that you, an architect, can have dared to pass within sight of Vicenza without making long sojourn there to drink in the lessons which the works of your great master Palladio are there to instil! Even so, reader; for in this world there are unhappily two views of art, two schools of artists—armies of men fighting against each other;—the one numerous, working with the traditions and rules of their masters in the art, exclusive in their views, narrow in their practice, and conventional in all their proceedings, to the most painful forgetfulness of reality in construction and in ornament; the other young and earnest, fighting for truth, small in numbers, disciples of nature, revivers of an art to all appearance but now all but defunct, yet already rising gloriously above the traditional rules of three centuries;—the one class representing no new idea, breathing no new thought, faithful to no religious rule; the other rapidly endeavouring to strike out paths for themselves as yet untrodden, gathering thoughts from nature, life from the intense desire for reality and practical character, faithful moreover to a religious belief, whose propagation will be for ever the great touchstone of their work;—the one class, the disciples of Palladio, journeying towards Vicenza with reverence, to learn how he built palaces of compo with cornices of lath and plaster, already in two short centuries falling to decay, wretched and ruinous; the other stopping long at Verona, dreaming over the everlasting art of the monuments of the Scaligers, and of the nave of Sta. Anastasia, still, though five centuries have passed with all their storms about their heads, fresh and beautiful as ever, fit objects of veneration for the artist in all ages."

Mr. Street is led at times by his enthusiasm—shall we call it?—into strange statements, as when he glorifies the sunken and twisted, though beautiful, pavements of St. Mark's, for *not* being level and even,—for swelling "up and down as though they were petrified waves of the sea, on which those who embark in the ship of the Church may kneel in prayer with safety, their undulating surface serving only to remind them of the stormy seas of life, and of the sea actually washing the walls of the streets and the houses throughout their city!" There is a superabundance too of "glorious" and "noble," but we are looking at the book as to its practical value.

The brick campanile tacked on to what Mr. Street wrongly calls "a hideous *classic* edifice"—the church of S. Andrea, at Mantua—affords some good details. Figs. 1 and 2* exemplify this. The tracery is formed by cusped circles pierced in a tympanum within an inclosing arch: the shafts between the lights are of polished marble, and coupled one behind the other. The proportion of the cusps in this and most other Italian buildings is mostly good. "In trefoils, for instance, the upper cusp is by far smaller than the lower; and in all good cusping it must be so. Modern men generally reverse the order, and at the present day, so little is the subject really understood, that at least ninety-nine out of every hundred cusped window-openings are designed without feeling, and quite unlike the best old examples; and this, though apparently a point of very small importance, is really of great consequence to the perfection of any pointed work."

We give a view of the campanile itself (fig. 3): the smallness of the octagonal lantern with spire, and the abrupt manner in which it is set upon the square, produce a bad effect.

The campanile of the Palazzo dei Signori, at Verona (fig. 4), is a better example of Italian tower-building. It rises "out of a large pile of buildings, and for a short distance above their roofs is built in alternate courses of brick and a very warm-coloured stone, and then entirely in brick, pierced with only one or two small openings, and terminating with a most gloriously simple belfry-stage: the belfry windows, with their arches formed without mouldings, and with the sharp edges only of brick and stone used alternately, are divided into three lights by coupled shafts of shining marble: the shafts, being coupled one behind the other, and thus giving strength with great lightness, are very striking in their effect. They have, too, remarkably large balconies, but without balustrading of any kind. The upper and octangular stage of the campanile is I think comparatively modern, but perhaps rather improves the whole effect."

Fig. 5 is a window from Cremona Cathedral. The bricks all radiate with the arch (not from centre of cusp), and look as though they might have been built, allowing plenty of length of brick for the cusps, and then cut to the proper outline. In all cases where brick is used for tracery, it is "plate-tracery." The tympanum of the arch is filled in with a mass of brickwork, through which are pierced the arches over the several lights of the window; and these are supported on marble or stone shafts with carved capitals, instead of monials. Above these sometimes, as in the example we have given from S. Andrea at Mantua (fig. 1), are three cusped circles. A panel of terra-cotta, with a moulded ornament and ornaments in the mouldings, vary others. Labels are rare, but in their place is introduced a course of very narrow deep-red bricks, which surrounds the back of the arch By the use of deep-red bricks in courses alternating with a very warm-coloured stone, agreeable effects are produced in these Italian buildings. A general perception of this fact, by the way, appears to be creeping over England. We have seen lately numerous small evidences of it, some of them melancholy enough. Where effect of this sort is desired, architects should satisfy themselves as to the goodness of the material. We have a letter from Spalding, in Lincolnshire, which says that certain red bricks, which were used in the entrance-archway of the Cemetery there, alternating with stone courses, and with good effect, have suddenly become quite pale, as if ashamed of a previous imposition!

Fig. 5.—Brick Window, Cremona Cathedral.

The windows in Verona recall the memory of those in Venice, but are generally inferior. Fig. 6 is a specimen.

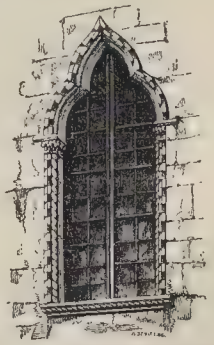

Fig. 6.—Domestic Window, Verona.

* See p. 377, ante. "Brick and Marble in the Middle Ages: Notes of a Tour in the North of Italy." By G. E. Street, Architect, F.S.A. London: John Murray. 1855.

† Of the clay-fields at Poole, we shall have to speak again soon.

* See p. 427.

Fig. 7 is a two-light window in red brick, from the cathedral at Monza.

Touching the marble shafts, which we have said carry the arches of the window-lights, Mr. Street points out what must strike all architectural observers in Venice,—the constant and unsparing use of the shaft there during several centuries, when little used in England, and cries—

"All shame to us if we do not attempt for the future so far at any rate to follow in their steps! So rare are any but shafted windows in Venice, that at present I hardly remember a single instance of a window with monials formed by the continuous mouldings of the tracery; and it is obvious that this gave occasion, not only to the use of beautiful marbles—never so well used as in shafts,—but also to the constant use of carved capitals. In domestic buildings, as I have before remarked, this arrangement of shafted windows is very valuable, because it suggests one obvious way in which we may unite traceried windows with the very newest arrangement of window-frames or sashes in the most comfortable nineteenth-century houses; for in these Venetian palaces the glass was always contained in a separate wooden frame within the marble shafts and tracery."*

Our author attributes the continued use of the bearing shaft to the influence of classic art, which was so potent upon Italians. He sees the effect of the same influence in their cornices, and gives fig. 8, from S. Francesco, Brescia, as an example.

Fig. 8.—*Cornice; S. Francesco, Brescia.*

The Venetian balconies, which are for the most part very elegant and pleasing, almost always consist of a number of small shafts with carved capitals, supporting a piece of stone, the underside of which is notched into trefoils resting on the capitals. Here we have an example (fig. 9), quaintly finished at the angles with figures of animals. The angle windows, too, in Venice, as most visitors must have noticed, are very effective. Fig. 10 is an example. It has a bold shaft at the angle, whilst the jambs are ornamented at their angles by a twisted cord-like moulding, which is frequently met with in the later work.

The value of the simple detached circular shaft, and the beauty which the cusping of a large arch in a proper manner gives, cannot be too strongly dwelt on.

The doorway of the Broletto, at Brescia (fig. 11), is executed mainly in stone, and has some traces of fresco in the tympanum.

Our author urges strongly the importance of introducing more colour in the interior of our buildings, and bids architects remember it is they who must bring this about:—

"Could we but place one of our cold bare places of worship by the side of S. Mark's, and let the development of Christian art in the construction of the fabric be ten times as great in our northern church as in the Venetian, we may yet rest assured that every religious mind would turn at once to the latter, and scarce deign to think of the former as a place for worship at all. If this is so, does it not point most forcibly to the absolute necessity for the introduction of more colour in the interior of our buildings, either in their construction, or afterwards by the hand of the painter? And architects must remember that this ought all to be within their province as directors or designers; and therefore, that they must not, as now, venture to design cold shells, which may or may not

* "This arrangement is not by any means unknown in Northern Europe, though certainly comparatively uncommon. There is an example of the thirteenth century at Easby Abbey, Yorkshire, whilst in France the wonderful collection of ancient houses at Clany all have it, and at Ratisbon, one of the most interesting cities in Germany, every one but of a great number of houses of the twelfth and thirteenth centuries, of prodigious architectural interest also, has it."

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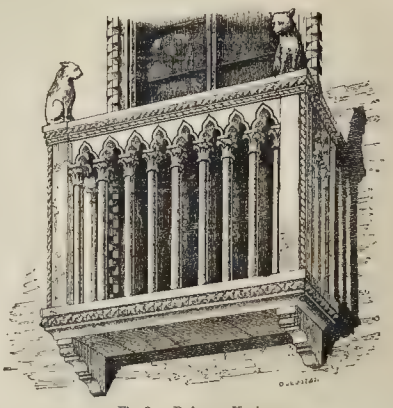

Fig. 9.—*Balcony, Venice.*

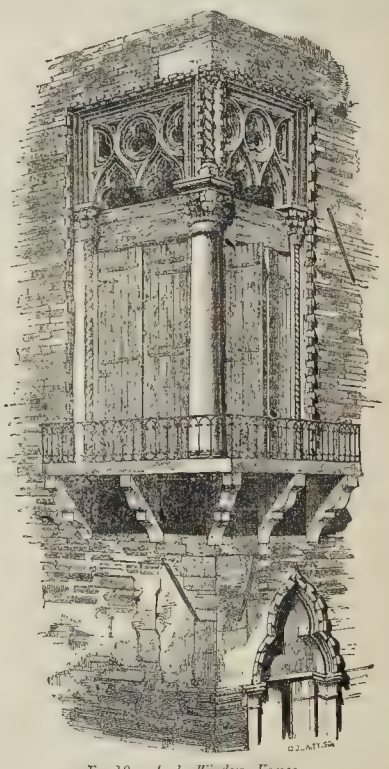

Fig. 10.—*Angle Window, Venice.*

Fig. 11.—*Doorway, Broletto, Brescia.*

afterwards receive the necessary and indispensable decorations, but from the very first must view these decorations as part and parcel of the work in which they personally are concerned: then, and not till then, shall we see a satisfactory school of architects in England."

In closing our notice of the contents of this work, we cordially recommend it to our readers, as containing much that is both new and useful.

THE RECENT HISTORY OF ARCHITECTURE.*

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BY comparison with the works undertaken within a few years after 1815, those belonging to the period of the war were executed under a condition of *art* approaching to paralysis. As the course of our history may eventually show, even the questionable taste for which credit has been given to George IV. as the Augustus of England, furnishes a marked contrast to that of the reign which preceded.

If the present war is to bring with it a loss of aids, most important to human progression; according to the experience of the last war, it might indeed in that way inflict an amount of disaster equal to that of the sacrifice of life and treasure. Such, however, is the incidental and inevitable result of wars. Education, civilization, social condition,—in short, progress of every kind, in ordinary affairs, or in science or art,—what does not involve as a condition of it, the interchange of thought? At all times, there has been much of insular exclusiveness in English character. Establish a barrier against outward impressions, and a nation, like an individual, will speedily wear out any stock of ideas. It is not merely the spur of emulation, not merely the means of estimating the true position, that will be lost. Ideas multiply and procreate in combination. In the trituration of many minds, the sustaining aliment of progress is produced. Even with some materials gathered together in that spirit of research which we found to have become a European characteristic, compensation did not accrue to art in England, for the ignorance of much that was old, and all that was recent or contemporary on the Continent. Therefore, nothing could be worse than the state of general taste in the latter part of the reign of George III.—the Regency, of course, inclusive. We may admit, that painting retained the eminent position it had acquired; and sculpture, likewise, was cultivated with no mean power. The opportunities which the war created for the production of monuments and works in portraiture, were themselves sufficiently numerous. But as to some branches of united ART, wherein, as we must continue to believe, is most evinced the feeling for art, as *art*; we mean, as matter distinct from representation—the deadness of intellect was complete. In the exteriors of ordinary houses, or in the style of interior finishing—we can hardly call it *decoration:* in the common articles of furniture and household use, there is the same blank and vapid character. Any considerable attempt that might perchance be made, displayed a total ignorance of the *nature* of art. So that, generalizing, we could only say that the age had *no* Art.

As for the chance of the proper use of ancient models,—whilst that use implies the study of, and deduction from them, rather than the moulding of copies, it implies also the comparison of a large and varied number. Without the estimation of the merit which there is in each and all, the elements of good art—propriety of character and novelty (neither of which, as we lately argued, can be wholly spared for the other),—would not bear their proper relation in any new work. Probably, however, those who had the means of influence in their hands, knew less of Italy and the continent than was known during the reign of Elizabeth, or to the travelling ecclesiastics of a previous time. Illustrated books were almost inaccessible even to architects; and, whatever may be the difficulties now, of bringing the influence of professional knowledge to bear upon public taste, the difficulty must have been greater formerly, by reason of the limited number of architects. Those who did find scope for practical undertakings—and the number of men being small, they were generally kept well employed,—had all the distracting claims involved in a decision on the point to which we referred,—the question of predominance of novelty, or of purity of style. Architecture in Europe had greatly emancipated itself from the vicious influence of a Borromini, but, with some exceptions, only to be resigned to the mannerism of a cold version of Palladianism; and we have shown that the architects of the Burlington school were rapidly falling into practices, tending to the loss of all the characteristic features of our special art. The better manner of Sir Robert Taylor and Sir William Chambers, and the eccentric style of the Adams, had supervened. The doctrine of absolute novelty next was supported by Sir John Soane.

But, although the expression of art observed in our streets—whether in ordinary houses, or in the majority of public buildings—has been in great part produced since 1815; a certain number of works were of necessity undertaken during the period of the war, and by architects who deserve notice. We have referred to some of those; but the names of Henry Holland and James Wyatt are too important to be passed over. The former died in 1806. His principal works were—the theatre of Drury-lane, which was destroyed by fire, in 1809; the theatre at Covent-garden (or the greater part thereof), destroyed in 1808; the front and screen of Carlton-house; and the main part of Melbourne, or Dover House, Whitehall. He was also architect of the far inferior work—the Pavilion at Brighton, shown in the "Vitruvius Britannicus," and which was subsequently remodelled under Nash and Porden; and the design of the front of the India-house, ascribed by Mr. Cunningham, Mr. Timbs, and most other writers, to R. Jupp, the surveyor to the Company, under whose direction the work was executed, is attributed by the writer in the "Penny Cyclopædia," with great probability, though we know not on what conclusive authority, to Henry Holland.

The theatre of Drury-lane was commenced in the year 1791, on the site of the old house,—a structure of small dimensions internally, slightly decorated in the style of the Adams, and celebrated as the scene of the performances of Garrick. Holland's theatre is described as having occupied more ground than the present house; the quantities given amounting to respectively, 49,600 and 32,400 superficial feet. We doubt whether as to building area, the excess could have been what would here appear. The west end of the building was some yards distant from Brydges-street,—from which, however, there was a pit entrance by a passage. The main entrances were from Russell-street, on the north, and from a street called Woburn-street, on the south. There were colonnades for part of the length,—similar to that which has been added to the present structure in Russell-street,—though not projecting over the footway,—the main building being set back. The exterior appears to have been very plain,—but was, at all events, not inferior to present theatres—than which it would be difficult to find any class of edifices so singularly unsuccessful in effect;—and that, whether they attempt little, or attempt much. But the view of the interior in Wilkinson's "Londina Illustrata," justifies what was thought of Holland's theatre at the time of its completion. The shafts, or supports to the tiers of boxes (of which last there were several, as in the present theatre), were moulded, so as to have a very tasteful character, as compared with present contrivances. The tiers of columns carried arches,—supporting the ceiling,—the arches being hung with drapery. The lattice-work pattern,—in general use at this time and later, through mere absence of art—was indeed everywhere; but effect was redeemed by a superior character of classical ornament,—as paterae and Vitruvian scrolls—and well-grouped panelling to the fronts and backs of the boxes. The misconception of principles which we could hardly help noticing in any work of this date, is evinced in some of the decorations of the proscenium, where, on each side, backed by a group of flags and trophies, was a large flaming urn.

Difficulties appear to have retarded the completion of the building; though probably they were not such as should dim the fame of the architect. 150,000*l.* the amount of the estimate, had been raised in 300 debentures of 500*l.* each. The manner of paying the regular interest seems not to have been thought of. In the present building, and nearly all other works of the class, the extraordinary rapidity of execution, which is general, has been disadvantageous, at least with regard to decorative character; and from that haste results much that we should see reason to object to in the ephemeral ornaments of the interiors. However, in 1794 Holland's theatre was opened with an oratorio. In the first dramatic representation John Kemble, Mrs. Siddons, and Miss Farren appeared, and Charles Kemble took his first part. The play was "Macbeth." An attempt to leave out the ghost of Banquo was given up, at the remonstrance of the galleries; and a lake of real water was exhibited. Then, or shortly afterwards, an iron curtain seems to have been added to the proscenium, with the view of shutting off the auditory, should any fire break out behind the scenes; and two immense reservoirs were placed in the roof. When the fire did occur, in fifteen years' time, these provisions, like others in similar cases, were found to be of no avail,—the reservoirs being empty or forgotten, and the curtain having been removed a few months previously, as it had become too rusty to work. Respecting the difficulties the architect had to contend with, an anecdote is told which may bear repeating, even in this place. Though every one seems to take liberties with the Sheridaniana,—very reprehensible in dealing with these classics of English literary and domestic history, we will merely try to throw such light as knowledge of professional matters might be expected to do, in the telling of the present story.

The theatre had, it appears, been opened, and nothing remained to be done but the usual agreeable business of settling the accounts. Our practical readers might say,—fancy Sheridan at such a task! The duty was put off until Holland became impatient, or perhaps the builders with him. Mr. Sheridan was *nowhere*, or rather, everywhere. At his house he was "not at home;" at the theatre, he had "just stepped out;" at clubs and other resorts, he had "gone to his house." But after a few weeks, the architect one day tracked the manager to the stage door. Holland overpowered the porter and detected Sheridan on the stage with a party of gentlemen, to whom he was showing the theatre. Sheridan saw his architect approaching: escape this time was impossible. He therefore put a good face on the matter. "Ah! my dear fellow," said he, "you have come quite *àpropos*. I am truly sorry you have had the trouble of calling on me so often; but

* See p. 397, *ante*.

now, in a few minutes I shall be at liberty: we will then go into my room and settle our affairs. But first, you must decide an important question here. Some of these gentlemen tell me there are loud complaints that the transmission of sound is defective in your beautiful theatre,—that, in fact, the galleries cannot hear at all, and that this is the reason they have been so noisy of late." "Sound defective! not hear!" ejaculated the astonished architect, turning pale. "Why it is the most perfect building for sound that ever was erected: I may stake my reputation the complaint is groundless." "So say I," returned Sheridan, "but now you are here, we will bring the question to a practical test, and then have a paragraph or two in the papers. Do you, Holland, go and place yourself at the back of the *upper* gallery, while I stand here on the stage and talk to you." "Certainly," said Holland, "with the greatest pleasure." A lantern was provided, with a guide, and away went the architect through a labyrinth of dark and winding passages—almost a day's journey—until he reached his distant and elevated post. "Now, Mr. Holland," cried Sheridan, "are you there, and ready?" "Yes!" was the immediate answer. "Can you hear me?" "Perfectly, perfectly, Mr. Sheridan." "Then I wish you a very good morning." So saying, Mr. Sheridan disappeared, and was a mile off before Mr. Holland could get down again. Another long interval elapsed ere the fugitive could be chased to his lair again, and the subject of accounts broached. In these days it was held somewhat gentlemanly to escape a debt; and for the failings of the individual, we, like the recording angel of Sterne, may fitly drop the tear which blots them out for ever. What, indeed, of that wit and pathos which the vulgar think opposites, but which are nearly allied: how much that is rich in poetry and graceful in diction, is called to recollection in the name of one, whose high principle and whose erroneous practice were ever at terrible conflict with each other? We are not doubtful of the merit of the modern drama; but, few are the works which now some way, do not leave us:—

> "Sighing that nature formed but one such man,
> And brake the die in moulding Sheridan."

In 1801, the concern of the theatrical proprietary had got into such hopeless difficulties, that application was made to the Lord Chancellor for protection. Sheridan pleaded in person, and accused Holland of leaving the theatre unfinished, though he had exceeded the contract. The theatre was, however, kept open.

Accounts as to the origin of the fire vary. The day, the 24th of February, 1809, was a Friday in Lent, when there was no performance. The fire was discovered about eleven o'clock at night; in ten minutes it extended from the front lobby—to which one account relates that it was at first confined—to the boxes; and in one quarter of an hour from the first discovery it had extended over the whole house. In another quarter of an hour, the Apollo at the top fell into the pit; and very soon after, the roof fell in. In about four hours from the first, the whole was destroyed. This extraordinary rapidity of destruction might afford a very useful lesson—one which was attended to in the subsequent building, more than it has been in still later theatres. There was, we should state, an unfortunate system of construction in the case of Holland's theatre. Under the idea of advantage as regards sound, the skeleton of the fabric was made more essentially a matter of carpenters' work—even than was usual at the time. The complete framework, indeed, was all finished, and stood for some considerable period before the spaces were filled with brickwork.

One story tells how that during the time of the fire, Mr. Sheridan was discovered seated in one of the taverns hard by, calmly enjoying a pint of wine. A friend discovering him, expressed surprise that he could sit there under the circumstances. Sheridan replied, "What! cannot a man take his glass of wine by his own fireside." This story in most of the lives of Sheridan is denied, and on the ground that when the news of the fire reached the House of Commons, Sheridan was there, and was able to observe, on the motion for adjournment, that "whatever might be the extent of his private calamity, he hoped it would not be suffered to interfere with the public business of the country." That it would appear quite certain that Sheridan remained at his post, and that different anecdotes are therefore disposed of, would, however, seem to be not the necessary inference, since other accounts say that the House did adjourn, many of the members at once going towards the theatre. The fire occurred five months after that at Covent Garden.

The difficulties of providing a new theatre, in the state of the finances, were of course very great. The work was, however, accomplished, and the present theatre, by B. Wyatt, architect, was commenced on the 29th of October, 1811, and opened on October 10, 1812. Extensive alterations in the auditory by the late Mr. Beazley were afterwards made; but some important features of Wyatt's structure remain, and these may demand notice in the proper place. For the present we wish to look at other works in which Holland was concerned.

Carlton House, as known to many of our readers, occupied that portion of Waterloo-place which is south of Pall-mall. The name of the original architect, in the time of Queen Anne, is not known; but the celebrated landscape gardener-architect Kent laid out the grounds when the property was in Lord Burlington's hands, between 1725 and 1732. These gardens extended along the south side of Pall-mall, and are said to have been in imitation of Pope's garden at Twickenham, with numerous bowers, grottoes, and terminal busts. Mr. Cunningham speaks of an engraving of them by Woollett. The property came into the possession of the father of George III. and being assigned as the residence of the prince—afterwards George IV.—in 1783, great alterations were made under Holland. A basement story of low rooms on the side next the park seems to have been part of the original arrangement, and therefore not due to the taste for low rooms with which the owner has been credited, but the whole of the front portion of the house is to be considered as having been renewed, and the decorations may be fairly ascribed to the period of taste we have remarked upon, and of which they must of course be deemed superior specimens. In accordance with that system of waste in expenditure on public works which prevails most in connection with royal palaces, the costly fabric under notice was of very short duration. It was taken down in 1827. The riding-house and stables, however, remain. Some architectural details may be discovered, tending to show that Holland's manner was superior to that in many contemporary buildings. The principal feature is a semicircular and conch-headed recess, intersected by an entablature; the Doric columns supporting the latter, being without bases, and fluted, but Roman in character. "Carlton Ride" is now best known as the precarious depositary of invaluable public records.

The main front of the house had a central portico and projecting ends; the walls being rusticated; and the portico being partly recessed, and partly projecting—leaving a wide intercolumn in the flank for a carriage-drive under. This very desirable arrangement however, involved an appearance of weakness, and in spite of the grouping of internal columns. That such effect is not inevitable has been shown in the case of Covent-garden theatre; but the omission of the proper base—the flight of steps—in such cases; or the substitution of blocks or dwarf wall is a change for the worse. We think, with some contrivance, convenience and effect might be both attained. The portico at Carlton House was hexastyle, and of the Corinthian order. The columns have been used again at the National Gallery, though denuded of much of the decoration. The original order had not only enriched base mouldings, but an enriched frieze. Looking at the interior, the hall was square on the plan, and on each side was an opening, or a recess, with a segmental coffered arch, enclosing two Ionic columns and entablature, the last supporting vases and chimeræ. A landing of the staircase was octagonal in plan, with well-hole and lantern-light; and the angles of the ceiling there, were formed by fan-shaped springers. One of the dining-rooms was circular, with columns and recesses, somewhat after the arrangement of those features in the Pantheon at Rome. At the opposite sides of this room were large mirrors. The general decoration of the house was of pseudo-classical character. Trophies were freely introduced; and panels, even those of doors, were enriched with lyres, wreaths, and festoons. One common introduction was that of terminal figures, used for the filling up of apertures, or for parts of furniture. These terminals were common in the style of the Adams. They may be still seen in what may have been originally shop-fronts, in Adam-street, Adelphi. From the same school, was derived the better sort of ceiling decoration in some of the rooms. Generally, the ceilings were painted to represent the sky and clouds. In the furniture, the ordinary refuge of bad taste, gilding, was used to a great extent. In many of the rooms, the furniture was entirely gilt, with crimson or crimson and black cushions. Art degenerated; but in those days, the upholsterers' business must have been a thriving one. Decoration of some kind was required—at least in palaces—and the upholsterer, not the architect, was set to do it; and he, of course, took care to use plenty of cloth—silk and velvet—in the work. In ordinary houses, as much architectural decoration as there was in Carlton House, would have been eschewed in favour of walls of plain drab colour,—not, be it remarked, on the score of saving, but because of an extraordinary apprehension of anything like decoration and colour, as indicating pretension and vulgarity. We believe a similar delusion still interferes with the growth of art. The upholsterer-decorator of the Prince Regent's time has, however, of late become much more of an artist.

The most important point for notice as to the interior of Carlton House, is the absence of the Louis Quinze style. Where the furniture had not the usual straight and stiff character, it resembled that which is known from the works and gallery of Thomas Hope, though only in some rooms was equal to that. Some of the arm-chairs have a peculiar hollow curved back. The design is, we think, known as the Carlton House chair. The Carlton House table is one with drawers round three sides of the top of the table. One of the most effective of the rooms was the crimson drawing-room. Here the backs of the chairs were curved, and the arm-chairs were indeed of very fair character. All round the upper part of the room were festoons of drapery, with folds, radiating from stars,—curtains depending both at windows and doors. The colours were, for the accessories already mentioned, crimson and gold; for the doors and chimney-pieces, black with gold mouldings and ornaments; and for the ceiling, which was banded, coved, and enriched, fawn colour and gold. In the ante-chamber leading to the throne-room, some of the arm-chairs showed a decided effort in classical character; they had straight roll-shaped arms, partly supported by sphinxes, and moulded and ribbon-banded posts as support at the back. These chairs were gilt, and had blue cushions, with long gold fringe. The panels of this room were filled with blue velvet. In other rooms, decorated as it was intended, in imitation of Indian or Japanese ornament, we have evidence of that childlike taste wherein *art* is disregarded for the sake of mere imitation,—that is to say, the taste of which the decorations of the Pavilion at Brighton were the most remarkable example. With such exceptions, we think that no pattern in mural decoration was attempted, and there is none in the pavements and carpets, frequently. Paper-hangings at that time were of inferior design and quality,—though from Professor Donaldson's investigations given in his paper read a few years since at the Institute of British Architects, it would seem that the manufacture had been during some time carried on in England. Surface decoration recently, in the interiors of ordinary houses, has been made *too prominent*, and the resulting disadvantage is increased by the disregard of principles which is all but invariable in the abundant variety of designs. In the *suite* of rooms in the basement of Carlton House, there were some things which should be mentioned. One room was called the Golden drawing-room, or Corinthian room. Here the walls were coloured pink, and the whole of the

columns and wood-work of furniture, and the cornice were gilt. An alcove was fitted with mirrors, opposite to each other. At one end of the *suite* was the Gothic dining-room. This was in wretched taste. The ceiling exhibited a surface of plain white plaster, with a range of pointed-arch-shaped ribs, cusped, laid thereon, and inverted as it were, what would be the points of springing being towards the centre of the room, at which points were suspended lights. This notable device was, however, less worthy of record than that of the conservatory at the opposite end of the *suite*. The conservatory was said to be in "imitation of a cathedral," or "Henry VII.'s chapel." In a view, the appearance of the elaborate workmanship is equally suggestive of Roslyn Chapel. The ribs of the fan-tracery were filled in with stained glass. This idea is one that might be made much of, without producing the caricature of a style. The conservatory was, we believe, designed by Mr. Hopper,—not by Holland. The Gothic furniture, about this time, was conceived under complete misconception of those principles which are amongst the most valuable contributions of the style to art,—namely, those which relate to the distinctive properties of materials. Of course, the Gothic dining-room at Carlton House—furnished, as was supposed, in admirable consistency throughout—was full of works of the mistaken character referred to. But, it was very long before what is now clear and simple, was arrived at: the Pugins even, father and son, did much that they must have afterwards regretted. The younger Pugin, indeed, in his "True Principles of Pointed Architecture," referred specially to his own designs for furniture at Windsor Castle, as exemplifying what should be avoided. He, however, had a spirit which few possess. He one day remarked to a publisher, that there were "no good books on Gothic furniture." "Why," said Mr. ——, "aren't there your own?"—which some people would think tolerably good; which, at all events, have been the foundation of the greater part of the Gothic designs during many late years. "Pooh!" said Pugin, very contemptuously, "I must *write down* those things."

That portion of Holland's building which was most noticed at the time, was the screen of columns in front. The arrangement adopted belongs to the debateable ground, whereon amateur criticism may safely venture. It is, however, very much less objectionable than the single column, used as a monument by the Romans, or the misshapen example which stands now on part of the site of Carlton House. A screen of columns affords just as much separation as is necessary; and it is fairly argued could be substituted for the common blank walls of London houses, with advantage both to their effect and to the public. At Carlton House, with the portico seen through the screen (where the first public application of the newly-invented lighting by gas was made), the effect must have been worthy of admiration in those days. But Soane, according to Mr. Tite's *résumé* of the professor's lectures, thought differently about screens; and Bonomi made the one in question the subject of an epigram, thus done into English by Prince Hoare:—

"Dear little columns, all in a row,
What *do* you do there?
Indeed, we don't know."

When Waterloo-bridge was built, some wiseacre varied this into a dialogue between the two columns, thus:—

"Brother, dear! what do we here?"
(*Answer.*) "I know not; ask the engineer."

These smart sayings are not favourable to sound criticism; and perhaps we do wrong in giving them.

A similar feature had been used by Taylor, previous to this screen of Holland's, in the Bank of England,—we might perhaps say even by Soane,—not to mention Chambers's treatment of part of the river-front of Somerset House. The screen at Hyde-park-corner belongs to a later date. The columns at Carlton House were of the Ionic order, and there were archways for carriages.*

* To be continued.

PROPOSED DISMEMBERMENT OF ST. JAMES'S-PARK.

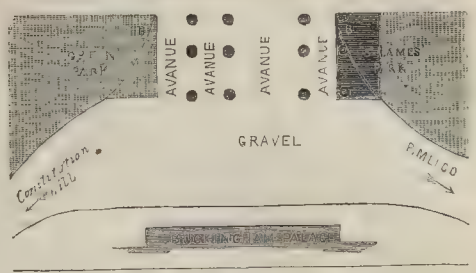
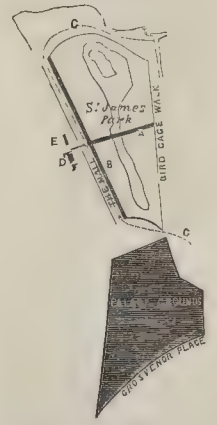


FIG. 1.



A. Proposed road. B. A green avenue at present. C. Roadway at present ready. D. St. James's Palace. E. Marlborough House.

THE ROAD THROUGH ST. JAMES'S-PARK.

FEW changes could be made in the metropolis which would give more general dissatisfaction than the cutting up of the beautiful park known as St. James's, which is the most venerable of our parks, and also the most artistic and elegant in its arrangements. It has taken upwards of 200 years to form the picturesque whole which on summer Sundays gladdens the eyes of so many thousands of Londoners. St. James's, to a large population, is a convenient park, as it closely adjoins a dense population: it is also, by its position and immediate conjunction with the town residence of the sovereign, the place most frequented by strangers.

From time to time slices of "greenery" have been taken from St. James's-park, and transformed into gravel, or in other ways covered; still, to a certain extent, the integrity of the general plan has not been materially interfered with.

Once upon a time there was painted at the entrances of our parks,—"No admittance for dogs or gentlemen's servants;" and it is only lately that soldiers in uniform were permitted to breathe the air of these places and associate with other citizens. Public opinion has caused the abolition of these restrictions; however, there are now, at certain parts of our public parks, notices still placed that cabs and other public carriages shall not be permitted to pass. The great increase of certain quarters, and, perhaps even more than that consideration, the wonderful facilities afforded by railway and other quick means of transit, have made the general masses of the population impatient of delays, and unwilling to spend in reaching a distance of less than half a mile an amount of time in which they might have been whisked nearly twenty miles: the expense is also a consideration.

The complaint, in this respect, which has attracted most remark of late, has been that referring to the road between Pimlico and Pall-mall; and many persons residing in these localities have written to the public journals suggesting that the notice respecting cabs should, like the regulation respecting the soldiers and livery servants, be repealed, and that free access should be allowed through the park gates at Pimlico, Storey's Gate, and along the Mall, and that a wider opening should be made into Pall-mall, near St. James's Palace.

The plan adjoining (fig. 1) shows a large space of firmly-gravelled road, a considerable portion of which has at different times been taken from the green part of the park. From the entrance at Pimlico, there is a spacious road, which is divided by a considerable space from the screen of Buckingham Palace. This leads to the Mall, which is divided into four noble avenues, one of extraordinary width, and each of the others broader than most of our London thoroughfares. We have here ready to hand a road equal to a great traffic, which might, by the peculiarity of the arrangement, be managed without inconvenience or confusion. We would not grumble if the curves marked by the dotted lines B B should be made.

Instead, however, of availing themselves of the means ready to hand, it would seem that the authorities have determined to cut the park in two by a road, which is to extend from the Birdcage-walk to between St. James's Palace and Marlborough House, crossing the ornamental water by means of a bridge. Many plans, perfectly ridiculous, in spite of a strongly-expressed public opinion, have been carried out, and remain, to the present day, not only an annoyance to every one of taste amongst our own community, but to astonish our friends from over the water. Yet nothing more unwise

has been proposed during the last twenty years than the idea of putting a great road through this beautiful park. We cannot find words sufficiently strong to express our feelings respecting this scheme: but we would have our sketches second the indignant remonstrance of the *Times*.

Few people will believe, notwithstanding that the posts marking the line have been fixed, that such a thing is contemplated. "But," say the parties engaged upon the work, "it will not be long before it is done."

Can it be possible that this is determined? If it be, then no time should be lost by those who feel an interest in preserving and adding to the beauty of London, to give a strong expression of their opinion on this subject. Unfortunately, we have not Parliament to appeal to; but surely it is only necessary to represent this fairly in the proper quarter, to prevent the destruction of the fine trees and general appearance of St. James's-park, which this unsightly and unnecessary alteration would cause.

It is impossible to describe the surprise of the numerous parties whom we saw collected to witness the erection of the marks. "But," said a gentleman who seemed to know something about the matter, "step this way. Look here: we are now with our backs against the railings of the palace. You see that beautiful row of trees enclosed by the railings: you see a space corresponding with the second from the centre on the other side: St. Paul's looks well in the distance, and these flowers and shrubs are pleasant to the eye. What would you think, sir, if, after the centre road is made, they should dash over this also with gravel? It is really too bad."

We have marked this part in our plan with a shadow, which we hope may not prove ominous; and in the smaller plan with a black line and the letter B.

CHURCH-BUILDING NEWS.

Roydon, Essex.—Roydon church is gradually undergoing a thorough restoration. The interior is now about to be reseated and restored under the direction of Mr. Joseph Clarke. The parish co-operate most warmly with the Rev. A. Pyne, the vicar,—just having made their third rate towards the restoration. Some curious early wall paintings exist under the plaster of the earlier part of the wall of the south aisle, and which are thought to be as early as the thirteenth century. These will be brought to light, and preserved, if practicable. The chancel will be opened into the church, and the floor raised to its original level.

Biddenden, Kent.—Biddenden church is also under restoration by Mr. Joseph Clarke, the diocesan architect. It is one of considerable interest, and contains points of beauty. The interior is to be entirely restored and reseated; the stalls in the chancel, and in Colonel Patterson's chapel, being of a richer design. The piers and arches, with the other stonework, will be restored throughout, and the floor laid with Minton's tiles. The contract has been taken by Messrs. Constable, of Pensburst.

Lincoln.—The church of St. Michael on the Mount is slowly progressing towards completion. It is in the Early Decorated style, and consists of nave and south transept, with apse chancel at the east end. The stone is Lincoln hammer-dressed, with Caen stone dressings; and the roof, which is of slate, is surmounted by crested tile ridging. On the south side nearest the west end the church is entered by a porch, on which, probably, at a future time, a tower and spire will be erected. On the north side is an entrance to a gallery, constructed to accommodate the Christ's Hospital school children; and owing to the precipitous rise of the ground, this gallery is entered at a level of about 6 feet higher than the floor of the church. The roof inside is open. The chancel is semi-octagonal, and is internally separated from the nave by an arch on carved corbels: the transept and nave are divided by two arches. Mr. Teulon is the architect, and Mr. C. Ward, of this city, the builder. The amount of the contract was 2,600*l.*; but it is calculated, says the *Lincolnshire Chronicle*, that before the completion of the church the amount expended will be a considerably larger sum.

Lynn.—At a meeting of the Lynn Town-council, as Burial Board for the borough, on Wednesday before last, the committee to whom it had been referred to receive tenders and enter into a contract for the erection of the chapels, reception-house, lodge, &c. for the new cemetery, reported that the only two tenders received were that of Mr. Bainbridge, at 1,800*l.*; and that of Mr. Stimpson, at 1,680*l.* The estimate of Messrs. Aicken and Capes, the architects, amounted to 1,550*l.*

Yarmouth.—The work of restoration at St. Nicholas's Church, here, which, during the building of the St. Peter's and the Priory National Schools was suspended, has been resumed. For several weeks workmen have been employed in the church, and the result will shortly be to remove the unsightly temporary communion-rails and reading-desk, and to provide an inner chancel suitable to the building. The altar-rails, clergy and choir seats, and reading-desk, are to be of carved oak; and the space round the altar of Minton tiles.

Hempton.—The first stone of a chapel was laid on Hempton-green, near Fakenham, Norfolk, on Friday before last. The Church Building Society, in contributing 65*l.* towards the building, authorised their architect, Mr. Hakewill, to enlarge the original design and to superintend the progress of the edifice. The present structure can only be regarded as a chancel for the chapel. The building will consist of four rough flint walls, with Caen stone dressings. The style, so far as any style can be exhibited on so small a scale, is Early English. The persons employed in the erection are—Mr. D. Forster, stone-mason; Mr. C. Tuthill, carpenter; and Mr. J. Antingham, jun. bricklayer.

Burslem. — St. Ann's Church, Brown-Edge, was reopened on Sunday in week before last. The new tower and spire, designed by Messrs. H. Ward and Son, of Hanley, is of the Norman style of twelfth century, and ornamented with carvings. The tower is square, surmounted by a rectangular spire, ornamented with ribs and shell work, and relieved by two tiers of spire lights and ornamental vane, at the apex, and is upwards of 100 feet high. There is also a staircase turret at the north-east angle of the tower, finished with spire and ornamental vane. The lower stage of the tower forms the vestry, and is connected with the church by an archway, with shafts and mouldings, all carved; and the vestry is separated from the church by a carved oak screen, surmounted with gilt ornaments placed behind the archway. All the carvings have been executed by Mr. Gladwin, of Penkhull; and the ornamental ironwork by Mr. Loton, of Cheadle. A peal of six bells, cast by Mr. Mears, of London, has been put in the tower; and all the windows will be filled with stained and ornamented glass, from the establishment of Messrs. Wailes. The chancel window, which is completed, has in the centre opening a figure of St. Anne (to whom the church is dedicated), teaching the Virgin Mary to read. The above additions and improvements have been effected at a cost of 2,250*l.* supplied by Mr. H. H. Williamson, of Greenway-bank.

Wimborne. — The foundation-stones of the chapels about to be erected in the New Burial-ground in this town were laid on Tuesday before last. The contractors, Messrs. Cottman, Eaton, and Roberts, with their workmen, fifty in number, afterwards dined at the Three Lions. The architect is Mr. R. H. Shout, of Yeovil.

Wells.—Nearly 400*l.* have been raised at Wells, for a memorial to the late Rev. Canon Barnard. It is proposed that it shall consist in the restoration of the parish church of St. Cuthbert, and that a stained glass window shall be placed in it in memory of the deceased, who was vicar of the parish. The subscription, it is anticipated, will speedily amount to 1,000*l.*

Curland. — The foundation-stone of a new church for the parish of Curland, near Taunton, was laid on Tuesday before last. The edifice, one of the smallest, perhaps, in the county, will be in the Perpendicular style, from a design by Mr. Ferrey. The contractor is Mr. H. Davis, of Taunton. There will be no tower, but a turret containing two bells. The church will be built of flint, with Ham stone dressings. Five of the windows and a door were the gift of the Rev. J. E. Lance.

Gateshead.—A new chapel has been commenced at Mount-pleasant, Gateshead, for the Wesleyan New Connection, from designs and under the superintendence of Mr. W. Thompson, of Newcastle, architect. The chapel will have open timbered roof, open seats, and stained glass windows at the west end. The style is Decorated. Mr. E. Bruce, of Gateshead, is the builder.

SOMERSETSHIRE ARCHÆOLOGICAL SOCIETY.

AT the annual meeting of this society, recently held at Dunster, Sir Walter C. Trevelyan, bart. the president referred in his opening address to the iron ore found in the neighbourhood at Treborough, which turns out to be equal to the best Silesian iron in quality, and is found in deeper and richer veins. This discovery, he said, was of great importance not only to this locality, but to the nation at large. The great value of microscopic investigation was alluded to, especially towards determining the fertilizing properties of streams by discovering the extent to which Desmidieæ and Diotomaceæ are found in the water.

The Rev. J. Warre read a paper by Mr. E. A. Freeman, M.A. on "The Priory Church of Dunster," with especial reference to the architectural distinction between merely parochial churches and those which were conventual or collegiate, and especially the peculiarities of those churches in which both purposes were united. This is a subject which Mr. Freeman has treated of in our pages and elsewhere. It was pointed out that, besides the priory and the castle, Dunster contains one or two other architectural remains of some value. The old Market-hall can indeed hardly be called in strictness a work of architecture, but its picturesque effect is about as perfect as may be. The Luttrell Arms Inn contains some portions worthy of detailed examination. There is a good perpendicular porch, on each side of which may be discerned some defensive preparations, which seem to imply the possibility of mine host—if hostelry it were from the beginning—being called upon to stand a siege upon his premises. Within are some good cinque-cento chimney-pieces and other ornamental work: there is also, in a rather out-of-the-way part, where the visitor will have to look for it, some effective, though rather coarse, perpendicular wood-work—two ranges of windows, namely, with intermediate panelling. A paper on "The Remains of Ancient British Hut-Circles on Croydon-hill," by the Rev. W. Arthur Jones, M.A. was read, and one by the Rev. Thomas Hugo, on "The Charters and other Archives of Cleeve Abbey."

On the second day the Rev. J. Warre read a long memoir of the Abbey itself. Various excursions were made, and entertainments were provided in several quarters.

STANDARD OF DEALS.

To prevent misconception as to the Petersburgh *standard* of deals, from the mode adopted in describing the contents of the *Oriental*, at the Commercial Docks (p. 388, *ante*), it may be well to say that the Petersburg standard hundred consists of 120 deals, 12 feet long, × 1½ inch × 11 inches.

In the notice in question, the quantity was reduced to planks of one inch thick, in order to give a more complete idea of the quantity contained in the vessel. It may be useful to give the following comparative view of standard hundreds in different quarters:—

Russia.—120, 12 feet, 1½ × 11, = 165 feet cube.
Battens.—120, 12 feet, 2½ × 7, = 175 feet.
Dantzig.—120, 12 feet, 1½ × 12, = 180 feet.
Norway.—120, 12 feet, 3 × 9, = 270 feet.
Sweden.—120, 14 feet, 3 × 9, = 315 feet.
Canada.—100, 12 feet, 2½ × 11, = 229 feet 2 inches.

NORWICH FINE-ART EXHIBITION.—This exhibition is now closed, and, according to the *Norfolk Chronicle*, thirty pictures have been sold, the whole amounting to 235*l.* On Tuesday week, the drawing of the Art-Union took place. There were only sixty-four subscribers. The whole amount of the prizes was 26*l.*

BRICK ARCHITECTURE IN ITALY.

[See p. 421.]

FIG. 3.—*Campanile, S. Andrea, Mantua.*

FIG. 4.—*Campanile, Palazzo dei Signori, Verona.*

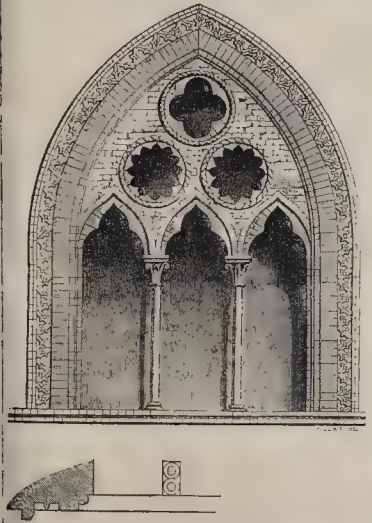


FIG. 1.—*Brick Window, S. Andrea, Mantua.*

FIG. 2.—*Brick Window, S. Andrea, Mantua.*

FIG. 7.—*Brick Window, Cathedral, Monza.*

PARIS DURING THE GREAT EXHIBITION.

NOTES ARCHITECTURAL AND GENERAL.*

Of the palaces and museums in Paris, without doubt the first place is due to the Louvre. It would be superfluous, and indeed impossible, to describe the collection of paintings here. The grand saloon is a noble, lofty, and spacious room, rendered more strikingly so by the approaches being through saloons which, though much smaller themselves, give on first entrance an idea of great size and magnificence. It is amusing to recline on the velvet divan in the centre, and to watch the different expressions of those who enter for the first time; the upward gaze of wonder and surprise changing gradually to admiration. The long gallery, which adjoins the grand saloon, is a still more sumptuous apartment. Sumptuous is indeed the term; for, in place of the grey distempered match-boarding with which we line our national galleries, here are real marble walls and columns, mirrors, silk hangings, and velvet-covered seats. The gallery is 1,322 feet in length, broken at intervals by coupled columns, which advance and break the monotonous effect so great a length would otherwise produce. It is admirably lighted by large windows in the circular vaulted ceiling. Apparently some extension of this gallery will take place on the completion of the great works which are in progress for connecting the Louvre with the Tuileries, as a portion of this gallery is boarded off at present. Besides the collection of paintings, the Louvre contains the Musée de la Marine, consisting of models of ships of war, steamers, marine artillery, &c. and large models of the chief naval ports of France. This collection, though very interesting, is not so much visited as the rest of the Louvre. The approach is up a back stair, very likely to be overlooked by a stranger. There have been recently added to the Louvre some very interesting relics of some of the French monarchs, especially of Napoleon le Grand: these are contained in the Salon des Rois, and the Salon Napoleon I. But next to the paintings, the most important collection is the Musée des Antiquités, which is in many respects analagous to the sculpture galleries of the British Museum. Here are besides a large collection of Egyptian and Assyrian sculptures, some of the most famous antique statues,—the gladiator Germanicus, Diana à la Biche, and above all the exquisite Venus of Milo,—a statue I believe to be in every way far finer than the Florentine Venus. I allotted the only Sunday I was in Paris to Versailles: it happened to be one of the few days on which the grand fountains play. I left Paris at nine in the morning, by the railway on the right bank, accompanied by two young Englishmen. We breakfasted at Versailles, and about eleven, following the constant stream of people tending in the same direction, arrived at the palace, and in five hours had passed through the rooms, resting in none, and being continually on the move. I retained little more than the feeling that I had seen a great many big pictures of battles, had escaped some dangerous falls on the slippery floors, and was suffering from heat and thirst. It is true I saw also the private apartments of Louis XIV. and the chapel, but as these are shown only to a few people at a time, accompanied by a guide, I had not time to make any remarks. By this time the *grands eaux* were playing in full force, and, together with the accessories of an immense concourse of people, of whom a part only were French, military music, and a bright burning sun, formed a most charming scene.

Besides the national collection at the Louvre, there are the pictures of modern French artists at the Luxembourg Palace. One of the most remarkable of these is a large unfinished work by David, of the heroes of the first Revolution, showing the careful manner in which that painter wrought, the figures being elaborately painted nude studies, intended of course to be finished in the costume of the time. At present many of the pictures are removed to the Palais de l'Industrie. The state apartments at the Luxembourg are gorgeous to excess; indeed, there is great sameness in the decoration of the French palaces, as far as I have seen,—gilding and carving, and mirrors—*da capo al finale* The Salle des Sénateurs, a semi-circular chamber, with the president's chair and tribune in the middle of the chord, and the seats and desks arranged in concentric curves, seems better adapted to its purpose than our rectangular legislative halls.

Not far from the Luxembourg is the Hôtel de Cluny, a building of the latter end of the fifteenth century, in a good state of preservation, and, externally at least, not as yet subjected to the process of restoration. Doubly interesting, as the sole remaining civil edifice of its epoch in Paris, it has been made the receptacle of the collection of mediæval art commenced by the late M. Du Sommerard, and destined to form a museum of national antiquities. Adjoining the hotel are the remains of an ancient Roman frigidarium, supposed to have been part of the palace of the Cæsars, and forming the only vestige of Roman Paris. The collection of mediæval sculpture, carving, iron, and gold and silver work, pottery, glass, and painted windows, is extensive and valuable, and, together with the building itself, affords a fund of suggestive matter for the student of mediæval architectural detail.

Another collection which is well worth seeing I visited during my stay, viz. the Conservatoire des Arts et Métiers. It contains, besides a very extensive collection of machinery and models, about 20,000 drawings of machinery, accessible at all times to the public.

Of the numerous magnificent churches of Paris of all periods, I find notes of the following in my diary:—S. Eustache, a very early specimen of the Renaissance style, the Gothic arrangement and construction being strictly adhered to; but the long slender shafts which would cluster round the piers of a Gothic building, are here replaced by small classic columns, each with a fragment of entablature, piled over each other. In spite of these incongruities, the effect of the interior is good. The windows are traceried, but in a style of great poverty. There are some fine pictures, and a polychromic decoration of the interior is now going on.

I was a good deal disappointed with the abbey church of S. Denis, neither the size nor the splendour of the building coming up to my expectations. Restorations of so complete a nature are in progress, that much of the historical and archæological interest is lost, and monuments are shown as of the twelfth and thirteenth centuries, which from their fresh and perfect appearance have very much the look of forgeries. It is the same with the painted glass. The thirteenth-century glass in the aisles of the choir has been completely repaired, and though on close inspection it is easy to distinguish the old fragments from the new patchings, the effect cannot be the same. Of modern stained glass there is plenty, from the dark age of 1820—30, to the present day, forming an interesting illustration of the progress of the art in its revival, and the gradual recovery of the true principles. One can hardly conceive how such abominations as some of the side transept windows are, could have been perpetrated in any age.

The celebrated tomb of Louis XII. is badly placed, being in a dark side-chapel, and screened off. Under an architectural canopy are placed the effigies of the dead king and his living wife, Marie, sister to Henry VIII. Of the merit of these figures I can give no opinion, as it is impossible to see more than the soles of their bare feet. On the summit of the tomb the figures of the king and queen are repeated in their royal robes, kneeling in prayer. In the twelve arched openings which surround the recumbent figures are the twelve apostles, and a sculptured plinth supports the whole. The ornamental details are very fine, and are, I believe, adopted as standard examples of the Renaissance style in our schools of design; but I think as a composition, the tomb is nothing remarkable, and the small figures of the apostles give an air of meanness to the whole, which is altogether on a smaller scale than I supposed from the views I had seen.

The tombs in the crypt are interesting, but visitors are hurried round by a sacristan in the true Westminster Abbey style; and, by the way, I trust that our historical monuments in the Abbey will never be restored in the perfect manner in which those of S. Denis are.

The church of the Madeleine is one of the glories of Paris. The interior is, of its sort, the most perfect that I have ever seen. It declares itself as a church and nothing but a church, which is not the case with S. Geneviève, the other great classic church of Paris. Perhaps the antecedents of this latter have some influence upon the visitor, and it has the bare empty look of our St. Paul's without its magnificence or size.

The Sainte Chapelle, the restorations of which are nearly complete, is freely open to the public at present. It is a gorgeous specimen of the powers of decorative art. I look upon it, however, more as a *tour de force* than as an example to be admired for its good taste. As a restoration it has the usual objection: not a particle of the old work is or can be seen, the proportions only of the original building remaining. The very profusion of ornament, too, defeats its purpose, and the want of a portion of plain surface as a repose to the eye is painfully apparent.

From La Sainte Chapelle I went to see Notre Dame. The interior looked cold and bare after the rich colouring of the former. The effect of the second range of lofty arches which takes the place of the triforium is certainly to lower the apparent height of the church; and this, together with the want of length, renders the interior less effective than that of our abbey at Westminster; but externally there can be no comparison. Notre Dame is magnificent, the radiating flying buttresses of the apsis, the elegance of the window tracery, and the beauty of the towers, especially under the influence of a bright afternoon sun, combine to form a whole to which nothing could be added without injury.

The new Church of S. Clotilde, near the Luxembourg (see *Builder*, vol. xii. p. 602), is now nearly complete. Though possessing many good points, I do not think it is altogether satisfactory for the second half of the nineteenth century. The towers and spires are mean, much frittered away, and want height. I do not think the French architects have as yet caught the spirit of Gothic architecture to nearly the same extent that our own have, although as restorers they are unequalled.

The very beautiful tower of S. Jacque de la Boucherie, now open to the new Rue de Rivoli, is being very carefully and completely repaired, and will form a striking feature in its new position.

The grand effect of the street architecture of Paris, arising from the immense height of the houses, is very striking to a Londoner, who rarely sees three stories exceeded. The new buildings in the extension of the Rue de Rivoli are quite palatial, and, unlike our new streets, are constructed of stone, and not brickbats cemented over. The balconies (of which there are two, one above the *entre-sol*, and a second formed by a bold projecting cornice to the fourth story) are gilt, which mode is probably as durable as paint in the pure air of Paris, and adds much to the gaiety of the general effect of the new street.

Nothing can be more admirable than the arrangements for cleaning and watching the streets; and as for the river it is quite delightful to see the pure pellucid pale green water falling over the weir just above the Pont des Arts. How the sewerage is managed I do not know, but certainly it is effected without polluting the Seine.

It is probable that even were the sewerage of London diverted from the Thames the constant traffic of steamers would render the water turbid in some degree, but we should escape the noxious exhalations continually arising. However, even the Thames is nothing compared to the Liffy, which at low water is but an open sewer of the foulest kind.

I was much pleased with some newly-erected villas and cottages ornés which I saw at Passy and Auteuil, in which a highly picturesque effect was produced by the employment of black and red brick and stone without any elaborate decoration. Some of these were in the Late Domestic French Gothic style—a style peculiarly adapted, I think, for modern residences, and of which there are numerous specimens

* See p. 416, *ante*.

existing in good preservation. Its adoption and introduction to this country would give one more element for those new combinations of known forms which must henceforth in architecture take the place of originality. I saw a great deal of painted glass, new, old, good, bad, and indifferent. Much of the modern French glass is painfully glaring, and in nearly all there is a great preponderance of the primary colours; the modern glass in the thirteenth century style being peculiarly liable to this error, as may be seen at S. Denis, Notre Dame, and La Sainte Chapelle. The large figure subjects in some of the churches—S. Germain de l'Auxerois, for instance—are positively painful to the eyes, from the large unbroken masses of ruby and yellow glass in the draperies. The semi-circular allegories at each end of the Palais de l'Industrie are not painted windows at all, but pictures on glass, and would have been much better if painted on an opaque wall. After all, I saw no glass that I thought so good as Hardman's, in Westminster-hall; and I am much disposed to think, that flat ornament and heraldry are the only proper subjects for stained glass.

D. W. R.

SOME MEMORIALS OF FATHER THAMES.*

FOR many centuries Old London-bridge was the only structure which was passed across the bosom of Father Thames. Various ferries, such as those at Lambeth and Blackfriars, were the only other means of transit.† From as far back as the reign of Queen Elizabeth, the necessity for a bridge from Westminster into Surrey seems to have been strongly felt by the inhabitants of that district. The measure was, however, vigorously opposed by citizens, "who," says John Sanders, in Knight's "London," "felt that the very existence of the trade and welfare of London depended upon keeping Westminster without a bridge." The same opposition was made to the erection of the Putney, Battersea, and Vauxhall bridges.

On April 4th, 1671, a Bill for building a bridge at Putney was brought before the Parliament. On this occasion, Mr. Jones, the member for London, was examined, who said,—"This Bill will question the very existence of London. *Next to the pulling down of the borough of Southwark, nothing can ruin it more.*"

Mr. Waller, the poet, was, however, of a different opinion; for he says,—"As for the imposition laid by this Bill, men may go by water if they please, and not over the bridge, and so pay nothing. If ill for Southwark, it is good for the end of the town where court and Parliament are. At Paris there are many bridges, and at Venice hundreds. *We are still obstructing public things.*"

The Lord Mayor of London was strongly against new bridges, himself and others stating a belief that new bridges would be the means of causing shoals in the river, and by carrying off the population in various angles, do no end of damage, and create the greatest confusion. Little did these gentlemen foresee that, notwithstanding the erection of numerous bridges, the great difficulty with London-bridge now is, how to provide facilities for the immense increase of the traffic. This Bill was thrown out at the time mentioned, by 67 to 54: that bridge, however, as well as Battersea, was eventually erected, the latter by a company, the members of which each subscribed a sum of 1,500*l.* After the greatest opposition, the Parliament was prevailed upon in March 1736, by a vote of 117 to 12, to sanction the erection of a bridge at Westminster also; and it is worthy of remark, that Father Thames, either for the purpose of reproving them for their long delay, or it may be by way of caution, to give a word of advice, or for some other cause, exceeded his ordinary bounds, and marched up to Westminster-hall, where he was a foot deep amongst the legs of the legislators and council. Labelye was appointed the architect of Westminster-bridge, which was intended in the first instance to have consisted of piers only, which were to be crossed by galleries of woodwork. The architect was most anxious for arches, and a severe frost, followed by a flood, having done much damage on the Thames, and severely tested the works of the new bridge, Labelye was permitted to follow out his own plan. In excavating the foundation for the second pier, a copper medal was found, with the head of the Emperor Domitian on one side, and a woman with a pair of scales and a cornucopia on the other. Some have supposed on this slight circumstance that at this point there had been formerly a Roman ferry.

In a short time the oldest of the bridges immediately connected with the metropolis will be removed; it is, therefore, interesting to note the following particulars respecting an almost superannuated public servant.

The first stone of Westminster-bridge was laid in January 1739, and occupied eleven years and nine months building. It was opened at twelve o'clock at night, of 17th November, 1750. The reason for opening the bridge at this unseasonable hour seems to have been, that a day was appointed for the opening which proved to be Sunday; the opening, therefore, took place at night in order that as little attention as possible might be directed to the blunder.

Its extent from wharf to wharf, is 1,223 feet; above 300 feet more than the Thames at London-bridge. The free water-way under the arches of Westminster-bridge, is 870 feet, which is more than four times the extent of water-way left between the sterlings of Old London-bridge.

The value of 40,000*l.* is computed to be always under water, in stone and other materials. The caisson on which the first pier was built contained 150 loads of timber.

The depths or heights of every pier are different, but none of them have their foundations laid at a less depth than 5 feet under the bed of the river, and none at a greater depth than 14 feet under the bed.

Notwithstanding all the precautions which were taken, in 1747 one of the piers sank and damaged the arch to which it belonged so much that the commissioners gave directions for pulling it down, when by laying 700 tons of cannon on the lower part of the pier the foundation was supposed to have settled and set to rights.

The charge of building this bridge from the beginning to the finishing, and for procuring the several conveniences requisite, amounted to the sum of 389,500*l.*; whereof 197,500*l.* was raised by several successive lotteries, and the remainder, being 192,000*l.* was granted by Parliament.

The original cost of this bridge, together with the sums required at various times for extensive repairs, shows that a large sum per annum has been paid during the years it has been in existence. Some time since, while repairing Westminster-bridge, on the removal of the ground within the sheet piling, the projecting part of the timber bottom of the caisson was found to have been broken and separated from that part underneath the pier. This had arisen from the space intended for the caisson not having been sufficiently dredged to receive it, so that it was resting on the slope of the excavation, the centre part being hollow, until the weight of the masonry broke away the sides, and allowed the pier to settle on loose sand and gravel, which ran under it. This will in some measure account for the settling of the bridge in the first instance.

Westminster-bridge had not long been finished when it was proposed to build another bridge over the Thames at Blackfriars. In December, 1755, the subject of building the new bridge was debated in the Common Council, and was agreed to by a majority of 100 to 65; and early in the following year an Act of Parliament was passed to carry the building of the said bridge into effect. This enactment, after appointing a committee to undertake the erection and maintenance of the bridge, provides, "that there shall remain a free and open passage for the water through the arches or passages under the same of 750 feet at least, within the present banks of the river; that the navigation thereof may receive no prejudice, no building besides the proper gates or toll-houses to be built upon the said bridge," &c. After providing for the improvement of the approaches in the neighbourhood of the bridge (the particulars of which we have given at some length in the article on "The Houses and Shops of old London," published in the *Builder* some years since), it was enacted that the channel of Bridewell-dock and the Fleet-bridge should be filled up, and also the bridge over the same taken down, and proper sewers, &c. made. The mayor was empowered to raise a sum not exceeding 30,000*l.* a year, until 160,000*l.* be raised on the whole. A heavy tax was to be paid on carriages, &c.; and for every foot passenger on Sunday one penny, and on every other day one half-penny. Robert Mylne, at the time not more than twenty-five years of age, was appointed architect; and in October, 1760, the foundation-stone was laid by the Lord Mayor, the first pile having been driven in the middle of the river a few months previously. There was no lack of plans for this bridge,—Smeaton and other eminent men competing with the youthful architect. Dr. Johnson at the time entered at some length into the discussion respecting the advantages of the semi-circular and elliptic arches. Mylne completed the bridge to the general satisfaction in 1766; and it is worthy of remark that the bridge and approaches cost 300,000*l.* The architect said that the bridge should not cost more than 153,000*l.*; the whole was completed for 152,840*l.* 3s. 11d. Mylne had agreed to superintend the erection of the bridge at a fixed salary of 300*l.* a year, and a premium on the completion of the works of 5 per cent.; and it is painful to learn that the architect was obliged to resort to legal proceedings before his just claims were recognised.

Southwark-bridge was next built, at a cost of 800,000*l.* Then Waterloo-bridge, which was most violently opposed by the City throughout three sessions of Parliament. The opposition, however, was only a means of strengthening the funds of the Strand-bridge Company, as it was called; and eventually the beautiful and substantial bridge was, under the direction of Rennie, put across Father Thames, at a cost of upwards of a million sterling.

Since then we have had another bridge put over, at the old Hungerford, and we believe that more may be properly erected without opposition from the City.

The damage done by the inundations of the Thames, which undoubtedly was, in a great measure, caused by the obstruction of old London-bridge, must have been enormous, following one after another in rapid succession.

In January, 1762, storms of wind and rain, the Thames rose high and overflowed Millbank, Westminster, &c.

On the 13th of February, 1763, the Thames rose so high, that many houses on the Surrey side were four or five feet under water. The long walk at Lambeth, by the bishop's palace, was overflowed, and boats were employed in the town to carry people from house to house. The damage done by this high tide was estimated at 20,000*l.* In Westminster-hall the water was four feet deep; and the inhabitants of Tooley-street and Wapping were obliged to keep to their upper rooms.

1764.—September: A very high tide, doing much damage.

1767.—After a severe frost: A hurricane and flood in the Thames, doing damage to the extent of 50,000*l.* at the least.

1768.—April: A great flood.

1768.—On the first of July a storm of thunder and lightning passed over London and the neighbourhood; the lightning destroyed several houses, and caused some loss of life. Chamberlain says: "By this storm, the water of the river Thames was so driven out of its channel above bridge, as had never been remembered by the oldest man living, one-half of the bed of the river remaining uncovered for two tides." It appears that this storm raged with the greatest violence on the south side of the river.

On the first of September, of the same year, a heavy rain fell at London and the country round. It began in the evening, and in a few hours the waters poured down High-gate-hill with such violence, that the sewers were not

* See p. 410, *ante*.

† In addition to the ferries, there were in olden time, as we have already hinted, several fords across the Thames. Maitland discovered that the greatest marshes on the south side of the river Thames reached from Wandsworth in the west to Woolwich in the east. "Then," says he, "sounding the said river at several neap tides, from the first of these places to London-bridge, I discovered a ford about 90 feet west of the south angle of Chelsea College-gardens, whose channel in a right line from north east to south-west was no more than 4 feet and 7 inches deep, when the day before my waterman assured me that the water then was above a foot lower, and it is probable that at such tides, before the course of the river was obstructed either by banks or bridge, it must have been considerably lower."

able to carry off the torrent. The adjacent houses were filled almost to the first floors, and as it happened in the night, many were awakened from their sleep in the greatest consternation. The Serpentine, in Hyde-park, rose so high, that it burst its banks, and poured with violence on Knightsbridge. The water in St. James's-park rose higher than it had been known; in fact, the chroniclers say that in the memory of no man living had so much rain fallen in so short a time. About Bagnigge-wells, the water rose 8 feet perpendicular height, though the rain did not continue to fall with violence more than eight hours. In Cold Bath-fields, Mutton-lane, Peter-street, &c. much damage was done; casks of beer, &c. some oxen and hogs, were carried away, and in Mutton-lane, and the lower part of Hockley-in-the-Hole, the inhabitants were obliged to quit their ground-floors, and go up-stairs, for fear of being drowned. The water in St. James's-park swelled so high, that it flowed up to the garden wall of the Treasury, and was so deep that foot passengers could not pass. In Westminster, great damage was done. In the river, many vessels, &c. were sunk, and lives lost, and the Duke of Cumberland's water-works, in Windsor Forest, were entirely destroyed.

The above damage, which is but a part of that caused by the flood of the Thames in a period of only six years, will give some idea of the cost of these regular inundations, and show us that in this respect, the river has been improved by the course of management pursued. It will also be found that the channel at Chelsea, Battersea, London-bridge, &c. has been deepened, and the most eminent of our engineers are of opinion that Father Thames will be still more improved by the erection of substantial quays along his banks.

PROVINCIAL NEWS.

Colchester.—The erection of new barracks on the Ordnance-field, near Colchester, for 3,000 militia, is progressing. The contractors are Messrs. Lucas, Brothers, of London. The buildings will form six rows of huts, intersected by six carriage-ways. In each of the soldiers' huts, which are 38 feet long by 20 feet wide, there will be an entrance at either end; and each will contain ten windows. Those to be occupied by the officers will be divided into four compartments, each with a separate entrance, thus giving a distinct lodging-place to each officer. There will also be officers' mess establishments, stables, servants' rooms, barrack stores, armourers'-shops, coal-yard, &c. The cooking-houses (every sixth erection) will be formed of iron, to prevent the spread of fire. Water is procured from twenty-four wells, each 50 feet in depth, and there will be an efficient system of drainage for the entire encampment. Twenty-four hospital-huts are being raised with a covered way between them, and rooms for a medical staff. There will also be three school-rooms, each 50 feet by 20 feet, and a church for about 800 persons. Forty vessels have been employed in conveying the materials, and upwards of 300 men have been engaged fourteen hours per day in fitting.

Harrow.—The new class-rooms here, according to the *Harrow Gazette*, will soon be completed. The building somewhat resembles the old school, before it was enlarged, some forty years ago. It is in the Tudor style, from a design by Mr. F. Barnes, of Ipswich, and is executed entirely with red bricks. The accommodation consists of six class-rooms, each 24 feet square and 14 feet high, approached by a staircase three stories in height, which forms the centre portion of the west front, and in which are three separate entrances to the three stories. The principal entrance doorway is 12 feet high and 6 feet wide, in the centre of the building, and there are two side doors under open arcades to the north and south. The plan occupies an area of 52 feet by 45 feet, and the height is 65 feet from the ground to the top of the finials.

Dover.—At a recent meeting of the local Board of Health here, a discussion arose respecting the compensation expected by Mr. Rimmell, the chief engineer of the sanitary works, for his services. At a recent special meeting of the committee, Mr. Rimmell had stated that he should look for a commission of 5 per cent. which, upon an outlay of about 70,000*l.* would amount to 3,500*l.* besides travelling expenses. This Mr. Alderman Birch regarded as a monstrous sum, payment of which he would strenuously oppose. Mr. Alderman Chalk, on the other hand, asserted that the Board had always understood that Mr. Rimmell would demand that per-centage as his remuneration. No motion was made on the subject.

Southampton.—A military hospital, on a scale befitting our army establishment, is about to be built on the banks of the Southampton Water, on a site of about sixty acres of land close by the domain of Lord Hardwicke, at the entrance of the Southampton Water, and within easy water distance of Portsmouth.

Kidderminster.—The schoolmaster's residence, which stood adjacent to St. George's Schools here, has been pulled down to make room for a more commodious and ornamental building, to be used for a like purpose. At the same time two class-rooms will be added to the schools. The house will be constructed of brick, with stone windows and dressings The new building will have two stories only, but so high that the new will have an altitude little less than that of its predecessor. The cost of the new building, including the class-rooms, which will be one over the other, each communicating with a separate school-room, will be about 564*l.*

Wells.—It is proposed to place a stained glass window in St. Cuthbert's Church, in memory of the late Canon Barnard.

Bristol.—The plans for the new Orphan Asylum, Ashley-road, having been completed by Messrs. Foster and Wood, architects; Mr. Benjamin Farmer, the contractor, who is at present engaged on the New Bank, on the Exchange here, has been selected as the builder, and has commenced operations. The asylum is intended to accommodate upwards of 300 orphans, and will form another example of the extraordinary efforts of Mr. Müller, to which we have already alluded.——The first stage of five bays of the new West of England Bank is now nearly completed. The spandrils of the doors and windows are filled with carved allegorical figures by Mr. John Thomas. —— The Bath-bridge has been opened for traffic.

Wellington.—The new National School buildings lately completed here by Messrs. Dickson and Co. are situated on rising ground, to the north of the town, the site being the gift of the vicar. They are of old English style, and consist of a central part, containing the infant school and class-rooms, and a dwelling-place for the master above, with two wings, one containing the boys' and the other the girls' school. The whole is surmounted by a pinnacled bell tower, and an octagonal turret. The schools occupy an area of 1,452 square feet each. The infant school, in the centre of the building, contains an area of 960 square feet. The boys' school, contains 170 pupils; the girls' school, 100; and the infants', 80. The total cost of the building was about 1,800*l.*

Yeovil.—Mr. Thomas Harwood, of this town, builder, is employed to erect the new station here, for the Wilts, Somerset, and Weymouth line.——The new Wilts and Dorset Bank, built by Messrs. Brown and Son, and Mr. Chant, of this town, builder, is nearly completed.

Newport (Wales).—The Silurian lodge of Freemasons, Newport, having determined to erect a new building for the accommodation of their lodge, Wednesday before last was appointed for the purpose, and much Masonic ceremonial was observed throughout the proceedings. The edifice will be erected in Dock-street, opposite the Eastern and Western Valleys railway termini. Mr. R. G. Thomas is the architect. It is estimated, says a local paper, that the cost of the building will be about 17,000*l.*

Birmingham.—The offer by Mr. C. B. Adderley, M.P. of ten acres of land at Saltley, for a public park for the people of Birmingham, having been declined, owing to some misconception as to the terms, the hon. member, in a letter to the General Purposes Committee, says; —"I should regret that the public should be deprived of an expected place for recreation by the offer having failed: I will, therefore, myself set apart the same space of ground in the proposed quarter for the public; and, as it appears (objection having been made to a fence) that the committee had no intention of ornamenting the proposed park, such a piece of ground will serve as well all the purposes of a playground for all classes of people."

Leigh, Lancashire. — On Monday, August 27th, a meeting of the Burial Board for the parishes of Astley, Bedford, Pennington, and Westleigh was held at the office of the clerk, Avenue-place. The following tenders for the erection of the three chapels, lodges, boundary-wall, &c. or portions of such works, were then opened and read:—

	Chapels, &c.	Boundary Wall.	Total
	£.	£.	£.
W. and R. Burrows, Bolton	2,470		
Thomas Stone, Newton	2,363	859	3,222
Farrell, Brownbill, and Co. Manchester	2,121	1,070	3,191
Thomas Tully, Manchester	2,300	840	3,180
William Boardman, Leigh	2,215		
Mellor, Son, and Terris, Manchester	2,190	860	3,050
Robert Neill, Manchester	2,185	810	3,0
S. Dennison, New Ferry, Cheshire	...	...	2,99
Thompson and Boddy, Manchester	2,093	863	2,956
T. Penk, Cheetham-hill, Manchester	1,895	835	2,730
Barlow and Astle, Peel Quarries	...	1,102	
James Isherwood, Little Bolton	...	1,100	
John Harrison, Horwich	...	965	
William Watts, Manchester	...	863	
Sigley and Shaweross, Manchester	...	825	

Mr. Penk's tender was accepted. Mr. Bird, of Manchester, is the architect.

Sunderland.—The works of the extension at the South Docks are expected to be finished before the close of October. The junction of the great sea entrance with the old and new works can now be traced. There are upwards of 800 workmen in full employment, and night as well as day labour is carried on.

Newcastle-upon-Tyne.—The foundation-stone of the new corporate buildings in St. Nicholas-square, was laid on Wednesday in last week, with due ceremonial. The architects whose plans have been adopted are Messrs. Johnstone and Knowles, of Newcastle. The style is Roman, the principal order being Corinthian. The ground-floor consists of shops and a corn-market. The music-hall over the market will accommodate 4,000 people; and the remaining portion of this floor is to be devoted to corporate uses, while, on the floor above, there will be other rooms and offices. The contract taken by Mr. Robson, according to the *Gateshead Observer*, does not cover the domed turrets, nor the northern end of the edifice, planned and lithographed by Messrs. Johnstone and Knowles. The area measures about 3,000 square yards.

Wigan.—Some time ago, notices were served upon owners of land required by the Wigan corporation for their waterworks. One owner, the late Mr. James Cardwell, of Ellerbeck, claimed 5,500*l.* The case was referred to Mr. Powell, of the Board of Trade, for arbitration; who, after hearing counsel on both sides, awarded 1,850*l.*

Berwick.—The Burial Board of Berwick have made an agreement with the corporation for the purchase of five acres of the Inner Cow Close, adjoining the Ayton turnpike-road, for a burial-ground, at a cost of 1,000*l.* Having offered a premium of 15*l.* for the best design for chapels, &c. they have awarded the same to Mr. Robert James Johnson, architect, of Newcastle, and his plans are to be immediately proceeded with.

Brechin. — The local *Advertiser* states, that the extensive additions and alterations at Panmure House, which have been nearly three years in active progress, are drawing towards completion. The whole has been roofed in. In approaching it from the east, a frontage of nearly 500 feet in length, with an entrance hall between two octagon towers, present themselves, while every corner of the main building in view is supported by square towers, rising to a height of about 90 feet, and surmounted by the principal tower, rising nearly 120 feet. From the west similar towers are brought into view, with an oriel window reaching the whole height of the building. Here a double stair leads up to a balcony which extends a considerable length along the front, and terminates at each end by meeting two towers which jut out from the building. Some of the stones here are in pieces about 15 feet long by 7 broad. The

principal windows are overhung with pediments and cut devices, and there are mouldings and cornices throughout the work. Extensive terrace walks are being formed in the grounds around the house. They consist of close-built walls, overtopped with an open balustrade and cope of polished stone. The grounds around are in an advanced state, under the direction of Mr. France. Still it will require great exertion to have everything fit for a visit from royalty next autumn. Br. Bryce is the architect; Mr. Nicol, the contractor. Under the superintendence of Mr. M'Intosh, garden architect, the garden at Panmure has been laid out in keeping with the features of the other parts of the grounds, with terraces, corridors, hothouses, conservatory, peach houses, vineries, gardeners' house with reading-room swimming bath-room, &c. Each lodge has four rooms, besides coal house, scullery, washing-house, and other conveniences. To the west, the romantic glen of Curyara has been spanned, a little below the Linn, by a bridge of three arches, and a new drive formed to the "Live and let Live" testimonial on Cambuston-hill. There has also been erected a factor's house, a forester's house, a gas work, and workmen's houses. Mr. Morrison, who is also employed at Kinnaird Castle, is contractor for the mason work.

Inverness.—The iron suspension-bridge across the Ness, just erected, is now open for traffic. The span is 225 feet.

SECOND REPORT OF THE DEPARTMENT OF SCIENCE AND ART.

THE Second Report of the Department of Science and Art, which has just appeared, commences by stating that it has been found expedient to make some alterations in the organization of the staff of the department, the chief of which is the separation of the duties of secretary and inspector, which were jointly carried out by Dr. Playfair and Mr. Cole, and which arrangement was found inconvenient. Henceforth Mr. Cole will act as inspector-general, Dr. Playfair assuming the office of sole secretary. The report, after noticing some alterations in the mode of producing and supplying the examples required in the schools, then proceeds to give an account of the readjustment of the parliamentary grants to schools of design, which, from the year 1848, had been entirely placed in the hands and under the control of the local committees. This so-called readjustment resulted in virtually withdrawing the grants, not only from local control and management, but from the schools themselves, and was the subject of some very strong remonstrances from the local committees of Manchester, Macclesfield, Sheffield, Dublin, Belfast, Cork, and Limerick. In reply to the objections, it was stated that schools of art had been established and maintained in towns far less wealthy than those referred to.

Manchester eventually agreed to give the new system a fair trial for one year, and in most of the other schools in opposition a like feeling has manifested itself. At Birmingham the influence of the school has been largely extended, and the local funds are in a favourable state, according to a report on its reorganization, drawn up by the head-master, Mr. Wallis. Thus the report states—Birmingham signally illustrates the success of the improved system. At Leeds the school is no longer in receipt of any State assistance, as the master receives only his certificate allowance, and depends upon the students' fees for his remuneration. At Coventry, Stourbridge, and York, similar changes have been effected. At Belfast, on the contrary, an opposite view has been taken, and on the transference of the master to Norwich, the committee declined to accept a master from the training class, and the school has remained closed. At Cork it was agreed that the master should be withdrawn and another recommended, but local difficulties have arisen which have caused the school to remain closed. The report then proceeds to explain the system under which future schools of design will be established. This consists in providing an augmentation allowance of 10*l.* to 50*l.* according to qualifications, and guaranteeing for one year an income of 70*l.* including the fixed allowance. Twenty-six schools in all have been established on this plan. From data supplied from fourteen of these schools, it appears that 1·1 per cent. of the population avail themselves of them, whereas the nineteen schools on the old system instruct but 60 per cent. of the population. The aid to the salaries of the masters of the fourteen new schools for the year ending 30th June, 1854, was only 155*l.* 19s. 2d. while the nineteen old schools cost in salaries during the same period, 4,683*l.* 16s. 7d. and in other aid, 1,158*l.* 1s. 7d. The report next touches upon the subject of local schools of science, in which it is impossible to form an opinion as to the applicability of the new system, as only one or two schools are as yet established. A school of science has been commenced at Birmingham, in which the students receive instruction in physics, chemistry, and physiology. Another has been opened in Aberdeen.

The report, after speaking of the School of Science, in Jermyn-street, gives a full account of the Central School of Art at Marlborough-house, which is maintained to be self-supporting as far as it is a general school of art, the excess of its expenditure over its receipts being due entirely to the class for training young men as masters for local schools of art.

The last section of the report is devoted to the institutions or services in connection with the department. These are the Geological Survey of the United Kingdom, the Mining Record Office, the Meteorological Inquiry of the Board of Trade, the Registration of Designs, the Royal Dublin Society, the Paris Exhibition.

The appendices contain much valuable information, not a little entangled with "red tape," of which the department appears to have at least the average stock supposed essential to public offices.

BELLE-ISLE FACTORIES.

IN reply to Mr. Fache's letter on this subject (p. 399, *ante*), we have received a communication, signed "William Naylor," and enclosing a report made by himself and Mr. Rae, of Wardour-street, after visiting the houses, to the effect "that the health of the inhabitants of Belle Isle is exceedingly good;" and pointing out that the person who jeered at complaints referred to in our preceding remarks was not attacked by cholera there, but in another part of the country, an intimation that in no way interferes with our statement.

The number of inhabitants, according to Mr. Naylor's report, is very small, so that, except during the prevalence of pestilence, deaths would seem rare. The statements as to the extent of the evil caused to the adjoining parts by the nuisances here congregated are incontrovertible. If a house-to-house visitation were made, the statements already deposed to by the medical men would, we have no doubt, be fully borne out.

Notices of Books.

The Phasis of Matter; being an Outline of the Discoveries and Applications of Modern Chemistry. By T. L. KEMP, M.D. In two volumes. Longman and Co. London: 1855.

THE purpose of this work is to supply to the general scholar and the man of the world a competent knowledge of chemistry, such as the smaller and more elementary works do not provide, and such as the larger and more technical and comprehensive works are neither intended to give nor likely to be referred to for by the general reader.

In many respects the work is well adapted to its purpose, and perhaps not the less so that its author is not a professional chemist himself. It comprises a general view, not only of the elements and compounds of mineral chemistry, but of those multifarious combinations which constitute the ever progressing science of organic chemistry, and also the essential principles of the chemistry of geology and other phases of matter.

Although, in a work such as this, there are some discoveries to which the author may be excused for not alluding, there are others which certainly ought not to have been omitted, but of which we can find no trace. Thus, for example, it was discovered a few years since that phosphorus was capable of assuming two distinct forms, *per se*, one the usual and well-known aspect of clear white or yellowish wax, shining in darkness, and exceedingly combustible and dangerous in handling and in transport, whence many accidents had arisen; the other, a new and amorphous form, in which this dangerous but valuable combustible could be packed in wooden barrels in even the most careless manner, or just as the incombustible red oxide of iron or many other like substances can; or even be carried about with comparative safety in the waistcoat pocket; and this, too, although still possessing all the chemical possibilities of its nature, and although these are not placed in abeyance by any addition, such as that of oxygen, to neutralise these properties, but are only disguised and made dormant by the assumption of a new form. Now a discovery such as this ought certainly to have been recorded, however briefly, even in a work such as the present; yet it does not appear to be so, although the old idea as to the red amorphous matter that it consisted of a protoxide of phosphorus is alluded to.

In like manner, not a word seems to be said as to the singular discovery of a malleable, silvery, and useful metal in alumine or common clay. The old idea of aluminium that it was "a gray powder, the scales of which have a metallic lustre," is duly noted; but the only approximation to M. St. Clair Deville's important discovery, and that but a distant approximation, is the account given (in itself not new), that magnesia, a substance analogous to alumina, or alumine, contains magnesium,—"a brilliant white metal, with a lustre resembling that of silver, and very malleable." This would have been a pretty fair definition of the more obvious properties of aluminium too in its new form; but no other mention is made of *it* than the one we have alluded to. We might instance other modern discoveries in chemistry, not here recorded, such as that important form of oxygen called ozone, as to which so much has of late been said, not only in the scientific world, but in the ordinary newspaper press; as, for instance, in the *Times*, where almost every day the state of the ozone of the atmosphere is recorded, along with other meteorological phenomena; but we have done enough, we dare say, to draw the author's attention to such omissions, so as to insure, in a subsequent edition (which the work still deserves to reach) a more complete *vidimus* of the "discoveries and applications of modern chemistry."

Is not the title of this work a misnomer, by the way?

Miscellanea.

THE HUTS FOR THE CRIMEA.—The *Gloucester Chronicle* describes a visit paid to the works of Mr. W. Eassie. The huts now being manufactured appear, it is said, greatly superior to those formerly constructed, being considerably higher in the roof, provided with ventilators, and much lighter. The slopes for the beds are now raised, so as to be used as seats. The hospital huts are double the size. Some portable huts are also being constructed. These are designed by Mr. Lauder, who is superintending on the part of Government. The floors are double, and the boards nailed across each other. The frameworks are grooved, and all the partitions slide into their places. The roof and sides are of double boards, and a sheet of felt is placed between the timbers composing the roof. A very large number of men are now at work in preparing the huts. The window-frames, groovings, indeed, everything but glazing and nailing, seems to be done by machinery. Huts have also been in course of formation at the saw-mills of Messrs. Bennett, of Manchester, for 4,960 soldiers. The larger class of huts are 76 feet long, by 16 feet wide. They are lighted by five windows on each side, and have a door at either end. About 500 men have latterly been employed.

BRITISH ASSOCIATION.—The forthcoming Glasgow meeting, it is expected, will be a brilliant one. Besides many of the most eminent British and foreign *savans*, a list of whose names appears in the local papers, two princes of the Bonaparte family appear to be expected, namely, Charles Lucien, Prince of Canino, and Prince Louis Lucien. Some hope seems to be entertained that the Prince Consort will also be present. The City-hall has been redecorated and prepared for the meetings. The new iron-built gallery and front hall, at the recent addition to the bazaar in Candleriggs, is preparing for the reception of geological specimens.

THE IRON TRADE.—The inveterate speculators in this trade, by perpetual talk of a rise of 40s. a ton, are managing, as they doubtless design, to induce fair traders to look upon 20s. as a moderate, reasonable, and advisable increase, just as they would be led to regard 10s. had the gambling outcry been only for 20s. This trade is thus kept in a perpetual fever, under the false pretence that from some peculiar sensitiveness and delicacy of constitution, the iron heart of the trade is liable to be *affected*, more than any other, by fluctuations in the general prosperity or expectations of the country,—mere imposition to serve the purposes of those gamblers who are ever bent on destroying the steadiness and the true prosperity of this important and staple trade of our country, in order to enable them to reap unduly rapid and heavy gains for themselves, at ruinous cost to others. The idea of a permanent rise of 20s. is thus at this moment being made familiar to the thoughts and prospects of the fair dealers in the trade, by the swelling talk of 40s. in which all note of the recent ruinous plunge, in consequence of just such previous procedure, is already being drowned.

REMOVAL OF NUISANCES.—The General Board of Health have issued a notification as to the removal of nuisances, in which, amongst others, they state, that any premises in such a condition as to be a nuisance, or injurious to health, may be ordered by two justices in petty sessions, or by a stipendiary magistrate, to be made safe and habitable, to be paved, cleansed, white-washed, disinfected or purified, and sufficient means of drainage and ventilation, and other accommodation, to be provided; and while any house or building is rendered by a nuisance unfit for human habitation, in the opinion of the justices, the using of it for that purpose may be prohibited. Other notifications are given as to gutters, pools, drains, ashpits, and as to animal nuisances, &c. And it is then intimated that notice of a nuisance may be given by any person aggrieved thereby, or by any local sanitary inspector, any two or more inhabitant householders, relieving officer, constable, or officer of police of the district or place, inspector of common lodging-houses, &c.; the notice to be given to one of the local authorities. The General Board strongly urge on the clergy, employers of labour, and others whose avocations bring them into contact with the classes most exposed to nuisances, the duty of informing themselves and diffusing information as to the provisions of the Nuisance Act, and of doing all they can to promote the election of committees for its execution, especially in rural parishes.

ESSEX ARCHÆOLOGICAL SOCIETY.—On Thursday in last week the annual general meeting of the members of this society was held in the library of Colchester Castle; Mr. Disney, F.S.A. president, in the chair. The Rev. E. L. Cutts, one of the secretaries, read the report of the council, which, amongst other information, alluded to the continued prosperity of the society. The report was agreed to, and office-bearers re-elected. The Hon. Richard Cornwallis Neville, eldest son of Lord Braybrooke, was appointed president in place of Mr. Disney, who resigned. The Rev. Professor Marsden read a paper sent to him from the Rev. Henry Jenkins, of Stanway, on the Traditions and History of Colchester Castle; which was followed by a paper written by the Rev. Mr. King, and read by the Rev. B. Lodge, on the Armorial Bearings of the town of Colchester. Dr. Duncan read a paper upon St. John's Abbey, Colchester, and explained a variety of archæological curiosities exhibited. Mr. Cutts then accompanied the visitors over the old Castle, and explained its various objects of interest, after which they proceeded on a tour through the town to inspect its antiquarian curiosities, including St. Botolph's Priory, St. John's Abbey-gate, Saxon Tower of Holy Trinity, Balkerne-hill, &c. In the afternoon a party of ladies and gentlemen dined at the Cups Hotel.

THE LIGHTING OF DEAL.—We are informed that, after all, Deal is not to have the electric light. An informant states that the electric light was tried, and was not considered satisfactory for the streets. The Pavement Commissioners have agreed to light the town with gas for a further period of ten years.

NEW CHURCHES. — The thirty-fifth annual report of her Majesty's commissioners for building new churches states, that the commissioners had previously reported that 570 churches had been completed, with accommodation for 565,780 persons, 338,575 free, and that they had now to state that twenty-seven churches (in addition), had been since completed.

COLOUR FOR EXTERIORS. — In answer to your correspondent, "T. W." as to outside paint for house walls, I have to inform him that distemper colour made in the usual way, as for inside work, and mixed with oil or paint, will stand the weather, and give the appearance of a painted wall. The mode of mixing the oil with the colour is a secret.—R. R.

*** Let us make a dash at the secret: is soap the substance of it?

BLOOMSBURY.—The old houses at the south end of Kingsgate-street, Bloomsbury, from Eagle-street to Holborn, including the chapel, are now, with the exception of the stationer's shop at the corner of Holborn, being taken down, and I learn are to be rebuilt 7 feet further back than at present. Now this end of the street, which has long been a nuisance, is so narrow, that although 7 feet of width will be a very great improvement, it is not improvement enough, as the street ought to be made at this part as wide as the remainder, which is none too much so; and I trust you will raise your voice in aid of such further widening before it be too late. That the improvement will not at present be carried quite through, by taking down the corner house next Holborn, may be a subject of regret to some, but I do not think it important: it is a very old ricketty timber erection, and cannot last long without more repair than it is worth; and if the widening be properly carried out of the increased width to the back of that house, that lump may well be left to await its early doom. — AN OLD SUBSCRIBER.

SURVEYOR OF BRIDGES FOR WEST RIDING OF YORKSHIRE.—At the Quarter Sessions held at Wakefield, on Thursday, Mr. Bernard Hartley, of Pontefract, was appointed to the office of surveyor of bridges, vacant by the death of his late father. There were six candidates for the office. The salary is fixed at 400*l.* a year, with 150*l.* as travelling expenses. The duties of the office comprised the superintending the repairs of the 325 bridges in the West Riding; of the superintendence of the repairs of the Lunatic Asylum and the House of Correction; and also the furnishing of plans for, and superintending the erection of, lock-up houses, and all other new buildings erected at the expense of the Riding. The salary of the late surveyor was 800*l.*

INAUGURATION OF THE PEEL STATUE AT BIRMINGHAM.—This formal ceremony took place on Monday in last week, in presence of at least 15,000 persons. The statue, which is by Mr. Peter Hollins, and cast by Messrs. Elkington and Mason—the first colossal work of the kind ever produced in one piece in Birmingham—is in bronze, and stands eight feet and a half high. It weighs upwards of a ton. In the casting three tons of metal were run. The statue is placed upon a square pedestal of polished Peterhead red granite. There is a plinth also of polished granite, resting upon a sub-plinth of grey stone. The whole is placed upon an octangular platform, from which railings and lamps spring. The total height from the platform to the top of the statue will be about 20 feet. The pedestal is somewhat colossal, the principal slab weighing about four tons, and the whole about ten. It is from the polished granite works of Mr. Alex. Macdonald, Aberdeen. The pedestal bears the simple inscription "Peel," in bronze. The statue will be placed with the face looking down New-street.

RAILWAY MATTERS.—A joint-stock company is in course of formation, under the title of the Railway Electric Signals Company, for the introduction of a system of signals invented and patented by Mr. Tyer. The directors have constituted the company under the French law *en commandite*, in order to secure the advantage of working the patent for France in that country, and also in Belgium, for which country a patent has also been secured. The capital required is 60,000*l.* in shares of 1*l.* each, with power to increase it to 120,000*l.*——The traffic returns of railways in the United Kingdom for week before last amounted to 449,046*l.* and for the corresponding week of 1854 to 417,669*l.* showing an increase of 31,377*l.* The gross receipts of the eight railways having their termini in the metropolis amounted for same week to 204,338*l.* and last year to 188,132*l.* showing an increase of 16,206*l.*——The number of passengers by the railways through Lille on Saturday in week before last, *en route* for Paris, amounted to more than 10,000. The trains at reduced prices from Dunkirk, Roubaix, and Tourcoing did not stop at Lille to take up passengers, being completely full. A special train left Lille with 750 persons from that town.——The plans for the passage of the Simplon to Turin and Milan, by the valley of the Rhone, are now terminated. The superintending engineers consider that no difficulties exist that have not been previously overcome on other lines. The line of tunnel which is considered preferable would be about 2½ miles long: its elevation above the level of the sea is about 4,200 feet; the maximum for the inclines from 3 to 4 feet in 100; but it is hoped that a reduction to 2½ feet in 100 may be obtained. All the difficult points on the steep declivities of the mountain are passed by means of either open or covered galleries, which will not, it is said, cost more than 120f. the metre.

THE NEW METROPOLITAN BOARD OF WORKS.—It is stated that Sir John Villiers Shelley, Bart. M.P. will be the chairman of the New Board of Works, under Sir Benjamin Hall's Act for the Local Management of the Metropolis. This statement, however, must be premature.

UNION OF SMOKE-PREVENTION PATENTS. — A company is said to be in advanced progress of formation, under the Limited Liability Act, for the purpose of working a variety of inventions for the prevention of smoke.

THE YORK RACE PLATE, 1855.—The subject of this plate is "Percy at the Battle of Holmedon," from Shakspeare's play of "Henry IV." It was designed and modelled by Alfred Brown, and manufactured by Hunt and Roskell.

NEW CHURCH AT SHOOTERS'-HILL.—The foundation-stone of a new church, to accommodate the rapidly-increasing population of this locality, was laid on the Eltham side of the high-road, Woolwich-common, on Wednesday before last. The contract has been taken for 1,235*l.*

MR. J. CARTER.—We regret to hear of the death of Mr. J. Carter, the engraver of Mr. E. M. Ward's "Scene in Change-alley during the Agitation of the South Sea Bubble." Mr. Carter died suddenly, having only just completed an engraving of "West's First Effort in Art," from Mr. E. M. Ward's picture.

REPORT ON THE NEW RIVER WATER.—A "Report to Mr. W. C. Mylne, on the quality of the New River Company's Water," by Mr. T. Spencer, F.C.S. in reference to an analysis by Dr. R. D. Thomson, alluded to in a recent report of the General Board of Health on the epidemic cholera of 1854, has just been printed. Mr. Mylne is the engineer of the New River Company, on whose behalf Mr. Spencer was employed to make new analyses, with the view of subverting those of Dr. Thomson, which alleged, inferred, or insinuated, the existence of two different qualities of water supplied by the New River Company, the one considerably more impure than the other, and probably promotive of cholera in the district (Soho) to which it was supplied. This the company appears to deny, and Mr. Spencer's analyses to contradict; his conclusions being to the effect that the New River water is much the same as respects purity that it was in 1851, when examined by Professor Graham and other chemists. As Dr. Thomson, however, did not give that categorical information as to his analyses which Mr. Spencer demanded, but referred him to a second report not then published, the latter has been unable to identify the precise source of the objectionable water, as to which he considers that there must be some mistake, either in the analyses or in the fact or supposition of its being the New River water.

METALLIC WINDOW-FRAMES.—Mr. D. Moline, of Adelaide-place, London, according to the "Mechanics' Magazine," has taken out a patent for "improvements in the manufacture of metallic window-frames and skylights. (A communication.) Patent dated January 30th, 1855. (No. 227.) Claim: the manufacture of metallic window-frames and skylights, by uniting a series of metallic bars, by placing them in suitable metallic or other moulds, and casting metallic bosses at the junctions or intersections of the bars."

A BOLD SAPPER AND MINER. — An interesting account of Private John Weir's adventurous experiences as a climber of spires and other daring feats in building stages for the ordnance observations, is given in the "History of the Sappers and Miners," just published. At Norwich spire, a brace broke under him; but in his descent he caught hold of another brace, and thus saved his life. The accident did not in the least daunt him, for the next moment he was at work again, as cool and active as ever. In May, 1848, Weir purchased his discharge, and set himself up in business in Halifax, Nova Scotia, where he was afterwards appointed superintendent to the Water Company, at a salary of 200*l.* a year.

IMPROVED PAINTING BRUSHES.—Mr. Thos. Nash, jun. of Great Dover-road, Southwark, who invented and registered the copper band bound painting-brush, has just specified his new patent for "improvements in painting-brushes, applicable also to other brushes, and to brooms." Webbing binding forms one of the chief improvements patented. The specification describes further modifications, as in adopting the webbing binding to sash tools, &c. in combination with string or wire; also combining it with metal band binding, &c.

TENDERS

For four shops, Kingston-on-Thames, for Mr. M. Wall, of Richmond. Mr. S. Dyball, architect. Quantities supplied by Mr. Crocker:—

Patman	£3,587 0 0
Macrostie	3,220 0 0
Towers	3,150 0 0
Long	2,977 0 0
Moorey	2,675 0 0

For six houses in Gately-road, Mile-end, for the Second East London People's Co-operation Benefit Building Society. Quantities supplied by Mr. R. L. Curtis:—

William Dobson	£2,888 18 8!
William Hill	2,310 0 0
Joshua Wilson	1,781 0 0
James Rivett	1,597 0 0
Richard Case	1,497 0 0!

For a main sewer at Stratford-upon-Avon. Mr. Edward Gibbs, engineer:—

Walker, J. Evesham	£1,850	0	0
Marriott, J. Coventry	1,830	0	0
Jones, J. Coventry	1,811	0	0
Smart, W. Nottingham	1,700	0	0
Brown, J. H. Southampton	1,555	0	0
Forrester, W. Stockport	1,400	0	0
Clifford, E. Birmingham	1,310	0	0
Coker and Oakes, Ware, Hertfordshire (accepted)	1,240	0	0

TO CORRESPONDENTS.

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

"T. E. S."—"W. T."—"J. W. B."—"W. W. Jun."—"A Carpenter" (we have given answers to these questions several times)—"A. T."—"E. D. H."—"W. N."—"R. R."—"W. C. H."—"Old Member of the Institution."—"J. C."—"G. H."—"C. A. W."—"J. B."—"T. L."—"A." (a memorial urging the establishment of baths, &c has been recently presented to the corporation, we believe).—"E. C. L."—"E. T. S."—"W. H." (we have already qualified the statement).—"J. S."

ERRATUM.—For "sulphate of lime," alluded to in article, p. 419, read "Colour in Bricks," read "sulphate of zinc."

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO ARCHITECTS AND OTHERS.

A GENTLEMAN who has been in practice for himself, desires an ENGAGEMENT as GENERAL CLERK, or to take the direction of an office. Undeniable references. Expectations moderate.—Direct, A. L. M. Office of "The Builder."

BOROUGH of GATESHEAD. — To ENGINEERS and SURVEYORS.—Notice is hereby given that the Office of SURVEYOR and INSPECTOR of NUISANCES to the Corporation of Gateshead will become VACANT on the 14th NOVEMBER next. Candidates for the appointment may forward testimonials of qualification and competency addressed to the Town Clerk, Townhall, Gateshead, before MONDAY, the 29th day of OCTOBER next, on which day the Committee appointed by the Corporation, will meet at TWO o'clock in the afternoon, to receive and examine applications and testimonials of candidates. The duties of such Surveyor will comprise the usual business of the Corporation, including that of the Local Board of Health and the Gateshead Quay Commission. A candidate must be familiar with the practice of engineering in connection with works of water supply, gas, drainage, sewerage, and surface cleansing—competent to conduct surveys, prepare plans, drawings, and estimates of works of every description, and able to superintend the execution thereof, test the materials, and see to the fulfilment of the conditions of the contract for executing such works. The whole time of the Surveyor is to be devoted to the duties assigned to him, and he is to be restricted from undertaking any other employment. Salary 200l. per annum.—Candidates are to state their age in their applications, but are not required to attend personally before the committee, unless specially summoned. The successful candidate will be required to give security for the faithful discharge of his duties by the bond of himself and two sureties in 500l.—By order,

G. J. KENMIR, Town Clerk.

Town-hall, Gateshead, August 29, 1855.

BOROUGH of BLACKBURN.—The Corporation of the Borough of Blackburn are in want of a Person competent to undertake the Situation of GENERAL DRAUGHTSMAN, in the Borough Surveyor's Office; and are also prepared to receive into the said Office TWO APPRENTICES, for a term of not less than Five Years.—Application for the office of Draughtsman, together with the testimonials of the candidates, marked "Application for Office of Draughtsman," as well as all communications from parties on the subject of the Apprentices, must be addressed and forwarded to the Town Clerk, on or before the 15th day of SEPTEMBER next; and any further information may be obtained, on applying to the Borough Surveyor, at his Offices, Sessions Rooms, Heaton-street, Blackburn. THOS. AINSWORTH, Town Clerk.

Town Clerk's Office, Blackburn, 4th September, 1855.

PLUMBER.—WANTED, by the Advertiser, carrying on business in one of the Channel Islands, a first-rate PLUMBER. A steady, active man, with good character, will meet with a comfortable situation, at liberal wages.—Apply, by letter only, to R. S. T. care of Messrs. W. Robertson and Co. Falcon-wharf, Holland-street, Blackfriars.

TO BRASS WORKERS AND FINISHERS.

WANTED, as FOREMAN, in a town manufactory, a first-class Foreman, personally capable of executing every department of the trade, in its greatest excellence. Explanatory letter as to age and previous services, may be addressed to Z. Z. Office of "The Builder."

WANTED, as temporary Assistant in an Architect's Office, a good DRAUGHTSMAN, thoroughly competent to make Gothic, working, and detail drawings.—Address, stating terms, &c. H. F. P. 18, Lincoln's-inn-fields London.

WANTED, a smart active LAD, as an APPRENTICE to the Cabin-making, &c. A small premium required. Application to be made at Mr. MCCLOSKEY'S, 21, Endell street, Long-acre.

WANTED, an experienced BUILDER'S CLERK, with a thorough knowledge of the business, capable of estimating and measuring all descriptions of work. Must be a good draughtsman, and (to undertake the management of the books). A liberal salary will be given.—Address, W. A. Office of "The Builder," stating age, salary required, and where last engaged.

TO PARENTS.

WANTED, a Youth, as an OUT-DOOR APPRENTICE to an ORGAN BUILDER; one who has some knowledge of woodwork preferred. A small premium required.—Apply to Mr. GANE, 38, York-buildings, New-road, Marylebone

WANTED, an ARTICLED PUPIL, in an Architect's Office, at the western end of London, of long standing, and connected with public appointments.—Apply (by letter) to A. B. 47, Mortimer street, Cavendish-square

AUCTIONEER'S and SURVEYOR'S ARTICLED PUPIL.—WANTED, a gentlemanly YOUTH, to enter into an IMMEDIATE ENGAGEMENT, in place of one leaving just left.—Address, W. P. care of Messrs. STREET, 11, Serle-street, Lincoln's-inn fields.

TO SHOP JOINERS.

WANTED, EIGHT or TEN good SHOP JOINERS; constant employment if steady good tradesmen. None need apply, but men with good references to their last employer. Wages 5s. a day.—Apply to the Shop Foreman of B. W. KNIGHT, Builder, Salmon-lane-bridge, Limehouse.

TO GLASS PAINTERS.

WANTED, a first-rate FIGURE PAINTER, one who has worked with some of the best houses, and who understands the business in all its branches. Apply by letter only, stating particulars and terms, to J. P. 30, Ludgate-hill.

WANTED, by a respectable Man, a SITUATION as YARD or WORKING FOREMAN to a Builder. Has held that situation for upwards of twenty years in his late employ. Has no objection to take the charge of a Building or Buildings. The advertiser's character will bear the strictest investigation.—Address, H. K. No. 19, Wilderness-row, St. John-street, West Smithfield.

TO ARCHITECTS AND OTHERS.

WANTED, by a gentleman, aged 26, an ENGAGEMENT with an architect or others as DRAUGHTSMAN and GENERAL ASSISTANT. The advertiser is rapid and skilful, acquainted with the practical architecture, a good colourist, and familiar with office practice; speaks French and Italian, knows the Continent well, and would prefer an engagement abroad. Salary not so much an object as an engagement in an office transacting a large business. Address, X. Y. Z. 8, Melbourne-square, Brixton road, London.

TO PLUMBERS, BUILDERS, &c.

WANTED, by a practical hand, a Situation as PLUMBER, and to fill up time in glazing, &c. No objection to the country. Satisfactory reference as to ability &c.—Address, S. B. No. 27, Union-street, Lambeth-walk.

TO ARCHITECTS, SURVEYORS, AND BUILDERS

WANTED, by the Advertiser, aged 25, a SITUATION in either of the above Offices. He is a good draughtsman, either in detail or highly-finished drawing; capable of taking out quantities or keeping builders' books, and also has had considerable experience in land surveying and levelling. Salary, 100l. per annum.—Address, A.B. at Mr. Pettifer's, Post-office, Southeate-road, Kingsland.

TO PAINTERS, GLAZIERS, &c.

WANTED, by a Young Man, who thoroughly understands his business, a constant SITUATION in the above line. Can turn his hand to paper-hanging, if required. Wages, 1l. 1s. per week.—Direct to E. F. 25, Westmoreland-place, Eagle-street, City-road.

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WANTED, by the Advertiser, a Situation as GENERAL or SHOP FOREMAN, or to take charge of Works on a gentleman's estate.—Address to No. 236 Mr. Beattie's Newspaper Office, 12, Princes-terrace, Albert-road, Regent's-park.

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WANTED, by a Young Man, a Situation as INSPECTOR or FOREMAN, over public or private drainage works, who has just completed the public drainage of a large town. Highly respectable reference as to ability or character can be given.—Address, W. E. Office of "The Builder."

TO BUILDERS AND OTHERS.

WANTS a SITUATION, a competent FOREMAN, for either shop or works. He is a first-rate staircase hand, makes working drawings, takes quantities, and under-stands Gothic detail; would contract for stairs, handrails, or other work. Satisfactory reference given.—Address, C. ELY, 1, Staple's-inn buildings, Holborn.

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WANTED, EMPLOYMENT, within ten or fifteen miles from town, for a YOUTH, aged 17, who has been four years at the trade. Address (prepaid), to J. H. 14, Vincent-street, Vincent-square, Westminster, London.

TO BUILDERS AND CONTRACTORS.

WANTED, a SITUATION, by a practical and experienced Man, as GENERAL or SHOP FOREMAN. Unexceptionable freferences.—Address, A. B. 29, Little Russell-street, Bloomsbury.

TO BUILDERS, &c.

WANTED, by a respectable Young Man, a carpenter, aged 23, a SITUATION as FOREMAN or CLERK, or to take charge of a small business. Can undertake to make out plain and working drawings, and is willing to make himself generally useful; or would take any quantity of work by piece.—Address (prepaid), Y. care of Mr. Powell, Perfumer, Angle-terrace, King-street Hamm-rsmith.

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THE Advertiser, having some spare time, wishes to employ it in Making or Colouring Perspectives, Preparing Working Drawings, Specifications, &c. Terms moderate.—Address, O. S. Office of "The Builder."

THE Advertiser, aged 22 years, who will shortly leave his situation in a Builder's office, where he has been entrusted with the general management for the last two and a half years, would be glad of a similar ENGAGEMENT, or in a Merchant's Office. He has been intrusted with the collecting of rents and understands bookkeeping. Unexceptionable reference to present employer. Address, prepaid, to W. R. Mr. Harris's, 45, Grafton street East, Tottenham-court-road.

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THE Advertiser, an Architect, who has had the control of some large jobs, wishes to meet with a gentleman requiring a first-rate DRAUGHTSMAN and CONFIDENTIAL ASSISTANT. Would take the management of an estate, or assist any gentleman intending to build.—Address, S. W. 8, Farringdon-street.

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THE Advertiser, a Practical Mason, is desirous of CONTRACTING for the STONEWORK of any Building, at the lowest possible price; and the Brickwork, if required. Address, W. W. 78, New-cut, Lambeth, London.

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THE Advertiser, 25 years of age, highly respectable, and of considerable experience in the profession, wishes to meet with any Gentleman requiring the assistance of another, either in the Office or in the Outdoor portion of his duties. The latter preferred. A permanency is sought, and a gradually rising salary desired.—Address, prepaid, to Y. O. U. 6, Newington-causeway, Kennington-road, London.

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THE Advertiser is open to an ENGAGEMENT with an Architect. He is an expeditious draughtsman, and has been accustomed to making finished, working, and detail drawings. Is well acquainted with perspective preparing specifications, &c and is a good colourist.—Address, J. G. H. post-office, Stourport.

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MECHANICAL DRAUGHTSMAN.—WANTED, by a young man, a SITUATION. He can make fair working drawings, take out quantities for machinery, &c. Has had some experience in iron roofing. Three years in last situation. References given.—Address, ALPHA, care of J. Saunders, Druggist, New Radford, near Nottingham.

LANDOWNERS, AGENTS, and OTHERS. The Advertiser, who can be well recommended, is open to any EMPLOYMENT to which his qualifications as a good general ACCOUNTANT, CORRESPONDENT, DRAUGHTSMAN, &c. are adapted. He will be happy to forward his specimens to any gentleman for inspection. Address, by letter, A. B. Mr. Wilson, stationer, &c. 37, Wigmore-street, Cavendish-square, London.

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CLERK.—A SITUATION WANTED, in a Builder's Office, as junior or otherwise, by the advertiser, who will shortly leave a City firm.—Address, W. G. Office of "The Builder."

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A SURVEYOR of many years' general experience, who has also had considerable practice in civil engineering and architecture, and is competent to the management of an estate, an office, or works, is open to a RE-ENGAGEMENT at home or abroad, or to enter into Partnership where an active partner is required.—Address, W. J. News-office, 10, Tottenham court-road.

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A GOOD and expeditious DRAUGHTSMAN, who is perfectly capable of getting up working and finished drawings, perspectives, &c.; is a good colourist, and understands the routine of an office, is desirous of meeting with an ENGAGEMENT. Terms moderate.—Address, C. B. R. 87, Stanhope-street, Hampstead-road.

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A FIRST-RATE practical DRAUGHTSMAN is at present open to an ENGAGEMENT. Address, A. R. Brown and Standfast's, 4, Little George-street, Westminster Abbey.

PARTNER WANTED.—To be DISPOSED OF, ONE FOURTH SHARE in the WINDSOR BRIDGE IRON WORKS, near Manchester, in consequence of the junior partner having retired. The plant and machinery is of the best description, and capable of turning at least 1,000l. per month. The trade is principally with British and Foreign Railways, and other large Companies, and being chiefly for machinery, &c. secured by letters-patent. There is nothing to fear from competition. For further particulars apply to Messrs. THOMAS JONES and CO. General Accountants, 17, Clement's-lane, London.

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Wooden Tiles and Moveable Parquets.

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WOODEN TILES, now for the first time introduced into this country, possess the great advantage over all other tiles of being dry and warm under the feet, even in the coldest season, thus removing the evils of cold and dampness arising from other materials. They can be fixed upon any spot WITHOUT NAILS or glue, and can, conversely, be removed at pleasure, and relaid in any other place with the greatest facility. Being of small dimensions they are essentially portable, and well adapted for the use of churches, chapels, halls, &c. They are made in the form of squares, lozenges, and other forms, of waiusscot mahogany, walnut, and other woods, at prices commencing at 2s. per foot superficial, including fixing, in or near London.

MOVEABLE PARQUETRY, made upon the same system, but of larger dimensions than the above, includes every variety of geometrical design, more or less ornamental, such as "Stars," &c. and will, in a few days, convert an ordinary room, hall, or gallery, into an elegant drawing, ball, or assembly room, from which they can again be removed to any other locality without trouble.—Further particulars will be forwarded on application to the LONDON PARQUETRY, 8, Whitefriars-street, Fleet-street.

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Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works situate on the Bristol and Exeter Railway, five miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington.

PORTLAND CEMENT.—6, South Wharf, Paddington. CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality, a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminently hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GRAVES, Esq. at his Works, near the River Aton, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL. Light and dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White Maslin, Hair, Lias Lime, Laths, Slates and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Porcelain.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILDRON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not swell, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Course	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

11 George-yard, Lombard street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent. ROMAN and PORTLAND CEMENT of the first quality manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise. Apply to G. BOOTH, Agent, as above.

TO BUILDERS CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland yard, Westminster.

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY.

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS.—OLDHAM and TATHAM are now prepared to receive orders from contractors, builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and will be improved by the addition of two or more parts of sand to one of cement. Tons and Tons boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office: Warwick.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, WILD, and CO. beg to inform the public and trade generally that they have completed their works for the manufacture of PORTLAND CEMENT, and from their continuity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confident hope they shall be able to supply the public with a first-rate article in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London:—Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SEconds, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 26, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUN OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 981, of the Great Exhibition, rank the Manufactories known so long as "The Tilleries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 50s. per 1,000; floor bricks and 6 inch pavings, at 37s. 6d. per 1,000; 9-inch pavings, at 57s. 6d., per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Covings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 8, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, TILES, AND TILES, at much less than cost prices. The BUSINESS to be DISPOSED OF, with the valuable connection, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent. For particulars inquire on the premises, Honduras Wharf, Bankside, Southwark, London.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 25s. per thousand; Grizzles 28s.; Malms 30s.; Rough Stocks, 32s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, hand washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

WHITE SUFFOLK and RED FACING BRICKS

GOWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and flare, bricks, fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59, Nelson square, Blackfriars-road.

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on E. PARKS, Lewisham, and see the prices, &c. Carriage within six miles on the most reasonable terms. Red facing bricks at 30s. All kinds of tiles, paving bricks for oven building, salt glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch red Socket Drain Pipes, in 2 feet lengths.—Apply to ST. JOHN HEWITT, Redhill Works, Southampton.

TO BRICK and TILE MANUFACTURERS.—TO BE DISPOSED OF, on account of the contemplated retirement of the Proprietor, the LEASE and BUSINESS of a capital BRICK YARD, with Two large Kilns, and all the necessary requirements for the continuance of the extensive and lucrative trade, for many years conducted on the premises. The yard has an inexhaustible supply of earth of the best quality, and admirably suited for the production of goods, either for building or agricultural purposes, the demand for both being large and daily increasing. Fuel is abundant and moderate in price, and the local situation most inviting to a perseveringman of business. The convenient residence and farm of about 90 acres of good land in excellent condition, near to the Brickyard, is used by the proprietor in connection with the concern, both the yard and farm being held for terms at very low rentals. The present proprietor holds other farms in the immediate vicinity, which may if desired (and a arrangement) be rented in addition to the above-mentioned Brickyard and Farm, making altogether nearly 400 acres, which will be jointly occupied to great advantage.—Address, in the first instance, to A Z No. 91, Farringdon street, London.

TO ALL POTTERS, CHINA, AND BRICK AND TILE MAKERS.

HANDS'S GREAT ECONOMISING PATENT KILN.—The merits of this kiln are so to economise the heat in time of burning and cooling for drying purposes, as to enable any person so employed to keep up the works all the year round if he please, without any additional cost of fuel beyond the consumption of about six or seven tons of coal to burn about 20,000 of goods in each kiln. Any persons engaged in the above works, and desirous of availing themselves of this opportunity for license or otherwise, apply to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom, Surrey.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 20, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Maccles-field-street North, City-road, for the sale of CHIMNEY-PIECES, and other articles, useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.
July 25, 1855. C. ADDEY, Secretary.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the province of Massa Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake contracts for any quantity of Statuary, Veined, Sicilian, Bardilla, Statuary, and other Marbles, in blocks of all dimensions, delivered on board at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt. Orders for Paving Slabs, Garden Wall Statues, Vases, Tazzas, Consoles, &c. executed and delivered at reasonable rates. For further particulars apply at the offices of the Company, 18, Cannon-street, City.
WILLIAM W. BONNIN, London Secretary.

MARBLE.—THOMPSON and HOLMES, Marble, Stone, and Timber Brokers, Contractors, and Builders' Agents, beg to inform the gentlemen connected with the marble trade, that their STOCK of MARBLE is received direct from the principal quarry-owners in Italy and Belgium, for SALE on COMMISSION ONLY, and that they can consequently supply the trade with the finest marbles at the lowest prices. Sawn Slabs, Chimney-pieces, Vases, &c.; Yorkshire and Portland Stone for sale on commission.
The Marble Wharf, Thames-bank, Pimlico, adjoining Vauxhall-bridge.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account.—Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any other house.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL,
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London. THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the metropolis; consisting of a selection of upwards of two hundred, all manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of the great Drawing-Room Chimney-Pieces in Statuary Marble; elaborate, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Egyptian, Verd Antique, Brocatella, Dove, St. Anu's, and Serpentine Marble, suitable for Dining-Rooms, Halls, Libraries, Vestibules, Entrance-Halls; and a great variety of others in Veined, Sardinian, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, Best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, King's-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves

JOHN BAZLEY WHITE and BROTHERS,
MARBLE MERCHANTS,
MILLBANK STREET, WESTMINSTER.
Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

YORKSHIRE STONE.
NEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons, that they can supply to any extent all kinds of YORK STONE, including Paving, Bramley Fall, Parlr Stone, Springs, &c. of the best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms. NEO. VINT and BROTHERS will gladly forward prices by Post on application. Address, Idle, near Leeds.

GRANITE FOR SALE.—A large quantity of DEVONSHIRE BLOCKS, prepared as Ashlar; a magnificent AXE-DRESSED LANDING, 16 feet long, 6 feet 6 inches wide, and 1 foot thick; TWO GRAVE-STONES, fine-axed, each 6 inches long, 3 feet 6 inches wide, and 6 inches thick, &c. &c. Lying at Grosvenor Wharf, Millbank-row, Westminster, is offered for Sale on reasonable terms.—Apply at the Haytor Granite Company's Office, No. 4, Millbank-row.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

TO COLOUR-MAKERS, BLACK-LEAD MANUFACTURERS, and OTHERS.—Two or Three Pairs of MARBLE and GRANITE RUNNERS TO BE SOLD.—Apply by letter, in the first instance, to Mr. WILLIAM THOMAS, Builder, 73, York road, Lambeth.

MARBLE and GRANITE RUNNERS: Two or Three Pairs TO BE SOLD.—Apply by letter, in the first instance, to Mr. WILLIAM THOMAS, Builder, 73, York-road, Lambeth.

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terraces at the Crystal Palace.—Supplied by the Haytor Company under Royal Charter.—For terms, apply to Mr. C. HOAR, Haytor Granite Office, 4, Millbank-row, Westminster.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—BRIGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard
This Granite is selected for the New Westminster-bridge.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS,
QUARRYMEN AND STONE-MERCHANTS,
BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tenfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truck-loads of five tons. Pavings, Landings got out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

PORTLAND STONE.—NORTON and WHITE beg to solicit the attention of the Building Trade generally to their extensive STOCK of PORTLAND STONE, comprising every useful size, which they are now offering upon most advantageous terms. York Landings, Paving, Sills, Sinks, &c. Address, 24 Wharf, Harrow-road, Paddington.

AUSTIN'S ARTIFICIAL STONE.—This material (frequently confounded with Portland Cement) has now been in extensive use among the highest class of residences for about twenty-five years. During that time a collection of Ornamental Work, such as Vases, Figures, and Fountains, has been accumulating, of which the public have scarcely any idea. Suffice it to say, that a single copy of each work would collectively amount to between 4,000l. and 5,000l. In consequence of this Terra-cotta, an I all other kind of Pottery there is no distortion of form by the process of baking, and, instead of the glazed surface of Terra-cotta, it has the closest resemblance to Portland Stone, having also the advantage of being waterproof.—AUSTIN and SEELEY, Nos. 1 to 4, Keppel-row, New-road, Regent's-park.
*** A large Stock of Ornamental Chimney-tops.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Builders, Contractors, and Others, that his Price Lists for Slates and Slab Work, can be had on application, enclosing a postage-stamp. Country and export orders promptly attended to.—N.B. A liberal discount to the trade.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.
ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the slabs of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave-place, Pimlico.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and the Llantysilio Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney-pieces, Baths, Filters, Larders, Mangers, Ridging, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices.—Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf road, Paddington; or to Mr. GEORGE F. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 3s. per square yard. Railway Arches made waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, to the adornments of our noblest buildings. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition, and will be found to be a different material to that now being imitated by puffers and manœuvrers, with only three or four years' experience, and without practical knowledge. Some of the works recently completed by M. H. B can be referred to the sole of the embellishments to the external part of Cliden House, his Grace the Duke of Sutherland's; also Tottenham and Kingsland Churches, the tablets to the London-road Chapel, containing from 3,000 to 4,000 feet cube; the colossal Britannias, 19 feet high, at the County Fire Offices, Cornhill and Lombard-street; the Arms, with the sidereal group, at the Kent Mutual Insurance, Queen street; and other works elsewhere, too numerous to mention. A large Stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazze, Busts, Consoles, Bas-relievi, &c. by J. M. BLASHFIELD, of Millwall, near the West-India Docks Station, and sold at No. 1, Praed-street, Paddington-basin, where prices and designs can be obtained. Examples of Terra cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Mineral Court. The statues of Australia, Venus di Medici, and the colossal Tritons in the gardens at Sydenham, are in Terra-cotta, so are the fountains at the Renaissance Court, and the roof of the Alhambra Court. The Pompeian roof is of Terra-cotta and red cement combined. Since the execution of these works, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

IMPROVED SLUICE-COCKS, for Water, Gas, or Steam, brass faced, and sluices raised by square thread, engine-turned screw, working in brass nut, in every respect as good as can be manufactured, are offered at the following prices per inch:—

2-inch.	3 and 4 inch.	5 to 9-inch.	10 to 15-inch.
10s.	12s.	14s.	18s.

Lithographs of the improved self-lubricating and various other constructions, with descriptions and prices attached, may be had on application.
Simple purchase Builders' Crabs, as above, fitted with two handles, and wrought-iron braces and spindles, with set to throw in and out of gear.

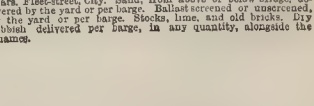
Price	70s. each.
Stronger and larger ditto	6l. 10s. do.
Double purchase	8l. 8s. do.
Treble purchase	12l. 12s. do.

BARRETT, EXALL, and ANDREWS, Kate's Grove Iron-works, Reading. Agents in London, DRAY and CO. Swan lane.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins which supply valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.
The Equilibrium Ball-valve is simple and certain in its action, and more compact than the common Cocks now in use.
Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

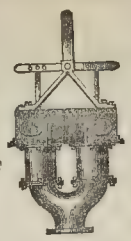
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11.15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

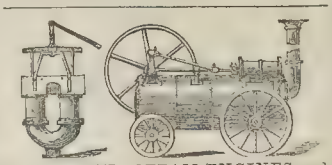
TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No 70, Strand.

To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 18-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

WARNER'S PATENT VIBRATING STANDARD PUMPS.—PATENT CAST IRON PUMPS for the use of farms, cottages, manure tanks, and wells of a depth not exceeding 30 feet.

Diameter of Barrel.	Length of Barrel, under pans.	£ s.
2½ in. short	1 ft. 7 in.	Fitted for lead, 1 12
2½ „ long	3 3	gutta percha 1 15
3 „ ditto	3 6	or cast iron 2 12
3½ „ ditto	3 6	flanged pipe, 2 16
4 „ ditto	3 6	as required. 3 3
½ „ short, with 15 feet of lead pipe attached, ready for fixing		2 12
2½ in. long ditto ditto		2 16

The short-barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from underground tanks, or in hot, forcing, and plant houses; they may be fixed, when desired, under the stage.—May be obtained of any Ironmonger or Plumber in town or country, or at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin-street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage. 3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small. 6th. Under slate, metal, or tiles, it is a most effective non-conductor.

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

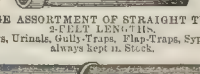
HENRY MILLICHAMP,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.



Watercloset Pan with Syphon-Trap connected, price 5s. 6d. each.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.

Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the

NEAR POOLE, DORSET.

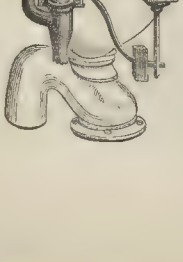
These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.

DOULTON & WATTS,

LAMBETH POTTERY, LONDON.



DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS, Engineers and Contractors, John's-place, Holland-street, Southwark, London.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for a period, of 8-horse, 10-horse, 12-horse, 15-horse, 20-horse, and 30-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 99, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

STEAM-ENGINE, of 24½-inch Cylinder, 4-feet stroke. TO BE SOLD.—Apply by letter, in the first instance, to Mr. WILLIAM THOMAN, Builder, 73, York-road, Lambeth.

WANTED, a Second-hand, High-pressure CONDENSING STEAM-ENGINE, about 8-horse power. Address, stating lowest price, O. R. Mr. Cutler's, Bookseller, Wellington, Somerset

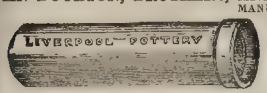
PORTABLE ENGINE for SALE.—Six horse power, of Garrett's manufacture, two years old, in perfect working order. May be seen at work at Hainault Farm, Dram Tile Works, near Ilford, where all particulars may be obtained; or at Mr. SCOTT'S Offices, 5, Charing-cross, London. September 3, 1855.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem, will be found sufficient for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depot, Whitefriars Wharf, Cannon-row, Westminster.

THE PERMANENT WAY COMPANY, 36, Great George-street, Westminster, holding a large number of patents relative to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licenses for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to

WILLIAM HOWDEN, Secretary.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.
MANUFACTURERS OF

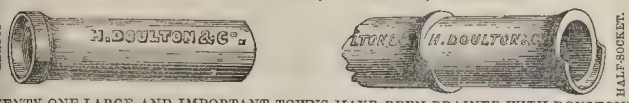


DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—
LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.
CORK.....J. and J. Harley
WATERFORD....J. Sparrow and Co
CARNARVON....Jno. Jackson.
PRESTON.....J. Armstead, Hudson-street.
CHORLEY.....Thomas Saville
BLACKBURN....W. Hopwood, Clayton-street.
WIGAN.....James Fairclough, King-street.
KENDAL.....Robt. Thompson.
CARLISLE.....C. Armstrong, Lowther-street
WHITEHAVEN..Hugh Todhunter.
COCKENMOUTH..John Bird
GUERNSEY.....Guerin, Brothers.
LONDONDERRY..W. and A. M'Elwee.
LIMERICK.....W. Burgess and Sons.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE
DRAIN-PIPES.
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

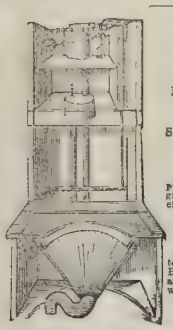
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

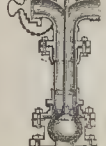
HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Cock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryden-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM,
and 37, SOUTHAMPTON-STREET, STRAND, London,
Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS.
Bateman and Moore's, and Chrimes' Patent Hydrants, or Fire Cocks. Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.
Siemens' Patent Balance Water Meter.
Pilbrow's Patent Water-Waste Preventer.
Morris's Patent Water Supply Regulator.
Rawlinson's Patent Self acting Drainage Valves.
Higginbotham's Patent Slide Stop Cocks.
Lowe's Patent Stench Trap, Begg's Improved.
And all other Articles required for Water-Works Purposes, &c.
LONDON HOUSE.
Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.
Plumbers' Brass Work of every description.

BATEMAN AND MOORE'S PATENT HYDRANT.



SUPERIOR GLAZED STONEWARE
DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

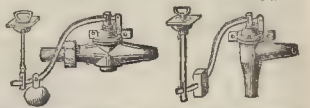
W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

E. and W. STURGE invite special attention
to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.
January, 1855.

LAMBERT'S SELF-CLOSING
LAVATORY AND CLOSET VALVE
No. 7.

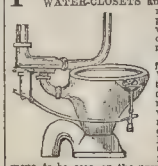


Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

STONEWARE GLAZED POTTERY,
LYTCHETT, near POOLE, DORSET.—TO BE DISPOSED OF, by PRIVATE CONTRACT, the Lease, Plant, and Stock of the above Premises. The land contains a great depth of the finest clay, fit either for shipping or manufacture. The Glazed Drain Pipe and Fire Brick are equal if not superior to any yet in the market.—Further particulars may be obtained on application to H. F. FISHER, Blandford, Dorset.

PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 22s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 32, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 32s. PER CRATE.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS, warranted by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

HOSE PIPING.—WAITHMAN'S
PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 60 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter, and price per yard.

¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4 inches.
9d.	11d.	1s.	1s. 3d.	1s. 5d.	1s. 7d.	1s. 9d.	2s.	2s. 3d.	2s. 6d.	2s. 9d.	

Super-extra stout quality.

½	¾	1	1¼	1½	2	2½	3 inches.
2s.	2s. 3d.	2s. 6d.	2s. 9d.	3s. per yard.			

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

½	¾	1	1¼	1½	2 inches.
9d	10d.	11d.	1s.	1s. 3d	1s. 6d. per yard.

The hose is Burnettized at an extra charge of 3d per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

SALES BY AUCTION.

MARBLE.—TO BUILDERS, SCULPTORS, MARBLE MASONS, &c.

MESSRS. THOMPSON and HOLMES beg to inform the Trade that their PUBLIC AUCTIONS of MARBLE will take place on the following days :—
MONDAY...1st SEPT. 1855. MONDAY, 1st OCT. 1855.
MONDAY, 5th NOV. 1855.
Catalogues and further particulars to be had on application one week previous to each sale—The MARBLE WHARF, Thames Bank, Pimlico, at the foot of VAUXHALL-BRIDGE

WESTBOURNE-TERRACE NORTH.—TO BUILDERS and OTHERS—seven unfinished Houses.

MESSRS. LOCKWOOD are directed by the Mortgagee to SELL by AUCTION at the STAFFORD ARMS, HARROW-ROAD, on WEDNESDAY, SEPT 26, at TWO o'clock punctually, SEVEN UNFINISHED HOUSES, situate as Building Nos. 18, 20, 22, and 4, Westbourne-terrace North, and Nos. 4, 5, and 6, Cornwall-terrace, Chichester-road, adjoining ; all brick built, and substantially erected ; each in most effective, and very commanding Westbourne-terrace, and the finest locality surrounding. The latter Houses are estimated to realise 240l per annum each, and the other 160l per annum. They are held for long terms, at low ground rents.—May be viewed and printed particulars obtained fourteen days before the sale, of Messrs. Upton and Cowan, Solicitors, 13, Hyde-street, Bedford-square ; and at the Offices of the Auctioneer, No. 1, Barnard-place, Hyde-park, or 44, Upper Baker-street. Part of the purchase-money may remain if required

TO CARPENTERS, BUILDERS, PIANOFORTE and CABINET MAKERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 49, Unity-street, Somers-town, on WEDNESDAY, SEPTEMBER 12th, at ELEVEN for TWELVE, about 6,000 cubic feet of white, pine, and spruce PLANKS, DEALS, and BATTENS, 80 squares of prepared flooring, 1½ inch wide tongue and grooved, mahogany in logs and planks, three feet of seasoned, well-built poles, pitpogs, timbers, barrows, 1, 000 pieces of paper hangings dry cut stuff and miscellaneous useful items.—May be viewed the day prior, and catalogues had of
Auction Offices, 2, Cardington-street, Hampstead-road.

HAMMERSMITH. Valuable Contractors' Plant, New Bricks, and Farming Stock, belonging to the estate of the late William Hoof, Esq.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, Brixham Farm, Wood-lane, Shepherd's-bush, on TUESDAY, 11th of SEPTEMBER, at TEN for ELEVEN, on account of the number of lots, the valuable STOCK and PLANT, comprising two power full young cart horses, and sets of harness, three very nearly built locomotive trucks, stone and timber waggons, close bodied waggons and carts, nearly new spring van, railway ballast trucks, 400 tons of contractors rails, double purchase crab engine, hoisting jacks, double-action ram pe, well-lowing tackle, ladders and falls, fittings of blacksmiths' shop, iron wheeling plates, Barrows, carpenters' benches, useful machinery and implements in motion, new locks, granite, tiles, slates, &c. Also the FARMING STOCK, comprising seven useful young cows, a steam plough, with engine and boiler, furniture implements, and hay, straw, and other effects.—May be viewed the day previous, and catalogues had at the Office of Messrs. Bullard and Lake, Solicitors, 13, Bell-Bar-street, Paul-mall East ; of Messrs. Foster and Son, 54, Pall-mall ; on the Premises ; and of the Auctioneers, 40, Parliament-street, Westminster ; or Coal Exchange.

WOOD-GREEN, TOTTENHAM.—Sixty five Oak and other Trees, felled and lying on the Common.

MR. RICHARDS will SELL by AUCTION, on the GROUND, a short distance from Wood-green and the Bruce Station, on the Great Northern Railway, on MONDAY SEPTEMBER 10th, at ONE o'clock, with notice to Fifty Oak Trees, some of large dimensions ; ten Willow, Ash, and Elm ditto ; 60 Willow and other Poles, and Thirty Lots of Oak Top wood—May be viewed, and catalogues obtained at the Lodge on the Common ; and of the Auctioneer, Tottenham.

BISHOPSGATE. Purchasonings, Pianofortes, and Chairs.

MR. EDWIN WHITE will SELL by AUCTION, without reserve, at his Rooms, 157, Bishopsgate-street Without, on TUESDAY, SEPTEMBER 11, at TWELVE for ONE precisely, superior PAPER HANGINGS, comprising rich French hangings and decorations, elegant flocks, satins, and damasks, superior marbles, chimney-pieces, and others in great variety ; also three cottage pianofortes, in handsome rose-wood cases, and about 60 fine chairs.—View day prior and morning of sale, when catalogues may be had.

HIGHGATE. 1,000,000 sound Bricks for absolute Sale.

MR. EDWIN WHITE will SELL by AUCTION, without the slightest reserve, at the BRICK FIELDS, on the west side of the Archway-road, Highgate, Middlesex, on WEDNESDAY, SEPTEMBER 12, at ONE for TWO precisely, in lots, to suit capital STOCK BRICKS, fine rough stuff, and place Grass in and Place. On view two days prior, when catalogues may be had at the Brickfield : at the Archway Tavern, Upper Holloway ; and at the Auctioneers, No. 170, Bishopsgate-street Without

CHELSEA. TO BUILDERS, COACH PROPRIETORS, AND CAPITALISTS.

MR. T. W. WOOD will SELL by AUCTION, on MONDAY, SEPTEMBER 17th, 1855, at TWELVE o'clock precisely, at the MART, near the Bank of England, by order of the Mortgagees, with power of Sale, in Three Lots, the following very desirable long LEASEHOLD DWELLING-HOUSES and BUSINESS PREMISES.

Lot 1.—All that brick-built substantial Message or Dwelling-house, situate No. 42, Radnor-street, in the parish of Saint Luke, Chelsea, in the occupation of Mr. George Lill, where, at the low rent of 26l. per annum, subject to a ground-rent of 6l. per annum ; unexpired term, about one thousand years.

Lot 2.—All that capital brick-built and commodious Message or Dwelling-house, situate No. 41, Radnor-street aforesaid, with the convenient sixpenny-office adjoining, now in the occupation of Mr. Lill as an Inn, and known by the sign of the Queen's Head, and also as a Coach-office for a coach, bus, cab, or van proprietor. Estimated rental, 40l. per annum, subject to an apportioned ground-rent of 8l. per annum ; unexpired term, eighty-six years. A right of way reserved to the owner and occupier of Lot 3, to pass through, or under the gateway, as will be shown in the Plan to be produced at the time of the sale.

Lot 3.—Comprises all that brick-built extensive Builders' Workshop, with Steps and Painters' and Plumbers' Shop under the same, a builder's office, and Stabling for four horses, situate in the rear of Lot 2, with a carriage-road to Radnor-street. This lot is in hand. Estimated rental, 50l. per annum, subject to a ground-rent of 10l. per annum ; unexpired term, eighty-six years. The entrance or right of way to this lot will be shown in the plan to be produced at the time of sale.

The fixtures, consisting of stoves, dressers, racks, and manners &c. will be included in the purchase of each lot. There is a very substantial brick boundary wall to this estate.—May be viewed by application to Mr. W. T. Star, 93, Kings-road, Chelsea, and printed particulars and conditions of sale may be had two days prior to the sale, at the Offices of Mr. Charles Etherington, Solicitor, 29, Walbrook, London, where a plan of the estate may be seen ; of Mr. W. T. Star, as above ; at the Place of Sale ; at Mr. Etherington's Offices, Chatham ; and of the Auctioneer, Chatham.

SOUTH LAMBETH.—Six Acres of very valuable Freehold Building Land.

MESSRS. NORTON, HOGGART, and THIST have received instructions to OFFER for SALE, at the MART, on FRIDAY, SEPTEMBER 14, at TWELVE, in lots, very valuable FREEHOLD BUILDING LAND, free of land-tax, situate in the rear of the Town, South Lambeth, nearly Vauxhall-bridge. Each lot will consist of about half an acre, with a frontage to a proposed new road of 40 feet.—Particulars and plans may be had of Messrs. Druce and Sons, Solicitors, Billiter-street, 62, Old Broad street, Royal Exchange.

SALES BY AUCTION.

COWLEY, MIDDLESEX.—About a quarter of a mile from the Uxbridge Station on the Branch Line of the Great-Western Railway.

MR. STRANSOM will SELL by AUCTION, at the CHEQUERS INN, Uxbridge, on THURSDAY, SEPTEMBER 20, at TWO o'clock, valuable FREEHOLD and TITHE-FREE BUILDING LAND, of about Four Acres in an exceedingly healthy situation in the parish of Cowley, Middlesex, and close to the town of Uxbridge, commanding extensive views, and in the immediate neighbourhood of the much-admired river Colne in which the purchaser of each lot will have an extensive right of fishing. The land is eligibly adapted both for building purposes and for brick making, as it contains earth of the finest quality, and of great depth. The above presents an opportunity rarely to be met with in this neighbourhood, as a greater portion will be submitted for sale in one lot, but of an acceptable offer be not made. It will be put up to auction in various lots. May be viewed, and particulars, with conditions of sale and plans annexed, obtained of Messrs. Woonnacott and Sons, Solicitors, Uxbridge ; of T. F. Jennings, Esq. Solicitor, Hillingdon-end, Uxbridge ; and of Mr. Stransom, Auctioneer, &c. Uxbridge, Middlesex.

ABSOLUTE SALE.—ENFIELD, MIDDLESEX.—Family Residence, and Twelve Acres of Meadow, Arable, and Building Land.

MR. MURRELL has received instructions to SELL BY AUCTION, at GARRAWAY'S, on FRIDAY, SEPTEMBER 14, at TWELVE, in lots, a valuable FREEHOLD ESTATE, comprising a residence, of modern elevation, most desirably situate close to the town of Enfield, Middlesex, within three minutes' walk of the railway station and the church, with pleasure and kitchen gardens, orchard, and stabling ; with several enclosures of rich meadow, admirably adapted for building purposes, having two communications with the high road, and possessing frontages to the private road, containing in the whole about twelve acres.—May be viewed, and particulars with conditions of sale, had of Messrs. Harrison, Solicitors, 5, Walbrook ; at Garraway's ; the principal Inns at Enfield, and the neighbourhood ; and of Mr. Murrell, Auctioneer and Land Agent, 1, Walbrook, City.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, in some of the most eligible building estates in the neighbourhood of London, viz. :—
FOREST HILL, Croydon Railway.
ST. MARGARET'S, near Richmond, South Western Railway.
OAKLANDS GRANGE, Weybridge, Surrey, ditto.
HOUNSLOW, Middlesex, ditto
TOTTENHAM-GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.
Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the erection of their own residences. Several Plots to be Let on Building Lease. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

MAITLAND-PARK, HAVERSTOCK-HILL, Hampstead road.—LAND-TAX REDEEMED TO BE LET, upon Building Leases for ninety-nine years, from Christmas 1852, desirable BUILDING SITES upon the above Estate. The continued demand for houses in this locality, and the eligible opportunity now offered for the erection of villas adjoining the grounds of the Orphan Working School, render this a desirable opportunity for builders or gentlemen wishing to erect villas for themselves.—Fifteen acres of the above plateau, in the occupancy of the Orphan Working School, 32, Ludgate-hill ; Messrs. TERRELL and CHAMBERLAIN, 30, Bucrahall street ; the Architects, Messrs. WEIMING and ASHDOWN, 49, Charing-cross ; or at the Porter's Lodge, on the Premises.

ST. MICHAEL, CORNHILL.—TO LET, upon building leases, for a term of sixty-one years, the SITES of the NORTHERN PORTION of the GEORGE and VULTURE TAVERN and No. 6, Pound, on the south side of St. Michael's-alley, Cornhill. The Churchwardens and Committee of Overseers will meet in the Vestry-room, in St. Michael's Church, Cornhill, on THURSDAY, the 20th SEPTEMBER, at TWELVE o'clock precisely, to receive TENDERS from parties desirous of taking the above sites, which are divided into two lots, the terms and conditions may be seen, or printed copies may be some obtained on payment of 1s. upon application to Mr. W. A. MASON, Architect and Surveyor, Great St. Helen's ; or to Mr. HENRY HOPPE, Vestry Clerk's Assistant, Cornhill. Parties Tendering must send in Tenders to the Vestry Clerk on or before the 19th SEPTEMBER, under cover addressed to the churchwardens, and must send "Tender for Ground in St. Michael's-alley," and must be personally in attendance at ELEVEN o'clock on the 20th SEPTEMBER. The churchwardens and overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign a memorandum, a form of which may be previously inspected upon application to the Vestry-clerk.

TO BUILDERS AND OTHERS.

FREEHOLD LAND, in eligible Plots for Building Purposes, situate near to Railway Stations or Omnibus Routes, TO BE LET or SOLD, in
FOREST HILL, | SOUTHGATE,
BEULAH SPA, | PUTNEY'S BAR,
RANGER-LANE, TOTTENHAM
Apply to Mr J. SMITH, Land and Building Surveyor, 12 Warwick-court, Holborn.

LAND FOR A VILLA.—Several very desirable PLOTS, on a gravelly soil, of from one to eight acres each, in Oatlands Park, near the Weybridge Station, 18 minutes from London, TO BE SOLD. Eligible plans and particulars apply to Messrs. SNELL, Albemarle-street.

HAVERSTOCK-HILL.—To BUILDERS. TO BE LET, in the MAIDEN and QUEEN'S ROAD both main roads, some commanding FRONTAGES for Shops and Private Houses. All the sewers are in the estate, roads all formed, and new building Term, moderate rents from ground rents. Bricks supplied at low prices, and liberal cash advances. Apply to Mr JOHN MOORE, 86, Chalton-street, Euston-square.

TO BE LET, with immediate possession, a substantial BUILDER'S and CARPENTER'S BUSINESS STOCK IN TRADE, with a twenty lanes of London.—Apply to Mr LAWRENCE, Red Lion Hotel, Hampton, Middlesex.

TO BE LET, in consequence of the proprietor retiring from business, on lease, for a term of years, with possession at a short time, a well-established TIMBER YARD and BUSINESS, where a large and successful trade has been carried on for thirty years, with workshops, steam-saw mill, and private house adjoining, situate in the centre of a large and improving town in the midland counties. A part, or the whole of the stock can be taken at a fair valuation. The premises are well adapted for carrying on a large building trade.—For further particulars, apply by letter to W. B. Office of "The Builder."

GUILDHALL, Sept. 5, 1855.—The COMMITTEE for LETTING the CITY'S LANDS will meet at Guildhall, on WEDNESDAY, the 12th SEPT. inst. at ONE o'clock precisely, to receive PROPOSALS for LEASES, of a House, No. 3, Broad-street-buildings ; a House, No. 23, Cheapside ; and a House, No. 26, Great Leonard-street, Finsbury.—Further particulars and plans may be seen, and forms of Tender obtained, at the Architect's Office, Guildhall.
FERDINAND BRAND, Comptroller.

HAMPTON-COURT.—BUILDING LAND TO BE LET, for ninety-nine years, with option of purchase, near the above station, and close to East Mousley Church. A portion of the estate has been laid out for villa residences, some erected, with gardens running down to the river Mole. There is a plot containing about two acres, very eligible for a first-class house, at a very moderate price. The plots vary in depth from about 120 feet to 400 feet, and in price from about 2s. 6d. to 5s. per foot frontage. Another portion has been devoted to cottages (which are much required in this locality), at extraordinarily low rates. The residue of the estate is admirably adapted for shops or small houses.—Apply to FREDERIC LETT, Esq. Architect, 36, Frederick-street, Strand, London.

LOWER THAMES-STREET.—TO BE LET, by Tender, by the Worshipful Company of Armourers and Braziers, on a Lease for Twenty-one years from Midsummer, 1856, the extensive Premises known as the GLOBE-YARD WAREHOUSES, situate in the above street, nearly opposite the Custom-house. The lessee will be required to pay all taxes and rates, including sewers and paving rates, and all assessments for sanitary purposes, and the expense of fire insurance, the land-tax being redeemed ; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman-street, on or before the 3rd OCTOBER next, where parties making the same are required to attend the following day, at HALF PAST TWO o'clock. The Company do not bind themselves to accept the highest or any other Tender.
JOHN PONTIFEX, Clerk,
5, St. Andrew's-court, Holborn.

DOVER.—VICTORIA PARK.—FOR SALE, this valuable PLOT of FREEHOLD LAND, containing nearly seven acres, most delightfully situate on a gentle slope on the south-east side of the castle, and admirably adapted for the erection of either a mansion, an elegant crescent, or detached villas. The early completion of a direct line of railway from the metropolis, which may now be safely relied upon, will restore to Dover its former important advantages, and thus ensure a sure and just issue to any judicious building enterprise.—Apply to Mr JAMES WOOLFOLD, Estate Agent, Dover.

EXTENSIVE BUSINESS PREMISES, situate at No. 3, Union-street, East Spitalfields, consisting of a house, with lofty and commanding shop, warehouse in the rear, with spacious entrance in Crispin street. TO BE LET, on a Repairing Lease for Twenty-one Years, by PUBLIC TENDER, by the parish of St. Mildred, Bread-street, London. Sealed Tenders to be sent, marked "Tender for Lease of House, No. 3, Union-street East," to Mr. STEINBERG, Vestry Clerk, 33, Bread-street, Cheapside, on or before FRIDAY, the 21st of SEPTEMBER, 1855. May be viewed on application at the Premises ; and particulars of terms obtained, and specification of repairs inspected, at Mr. STEINBERG'S Office ; and at Mr. HAWTREY'S, No. 37, Canon-street West.

TO BE DISPOSED OF, by PRIVATE CONTRACT, the GOODWILL, PLANT, and POSSESSION of ASHFORD MARBLE WORKS, DERBYSHIRE, with the STOCK IN TRADE thereon. These old established works are situate in the very centre of the marble district of Derbyshire, and command the advantages of the cheapness of labour, in a country village, with an excellent business connection, comprising some of the first architects and builders in the large provincial towns. From the excellent Black Marble Quarries close to the works, a Rosewood Marble Quarry within one mile, and quarries of the celebrated Fossil Marble within three miles. The river Wye runs by the works, affording an ample supply of water for use in the manufactory, and a motive power for the machinery, unattended with the expense of steam. The works themselves, which are of a most substantial character, consist of a marble-yard, measuring about one acre, with sawing and polishing mills, fitted with machinery, worked by two undershot water-wheels, workshops, show-room, counting-house, and apartments for a foreman. There is a dwelling-house, with a garden and orchard adjoining the works, and about nine acres of land are also held the tenth. The premises are about two miles from Ashwell, 3 miles from Rowsley Railway Station, thirteen miles from Chesterfield, seventeen miles from Sheffield, nine miles from Buxton, and thirty-four miles from Manchester. From Rowsley Station there is every facility for railway communication to all parts of the kingdom, except in the direction of Manchester ; and when the railways are completed for connecting Buxton and Whaley with Stockport, direct railway communication with Manchester and the North-west will be brought within ten miles of the works. It is rarely that such an eligible opportunity for embarking in business is presented to persons having the command of 1,000l. or 2,000l.—Further particulars may be known on application prior to the 22nd day of SEPTEMBER, 1855, at the house of JOHN TAYLOR, Solicitor, Bakewell.
August 29, 1855.

SALE by TENDER, of TWENTY-THREE HOUSES, in Lots, the following very desirable LEASEHOLD PROPERTY, forming the whole of the splendid terrace known as St. Columb-terrace, Kensington park, Nottting-hill,—twenty-three residences in carcase ; each residence has the use of a pleasure-ground in the rear, common to all the houses. The most beautiful spot around town, lying high, dry, and healthful, and which requires only to be known to attract residents to this favoured locality. The houses are well built, of handsome elevation, several being ornamented with portices, and are TO BE SOLD, by direction of the first mortgagee, BY TENDER, under his power of sale, in several lots.—The several Tenders to be delivered enclosed "Tenders for the Purchase of St. Columb-terrace," at the Offices of Messrs. HOLY and CARTWRIGHT, 4, Lothbury, on or before the 18th of SEPTEMBER next.—For further particulars, conditions, and specification for finishing, apply to Messrs. HOLY and CARTWRIGHT ; Mr. ROBINS, Piazza, Covent-garden ; and Mr. SAMUEL FIELD, Architect and Surveyor, 14, Beaufort-buildings, Strand. The highest Tender not necessarily accepted.

TO BUILDERS, CARPENTERS, AND OTHERS.

TO BE SOLD, the GOODWILL of an old-established BUILDER'S BUSINESS, employing on an average thirty men, in a good situation in the county of Hertfordwelve miles from town. The stock could be taken at a valuation, or would be sold by auction on the premises, if declined by the present occupier. The premises comprise convenient eight-roomed house, with good garden, &c. yard and workshops, stable, &c. four-stall stable and cart-lodge, &c. Rent, 30l. per annum. Reason for selling, the present owner being the freeholder.—For further particulars and terms, apply to Mr. W. R. GILBERT, Auctioneer, &c. 41, Charing-cross.

WANTED, a PLOT of LAND, 40 or 50 feet frontage, and 200 feet deep, not exceeding a mile from the Sudbury or Willesden Stations. Address, stating terms, to F. W. 19, Soho-square.

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The head of every house built upon the Waddington Estate, of the value of 50l. per annum, will be entitled to a Free First-class Railway Ticket ; and of every house of the value of 40l. per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find every supplies upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath and Yorkshire Block Stones, always in stock ; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate.

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The Builder.

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BUILDERS' BENEVOLENT INSTITUTION.

The EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate street, on TUESDAY, the 30th of OCTOBER next.

CHARLES LUCAS, Esq President, in the chair.

STEWARDS.

Bird, Stephen	Formby, Charles	Peto, Sir S. Morton,
Bird, George, Treasurer	Grayson, George	bart
Bird, Joseph	Godwin, George	Plunkett, W.
Brass, William	Gardiner, W. J.	Piper, Thomas
Barry, Edwd. M. jun.	Hutchons, Wm.	Piper, William
Bettle, E. L.	Higgs, Joshua	Peters, William
Bulmer, Edward S.	Howard, J.	Peters, Joseph
Burt, H. P.	Head, Geo junior	Richardson, R.
Cubitt, Alderman W.	Head, Richard	Randell and Saunders, Wiltshire
Cubitt, M. P.	Helling, J. N.	Smith, G. Spencer
Cubitt, Thomas	Herbert, Wm.	Smith, Alfred
Corres, Thomas	Jackson, Wm.	Smith, Frank
Coles, Bhadbolt, and Co.	Jackson, E. and H.	Stephens, S. J.
Collins & Stanbury, Birmingham	James, Jabez	Sunkin, W. S.
Cullingford, W. H.	Jennings, Geo.	Stirling, Thomas
Cullingford, Wm.	Kelk, John	Soward, John, jun.
Dunnage, Wm.	Lawrence, Wm. jun.	Sloper, Joseph
Doulton, Henry	Lee, Wm. R.F.	Strmefield & Cooper
Dowell, Joseph	Myers, George	Sewell, G Edward
Davy, Ebenezer	Newson, John, sen.	Tolley, James
Davis, James	Newson, John, jun.	Thorn, John
Eales, Christ.	Nicholson, D.	Taylor, James
Ellis, William	Nicholson, D. junior	Tyerman, Thomas
Evenfield and Hornel	Nixon, J.	Welsh, William
	Norris, William	Williams, J. junior

Gentlemen desirous of promoting the interests of the institution by becoming stewards, will be pleased to forward their names to the Treasurer, Mr. GEORGE BIRD, 38, Edgware-road; or to the Secretary, at the Office, 19, Southampton-street, Bloomsbury.

A. G. HARRIS, Secretary.

BUILDERS' BENEVOLENT INSTITUTION.

—An ELECTION of PENSIONERS will take place in NOVEMBER next. Candidates may obtain forms of application to be returned on or before 24th SEPTEMBER) at the Offices of the institution, 19, Southampton-street, Bloomsbury.—Pensions, 24*l.* per annum for males, and 20*l.* for females.

A. G. HARRIS, Secretary.

THE ARCHITECTURAL MUSEUM,

Canon-row, Westminster.—Autumn Session, 1855.

It is the intention of the Committee to OPEN the MUSEUM on the Evenings of MONDAY and WEDNESDAY, between the hours of SEVEN and NINE, from MONDAY, OCTOBER 1st, until WEDNESDAY, DECEMBER 19th, both inclusive, to enable Art-Workmen to become better acquainted with the objects of the Institution. Admission, free. A Class for the Practice of Stone and Wood Carving will also meet on the above evenings.

A Course of Five Lectures will be commenced on Monday, October 15th, and will be continued on each alternate Monday. Cards of admission may be obtained gratis at the Museum, on any day excepting Saturday, between the hours of Ten and Four, on and after Monday, October 1st, as well as on the evenings of Monday and Wednesday. They may also be had at the Office of "The Builder."

The Prizes already announced for the best specimens in Wood and Stone Carving, will be given on Monday, January 7th, 1856. Particulars may be obtained at the Museum.

Sept. 19th, 1855. HENRY CLUTTON, Hon. Sec.

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

Sir Robert Smirke, R.A. | George Stanley Repton, Esq.

PRESIDENT—Sydney Smirke, A.R.A.

TRUSTEES.

Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq.
Philip Hardwick, Esq. R.A. | R.A.

TREASURER—William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

COMPETITIONS.

TYNEMOUTH CEMETERY.—The Burial Board for the Parish of Tynemouth offer the following PREMIUMS, viz.:—1. For the best set of DESIGNS for an EPISCOPAL CHAPEL, a DISSENTERS' CHAPEL, LODGE, OFFICE, and necessary accommodations; Gardener's Cottage, and Entrance-gates, accompanied by estimates. The cost to range from 1,500*l.* to 2,000*l.* Thirty Guineas. The architect whose design shall be approved will be required to furnish all detailed specifications and working drawings necessary for the construction of the works, and to find a contractor willing to perform the work for the sum named in the report and estimate accompanying the plans. In case none of the designs be adopted, and the specifications and working drawings in consequence be not required, only one-half of the above premium will be given. 2. For the best plan and estimate for LAYING OUT, PLANTING, and ORNAMENTING the ground, 40 acres in extent, keeping in view the preservation of the outage of the grass on such portions of the land as may not be required for purposes of interment. Ten Guineas.—A lithographed plan of the site, with the levels marked thereon, may be obtained, on payment of 5*s.* at the Town Surveyor's Office, Norfolk-street; and further information obtained there, or at the Town-clerk's Office, Howard-street, Tynemouth. The plans, designs, and estimates, to be sent to the Town-clerk's Office on or before THURSDAY, the 27th instant.

THOS. C. LIETCH, Clerk.

Borough of Tynemouth, September 5, 1855.

TO ARCHITECTS AND OTHERS.

THE GUARDIANS of the WHITECHAPEL UNION are desirous of receiving PROPOSALS from Architects as to the terms upon which they would supply PLANS for the ERECTION of a new WORKHOUSE, with necessary offices, upon the site of the present establishment in Charles-street, Mile-end, New town, to contain 900 adult poor persons, male and female, but which works may be only partially required to be carried out. The Guardians will meet their Boardroom in the Workhouse, in Whitechapel-road, on TUESDAY, the 18th SEPTEMBER instant, at SIX o'clock in the Evening, to receive answers to the above. Further particulars may be obtained and a plan of the ground seen at the Office of the Clerk, No. 40, Leman street, Goodman's-fields.

By order,
W. J. RUDGE, Clerk to the Guardians.

September, 1855.

CONTRACTS.

Royal Engineers' Office, Portsmouth, August 28, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 24th day of SEPTEMBER, 1855, from such persons as may be willing to enter into a contract with the Ordnance for the ERECTION of proposed OFFICERS' QUARTERS, MESS ESTABLISHMENT, and SOLDIERS' BARRACKS, at Winchester Barracks, county of Hants, agreeably to the plans and specifications to be seen by applying at the Royal Engineers' Office, Portsmouth, every day (Sundays excepted) until the 22nd SEPTEMBER, 1855, and where also Forms of Tender may be obtained.

N.B.—The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

NOTICE to GAS CONTRACTORS and BUILDERS.—ORDNANCE CONTRACT.

Office of Command Royal Engineer in Ireland, Dublin, 8th September, 1855.—ERECTION of GAS WORKS and all APPARATUS appertaining thereto, with Street Mains, Pipes, External and Internal Fittings, and supply of GAS, for the Temporary Barracks on the Curragh of Kildare, in the Dublin district.—The Commanding Royal Engineer in Ireland will receive TENDERS for the above services, at his Office, in the Castle, Dublin, on any of the following conditions:—

Form 1.—For the ERECTION of a GAS MANUFACTORY, with all necessary apparatus, street mains, pipes, public lamps, &c. &c. and for supplying and fixing all internal fitments, burners, &c. &c. only, as per plans and specification, the whole to be the property of the Government, but the contractor to engage to work the manufactory for the first four months after completion, supplying all necessary superintendence, labour, and material at his own cost and charges, and furnishing the gas at an agreed price of (as per) so many feet.

Form 2.—For the ERECTION of a GAS MANUFACTORY, with all necessary apparatus, street mains, pipes, public lamps, &c. &c. and for supplying and fixing all internal fitments, burners, &c. &c. only, as per plans and specifications, the whole to remain the property of the contractor; but the contractor to engage to supply all gas required at a fixed price per 1,000 feet the price to be named in the Tender, and the Government to have the option at any time of purchasing the manufactory and all its apparatus, street mains, pipes, and public lamps, at a price to be named in the Tender, which also to state sum for gas fittings.

It is also admissible for any person to Tender for the above services according to their own plans and specifications, which will be considered at the same time as the Tenders which may be received on the prescribed forms. The Government reserve to themselves the right to reject any or all of the Tenders. Persons desirous of Tendering for the above work will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin, and at the Commanding Royal Engineer's Offices, at Manchester and Glasgow, where they may see the drawings, and obtain specifications, with the terms of contract. The period to be stated in letter of Tender within which contractors engage to complete the work, subject to terms of contract, Art. 1, &c. On this point a preference will be given in consideration of the offers. The letter of Tender to be sealed, and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle-yard, Dublin," so as to be received on or before the 27th day of SEPTEMBER, 1855; and to be marked on the outside, "Tender for Gas Works at the Curragh of Kildare."

CONTRACTS.

Royal Engineer's Office, Portsmouth, August 28, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before MONDAY, the 24th day of SEPTEMBER, 1855, from such persons as may be willing to enter into a CONTRACT for the ERECTION of WATER TANKS, with supply pipes, pumps, &c. at Albany Barracks, Isle of Wight, agreeably to the plans and specification, to be seen by applying at the Royal Engineer's Office, Portsmouth, every day (Sundays excepted), until the 22nd day of SEPTEMBER, 1855, and where also Forms of Tender may be obtained.

N.B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

Royal Engineer Office, Portsmouth, Sept. 6, 1855.

TO BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before FRIDAY, the 21st SEPTEMBER, 1855, before TEN o'clock, a.m. from such persons as may be willing to enter into a CONTRACT for the ERECTION of a CONCRETE COUNTERSCARP WALL, COAL STORES, and FORMING GLACIS, proposed to be erected at Fort Victoria, Freshwater, in the Isle of Wight, agreeably to plans and specifications to be seen at the Royal Engineer Office, Portsmouth, every day (Sunday excepted), until the 20th day of SEPTEMBER, 1855, and where also forms of Tender may be obtained.

N.B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.

—Commanding Royal Engineer's Office, Dublin, 8th SEPTEMBER, 1855.—The Principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz.:—For the FORMATION and CONSTRUCTION of about TEN MILES of ROADS, at the Temporary Barracks on the Curragh of Kildare, in the Dublin District. Persons desirous of tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin; and may obtain specifications and the terms of contract, upon making a deposit of 2*l.* for the same, which deposit will be repaid when the specifications are returned uninjured. Contractors to state the period within which they engage to complete each portion of roads, numbered 1, 2, and 3, in letter of Tender. The letter of Tender to be sealed and transmitted under cover to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 24th day of SEPTEMBER, 1855; and to be marked on the outside, "Tender for Roads at the Curragh of Kildare." Parties may Tender for either of the portions numbered 1, 2, and 3, in letter of Tender, or for the whole.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.

—Commanding Royal Engineer's Office, Dublin, 6th September, 1855.—The principal Officers of Her Majesty's Ordnance hereby give Notice, that they will receive PROPOSALS for the following CONTRACT, viz.:—For the CONSTRUCTION and ERECTION of NINETEEN WOODEN BUILDINGS for officers, Staff-sergeants, &c.; and THREE IRON BUILDINGS for Gun and Forage Sheds, &c. at the temporary Barracks on the Curragh of Kildare, in the Dublin district. Persons desirous of Tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle-yard, Dublin, and may obtain specifications, with the terms of contract, upon making a deposit of 1*l.* for the same, which deposit will be repaid when the specifications are returned uninjured. The period to be stated in letter of Tender within which contractors engage to complete the buildings.—The letter of Tender to be sealed, and transmitted, under cover, to "The Director-General of Contracts, Ordnance Office, Pall-mall, London," so as to be received on or before the 18th day of SEPTEMBER, 1855, and to be marked on the outside, "Tender for Work at the Curragh of Kildare."—Parties may Tender for the Erection of the Nineteen Wooden Buildings, for the Three Iron Buildings, or for the whole.

NOTICE to CONTRACTORS.—The

Londonderry Port and Harbour Commissioners not having yet selected an Engineer to conduct the proposed works, notice is hereby given, that the TIME for RECEIVING TENDERS is further EXTENDED to the 8th inst.: and Tenders invited for the execution of the Public Quay, Jetty, and &c. according to the plans and specifications to be seen at the Office of the Commissioners, and at Messrs. D. and T. STEVENSON'S Office, in Edinburgh. Tenders may be made for the whole or a portion of the works. Tenders to be sealed, and addressed to the Secretary to the Commissioners, and endorsed with the words, "Tenders for Quay, &c." and to be delivered at my office on or before the 8th inst. at FOUR o'clock p.m. The Commissioners do not bind themselves to accept the lowest or any of the Tenders.

A. H. STEWART, Secretary.

Port and Harbour Office, Londonderry, Sept. 4, 1855.

Office of Commanding Royal Engineer, Dublin, 6th Sept. 1855.

ORDNANCE CONTRACT.—The Commanding Royal Engineer in Ireland, hereby gives Notice, that he will receive PROPOSALS for the following contract, viz. For the SUPPLY of MATERIALS and LABOUR necessary for DEODORISING and CLEANSING Water PRIVIES, by means of peat charcoal or other efficient deodorizer, and the removal of all privy soil, ashes, refuse, straw, manure, &c. together with full requisite cleansing of the urinals and hog-pits, at the temporary barracks, Curragh of Kildare, for the term of three years, ending 31st March, 1858, but determinable at any period after one year, on either party giving to the other three months' notice in writing. Persons desirous of Tendering for the same will receive every information, and forms of Tender, on application at the Office of the Commanding Royal Engineer, Lower Castle-yard, Dublin, or at the Royal Engineer Office at the Curragh. The Tender to be sealed and transmitted under cover to the Commanding Royal Engineer in Ireland, Ordnance Office, Lower Castle-yard, Dublin, so as to be received on or before the 19th day of SEPTEMBER, 1855, and to be marked on the outside "Tender for Cleansing at Curragh Camp."

[For remainder of Contracts see next page.

CONTRACTS.

ORDNANCE CONTRACT.—NOTICE to BUILDERS and CONTRACTORS.—See ADVERTISERS, address to Major Henderson, THEODORE SMITH, R.E. Commanding Royal Engineer, Aldershot, and endorsed "Barracks," "Tenders for deepening Wells at Aldershot Camp," will be received at the Royal Engineer Office, Aldershot, not before MONDAY, the 24th inst. from parties willing to CONTRACT for DEEPENING WELLS at the TEMPORARY BARRACKS at ALDERSHOT, Hants. A specification and forms of Tender may be obtained on application at the Royal Engineer Office, Aldershot.

Royal Engineer Office, Aldershot, 8th September, 1855.

METROPOLITAN COMMISSION of SEWERS. To BUILDERS, CONTRACTORS and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 25th day of SEPTEMBER inst. at ONE o'clock precisely, to receive sealed TENDERS from persons willing to CONTRACT for the LAYING, CONSTRUCTING, and COMPLETELY FINISHING the following WORKS, viz.:—

1,200 Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Marlborough-road and Cumberland-place, Chelsea, and Old Brompton, lane, in the county aforesaid (in one Tender).

500 Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Wellington-road and Gravel-lane, to form a junction with the sewer in Marlborough-road and Cumberland-place, Chelsea, and Old Brompton, lane, in the county aforesaid (in one Tender).

350 Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Lisbon-street, Duke-street, and Hudson's-row, Chelsea, in the county of Middlesex (in one Tender).

1,150 Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Lisbon-street, Duke-street, and Hudson's-row, Chelsea, in the county of Middlesex (in one Tender).

Also for the future maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the principal office of the Commissioners, No. 7, Great Queen-street, Soho-square, between the hours of NINE and FOUR o'clock. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to deposit two sureties for due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.

Dated this 13th day of September, 1855.

THE ENFIELD LOCAL BOARD of HEALTH are prepared to receive TENDERS for the MAKING or ERECTING a small SEWAGE TANK and APPURTENANCES at the Outfall of the Town Sewer in the parish of Enfield; also for MAKING TWO SLUICE-WINDOWS, with portable Frames, &c. in the same parish.

Plans, &c. in application at the Offices of JAS. PILBROW, Esq. C.E. Tottenham, Engineer to the Board. Tenders must be sent in on or before THURSDAY, the 20th day of SEPTEMBER, that sealed and endorsed "The Outfall Tank, &c." and addressed to the Enfield Local Board of Health, Enfield.

By order of the Board,

Enfield, September 7, 1855. JOHN SAWYER, Clerk.

THE ENFIELD LOCAL BOARD of HEALTH are prepared to receive TENDERS from persons willing to CONTRACT for MAKING, LAYING, or FIXING the HOUSE CONNECTIONS and SERVICES, WATER CLOSETS, &c. both for Drainage and Water supply in the district of Enfield, including all necessary works connected as well as inbuilt, being Contract No 9. Further particulars may be obtained by application at the Offices of J. PILBROW, Esq. C.E. Tottenham (Engineer to the Board), and where Forms of Tender and general conditions of contract may be had upon payment of 1s. each. Tenders must be sent in on or before THURSDAY, the 20th day of SEPTEMBER inst. and endorsed "Tender for House Services," and addressed to the Local Board of Health, Enfield, Middlesex.

By order of the Board,

Enfield, September 4th, 1855. JOHN SAWYER, Clerk

TO BUILDERS.

PERSONS willing to CONTRACT with the Hoo Burial Board for the ERECTION and COMPLETION of THREE CHAPELS, LODGE, and other works, may inspect the Plans and Specification at the Offices of the Architect, Mr. THOMAS DARBY, 5, Bedford-street North, Liverpool, from the 10th to the 24th of SEPTEMBER inclusive; where also Bills of Quantities may be had on application. Parties whose Tenders are accepted will be required to enter into a bond with two sufficient Sureties for the due performance of the work. The Board will not pledge itself to accept the lowest or any Tender. The Tenders must be delivered, sealed, to the undersigned, on or before THURSDAY, the 27th inst. by TWELVE o'clock at noon.

THOMAS WOLSTENHOLME, Clerk to the Board.

Heywood, Aug. 29, 1855.

BURSLEM LOCAL BOARD of HEALTH.

CONTRACT No. 1.—The Burslem Local Board of Health are prepared to receive TENDERS for the manufacture and supply of certain GLAZED EARTHENWARE PIPES and other ARTICLES to be used in the draining of the district. Duplicate copies of the drawings and specification may be seen, and forms of Tender and Quantities, may be obtained at the Public Offices, Moorland-road, Burslem; and at the Office of the Engineer, Mr. LEE, 7, Duke-street, Westminster, on and after SATURDAY, the 8th day of SEPTEMBER, 1855; and Tenders must be sent in to me on or before TUESDAY, the 2nd day of OCTOBER, 1855.

By order, JOSEPH LOWNDES, Clerk to the Board.

Burslem, 6th September, 1855.

BURSLEM LOCAL BOARD of HEALTH.

CONTRACT No. 2.—The Burslem Local Board of Health are prepared to receive TENDERS from competent persons for the CONSTRUCTION of certain BRICK SEWERS, and for the LAYING of certain EARTHENWARE PIPES and other articles, for the purposes of the drainage works of the district. Duplicate copies of the drawings and specification may be seen, and forms of Tender and quantities may be obtained at the Public Offices, Moorland-road, Burslem, and at the Office of the Engineer, Mr. LEE, 7, Duke-street, Westminster, on and after SATURDAY, the 8th day of SEPTEMBER, 1855; and Tenders must be sent in to me on or before TUESDAY, the 2nd day of OCTOBER, 1855.

By order, JOSEPH LOWNDES, Clerk to the Board.

Burslem, 6th September, 1855.

CONTRACTS.

BOROUGH of BIRMINGHAM. — To SURVEYORS and VALUERS.—The Assessment, Rate, and Appeal Committee of the Council, is desirous of CONTRACTING to make a NEW VALUATION of all the RATABLE PROPERTY within the Borough. Surveyors desirous to Tender may inspect the specifications and obtain all necessary information on application at my Office, on and after the 1st day of SEPTEMBER next. Sealed Tenders, marked "Tender for new Valuation," to be delivered into me on or before the 15th day of SEPTEMBER next. The Committee does not bind itself to accept the lowest or any Tender.

By order, THOMAS STANBRIDGE, Town Clerk.

Temple-street, Birmingham, August 23, 1855.

TO SCAVENGERS, CARTERS, AND OTHERS.

THE KENSINGTON IMPROVEMENT COMMISSIONERS will meet at the VESTRY-HALL, Kensington, on WEDNESDAY, the 19th instant, at ELEVEN o'clock in the forenoon precisely, TENDERS and CONTRACT for CARTING and CARRYING AWAY, from all streets within the Commissioners' District, all the DUST, Dirt, Filth, Road-scrapings, Sweepings of Streets, Mud, Snow and Ice that may be collected together by the Scavengers, and for the Supply of Carts, Horses, &c. for the same.

Mr. JAMES BROADRIBB, the Commissioners' Surveyor, from the 25th day of SEPTEMBER, 1855, to the 29th day of SEPTEMBER, 1856 inclusive, and also to receive Tenders and to Contract for the supply of Horses and Carts, with Carters, at per day and per load. The Commissioners have divided the parish into two districts, which may be viewed by application at the Surveyor's Office, and Forms of Tender and particulars may be obtained on application at the Commissioners' Offices, Vestry-hall, Tenders to be sealed, and to be delivered at the Clerk's Office, Vestry-hall, on or before FOUR o'clock on TUESDAY afternoon, the 25th instant. The Commissioners do not bind themselves to accept the lowest, or any Tender. The expense of the contract to be paid by the contractor.

By order of the Commissioners

Sept. 7, 1855. REUBEN GREEN, Clerk.

TO FLINT MERCHANTS.

CHELSEA IMPROVEMENT ACT.—The Commissioners for Paving, Lighting, Cleansing, Regulating, and Improving the Parish of St. Luke, Chelsea (exclusive of the district of Hans Town), will meet in the Board-room at the Manor-house, King's-road, Chelsea, on TUESDAY, the 25th inst. at ELEVEN o'clock in the forenoon precisely, to receive TENDERS from persons willing to contract for a period of one year, from Michaelmas-day next, pursuant to the terms of a draft contract, now lying at the Office of the Surveyor to the Commissioners, for SUPPLYING the said Commissioners with the best clean grey or kentish ROAD-FLINTS, free from loam for the repair of the roads within their jurisdiction, at per cubic yard, to be delivered alongside of the free dock adjoining Bute-st's Wharf, Chelsea-reach, Chelsea, in such quantities as may be ordered and required from time to time by the Commissioners or their Surveyor and a sample of such flints may be seen and now on view at the Surveyor's Office. The quantity required will be about 3,000 cubic yards, more or less. Sealed Tenders, endorsed "Tender for Broken Flint Road-stone," and signed by the party Tendering, with the names and description of two sufficient sureties to be approved of for the due performance of the contract, are to be left at the Office of the Clerk to the Commissioners, Manor-house, King's-road (and not elsewhere), on or before the 24th inst; but the Commissioners do not bind themselves to accept the lowest or any Tender so delivered. The legal charges of the contract to be paid by the contractor, and the parties tendering must appear personally on the day the Tenders are opened. Printed forms of Tender (to be filled up) may be obtained at my office, and no others will be received except by order of the Board.

JOSEPH PATTISSON, Surveyor,

7, Beaufort-terrace, King's-road, Chelsea.

Dated this 13th day of September, 1855.

PARISH of ST. LUKE, CHELSEA.—CONTRACT for DUST, &c.—To DUST CONTRACTORS. CHELSEA IMPROVEMENT ACT. The Commissioners for Paving, Lighting, Cleansing, Regulating, and Improving the Parish of St. Luke, Chelsea (exclusive of the District of Hans Town), will meet in the Board-room, at the Manor-house, King's-road, Chelsea, on TUESDAY, the 25th instant at ELEVEN o'clock in the forenoon precisely, to receive TENDERS from persons willing to CONTRACT for a period of one year, from Michaelmas-day next, pursuant to the terms of a draft contract now lying at the Office of the Surveyor to the Commissioners, for COLLECTING and REMOVING the DUST, ASHES, FILTH, and RUBBISH which are to be the property of the contractor, from the several houses in the streets and places under the jurisdiction of the Commissioners. Twenty persons are to enter into a sum hereafter to be paid on the approval of the Tender, and a further sum, to make up a moiety of the sum offered to be paid at the time of signing the contract, within three days after, and the remaining moiety on the 12th of March next. Sealed Tenders, endorsed "Tender for Dust and Ashes," and signed by the proposed contractor, with the names and descriptions of two sufficient sureties to be approved of for the due performance of his Contract, are to be left at the Office of the Clerk to the Commissioners, Manor-house, King's-road (and not elsewhere), on or before the 24th instant, by the Tenderers themselves, who are required to the acceptance of the highest or any of the Tenders so delivered. The legal charges for the Contract to be paid by the contractor; and the parties tendering must appear personally on the day the Tenders are opened. Printed Forms of Tender (to be filled up) may be obtained at my Office, and no others will be received except by order of the Board. Dated this 13th day of September, 1855. By order of the Board,

JOSEPH PATTISSON, Surveyor to the Commissioners.

TO BRICKMAKERS, DUST COLLECTORS, AND OTHERS.

THE KENSINGTON IMPROVEMENT COMMISSIONERS will meet at the VESTRY-HALL, Kensington, on WEDNESDAY, the 19th instant, at ELEVEN o'clock in the forenoon, to receive TENDERS, and to CONTRACT for the SALE and REMOVAL of the COAL-DUST, Cinders, Ashes, and Rubbish from the Houses and Premises within the parish of St. Mary Abbots, Kensington, from the 29th day of SEPTEMBER, 1855, to the 29th day of SEPTEMBER, 1856, inclusive. The Contractor will have to enter into a bond, and to provide two sureties for the due performance of his contract. The Contractor must pay immediately one-fourth part of the money offered by him, and the succeeding three payments on the first day of each quarter. The Commissioners have divided the parish into two districts, which may be seen fered for jointly or separately. Forms of Tender and particulars may be obtained on application at the Commissioners' Offices, Vestry-hall. Tenders to be endorsed "Tender for Dust," and to be delivered at the Clerk's Office, Vestry-hall, on or before FOUR o'clock on TUESDAY afternoon, the 25th instant. The expense of the contract and bond to be paid by the contractor. By order of the Commissioners,

Sept. 7, 1855. REUBEN GREEN, Clerk.

BUILDERS desirous of CONTRACTING for the ERECTION of a SMALL DETACHED VILLA, on a plot of freehold land at Tottenham, and willing to let the amount remain on mortgage at six per cent interest per annum, payable half-yearly, may inspect the plans and specifications at Mr. G. MORGAN'S, Architect, 6, Chancery-lane.

TO BUILDERS.

THE COMMITTEE for the BRISTOL DISTRICT of the METROPOLITAN ASSOCIATION for IMPROVING the DWELLINGS of the LABOURING CLASSES, will meet on the 25th inst. at TWO o'clock, to receive TENDERS for the MASONS', CARPENTERS', SMITHS', and PLASTERERS' WORKS, in converting the premises in Christmas-street, lately occupied as Queen Elizabeth's Hospital, into Model Dwellings. The plans and specifications may be seen at the Offices of the Association, 2, Exchange-buildings, or at the Offices of the Architects, Messrs FOSTER and WOOD, 4, Park-street, Bristol, from the 10th inst. till the 25th inst. at or before TWELVE o'clock, on which latter day the Tenders are to be sent, under seal, to the Offices of the Society, endorsed "Tender." The Committee do not pledge themselves to accept the lowest or any Tender.

By order of the Committee,

CHARLES JACKSON, Secretary.

2, Exchange-buildings, All Saints'-lane, Bristol,

September 5th, 1855.

CONTRACTS.

TO BUILDERS AND OTHERS.

PERSONS desirous of CONTRACTING for the ERECTION of a FARM-HOUSE and HOMESTEAD, on a farm in the Parish of Hilston Martell, Dorset, for the Right Hon the Earl of Shaftesbury, may see the plans and specifications at the Office of Messrs DENTON and DRAKE, 60, Parliament-street, Westminster; and at the Bull Inn, St. Giles, on and after the 17th SEPTEMBER. Applications may also be made to R. S. WATERS, Esq. of St. Giles. Tenders to be forwarded to Messrs. DENTON and DRAKE on or before the 8th of OCTOBER.

EXTENSION OF TIME.

THE TIME advertised for receiving Tenders for the Farm-house, Homestead, and twelve double Cottages, in the Parish of St. Giles, will be EXTENDED from the 22nd to the 29th SEPTEMBER.

18th September, 1855.

THE BURIAL BOARD for the PARISH of GREENWICH, Kent, are prepared to receive TENDERS for the ERECTION of a NEW BRICK WALL and IRON PALISADING, for the east and west boundaries of the NEW CEMETERY recently enclosed, in Kidbrook, near Shooter's-hill; and for Entrance Gates, Carriage, and Foot Gates at the southwest angle, facing Well Hall-lane.—The drawings and specification may be seen at the office of the Architect, Mr. SEWITT, Montague-close, Southwark. Tenders to be sent to the Offices of Mr. E. W. JAMES, No. 14, Burney-street, Greenwich, on or before MONDAY, the 1st of OCTOBER, 1855 at FIVE o'clock. The Board do not bind themselves to accept the lowest, nor any of the Tenders sent in.

E. W. JAMES, Clerk to the Board.

Greenwich, September 13, 1855

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh

Right Hon R. A. Christopher, M.P.

Hon Col Lowther, M.P.

J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS &c.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS in the SECOND PORTION of the ROUND-HILL PARK ESTATE, Brighton, East Sussex. The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN [or duplicates of the drawings and specification, may be seen at the Allen Arms Inn, Lewes-road, Brighton], on and after MONDAY, SEPTEMBER 17, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on MONDAY, OCTOBER 1, addressed to the Surveyor, and indorsed "Tenders for Roads, &c. Round Hill Park Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, North-st. Strand

TO BUILDERS and OTHERS.—Notice is hereby given, that plans and specifications for BUILDING a NEW CHURCH at CROYDON, in the county of Surrey, diocese of Winchester and province of Canterbury, will be lying at Mr. E. W. WRIGHT'S, Parish Clerk, Tamworth-road, Church-street, Croydon, on Monday, the 17th instant, and twelve following days; and all persons desirous of contracting for the execution of the works must send in sealed Tenders on or before SATURDAY, the 6th of OCTOBER, directed to H. WOODYER, Esq. 30, North-street, Guildford. The lowest Tender will not of necessity be accepted.

NOTICE to BUILDERS.—The Burial Board for the Parish of Hadleigh, in the county of Suffolk, are desirous of receiving TENDERS for ERECTING TWO CHAPELS, ENTRANCE-LODGE, and GATES, on their new Cemetery, and also for enclosing the ground with a dwarf wall. The plans, specifications, and forms of tender may be seen at my Office until the 24th inst. on which day Tenders must be sent to my Office before TWELVE o'clock at noon, addressed to me, sealed and endorsed "Tenders for Cemetery Works." Bills of quantities may be obtained on application to the Architect, EDWIN G. PINNINGTON, Esq. 9, Newman-street, London, on or before the 22nd instant. The Board will not pledge itself to accept the lowest, or any Tender.

J. F. ROBINSON, Clerk to the said Burial Board.

Hadleigh, Suffolk, Sept. 11, 1855.

CHELMSFORD NEW CORN EXCHANGE.—To BUILDERS.—Any person willing to TENDER for the ERECTION of the NEW CORN EXCHANGE, on the site of the OLD INN, in the High-street, may see the plans and specification at Mr. FENTON'S office, Tindal-square. Tenders sealed and endorsed "Tenders for Exchange," to be sent to the Office of RICHARD LANE, Esq. on or before FRIDAY, the 28th instant. The Committee do not pledge themselves to accept the lowest or any Tender.

FARINGDON, BERKS.—Notice is hereby given, that the Inspectors of the town of Faringdon, Berks, appointed under the provisions of an Act of 3 & 4 William IV. for the lighting and watching of Parishes in England and Wales, are ready to receive TENDERS for LIGHTING the PUBLIC LAMPS of the said Town with COAL GAS, or otherwise, for One Year, from the 1st day of OCTOBER next, on or before which day sealed Tenders must be delivered to me, of whom full particulars may be known on application.

GEO. F. CROWDY, Clerk.

Faringdon, 3rd September, 1855.

TO CONTRACTORS AND BUILDERS.

THE Directors of the London, Brighton, and South Coast Railway Company are prepared to receive TENDERS for the ERECTION of sundry BUILDINGS at the Brick-layers' Arms Depôt on the Kent-road, Bermondsey, the Brick-layers' Arms Depôt on the Kent-road, Bermondsey, consisting of thirty-six horses, smithy, engine and boiler houses, granaries hay and corn stores, &c. The drawings and specification may be seen at the Engineer's Office, London-bridge Terminus, and after MONDAY, the 17th instant; and Tenders must be sent in to the undersigned before TEN o'clock on the morning of THURSDAY, the 27th instant.

FREDERICK SLIGHT, Secretary.

London Terminus, Sept. 13th, 1855.

TO CARPENTERS, BUILDERS, BOX-MAKERS, and OTHERS.—FOR SALE, a new Hand-power CIRCULAR SAW-BENCH, on an improved principle. One man can turn it to cut 3-inch stuff. Price 22l. To be seen at work at No. 6, Tyers-street, Lambeth-walk.

THOMAS EDINGTON, PURCHASER and INSPECTOR OF CASTINGS on COMMISSION, 17, GORDON-STREET, Glasgow.

212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporising) with all the improvements, under their Quadruple patents of 1846 51-54 and 1855 including their Gunpowder Proof Solid Lock and Door Bolts, which make a safe indeed.

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX LIFE SAFE-WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47a, Moorgate-street, City.—Circulars free by post.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE, Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and STEWART'S PATENT CAST-IRON GAS and WATER PIPES; Office, No. 7, Sise-lane, London.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTIONS FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

Have made important additions to their original Invention of PATENT PANELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engravings.

A represents the Patent Halter-guide and Collar-rein, the fall of which is taken to the back of the manger-works with freedom and ease up or down the guide bar, and is noiseless in its operation, as also a sure preventative against the most restive horse being cast in the stall.

B. The Patent Portable Seed-box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C The Seed-box detached, made of galvanized sheet-iron lightand durable.

D The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility, are cleanly in appearance, durable, and inexpensive to the public. Manufactured plain, galvanized, and japanned.

IMPROVED SURFACE-DRAIN, with safety covers; Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for Cloth Plans and Ornamental Castings, and every description of Wrought and Cast-Iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Straw Fencing, &c.

Estimates and Catalogues on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

PATRONISED BY H. R. H. PRINCE ALBERT.

S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.

Castings Warehouse removed from 81 to 88, Upper Thames-street.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent.—Mr. BARRETT, 13, York-buildings, Adelphi.

DESTRUCTION of WAREHOUSES at MANCHESTER, by FIRE. Messrs. Rylands and Sons' Books, Papers, and Bank-notes preserved in one of CHUBB'S SAFES, after fourteen hours' exposure to intense heat.

COPY OF MESSRS. RYLANDS AND SONS' TESTIMONIAL.

"24, High-street, Manchester, March 6th, 1854.

"Messrs. Chubb and Son,

"Gentlemen, We have great pleasure in communicating to you, that the large 'Patent Fire-proof Safe' that we purchased from you 12 years ago, for our late offices in New High-street, has been the means of preserving our books, cash, notes, &c., enclosed therein, on the evening of the 1st of March, when our entire premises were destroyed by fire. The safe, after being subject to fourteen hours' intense heat, was unlocked on the morning of the 3rd of March; the locks all answered to their respective keys, and all the damage the contents received (water excepted) was that only some of the books were slightly singed at the edge.

"You are at liberty to make what use of this communication you may think proper.

"We are, Gentlemen, yours respectfully,

"RYLANDS and SONS."

CHUBB'S LOCKS, with all the recent improvements; Cash, Deed, and Paper Boxes, of all sizes; Fire-proof Safes and Chests; Iron Doors and Frames for Strong Rooms; all fitted with the Detector Lock. Complete Illustrated Lists, with prices and sizes, will be sent on application.

CHUBB and SON, 57, St. Paul's Churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1081, Class 8, Section 16, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.
" 12 " " 20 "
" 13 " " 23 "
" 14 " " 26 "

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO. DOWGATE-DOCK, LONDON.

to whom all letters may be addressed.

LIVERPOOL and MANCHESTER PATENT GALVANIZED IRON WORKS.—FRANCIS MORTON and CO. Galvanized Sheet Iron of the best quality, cut to order, expressly prepared for Tinning and Re-zincs. Corrugated Sheets, Painted or Galvanized, of all sizes, for Roofing, Fire-proof Partitions, Ceilings, &c. always kept in Stock. Gas and Water Tubing, Rain-water Gutters and Pipes; Wire of all numbers; Nails, Screws, Spikes, Hoops, &c.; Wrought Iron Hurdles, Field Gates, &c. An allowance to Shippers and the Trade.—Head Offices, 14, James-street (late of Paradise-Company's Premises), Liverpool, and at 18, St Mary's-gate, Manchester.

N.B. Parties are particularly requested to note the address, LIVERPOOL.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

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LONDON OFFICE 1, RICHES-COURT, LIME-STREET.

A. MOREWOOD and CO. (late Morewood and Rogers), Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham,

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets, PLAIN or CORRUGATED, and Curved, of all Gauges

Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Pipe, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hoopiron, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated.—Roofs fixed complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

PATENT CORRUGATED IRON.—JOHN WALKER, Manufacturer of Roofs, Railways, &c. &c. Works, Mill-wall, Poplar. Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.—JOHN WALKER, Galvanized Iron Merchant, &c.—The trade supplied by corrugating by steam power, cut to any size, and delivered to any part of the kingdom, at the shortest possible notice.

IRON-FOUNDER, &c.—JOHN WALKER, Iron-founder and Engineer.—Orders to any extent can be executed at his Works, Mill-wall, Poplar, on the Thames.

BUILDER and CONTRACTOR.—JOHN WALKER, having his own Saw-mills, is enabled to CONTRACT for BUILDERS' WORK, at low prices, and to deal with no ill work. Apply at his Offices, Arthur-street West, London-bridge.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superior article of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire proof. Drawings and estimates furnished.

Island Foundry and Iron-works, Millwall, London.

Offices, 12 Fenchurch-street, City.

PATENT GALVANIZING and CORRUGATING IRON WORKS (Improved Process).

WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

KIMBERLEY'S PATENT FLOORING CRAMPS, Scaffolding Brackets, Door Springs, Mortising Machines, Cement Pugmills and Sieves, Skylight Screws, &c. &c. Also, KIMBERLEY'S PATENT GAS STOVES, may be had from any Ironmonger in town or country; from the Patentee, Luge-street, Birmingham; or from the London Agents, Messrs. PUGH and CO. 13, King-street, Snowhill, where a stock is kept.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON. House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Welling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the Kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 6d. per shilling the foot.

R. S. NEWALL and CO.'S Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
139, Strand, London.
87, Hyde-park-street, Glasgow.
77, Dale-street, Manchester.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O G Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connexions, Sash Weights, and other castings; Iron-work for Bakers' Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

BUILDINGS HEATED BY HOT WATER.

G. B. COOPER, IRONWORKS, 121, DRURY LANE.

Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler.
30 32 34 36-inch.
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 58s. 62s. 66s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.
Cast Rain-water Pipe { 2 2½ 3 inch. 1id. 1s 3d. 1s. 4d. per yard.
Cast Gutters—4 inch, 8d. per yard. 4 4½ inch.
O G Gutters { 1s. 1d. 1s. 3d. per yard.
Patent Line { 2 3 4 5 6 4½d. 5d. 7d. 9d. 1s. per knot.
6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 3l. 18s.; 3 ft. 8 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 35s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.
1 2 3 4 5 6
4s. 6d. 5s. 6s. 7s. 6d. 8s. 6d. 11s. per gross.
And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hat Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

TO IRONMONGERS AND THE TRADE GENERALLY.
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s 6d, to be had on application to 27, HOLBORN, Holborn.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and open fronts, stoves and ranges, ovens and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, brough-pipe, and the latest prices of the above, on application to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron bridge.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 43, Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and CO. opposing to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEPRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public halls, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing at the same time perfect ventilation. To be seen in action at DEPRIES'S Office, 145, Regent-street, London.

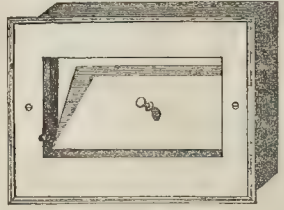
HEATING BY HOT WATER.
JOHN WEEKS and CO., King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

DEELEY'S PATENT SELF-ACTING FURNACE, for melting pig-iron. A saving of 66 per cent. in fuel from the ordinary method. Furnaces can be erected to produce from one to ten tons of molten iron per hour, as may be required. For particulars apply to Mr. R. L. CURTIS, Surveyor, 1, Riches-court, Lime-street, City.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. PRANGIS, BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

ESTABLISHED 1817.
WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.
Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 45s each.
Register Stoves, from 9d. per inch.
Elliptic ditto, with double backs, from 3½d. per inch.
Cast-Iron Rain-pipe { 2 2½ 3 inch. 11d. 1s. 3d. 1s. 4d. per yard.
4-inch Eaves Gutters, 9d per yard
O G Gutters { 5 inch. 1s. 1d. 1s. 3d. 1s. 6d. per yard.
Best Cut Clasp { 2 3 inch and larger. 10d. 1s. 1s. 6d. 1d.
and Rose....
1-inch Best Cut Lath, 18s. 6d. per cwt.
Sheet Floor Brads, 12s. 6d. per cwt.
Hoop Floor Brads, 13s. per cwt.
Sash Weights, 7s. 6d. per cwt. 4-inch Air Bricks, 3s. 6d. per doz. 6-inch Sink Traps, 9s. per doz.; strong Coal Plates, with hooks, 20s per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

DR. ARNOTT'S VENTILATING



CHIMNEY-VALVE.
Price-lists, post-free, on application to
HART AND SON, MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.

AUSTIN'S IMPERIAL
PATENT SASH and BLIND LINE, can be obtained of all ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY, Established 1774.

IRONMONGERY.
PFEIL AND STEDALL.
THE LARGEST STOCK AT
THE LOWEST PRICE,
5 AND 6, BROAD-STREET, BLOOMSBURY.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

LIGHTING of CHURCHES.—F. SKIDMORE and SON, Coventry.
The unsightly fittings for gas and candles which so frequently disfigure our churches have induced F. & Skidmore to devote much time to the production of such as may harmonise with the characteristics of the buildings. The designs are founded on personal study of the remains of ancient metal-work on the continent and in England.
F. S. and Son would refer to their works for lighting Chester Cathedral, S. Botolph's, Boston; S. Mary's, Newark; S. Michael's, Coventry; S. John's, Ladywood; and Aston, Birmingham, Bowden, near Manchester, &c.; as also to the following testimonials:—
"We went over the manufactory of Messrs. Skidmore, in Coventry, and were much pleased by the artistical spirit which animates them. A long list of churches and other large buildings lighted by them show their endeavours are duly appreciated."—*Builder.*
"These rising artists show considerable taste; we shall watch their progress with great interest."—*Ecclesiologist.*
"Mr. Skidmore must be considered an artist of great attainment and no mere pretender."—*Morning Chronicle.*
Where limited funds render economy necessary, F. & S. has prepared designs of a simple and inexpensive character. They have gas standards, &c. finished ready for immediate use.
Sketches, with estimates, sent free by post.

NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.
THE following are the PRESENT PRICES of PATENT SASH LINE:—
No. 3 4 5 6
4s. 5s. 6s. 3d. 7s. 6d. per gross.
At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

METALLIC PROTOXIDE PAINT.—This Paint has been in extensive use and severely tested on the Great Western, North and South Western, Midland, York and North Midland, and other railways; the new Houses of Parliament, British Museum, East-India House, East and West India Docks, &c. The Protoxide Paint unites most intimately with iron, preventing oxidation, and rendering it equal to galvanized. It is of great value when applied to iron vessels, roofs, steam and water pipes, and their joints, and for coating the inside of sugar moulds. It is not affected by foul air or gas of any kind, and dwelling-houses, hospitals, &c. can be painted during occupancy, without the least risk to the health of the inmates. It preserves wood from decay, and will be found effectual in preventing discolouration on stuccoed buildings, and keeping out all dampness.
D. and G. BRYMNER, Agents for Scotland.
Greenock, August 1st, 1855.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.
The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.
The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. R. MORLEY and CO. and by the Company's Grinding Agents, in London, Messrs CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRADY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool, by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 28, and 98 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.
The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.
For further particulars, apply to the Company's General Agency in London, 13, Manchester-buildings, Westminster.

CHAS. MACINTOSH and CO. Patentees of the VULCANIZED INDIA-RUBBER, and GENERAL MANUFACTURERS of WATERPROOF, AIRPROOF, and ELASTIC RUBBER GOODS beg to inform all persons who desire to correspond with them direct, that their SOLE ESTABLISHMENTS are No. 3, Cannon-street West, London, and Cambridge-street, Manchester. This notice is necessary, as the term Macintosh Depôt, Macintosh Warehouse, &c. is frequently adopted both in London and the country by vendors of India-rubber goods, who deal in articles not of the manufacture of CHAS. MACINTOSH and CO. Goods manufactured by CHAS. MACINTOSH and CO. are stamped with the name of the firm.

DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR CHARLES LEMON, Bart., VENTNOR, ISLE of WIGHT.—Second Testimonial.—"March 10th, 1852.—In reply to your letter, received this morning, respecting the Gutta Percha Tubing the Pump Service is now in use, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately examined it, and there is not the least apparent difference since the first laying, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."
N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.
THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment.—Prices and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

PURE WATER, for manufacturing purposes, may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the ascension and other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 60, 100, 150, and 200 gallons per diem, will be found ample for ordinary domestic requirements; are self-acting, and not liable to get out of order. References to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

DRAINAGE of LAND.—WANTED, to undertake the DRAINAGE of LAND by CONTRACT, or to erect temporary Tileries, in order to supply Drain-pipes at a reasonable price.—J. JOHNSON, Drainage Engineer and Contractor, Abingdon-street, Westminster.

LOANS, at Five per Cent. in connection with Life Assurance, on personal security, for one, two, or three years, repayable by instalments.—ENGLISH and FOREIGN LIFE ASSURANCE OFFICE, 135, Oxford-street.

MONEY on LOAN, at 3l. per Cent. per Annum.—ARNEWAY'S CHARITY.—NOTICE IS HEREBY GIVEN, that the Trustees of this Charity are enabled to lend out the Trust Moneys to poor occupiers or traders resident within the City and Liberty of Westminster, that is to say, within the parishes of St. Margaret and St. John the Evangelist, St. Anne, Soho, St. Clement Danes, St. George, Hanover-square, St. James, St. Martin-in-the-Fields, St. Mary-le-Strand, and St. Paul, Covent-garden. The amount of each loan is not to exceed 100l. is to clear interest after the rate of 3l. per cent. per annum, and is to be secured by the bond of the borrower, with two sureties. Printed Forms of Application, and all necessary information, may be obtained by applying personally, between the hours of Ten and Three o'clock in the day, at the office of the Clerk and Solicitor to the Trustees, No. 14, Great Queen-street, St. James's Park.
By order, EDWARD S. STEPHENSON, Clerk and Solicitor to the Trustees.
NOTE.—The Trustees meet on the second Wednesday in every month, to consider such applications for loans as have been sent in one clear week at the least before the first day of the month.—The sureties must be unexceptionable.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 3 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, as manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

ARCHITECTURAL AND ORNAMENTAL DECORATIONS.

Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK

Take leave to inform the Trade that they have

Opened an Establishment for the supply of Plate and Window Glass, Shades, Potiche, Lamp and other Glasses; also Wine, Spirit, and Beer Bottles, at

131, UPPER THAMES-STREET, LONDON-BRIDGE.——WORKS: SEVRES, NEAR PARIS.

PATENT and BRITISH PLATE GLASS.—JAMES HETLEY and CO beg to inform Architects, Builders and the Trade generally, that their new Tariff of Prices for the above will be sent on application; they will also on receipt of particulars, furnish estimates for any description of Glass now manufactured.—Patent Plate, Sheet, Crown, and Ornamental Window Glass Warehouse, 35, Soho-square, London.

GOOD FOREIGN SHEET-GLASS.—Thirds, 40s.; common thirds, 36s.; fourths, 28s.; in cases of 100 feet each average size, 40 by 30. English or foreign ground to 3-4d per foot. Crown and sheet squares, in 100 feet boxes, from 10 by 10 to 28 by 14, 2d. per foot. 1-inch rough British plate tiles, 8s. per dozen. Also, crown and sheet glass in crates; British and patent plate, fluted, and stained glass; glass slates, &c. Sheet lead, zinc, white lead, sole turpentine, colours, &c.—E. FARMILOE and SON, 118, St. John-street, West Smithfield, London.

J. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 5, OXFORD-STREET.

GLASS PAN-TILES, packed in cases of fifty, one-quarter of an inch thick, 1l. 17s. 6d.; three-sixteenths case of sixty, 2l. 3s. 3d.; one-eighth, per case of sixty, 1l. 17s. 6d. Foreign Sheet Glass, in cases of 200 feet, 36s.; 28s. and 1l. 10s. per case. Crown Glass, in crates of sixteen to the hundred feet, 24s. Crystal White Glass, for pictures, at 4d. 6d. and 8d. per foot.—JAMES HILLIPS and CO. 116, Bishopsgate-street Without, London.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts; lead, Pipe, White-lead, Lead, Iron and Brass Pumps Water-closet Cocks and Plumbers' Brasswork, Colours, Oils, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 87, Bishopsgate-street, London. Established more than 100 years.

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 300 feet each, at 4d, 6d and 8d per foot, sizes varying from 24 by 10 to 40 by 28. Also Foreign glass of various tints made expressly for CATHEDRAL and CHURCH purposes.—E. FARMILOE and SON, 118, St. John-street, West Smithfield, London.

CRYSTAL WHITE SHEET-GLASS, first, second, and third quality, in cases of 200 feet, at 4d. 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METCALFE and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 298, Oxford-street.

REDUCED PRICES.

CCC CROWN, 18 Tables, per crate, 30s.; H 15 oz. SHEET, 2d. per foot; FOREIGN SHEET, 200 feet cases, 34s. per case; CROWN or SHEET SQUARES, 100 feet boxes, 2d per foot; PARTLEY'S PATENT ROUGH PLATE, from 6d. and PERFORATED VENTILATING GLASS, 1s. 6d. per foot; CRYSTAL SHEET GLASS, 4d., 6d. and 8d. per foot; FLASHED RUBY GROUND SHEET, 3d. ENAMELLED, 8d. per foot. Sashes trimmed and glazed, 3d. per foot.

Catalogues free, on application to the Managers, as above.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

The Works, Pocket Nook, St. Helen's, Lancashire.

The Warehouse, 99, Hatton-garden, London.

" 45, Piccadilly, Manchester.

Messrs. C. and J. Malloch, 30, Turner's-court, Glasgow.

" John Dix and Co. Bath-street, Bristol.

" H. Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to 1 in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METCALFE begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz. Sheet Glass, in crates, from 2½d. per foot; C C C Crown, 18 tables, 32s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 32s. 36s. and 40s. per case; Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post free, on application at the Warehouse, 30, Princes-street, Leicester-square, London.

PLATE-GLASS for GLAZING PURPOSES. C. NOSOTTI respectfully informs Architects, Builders, and Others, that he can supply them with PLATE GLASS for windows and shop-fronts, at prices sent to be excelled, the glass being of a more brilliant colour than generally used. List of prices free. Gold Mouldings for rooms, and every article required for general furnishing ready for immediate delivery.

C. NOSOTTI, Established 1822 398 and 399, Oxford-street, Soho

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence, Shop-front Builder and Manufacturing Joiner 1½ and 1¼ four-panel doors from 6s. each; 1½ sashes and frames from 7s. per foot; 2-inch ditto from 8d. Windows fitted with Sainsbury's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

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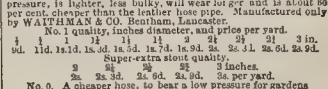

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The Builder.

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EASTBOURNE, in Sussex, has long been creeping into favour as a watering-place, and is just now so full, that good housing is at a premium. Those who go there for bustle and tea-garden life, would probably arrive at a similar conclusion as Charles Lamb, who writes in his "Margate Hoy," "We have been dull at Worthing one summer, duller at Brighton another, dullest at Eastbourne a third." But those who seek quiet, pure air, a beautiful mixture of "the country" and the sea, charming rides in consequence, and places of archæological interest round about, to give inducement for excursions, come home well satisfied with Eastbourne. Under this general term are included three separate districts; that is, a new collection of buildings close to the sea, called the Sea Houses; a straggling village, with a new church and villa residences, called Southbourne; and then further inland, say a mile and a half from the sea, Eastbourne proper, girt with fine trees. The old church there is of Norman foundation, and with its massive and time-stained tower, zigzag ornaments, and perpendicular sedilia, interests and satisfies. Unfortunately the same cannot be said for the new church at Southbourne, in which compo and bad taste coalesced to produce an abomination, and have succeeded wonderfully. It professes to be in the Gothic style, and is certainly *gothic* enough. If it were not for the interior, the ugliness of the exterior would have no parallel. The want of good architectural advice is very observable, too, in the houses which have been recently built. The attic story of the lofty range of new dwellings facing the sea, and the one-pair window-caps in Cornfield-terrace, are caricatures which exemplify the want. There are two interesting old stone houses in the high road close by, with external staircases and mullioned windows. Although rude and of unpretending character, condemned, too, now, to commonest uses, these are much more pleasant to look at than the flaunting "Gothic villa" just finished, with bristling pinnacles, near the sea. The break in the line at Polegate station, which necessitates a change of carriages there, is against Eastbourne; but we shall be much surprised, nevertheless, if it does not become a place of even greater resort, and we would suggest to the authorities and the landowners the desirability of a thought for the future in their present arrangements. Taste does not involve any waste of money, but the contrary.

Hastings, Brighton, and Lewes are all within reach for day trips: the latter, as most of our readers doubtless know, contains much to interest the architectural antiquary.

Pevensey Bay, which Eastbourne borders, is formed towards the west by Beachy Head, the loftiest cliff on the south-western coast, and which juts out far into the Channel. Those who find pleasure in a glorious view and Nature's varied features, may seek it here. The cliff towers up and up, far higher than St. Paul's, before you, and on either hand, is the abounding sea. On the left, when we saw it, its colour was the greenest of conceivable greens, with dashes of purple and a sprinkle of white-crested waves; while on the right spread out an expanse of molten silver, tumultuously throbbing,—a more magnificent sight eyes of man never rested on. Looking towards Hastings you have Southbourne—the bay beautifully curving,—and the last of the martello towers; towards the west, the elevation known as Belle Toute, with its well-placed lighthouse, and on the land side, a noble sweep of downs with furze and foliage and the purple heather. Worldly cares seem less in sight of the great sea. Nor are the emotions transitory to which a view of it gives rise: in after times,—

> "In vacant or in pensive mood,
> They flash upon that inward eye,
> Which is the bliss of solitude."

The old coast-guard men tell strange stories of feats of daring in the ascent and descent of the cliff, done here by smugglers in years gone by. Now, fortunately, the inducements to risk life are fewer and the doings prosaic,—save when some too adventurous tourist tries to emulate them, as was the case not very long since, and is dashed to pieces on the beach below.

The martello towers just now referred to give a peculiar character to this district: they were commenced, it may be remembered, at the beginning of the present century (about 1804) as part of a design for defending the coast against the meditated invasion of Napoleon Bonaparte. The towers consist of two stories, the lower for stores, the upper shell-proof for troops; and when not immediately close to the shore, have around them a deep moat faced with brick, and are entered by a moveable bridge: they are circular, and have a parapet around the vaulted top, to protect the artillerymen in working a long swivel-gun with which they were to have been mounted, but, with a very few exceptions, never were. There are seventy-four of them, we believe; the first a little to the east of Folkstone, the last near Beachy Head. Oddly enough, Corsica, whence came the cause of the fear, furnished the model and the name for the defence. It is understood that they had their origin from a fort in Mortella (or Myrtle) Bay, Corsica, which was captured by the British in 1794.

Pevensey Castle, but a very short ride from Eastbourne, is one of the most extensive examples of a Roman fortified town remaining in this country. Its identity with the Roman British town *Anderida*, appears now to be generally admitted. And there can be no doubt that the outer walls, lofty and thick, with huge solid round-ended bastions, or bulwarks, the whole faced with squared stones and having continuous layers of Roman tiles at intervals, are of the Roman period.* Some writers have thought otherwise, and attributed the earliest parts to the Norman period; but this must have been done without due examination. It is known that there was a castle here before William the Conqueror arrived, and that he garrisoned it. The *Notitia*, a list of the civil and military appointments of the Roman empire, compiled, it is supposed, in the reign of Theodosius the Younger (A.D. 450), or earlier perhaps, mentions, as amongst those under the government of the count of the Saxon shore,† the commander of a detachment of the Abulci, at Pevensey."‡ Moreover, a comparison with the remains at Richborough, Lymne, and elsewhere, sets the question at rest. Within the area enclosed by the outer walls, a large one, a mediæval castle was erected, with its gateway, bastions, moat, keep, chapel, and well, commenced probably by the conqueror's half-brother, Robert, Earl of Mortain. Some careful investigations were made here by Mr. Mark Anthony Lower and Mr. C. R. Smith in 1852, some particulars of which were published by the first-named gentleman.§ A sketch of the plan will serve to explain the arrangement better than words would: the dark lines show the Roman walls, the lighter the mediæval. A marks the Decuman-gate, with its massive flanking towers; B, a postern; and C, a gate fronting the main street of Pevensey; D shows the main entrance to the mediæval castle; and E, the site of the keep. I, is the font marking the site of the "free chapel within the Castle of Pevensey," mentioned in a grant of this fortress by Edward III. and cleverly hit upon by Mr. Lower; 2 is the well; and 3, one of the Roman bastions, connected with a sally port in the mediæval work. At 4 there is a mass of the Roman walling, which has rolled down the declivity.

For many years these walls supplied the neighbourhood with stone, but it may be hoped that no further destruction will be permitted. It is a beautiful ruin, full of valuable teaching.

> "The wild pear whispers, and the ivy crawls,
> Along the circuit of thine ancient walls,
> Lone city of the dead! and near this mound,
> The buried coins of mighty men are found,
> Silent remains of Cæsars and of kings,
> Soldiers of whose renown the world yet rings,
> In its sad story! These have had their day
> Of glory, and have passed, like sounds, away!"

These stones are suggestive: they afford an insight into Roman character, and give us a more personal interest in the early history of our country.

We have but incomplete accounts of the condition and progress of Britain during the 400 years of Roman domination; but we find enough in the monuments of that period which still remain, their military stations, roads, villas, and walls of defence, the pavements, coins, inscriptions, implements, and works of art which have been dug up in all parts of the country, to prove the energy with which, when they had completed the subjugation of the original inhabitants (no easy task), they sought to introduce the arts of peace.

While the sun shines on the ivy-covered walls of Roman Pevensey, still solid and vast, and the birds sing in the trees on the site of the Norman keep, we pace the enclosure, and see as in a glass, the changes which have taken place in the world since their erection, and the wonderful series of events by which the resources of the country have been developed, and her power increased.

You may see another phase of castle building by driving two or three miles farther to Hurstmonceaux, built by the Fiennes, in the reign of Henry VI.* Mr. Britton† notes that it was in the first year of Henry IV. (1399) license was given to embattle and fortify at Hurstmonceaux, and that, according to Dean Lyttleton, the castle was built soon after the license was obtained. The appearance of the building, however, supports those who give it the later date. By that time a fortress was less needed, comfort more so. The old forms were kept,—crenellated towers, and moat and bridge; but windows were opened in the walls, and massiveness gave place to convenience. Hurstmonceaux Castle is built of brick, with stone dressings sparingly introduced, and is called by some writers, "the oldest *brick* structure existing;" that is, of course, they mean the oldest after the *return* to brick, as a material for building. Even this, however, on inquiry would seem to be not quite correct.

The earliest building known to exist in this country, built with bricks resembling the modern or Flemish brick, is (according to the Oxford Glossary), Little Wenham Hall, in Suffolk, which dates about 1260.

According to Leland, the town of Kingston-upon-Hull, was enclosed with ditches, and a wall "made all of brike," in the reign of Richard II. (1377 to 1399), and in the wall were four "gates of brike." Bricks were then 6s. 8d. a thousand. There is no attempt at ornament in the brick-work at Hurstmonceaux; no details to discover. The brick house we mentioned a short time since, Sutton-park, Surrey, built in the reign of

* The mortar contains pounded tile—a tolerably safe characteristic of Roman work

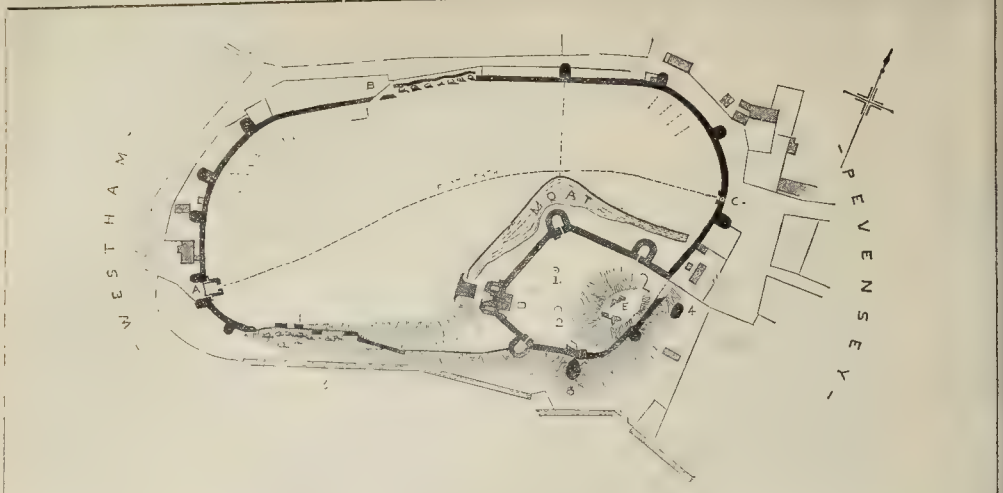
† *Littoris Saxonici*: a term applied to it when the Saxons invaded Britain somewhat earlier, perhaps, in this same century.

‡ "*Præpositus numeri Abulcorum Anderidæ.*" Quoted in "The Antiquities of Richborough, Reculver, and Lymne, in Kent." By C. Roach Smith, F.S.A.

§ Pevensey Castle, and the recent Investigations there. 1853.

* Memorials of the family will be found in the church hard by

† Architectural Dictionary.



PEVENSEY CASTLE, SUSSEX.

Henry VIII. is much more interesting in this respect. As a mass, however, especially from a distance, Hurstmonceaux Castle, is a fine object. The present custodian, a poor "*superantedated* man," as he calls himself, seventy-nine years old, remembers the castle in a much more perfect state. It was furnished and habitable till the year before he was born, when the furniture was sold and the building dismantled. Ivy covers the walls, and trees grow on the site of my lady's chamber.

And now back to Eastbourne, with pleased and pleasant companions.

* * * * *

The night is lovely,—set with jewels: throw up the window, and listen to the rolling water. While we gaze

> "The full-faced moon sits silver on the sea,"

and

> "The eager waves lift up their gleaming heads,
> Each shouldering for her smile."

A VISIT TO THE MOSQUE OF OMAR, JERUSALEM.

THE following notes by Miss Rogers, the daughter of the eminent wood-carver of that name, descriptive of a visit made by her and her brother (Vice-consul at Caiffa), under the auspices of Sir Moses and Lady Montefiore, will interest our readers:—

Wednesday, July 25th, 1855.—At 8 o'clock in the morning start for the Pasha's seraglio: we enter a vaulted chamber, entirely lined with a lilac cotton print; divans all round. Opposite the door sits the Pasha—I am introduced. The dragoman (Gilbert, who speaks good French) translates for me; the Pasha only speaks Turkish. Gilbert leads me to a divan, and opens the curtains of the windows looking over the terrace of the mosque, now half in shade, the outlines of the walls and minarets and domes, throwing their fantastic shadows across it. Several servants are standing around us; coffee is brought in for us; on the table is a white cloth and a tobacco-cellar, two little ugly glass paper-weights, with pictures and a gutta-percha head. Sir Moses is announced. They are in the drawing-room, where we assemble with the Pasha. He sits on the chief divan, and invites me to sit by his side. Before us on chairs, arranged in half circle, sits Sir Moses and several other gentlemen. We start in procession. The Pasha leads the way through curious, tortuous, zigzag turnings and arches, till we exchange into the sunshine: and the wonderful area of the Mosque, the splendid building with its varied surface of colour, light, and shade; its perfect outline; the little rows of columns, casting pleasant shadows on the thorny ground; the little mosques and tombs; the olive trees and shrubs,—are all taken in at one excited and delighted glance, as we traverse the grounds to the foot of the broad flight of steps to the *holy ground*. By this time a large group of Arab and Jewish attendants and soldiers are surrounding us, whose duty it was to accompany us here. All had to take off their shoes: we had to change ours. The yellow shoes brought for me Lady M. wore. I kept on my bronze slippers, which did very well. We enter the wonderful building, darker than I expected to find it; a solemn, gorgeous gloom, recalling the effect of Owen Jones's Alhambra at Sydenham. Very ancient mosaic of glass and stone, in Arabesque florid style, lines the base of the dome. A gallery of arches, like a Norman triforium, runs round above the surface of mosaic richly-stained glass windows, which, from the variety of colour, intricacy yet certainty of design, minuteness of division, have all the effect of transparent mosaic. Within a wooden railing (which I could peep over on tip-toe) was the wonderful stone which, attempting to follow the prophet to heaven, left the earth, and never quite returned to it again. Here it stands, in a very strange position certainly, with not much to rest upon. The large dimension of this rock or stone surprised me exceedingly. The wooden railing is in the upper part pierced, painted, and prettily carved with rich interlacing designs, not unlike the Saxon MSS. decoration: an immense variety of panels in the lower part are not pierced: the elaborate patterns are grounded out. We are now shown the praying-place of David,—a white marble shrine of exquisite design and execution; a recess or niche, supported by two double columns, each column divided into four parts, and quaintly twisted and plaited, not only with itself, but with its sister column. The capitals, such as I have seen in Norman work, very very fine, such exquisite nicety of finish. Now we descend a dark cavernous-looking place, attended by taper-bearers;—are now under the great stone. Here are four places of prayer—one for Jesus, for Abraham, for Solomon, and Aaron, two of which are even more intricate than the one above. I regret I had not time to make drawings of them, but I took notes of them on the spot, and my brother did the same. Upstairs again: examine the mosaics under our feet: in design they are like the doors from the far East exhibited in 1851, of curious interlacing lines,—zigzag,—much variety of colour. The lower portion of the mosque is chiefly surfaced with encaustic tile,—generally blue and white, full of variety in design,—some quite like Renaissance. Out again into the area, where the olive trees and little flowers of red and yellow (of the vetch and goat-beard kind) grow between the stones: we descend steps, almost overgrown at the sides with rank weeds and thorns, to an open stone basin, called Solomon's Pool (supplied with water from Solomon's Pool at Artas). Sir Moses hands me some to taste. Down again more steep steps, looking as if very rarely trodden; we enter a long underground double arcade towards the south: at first, the columns dividing the arcades are square, and sometimes connected; but at the extreme south they are round, and of splendid proportions, for the ground is more excavated, and the roof is higher, giving a strange effect to the low way we came by. Mr. Consul Finn measured one of the columns with the brass measure I gave to him, and found it was 15 feet in circumference, and a stone in the wall, rather larger than most of them, was 8 yards long: we picked up some fragments as trophies.

Up again into the dazzling daylight; enter the Mosque El Aksar under a deeply moulded arch, like Early English zigzag; deep shadow, the whitewash and modern painting of the monograms of the Kaliffs, &c. give an air of newness to the interior; strangely various-formed columns, stunted round arches, round, square, and all-sided pillars: we assemble round the ancient well called *Moses's Well*, and all take delicious drafts from it. The rafters of the church look like marqueterie. They are dark brown and yellowish-white painted. I made a few sketches here. At the south end rises the dome; eight rich high *stained glass windows:* the eight piers are decorated with a Chinese-looking painting; their surfaces of mosaic, as in the other mosque: the transepts are very fine, arched and groined; a beautiful triple arch, very like Early English. Here is a curious excavation, called the "Manger," a shrine and canopy supported by four pillars, with beautiful basket-worked capitals. Mr. Guadella thinks it was the bed of a fountain, where the feast of the rejoicing of the waters was celebrated. The Pasha now insisted on our being led to the chamber under the *Golden Gate*. This is the spot the Moslems are most jealous of exposing. They (the guides) told us we had already seen it, and wished to make us believe the long arcade led to it; but now we were conducted with a file of Turkish soldiers on each side of us towards the gradually sloping descent, the soldiers ranging themselves in a semicircle on its brow, and we went down into the most beautiful vaulted chamber supported by six columns, and the walls divided by pillars of great beauty: high above us two openings in the double dome admitted daylight, and a few astonished and picturesque

heads looking down curiously and anxiously from without. One of the ladies observes, "They help to give an idea of proportion, and steady the eye." Shaded by the white umbrella of Mr. G. we leave this cool retreat. During our stay in the building one of the party leaves us, and returns with his photograph machine, and makes the best use of the short time: such a thing has never been dared before. Mr. Guadella, one of the party, tells me of his visit to Constantinople: he says he has never seen so much colour in any architecture as in this mosque: he enjoyed Athens and the beauty of the Bosphorus, but the visit to-day was worth the journey from England, if he had come with his eyes closed till he arrived here.

We approach the covered piazza in front of the great mosque: carpets are spread for us beneath the airy dome, supported on its delicate columns: the ladies, that is, Lady Montefiore, Mrs. G., Mrs. Consul Finn, and myself, sit down: the gentlemen group around us, but not sitting on the carpet. I cannot help looking up at the beautiful capitals: all are various, and formed of twisted and entwined leaves of the hawthorn: baskets of interlaced work prevail. We become enthusiastic in archæology. After a rest we walk again. Our attendants are gradually swelling in numbers around us: the soldiers fill us in closely: we wait under the vaulted passage, while Sir Moses settles the bachsheeks. He gives 40*l.* to Dragoman *Tannoos*, to divide among the soldiers and attendants, who are crowding round in anxious and greedy groups.

We had been within these rarely-entered precincts *over two hours*, and had seen much more than had ever been shown to infidels. The Archduke Maximilian and Duke of Brabant did not see one-half we did. Our small party had the advantage, and more than that, Sir Moses was known to be liberal.

MARY ELIZA ROGERS.

Tellibere Encampment, under the Walls of Jerusalem, July, 1855.

THE CHEMISTRY OF BUILDING MATERIALS.

IN the course of the last session at the Architectural Institute of Scotland, Dr. George Wilson delivered three of a series of papers on the "Chemistry of Building Materials," some account of which we must give our readers.

In his introductory remarks, Dr. Wilson, after stating that he did not speak as an architect, builder, mineralogist, or geologist, but simply as a chemist, thus proceeded:—

I suppose there are just six great building materials which mankind have used from the earliest times, namely, wood, earth, snow, stone, iron, and glass. The first three, wood, earth, and snow, are especially the appliances of the savage or half-civilized man. Wood, as you all know, is used in the form of the wattled cabin, kraal, tabernacle of boughs, shanty, hut, and log-house; earth appears in the forms of mud-cabin, turf-cabin, clay hut, sun-dried and kiln-burned brick dwellings; and snow is, in the Arctic regions, the only serviceable building material for the Esquimaux; and even our sailors have thought themselves very comfortably housed with snow walls. The second three, stone, iron, and glass, are the special appliances of the highly civilized man,—stone, from the earliest historical periods; iron, very recently, but very extensively; and glass, not including its use for windows or hot-houses, most recently of all.

Of these six, wood may be regarded as the uniter of the savage and civilized builder.

I shall only, in this paper, treat of stone. What qualities are requisite in a good building stone? 1. A compact homogeneous structure. 2. Moderate hardness. 3. Insolubility in water. 4. Non-disintegration by the atmosphere. 5. An agreeable unchanging colour. 6. Non-liability to acquire a coating of vegetable matter.

As to the first, it is scarcely necessary to dwell on the desirableness of a uniform and equable structure throughout the length, breadth, and thickness of a stone. All destructive agents,—pressure, friction, air, water, frost, or vegetable growths, act unequally on heterogeneous masses. Vesicular lava, with a multitude of cavities in it, would plainly be unsuitable, other things being equal, as a building stone, as in its cavities dust would gather, then vegetable growths, and water would collect and begin to dissolve what was soluble, and the destructive gases in solution would wear down the stone. The same objection applies to such a rock as amygdaloidal trap, to be found in our own neighbourhoods; this dark whinstone having cavities in it filled with white bodies resembling almonds, like seed-cakes. Granite rock, as you know very well, is found in such a condition that it may be polished, and preserved unaltered, as regards appearance, for a long time; still, from the fact that you have three different sets of crystals grouped together in the block, with interstices between the crystals, even where they touch each other most closely, it possesses a disadvantage as regards water, air, or vegetable growths, and is more liable to undergo change than a perfectly homogeneous substance. In like manner, in some sandstones, inequalities permit the same destructive agents to act. You are all familiar with those black lines to be noticed in sandstones. These lines frequently result from layers of mica, but sometimes from a charcoally or carbonaceous matter, resulting from the decay of plants which have become fossil within the sandstone. There is no stone not liable to similar insecurity when we have any thing like inequality in structure. Few stones are more beautiful than shelly limestone, yet it needs but to look at its polished surface to see that the cohesiveness and hardness of the shell and its matrix are very unequal, and to perceive that the destroying and disintegrating agents are acting unequally on the surface, and must wear it down faster than they would a mass of statuary marble, all consisting of identical crystals, or a mass of pure sandstone. Even in those minerals which we are accustomed to regard as most solid, most homogeneous, and least liable to change, we very frequently—far oftener than we expect,—find some heterogeneous element, often in very small quantities, yet quite enough, when acted on by disturbing agencies, to upset the equilibrium of all the remainder. One of the most compact of known stones, quartz rock, may have, though the eye does not detect it, some portion of oxide of iron, one of the lower oxides (*i.e.* iron united with a little oxygen), that readily and gradually combines with more; and whenever a piece of rock containing small quantities of iron is exposed to the air, the iron begins to absorb this oxygen, to unite with it, and to increase in volume; and each little particle, acting like a wedge, splits the mass into fragments, or at least greatly lessons its compactness and cohesiveness. Even such stones as the agate, which we see cut into what we imagine to be a most enduring mass, are found to have long lines unequally coloured that admit of liquids penetrating them. Of that fact there is no doubt—indeed, it is now turned to practical account by lapidaries.

The second requisite I named was moderate hardness. It seems almost needless to say, that a stone should not be too hard nor too soft; yet we know practically how much it means. Our builders have pitched upon the best name for indicating this when they use the word "freestone." In Scotland that name is almost solely applied to sandstones; but in England they apply it also to limestones, and simply mean by freestone, a stone that freely cuts and saws, and neither goes crumbling to powder, nor blunts the point of your chisel in working it, nor kills you by filling the lungs with sandy powder, as very hard stones do. Plainly, "moderate hardness" is a character of very great importance. Were mere compactness or hardness the only desideratum, then quartz rock would be preferable to all the stones we know, as we can get it beautifully equal, and approaching more nearly to uniformity of structure than any other rock, very little alterable by the air, and totally insoluble in water; but then it is so hard, that the cost and trouble, and time expended in the working of it, would be enormous, and the destruction of life would also be great. Even the stones we do use, such as granite, are many of them far too difficult to work to be largely employed. It needs no proof, however, to show that these hard stones involve such time, and trouble, and cost, in working them, as greatly neutralize the advantages of fine polish, lastingness, and beauty. Even the sandstones are, some of them, too hard, especially our own beautiful Craigleith stone, which kills so many masons. I have it on what I believe is good authority, that even a softer stone—the Binny—used in the building of Sir Walter Scott's monument, has also been known to be very fatal to the masons working it. I am told, that during the building of that monument, which occupied four years, and employed seventy workmen, eighteen died by what they themselves call the mason's trouble. Notoriously, however, this Craigleith stone is the worst of all. The masons themselves, attribute the mischief to the sulphur in the stone. But it is not the sulphur that does the mischief. It is merely the very fine irritating sandstone powder. As yet we do not know of any efficacious means of preventing such results, unless by driving away the fine powder, and by working the stone in the open air. I do not think that moustaches are really of much avail. The notion arises from the German masons wearing beards; but I rather think that the Germans' exemption from the disease arises from their working in the open air, and from their working slowly—far more slowly than our masons do. I am told that a man can only chisel six linear feet of Craigleith stone in the time he can chisel fifteen feet of Binny stone. If our masons must work under sheds, the only remedy would be some contrivance for blowing away the dust, as they have in the Manchester cotton-mills, where what they call the fluff is blown away; but you always find the workmen themselves the least willing in such things; for it is well known, that many of the cotton-spinners refuse to work with these fluffers, because they say it makes them hungrier, and costs them more to buy their dinners—and what can we do in such a case?

To come to the third point, it seems at first sight very needless to say, that a stone should not be soluble in water. But you must remember, that there are stones used in other countries which are soluble in water, and which are suitable for dry climates, though useless with us—such as alabaster, called also sulphate of lime, and gypsum. The stones which Mr. Layard found at Nineveh consist of alabaster or gypsum, which is soluble in water; and although one ounce of water will only dissolve one grain of these, still the maxim holds true, "the drop wears the stone." It may not suddenly wash away a house; but plainly, for architectural purposes, any stone soluble in water, so that the beautiful lines of carving will suffer by every shower that falls, is not to be thought of in a country like this. What is the use of alabaster columns, or palaces of marble in this climate? The solubility of their material in water is one reason why we should never have Buckingham arches, or other marble buildings, in this country. If you have a statue like Scott's, it must be under cover; and even Scott's statue, where it is, will suffer; for marble, which is carbonate of lime, is soluble in water. It is soluble to a small extent unquestionably; but if the water contains carbonic acid—and all rain does contain carbonic acid—then it dissolves marble more readily, and it should not be used in a climate like this, where all exposed marble statues, pillars, or carvings, are infallibly rounded on the outline by every shower. For exterior ornament our sandstone is infinitely preferable. But when I speak of solubility in water, it is not with the purpose of merely alluding to alabaster or marble. I would direct your attention to this very important fact, that with exceedingly few exceptions, all building stones contain something soluble in water, and that if water once begins to dissolve the stone, the integrity of the block is invaded, and sooner or later it crumbles. We are not in the habit of thinking of granite as having much to do with solution in water. We make great fountain basins of granite in such a crystalline condition as resists the action of water for ages; but there are other granites, not distinguishable by the eye, or chemically, from those enduring ones, which rapidly crumble when exposed to the action of water; and they crumble because one of the constituents of granite—the one

which gives it its colour, viz.—felspar, which is red in one and white in another block, is the alkali potash or soda combined with silicic acid. These alkalis are perfectly soluble in water. They are kept from dissolving readily united with a certain amount of silica, as they are in glass, but in certain conditions, very obscure, the power of combination is conquered by the alkali (as in soluble glass and in silicates used in solution for hardening more perishable materials, although these silicates being based on lime when once dried, are not so likely to suffer from the influence of water as the silicates based on such alkalis as potash or soda), and the rain acting on the granite, begins quickly to dissolve the alkali and the felspar gives way; the black mica and the glass-like particles of quartz are separated, and the whole mass breaks down. I am anxious to impress on all, that in the selection of a building stone, apart from its not being in mass, or altogether soluble in water, we must keep in mind to what extent it contains a single thing soluble in water. Our own whinstones and trap rocks are in the same predicament as granite.

Sandstone is one of the very few building stones which are quite insoluble in water, and that is one of the many excellences it possesses as a building material. It is not itself in mass soluble in water, and frequently it contains not one per cent. of soluble matter in it; so that, though it absorbs water, it does not crumble in the way that harder rocks, such as granite and whinstone, very readily do.

I now come to the fourth point, "non-disintegration by the atmosphere." That after all is the most important point the chemist has to deal with. There is no stone—absolutely none—quite indifferent to the action of the air, and which does not undergo some change of the nature of a destructive one. I may point, however, to one seeming exception, an exception proving the rule; namely, a very remarkable building stone from India, called *laterite*, from the Latin name for a brick. It is found on the west coast of India, occurring partly in cliffs rising high up on the sea coast, and partly forming superficial masses over great districts which are wholly waterless. It has this remarkable peculiarity, that when you dig it, it is soft, while at the outer surface, if it has been exposed, it is a hard stone. If you remove the hard external coating, then you come to a mass as soft, in some portions, as cheese. Other portions, not so soft, can be cut with the spade, so that they shape it into blocks of almost any size. Then it rapidly hardens like Roman cement, and becomes massive stone. The old Inquisition at Goa, and the old Portuguese Cathedral, as well as the old Pirate Forts which abound along this coast, are constructed of laterite; and indeed it is used in India in preference to any other building stone, where it can be had. It results from the decay of granite, or syenite rock like granite, and a rock very rich in felspar, and containing much iron. When I come to speak of mortar, I shall recall your attention to this stone as presenting us with a great deposit of what may be called native Roman cement, which may be dug soft, and then hardens itself into the hardest mass. We have no such stone in this country. The stones found in most parts of the world rapidly give way under the atmosphere. It would be difficult to enumerate all the ways in which atmospheric agencies affect building stones. Excluding electrical discharges, I will notice—1st. Alterations in temperature, causing unequal expansion and contraction—stones irregular in structure, and conducting heat unequally, being liable to be split, from one portion expanding more than the other. 2nd. The absorption of water by the pores present in the most solid stones, followed by the freezing of the water. Water, in freezing, as we all know, forms crystals of ice, occupying a much larger space than the liquid water did, and thus it may split the stones to fragments. I need not enlarge on the manner in which water acts destructively, coming from the atmosphere. Water finding its way into the most porous stones, as indicated under the previous head, very seldom fails to find something it can dissolve; and dissolving that, it lessens the compactness and cohesion of the stone. The truth is, that the more we look into the matter, the more we find, that with the exception of the metals—such bodies as charcoal, sulphur, and a very few others—there is scarcely a chemical compound not soluble in water. I do not think a chemist would like to say that any body was insoluble; but there are multitudes of bodies which we are in the habit of putting down as insoluble—meaning by that, that they are so slightly soluble, that for practical purposes, whether in reference to pure water, or in using chemical tests, we can disregard their solubility, though they are nevertheless *so* soluble in water, that in the course of years the action of that liquid upon them affects them, and ultimately causes very extensive changes in the condition of the mass. 3rd, More important than any of these is the direct corroding action of active chemical substances. They are not very numerous, and their action on the whole is very simple. The most important of them, probably, is carbonic acid. We always have carbonic acid in air, and can detect its presence by putting out a little limewater in an open vessel. All burning, all the respiration of animals, all decay of vegetable matter, and all furnaces pouring forth gases into the atmosphere, as well as many mineral springs, are continually adding carbonic acid to the air; and although we have a wonderful agency for diminishing it, in its consumption by plants during sunlight, still there is a surplus over, and that surplus is constantly corroding all our buildings. Carbonic acid does not act so much as a gas as when dissolved in rain-water. Rain water, with carbonic acid added to it, has the power of dissolving, for example, marble, carbonate of lime, and phosphate of lime. It can also dissolve carbonate of magnesia, present in certain limestones, such as the Bolsover limestone employed in the building of the Houses of Parliament—a stone containing magnesia and lime united with carbonic acid. This stone is not soluble in water alone, but is distinctly soluble in water containing carbonic acid. This carbonic acid acts with great energy on such stones as granite, in certain conditions; but we do not understand as yet, otherwise than imperfectly, why it is, that of masses of granite, one will remain unacted on by atmospheric agencies for an indefinite period, whilst another will go crumbling down, and in the course of a few weeks will often be reduced to a state of utter disintegration. In granite you have three constituents; the one glass-like crystals of quartz. These crystals are like hard, brilliant, transparent obelisks. They may be coloured like the Cairngorm or amethyst, which are yellow, brown, or purple crystals of quartz that have shot up from a mass of granite or similar rock. Then you have always a black-looking body, called mica, which is not altered by the air. In addition, you have a third constituent, that gives the white, flesh, or red colour to granite, namely, felspar. It has either potash or soda in it. It is on that potash or soda, in certain granites, that the carbonic acid of the air, dissolved by rain-water, acts so injuriously. The acid begins to extract alkali from the felspar, and the felspar crumbles down ultimately into a white clay—a process continually carried on, and assisted artificially in Cornwall and Devonshire, with a view to obtain clay for the potteries. The condition of granite which the Germans call diseased granite, is perhaps the best example that can be given of the remarkable power of one of the atmospheric agents—carbonic acid dissolved in rain water—in breaking down the hardest stones.*

* To be continued.

THE PARKS.

If there is any portion of this great metropolis that ought to be held sacred to the objects of original use it is that reserve of open space called St. James's-park. Being nearest to the centre, the requirements of a population—grown to an extent little contemplated when the reserve was first laid out—cannot dispense with one rood of its grassy surface. The compacted cities of Westminster, Pimlico, Kensington, Bayswater, and numerous other districts of London (any one of which would be, in extent and number of houses, a city in any other country), have expanded themselves far beyond the bounds of all the parks; so that the sylvan and rustic promenades of former days have now become the nursery walks of infant London, as essential and indispensable as the lungs to the breathing body.

Of late years the care of officials has been exercised, not to preserve these spaces in their integrity, but rather to nip and curtail public liberties,—conceding to favoured individuals, in many instances, large portions—as in Regent's-park—of the central turf.

Various inclosures have been fenced off in this latter park, withdrawn from the public liberty, and appropriated to the fortunate occupants of insulated mansions. Nearly 100 acres have been excised in this way; one portion of the external boundary—a strip of from 300 to 400 yards, about four acres in extent,—was leased to a friendly applicant, lately deceased, and a bridge across the canal, with an entrance designed for the use of Portland-town, was consigned to the privacy and solitary use of that favoured individual. Various applications were made to the authorities by the inhabitants for the freedom of this approach, but the answer was ready: "It has been already disposed of for the life of the occupier of a house in a nook opposite to St. John's-wood Chapel." That excuse no longer exists; let the inhabitants now look to it.

The Commissioners of Woods and Works are the arbiters of these matters, and have to deal with all the urban parks: if their management be no better than that of the *Woods and Forests*, bad indeed will be the issue for the generation now crowding upon us.

The matter which now, however, excites public interest, and to which several years back allusion was made in the *Builder*, is that which more nearly touches the vitality, or at least the health, of the multitude. St. James's Park—the most perfectly planned and planted of the people's pleasure-grounds—is, it seems, threatened with an eruption and curtailment, as destructive of all that has been done already for ornament, as it is absolutely useless in its end and aim.

A road is contemplated, nay staked out, to conduct from St. James's Palace, to cross the park, and the water by a bridge, and *to lead nowhere* in a continuous route; it is to end at the centre of Birdcage walk, and at right-angles with it! For what object? Is it to make an easement for the world, so far from royalty as to be out of eye and earshot? It is certainly for no convenient public purpose, for such an innovation would cut away acres of green sward and whole bosquets of shrubbery. The road at present *patent* is by far the largest causeway of London; it leads to an exit, Buckingham Palace-gate, and runs direct to Belgravia and Pimlico. Already, to enlarge it, several acres have been covered with gravel, and a great portion (sufficient to parade a regiment or two) has been inclosed for the privacy and "*Aubignement*" of the Palace. Her Majesty, whose popularity is equalled by that of no other sovereign, could never have been advised of the spoliation now meditated.

It would be hard to walk through the ornamental plantations of St. James's (for the completion of which all credit is due to those who designed and carried them out), and find an opportunity for contemplation in solitude. When, however, the air is balmy, and the sun shines forth, no landscape garden can present a higher scenic effect. On these occasions sportive children recreate themselves through every open space, and the toil-worn mechanic, or valetudinarian, who can no further migrate, enjoys, if not the fresh breeze from Surrey hills, at least the poetry of floral nature. The *verdant pool*, if not altogether fragrant, glitters in the sheen; and the many-varied plumage of aquatic birds induces a momentary forgetfulness that we are in the core of the metropolis. The abbey's massive towers, the spires, the statued columns, the colossal torsi of Westminster Palace, and the nearer Horse Guards belfry, seen through and above the trees, lend an impressive force and magic to the scene.

Is all this to be marred, by turning the tide of commerce through the fairy land? A straight causeway, with its endless torrents—its dust or water carts? No—forbid it all, good taste.

There was a hint given in the *Builder* some years back, of a route across the park, in direct continuation of Pall-mall—that would strike in upon Constitution-hill, half-way between the Colossus Arch and the Palace, and form a direct approach to Hyde-park-corner, *avoiding the hill* of St. James's-street; whilst at the same time that access would be convenient for Pimlico, or even for Westminster.

The improvements meditated in that quarter, leading to Victoria-street, would be adequately subserved by the continuation of Pall-mall—but there may be an obstacle—Lord Sydney's house, and *that alone*, should be pulled down. Certainly, that causeway should pass in front of Lord Ellesmere's house (at about 50 feet distant); and the right of way to Westminster, must involve the permission to pass in front of the Buckingham Palace at a respectful distance of about 200 *yards*: however, when we reflect that there is no other metropolitan palace in Europe, that is not approached by public highways at a still nearer space; and above all, when we consider that while the citizens (*en masse*) have no opportunity for rural retreats, whilst our gracious and most-deservedly popular Queen has many glorious palaces, we would hope that no partiality for reserve shall ever debar the inhabitants of London from the free use and enjoyment of all of space that crowded civilization has left for their accommodation and enjoyment.

Whilst on the subject of parks, it may not be inopportune to repeat a requirement long needed, in a causeway for all sorts and conditions of carriages and men. The inclosure of Hyde-park extends for more than a mile from Apsley House to Kensington on the south, and from the Marble Arch to Notting-hill on the north; on both sides there is a great and widely-extended population, and yet after night-fall throughout the distance there is no thoroughfare for foot passengers; and even by day, none for hired carriages! London in the nineteenth century being thus cut off from all intercommunication as to these important districts. A road from Victoria-gate over the *mussee Serpentine bridge*, opening out upon the grand *chaussée* lately planned and laid out by Mr. Jackson, through Brompton, could injure no interest nor prerogative, and would be of incalculable value to far outlying residents. This would conduct to and between the long anticipated National Gallery, the Battersea-bridge, and regions thereabout, to Bayswater, Kensall, &c. &c. The swelling tide of population demands this opening, and there would appear to be no obstacle beyond the latent or suppositious powder magazine and its corporal's guard. The profuse waste of masonry lavished on this *model* of Waterloo-bridge would seem to have been achieved for no other purpose than the road recommended.

The old city presents numerous inexplicable straits, such as *Temple* and *Holborn Bars*, and *Paternoster*, with other cranky alleys, *intra muros*: outside, the venerable Wych-street, the neck or scrag of the Strand, between St. Clement's and St. Mary, *cum multis aliis*,—look at the wide avenues of low Pimlico—how light, how airy! and yet these are the only redemption for *that* level of swamps. Look again at the roads of Old Brompton, opposite the Oratory, an arena large as the Mall. This is the secret to make new, and even crowded quarters, tell. It is to be hoped that the authorities of *Woods and Works* will take a hint from private men acting in their own interests, and that a great and thriving commercial people may not be obstructed in their advance, nor cribbed in their intercourse, through somnolence or want of taste, on the part of those to whose care and judgment such matters are confided.

QUONDAM.

TOWER OF ST. MARY'S, TAUNTON.—A motion to authorise all such measures as may be thought necessary for the effectual repair of the tower, and to rate the inhabitants and parishioners of the said parish for such repair and the expenses attendant thereon, has been lost, on a poll, by 420 votes against 414.

ARCHITECTURE IN PRUSSIA.—We are told that the King of Prussia has given two prizes, of 300 thalers each, to be competed for by the Architectural Society of Berlin.

HOLLAND, THE ARCHITECT.

DRURY-LANE THEATRE.

WITH reference to the notice of Mr. Henry Holland, the architect, and his works, in the *Builder* of the 8th inst. and especially the question whether he was the architect of the East-India House, I beg leave to say, that although Mr. Jupp was the recognised surveyor to the East India Company, yet Mr. Holland was the architect or designer of the East-India House in 1799 and 1800, a course of proceeding, I believe, not unknown in more recent years.

My authority for this is, that I have had in my possession for these last forty-eight years a collection of working and other drawings of the East-India House, plans, sections, and numerous details at large, which I obtained out of Mr. Henry Holland's office at Hans-place, in the year 1807, when the establishment was broken up, about nine months after his death, through Mr. Rowles, the nephew of Mr. Holland's brother and executor. Some of them have Mr. Holland's own handwriting, and one (a working sketch of heights) this memorandum:—"Section of Lime-street front, as settled by Mr. Jupp," showing, I presume, that Mr. Jupp, as the established surveyor, had some supervision of the works.

I have also drawings of Carlton House ceilings, and had many other drawings of that edifice, Brighton Pavilion, and other buildings executed by Mr. Holland; also a plan of the old Covent Garden Theatre, as altered by him for Mr. Harris, then proprietor, in 1792, which was burnt down September 20, 1808.

In addition to those works named in your paper, I may add that he did a great deal of work for the Duke of York, at Oatlands; the Duke of Bedford, at Woburn, &c.; Mr. Whitbread, at Southill; and Earl Spencer, at Althorpe and Wimbledon, of which I had many, and still retain some drawings.

The well-known Claremont House, near Esher, was his work, through the connection of his relative, "Capability Brown," who laid out the grounds.

I may likewise mention that he was the planner of Sloane-street and Hans-place, a speculation of his, where he built himself what was then considered a handsome villa, and a charming suburban retreat. The white brick houses on one side of Sloane-street, were those first erected by him detached, and the spaces were afterwards filled up as builders could be found to take the ground.

The Albany-chambers in Piccadilly, of which I had some drawings, were, I believe, a scheme of his on the gardens of York House; the front or main house being the work of Sir William Chambers.

Henry Holland was also, I believe, the architect of Sir W. W. Wynn's house, in St. James's-square, and of Brooke's Club-house, in St. James's-street, the front of which last has been partially altered within these few years: they bear his impress.

Allow me to add, the present Drury-lane Theatre was commenced on the 21st October, 1811 (not the 29th), Benjamin Wyatt, architect, Henry Rowles, builder, and was opened 10th October, 1812.

The amount of contract was.....	£112,750
Additional works, fittings, and expedition money	13,040
	£125,790

This was, I believe, the first *bonâ fide* contract for a building entered into in London; the only previous ones, that I know of, were the hospital at Yarmouth, by Peto, and a small barrack at Hampton-court, by Tredgold.

The original design by B. Wyatt, contemplated an Ionic portico in Brydges-street, and a colonnade in Russell-street, but want of funds prevented the execution. The present projection in Brydges-street was done by Soane some years after, and the colonnade in Russell-street, by Beazley, when he altered the interior or auditory, during the lesseeship of Elliston.

I make these remarks because I was employed as Rowles's superintendent, from the first day of commencing to the drawing up of the curtain, when the late duchess of St. Alban's, then Miss Mellon, performed *Nell* to Dowton's *Jobson*, in the farce of the "Devil to Pay," the play being "Hamlet."

Of the previous theatre, by Henry Holland, I had several drawings, but in the lapse of years have lost or destroyed them.

H. B. HODSON.

SLATE AND ASPHALTE PIPES.

THE importance of a good supply of water is so strongly and increasingly felt, that many towns are incurring the great expense of laying down long lines of cast-iron pipes, in some cases more than twenty miles in length, in order to obtain water from pure sources. To diminish this expense, it is proposed to use pipes made of a combination of slate, asphalte, and iron, which can be supplied, we learn, at little more than *one-third* the cost of cast-iron pipes, while in point of strength they are sufficiently strong to stand the internal pressure to which pipes in such situations are subject: they have been proved by hydraulic press to a pressure equal to that of a vertical column of water 500 feet high, and it is stated that a much greater pressure than this is required to burst them. The kind of slates used for this purpose are such as are too small for roofing houses, and for which there has not hitherto existed any use whatever, so that vast quantities are thrown away as rubbish at all the quarries. In forming the pipes the slates are bound round a cylindrical mould, overlapping and breaking joint with one another, very much as on the roof of a house, or like the scales round a fish. A continuous spiral of hoop-iron is used to bind them round the mould, and the whole being heated, the interstices are filled in with fluid asphalte, and thus is formed a kind of wicker or woven work of slates and hoop-iron, cemented and concreted with asphalte. The adhesion of the asphalte to the slate is found to be as strong as the adhesion between the laminæ of the slate itself, and thus the whole becomes nearly as strong as a homogeneous thickness of slate.

These pipes have as yet been made of only 12 inches and 24 inches diameter, and 7 feet in length. They cannot conveniently be made of less than 10 inches diameter, but they can be made larger than 24 inches, and longer than 7 feet if desired.

Their resistance to transverse strains has been tested by loading them in the middle, when supported at the two ends, with a weight of six tons, which is a greater strain than they are likely to be subject to in practice. In substance, they are made three times as thick as cast-iron pipes, and are then exactly equal to them in weight. A cast-iron socket is affixed to each pipe to allow the junction to be made in the usual way with spun-yarn and lead.

The specimens of these pipes at Messrs. Braby's slate-yard, near the Surrey foot of Hungerford-bridge, have been proved to rather more than 500 feet head of water, and were exposed to the frost of last winter without sustaining any injury. Of course at this early stage we go no further than inviting for them the consideration of those who are interested in the subject.

ROOF-GARDENS.

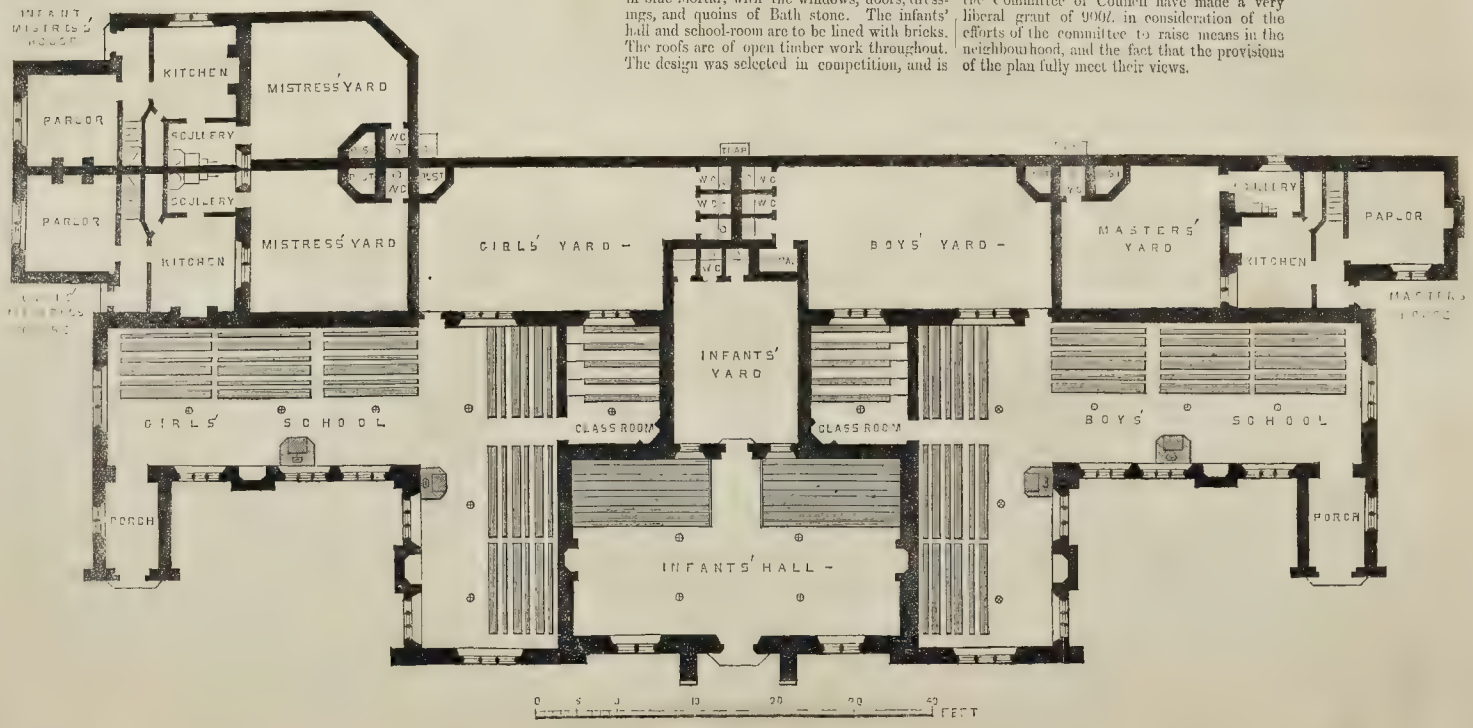
IT has often struck me how much better it would be, for London houses especially, to have glass roofs instead of the heavy tiling or slating now in general use. I will leave all the practical portion to many of your able readers—I only throw out the hint; and in so doing, think that a *garden*, a *smoking-room*, or an *observatory*, would be, in all respects, a gain upon "the loft" which is now the receptacle for old worn-out furniture, dust, and spiders.

Many houses are now being adapted for photographic purposes, and I do not see the slightest difficulty in encouraging horticultural as well as chemical science; and if you wish a list of plants suitable for such a glass room in a London atmosphere, I will send one. Another gain would be, that the house would be much warmer, as slates and tiles are never so well fitted as to be without draughts: putty and thick glass prevent these.

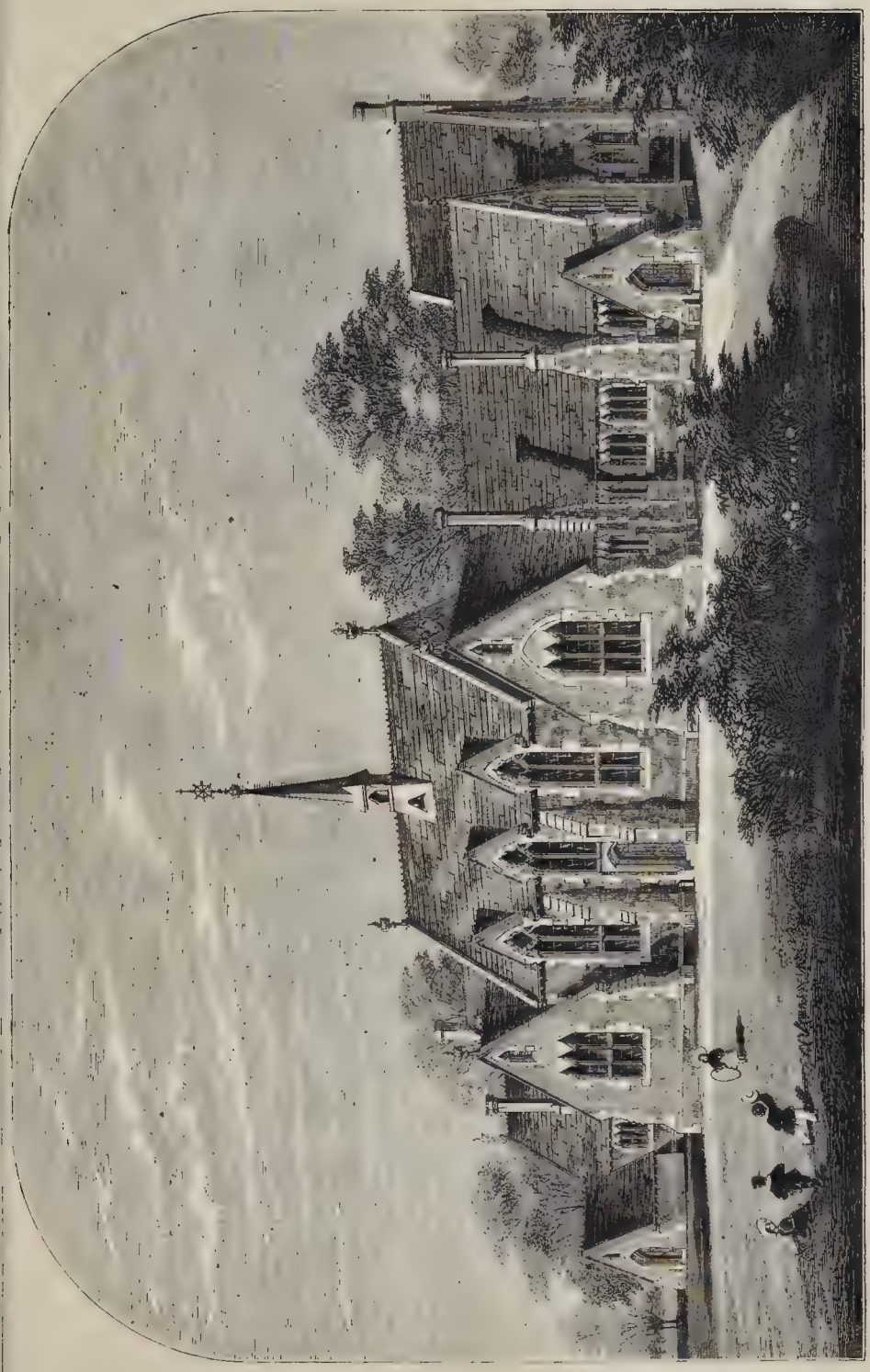
Q.

LUDLOW NATIONAL SCHOOLS.

These schools now in the course of erection, at Ludlow, are for the accommodation of 600 children—200 boys, 200 girls, and 200 infants, and have attached to them three distinct residences for a master and two mistresses. They are to be built of rubble masonry, arris pointed in blue mortar, with the windows, doors, dressings, and quoins of Bath stone. The infants' hall and school-room are to be lined with bricks. The roofs are of open timber work throughout. The design was selected in competition, and is the production of Mr. T. Nicholson, of Hereford, architect to the Hereford Diocesan Church Building Board. The builder is Mr. Coleman, of Chavill. The cost of the whole scheme, including the purchase of the site, fencing the ground, &c. will be about 2,400*l.* towards which the Committee of Council have made a very liberal grant of 900*l.* in consideration of the efforts of the committee to raise means in the neighbourhood, and the fact that the provisions of the plan fully meet their views.



PLAN OF LUDLOW NATIONAL SCHOOLS.



LUDLOW NATIONAL SCHOOLS.—MR. T. NICHOLSON, ARCHITECT.

MEETING OF THE YORKSHIRE ARCHITECTURAL SOCIETY.

The annual meeting of this society took place at Pontefract, on Tuesday and Wednesday in the week before last. The members assembled at All Saints' church, on Tuesday morning. After examining the old ruin, the party proceeded to the Castle, accompanied by Mr. Wood and Mr. Copley, both of whom, together with Mr. Fox, pointed out objects worthy of attention. Thence they proceeded to the Anchorite's Cell recently discovered in Southgate, after which they inspected the interior of St. Giles's. An adjournment then took place to the Elephant, where the annual public meeting was held. The room was decorated.

Major Waud presided, and in his address referred to the course too frequently adopted with regard to repairs of ecclesiastical buildings. The churchwardens, he remarked, having covered up every deficiency with plaster, had frequently concealed the open roof of the church with a flat ceiling, with cornices copied perhaps from the squire's dining-room. They had cut away the bases or capitals, and frequently the sides of pillars, for the most insignificant purpose—perhaps to make a more convenient seat for the churchwarden or the squire's lady. Many were aware of instances of this kind. They then covered all with plentiful coats of white and colour wash, and having thus succeeded in concealing or disfiguring most of the architectural beauty of the original church, they sought to hand down their names as benefactors of the church in a tablet bearing an inscription to the effect that the church was beautified and renovated, at such a time, by so and so, churchwarden.

Papers were then read, by the Rev. R. E. Batty, "On the Priory of S. Oswald, at Nostel," and by the Rev. Mr. Gatty, on "The Ecclesiastical Bell." A paper by Mr. J. W. Hugall, on "The Past and Present State of Ackworth Church, with some Topographical Remarks," had been announced, but the reading of it was postponed till the following day. The meeting then broke up, and a party proceeded to inspect the Priory-field, the Old Hall of the Talbots, the Stump Cross on the road to Ferrybridge, and the old Norman church at Birkin. They returned to the Elephant, and partook of dinner, Major Waud presiding.

On the following day the members and their friends had an excursion to see various churches and other objects of interest in the vicinity, as at Wragby, Ackworth (where the rector read the paper by Mr. Hugall, the architect of the church, in his absence, "On the Past and Present State of Ackworth Church, with some Topographical Remarks"), Badsworth, Kirk Smeaton, and Womersley. The excursionists then returned to Pontefract.

The next meeting may possibly be held at Doncaster, in conjunction with the Lincoln Society.

MANCHESTER.

New Workhouse.—The foundation-stone of a new workhouse was laid on 5th inst. The guardians succeeded in purchasing about forty-five acres of land, eligible as a site, on the Bougs Estate, at Crumpsall, about three miles from the centre of the city, for about 150*l.* an acre. One object of the new establishment was to get land so that the labour test could be properly applied. The stone was laid by Mr. Rickards, chairman of the board. The first range of buildings will contain, besides a porter's-lodge, on the left-hand side, a waiting-room, a bath-room, and a sleeping-room for females. The same arrangement prevails on the right-hand side for males. A courtyard, the central portion of which will be planted, divides these rooms from the principal range of buildings, which extends across the enclosure, being 420 feet in length. The central portion will be four stories high, and the wings three stories. The rooms for the principal officers will be in the lower story, at the centre; the upper stories being devoted to the female paupers. There will be two sets of day, washing, and bath rooms, those for able-bodied females being on the left side, and those for males on the right, all 12 feet high. The two ranges of rooms will be separated by a corridor extending the entire length, lighted at either end by openings in the ceiling, and through recesses in the walls. There will also be in this range a room or chapel 57 feet long and 18 feet wide, devoted to dissenters. In the basement story of this pile the domestic offices will be situated. The chapel for the inmates occupies a plot a little further behind, and stands detached from the main building. It is to accommodate about 800 persons. Still further in the rear is a third range, parallel with the others, and extending also across the enclosure. This will be three stories high. The central portion is for women with their children, and is to comprise two large day-rooms, with sleeping-rooms over them; the wings will be occupied, one by girls and the other by boys; for each of these there will be a school-room, day-room, dormitories, washing-room, and bath. The washhouse and laundry department, on a necessarily extensive scale, is still further within. The last range of buildings will have the general infirmary in the centre, four stories high; and the wings, three stories high, will be appropriated to the idiotic, epileptic, and imbecile paupers, male and female, accommodation being provided for 250. The general arrangements do not include a common dining-room, it having been found that where disturbances have occurred in the workhouse they have generally originated in these gatherings. The cooked food will pass from the kitchen (beneath the chapel) to a cutting-up room, and be there apportioned for the inmates. Four hoists will then convey it to four serving-up rooms, whence it will be forwarded on warm-water trucks to the day-rooms, for distribution to the several wards, where only about forty will dine together. Various yards are to be provided for the different classes of inmates, and every requisite for the active occupation of those capable of labour. The immediate accommodation to be provided is for 1,660 inmates, thus classified:—Able-bodied, male and female, 745; women, 76 (with infants, 76), 152; idiots, epileptic, and imbecile, 248; children under sixteen years of age, 255; reception wards, male and female, 60; hospital (for the requirements of the house), male and female, 200: total, 1660. It is intended that the aged and infirm paupers shall remain at the Bridge-street Workhouse. The plans were prepared by Mr. A. Mills, Messrs. Mills and Murgatroyd being the architects to the board; and in order to ensure every modern improvement, and the best form of construction, he inspected the chief buildings of this kind in the country, accompanied, in many instances, by a deputation from the board. After some modifications suggested by the board, or the clerk, they were finally sanctioned by the Poor-law Board. The contracts have since been let, and considerable advance has already been made in excavation, road-making, and building the arched cellaring. The contractors are—Messrs. D. Bellhouse and Sons for the carpenters, joiners, bricklayers, and masons' work; and Mr. Stephen Longdin for the iron-work, including the cisterns, which are all to be of this metal. The cost of the land, including the field for the road, is something over 13,000*l.*; the architect's estimate for the building is 37,000*l.*: making a total of 50,000*l.* There is to be no unnecessary expenditure in architectural display: the whole is to be substantial, the walls being of good red brick, with stone dressings in the more prominent parts.

St. Mary's Hospital.—The committee of this hospital having decided to erect a new building in Quay-street, the first stone, according to the local *Courier*, was laid on Monday before last, by the Bishop of Manchester. The plans selected are those of Mr. N. G. Pennington. From the principal entrance in Quay-street is the hall, 16 feet square, the walls having pilasters and an entablature of the Corinthian order. Fluted Corinthian columns and entablatures mark the division between the entrance-hall and vestibule. The vestibule and staircase are 30 feet by 22 feet, and 30 feet high, lighted from the top with an ornamental lantern light. The walls are decorated with ornamented pilasters, cornices, panels, and entablatures. Ascending a short flight of steps, the level of the library, museum, and lecture theatre floors are attained, and these are entered by large glass doors, with inscriptions overhead. A corridor, 5 feet wide, divides the library and museum, and is the means of access to the lecture theatre. The library and museum are each 18 feet by 24 feet, and have galleries half way up between the floor and ceiling for access to the books. Circular iron staircases descend from the ground-floor to the gallery floors in each room. The lecture theatre, lying behind the extent of the library, museum, and corridor, is 42 feet 6 inches, by 18 feet 6 inches. Both library and museum, as well as lecture theatre, are lighted with lantern lights. The rest of the ground-floor is appropriated to three prescribing rooms, a matron's parlour, and a board-room fronting to Quay-street; a waiting-room, 28 feet by 16 feet 6 inches; dispensary 16 feet 6 inches by 15 feet; drug store, and covered yard. On the first and second floors are ten wards, averaging 21 feet by 15 feet each, and four wards averaging 16 feet by 12 feet each. On the first floor is the ladies' committee-room, surgeon's parlour and bed-room, and matron's bed-room. There is also a nurse's kitchen and bed-room to each floor. On the second floor is an operation-room, 15 feet by 39 feet. Baths, lavatories, water-closets, and store-rooms are provided for each floor. The height of the wards from floor to ceiling is 12 feet in the clear. The elevation to Quay-street is Italian in design. From the ground-floor to the first floor the building is faced with ashlar stone, having rusticated pilars and entablature above. The principal entrance consists of Corinthian columns and entablature, with a carved archivolt round the doorway. The centre compartment is faced altogether with stone, and the windows have carved architraves and jambs. Stone cornice, parapet, and blocking surmount the whole.

The City Gaol.—This building, completed only about five years since, to contain 432 inmates, is already found to be too small: and at a late meeting of the City Council it was proposed to add 400 new cells. As to the cost of the proposed extension, the chairman of the gaol committee gave it as his own opinion that the work might be done for something like 24,000*l.*

New Churches.—Notwithstanding the badness of trade and severe taxation, we are glad to perceive that Manchester is now either actually building, or actively engaged in canvassing subscriptions for, no less than five churches—one in Hulme, another in Ancoats, another in Miles Platting, another again at the top of Rochdale-road, adjoining Collyhurst, and lastly one for the population of Cheetwood and Strangeways, to be built in Waterloo-road.

PROVINCIAL NEWS.

Lynn.—On all sides, says the *Norfolk Chronicle*, new buildings of a public character are springing up at Lynn. Last year the Athenæum and Corn Exchange were erected, and at present there are in course of construction a new union workhouse and public baths. The Mortuary Chapel, built three or four years ago in the South Lynn Cemetery, is being pulled down, it being rendered useless from the South Lynn burial-ground, under the new arrangement, forming part of the borough cemetery, and chapels being required in a different part of the ground, in the construction of which the materials will be used. Mr. Stimpson, who is building the baths, has also the contract for the chapels in the burial-ground, which will be immediately commenced.

Holbeach.—The building of the new Corn Exchange here is progressing: the walls are sufficiently high to lay on the roof. The alterations at the gas-works, which are being enlarged, are going on slowly. The present supply of gas is very limited, and the town is only indifferently lighted.

Melton Mowbray.—The opening of the Corn Exchange took place on Wednesday in week before last, by many of the directors, shareholders, and their friends, dining together in the New Hall. The building is situate in Nottingham-street, and is of red brick and stone. The principal entrance is approached by a short flight of stone steps. The flooring of the entrance-hall is composed of Minton's encaustic tiles, having three centres, which were presented to the directors by Mr. N. Whitchurch. There is

a room on the right hand side for the Melton Public Library, and on the opposite side is a room devoted to the Savings' Bank. The upper rooms are approached by a stone staircase: one of them is used as a news-room. The Corn Exchange room is at the back of this building, the entrance to which is under a glass roofing. The hall is 80 feet long by 40 feet in breadth, and 35 feet in height: the roof is principally composed of Hartley's rough plate glass, and there are no other windows. Over each of the fireplaces is carved stonework. The walls of the room are panelled, in which provision is made for a system of advertising by placards, and between the panels there is a ventilating apparatus. The architects of the building were Messrs. Malinson and Son, of Nottingham; and the builder, Mr. Norman, of Leicester.

Weymouth.—Measures are now about to be taken towards ensuring an efficient supply of water for the whole of this borough. Mr. Hawkesley has been appointed engineer to superintend the works, which will produce a constant supply for the whole of the town.

Southampton.—The Southampton Dock Company are constructing a dam at the entrance of the middle graving-dock, to enable them to lower the sill and apron 18 inches: the grounding blocks being also lowered, will give a greater depth of water inside.

Ashton-under-Lyne.—The ceremony of laying the foundation-stone of the Odd Fellows' Hall about to be erected in Stamford-street, Ashton-under-Lyne, took place on Saturday before last. It is estimated that the building will cost 3,500*l.* Besides the usual committee and other rooms for business purposes, space is to be assigned for library, reading, and conversation rooms, and the society will confer an important benefit on the town by erecting baths of the usual description, including a spacious plunge bath, which are to be available to the public at a small charge.

Preston.—There has just been completed at the works of Messrs. John Hawkins and Sons, cotton spinners, the highest chimney in Preston. Its height from the foundation to the top of the stone cap, is 258 feet; width at foundation 34 feet; width at ground line, 26 feet 6 inches; width of brickwork at top, outside, 7½ feet; inside, 5 feet 2 inches; extreme width of stone cap, 12 feet, and projection 2 feet 2 inches. The weight of the stone cap is 31 tons. The number of bricks used in the erection was 440,000.

Rotherham.—The engines at the new waterworks have been set a-going, and water for the first time introduced into the new mains and works. The works of drainage are also now on the point of completion. The water-works pumping station at the river Don consists of a covered reservoir for 200,000 gallons; two condensing steam engines, with pumps and four boilers, to supply the motive power; engine and boiler house, &c. Two service reservoirs have been made, one at Boston Castle, nearly 300 feet above the lowest part of the town, and the other at the highest part of the village of Kimberworth. The whole district to be supplied lies between the pumping station and the two reservoirs; and the mode of supply will be to raise the water at the pumping station to the level of the reservoirs, and from this level send it through the district by means of cast-iron street mains, already laid. The surplus will pass into the service reservoirs as a store, whence it will return for the supply of the town during the night, on Sundays, and at other times when the engines are not at work, so that the supply will be permanent. The Boston reservoir will contain 600,000 gallons, being a supply for a day and a half at the rate of twenty gallons per head per diem, for a population of 20,000,—a number which much exceeds the present population of Rotherham and Masbro'; and the Kimberworth reservoir will contain two days' supply for that village.

Rossendale.—The reservoir at Higher Stack, nearly a mile from Bacup, on the Rochdale-road, is now nearly completed. Its dimensions are—length, 453 feet; breadth, 330 feet; depth, 25 feet. It is calculated to contain nearly eight hundred millions of cubic feet. Its embankments are 150 feet broad at the bottom, narrowing to 14 feet at top. An auxiliary reservoir is formed on the other side of the valley, draining Stubby Lee Moss and Lee Wood. The waters are conducted through an iron aqueduct, 18 inches in diameter, to the principal one.

CHURCH-BUILDING NEWS.

Oakengates.—The first stone of a new Methodist Reform Chapel was laid there on 30th ult. The building, which will be plain and rather small, after a design by Mr. Davies, is to be raised by Mr. J. Millington, of Ketley, at a cost, we believe, of 260*l.* The work is to be superintended by Mr. J. Peplow, of Oakengates.

Boston.—The cemetery at Boston, in Lincolnshire, has been consecrated. The cemetery contains about twelve acres of land. The buildings consist of two chapels and a lodge. The chapels, which are 200 feet apart, are in the late Decorated style: the walls are built of white bricks, and the open parapets, pinnacles, spire, window, and other dressings of Ancaster stone. Each chapel has a tower and spire, 70 feet high. The label terminations, and the corbels and bosses of ceiling were carved by Jackson, of York. The cost of the chapels is about 600*l.* each. The lodge contains a board or waiting room, two living and three bed rooms, and is built of red bricks, with stone dressings. The buildings were erected from the designs of Mr. Pritchett. Messrs. Baker and Sons, of London (late of Sleaford), were the contractors.

Chelmsford.—A site for a Church of England Cemetery for the town of Chelmsford, has been selected on the Broomfield-road, and about 1,000*l.* have already been subscribed for the purpose, the list being headed with 200*l.* by the rector. It is not intended to erect a chapel for the present.

Romsey.—The first stone of the new vicarage house was to be laid on Monday or Tuesday last, by Lady Palmerston.

Brighton.—After a lapse of two years, says the *Brighton Herald*, a monument has been erected to the memory of the Rev. F. W. Robertson, over his grave, in the Brighton Extra-Mural Cemetery. The expense of this work (about 180*l.*) has been defrayed out of a public subscription. The stone-work of the monument is very simple, being composed of four large upright slabs of Anston stone, surmounted by a larger block of same material,—in height, about 8 or 9 feet. The first impression it produces is one of disappointment, suggestive of the want of some crowning object. There are two electrotype medallions inserted in the stone, descriptive of phases in Mr. Robertson's public career.

Newton-le-Willows. — On Sunday in week before last, St. Peter's Church, Newton-le-Willows, was re-opened for divine service, after undergoing various repairs and decorations. It has been reseated throughout; new windows of cathedral glass have been inserted; and an east window of stained-glass has been given by the Rev. Peter Legh, the incumbent. It is expected that two memorial windows will also be contributed.

Headcorn.—The restoration of Headcorn Church, under Mr. Joseph Clarke, has been completed, and the church re-opened. An entire new roof has been placed over the south chancel, and covered with lead; it is divided into bays, and panelled with moulded principals and cross timbers; the roof over the south chancel has been taken off, and restored. The tower arch is thrown into the church by the ugly gallery being removed. The chancel roof is new, and boarded in oak under, and divided into diagonal panels by moulded ribs. The square pews which filled up the chancel, are removed, and oak stall seats substituted. The south aisle and a part of the nave have been reseated with open benches in pitch pine. Mr. W. Giles, of Ashford, was the builder.

Kingston.—The parish vestry of Kingston, says the *Taunton Courier*, having resolved to thoroughly repair and restore the church, and to raise the necessary funds by a church-rate, the execution of the work has been entrusted to Mr. R. White, of Taunton, surveyor, who, we understand, will commence operations immediately.

FRANCE.

We learn from the French newspapers that the new building just finished on the Boulevard Mazas near the Barrière du Trône, intended by the Empress for an educational establishment, has just received the following inscription over its principal entrance—"Maison d'Education pour les Jeunes Ouvrières, fondée en 1855 par Sa Majesté l'Impératrice Eugénie."——Twenty-seven out of the sixty statues which are to ornament the terraces of the new Louvre have already been placed in the positions which they are to occupy.——The first stone of the Musée Napoléon, at Amiens, has been laid.——It is said that the cost of the lighting of Versailles during the splendid *fête* given to her Majesty was 6,520*l.* The ball given at the Hôtel de Ville cost 12,000*l.*——At a recent meeting of the Academy of Sciences, M. Dumas presented a work offered by the author. M. Le Play, head engineer in the mining department, and commissioner-general for the Universal Exhibition, the title being "Researches concerning the Labour, and Domestic and Moral Condition of the Labouring Classes in Europe." More than 300 complete statements of the situation of labouring families, selected in countries beginning at Cadiz, and including Siberia, thus embracing every situation in Europe, have been collected and minutely investigated by M. Le Play.

COMPETITIONS.

The Birmingham and Midland Institute.—The committee have selected the design of Mr. E. M. Barry. It is in the modern Italian style. The local journal says, a rusticated base on the ground-floor supports a façade of slender pilasters, crowned by an entablature and cornice, the windows being decorated, but there is an almost entire absence of shadow, arising no doubt in a great measure from the form and confined nature of the ground, and this will be observable in a greater or less degree in all the designs with one or two exceptions, and is moreover an evil we must be content to bear when we consider the price of land in the very heart of such a town as Birmingham. The centre of the main front and the sides of the wings in Paradise-street, rise a story higher than the rest, and in the north and south elevations form imposing entrances to the Industrial Department and the Department of Ornamental Art, the latter fronting to Paradise-street. As this end is also placed the Theatre, which is of a quadrantal form, following the sweep of the ground. In the lobby of the entrance to this theatre is a staircase leading to the Department of Ornamental Art. The grand entrance to the General Department is in the centre of the façade, parallel to the side of the Town-hall, and consists of a portico of five arches, leading into a loggia and grand staircase, with corridors traversing the entire length of this portion of the building. Right and left on the ground-floor are arranged a museum, a repository for mining records, a meeting-room, and committee-room; on the first-floor, a library, news-room, and museums. The Industrial Department is entered in Edmund-street, and in that portion of the plan of the building, when completed, is a coffee and club-room of a semi-circular form, the ceiling supported by Corinthian columns. The various class-rooms are situated on the upper floors. The communication throughout appears to be well kept, with a trifling exception, which an unimportant transposition of a few rooms would easily remedy.

The Milton Club.—A limited number of invited architects are now making designs in competition for a hall for the Milton Club, Ludgate-hill. Each competitor will be paid a certain sum for office expenses.

Gratuitous Plans.—Some of your correspondents seem to be indignant with a committee, who recently advertised for gratuitous plans for a chapel, and one of them considers that this may probably mark the commencement of a new era in competitions; it is, however, only a vigorous carrying out of the old system. Of course it would be impossible to say whether so economical an advertisement will be responded to; but if a guinea had only been held out as a prize, the advertisers would have secured more plans than they could ever have done justice to. It seems, therefore, under these circumstances, unfair to blame committees, who, after all, only discharge faithfully the trust committed to them; for if they employed an architect, and paid him a commission, they might fairly be asked why so much money was paid for a single set of plans, when a mere fraction of the amount judiciously expended might have produced twenty. The cause is, as I have before attempted to point out in your journal, that there are three times as many architects in the kingdom as can live by their profession. Architects as a rule are recruited, unlike some of the other professions, from among the humbler walks of life; their slender patrimony, if they possess one, is often unable to support them

during long intervals that elapse between their employment; and hence it is, that the smallest premium always brings such a deluge of designs. If committees, therefore, can procure plans, and those often good ones, so cheaply, they will certainly continue to do so, and all indignation-meetings, or protests, and all the unkind things that can be said regarding them, will be so much lost labour; for to all this, their unanswerable reply would still be, if they chose to trouble themselves about the matter, that while they could obtain designs in such overwhelming numbers to choose out of, and that so very cheaply, they would not foolishly to pay a much larger sum of money for a single set of drawings. It might be well, therefore, if some of your correspondents who seems so anxious to remedy matters, would turn their attention to the real source of the evil, and for the present expend no more time in philippics against committees.—A. R.

WASH FOR OUTSIDE WALLS.

Your correspondent, "T. W." in a previous number, inquires for a cheap and durable substitute for paint on outside stucco.

Such an article is extensively used in this part of Devonshire, and is prepared in the following manner:—To a half bushel of stone lime put one gallon of raw linseed oil, the lime to be first wetted with sufficient water to cover it completely over, and the oil to be added when in its boiling state. It can be tinted according to taste with any common colours. The above ingredients are sufficient to colour at least 500 yards. Care should be taken to clean the surface well before using the colour. If two coats of the colour be given to the wall, it adds much to its beauty and durability.

The above, if mixed and laid on with care, will stand the weather, and keep its appearance equal to paint for three or four years. W. A. G.

I will solve the secret (but not with soap) of mixing oil with water-colour, thereby rendering it much more durable and impervious to wet: it is by mixing fresh quicklime with hot water gradually, till it becomes the consistence of thick cream; if boiled linseed oil be now added while it is hot, and well stirred, it will become perfectly amalgamated; sufficient water is now to be added, to make it a proper consistence, and it may be coloured with a little umber, yellow ochre, and Venetian red.

For rough work, gas tar may be substituted for boiled oil, the smell of which will be gone in a few days. This does not require any colouring.

White lead or paint is expensive and useless.

Chemicus.

HUTS FOR THE CRIMEA.

Messrs. William Cubitt and Co. of the Gray's-inn-road, and other large firms, have been for some weeks past employed in preparing portable huts for the Crimea, in accordance with the plans of the Board of Ordnance, by which the huts being built in sections or compartments can be packed in a comparatively small space, and can be easily put together by simple contrivances. A considerable portion of them are finished and shipped, and the rest are advancing to completion with a rapidity which must astonish all who are unacquainted with the appliances of a large building establishment.

There are different kinds of huts to be sent out, some of which are covered with a single thickness of boarding, and the others with a double thickness.

The single boarded huts are 32 feet by 16 feet, and 76 feet by 16 feet, in the clear, and will accommodate respectively twenty-two and fifty men. The sides are prepared in panels, 6 feet high by 4 feet wide, composed of rough framing, covered with weatherboarding. These are secured together by means of screw bolts and nuts. The sills at their junctions lie in cast-iron shoes. A certain number of these side panels are prepared with small frames, in which sashes are hung on centres, by which light is admitted to the huts. Each end is formed of five compartments, the centre one being a door-frame and door, with hinges and lock; those on either hand being panels of framing, and weatherboarding bolted together; above these, bolted to the head-pieces, are two spandril-shaped frames, to form gables, covered with weatherboarding, and bolted together. In each spandril is a small frame, filled with louvres for ventilation. The roof is formed of similar panels, 9 feet 6 inches long by 4 feet wide, the tops bolted together, and the feet bolted to head of sides; the joint at top is made weather-tight by a saddle-back ridge, which runs the whole length of hut. The side pieces of roof panels or rafters are bolted together, and at each edge a fillet is nailed, standing up above the boarding,—two fillets being thus close together; at the joint are covered by a solid grooved capping to keep ont the wet. Ventilation is obtained on the roof by cutting square holes at the top of corresponding panels in the boarding only, and nailing fillets on the raking sides of the holes: pieces of zinc are then nailed over the openings, leaving a narrow orifice at bottom for ventilation. The roof is tied together by collars, one to each panel, bolted to rafters. The flooring of these huts is prepared in panels, 5 feet 4 inches by 4 feet, formed of two thicknesses of ⅞ in. boarding, nailed together. These panels are notched where necessary, to fit the upright timbers of hut, and are nailed down to sill of sides and ends and to two sleepers, which divide the floor into three longitudinal compartments or bays of 5 feet 4 inches each.

The interior of these huts will be covered with sail-cloth hung to hooks.

Another description of hut is 76 feet long by 16 feet wide, and is to accommodate fifty men. The sides are divided into nineteen bays, 4 feet wide each, by posts, 4 in. by 3 in. those at angles being 4 in. by 4 in. tenoned at each end, grooved for panels. A head and sill run the whole length of hut, the former mortised to receive posts, the latter mortised for posts and grooved for panels.

The panels are formed of weather-boarding, with an inner lining of ⅞ upright boarding nailed in. The inner lining projects beyond the weather-boarding all round, thus forming a tongue which fits into the groove in posts and head, and the weather-boarding fits exactly the space between posts, &c. Five of the bays in each side have sashes and frames. In these the panels fit in under sill of sash-frame. The ends are divided into five bays by similar posts, with head and sill, the centre bay having a door and frame, two bays on either hand being filled with panels similar to those at side. The gables are in all respects similar to those of huts Nos. 1 and 2, and are bolted to head-pieces of end-framing.

The roof is formed of skeleton frames composed of rafters, head-sill, and purlins, each pair of corresponding frames being tied together by a collar bolted to the rafters. The sills of these frames are bolted to head-piece of side-framing, and the tops are secured together by hook-and-eye fastenings. On each of these roof-frames are laid two panels formed of weather-boarding lined with ⅞ boarding, and having sheets of felt between the thicknesses. The horizontal joints between the two panels are made water-tight by a strip of sheet-iron lying under the weather-boarding of upper panel, and overlapping that of lower one. The panels are secured to purlins of roof-framing by thumb-screws and plates, the raking joints of roof panels and ridge are made weather-tight in the same manner as to the other huts. Ventilation will also be obtained to these huts as to Nos. 1 and 2. The flooring is exactly similar to that described for Nos. 1 and 2.

A fourth description of hut is intended to accommodate eight officers. It is constructed similarly in all respects to No. 3, and differs only in size and arrangement. It is 36 feet by 20 feet in the clear, and is divided into two main compartments by a transverse central passage having a door at each end. The partitions forming this passage are of grooved posts, head, and sill, as before described, filled in with 1 in. ploughed and tongued boarding, ledged. Each of the main compartments is subdivided into two chambers, suited for two officers each, and separated by partitions similar to those forming the passage. Each chamber has a door communicating with the passage and a sash as described to the other huts. The ventilation to the huts is similar to that already described.

THE METROPOLITAN DRAINAGE QUESTION.

HOW TO GET RID OF THE THAMES.

A tract, titled "The Improvement of the Drainage into and the Cleansing the Waters of the Thames," by Mr. George Burge, the contractor, has been printed, in which several modes of settling the Thames question are proposed. The first of these, so far as we can understand its rather curt phraseology, consists in an improvement of the drainage into the Thames by the purchase of all property below, or level with, high-water mark (as in Bermondsey, Lambeth, and Vauxhall, we presume), and filling it "up to a little above high water," so that continuous drainage in place of tidal would be secured by draining to high water mark only and not to low. "Millions of money," Mr. Burge remarks, would thus be saved. Connected with this scheme there are reservoirs and filter-beds, sewers to Barking-creek, &c., but nothing further so original as the filling up of the Surrey side. The next scheme Mr. Burge calls "the best and cheapest method of introducing railways into the City and suburbs of London," and it seems to consist in simply building a quay wall across the Thames, "from Queenhithe, Thames-street, to the point opposite on the Surrey side, and so to stop the water back on the east side," and "then to fill up the river from thence to Hammersmith, making sufficient space for all the various railways to run over this embankment." In thus virtually saying to the river on one side, and to the sea on the other, "Thus far shalt thou come, and no farther," Mr. Burge appears to have forgotten to state what he means to do with the river itself, unless it be that in incidentally remarking that it "can be made available for the supply of London and the vicinity," he considers that he has thus satisfactorily disposed of it. Our only fear is, that the "supply" would be *rather* superabundant, and scarcely satisfactory; but even though the Thames were really to be disposed of bodily and wholly, through metropolitan domestic half-inch pipes, the metropolitan population, large as it is, can scarcely be conceived to be capable of swallowing it all up in culinary purposes; and still, therefore, we should have to ask Mr. Burge what *are* we to do with it when we *have* done with it? The acute lad who is said to have stopped up the head spring of the river with his finger, and boasted that now he had astonished the Cockneys by drying up their river, seems to us to have suggested a better way of getting rid of the Thames than this. But seriously, Mr. Burge, a matter-of-fact and shrewd contractor, must have some intended mode of disposing of the river, whether by a deviation of its course into some new channel or otherwise; and certainly it is a very strange oversight to say nothing at all on a point so vital to his own vast scheme as this is.

Miscellanea.

Where are the Builders? — The *Harrow Gazette* says,—"The demand for houses at Harrow has never been so great as during the last year, and particularly the last two or three months. The class of houses generally required are those at rents varying from 40*l.* to 60*l.* Suitable building land can now be had, and it is a matter of surprise to us that parties do not come forward to build on a large scale, as we feel confident that the speculation would answer, and return a large rate of interest. Harrow is well drained, supplied with an abundance of pure spring water, and will shortly be lighted with gas. The London and North-Western Railway Company have liberally offered to the occupiers of all new houses erected here, of the annual value of 50*l.* and upwards, a free first-class pass to and from London for eleven years. Harrow for healthfulness stands second to no place in the kingdom, and its Educational Establishment is equally as pre-eminent."

The New Act to provide Dwellings for the Labouring Classes.—The Act for facilitating the erection of dwellings for the labouring classes was passed on the day of prorogation. The Act may be applied to the United Kingdom, except Scotland. The preamble states that it is expedient that facilities should be afforded for the erection of "healthful and commodious dwellings;" and with this view a company may be formed, by subscribing articles of association in the manner described. Every company incorporated under the Act is to be established for the purpose of providing dwellings for the labouring classes, with or without private gardens, or with or without common gardens, or places of common recreation for the use of the inmates of such dwellings, "and for no other purpose whatever." The regulations as to drainage, ventilation, and water, are set forth, to be approved of by the General Board of Health, whose officer is at all reasonable times to inspect the dwellings erected under the Act. Among the provisions is one authorising the imposition of fines if the dwellings are not kept in a proper condition.

Fire at Messrs. Baker's.—Very extensive premises and stock at New Stangate-wharf, Lambeth, belonging to Messrs. George Baker and Son, builders, were unfortunately destroyed by fire on Tuesday morning last.

Society of Antiquaries, Newcastle-upon-Tyne.—The September meeting of this society was held on Wednesday before last, at the Castle. Dr. Charlton reported, on the part of the sub-committee appointed to confer with the corporation as to the Black Gate, that it seemed to be the fixed intention of that body to build up and conceal this relic of antiquity, almost as much as before. The Duke of Northumberland had viewed the Black Gate as it now stood, and was very anxious, for the honour of the town and the sake of archæology, that it should not be again hidden, in building upon the space between it and the railway arches. The Chairman regretted to hear this report; and such was the general feeling of the meeting. Dr. Charlton submitted plans, prepared by Mr. Dobson, of the proposed room over the hall of the Castle, to serve as a Museum of Antiquities. It was believed, he said, by many of the members, that this would simply be a restoration of a room originally existing. The estimated cost was 134*l.*

THE LION-HUNTER.—The views with which Mr. Gordon Cumming illustrates his interesting and well-delivered lecture in Piccadilly, descriptive of his achievements, were painted by Mr. Harrison Weir, Mr. Haghe, Mr. Leech, and others, and although various in quality, are for the most part life-like and satisfactory. We should particularly mention elephants drinking at night. The exhibition as a whole, including as it does these views, the fine collection formerly in the Chinese Exhibition, at Knightsbridge, a graphic and startling account, some characteristic music, and the very extraordinary man himself, who is just as much at home in the drawing-room as in an African jungle, *tête-à-tête* with his "first lioness," cannot fail to be popular.

A TESTIMONIAL, in the shape of a service of plate, has been presented to Mr. C. J. Thicke, as founder of the British Mutual Loan Classes, by members of the classes. Mr. Hamber, who was in the chair, said the estimation in which the classes were held was proved by the fact of their having exhausted the alphabet in giving a letter to each class, and now, in addition, numbering to fifty, making advances daily to those who require them, in amounts equal to, if not exceeding, 1,000*l.* a week. We can say from personal knowledge that the testimonial was well deserved.

CAMBRIAN ARCHÆOLOGICAL ASSOCIATION.—The ninth annual meeting of this association was commenced at the Town-hall, Llandilo, on Monday, the 27th ultimo; on Earl Cawdor's proposal, Lord Dynevor took the chair, in the unavoidable absence of Mr. West, the president. The Rev. James Allen, general secretary, read the report of the committee, which was regarded as exceedingly satisfactory. The first paper was by Archdeacon Williams, on Carregcennan Castle, and was read by Mr Banks. The next communication was one from Mr. J. C. Westwood (read by the Rev. H. Longueville Jones), respecting the Inscribed and Sculptured Stones in the county. On Tuesday morning an excursion to Carregcennan, Llygad Llwchur, &c. took place; and in the evening a meeting was held, at which Mr. Babington gave an account of the objects examined in the morning, with his own views on them. The first paper read was by Mr. J. T. D. Llewelyn, on the opening of a cairn at Carngoch, north west of Swansea. Mr. L. Jones read a paper, by Mr. L. Parry, on Tre'r Ceiri, an ancient British fortress in Carnarvonshire; and Mr. T. O. Morgan read one on the Divisions, Ancient and Modern, of the County of Caermarthen. Mr. L. Jones also read a paper on the Armorial Bearings of the Prince of Wales; and Mr. C. C. Babington one on Caercaregyfran, a Cyclopian Fort at the Pass of Llanberis, in Carnarvonshire. On Wednesday an excursion was made to the hills of Gogafou, to Cynwil-Caeo, Dolaucothi, and other places; and in the evening the president and Mr. Bury reviewed the proceedings of the day. Mr. Knight read a paper on Mining and the Gogafou Mines. On Thursday another excursion took place to Golden Grove, the seat of the Earl of Cawdor, and to Llanarthney and other places of interest; and on Friday the party proceeded to Garngoch. In the evening Mr. L. Jones read a paper on Offa's and Wat's Dyke; and Archdeacon Williams one on Garngoch.

THE O'CONNELL MONUMENT IN GLASNEVIN.—A fresh impulse, we hear, has been given to this work, and some of the outstanding subscriptions are at length beginning to come in. Great progress has already been made with the monument. The round tower has been carried to a height of about 100 feet, and its elevation will yet be considerably greater; but the round tower is only a portion of the monument as designed by Dr. Petrie. The expiatory chapel of ancient Irish architecture, and the stone cross of the ancient Irish model, form, it seems, indispensable features of the work; and to erect them the funds of the committee are utterly inadequate.

THE SUSSEX ARCHÆOLOGICAL SOCIETY AT WORTHING.—Last week a quarterly meeting of the Sussex Archæological Society was held at Worthing. The church of Broadwater, a fine Norman church, which is undergoing thorough restoration and repair, chiefly at the expense of Mrs. Thwaites, was the principal object of the archæologists. The choir is undergoing restoration, including a painted east window, sedilia, miserere stalls, &c. The works are being carried out by Mr. Charles Hide, architect, of Worthing. Mr. Hide pointed out to the assembled archæologists the peculiarities of the structure, and explained his *modus operandi* in bringing into their original position the walls of the choir, which had become 18 inches out of the perpendicular. At a meeting held at the Literary Institution at Worthing, for the despatch of business, Mr. Blaauw read an extract from a record, of the time of Edward I. respecting a valuation of goods at Sompting, near Worthing. Mr. Lower read a paper on the family of Miller, of Winkinghurst and Burghill, from materials drawn up in 1723.

CITY BATHS AND WASH-HOUSES.—The petition to the Mayor and Corporation, unanimously adopted by the Guardians of the West London Union, has been printed. The great social problem to be developed, it remarks, is the improvement of the lower orders of society, and the fitting of them to be that basis which shall uphold all above them in security and prosperity. Believing this firmly, it continues, the Guardians of the West London Union conceive that if, by this appeal, they should succeed in stimulating the Corporation of London to the erection of baths and wash-houses for their district, which is almost exclusively populated by the poorer and industrious classes, the richer mostly living out of town, they will be giving a direction to its revenues which will not only do honour to the Corporation, but confer a lasting benefit on the present age, and on distant posterity.

METROPOLITAN COMMISSION OF SEWERS.—At a recent meeting of the Commission, the secretary read letters from the churchwardens of St Paul's, Coventgarden, and from Mr. S. Hughes, a parishioner, requesting the commissioners to proceed with the works ordered to be executed in Bedford-street, and which had been stopped in consequence of the alarm as to the late outbreak of diarrhœa in Bedford-street. It was resolved that the works be immediately proceeded with. The house-drainage question is now in course of practical settlement under the Sewers (House) Drainage Act. At a late meeting of the commission, it was arranged that the works requisite in Castle-street and Nottingham-court, St. Giles's, belonging to a gentleman named Veal, should be done by the commissioners on estimates, by their surveyor, which were admitted on the part of the proprietor to be very moderate, and which it was agreed that he should pay. In another case in regard to drainage works requisite at No. 2, Short's-gardens, King-street, Longacre, the Court consented to make an order—the first, we believe, of the kind under the new Act of Parliament, for the payment of 66*l.* 11s. 4d. in this manner, namely:—4*l.* 8s. 9d. per annum for ten years, leaving the remainder, or 19*l.* 3s. 10d. to be liquidated after the expiration of the interest of the leaseholder, either by the owner of the property or by a successive holder of the lease.

NASMYTH'S WROUGHT-IRON CANNON.—The *Manchester Guardian* announces the failure of Mr. Nasmyth's monster gun, not on account of the mechanical difficulties which had to be encountered—formidable as they were—but from a most unexpected peculiarity in the material employed, when brought together in so large a mass as was necessary, and which consists in a process analogous to crystallization taking place within its substance during the protracted time of cooling, whereby the fibrous texture, from which it derives its tenacity, is destroyed, and it becomes even less capable than cast iron of resisting the explosion of a heavy charge of gunpowder. The experiment has consequently been abandoned. We are rather surprised at this result,—not that the sustained incandescence of so great a mass of iron should allow its particles to settle into a crystalline and brittle form, but that such should have been the method adopted, and that the experiment should have been abandoned on its failure. We had an idea that so immense a mass of ordnance as this was designed to be, would have been as it were built up, by help of the steam hammer, in twisted, tough, and well-worked layers, all welded together one after another, so that no great mass would have ever been at once in a state of long-continued incandescence. In this way it seems obvious that almost any amount of resistant power might be obtained.

GENERATING STEAM BY PEAT.—A series of experiments have of late been conducted at the engineering works of Messrs. Gwynne, Essex Wharf, Strand, to ascertain the relative power of peat in comparison with coke, when used in the generation of steam. The experiments were considered favourable to the use of peat, and one circumstance, it is said, was especially noticeable—the total absence of smoke, so perfect was the process of combustion, which would seem to indicate peat to be the fuel for general use where smoke-consuming furnaces have failed in operation, or where, owing to existing sanitary regulations, the use of coal is inexpedient and impracticable.

THE FIRST TIMEKEEPER MADE OUT OF CLAY.—M. Raby writes, from Paris, that this great industrial achievement was deposited at the Exhibition on August 22, and that it was inspected by the Queen and Prince Albert. All the works, plates, cogs, and wheels, are made of aluminium; and M. Raby believes it is much better for purposes of this kind than the other metals generally employed. It is much lighter, does not require so much power to conduct the wheels, and, therefore, with a heavy balance, will obtain a better result of regularity. It is very hard and smooth when hammered, and the friction will be reduced to almost nothing.

MR. GOURLAY, of Edinburgh, whose name is not unknown to our readers, offers six prizes, of twenty guineas each, for the best designs for carrying into effect certain proposed improvements. The designs requested are:—a cast-iron bridge from the Carlton Convening Rooms to St. James's-square; a level road from Prince's-street to the Grassmarket, tunnelled through the High-street; a level bridge from Prince's-street to St. Giles's Church, with an opening into Bank-street; a quadrant from John Knox's Church, extending along the north slope of the High-street to the blind arches of the North-bridge; an alteration of Castle-terrace, involving the demolition of several buildings; a bridge from the Carlton-hill to Ireland's Woodyard, where Mr. Gourlay proposes to place Trinity College Church.

ELECTRO-TELEGRAPHIC PROGRESS.—A project has been submitted by Signor Bonelli, of Turin, to the Governor of Malta, and by him to the British Government, to execute in two months, at the expense of 10,000*l.* the junction of Malta with Cagliari, in Sardinia, by one of the telegraph cables of his own construction. Lord Panmure has requested to be informed, without loss of time, what portion of the estimated amount would be contributed by the island treasury. Signor Bonelli has also proposed a more extended plan of operations, by continuing the chain to Candia, and from thence two branch lines,—the one to the Dardanelles, the other to Alexandria, in Egypt. This latter course would, it is estimated, require 60,000*l.* and six months' time.

TENDERS

For additions and alterations to be performed at Nos. 15, 16, and 17, Cheapside, for Messrs. Welch and Margetson. Messrs. Tillott and Chamberlain, architects. The quantities supplied:—

Myers	£5,300	0	0
Holland and Co..	5,148	0	0
Piper and Son	4,840	0	0
Brown and Co.	4,594	0	0
Haynes and Eyre	4,590	0	0
Brass and Sons	4,536	0	0
Rider	4,240	0	0
Lawrence and Sons(accepted) ...	4,185	0	0

For building Offices and Sanitary Show-rooms, for Mr George Jennings, on his Wharf, Holland-street, Blackfriars:—

Friend	£1,845	0	0
Marsland	1,831	0	0
Rider	1,810	0	0
Lawrence and Sons	1,794	0	0
Taylor and Co.	1,775	0	0

For alterations to Seven Houses at Clapham-road, for Mr. W. H. Smith. Mr. Benham, architect. Quantities by Mr. Carter:—

I'Anson	£1,986	0	0
Fox	1,900	0	0
Brown	1,867	0	0
Curtis	1,826	0	0
Wilson	1,771	0	0

TO CORRESPONDENTS.

"S. A."—"M. S."—"J. D."—"No Slavie."—"Slag."—"G. J."—"Lieut.-col. H."—"R. B." "G. P." (thanks).—"S. N." (through the Government Military Schools, or conduct in the ranks.—"C. A. W."—"J. W."—"R. B."—"E. H. D."—"Old Subscriber."" "J. S." (apply to a patent agent).—"T. H."—"S. H."—"J. B." "J. J. K."—"C. B."—"E."—"R. J. H."—"W. G. J."—"S. R." "M. G. D." (thanks).

"Books and Addresses."—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

BOROUGH of GATESHEAD.—To ENGINEERS and SURVEYORS.—Notice is hereby given that the Office of SURVEYOR and INSPECTOR of NUISANCES to the Corporation of Gateshead will become VACANT on the 11th NOVEMBER next. Candidates for the appointment may forward testimonials of qualification and competency, addressed to the Town Clerk, Townhall, Gateshead, before MONDAY, the 29th day of OCTOBER next, on which day the Committee appointed by the Corporation will meet at TWO o'clock in the afternoon, to receive and examine applications and testimonials of candidates. The duties of such Surveyor will comprise the usual business of the Corporation, including that of the Local Board of Health and the Gateshead Quay Commission. A candidate must be familiar with the practice of engineering in connection with works of water supply, gas, drainage, sewerage, and surface cleansing—competent to conduct surveys, prepare plans, drawings and estimates of works of every description, and able to superintend the execution thereof; test the materials, and see to the fulfilment of the conditions of the contract for executing such works. The whole time of the Surveyor is to be devoted to the duties assigned to him and he is to be restricted from undertaking any other employment. Salary, £300 per annum.—Candidates are to state their ages in their applications, but are not required to attend personally before the committee, unless specially summoned. The successful candidate is required to give security for the faithful discharge of his duties by the bond of himself and two sureties in 500*l.*—*By order,*

G. J. KENMIR, Town Clerk.

Town-hall, Gateshead, August 29, 1855.

GLASS TRADE.—WANTED, a Person who has experience in the Trade, as TRAVELLER, in Town, and elsewhere, as occasion may require.—Address, by letter, to the first instance, stating qualifications, reference, &c. to A. B. C. Office of "The Builder."

J. McLANDSBOROUGH, CIVIL ENGINEER and SURVEYOR, of 34, Queen's-gate, Bradford has a VACANCY for an ASSISTANT, qualified for field and office duties. He must be a neat draughtsman, as well as a good surveyor and leveller. If experienced in construction, and accustomed to sewerage and waterworks, will be preferred.—Address as above, stating age, terms, &c with testimonials enclosed.

TO BUILDERS' CLERKS.

WANTED, in a BUILDER'S OFFICE, a respectable Young Man as CLERK. None need apply but those who have been engaged in a similar capacity, and have had some practic l experience at the bench. Apply by letter only, stating age, salary required, and where last engaged, to C. B. Office of "The Builder."

WANTED, a CLERK of WORKS, to undertake the erection of a building in the country. Apply by letter, addressed A. B. Office of "The Builder," stating salary and references.

TO SURVEYORS' ASSISTANTS.

WANTED, in the Office of a Surveyor, an ASSISTANT, competent to abstract, write title, and occasionally to measure.—Address, stating salary required and where last engaged, to C. B. T. 45, Denbigh-street, Belgrave-road, Pimlico.

TO GRAINERS AND WRITERS.

WANTED, immediately, a good and steady WORKMAN in the above business. The situation would be for a constancy, and at liberal wages. A person who has been used to the country will be preferred. References as to character and ability will be required.—Apply to T. SMITH and SON, Painters, Northampton.

WANTED, in an Architect's Office, Manchester, an experienced ASSISTANT, having a thorough knowledge of the Profession, and capable of conducting the business in the absence of the principal.—Address, stating salary required, with references, to A. B. care of P. C. Rudyard, Esq. Solicitor, Macclesfield.

WANTED, in a Builder's Office, as CLERK, a YOUNG MAN, about 30 years of age, who has served part of his time at the bench Writes a good hand, and has some knowledge of builders' accounts—Apply, by letter only, to A. W. office of "The Builder," stating age, salary required, and where last engaged.

TO ARCHITECTS, ENGINEERS, AND BUILDERS.

WANTED, by an ingenious and scientific Man, a SITUATION as CLERK of WORKS, or in any capacity where practical work would be appreciated. Has a general knowledge of the building line, and is well qualified to carry out a perfect system of ventilation and filtration of water. Can make pat erns, models, or working drawings if required. Has been eleven years in his present situation, and can give testimonials from previous employers. Address, A. B. Mr. Hill's, Planemaker, Gray's-inn-road, London.

WANTED, a SITUATION, as PLUMBER, PAINTER, GLAZIER, and GRAINER, by an experienced hand.—Address, A. B. 14, Harvey-street, Hoxton Old Town.

TO BUILDERS

WANTED, to APPRENTICE a Youth, aged 16.—Address, T. B 32, Princes-street, Kingsland-road

WANTED, by an active practical Carpenter and JOINER, a SITUATION as FOREMAN, or to take charge of Building Works for a Gentleman.—Address, C. B. at Mr. Wyatt's, Stationer, Vauxhall-road, Pimlico.

TO BUILDERS, HOUSE-PAINTERS, &c

WANTED, a permanent SITUATION as GRAINER; is willing to fill up with plain work.—Address, A. B. 9, Crawford street, Baker street.

TO PAINTERS, BUILDERS, &c.

WANTED, by a good GRAINER, a constant SITUATION; has no objection to fill up time painting. Specimens can be seen.—Address, R. B. Office of "The Builder."

WANTED, by a Young Man, aged 30, a practical Carpenter and Joiner, a SITUATION in a BUILDER'S OFFICE or TIMBER-YARD; can set out work, and has a knowledge of bookkeeping. References as to sobriety, integrity, &c. and security if required.—Address, A. B. 3, Bridgeplace, Commercial-road Peckham.

TO BUILDERS AND CONTRACTORS.

WANTED, by a respectable Man, aged 33, a SITUATION as FOREMAN of BRICKLAYERS; has had first-rate experience, and is fully competent to undertake any building or buildings. No objection to town or country. Unexceptionable reference.—Address, J. E. 20, John-street, Hermes-hill, Pentonville

WANTED, a RE-ENGAGEMENT as SHOP FOREMAN, by an active Man, who has had, at his last situation, from thirty to forty men to attend to, with a saw-mill. Has been used to Gothic work in all its details. References unexceptionable.—Address, G. E. M. Office of "The Builder."

N B No objection to the country.

CLERK OF WORKS, OR SUPERINTENDENT.

WANTED, by a person of long practical experience in the construction of railways, water-works, and public buildings, an APPOINTMENT, under an Architect, Builder, Contractor, or private party. The best references given from late employers.—Address, A. B. 2, Tower Royal, City.

TO ENGINEERS, CONTRACTORS, AND OTHERS.

WANTED, by a Practical Man, a SITUATION in a Mechanical, Civil Engineer's, or Contractor's Office, or the superintendence of any Engineering Works, Drainage, &c. Has had considerable experience in that capacity.—Address, R. M. P. 31, Broad street, Bloomsbury.

TO BUILDERS AND OTHERS.

WANTED, by a respectable Young Man, a SITUATION as PLUMBER. No objection to fill up his time at painting.—Direct, S. 8 Office of "The Builder."

TO PLUMBERS, BUILDERS, AND OTHERS.

THE Advertiser, who thoroughly understands Plumbing, and Painting and Glazing, wishes for a PERMANENCY. —Address, E. P. No. 1, White Hart-court, Bishopsgate-street, London

TO ARCHITECTS, SURVEYORS, AND BUILDERS.

THE Advertiser, of several years' standing in the Profession, is desirous of an ENGAGEMENT with either of the above. Salary not a consideration, and has no objection to partial or temporary employment.—Address, C. Tweed Villa, Grove-lane, Camberwell.

TO ARCHITECTS, &c.

THE Advertiser, who has been accustomed to Italian Architecture, is desirous of an ENGAGEMENT in an ARCHITECT'S OFFICE Can prepare specifications, take dilapidations, make out finished details and general drawings, &c Salary moderate.—Address, A. B. Messrs. Mewburn's, 23, Chancery-lane

TO CIVIL ENGINEERS, ARCHITECTS, AND SURVEYORS

TWO Young Gentlemen, whose indentures of apprenticeship have been cancelled in consequence of the dissolution of partnership in a civil engineering firm, are in want of ENGAGEMENTS in any of the above offices. One has served half, the other one third of their articles. Small salaries only will be expected where they will have the opportunity of improving themselves. Good references will be given.—Apply to A. R. C. 33, York-buildings, New-road.

TO CIVIL ENGINEERS AND CONTRACTORS

THE Advertiser, who has just completed his five years in the office of an Engineering Surveyor, and who can trace well, offers his SERVICES at 18 per week, but does not make salary an object. Has no objection to go abroad. Address, A. C. E. Copp's Post-office, Barnwater.

THE Advertiser (aged 25), a good Draughtsman, and of active business habits, wishes to obtain a SITUATION in a Builder's or Contractor's Office, or as Assistant Clerk of Works He has been nearly eight years with an Architect and Surveyor of high standing, and is accustomed to builders' accounts.—Address, Z. Mr. Cook's, 1, Maiden lane, Covent-garden.

TO BUILDERS AND OTHERS.

THE Advertiser, a practical Mason, is desirous of TAKING or CONTRACTING for the STONEWORK of any building at the lowest possible price, and the brickwork, if required. Address, W. W. Mr. Taylor's, No. 173, Waterloo-road Lambeth.

TO ARCHITECTS.

THE Advertiser is open to an ENGAGEMENT with an Architect. He is an expeditious draughtsman, and has been accustomed to making finished, working, and detail drawings. Is well acquainted with perspective preparing specifications, &c and is a good colourist.—Address, J. G. B. post-office Stourport.

CLERKSHIP WANTED.—To MANUFACTURING FIRMS, ENGINEERS, and OTHERS A well educated and intelligent young man, of high respectability and in ependent circumstances, is desirous of obtaining ACTIVE EMPLOYMENT as CLERK, COLLECTOR, or TRAVELLER. Age 31: married. Is an excellent accountant, writes a fine and rapid hand, and is perfectly competent to take the management of a manufacturer or engineer's counting-house, having been accustomed to the same for the last fourteen years. References of the first class. This will be found a desirable opportunity for any one requiring the services of a trustworthy and confidential man, the advertiser preferring permanent employment in a good firm to embarking his own capital in business.—Address, Z. A. care of Joseph Fallows, esq 198, Piccadilly.

TO BUILDERS AND CONTRACTORS.

CLERK.—A SITUATION WANTED, in either of the above Offices The advertiser is well versed in time-keeping, paying men, and the general routine of the office. Address L. B. Office of "The Builder."

CLERK of WORKS.—An efficient Clerk of Works, who is just completing an engagement at a Cemetery, would be happy to meet with a RE-ENGAGEMENT to carry out works of any magnitude. The highest testimonials from late and present engagements.—Address, M P. Mornington Library, Mornington-street, Hampstead road

AN efficient CLERK of WORKS is open to an ENGAGEMENT Unexceptionable testimonials as to character and ability will be given.—Address, A. A. B. office of "The Builder."

TO GAS-FITTERS IRONMONGERS &c

A YOUNG MAN, brought up to the Gas Business in London, wishes an ENGAGEMENT, and is willing to make himself generally useful Country preferred. Address, A B C 5 Parliament Oxford street.

TO ARCHITECTS

A GOOD DRAUGHTSMAN, well acquainted with English and Classic Architecture, desires an ENGAGEMENT in an Architect's Office at once.—Address, ALPHA, Office of "The Builder."

TO ARCHITECTS AND SURVEYORS

A GENTLEMAN is open to an ENGAGEMENT as DRAUGHTSMAN or ASSISTANT Terms moderate -Address, X. Y. Z 17, Granby-street, Hampstead road, London.

TO ARCHITECTS AND BUILDERS

A SURVEYOR, of much experience, wishes to obtain EMPLOYMENT in an Office, to make finished or working drawings, take out quantities, make estimates, or keep accounts. Terms moderate Aged 48 Satisfactory references given—Address Y Z 1c1, Church-street, Croydon.

A YOUNG MAN, aged 21, of practical experience in a builder's office, also two years in an architect's, has an ENGAGEMENT.—Address, L. H. Post-office, Handsworth.

A GENTLEMAN, a practical Engineer, resident in Glasgow, will be glad to act for any house ordering castings, or machinery in Scotland, to inspect the work, and manage the business generally. Apply, W. at James Ritchie's, 69, Wrights, Glasgow

A GENTLEMAN of experience, with a first-class connection, and resident in Glasgow, is wishful to represent any good house in the Iron Trade for the management of business in Scotland, on commission, or otherwise —Apply, IRON, Post-office, Glasgow.

TO ENGINEERS, FOUNDERS, AND OTHERS.

A MAN, 35 years of age, wishes for EMPLOYMENT as PATTERN-MAKER, who understands the carving, turning, and bench work Letters addressed to J. T. in the care of Mr. Kemp, 28, Minister-square, Regent's-park.

TO ARCHITECTS, &c.

A YOUNG MAN wishes for a RE-ENGAGEMENT in the above profession Can draw out plans, elevations, and sections and colour the same, also understands the general routine of the office Age 1 18½ years. Address, Q. Office of "The Builder."

TO ARCHITECTS AND BUILDERS

A S CLERK of WORKS, SHOP or GENERAL FOREMAN; the advertiser is competent to fill either situations, from long experience under several architects, with fifteen years' testimonials.—Address, J. U. 9, Little Barlow-street, Marylebone

TO ARCHITECTS, SURVEYORS, AND BUILDERS.

AN ARCHITECT, having a small practice of his own, would be glad to fill up his time by preparing DESIGNS, WORKING DRAWINGS, SPECIFICATIONS, &c. at his own residence. Address, Q D 27, Devonshire-street, Islington.

TO ENGINEERS AND SURVEYORS.

A THOROUGHLY PRACTICAL SUPERINTENDENT of WORKS and SURVEYOR is desirous of an ENGAGEMENT.—Address, stating salary, to ZETA, 89, Westbourne-street, Pimlico.

A YOUNG MAN, who is a fair Architectural Draughtsman, and has a good knowledge of taking out quantities, bookkeeping, mappings, planning, levelling, and surveying, is desirous of EMPLOYMENT Improvement being the object, a small salary only is expected.—Address, A. G. 283, High Holborn.

AS GENERAL ASSISTANT in an Architect's, Surveyor's, or Builder's Office. A young Man engaged as above seven years is open to an ENGAGEMENT with the same. Unexceptionable references will be given, and a moderate salary only required.—Address, W. L. Messrs. Dawson and Son's, 74, Cannon-street, City.

TO ARCHITECTS ONLY.

AS CLERK of WORKS.—Wanted, a SITUATION as above.—The Advertiser, aged 38, is duly qualified, thoroughly practical, and can be well recommended.—Addr ss, E. F. A. Mr. Cooper's, Post-office, Osnaburgh-street, Regent's-park, London.

PARTNER WANTED.—To be DISPOSED OF, ONE FOURTH SHARE in the WINDSOR BRIDGE IRON WORKS, near Manchester, in consequence of the junior partner having retired. The plant and machinery is of the best description, and capable of turning at least 10,000l. per month. The trade is principally with British and Foreign Railways, and other large Companies, and being chiefly for machinery, &c. secured by letters-patent There is nothing to fear from competition —For further particulars apply to Messrs. THOMAS JONES and Co. General Accountants, 17, Clement's lane, London.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz.:—
FOREST-HILL, Croydon Railway.
ST MARGARET'S, near Richmond, South Western Railway.
OAKLANDS GRANGE, Weybridge, Surrey, ditto.
HORNSLOW, Middlesex, ditto.
TOTTENHAM-GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.
Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Several Plots to be Let on Building Lease. Money advanced to respectable parties. —Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

MAITLAND-PARK, HAVERSTOCK-HILL, Hampstead-road.—LAND-TAX REDEEMED.—To BE LET, upon Building Leases for ninety-nine years, from Christmas 1855, de-irable BUILDING PLOTS on the above Estate. The continued demand for houses in this locality, and the picturesque position of the property adjoining the grounds of the Normal School, Camden-road Villas, is a desirable opportunity for builders or gentlemen wishing to erect villas for themselves.—For terms and to view plans apply to the Secretary of the Orphan Working School, 32, Ludgate-hill; Messrs. FIELD and CHAMBERLAIN, 36, Basinghall street; the Architects, Messrs. WEBNERT and ASHDOWN, 49, Charing-cross; or at the Porter's Lodge, on the Premises.

ST. MICHAEL, CORNHILL.—TO LET, upon building leases, for a term of sixty-one years, the SITES of the NORTHERN PORTION of the GEORGE and VULTURE TAVERN, and Nos. 6, 7, 8, an 1 9, on the south side of St. Michael's-alley, Cornhill.—The Churchwardens and Committee of Overseers will meet in the Vestry-room, in St. Michael's Church, Cornhill, on THURSDAY, the 20th SEPTEMBER, at TWELVE o'clock precisely, to receive TENDERS from parties desirous of taking the above sites, which are divided into two lots. The terms and conditions may be seen, or printed copies of the same obtained on payment of 1s. upon application to Mr. W. A. MASON, Architect and Surveyor, Great St. Helen's; or to Mr. HENRY HOPPE, Vestry Clerk, Sun-court, Cornhill. Parties Tendering must send in Tenders to the Vestry Clerk on or before the 19th SEPTEMBER, under cover addressed to the Churchwardens, and indorsed "Tender for Ground in St. Michael's-alley," and must be personally in attendance at ELEVEN o'clock on the 20th SEPTEMBER. The churchwardens and overseers do not bind themselves to accept the highest or any other Tender. Should any Tender be accepted, the party Tendering will be required thereupon to sign a memorandum, a form of which may be previously inspected upon application to the Vestry-clerk.

LOWER THAMES-STREET. — TO BE LET, by Tender, by the Worshipful Company of Armourers and Brasiers, on a lease for Twenty-one years from Midsummer, 1855, the extensive Premises known as the GLOBE-YARD WAREHOUSES, situate in the above street, nearly opposite the Custom-house. The lessee will be required to pay all taxes and rates, including sewers and militia rates, and all assessments for sanitary purposes, and the expense of fire insurance, the land-tax being redeemed; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman street, on or before the 3rd OCTOBER next, where parties making the same are required to attend the following day, at HALF PAST TWO o'clock. The Company do not bind themselves to accept the highest or any other Tender.
JOHN PONTIPEX, Clerk.
2, St. Andrew's-court, Holborn.

TO BE LET, in consequence of the proprietor retiring from business, on lease, for a term of years, with possession in a short time, a well-established PREMISES, LAND and BUSINESS, where a large and successful trade has been carried on for thirty years, with excellent store sheds, steam saw-mill, and private wharf, most advantageously situated in the centre of a large and improving town in the midland counties. A part, or the whole of the stock can be taken at a valuation. The premises are well adapted for carrying on a large building trade—For further particulars, apply by letter to W. B. Office of "The Builder."

TO TIMBER MERCHANTS and OTHERS. The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing the largest sorts of English Timber, &c Spacious Dry and Drawing Docks 30 and 10 feet Cranes, Sawpits for converting Timber, &c. Freights paid on delivery.—Apply to D. NOKES and Co. as above.

WORKSHOPS near REGENT-STREET. TO BE LET on LEASE, EXCELLENT WORKSHOPS (frontage 34 feet, depth 90 feet), with liberty to erect a Steam-engine, and to carry on any kind of business or manufacture, regardless of noise.—Apply to Mr. FINNIS, Auctioneer and Valuer, 63, Great Russell-street, Bloomsbury-square.

LEIGH, ESSEX.—TO BE LET, a PLOT of GROUND, sufficient for ten houses, and 180 feet deep, on a lease of ninety-nine years, commanding a good view of the sea, and in the best part of Leigh, one minute's walk from the railway station For particulars, apply to Mr. R. L. CURTIS, Surveyor, 1, Riches-court, Lime-street, City, and of D. MONTAGUE, Esq. Leigh.

TO BE LET, unfurnished, with immediate possession, by the year, or for a term, commodious PREMISES in Fetter-lane, Holborn, with or without yard and stabling, well adapted for chambers and offices, or for a large business or warehouses. Apply to Mr. MASKELL, General Railway Office, Fetter-lane, Holborn, between the hours of TEN and THREE

TO BREWERS, HOTEL-KEEPERS, AND OTHERS.

TO BE LET, a commodious HOUSE, situate at Leigh, Essex, commanding a good view of the sea, about half way up the hill, and near to the railway station with outbuildings, extensive garden and yard, well adapted for a genteel hotel, with tap-house, stables, &c. the whole occupying a space of about 3½ roods.—For particulars, apply to Mr. R. L. CURTIS, Surveyor, 1, Riches-court, Lime-street, City, and of D. MONTAGUE, Esq. Leigh.

TO BUILDERS.

PUBLIC-HOUSE PLOT at Camberwell.—TO LET, with advances, a corner PLOT of GROUND, especially allotted for a public-house. Situation first-rate, and a license almost certain. Several houses now being erected in close proximity with it. To a respectable man liberal advances will be made.—For plans and further particulars, apply to Mr. CLARKSON, Surveyor, &c 48, Penton-street, Pentonville.

TO BE LET, large MANUFACTURING PREMISES, with good house attached to the same, in Baker-street, Bagnigge-wells-road.—May be viewed by application on the premises.

TO BUILDERS and OTHERS.—TO BE LET, at a moderate ground-rent, TWO eligible PLOTS of FREEHOLD GROUND, on which two houses are partly erected, situated at Upper Holloway. A quantity of burnt ballast to be sold cheap.—Apply to Mr. J. ROBSON, Builder, 30, Castle-street, Oxford-street.

TODD'S PATENT METALLIC PROTOXIDE PAINT.

This Paint possesses in an eminent degree the following advantages over all other known Pigments:—
INDESTRUCTIBILITY BY HEAT—PRESERVATION OF IRON FROM OXIDATION, WOOD FROM DECAY, AND MASONRY AND BRICKWORK FROM DAMPNESS—PERMANENCE OF COLOUR AND FREEDOM FROM DELETERIOUS PROPERTIES—SUPERIORITY OF BODY.

The Protoxide Paint, as at present produced, is of one shade of colour, viz.:—a pale drab, but it may be tinted with any other colour to suit the taste and purpose for which it may be required. It is not affected by sulphuretted or carburetted hydrogen gas, bilge water, or indeed foul air of any kind, and is therefore well adapted for the interior of Ships, Warehouses, Offices, Stabling, &c.; and from its total freedom from deleterious properties, it will be found of great value for painting the interior of Hospitals, Asylums, Unions, Gaols, and other Buildings which may require to be painted during occupation.—Sole authorized Agents for England:—

MESSRS. C. GRABHAM AND CO. 4, BARGE-YARD, BUCKLERSBURY, LONDON.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK—LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—PULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

PULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl-street, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLANCHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly. Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it vastly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the same with those and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccos dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lime, Lath, Laths, Slates, and Slate Slabs. Fire-bricks, Grindstones, Cement Ch mney-tops, d.tto Vases, Ridging, &c. Paints, Stucoo, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his Works, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied for shipment, on advantageous terms.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Course	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY.

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS.—OLDHAM and TATHAM are now prepared to receive orders from contractors, builders, and merchants for Grain and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and will be improved by the addition of two or more parts of sand to one of cement. 40. and T.'s boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester. T. H BOORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask. Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London.—Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is free from grit on the improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SPONDS, PAVIORS', STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and RENOUGH, Manufacturers and Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

TO CAPITALISTS, POTTERS, CHINA, BRICK, AND TILE MAKERS, AND LANDOWNERS NEAR RAILWAY STATIONS.

HANDS'S GREAT ECONOMISING PATENT KILN.—Capitalists and Persons engaged in the above Works, Owners of Land containing Brick and Tile, or any other valuable Earth near Railway Stations, are particularly invited to look at HANDS'S GREAT ECONOMISING PATENT KILN. From its construction it enables persons to build one on any suitable spot where he pleases, so to economise the heat that all that GREAT WASTE and extra expense looked for as a matter of course in the old system is completely avoided, by causing the heat to dry and, and every description of strong moulded clays at any season, in time of burning and cooling the kiln, with perfect soundness. No cost required to keep up the works all the year round beyond the consumption of about six or seven tons of coals to burn off 20,000 goods in each kiln. Any persons desirous to avail themselves of this opportunity for a district or otherwise, may apply, if by letter prepaid, to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom, Surrey, where the Kiln is to be seen, by appointment only.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 8d.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, mark the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 50s. per 1,000; floor bricks and 6-inch pavings, at 37s. 6d. per 1,000; 8-inch pavings, at 57s 6d. per 1,000; 9-inch pavings, at 72s 6d per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices. The BUSINESS to be DISPOSED OF, with the valuable connections, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Honduras Wharf, Bankside, Southwark, London.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—I. J. PEARCE and CO. Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 23s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 30s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Red Place, Red-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and dark, bricks, fire-goods, &c can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

THE BEST HERTFORDSHIRE MALM SECONDS;

THE BEST WHITE SUFFOLK and RED FACINGS:

DEEP-RED RUBBING BRICKS.

Also COWLEY and KENT STOCKS, in any quantity.

J. EASTWOOD and SONS, Belvidere-road, Lambeth.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY

(Within a short distance of the five bridges).

THE BEST MALM CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity

Also, STOCKS, of FIRST QUALITY.

J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WILLIAM BOND, Manufacturer, Fortway, Oldbury, near Birmingham. Agent — Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

TO BRICK, TILE, AND PIPE MANUFACTURERS.

WANTED, by the Ridge-hill Brick and Tile Company, Manufacturers of Blue, Red, and White Bricks, Tiles, Pipes, &c. Madeley, Staffordshire, a Person thoroughly qualified to take the entire MANAGEMENT of a moderate-sized YARD. A reasonable salary will be given. None need apply who cannot produce the most satisfactory testimonials as to character, capability, &c. — Address, Mr. E. H. MENTIN, Henhall Cottage, Nantwich, Cheshire.

BUSINESS PREMISES TO BE LET, with immediate possession, desirably situate near the docks for the Great-Western and Brentford Thames Junction Railway for particulars, apply to Messrs. KING and SON, Auctioneers, &c. Brentford.

TO BUILDERS, DEAL MERCHANTS, &c.—TO BE LET, a 9-horse ENGINE, SAW-BENCH, and MOULDING MACHINE, with joiner's shop, drying-room, and large yard.—For particulars, apply to J. A. 18, Albany-road, Camberwell.

TO BE DISPOSED OF, LEASEHOLD PREMISES at RATCLIFF.—TENDERS from parties desirous of purchasing the whole or a portion of the same, will be received at the Offices of the Commercial Gas Company, Stepney, on the 21st day of SEPTEMBER between the hours of TWELVE and THREE o'clock.—Particulars may be obtained on application to the Secretary to the Company

TO BUILDERS, PIANOFORTE-MAKERS, CABINET-MAKERS, and Others requiring spacious premises near the North Western Railway, or Pentonville.—A compact MANUFACTURING PREMISES, with roomy workshops, large yard, shed, counting-house, and a very convenient eight-roomed dwelling-house, with double entrance to it se parate, and stabling if required; the whole TO BE LET on Lease, with immediate possession.—Apply at Mr. HINGSTON'S Office, 1, Stanhope-terrace, Gloucester-gate, Regent's-park; or to Mr. LEREW, Auctioneer, &c 2, Cardington-street, Hampstead road

TO TIMBER-MERCHANTS, BUILDERS, SAW-MILL PROPRIETORS, CONTRACTORS, AND OTHERS, requiring extensive BUSINESS PREMISES TO BE DISPOSED OF, by TENDER, a beneficial Lease of 30 years of a convenient DWELLING-HOUSE, with Business Yard adjoining, with a frontage of 40 by 130 feet deep, with a timber stage erection, and a gateway 12 feet wide workshop, stabling, &c. slightly situated at No. 10, Apollo-buildings, East-street, Walworth. Tenders for the above to be delivered on the Premises, on or before the 29th day of SEPTEMBER instant directed to Mr. D. CARTWRIGHT, prepaid. For further particulars and to view, apply on the Premises.

TO BUILDERS, CARPENTERS, AND OTHERS.

TO BE SOLD, the GOODWILL of an old-established BUILDER'S BUSINESS, employing on an average thirty men, in a good situation in the county of Hertfordshire, twelve miles from town. The stock could be taken at a valuation, or would be sold by auction on the premises, if declined by the person taking the business. The premises comprise convenient solid roomed house, with good garden, &c. yard and workshops, sheds, &c. four-stall stable and cart-house, &c. Rent, 40l. per annum, on lease, the present owner being the freeholder.—For further particulars and terms, apply to Mr. W. R. GLASIER, Auctioneer, &c. 41, Charing-cross.

TO BUILDERS and CARPENTERS.—TO BE DISPOSED OF, with immediate possession, an old-established and lucrative CONCERN in the above line, situated in a highly respectable and improving neighbourhood, within twenty miles of London. Apply to Mr LAURENCE, Red Lion Hotel, Hampton, Middlesex

FREE RAILWAY TICKETS.—ENFIELD ESTATE.—IMPORTANT to BUILDERS.—The land of every house built upon the Wadesdon Estate, of the value of 25l. per annum, will be entitled to a Free First-class Railway Ticket; and of every house of the value of 30l. per annum, will be entitled to a Free Second-class Railway Ticket, for fourteen years.—Apply to Mr. GEORGE MORGAN, 5, Chancery lane.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by traveling cranes, either into barges or carriages. Portland, Roach, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates from the Penrhyn Quarries. Timber, Deals, Lime, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's estate.

J. CHILLINGWORTH, Modeller and Letter Maker, respectfully invites the attention of the building public, to his well assorted stock of Enrichments in Composition, Cement, and Plaster, consisting of Bed Mouldings, Ceiling Flowers, Caps, Trusses, &c. &c. Workmanship first-rate, and charge low. Procuring letters in every variety of pattern, in wood or composition.—Specimens of letters as per Plate of "The Builder" Office, and in all the main thoroughfares of London.—Manufactory, 33, Francis-street, Westminster-road.

AGENCY WANTED.—WANTED, an AGENCY, by the Advertiser, for the Sale of Glazed-ware Pipes, Closet-pans, Stourbridge Bricks, Plaster of Paris, and Cement.—Address, in the first instance, to A. B. care of Mr. Cumner, Builder, Chippenham, Wilts.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Macclesfield-street North, City-road, for the sale of CHIMNEY-PIECES, and other articles useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham Estimates given, and orders promptly executed.
July 25, 1855. C. ADENEY, Secretary.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 20, Surrey-street, Strand.
HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the province of Massa-Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake Contracts for any quantity of Statuary, Veined, Sicilian, Bardilla, Dove, and other Marbles, in blocks of all dimensions, delivered on shipboard at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt. Orders for Paving Slabs, Garden and Hall Statues, Vases, Tazzas, Consoles, &c. executed and delivered at reasonable rates.—For further particulars apply at the Offices of the Company, 16, Cannon-street, City.
WILLIAM W. BONNIN, London Secretary.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Harehill, Park Spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England.—THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

TO SCULPTORS, MARBLE MASONS, and BUILDERS.—Now landing from barges at Whitehall-wharf, ex Conquest, from Leghorn, upwards of FIFTY BLOCKS of fine STATUARY (for figures) VEIN and SICILIAN. Mr. FRANKLIN begs to call attention to the above, also to his extensive stock of marble, in blocks and slabs, consisting of statuary, vein and Sicilian, Irish green and black, dove, Bardilla, Sienna, Brocatella, rouge royal, St. Anne's, Emperor's Red, black and gold, &c which he is enabled to offer on advantageous terms.—Depôt, Whitehall wharf, Parliament-street, Westminster, London.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,
MILLBANK-STREET, WESTMINSTER.
Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, Kingscross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

PORTLAND STONE for SALE.—TO BE SOLD, in Lots of 100 cubic feet and upwards, a quantity of DRESSED PORTLAND STONE in large cubes, suited for builders and masons. On view at the PHŒNIX GASWORKS, Battersea, at Vauxhall, where particulars may be obtained on application, or at the Company's Principal Office, 70, Bankside, Southwark.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons, that they can supply to any extent all kinds of YORK STONE, including Paving, Bramley Fall, Park Spring, &c. of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.
GEO. VINT and BROTHERS will also be forward prices by post on application.—Address, Idle, near Leeds.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades, Quoins, Tombs, Fonts, &c at the new premises, Whitehall Wharf, Cannon-row, Westminster.

BATH STONE DEPOT, BOX STATION. ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Box Ground Stone, Scantle Block, Ashlar, Rennework, &c. &c. supplied direct from the Quarries; also every description of Stonework for Building purposes, both plain and ornamental, prepared ready for using, and forwarded to any part of the kingdom. Vases in elegant variety always on view; Urns, Fountains, Chimney-pieces, Tombs, &c. &c.

BANGOR WHARF, King's-road-bridge, Camden-town. STRINGFIELD and COOPER, late W. W. Rawling, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cements, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for garden paths, ballast, sand, &c. Materials hauled, wharfed, and carted.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts Granite Wharf, East Greenwich; Little Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Lund, Beecham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terraces at the Crystal Palace.—Supplied by the Haytor Company under Royal Charter.—For terms apply to Mr. C. HOAR, Haytor Granite Office, 4, Millbank-row, Westminster.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.
London Agents—HEGGLLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard. This Granite is selected for the New Westminster-bridge.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truck-loads of five tons. Pavings, Landings got out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Builders, Contractors, and Others, that his Price Lists for Slates and Slab Work, can be had on application, enclosing a postage-stamp. Country and export orders promptly attended to.—N.B. A liberal discount to the trade.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave place, Pimlico.

BANGOR SLATES, of all sorts and sizes; SLABS of all dimensions, and of superior quality. For prices and particulars, apply to J. EASTWOOD and SONS, Surrey Canal-bridge, Old Kent-road.—Export orders supplied promptly.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and the Llantysilio Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney-pieces, Baths, Filters, Leaders, Mangers, Ridging, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses, breweries, generatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices.—Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE F. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's-park.

SLATING, 20s. and 21s. per Square, within five miles.—Address, HENRY MARYON, 36, Smith-street, Jubilee-street, Mile-end.

AUSTIN'S ARTIFICIAL STONE.—This material (frequently confounded with Portland Cement) has now been in extensive use among the highest class of residences for about twenty-five years. During that time a collection of Ornamental Work, such as Vases, Figures, and Fountains, has been accumulating, of which the public have scarcely any idea. Suffice it to say, that a single copy of each work would collectively form a row between 40 and 50 feet long. In consistence from Terra-cotta, and all other kind of Pottery, there is no distortion of form by the process of baking, and, instead of the glazed surface of Terra-cotta, it has the closest resemblance to Portland Stone, having also the advantage of being waterproof.—AUSTIN and SEELEY, Nos. 15 to 4, Keppel-row, New-road, Regent's-park.
*** A large Stock of Ornamental Chimney-tops.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN BILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

ASPHALTE PAVEMENT, 2s. 3d. per square yard, 2½ inches thick, for footpaths, railway platforms, school yards, garden paths, &c. Carriage Roads: 3s. to 3s. 6d. per square yard. Railway Arches rendered waterproof, 2s. per square yard. Every description of pavement laid down, and the work guaranteed.—Apply to Messrs. WRIGHT and BROWN, 32, Bucklersbury, City.

SAND and GRAVEL FOR SALE, in any quantity. Also, a few ACRES of TURF.—Apply to Mr. WABE, on the Loughborough House Estate, Brixton. If by letter, direct to the White Hart.

O. MCCARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

CROGGON and COMPANY, Manufacturers of PATENT ASPHALTE ROOFING, BOILER, RAILWAY, SHEATHING and INODOROUS FELT For Damp Walls, and Lining Iron Houses, 2, DOWGATE-HILL, LONDON.

BRICKS.—To Builders and Contractors.—Capital Hard-burnt GREY STOCKS, of good colour, at very reduced prices. Cash. J. F. SMITH, Further Field, Acton Bottom, near Shepherd's Bush.

BRICKS at ANERLEY STATION FOR SALE.
100,000 FINE YELLOW MALMS.
200,000 FINE YELLOW STOCKS.
100,000 HARD COMMON STOCKS.
100,000 PLACE BRICKS.
Inquire personally of the Station Master, Anerley Station, Croydon and Epsom Line; or by letter, to A. Z. Anerley Station.

TO AGENTS, BUILDERS, CONTRACTORS, &c.—On SALE, about 30,000 good ROOFING TILES, together or in lots to suit purchasers. The yard is situate near the Madeley Station, London and North Western Railway, from whence goods may be forwarded to any part of the kingdom. Address, Ridge hill Brick and Tile Company, Madeley, Newcastle-under-Lyme.

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on E. PARKS, Lewisham, and get the quality at low prices. Kilns within six miles on the most reasonable terms. Red facing bricks at 30s. All kinds of tiles, paving bricks for oven building, salt glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch red Socket Drain Pipes, in 2 feet lengths.—Apply to St. JOHN HEWITT, Redhill Works, Southampton.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, parks, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

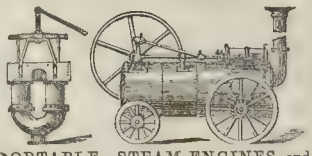
Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noblest buildings. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition, and will be found to be a different material to that now being imitated by puffers and manœuvrers, with only three or four years' experience, and without practical knowledge. Some of the works recently completed by M. H. B. can be referred to the whole of the embellishments to the external part of Cliden House, his Grace the Duke of Sutherland's; also Tottenham and Kingsland Churches, the turrets to the Camden-road Chapel, containing from 3,000 to 4,000 feet cube; the colossal Britannias, 13 feet high, at the County Fire Offices, Cornhill and Lombard-street; the Arms, with the allegorical group, at the Kent Mutual Insurance, Queen-street; and other works elsewhere, too numerous to mention. A large Stock of newly-cast Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 93, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

STEAM-ENGINE WANTED.—WANTED, a 10 or 12 horse ENGINE, on one frame, boiler separate, ready for immediate work.—Apply to HUNTER and ENGLISH, Bow, near London.

TO CONTRACTORS and OTHERS.—For SALE, two excellent NARROW GAUGE LOCOMOTIVE ENGINES, in thorough repair, and may be seen at work.
No. 1.—A FOUR-WHEELED COUPLED ENGINE, by Banks. Diameter of wheels, 6 feet 3 inches; cylinders, 13 inches; stroke, 22 inches.
No. 2.—A FOUR-WHEELED COUPLED ENGINE, by Hawthorne. Diameter of wheels, 5 feet; cylinders, 14 inches; stroke, 22 inches.
The above engines are being disposed of owing to the near completion of the contract.—Further information can be obtained from JOSEPH FIRBANK, Contractor, Newport, Monmouthshire.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.
PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 70, Strand.
To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.
W. F ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

Whole Sock et.

Watercloset Pan with Syphon-Trap connected, price 8s. 6d. each.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.
Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

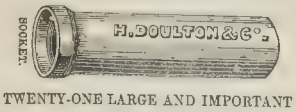
Half-Socket.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.
Iron Pails 32s per doz. painted.
Ditto .... 48s. per doz. galvanized.
Upper Ground-street, Blackfriars Bridge, Surrey Side.

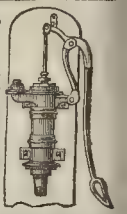
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.
OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP, which is recommended for the simplicity of its construction, and the ease with which it works.
By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.
Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.
JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.



JAMES STIFF,
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Deck-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 39, Brydges-street, Covent Garden; and at EDWARD COOKE'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

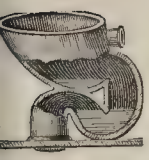
TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

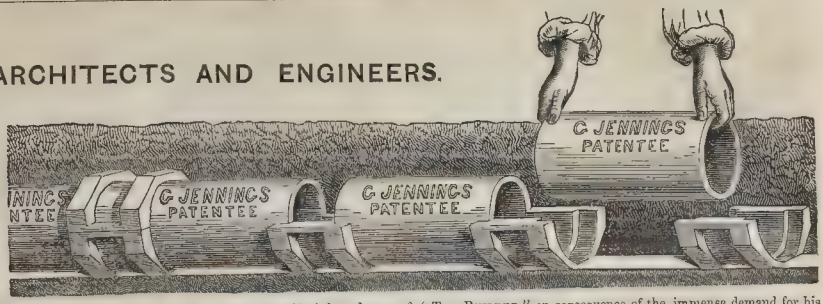
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.
Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

TO ARCHITECTS AND ENGINEERS.





GEORGE JENNINGS has not for the last four months availed himself of the columns of "THE BUILDER," in consequence of the immense demand for his Sanitary Inventions generally, but he begs to inform his Patrons, that the Engineering and Sanitary Depôt he is now building on the BANKS OF THE THAMES, HOLLAND-STREET, BLACKFRIARS, will enable him to complete all orders with despatch, and exhibit all Improvements calculated to promote Sanitary Progress.

In the mean time he would observe that Closet-pans, unless they have a LARGE WATER SURFACE, are not WATER-CLOSETS, and that the above Drain-pipes, with all the advantages they offer as regards EXAMINATION, and the introduction of JUNCTIONS, can be had at the same prices charged for the old-fashioned Socket or Half-socket Pipes.

Illustrations, Descriptions, and Prices of Jennings's Sluice-valves, Fire-cocks, Closets, Drain-pipes, Urinals, Lavatories, Shop Shutter-shoes, &c. &c. can be had on application (or sent free if two stamps are inclosed) to GEORGE JENNINGS, Sanitary Engineer, Great Charlotte-street, Blackfriars.

References to One Hundred Public Works now in hand.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

JOHN DOULTON, BROTHERS, AND CO. LIVERPOOL POTTERY, ST. HELEN'S.

MANUFACTURERS OF

DOULTON'S STONE-WARE DRAIN-PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

May also be had as follows:—
LIVERPOOL—STORES, 70, SOHO STREET, LIVERPOOL.

GLASGOW.....J. A. Mathieson, Hope-street.	WIGAN .....James Fairclough, King-street.
DUBLIN.....Robt. Lovely, Poolbeg-street.	KENDAL .....Robt. Thompson.
CORK.....J. and J. Harley	CARLISLE .....C. Armstrong, Lowther-street.
WATERFORD....J. Sparrow and Co	WHITEHAVEN ...Hugh Todhunter.
CARNARVON ....Jno. Jackson.	COCKERMOUTH..John Hird.
PRESTON .....J. Armstead, Hudson-street.	GUERNSEY .....Guerin, Brothers.
CHORLEY .....Thomas Savile	LONDONDERRY..W. and A. M'Elwee.
BLACKBURN ....W. Hopwood, Clayton-street.	LIMERICK .....W. Burgess and Sons.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

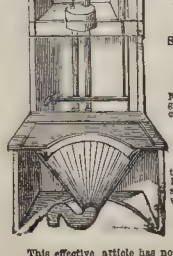
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

egistered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

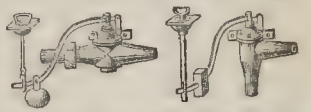
GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 12s. 6d. each.

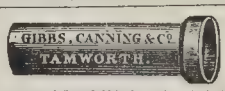
PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post.

PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 32s. PER CRATE.



MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers), White Fire Clay, Facing Bricks, &c., &c. Agents.—CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c.; Slates of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.

January, 1853.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

SALES BY AUCTION.

WESTBOURNE-TERRACE NORTH.—To BUILDERS and OTHERS.—Seven unfinished Houses.

MESSRS. LOCKWOOD are directed to SELL by AUCTION, at the LORD HILL, HARROW-ROAD, on WEDNESDAY, the 26th of SEPTEMBER, at TWO o'clock punctually, SEVEN UNFINISHED HOUSES, situate and being Nos. 18, 20, 22, and 24, Westbourne-terrace North, and Nos. 2, 4, and 6, Upper Terrace, Chelsea-road, adjoining; all brick-built, and substantially erected; possessing most eligible, in close proximity to Westbourne-terrace, and the fashionable locality surrounding The Square. The houses are estimated to realise 80l. per annum each, and the others 60l. per annum. They are held for long terms, at low ground-rents.—May be viewed and particulars had; and a ground-plan of the four on the left may be seen at Messrs. Underwood and Cowan, Solicitors, 14, Holles-street, Cavendish-square; and at the Offices of the Auctioneers, No. 1, Barnard-place, Hyde-park, or 44, Upper Baker-street. Part of the purchase-money may remain if required.

CHELSEA.—TO BUILDERS, COACH PROPRIETORS, AND CAPITALISTS.

MR. T. W. WOOD will SELL by AUCTION, on MONDAY, SEPTEMBER 17th, 1855, at TWELVE o'clock precisely, at the MART, near the Bank of England, by order of the Mortgagee, with power of sale in Three Lots, the following very desirable long LEASEHOLD DWELLING-HOUSES and BUSINESS PREMISES:—

Lot 1.—All that brick-built six-roomed Messuage or Dwelling-house, situate No. 42, Radnor-street, in the parish of Saint Luke, Chelsea, in the occupation of Mr. George Lilywhite, at the low rent of 36l. per annum, subject to a ground-rent of 6l. per annum; unexpired term, about eighty-six years.

Lot 2.—All that brick-built ten-roomed Messuage or Dwelling-house situate No. 41 Radnor-street aforesaid, together with a workshop and five pieces of ground in the rear. This lot is in hand. This property is most eligible for a coach, bus, cab, or van proprietor. Estimated rental, under and beyond the rent apportioned ground-rent of 8l. per annum; unexpired term, eighty-six years. A right of way reserved to the owner and occupier of Lot 3, to pass through or under the gateway, as will be shown in the plan to be produced at the time of the sale.

Lot 3, comprises all that brick-built extensive Builders' Workshop, with Store and Painters' and Plumbers' Shop under the same; a Builder's Office, and Stabling for four horses, situate in the rear of Lot 2, with a carriage road in Radnor-street. This lot is in hand. Estimated rental, 30l. per annum, subject to a ground-rent of 9l. per annum; unexpired term, eighty-six years. The entrance or right of way to this lot will be shown in the plan to be produced at the time of sale.

The fixtures, consisting of stoves, dressers, racks, and mangers, &c. will be included in the purchase of each lot. There is a very substantial brick boundary wall to this estate.—May be viewed on application to Mr. W. T. SEAL, 103, King's-road, Chelsea; and printed particulars and conditions of sale, 7 days had seven days prior to the sale, at the Offices of Mr. CHARLES EDMUNDSON, Solicitor, 32, Wall-rock, London, where a plan of the estate may be seen; of Mr. W. T. SEAL, as above; at the Place of Sale, at Mr. ETHERINGTON'S Offices, Chatham; and of the Auctioneer, Chatham.

TWICKENHAM.—To Builders and Persons wishing to build for their own occupation or as an investment.—Valuable Land, with extensive frontage, and Two Gross Rents, amounting to 70l. per annum.—By Mr. MASON, at GARRAWAYS, on TUESDAY, SEPTEMBER 25th.

FIFTY PLOTS of FREEHOLD BUILDING GROUND, delightfully situate, near the new church, Twickenham, a short distance from Pope's Villa, and only a half a mile from the Railway Station, and a half a mile from the Thames; two and a half acres are opposite Wellesley House, nearly adjoining Sir Wm. Clay's Park; two and a half acres are between the upper and lower roads; gravelly soil and good water; eligible for villa residences, with a railroad station half a mile distant. Also a valuable Ground Rent of 10l. issuing from two houses, already built on part of the estate, annual value, 70l.; and another ground rent of 8l. from a house with 180 feet frontage, let to Mr. Legge, who is to erect eight villas, worth 200l. a year.—May be viewed on application to Mr. CHANDLER, at the Prince Albert. Particulars had of the Auctioneer, Norton-folgate.

MITCHAM.—Freehold Land, with three frontages, and old Houses, offering a desirable opportunity for a Building speculation.—By Mr. MASON, at GARRAWAYS, on TUESDAY, SEPTEMBER 25, in one lot.

TWO ACRES of BUILDING-GROUND, facing Mitcham Church, frontage 210 feet, depth 400 feet; frontage on the road leading to the Railway Station, 360 feet, and in rear, on the footpath leading into the Morden-road, 220 feet; with Five roomy Houses, large barn, &c.—Particulars of Mr. WADE, House Agency Office, Mitcham; of the Auctioneer, Norton-folgate, and 8, Union-court, Broad-street; and of CHARLES BLAKE, Esq. Solicitor, 45, Fleet street.

COWLEY, MIDDLESEX.—About a quarter of a mile from the Uxbridge Station on the Branch Line of the Great-Western Railway.

MR. STRANSOM will SELL by AUCTION, at the CHEQUERS INN, Uxbridge, on THURSDAY, SEPTEMBER 20, at TWO o'clock, valuable FREEHOLD and TITHE-FREE BUILDING LAND, of about Four Acres, in an exceedingly healthy situation, in the parish of Cowley, Middlesex, and close to the town of Uxbridge, commanding extensive views, and in the immediate neighbourhood of the much-admired river Colne, in which the purchaser of each lot will have an extensive right of fishing. The land is eligibly adapted both for building purposes and for brick-making, as it contains an earth of the finest quality, and of great depth. The above presents an opportunity rarely to be met with in this neighbourhood, as a greater portion will be submitted for sale in one lot, for if an acceptable offer be not made, it will be put up to auction in various lots. May be viewed, and particulars, with conditions of sale and plans annexed, obtained of Messrs. WOODMANSEY and SONS, Solicitors, Uxbridge; of T. F. JENNINGS, Esq. Solicitor, Hillingdon-end, Uxbridge; and of Mr. STRANSOM, Auctioneer, &c. Uxbridge, Middlesex.

FREEHOLD BUILDING LAND, conveniences free, land-tax redeemed, at NEWMARKET, Essex.

MR. JOHN COLLINGS will SELL by AUCTION, on MONDAY, 24th SEPTEMBER, at FIVE, at the CASTLE INN, near the property, FORTY-FIVE PLOTS of valuable FREEHOLD BUILDING LAND, situate in CHANDOS and HENNIKER ROADS, CHOBHAM'S ESTATE, Leyton Road, within five minutes' walk of the Stratford Railway Station. Particulars and a plan may be had of H. D. DEARDS, Esq. Solicitor, 27, Vincent-square, Westminster; at the Castle Inn and King's Head Inn, West Ham; and of the Auctioneer, Angel-place, Stratford; and of Mr. COLLINGS, Estate Agent, Wordsworth place, Kingston.

KING STREET, SOUTHWARK.—TO BUILDERS, CARPENTERS, CABINET-MAKERS, AND OTHERS.

MR. ROGERS will SELL by AUCTION, by order of the proprietor, on the PREMISES, opposite the Britannia, Nelson-street, as above, on THURSDAY, SEPTEMBER 20th, 20th, 25th, and TWELVE for ONE o'clock, nearly 2,000 superficial feet of PLANKS, DEALS, and BATTENS, cut into various lengths and sizes; 150 squares of prepared deal and batten floor-boards, and a quantity of dry pine plank and scantling.—May be viewed the day preceding, and morning of sale. Catalogues had on the Premises, and of the Auctioneer, Kent Fire and Life Office, Lewisham, Kent.

TO BUILDERS, MASONS, &c.—Three hundred MARBLE CHIMNEY-PIECES, executed in great variety of designs, and manufactured in a superior manner, WILL BE SOLD by PUBLIC AUCTION on the following days:—WEDNESDAY, 3rd of OCTOBER, WEDNESDAY, 17th of OCTOBER; WEDNESDAY, 31st of OCTOBER.—Sale to commence precisely at THREE o'clock, and on view the day of sale only. The first and second portions will consist of the smaller class Chimney-pieces. The Third Days' Sale will consist of the larger class Chimney-pieces, suitable for Mansions, Public Buildings, and Clubhouses.

Westminster Marble Company,
Earl-street, Holywell-street, Millbank.

SALES BY AUCTION.

NOTTING-HILL.—Long Leasehold Property, of the value of 200l. per annum for occupation or investment.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the MART, on FRIDAY, SEPT. 21, at TWELVE, in four lots, a LEASEHOLD ESTATE, comprising four substantially-erected Family Residences, containing twelve rooms each, being Nos. 91, 93, 97, and 99, Portland-road, of the estimated value of 240l. per annum. Held on lease for long terms unexpired, at low ground-rents.—May be viewed, and particulars obtained of EDWARD WICKENS, Esq. Solicitor, 7, Great James-street, Bedford-row; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William street, City.

HARROW-ROAD.—Leasehold Carcases, in Private Residences and Shops.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the MART, on FRIDAY, SEPTEMBER 21, at TWELVE, in six lots, SIXTEEN well built CARCASES of twelve-roomed RESIDENCES (four having shops), situate and being Nos. 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, and 34, Delamere-crescent, Westbourne-terrace North, within three minutes' walk of the Paddington Station on the Great Western Railway, and overlooking the Grand Junction Canal. Held on lease for a long term unexpired at low ground-rents.—May be viewed, and particulars obtained in the form of Messrs. RHODES, SONS, and DUFFIELD, Solicitors, 69, Chancery-lane; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

NOTTING HILL.—Leasehold Carcases in Dwelling-houses and Shops.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the MART, on FRIDAY, SEPTEMBER 21, at TWELVE, in four lots, FOUR LEASEHOLD DWELLING HOUSES (in carcase), of seven rooms each, with shops, abutting on the Clarendon Hotel, built with the best description of materials, for ninety-eight years from Midsummer-day last, at a low ground-rent. Particulars may be obtained of Wm. PALMER, Esq. Solicitor, 7, Great James-street, Bedford-row; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

KENSINGTON.—Eligible Leasehold Property, for occupation or investment.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the MART, on FRIDAY, SEPTEMBER 21, at TWELVE, in two lots, a LEASEHOLD ESTATE, comprising two brick-built messuages, with shops, being Nos. 7 and 21, Vernon-terrace, Kensington-gravel, value of 84l. per annum, held on lease for a long term unexpired at a low ground rent.—May be viewed, and particulars obtained of Messrs. PARSONS and POOLE, Solicitors, Bartholomew-close; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

WESTBOURNE-GROVE.—Leasehold Property, for occupation or investment.

MR. D. A. RAMSAY is instructed by the Mortgagee under a power of sale to SELL by AUCTION, at the MART, on FRIDAY, SEPTEMBER 21, at TWELVE, in two lots, TWO brick-built FAMILY RESIDENCES, situate and being Nos. 25 and 27, Hereford-road, of the estimated value of 72l. per annum.—May be viewed, and particulars obtained of Messrs. RHODES, SONS, and DUFFIELD, Solicitors, 69, Chancery-lane; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

PADDINGTON.—Shop Property, producing £130 per annum.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the MART, on FRIDAY, SEPTEMBER 21, at TWELVE, in two lots, a LEASEHOLD ESTATE, comprising two brick-built and slated DWELLING-HOUSES, with shops having plate glass fronts, being Nos. 17 and 19, Westbourne-terrace north, in the occupation of respectable tenants, and producing a rental of 88l. per annum. Held on lease for an unexpired term of ninety-seven years (less ten days) from Christmas, 1855, at low ground rents.—May be viewed with permission of the tenants; and particulars had of Messrs. RHODES, SONS, and DUFFIELD, Solicitors, 69, Chancery-lane; at the Mart; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

TO CARPENTERS, BUILDERS, CABINET-MAKERS, COACH-BUILDERS, AND OTHERS.—Absolute sale.

MR. W. R. GLASIER will SELL by AUCTION, on the PREMISES, No. 93, Clarke-street, Hampstead-road, on WEDNESDAY, SEPTEMBER 26, the capital, lofty and well-seasoned STOCK of a timber merchant, comprising 1,500 yellow Deal, Planks, Deals, and Battens; 100 square white and yellow Floor Boards; 20,000 feet Honduras and Cuba Mahogany, in board and plank; 500 feet Panel Board; 5,000 feet wide Pine Panel Board; about eight loads dry English Ash, in various thicknesses; dry Wainscot; Beech, in planks and quarters; yellow and spruce grant rinds, &c. May be viewed two days prior, and morning of sale, and catalogues had on the Premises; at Garraways, Change Alley, Cornhill; and at the Offices of the Auctioneer, 41, Charing cross.

TO BUILDING MATERIAL DEALERS, MARKET GARDENERS, AND OTHERS. York-road, Battersea, Surrey.

MR. W. R. GLASIER will SELL by AUCTION, on the PREMISES, corner of Plough-lane and York-road, Battersea, on THURSDAY, SEPTEMBER 27th, at TWELVE PRECISELY, on lots, by direction of the executors of the late Mr. George Carter, the BUILDING MATERIALS comprised in the erection of ten granary sheds, stabling, three greenhouses, pits, &c. including about 120,000 bricks, 3,000 yards of timber in joists, rafters, framing, &c. iron piping, lead pump, large quantity of useful iron and timber, firewood, &c. Also, about 250 greenhouse and pit lights 6 ft. 6 in. by 4 ft. 6 in. and hoarding, about 4 loads put down, two tumbril carts, two useful springcarts, four wheel spring van, capital market cart, water cart, wheelbarrows, winnowing machine, ladders, &c. &c. Also, about 200 sheets of Reading mashs, and an acre of Scotch Recent potatoes.—May be viewed two days prior and morning of sale, and catalogues had on the Premises; at Garraways; and of the Auctioneer, 41, Charing cross.

Freehold Building Land, Battersea.

MR. W. R. GLASIER will SELL by AUCTION, at GARRAWAYS, on TUESDAY, OCTOBER 2 at TWELVE for ONE, in lots, by direction of the Executors of the late Mr. George Carter, 170 PLOTS of valuable FREEHOLD BUILDING LAND, most eligibly situate in Ploughlane, Albion-street, George-street, Hope-street, and Fieldplace, York-road, Battersea, Surrey. Land tax redeemed.—May be viewed, and particulars, with plans, had of C. E. FREEMAN, Esq. Solicitor, 11, Bucklersbury; of Mr. EDWIN CARTER, York-road, Battersea; of Mr. W. RAGDON, 6, Salamanca terrace, Fulham road; at Garraway's, and of the Auctioneer, 41, Charing-cross.

BUILDING MATERIALS.—Mott-green, near Eltham, Kent.

MESSRS. KIRKMAN and ENGLEHEART have received instructions to SELL by AUCTION, on the PREMISES, on WEDNESDAY, 19th SEPTEMBER, 1855, at TWELVE, for ONE precisely, the whole of the valuable MATERIALS of the residence known as Nottingham Lodge, Mottingham, near Eltham, Kent, comprising fixtures and fittings in stoves, ranges, coppers, hot-air pipes, and boilers; sashes, frames, doors, and partitions; the whole of the sound brickwork of the dwelling-house, coach-house, stabling, and outbuildings; a large quantity of slates, tiles, pipes, and ridge tiling; boarded roofings, rafters, joists, and other timbers; lead pipes, guttering, and flashing; erection of force pump, with suction-pipes, cranks, and wheels; the erection of grape-house, with glazed lights, furnace, hot-air pipes, and flues, and miscellaneous effects. On view three days prior and morning of sale; and catalogues obtained on the Premises; at the principal Inns in the neighbourhood; of Messrs. COMBE, Solicitors, Tooley-street and Mark-lane; and at the Offices of Messrs. KIRKMAN and ENGLEHEART, Auctioneers, 38, King William-street, City, and Blackheath, Kent.

SALES BY AUCTION.

TO CEMENT AND LIME-MERCHANTS, BUILDERS, WHARFINGERS AND OTHERS.

MESSRS. EVERSFIELD and HORN are instructed to DISPOSE OF the LEASE of the eligible Premises, known as TUSCANY WHARF, on the Regent's canal, near Kingsland-road bridge, fitted with patent kilns, shed, counter, &c. in complete working order.—Full particulars and cards to view may be had at their Auction and Estate Office, 40, Parl ament-street.

NEAR OUNDLE, NORTHAMPTONSHIRE.—To TIMBER MERCHANTS, SHIPWRIGHTS, BUILDERS, WHEELWRIGHTS, and Others.—For SALE by AUCTION by

DEACON and SON, on WEDNESDAY, the 19th of SEPTEMBER, at 3, 330 very fine OAK TIMBER TREES, of superior quality and large dimensions, in convenient lots, within a short distance of the railway station, a water carriage on the River Nene. For particulars, apply to Messrs. Cons, Surveyors and Land Agents, 18, Lincoln's-inn-fields.

Oak, Elm, Ash, and Walnut Timber.

MR. WILLIAM HODSOLL will SELL by AUCTION, at the LION INN, FARNINGHAM, KENT, on FRIDAY, SEPTEMBER 21st, 1855, 117 capital Oak Timber TREES, in the parishes of Orpington and St. Mary's Cray, twenty large Elm Trees and five Ash ditto, lying near Farningham and Eynsford; also four large and three small Walnut Trees, lying at Chelsfield.—Particulars may be had of Mr. WM. HODSOLL, Auctioneer, &c Farningham, Kent.

MR. D. A. RAMSAY respectfully invites the attention of all parties having PROPERTY to LET or SELL, to favour him with full particulars, when the same will be duly registered, free of charge.—Auction and Estate Agency Offices, 79, King William-street, City, Sept. 12, 1855.

SURREY.—Furnished Residence Wanted, in the vicinity of Clapham or Forest hill, with in 10 miles of London, and near a railway.

MR. D. A. RAMSAY is instructed to RENT Furnished, a Family Residence, containing not less than six bed chambers, the usual reception-rooms, and domestic offices, coach-house, stabling, good garden, and a small quantity of land.—Particulars and terms to be forwarded to Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William-street, City.

WANDSWORTH.—Elegantly furnished Residence, with three acres of Land.

MR. D. A. RAMSAY is directed to LET, for twelve months, or a longer period, an elegantly-furnished RESIDENCE, containing all the requirements for a family of the highest respectability, with coach-house and stabling, and thirty-five acres of land.—May be viewed, with tickets only, which with further particulars, may be obtained of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

BAYSWATER.—Excellent Family Residence.

MR. D. A. RAMSAY is instructed to LET on lease, a capital FAMILY RESIDENCE, containing numerous bed-chambers and reception-rooms, and ample domestic offices, garden, &c.—Further particulars and cards to view may be obtained of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

NOTTING-HILL.

MR. D. A. RAMSAY is instructed to LET several SIX-ROOMED COTTAGES, at low rents.—Particulars and cards to view may be obtained at Mr. D. A. RAMSAY'S Auction and Estate Agency Offices, No. 79, King William-street, City.

WEST-HILL, WANDSWORTH.

MR. D. A. RAMSAY is instructed to LET, or SELL, the LEASE of an excellent FAMILY RESIDENCE, containing numerous principal and secondary bed-chambers, and reception-rooms, both rooms, dressing-room, coach house, and stabling, good garden, &c. in all about one acre.—Further particulars and cards to view may be obtained of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

HIGHBURY-HILL.

MR. D. A. RAMSAY is instructed to LET or SELL, an excellent FAMILY RESIDENCE, containing eight bed chambers, drawing and dining rooms, library, and ample domestic conveniences.—Further particulars and cards to view may be obtained of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

TO TAVERN AND EATING-HOUSE KEEPERS, AND OTHERS.

MR. D. A. RAMSAY is instructed to DISPOSE OF the LEASE, GOODWILL, and FIXTURES of a BUSINESS in the above line, eligibly situate in a leading thoroughfare at the West-end, doing a capital trade, and capable of great increase under judicious management.—Further particulars and cards to view may be obtained of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

TO BE LET, extensive LIGHT WORK SHOPS, with LARGE YARD, and steam-power, if required; lately in the occupation of a builder.—Situate, No. 19, Upper Whitecross-street, St. Luke's.

A LARGE COVERED WHARF TO BE LET, or the LEASE would be SOLD. Sculptors and others requiring premises in the neighbourhood of the Regent's-park would find the above adapted to their purpose. Apply to Mr. WOOD, Market Wharf, Cumberland Market, Regent's-park.

HAVERSTOCK-HILL.—To BUILDERS.

TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some commanding FRONTAGES for shops and Private Houses. All the sewers are in the estate, roads all formed, and now making. Term, ninety nine years. Low ground-rents. Bricks supplied at a low price, and liberal cash advances.—Apply to Mr. JOHN MOORE, 80, Charlton-street, Euston-square.

WORKSHOPS or PREMISES.—To BE LET, in the neighbourhood of Oxford-terrace, Edgware-road, TWO spacious WORKSHOPS, in their high repair, suitable for any business, and possessing every capability. They are each 42 feet long, 21 feet wide, and respectively 16 feet and 18 feet in height. They have a range of lofty windows along the side, and the upper one has five large skylights. There are two fire-places and a ventilating shafts. The floors are wood, and under the whole is a space for stowage.—For further particulars and terms, apply to Mr. GREEN, House-agent, Upper Southwick-street, in the immediate neighbourhood; or at 38, Bloomsbury-square.

TO BUILDERS and OTHERS requiring SPACIOUS PREMISES, situate by the waterside, for fitting &c. for the Crimea, can receive the first accommodation at LET 78 Wharf, Commercial-road, Lambeth.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-offices of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, September 15, 1855

The Builder,

AN ILLUSTRATED JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

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BUILDERS' BENEVOLENT INSTITUTION.—The EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate-street, on TUESDAY, the 9th of OCTOBER next.

CHARLES LUCAS, Esq. President, in the chair.

STEWARDS.

Bird, Stephen	Grayson, George	Plunkett, W.
Bird, George, Treasurer	Godwin, George	Piper, Thomas
Bird, Joseph	Gardiner, W. J.	Piper, William
Bird, William	Hutchons, Wm.	Peters, William
Bruce, William	Higgs, Joshua	Peters, Joseph
Parry, Edmd. M. jun	Haward, J.	Richardson, R.
Betts, E. L.	Head, Geo. junior	Rankell and Saunders, W. Munro
Palmer, Edward S.	Hond, Richard	Sapwell, John
Burr, H. P.	Helling, J. N.	Scantlebury, Wm.
Cubitt, Alderman W. M.P.	Herbert, Wm.	Smith, G. Spencer
Cubitt, Thomas	Jackson, Wm.	Smith, Alfred
Cheston, Thomas	Jackson, Richard H.	Smith, Frank
Coles, Shadbolt, and Co.	James, Jabez	Smith, Thomas
	Jennings, Geo.	Stephens, S. J.
Collins & Stanbury, Birmingham	Kell, John	Simkins, W. S.
	Lawrence, Wm. jun	Stirling, William
Cullingford, W. H.	Lucas, J. N. P.	Stirling, Thomas
Cullingford, Wm.	Lee, Wm. M.P.	Seward, John, jun.
Dunnage, Wm.	Mashman, William	Soper, Joseph
Doulton, Henry	Myers, George	Streatfield & Cooper
Dowell, Joseph	Newson, John, sen.	Sewell, Edward
Day, Ebenezer	Newson, John, jun.	Tolley, James
Davis, James	Nicholson, D.	Thrm, John
Eales, Chas.	Nicholson, D. junior	Taylor, James
Ellis, William	Nixon, J.	Teesman, Thomas
Eversfield and Horne	Norris, William	Webb, William
Forest, Robert	Peto, Sir S. Morton bart.	Williams, J. junior
Formby, Charles		Wright, William

Gentlemen desirous of promoting the interests of the institution by becoming stewards, will be pleased to forward their names to the Treasurer, Mr. GEORGE BIRD, 38, Edgware-road; or to the Secretary, at the Office, 19, Southampton-street, Bloomsbury.

A. G. HARRIS, Secretary.

TO the METROPOLITAN GAS-FITTERS. With a view to encourage TRADE CO-OPERATION, a PUBLIC DINNER of the GAS FITTERS of LONDON and the SUBURBS, will be held at the ROYAL ALBION HOTEL, ROAD TAVERN, HOLLOWAY, on MONDAY, OCTOBER 1, 1855, by BACHHOFFNER, in the chair. Mr. DANIEL KITCHEN, in the vice chair. Tickets (including dinner and dessert) can only be obtained at the Bar of the Tavern; of the Stewards; and of the Secretary, Mr. HUTTLY, 9, Malden-terrace, Haverstock-hill. For list of Stewards apply to the Secretary.

THE ARCHITECTURAL EXHIBITION. All Drawings, Models, &c. or Specimens of Manufactures, Patents, &c. to be sent with Building must be delivered at the Galleries of Suffolk-street, Pall-mall East, on the 3rd or 4th of DECEMBER next.

Salesmen's money is paid to the honorary treasurer, or to either of the honorary secretaries, who will be happy to afford every information.

JAMES FERGUSSON, F.R.A.S. 2a, Langham-place. } Honorary
JAMES EDMESTON, Jun. 5, Crown-court, Old Broad street. } Secretaries.

NOTICE.—The WINTER QUARTER of the ARCHITECTS, BUILDERS, CIVIL ENGINEERS, and MECHANICS' DRAWING CLASSES will COMMENCE on MONDAY, the 1st OCTOBER next. There being only a few vacancies in the evening classes, an early application is necessary. For prospectuses apply to Mr. T. J. HILL, at the Offices of the Establishment, 1, Old-street, City-road.

THE EXHIBITION of the PHOTOGRAPHIC PICTURES, by ROGER FENTON, Esq. of the Seat of War in the Crimea, is NOW OPEN, at the Gallery of the Water Colour Society, Pall-mall East, from Ten to Six daily. Admission, 1s.

COMPETITIONS.

SALFORD CEMETERY.—The Burial Board Committee of the Corporation of Salford, offer the following premiums, viz.:—A PREMIUM of THIRTY GUINEAS for the best SET of DESIGNS for an ENTRANCE LODGE, to contain dwelling for the cemetery keeper, an office, entrance gates, and two chapels, with the necessary accommodations. The designs must be accompanied with a specification, sufficient to enable a competent party to estimate the cost. The committee will have estimates prepared, and the premium will not be awarded for any set of designs, that cannot be executed for a sum not exceeding £2,500. The committee would prefer the buildings executed in ornamental stone. The party whose design is approved, will, if satisfactory, be employed to carry out the works on such terms as may be agreed upon. Also a PREMIUM of TEN GUINEAS for the best DESIGN for LAYING OUT, PLANTING, ORNAMENTING, and ENCLOSING the GROUND.—Plans of the site, and full particulars, may be obtained, on application to the Town Clerk, Town-hall, Salford, and designs must be sent to his office, with a motto, accompanied by a sealed letter, not later than twelve o'clock on OCTOBER.

Town-hall, Salford, September 18, 1855.

TO ARCHITECTS AND OTHERS.

THE BURIAL-BOARD for the Parish of ST. JOHN the BAPTIST, MARGATE, Kent, is desirous of receiving PLANS, DESIGNS, ELEVATIONS, and SPECIFICATIONS, with ESTIMATES, for Laying out a New Burial ground, Enclosing with a Brick Wall Four of or the whole of the Eight Acres of Land secured by the Board, for Building Two Chapels and a Lodge, with Entrance-gate. The buildings are not required to be of an expensive character. The parish contains at present about 9,000 Inhabitants. A PREMIUM of £5 is to be given to the Architect whose plans, designs, elevations, and specifications are approved by the Board. The Architect must be prepared, if required by the Board, to make the superintend the carrying out of the intended works, if called upon to do so, upon receiving the usual fee for the same. A sealed letter, containing the name and address of the party who should accompany the specifications, with a motto, which will be opened after the selection is made; and the plans not approved will be returned. The Board does not pledge itself to accept any plan. The drawings are to be sent, free of carriage, to me, at the Office of the Burial Board, on or before the 1st day of NOVEMBER next.—A tracing of the ground, with further particulars, may be obtained upon application as above.

JOHN POUSSETT, Clerk to the Board.

Town-hall, Margate, Sept. 18, 1855.

TYNEMOUTH CEMETERY.—The Burial Board for the Parish of Tynemouth, offer the following PREMIUMS, viz.:—For the best set of DESIGNS for an EPISCOPAL CHAPEL, a DISSENTERS' CHAPEL, LODGE, OFFICE, and necessary accommodations; Gardener's Cottage, and Entrance-gates; accompanied by estimates. The cost to exceed £2,000 for each. Thirty Guineas. The architect whose design shall be approved will be required to furnish all detailed specifications and working drawings necessary for the construction of the works, and to find a contractor willing to perform the work for the sum named in the report and estimate accompanying the plans. In the case of the designs be adopted, and the specifications and working drawings not required, only one half of the above premium will be given. For the best plan and estimate for LAYING OUT, PLANTING, and ORNAMENTING the ground, 23 acres in extent, keeping in view the preservation of the natural grass on such portions of the land as may not be required for purposes of interment. Ten Guineas. A lithographed plan of the site, with the levels marked thereon, may be obtained, on payment of 5s. at the Town Surveyor's Office, Norfolk-street; and further information obtained there, or at the Town-clerk's Office, Howard-street, Tynemouth. The plans, designs, and estimates, to be sent to the Town clerk's Office on or before THURSDAY, the 27th instant.

THOS. C. LIETCH, Clerk.

Borough of Tynemouth, September 5, 1855.

CONTRACTS.

TO BUILDERS AND IRONMONGERS.

THE BURIAL BOARD for the PARISH of GREENWICH, Kent, are prepared to receive TENDERS for the ERECTION of a DWARF PLINTH WALL and IRON PALISADING, to the east and west boundaries of the NEW CEMETERY for GREENWICH, at Kidbrook, near Blackheath, and for Entrance Carriage, and Foot Gates, at the southeast angle, facing Well Hall-lane.—The drawings and specification may be seen at the Offices of the Architect, Mr. J. HUSWELL, Montague-close, Southwark. Tenders to be sent to the Offices of Mr. T. JAMES, No. 24, Burr-street, Broadway, London-bridge, on MONDAY, the 1st of OCTOBER, 1855, at FIVE o'clock. The Board do not bind themselves to accept the lowest, nor any of the Tenders sent in.

E. W. JAMES, Clerk to the Board.

Greenwich, September 13, 1855.

TO BUILDERS.

THE LEAMINGTON NATIONAL SCHOOLS.—Parties desirous of the opportunity of TENDERING for the ERECTION of the above SCHOOLS, from the designs of Messrs. Lanchaster and Wrightington, Architects, 37, Great James-street, Bedford-row, London, are requested to send in their names to W. WATSON, Esq. Leamington, on or before the 8th inst. in order that the requisite number of quantities may be provided. A copy of the quantities will be forwarded on the receipt of 10s. The Trustees will not bind themselves to accept the lowest tender.

TO CONTRACTORS AND BUILDERS.

THE Directors of the London, Brighton, and South Coast Railway Company are prepared to receive TENDERS for the ERECTION of SEVEN BUILDINGS at the Balcombe Area Depôt in the Hamsden, Sussex, comprising a Goods Station, Engine and Tender Houses, Granaries, Carpenter's Shop, &c. The drawings and specification may be seen at the Engineer's Office, London-bridge Terminus, on and after MONDAY, the 17th instant; and Tenders must be sent in to the undersigned before TWELVE o'clock on the morning of THURSDAY, the 27th instant.

FREDERICK SLIGHT, Secretary.

London Terminus, Sept. 13, 1855.

CONTRACTS.

Royal Engineer's Office, Portsmouth, 10th Sept. 1855.

NOTICE is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before the 1st of OCTOBER, 1855, before TEN o'clock a.m. from such persons as may be willing to enter into a CONTRACT with the Ordnance for ALTERATIONS to the GLACIS at Southsea Castle, near Portsmouth, County of Hants, agreeably to the plans and specifications to be seen at the Royal Engineer's Office, Portsmouth, on application to Mr. HAWKEN, Clerk of Works, any day (excepting Saturdays) between the hours of TEN and FOUR, until TUESDAY, the 2nd OCTOBER, 1855, and where forms of Tender may be obtained.

The Board do not reserve to themselves the right of rejecting all or any of the Tenders.

NOTICE to GAS CONTRACTORS and BUILDERS.—ORDNANCE MEMORANDUM. Office of Inspecting Royal Engineer in Ireland, Dublin, 6th September, 1855.—ERECTION of GAS WORKS and all APPARATUS appertaining thereto, with Street Mains, Pipes, External and Internal Fittings, and supply of GAS, for the Temporary Barracks on the Curragh of Kildare, in the Dublin district.—The Inspecting Royal Engineer in Ireland will receive TENDERS for the services, at his office, in the Castle, Dublin, on any day between 10 o'clock and 4 o'clock.

Form 1.—For the ERECTION of a GAS MANUFACTORY, with all necessary apparatus, site of works, pipes, public lamps, &c. &c. and for supplying and fitting all internal fixtures, burners, &c. &c. and for the supply of the Gas thereof, the contractor must notify in his Tender the sum at which he proposes to undertake the whole complete, as per plans and specifications, the whole to remain the property of the contractor; but the contractor to engage to supply all gas required at a fixed price to be named in the Tender, per 1,000 cubic feet, and the Government to have the option at any time to terminate the contract, and purchase the whole, at a price which must be named in the Tender.

Form 2.—For the ERECTION of a GAS MANUFACTORY, with all necessary apparatus, street mains, pipes, and public lamps, the same to remain the property of the contractor, and for supplying and fitting all internal fixtures, burners, &c. the same to be the property of the Government, the contractor engaging to supply all gas required at a fixed price, to be named in the Tender, which sale to state sum for meeting.

N.B. Intending Tenderers are requested to consider for the above services and weights the room, plans and specifications, where all to be carried at the same time as the Tenders which may be received in reply to the former notice. Government reserve to themselves the right to reject any or all the Tenders. Persons desirous of Tendering for the above work will receive every information at the Office of the Inspecting Royal Engineer, Ordnance Office, Linen Castle, Dublin; and at the Commanding Royal Engineer's Offices at Manchester and Glasgow, where they may see the drawings, and obtain specifications, with the terms of contract. The period to be stated in the offer of Tender with which contractors engage to complete the work, subject to terms of contract. All Letters containing proposals or Tenders in connection with the above to be addressed to "The Commanding Royal Engineer in Ireland, Lower Castle yard, Dublin," and to be received on or before the 27th day of SEPTEMBER, 1855; and to be endorsed on the outside, "Tender for Gas Works at the Curragh of Kildare."

BURSLEM LOCAL BOARD of HEALTH. CONTRACT No. 1.—The Burslem Local Board of Health are prepared to receive TENDERS for the supply of a quantity of certain GLAZED EARTHENWARE PIPES and other ARTICLES, as mentioned in the Schedule of the Specification. Copies of the drawings and specifications and forms of Tender and Quantities, may be obtained at the Public Offices, Marsland-road, Burslem; and at the Office of the Engineer, Mr. LEE, 7, Duke-street, Westminster, on and after SATURDAY, the 8th day of SEPTEMBER inst. Tenders must be sent in to me on or before TUESDAY, the 2nd day of OCTOBER, 1855.

By order, JOSEPH LOWNDES, Clerk to the Board.

Burslem, 8th September, 1855.

BURSLEM LOCAL BOARD of HEALTH. CONTRACT No. 2.—The Burslem Local Board of Health are prepared to receive TENDERS for the supply of the SADDLE BACK, BRICK SEWER PIPES and other ARTICLES, as mentioned in the Schedule of the Specification. Copies of the drawings and specification may be seen, and forms of Tender and Quantities may be obtained at the Public Offices, Marsland-road, Burslem; and at the Office of the Engineer, Mr. LEE, 7, Duke-street, Westminster, on and after SATURDAY, the 8th day of SEPTEMBER inst. Tenders must be sent in to me on or before TUESDAY, the 2nd day of OCTOBER, 1855.

By order, JOSEPH LOWNDES, Clerk to the Board.

Burslem, 8th September, 1855.

EAST LANCASHIRE RAILWAY.—TO CONTRACTORS and BUILDERS.—The Directors are prepared to receive TENDERS for the ERECTION of the following WORKSHOPS for Bolton, viz.:—Engine Erecting Shop, Machine Shop, Offices, Smiths' Shop, Spring Shop, Boiler Shop, Foundry, Engine Lamp, and Sand Houses, and Stores, at the Bolton Office, Bury Station, and Sidings, addressed to Mr. Underwood, Manchester. Tenders to be delivered at the Company's Office, Manchester, on or before the 1st of OCTOBER next. Plans, specifications, and forms of Tender may be obtained at the Offices, Bury, Lancashire, of JAMES SMITHELLS, Secretary.

Bury, Lancashire, Sept. 14, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS. To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house No. 1, Greek-street, Soho-square, on TUESDAY, the 25th day of SEPTEMBER inst. at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING the following WORKS, viz

[illegible] Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Craven-lane and Craven-hill, [illegible]-road, Maida-hill, St. John's-wood-road, Greville-place, Kilburn, and other streets and places in the county of Middlesex (in one Tender).

1,[illegible] Feet in length, or thereabouts, of brick sewers with other works in connection therewith, in Marlborough-road and Cumberland-[illegible], Chelsea, and Old Brompton-lane, in the county aforesaid (in one Tender).

5[illegible] Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, between Old Brompton-lane and a point in a certain new road leading from Old Brompton-lane towards [illegible] House, in the county aforesaid (in one Tender).

1,1[illegible] Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in Lombard-street, Duke-street, and Lind[illegible]-row, Chelsea, in the county aforesaid (in one Tender).

[illegible] Feet in length, or thereabouts, of brick sewer, with other works in connection therewith, in the King's-road, Chelsea, in the county aforesaid (in one Tender), and for the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected and other particulars obtained at the principal office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the said [illegible]. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.
Dated this 1[illegible]th day of September, 18[illegible].

TEMPERANCE PERMANENT LAND and BUILDING SOCIETY. To ROAD CONTRACTORS.—The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS on the STRATFORD ESTATE. The drawings and specifications may be seen on and after FRIDAY the 21st instant at the Office of the Surveyor, Mr. WILLIAM ELLISON, 13, Stains-[illegible], Limehouse. Tenders to be delivered at or before SIX o'clock, on TUESDAY, the 2nd OCTOBER, at the Offices of the Society, addressed to the Secretary, and endorsed, "Tenders for roads, Stratford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

H. J. PHILLIPS, Secretary.

31, Moorgate-street, London.
The above estate will shortly be allotted.

TENDERS are required for the ERECTION of FIVE PAIRS of SEMI-DETACHED COTTAGES at Walthamstow. Plans, &c. may be seen at the Offices of Mr. WILLIAM L. WILLIAMS, Architect, No. [illegible], [illegible]-street, between the hours of TEN and FIVE, on and after THURSDAY next. Mr. W. does not bind himself to accept the lowest or either of the Tenders.

TO BUILDERS.

ROMFORD UNION.—BUILDERS wishing to CONTRACT for the ERECTION of an ADDITIONAL STORY to the two wing buildings in front of the UNION HOUSE, and OTHER WORKS, are invited to inspect the plans and specification of the works at the Office of Messrs. EDWARDS, the Architects, 17, Hart-street, Bloomsbury; or at my Office at Romford, on and after FRIDAY, the 21st instant. The Tenders are to be sealed up and delivered to me at my Office, at Romford, on or before MONDAY, the 1st OCTOBER next, by FIVE o'clock in the afternoon. The Guardians will meet at the Board-room at the Union House, on TUESDAY, the 2nd day of OCTOBER next, at TWELVE o'clock, to receive the Tenders, each of which must state the names of two responsible persons, who will join the contractor in the usual bond for the performance of the Contract; but the Guardians do not bind themselves to accept the lowest Tender.

W. H. CLIFTON,
Romford, September 18, 1855. Clerk to the Guardians.

TO BUILDERS.

PARTIES desirous of TENDERING for the ERECTION of a CONGREGATIONAL CHURCH, to be built at Folkestone, Kent, may see the drawings and specifications, and obtain particulars, at the Offices of M. J. MESSENGER, Architect, Folkestone, on and after THURSDAY the 27th inst. Tenders to be sent to the offices of the Architect on or before TWELVE o'clock on THURSDAY, the 1[illegible] of OCTOBER. The Architect reserves to himself the power of rejecting the lowest or any other Tender.—Folkestone, Sept. 21, 18[illegible].

TO BUILDERS.

PARTIES desirous of TENDERING for the ERECTION of a RESIDENCE, with Stabling, &c. to be built at Walmer, Kent, for Capt. Montresor, R.N. may see the drawings and specifications and obtain further particulars at the offices of M. J. MESSENGER, Architect, Folkestone, Kent. Tenders to be sent in to the Offices of the Architect on or before TWELVE o'clock on THURSDAY, the 4th of OCTOBER. The Architect reserves to himself the power of rejecting the lowest or any Tender.
Folkestone, Sept. 21, 18[illegible].

PUMPING-ENGINE.—The Committee acting under the Hereford Improvement Act of 18[illegible] are prepared to receive TENDERS from parties who may be willing to undertake the CONSTRUCTION and ERECTION of a PUMPING-ENGINE for the Hereford Waterworks. A description of the engine required, with all the particulars, may be obtained on application to Mr. T. CURLEY, C.E. Tenders to be sent in on or before TWO o'clock, p.m. on MONDAY, the 29th day of OCTOBER next, addressed to the Committee of the Hereford Improvement, and endorsed, "Tender for Pumping-Engine." The Committee do not pledge themselves to accept the lowest or any Tender.—By order of the Committee.

T. CURLEY, C.E.

Hereford Improvement Office, 19th September, 18[illegible].

NOTICE to BUILDERS and OTHERS.— The Burial Board for the Parish of Great Coggeshall, in the County of Essex, intend entering into a CONTRACT for BUILDING a CHAPEL, ENTRANCE-GATES, and PIERS, PALISADE FENCING, IRON HURDLES, and other Works, upon their Burial-ground, in the parish of Great Coggeshall aforesaid. Plans and specifications of the works required to be done may be inspected at my Office, in Stoneham-street, Great Coggeshall aforesaid, or at the Office of Mr. GEORGE COOTE, the Architect to the Burial Board, opposite the Bank, at Witham, in Essex, from FRIDAY, the 2[illegible] day of SEPTEMBER inst. to WEDNESDAY, the 3rd day of OCTOBER next, inclusive. All persons willing to undertake the said works are requested to make proposals for that purpose by delivering sealed Tenders for the same addressed to me, and endorsed "Tender for Burial Works;" such Tender to be delivered at my Office free of expense, on or before TWELVE o'clock at noon of SATURDAY, the 6th day of OCTOBER next. The Board will require security for the due performance of the contract, and do not pledge themselves to accept the lowest Tender. By order,

RICHARD STEVENS, Clerk to the Burial Board.

Coggeshall, Sept. 17, 1855.

TO SEWER CONTRACTORS.

PERSONS desirous of submitting TENDERS for the BUILDING SEWERS, and PUTTING IN DRAIN PIPES on an estate at Tollington-park, may inspect the drawings and specification at the Office of Mr. CHARLES HAMBRIDGE, Architect, on and after WEDNESDAY next. Tenders to be delivered 5th OCTOBER, at TWELVE o'clock.—The proprietor does not bind himself to accept the lowest or any of the Tenders.

CONTRACTS.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

Viscount Ranelagh
Right Hon. R. A. Christopher, M.P.
Hon. Col. Lowther, M.P.
J. C. Cobbold, esq. M.P.

TO ROAD CONTRACTORS, &c. The Executive Committee are prepared to receive TENDERS for CONSTRUCTING the ROADS on the SECOND PORTION of the ROUND HILL PARK ESTATE, Brighton, East Sussex. The drawings and specification may be seen at the Offices of the Surveyor, Mr. GEORGE MORGAN [or duplicates of the drawings and specification may be seen at the Allen Arms Inn, Lewes-road, Brighton], on and after MONDAY, SEPTEMBER 17, 1855, between the hours of TWELVE and FOUR. Tenders are to be sent in on or before TWELVE o'clock on MONDAY, OCTOBER 1, addressed to the Surveyor, and marked "Tenders for Roads, &c. Round Hill Park Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand.

WISBECH SEWERAGE.—To CONTRACTORS.—The Wisbech Local Board of Health are prepared to receive TENDERS for EXECUTING certain WORKS of SEWERAGE, consisting of about 11,000 lineal yards of brick sewers, and about 1,500 lineal yards of earthenware pipe sewers, together with the necessary gullies, man-holes, ventilators, valves, &c. Drawings of the above works may be seen, and a specification and bills of quantities thereof obtained, on and after MONDAY, the 24th instant, at the Office of G. R. STEPHENSON, Esq. C.E. 24, Great George-street, Westminster; or at the Office of Mr. WILLIAM ADAMS, Wisbech, Surveyor and Inspector of the above Local Board. Sealed Tenders to be sent (post paid), or delivered to ROBERT WHERRY, Esq. Mayor, Wisbech, on or before MONDAY, the 8th of OCTOBER next. The Tenders to be endorsed "Tender for Wisbech Sewerage." The Local Board do not pledge themselves to accept the lowest Tender, or any Tender unless they think fit.—By order,

F. J. A. JACKSON, Clerk to the Local Board.

Wisbech, September 19, 1855.

TO IRONFOUNDERS and OTHERS.— The Local Board of Health of Hastings, are prepared to receive TENDERS for 2[illegible] feet of [illegible] inch cylinder CAST IRON PIPES, and 15[illegible] feet of circular IRON CULVERT, of [illegible] feet in diameter. Copies of the specification will be forwarded, gratis, to any prepaid application, addressed to the Town Clerk, at Hastings.—Hastings, September 18, 1855.

TO GAS FITTERS AND METER MAKERS.

THE MALVERN IMPROVEMENT COMMISSIONERS require TENDERS for SERVICES to 200 STREET LAMPS and to 500 HOUSES. Printed Forms of Tender and specification can be obtained by application to the undersigned, or to Mr. J. H. JONES, the Commissioners' Engineer, 1, Poet's Corner, Westminster. Tenders to be delivered at Great Malvern on or before the 1st of OCTOBER. Meter-makers are merely invited to send their list-prices, with the discount allowed.

JOHN SKEY, Clerk to the Commissioners,
Great Malvern, Worcestershire.

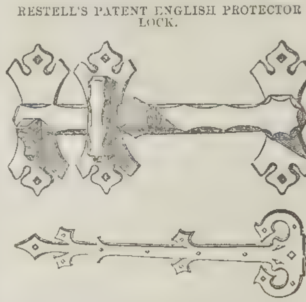
THE CHURCH of ENGLAND FREEHOLD LAND SOCIETY. The Executive Committee are desirous of receiving TENDERS for the CONSTRUCTION of about [illegible] feet of CULVERT, for the EXCAVATION, WHEELING, and SPREADING of about 3,[illegible] yards cube of GROUND-WORK, and some other WORKS in connection therewith on the Aldershot Estate, at Ash, Surrey. The drawings and specification may be seen at the Office on and after WEDNESDAY, the 19th inst. between the hours of TEN and TWO. The Tenders are to be sent in on or before SIX o'clock on THURSDAY the 27th inst. addressed to Mr. FREDERICK TYERMAN, the Surveyor, and endorsed "Tender for Culvert, &c. Aldershot Estate." The Committee do not bind themselves to accept the lowest or any Tender.

H. O. MARTIN, Secretary.

18, Adam-street, Adelphi, 13th September, 1855.

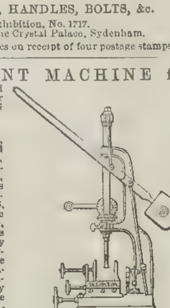
HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.

RESTELL'S PATENT ENGLISH PROTECTOR LOCK.



LOCKS, HINGES, HANDLES, BOLTS, &c.
Paris Exhibition, No. 1717.
Also Specimens at the Crystal Palace, Sydenham.
Illustrated Price catalogues on receipt of four postage stamps.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.



House and Coach Builders, Joiners, Cabinet-makers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY,
PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

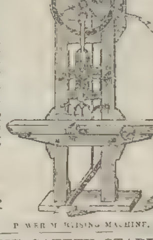
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

PRIZE MEDALS have been awarded to these celebrated Machines both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom by joiners, contractors, coach and cabinet makers, railway carriage and waggon builders, machinists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring.

Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.

Sold only by
WILLIAM FURNESS,
Patentee, No. [illegible], Lawton-street,
Liverpool, from whom full particulars may be obtained.



POWER MORTISING MACHINE.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.
THIS IS THE ORIGINAL PATENT

for important improvements in stable fittings including a method [illegible] all others for conveying the straps and halter-weights to the back of the fittings, to prevent the horse [illegible] in the stall. Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock. Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of Kite's Patent Noiseless Cast Iron Smoke Curing Chimney Caps.—200 on Buckingham-palace.—Price Lists sent on receipt of two postage stamps.

JAMES BARTON, Iron Founder, &c. 37[illegible], Oxford-street, a few doors East of the Pantheon.

IRON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK.

W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

IMPERIAL IRON FOUNDRY, and
ECONOMIC RANGE MANUFACTORY.

	£	s.
Three ft. wide	6	1[illegible]
Three ft. three in.. ...	7	0
Three ft. six in	7	15
Three ft. nine in	9	0
Four ft	10	10
Four ft. six in........	12	12
Five ft	14	14

Covings, 5s. per foot.
Fixing, 5s. per foot.

This valuable KITCHEN RANGE, the Manufacturer has much gratification in stating, has been in use several years, and given the utmost satisfaction. It may be used either with the fire open or closed, thereby avoiding the objection so naturally felt against having the fire at all times shut up, which is well known to generate a close unwholesome vapour.

The Prize Medal and Honourable Mention was awarded to this Range at the Great Exhibition of 1851.
To be seen in operation at the Manufacturer's,
J. SHERWIN, 52, TABERNACLE-WALK, FINSBURY.
Castings of every description in Loam or Sand.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS,
68, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.
GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,
168, DRURY-LANE, and CHARLES-STREET.

THOMAS EDINGTON,
PURCHASER and INSPECTOR
OF
CASTINGS on COMMISSION,
17, GORDON-STREET, Glasgow.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

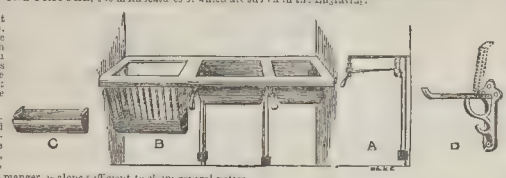
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

Have made important additions to their Illustration of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the principal features of which are shown in the Engraving.



A represents the Patent Halter guide and C the corn, the ball of which is taken to the back of the manger-works with freedom and ease up or down the guide-bar, and is useless to the occupation, as the feeder prevents the most restive horse being cast in the stall.

B. The Patent Portable Seed-box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, instead of leaving a shapeless iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned clear out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility, are cleanly in appearance, durable, and never get out of order. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers: Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Saddle and Harness Brackets, and every Article in Stable Furniture in stock

An extensive Assortment of Castings for Both Plain and Ornamental Work for Building, and other purposes

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties are deemed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the same sizes from the same dies.

FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size, from 2 inches up to 6 inches each corrugation, in all lengths up to about 11 feet;

also the angular and segment iron.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS, also for RAILROAD KINGS or ROOFING, RAILWAY WAGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Trimmers use; General Ironmongery and Iron Goods in stock or galvanized to order.

The Trade supplied with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Venetian Blinds, &c.; Galvanized Water Pipes, Eaves Gutters plain and moulded, Down Pipes, Tubing, &c., cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys; Copper Rope Fan me Wire and Telegraph Wire, in Lengths.

Co-inventors of the PATENT WEDGE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTED ROOFING FELT, at 1l per square foot. Dry hair Felt for Deadening Sound, for Boilers and Steam Pipes, various prices and qualities, at greatly reduced rates.

Contractors for the Sale of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chains, Anchors, &c

THE TRADE SUPPLIED ON LIBERAL TERMS.

Head Offices: 13, JAMES-STREET (late Coalbrookdale Company's Premises), LIVERPOOL;

Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. All kinds of Iron and Ironwork Galvanized, and Sheet-iron Corrugated at very moderate prices.

FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

LOSH, WILSON, and BELL,

NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

Office, No. 7, Rise-lane, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. 6s. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 300 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1081. Class 6, Section 16, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

212" MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporising) with all the improvements, under their Quadruple patents of 1850-51-54 and 1855 including their Gunpowder Proof Solid Lock and Door (without which no safe is secure)

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT

MILNER'S PHŒNIX SAFE WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47A, Moorgate-street, City.—Circulars free by post.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.	3	4	5	6
	4s.	5s.	6s. 3d.	7s. 6d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Enator, and General Ironmonger, 13, Beaufort-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, free, about 1856. Hare Holborn.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING STOVE, both for the use of the public and private families, as the most simple in its construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is now manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; which may also be viewed in operation with Hobbs's or Forward's fire-lighter. DEANE, DRAY, and CO. (adjoining to the Monument), London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE, BACH HOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful means of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and useless fuel are thus effectually prevented; whilst a clear, cheerful fire is produced, and many cases of broiled beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 330 lbs. in nine hours, fifty-three minutes, presented by J. Bannister, esq. To each gentleman, to the directors, for the benefit given by the former inventors. The whole system in full operation for ten months, and never known to get out of order as when first finished. "They have not cost one shilling for repairs."

I am, Gentlemen, yours respectfully,

EDWARD HORNE.

Messrs. Deane, Dray, and Co.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of their friends to their improved APPARATUS. At Messrs. Weeks's establishment, in operation with one of the newest description, may be seen the heating building, measuring 1,000 feet in length, at the small expense of 4s. per day for fuel and labour of both. This achievement in heating by hot water is superior to steel.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation on Steam engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, as Sugar Refiners, Potters, Colourers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst them as one of the inventions of the day for abating the Smoke Nuisance, and in many instances with a diminished consumption of Fuel.

The furnaces, of various constructions, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS BROTHERS, Nine Elms, London.

Address, THE SMOKE BURNING COMPANY, Nine Elms, London.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouses, 14, Ranelagh-street, and 4, New Belgrave-street, Westminster. Contractors, Builders, &c. supplied with General Ironmongery at the Lowest Cash Prices.

Cottage Ranges, with oven, boiler, &c. complete, 22s. each.

Self-acting ditto, with ditto, from 23s.

Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 5 guineas each.

Register Stoves, from 1 per inch.

Elliptic ditto, with double backs, from 1s per inch.

Cast-iron Rain-pipes	2½	3 inch.
	11d.	1s. 3d. 1s. 4d. per yard.
4-inch Eaves Gutters, 5d per yard		
O G Gutters	2½	4 5½ inch.
	1s.	1s. 1d. 1s. 3d. 1s. 6d. per yard.
Best Cut Clasp and Rose	1½	2 2½ 3 inch and larger.
	10s.	15s. 17s. 6d. 1s.

1 inch Best Cut Lath, 15s. 6d. per cwt.

Sheet Floor Brads 15s. 6d. per cwt.

Hoop Floor Brads 13s. per cwt.

Sash Weights, 7s. 6d. per cwt.; 2 Inch Rim Locks, 3s. 6d. per doz.; 6-inch Sink Traps, 3s. per doz.; strong Coil Plates, with hooks, 2s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

AUSTIN'S IMPERIAL

PATENT SASH and BLIND LINE,

can be obtained of all

ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY.

Established 1770.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

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15a, Strand, London.

67, Hyde-park-street, Glasgow.

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PATENT CORRUGATED IRON.
JOHN WALKER,
MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.
JOHN WALKER,
GALVANIZED IRON MERCHANT, &c.—The trade supplied Corrugating by steam power capable of doing 10 tons per day, at the lowest remunerative prices for bulk

IRON-FOUNDER, &c.
JOHN WALKER,
IRON-FOUNDER AND ENGINEER.
Orders to any extent can be executed at his Works, Mill-wall, Poplar. Apply at the Works

BUILDER AND CONTRACTOR.
JOHN WALKER,
Having his own Saw-mills is enabled to CONTRACT for BUILDERS' WORK.
At low prices, of superior finish with good work.
Apply at his Offices, Arthur street West, London bridge.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Bankerville Works, Birmingham.
PATENT GALVANIZED PINNED IRON, and GALVANIZED IRON in Sheets
PLAIN or CORRUGATED, and Carved of all Gauges.
Manufactured articles always kept in stock, such as pails, scoops, bowls, pulleys, ships, &c., of all sizes.
Also the Patent Galvanized Tinned Iron Tues, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hoopins, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
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SKAIFE'S GALVANIZING WORKS,
Commercial road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and Corrugated. Roofs fixed complete.
J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL, to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice

TO ARCHITECTS, BUILDERS, AND THE TRADE.
PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No 11 gauge weighs about	18 oz. per foot super.	
13	"	26 "
13	"	24 "
14	"	22 "

Full particulars and the reduced price sent by post on application to
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TUPPER and CARR, Contractors and Manufacturers of all sorts of
GALVANIZED ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
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BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's)
PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

JOHN HENDERSON PORTER,
ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS,
GAS-STREET, BIRMINGHAM.
LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
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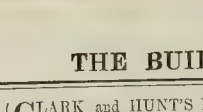
PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).
WORKS—GLASS HOUSE YARD, opposite the Entrance to the London and North-Western Railway Goods Station.
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



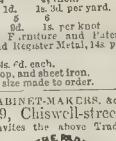
Improved Self-acting Cottage Ranges, with Large Oven and Boiler,
30 32 34 36-inch.
5s. 6d. 6s. 6d. 7s. 7s. 6d.
Best-effective Ranges, with Oven and Back Boiler, Bright Wrought Bars
34 36 38 42 inch
5s. 6d. 6s. 6d. 7s. 7s. 6d.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in 2½d
Register Stoves, with Solid Plate, per inch, 4d
Improved new Pattern Circular Check Register, with strong Frame and Trunk, 3d per inch.
Best Solar Stoves, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 5l. 5s. each.

Cast Rain-water Pipe	2 inch.	2½	3 inch.
	1½d	1s. 2d.	1s. 4d. per yard.
Cast Gutters	4 inch.	5½ per yard.	
		4½	inch.
O G Gutters		1s. 1d.	1s. 3d. per yard.

Patent Line	2	3	4	5	6
	4½d.	5d.	7d.	9d.	1s. per knot

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO BUILDERS CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs,
2d. per inch, and upwards.
Register Stoves, 3½d 6d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings
3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 36s. each.
3-feet self-acting ditto, ditto, 60s. each.
Air Bricks, 4s per 1 c.
Best Town Glue 5½, Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s 6d.	5s.	6s.	7s 6d.	8s. 6d.	11s. per gross

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

NAILS and IRONMONGERY, from BIRMINGHAM direct,
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which will be forwarded upon application.
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BUILDINGS HEATED by HOT WATER.
G. B. COOPER, IRONWORKS, 124, DRURY-LANE.
Hot Plate Cooking Ranges, Apparatus, Baths &c.
Orders carefully and effectively executed.

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PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Each power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any public building or business established most in the kingdom. Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

REDMUND'S PATENT HINGE MANUFACTORY, WELLINGTON FOUNDRY, Charles-street, City-road, near the Canal-bridge. Established thirty years.—P. REDMUND, widow of the late J. Gedge, sole manufacturer of REDMUND'S and GOLLOP'S PATENT, rising and not rising spring, swing, double acting, gate, and other Hinges, Floor Centres, &c. &c. Orders for Hinges only, addressed to Mr. J. WALBY, sole Agent, at the Wrexhouse, 56, Greek street, Soho; or at the Foundry, will be promptly attended to.—Every description of Small, Soft, and Malleable Iron Castings.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES C. LLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c., doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron work, for building and other purposes. Engines, machinery, patent axle trees, sugar-mills, &c.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Cane Tube for Picture Rods, Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.
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The unsightly fittings for gas and candles which so frequently disfigure our churches have induced F. & Skidmore to devote much time to the production of such as may harmonize with the characteristics of the buildings. The designs are founded on personal study (the remains of ancient metal work on the continent and in England.
F. S and Son would refer to their works for lighting Chester Cathedral, S. Botolphs, Boston; S. Mary's, Newark; S. Michael's, Coventry; S. John's, Ladywood; S. Philip's, Birmingham, Rowden, near Manchester, &c.; as also to the following testimonials:
"We went over the manufactory of Messrs. Skidmore, in Coventry, and were much pleased by the artistical spirit which animates them. Many list of churches and other large buildings lurked by them show their endeavours are duly appreciated."—*Builder.*
"These rising artists show considerable taste; we shall watch their progress with great interest."—*Ecclesiologist.*
"Mr. Skidmore must be considered an artist of great attainment and singular promise."—*Morning Chronicle.*
Where limited funds render economy necessary, F. A. S. has prepared designs of a simple and inexpensive character. They have gas standards, &c. finished ready for immediate use.
Sketches, with estimates, sent free by post.

REDUCED PRICES.—EDWARD SIMMS (late William Cleaver), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ½ inch to 1½ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Bills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory Wilton-road, Pimlico Basin.

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the following greatly reduced prices:—

Fine Planks, 12 ft. 9 in. by 11 in.	from	4s. 6d. each.
Spruce Deals	"	2s. 9d. "
Yellow ditto	"	4s. 6d. "
Yellow Battens, 24 in. 1¼ per 120.		
Honduras Mahogany, in logs	"	0s. 4½d. per foot.
Ditto ditto, in planks and boards	"	0s. 6d. "
Spanish ditto	"	0s. 8½ "

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
Borough-road, Southwark, and Elm street, Gray's-inn-lane

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

½ inch White, 10s. 6d. per square.		½ inch Yellow, 12s. per square.	
1 ditto	15s.	1 ditto	16s. 6d. "
1½ ditto	18s.	1½ ditto	20s. "

Laths, 3s. per bundle.
Also Timber, Deals, Planks, &c. Mouldings by machinery in every great variety.
ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth. The Proprietor of these works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

PADDINGTON TIMBER-YARD.—SAWING, PLANING, and MOULDINGS.—3, Ironsave Wharf, Praed-street, Paddington, and 2, St. John's-wood-terrace, St. John's-wood.—GEORGE WILLIAM TRY begs to draw attention to his large stock of SEASONED and PREPARED WOOD GOODS, at the lowest current prices. Liberal allowance for cash, and facility for immediate despatch by rail or canal, which affords every advantage to country as well as town buyers. Illustrated and priced sheets of moulding patterns and general price lists of goods forwarded post free on application. Goods free to any part of town, including the various railway and canal stations.
N.B.—Sawing and planing for the trade.

STEPHENS'S STAINS for WOOD.
Testimonial to the value of:—
"Northgate, Colchester, February 5, 1855.
"Sir,—I have just finished a new church with your oak stain, and I consider it the best adapted for the purpose, being the nearest approach to the real wood of any I have ever used.
"I am, sir, your obedient servant,
"SAMUEL GRIMES, Builder.
"To Mr. Hy. Stephens, 51, Stamford-street, London."

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and oak desks, slating battens, laths, Englishoak plank, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country. Address, E. SIMMS, Sawing, Planing, and Moulding Mills, King's-road, Chelsea, and Wilton-road, Pimlico.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is constantly receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are now wielded by the principal house firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of stones upon hand, consisting of Marble chimney-pieces, monuments, tanks, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No 2, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready, to be had on application, or if called for, by enclosing six-pence-stamps. Please note the address 2, BRIDGE-TERRACE, HARROW ROAD, Paddington, near the Great Western Railway Bridge.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street, also Manufacturer of Improved Knotting and Decorative Varnishes.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, to be fetched away and paid for at the time, at C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 7, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP.
2s. per cwt. given for old lead.

HAWKINS'S PATENT BRUSH COMPANY TO MERCHANTS, ARTISTS, and OTHERS.—FRANCIS FORD begs to state that he has arranged with the Patentees and Manufacturers of Hawkins's Patent and all Brushes, for the SOLE AGENCY of London and its vicinity. All communications addressed to him as under shall have his prompt attention, where price lists, patterns, and all particulars of the same can be obtained on application, or sent by post. Mr. FRANCIS FORD, 1, Laurence Pountney-hill, Cannon-street, London.—Sole Agent for London and its vicinity.

J. LEACH, BREWERY MILLWRIGHT and ENGINEER, 36, Critchell-place, New North-road, Hoxton, eighteen years' experience in London and country brewhouses. Malt-rolls, mashing machines, &c. &c. Brewery machinery on the most approved principles, and reasonable terms. Alterations and repairs, and workmen sent to any part of the kingdom.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK

Take leave to inform the Trade that they have

Opened an Establishment for the supply of Plate and Window Glass, Shades, Potiche, Lamp and other Glasses; also Wine, Spirit, and Beer Bottles, at

131, UPPER THAMES-STREET, LONDON-BRIDGE.—WORKS: SEVRES, NEAR PARIS.

ARCHITECTURAL AND ORNAMENTAL DECORATIONS.

Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Fronts, Table tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

CHARLES WM. WATERLOW AND CO.

MANUFACTURING JOINERS,

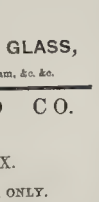
121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

N.B.—ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

SANDS AND EMERY,

CURSITOR-STREET, CHANCERY-LANE.

MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.



Lists of Prices and Estimates forwarded on application.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTIC ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non conductor

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'s PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel.

and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 396, Oxford-street.

REDUCED TARIFF.

CCC CROWN, 18 Tables, per crate, 30s.; H 15 oz. SHEET, 9d. per foot; FOREIGN SHEET, 200 feet cases, 34s. per case; CROWN or SHEET SQUARES, 100 feet boxes, 2d. per foot; HARTLEY'S PATENT ROUGH PLATE, from 6d. and PERFORATED VENTILATING GLASS, 1s. 6d. per foot; CRYSTAL SHEET GLASS, 4d., 6d. and 8d. per foot; FLASHED RUBY, 1s. GROUND SHEET, 3½d. ENAMELLED, 8d. per foot. Sashes primed and glazed, 3d. per foot.

Catalogues free, on application to the Managers, as above.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY

having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much esteemed manufacture is sold.

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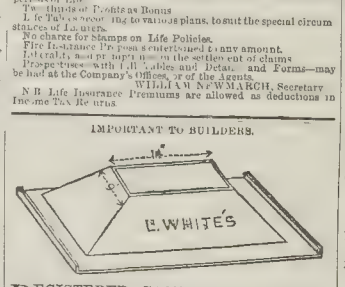

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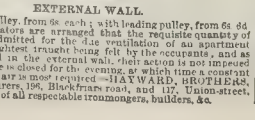

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The collieries and lands secured by the Directors are extensive and valuable; they consist of five distinct mines, together with landed plant &c. and comprise an area of upwards of five hundred acres. The seams vary from 8 to 16 feet in thickness, and contain an inexhaustible supply of coal. Topographical Researches, the practical mines are immediately adjoining, and situated within three miles of the East India Railway Company's terminus at Raneegunge, and 20 miles by rail from Calcutta. They have been worked on a small scale for the last five years, supplying for about two years the Indian General Steam Navigation Company with all the coal for its steamers. Pits already sunk at depths varying from 40 to 60 feet. Samples taken from these mines have been submitted to competent examination, and pronounced, and to be of Welsh Steam Coal. The other three mines, Kenta, Rasgal, and Tasaora, although at greater distances from the main, are most favourable with reference to the superior quality of the coal, and to facility for conveying purposes. The Jemadoba mine, which, these mines have been purchased, are highly favourable to shareholders. Not only is the price extremely moderate, with reference to previous sales of similar property in India, but the purchase money is entitled to receive the whole amount in shares of the Company.

A chart of the mines, samples of the coal, and a full report from competent parties in India as to the workings and extent of the property, are in possession of the Directors, and may be inspected at their office. For the information of those who desire to form themselves of this privilege, a few brief remarks are here submitted:—Owing to the cheapness of labour in India, a ton of coal can be raised and deposited at the pit's mouth for a sum equal to 1s. 3d. The present charge for conveyance, by rail, to Calcutta, is 11s. 9d. per ton; the cost of coal, therefore, in Calcutta, will be 13s. 3d. per ton; or, adding 1s. 6d. for sundry charges, 14s. The price of coal in Calcutta has never been less, for many years, than 24s. per ton; and in profit consequently will be the difference, or 5s. per ton. The amount of coal raised will be less than 300 tons per diem, leaving a profit of 10l. per day, or in round numbers, 3,000l. per annum, after allowing for all contingencies. Supposing the whole amount of capital to be called for, still a handsome dividend may be expected, and regularly and speedily.

With the skill and means now available, a very superior quality of coal will be raised to any hitherto brought to market in India. The manufacture of Patent Fuel upon the plan found to answer so well in the Peninsular and Oriental Steam Company's Navigation, and the preparation of coke for the use of the Indian railways &c. will engage the attention of the Company.

The deep interest which the Government of India, the various Indian Railway Companies, the Indian Steam Navigation Company, the Peninsular and Oriental Steam Company, and the private Calcutta owners, must naturally have in the success of this scheme, promises to the proprietors an amount of support not usually commanded by Public Companies.

It is proposed to make arrangements with the Company in the manner adopted by the Peninsular and Oriental Steam Company, and the various Indian Railway Companies, that is, by a Board of Direction in London, and an Agency and Superintendents in India.

The operations of the Company will be immediate.

Application for Shares in the following form will be received by the Secretary and the Brokers of the Company.

To the Directors of the East India Coal Company, "Limited."

Gentlemen,—I request you to allot me shares in the East India Coal Company upon the terms of your prospectus, and I agree to accept the same, or such lesser number as may be allotted to me, and to pay the deposit thereon at the time and place mentioned in the letter of allotment, and that such deposit may be expended in defraying the preliminary expenses.

Name .....
Address and Occupation .....
Number of Shares .....
Reference .....
Date .....

EAST INDIA COAL COMPANY.—In consequence of the numerous applications for shares, none will be received after the 30th instant.

HENRY HAYMEN, Secretary.

Sept. 19th, 1855.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding fifty months. Offered by the PERMANENT BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be had on application at the British Mutual Life Offices, 17, New Bridge-street, Blackfriars. Rules 3d. each copy, 4s. per post.

CHARLES JAMES THICKE, Resident Secretary.

LOANS, at Five per Cent. in connection with Life Assurance, on personal security, for one, two, or three years, repayable by instalments.—ENGLISH and FOREIGN LIFE ASSURANCE OFFICE, 135, Oxford-street.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment. Patterns and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSS'S WHOLESALE WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXPENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

The Builder.

VOL. XIII.—No. 659.

THE best time to judge both of the beauties and imperfections of London architecture is at an early hour of a bright midsummer morning, before the milk and watercresses have come about. Before London has *got up*, the air is to a wonder clear, the trees in the squares look bright and cheerful, and almost the only sounds heard are the chirruping of the sparrows and the challenging and reply of many a chanticleer from yards, cellars, and mysterious places.

At this quiet hour the appearance of the streets would surprise most of those who have not seen them except during the hurried traffic of the day or the drive, glare, and bustle of the night. The great thoroughfares, such as Regent-street, Oxford-street, and Holborn, appear double their usual width, and the observer may note much, in the decorations and general style of the houses and shops, which induces feelings of mingled pain and satisfaction. The door knockers, the railings, the decorations of shops, the public buildings (the original design in many instances perverted), and other matters too numerous at present to mention, are more clearly and without interruption visible.

During such a walk, the eye, fixed on exterior objects, does not prevent the imagination from straying towards the interiors of the hundreds of dwellings which in our journey we review, with the fittings, furniture, and works of art that exhibit the various degrees of domestic taste and comfort. Although not possessed of second sight, an opinion may often be formed as to the interior arrangements by the outward mask,—the door-knocker, the window-blinds, or the carefully-arranged plants. The house we are now in front of tells of an owner of square and precise cut—practical and useful, as he thinks—who likes his coat of finest broad cloth and of the old shape, and will have his furniture substantial.—"Useful, sir,—something which will last out both your time and mine. I don't care about the shape of the chair: I know this, that many a comfortable hour I have sat in it. What odds about the table's legs? who looks at them when there is a good spread on the top of it? Pictures, sir? I read the other day in the papers that some sold for 1,000*l.* each. Do you think I would be such a fool as to hang 1,000*l.* on that wall? Not likely. I know where I could put the money," &c. This gentleman's house, however, is less objectionable than that which now intrudes itself upon our notice. The flower-pots in the window are gaudily coloured and gilt. In this house we shall find old and modern masters, from Germany and Birmingham; blue rooms with green carpets; lions, lambs, and ripe fruit on the hearth-rugs; furniture of the Elizabethan, Greek, and unknown styles, grouped together, and a hundred other incongruities that we will not pain the reader by mentioning, but will rather dispose of our present space by directing attention to a few thoughts called forth by the walk.

True and pure art and true and pure taste are not the result of accident. The former alike in architecture, painting, sculpture, and the more humble walks of art, is the result of certain and established principles, which, when rightly carried out, appeal in a greater or less degree to minds cultivated and ignorant. We have noted the ploughboy, the untaught countrywoman, the hard-handed mechanic (unfortunately not taught beyond the mere mechanism of his craft), and others of similar class, all impressed, beyond the power of description, by the works of the great masters of painting. The noble works of Michelangelo, the unrivalled churches of the Gothic age, impress (though in different degrees) both prince and peasant.

Though all may be taught to admire what is really good when it is placed before them, few have a sufficient knowledge of the principles of art to discriminate amongst the multitude of examples which have almost overwhelmed us, the result of many years of barbarous taste, during which the stream of art has flowed in a wrong channel.

To educate the masses not only in general knowledge, but also in art and taste, is a necessary measure of the present day, for the progress of science is daily making man less dependent on mere physical strength; and it, therefore, becomes us to get rid as rapidly as possible of all objects in our houses which may familiarize the eyes of the young with what is bad and assist in perpetuating the taste of which we complain.

But for the demand which the large extent of ignorance in taste and art has made for manufactures and decorations of a debased description, it would cost as little to have the houses of both the middle and higher classes fitted in beauty, comfort, and harmony, as with the former;—a consideration of greater value to both old and young than is generally supposed; and even in the present state of affairs, the price of the bad is in many cases more than the cost of the good.

Let us look into a residence where the eye will not be offended.

Overlooking the Green-park, there is a house which not only contains a choice collection of works of art, but is also in other ways rendered so remarkable by the good taste of its venerable and distinguished owner, that some account of it cannot fail to be useful to our readers.

The exterior, without having much pretension, has a fit and comfortable appearance; near the top is an open verandah, in which are plants and vases; the long garden in front is in winter thickly planted with laurels and other evergreens, and in the summer is gaily decked with seasonable flowers. In this house, during three generations, Samuel Rogers, the gifted author of the "Pleasures of Memory," has gathered round him the most celebrated statesmen, poets, painters, sculptors, and those who in science or in other ways were honourably distinguished.

Within the hospitable walls of the poet have met Fox, Grattan, and the men of that age; Sir Walter Scott, Lord Byron, Chantrey, Stothard, Flaxman, Wilkie, and poor Haydon, and a host of bright luminaries of what may be considered the last generation. To mention those of the present day who have enjoyed the friendship of Mr. Rogers, might seem impertinent. A house so eminently connected by association with the great in literature, art, and science, would, independently of other considerations, be a place of general interest; but in addition to this claim upon our attention, the taste of Mr. Rogers has produced an arrangement of furniture and decoration which satisfies most eyes.

Going into the house, not from the garden side, but from Park-place (No. 22), we find in the hall some choice Greek and other sculptures, busts and vases of large size; and we enter the dining-room which overlooks the park. This room, wherein so many noted persons have met together, is of a considerable length, and is lighted by a bow window which occupies the whole of one end; the curtains are of a dull red colour—in the summer, interwined with thinner drapery of white, the trees and park seen pleasantly through; near the window on one side of the room is a fine head by Rembrandt; on the other side, the famous head of Christ crowned with thorns, by Guido, which has been often engraved; other portions of the walls are covered with choice examples of the works of Rubens, painters of the Italian and Spanish schools, and some of the best of Sir Joshua Reynolds's pictures; for instance, the Strawberry Girl, and Puck—that wonderful personification of frolic and mischief. In the bay of the window is a mahogany pedestal, ornamented with a Grecian scroll, and carrying an exquisite vase; it is, however, to the carving on the stand that we would particularly refer. One day, when Chantrey, the sculptor, had reached the height of his fame, and was paying a visit to Mr. Rogers, he said, laying his hand on the pedestal, "Sir, do you remember a journeyman carver waiting some years ago in this room to receive your instructions respecting this identical stand, and the sideboard at the further end of the room? I was that workman, then a journeyman receiving 30*s.* per week." On the sideboard to which Chantrey alluded is the original model of the bust of Pope, by Roubiliac. Sir Robert Peel has the marble, which lacks much of the character and expression of the model. In other parts of the room Etruscan and other vases are disposed. The walls are of a rich crimson, subdued as that colour would be in oil-painting, with a glazing of asphaltum; the carpet is of a very deep brown crimson hue, mixed with grey—varying, however, from both the walls and curtains. The cornice of the room is much ornamented—partly gilt; the leather coverings of the seats harmonize, yet produce variety of colour, which is enhanced by the "Vandyke brown" of the furniture.

We step up-stairs, glancing at portions of Greek architecture, into the library,—a square-looking apartment, lined with book-shelves on all sides except above the mantel-piece, where hangs a fine picture by Reynolds. On the wirework are original drawings by Raffaelle, Turner's drawing of Stonehenge in a Thunderstorm,—the wild sky, lightning, the stricken sheep and shepherd, the bereft lamb and howling dog, harmonising well with that startling effort of man's handiwork. There are also other cabinet pictures which we must pass over, except one of a lazy-looking small boy, plodding on unwillingly to school, and beguiling the way by catching a fly on the sunny side of the wall. Inside the cases are hundreds of books, many of them presents from the authors to the poet. The furniture in this room—couches, seats, table, library, ladder,—are all of fine forms. On the top of the bookcases is a variety of Etruscan vases. The working patterns of the ceiling were supplied by Flaxman, who also designed and executed the sculpture on the mantel-piece, which is well worthy of study.

An eminent German poet, writing to a brother bard in this country, said, "Send me a drawing of your favourite mantel-piece, as it is decorated, and it will enable me to become better acquainted with you than I could by reading many sheets of correspondence." The truth of the remark is strengthened by an examination of that in Mr. Rogers's library, which is covered with rare and curious objects; in fact, look where you will, the place is crowded with matters of interest,—presents of great price, and other things, although less costly, which by association are more valuable than gold. Leaving the library we pass through a vestibule, containing works of art, to the drawing-room, in which there is a glorious display of fine pictures of different schools. It is, however, to our present purpose to look upon these rather as so much of the garnishing of the room, than to enter critically into their merits; suffice it that the walls are nearly covered with works of art of the highest character. Near the door is a cabinet of light-coloured wood, in the panels of

which is the first painting of Stothard's "Canterbury Pilgrims," with his "Garden of Boccaccio," and other designs. The effect is excellent, and causes us to feel regret that the application of art to similar purposes is not at present more generally sought. The mantel-piece in this room is of white marble, and, like that in the library, by Flaxman. This is another instance of pure art being applied to domestic purposes. Why should this not be more general in the houses of the wealthy? This exquisite work is also surmounted by vases and statuettes of value; and underneath a careful glazing are several orange blossoms, pearls, and other bride's favours, which, in a mysterious manner, harmonize with the rare works of bygone generations with which they are surrounded, and touch the feelings. We pass over several objects which add to the general effect, and observe that, taking the apartments both separately and as a whole, they present an appearance of splendour without gaudiness, of richness and harmony, which is caused in the first instance, by the absence of all objectionable objects, for the eye wanders now in vain to find anything which good taste would remove; and, secondly, the colouring is skilfully arranged for throwing out the objects of greatest value: the rich colour of the walls, curtains, and carpets, which form, as it were, the key of the picture, and render objects which would be too bright under other circumstances, harmonious and accessory. The carpet of the drawing room has no positive pattern, and is of the deep and varied hue of some of our ancient glass windows. Look where you will, the eye rests on pleasant objects, and is coaxed from place to place, as it is by the skilful painter, who, by the cunning of his art, leads us from his bright light and colour into his deep yet transparent shadows.

THE RECENT HISTORY OF ARCHITECTURE.*

WORKS OF HENRY HOLLAND, JAMES WYATT, AND OTHERS.

That Holland, as an architect, was superior to the bad taste which may be found in portions even of Carlton House, for which he should hardly be chargeable, is, to our mind, supported by the evidence of the merit which there is in the portico and screen-wall of Melbourne House. Of course salient columns—even there supporting the well-designed vases—are also open to objection; but the general design, though on a very small scale, is equalled by few architectural compositions in the metropolis. It is at all events worth preserving; and should the extension of government offices require the building to be removed, it should be erected in some other place. It would be well if the plan of removal were adopted in all similar cases. Many architectural fragments have been lost which would have been as deserving of preservation as those of Inigo Jones's works, which Burlington gathered together at Chiswick; and the parks would be much improved by such accessories. We hope the suggestion will be taken in case of alterations at Burlington House. The circular colonnade there is really so fine a work of art, that we will not believe, that under any circumstances, it will be taken away; but the brick wall is an eyesore in Piccadilly, and the main entrance gateway would be more effective in itself, and more serviceable as an accessory on a different site. We have ascribed Melbourne House to Holland, though Mr. Cunningham gives it to Payne. Mr. Timbs's statement that the body of the house was by Payne, and that the portico and front, with the circular entrance-hall, were added by Holland, is, however, more likely to be correct: the front here, and that of Carlton House, were obviously from the same hand. The house was at one time the residence of the Duke of York, and was then called York House. The residence of the Prince of Wales being distinguished for the screen of columns we have mentioned, and York House for the circular entrance-hall, the circumstances gave rise to a witticism which is told by Southey in "Espriella's Letters." The buildings being described to Lord North after he had become blind, in the latter part of his life, he remarked, "Then the Duke of York, it should seem, has been sent to the Round House, and the Prince of Wales is put in the pillory."

The interior of Covent Garden Theatre, judging from the view in Wilkinson's book, would not claim particular description. The doorway from the arcade of Covent Garden was of good character, arched, with coved jambs and rusticated Ionic columns. The India House, erected in 1799 and 1800, and now proved by our correspondent of last week, to be as we supposed, from the design of Holland, deserves notice for the recessed portico, as better contrived in that respect than were many of the later attempts. The internal arrangement, doubtless by Jupp, with later alterations, is very bad; but portions, if suitably decorated, would be effective. The small entrance-hall has some merits, which procured for it particular notice in the late Mr. Bartholomew's work on "Practical Architecture." These are chiefly about the space between the order and the ceiling; where the bracketing out for support of the latter, and the combination of semicircular windows and sections of spheres, are cleverly managed. That the gain from the study of the Greek models was accompanied by some loss, is shown by the elaborate character, comparatively speaking, which was attempted in the decoration of the portico. Sculpture in the tympanum, and figures on the acroteria of the pediment were not omitted, and although the treatment by the younger Bacon was hardly equal to what the abilities of the same artist might have achieved, and may indeed have helped towards a recent prejudice against all allegory, the architect deserves credit for the introduction of what is always desirable, but what was neglected in structures put forth as on the very model of the Grecian buildings, up to the time of St. George's Hall and the Royal Exchange.

As we hold that there is much to be learned from the history of error in architecture, the biography of James Wyatt, who received a large amount of patronage, should be an instructive one. The materials, however, which we find close at hand, are scanty. Most of his works, enumerated in Mrs. Cresy's edition of "Milizia's Lives," are in the provinces. His most celebrated London work was the Pantheon, in Oxford-street, since remodelled by Mr. Sydney Smirke. The interior seems to have been the portion of the building which had most pretension. It was fitted up as a theatre, with several tiers of boxes.

Although Wyatt appears to have carried out, in great measure, his own views, with employers like the late Mr. Beckford—who have attained some celebrity, though perhaps with little reason, in matters of taste—he also was one of the first to introduce into the profession that practice of attempting every sort of style, and yielding all individuality to passing whims of others, which has tended so much to substitute mercantile spirit for artist-feeling. Whilst nearly every architect that has become celebrated has left works noticeable for some one good quality or other, it is hard to say where was the peculiar merit of James Wyatt. In Italian architecture his works were puny in effort; in Gothic, he was generally a bungler; in "restoring" at the cathedrals and Oxford Colleges, he destroyed. Simplicity and elegance were thought to be characteristics of his designs, —mainly, as it would appear, because there was little in them. The few particulars which are given by Mrs. Cresy, show that he had, at a very early age, some considerable advantages. He was born in 1746, and it would seem that about 1760, or, at the age of fourteen, he was taken to Rome by Lord Bagot, that he there measured the buildings, and that afterwards he was for two years at Venice, the pupil of Viscentini, an architect and painter. About the year 1766 he returned to London. His first work, the Pantheon, brought him many works on private residences in England, Ireland, and Scotland. He was patronized by Horace Walpole. He lived till the year 1813, being in the meanwhile appointed surveyor to the Board of Works,—that is, on the death of Sir William Chambers in 1796. Thus, besides Henry Holland, he had for contemporaries, men of some note,—viz. James Gibbs, Sir Robert Taylor, Stuart, the Adams, Sir William Chambers, the younger Dance, Mylne the architect of Blackfriars-bridge, Vardy, and Sir John Soane. We are induced to offer such particulars, because they may afford means of judging of the nature of those co-operative influences which were bringing about the state of art at the time in which we are writing. Besides the names we have given, Burlington and indeed Kent, were living during a few years of Wyatt's youth, and Sir Robert Smirke had begun his practice before the same architect's death. Another architect was the father of the present Mr. Hardwick, sen. He conducted the restoration of St. Paul's Church, Covent Garden, which had been destroyed by fire in 1795. Soane outlived the chief of the contemporaries of Wyatt. The Italians of most importance in Wyatt's time, were, perhaps, Quarenghi, who was born in 1744, and died in 1817; and Vanvitelli, the architect of the Caserta Palace at Naples, who seems to have been employed in all parts of Italy. From the works of the Italians we have mentioned, it is evident that the style of architecture in which it became characteristic to dispense with architectural members such as the dressings of windows, was by no means confined to England. In the Russian buildings by Italian architects, columns and pilasters are employed, whilst there are mere holes for light. It seems to have been assumed that everything but the orders—that is to say, the chief requisites in the structure—were so many unfortunate contingencies,—unavoidable of course—but which were only to be kept out of sight as much as possible. The study of the Greek orders did not afford much in place of thought as regards these requisites: though even those examples of decoration of apertures which may be found, were quite sufficient to point to a principle of treatment very different from that which was allowed to prevail. But it remained for quite recent years, aided by the comprehension of the *true* principles of Gothic architecture, to teach the lesson, without which every effort in our art must fail of success,—namely, that the structure and its requirements must be countenanced in the art-exercise—by no means held antagonistic to it; that without this, neither common-sense satisfaction, nor the higher emotion from art will be reached, and that these requisites are the very opportunities offered to the true artist,—are with him the starting points for the manifestation of the highest art. All this, however, during many years, was not felt by architects of the Palladian and Greek schools in many parts of Europe. Sir John Soane, it must be admitted, avoided many of the mistakes that were made. We know not what may be due to the ancient example to which he had paid most attention; but it is worth mentioning that in the somewhat more than usually Grecian example of Roman architecture, the temple at Tivoli, there is one other of the very few windows which the classical models afford; and the apertures and recesses in our modern architect's buildings, have usually some kind of dressing. In England, spite of the precedent of Vanbrugh's works, not to mention the admirable examples in Tudor architecture, it was long a popular belief that the chimney was a thing which by no possible effort could be made ornamental. Enough, that fact, to show what is lost by *disregard* of precedent and example. But the common houses of the time of George III. if they did not attempt much, at least did often not offend by discord of parts, whilst sometimes they approached to dignity of proportion. The idea of window-dressing, as shown by the use of red bricks, was not soon got rid of. But Wyatt, and indeed Nash after him, contributed to introduce, in really important buildings, a manner which contradicted all the effect which might have been produced from the study of the Greek orders. The columns and the window apertures were in constant disunion. Whilst Wyatt used windows without dressings, he would introduce unmeaning panels, sometimes oval in shape. The blankness of the panels was diversified with that *effete* effort of a style, the piece of suspended drapery. There was not much

* See p. 421, ante.

hope, it must be confessed, from perseverance which led to no better results. Wyatt, however, entered into the experimentalism which was growing up. Amongst his works are enumerated the new Military Academy at Woolwich-common, the Palace at Kew, Lee Priory, Kent, Fonthill Abbey, Hanworth Church, works at the House of Lords, and at Windsor Castle, also at Bulstrode, Doddington, and Cashiobury. Castle Coote, the seat of Viscount Belmore, in Ireland, is spoken of as after a Greek model, and as deserving of commendation for "grandeur of effect and judicious arrangement." A seat at Bowden-park, Wiltshire, for Barnard Dickenson, esq. is in the same style; whilst "a castle" at Ashridge, Herts, for Lord Bridgewater, is "a very extensive and splendid mansion," the chapel being "highly decorated and in imitation of the florid architecture practised in the Middle Ages." In Oxford, at Oriel College, he placed a discordant Ionic screen; and to Canterbury Court, what was described as "a beautiful Doric gateway," though "with columns which appeared too slender when compared with the Greek." At Oxford he was also employed at the colleges of Balliol, Merton, Magdalene, and All Souls', and in 1789 he commenced the restoration of New College Chapel. His works at the cathedrals were of a very important nature. He rebuilt the nave at Hereford, without the slightest regard to the character of the original structure. The beautiful Norman chapter-house at Durham was, in effect, destroyed under his hands. His achievements did not escape repeated protests by Gough, Englefield, Carter, and others, in the "Gentleman's Magazine," from 1792 to 1810, and by the late Thomas Hope, in a pamphlet, in 1804. His additions at St. Stephen's Chapel, and Windsor, were flimsy in design, and structurally bad. At Salisbury, and at Lichfield, he lengthened the choir by removing the altar screen, thus bringing in the space of the Lady Chapel. At the place last mentioned, that very respectable mouthpiece of opinions, the verger, some ten years ago, represented how that the measure had tended to the effect of the interior. We think the opinion open to discussion. For the effect that is gained, something is lost. Greater effect of distance results from the view over the top of the screen, than is gained by the present marked termination to the vista. In this respect our idea seems to be founded on the same arguments as those which, if we recollect rightly, once led a learned professor to approve of the modern addition of the organ to the rood-screen,—although that particular innovation, we believe to be obstructive of the view, rather than conducive to the effect of length. But we notice the question now, for the sake of remarking upon the change which has taken place in regard to subjects of this nature. Formerly the question was discussed simply "as one of taste;" latterly, the majority of opinions has been against the innovation by Wyatt, not on the score of taste, so much as that of the necessity of preserving every original arrangement. With the latter view, indeed, there is reason to agree, without our being open to the charge of superstition, or slavery to precedent, or other charges which some writers, perhaps excusably, bring against all who take the line of argument to which we refer. There is a special value in buildings as *models*, which would seem to be impaired where alterations are admitted; and where such alterations are made, the chance is, that through the impossibility of grasping the chain of reasoning which originally led to a particular arrangement, some really important element of the effect is lost. It is, however, also important to notice that in this pre-archæological and pre-ecclesiological period of James Wyatt, architects ventured upon efforts which, if not quite successful, were perhaps more consistent with the vocation of the artist than those to which the architect of this day is confined. We could point to works of Wyatt's time, or a few years later, which in their novelty of plan or effect, if not their beauty, had qualities of excellence from which architects now are debarred by the positive terrorism which they are under. What the works of the former lacked, resulted from that defective knowledge of models which we say can never be dispensed with, without disadvantage. It can be hardly necessary now to show, that it is not in human power to carry invention and originality to the length of producing what is absolutely and wholly new. It is wise, as it is necessary, for the artist, that he should know what has been done by others. It is so, not only that he may *avoid* doing the exact thing that has been done before—the identity of discovery or opinion which it is singular to note is ever occurring amongst thoughtful minds impressed with circumstances common to the occasion or the time—but it is requisite and politic, in order that he may not take his limitation, in place of the effect to which the invention has been developed by others. Thus in the Gothic of James Wyatt's time, we are constantly offended by details, such as suggest inferiority,—the feeling involving inevitably dissatisfaction with the work, as one of ART. We at once see that the architect could not possibly have perpetuated such a form as this or that, if he had only known how much better was the form used by the old architects—whose works are familiar now. But whilst *these* works are familiar to *us*, we say they have not been used as *models;* and whilst *our* Gothic architects may find much to question in the unlearned efforts of the Wyatt school, we fear true artists must lament that, for some exceptional reason or other, much learning now has not borne its proper fruit.*

THE CHEMISTRY OF BUILDING MATERIALS.†

The second great disintegrating agent is oxygen. To make this part of the subject clear, we should need a lecture on the atmosphere. This oxygen is continually acting on many of the ingredients of our stones, continually wearing those down, and in many cases, changing them to metallic oxides and then to salts. Every one of those massive pieces of whinstone, if looked at through the microscope, shows dull black grains of metallic iron. They are disseminated through the whole mass, and when exposed to the air, they rust, as iron of any other kind will do: in rusting, they get a brown colour, which a piece of exposed trap or whinstone sooner or later in most cases acquires; and as each little particle of iron becomes changed, and the little fragments or particles of oxide of iron occupy a larger space than the iron did before, they swell out the adjoining portions of the stone, crack it, and mechanically alter it. Moreover, this oxide of iron is readily washed away, and leaves a cavity, in which water can dissolve what is soluble in the mass. The most remarkable example of atmospheric agency, where oxygen is the cause of change, is presented by what we call iron pyrites—a source of great trouble to builders. Iron pyrites is composed of sulphuret of iron, and occurs in two quite unlike shapes. One of them we call slate diamond. It appears in brassy cubical crystals—the beautiful surface remaining, in roofing slates, for an indefinite period unchanged. Iron pyrites also occurs in a different crystalline form, which, so soon as exposed to the air, begins to absorb oxygen. The iron turns to oxide of iron, and the sulphur to sulphuric acid; these yield sulphuric acid and green sulphate of iron—a substance quite soluble in water, and which by and by, from the further absorption of oxygen, changes to a brown body. This body is the great cause of the spotting of many sandstones. We have in them sulphuret of iron deep down. That sulphuret has a colour like brass: but when you bring the sandstone to the surface, and allow air to enter the pores, the sulphuret of iron begins to oxidise into sulphate of iron. It is brought to the surface by water, is changed to oxide of iron, and there is no cure for the mischief. Then sulphuret of iron not only stains the stones, but of course splits them up.‡ It does not occur largely in any of our stones; but I refer to it in illustration of oxidation as altering the composition of the mass. Alum-slate, which contains pyrites, looks, when dug up, like a book bound and half compressed together; but after you expose it to the air for some time, it opens out like a fan, or as if the paper leaves of the book had had a multitude of little wedges put in, and the whole expanded. The action of oxygen in this way is extremely powerful, so that it must be regarded as one of the destructive agents that must be kept specially in view in selecting stones.

The other atmospheric agencies are more obscure in their action, and I shall only name them. They are—nitric acid, developed in the atmosphere by every lightning flash, and found in rain water; ammonia; and a curious body named ozone, an agent rivalling chlorine in its singular effects on other bodies, and which, there can be no question, must act even more energetically than oxygen, on such bodies as it encounters. We may add to these sulphurous acid, as the coals, and even the coal-gas we burn, is always yielding a certain portion of sulphurous acid. The whole of these agents are much more efficacious when combined with rain or water than when dry. We all know that in the climate of Egypt, the ancient temples remain scarcely changed; and as they are built of sandstone, granite or syenite, basalt, limestone (of which the pyramids are built), and other materials, it is impossible to attribute their durability to the mere quality of the stone. On the painted walls of Egyptian buildings, even vegetable and animal colouring matters remain nearly as bright as they showed three thousand years ago—a permanence not attributable to the ingenuity of the Egyptians in selecting enduring substances. It is owing to the dryness of their climate that their buildings have so long subsisted; and this is a remarkable example of the different principles on which a builder, in a climate like this, should proceed, from those on which a builder might act in Egypt, where rain seldom occurs.

5th. As to the pleasing colour, I need not say much about it. Merely for utilitarian ends we do not require the colour of a stone to be thought of; but this society is largely æsthetical as well as practical, and will therefore, I presume, look on colour as a very important element in the execution of their designs. For example, whinstone is almost too dark to be welcome in a climate so sombre as this. Many of our red sandstones are also, to my eye, very disagreeable. They are of an uncertain dull red, some very dark, and none of them coming up to the colour of red brick. Our red trap is something the same. Among sandstones and limestones we have a choice of pleasing colours. The Craigleith stone is white, but not so pleasing as the fuller-tinted Redhall or the Binny. I like the buff colour of the stone used in the Houses of Parliament. A buff, a brownish-yellow, or a pinkish-yellow, are the colours most generally liked—I infer as much at least from the fact, that it is to such tints, especially to the two first-named, that the term stone-colour is generally applied.

6th. The last requisite I have to refer to is, non-liability to acquire a vegetable coating. No property in stone has been less examined than this. My friend, Dr. Balfour,* tells me, that botanists have scarcely yet looked into the question. There are two modes familiar to us all, in which stone acquires a coating of vegetable matter. One is, where the stone is continually wetted, and displays a bright green streak, such as we see in numbers of our buildings, that streak being occasioned by plants, of the order *confervæ*, clinging closely to the stone, and giving it an unpleasing colour. The other coating of stones is, where there is little moisture accompanying the development of vegetable growths. There it is mainly in the form of lichens. I do not know æsthetically any coating of stone which is less to be objected to; indeed, some regard it as a beauty; but looking at it from a chemical point of view, we object to the lichen. That there is a very marked difference between the tendency of different stones to become coated with vegetable matter, all must have noticed. I saw this strikingly illustrated some years ago, when not

* To be continued.

† See p. 435, *ante*.

‡ The action of sulphuret of iron in decomposition under certain circumstances, is very powerful, as is shown in the production of artificial earthquakes, when a mixed mass of it is exposed under ground to the requisite heat, moisture, &c. May not some sudden and otherwise unaccountable disruptions and falls of the walls of buildings be thus produced where the material of which they consist may happen to contain an unlucky deposit of the disrupting or disintegrating agencies, exposed to the conditions favourable to their action?

* Professor of Botany in the Edinburgh University.

anticipating saying a word on the subject here, in the stones of Stonehenge. That great mysterious circle of stones, which I suppose we may say is at least 3,000 years old, as the Romans wondered at it as a strange thing when they saw it, consists in the large external range of sandstone, much like some of the whitest of those we have here, and it is only slightly spotted with lichens. I have since seen in Bute, dry stone dikes of limestone, probably not 200 years old, and there not only were the old stones spotted over with lichens, but even the gaps between the stones had been filled up with a rich vegetation. When the stone gathers much moss, that moss begins to crumble into a mould, in which plants of a higher character than lichens grow, so injurious, that botanists give them the name of *saxifrages*, or stone-breakers. These follow the growth of the original lichen on the stone. In Bute, also, I saw drystone dikes of trap rock, probably not older than those I have referred to, totally uncovered with vegetation, the bare stones lying on each other with not a growth upon them. In towns the accumulation of vegetable matter in buildings is less than in the country. They are less subject to those *conferroid* streaks, and the conditions of a town atmosphere are all less favourable to the growth of plants. There is, therefore, always less of it in towns than in the country, though it does occur in the former to some extent. This important point is to be recollected in connection with the growth of plants on stones, more in reference to the selection of rocks in quarrying, than to the injury which the stone suffers from being spotted with pleasing-coloured lichens. Stones which in the quarry, or elsewhere, readily acquire a coat of vegetation, and stones that crumble quickly into arable soil, are less suitable for building purposes than those which do not. A stone which quickly becomes a *nidus*, or nest of vegetation, must be one which is porous, absorbent of water, possessed of ingredients soluble in that liquid, and readily susceptible of disintegration by the atmosphere. The very coarse limestones, which contain magnesia, potash, soda, and phosphate of lime, crumble down to good soil, and plants readily grow on them. I think I can venture to assert with great confidence, that where in a quarry there are different kinds of stone, that one should be chosen which spots least with vegetable matter, and makes the worst soil when disintegrated, in preference to that which makes the best. It is the saving of building stones, in relation to plants, if nothing will grow *on* them. Buildings, however, are also injured, when the seeds of plants are carried up by birds and by winds into the crevices of stones and grow there. We see ash trees growing in this way, from their winged seeds being carried into the spaces between the stones. In India there is a well-known tree, called the *peepul* (*ficus religiosa*), resembling the banyan, which is considered as sacred by the people. The seed of it grows in the crevices between stones: the inhabitants will not meddle with the tree; and I am told that there are cities, now in ruins, where the singular power of this tree to overturn architecture, is shown in a remarkable way. This point, however, belongs rather to the consideration of mortar; for the seeds rather grow in the crevices between the stones of the wall than in the stone itself. It is, however, a curious point in reference to architecture and the durability of materials.

To recapitulate, then, a building stone should be compact, moderately hard, little liable to solution in water, little liable to decomposition by the atmosphere, little disposed to alter in colour, and not prone to acquire quickly a vegetable coating. Now, to secure these conditions, certain mechanical as well as certain chemical qualities are requisite. That certain mechanical qualities are essential, as well as certain chemical ones, is manifest from this, that two mineral masses may have the same chemical composition, and yet be very unequally acted on by the same agents. I gave you an example of that already, in iron pyrites, where we have one kind of it in one crystalline form, which remains unacted on, and will not dissolve in acids, neither in sulphuric acid nor nitric acid, and that does not become dimmed or tarnished after any length of time; while we have it in another crystalline form, which, as soon as it is brought into the air, changes to green sulphate of iron, and rapidly dissolves. In the same way, at Dartmoor, there is granite which they work for building purposes, and send to London, where it is now coming seriously to interfere with the sale of Peterhead red granite and Aberdeen grey granite, and which appears to be unalterable; while, at the same place, other masses of granite are found rapidly crumbling down by the action of the air, although not chemically different from the kind which does not so crumble down. In the same way the Bolsover magnesian limestone, which was selected for the Houses of Parliament from amongst an immense number of stones, as the best stone for building purposes, is assuredly not much acted on by atmospheric agencies, while other magnesian limestones go with great rapidity—the carbonate of lime dissolving out of them, and leaving the carbonate of magnesia. Some of these magnesian stones consist of multitudes of little grains, like the roe of a fish, cemented together; but they present a great diversity of surface to chemical agencies, downward from such magnesian limestones as our lithographers use, which are generally pretty nearly homogeneous in structure, and admitting of fine polish. Certain basalts, also, crumble with rapidity into fertile soil, whilst others are not acted on by the chemical agents in our laboratories, even with the assistance of heat, though we expose them to the fire for a very long time. The causes of these differences are obscure.

The chemical properties of stone are dependant chiefly on eight substances. Of these eight, six are metallic oxides—*i. e.* compounds of metals and oxygen, and they are what the chemists call bases. These six bases may be arranged in three sets or pairs. In the first place, there is a pair of calcareous earths, the one is lime, the other magnesia. This pair of bases largely occurs in building stones. The second pair may be familiarly called clay earth and iron earth. Clay earth is what the chemists call alumina, a soft white powder, forming a large part of clay. The sapphire is crystallized alumina, with a blue tinge; the ruby is crystallized alumina, with a red tinge. We may either give it the English name of clay earth, or the chemical name alumina. Iron earth, the other one of this pair, is oxide of iron. The third pair are the alkalis, potash and soda. You have thus six metallic oxides, which may be remembered as arranged in three pairs. Then there are two acids; carbonic acid, occurring so largely in limestones, and silicic acid or silica, forming the entire mass of pure quartz, and constituting from 98 to 100 per cent. of sandstone. In arranging building stones for practical purposes, we may divide them into two great groups, the one named from the bases, the other from the acids. The group named from the bases is the calcareous group, and we may more familiarly call it limestones. The second is named silicious, from silicic acid, which is a white powder like alumina, but with very different properties. The silicious group is represented by sandstones. Under the head calcareous, we include marble, all forms of ordinary limestone, and magnesian limestones. Under the head silicious, we have a much greater number—for example, quartz, flints, sandstones, granite (including syenite), the whole of our whinstones, the whole of our roofing slates and slate stones, with a few others of less importance.*

STEALING LEAD: CAUTION.—At the Middlesex Sessions, a few days ago, John Kirby was indicted for stealing seventy pieces of lead, the property of Messrs. Cubitt and Co. builders, in Gray's-inn-road. The prisoner was a carter in the service of the prosecutors, and on the 14th of last month he had to convey a load of old lead from Uxbridge House to their premises, and on the way he sent a woman to sell that which he was charged with stealing, at a marine-store shop in Cleveland-street. The person in charge of the shop refused to buy it, and the woman went away, leaving it there. Shortly afterwards, the prisoner called for the lead, and he was given in charge. The jury found him guilty, and Mr. Witham sentenced him to hard labour for six months.

* To be continued.

CHEAP AND EFFICIENT HOUSE-DRAINAGE.

THE present Metropolitan Commissioners of Sewers appear to have warmly embraced the principle of Combined Tubular Back-drainage, enunciated last year by Mr. F. O. Ward, in a letter which Lord Palmerston forwarded to the late Commissioners; and which, it may be remembered, led to their resignation *en masse*. The bye-laws adopted by the late commissioners in favour of costly separate drainage, and against cheap combined drainage, have been rescinded by the existing commissioners; who have also abolished the heavy "frontage charges," levied by their predecessors, for permission to join house drains to the sewers. Builders know, to their cost, that the enforcement of the separate system of house drainage operated in many cases to double or triple the expense of the work; while the frontage charges, as they are also well aware, added a further heavy percentage to the outlay. The expense thus imposed upon house proprietors desirous of abating nuisances and improving the condition of their tenants, amounted, in many cases, to a virtual prohibition; which the policy adopted by the present commissioners has removed. Large numbers of applications for permission to drain houses in groups, according to the new system, have, in consequence, been sent in to the present commissioners; by whom, in a multitude of cases, the requisite authorization has been granted. The reduction of cost thus secured to the public already amounts to some thousands of pounds; while the sanitary benefits resulting to the families whose dwellings have thus been provided with efficient drainage, are incalculable. The House-drainage Act, passed three months ago, and now in successful operation, greatly facilitates the work, by enabling the Commissioners to make advances (recoverable by easy instalments) to parties having houses to drain, but not possessing capital enough to undertake the work without pecuniary aid.

The advantages which have marked the adoption of the new policy afford reasonable ground for believing that the Central Board, which is next year to supersede the present Commission, will act on similar principles, and will refrain from re-imposing the obnoxious restrictions and charges of a bygone period. As, however, nothing future can be regarded as absolutely certain, the present is an opportunity of which builders and others should avail themselves, to secure legal authority for the economical drainage of their houses in blocks, and for the connection of their drains with the sewers free of frontage charge. The present dry cool weather is, moreover, particularly favourable for drainage works; the price of pipes and other materials has fallen considerably this year; and the readiness with which well-drained houses let, to a better class of tenants, paying better rents, with greater regularity, holds out (in addition to motives of humanity) a prospect of increased pecuniary gain to housecowners,—especially to those whose property consists in the lower class tenements. We are acquainted with instances in which the outlay of 5*l.* each in improving the drainage of a block of houses, has raised the rent obtainable 2*l.* per house per annum; at the same time securing abundance of applicants, and obviating sickness, so that the houses no longer stand empty as they used, and the occupants are not hindered by illness from punctually paying their rents. In one of the cases to which we allude an outlay of 200*l.* on forty houses has produced a positive improvement of the annual revenue estimated by the agent at upwards of 120*l.* a year. Although, therefore, we do not apprehend that any future body will reverse the policy adopted by the existing commission, we yet advise such of our readers as are interested in house property to seize an opportunity which *may* never recur under such favourable circumstances, of improving, on easy terms, their tenants' condition and their own receipts. These remarks are peculiarly applicable in the case of property situated in the various courts and alleys in which the present Commissioners are now laying down self-scouring tubular sewers, instead of the old brick sewers: for, a considerable saving is effected by branching on the private house drains to the

public sewer while the trench for this is still open and the pipes are being laid. As a further motive for taking advantage of the present favourable conjuncture for effecting what has been well called "Basement Reform," we may mention that those who let slip the facilities for house drainage afforded *now*, will, on the 1st of January, come under the compulsory clauses of the new Act,—the powers of which, in this respect, are of a stringent character.

THE DECORATIONS OF CHIRK CASTLE.

ON my return to England, my attention has been directed to an article in the *Builder* of August 18, giving an account of the proceedings of the Archæological Institute at Shrewsbury, and describing a visit to Chirk Castle, as follows:—"We then proceeded to Chirk Castle, the seat of Colonel Myddleton Biddulph. We were struck by the grandeur of the view, more than by the architecture, which has been restored. But if we were indifferent to the exterior, our horror was great at the interior. Ionic columns, supported on deep blue balusters, led us into a room, the walls of which were bright green and gold, and the ceiling of bright blue. It was stated that it is a moot point whether the responsibility of these decorations rests on Mr. Pugin or Mr. Crace: whichever way the question is settled, the result will certainly bring no fame to either."

I feel called upon to reply to these remarks, and trust you will favour me by inserting this letter.

The late Mr. Pugin directed the architectural restorations at this fine old building, considered to be one of the most interesting specimens of the ancient Border Fortress. I carried out the various decorations of the interior, subject to the approval and directions of Mr. Pugin, and most fully appreciating the value of his suggestions throughout. The remark as to the staircase is simply an error. The columns do not rest on blue railings: they rest, as they did more than a hundred years ago, on a good solid base, and the railings merely abut against them. The room to which the article refers is thus decorated. The aspect being south, and a series of valuable portraits having to be arranged on the walls, a paper was selected of a deep warm green flock, on brown leather ground, relieved with gold. The ceiling is divided by large intersecting beams into fifteen panels: in each panel is an allegorical painting in relievo, on a dark olive ground. These paintings, being curious, were to be preserved, and properly brought out in the decoration. We decided on a deep blue for the grounds of the panels, the ornaments surrounding the paintings being vellum colour, relieved in parts with gold. The beams of the ceiling, forming also the cornice and facia, were made oak, the carved ornaments lime-tree, the main mouldings being solidly gilt, and the ground of a wreathed enrichment, picked in dull red. The ground of the carpet is maroon: the curtains are maroon, green, and gold, of silk and worsted tapestry. I am particular in describing the decoration of this room, as my only defence against an attack somewhat coarsely made. Anybody who understands colour will perceive that a warm green wall, nearly covered with portraits, can be perfectly well made to harmonise with a blue ceiling. Any two colours may be brought together by a proper modulation of tone, and interposition of suitable contrast between them.

Our garden flowers will give many examples of most beautiful yet rather unorthodox contrasts of colour; so likewise the plumage of the exotic birds; and what can be more gorgeous, and yet more harmonious than the tail of the peacock, with its shades of mingled blue, and green, and gold. The illustrations of Mr. Gruner's work give examples, showing that blue and green can be made to harmonise well together; and I would refer to a ceiling of the Palazza Vecchio, at Mantua, where these two colours predominate. I am not arguing for these colours in preference to other colours, but I am defending the use of them, and showing that an artist, with proper study and intelligence, may never fear any difficulties of contrasts, if he will apply his mind to the rules of harmony, and his eye to the beauties of nature. I cannot close my letter without expressing the pain I feel at any attempt to cast a slur on the late A. W. Pugin, a man whom it was my pride to know, and whom to know was to esteem, to love, and respect, as a most warm-hearted kind man, and the greatest genius that has appeared for many an age in the world of art.

JOHN G. CRACE.

*** There was no attempt whatever to cast a slur on the late Mr. Pugin. Able as he was, that architect, like other men, was not always right. In the present case the question is, whether or not the difficulty attending the harmonious conjunction of blue and green is successfully overcome. Our correspondent says not; and (with the best opinion of Mr. Crace) his statement remains just where it was.

THE ARCHITECT OF THE EAST-INDIA HOUSE.

THE additional information relative to Holland, the architect, with which Mr. Hodson has supplied you, is a truly welcome contribution to the scanty notices we at present possess respecting the architects of that day. It certainly settles the *vexata questio* as to the authorship of the design of the East-India House, and for which there ought never to have been any room. But Holland seems to have been singularly indifferent to fame, nor has much regard been paid to his reputation by others; for it is equally strange and provoking to find his truly miserable design for the first pavilion at Brighton inserted in Richardson's "New Vitruvius Britannicus," while the India-House, Carlton House, and the charming little screen façade of Dover House, are omitted. The last-mentioned piece of architectural design,—which, by the bye, would have been all the better had the order of the portico been carried up higher than that of the wings, so as to bring the lower line of its entablature on the same level with the top of the other,—seems to have been carefully shunned by architectural draughtsmen and illustrators. I have never met with but one view of it, and that is in "Malton's Picturesque Tour through London and Westminster," where it does not show at all to disadvantage, but gains in importance, owing to the view being all but completely confined to it.

AMATEUR.

PROVINCIAL NEWS.

Chelmsford.—The arrangements for securing a new corn-exchange, near the Shire-hall, are, it is said, almost completed. The spot now fixed upon is in the square.

Portland.—A new pier has been built by the government at Portland, for the use of steam-boats plying to Weymouth. It is constructed on piles.

Bristol.—The foundation-stone of a building intended for national schools in the district of St. Matthias, was laid on Thursday before last. The school-house will be in the Decorative style, in accordance with the architecture of the church. It will be built of native Hanham or Stapleton stone, with Bath stone dressings. The boys' school-room will be on the ground-floor, 64 feet by 18 feet, and the girls' room on the first-floor, and of same size. Behind these rooms there will be a class-room, 28 feet by 18 feet. Adjoining will be a dwelling-house for the teachers.

Chester.—The Earl of Shrewsbury's premises in Eastgate-row lately occupied as a toy-shop have been pulled down, and, according to the plans and under the superintendence of Mr. Penson, architect, a new shop has been built for a bookselling firm. The architect has adopted for the exterior design to the street, a timber and plaster gable, such as flourished in the fifteenth and sixteenth centuries, and one of the greatest characteristics of the original architecture of the Rows. This gable is filled in with net-work and tracery, portions of which are decorated with carvings. The barge-boards, pinnacle, and string-courses are also ornamented, and the pinnacle surmounted with a fane, bearing the monogram of the firm. The interior decoration of the shop and shop-front is Elizabethan. The works are yet incomplete. The external ornamentation of the shop-front is formed of four pilasters of Caryatides, supporting an entablature. The design for the completion of the stall and approach to the street, for the present, is in abeyance. The constructive works are by Mr. Bellis, builder. Mr. West, of Wolverhampton, was employed in the ornamentation.

Birmingham.—The ceremony of formally opening the free industrial schools-rooms, in Gem-street, took place on Monday before last. The building cost upwards of 4,000*l.*

Warrington.—The foundation stone of the new museum about to be erected in Bold-street was to be laid on Thursday.

Glasgow.—The new suspension-bridge at the Glasgow-green is opened for traffic. The whole cost, including Parliamentary expenses, was 6,500*l.* and it is believed that the half-price of occasional passengers, and the 2d. a week of daily customers, will, at no distant date, enable the council to throw open the bridge to the public free of any charge. The length of the bridge is 230 feet, the width between the rails 15 feet, and the height of the columns 24 feet. ——The upper quays now in course of formation between Victoria and Glasgow bridges, with the streets and buildings behind, occupy the site of the Old Green, which, 90 or 100 years ago, was the fashionable promenade of the inhabitants, to the neglect of the present Glasgow-green. Almost all this old green had been feued out by the town council previous to the close of last century; but by the foresight of a magistrate, it was stipulated in the feu contracts that, should the river-side ground, which was laid out as a pasture field, be required at any future period for harbour purposes, it should be restored to the council at the price originally paid to them for it, which was a very moderate one. The stipulation was agreed to by the feuars without any great difficulty, as it was considered quite out of the question that there should ever be any need for harbour extension in this direction. The result is that this valuable piece of ground, in the very heart of the city, has been re-acquired without the bother or cost of jury trials, or without paying ten times the original cost, as has been pretty nearly the case with some other river trust acquisitions.

CANADA WOODWORK.

THE *Times*, in one of its articles on the Paris Exhibition, speaks very highly of the Canadian department:—"There are sections, sound to the core, of the trunks of all the most useful timbers of commerce, including oak, yellow pine, black walnut, maple, beech, birch, cherry-tree, and hickory, and, close beside the wood itself, its manufactured products, turned out by machinery at a price which, even to Englishmen, with their wealth of mechanical appliances as compared with other countries, appears fabulously low. There are window-frames complete, with jalousie blinds on the French patteru, for 7*s.*; and doors with their framing, ready for use, for 16*s.*; and mouldings, 8 inches wide and 100 feet long, at the same price; and capital oak wheel-spokes for 5*d.* each; and beautifully turned and shaped handles for axes in the best material for 6*d.*; and oak flooring, ready made, at 20*s.* per 10 square feet. Even the waste of this branch of manufacture has, in a careful spirit of industry which cannot be too highly commended, been overhauled, and among the objects to which the attention of the European markets is thus invited gigantic shavings, which give some idea of the scale of the operations in wood, are included. In other portions of the space are exhibited a number of objects further illustrating the advanced state and capabilities of this branch of colonial industry, and among them may be specially mentioned a good, strong wooden bridge of 150 feet span, costing only 600*l.* and the parts of a strong box for packing sugar, which go into the smallest possible space when in pieces, can be put together when required at once, are much better for stowage and in every other way than hogsheads, and cost only 2*s.* Following up this subject of manufacturing in wood, we find the Canadians exhibiting, at the opposite end of the Annexe, some excellent and ingenious machines for working in this material. One of these, shown by Mr. Munro, is capable of performing seven different operations in planing, tonguing, and grooving. Another, for heavy ship carpenters' work, by Mr. Rodden, besides its special merits, points to what the colony is doing in the formation of a commercial marine; and besides these there is an ingenious nail-making machine and other interesting objects."

CLUSTER OF PILES, MARGATE PIER.

MARGATE NEW PIER.

There are few Londoners of a certain age who do not remember "Jarvis's Landing-place" at Margate. It did its duty for a time, but falling into decay, and involving annually much outlay for repairs, a new pier was determined on; and a competition being invited, the plans sent in by Messrs. Birch were accepted. We have at different times noted the progress made, and to some extent described the structure. We now give a view of it, sketched on the spot, and the following more complete particulars. The pier commences at the Droit-office: the width at entrance is 84 feet: this part is curved. it gradually narrows to 20 feet at a distance of 180 feet from its commencement, and is supported on twenty-three cast-iron piles, 12 inches in diameter, driven on an average 10 feet into the chalk. On the top of these cast-iron piles are placed seven wrought-iron girders 18 inches in depth, varying in length, being placed transversely according to the width of this part of the pier. On the top of these girders the timbers are placed, being 14 inches by 9 inches, running longitudinally, and on the top of these timbers is the platform. From this point the pile runs in a straight line for 950 feet, and this portion of it is thus supported on iron piles 16 inches in diameter, and placed in clusters of five, with one pile placed in the centre: each cluster is braced and tied together with wrought-iron braces and tie-rods.

Our second sketch shows one of these clusters more at large. There are 14 such clusters, 72 feet apart from centre to centre. The piles are driven 10 feet into the chalk, each pile being in three lengths, measuring on an average 40 feet when put together: the joints of the piles are bored and turned to fit correctly, and bolted together by flanges. This part of the pier is of the uniform width of 20 feet. The upper portion of the piles is cast with a bold moulding and flange 3 feet from the top: on this flange rests a timber cap, 3 feet broad and 14 inches deep, connecting the two piles together. On each side on these caps are placed two logs of timber, running transversely, connecting all four piles together: on these are placed two more timber caps similar to the foregoing, and on these rest the two large girders, made entirely of wrought-iron 4-feet deep of boiler plate, $\frac{3}{8}$ths of an inch thick, with large angle iron on each side, top and bottom, 6 inches, equal sided, making the top and bottom edge of these girders 12 inches broad. The platform is supported by these girders, which also form a parapet on each side nearly 3 feet high, on the top of which is an ornamental rail 12 inches high, running the whole length of the girder. The timber sleepers on which the planks are laid are bolted on the inside of each girder to wrought iron brackets, and rest on the bottom angle iron at every 6 feet. On these sleepers are laid the planking running in the direction of the girders. The pier head is in the form of a parallelogram, 110 feet long by 45 feet broad, supported on fifty-seven screw piles, of solid wrought iron, $5\frac{1}{2}$ inches diameter, and 20 feet long, with a screw cast on the bottom end 30 inches diameter. The top end is turned conical, to receive a cast iron cap, which is bored out to fit, and keyed on with two wrought iron keys screwed into the chalk rock 10 feet. On the top of the cast iron caps are placed timber sole pieces on sleepers, each sleeper composed of four logs bolted together, and 45 feet long, running transversely: there are twelve of these sleepers, which support the same number of timber frames 10 feet apart, braced together by longitudinal and diagonal timbers, various sizes and lengths, the top of these frames being covered with planks corresponding with the rest of the pier. There are three landing stages at the head, so placed as to allow the steam boats to land and embark passengers at any time of the tide. The staircase is in the middle of the head, 13 feet wide, of easy ascent and descent. The pier is 14 feet above high-water mark, of ordinary spring tides. The total length is 1,240 feet, giving a promenade of upwards of 30,000 superficial feet. The first pile was driven on the 3rd of May, 1853, by Mr. G. Y. Hunter, chairman of the Pier Company, and the last pile was driven on the 3rd of March, 1855.

Whatever may be its mechanical sufficiency, the ugliness of the new pier is unquestionable.

Ireland.—A court-house and police-barrack are in progress at Dundrum, county Dublin, for the Right Hon Sidney Herbert, M.P. Messrs. Deane and Woodward, architects.

VIEW OF MARGATE PIER.

TRAPS PECULIAR TO LONDON.

OUR pavements, laid over 1,000 miles of vaults, are dotted, at intervals of nine yards or less, with round iron plates: the old ones are worn smooth as the half-polished *cove* at your fireside. Peripatetics, beware of them: they are as slippery as glass when half frozen or greasy with mud: when an orangepeel lying on the disc catches your tread, then a somerset is certain; but oh! most specially beware when a coal-waggon is drawn up to the curb: take heed to your ways: the porter is gone down to prepare the cellar, the trap is removed, and has rolled perhaps to the kennel: if you are looking inward, or even askance, down you go to the hip. This occurred to a friend in Hyde-park-square lately. Really, some obligation ought to be imposed on porters while delivering coals, to place a firm stand or guard around the aperture (before the plate is removed), so as to admonish, if not forcibly arrest, the unwary. Suppose a low frame, square, and only 1 foot or 18 inches high, on which to rest the sack, and thus ease the shoot and the shooter. Until some such sanitary provision is made (and it is recommended as being more utilitarian than the ponderous swinging *unused* balance, with its 2 cwt. weight), these accidents will occur.

There is, however, another trap, more frequently annoying, in the guise of projecting sun-blinds to shops: these protrude various distances into the street, from 5 to 15 feet. On the sail-cloth is painted the trader's name—a fair way to *canvas* for business, if at a proper elevation; but they are often no more than 5 feet 6 inches from the flags!

I am 5 feet 10 inches in my boots, and have had my hat frequently knocked off,—picked it up, mayhap soiled, and as the injury was unintentional, walked silent off. Lately, however, in Edward-street, Portman-square, sidling rather closer to the shops, to avoid the sloppy way, a sudden blow between the eyes stunned me, and sent my beaver flying: as the obtrusion of the iron rod seemed levelled at my optics, I went into the shop and remonstrated, but the proprietor replied that it covered his own ground!

Now there certainly is a sort of platform, about 5 or 6 feet wide, elevated some 3 or 4 inches over the pavement, formerly an area, which for many houses lies open to the causeway; but this would seem to be, to all purposes, if not intents, a "trottoir:" what Puffendorff, Vatel, Grotius, or the surveyor of highways may judge is another matter.

My remonstrance was derided, and as a *gent* (smoking a cigar) sided with the dealer's views of his private estate in the public way, I walked away scathed, but not convinced.

Ought not the perambulating parish authorities to mete and regulate these growing innovations? They are evidently on the increase, and as coming events *cast their shadows before*, timely precaution may save from cerebral violence and capital punishment, many a

"VIATOR."

STORIES OF BELLS.

IN the course of a paper on Bells recently read,* the Rev. A. Gatty said,—Bells were supposed to have the power of ringing of their own accord; so we are told that when Thomas A'Becket was murdered in Canterbury Cathedral, the bells rang without being touched.

When La Bonne Florence, of Rome, approached the church of Hilarius, we are told that—

> "When that sche came nere the place,
> The bellys rang thorow Gody's grace,
> Wythowten helpe of hand."—*Ritson.*

When Hugh of Lincoln was buried, it is said that—

> "A' the bells o' merry Lincoln
> Without men's hands were rung;
> And a the books o' merry Lincoln
> Were read without man's tongue;
> And ne'er was such a burial
> Sin Adam's days begun."—*Jamieson.*

Blind Harry tells us of strange bell commotions when William Wallace died, and in Scotland bells are still supposed to ring "untouched by mortal hand" on momentous occasions.

The great bell of the Cathedral of Saragossa, in Arragon, used to toll of itself, says the legend, just before the King of Spain died.—

> "The bell of Arragon, they say,
> Spontaneous speaks the fatal day."

In the little bay of St. Gowan, near Tenby, you are shown what are called the ruins of this saint's hermitage. In the small oratory attached he hung a sweet bell, whose sound was audible far out at sea. Some godless pirates heard its pleasant tones, and resolved to make it their booty, so they landed, tore the little bell from its turret, and hurried with it to the beach; but as they bore it along it grew so wondrously heavy that they were obliged to rest it on a stone. This stone is reported to have retained ever since a ringing sound when struck, and the tourist to this spot finds his guide place a hammer in his hand, and bid him strike a hollow stone, whilst he reverently tells him the legend of St. Gowan.

At Aberbrothok, on the coast of Forfarshire, was an abbey dedicated to Thomas A'Becket. One of the abbots placed a bell on a floating frame over the Inchcape Rock, which lies a little distance out at sea, and which was a frequent cause of shipwreck to passing vessels.

> "When the rock was hid by the tempest's swell,
> The mariners heard the warning bell,
> And then they knew the perilous rock,
> And blessed the prior at Aberbrothok."

A pirate captain resolved to destroy this protective signal, so one day when the sea was calm, and the floating bell-frame at rest, he lowered his boat and cut away the bell, which at once sank into the sea. Exulting in the mischief he had accomplished the pirate sailed away; but ere many years had passed, his vessel, laden with booty, was again in the neighbourhood of his evil deed. It was night, and a terrific tempest was raging. He thought he was near the old spot, but was not certain, and spoke to his helmsman—

> "Canst hear, said he, the breakers roar?
> For yonder, methinks should be the shore;
> Now where we are I cannot tell,
> But I wish I could hear the Inchcape bell."

For a moment the black heavens were gashed over with lightning, and on the near shore the Abbey of Aberbrothok became visible, whilst below and around the breakers were white with foam. Too late to alter the course of the vessel, she struck upon the rock and foundered, whilst the drowning pirate heard—

> "A sound as if with the Inchcape bell
> The devil below was ringing his knell."

Of the bells in Limerick Cathedral, Mrs. S. C. Hall has preserved a very touching legend. They are said to have been founded by an Italian, who was an enthusiast in his art, and devoted himself to making them a surpassingly melodious peal. They were finished and suspended in a monastery, near which this founder took up his residence, in order to enjoy their daily sound. War desolated the country, the monastery was razed to the ground, the bells sold, and the population scattered. The enthusiastic bell-founder himself became an exile. Haunted, even to his old age, by the memory of his favourite bells, he determined, if possible, to hear them once again. They had found their way to Ireland—a country always famous for its bells—and the ship in which the exile sailed in pursuit of them dropped its anchor in Limerick Pool, two miles below the city. He took boat and rowed up the Shannon, when the towers and turrets of the cathedral rose into view. The rowers paused to give their passengers a view of the noble building. As he gazed the chimes of the cathedral clock sounded the very bells which he had most loved and longed after. The old man leaned forward as if to hear them more distinctly, and the garrulous boatmen were silent and subdued by the fixedness of his look. Alarmed by his continuing motionless they again stretched to their oars, and soon reached the landing-place; but when they would have helped him ashore they discovered that his life had already passed away with the chimes.

There is a fine bell at Trinity College, Dublin, for which a handsome turret has recently been erected. A story is told of Dr. Barret with regard to this bell, that when asked by a company who had been drinking various toasts, to give his belle as a toast, he said, "I'll give you the college bell, for I believe there is no belle so fine as that."

There are many interesting customs and charities connected with bells at the present day.

At Dewsbury a bell is tolled on Christmas Eve as at a funeral, or in the manner of a passing bell; and any one asking whose bell it was, would be told that it was the Devil's knell. The moral of this is, that the Devil died when Christ was born. The custom was discontinued for many years, but was revived by the vicar in 1828. Amongst the sweet bells of Dewsbury is the famous "Black Tom of Tothill," which is said to have been an expiatory gift for a murder.

At Thruxton, Herefordshire, there is a piece of ground called the Bell-acre, which from ancient times has been let, and the rent applied in the purchase of bell-ropes.

At Ecclesfield Church a bell is rung at six o'clock in the morning, again at twelve, and again at eight in the evening: the curfew, on Saturday, is always rung at seven. The sexton receives a yearly payment, charged in the churchwarden's account, and the poor, especially, derive accommodation from these convenient notices. It may be remarked here that the curfew ought properly to be *rung*, not *tolled*; hence Gray and Moore err in their poetical descriptions when they say—

> "The curfew *tolls* the knell of parting day,"—

And—

> "Faintly as *tolls* the evening chime."

Scott, on the other hand, says correctly—

> "When Hawick he passed, had curfew *rung*."

CHURCH BUILDING NEWS.

Norwich.—An Early English three-light window has just been placed in the east end of the church of St. Faith Newton, having been executed at the expense of Mr. R. Twining, of London, as a memorial of some members of his family. The design is the early scroll ornament, filling geometric forms, with the figures—Faith, Hope, and Charity,—one in the centre of each light, and each light surrounded by a border. At the bottom are initials. The work was entrusted to the Messrs. King, of this city.

Tofts (*Norfolk*).—An entire new chancel is being added to this beautiful church, which, when completed, will measure 48 feet long by 21 feet wide. It has a small chantry on one side, and a vestry and organ-loft on the other. The material used is flint, with Bath stone dressings. The interior ashlar is local clunch stone, The internal arches, window moulds, &c. are in Caen stone. The ceiling will be panelled, with carved oak bosses at the intersections of the ribs. It will be fitted up choirwise, with carved oak stalls, for thirty persons. There will also be sedilia, piscina, &c. &c. The altar, we are told, will be worked entirely in alabaster and coloured marbles. In short, no expense, it would appear, will be spared. The work is being carried out at the sole expense of John Sutton, Esq. of Cambridge, from the designs of Mr. E. Welby Pugin. Mr. G. Myers, of Lambeth, is the builder.

Winchester. — At a recent meeting of the parishioners of St. Thomas and others, interested in raising a suitable memorial to the late rector of the parish, it was unanimously resolved, according to the *Hampshire Advertiser*, to finish the church by completing the tower and erecting a spire thereon. A committee was also appointed to wait upon the parishioners, and ascertain the amount of pecuniary aid they would render towards carrying out the desired object. The Dean and Chapter intend giving 100*l.* and the Warden and Fellows of the College 50*l.* towards the cost of completing the spire. The cost will be about 1,200*l.*

Dorchester.—On 7th instant were formally laid the foundation-stones of the two chapels in the new cemetery now being enclosed at Dorchester.

Shrewton.—The consecration of the restored parish church of Shrewton took place on Wednesday before last. The church was built from the plans and under the superintendence of Mr. T. H. Wyatt. The tower, one arch of the nave of the former church, the piers of the

* The paper will be found printed in full in the *Leeds Intelligencer*.

chancel arch, and two lancet windows, which were found walled up in the former chancel, have been retained in the new building. The style of the several parts of the new church was determined by remains of the former one, the nave and chancel being of earlier character than the aisles and tower. The nave is lighted by a clerestory of three trefoil-shaped windows. The western tower arch is open to the body of the church, separated, however, by a carved wood screen. The floor of the tower is used as a ringing place. The east end of the north aisle is divided off as a vestry by a screen, and the whole church fitted up with open seats of stained deal. There is a wooden roof, both to the nave and chancel, of stained deal. The carving of the corbels and other stonework was executed by the Messrs. Howitt. The pulpit, desk, lectern, and chancel seats, are of carved oak. The materials are flint and ashlar stone. The chancel is paved with encaustic tiles. The communion rails are of ironwork, by Potter. The dimensions of the church are 75 feet by 40 feet; and the accommodation is for 363. All the sittings are free. The east end of south aisle is adorned with a window of stained glass. It contains two lights, one filled with a full-length figure of St. Peter, the other representing St. Paul. The total costs of the works at present undertaken are estimated at less than 1,808*l*. The vicar and churchwardens are, it is said, anxious to complete the work by the restoration of the tower in the erection of a spire, which is much needed, but there still remains a deficiency in the funds provided for the work already accomplished.

Ipswich.—The consecretion of the new cemetery here took place on Thursday before last.

Carlisle.—The Dean and Chapter of Carlisle have recently held a meeting with the view to raise the necessary funds for effecting the restoration of their cathedral to a much greater extent than the result would be of the repairs of it now in progress. These latter repairs have reference chiefly to the fabric, and had long been urgently needed; but the Dean and Chapter contemplate the introduction of a number of decorations which they think necessary for the complete restoration of the building to its original state, in the execution of which, however, they are not at liberty to apply any of the funds raised on the cathedral estates for the substantial repairs, and they are consequently obliged to have recourse to voluntary contributions. The supplemental alterations they are desirous of making include the rebuilding of the ancient parish church of St. Mary as an integral portion of the restoration of their cathedral; the fitting up of the remains of the nave for cathedral purposes, as soon as the parishioners of St. Mary's are provided with a new church; the decoration of the oak roof, so as to restore it to somewhat of its original condition, when it was ornamented with the coats of arms of some of the principal Border families; the cleaning and repairing of the old stained glass in the tracery of the great east window; and a new organ, for which a fund has already been partially raised. The Dean and Chapter think the execution of the substantial repairs of the fabric out of the funds of the cathedral estates an opportunity which should not be lost for making the other changes to which reference has been made; and with that view they have made an appeal to the citizens of Carlisle and the inhabitants of the neighbouring districts, to which a hearty response is now being made.

Shrewsbury.—St. Michael's church, situated in the suburb of Castleforegate in this town, has been undergoing considerable enlargement during the last four months, and has now been re-opened. The alterations and additions have been executed by Mr. Dodson, from designs by Mr. S. P. Smith, architect. The four re-entering angles were taken down, and the walls extended, the space thus obtained at the north and south sides of the chancel and the west end being converted into pews. The original free sittings have been removed, and pews fixed there instead: to compensate for this, the gallery is widened and lengthened, and wholly appropriated to free sittings. The principal entrance is through the south face of the tower, and there is also an entrance at the south-west angle of the building. By these alterations upwards of 400 additional sittings have been obtained, one half of which are free. The cost will be about 700*l*.

Wellingborough.—A new church, or chapel of ease, is about to be erected at Wellingborough; the present edifice (though one of the largest in the county) being too small. The subscription toward its cost is progressing.

East Retford.—The parish church of St. Swithin, East Retford, was opened on the 11th instant. The work of restoration was entrusted to Mr. G. G. Place, of Nottingham, architect, and the contract for the works to Messrs. Lee and Webster, of Boston. The church was in a very dilapidated condition, externally and internally, and was sadly disfigured with galleries and enormous pews. The north aisle has been rebuilt and enlarged, and roofed with red deal. A similar roof has been placed on the south aisle. Benches of stained deal occupy the place of the pews, and the galleries have disappeared. The tracery in the windows has been removed. The floors have been laid with Yorkshire flagging, new gas-fittings (by Skidmore, of Coventry) adjusted, and a stone pulpit, and eagle lectern of oak provided. The external masonry has been thoroughly repaired, and the south transept gabled and battlemented. A new organ-chamber and vestry have been built on the south side of the chancel; the chancel itself extended 17 feet, and a clerestory added to it, so as to restore to its original proportions the eastern second pointed window, the centre compartment of which has been filled with stained glass, by Messrs. O'Connor, as a memorial of Mrs. Hawkesley Hall. The Foljambe window has been refixed in the south transept, and one compartment of the west window of the south aisle has been filled with glass, representing the Baptism of Jesus in the Jordan by St. John the Baptist: it is also from the pencil of Messrs. M. and A. O'Connor. The carving was executed by Mr. Lee. All the tablets and memorials in the interior of the church have been cleaned and restored, and several new mural monuments have been erected. The churchyard has been levelled. The entire cost of the restoration amounts to about 3,400*l*. all obtained by voluntary contributions, nearly 1,000*l*. of it through the exertions of the ladies of East Retford.

Glasgow.—The local *Gazette* adduces, as an instance of a rise in the value of church property, the recent sale of Renfield Church, with the ground attached to it. This property, situated at the corner of Renfield and Gordon streets, was acquired in the year 1822, at a feu duty, lately redeemed, for 1,000*l*.: the church building cost 2,300*l*.; making together 3,300*l*. as the cost of this property, which was sold by auction on Wednesday week at the rate of 15*l*. per square yard, yielding, say 16,111*l*. 13s. 4d. the highest price, it is said, at which church property has been sold in Scotland.

PARIS.

WE learn from *Galignani* and Paris papers that there are eight competitors for the prize of architecture at the Ecole des Beaux Arts. The subject is a Conservatoire de Musique for a great capital, entirely isolated, having a façade of 260 yards on a public square or place, and containing, besides a concert-room for 1,200 persons, a theatre of equal size, a library, and a museum of musical instruments.

The Academy have awarded the great prizes in sculpture. The first grand prize was given to M. Chapu, pupil of MM. Duret and Pradier. The work of this artist was injured by a fall, which broke it into several pieces at the moment it was being placed in its position. The fragments were afterwards arranged together, and its superiority was then so great as to merit the first prize. The second was awarded to M. A. D. Doublemard, pupil of M. Duret; and the third to M. Rolland, pupil of MM. Duret and Feuchère.

The International Statistical Congress has held its sittings in Paris successfully. The representatives of various countries attended. The wonderful facility with which these gentlemen expressed themselves in the French language surprised the Frenchmen. It was a matter of difficulty to discover a fault of language or in elegance of expression.

NAMES OF STREETS.

ALLOW me to say a word on the absurd manner in which the buildings in our streets are named and numbered, *e. g.* look at Hugamuffin-road, situate in the parish of ———; but why should I trouble myself to search musty rolls to discover the parish to which this celebrated road belongs? Look at it, Mr Editor. You walk, perhaps, on the right-hand side of the road, and see

Crabskin-terrace	1, 2, 3, 4, 5, 6.
Amelia-place	1 to 4
Cardinal-cottages.	1 to 4
Alma-place	1 to 5
Providence-villas ...	1 to 4
Mary's-buildings	1 to 6
Ann's-place	1 to 6
Newmarket-row	1 to 7
Mumford's-place	1 to 6
Lewis-cottages.	1 to 15
Miller's-place	1 to 9
Essex-place	1 to 18
Sussex-place.	1 to 24
Crown-place	1 to 16
Shaw's-villas	1 to 8
Richmond-place	1 to 14
Medina-villas	1 to 20
Minerva-cottages	1 to 2
Albion-terrace.	1 to 30

Returning from my customary avocation in the City, a few days since, I was accosted by an individual, dressed in a fiery-coloured uniform, with the mystic characters—G.P.O. 4001, on his collar, who thus accosted me: "Can you direct me, sir, to Mumford-place?" I replied, "I have lived ten years down this road, and do not know it." "I only wish," replied this industrious individual, "I only wish, sir, that these here builders had to follow a postman's life for a few weeks: that would soon sicken them, I reckon, of this here way of calling the row of houses in a street by a score or two of names."

I really think, Mr. Editor, if the uxorious builders who thus immortalise their wives, and those gentlemen who are in a state of single blessedness, but are hoping for better days, only could experience a little of this difficulty, the system would pass away like the other remnants of the good old times, and remain in future ages only for the consideration of the antiquary.

J. C. S.

ISLINGTON.

CHURCH OF ST. PHILIP THE EVANGELIST.

A NEW church, to be named St. Philip's, has been commenced on an eligible plot of ground at the corner of Arlington-square, New North-road, having a frontage of 120 feet in the square, by a depth of 176 feet in Linton-street. This site was gratuitously reserved some years since by the foresight of the then Prebendary of Islington in St. Paul's Cathedral, the Clothworkers' Company, and the trustees of Lady Packington's charity, to whom jointly belonged "the Shepherd and Shepherdess fields," a tract now nearly covered with houses.

The church will be in the Anglo-Norman style, of the latter part of the twelfth century. It will consist of a nave, transepts, and aisles, and will accommodate 1,054 persons: the sittings are chiefly on the ground-floor. The total cost is to be 4,800*l*. The present design contemplates a church only, but there is ample space on the site for boys', girls', and infants' schools, towards Hale-street, and for a parsonage-house fronting the square. Mr. A. D. Gough is the architect; and Messrs. Dove, Brothers, of Islington, are the builders.

Funds are greatly needed for the prosecution of this work. With one exception, there is no district in the whole parish of Islington which contains so small a proportion of church sittings to the number of inhabitants, as St. Mary's district. Its church has a population of 17,500 still ecclesiastically attached to it, and the design of allotting 5,000 of that number to the new incumbency of St. Philip's deserves the earnest support of every churchman.

A writer in the *Islington Indicator* (a superior local print), shows that a great extent of the parish is as yet unprovided with accommodation for public worship. So far from there being provision for five-eights, or 62½ per cent. of the population (the proportion Dr. Chalmers estimates able to attend religious services), there is provision for only 29 per cent. The population is still rapidly increasing; and ere long, the 3,000 acres of the parish will form one dense mass of houses.

Building is still going on with rapidity in this part of Islington. Messrs. Rowland and Evans have raised a very large number of houses, including nearly a hundred on the site of the "Rosemary Branch" Tavern. Several large houses have been finished on Mr. Rydon's land, Highbury New Park; and Messrs.

Stroud have just commenced a long row in Mildmay-grove, facing the railway.

Buildings for the accommodation of the infant poor of Islington are now in course of erection on a plot of ground called Porter's Acre, situate on the east side of the Hornsey-road.

"Porter's Acre" was devised to the poor of the parish by John Parsons, by will dated 1700.

The main building contains, on the ground floor, accommodation for 180 children, namely, 90 boys, 60 girls, and 30 infants; a dining-hall for 200, to be used also as a chapel; a kitchen, washhouse, laundry, dairy, stores, and other necessary offices. Airing-grounds, with covered yards for unfavourable weather, are also provided. On the first floor are the dormitories, with proper conveniences attached.

The dwelling-house, in the centre, divides the girls' from the boys' department. In connection with the main building are baths, lavatories, workshops, &c. The building intended for the infirmary contains two fever and two convalescent wards, for twenty children, with nurses' rooms, bath-rooms, and other offices.

The buildings are faced with stock bricks, with red brick quoins, and have splayed reveals to the openings. The cost is estimated at about 10,000*l*. Mr. Frederick Tyerman is the architect, and Messrs. Patrick and Son are the builders.

THE BRITISH ASSOCIATION AT GLASGOW.

A VERY brilliant annual meeting of the *stars* and other *savans* of the British Association and their satellites has just been held at Glasgow. This was the second meeting of the Association in the western metropolis of Scotland, the former having been held in 1840. The arrangements for the present meeting were of the most complete kind. The university class-rooms were set apart for the sectional and committee meetings, the City Hall was engaged for the general meetings, the Trades' Hall was opened as a reception-room, and the Merchants' Hall was made available for the meetings of the general committee, who met on Wednesday in last week at one o'clock. Among those present on the platform and in the hall were Prince Lucien Bonaparte, the Earl of Harrowby, Count Frolich, from Sweden; Sir R. I. Murchison, Sir C. Lyell, Sir Charles Pasley, Sir John Rennie, Professor Fleming, Professor Balfour, Dr. Lyon Playfair, Dr. Whewell, Dr. Scoresby, Colonel Sabine, Sheriff Glassford Bell, Mr. Tite, Mr. Wentworth Dilke, &c.

The Earl of Harrowby was called to the chair, and Professor Phillips, assistant general secretary, read the minutes of the meeting of the general committee at Liverpool in 1854.

Colonel Sabine, as general secretary, read the report of the council to the meeting then held, and which, amongst other topics, congratulated the Association on the probable concentration of scientific bodies in Burlington House. A list of office-bearers was then read and other business transacted.

At five o'clock the Lord Provost of Glasgow gave a grand inaugural banquet in the M'Lellan Rooms. These halls, which were built for public purposes by the late Mr. Archibald M'Lellan, and in which is usually exhibited a collection of works of art of the different European schools, including numerous paintings by great masters (the greater part of the collection having belonged to the late Mr. M'Lellan himself), were on this occasion superbly fitted up. The saloons are three in number, one of which was prepared as a reception-room, the central one as a dining-hall, and the third as a coffee-room.

Amongst those present, besides names already given, were the Duke of Argyle, as president elect, the Earls of Elgin and Eglinton, Lords Ingestre, Belhaven, and Talbot, Baron Liebig, Sir D. Brewster, and many other eminent men.

The first general meeting of the association took place in the City Hall, at eight o'clock. The entire of this great hall was filled with a brilliant assemblage, including a nearly equal proportion of ladies, all in full evening costume. The Earl of Harrowby then introduced, as president elect, the Duke of Argyle, who, after ably reviewing the progress of science, said,—

The advancement of science depends, above all things, on securing for it a better and more acknowledged place in the education of the young. What we desire, and ought to aim at is, that abstract science, without special reference to its departmental application, should be more recognized as an essential element in every liberal education. We desire this on two grounds mainly,—first, that it will contribute more than anything else to the further advancement of science itself; and, secondly, because we believe that it would be an instrument of vital benefit in the culture and strengthening of the mental powers. And this brings me to say a word on the value of instruction in physical science, not merely with a view to its own advancement, but as in itself a means of mental training, and an instrument for the highest purposes of education. Even where the researches of physical science can do little more than guide conjecture, or illustrate merely what it cannot prove, how grand are the questions which it excites us to ask, and on which it enables us to gather some amount of evidence. It is sometimes proudly asked, who shall set bounds to science, or to the widening circle of her horizon? But why should we try to do so, when it is enough to observe that that horizon, however it may be enlarged, is a horizon still — a circle beyond which, however wide it be, there shine, like fixed stars without a parallax, eternal problems in which the march of science never shows any change of place. If there be one fact of which science reminds us more perpetually than another, it is that we have faculties impelling us to ask questions which we have no powers enabling us to answer. What better lesson of humility than this? What better indication of the reasonableness of looking to a state in which this discrepancy shall be done away; and when we shall "know even as we are known?"

SCHOOLS OF DESIGN IN CONNECTION WITH THE DEPARTMENT OF ART.

IN reply to several inquiries, let us state, that District Schools of Art, in connection with the Board of Trade Department, are now established at the following places. Entrance fee, 2s. Admission, 2s. and 3s. per month. The instruction comprises practical geometry and perspective, free-hand and mechanical drawing, and elementary colour:—

1. Spitalfields, Crispin-street.
2. Camden-town (late North London), High-street.
3. Finsbury, William-street, Wilmington-square.
4. Westminster Mechanics' Institute, Great Smith-street.
5. Saint Thomas, Charter-house, Goswell-street.
6. Rotherhithe, Grammar School, Deptford-road.
7. St. Martin's-in-the-Fields, Long-acre.
8. Saint Mary's, Princes-road, Lambeth.
9. Gore House, Kensington.

At schools 1, 2, and 9, there are female classes.

DRAINING RICHMOND PARK.

DEEP AND SHALLOW DRAINS.

THE Office of Works are draining that part of Richmond-park, near the Ranger's kitchen-garden, bordered by Sheen Common, which is now covered with rushes and weeds. The drains are all 4 feet and 5 feet deep, varying from 30 feet to 50 feet apart, in sand, and some clay. The work is being done under the directions of Mr. R. B. Grantham. Nearly all the park requires draining. Parts of it were drained some years since, but from the shallowness of the drains, and imperfect manner of laying the pipes or tiles, we are credibly informed, it requires to be drained again.

MASTERS AND MEN.

THE written certificate of character and ability suggested, by your correspondents of August 11th and 18th, to be given by employers to the employed in the building trades, I consider would be highly useful and encouraging. The present system, or rather no system, of setting on men just when they are wanted, without any recommendation (except, perhaps, that of some fellow-workman), and turning them off when they are done with, is most degrading: this is really using man just like a machine. Now masters should have more consideration for a man than a machine, and there should be more communication with the one than the other. It is important that our building magnates should be considerate towards those employed: both should be intimately and cordially united together: one cannot do without the other: each should remember they are eating of the same loaf. The relation between masters and men is close, but, ye masters, do ye feel and show the relationship by your friendly words and looks?—by your inquiries, or your call, or that of your wife or daughter, if any in your employ are ill at home?—or by your friendly reasonings in any case of unfaithfulness? If a kindly connection, a moral tie such as this does not exist, let it be cultivated and aimed at: it is duty, if not interest; and masters ought to consider it a part of their duty to make their men happy, remembering we are all the children in common of One whom we call "Our Father." W. A. H.

Workmen and Testimonials.—I have observed in your journal of the 11th of August, a letter from a Builder's Clerk, and on the 18th from a Builder, on the subject of workmen. Their opinion was that every workman should obtain from his employer when discharged a testimonial of good conduct, sobriety, &c. without which testimonial he should not be employed by any one. Now, Sir, having, I believe, given you their side of the question, allow me, in the name of the working classes, to state a few of the objections to their suggestion. If a workman should by any means (however innocently, or without intention), give offence to his employer, it would lie in that employer's power to ruin, if not utterly annihilate that man's character for life. Again, a workman, on leaving his employer, it might be to better himself, or that he had a chance of work nearer his home, would be entirely dependent on that employer's will for his future prospects (as far as his obtaining any more employment went), thus rendering the condition of the working man, already sufficiently overburdened, little better than, if so good, as that of a serf. It may be very well for clerks, and such classes of men, to require testimonials of character from one employer to another, because generally they have great responsibility and confidence placed in them, in consequence of having to handle a great deal of money, and perhaps to pay the workmen's wages, thus proving the necessity for a good character on their parts. But as workmen are very seldom required to take much responsibility, why should their very chance of gaining an honest living be vested in and subject to the whim and caprice of an employer?

A WORKING MAN.

COMPETITIONS.

Newark Cemetery. — The first premium has been awarded to Messrs. Bellamy and Hardy, of Lincoln, and the second to Mr. Pritchett, of Darlington.

Guildford Cemetery.—Twelve designs were received in competition, and from these the Burial Board have selected one marked "Hope," afterwards found to be by Mr. Roberts, of Southampton-street, Strand, to whom they awarded the *munificent* premium (10*l*.) offered. The design marked, "Do I deserve," was second favourite.

Aberystwyth Clock Tower.—Competitors still complain that they can neither get their drawings back, nor replies to letters. The committee appear to have behaved very ill in this affair.

SUGGESTIONS FOR LONDON.

I TAKE the liberty of offering to your notice a few suggestions.

I would propose first, a scheme which might be called "A Small Public Thoroughfare and Minor Improvement Scheme," for the purpose of relieving the principal streets of much of the traffic which is continually blocking them up, by simply converting many of the existing courts and alleys into small streets or thoroughfares. We want small outlets to take away the light traffic, such as cabs, carts, &c. For example, Ludgate-hill would be eased a good deal by throwing open the Broadway, Water-lane, Little Bridge-street, &c. Drury-lane and Covent-garden Theatres would also be materially benefited by converting what is now called Vinegar-yard and Marquis-court into a small street, which could be done by merely pulling down a few houses.

Again, there are many good streets existing which are quite disfigured, because a few houses are suffered to remain projecting a great way before the adjoining ones, such as St. John-street, Smithfield, Cursitor-street, Hanway-street, Rathbone-place, Sutton-street, Great Wild-street, and many others all over London.

While discussing the desirability of throwing back houses, I wish to ask whether the Act which compels all shops in the leading streets to be thrown back, does not apply equally to streets of every kind? There are many streets, particularly in the outskirts, built as private houses, with two or three feet of ground in front (in some cases called a garden), afterwards converted into shops, and the shops built right over the front bit of ground, instead of being carried back flush with the brickwork of the house, rendering such neighbourhoods very unsightly.

All these evils might be remedied by a general inspection of London, without any surveying, and if undertaken by the various Metropolitan Improvement Committees, such nuisances as Middle-row, Holborn, would no longer remain.

I think, likewise, the backs of houses ought to come under a general inspection, and persons should not be allowed to choke up every bit of ground they have with workshops, &c. In my opinion every house should have a space of ground equal to its own superficial area unbuilt upon, and every block of buildings should have a right of way or public footpath carried through the back.

Under the head of dirty property, I would advise a general clearance of all back slums, such as the purlieus of Gray's Inn-lane, &c. allowing but a bare compensation for the same, and the tenants of such nasty places should go to the outskirts of the town to find a lodging.

I will now propose a scheme (a novelty in its way) which, if carried out, would be a great boon to a large portion of the public who seem to be forgotten altogether, I mean the children, and that is nothing

more nor less than the establishment all over London of small public play-grounds. An excellent opportunity offers itself in the closing of all metropolitan graveyards, and some of these might be fitted up with every kind of gymnastics suitable for both boys and girls. I am sure it would be hailed with delight by a large portion of the inhabitants of London, if street music of every kind were restricted to these playgrounds. A. B. C.

AN AMERICAN BOOKSELLING ESTABLISHMENT.

THE buildings of the Harper Establishment are situated in New York, on Cliff-street and Franklin-square. The establishment covers about half an acre of ground, and consists chiefly of two blocks of buildings, one fronting on Cliff-street, and the other fronting on Franklin-square, with a court between. The two blocks of buildings are united, and made, as it were, one, by a series of iron bridges connecting the various stories of the two blocks with each other, and with a large circular tower in the court, which contains the only common stairway for the whole establishment. The edifice is constructed almost exclusively of stone, brick, and iron, and is hence fire-proof. That portion of the building which fronts on Franklin-square, is five stories in height, with a cellar and sub-cellar below, making seven floors in all. The front is built wholly of iron. It consists in each story of twenty-one Corinthian columns, with lofty windows filling the intercolumnations. Each range of columns supports the bases of the range above, and thus they rise, tier above tier, to the topmost story. Over the entrance-door is a full-length statue of Benjamin Franklin, in iron, and between the windows of the fifth story is a row of smaller statues of Washington, Franklin, and Jefferson. Above them is the cornice of the roof, supported by massive trusses. The depth of the foundation of the edifice may be inferred from the fact that the floor of the lowermost cellar is 22 feet below the sidewalk. A large portion of the space in these cellars is used for the storage of paper. This paper is taken across as wanted into the lower stories of the building on Cliff-street by a subterranean railway under the court. There are no staircases leading from one story to another in either of the buildings within the walls. Thus the several floors of the buildings are continuous and entire throughout. This construction is adopted as a safeguard against fire. The fireproof floors consist simply of a series of long, narrow, flat brick arches, supported by wrought-iron beams, the ends of the beams being supported in their turn by girders of wrought and cast iron, and these by a range of cast-iron columns, supported by a similar range in the story below. The number of cast-iron columns and girders in both parts of the edifice is over 250. The number of brick arches, averaging about 4 feet span, and 15 feet in length from girder to girder, with wrought-iron beams to support them, is about 2,000, and the whole area of floors thus supported in the different stories is between two and three acres. Mr. James Bogardus, engineer, was the constructor of the iron front of the building; Mr. John B. Corlies, the architect and builder; Mr. James L. Jackson, the designer and manufacturer of the iron columns and girders; and Mr. Abram S. Hewitt, of the firm of Cooper and Hewitt, manufacturers of the iron beams. We have gathered these particulars from one of a series of "Story Books," published, in this country, by Messrs. Low.

Miscellanea.

THE NEW-ROAD, ST. PANCRAS.—While you are on the subject of encroachment, perhaps you may deem it worth while to call attention to the encroachments that have been made, and are still being carried on, in one of the principal thoroughfares in the north of London. I mean the *New-road*, especially that portion by Tottenham-court-road and Pentonville. There is at the present moment a substantial brick building being run up at the corner of Chaltonstreet, and like all the other encroachments, it is carried out to the very pavement, not even the width of an ordinary area left between house and footway. The first of these encroachments were wood erections, built on wheels; but now they have got more audacious, seeing that the parties whose business it must be to see the Act properly carried into force, do not prevent any encroachments being made. I believe the Crown has something to do with this line of thoroughfare, and when it was originally laid out, the conditions were that a wide and clear thoroughfare should be left, and that no building of any kind whatever was to be *erected* on the gardens each side the road. This road is now becoming of more importance than ever, in consequence of its being the connecting line of the termini of the four greatest railways entering London.—A. M. G.

VILLAGE READING-ROOMS AND LIBRARIES.—A *conversazione* of the Bucks and Berks Lecturers' Association will take place at the Town-hall, Windsor, on Tuesday, the 25th inst. at seven o'clock. The Association has been formed for the purpose of establishing reading-rooms and libraries in the villages of these counties, and of assisting mechanics' institutes in the smaller towns. It is hoped there will be a large attendance of those interested in such purposes. Members of existing institutes are particularly invited to be present. Among those expected to favour the Association with their company are the Hon and Very Rev. the Dean of Windsor, the Hon. and Rev. S. Best, Mr. C. Knight, Mr. P. Le Neve Foster, &c. &c.

SMOKE CONSUMER.—At Mr. Hunter's saw-mills, Greendyke-street, Glasgow, may be seen a simple smoke consumer, described in the *North British Mail*. Connected with a valve and lever, a tin can dips into a small tub of water, and fills when the furnace-door is open; and, when the door is let down, the full can is lifted out of the water, and immediately commences to empty itself through the tap. As it empties, the sliding-valve gradually drops, until at last, when the can is about empty, the opening in the furnace door is entirely closed. Less than 2*l.* fits it up, and, although it is not said whether there is any economy of fuel or not, the absence of smoke is vouched for.

THE GREAT CLOCK AND BELLS FOR WESTMINSTER PALACE.—Copies of all papers and correspondence relating to this subject have just been published by order of Parliament. Amongst other matters there is a discussion between the Commissioners of Works and Mr Dent relative to the clock, which was not fixed and completed according to the contract, owing, as Mr. F. Dent affirms, to the tower and bells not being ready. As regards the bells and the construction of chimes, it appears that Mr. Wheatstone conferred with Sir Charles Barry, and proposed that they should be empowered to collect information in Paris respecting the most esteemed chimes in France and Belgium, and to ascertain whether there are in either of those countries makers acquainted with the traditions of the art, or who have applied the modern discoveries of science to the improvement of bells or to efficient substitutes for them. This suggestion was approved by the Board of Works. Mr. Wheatstone remarks that the miserable failure of the chimes constructed for the Royal Exchange, which have been twice recast without ultimate advantage, shows that no known bell-founder in England can be relied upon, as the best in repute have been tried, and have failed. What have our bell-founders to say to this?

METROPOLITAN WATERWORKS.—Parliament having some time since determined that no water used for the supply of London should be taken from the Thames within tidal influence, with other directions in relation to reservoirs and filtration generally, has occasioned the almost reconstruction of those works by which the metropolis is supplied. Among these, the Chelsea Waterworks Company are directing extensive alterations—the construction of filtering works, new pumping machinery, at Seething Wells, above Kingston-upon-Thames, and in the erection of an aqueduct between Fulham and Putney, by which means, in its onward course, the water of the Thames will be carried over the Thames itself. The Lambeth Water Company, who had anticipated the decision of Parliament, by obtaining an Act in 1848, deemed it desirable to construct their new works so that the water must of necessity undergo the process of filtration before it reaches the pump-wells of the steam-engines, the filters being a series of sunken reservoirs, compounded of numerous layers, through which the water from the river percolates, and, constantly descending, filters itself into the subterranean culverts, receiving wells, basins, and reservoirs. The works are arranged to be constructed in sections, so that a new section may at any time be added. The first section of the Lambeth Works now in operation is in duplicate, and comprises engine-houses and offices, in which are erected steam-engines equivalent to the power of 600 horses, and calculated to pump 10,000,000 gallons of water a day. The Chelsea Company are removing their entire pumping establishment from Thames-bank to the new site at Seething Wells. The site of their old works, from the erection of buildings between Millbank and the Ranelagh, has become valuable property.

THE GALLERY OF ILLUSTRATION.—A new picture from an original drawing by Mr. James Randell, representing the battle-field of the recent victory on the Tchernaya, has been added to the beautiful diorama of the events of the war, and serves, with the exception of the last great event, to make it a complete picture of the campaign, equally instructive and amusing. Messrs. Grieve and Telbin have spared neither pains nor cost to keep the promises they made when they opened their gallery, and should, if the public have any gratitude, be reaping a rich harvest as their reward.

THE CAMP AND BARRACK SANITARY CART.—It must be obvious, that the early and complete removal of all refuse matter from camp or barrack is the primary and fundamental means of securing the health of troops, and of arresting the ravages of disease, and without this all other precautions are vain and ineffectual. It is intended to effect this by means of the sanitary cart and portable latrines, as constructed by order of the Government for experimental trial at Aldershott, by Mr. James Bird, late surgeon to the Royal Glamorgan Militia. The cart and latrines are of wood and iron, each latrine being 5 feet long, 18 inches wide, and 2 feet 6 inches deep, and capable when full of holding about 115 gallons: there is a spindle at each end, fixed eccentric, and a moveable cover, to be used when the latrine is carted away for the purpose of being emptied. Previous to removal a yoke is attached to each spindle—the yoke having side-triggers, which preserve the latrine in an upright position, and admit of its contents being readily discharged. The cart is constructed on two wheels, having two arms projecting from the back, and resting upon the axle, with curved extremities adapted to the yoke. The shafts act as the long arm of a lever, the axle being the fulcrum. By this simple contrivance one latrine at a time can be removed with great facility, without risk of overflow, and its contents deposited without any manual labour being necessary either for filling or baling out. The cart and latrines, as constructed for Aldershott, were manufactured by Mr. Sam Nash, ironmonger, 253, Oxford-street, and may be seen on application.

THE CONDITION OF THE THAMES.—A memorial, signed by a large number of bankers, members of the Stock Exchange, public companies, and others representing important interests, has been presented to the Lord Mayor, approving of his design to call a public meeting, to consider the condition of the Thames, and advising the appointment of a committee to secure the execution of such steps as may be decided on.

ST MARTIN'S-IN-THE-FIELDS BURIAL GROUND.—Considerable excitement has been occasioned by the opening of a portion of the burial ground, Pratt-street, Camden-town, in course of building operations now going on, and the destruction by fire, as alleged, of human remains thus disturbed. The excavation, it is also said, closely adjoins a "cholera pit," in which many poor victims of cholera were buried. The vestry of St. Pancras have since had a meeting on the subject, and have appointed a committee to protect public decency.

THE IRON TRADE.—In consequence, it is said, of the great improvement which has taken place in the aspect of the iron trade, the ironmasters of South Wales have generally determined to advance the wages of their workmen 10 per cent. and, in several instances, this was carried into effect at the last pay-day. The iron trade now is in a more steady condition. The exports of iron are large, heavy shipments of rails and bars being sent abroad. The trade in the neighbourhood of Darlington and Middlesbrough, which is becoming more important every day, is in a flourishing state. A great portion of the material is converted into shell or shot. Government receive all that can be made, and other large works near Newcastle are almost entirely occupied with Government orders. In South Staffordshire the improvement continues, and according to the *Times'* correspondent, there is a determination to discountenance any gambling efforts to raise prices to an undue extent; yet according to others, "prices are certain to reach the highest figures, against which all prudent men have been protesting." It is precisely by means of such confident assurances, however, that the speculators work upon the minds of the more moderate and honest members of the trade. Bars are quoted up to 9*l.* and hot-blast pig to 4*l.* 15s.

MR. JOSEPH FRANKLIN, ARCHITECT.—Mr. Joseph Franklin, late architect and surveyor to the corporation of Liverpool, died last week, at his residence, Cooper's-hill, near Stroud. More than fifty years since Mr. Franklin came to Liverpool, from Bath, and was engaged in the office of Mr. Thomas Haigh, builder; and ultimately went into partnership with him and his son, the present Mr. Thomas Haigh. In 1837, Mr. Franklin, having acquired an ample independence, retired from the concern, and accepted the situation of architect and surveyor to the corporation. This appointment he resigned about eight years ago. Mr. Franklin designed several buildings in Liverpool; amongst others, Dr. Raffles' Chapel, the Crescent Chapel, and Pembroke-place Chapel.

THE PEEL STATUE AT BIRMINGHAM.—The Peel statue, inaugurated a few days ago, remains unpaid for; indeed, not half the required sum has yet been subscribed. When the commission was intrusted to Mr. Hollins, it was stipulated, we believe, that he should receive 2,000 guineas, but the efforts of the committee have failed to obtain a larger subscription than 900*l.* and the sculptor is thus more than 1,000*l.* out of pocket.—*Aris's Birmingham Gazette.*

VENTILATION BY FANS.—A patent has been recently granted to Lieut. Cook, R.N. F.R.S. Professor of Fortifications, at Addiscombe, "for improvements in the mode of working gigantic fans, called punkas, for agitating the air in hospitals, barracks, churches, and other large buildings in tropical climates, and in the height of summer in more northern latitudes." These punkas may be worked by manual labour, or by horse, bullock or steam power. The machine is so arranged, that one man can work sixteen punkas with comparative ease. This is the number usually required for fanning the occupants of thirty-two beds, arranged in pairs, in an Indian hospital. The action of any single punka may be arrested without affecting the onward motion of the others, and set to work again at the will of the patient. For private beds, "revolving fans" are used, *within* mosquito curtains: these fans, by a simple and noiseless mechanism, are made to fan the occupant for two, four, six, or eight hours, according to the temperature of the room, and the consequent speed required. The apparatus is said to be very portable.

STRIKE OF THE LABOURERS AT THE CRYSTAL PALACE TUNNEL.—Last week the bricklayers' labourers in the employment of Messrs. Hanley and Eales struck for wages. It is stated that Messrs. Hanley and Eales are sub-contractors under Messrs. Peto, Brassey, and Betts, for the construction of a tunnel, 800 yards in length under the south-western end of the Crystal Palace, and the rising ground on each side, and which is to form a portion of the "Crystal Palace and West-end Railway." The works had been going on in a satisfactory manner, when the bricklayers' labourers began to exhibit symptoms of dissatisfaction at their wages, and insisted upon being paid an additional 6d. a day. On Thursday in last week they refused to go to work. Their employers, finding that their contract would not enable them to comply with the demands of the men (and considering that they were paying them 30s. a week for five hours' work a day), have refused to make any advance.

BUILDERS' BENEVOLENT INSTITUTION.—At a recent meeting of the directors of this Institution, the balance at the bankers' was found to be 379*l.* 8s. 9d. and it was moved that 300*l.* stock be purchased for the building fund, which was carried. Mr. George Bird, in moving that another election of pensioners take place in November next, said that he trusted that the builders generally would support their new president, Mr Charles Lucas, at the annual dinner which was fixed to take place on the 30th October next, and by that means enable the directors to take in the whole of the candidates. He hoped that all who could would become stewards, for if they did that, and each one tried his best endeavours, he felt confident that they would raise money enough to relieve some of the poignant distress that was now existing. Mr. C. Eales seconded the motion, which was put and carried; and after a vote of thanks had been passed to the chairman, the meeting separated.

THE COPPER TRADE.—There has of late been a good deal of uncertainty in the state of this trade, which is ruled by a *clique* somewhat like that under which the iron trade has so long existed in a perpetual state of fluctuation. At the last monthly meeting of the smelters' combination, it was resolved not to alter the nominal value of copper, as this would only be the means of enhancing the present high price of ores, and leave no advantage to the smelters, their object evidently being to rule the trade themselves, if possible. Wire, tubing, rolled metal, &c. are selling at rates which are declared barely to cover general charges on every fall below that level. The following are the quotations of a manufacturer's agent:—Nominal price, tough ingots, 126, 2½ per cent. off, but selling in many cases 20s. below.——The *Eclectic Review*, we may here note, has recently published some interesting historical, mineralogical, and statistical remarks on copper and lead, as well as on tin.

REFORMATORY SCHOOL FOR WILTS.—A highly influential meeting was held in the Town-hall, Devizes, on Monday week, under the presidency of the Marquis of Lansdowne, with the view of adopting measures for the establishment of a Reformatory School for Wiltshire. In course of the proceedings some interesting particulars were given as to the establishments at Hardwick, near Gloucester, and at Kingswood. The boys were said to be eager for farm work, and the farmers of the adjoining districts employed them, and found them useful. The cost of erecting the buildings at Hardwick, for thirty-nine boys, was 500*l.* The total expenditure of the first quarter of 1855, was 212; the receipts, 313*l.* The experiment about to be tried at Devizes is for the reformation of forty boys. The buildings, probably, will consist simply of two or three cottages. A very influential committee has been appointed to select a proper site and take the preliminary steps for the establishment of this institution, and a subscription has been entered into for the purpose.

A JUVENILE STRIKE.—This is a sharpset and precocious age. Cockney children were once regarded as an inimitable class of men in miniature, but now their like may be found even in far-off nooks and corners throughout the country. At Dumbarton, about 120 boys are employed in heating rivets and other light work at the ship-building yards, and have hitherto been paid wages of 4s. and 4s. 6d. a week. These boys lately struck work for an advance of 6d. a week, and the masters, after some resistance, have been obliged to accede to their demand.

A CURE FOR HOLBORN-HILL.—As a born Londoner, I have felt annoyed when reading the accounts of the splendid reception given to our Queen in Paris, at thinking of the unfavourable contrast afforded by her own dingy London, that must have been present to her Majesty's mind. I saw Napoleon and his Empress enter London proper by the narrow gorge of Temple-bar,—a scaffolding up at the corner of Chancery-lane, and hoardings nearly opposite,—and I felt considerably ashamed of the impression that must have been created on entering the wealthiest city in the world. It cannot be denied that the hand of enlightened despotism has done more to improve and beautify Paris than constitutional government has done for London; and though I suppose none of my fellow-citizens would therefore desire to change our free institutions for the mockery of them which is permitted to our gallant allies, it is provoking to think how little of public spirit exists among our people, and how perpetually the breeches-pocket interest defeats public improvements. I wish just now to call your attention to an opportunity which appears to me to offer for effecting a much talked-of improvement on very economical terms. The project for a viaduct across the valley of the Fleet—uniting the opposite acclivities of Holborn-hill and Skinner-street, and obviating the present enormous and painful expenditure of animal labour in dragging up loaded waggons and other vehicles - has from time to time been agitated; and I believe, in consequence of the anticipated injury to house and shop property on the existing line, has been as often allowed to die away. Now, sir, if you or any of your readers will turn down Charles-street, Hatton-garden, and from the high ground, say at the end of Kirby-street, look over to Sharp's-alley and the neighbourhood of Cow-cross, I think you will agree with me, that an excellent opportunity offers here for throwing across the wished-for viaduct, of iron, stone, or brick, the ground being either quite clear, or occupied with the last remains of Saffron-hill and similar localities. The Victoria-street which runs along the valley might be spanned by a girder bridge similar to those on some of our railways, and the approaches be constructed of brick, and the whole made to assume a handsome appearance.—L.

OVENS.—As you are a reformer in all matters appertaining to building, may I ask of you to reform our domestic ovens. I am a poor clerk of 100*l.* a year, living in a secluded village, and, with a large family in prospect, I am anxious to economise, and think I can do so by having an oven built in my own house, so that I could make and bake my own bread, &c. but the present plan (viz. by heating them with a large quantity of wood burnt in them, or by a furnace burning coals, the flame simply crossing the oven and out at the opposite side) seems absurd, and extravagant in fuel, to say nothing of the dirty state it is in after heating, from cinders, or ashes and soot, and withal it has a very uncertain and irregular heat. I am not at all skilled in the art of building, but think one might be built upon a much better principle, say with a furnace, to burn either wood or coals, the fire to pass under the bottom, then over the top, and finally along the back into a chimney: such a one (if it can be built) I think might be heated at a *very* little expense: a regular heat might be obtained, and the interior would be *perfectly clean*. If you, sir, can assist me in this matter you will much oblige, and also have the blessing of my and no doubt many other good housewives.—E.

THE TYNE PIERS.—The River Tyne Improvement Commissioners have let the contracts for these important marine works to Mr. Lawton, of Newcastle-on-Tyne. The amount of works on the north pier contracted for is 1,400 feet; on the south pier, 2,800 feet. The total cost of both piers will be about 166,000*l.* They have to be completed in five years, and will afford important protection to the immense number of vessels that yearly enter the Tyne from all parts of the world.

"THE LUNGS OF LONDON."—A correspondent in "Notes and Queries" says the parks have long been called by this name, which seems to have originated with Mr. Windham. In a debate in the House of Commons on June 30, 1808, respecting certain encroachments upon Hyde-park, Mr. Windham said, that Hyde-park was "the lungs of London." Free and fresh air was like champagne to the vulgar, as they seldom tasted it. (*Examiner*, 1808, p. 426.)—F.

PROPOSED NEW LONDON CHURCHES.—Several new churches are about being commenced in the metropolitan districts, while others are so far advanced as to be nearly ready for consecration. In Paddington three new churches are to be at once commenced. In Coventry-street, Haymarket, between Rupert-street and Princess-street, a church is to be erected, her Majesty having liberally contributed towards it. Three additional churches are to be erected in Clerkenwell, an influential committee, of which the Earl of Shaftesbury is the head, having undertaken to raise the necessary funds. In the parish of St. Andrew, Holborn, a large church is to be built, at the expense of Mr. J. G. Hubbard, the late governor of the Bank, a site having been granted by Lord Leigh. At Limehouse, a new church is to be built, at the sole expense of Mr. William Cotton. Two new churches in Lambeth and one in Southwark (Westminster-road), will be commenced early next spring. "A merchant," whose name has not transpired, has volunteered to build and endow a church in any part of London the bishop may point out.

CAST STEEL BELLS.—The *Sheffield Independent* says that the firm of Naylor, Vickers, and Co. Millsands, have introduced into Sheffield a new trade, in the making of cast steel bells. These bells are extensively used in Germany, and steel has these advantages over bell-metal, that the bells may be made 30 per cent. lighter, are only about half the price, and are very much stronger. There was much hesitation last week about ringing the bells of the old church at Manchester, for fear of danger to the tower. If the bells there could be replaced by others of only two-thirds their weight, it would probably obviate the difficulty. It is yet to be ascertained, however, whether steel bells can be combined in a regular chime of eight. On Monday before last the casting of a steel bell weighing 25 cwt took place at Millsands. It required fifty-six pots of steel, and the whole were poured with rapidity and order in five or six minutes. The casting is said to have been successful, producing a sound bell of great size and power, and of good tone.

TENDERS

For the Bedminster Drainage, as advertised for in our paper:—

Hobbs, Clifton	£10,825	0	0
Baker, Bristol	10,650	0	0
Savage, Northampton	10,332	11	0
Brown, Southampton	9,500	0	0
Lee and Lavars, London	8,882	0	0
Merryweather, Bristol	7,742	10	0
Millet, Bristol	7,078	3	6
Fanner, Bristol (accepted)	7,029	15	5

For erecting the boundary walls and enclosure with iron railing and gates, building an Episcopal and a Dissenters' chapel, and sexton's house, for the new cemetery, St. Nicholas, Rochester, Kent:—

Spicer, Stroud	£1,947	10	0
Cotton, Rochester	1,887	17	6
Naylar, Rochester (accepted)	1,826	0	0

For the school and institution at Wantage. Mr. William White, architect:—

Mr. Hunt —Received after the time appointed.			
Mr. Delay —Residence	£949		
,, Long range	950		
,, Oratory	250		
,, Outhouse	350		
			£2,499
Mr. Dyne —Residence	£983		
,, Long range	972		
,, Oratory	315		
,, Outhouse	202		
			£2,472

(With 100*l.* added should the works not be commenced all together).

Mr. Dale —Residence	£767		
,, Long range	837		
,, Oratory	275		
,, Outhouse	187		
			£2,066

(With 12½ per cent. added should the works not be commenced all together),

Mr. Walter—Residence	£1,220		
,, Long range, Oratory, Outhouse	*765		
			£1,985

* Not separated.

Mr. Dale's tender (commencing with the residence only forthwith) accepted.

TO CORRESPONDENTS.

"J. G. C."—"M. and M."—"R. G. W."—"G. D."—"H. C. W."—"W. W."—"F. T."—"T. L. D."—"W. R."—"Capt. S."—"H. and R."—"Alpha."—"W. W."—"A Practical Painter."—"J. C. S."—"R. H. S."—"W. L. S." next week.—"J. R. O. T."—"W. B. S."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO JOINERS.

FEW good JOINERS can have EMPLOY-MENT by applying to Messrs FOORD and SONS, Acorn Brewery, Kent

BOOKKEEPER and DRAUGHTSMAN.—An efficient PERSON WANTED to Establish a new Business; by letter, with references, to E. S. C. Mr. Hamblin's, 421, Oxford-street.

CLERK of WORKS WANTED.—Must be a thoroughly practical man, and accustomed to the superintendence of Sewerage and Drainage Works, and capable of setting out Work and measuring. Applications, stating experience, references, and salary required, to be sent in on or before the 29th inst addressed to the Secretary, R. A. MARCH, 48, Bedford-row.

PLANING and PLANING MILLS.—WANTED, a steady MAN, thoroughly competent to work a Planing Machine (rotary), also to manage a Saw-frame and Circular Saw Bench. Must produce satisfactory references as to character and ability, and be used to the management of steam engines. Apply, stating terms, to F. J. UTTING, Wisbech.

GILDERS.—CONSTANT EMPLOYMENT.—WANTED, a steady MAN, thoroughly competent to work a Gilding Machine (rotary), also to manage a Saw-frame and Circular Saw Bench. Must produce satisfactory references as to character and ability, and be used to the management of steam engines. Apply, stating terms, to F. J. UTTING, Wisbech.

GILDERS.—CONSTANT EMPLOYMENT.—WANTED, a steady MAN, thoroughly competent to work a Gilding Machine (rotary), also to manage a Saw-frame and Circular Saw Bench. Must produce satisfactory references as to character and ability, and be used to the management of steam engines. Apply, stating terms, to F. J. UTTING, Wisbech.

ARCHITECTS and SURVEYORS.—CITY of LONDON and 3 COUNTIES FREEHOLD LAND SOCIETY.—The Committee are desirous of appointing a gentleman with the above qualifications to the Society's Estates in Essex, Herts, and Middlesex. Applications to be addressed to the Secretary, at the Society's Offices, 29, Cornhill, where every information may be obtained. The appointment will be required to commence on the 1st proximo. Applications to be sent in on or before the 29th inst addressed to the Secretary, R. A. MARCH, 48, Bedford-row.

TOWN of LEEK.—To SURVEYORS.—Notice is hereby given, that a SURVEYOR is WANTED for the Town of Leek. Candidates for the appointment must be Land Surveyors of good education and competency, and must attend at the Commissioners' Office, Leek, before SATURDAY, the 6th of OCTOBER next. Candidates must be familiar with the practice necessary in connection with works of water supply, drainage, sewerage, and street cleansing, and competent to set out levels, to plan, superintend, and measure works of any description, and also to superintend the execution thereof. Candidates must attend personally (unless specially summoned), and state the salary required.

TO STONE-MASONS.

WANTED, SIX good PORTLAND STONEMASONS; also ONE used to SETTING. Apply to Messrs. FOORD and SONS, Acorn Wharf, Rochester, Kent.

TO JOINERS.

WANTED, FOUR GOOD FIXERS.—Liberal wages will be given.—None but good and steady men need apply to Mr GOSWELL, Builder, Saffron Walden

TO BUILDERS' YARD FOREMEN.

WANTED, by a London firm, an active, steady person in the above capacity, and capable to attend to the Carpenters' work. Address, stating age, where last engaged, and what wages required, to W. H. Office of Builder.

TO IRONMONGERS' ASSISTANTS.

WANTED, in an old-established Black Ironmongery Business, one who is fully qualified to take MANAGEMENT of the SHOP. Apply, stating age and salary, to E. L. W. Office of "The Builder."

TO CARPENTERS.

WANTED, SIX GOOD CARPENTERS.—Apply to Messrs. HOOD and SON, Cricklade, Wilts. Good wages given.—Also, a GLAZIER, used to quarry.

WANTED, a Young Man, as IMPROVING CLERK in an Architect's Office; one qualified to undertake general superintendence of building preferred.—Apply to Mr. H. Davidson

WANTED, by a respectable steady Man, a SITUATION as SHOP FOREMAN, or to superintend Carpenter's or Builder's Business. The advertiser is desirous only and fully acquainted with the above duties, and likewise a good Estimator and Measurer. Good references. Direct H. P. 3, Swinton-street, Gray's-inn-road.

TO BUILDERS AND CONTRACTORS

WANTED, by a Gentleman of great experience, and of thorough business habits, an APPOINTMENT as MANAGER to a builder or contractor, with a view to Partnership or otherwise. Has had the entire management of large Works, and is fully competent to estimate, measure, and superintend Works. Would have no objection to the management of extensive Works.—Address, X. Y. Z. care of Messrs. Street, 3, Serle street, Lincoln's-inn-fields, London.

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WANTED, by a respectable Young Man, a SITUATION as DESIGNER and DECORATIVE PAINTER, having a thorough knowledge of ornament, and fully capable of making sketches and working drawings. Can take off pictures work, and make himself generally useful in a Painter's office.—Address, prepaid, to G. M. 3, Charles-street, Grosvenor-square, Knightsbridge.

WANTED, by an active practical Carpenter and Joiner, a SITUATION as FOREMAN, or to take out jobs or works for a gentleman, having built the above himself. Town or country.—Address, C. B. Mr. Wyatt's, 3, Upper Tatchbrook street, Vauxhall bridge road, Pimlico.

WANTED, by a Young Man, 22 years of age, thoroughly conversant with the usual routine, a SITUATION, in a Builder's Office.—Address, H. L. H. King's-bakers-street

TO BUILDERS AND CONTRACTORS.

WANTED, a SITUATION, by a practical Young Man, in the office of the above. Is thoroughly used to the general routine. Reference given from last situation. No objection to the country.—Address, R. W. 17, King's-row, Bloomsbury.

TO PLUMBERS AND BUILDERS.

WANTED, by the Advertiser, who is an experienced Plumber, wants a PERMANENT SITUATION; can fill up his time in painting and glazing. Has no objection to the country.—Address, A. B. Office of "The Builder."

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WANTED, by a respectable Young Man, of considerable experience, a SITUATION as DRAUGHTSMAN and CLERK; has no objection to the country, and can give satisfactory references.—Address, V. O. Office of "The Builder."

TO BUILDERS AND OTHERS.

WANTED, by a Young Man, a SITUATION as MODELLER; is a good moulder, &c. References can be given, if required. Would not go to the country. Terms moderate. Address, A. Z. 111 York-rd, Lambeth

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WANTED, by a Gentleman, aged 26, an ENGAGEMENT, with an Architect or others, as Draughtsman and General Assistant. The advertiser has had a skilful acquaintance with theoretic and practical architecture; a good colourist, and familiar with office practice. Speaks French and Italian; knows the Continent well. Salary not so much an object as permanency and an early or pastoral business. Abroad preferred.—Address, X. Y. Z. 8, Melbourne-square, Brixton, London

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THE Advertiser is desirous of an ENGAGEMENT in either of the above offices. He is a good draughtsman, can take out quantities, measure and superintend works, and perform those duties usually required. The highest references can be given.—Apply by letter, J. K. Mrs. Baker's, 20, Judd-street, Brunswick-square

TO SURVEYORS AND AUCTIONEERS, OR CONTRACTORS.

THE Advertiser, aged 26, desires an ENGAGEMENT as above. He has a good surveyor, and has had considerable experience in agriculture and farming stock with a good knowledge of machinery, possesses thorough business qualifications, and is at present with a surveyor and architect. Satisfactory reference and salary moderate. No objection to go abroad. Apply by letter, to E. R. JOHNSON, Post-office, Birmingham

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A PLAN DRAUGHTSMAN, ORNAMENTAL WRITER, and TINTER, is open to an ENGAGEMENT. Is an experienced, expert, and first-rate hand.—Apply to R. HAMLET, 17, Charles-row, Sydney-street

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AS CLERK of WORKS.—Wanted, a SITUATION as above. The advertiser is duly qualified, thoroughly practised, and can be well recommended. Address, E. F. A. Mr. Cooper's, Post-office, Osnaburgh-street, Regent's-park, London

A GENTLEMAN, a practical Engineer, resident in Glasgow, will be glad to act for an Engineering partner, or Manufacturer in Scotland, to inspect the work, and manage the business generally. Apply, W. at James Rutchison's, 139, Union-street, Glasgow

A GENTLEMAN of experience, with a first-class connexion, and resident in Glasgow is wishful to represent any good house in the Iron Trade for the management of business in Scotland, on commission, or otherwise.—Apply, IRON, Post-office, Glasgow

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AN experienced IRON-FOUNDER, who has been many years Foreman of an extensive establishment, is desirous of a similar ENGAGEMENT. Unexceptionable references can be given.—Address, "IRONFOUNDER," No. 10, James terrace, Kerby-street, East India road, Poplar

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A GENTLEMAN is desirous of a SITUATION in either of the above Offices. Salary moderate.—Address, S. B. S. Mr. Hunter's, Hereford-road, Westbourne-grove

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A YOUNG MAN, aged 21, who has served his time in the country, wants a SITUATION as IMPROVER in a JOINER'S SHOP. Good reference can be given. Address, THOMAS BENLTY, Office of "The Builder."

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AN experienced SIGN and GLASS WRITER, and GLASS EMBOSSER, WANTS EMPLOYMENT. No objection to fill up his time at the paint or otherwise.—Address, C. Office of "The Builder."

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T-SQUARES, SET SQUARES, and STRAIGHT EDGES of superior quality, warranted in every respect, of the Manufacturers, STANLEY and ROBINSON, 3 Great Turnstile, Holborn, London.

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H H for engineering.	H black for slating.
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By order, MEREWETHER.

HOUSE PROPERTY WANTED.—Money advanced by way of mortgage on freehold or leasehold properties, at 5 per cent.—Wanted to purchase similar properties to a large amount. Parties desirous of effecting an immediate sale, and having a good investment to offer, will be immediately attended to.—Apply, prepaid, to give full particulars, at Mr. SHEPPARD SCOTT'S Offices, 10, Commercial-road E. st.

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TO BE SOLD, the GOODWILL of an old-established BUILDER'S BUSINESS, employing on an average thirty men, in a good situation in the county of Hertfordshire, twelve miles from town. The stock could be taken at a valuation, or would be sold by auction on the premises, if declined by the person taking the business. The premises comprise convenient eight-roomed house, with good garden, &c. Various workshops, sheds, &c. four small cottages and a public-house, &c. Rent, 44 per annum, or lease the present owner be not the free of debt.—For further particulars and terms, apply to Mr. W. R. GLASLER, Auctioneer, &c. 11, Charing-cross

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This Paint possesses in an eminent degree the following advantages over all other known Pigments:—
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N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

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PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attenth a of Contractors, Merchants, and others, to the quality of their Roman Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parret.

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FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

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6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the great satisfaction in introducing the Trade and the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with sand, its cementing properties stamp it at once as the best cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and can truly to the statements put forth by those who have not the knowledge to make it. Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not recede in damp situations. An account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman Parian [under patent, and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, and tile Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied for shipment, on advantageous terms.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Coarse	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

11, George-yard, Lombard-street, City

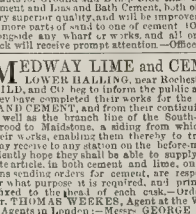
ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, Jun. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS, OLDHAM and TATHAM are now prepared to receive orders from contractors, builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cements, both of which will be found of very superior quality, and will be improved by the addition of two or more parts of sand to one of cement. O. and T.'s boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester. T. H. BOORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London:—Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfactica constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, FAVIORS, STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 2d, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

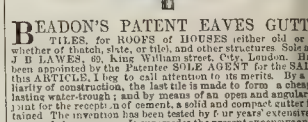
JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, J. George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

TO CAPITALISTS, POTTERS, CHINA, BRICK, AND T MAKERS, AND LANDOWNERS NEAR RAILWAY TIONS

HANDS'S GREAT ECONOMISI PATENT KILN.—Capitalists and Persons engaged i above Works, Owners of Land containing Brick and Tile, or other valuable Earth near Railway Stations, are particularly invited to look at HANDS'S GREAT ECONOMISING PAT KILN. From its construction it enables persons to build on any suitable spot where he pleases, so to economise the heat the that GREAT WASTE and extra expense looked for as a matter course in the old system is completely avoided, by consuming heat to dry sand, and every description of strong moulded cla any season, in time of burning and cooling the kiln, with po sounds ess No cost required to keep up the works all the round beyond the consumption of about six or seven tons of c to burn off 20 000 goods in each kiln. Any persons desiro small themselves of this opportunity for a district or other may apply, if by letter prepaid, to Mr. JOHNSON HANDS, and the Works, Epsom, Surrey, where the Kiln is to be see appointment only.

HEREFORDSHIRE.—GODWI ENCAUSTIC TILES, a highly durable and decor substitute for the ordinary pavement of churches, entrances passages, verandahs, &c. Designs, with estimates to any grace, post-free, on application to WILLIAM GODW Encaustic Tile Works, Lugwardine, Hereford

MINTON and CO.'S ENCAUSTIC other PATENT TILES, for Churches, Entrance H Conservatories, Balconies, &c.; Antique, Geometrical, and Al bric Mosaics, manufacturers of a highly decorative character extreme durability, Slabs and Tiles for Fireplaces and Hea Coamas for Grates, Door Furniture, White Glazed and ment Tiles for Baths, Dairies, and Kitchen Ranges, may b in great variety at their Warehouse, 9, Albion-place, Blackfr bridge, London; and at their Manufactory, Stoke-upon-T Staffordshire.



BEADON'S PATENT EAVES GUTT TILES, for ROOFS of HOUSES (either old or whether of thatch, slate, or tile), and other structures Sole a TILE YARDS, 69, king William street, City, London. H been appointed by the Patentee SOLE AGENT for the SA this ARTICLE, I beg to call attention to its merits. By a larity of construction, the last tile is made to form a ches lasting water-trough; and by means of an open and angular joint for the reception of cement, a solid and compact gutter tained. The invention has been tested by four years' extensiv with unfailing success. It supersedes the present expensive an perfect modes of conducting rain from the roofs of houses. It is and permanent, and removes all drip. It merits the attenti the landlord, the agriculturist, the owner of house properti philanthropist, and the economist. Delivered free on ra canal, at the works, Yelvertoft, near Rugby; or in London, chester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends Outlets, 6d.

PEAKE'S TERRO-METALLIC TI PIPES, &c.—Notice is hereby most respectfully given the LONDON DEPOT for the WARE is REMOVED to K WHARF, Macclesfield-street North, City-road Basin, Sco that the trade term, "TERRO-METALLIC," is the exclusive of the Proprietors; and, thirdly, that the "REPORTS O JURIES," page 531, of the Great Exhibition, rank the Ma tories known so long as "The Tileries," Tunstall, Staffordsh the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. ANDREWS, Wisbeach, Cambridgeshire, begs to offe tiles at 50s. per 1,000; floor bricks and 6-inch pavings, at per 1,000; 8-inch pavings, at 57s. 6d. per 1,000; 9-inch pavin 72s. 6d. per 1,000. Cash prices. Delivered on trucks in Lond Eastern Counties Railway.

BRICKS, at FULHAM.—300,000 ca STOCK BRICKS for SALE, cheap. These bricks prise the whole of the capital bricks of the Fulham Bank, st house adjoining; have only been erected about eight years now being removed for the Chelsea Waterworks. For fu ticulars, apply to J. SULLIVAN, at the Buildings, near Bu ton House, Fulham; or of Messrs. TATUM, Contractors, place, Walworth, Surrey.

BRICKS.—480,000 capital kiln-b BRICKS for SALE, at 14s. per 1,000, delivered. Comprise the boundary-wall of Windsor Home Par greater part only erected within the last few years, of the be size, kiln-burnt bricks, and will be delivered in barges at no of the River Thames between Windsor and London bridge, above price, for cash. To builders, or persons building on o the banks of the Thames, this is an undeniable opportunity orders to be addressed to Messrs. TATUM, Contractors, Park Walworth, Surrey.

THE BEST HERTFORDSHIRE MA SECONDS,

THE BEST WHITE SUFFOLK and RED FACING DEEP-RED RUBBING BRICKS.

Also COWLEY and KENT STOCKS, in any quantity. J. EASTWOOD and SONS, Belvidere-road, Lambeth; Surrey-canal-bridge, Old Kent-road, Surrey.

GREAT NORTHERN WHARF, York King's-cross.—WHITE BRICK and TILE DE L. P. PEARS and CO. Brick, Tile, Lime, and Cement Mer Builders, contractors, and others supplied with every descr of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRI delivered at any part of the River up to Battersea-bri the following prices, viz.:—Grey stocks, 25s. per thousand; zles, 20s. per thousand; Rough Stocks, 20s.; Place, 18s.— cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne,

BRICKS.—Malm Cutters, Yellow and Seconds, Paviors, and Pickings, of good and sound q constantly on sale at H. DODD'S Brickfields, which are quarter of an hour's walk from the City. H. D. earnestly re purchasers to favour him with a visit, in order to inspect his and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also o These bricks are sound, well burnt, and unusually free defects; a very large proportion of the stock being suita external facing.

Apply to HENRY DODD and CO. at the Counting house, H Brickfields, Grange-walk, near the Rosemary Branch, Hoxt

N.B. Light-coloured Pit Sand of approved quality constan sale upon reasonable terms. This Sand, from its not cont any saline matter, is acknowledged to be preferable to river

RICKS, LIME, WHITING, TILES, PLINTS, GRAVELL, &c.—Messrs. MEESON and CO. ve stocks, pickings, rough stocks, place, red kiln bricks, rs, &c. &c. on t w terms, to any part of the Thames, ng canals, the River Lea, &c or by rail to any station on rn Counties line, or on railway connected with it. Also, for building boundary walls stables, cottages, &c by using another of the expense may be saved. Also lime, chalk, rubbish, gravel, loam for foundries, &c. &c. Whiting of the quality, lime, rich white and flare, bricks fire goods & c an gain at Messrs MEESON'S Wharf Kings Rain Bow Inn Lo ford, Essex; or from the Works at Gray's, Essex.—Orders, ter, to Messrs. MEESON and CO. Gray's, Essex, executed de-patch.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY

(Within a short distance of the five bridges).

E BEST MALM-CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity

Also, STOCKS, of FIRST QUALITY

J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG STONE of the FINEST QUALITY

LLS and PRICE, 5, ADELAIDE-PLACE, London bridge

Depôt, Agar Wharf, King's road, St Pancras.

STRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary s, &c Stourbridge Fire Goods, &c. of all descriptions, and f quality —WOOD and SON, Manufacturers, Portway, Old , near Birmingham. Agent—MR. J. UNWIN, Private dence, 53, Nelson square, Blackfriars-road.

BRICKS.—To Builders and Contractors.—

Cashel Hard-burnt GREY STOCKS, of good colour. ry reduced prices Cash—J F SMITH, Farther Field, Acton on, near Shepherd's Bush.

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on B. PARKS, Lewisham, ere il e quality at low prices. Carriage within six miles on the t reasonable terms. Red facing bricks at 30s. All kinds of paving bricks for even building, malt glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by r punctually attended to.

TO BUILDERS, CONTRACTORS, and OTHERS TO BE DISPOSED OF, at very low prices, large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 8, and 10 inch red Socket Drain pe, in 2 ft 6 lengths.—Apply to ST. JOHN HEWITT, Redhill ks, Southampton.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, CHIMPS, AND TILES, much less than cost price BUSINESS to be DISPOSED OF, with the valuable con don, and a portion of the PREMISES to carry on the same, BE LET, at almost a nominal rent. For particulars inquire the premises, Hoskins Wharf, Bankside, Southwark, don.

NEW 500-BRICK CART, with Shifting Sideboards, FOR SALE, cheap.—Apply at No. 11, North scent-mews, Burton crescent, St Pancras.

J. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, White rs, Fleet-street, City. Sand, from above or below bridge, de red by the yard or per barge. Ballast screened or unscreened, the yard or per barge. Stocks, lime, and old bricks. Thy bish delivered per barge, in any quantity, alongside the mes.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone raised from the lower beds of their Quarries. Chimney-es, Columns, Fonts, and ornamental works on view, at 30, rey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the vince of Massa Carrara, Italy, beg to inform the general market in the United Kingdom that they are prepared to undertake tracts for any quantity of Statuary, Venice, Sicilian, Brèchia, e, and other Marbles, in blocks of all dimensions, delivered on board at Leghorn, or in dock, London. A constant stock is ays kept at the London Depôt. Orders for Paving Slabs, Garden Hall Statues, Vases, Tops, Troughs, Scales, &c. executed and de-red at reasonable rates. For further particulars apply at the ices of the Company, 18, Cannon-street, City.

WILLIAM W. BONNIN, London Secretary.

PIMLICO MARBLE WORKS, BELGRAVE-WHARF, LOWER BELGRAVE-PLACE.

SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.

THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the metropolis; consisting of a selection of upwards of two hundred, manufactured by steam power from the finest Italian and other marble, and with that quantity of labour only as is actually necessary in good marble work. The Stock consists of Sketch and Drawing-Room Chimney-Pieces in Statuary, Parisla, and Sienna Chimney-Pieces, in Black, Gold, Bardilla, Serpentine, Red Antique, Brocatella, Dove, St Ann's, and Serravezza Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Drawing-Halls; and a great va ety of others in Veined, Sienna, and Emperor's Red and Amber Marble, for Boudoirs Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tablets, and Pedestals for Busts and Statues, and Slabs for Sideboard Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No 8, Cresc nt terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade for his own account. Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the resident proprietor of the quarries at Carrara, he can supply at better advantage and quality than any other.

N.B. The well-known qualities of Mr. Fabbricotti's marble are well rated throughout all Italy, England, and America.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,

MILLBANK-STREET, WESTMINSTER.

Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, King's-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices N.B. A good stock of Statuary Slab on hand, suitable for shelves.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons that they can supply to any extent all kinds of YORK STONE, including Paving, Rand or Fall, Park Spring, &c of the very best quality direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.

GEO. VINT and BROTHERS will state forward prices by post on application.—Address, Idle, near Leeds.

By Her Majesty's Royal Letters Patent.

SILICUOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Balustrades Coins, Tombs, Fonts &c at the new premises, Whitehall Wharf, Cannon-row, Westminster.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôt for Caenite Wharf, East Greenwich. Leith Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE, late Lucas, Bellamy, and Co.), Caen wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terrace at the Crystal Palace. Supplied by Hart and Company under Royal Charter.—For terms apply to Mr C HOAR, Haytor Granite Office, 4 Millbank-row, Westminster.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents—TREBBLES and TAYLOR, 3, Pinner's-court, Old Broad street, Manager JAS J. TRATHAN, Liskeard This Granite is selected for the New Westminster-bridge.

TO STONE-MASONS AND BUILDERS.

GEO. S. TOVELL, Stone Merchant, Three Crones Wharf, Ipswich, embraces this opportunity of thanking his friends for their liberal patronage he has received, and begs to inform them, and the trade in general, that he is now enabled to supply them with every description of stone of the best quality, and at the lowest remunerative profits. Also fire-bricks, lumps, and quarries glazed and unglazed socket drain-pipes, chimney pots of every size and shape, and pan and plain tiles, of the best York-shire make

PHŒNIX GAS-LIGHT COMPANY.

PORTLAND STONE for SALE.—TO BE SOLD, in Lots of 100 cubic feet and upwards, a quantity of DRESSED PORTLAND STONE in large cubes, suited for bonders and masons On view at the PHŒNIX GASWORKS, Brighton, at Vauxhall, where particulars may be obtained on application, or at the Company's Principal Office, 76, Bankside, Southwark.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

MARKET-WHARF, REGENT'S-PARK-BASIN, WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c cut on the shortest notice. Country orders promptly attended to.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quality Direct from the Quarries in truck-loads of few tons Lavings, Landings set out to size, Steps, Copings &c. &c supplied in most advantageous terms by railway, and with despatch Prices sent on application.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality They have been used at the British Museum, National Gallery, Bethlehem Hospital, various Lunatic Asylums, Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and Llangollen Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney pieces, Baths, Filters, Larders, Mangers, Riddling, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices. Price and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 4, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharfroad, Paddington; or to Mr. GEORGE P. DYER, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's-park.

TO ARCHITECTS, BUILDERS, IRONMONGERS &c.

ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at price lower than Stone Chimney pieces of any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His list of prices is applicable to every kind of use charged by other parties for very inferior imitations of his work —PIMLICO SLATE WORKS, 30 and 31, Upper Belgrave-place, Pimlico.

BANGOR SLATES, of all sorts and sizes; SLABS of all dimensions, and of superior quality.—For prices and particulars, apply to J. EASTWOOD and SONS, Surrey Canal-bridge, Old Kent-road.—Export orders supplied promptly.

BOW-BRIDGE SLATE WORKS, Stratford, near London.—A. A. ROBINSON begs to inform Architects, Builders Contractors, and Others, that his Price Lists for Slate and Slab Work, can be had on application, on sending a postage stamp Country and export orders promptly attended to. N.B A liberal discount to the trade.

AUSTIN'S ARTIFICIAL STONE.—This material (originally composed of with Portland Cement) has now been in extensive use among the highest class of London edifices for above twenty-five years. During that time a collection of ornamental Work, such as Vases, Figures, and Fountains, has been constructing, of which the public have recently had a full sight to say, that a single room of each work would exactly amount to between 4,000l and 5,000l. In contradistinction from Terra-cotta, and all other kind of Portland Cement, it is moulded in form by the process of taking, and, instead of the plain surface of Terra-cotta, it has the closest resemblance to Portland Stone, having also the advantage of being sawn out.—AUSTIN and SEELEY, Nos 1 to 4 Bedford-row, Newman-street, Regent's-park.

*** A large Stock of Ornamental Chimney-tops.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Forecourts, Walks, Malt houses, Cart-Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and if cheaper guaranteed

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TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA, awarded to HILAND HARD, late of Lambeth Original Works, and successfully by them in the manufacture of this valuable material, that has been so especially adapted for nearly a century in this country, by our eminent architects and others, to the adornment of our best buildings. Groups, statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition, and will be found to be a different material to that now being imitated by puffing Advertisers, with only three or four years' experience, and without practical knowledge. Some of the works recently completed by M. H. B. can be referred to the whole of the embellishments to the external part of Clifden House, his country house of Sutherlands; also Tort Church, and Ashland Churches, the turrets to the Garden rent Chapel, containing from 100 to 150 feet tube, the colossal Britannia, 12 feet high, at the Copper Office, Arsenal, Cornhill and London-street, the Arms, with the allegorical group, at the Kent Mutual Insurance, Queen-street, and other works elsewhere, too numerous to mention. A large Stock of newly designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

TERRA-COTTA.—Statues, Statuettes, Vases, Tazze, Busts, Consoles, Bas-reliefs, &c. by J. M. BLASHFIELD, of Millwall, near the West India Docks Station, and sold at No. 1, Pmed-street, Paddington-basin, where prices and designs can be obtained. Examples of Terra-cotta, by J. M. Blashfield, are to be seen at the Crystal Palace, Sydenham, in the Nave of the Great The statues of Australia, Vasus de Medici, and the colossal Britons on the gateway in Sydenham, are in Terra-cotta, as are the fountains at the Renaissance Court, and the roof of the Alhambra Court. The Pompeian roof of Terra-cotta and the cement casting, &c. since the occupying of the Crystal Palace, J. M. Blashfield has taken a patent for an improvement in the manufacture of Terra-cotta and pottery, whereby larger and more even surfaces can be produced, and a higher degree of vitrification attained.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is acquired for permanency, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from poisonous properties, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

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Mortise Furniture in China, Porcelain, Glass, Wood, &c. mounted with the NEW PATENT SPINDLE.

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To be had of any Ironmonger or Plumber, 1l. 15s.

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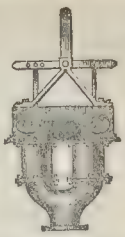
PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gas-diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



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3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

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WARNER'S PATENT VIBRATING STANDARD PUMPS PATENT CAST IRON PUMPS.

for the use of farm-houses, cottages, manure-tanks, and wells of a depth not exceeding 25 feet.

Diameter of Barrel.	Length of Barrel, under nose.		£ s. d.
2¼ inches	2 ft. 6 in.	fitted for lead,	1 12 0
2½ „	long 3 3	gutta percha	1 15 0
3 „	ditto 3 6	or cast iron	2 15 0
3½ „	ditto 3 6	flanged pipe,	2 18 0
4 „	ditto 3 6	as required.	3 5 0
2½ „	short, with 15 feet of lead pipe attached, ready for fixing		2 12 0
2½ in.	long ditto ditto		2 15 0

The short barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in wash-houses with soft water from underground tanks, or in cases of fixing, and plant houses; they may be boxed, when desired, under the stage. May be obtained of any Ironmonger or Plumber in Great Britain or Ireland, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin-street, London. Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

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Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

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N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 4s. per doz. painted. Ditto ..... 4s. per doz. galvanized.

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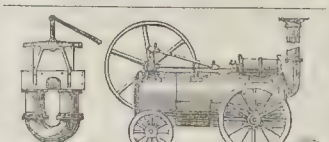

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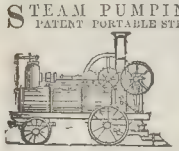

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TO CONTRACTORS

PORTABLE STEAM-ENGINES TO LET, or HIRE, by the WEEK, MONTH, or for period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. They may be seen at work.—Apply to Messrs. MEDWIN, HOLLICO, Engineers, 92, Blackfriars-road, Sole Patentees and Manufacturers.—N.B. Any of these Engines may be had on hire-purchase.

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The above engines are being disposed of owing to the completion of the contract.—Further information can be obtained from JOSEPH FIRBANK, Contractor, Newport, Monmouthshire.

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PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the power as any other pump. One of these pumps at work at No. 7, Southampton-buildings.

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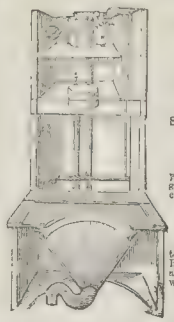
Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS TO THE EFFICIENT WORKING OF STEPHEN GREEN'S PATENT SYPHON FLUSHING BASIN, AND SELF-ACTING CLOSET CONNECTIONS.

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GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

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R. S. HOGGAR, Engineer.

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GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several used here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready to use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

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HIGH-PRESSURE COCKS & CLOSE

The Health of Towns Commissioners having recommended adaption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, model, or wire.

LEAD, IRON, and TIN PIPE.

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LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

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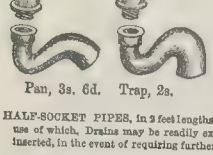

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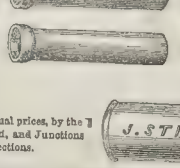

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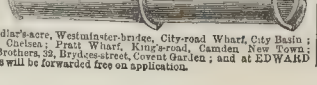

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dockhead, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kings-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Brydges-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

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J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

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Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

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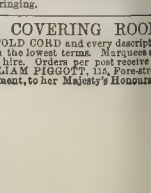

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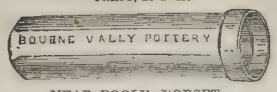
ALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c at the



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Whole Socket.

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Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

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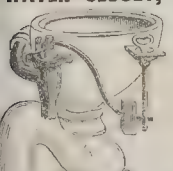


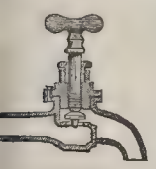
DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.



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Bateman and Moore's, and Chrimes'
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Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.

Plumbers' Brass Work of every description.

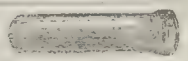
BATEMAN AND MOORE'S PATENT HYDRANT.

UNDERHAY'S PATENT REGULATOR CLOSETS, for constant or intermittent supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Wires, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed; 5,000 of them have been sold, and no instance of failure has occurred.

These Stool-valves are cheaper, stronger, and more economical, than any other. Many thousands are in use, and greatly approved of.

Manufactured by
CHARLES BUTTERY and SON,
Brass Founders, Croxall-road passage, Clerkenwell, London.



SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNDER-POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in its manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:

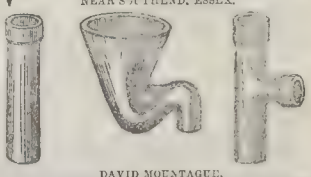
Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Hassock Wharf, No. 8, Upper Thames-street.—Millwood and Co's Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pots, Traps, &c., also to the Patent Bends, &c.; Slabs of the best quality, which they can supply and recommend to County builders and others supplied with an information, on application, to E. and W. STURGE, Bridge-wharf, City-road.

N.B.—The wharf is well situated for carriage by canal boats, or to the railway, to which but a small charge for cartage is made.

January, 1855.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet pans, Jars, Bottles, and every article in Stone Ware on reasonable terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Birkwell. Orders executed from the above places, from Falcon-wharf, 89, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO Great Northern-wharf, York-road, Kings-cross.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE

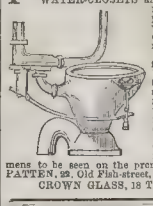
No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 300 feet: they are found to be extremely durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 12s. 6d. each.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful PATENT LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 22s. PER CRATE.

DRAINAGE of LAND.—WANTED, to undertake the DRAINAGE of LAND by CONTRACT, or to erect temporary Tileries, in order to supply Drain-pipes at a reasonable price.—J. JOHNSON, Drainage Engineer and Contractor, Abingdon-street, Westminster.

SALES BY AUCTION.

TWICKENHAM.—To Builders and Persons wishing to build for their own occupation, or as an investment.—Valuable Land, with extensive frontage, and Two Ground Rents, amounting to [illegible] per annum. By Mr. MASON, at GARRAWAY'S, on TUESDAY, SEPTEMBER 25th.

FIFTY PLOTS of FREEHOLD BUILDING GROUND, delightfully situate near the new church, Twickenham, a short distance from Pope's Villa; four and a half acres are opposite Wellesley House, nearly adjoining Sir Wm. Clay's Park, two and a half acres are between the upper and lower roads; gravelly soil and good water; eligible for villa residences, with a railroad station half a mile distant. Also a well-secured rent of [illegible], issuing from two houses, already built on part of the estate, annual value, 70*l.*; and another ground rent of 52*l.* from a piece [illegible] feet frontage let to Mr. Legg[illegible], who is to erect eight villas, [illegible]. May be viewed on application to Mr. P[illegible], at the Prince Albert. Particulars had of the Auctioneer, Norton Folgate.

MITCHAM.—Freehold Land, with three frontages, and old Houses, offering a desirable opportunity for a building speculation. By Mr. MASON, at GARRAWAY'S, on TUESDAY, SEPTEMBER 25, in one lot.

TWO ACRES of BUILDING-GROUND, facing Mitcham Church, frontage [illegible] feet, depth [illegible] feet, frontage on the road leading to the Railway Station, [illegible] feet and in rear, on the footpath leading into the Morden road [illegible] feet, with Five roomy Houses, large barn, &c.—Particulars of Mr. W[illegible], House Agency Office, Mitcham; of the Auctioneer, Norton Folgate, and 8 Union-court, Broad-street; and of CHARLES BLAKE, Esq. Solicitor, 4[illegible], Fleet-street.

TO CEMENT AND LIME MERCHANTS, BUILDERS, WHARFINGERS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE are instructed to DISPOSE OF the LEASE of the [illegible] Premises, known as TUSCANY WHARF, on the Regent's-canal, near Kingsland-road bridge, fitted with [illegible] steam engines, &c. in complete working order. Full particulars and cards to view may be had at their Auction and Estate Offices, 40, Parliament-street.

NEW HOUSES of PARLIAMENT.—A Steam-engine by Gough, with double-action Crab and useful Material.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, in the ROYAL COURT, next the Victoria Tower, on TUESDAY, OCTOBER 2nd, at TWELVE for ONE, by order of the Commissioners of Her Majesty's Public Works and Buildings, a [illegible]-horse power High-pressure ENGINE, by Gough, with double-action Crab, in excellent working order; about Twenty Loads of Timber; a quantity of Doors; two pairs of Iron Gates, and other effects.—May be viewed by catalogues, which may be had one week previous of the Auctioneers, 40, Parliament-street, Westminster.

FREEHOLD BUILDING LAND, conveyances free, land-tax redeemed, at Stratford, Essex.

MR. JOHN COLLINGS will SELL by AUCTION, on MONDAY, 24th SEPTEMBER, at FIVE, at the CASTLE INN, near the property, FORTY-FIVE PLOTS of valuable FREEHOLD BUILDING LAND, situate in CHANDOS and HENNIKER ROADS, CHOBHAM'S ESTATE, Leyton Road, within five minutes' walk of the [illegible] Stratford. Particulars and conditions of sale may be had of H. D. DRAPER, Esq. Solicitor, 45, Vincent-square, Westminster; at the Castle Inn and King's Head Inn, West Ham; of Mr. SNOWELL, Builder, Angel-lane, Stratford; and of Mr. COLLINGS, Estate Agent, Wordsworth-place, Kingston.

TO CARPENTERS, BUILDERS, CABINET MAKERS, COACH BUILDERS, AND OTHERS.—Absolute Sale.

MR. W. R. GLASIER will SELL by AUCTION, on the PREMISES, No. 33, Charles-street, Hampstead-road, on WEDNESDAY, the 26th SEPTEMBER, at ELEVEN for TWELVE, the capital dry and well-seasoned STOCK of a timber merchant, comprising 1,500 yellow Pine Planks, Deals, and Battens, [illegible] Boards, [illegible] Mahogany, [illegible] plank; 500 feet Panel Board; 5,000 feet wide Pine Panel Board; about eight loads dry English Ash, in various thicknesses; dry Wainscot; Beech, in planks and quarters; yellow and spruce quarterings, &c.—May be viewed two days prior, and morning of sale, and catalogues had on the Premises, at Garraway's, Change-alley, Cornhill; and at the Offices of the Auctioneer, 41, Charing-cross.

TO BUILDING MATERIAL DEALERS, MARKET GARDENERS, AND OTHERS.—York-road, Battersea, Surrey.

MR. W. R. GLASIER will SELL by AUCTION, on the PREMISES, corner of [illegible], York-road, Battersea, on THURSDAY, SEPTEMBER [illegible], at TWELVE for ONE o'clock, in lots, by direction of [illegible], the BUILDING MATERIALS [illegible] timber [illegible] framing [illegible] timber [illegible] tumbril carts, [illegible] spring-carts, four-wheel spring van, capital market-cart, water-cart, [illegible] machine, [illegible]. May be viewed [illegible]; catalogues had on the Premises, at Garraway's; and of the Auctioneer, 41, Charing-cross.

Freehold Building Land, Battersea.

MR. W. R. GLASIER will SELL by AUCTION, at GARRAWAY'S, on TUESDAY, OCTOBER 2, at TWELVE for ONE, in lots, by direction of the Executors of the late Mr. George Carter, [illegible] PLOTS of valuable FREEHOLD BUILDING LAND, most [illegible] situate in [illegible], George-street, Hope-street, and Fall-[illegible], York-road, Battersea, Surrey. Land-tax redeemed.—May be viewed [illegible]; particulars [illegible]; of Mr. [illegible], York-road, Battersea; [illegible] Mr. W. [illegible], Fulham-road; at Garraway's; and of the Auctioneer, 41, Charing-cross.

TO BUILDERS, MASONS, &c.—Three hundred MARBLE CHIMNEY PIECES [illegible] WILL BE SOLD BY AUCTION [illegible], WEDNESDAY, [illegible] OCTOBER [illegible]. [illegible] The first and second portions will consist of the smaller class Chimney-pieces. The Third Days' Sale will consist of the larger class Chimney-pieces, suitable for Mansions, Public Buildings, and Churches.

Westminster Marble Company.
Earl-street, Holywell-street, Millbank.

FULHAM.—Important Sale of capital Building Materials.

MR. F. HALL will SELL by PUBLIC AUCTION, on THURSDAY, SEPTEMBER [illegible], [illegible] BUILDING MATERIALS of the Fulham [illegible], TEN HOUSES [illegible] [illegible] timber [illegible] 4 and 6-panel doors, [illegible] [illegible] High-street, Fulham, at the [illegible]; and of the Auctioneer, [illegible] Kensington.

SALES BY AUCTION.

DESIRABLE INVESTMENT.

MR. PENNINGTON has been instructed by the Directors of the Cork, Blackrock, and Passage Railway Company to SELL by AUCTION, at his SALES-ROOM, 81, Patrick-street, Cork, on WEDNESDAY, the 17th day of OCTOBER, 1855, at the hour of ONE o'clock p.m. the valuable LEASEHOLD PREMISES, known as the VICTORIA BATHS and HOTEL, the handsome marine residence in the occupation of Philip O'Connell, esq. and the PLOT of BUILDING GROUND ADJOINING, containing a frontage of about 400 feet, all held under lease for a term of ninety years and six months, from the 29th August, 1849, at the yearly rent of 105*l.* This extensive property, on which a sum of over 5,000*l.* has been expended, is within a few minutes' walk of the railway terminus at Passage, and about an equal distance from the fashionable watering-place of Monkstown, from which steamers ply every half hour to and from Queenstown. It is beautifully situated on the River Lee, and possesses the important advantage of a quay, and the strand to low water mark in front. The baths have been fitted up in the best style, [illegible] gentlemen's and ladies' plunge baths. The [illegible] bath is [illegible] feet in length by [illegible] feet in breadth. There are also two [illegible] baths, six shower, and two vapour baths, with dressing-rooms attached to each. The hotel contains two kitchens, three [illegible] rooms, and six bed rooms, with servants' apartments, &c. These concerns are at present let to Mr. Archibald M'Dougal, at a rent of 60*l.* per annum, which is considerably under their value, but his tenancy is determinable on the 1st day of May in each year. The house and premises in occupation of Mr. O'Connell are held by him, part under a lease for eighty-six years from the 1st day of May, 1843, at the yearly rent of 42*l.*; and part under [illegible] yearly tenant, at 1s. per annum. The latter premises he is bound to surrender on getting three months' notice. The building ground is within about [illegible] yards of the Hydropathic Establishment of Dr. Curtin. It commands a perfect view of the river, and is admirably situated for a terrace or for marine villas. A free ticket for three years will be given on the Cork, Blackrock, and Passage Railway, to the head of the family occupying every newly-built house of the annual value of 25*l.* and upwards.—For abstract of title and rental, with conditions of sale and map of premises, apply to DAVID HALL, Solicitor, 39, South mall; to [illegible], Secretary, Cork and Passage Railway Company; or to PETER PENNINGTON, the Auctioneer, 81, Patrick-street, Cork.

TO BUILDERS AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. [illegible], [illegible]-street, [illegible], on MONDAY, SEPTEMBER 24th, at TWELVE, the excellent FITTINGS of a CHAPEL, comprising pulpit and stairs, 86 pews, [illegible] boards, [illegible] and battens, dry cut stuff, quartering, mahogany, hair and wool carding machines, [illegible], benches, hair untwisting machine, and loose materials. May be viewed the Saturday prior, and catalogues had on the Premises, and at the Auction Offices, Cardington-street, Hampstead road.

POSTPONEMENT of SALE.—Bishop of London's Estate.—Unfinished Houses in Cornwall-terrace, and Stabling in Chichester-mews and Blomfield-mews, Westbourne-terrace North.

MESSRS. LOCKWOOD are directed to SELL by AUCTION, in lots, at the LORD HILL, Harrow-road, on WEDNESDAY, OCTOBER 3, and not on September 26, as previously advertised, at TWO o'clock punctually, FOUR UNFINISHED HOUSES, substantially erected and in a very forward condition, [illegible] Cornwall-terrace, Westbourne-terrace North, [illegible] when finished, to produce 80*l.* per annum each house; also Nos. 1 to 9, inclusive, in Chichester-mews, immediately in the rear; and No. 16, Blomfield-mews adjoining. Seven of these are finished and let, and produce [illegible] per annum; the remaining four are nearly finished. The whole are held for long terms, at low ground rents.—May be viewed, and printed particulars obtained fourteen days before the sale, of Messrs. [illegible], Solicitors, 11, Holles-street, Cavendish-square; and at the Offices of the Auctioneers, No. 1, B[illegible], and [illegible], Upper Baker-street. Part of the purchase-money may remain on mortgage.

Near STRATFORD, ESSEX.—To BUILDERS and OTHERS.

MESSRS. CRAWTER will SELL by AUCTION, at GARRAWAY'S COFFEE-HOUSE, Change-alley, Cornhill, on FRIDAY, OCTOBER [illegible], 1855, at ONE o'clock precisely, thirty plots of FREEHOLD BUILDING LAND, very eligibly and pleasantly situated between Stratford and Leytonstone, only a short distance from the railway stations at Stratford, and a few minutes' walk from the station on the branch line of railway to Woodford, [illegible] near the West Ham [illegible] house. The soil is perfectly dry, with elevated site commanding the surrounding neighbourhood, and offers a favourable opportunity for investment, with the advantage of immediate possession. Particulars and plans may be had ten days before the sale, at the Inns in the neighbourhood; at Garraway's; of JAMES HEATHER, Esq. Solicitor, 17, Paternoster-row; and of Messrs. CRAWTER, 3, Bedford-row.

EAST HILL, WANDSWORTH, SURREY, near the "French Horn."—Valuable and sound Building Materials, close to rail [illegible] water carriage, and good roads.

MESSRS. CRAWTER will SELL by AUCTION, upon the PREMISES, without reserve, on [illegible]DAY, SEPTEMBER [illegible], 1855, at TWO o'clock precisely, [illegible] GREY STOCK BRICKS, [illegible] rafters, quartering, useful [illegible], partitions, [illegible] chimney-pieces, [illegible] grates, stoves, staircase, and sundry other useful [illegible] materials of a family residence, just pulled down. May be viewed, [illegible] of sale and catalogues had at the French Horn, Wandsworth; Plough Inn, Clapham; Swan Inn, Battersea-bridge; White Lion, Putney; King's Head, Mitcham; [illegible] and Mitre Inns, Tooting; of Mr. Wm. [illegible], Builder, &c. Wandsworth; and of Messrs. CRAWTER, 3, Bedford-row.

LEIGH, ESSEX.—TO BE LET, a PLTO of GROUND, sufficient for ten houses, and [illegible] feet deep, on a lease of ninety-nine years, commanding a good view of the sea, and in the best part of Leigh, one minute's walk from the railway station.—For particulars, apply to Mr. R. L. CURTIS, Surveyor, 1, Riches-court, Lime-street, City, and of D. MONTAGUE, Esq. Leigh.

TO BE LET, unfurnished, with immediate possession, by the year, or for a term, commodious PREMISES in Fetter-lane, Holborn, with or without yard and stabling, well adapted for chambers and apartments, or for a large [illegible].—Apply to Mr. MASKELL, General [illegible] Office, Fetter-lane, Holborn, between the hours of TEN and THREE.

TO BREWERS, HOTEL-KEEPERS, AND OTHERS.

TO BE LET, a commodious HOUSE, situate at Leigh, Essex, commanding a good view of the sea, about half-way up the hill, and near to the railway station with outbuildings, extensive garden and yard, well adapted for [illegible], with [illegible] stabling, &c. [illegible] about [illegible] rods.—For particulars, apply to Mr. R. L. CURTIS, Surveyor, 1, Riches-court, Lime-street, City, and of D. MONTAGUE, Esq. Leigh.

HAVERSTOCK-HILL.—To BUILDERS. TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some commanding FRONTAGES for Shops and Private Houses. All the sewers are in on the estate, roads all formed and [illegible] ninety-nine years. Low ground rents. Bricks supplied at a low price and liberal cash advances.—Apply to Mr. JOHN MOORE, 86, Chalton-street, Euston-square.

TO BUILDERS.—HARROW, MIDDLESEX.—[illegible] demand for houses in this locality, see paragraph headed, "Where are the Builders?" in "The Builder" of [illegible] PLOTS of eligible BUILDING LAND, for the erection of good houses, TO BE LET on Lease.—Apply to Mr. HIGHAM, at the Offices of the City of London and County's Freehold Land Society, 75, Farringdon street. Liberal advances.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz.:—

FOREST-HILL, Croydon Railway.
ST. MARGARET'S, near Richmond, South Western Railway.
OATLANDS GRANGE, Weybridge, Surrey, ditto.
HOUNSLOW, Middlesex, ditto.
TOTTENHAM-GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.

Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Several Plots to be Let on Building Lease. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

LOWER THAMES-STREET.—TO BE LET, by Tender, by the Worshipful Company of Armourers and Braziers, on a Lease for Twenty-one years from Midsummer, [illegible]6, the extensive Premises known as the GLOBE YARD WAREHOUSES, situate in the above street, nearly opposite the Custom-house. The lessee will be required to pay all taxes and rates, including sewers and militia rates, and all assessments for sanitary purposes, and the expense of fire insurance, the land-tax being redeemed; and the lease will contain all covenants usual in the Company's leases. Sealed Tenders to be delivered at Armourers' Hall, Coleman-street, on or before the [illegible] OCTOBER next, where parties making the same are required to attend the following day, at HALF-PAST TWO o'clock. The Company do not bind themselves to accept the highest or any other Tender.

JOHN PONTIFEX, Clerk,
5, St. Andrew's-court, Holborn.

A LARGE COVERED WHARF TO BE LET, or the LEASE would be SOLD.—Sculptors and others requiring premises in the neighbourhood of the Regent's-park would find these well adapted to their purpose.—Apply to Mr. WOOD, Market Wharf, Cumberland Market, Regent's park.

BUILDING LAND TO BE LET, at

HALLSVILLE....	Term	1,000 years,		for small cottages.
CANNING TOWN	"	1,000	"	for small cottages.
NORWOOD........	"	1,000	"	for villa residences.
STRATFORD	"	1[illegible]	"	for small cottages.
POPLAR..........	"	98	"	for fourth-rate houses.

Advances made to build at [illegible] per cent. on easy mortgage.

Apply to Mr. Wm. ELLISON, Architect, Stainsby road, Limehouse.

A PLOT of FREEHOLD, three miles from London-bridge, near the New-cross Station, Old Kent-road, TO BE SOLD or LET, on a long lease, cheap. A first-rate situation for Four or Six-roomed Houses, and the freeholder will advance moneys if arranged for.—Apply to THOMAS SINGLE, Esq. [illegible], Asylum-road, Old Kent-road.

BUILDING-GROUND in the CITY.—TO BE LET on lease, FRONTAGES [illegible] feet [illegible] in. by average depth, 4[illegible] feet; [illegible] feet by average depth, 1[illegible] feet.—For further particulars apply to THOMAS SMITH, Esq. Architect, 14, Hart-street, Bloomsbury.

FREEHOLD BUILDING LAND.—TO BE SOLD, at a very moderate price, TEN ACRES, situate about 200 vards from a railway station, not five miles from London, and having [illegible] feet of frontage to good new roads, just made, exclusive of good frontage of corner plots, of which there are eighteen. Subsoil for the most part gravel, with a great abundance of builder's sand, [illegible]. Just beyond the Building Act; well suited for a freehold land or building society, or manufactory requiring space.—Apply to Mr. J. B. SLADEN, Solicitor, 38, King-street, Cheapside.

THE Commissioners of Sewers of the City of London, acting as the Burial-board of the said City, will meet at [illegible] on TUESDAY, the [illegible] OCTOBER, 1855, at TWELVE o'clock at noon, to receive PROPOSALS for RENTING certain surplus LAND adjoining the City of London Cemetery, and amounting to about 98 acres, more or less. The land will be let as pasture land, and subject to the condition that the tenant is to pay the rent quarterly, and also all rates and taxes to be paid by the tenant [illegible] the same at any period of the year upon [illegible] three months' notice. A portion of the land [illegible] is not prepared for [illegible] at per acre per annum; the parties tendering to plough and sow with grass seed at their cost the said [illegible] land; and also at [illegible] per annum for the whole, upon the commissioners at their cost so ploughing and sowing with grass seed the said portion of land. Tenders to be sent in to the undersigned, sealed, endorsed, "Tenders for Land," on or before MONDAY, the [illegible] OCTOBER next [illegible] of the undersigned, or of the Clerk of the Works at the Cemetery.

JOSEPH DAW, Principal Clerk.
Sewers' Office, Guildhall, September [illegible], 1855.

TO BE SOLD, TWO eligible PLOTS of FREEHOLD BUILDING LAND, with a frontage each [illegible].—For particulars apply to Mr. ARCHER, 28, St. Leonard's-square, Malden-road, Haverstock-hill.

SUTTON, Surrey.—Valuable BUILDING LAND TO BE SOLD, in lots, with two modern VILLA RESIDENCES, [illegible] close to the Sutton railway station.—Apply to [illegible], Surveyor, [illegible] buildings, Strand; or to RICHARD TWISS, Esq. 12, [illegible]-square, London.

WANTED, to Rent or Purchase, about TWENTY ACRES of CHALK LAND, situate on or near the river Thames, in the counties of Kent, Surrey, Essex, or Middlesex. Buildings on the ground not objected to.—Address, JOSEPH FREEMAN and SONS, Battersea.

WANTED, to Rent or Purchase, TEN to TWENTY ACRES of LAND, situate in the County of Surrey, within [illegible] miles of London, and near the Thames or Rail. A small house on the ground not objected to.—Address, JOSEPH FREEMAN and SONS, Battersea.

TO TIMBER MERCHANTS and OTHERS. The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the [illegible] all sorts of English Timber, [illegible] and [illegible] for converting Timber, &c. [illegible] on delivery.—Apply to G. NOKES and Co. as above.

CHELSEA.—BUILDING SPECULATION, or Town and Country semi-detached RESIDENCE, free from nuisance, and [illegible] to the City, of twenty rooms,—seven are 18 to 33 feet long, with 45 feet shed; and an acre of well [illegible] lawn, [illegible], all easily divided into two or three lots, [illegible] rent, [illegible] fixtures and lease of three to eleven years, which may be extended [illegible].—Mr. ALFRED COX, 64, New Bond-street.

LONDON: Printed by CHARLES WYMAN, of 13, H[illegible]-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Brothers) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn Fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, September 22, 1855.

The Builder.

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BUILDERS' BENEVOLENT INSTITUTION.—The EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate-street, on TUESDAY, the 30th of OCTOBER next.

CHARLES LUCAS, Esq. President, in the chair.

STEWARDS.

Bird, Stephen	Godwin, George	Pearce, I. B.
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M.P.	Jackson, Wm.	Smith, G Spencer
Cubitt, Thomas	Jackson, R. and H.	Smith, Alfred
Corfield, Thomas	Jarvis, Jas.	Smith, Frank
Cole, Shadbolt, and Co.	Jay, John	Smith, Thomas
Collins & Stanbury.	Jennings, Geo.	Stephens, S. J.
Birmingham	Kelk, John	Simkin, W. S.
Chattergord, W. H.	Lawrence, Wm. jun	Stirling, William
Cullen, Lord, Wm.	Lucas, J. M. P.	Stirling, Thomas
Dunnage, Wm.	Lee, Wm. M.P.	Seward, John, jun.
Dunlop, Henry	Mashman, William	Sloper, Joseph
Dowell Joseph	Myers, George	Strudwick & Cooper
Day, Ebenezer	Newton, John, sen.	Scratchley, Edward
Davis, James	Newson, John, jun.	Tolley, James
Eales, Christ.	Nicholson, D.	Thorn, John
Ellis, William	Nicholson, D. junior	Taylor, James
Eversfield and Horne	Nixon, J.	Trenman, Thomas
Forest, Robert	Nurse, William	Webb, William
Fowler, Charles	Peto, Sir S. Morton, bart.	Williams, J. junior
Grayson, George		Wright, William

Gentlemen desirous of promoting the interests of the institution by becoming stewards, will be pleased to forward their names to the Treasurer, Mr. GEORGE BIRD, 35, Edgware road, or to the Secretary, at the Office, 19, Southampton-street, Bloomsbury.

A. G. HARRIS, Secretary.

THE EXHIBITION of the PHOTOGRAPHIC PICTURES, by ROGER FENTON, Esq., of the Seat of War in the Crimea, is NOW OPEN, at the Gallery of the Water Colour Society, Pall-mall East, from Ten to Six daily. Admission 1s

ARCHITECTURAL ASSOCIATION.—The CONVERSAZIONE and OPENING MEETING of the SESSION 1855-56 will be held at LYON'S INN HALL, on FRIDAY, OCTOBER 5th. The Chair will be taken at EIGHT o'clock precisely. Gentlemen wishing to be present can obtain cards on application by letter to

R. W. GOODMAN, } Hon. Secs.
J. A. BUNKER, }

Lyon's-inn Hall, Newcastle-street, Strand.

The DIALOGUES' MEMS. REGISTER may be consulted daily between the hours of TEN and FIVE), at the Office of Mr. ARTHUR BILLING, 10, Buckingham street, Strand.

THE ARCHITECTURAL MUSEUM, Canon-row, Westminster.—Autumn Session, 1855.—The MUSEUM will be OPEN between the hours of SEVEN and NINE, on the EVENINGS of MONDAY and WEDNESDAY, from OCTOBER 1st till DECEMBER 19th, both inclusive. Admission, to any such time, 1s 6d.

The LECTURES will COMMENCE on MONDAY, OCTOBER 15th. Cards for the course may be obtained, gratis, at the Museum, and at the Office of "The Builder."

HENRY CLUTTON, Honorary Secretary.

September 27, 1855.

DEPARTMENT of SCIENCE and ART, Marlborough House, Pall-Mall.—The Museum will be REOPENED on MONDAY next, the 1st of OCTOBER, during the recess the Collections have been rearranged, and considerable additions have been made. Admission free on Monday, Tuesdays, and Saturdays. A charge of 6d. on Wednesdays, Thursdays, and Fridays.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL MALL, LONDON

Art-Superintendent—RICHARD REDGRAVE, Esq. R.A.

Head-Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufacture and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrent ly with Writing.

The Instruction comprehends the following subjects:—Freehand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still life, &c. the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. A so, Classes for instruction in the technical processes of Chalk and Lithography on Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees 1l per session, or part of the session. For Evening Classes only 2l per session.

The Class for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. Mclan. Fees per session.—Advanced Class, 2l. and 1l., Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

METROPOLITAN SCHOOL of SCIENCE, applied to MINING and the ARTS. Professor T. KEY, F.R.S. will commence a course of forty-eight LECTURES on PHYSICS, on MONDAY next, the 1st inst., at TWO o'clock. Fee for the course 3l. Dr. HOFMAN, F.R.S. will commence a course of 100 Lectures on CHEMISTRY, on MONDAY, the 8th of OCTOBER, at TEN o'clock. Fee for the course, 4l. Chemical and Metallurgical Laboratories. The Royal Class of Chemistry, the laboratory of the which is under the direction of Dr. HOFMAN, and the Metallurgical laboratory under the direction of Dr. PLAYFAIR, will be opened on MONDAY, the 1st of OCTOBER. At both of these laboratories there are three terms annually. Twelve weeks each. Terms, for working every day in the week 3l. per term. For further particulars, apply at the Museum of Practical Geology.

TRENHAM REEKS, Registrar.

COMPETITIONS.

SALFORD CEMETERY.—The Burial Board Committee of the Corporation of Salford, offer the following premiums viz.:—A PREMIUM of THIRTY GUINEAS for the best SET of DESIGNS for an ENTRANCE LODGE, to contain dwelling for the cemetery keeper, an office, entrance gates and three chapels, with the necessary accommodations. The designs must be accompanied with a specification sufficient to enable a competent party to estimate the cost. The committee will have test scales prepared, and the premium will not be awarded for any set of designs, that cannot, in their opinion, be carried out for a sum not exceeding 2,500l. The committee would prefer the buildings executed in stone, and Roman. The party whose design is approved, will, if satisfactory, be employ ed to carry out the works, on such terms as may be agreed upon. Also a PREMIUM of FIFTEEN GUINEAS for the best DESIGN for LAYING OUT, PLANTING, ORNAMENTING, and DRAINING the GROUND.—Plans of the site, and all further information, may be obtained, on application to the Town Clerk, Town-hall, Salford, and designs must be sent to his office, with a motto, accompanied by a sealed letter, on or before the 1st of OCTOBER.

Town-hall, Salford, September 18, 1855.

THE BURIAL BOARD for the PARISH of WALTHAM HOLY CROSS, in the County of Essex, are desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising ground plans sections and elevations, for laying out, draining, and fencing a new BURIAL GROUND, with suitable entrance gates, and for building a lodge and receptacle thereon. The ground contains about three acres, a plan of which may be seen, and further information obtained at the Offices of Mr. JOSEPH JESSOPP, Waltham Abbey, Essex, the solicitor to the party whose plans are approved will, at the option of the Board, either have the superintendence of the works or be paid the sum of ten guineas for his trouble. The plans and estimates must be delivered here at Mr. JESSOPP'S Office on or before the 4th day of OCTOBER next. Each plan is to be distinguished by a motto, and a sealed letter similarly marked, containing the author's name and address, to be sent therewith.

Waltham Abbey, September 20, 1855.

BURNLEY MARKET-PLACE.—To ARCHITECTS, &c. The Burnley Market Company hereby give Notice, that they desire to receive DESIGNS for the ALTERATION and IMPROVEMENT of the MARKET PLACE at Burnley, in the county of Lancaster. A premium of 15 guineas will be paid for the best, and a premium of 10 guineas for the second best design.—Further particulars, and a lithographed plan of the site may be had on application to the undersigned, to whom designs must be sent on or before the 30th day of NOVEMBER, 1855. SHAW and SUTCLIFFE, Law Clerks to the Company.

Burnley, Sept. 24, 1855.

AN ESTIMATE for a GLASS-ROOM, 4 yards by 6, and 7 feet high.—Apply at 198, Oxford-street.

CONTRACTS.

Royal Engineer's Office, Portsmouth, 19th September 1855.

NOTICE is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before the 3rd OCTOBER, 1855, before TEN o'clock a.m. from such persons as may be willing to enter into a CONTRACT with the Ordnance for ALTERATIONS to the GLACIS at Southsea Castle, near Port-mouth, County of Hants, agreeably to the plans and specifications to be seen at the Royal Engineer's office, Portsmouth, on application to Mr. HAWKEN, Clerk of Works, every day (sunday excepted) between the hours of TEN and FOUR, until TUESDAY, the 2nd OCTOBER, 1855, and where forms of Tender may be obtained.

N B The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

Royal Engineer's office, Sheerness, September 20th, 1855.

CONTRACT for CONSTRUCTING a PILED FOUNDATION for the Soldiers' Hospital, Sheerness.—The Commanding Royal Engineer, Sheerness, gives notice that TENDERS will be received at the Office of Ordnance, Pall-mall, on or before SATURDAY, the 13th day of OCTOBER, 1855, from such persons as may be desirous of Tendering for the CONSTRUCTION of a PILED FOUNDATION for the Soldiers' Hospital at Sheerness. The plans may be seen, and printed specifications obtained at this Office, between the hours of TEN and FOUR each day Sundays excepted, till the 12th day of OCTOBER, 1855

ORDNANCE CONTRACT.—NOTICE to EXCAVATORS and CONTRACTORS. Sealed Tenders addressed to the Director-General of Contracts, Ordnance Office, Pall-Mall, London, marked "Barrack," and endorsed, "Tender for Roads, Aldershot," will be received on or before TEN o'clock on THURSDAY, the 4th OCTOBER next, from parties willing to Contract for the WORKS required to be performed in making ROADS in the ENCAMPMENT at Aldersh t, Hants—Specification for the above-mentioned work, together with all further information required may be obtained on application at the Royal Engineer's Office, Aldershot.

Royal Engineer's Office, Aldershot, September 20, 1855

ORDNANCE CONTRACT.—NOTICE to BUILDERS.—Sealed Tenders, addressed to the Director-General of Contracts, Ordnance Office, Pall-mall, London, marked "Barrack," and endorsed "Tender for an Enclosed Paling-fence at Aldersh t," will be received on or before TEN o'clock on THURSDAY, the 4th of OCTOBER next, from parties willing to contract for such fence. Plans may be seen, and specification and form of Tender obtained, on application at the Royal Engineer's Office, Aldershot.

Royal Engineer's Office, Aldershot, Sept. 26, 1855.

BURSLEM LOCAL BOARD of HEALTH. CONTRACT No. 1. The Burslem Local Board of Health are prepared to receive TENDERS for the manufacture and supply of certain GLAZED EARTHENWARE PIPES and other ARTICLES specified in the drawings and schedules. Duplicate copies of the drawings and specification may be seen, and forms of tender and Quantities, must be obtained at the Public Offices, Moorland-road, Burslem; and at the Office of the Engineer, Mr. LEE, 7, Duke-street, Westminster, on and after SATURDAY, the 8th day of SEPTEMBER inst., and Tenders must be sent in to me on or before TUESDAY, the 2nd day of OCTOBER, 1855.

By order, JOSEPH LOWNDES, Clerk to the Board.

Burslem, 6th September, 1855.

BURSLEM LOCAL BOARD of HEALTH. CONTRACT No. 2. The Burslem Local Board of Health are prepared to receive TENDERS from competent persons for the CONSTRUCTION of certain BRICK SEWERS, and for the LAYING of certain EARTHENWARE PIPE Sewers under the purposes of the above works of the district. Duplicate copies of the drawings and specification may be seen, and forms of Tender and quantities may be obtained at the Public Offices, Moorland-road, Burslem; and at the Office of the Engineer, Mr. LEE, 7, Duke-street, Westminster, on and after SATURDAY, the 8th day of SEPTEMBER, 1855; and Tenders must be sent in to me on or before TUESDAY, the 2nd day of OCTOBER, 1855.

By order, JOSEPH LOWNDES, Clerk to the Board.

Burslem, 6th September 1855

LONDON and NORTH-WESTERN RAILWAY. — CONTRACT for PERMANENT WAY MATERIALS. — The Directors of the London and North-Western Railway Company are prepared to receive TENDERS for the supply of the undermentioned MATERIALS:—

10,000 SLEEPERS
400 TONS CHAIRS
50 TONS FISH PLATES.
250 TONS SPIKES.
120 TONS BOLTS and NUTS

Specifications, with particulars, may be obtained on application to the Permanent Way Office, Railway Station, Stafford. Tenders addressed to the Secretary, at Euston Station, to be sent in on or before WEDNESDAY, OCTOBER 10, 1855.

By order, CHAS. EDWD. STEWART, Sec.

Secretary's Office, Euston Station, Sept. 15, 1855.

TO ROAD CONTRACTORS.

TEMPERANCE PERMANENT LAND and BUILDING SOCIETY. The Directors committee are prepared to receive TENDERS for MAKING the ROADS on the STRATFORD ESTATE. The drawings and specification may be seen and after FRIDAY, the 21st instant, at the Office of the Surveyor, Mr. WILLIAM ALLISON, 14, Stanley-road, Limehouse. Tenders to be sent in to the Secretary, on TUESDAY, the 2nd OCTOBER, at the Offices of the Society, addressed to the Secretary, and endorsed, "Tender for roads, Stratford Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

H. J. PHILLIPS, Secretary.

34, Moorgate-street, London.

The Freehold estate will shortly be allotted.

[For remainder of Contracts see next page.

CONTRACTS.

EAST LANCASHIRE RAILWAY. — To CONTRACTORS and BUILDERS.—The Directors are prepared to receive TENDERS for the ERECTION of LOCOMOTIVE WORKSHOPS at Bury, comprising Erecting Shops, Machine Shop, Offices, Stores, Boiler Maker's Shop, Smithy, Brass Foundry, Engine House, &c. Plans and specifications may be seen at the Engineer's Office, Bury Station. Sealed Tenders, addressed to the undersigned, and endorsed "Tender for Locomotive Shops," will be received on or before the 15th day of OCTOBER next.—By order, JAMES SMITHELLS, Sec'retary. Bury, Lancashire, Sept. 14, 1855.

PUMPING ENGINE.—The Committee acting under the Hereford Improvement Act of 1854 are prepared to receive TENDERS from parties who may be willing to undertake the CONSTRUCTION and ERECTION of a PUMPING ENGINE for the Hereford Waterworks. A description of the engine required, with all the particulars, may be obtained on application to Mr. J. CURLEY, C.E. Tenders to be sent in on or before TWO o'clock p.m. on MONDAY, the eighth day of OCTOBER next, addressed to the Committee of the Hereford Improvement, and endorsed "Tender for Pumping Engine." The Committee do not pledge themselves to accept the lowest or any Tender. —By order of the Committee, T. CURLEY, C.E. Hereford Improvement Office, 19th September, 1855.

NOTICE to BUILDERS and OTHERS.—The Burial Board for the Parish of Cogge-hall, in the County of Essex, intend to enter into CONTRACT for BUILDING a CHAPEL, ENTRANCE GATES, and PIERS, PALISADE FENCING, IRON HURDLES, and other Works, upon their Burial ground, on the north side of Cogge-hall aforesaid. Plans and specifications of the works required to be done may be inspected at my office, in Stisted-street, Coggeshall, and at the offices of Mr. GEORGE ROBERTS, the Architect to the Burial Board, opposite to the House of Mr. Wright in Essex, from FRIDAY, the 21st day of SEPTEMBER next to FRIDAY, the 3rd day of OCTOBER next, inclusive, on the days within that time appointed for the said works are required to be done proposals for that purpose delivering sealed Tenders for the same addressed to me, and dated Decr. 1855, to be left with Tender to be delivered at my Office free of expense, to be not later than TWELVE o'clock at noon, of SATURDAY, the 6th day of OCTOBER next. The Board will require security for the due performance of the contract, and do not pledge themselves to accept the lowest Tender. By order,

RICHARD STEVENS, Clerk to the Burial Board.

Cogge-hall, Sept. 17, 1855.

WISBECH SEWERAGE. — To CONTRACTORS.—The Wisbech Local Board of Health are prepared to receive TENDERS for EXECUTING certain WORKS of SEWERAGE, consisting of about 11,000 lineal yards of brick sewers, and about 1,000 lineal yards of earthenware pipe sewers, together with the necessary gullies, man-holes, ventilators, valves &c. Drawings of the above works may be seen, and a specification and bills of quantities thereof obtained, on and after MONDAY the 24th instant, at the Office of GRESPHENSON, Esq. C.E., 5, Great George-street, Westminster; or at the Office of Mr. WILLIAM ADAMS, Wisbech. Surveyor and Inspector of the above Local Board. Sealed Tenders to be entirely private, and delivered to ROBERT WHITBREAD, Esq., Mayor, Wisbech, on or before MONDAY, the 8th of OCTOBER next. The Tenders to be endorsed "Tender for Wisbech Sewerage." The Local Board do not pledge themselves to accept the lowest Tender or any Tender unless they think fit.—By order,

EDWARD JONES, N, Clerk to the Local Board.

Wisbech, September 1, 1855.

TO IRONFOUNDERS and OTHERS.—The Local Board of Health of Hastings are prepared to receive TENDERS for 1,000 LINEAL YARDS of CAST IRON PIPES, and 150 feet of circular IRON CULVERT, of 4 feet in diameter. Copies of the specification will be forwarded, gratis, to any person applying personally, or by letter addressed to the Town Clerk, at Hastings.—Hastings, September 18, 1855.

TO BUILDERS AND CONTRACTORS.

PAROCHIAL SCHOOLS, SHERBORNE, Dorset.—The Committee are prepared to receive TENDERS for the ERECTION of NEW SCHOOLS and TEACHERS' RESIDENCES, on Persons desirous of CONTRACTING for the ERECTION of the same, in whole or in part, may inspect the drawings, specification, and conditions, at the Town Hall, Sherborne, on MONDAY, the 8th of OCTOBER, between the hours of Ten and Four o'clock, and not afterwards, of Mr. THOMAS HILL, Architect, Sherborne, of whom further particulars may be obtained. The Tenders are to be forwarded to Mr. LONGMAN, Honorary Secretary to the National Schools, Sherborne, on or before the 22nd day of OCTOBER next.

ST. JAMES'S CHURCH, DOVER.—To BUILDERS and CONTRACTORS.—The Committee appointed for taking down and rebuilding on the same site the Parish Church of St. James's, in Dover, are willing to receive TENDERS for the Works of the Nave, to be commenced on the 1st day of JANUARY next. The drawings, specification, &c. may be inspected at the Office of Mr. EDWARD KNOCKER, Guildhall-street, Canterbury, on and after the 1st of October next, and the form of Tender may be obtained between the hours of TEN and FIVE. Further particulars may be obtained of the Architect, Mr. TALBOT BURY, 36, Wellington-street, Strand-square, London. Sealed Tenders must be delivered at Mr. KNOCKER'S Office, on TWELVE o'clock on the 15th day of OCTOBER, marked on the cover, "Tender for St. James's Church." The Committee do not bind themselves to accept the lowest or any Tender. By order of the Committee,

Dover, September 26, 1855. S. ROMINS, Chairman.

TENDERS will be received on THURSDAY next, at FIVE o'clock, at the Offices of Mr. WILLIAM E. WILLIAMS, Architect, Dartmouth-street, the ERECTION of FIVE PAIRS of SEMI-DETACHED COTTAGES, at Walthamstow. Plans, &c. may be seen between the hours of TEN and FIVE daily.—Mr. W. does not pledge himself to accept the lowest or either of the Tenders.

TO BUILDERS.

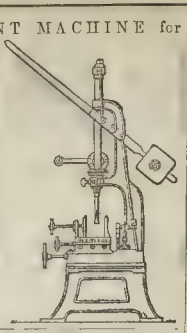
PARSONAGE-HOUSE, at HELMDON, near BRACKLEY, NORTHAMPTONSHIRE. Builders disposed to TENDER for the ERECTION of the above-named Parsonage House are requested to apply for Plans and Specifications at Mr. SHEPHERD'S Office, in the Parish of Helmdon, on or before the 1st day of OCTOBER next. Tenders, addressed to the Rev. J. C. BECHER, Helmdon, to be sent in on or before the 8th day of OCTOBER next. The lowest Tender will not necessarily be accepted. MANNERS and GILL, Architects.

Bath, September 24, 1855.

ARLSEY CHURCH, BEDFORDSHIRE. — TO BUILDERS.—It is proposed to RE-SEAT and RESTORE the INTERIOR of the CHURCH, situate close to the Arlsey Station of the Great Northern Railway. Plans, specifications, and quantities may be seen at the Office of Mr. JAMES GOODMAN, Architect, Hitchin, Herts, and Tenders for the proposed works will be received at Arlsey Vicarage, from MONDAY, the 1st of OCTOBER, to SATURDAY, the 6th of OCTOBER, inclusive, to be delivered to the Architect. Each Tender must be accompanied by a sealed letter, containing the name of the Surety or Sureties who will join the Contractor in a bond for the due performance of the contract. Further information may be obtained of the Rev. ROGER SMITH, Vicar of Arlsey, or of the Architect.

COLLINGE'S PATENT HINGES.—Manufactured by CHARLES C. LLINGE and Co. are now in use in all parts of the world, and give universal satisfaction wherever they are applied to doors, whether in churches, warehouses, and other large buildings, or in private houses. Their peculiar construction and beauty of finish renders them equally suitable for the most elegant as well as the most massive doors, and they are now used in the Houses of Parliament, and in most of the Royal Palaces, Public Buildings, Banks, Insurance Offices, Railway Stations, Hotels, Mansions, and Private Residences throughout the Kingdom. Every description of Butt and Centre Hinges, Locks, Latches, Bolts, and Fastenings, Patent Axle-trees, Sugar-mills, &c.

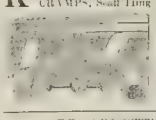
NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.



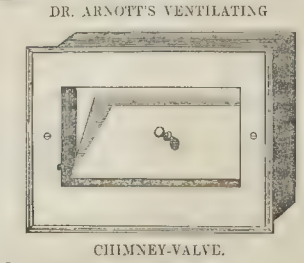
House and Coach Builders, Joiners, Cabinet-makers, and others doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co Wholesale Builders and Cabinet Makers, Ironmongers Hall-street, No. 26, Wathing-street City and see in action the very simple, powerful, and expeditious machine, which is the only one yet brought out to perform these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill to use it, being like the older methods to be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery constructed for.

KIMBERLEY'S PATENT FLOORING CRAMPS, Small Iron Brackets, Door Springs Mortising Machines for Erecting Engineers and Joiners, Cabinet Makers, &c. &c. Also, KIMBERLEY'S PATENT GAS-POWER, may be had from any Ironmonger in town or country; from the Patentee, Inge-street, Birmingham; or from the London Agents, Messrs. PUGH and CO 14, King-street, Snowhill, where a stock is kept.



DR. ARNOTT'S VENTILATING



CHIMNEY-VALVE.

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HART AND SON,

MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.

TO IRONMONGERS, BUILDERS, &c

PATENT WROUGHT IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 85, High Holborn.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE. Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Girders, and STEWART'S PATENT CAST IRON GAS and WATER PIPES. Office No. 7, Stone-lane London.

CHUBB'S LOCKS, with all the recent improvements; STRONG FIRE-PROOF SAFES, CASH and DEED BOXES.—Complete lists of sizes and prices may be had on application to CHUBB and SON, 57, St. Paul's-churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-field in Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Fancy, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnishers of all kinds, with Patent Shifting Spindles, Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired by those who have seen each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 70 years, for the supply of Goods from the best Manufactories, at the lowest prices.

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TO BUILDERS, CARPENTERS, JOINERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE

No.	3	4	5	6
	8s.	9s.	6d.	7s. 6d. per gross.

At JOHN YOUNGS, Birmingham and Wolverhampton, Agent, Sactor, and General Ironmonger, 18, Blandford-street, Manchester-square, and 121, Baker-street, Portman-square. Every other article equally reasonable.

FOUR CRANES for immediate SALE.—A capital FIVE-TON CRANE, 16 feet 8 inches radius, with cast post and 18 in. CAST IRON CYLINDER, 11 feet deep, to form well; TWO TWO-TON CRANES, with wrought iron posts and jibs, 11 feet radius. All complete, and in excellent working condition. Apply at WALL CRANES, to be sold cheap. Apply at 51, Clerkenwell, E.C.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.

RAIN PIPES, &c. — F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, Keep a large stock of Rain Pipes, Heads, Stoves, Elbows, &c. Hot-water Pipes and Fittings, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights and Cocks, Ornamental Ironwork for Bakers' Ovens of every description, made complete, ready to fix and to send in parts—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

PATENT CLIMAX DOOR-SPRINGS.—A new invention of no noise, holders, and ironmongers in particular, is now one of the most patent improvements in door springs, for the many great and useful advantages it derives from the application of it. Their power keeps the door open and shut, as it were, and this is never out of order. Its use and form is such as to be fixed without any alteration of the door, or the least injury to it. Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

A. MOREWOOD and CO. (late Morewood and Rogers), Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham, PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets PLAIN or CORRUGATED, and Curved of all Gauges. Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes. Also the Patent Galvanized Tinned Iron Tube, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c. Estimates given for Roofs, on every description of Galvanized Building at the OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Lambeth, London. Skaife's process is the most effectual prevent vs against rust, and is extensively used for all purposes where iron is not liable to rust is required. Patent Galvanized Iron supplied in every form. Sheets plain and corrugated. Roofs fixed complete. J. Skaife, sole Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles. An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY REMOVED from BATSFORD to ROW, near London, close to the R.W. Railway Station. A large variety of buildings always on the premises adapted for engine houses, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TO ARCHITECTS, BUILDERS AND THE TRADE.

PATENT PLUMBIC ZINC. GREAT REDUCTION IN PRICE. PLUMBIC ZINC is a perfect amalgamation of Lead and Zinc and not requiring to be painted when fixed, and will last as much as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No.			
11	weighs about 18 oz. per foot super.		
12	"	20	"
13	"	21	"
14	"	26	"

Full particulars and the reduced price sent by post on application to A. MOREWOOD and CO. DOWGATE DOCK, LONDON, to whom all letters must be addressed.

JOHN WALKER, MANUFACTURER OF ROOFS, BUILDINGS, &c. &c. Works—Mill-wall, Poplar. Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON. JOHN WALKER, GALVANIZED IRON MERCHANT, &c. The trade supplied Corrugating by steam power capable of 10 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c. JOHN WALKER, IRON-FOUNDER AND ENGINEER. Orders to any extent can be executed at his Works, Mill-wall, Poplar. Apply at the Works.

BUILDER AND CONTRACTOR. JOHN WALKER, Having his own Saw-mills is enabled to CONTRACT for BUILDERS' WORK, At low prices, and can stent with good work. Apply at his Offices, Arthur-street West, London-bridge.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING PLAIN, CORRUGATED, PAINTED, or GALVANIZED. Estimates and Drawings furnished on application. Experienced Workmen sent to all parts of the Country. 3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Cranford's) PATENT GALVANIZED IRON, For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Feeders, &c. To be obtained only at TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM. Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coalscoops, Buckets, Pumps, &c. always in Stock. N.B. An allowance to the trade. Address all letters to TUPPER and CARR'S MANSION-HOUSE-PLACE, CITY, LONDON.

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR, IRON ROOFING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM. LONDON OFFICE 1, RICHES-COURT, LIME-STREET.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron manufactured by them for their purposes, in point of lightness, cleanliness, durability, cheapness from infection, and being fire-proof. Drawings and estimates sent free. Island Foundry and Iron Works, Mirfield, London. Offices: 12, Fenchurch-street, City.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process). WORKS GLASS-HOUSE YARD, opposite the Entrance to the London Docks. GALVANIZED SHEET IRON and WIRE of every description equal in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved. ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c. A Discount allowed to the Trade.

PATENT IRON ROOFING and IRON BUILDING MANUFACTORY, late the Crystal Palace Company's premises, 14, James-street, Liverpool. N.B. Parties are personally expected to go to the above. LIVERPOOL. FRANCIS MORTON and Co. will supply estimates, plans, &c. for Iron Roofs and Buildings, painted or galvanized, to be erected in any part of the United Kingdom, Europe, or India, being prepared for shipment abroad. F. M. and C. possess extensive premises for the manufacture of Iron Roofing, and are enabled to work on the most moderate terms consistent with good materials and workmanship. N.B. The attention of Agriculturists and Landed Proprietors is most earnestly invited to their Corrugated Iron Farm Buildings, Sheds, Roofs, &c.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"18, Hyde-park Gate, Kensington, February 24, 1854.

"My dear Sir,—The Air Warmer continues to work very satisfactorily in test, with regard to the main body of the house, and during this weather is champing, even in the painting-room. Mrs Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,

"Mr. J. Johnson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq late M.P. for Sheffield.

"Stanley-place, St John's-wood, London, January 27th, 1855.

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in England; and this has increased with every passing year and decreasing strength. I have, therefore, had recourse, from time to time, to various stoves and other modes of warming the hall and passages of my house, but I have never succeeded till now in producing an equal temperature over every part, and have no other temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and by the closure of doors within doors in the months of December and January. The servants have, as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall lose no opportunity of heartily advising its adoption to all who desire to protect themselves against the changes of temperature in their dwellings. I am, dear Sirs, yours faithfully,

"JAMES SILK BUCKINGHAM.

"To Messrs. Stuart and Smith, Roscoe place, Sheffield."

M. E. HADFIELD, Esq. Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir,—We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable impressions of air produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective.—I am, my dear Sir, yours faithfully,

"Mr. J. Johnson Smith, Roscoe-place." "M. E. HADFIELD.

WILLIAM RUTSON, Esq.

"Newby Wiske, Thirsk, 13th February, 1855.

"Sirs,—I wish to tell you what promise of confidence as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the direct attempt to an unusually cold and unfurnished house, with all the doors open into the adjacent rooms, it is keeping up a very certain fall of one or two degrees over the coldest weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 18s. 6d per ton, the rate at which it has been fired for the last two or three weeks is 1d. per hour.

"I am, Sirs, yours truly,

"Messrs. Stuart and Smith "WILLIAM RUTSON.

"P.S. Mr Rutson, on looking again sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 5s. 6d. for coke say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop road, February 27th, 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during the winters, and the result has been extremely satisfactory. During the late severe fog I have never had so great that I scarcely knew it was cold in the house at all. Instead of the dust, staircase, and passages, being a receiver of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the great benefit of the house being free from draught. To many invalids the invention will prove invaluable, giving them the command of their habitation instead of confining them prisoners to one apartment.—I am, my dear Sir, very truly yours,

"Mr. Johson Smith." "EDWARD MARTIN.

E. F. SANDERSON, Esq.

"West street, Sheffield, 27th March 1855

"Gentlemen,—The Gill Air Warmer you put up for me last year at Endcliffe, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been painfully sensitive of the damp and chilly air of this country; but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your invention of rendering dwellings at once healthy and comfortable in point of temperature.—I am, yours very truly,

"Messrs. Stuart and Smith, Roscoe-place." "E. F. ANDERSON.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

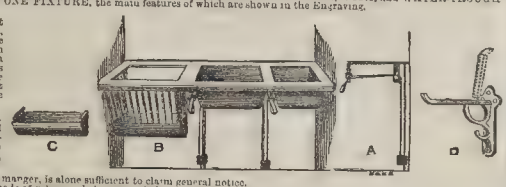
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

are made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



A represents the Patent Water-guide and Collar-rein, the fall of which is taken to the back of the manger-works with free action, and close up or down the guide-bar, and is noiseless in its operation, as also a sure preventative against the most restive horse being cast in the stall.

B. The Patent Portable Seed-box, may be instantly detached from the rack with the dish-cloth, and impervious to infection. Manufactured plain, galvanized, and enamelled.

C. The Scientific Drench-Horn, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAMS MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE DRAIN, with safety-valve. Sawyers, Stable Pumps, Loose Box Fittings, Gutta percha Pressing Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

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STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

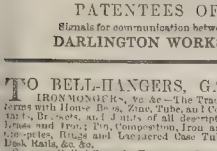
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

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Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

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Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.

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212 MILNER'S HOLDFAST and FIRE-RESISTING SAFES manufactured and warranted with all the inner elements, under their Quadruple patents of 1851, 54, and 1855 in Britain under Gunpowder Proof Solid Lock and Door with the only safe key.

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ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. It may be seen daily in the Stove and Fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO., opposite the Monument, London bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BISCHOFFER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful method of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accident from fire are effectually prevented, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent street, London.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, 4 feet diameter, pumps, furnace-grates, soot-doors for the same, hot-water pipes, elbows, tees, syphons, throttle valves, stop-cocks, flange and S bends, elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron and Steel Wharf, No. 9, Bankside, London, near the Southwark-iron bridge.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and Co. 22, Poland street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 30 to 50 per cent being effected in the consumption of fuel.—Prospectuses, with testimonials, sent on application.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and lightness, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the Kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as lessening the stock of combustible fire-proof construction, particularly in warehouses, dwelling and other domestic buildings, with only a slight increase of cost.

Further information may be obtained of the Proprietor of the patent,—Mr BARRETT, 12, York-place, Adelphi.

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THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Apparatus for Lining Apparatus, and the Introduction of Manufactured Goods to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making the them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be supplied with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

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Improved Self-acting Cottage Ranges, with Large Oven and Boiler.
30 32 34 36-inch.
28s. 30s. 32s. 34s.
Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars
34 36 38 40-inch.
54s. 56s. 58s. 60s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Cheek Register, with strong Bars and Trivets, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 50s. each.

Cast Rain-water Pipe { 2 2½ 3 inch.
11d. 1s. 3d. 1s. 4d. per yard.

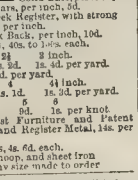
Cast Gutters—4 inch, 9d. per yard.
4½ inch.
O G Gutters ..... { 1s. 1d. 1s. 3d. per yard.

Patent Line { 3 3 4 5 6
4½d. 5d. 7d. 9d. 1s. per knot.

5-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron
Brick Moulds kept in stock Any size made to order

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5d., 6d., 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 8s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz.
Best Town Glue, 58s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, hell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid

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JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS At Messrs. Weeks' establishment, an apparatus with the boiler can be seen daily in full operation, heating the buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 8d. This achievement in heating by hot water is unprecedented.

BUILDINGS HEATED by HOT WATER.
G. B COOPER, IRONWORKS, 121, DRURY-LANE. Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention is now in operation upon Steam engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other description of Furnaces, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.
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PFEIL AND STEDALL.
THE LARGEST STOCK AT
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PATENT CORRUGATED IRON.

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ESTABLISHED 1817.
WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 16, Hors ferry-road, and 1, New Peter street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery, at the lowest possible prices.
Cottage Ranges, with oven or boiler, complete, 32s. each.
Self-acting ditto, with d tto, from 27s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 45s. each.
Register Stoves, from 5d. per inch.
Elliptic ditto, with double backs, from 3d per inch.

Cast-iron Rain-pipe { 3 2½ 3 inch.
1½d 1s 3d. 1s 4d. per yard.
4 inch Eaves Gutters, 9d per yard.
4½ 4 inch.
O G Gutters { 1s. 1s. 1d. 1s 4½. 1s 6d per yard.

Best Cat Clasp { 1½ 2 2½ 3 inch and larger.
and Rose..... { 10d. 12s. 14s. 6d. 16s.

1-inch Rest Cut Lath, 15s. 6d. per cwt.
Sheet Floor Brads 11s 6d per cwt.
Hoop Floor Brads, 12s. per cwt.
Sash Weights, 7s. 6d. per cwt.; 2-inch Air Bricks, 3s. 6d. per doz.; 4-inch Sink Traps, 9s. per doz.; strong Coal Plates, with hooks, 25s. per cwt. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Naval and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 6d. a shilling the foot.
R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne, 156, Strand, London.
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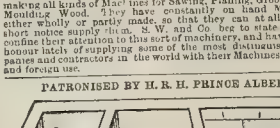
SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour and favour of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

PATRONISED BY H.R.H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.
Castings Warehouse removed from 81 to 83, Upper Thames-street.

NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which will be forwarded on application.
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or at 16, Gresham-street, LONDON.

AUSTIN'S IMPERIAL PATENT SASH and BLIND LINE, ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY. Established 1774.

LIGHTING of CHURCHES.—F. SKIDMORE and SON, Coventry.
"The unsightly fittings for gas and candles which so frequently disfigure our churches have induced F. A. Skidmore to devote much time to the production of such as may harmonise with the characteristics of the buildings. The designs are founded on personal study of the remains of ancient metal-work on the continent and in England.
F. S. and Son would refer to their works for lighting Chester Cathedral, S. Botolph's, Boston; S. Mary's, Newark; S. Michael's, Coventry; S. John's, Ladywood; and Aston, Birmingham. Bowden, near Manchester, &c.; as also to the following testimonials:—
"We went over the manufactory of Messrs. Skidmore, in Coventry, and were much pleased by the artistical spirit which animates them. A few lots of chushes and other large buildings lighted by them show their endeavours are duly appreciated."—*Builder*
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Where limited funds render economy necessary, F. A. S. has prepared designs of a simple and inexpensive character. They have gas standards for finishing ready for immediate use.
Sketches, with estimates sent free by post.

REDUCED PRICES.—EDWARD SIMMS (late William Clewes), of Wilt.n-road, Pimlico Basin beg to acquaint Builders and the Trade that he has now on hand at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¼ inch to 1 inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Clewes's) Flooring Manufactory Wilton-road Pimlico Basin

GREAT REDUCTION of PRICES.—SAMUEL PUTNEY respectfully solicits the attention of buyers to the following greatly reduced prices:—

Pine Planks, 12 ft. 3 in. by 11 in.....	from 4s. 0d.	each.
Spruce Deals.....	,, 2s. 9d.	,,
Yellow ditto.....	,, 4s. 6d.	,,
Yellow Battens, 2½ in. by 2 in per 120.		
Honduras Mahogany, in logs	,, 0s. 4½d.	per foot.
Ditto ditto, in planks and boards	,, 0s. 6d.	,,
Spanish ditto.....	,, 0s. 8d.	,,

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application
Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

TO BUILDERS AND OTHERS.
AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH BOARDING of all descriptions; also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Sills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint Builders and the Trade that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash

¼ inch White, 6d. per square.		¼ inch Yellow, 15s. per square.	
½ ditto 15s.	,,	½ ditto 16s. 6d.	,,
1 ditto 18s.	,,	1 ditto 20s.	,,

Laths, 3s. per load.
Also Timber, Deals, Planks, &c. Mouldings by machinery in every great variety.
ST. PANCRAS SAW-MILLS, Pancras-bridge-street, Old St. Pancras-road

STEPHENS'S STAINS for WOOD. Testimonial to the value of —
"Northgate, Colchester, February 6, 1853.
"Sir,—I have just finished a new church with your oak stain, and I consider it the best adapted for the purpose, being the nearest approach to the real wood of any I have ever used.
"I am, sir, your obedient servant,
"SAMUEL GRIMES, Builder.
"To Mr. Hy. Stephens, 54, Stamford-street, London."

ABOUT ONE THOUSAND SCOTCH FIR-TREES and POLES TO BE SOLD cheap—Apply to Mr. MULFORD, Timber Merchant, Greywell, near Odiham, Hants.

WALNUT-TREE of large dimensions, felled last Winter, TO BE SOLD.—Apply to the Station Master, Harlow Station on Eastern Counties Railway. The Tree lies within a quarter of a mile of the Station.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, supplied not by the machines for the trade only, Polpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

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N.B.—Sawing and planing for the trade.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, for cash only, at C. LEPTWICH'S Lead, Glass, and Colour Warehouse, 21, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 2½d. per cwt. given for old lead.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, Builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, slating battens, laths, English oak planks, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.—Address, E. SIMMS, Sawing, Planing, and Moulding Mills, King's-road, Chelsea, and Wilton-road, Pimlico.

TO BUILDERS, CARPENTERS &c.
SAMUEL CROWHURST, JUN. begs to call the attention of Builders, Cabinet-makers, &c. to his Stock of seasoned and well-assorted Timber Goods, Deals, and Mahogany in Logs, Planks, Boards, &c. at prices which will be found equal if not less than any advertised. Country Builders supplied on the most liberal terms.—Timber yard, Hanover-street, Walworth; and Francis-street, Newington, near the Church.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, to be have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand Marble chimney-pieces, monuments tombs, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No. 27, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six penny-stamps Please note the address—20, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

HAWKINS'S PATENT BRUSH COMPANY.—To MERCHANTS, ARTISTS, and OTHERS.—FRANCIS FORD begs to state that he has arranged with the Patentees and Manufacturers of Hawkins's Patent and other Brushes, for the SOLE AGENCY of London and its vicinity. All communications addressed to him as under shall have his prompt attention, where prices, patterns, and all particulars of the same can be obtained on application, or sent by post.—Mr FRANCIS FORD, 5, Laurence Pountney-hill, Cannon-street, London.—Sole Agent for London and its vicinity.

T-SQUARES, SET SQUARES, and STRAIGHT EDGES, of the best quality, warranted in every respect, of the Manufacturers, STANLEY and ROBINSON 3, Great Turnstile, Holborn, London.

J. MICHIE, Engineer and Machinist, Battersea-park, Nine-elms, manufacturer of all kinds of Steam-Engines, Portable and Stationary, Sawing and Planing Machinery, Pumps, Cranes, Crabs &c.
N.B. Several high-pressure Engines for Sale.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country, and an extensive assortment of specimens and patterns commencing at 1s per foot superficial, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 3, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licences for their use. From the facilities thus afforded to companies to negotiate for a number of new lines much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to
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SAFE and PROFITABLE SPECULATION. TO BE DISPOSED OF immediately, a very valuable BUILDING AGREEMENT direct from the freeholder, partly executed some of the houses are completed and occupied, including some houses now in progress, together with the scaffolding, wood, stone, &c. The advertiser being engaged in another business at a distance requiring all his time, will deal liberally, regardless of the value, with a prompt purchaser.—Apply to Mr. GLASIER, Auctioneer, 41, Charing-cross.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Fascia, Table-tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK

Take leave to inform the Trade that they have

Opened an Establishment for the supply of Plate and Window Glass, Shades, Potiche, Lamp and other Glasses; also Wine, Spirit, and Beer Bottles, at

131, UPPER THAMES-STREET, LONDON-BRIDGE.—WORKS: SEVRES, NEAR PARIS.

CHEAP AND DURABLE ROOFING.

By Her Majesty's Royal Letters Patent.

F. McNEILL and CO. of LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON, Manufacturers and ONLY Patentees of

THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronized by

HER MAJESTY'S WOODS AND FORESTS, HER MAJESTY'S COMMISSION OF CUSTOMS, HONOURABLE EAST-INDIA COMPANY, HONOURABLE BOARD OF ORDNANCE, HER MAJESTY'S ESTATE, ISLE OF WIGHT, ROYAL BOTANICAL GARDENS, REGENT'S PARK,

and by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under slates at the Royal Agricultural Society's House, in Hanover-square. Its advantages are lightness, warmth, durability, and economy. It is impervious to rain, snow, and frost, and a non-conductor of heat and sound. The Felt can be cut to any length, by 32 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its uses and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen, and Gentlemen who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Boilers, &c. is also manufactured, by which a saving of about 25 per cent in fuel is effected. The TRADE are respectfully enjoined to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their work. They are likewise CAUTIONED AGAINST MISREPRESENTATION, AS THE ONLY WORKS in Great Britain where the above roofing is made are F. McNEILL and CO.'s Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW. Roofs covered with the Felt may be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the New Houses of Parliament.—A Liberal Discount allowed to the Trade.

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A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1852, with this Material, may be obtained at the Office of

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THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

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In order to supply the deficiency which has hitherto existed in Furniture suitable for the many Mansions that have been erected or restored in the MEDIÆVAL STYLES, Messrs. CRACE have directed their particular attention to this subject, in addition to their other works, and have prepared appropriate specimens in the various branches of Furnishing.

STUFFS for HANGINGS, in simple Worsted Damask, in Silk; also in Tapestry of Bauderkin.

CARPETS, plain or in rich Velvet pile, with appropriate Borders.

PAPER-HANGINGS of various kinds.

OAK CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and appropriate Furniture

The whole of the above-mentioned Furniture, &c. is designed by the late Mr. A. W. PUGIN, Architect.

To render this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with its ancient character.

14, Wigmore-street, January, 1853

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY

Having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at

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" John Dix and Co. Bath-street, Bristol.

" H. Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ¾ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

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GOOD FOREIGN SHEET-GLASS.—Thirds, 40s.; common thirds, 36s.; fourths, 28s.; in cases 200 feet each average size, 40 by 30. English or foreign ground ditto, 3½d per foot. Crown and sheet squares, in 100 feet boxes, from 14 by 10 to 22 by 14, 2d. per foot. ¼ inch rough British plate tiles, 11s per dozen. Also, crown and sheet glass in crates; British and patent plate, fluted, and stained glass; glass slates, &c. Sheet lead, pipe, white-lead, oils, turpen fine, colours, &c.

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GLASS PAN-TILES, packed in cases of fifty, one-quarter of an inch thick, 1l. 17s. 6d.; three-sixteenths, per case of sixty, 2l. 1s. 3d.; one-eighth, per case of sixty, 1l. 17s. 6d. Foreign Sheet Glass, in cases of 200 feet, 36s. 38s and 40s. per case. Crown Glass, in crates of eighteen tables, from 28s. Crystal White Glass, for pictures, at 4d. 6d. and 8d. per foot.—JAMES PHILLIPS and CO. 126, Bishopsgate-street Without, London.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps, Watercloset Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 77, Bishopsgate-street, London. Established more than 100 years.

CRYSTAL WHITE GLASS, first, second, and third quality, particularly adapted for pictures and the best description of glazing, being far superior in colour to patent plate. In cases of 200 and 400 feet each, at 4d, 6d and 8d. per foot; sizes varying from 24 by 16 to 40 by 28. Also Foreign Glass of various tints made expressly for CATHEDRAL and CHURCH purposes.—G. FARMILOE and SON, 118, St. John-street, West Smithfield, London.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 236, Oxford street.

REDUCED TARIFF.

CCC CROWN, 18 Tables, per crate 30s. H 15 oz. SHEET, 3d. per foot; FOREIGN SHEET, 200 feet cases, 34s per case; CROWN or SHEET SQUARES, 100 feet boxes, 2d. per foot; HARTLEY'S PATENT ROUGH PLATE, from 6d. and PRISMATIC FOLIATED VENTILATING GLASS, 1s. 6d. per foot; CRYSTAL SHEET GLASS, 4½, 6d. and 8d. per foot; FLASHED RUBY, 1s. GROUND SHEET, 3½d. ENAMELLED, 8d. per foot. Sashes primed and glazed, 3d. per foot.

Catalogues free, on application to the Managers, as above.

CRYSTAL WHITE SHEET-GLASS, first, second, and third quality, in cases of 200 feet, at 4d. 6d. and 8d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

PATENT and BRITISH PLATE GLASS.—JAMES HETLEY and CO. beg to inform Architects, Builders, and the Trade generally, that their new Tariff of Prices for the above will be sent on application; they will also on receipt of particulars, furnish estimates for any description of Glass now manufactured.—Patent Plate, Sheet, Crown, and Ornamental Window Glass Warehouse, 33, Soho-square, London

PLATE-GLASS for GLAZING PURPOSES. C. NOSOTTI respectfully informs Architects, Builders, and Others, that he can supply them with PLATE GLASS for window and shop fronts, at prices not to be excelled, the glass being of a more brilliant colour than generally used. List of prices free. Gold Mouldings for rooms, and every article required for general furnishing ready for immediate delivery.

C. NOSOTTI, Established 1822?, 393 and 399, Oxford-street, Soho.

J. FISHER, 70, YORK-ROAD, LAMBETH, formerly shop foreman to Messrs. Lawrence. Shop-front Builder and Manufacturing Joiner. 1¼ and 1½ four-panel doors from 6s each; 1½ sashes and frames from 7d. per foot; 2 inch ditto from 8d. Windows fitted with Grubbon's Patent Hinges for cleaning, painting, &c. All kinds of joiners' work estimated for according to design.—A List of Prices sent on application.

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Order of the day:—
1. Report of Gérant.
2. Report of Committee of Surveillance upon the half-year's account.
3. To declare a Dividend for the half-year last past.

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JOHN PONTIFEX, Clerk,
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THE Commissioners of Sewers of the City of London, acting as the Burial-board of the said City, will meet at this Office on TUESDAY, the 2nd OCTOBER, 1855, at TWELVE o'clock at noon, to receive PROPOSALS for RENTING certain surplus LAND adjoining the City of London Cemetery, and amounting to about 98 acres, more or less. The land will be let as pasture land, and subject to the condition that the tenant is to pay the rent quarterly, and also all rates and taxes to be paid by the tenant (excepting tithes), and he is to give up possession of the same at any period of the year upon receiving three months' notice. A portion of the land has been arable, and is not prepared for grassing. Tenders will be received from persons for the whole at per acre per annum; the parties tendering to plough and sow with grass seed at their cost the said arable portion of the land; and also at per acre per annum for the whole upon the commissioners at their cost so ploughing and sowing with grass seed the said portion of land. Tenders to be sent in to the undersigned, sealed, endorsed, "Tenders for Land," on or before MONDAY, the 1st OCTOBER next. The commissioners do not engage to accept any Tender unless deemed eligible.—Further particulars may be ascertained of the undersigned, or of the Clerk of the Works at the Cemetery. JOSEPH DAW, Principal Clerk.
Sewers' Office, Guildhall, September 18, 1855.

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The Builder.

Vol. XIII.—No. 660.

PERSONS now living, who can remember five or six and thirty years back, will perceive with pleasure that a great change for the better has taken place in the estimation of the fine arts as an aid to education; nevertheless, although this fact has become recognised, we are still, unfortunately, very deficient in adequate means for conveying art-instruction to the artizans and other useful classes in this country, which will enable them to take an equal position with those in similar circumstances in France and Germany.

In the higher walks of art we have produced Flaxman,—a sculptor who, for high and refined conceptions, and for correct execution, has not been surpassed in any country in modern times.

In painting we have the bold and manly works of Reynolds, which unite in many instances the depths of Rembrandt with the glowing colours of Titian; Gainsborough, with his playful and varied tints; the elegant and graceful Lawrence; Opie, Wilson, Turner (a landscape painter, who has never been equalled), and a number of others of the past generation, who have shown by their works that we are not an "unartistic people." Nor do the artists of the present day fail to prove that in England there exists the nucleus of a school of art, which only requires culture to achieve success in the highest path as well as in ornamental works. Our water-colour painters are unequalled; and the artists in other styles show that they are neither deficient in the appreciation of the beauties of colours, in the knowledge and distribution of light and shadow, nor in a true feeling for nature or pure sentiment: some of our living sculptors, too, deservedly rank amongst the first in Europe.

The great mine of English raw-material has, however, been heretofore comparatively unwrought. The masses have been untaught. It is not now denied that the study of art ought to be commenced with the earliest dawnings of sense. We do not mean that parrot kind of education, by which children are taught to jingle rhymes, or to say that twice twelve are twenty-four, three times twelve are thirty-six, without understanding the meaning of the one, or knowing the correctness of the other.

That "a thing of beauty is a joy for ever," is a truth which in the education of the rising generation has not been sufficiently considered. Yet, in order to enable the millions of English workmen, who are to follow us, and take their proper place, to feel this, we must open the young eyes to truthful principles: at present we are deficient of means to work out this desirable result—and should, therefore, carefully look for and apply new methods. It is by this consideration we are led to give our readers some account of a system of education which has been recently introduced, and is comparatively unknown amongst us.

It is a true saying, that at the first moment the child takes nourishment, its education has commenced: the infant has eyes—ears—and other organs of the senses so impressible, that to a great extent they can be moulded at will.

Rousseau, at the commencement of the last century, said that education should be in accordance *with the laws of nature*, and the individuality of man should be respected.

Pestalozzi, that great reformer of his age, carried out a new principle of education—that of "a free and harmonious development of man's being from *within*." He particularly addressed himself to mothers for support; and if we look back to the history of eminent men in this and other countries, we shall find that the bent of the inclination and the extent of knowledge and of intellectual powers would seem to be due to the early teaching and watchful care of the mother. We could fill a page with the names of benefactors of the human race who have confirmed the belief.

All this proves that the early education in most instances makes the man or woman; and considering how important a thing it is to us in the present time of competition amongst nations to improve our artistic skill, it is most desirable that we should begin to consider that a feeling and knowledge of the principles of beauty and art are as necessary as the A B C's and the Multiplication Table, and should be applied as easily.

Feeling strongly on this subject, it is pleasant to know that F. Froëbel, a disciple of Pestalozzi, has introduced a system of education which seems to us to open out a path for great progress. The main desire in Froëbel's plan seems to be to carry out the idea that the fundamental principle of education "is the free, full, and harmonious development of all the faculties of the human being,—not by *pretending* to implant *something better in the children*, but by *educating every power* which a beneficent Creator has bestowed upon them."

The principle of discipline employed enables the teacher to avoid corporeal punishment. This is important; but it is, however, more particularly to this system of education, as applied to the arts, that we would now direct attention. Let us, therefore, get some materials together to show the working of the method.

The first things required are little children. Here then we have the young responsible being. We have, also, clay, wood, and other materials at hand, which can be used to educate them, but require science and philosophy to mould the matters supplied by nature to educational purposes. There is a principle of harmony in all; and it is the first effort of Froëbel's system to encourage and bring it forward. Without, however, dealing more with theory, let us communicate the knowledge which we have gathered by a visit to a school which has been established on this plan at 32, Tavistock-place, by the exertions of Johannes Ronge, a gentleman who has distinguished himself in the cause of education and liberty in Germany.

At the age of two years, and even younger, the children are admitted to the "*Kinder Garten*" (children's garden), and are presented with their first school gift. This consists of several tiny balls, each one forming a portion of the colour of the rainbow. The balls are neatly covered with worsted. The young child has thus put at the command of its hand and before its eyes a harmony of colours—representatives of the *harmony which slumbers in his soul*.

The spherical form of the ball is not without its use, for this, like the colours, is a harmony: the heavenly bodies are of this shape, so are the drops of rain and the sparkling dew: it is the most perfect of forms. The ball also calls forth the physical faculty of the child: when he throws it, the sight, the ear, muscles, and will are called into action.

The second gift comprises a roller, a cylinder, and cube. In these simple figures may be found the shapes of all objects in creation: the child does not know this, and yet he feels it. To help those who are more advanced to comprehend this principle, strings are fastened to the cubes, and moved so that the rotation shows the circle and cylinder within the cube, and also the cube and circle within the cylinder. This gift teaches the scholar the variety of forms, and he has acquired a certain amount of education when he can recognise the cube, the circle, and the cylinder.

Then comes the third gift. A very infant will lisp, "Give me something to do;" and it is certain that if the natural energies are not occupied in a right direction, they will, in nine cases out of ten, take an opposite course. The child will either create or destroy; and nothing can have a greater effect in promoting the latter faculty than the toys which are generally put into the hands of the young. A doll for little girls; the dress handsome, and not intended to be taken off: this is the ultimatum: nothing is left to improve upon: in consequence, the destruction soon follows. A hundred other toys are also finished to the children's hands, and meet with the same fate, causing more damage to the moral qualities of the children than the value of the playthings.

The feeling for investigation which is natural to us all to a certain extent, leads to the demolition of the toys. The child wishes to know what is in the inside of the monstrosities which squeal and mew and are supposed to represent a dog or pussy-cat.

The natural curiosity of the infant is, to a certain extent, gratified when he comes into possession of the third gift, by finding the cube—the form of which he has already become acquainted with—divided into eight parts: he has thus partially seen the inside of it, and finds, also, that it multiplies the means of enjoyment. He sets four of them together, and declares that they make a capital table. "Why, it is exactly like my old cube in shape, but smaller: however, it is like a table: I wonder if I can make a chair," and so on. "One, two, three, four, form the table; one, two, three, form the chair (fig. 1), &c.: I have made two tables, and have only two more cubes left; I must make the seats without backs (fig. 2). We need not go further into details, for all must know how the child or children will build, and plan, and invent with these forms: see the annexed examples (fig. 3): he builds a cross (fig. 4), one, two, three—the foundation; *one, two*—he finds a centre, and yet they fall—his last remaining cube consolidates the structure. The child has by the knowledge of this fact acquired an important part of both artistic and moral education.

The fourth gift, the oblong cube (fig. 5), also divided, adds to the stock of materials, with which he soon delights to build, or arrange in geometrical forms (fig. 6). He makes houses and bridges, and it is curious to watch the varied talent of a number of children: one says, "I will build a church:" he is active at the commencement, but tires, and another completes it.

It has been considered best, in the child-gardens, to arrange three classes of six each in one room. In the first instance, every scholar is encouraged to bring out his own ideas, and then is gently helped. The members of each class join in competition; and at intervals the three classes assemble together, and design geometrical forms, and build, by their joint exertions and materials, towns and villages, with churches, bridges, and accessories.

The fifth gift is the cube still more minutely divided. The pupil has now twenty-seven cubes in one box, eighteen of which are again divided (fig. 7). The triangle, that valuable form in art, is now added to the stock, which is still further increased by the sixth gift. He sees that all the varied forms of fig. 8 are but portions of his original cube, and that by them he can produce designs which not only convey pleasure to himself, but also to others (figs. 9 and 10).

This part of Froëbel's system of education is varied in many ways. To the very young two thin sticks are given, and something like the following dialogue takes place:—"See what I

FROËBEL'S SYSTEM OF TEACHING CHILDREN.

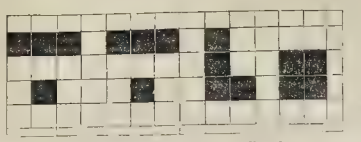


Fig. 2. Fig. 1.

Fig. 7.

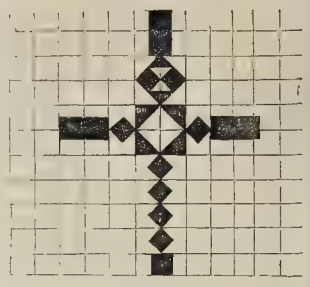


Fig. 10.

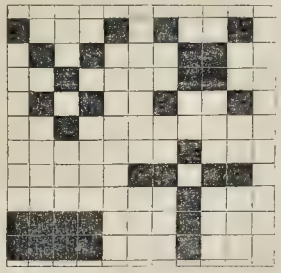


Fig. 3.

Fig. 8.

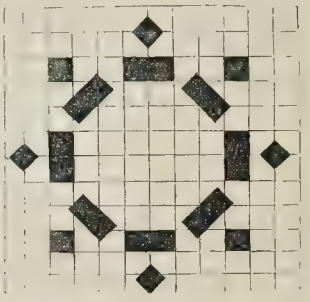


Fig. 9.

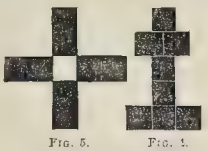
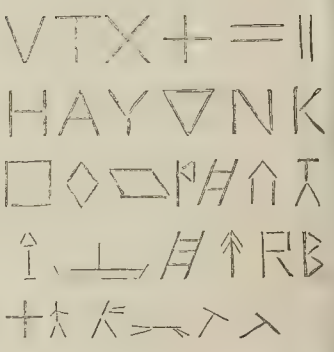


Fig. 5. Fig. 4.



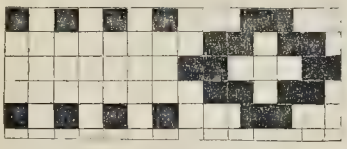


Fig. 6.

Fig. 12.

Fig. 11.

have made with two sticks." "Why, it is like a V," says one of the most learned. "I have made a table," says another. "It is like a T also," says the child of letters. "I have made a cross, see" (fig. 11); "I have made another cross." "One of them is like an X," says a little literary friend; and it is curious to watch at what an early time and how strongly the peculiar bent of the inclination shows itself.

Three sticks are brought into requisition, then four, five, and more; then houses, ladders, staircases. "I have made an axe," says one boy; others, a tree, ship, spades; one, however, with much self-complacency, says, "See here that cross boy George ran away when he was told to be quiet; but he fell down and upset the table. Here he is." The chief artist of the class, however, defies competition by his representation of "The Bird drinking from the Fountain in the Garden" (fig. 11).

Another sort of play, but which also has at the same time its philosophy, is carried out by each child being provided with a number of thin pieces of wood, which he is instructed to cut in equal lengths: he has also given to him a quantity of steeped peas. The pieces of wood are then stuck into the peas, and cubes, angles, and many forms, both complicated and beautiful, are formed by this process (fig. 12).

Squared paper is also used, which tends to develop skill in both design and colour.

"Play is the labour of the child." Froëbel has therefore invented numerous games and amusements. One of these is paper-plaiting. It will be observed, that the difference between the articles used in the infant-garden and the toys which are commonly given to children, is that the former, as we have already observed, are of finished materials, offered to the child to look at or be used in a given form, in imitation of the ideas of others. Froëbel supplies the children with materials with which they can produce an unlimited number of forms.

For the purpose of plaiting, paper of various colours is cut not quite to the sides, in equal divisions, and which are crossed by pieces of paper of corresponding width, of different colours; the child proceeding in the following manner:—The mat or paper, cut as already mentioned, is laid straight before the child on the table, and a slip of the paper put into the slit at the end of a wooden needle, which is passed through the cut mat, and the slip of paper drawn after it. The pupil may either have patterns to copy, or he may be left to design for himself. When the mat is so far finished, the whole of the slips are carefully arranged in their proper places, and the sides of the mat gummed or pasted on them, to keep them from moving: the whole mat is then gummed to a piece of plain paper, and, if necessary, varnished; and when dry it will be fit to exhibit. Besides mats for vases and figures, letter-racks, pocket-books, and various articles may be made out of these simple pieces of paper. It is a pleasant sight to see children of from three to four years old engaged on this work: one has got a blue ground, and chooses the most violent contrast of red to cross against it: another with a nicer sense of harmony, chooses a less harsh tint,—and some seem to have so little idea of the opposition of colours, that they choose a tint which can be barely discerned from the back-ground. Some are so apt and patient, that row after row is finished with neatness and despatch, while others tear the papers, and are less steady at their work—all have not the same gifts, but it is evident that to those who have the least eye for colour the practice of thus playing with various hues, aided by the example of others, must be a great means of improving the natural talents.

Not only are those faculties which tend to the practice of the arts, mathematics, and mechanics, the perceptions of form, figure, beauty, harmony of colour, manual dexterity order, and perseverance, fundamentally taught

by this system, but also the harmony of sounds, for many of the games with cubes, balls, rollers, &c. are accompanied with songs, which awaken the intellect, exercise the voice, and give a taste for the harmony of sounds, which are so fitting in company, with harmony of form and colour.

The multiplication table and the simple rules of arithmetic, are taught by means of the cubes: they carry the numbers in their little hands, and soon acquire a fixed knowledge of the value of figures; thus,—

Twice □ cube are □ □ cubes.

Twice □ □ cubes are □ □ □ □ cubes.

Nor has Froëbel in his system for the infant-gardens, neglected the development of the eyes, ears, and muscles, and for this purpose gymnastics and other games are brought into requisition.

Many of the little songs are of great beauty. In some of these games the motions of the husbandman, and the working in various trades, are simulated in the songs. The children are also provided with leaping-poles, swings, &c. &c.

It is satisfactory to know that the system of Pestalozzi is extending in practice, particularly in those schools in which the strength of our industry is raised. In the Home and Colonial Schools in the Gray's Inn-lane, from eighty to 100 young women are constantly in the course of education for schoolmistresses, and from this place 200 and upwards of skilful teachers, who have passed the examination of the Government inspectors, and been provided with proper diplomas, yearly start forth to various parts of the country and colonies to spread the blessings of education amongst the multitude.

In this school there are from 300 to 400 children of different ages, who, whilst obtaining a good education themselves, are the means also of perfecting the teachers, who are themselves arranged in classes, presided over by professors of distinguished ability. In this school the children, to a great extent, are taught not so much from books as from the objects themselves, and models.

Here is a museum of minerals,—of the cotton plant, the various stages of its manufacture,—models or drawings of the machinery used in the working of the raw into the manufactured material.

There are the horns, skulls, skins, and skeletons of animals, plants, seeds, roots, &c. &c. In fact, practical knowledge is here taught in such a manner that we believe many a child of six years old, educated at this school, will puzzle some of the elders who have been brought up in the old methods, and who shake their heads, and say they "do not know what things are coming to."

It is an important fact that the *useful knowledge* materially helps the acquirement of figures and the higher branches of education, and nothing which we remember to have seen for years has given us more satisfaction than a careful visit to this institution, in which we knew not whether most to admire the system and order which prevails, or the intelligence of the teachers, or the scholars.

In the infant classes, models of furniture and articles of domestic use, &c. are employed, as a means of education, but for the purpose of paving the way to a knowledge of art Froëbel's system might, for the infants, with great advantage, be introduced in all its integrity. It is true that art-education is not overlooked in the Home and Colonial, and some of the other schools of similar kind in London, but it is not made of sufficient importance. In the national schools, which are doing so much good in all directions, drawing is now, fortunately, not altogether neglected. A lesson is usually given twice a week, the master employing a black board, and the pupils following him on their slates. This, although an improvement upon the old plan, is, for any substantial purpose, totally inadequate. Why not have a lesson on art every morning and afternoon, and let it be done in earnest, and not treated as a piece of education tagged on as a useless ornament? Only let this be done with energy and judgment and we venture to predict that many millions of sterling value will be added in a few years to the art manufactures of the country.

That the germ of art slumbers amongst our population has been shown to us in many instances. One of the most striking is the following:—

In the wild lead-mining district of Alston, the miners consist of an honest, industrious, and intelligent body of men. Until lately, however, not much care was taken for education amongst them. Mr. Sopwith, a gentleman well known for his ability and anxiety to improve those by whom he is surrounded, was appointed to the management of this important neighbourhood, and found only a school of the old fashion, and which was quite inadequate. He went vigorously to work to reform this evil, and in the new school made the practice and knowledge of drawing an important consideration. In a short time this produced visible effects, and we saw not long ago specimens of the work of the children of the rough miners, consisting of outline and shadow heads after Michelangelo and Raffaelle, flowers copied from nature, and views. These children commenced by drawing the simple geometrical forms on a large scale, without instruments, and it would surprise the practised artist more than others to note the wonderful firmness of hand shown in the latter copies, and the skill and taste of the more finished works. Who knows but that from this school amongst the moors of Alston, some artists may rise up who may do credit to our school of painting. At any rate, the knowledge thus acquired will not make the boys less intelligent as miners, or the girls less useful as wives or mothers.

THE RECENT HISTORY OF ARCHITECTURE.*

WORKS OF HENRY HOLLAND, JAMES WYATT, AND OTHERS.

DURING the period to which we have referred, such study of Gothic architecture as there was, was almost confined to the style of the ecclesiastical buildings. Just as it was a popular axiom that there was one general style called "Grecian," which consisted in the application of "the five orders," so it was held that there was another called "Gothic," which was expressed by pointed arches. With that the ordinary public were *au bout de leur Latin*. We must not complain too much of the architects. To have suggested that a building might be very good in art, and correct in style, and yet have none of the usual landmarks, would have been for the architect to raise a question as to his knowledge of his art and his business. We fear the architect has still the same kind of difficulty, albeit modified in degree, or in kind; for it is quite true that an ill-educated public makes bad architects. Ignorance ever believeth itself to be very wise. Therefore, it was that the country gentleman built for himself a "castle," or an "abbey," or at least a pointed—arched, and buttressed structure, which to him seemed the kind of residence that must have been common in the middle ages. "The house at Lee," said Walpole, "which was but indifferent before, has been, by the skill and art of Mr. Wyatt, admirably improved in the disposition of the apartments. Amongst them is a very beautiful library, finished in the most perfect style of Gothic taste. The three fronts of the house convey the idea of a small convent, never attempted to be demolished, but partly modernized, and adapted to the habitation of a gentleman's family; and the gently spreading trees, and the adjoining rivulet, seem to correspond with it, and to form a site selected by monks, with a view to retirement and meditation; while at the same time, no distant prospects tantalized them with views of opulence and busy society." Such, as a specimen of amateur criticism by the great potentate in what was called art, is enough to make us forswear again looking for information at any similar source. Brayley, however, supplies some particulars, which will assist in forming an opinion of the taste of the day. He says, "A small spire crowns the dome of the library, which as Lord Orford has intimated, is fitted up with the greatest elegance; and though an eye critically versed in the *minutiæ* of our ancient architecture, may discover some anomalies in the ornaments, when considered in reference to the pure style of any particular era, yet the effect of the whole is extremely beautiful; and the mind dwells with admiration on the fine example of good workmanship and exalted taste which this structure exhibits. The general plan is an ellipsis, formed into eight compartments by clustered shafts: from these springs the tracery of the dome, the centre of which admits the light that falls upon it from the windows in the spire above, and is mellowed by passing through a medium of stained and semi-transparent glass. In a recess at the east end is a kind of altar-table, over which are paintings of eight small whole-lengths by Mr. John Carter," "in niches, with various beautiful minute figures above, of angels playing on different musical instruments." "The entrance to the library gives the idea of a small oratory or chantry chapel." The *Strawberry Closet* was "a small room, very elegantly fitted up in the Gothic taste, with a ceiling of rich tracery." The point to observe herein, is, that with all the errors in detail, and the more serious misconception as to the purpose of *art*, there was some result not wholly contemptible: whilst the present system is to vilify and shut out, totally, all that was done under such circumstances;—though a generous, as well as an enlightened spirit, would not deny at least the possibility, of reaping advantage from recent examples, as well as from those which are old. To the state of taste referred to are due such mansions as Eaton Hall, near Chester, the residence of the Marquis of Westminster, by Porden, and which, whilst it is a good instance of the kind of mistake that was made, it must be allowed is in parts, by no means without merit. The imitation of the Chester Chapter House in one portion of the building, may be mentioned as serving to exemplify the effect which was in some measure obtained, and yet the mistaken conception in this class of works generally. We are not sure whether the earlier, as well as the later building at Fonthill, is to be credited to James Wyatt; but however defective his work might be, the interior must have been impressive even to a modern purist in Gothic. "Old Fonthill," said the author of "Vathek," "had a very ample lofty echoing hall,—one of the largest in the kingdom. Numerous doors led from it into different parts of the house, through dim winding passages. It was from that I introduced the hall [of Eblis, in Vathek]—the idea of the hall of Eblis being generated by my own. My imagination magnified and coloured it with the eastern character." Our quotation is from the *New Monthly Magazine* for June, 1844, where are some interesting personal "recollections" of that singular character, the owner of Fonthill, contributed, we believe, by Mr. Cyrus Redding. On Beckford's return from Portugal, he embellished the house at Fonthill; but in 1801 he sold its contents by auction, preparatory to the erection of a new building, and the formation of another collection of works of art. The grand feature of the new building was a hall or octagon, spanned by lofty arches springing from massive clustered piers, and giving an effect which might be compared with that of the central space of the cathedrals. This octagon was crowned by a tower, rising to the height of 260 or 270 feet, and from which there was a view described in one of the few popular periodicals of the time now before us, as "of vast extent, including many counties in its circumference." The interior was fitted up with extraordinary splendour. Throughout, however, the idea of imitating or representing relics of former art, and almost, as we may say, *incidents of history*, is remarkable. An "oratory" was indispensable.

* See p. 446, *ante*.

The "solemn gloom" of this was approached by doors hung with crimson curtains; the fan-groining of the roof was entirely gilt; from the centre hung an elaborately chased golden lamp; the altar had a statue of St. Anthony, in alabaster, by Rossi, and massive candelabra of silver gilt. The account says that no description can convey an idea of the effect of "this solemn recess," or of "the awful sensations" it inspired. Yet, if we understand rightly, all this may have involved, from the manner in which the effect was attained, a great mistake in point of *art*. In 1822, not long after the completion of this splendid house, and after its proprietor had spent about 270,000*l.* upon it in sixteen or seventeen years, he sold it for 350,000*l.* and soon after this, the great tower, which seems to have been hastily and slightly constructed, fell to the ground. Wyatt's works in Gothic architecture, belonged to that class where what was stone is reproduced in cement, or is constructed in wood, painted and sanded; and in the cathedrals which suffered under his hands, many are the maledictions which now are hurled at the restless ghost of James Wyatt. To him the profession mainly owes the suspicion with which they have had to contend in the case of works of restoration, from that day to this. During the period of the war, however, the study of Gothic architecture was growing. John Carter's drawings of cathedrals and other edifices were published by the Society of Antiquaries, at intervals from 1795 to 1813. Mr. Britton commenced his "Architectural Antiquities" in 1805. Eaton Hall was in progress from 1803, we believe, up to 1825. Ashridge House was commenced in 1803; the works after 1813, up to 1820, being under Sir Jeffrey Wyatville. The list might be continued with the works by Sir Robert Smirke, Mr. T. Hopper, Messrs. Nash, Repton, Blore, and others, and with those at Windsor Castle, Alton Towers, and Abbotsford,—down to the house at Toddington, in 1819, which has been fully illustrated by Mr. Britton, whose work may be referred to with advantage for further particulars as to this period. The last-mentioned building, and Cossey Hall, Norfolk, by Mr. J. C. Buckler, are far superior to most of those we have mentioned. Toddington, the residence of Charles Hanbury Tracey, esq. afterwards Lord Sudeley, is said to be designed by the owner. There is still much of ecclesiastical character in certain parts; but the style, which somewhat resembles that of the Houses of Parliament, is not a slavish representation of any kind of Gothic. The plan is that of a modern house. There is a grand tower in the centre. The details are very elaborate, and show great progress in the knowledge of principles; but internally, modern furniture in some of the rooms seems slightly inconsistent. Cossey, or Costessey Hall, of which there is a good model at the Institute of British Architects, is a very extensive building, in the red brick Tudor style, and is, perhaps, still one of the best specimens of domestic Gothic architecture in the kingdom. Credit for great part of the design has been given to Lady Stafford. We are, however, anticipating dates. But we should have mentioned a few other works of the class referred to, and of varying degrees of merit. Ravensworth Castle, in the "castellated Gothic" style, was commenced in 1808. The original drawings were by Nash, but the works carried out are said to have been designed by the Hon. T. Liddell, a son of Lord Ravensworth. Lowther Castle, Cumberland, by Sir Robert Smirke, was commenced in 1808. It has a hall 60 feet by 30 feet, and a staircase, 60 feet square, and 90 feet in height. This building, therefore, as well as Eastnor Castle, Herefordshire, by the same architect, may show the effect which was aimed at, and to which we referred above as worthy of consideration in any comparison of the styles of different dates; but the result in these particular cases, Mr. Britton says, fails to satisfy. Other important works of the class were those carried out at Corsham House, by Nash, or his pupil, Mr. J. A. Repton. Mr. Britton's Illustrations of Cashiobury will supply information as to what was done there by Wyatt. The taste of the Lord Shrewsbury, of 1814, at Alton Towers, seems to have been illustrative of the mistakes which could be committed. An imitation of Stonehenge, a tower down in a hollow, and a Gothic bridge over no water, are quoted as amongst the absurdities perpetrated in spite of architects, and in contempt of art, and which the late Welby Pugin had some trouble in undoing. Penrhyn Castle, near Beaumarris, if we may speak from recollection, realises some considerable effect as a work of castellated character,—a great contrast to Downton Castle, Herefordshire, the residence of the celebrated writer on Taste, Mr. R. Payne Knight, or Grwch Castle, near Abergeley, Wales (perhaps later in date), at the foot of a hill, both buildings mere card-board-like imitations of fortresses. The work of Sir Jeffrey Wyatville, at Windsor, at length, and itself alone, showed to some extent of what the castellated Gothic style could be made capable. During this time, as it will not be forgotten, the influence of the Greek models, was progressing. Covent Garden Theatre was completed in 1809, by Sir Robert Smirke, and at the same date, we find one of the chief works of Harrison, of Chester, the Exchange at Manchester, lately remodelled. Aikin's Essay on the Doric order, an important book at one time, was published in 1810.

We are reminded by the name of a writer above mentioned, that our subject would hardly be complete without a reference, however slight, to the discussion which was carried on towards the commencement of the present century, on the principles of taste. The exemplification of the different theories was made through the medium of landscape-gardening; Sir Uvedale Price and Payne Knight advocating the rugged and irregular, both for houses and grounds,—of which theory the latter gave an unfortunate practical illustration in his house at Downton; whilst the professional gardener Repton argued for smoothness, neatness, and simplicity as the accessories to a mansion. Each of these authorities published treatises, to which might be added those of the Rev W. Gilpin and many others, which along with the French opinions to which we alluded on the subject of the ideal, might be very important to us in an estimate of the true object of art, and the relation of art and nature. So far, we see no reason to doubt that the proper force of architecture is effected through *contrast* with the beauty of nature: we believe also that the efforts of the picturesque school of landscape-gardening are generally unsuccessful. The whole accessories of the foreground of a house have a chief place in the effect: the architect should therefore be entrusted with them, and must be qualified accordingly. The villas and suburban palaces of Italy depend very greatly for their effect upon the intimate union, and yet the contrast of the objects of nature and art, and the same considerations were not neglected in the English Elizabethan buildings. The palace of St. Cloud seems to owe what effect it has mainly to the treatment of accessories such as we refer to. Those who would know what can result at home, from the course we have recommended, should see the grand effect of the house at Chatsworth, to which, amongst the other additions to the work of Talman, Sir Jeffrey Wyatville added a noble terrace, and "architectural garden."

With reference to the attempts in Gothic architecture, it was, as we have said, long, before principles of detail, such as now appear simple, were understood. Meanwhile, many churches had to be built. In these the Palladian, the Greek, or the Gothic was adopted, with no particular preference that we can discover for either style. In general works which we shall have to notice, as erected after the end of the war in 1815, the same contradiction of styles is continued in the works of Soane, Nash, Smirke, and others. The first of these, indeed, seems to have adopted the Gothic style in but few instances, and then in deference to the dictation of employers.

After 1809, the date of Covent Garden Theatre, the number of porticoes in London largely increased,—and it may be interesting to contrast the use which was made of the Greek models in England with that made by the German architects, as Schinkel and Klenze, whose career towards 1810 was about to commence. One acquisition which resulted from the war was that of the Rosetta stone. Contributing in a most important degree to the knowledge of hieroglyphics, the study led to those occasional experiments in Egyptian architecture which were not more successful here than in France.

We humbly confess that whilst we give facts and suggestions which may be useful in comprehending the curious position in which our art is now placed, we require all the assistance of our thoughtful readers, in arriving at conclusions from the premises; and the difficulty of even a clear reflection of *facts* was never greater than in the period of the different fashions which we find during the course of the professional career of Nash and his contemporaries, but which peculiar conjuncture of taste appertains to the admired architecture of Munich, as to the less-appreciated works of London.

THE CHEMISTRY OF BUILDING MATERIALS.*

THE word "silicious," which gives its title to a large class of bodies, is derived from the Latin word "*silex*," meaning flint, and from its genitive *silicis*, we have *silicious*, the purport being, that all stones so termed have in them about half of their weight of the same substance as ordinary flint, which, when pure, is named Silica. Sandstones are practically nothing but silica. Some rocks, such as serpentine, have not more than about 42 per cent. of silica; but, on the whole, the silicious building stones contain from 50 to 98 per cent. of silica, and those which are in use in this country, namely, sandstone with 98, and granite with 74·84, consist more of silica than of anything else. What the old Romans called *silex*, the modern chemist thus calls silica and also silicic acid, for, though it is not sour to the taste, it has the powers and properties of an acid. The chemist prepares it in the state of an exceedingly fine white powder, and in that condition it does not dissolve in water or melt by ordinary heat, and is not affected by any of the common acids: it is, in fact, one of the most enduring and least alterable substances known to us. Yet we can procure it in a soft, pulpy, and gelatinous form, in which you could not tell it from ordinary boiled starch in the condition in which the laundress uses it; and we find that, artificially, we can crystallize it. In nature we obtain it in the form of regular geometrical figures, having always either the same shape or shapes, limited within a certain series. In crystals it always holds that the smaller are the most perfect. They will be seen to be shapes which represent what crystallographers term a six-sided prism; in other words, a column of any length which has six faces, the top of each column or crystal showing a hexagonal plane exactly like the top of the six-sided honeycomb cell of the bee. Such six-sided prisms may exist entire, but are very rare, as the majority of silicious crystalline forms have shot up out of the rock, which is their matrix, and are embedded at one extremity in it. The large crystals are especially irregular.

The substance, then, termed flint, silex, silica, silicic acid, or rock crystal, is the main constituent of the building stones about to be noticed, and in fact, is the main constituent of the great masses of rocks occurring over the surface of the globe. There are just two great masses of mineral matter forming rocks, the one lime, the other silica, and it is to the silicious descriptions of rock we are now to look.

Granite derives its name from the Latin word *granum*, a grain, so that the word literally means grainstone—in other words, a granular rock, a rock made up of separate grains, sufficiently large and unlike each other to be distinguished by the naked eye. The smaller grained granites, those where the crystals are the smallest, illustrate best the granular character of the stone, especially if we look at it on the unpolished side. Such a granite as the Peterhead illustrates the point well, though perhaps the grains are rather larger than in the majority of granites used for building purposes. Now the grains making up granite are always crystalline; that is to say, they are not rounded in form, but, like the crystals which I referred to previously, they have planes or flat spaces,

* See pp. 435 and 447, *ante*

and sharply defined angles or corners. In those granites where the particles are small, these grains appear embedded or wedged together like so many paving stones in the street. They appear as if they had been all crushed or wedged, or rammed together, so as to fit tightly, and do not permit one readily to see what the particular configuration of each single grain is. But in favourable circumstances, we see granite permit each one of its constituents to lose this irregular and squeezed condition, and to shoot up into separate crystals, each crystal projecting from the under mass, as church spires or obelisks do from the general outline of a city, and being unlike the others in shape, colour, and size.

These constituents are each of importance in reference to the durability and beauty of granite as a building stone.

The first is quartz, rock crystal, or silica. To illustrate this constituent of granite rocks, large crystals like Cairngorm were exhibited, some of them many feet in length, and from a single one of which, it was said, as much as 400*l.* worth of jewellery had been cut in Edinburgh. These crystals, continued the lecturer, are one of the three components of granite, which, instead of remaining wedged in among the others, has shot up in separate spires or distinct crystalline columns.

In regard to colour, rock crystal or silica may be termed colourless. The very word "rock crystal" is intended to signify something occurring in rocks as colourless as the purest glass; and large quantities of silica are found native, totally devoid of any tint. It is often also grey, or yellow, or amber, as in our most prized Cairngorms, also dark brown and black, and purple and blue as in the amethyst. So far as shape is concerned, it is in the six-sided column already referred to. As for size, we may have it from minute grains up to crystals some feet in length.

This quartz is one of the silicious components of granite, but silica occurs again in the other two crystalline bodies making up the mass.

The second of these bodies is named *mica*, from the Latin word to shine—this substance having a glistening appearance. Though it may appear brown or nearly black by reflected light, it is transparent, and in large pieces used to be employed instead of glass for the panes of windows. It is still employed in India and in Russia for the windows of stables and for lanterns, being less easily broken than glass. At the edges it spontaneously splits into a number of films or layers like so many thin sheets of paper; and we find that this characteristic of mica gives a peculiar character to the sandstone derived from granite, or other rocks containing this body. The mica is that constituent, in the granite, which occasions the black spots appearing through it. In every specimen of granite, whatever be its prevailing character, these black spots occur, and it is they which mainly produce the mottled or granular appearance, and enable the eye to detect readily the want of homogeneous structure. Occasionally the dark spots are owing to dark quartz, but not generally.

The third constituent of granite is called felspar, from a German word literally signifying field-spar. It is a shining opaque spar. Its colour varies. It is sometimes white; more frequently of a flesh, or grey, or cream colour, and occasionally of deep red. Specimens of Labrador felspar show a very beautiful iridescent appearance, or a peculiar play of colours like the wings of a pigeon, or the feathers of a peacock. This felspar is a very abundant mineral, and forms a large part of all granite as well as of other rocks.

Granite, then, is a granular rock or grainstone, with three kinds of crystalline grains, one set being of silica or rock crystal, which are often perfectly colourless like glass, the second set being of shining glistening mica, and the third set being grains of felspar, glassy-like, but opaque, and generally whitish or flesh-coloured, so as to resemble a glassy marble.

Now as to the relative significance to builders of these bodies, which of the three is the most important in reference to the qualities of granite as a building stone? Without doubt, the most important is the felspar. In the first place, it mainly determines the colours of the granites, which are of various tints, some having a grey colour, approaching to white, many having a duskier or darker grey, some having a very deep grey, many with a brownish or buff colour, some of a bluish or flesh colour. The well-known Peterhead granite is of a deep flesh colour; and in the Oriental granites we have a full red colour. Now the colour of granite is mainly determined by the felspar, and next by the mica, which, if very dark, comes to affect the shade of the felspar. But of more importance than as affecting the colour, is the relation of the felspar to the durability of the stone. The condition of the felspar mainly determines whether the granite shall maintain its proverbial character of being the most lasting of stones, or whether it shall be one of those which most easily give way. Felspar is always the first ingredient in granite to yield, if the granite undergoes marked disintegration or decay. As already mentioned, felspar contains two alkalis, potash and soda. These are soluble in rain water, and many specimens of felspar, though when one looks on them they seem to form a solid, enduring, stony mass, very rapidly give way when exposed to the air, and come, indeed, by so crumbling, to be the source of a substance of great value, namely, the fine clay used in the making of porcelain. But, of course, to convert building stones into porcelain clay, however valuable that may be, is not what the architect desires to accomplish. Accordingly, in selecting granites, one needs to be very careful in watching the condition of the felspar; for the more glossy and brilliant it appears, and the less earthy its appearance, the more enduring is it likely to be. It is not desirable, moreover, in selecting a granite for building purposes, where one knows nothing of its history and of its trial in actual buildings, to select one where the quantity of felspar is very large. The Scottish granites are proverbially lasting, and no one of them is very rich in large crystals of felspar. The Cornish granites, on the other hand, have large crystals of felspar in them, and that felspar has not a glassy, but an earthy look; and many of them may be made in a few weeks or months to crumble into a white mass, and then permit the mica and quartz to separate from the felspar, and thus the whole undergoes complete destruction. Occasionally, however, granites are found with large crystals of all the three kinds. In some instances we have a perfect granite on a large scale—everything big; but where the mica and quartz are small, and the felspar crystals are large, and are at the same time rough or soft, then the granite is suspicious, and is to be distrusted.

The least important of the constituents, in a building point of view, is the mica. It is the least abundant constituent of granite. It does not readily decay, though it will split into scales if long acted upon; but it is not readily affected by rain or wind, and is not soluble in water.

The quartz or silica may be put in the middle, between the mica and the felspar, as an index to the building value of the granite. It is the hardest constituent, and is that which makes it difficult to hew. It should always, however, be abundant; for if granite be troublesome to cut, it compensates for that by its lastingness. The value of this lastingness is to a great extent to be measured by the difficulty in polishing, hewing, or otherwise fashioning the stone.

So far as regards the localities of granite in this country, I need scarcely mention them further than to say, that the Grampians consist largely of granite; that in Cumberland, Devonshire, and Cornwall, we have it abundantly; and that in Ireland it is found in large quantity in the county of Wicklow. For paving purposes—a use to which it is not much applied in Scotland, where it is generally objected to on the score of its becoming slippery, though in London, Liverpool, and elsewhere, it is largely used in that way—the Cornish or Devonshire granites, which are not so hard as the Scotch granites, are held to be better, as you do not require for paving the most enduring granite, nor is there any architectural beauty to sacrifice in the choice of a paving stone. It is not like the case of a splendid erection, in which the smallest deteriorating influence is something to be lamented, and for paving you do not require a very hard stone: indeed, the harder granites certainly become too slippery. For building purposes, with the partial exception of the Dartmoor granite, the grey Aberdeen granite, and the red Peterhead granite, stand above all others in this country. A special value attaches to the granite of Mount Edgecumbe, Cornwall, which has felspar, with nearly as deep a red as in the Oriental granite, and for its beauty it is now selected for a few purposes; but it is not largely used, so far as I know, anywhere.

There is a kind of granite called Syenite, which I merely name. It may be called a large grained granite. It receives its name from a district in Upper Egypt, where large quantities of it occur. Some of the most beautiful Egyptian statues are cut out of it. Syenite does not differ markedly from granite in constitution, except that it has no mica in its chemical constitution, but another mineral like it, which is called "hornblende."

It will be observed, that in mica there is a very large amount of silica, as well as in felspar, so that if we were to put down the silica separately, in each of the crystalline components, it would occur three times over.

Alumina, the next important component of granite, is what has been mentioned as clay earth. It occurs almost entirely in the felspar; oxide of iron also occurring sometimes in small quantity in the darker rock crystals, and giving them a tint. To mica it gives its brown tint, and to felspar its flesh or red colour. Lime, magnesia, and potash, occur alike in the felspar and the mica, but not in the quartz.

I now pass from granite to other silicious building stones—and first of the sandstones. They are for us by far the most important of silicious stones. They are, in a chemical point of view, most interesting, as they contain the largest amount of silica of any stones. They are geologically derived from other rocks, as, for example, granite; and their characters vary according to the rocks they are derived from. I do not propose to trace minutely their derivation. That must be left to the teacher of geology. I will notice, however, that as silica is the most abundant constituent of all rocky masses, and as it is a body very little alterable, it may separate from any one of these rocks, and come ultimately to form a sandstone. Putting aside limestones and calcareous rocks, the characteristic ingredients of which are lime or magnesia, or both, you will find that the trap-rocks, basalts, greenstones, the whole of our slates, syenite, gneiss, serpentine, and many others, contain more of silica than of anything else. They are all liable to be worn down to powder by the action of rain, wind, and water, and the silica thus worn out of them is not a thing alterable in itself, and may be deposited and reformed into a stone. Sandstone may thus be derived from a great number of rocks, unlike in kind, and the qualities of the sandstone will correspondingly vary. If we take, for example, whinstone, a name we apply to what geologists term greenstone, we shall find that a very large portion of that stone is silica, as we have seen that a still larger portion of granite is silica. Now, if whinstone be reduced to fine powder by the action of the water of rivers, or of the currents or tides of seas, we may ultimately have the silica separated from the other components of the stone, and converted into a solid mass of sandstone. Sandstones so produced are to be found all the world over, differing in character according to their derivation from one kind of rock or from another. If I were to reduce one of the granites or whinstones to fine powder, and then throw the powder into a large vessel containing water, stir it there rapidly, allow it to stand, and in a short while pour off the water, and along with it the finer powder, I should be able in this way to separate the lighter from the heavier particles, and ultimately I should find left the heaviest portion, namely, the silica or sand, as a sediment at the bottom, which might be dried up into a substance resembling an unconcreted or unconsolidated sandstone. What I do on a small scale, when I stir the powdered rock with water, and then pour off the water, rivers and seas have been doing since the beginning to rocks on a very large scale, and in a much more effectual way. Suppose, then, what we can see any day

in our Highland hills, that we have the granite or greenstone undergoing disintegration, whether by the action of the water or the air, and that the fragments are borne down and fall into the bed of the stream. They are carried along, rubbing against each other, and in fact grinding each other, so that all angularity of shape disappears. The separated crystals, for example, as in the case of granite, which once showed a six-sided pyramid or prism, become very soon rounded pebbles; and then the pebbles, rubbing against each other, are ground to still finer powder, and this carried down into lakes or the sea, is ultimately spread out in a stratum on the bottom of the body of water. Still more, the waves dashing on the rocks close to the shore, break down fragments from them, and rub these fragments against each other, and when they are brought back by the tide they are never sharp or angular, but always rounded pebbles, and some of them so round that you would imagine they had been cast in a mould. This rubbing, moreover, reduces much of the fragments made to undergo friction against each other to fine sand, so that there is nothing we so much expect to see along the shores of a lake or river as this sand. Altogether, when we look at the effect of water in wearing down and grinding against each other masses of stone, we find that there are three sets of things encountered in river beds, on the shores of lakes, and on the beaches of seas, namely, *first*, pebbles or gravel, always rounded, however sharp or crystalline they may have been at first; *secondly*, mud, that is to say, a fine soft powder, diffused like boiled starch in water; and *thirdly*, sand in fineness intermediate between the pebbles and the mud, and forming a hard powder. Now each one of these three deposits may become altered in structure, by allowing it simply to remain at rest at the bottom, covered over by successive sediments deposited above it, and ultimately it may become changed by the lapse of time, by pressure, by heat, and by other causes, into a solid mass of stone. The pebbles or gravel, for example, become agglutinated, or cemented, or concreted, by clay, or lime, or iron, or all the three, into a mass we call conglomerate or pudding-stone. Masses formed of mud are baked as clay in the bottom of a lake or sea, and hardened into slates or flag-stones. Further, as the pebbles and the mud may thus concrete into pudding-stones and slates, so the sand may concrete into sandstone. Now, as we have two great classes of original rocks, which are worn down into mud, or pebbles, or sand, there are two classes of derived rocks from them, the one derived from calcareous rocks, and, like them, calcareous, the other derived from silicious rocks, and, like them, silicious. If we go to the sea-shore in some districts, we shall find a shell-sand,—a sand consisting altogether, or nearly altogether, of broken-down shells, and a very fine mud, consisting of ground-down shells; and again, we find that sand or mud cohering together into a solid mass, very like these slates or these paving-stones. But these are never called sandstones. They are all, whatever be their structure or appearance, or real or conceived origin, named limestones; and therefore I say nothing more of them at present. By the word sandstone we understand a body derived from the wearing down of silicious rocks, such as granite or greenstone, and which consist in great part of silica, or of silica alone.

As no sandstone probably has been derived from the mere wearing down of a mass of silica, but all of them from the wearing down of rocks like granite, having other things in them besides silica, we may expect them all more or less to contain foreign matters. Thus most of our sandstones contain some mica. We may see it very fine in some sandstones, giving them glossiness or a shining micacious glistening appearance. These glistening particles, however, are not desirable. They tend, like so many wedges, to split up the stone. They are deposited between one quantity of sand-powder that has been laid down, and another coming above it, and therefore disturb the continuity of the mass. The less mica, then, the better. This mica, moreover, as it contains in itself a portion of lime and of alumina, may transfer these to the sandstone; and when we come to look at the recorded analyses of sandstone, some of them are found to contain sensible quantities of lime and of alumina, which interrupt the solidity, the continuity, and the homogeneousness of the stone, and lessen its building value. Then we may have a fine black matter in these stones. When sand has been carried down a river, on the banks of which plants grow and are blown over into the stream where they float down till they become water-logged and sink, there we very often have vegetable matter interspersed through the stone. These carbonaceous layers are to be found in more or less quantity in many sandstones. All these non-silicious substances interfere with the continuity, solidity, and tenacity of the stone, so that the less of them the better. Not only plants, but also animals, especially shell-fish, are found in the neighbourhood of these sandstones, or actually embedded in them, and from these animal and plant remains, bituminous matters are frequently transferred to the sandstones. If we take a fragment of Binney sandstone and heat it at a candle or lamp, a black fiery matter will be found to ooze out in little globules. This bituminous matter probably does no harm to the stone: I rather suppose, that like varnish, it protects it from the action of the atmosphere: at all events, it is a peculiarity in this stone, and may be connected with the peculiar changes in colour which it undergoes when exposed to the open air.*

* To be continued.

PROVINCIAL NEWS.

Ryde.—The esplanade is making progress towards completion. It is contemplated, we hear, to plant a row of trees upon it when finished.

Winchester.—The new barrack buildings to accommodate the officers of the garrison here, the money for the erection of which was voted in the Ordnance Estimates of the past session of Parliament, are, according to the *Hampshire Advertiser*, to be commenced shortly. The site selected for the building is on the south side of the parade, and on the ground now occupied by the washhouses, armourers' shop and forge, and other offices, which are to be removed to the low ground abutting on the eastern portion of the parade, near the hospital, which is to be removed, and a new one erected, no site for which is yet fixed upon, but several suitable plots of land have been offered to the authorities for the purpose.

Dovelais.—The new school-rooms here, designed by Sir Charles Barry, are in the late Gothic style; but the unity of the design is broken in the smaller side windows, which are probably deviations from the original plan; yet the general effect is said to be good, and to suggest reminiscences of Tintern Abbey. The building consists of seven school-rooms, one for infants, and three each for boys and girls. The whole building is 235 feet long, by 100 feet in the centre, *i.e.* the infant school is 100 feet long, by 35 feet wide, and 50 feet high. The boys' school, south end, is 100 feet long, by 30 feet wide, and 30 feet high; and there are two class-rooms, one 25 feet by 21 feet, and the other 45 feet by 24 feet. The girls' school-rooms, north end, three in number, are of the same dimensions as those of the south end. The infant school has a singing gallery at one end and raised seats at the other. The whole structure is said to have cost about 7,000*l.* The builder was Mr. John Gabe, of Cardiff.

Birmingham.—The tender of Mr. Barnsley for the erection of the new museums at the Queen's College, from the designs of Mr. J. J. Bateman, architect, having been accepted, the work is already commenced. The buildings will comprise three museums, upwards of 40 feet square. The upper museum will be about 40 feet in height, with two tiers of galleries, and lighted from the roof, the ceiling being finished with Gothic spandril ribs, corbels, and pendants, in character with the other portions of the College. The lower museum will be entered from the quadrangle of the College, and be appropriated to anatomy, and will have a gallery round three sides of the room. The two upper museums will be appropriated to engineering models, mineralogy, geology, natural history, &c. The contributions towards the building are, we understand, very inadequate to meet the necessary expenditure; but when was it otherwise with shabby "Brummagem?"

Warrington.—The ceremony of laying the foundation-stone of the Warrington new museum and library took place on Thursday before last.——The new market committee received nineteen tenders for the erection of the market, only one of them from Warrington. There were ten estimates for the erection of the shed and iron-work, and eight for the erection of the building complete. The lowest tender for the iron-work and for the buildings separately, when put together amounted to 5,729*l.* The estimate for the iron-work was 1,400*l.* or 1,000*l.* less than that of Messrs. Fox and Henderson. The highest tender for all complete was 13,000*l.* but was reduced afterwards to 8,750*l.* on account of an error. The lowest tender was 1,000*l.* more than the sum named in the advertisement, but the architect, according to the *Manchester Courier*, is able to give a satisfactory explanation for the difference in his estimate and that of the lowest tender. The iron has advanced in price equal to 175*l.*: the stone selected by the committee is 6d. per foot dearer than that at first agreed upon. Stone pilasters have been substituted for brick ones. The turret for the clocks, through being removed from the west end to the south side, makes an additional expense of 400*l.* These items, if reduced, it is remarked, will bring the cost of the market-house and covered shed to about the amount fixed upon, viz. 5,000*l.* The market committee were to meet again to know what deductions the person that sent in the lowest tender can make, and then a meeting of the council is to be called to decide the question finally.

CAMBRIDGE CONDUIT.

The corporation of Cambridge having enlarged the market-place of that city, it was resolved to take down the old conduit, which, by the enlargement, has been left in the south-east angle of the square. Accordingly, in April last, architects were invited to compete for the erection of a new conduit, as our readers have already heard, and the design of Mr. G. M. Hills, of London having been selected, a contract has been entered into for the execution of the work. The structure consists of a base of two steps, on which is placed a basin: in the centre of this rises a fountain, from which the water will flow in four streams into the lower basin, and thence escape by eight spouts either into the vessels of the inhabitants who use the water, or as waste into a flushing tank which has been constructed for the cleansing of the sewers. The basin and fountain are covered by a square canopy, carried on four piers, with an arch and gable in each face, and the building is crowned by pinnacles, with niches for sculpture at the angles, and a spire in the centre. The steps and basin, and plinths of the piers, are of Cheesewring granite, the superstructure of Ancaster stone, from the quarries of Mr. Wilson, of Grantham. The contractors for the work are Messrs. Boulton and Harris, of Lambeth. The cost, which has been somewhat increased beyond the first intention, by the use of granite instead of Portland stone, will be about 560*l.*

The new conduit will stand in the centre of the market square, and will harmonize in style with Great St. Mary's Church, which now bounds the site on the west side. The old conduit, which will thus be superseded (but we hope it will be elsewhere preserved), was built in 1614, from funds supplied by the celebrated Thomas Hobson, the carrier, whose stringency in letting his horses, for hire, only each one in his proper turn, regardless of the whims or likings of his customers, gave rise to the well-known proverb of "Hobson's choice—that or none." He appears to have been a wealthy and respected citizen; and, not content with merely raising the edifice, he left by will the sum of 10*l.* for further beautifying it, with an estate, the annual proceeds of which have ever since been available for its maintenance. Thomas Hobson died January 1st, 1630.

We are disposed to think the Cambridge citizens will have reason to be pleased with their new conduit.

THE CAMBRIDGE CONDUIT.—Mr. Gordon M. Hills, Architect.

LEADEN PIPES IN THE SUPPLY OF WATER AND BEER.

IT is now some years since we first brought the subject of leaden pipes in water supply, and the poisonous contamination of water by lead in certain circumstances, under notice. To the surprise of the public, some time thereafter, it turned out that chemists, even some well known to fame, entirely differed as to the precise circumstances under which leaden pipes became dangerous in use for water supply. Soft water was most to be feared in the estimation of one chemist, hard in that of another, and the result has been a perplexity on the subject which still occasionally disturbs the public mind. That leaden pipes do, in some circumstances, poison the water that passes through them there is but too good reason to be assured, and it does seem passing strange that there should be two opinions amongst chemists on such a subject. Meantime, our present purpose is not to excite anything like alarm, but, on the contrary, to notice certain facts which tend toward the future settlement of this important question independently of chemists altogether, and certain others which will at least assist in hastening this desirable state of matters, by pointing out a new source of danger which has lately been not only discovered but already guarded against by our acute neighbours the French.

The Minister of Commerce, Agriculture, and Public Works in France, we are informed, has issued a circular, under the head of public health, to all prefects, calling upon them to put a stop to the use of lead, copper, and zinc pipes, in breweries, and states that experience proves that beer, by simple contact with lead, takes up an appreciable quantity of that metal, and thus acquires poisonous properties. In continuation, he points out that not only are leaden pipes used in breweries, but that a custom has arisen in taverns, and in houses where wine is sold, of using a small pump, which communicates with the barrels in the cellars by means of a leaden pipe, and that the use of lead is in this instance peculiarly objectionable. The minister instances a case in which a whole family was poisoned by using for some time a pump of this kind for drawing their ordinary consumption of wine.

The pumps alluded to by the French minister are, doubtless, either the same as our own "beer-engines," or an equivalent for them, and it is well known that leaden pipes are used in connection with such engines; so that to the other mischiefs which beer and other intoxicating liquors produce must be added the serious influence of lead poisons on the drinker. If the precise amount of injury done in this way could be ascertained, there is little doubt but that it would be of a startling character, and only second in importance to that produced by lead in water supply.

The means of putting an end to these evils without the aid of chemists is now a question of great and pressing importance. It was proposed, so long ago as the time of Vitruvius (and even then the risk of poisoning from the use of water conveyed through leaden pipes was known), that lead should not be used at all in connection with water supply; but the fact is, that lead cannot well be got entirely rid of, as it is so suitable, in many respects, to the purposes of water supply; and, unless the new metal aluminium turn out to be of cheap, easy, and abundant attainment, lead doubtless *will* continue to be persistently made use of far more than either zinc, tin, iron, or gutta percha, for small pipes in water supply. In these circumstances, if leaden pipes could be well coated interiorly with some more or less innocuous substance, we should have all that was requisite for the safe conveyance of our water supply through leaden pipes. A patent, we observe, has been taken out by Mr. F. S. Thomas, of Fulham, and Mr. W. E. Tilley, of Kirby-street, for an improved process for plating or coating lead, &c. with aluminium, tin, and other substances, by help of the galvanic battery. Could they not easily coat the interior of leaden water-pipes, as well as cisterns, by means of such a process, and so put an end to the poisoning of water by lead? Aluminium ought to make an excellent coating for such a purpose, and thus applied, might perhaps do as well as if the pipe were altogether composed of it. The coating of insoluble sulphates with which nature itself often remedies this its own evil, is itself suggestive, and perhaps some other modes of coating the interior of leaden water-pipes artificially and systematically might be based on this natural process.

The most hopeful and efficient remedy, however, now practically available, appears to be that provided under a patent secured by Mr. E. K. Davis, of Lambeth, for the coating (amongst other processes) of the interior of leaden water-pipes with a thin film or inner tube of tin, or of compositions of gum-lacs and india-rubber or gutta-percha, in a soft or fluid state, by means of improvements in the usual machinery for making leaden pipes themselves. The coating appears (in pieces of the various tubes which we have purposely examined) to be perfectly adherent, of quite sufficient thickness, and otherwise efficient in its formation for the purpose in view.

The mechanism by means of which these and other processes are effected is ingenious, and the patent of Mr. Davis comprehends various improvements, such as a double-action hydraulic press, the casing of soft metal pipes with block tin and other metals, the forcing of soft metals by compressed air, the plating of sheets in a way described, the making of dies for coating lead and other pipes with other metals, a mode of making still-worms, the coating of soft metal pipes with gutta-percha, india-rubber, &c. and various other improvements. It is with special reference to a remedy for the contamination of water by lead that we have examined the pipes coated under this patent, and we think it well deserves the public patronage, as tending towards the realization of that very desirable end.

CHURCH-BUILDING NEWS.

Croydon.—A site of land at Southbridge, and funds for the erection of another church, have been given, the one by a parishioner, and the other by a clerical non-parishioner; the result of which will be that a commodious structure will shortly be erected, in a locality greatly in need of spiritual instruction. The poor will be especially cared for in the provision made in the sittings. The contracts are already out for the erection of the edifice.

Breda (Sussex).—Broad Oak Wesleyan Methodist Chapel being too small to accommodate the increasing number of Wesleyan Methodists in this neighbourhood, the brothers Coleman, of Chitcomb Farm, have devoted a considerable sum to enlarge and rebuild the chapel, which is now done. Messrs. Crisford and Son were the builders. It was opened for Divine service on the 6th inst.

Kingston.—Last Tuesday, during the alterations now being made in the restoration of Kingston Church, by Mr. White, of Taunton, the Rev. Eccles John Carter, the rector, discovered a long-hidden Early English window, in the western end of the north aisle. The rev. gentleman was so pleased with his discovery, that, according to the *Taunton Courier*, he generously offered to restore the window to its original state at his own cost.

St. Hilary and Truro (Cornwall).—The Bishop of Exeter was to visit the west of Cornwall in the latter part of the present month, for the purpose of consecrating the church of St. Hilary, rebuilt after its destruction by fire, and the new district church of St. George's, Truro.

Shrewsbury.—On Friday before last the first stone was laid of a parsonage at Shelton, near this town. The ground, within a few yards of the Shelton turnpike gate, and in sight of the renowned oak, was given by Mr. Robert Burton, of Longner-hall.

Ilkeston.—The restoration and enlargement of the parish church has proceeded so far that October 18 is fixed for the opening. At present the sum of 600*l.* is wanting; and owing to the laudable desire of the committee to render the building every way worthy of its purpose, 300*l.* more will have to be expended on the tower.

Nottingham.—The chapel recently erected in connection with the General Hospital of this town was formally opened on Thursday before last. The chapel is erected on the space formerly vacant intervening between the west end of the main building and the fever wards. The gable ends point north and south, the latter projecting considerably beyond the front of the main building. It is approached from the centre gallery, the entrance doors being at the north-east and north-west corners of the edifice. The length is 54½ feet, and breadth 19½ feet, with a highly pitched roof. Both internally and externally the appearance of the chapel, says the *Notts Guardian*, is sufficient to indicate its character, and yet it harmonizes with the general architecture of the building. The interior arrangements are devoid of ornamentation. The low open benches are all arranged due east and west, with an aisle running along the centre of the room, and provide accommodation for about 100 persons.

Bangor.—The first stone of a new English Congregational chapel here was laid on 28th ult. The building will afford accommodation for 400 persons on the ground-floor, with a provision for a gallery. The architect, who is likewise superintending the work, is Mr. George Northcroft; the builder, Mr. John Barry, both of Bangor. The style is early English. Cost, including land, 1,100*l.*

Otley.—The Independent Chapel here is in course of enlargement, and is so arranged by the architect, Mr. Shaw, of Leeds, that two class-rooms under the new wing of the chapel will communicate with the school, and can be thrown open when required for large meetings, &c. A vestry is also provided. The gallery will contain a new organ, now building by Messrs. Forster and Andrews, of Hull, and will also give accommodation to the scholars during Divine worship.

Burley.—A monument has been recently erected in the south transept of St. Matthias's Church, Burley, near Leeds, to the memory of the late Mrs. Smith, wife of Mr. John Smith, of Burley House, banker. The monument is a piece of sculpture by Mr. Benjamin Spence, pupil of Mr. Gibson, and it was executed in Rome, from whence the sculptor has lately returned. The design, in mezzo-relievo, represents an angel bearing the spirit of the deceased to heaven. It is executed in white marble, and is inserted in a carved tabernacle or niche, in Sicilian marble, with crocketed canopy and enriched buttresses, of the Decorated style, in conformity with the architecture of the building. The deceased lady had taken a deep interest in the erection of the church, which she did not live to see completed.

Spofforth.—On Tuesday before last, the parish church of Spofforth was re-opened by the Bishop of Ripon. It had fallen into a state of dilapidation and decay, and has been restored, according to the original design, under the superintendence of Mr. J. W. Hugall, of Cheltenham, architect. Col. Wyndham, the principal proprietor in the parish, encouraged the undertaking at the commencement by a subscription of 300*l.*; the farmers and inhabitants consented to a rate of 500*l.* besides subscribing liberally; and the rector, the Rev. J. Tripp, made himself responsible for nearly 500*l.* But as the cost amounts to upwards of 2,160*l.* and the various contributions to not more than 1,860*l.* there still remains a debt of about 300*l.* Mr. G. Roberts, of Clifford, was the contractor for the works. The style adopted or rather followed by the architect, is Norman, the principal features of the old church being of that period. Owing to the dangerous condition of the south arcade, it has been rebuilt, but the north one remains as originally erected. The two aisles were in a ruinous condition, and consequently taken down. The walls of these aisles, as well as those of the chancel, had no foundations, and it is a matter for surprise how they remained standing so long. The fabric now consists of a perpendicular tower, with a western door and three-light window above, and a very lofty arch opening into the nave. The floor has been appropriated as a vestry, an oak screen having been fixed in the archway. The nave, and north and south aisles, porch, and chancel, are of Norman character. The Norman south doorway has been restored. A font of Caen stone is placed at the west end of the south aisle, on a pavement of Minton's encaustic tiles. The nave and aisles are seated with low benches of stained deal, but doors have been

added to them. The pulpit is of Caen stone, carved and buttressed at the angles. The chancel is approached by three steps: at the rails are other three, and the altar stands upon a pace paved with Minton's tiles. A double sedilia is provided in the south wall: oak rails upon carved pillars cross the chancel. The ancient stone altar has been restored. Three stained glass windows, the offerings of Mr. Mrs. and Miss Faviell, of Stockeld-park, occupy the east wall; they contain representations of the Crucifixion of Our Lord, with Abraham's offering of his Son beneath; the Resurrection, and Jonah's release from the Whale; and in the centre window the Ascension, with the taking of Elijah into Heaven. There is an arcaded reredos, with interlaced arches of stone. All the roofs are of stained deal, boarded and open. A hot-water apparatus has been put down.

ST. JAMES'S PARK.

Sir B. Hall has announced his intention of not proceeding with the proposed road through the enclosure until the project has been considered by Parliament.

In Sir B. Hall's letter respecting the proposed new road through St. James's-park, he lays stress on the desirableness of relieving the traffic for carriages along Parliament-street. Would not this end be attained by opening a carriage-road from Trafalgar-square, at Spring-gardens' corner (where now exists a passage for pedestrians only), and so on to Storey's-gate? This would require the removal of a few houses certainly, but not so many as would be necessary were the park bisected. A Reader.

Another writer, "A Londoner," points out that by taking off a small piece of the garden of St. James's Palace, a safe and good way from the park to Pall-mall may be obtained by the existing road, past the end of the German Chapel. "If a foot suspension-bridge be thrown across the water," he adds, "I think it would be a boon to the public, but a carriage-road is an insult to botany and good sense."

NEW FORMULA FOR CAST-IRON BEAMS.

Mr. Fairbairn, in his recent work on cast and wrought iron, states that, for bridges, warehouses, &c. cast-iron beams should not be loaded with more than one-fifth or one-sixth of the breaking weight. I beg to send you a simple formula of my own, which will give the safe load in cwts. equally distributed at one-fifth the breaking weight. It is derived from Mr. Hodgkinson's formula for the breaking weight in tons in the middle:—

$$W = \frac{26\,a\,d}{l}$$

where W = breaking weight in tons.
a = area of bottom flange in inches.
d = depth of beam in inches.
l = length between supports in inches.

The new formula is—

$$S = \frac{2}{3}\,\frac{26\,a\,d}{L}$$

where S = safe load equally distributed in cwts.
a = area of bottom flange in inches.
d = depth of beam in inches.
L = length between supports in feet.

The beams are supposed to be of Mr. Hodgkinson's section of greatest strength, the flanges being in the proportion of 6 to 1.

Robt. H. Skaife.

Forging and Welding Iron.—An invention has been patented by a Mr. Bertram, to cause the sheets of iron used in forming steam-boilers, or in iron ship and bridge building, &c. to be suitably formed at the edges to allow them to be welded together. It is not essential to thicken or give any particular form to the edges of the sheets of metal, as they may be welded together by overlapping their edges, or otherwise; and where ribs have been heretofore used, the sheets of iron are to be forged or rolled with ribs thereon, to admit the edges of one sheet being welded to those of another sheet, either longitudinally or transversely.

A NEW PAINT.

Through the medium of your widely-circulating columns, I beg to call the attention of the building world in general, and your correspondent "T. W." in particular, to the results of some experiments I have lately made, with the view of discovering a "*wash*," or "*paint*," more durable than the "lime-wash," so often complained of, and at the same time cheaper than the "oil-paint" in ordinary use. This object, I think, I have fully attained.

The first method I will introduce to your notice, consists in boiling together for half an hour,

Commercial "Shell-lac," ..... 1 lb.
Ditto "Borax" (Tincal)... 1½ „
And water.....10=1 imp. gall.

allowing the solution to stand until *quite cold*, and then straining through bags of some strong coarse material: the solution, thus prepared, should be mixed with from 6 lbs. to 8 lbs. of finely-ground *dry* "*white lead*,"* and raised once more to the boiling point, with *constant agitation*. When cool, it may be stowed away in casks, or carboys (or any description of vessel which will *perfectly* exclude the air), and will be fit for use at any time, with the simple preparation of *stirring it well up*.

This paint laid on stone, brick, stucco, or wood, in the usual manner, will dry in from thirty minutes to two hours, according to the density or porosity of the material, so that a day would be more than sufficient time for the "laying on" and drying of several coats: it possesses a mellow pinkish-white colour, very agreeable to the eye, produced by the combination of the "dead-white" of the lead, with the brownish-red dye contained in the crude shell-lac. Of course, different tints can be communicated to the paint by using various kinds of shell-lac, and the admixture of small quantities of "*ochre*," "*sienna*," &c.

The same menstruum is obviously available for other colours, for internal decorations, and for every purpose will be found to possess many advantages. Its *cost* is less than half that of the composition generally employed, being (at the most) about 2s. 6d. per gallon. When first laid on it has a tendency to come off when rubbed, but a few showers of rain will put a stop to this disadvantage.

Of its durability at present I can say very little, sufficient time not having elapsed; but I do know, that a stream of boiling water directed upon a wall three hours after it had been painted (with two coats) by the preceding process, had no effect whatever; and I feel certain, that an after coat of the solution of silicate of potash and soda I recommended in the *Builder* a few weeks since, for the cure of "salt in walls" (*carefully filtered*), would render my new paint *quite permanent*.

The name I have given it is "The Lacboracic Paint."

The same solution (of borax and shell-lac) used for the paint, renders hydraulic cement, plaster, &c. more durable, if the former is employed as the moistening agent. The second method of painting that I have found successful is this:—The colour is to be mixed with a solution of glue (about a *pound*, dissolved in a gallon of water), and the house or wall to be painted with the same: when nearly dry, it must be brushed over with a strong infusion of *oak-bark*, or *catechu*. As will be readily seen, the *rationale* of this is,—the *gelatine* (*glue*) is converted into *leather* (tannate of gelatine) by the *tannic acid* of the oak-bark, and thus protects the colour from sun and rain. If the oak-bark infusion is applied while the coat of glue and colour is too wet, the result will be a very unequal surface: if, on the other hand, *too much* time is allowed to pass, the action of the tannic acid takes place with greater difficulty, and the paint is not likely to be so durable.

Both of these may with great propriety be denominated "*sanitary paints*," and they are, I believe, superior (at least, with regard to cheapness) to those of Mr. Moreton, of that name: the *first* I myself prefer, as the other is more trouble, and requires delicate manipulation. The only rule necessary for *Lacboracic* painting is, *give the paint a stir every time you put your brush into it*.

I should have mentioned before that the residue of crystallized borax and undissolved shell-lac left in the straining-bag, if boiled again in a small quantity of water, may be treated and made use of in the same way as the former solution.

I have been strongly advised to patent these original processes; but having already an invention more in accordance with the spirit of the times, viz. my "Volcanic Shell," now before the Ordnance, for the benefit of the Russians, and being of the "no monopoly" school, I deem it better to present them to the *Builder* as an earnest of my good will.

In a late impression of your journal I see "Chemicus" says that he will "solve the mystery," &c. "but without soap." In my opinion, he has done your quick penetration of the previous week great injustice, for your remark is verified—it *is* soap. I conclude that it does not much matter whether *soap* is added ready made, or whether it is manufactured with the paint. "Chemicus" (?) does not appear to be aware that when a fixed oil, or fat, and an alkali, alkaline earth, or even *heavy metallic oxide*, come in contact, with at the same time a slight elevation of temperature, they combine to form *soap* in the two first cases, and in the third, what are generally called "plasters:" consequently, "Chemicus's" composition contains no soap—till he makes it! The lime-soap contained in it is a mixture of (allow me to inform him) stearate of lime, margarate of lime, and oleate of lime—the lime-salts of three fatty acids, in fact,—a perfect *soap*. Why, even if the tallow candle from the forehead of a miner, and the lump of *clay* into which it is stuck, were boiled together, a true soap would result, —an alumina-soap. I hope you will do yourself justice on this point, by administering a "*lathering*" to the gentleman whose signature appears to be of such doubtful propriety.

Wentworth L. Scott.

Clay colours are *the* best for the *Lacboracic Paint*.

* Or "*White Zinc*," or any other good "*white*," in an equivalent quantity.

STAINED GLASS.

Lincoln Cathedral.—The scaffolding was removed from the new stained-glass window at the east end of this cathedral on Thursday in last week, and it was at once exposed to view. The mosaic work, executed by Mr. Pickett, in 1762, having been considered not to be in accordance with the architectural character or elaborate richness of the choir, a subscription was raised for the purpose of replacing it by a more suitable design, and a committee appointed to effect this object. The nature of the stonework, the character of the principal remains of painted glass in the cathedral, and the limited sum at their disposal, imposed on the committee the necessity of following the precedent supplied by those designs of the thirteenth century, which consist of an assemblage of small pictures in panels, symmetrically arranged on an ornamental ground. And it having appeared that a design setting forth the scheme of Human Redemption would be most appropriate to the conspicuous situation of an east window, the present design, after much consideration, was adopted. The groundwork, as it were, consists of an ornamental design, the principal features of which are represented in various colours on a white ground, and which serves as a setting to the medallion pictures embedded in it. These medallions occupy the centres of the principal tracery lights, and are arranged in the lower lights in a peculiar order, twenty-eight circular panels being placed in the form of a cross, up the centre, and across the window, whilst twenty others, of equal size, but of different shape, form a kind of square about the cross, the spaces between the square and the cross being occupied by sixteen smaller panels. In the panels composing the square are represented the Fall of Man and its result, the Expulsion of our First Parents from Paradise, as well as those early and significant types of the Great Sacrifice, Cain and Abel's Offering, Noah and Job's Sacrifice, and the Offering of Isaac by Abraham. Then comes the Jewish Dispensation, shown by the delivery of the law to Moses, and the sacrifices appointed under it, the Paschal Lamb, and the setting free of the Scape Goat, &c. The representation of this last type occupies six medallions. Other types are introduced, indicative of our Lord's death and its spiritual effects, as the lifting up of the Brazen Serpant, Jonah and the Whale, Moses striking the Rock, the Gathering of Manna, the Passage of the Red Sea, and Entry into

the Promised Land. In the panels composing the Cross are represented scenes from our Saviour's life, illustrative of His Divine Mission. In the lower limb of the Cross are the Annunciation, the Adoration of the Magi, the Baptism of Christ, His Temptation, Transfiguration, and Triumphal Entry; and in and about the centre are,—the Last Supper, the Agony in the Garden, the Scourging, the Arraignments before Caiphas, Herod, and Pilate, the Crucifixion, and the Entombment. The Resurrection and Ascension are placed above the Cross, in the two principal tracery lights of the window. The Cross, however, contains, besides, the Marriage in Cana, Healing the Sick of Palsy, Healing the Lunatic Child, Raising Lazarus, the Widow's Son, and Jairus' Daughter, Healing the Blind, the Ten Lepers, the Angel appearing to the Marys, the appearing to Mary Magdalene, to the Disciples at Emmaus, to St. Peter, and to St. Thomas. In the smaller panels are represented the Sixteen Prophets, the harbingers of Christ. The emblems of the Evangelists are introduced in the smaller tracery lights, in additional allusion to the Christian Dispensation. In the centre of the large circle crowning the window is represented our Lord in Glory, surrounded by angels. Thus, the doctrine of the Atonement is set forth in one view. Messrs. Ward and Hughes were the artists employed. The groups are executed on the principle of bas-relief, the figures being cut out and insulated by the ground of the panel, and rendered rotund and distinct by strong shadows.

Gloucester Cathedral.—A memorial to the late Dr. Thomas Evans, head master of the Cathedral School, has just been completed in the Cloisters. It consists of a painted glass window, with brass plates, let into the stonework underneath, on which are inscriptions. The window forms part of a scheme, originated by the Rev. Dr. Jeune, for the restoration of the Cloisters, one object of which is for the future to avoid defacing the Cathedral by unsightly monuments, such as have hitherto been fixed to the walls, and whilst affording every assistance to those who wish to erect memorials to their friends, to add to the decoration of the building and the restoration of the fabric itself. The proposal was,—to fill the whole of the Cloisters with painted glass, according to a plan decided on, which will form, when completed, a history of the Annunciation, Nativity, Crucifixion, and Resurrection of our Saviour, the whole divided into a series of subjects connected with the life of our Lord, any one of which may be selected by the parties erecting a memorial window, but for obvious reasons, the compartment to which a certain subject is assigned cannot be altered. The stonework of the window to be restored by those putting up the memorial, the chapter in such cases dispensing with the fees. It is found that the whole cost of each compartment will not exceed 200*l.* including restoration of stonework, painted glass, and brasses, a sum, as the local *Chronicle* remarks, not much more than the fees alone for the erection of a tolerable monument in the Cathedral. The painted glass and brasses, forming the memorial of Dr. Evans, are the work of Messrs. Hardman, of Birmingham. The glass represents in the eight upper lights of the window the journey of the Holy Family, Joseph and Mary seeking for Jesus, and finding Him in the Temple. The lower lights being too close to the eye for figures, are filled with flowered quarries and an enriched border. The brasses are inscribed with black letters, with illuminated capitals and scrolls. Other windows are contemplated in continuation of the series. To further decorate the Cloisters, we may here observe, the chapter have decided on allowing brasses and encaustic tiles to be laid on the floor, dispensing in this case also with the usual fees. The expense of encaustic tiles for one compartment, it is said, will not exceed 20*l.*: the cost of brasses will, of course, depend on the amount of work in them, ranging, it appears, from 10*l.* upwards. Five of the compartments immediately adjoining the Deanery, have been lately restored by the dean.

Doncaster Parish Church.—A memorial in stained glass is to be placed, by Mrs. Saunders, in the window of the west end facing the south aisle in the parish church of Doncaster, now building. The artist employed is Mr. J. B. Capronnière, of Brussels, who designed some works of art for the Brussels Cathedral.

Gateshead Parish Church.—The Fire memorial window, by Mr. Wailes, has been erected in the chancel of St. Mary's Church, Gateshead, which was to be re-opened on Sunday last. The window has five lights. The centre light is occupied by a figure of our Saviour. On His right are the evangelists Matthew and Mark; and on His left, Luke and John. The three larger medallions in the tracery are devoted to the Baptism, the Last Supper, and the Resurrection. In the two smaller medallions are inserted the royal arms and the arms of Gateshead. At the foot of the window, under the principal figures, are angels bearing scrolls, and a representation of the falling of the tower of Siloam, together with the inscription commemorating the late fire and explosion, which destroyed so much of Gateshead and Newcastle. It is expected, according to the local *Observer*, that other two memorial windows will shortly be placed in the chancel.

PROCEEDINGS UNDER THE METROPOLITAN BUILDINGS ACT, 7 & 8 VICT. c. 84.

On the 14th September, the district surveyor of Bermondsey summoned Mr. George Hodges, mason and builder, before Mr. Coombe, the magistrate, at the Southwark Police Court, for having built a one-story building with the external walls 4½ inches in thickness, instead of 8½ inches, as required by the Act; for having built a flue of less internal diameter than 8½ inches, and with the fronts thereof 3 inches in thickness instead of 4 inches; and for having placed certain wooden rafters within 3 inches of the face of such flue, where the substance of the brickwork is less than 8½ inches thick, it being only 3 inches thick as before mentioned. The district surveyor produced the certificate of the official referees, and proved the works to be contrary to the Act in all the particulars before mentioned. The magistrate thereupon ordered Hodges to enter into his own recognizances for abating and taking down the building, and paying 3*l.* 17*s.* 5*d.* costs.

Hodges subsequently pulled down the building, but failed to pay the costs. The magistrate, on the 24th of September, issued his warrant to levy the amount of the recognizance (25*l.*) by distress; and inasmuch as the defendant alleged that there was not sufficient to distrain upon, he was committed till the distress should have been levied.

THE WESTFIELD GALLERY, NEAR RYDE.

Sir Augustus Clifford has lately added a gallery to his marine residence at Westfield, Isle of Wight, overlooking a lawn studded with specimens of sculpture, with a background of luxuriant foliage. The interior is finished with Corinthian pilasters, supporting an enriched cornice, from which springs a segmental ceiling, divided into compartments (corresponding with the divisions formed by the pilasters), and these are again subdivided by coffered panels, supporting a skylight, through which the principal light to the gallery is admitted. The glass in the skylight is of ornamental design, and emblematical of art, literature, and music. The room has a semicircular tribune, with the Apollo Belvidere at the south end, over which is a medallion of Sir Augustus, executed by Mr. Grey, sculptor, of Ryde. The walls are hung with a deep blue paper, diapered with black, divided, by large gold moulding of the cable pattern, into panels, with stiles formed of a gold-coloured paper. The paper is continued round the whole of the tribune, and in the anteroom. The ceiling is in grey and white, relieved by gilding.

The designs were by Mr. Thomas Hellyer, architect, of Ryde, and the building was executed by Messrs. Dashwood, of Ryde.

RAILWAY MATTERS.

The New Central Station at Leeds.—The works for the new station at the Leeds termini of the Great Northern, Lancashire and Yorkshire, and Leeds, Bradford, and Halifax Junction Railways, Wellington-street, Leeds, have been let. The building is to front to the south-east, in a line with the Whitehall-road. The style of architecture of the façade is mixed, the Grecian predominating. The length of frontage will be 243 feet 9 inches, exclusive of a station-master's house at the south end; and its height 20 feet. The main entrance, which will open into a booking-office, 30 feet 6 inches by 22 feet 9 inches, will project from the line of the building 1 foot 6 inches, and the extremities, surmounted by pediments, 9 inches. The frontage is to be constructed of red brick, with stone facings, and rustic pilasters at the entrance and extremities. The interior station will be about 500 feet long, and 137 feet wide, covered in by two spans of iron and glass roofing, supported on metal columns. There will be three platforms, each 130 yards long and 20 feet wide, and six lines of rails. The foot approach from without will be by flights of steps from Wellington-street, and the carriage approach to the main entrance by an incline. The works which are now in progress have been let to Messrs. Kirk and Parry, of Sleaford, Lincolnshire; and the cost is to be about 20,000*l.*

Viaducts.—The viaduct near Wellingborough, in connection with the Hitchin and Leicester Railway, has given way, in consequence of which three of the principal arches will have to be taken down.——The foundation-stone of the great Rhymney Viaduct has been laid, and the whole will occupy one year in completion. It is to be 750 feet in length, and will span the valley at a height of 120 feet. The whole is to consist of sixteen arches, each 45 feet in span, and to be built of stone and brick, to carry a double line of railway. This undertaking is designed to take the Taff Vale Extension Railway over the Rhymney Valley to a junction with the line now in course of construction from Rhymney to Cardiff. Mr. C. Liddell is chief engineer.——The last girder of the majestic Crumlin viaduct on the Taff Vale Extension of the Hereford, Abergavenny, and Newport Railway, was successfully raised on Saturday amid the rejoicings of the public and the workpeople. Shortly after the girder was fixed a procession was formed, which marched through the village, ascended the Kendon Mountain, then moved on to the viaduct, and on the centre gave three cheers for Mr. Kennard, the contractor, who, with his wife and brothers, was present, three cheers for Mrs. Kennard, and three for their young family.

Traffic Returns.—The returns of railway traffic in the United Kingdom, for the week ending September 15, amounted to 435,154*l.* and for the corresponding week of 1854, to 393,456*l.*; showing an increase of 41,698*l.* The gross receipts of the eight railways having their termini in the metropolis amounted for the week ending as above to 195,211*l.* and for the corresponding week of last year to 172,962*l.*; showing an increase of 22,249*l.* The increase on the Eastern Counties Railway amounted to 1,056*l.*; on the Great Northern, to 2,004*l.*; on the Great Western, to 4,878*l.*; on the London and North-Western, to 5,036*l.*; on the London, Brighton, and South Coast, to 1,723*l.*; on the London and South-Western, to 2,575*l.*; and on the South-Eastern, to 5,081*l.*: total, 22,353*l.*, from which must be deducted 104*l.* decrease on the London and Blackwall, leaving the increase, as above, 22,249*l.*

THE SUPPLY OF "QUANTITIES" BY ARCHITECTS.

Permit us to submit a query, which, as opposite opinions prevail upon it in the provinces, should be settled.

What is the practice usually adopted by the profession concerning scheduled quantities of works about to be tendered for?

We arranged with a committee of proprietors to prepare all necessary plans and specifications, &c. and to superintend the works for a number of dwellings for a fixed amount. In doing this, can we, without consulting them, cause the quantities to be got out, inserting in them a per-centage for such trouble? We apprehend we may. And when the tenders are received, have the committee any right to interfere with such per-centage, if reasonable?

In short, can we, at our option, cause quantities to be got out, and receive remuneration for it without consulting the proprietors? SUB.

*** A considerable question is involved here, on which, before making any observations, we shall be glad to receive expressions of opinion.

A LEADING THOROUGHFARE.

Your labours to bring about improvements in London have done much good, and as an old resident, I beg leave to thank you for the past, and at the same time to express my hopes that your exertions for the future will be equally successful.

I have witnessed all the improvements during the last forty years, and one of the greatest has been the opening of New Oxford-street, which has contributed so much to facilitate the intercourse of the West-end with the City. I wish to propose a similar opening of another new street, which will cost but little, comparatively speaking.

Take the map of London, and follow the line of Piccadilly, from Hyde-park-corner to its termination in Lincoln's-inn-fields, as the square is called. You will then speedily see how little it would cost to open a way into Holborn. Follow the line still in Holborn for a short distance until you come to Gray's-inn-lane. Trace the line still onward, by Greville-street and Charles-street to the north of Furnival's-inn, and pursue the course across the now vacant hollow, called Victoria-street, until by a straight line you enter West-street, and so into Smithfield. Smithfield being no longer a cattle-market, may be rendered available as a means of safe communication with Finsbury and the adjoining districts, through the several streets leading to Finsbury-square, Finsbury-circus, &c.

It will be necessary to build a viaduct over Victoria-street, which at this moment appears to invite the proposed improvement.

The cost of this line of new street cannot be much, whereas the advantages it will afford to the inhabitants of this metropolis are above calculation. It will lessen the dangers of the crowded vehicles in Cheapside, Newgate-street, Ludgate-hill, Fleet-street, and the Strand, and it will save the poor horses while dragging heavily-laden omnibuses from many falls on Ludgate-hill, and above all, on Holborn and Snow hills.

ENNA.

SHORTENING SPOFFORTH CHURCH.

ON Tuesday, the 18th, Spofforth Church, near Wetherby, Yorkshire, was reopened by the bishop of the diocese, after undergoing a restoration. The architectural merits of the present structure I will leave for others to criticise; but there is one thing connected with it which I cannot pass by quietly. I refer to the shortening of the chancel by one-third, which has unfortunately been done by the rector, and by which I feel sure that the promoters of the scheme have lost more subscriptions than they have any idea of. But how comes it that this plan was allowed? For it could not be done without the sanction of the Ecclesiastical Court. Therefore, application was made, during last year, for leave; and, as no one interested himself sufficiently in the welfare of the church to oppose it, after postponement of their decision for some six weeks, with much perseverance against many difficulties on the part of the applicants, leave was at length reluctantly given, and one of the finest chancels about deliberately spoiled. But what is the good of the Yorkshire Architectural Society, if its members cannot keep an eye on the old architectural beauties of that land of abbeys and churches they are proud to call themselves after? They may say that it was not their place to interfere,—but the question is, whose is it? and, surely those lovers of architecture who have joined themselves into a society are more likely to be able to bear the expense of law in an architectural cause than any private individual; and the opposition would have much greater weight from a body of so high a standing. Now, however, it is done, and too late to find fault as far as Spofforth is concerned; but may its fate awaken the slumbering lovers of architecture to a stricter vigilance over those works of our ancestors they profess to take a pride in.

M. R. F.

AMERICAN PATENTS.

THE following, amongst many other, claims of patent right, recently made in the United States, are quoted from the *Journal of the Franklin Institute of Pennsylvania*:—

For an improvement in the manufacture of artificial stone; Thomas Hodgson, Brooklyn, New York, assignor to Robert L. Wright, city of New York; patented in England, May 9, 1854. Claim: the composition formed by the admixture of sand or pulverized stone, plaster of Paris, and beasts' blood, when mixed in the manner and in about the proportions to be moulded or cast, while in a plastic state, into blocks, architectural ornaments or devices, statuary, or ornamental or other forms or figures, and in such conditions used as a substitute for stone, for building, architectural, or other ornamental purposes.

For an improvement in plank roofs for building; Samuel Taylor, Petersham, Massachusetts. Claim: making each of the boards of a saddle form, in order that when laid together their contiguous plane surfaces may not only be in close contact, but be so inclined as to prevent water from remaining between them and causing or promoting their decay. Also, the improvement of providing each of the grooves of the upper boards with an inverted metallic or water-tight lining or trough.

For an improvement in wrought-iron beams and girders; Anthony Pollak, Philadelphia, Pennsylvania. Claim: the combination in wrought or malleable iron beams or girders of top and bottom T pieces, with flat or plane surfaced longitudinal plates riveted upon both sides of the stems or vertical portions thereof.

For an improvement in scaffolds; Abram C. Funston, Philadelphia, Pa. Claim: making the back upright of one or all of the sections or frames forming this particular scaffold in two parts, and providing the lower part with a slot, and uniting it to the upper part by a set screw, which plays in the slot, and allows of the lower part being raised.

For an improved arrangement of drains for sewers; P. J. Coogan, Charleston, S.C. Claim: the employment of siphons placed within a box or receiver, whereby the sewer or channel which extends from the box or receiver to the main sewer, is prevented from being choked or stopped with sediment or impurities, and all unpleasant and unwholesome effluvia arising therefrom, avoided. Also, the box or receiver provided with siphons. [This is either an authorised appropriation of an Irish invention, or an unauthorised appropriation of it. Coogan calls it his invention, which it is not.]

For a machine for cutting cavities, spherical, ellipsoidal, &c.; Isaac B. Hartwell, Woodstock, Vermont. Claim: 1st, the spherical shell or cutter turning at the same time on the axis of the sphere of which the shell is a part, so as to cut a spherical groove or a convex and concave surface of less extent than a quadrant of the superficies of a sphere, yet corresponding in shape to the convex surface of a spherical section formed by two planes passing through the sphere at right angles. 2nd, the method of giving a compound motion to the spherical shell or cutter, by means of the tight gear wheel and the loose gear wheel revolving on the axis of the rocking-frame, so as to be in connexion with the pinion in all necessary positions of the rocking-frame. 3rd, the use of circular saws set in an oblique sliding-frame, in connexion with the spherical cutter, for the purpose of cutting straight grooves to connect with the spherical grooves at each end of the block of wood.

Miscellanea.

IRON STILL SUPERSEDING WOODWORK IN NAVAL ARCHITECTURE.—Some novelties are observable in the fitting out of the Australian Black Ball ship *Schomberg*, says the *Liverpool Times*. Her 'tween decks are fitted up with iron berths throughout. Her iron tanks are fit to carry either water or provisions, and, while able to bear any weight upon them, act as permanent ballast. The foreyard of the vessel is a hollow iron tube, made of quarter-inch plates. It is 96 feet in length, 23 inches circumference at the slings; greatest circumference, 6¼ feet. It weighs 4 tons—a wooden spar same size would weigh 8½ tons. The first cost is a little more than wood. Messrs. Baines and Co. for whom this iron foreyard was made by Messrs. Wainwright, intend, according to the *Liverpool Journal*, to spar every ship they own with tubular iron spars

APPARATUS FOR RAISING SUNKEN VESSELS.—An exhibition has been made by Mr. Samuel Rainbird, in Great Yarmouth, of a working model of valuable apparatus for raising sunken vessels, which has just been perfected by Mr. Rainbird, and is now patented by him, in the hope that he may be enabled to bring out his invention. The experiments are said to have been satisfactory.

ALLEGED JOBBERY IN IRELAND. — The Irish Board of Works are charged by the *Cork Examiner* with a long string of blunders and jobbery, especially in regard to the contract for a new Lunatic Asylum for Cork. The governors had consented to an expenditure of 50,000*l.* proposed by the Government authorities as the requisite cost. The Board of Works thereupon took the matter in hand, and entered into contracts which at present amount, it is said, to 85,8-8*l.* odds, besides 2,000*l.* additional expended in preventing the rain from coming in on the heads of the governors in torrents, and in removing dry rot from the joists and flooring. As for the ventilation, it is declared to be a dead failure, the water supply and drainage defective, pumps choked, patients' recreative-yards facing the north, and these but a specimen of "a shameful catalogue of blunders," an "unhappy site" inclusive.

WHITECHAPEL WORKHOUSE COMPETITION.—In a late number there was an advertisement, "To Architects," for an offer to compete for making plans, &c. for the guardians of the above workhouse, thereby putting the profession to a sort of public auction, so as not to pay according to the professional usage, but at the lowest price. I do hope that you will be enabled to shame every professional gentleman claiming respectability from making any offer. Allow me to add, I applied to the clerk of the said guardians for information, but he refused to answer a written communication.—ALPHA.

MINING COLLEGE FOR NEWCASTLE-UPON-TYNE.—It is proposed to erect a building for a Scientific and Practical Mining College at Newcastle-upon-Tyne. Plans have been executed by Mr. A. M. Dunn, of Newcastle, architect, and prospectuses issued in accordance with views brought under the notice of coalowners in all parts of the kingdom by the president of the Northern Institute

STATUE OF AN ARCHÆOLOGIST.—A colossal statue of the celebrated archæologist, Count Carlo Castiglione, has just been inaugurated in the court of the Palazzo Brera, at Milan.

THE SHORT TIME QUESTION.—I shall be glad to know if there is any stated time that a man should work *during the week, to entitle him to the 1½ hour on Saturday*. It appears to me that when the four o'clock system was adopted, this question was never settled.—H. C. W.

*** The custom is to pay the full time, even if men come to work on the Saturday.

PARISIAN BUILDING TENDERS.—On the 3rd of next month tenders will be received at the Hôtel de Ville, for the construction, on the Place de l'Hôtel, of a building destined to receive the Caisse de Poissy. The plans of this building, the cost of which is estimated at 627,043f. are by M. Baltard, the city architect.—*Galignani*.

SALE OF A PARISH.—The whole of the parish of Exbury, in Hampshire, is to be sold. It belongs to the Mitford family. The parish consists of 2,400 acres, a mansion-house, half-a-dozen farms, two public-houses, a village, and about fifty cottages. It is bounded by the New Forest, Beaulieu River, and the Solent Sea.

BRIGHTON AND SUSSEX SOCIETY OF ARTS.—After an interval of two years, Brighton again boasts a gallery of arts, composed, in the main, of the works of local contributors. The site of the exhibition is the kitchen of the Pavilion, which, lighted from the sky, is said to be well adapted for the display of paintings.

DISTILLATION OF COAL.—Messrs. Evans, of the Gas-works, Horseferry-road, have recently patented the coating of retorts internally with enamel or glaze, to prevent the gas from escaping through the pores of the material of which the retort is composed, and also, by presenting a smooth surface, to prevent the carbon from adhering. The patentees further claim the glazing of the surfaces of iron or metal retorts, and the application of such retorts to the manufacture of gas for illumination, or to the distillation of coal or other resinous substances.

TENDERS

For rebuilding the Jews' Hospital, with outbuilding, Mile-end-road. Messrs. Tillett and Chamberlain, architects. Quantities supplied:—

Brass and Son	£13,873	0	0
Ashby and Sons	13,488	0	0
Patrick and Son	13,350	0	0
Haynes and Eyre	13,199	0	0
Piper and Son	12,950	0	0
Myers	12,928	0	0
Rider	12,386	0	0
Holland	12,309	0	0
Brown and Co.	11,997	0	0
Hill (accepted)	11,864	0	0

For erecting new warehouses in New Bridge-street, Blackfriars, for Messrs. Spicer. Mr. Sydney Smirke, architect. Quantities supplied:—

Piper and Sons	£8,775	0	0
Haward and Nixon	8,764	0	0
Kelk	8,649	0	0
Lee and Son	8,473	0	0
Holland	8,097	0	0
Cubitt	7,975	0	0
Lucas, Brothers	7,728	0	0
Lawrence and Sons	7,440	0	0
Hubert (accepted)	7,022	0	0

For erecting a house and warehouse, No. 26, Cannon-street West, for Mr. William Edwards. Mr. Horace Jones, architect. Quantities supplied by Mr. Reddall,—

Gammon	£1,791	0	0
Willson	1,786	0	0
Mansfield and Son	1,777	0	0
Ashby and Sons	1,693	0	0
Piper and Son	1,693	0	0
Ashby and Homer	1,687	0	0
Lawrence and Sons	1,674	0	0
Scott and Cornwall	1,672	0	0

For the City Bank, Threadneedle-street. Messrs. W. and A. Moseley, architects. Quantities supplied:—

	Building.	Add if Stone Front.
Haward and Nixon	£22,487	£780
Piper	21,879	1,000
Jay	21,700	938
Cubitt	21,418	983
Lawrence	20,456	908
Kelk	19,977	1,179
Heath	19,970	779
Lucas, Brothers	19,902	880
Myers	19,585	762
Ashby and Son	18,890	914

For villa and stables, Callow-hill, Virginia Water, for Mr. W. Mortimore. Mr. T. C. Clarke, architect:—

	House.	Stables	Total.
Wyatt	£4,140	840	£4,980
Ashby and Sons	3,574	690	4,264
Loe and Sons	3,578	658	4,236
Browne and Co.	3,460	678	4,138
Gammon	3,425	695	4,120
Lawrence and Sons	3,337	650	3,987
Mills	3,217	649	3,866
Oades and Son	3,185	628	3,783

TO CORRESPONDENTS.

"W. R. S."—"T. R."—"J. R. C. T."—"F. W."—"W. L. S."—"W. D."—"Mr. S."—(next week).—"Sir A. C."—"T. N."—"H. C. R."—"W. R."—"W."—(will appear.)—"R. L. S."—"S. H."—"A. K."—"K. D."—"N. G."—(declined with thanks).—"J. W."—"A. B."—"J. W. H."—"N. E. S."—"J. L."—"W. C."—"W. H."—"H. W."—"T. P. M."

"Books and Addresses."—We are forced to decline pointing out books or giving addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor." All other communications should be addressed to the EDITOR, and not to the Publisher.

ADVERTISEMENTS.

TO JOINERS.

A FEW good JOINERS can have EMPLOYMENT by applying to Messrs. FOORD and SONS, Acorn Wharf, Rochester, Kent.

AN Architect requires a CLERK of WORKS, who'ly (or two or three days a week) for a month, and afterwards once a week for three or four months.—Address (stating terms and giving references) A. B. 28, Oxford-street.

TO PAINTERS, GRAINERS, &c.

WANTED, a steady Man in the above line, that understands writing. Apply, personally or by letter, post paid, to Mr. PARSEY, Painter, &c. Sydenham, Kent, stating wages and reference.

N.B. Some good Painters Wanted

PUPIL and IMPROVER.—An Architect and Engineer holding a public appointment in the south of England, has a VACANCY for an ARTICLED PUPIL; also for a Young Man, having some knowledge of the profession, but desiring improvement. – Address, ZETA, 12, Albert-terrace, Barnsbury road, Islington

TOWN OF CARDIFF.

SURVEYOR WANTED.—The Cardiff Local Board of Health will, on FRIDAY, the 19th of OCTOBER, 1855, proceed to the ELECTION of a SURVEYOR, who will be required to devote the whole of his time to the duties of his office. Salary, 250l per annum. The appointment to be annual.—Applications and testimonials to be sent in to me, on or before THURSDAY, the 18th of OCTOBER.

T. WATKINS, Clerk.

Cardiff Local Board of Health September 21st, 1855

WANTED, an active and intelligent Person, to COLLECT ORDERS for a house of note connected with the Building Trade. He must be a gentlemanlike in his address, and produce unexceptionable testimonials. A liberal salary will be given.—Address, J. B. Post-office, Pimlico.

WANTED, immediately, an efficient CLERK of DRAINAGE WORKS. Apply to Mr. EDWARD GIBBS, Engineer, Stratford-upon-Avon.

TO BUILDERS' ASSISTANTS AND DRAUGHTSMEN.

WANTED, by a Builder, a steady, respectable Person, not less than 30 years of age, to ASSIST in the OFFICE DUTIES, in preparing plans, specifications, estimates, bookkeeping, &c. and to be practically acquainted with joiners' work. He would be expected to see to the carrying out of staircase work and the construction of the different branches of the business. Not need apply unless fully competent to carry out these requirements, and can give satisfactory reference as to honesty, sobriety, and ability. Applications to be made addressed to Mr. STAINTON, Surveyor and Builder, Boston, Lincolnshire, stating salary required with age and particulars.

TO FOREMEN OF BRICKLAYERS

WANTED, a thoroughly-experienced, active, middle-aged man, as WORKING FOREMAN.—Address, stating age, particulars, salary required, and where last engaged, to A. C. Office of "The Builder."

WANTED, in an Architect and Surveyor's Office, a YOUTH, who can write a good hand, is quick at accounts and has a taste for drawing. No salary for the first few months.—Address, in own handwriting, to A. B. Steven's Newspaper-office, 25, Threadneedle-street.

TO BUILDERS AND CONTRACTORS.

WANTED, by a Gentleman of great experience and of thorough business habits, an APPOINTMENT as MANAGER to a builder or contractor, with a view to a partnership or otherwise. Has held several appointments with first-rate firms, and is fully competent to take the measure, and superintend works. Would have no objection to the management of an extensive contract.—Address, X. P. care of Messrs. Street, Brothers, Sloane-street, London-fields, London.

TO BUILDERS, CARPENTERS, &c.

WANTED, by an experienced Man, a RE-ENGAGEMENT as FOREMAN of Carpenters and Joiners, in Town or Country, or to superintend for a gentleman.—Address, prepaid, to S. M. Office of "The Builder."

TO BUILDERS, &c.

WANTED, by a persevering Young Man, aged 23, a SITUATION, where he will be employed sometimes out-doors. He can prepare finished and working drawings, write specifications, take out quantities, measure work, keep builders' books, make out the accounts, and work as a carpenter. Writes a fair hand, and well understands the routine of a builder's office. He was in a late situation in a provincial town six years, where he can have good references.—Address, J. E. ORMES, Brightlingsea, Essex.

TO ENGINEERS AND CONTRACTORS OF GAS AND WATER-WORKS.

WANTED, by the Advertiser, a SITUATION as FOREMAN or INSPECTOR of PIPE LAYERS, or Works in general connected with gas and water supply. Unexceptionable references can be given. Will have no objection to go abroad.—Address, M. R. 4, Abbott, Barton, and Co.'s, 9, Upper Wellington-street, Strand

TO MASTERS OF FACTORIES.

WANTED, by the Advertiser, a SITUATION as ENGINE-DRIVER or ENGINE-DRIVER and STOKER. The advertiser is well acquainted with steam engines and machinery in general, and would be willing to make himself generally useful to his employers. Can give nineteen years' good reference.—Address, pre-paid, to J. B. No. 6, Cottage-place, Hornsey-street, Westminster.

TO BUILDERS AND OTHERS.

WANTED, a RE-ENGAGEMENT, by a BUILDER'S ACCOUNTANT, experienced in getting out the accounts of the Trades various departments, and pricing for prime cost charge or estimates. No objection to the country for temporary services.—Address, A. Z. Mr. Blube's, Newspaper Agent, Hope Town, Wandsworth-road, Surrey.

TO MASONS, BUILDERS, &c.

WANTED, a SITUATION, as WORKING FOREMAN or YARD MANAGER, by a steady, active, and experienced Mason, aged 42. Is a good accountant, and can prepare working and finished drawings. First-rate references.—Address, prepaid, R. B. W. No. 20, Coulson-street, King's-road, Chelsea.

TO BUILDERS AND OTHERS.

WANTED, by an industrious man, aged 34, a SITUATION as FOREMAN, or to manage a business, as Plumber, Painter, Glazier, &c. Has had good experience in similar situations. Is a good plumber, lead or sash glazier, painter, &c.; in short, he has a thorough practical knowledge of every branch connected with the business. Can measure or estimate for work, and would have no objection to make himself useful, or would go to any part of the United Kingdom. Unexceptionable references given.—Address, H. T. No. 7, Riley-street, King's-road West, Chelsea, London.

TO MANUFACTURERS, CONTRACTORS, &c.

WANTED, by a competent person, a SITUATION as TIMEKEEPER.—Address, B. Office of "The Builder."

WANTED, by a respectable middle-aged Person, an ENGAGEMENT as CLERK, being qualified to take any department in the counting house, conduct the correspondence, &c. at a moderate salary.—Address, Z. Office of "The Builder."

TO BUILDERS, STONE MERCHANTS, AND CONTRACTORS.

WILLIAM CHIPP, the man who superintended the quarrying, carting, and chipping of the stone for the New Houses of Parliament, from the year 1840 to 1854, is desirous of obtaining an ENGAGEMENT in the quarrying of stone, or in the stone trade. Has no objection to be employed in any part of England or Ireland. Unexceptionable references can be given as to character and ability.—Address by letter, post-paid, to WILLIAM CHIPP, Post-office, Frimley, Surrey.

AS OUT-DOOR OR GENERAL FOREMAN, OR CLERK OF WORKS

WANTED, a SITUATION as above, by the Advertiser, who is thoroughly competent, and can produce good testimonials and references from previous engagements. Address, S. M. 13, Ad lington street, York-road, Lambeth.

WANTED, a SITUATION as FOREMAN of Carpenters, by an active steady Man, capable of superintending any kind of building or railway works. Has just completed an outfit with a Lo don firm, from whom he can be well recommended. No objection to any part of the country, or to go abroad.—Address, A. B. 14, Montpelier-place, Brompton.

TO PLUMBERS.

WANTED, a SITUATION as PLUMBER. Will fill up his time at painting and glazing. Age, 23. Good reference.—Address, W. W. 9, Whitmore-street, Hoxton.

AS YARD OR OUTDOOR FOREMAN

WANTED, a SITUATION in the above capacity, by a person practically acquainted with carpenters' joiners', and every branch of the building trade. Can have ample testimonials if required. No objection to the country.—Address, L. D Office of "The Builder."

TO ARCHITECTS AND SURVEYORS.

WANTED, by a respectable young Man of business habits, a SITUATION in the above capacity. Is a good draughtsman, understands the general principles of surveying, and is thoroughly competent to the routine of an architect's office. Unexceptionable references can be given, and a moderate salary only is required.—Address, DELTA, care of Mr MacNeish, 28, Princes-terrace, Caledonian road

TO ARCHITECTS AND SURVEYORS

WANTED, an ENGAGEMENT, by an ASSISTANT, who has just completed his articles. A permanent and improving one is the principal object.—Address, L. A. M Johnston's Post office, Blackfriars-road.

TO BUILDERS AND PLUMBERS.

WANTED, by a respectable Young Man, a SITUATION as a good PLUMBER, and will fill up his time in painting, if required. Good references can be given.—Address, post-paid, to J. U 48, East street, Marylebone, London.

TOWN of LEEK.—To SURVEYORS.—Notice is hereby given, that a SURVEYOR is WANTED for the town of Leek. Candidates for the appointment may forward testimonials of qualification and competency, addressed to the Clerk to the Commissioners, Leek, before SATURDAY, the 6th of OCTOBER next. Candidates must be familiar with the practice of engineering in connection with works of water supply, drainage, sewerage, and surface cleansing, competent to conduct surveys, prepare plans, drawings, and estimates of works of every description, and able to superintend the execution thereof. Candidates are not requested to attend personally unless specially summoned, but to state the salary required.

TO ARCHITECTS.

THE Advertiser is desirous of an ENGAGEMENT as ASSISTANT. Is accustomed to prepare fair, detail, and working drawings in Italian and Gothic, superintend works, take out quantities &c. Satisfactory references.—Address, R. L. Mr. Newman's, 121, Tooley-street, Southwark.

TO STONEMASONS.

THE Advertiser, the son of a Master Mason, requires EMPLOYMENT in Town or Country, as Letter-cutter and Writer, in Stone, Marble, or Granite. Has six years' experience. Is competent to manage a small or branch business. Good references can be given.—Address, B. B. Post-office, Victoria-road, Brighton, Sussex.

TO CIVIL ENGINEERS AND SURVEYORS.

THE Advertiser, a Young Man, having just been engaged on an extensive town survey for the Local Board of Health, where he has been mostly occupied as draughtsman, is desirous of meeting with a similar ENGAGEMENT. Has a good knowledge of surveying and levelling. Salary moderate.—Address, F. F. No 2, Nelson-terrace, Great Yarmouth.

TO BUILDERS, CONTRACTORS, AND OTHERS.

THE Advertiser, a Young Man, about 20 years of age, is desirous of an ENGAGEMENT, as TIMEKEEPER, OVERLOOKER, or CLERK, in a Builder's Office. No objection to fill up time at the bench. Has been two years in a Builder's Office, and a short period at the bench. Good references if required.—Address, stating salary, &c. R. F. Post-office, Reading.

TO SURVEYORS, BUILDERS, AND DECORATORS.

THE Advertiser, aged 26, a neat Draughtsman, having completed a twelvemonth's engagement in the superintending of the erection of several first-class houses, and thoroughly conversant with the routine of either of the above offices, is desirous of a RE-ENGAGEMENT as OFFICE CLERK, or to take charge of works.—Address, C. J. 5, King's-road, Brighton.

TO LAND-AGENTS AND AUCTIONEERS

THE Parents of a steady Youth wish to place him, for FOUR YEARS, as IN-DOOR PUPIL, where he will be treated as one of the family, and have a thorough opportunity of learning practically the different branches of the profession. A moderate premium will be given, and the country preferred.—Letters, with terms and real name and address to H. H. at Mr. Hayles, Post-office, Ealing. If suitable, will be replied to

TO BUILDERS AND OTHERS.

THE Advertiser, a practical Mason, is desirous of TAKING or CONTRACTING for the STONEWORK of any building, at the lowest possible price, and the brickwork, if required.—Address, W. W. Mr Taylor's, No. 173, Waterloo-road, Lambeth.

TO BUILDERS.

CLERKSHIP.—WANTED, by a Young Man in his 21st year, of active business and persevering habits, a SITUATION in a BUILDER'S OFFICE. Writes a good hand, quick at figures, and is thoroughly acquainted with the usual routine of the office.—Address, E. G. L. care of Mr. Davidson, News Agent, 26, Featherstone-street, City-road

TO BUILDERS AND CONTRACTORS.

A SURVEYOR of experience offers his services in Taking out Quantities, Measuring Works, Making up Estimates, Preparing Drawings, Specifications, &c. upon moderate terms.—Address, SURVEYOR, 12, Augusta-place, Lansdowne road Kennington.

TO BUILDERS AND DECORATORS.

A FIRST-CLASS GRAINER wishes to go into the County for a few weeks, and will undertake a JOB on reasonable terms. First rate references can be given. Address to F. HOWARD, 30, King street, Camberwell.

TO MASTER PLUMBERS AND BUILDERS.

A RESPECTABLE YOUNG MAN, aged 30, who is at present in business for himself, wishes to ENGAGE as FOREMAN, and is competent for undertaking and managing a first-rate business. Is a thorough good Plumber, Painter, and Glazier, and has a general knowledge of the Building Business. Address, A.B. 9, James-street, Notting-dale, Nottinghill.

TO CARPENTERS, &c.

A YOUNG MAN wants to bind himself for one or two years. Has been at the trade two years.—Address, A. B 29, Montpelier-row, Brompton.

TO FACTORY PROPRIETORS, PUBLIC COMPANIES, &c.

A SIGN-BOARD and GLASS-WRITER wishes to EXCHANGE his WEST-END MISCELLANEOUS PRACTICE, and take the WORK of a SINGLE ESTABLISHMENT. No objection to superintend the painting, or to go into the country. Address, J. S. 12, Hollen-street, Soho-square.

TO ARCHITECTS, BUILDERS, &c

A GENTLEMAN wishing to fill up his time, would be happy to do so in making or colouring perspectives, preparing finished or working drawings, specifications, &c. Terms moderate. Address, J. T. Office of "The Builder."

A GENTLEMAN, possessing a small but safe connection with Builders and Housekeepers, is desirous of commissions on Timber and Deals, Builders' Ironmongery, Cements, &c. References of high character. Address, G. M. Pace's Coffee-house, Cambridge-heath Gate, Hackney road.

A FIRST-RATE PLAN and general DRAUGHTSMAN, ORNAMENTAL WRITER, &c is open to an ENGAGEMENT. Has been thirteen years an active manager. Expert in all reductions, enlargements, and making finished copies of township, Parliamentary, railway or estate plans, &c. Apply by letter to H. HAMLET, 15, Charing-cross.

TO BUILDERS AND DECORATORS.

A GOOD GRAINER, or to act as FOREMAN of PAINTERS, wants a SITUATION in town or country.—Address to A. B. 36, Eversholt-street, Oakley-square, Camden-town.

TO BUILDERS, &c.

A YOUNG MAN, of good practical experience, is in want of a SITUATION in an Office.—Address, C. P. 108, Drury-lane, London.

TO MERCHANTS AND OTHERS.

A PERSON, with extensive connection in the Building Trades, is open to receive a COMMISSION for the SALE of any articles in general use amongst builders.—Address, M. H. care of Mr. Ousey, 37, King-street, Cheapside.

TO SMITHS, GASFITTERS, BELLHANGERS, AND BUILDERS.

A RESPECTABLE YOUNG MAN, who thoroughly understands the whole of the above branches, would be glad to meet with a PERMANENT SITUATION.—Address, J. S. 41, Gilbert-street, Oxford-street, London.

DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR WILLIAM BARAND, BART. TO THE GUTTA PERCHA COMPANY.—Second Testimonial.—"March 10th, 1855. In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 50 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter and price per yard.

¼	⅜	½	⅝	¾	1	1¼	1½	2	2½	3 in.
9d.	11d.	1s.	1s. 3d.	1s. 5d.	1s. 7d.	1s. 9d.	2s.	2s. 3d.	2s. 6d.	2s. 9d.

Super-extra stout quality.

2	2½	2¾	3 inches.
2s.	2s. 3d.	2s. 6d.	2s. 9d. per yard.

No. 0. A cheaper hose, to beat a low pressure for gardens and agricultural purposes, at greatly reduced prices.

1	1½	2	2½ inches.
9d.	10d.	11d.	1s. 1s. 3d. 1s. 6d. per yard

The hose is Burnettized at an extra charge of 3d. per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

CHAS. MACINTOSH and CO. Patentees of the VULCANIZED INDIA-RUBBER, and GENERAL MANUFACTURERS of WATERPROOF, AIRPROOF, and ELASTIC RUBBER GOODS beg to inform all persons who desire to correspond with them direct, that their SOLE ESTABLISHMENTS are No. 4, Cannon-street West, London, and Cambridge-street, Manchester. This notice is necessary, as the term Macintosh Depôt, Macintosh Warehouse, &c. is frequently adopted both in London and the country by vendors of India-rubber goods, who deal in articles not of the manufacture of CHAS. MACINTOSH and CO. — Goods manufactured by CHAS. MACINTOSH and CO. are stamped with the name of the firm.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air with a perceptible draught. Decorated to suit any building or apartment. Particulars and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Berners-street, London; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

DRAINAGE of LAND.—WANTED, to undertake the DRAINAGE of LAND by CONTRACT, or to execute temporary Timber, or Iron Tubes to supply Drain-pipes at a reasonable price.—J. JOHNSON, Drainage Engineer and Contractor, Abundon-street, Westminster.

LAND DRAINAGE.—MR. THOMAS SCOTT, Land Agent and Valuer, 5 Charing-cross, London, is prepared to undertake the PLANNING and EXECUTION of LAND DRAINAGE, in large or small quantities, by contract or on commission. He has now at work several London-study and well-organized "gangs," under competent foremen and pipe-layers. Mr. SCOTT is at present carrying out extensive drainage works on Crown lands, which he will be happy to show to gentlemen desirous of seeing them. Communications addressed to him as above will be immediately attended to. September 28, 1855.

TODD'S PATENT METALLIC PROTOXIDE PAINT.

This Paint possesses in an eminent degree the following advantages over all other known Pigments:—

INDESTRUCTIBILITY BY HEAT—PRESERVATION OF IRON FROM OXIDATION WOOD FROM DECAY, AND MASONRY AND BRICKWORK FROM DAMPNESS—PERMANENCE OF COLOUR AND FREEDOM FROM DELETERIOUS PROPERTIES—SUPERIORITY OF BODY.

The Protoxide Paint, as at present produced, is of one shade of colour, viz :—a pale drab, but it may be tinted with any other colour to suit the taste and purpose for which it may be required. It is not affected by sulphuretted or carburetted hydrogen gas, bilge water, or indeed foul air of any kind, and is therefore well adapted for the interior of ships, Warehouses, Offices, Stabling, &c.; and from its total freedom from deleterious properties, it will be found of great value for painting the interior of Hospitals, Asylums, Unions, Gaols, and other Buildings which may require to be painted during occupation.—Sole authorized Agents for England:

MESSRS. C. GRABHAM AND CO. 4, BARGE-YARD, BUCKLERSBURY, LONDON.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Arkist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK—LONDON—PATENT. And if not so marked the quality is not warranted. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of this manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Pread-street, Paddington.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which its eminent hydraulic properties stamp it at once as the best Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle by those who have hitherto had the monopoly—Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly exceeds them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. A account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days (under patent), and all other Cements in use for building purposes. Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White Mastic, Hair, Lias Lime, Lathe, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, d to Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied or shipment, on advantageous terms.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Course	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

11 George-yard, Lombard-street City

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise—Apply to G. BOOTH, Agent, as above.

TO BUILDERS CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY.

SOUTHAM BLUE LIAS LIME and PORTLAND CEMENT WORKS.—OLDHAM and TATHAM are now prepared to receive orders from contractors builders, and merchants for Ground and Lump Blue Lias Lime, also for Portland Cement and Lias and Bath Cement, both of which will be found of very superior quality, and will be improved by the addition of two or more parts of sand to one of cement. Coals and Tiles boats can run alongside any wharf or works, and all orders addressed to Warwick will receive prompt attention.—Office, Warwick.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with a first-rate article in both cements and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London:—Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works on the Medway, near Rochester, March 31, 1855.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction is constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SEconds, PAVIORS, STOCKS, and other BRICKS.

CHARLES RICHARDSON 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, and that the largest orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Sussex Cement and Stucco Paint. CLARK and BENOUGH, Manufacturers.—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road

TO CAPITALISTS, POTTERS, CHINA, BRICK, AND TILE MAKERS, AND LANDOWNERS NEAR RAILWAY STATIONS.

HANDS'S GREAT ECONOMISING PATENT KILN.—Capitalists and Persons engaged in the above Works, Owners of Land containing Brick and Tile, or any other valuable Earth near Railway Stations, are particularly invited to look at HANDS'S GREAT ECONOMISING PATENT KILN. From its construction it enables persons to build one on any suitable spot where he pleases, so to economise the heat that all that GREAT WASTE and extra expense looked for as a matter of course in the old system is completely avoided, by causing the heat to dry sand, and every description of strong moulded clays at any season, in time of burning and cooling the kiln, with perfect soundness. No cost required to keep up the works all the year round beyond the coals put on of about six or seven tons of coals to burn off 20,000 goods in each kiln. Any persons desirous to avail themselves of this opportunity for a district or otherwise, may apply, if by letter prepaid, to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom, Surrey, where the Kiln is to be seen, by appointment only.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 12 inches long. Stop-ends and Outlets, 6d.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Sewage-pipes, Closet pans, Furnace-blocks, Fire-bricks, Gas-retorts, Crucibles, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, upon favourable terms.

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietors; and, thirdly, that the "REASONS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 30s. per 1,000; 9-inch floor bricks and 6-inch paviors, at 37s. 6d. per 1,000; 8-inch pavings, at 27s. 6d. per 1,000; 9-inch pavings, at 32s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

THE BEST HERTFORDSHIRE MALM SECONDS;

THE BEST WHITE SUFFOLK and RED FACINGS:

DEEP-RUBBING BRICKS.

Also COWLEY and KENT STOCKS, in any quantity.

J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE sells Brick, Tile, Lime, and Cement Merchants Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 25s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings of good and sound quality, constantly on sale at R. DODD'S Brick fields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brick fields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, and also white and flare, bricks fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY

(Within a short distance of the fire bridges).

THE BEST MALM CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity.

Also, STOCKS, of FIRST QUALITY.

J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS.

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London-bridge

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

TO BRICKMAKERS.

WANTED, a Quantity of FIRST-RATE BRICKS, of a deep rich red colour (not orange tint); also a quantity of the best BLACK BRICKS, or as nearly black as is possible, to work in alternate bands in the front elevation of the Sheffield School of Art. Any one having such bricks, either the red or the black, for sale, will be pleased to send samples, with price, to the undersigned, as early as possible.

THOMAS E. MYCOCK, Contractor.

Sheffield, 108, Pargate, Sept. 19, 1855.

*** This advertisement will not be repeated.

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on B. PARKS, Lewisham, and see the quality and low prices. Carters within six miles can have most reasonable terms. Red facing bricks at 30s. All kinds of tiles, paving bricks for open building, salt glazed stone pipes manufactured; also all kinds of red pipes and pots.—Application by letter punctually attended to.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 15 inch red Socket Drain Pipes, in 2 feet lengths.—Apply to St. JOHN HEWITT, Redhill Works, Southampton.

BRICK and DRAIN-TILE WORKS to be SOLD or LET, with immediate possession. The stock of bricks may be taken at a valuation. The Works (from London, adjoining a railway, with a railway siding up to the brick clamps. A good business in coals and Lon on manure may be carried on.—Address, A. R. at Brook's, New-street, Road-b-court, Fleet-street London.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices. The BUSINESS to be DISPOSED OF, with the valuable condition, and a portion of the PREMISES to carry on the same TO BE LET, at almost a nominal rent. For particulars inquire on the premises, Honduras Wharf, Bankside, Southwark, London.

TO STONE-MASONS AND BUILDERS.

GEO. S. TOVELL, Stone Merchant, Three Cranes Wharf Ipswich, embraces this opportunity of thanking his friends for the liberal patronage he has received; and begs to inform them, and the trade in general, that he is now enabled to supply them with every description of stone of the best quality, and at the lowest remunerative profits. Also fire-bricks, lumps, and quarries glazed and unglazed, socket drain pipes, chimney pots of every size and shape, and pan and plain tiles, of the best Yorkshire make. Also, wanted to purchase an OVER-HEAD TRAVELLING CRANE, capable of lifting from 15 to 20 tons. Price and particulars to the above address.

BENJAMIN GILL, 7 Wharf, New Basin, Leeds, Yorkshire, STONE MERCHANT in all its branches. Worked orders, &c. executed to any plan. Single truck-load or cargo sent to any place or port in the kingdom. Prices, &c. supplied on application at the above address. Charges moderate.

WILLIAM S. LAWRENCE, PENNANT STONE MERCHANT, St. pleton. Office—10, Merchant-street, Bristol. All descriptions of Steps, Landings, Troughs, Tombs, Curb, Ashlar, Paving, &c. &c. on Sale at Stone Quarries situate at Stapleton, and at Conham, on Banks of River Avon, near Bristol.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower Serpentine Quarry—Columns, pieces, Columns, Fonts, and ornamental works on view, at 20, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOW-ROOM, at No. 18 Watling-street, City, road, for the sale of CHIMNEY-PIECES, and other articles, useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

July 25, 1855. C. ADENEY, Secretary.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,
MILLBANK-STREET, WESTMINSTER.

Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 9, Crescent-Place, Millbank, to others on the same premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the province of Massa Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake Contracts for any quantity of Statuary, Veined, Sicilian, Bardilla, Dove, and other Marbles, in blocks of all dimensions, delivered on shipboard at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt. Orders for Paving Slabs, Garden and Hall Statues, Vases, Tazze, Chimney-pieces, &c. executed and delivered at reasonable rates.—For further particulars apply at the Offices of the Company, 18, Cannon-street, City.

WILLIAM W. BONNIN, London Secretary.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Anna, Italian, Serpentine, verd antique, &c. Portland, Harehill, Park Spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods expertly packed, and forwarded to any part of England. THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.

SAMUEL CUNDY,

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

PHŒNIX GAS-LIGHT COMPANY.

PORTLAND STONE for SALE.—TO BE SOLD, in Lots of 100 cubic feet and upwards, a quantity of DRESSED PORTLAND STONE, in large cubes, suited for builders and masons.—On view at the PHŒNIX GASWORKS, Bridge-foot, at Vauxhall, where particulars may be obtained on application, or at the Company's Principal Office, 70, Bankside, Southwark.

By Her Majesty's Royal Letters Patent.

SILICEOUS STONE.—ORNAMENTAL WORK of every description executed at LOW PRICES in this most durable material. A large Stock kept of Mantel-pieces, Enlarenties, Quoins, Tombs, Fonts, &c. at the new premises, Whitehall Wharf, Cannon-row, Westminster.

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For Damp Walls and Lining Iron Houses,
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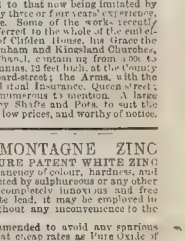

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PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

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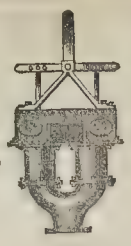

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

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PORTABLE PUMPS,

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Wrought-iron Pails, Galvanized or Painted.

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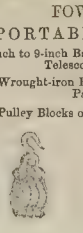

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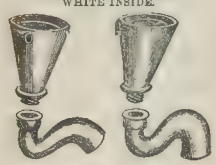
IMPROVED WATER-CLOSET PANS AND TRAPS. WHITE INSIDE.



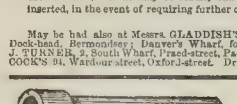
Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

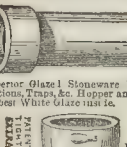
IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin, Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 38, Bryden-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.



Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.



Pan, 3s. 6d.

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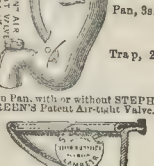
Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

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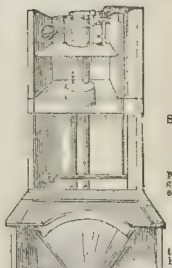

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
B. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

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The attention of the Trade is called to

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PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, there is less friction and expansive force required, and a considerably less number of strokes are necessary, rendering the pump considerably less than pumps made in the old way.

Deep and Water Engines for raising Water from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

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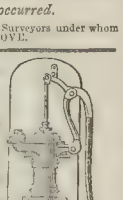

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Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, distilleries, &c. adapted for any depth. Hydraulic Pumps for deep wells.

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Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

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Iron Pails 38s. per doz. painted.
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PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 76, Strand.

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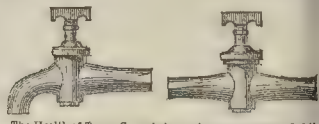
HIGH-PRESSURE COCKS & CLOSETS



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

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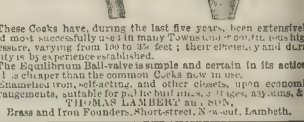
PRIZE MEDAL, CLASS 9

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns to resist high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action and cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economical arrangements, suitable for public buildings, barges, steamers, &c.

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PURE WATER, for manufacturing purposes may be obtained at very moderate cost by RANSOME'S FILTERING STONE. Estimates given for large or small quantities. Builders and Plumbers supplied with the stone on as other Filters at trade prices. These filters, at one, two, three, and four guineas each, yielding 50, 100, 150, and 200 gallons per diem will be found sufficient for ordinary domestic requirements, as self-acting, and not liable to get out of order. Larger sizes to parties satisfactorily supplied with quantities up to 30,000 gallons per diem, may be obtained on application at the depôt, Whitehall Wharf, Cannon-row, Westminster.

E. and W. STURGE invite special attention to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c.; also, to their Paving, Sinks, &c. Slabs of the best quality, wholesale and retail. Country builders and others supplied with all information on application to E. and W. STURGE, Bridge-wharf, City-road.

N.B. Flowerpots well arranged for carriage by small boats, or to the railways, to which but a small charge for carriage is made. January, 1855.

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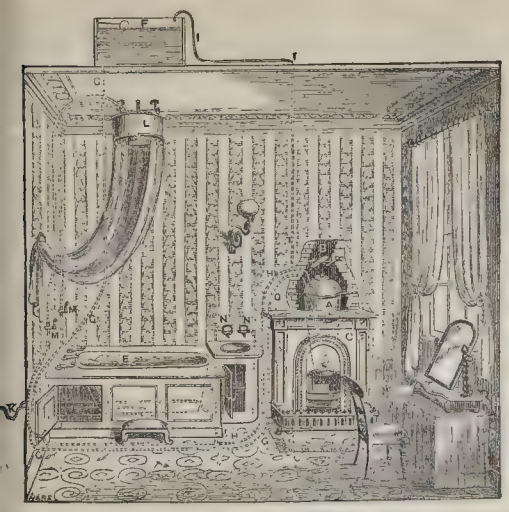


To fix a Bath, the apparatus for heating which can be fixed in the same room, and the luxury of an Open Fire retained.

A. Copper Boiler of sufficient capacity to make a warm bath, clasped by an iron band to support it, and fixed in the breast-work of a chimney. A flue is carried all round, and the draught is regulated by a revolving damper, *B*, which covers the opening into chimney. When set, the Boiler is entirely concealed from view.

This Boiler can be adapted for any chimney, by making it of an oval or elongated form.

A soot-door is fixed just underneath the damper for the convenience of cleaning, which, however, is rarely required, on account of the great draught round the boiler preventing any deposit of soot.

C. An ordinary stove front with sliding blower for the additional regulation of the draft.

E. Copper or tinned iron Bath, enamelled white marble inside, having three copper pipes, for the hot, cold, and waste water, which are indicated by the engraved levers on the cocks. The overflow is carried into waste-pipe *K*.

F. Cistern for cold water, say 100 gallons, which can be made of tinned iron, or any suitable material, either fitted into a recess or made of a cylindrical shape to stand on the floor of any room above the bath. The overflow can be carried into the waste or other convenient outlet.

G. Inch pipe from cistern to the pipe which goes to the bottom of boiler to fill it with water. A branch from this pipe also supplies the bath with cold water.

H. Inch pipe from the top pipe of boiler, to deliver the hot water into bath.

I. Half-inch pipe taken from the hot pipe *H*, and turned over the top of cistern to relieve the boiler.

K. Inch or 1¼-inch pipe to take away waste water from bath into soil-pipe or drain, as may be most convenient, and must be well trapped before entering.

L. Round copper or tinned iron Shower Bath, suspended from ceiling, and filled with hot or cold water by branches from the pipes *G* and *H*, the supply being regulated by the two cocks *M M*, which are let in the wall, an d have levers fixed on them, engraved, "hot and cold shower."

A thermometer can be fixed in the shower-bath to regulate the temperature.

N N. Wash-hand basin supplied with hot and cold water, by branches from the pipes *G* and *H*, the waste being carried into the overflow of bath.

By this simple arrangement, the boiler is always kept full of water, and cannot, by any means, be emptied by the action of the fire. The draught is so regulated by the blower and damper, that a bath can be made in twenty minutes, or an open fire kept contanully alight.

WARWICK-LANE, NEWGATE-STREET, LONDON.

HENRY MILLICHAMP,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 9-FEET LENGTHS.

Bends, Elbows, Urinals, Gulli-Traps, Flap-Traps, Syphon Traps, &c. always kept in Stock.

Watercloset Pan with Syphon-Trap connected, price 3s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

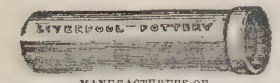
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

JOHN DOULTON, BROTHERS, AND CO.

LIVERPOOL POTTERY,

ST. HELEN'S.

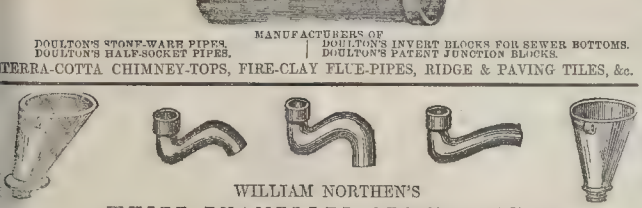
STORES—70, SOHO-STREET, LIVERPOOL.



MANUFACTURERS OF

DOULTON'S STONE-WARE PIPES. DOULTON'S HALF-SOCKET PIPES. DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS. DOULTON'S PATENT JUNCTION BLOCKS.

TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.



WILLIAM NORTHEN'S

WHITE ENAMELLED STONEWARE,

UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, ing an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the id yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,

LAMBETH POTTERY, HIGH-STREET, LAMBETH,

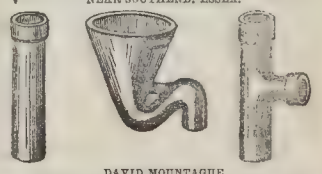
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore which have a strong Vitrified Basis, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

VICTORIA POTTERY, LEIGH,

NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers. Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware at reasonable terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bet-tee-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING

LAVATORY AND CLOSET VALVE No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under common pressure of from 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,

Brass Founders and Engineers,

Corner of Short street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 11s. 6d. each.

PATTEN'S PATENT HIGH-PRESSURE

WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post.

PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 12 PINT CRATE.

COLLIER'S TERRO-METALLIC and

RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS—Plans were issued by us, to be of the best manufacture, by the undersigned, and combined with the sponge, will be found to meet the approval of consumers.—Sole Agents, I. & PEARSE and Co., Great Northern-wharf, York-road, King's-cross.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by the late Mr. Brunel in the Thames Tunnel, Common Stoneware Sewers, White Fire Clay, Fireplace Bricks, &c. &c. Agents, CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

SALES BY AUCTION.

NEW HOUSES of PARLIAMENT.—A Steam engine by Gough, with double action crab, and useful Materials.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, at the ROYAL COURT, next the Victoria Tower, on TUESDAY, OCTOBER 2nd, at TWELVE for ONE, by order of the Commissioners of her Majesty's Public Works and Buildings, a 3 horse power High-pressure ENGINE, by Gough, with double action Crab, in excellent working order; about Twenty Loads of Timber; a quantity of Doors; two pairs of Iron Gates, and other effects. May be viewed by catalogues, which may be had one week previous of the Auctioneers, 40, Parliament-street, Westminster.

DESIRABLE INVESTMENT.

MR. PENNINGTON has been instructed by the Directors of the Cork, Blackrock, and Passage Railway Company to SELL by AUCTION, at his SALES-ROOM, 81, Patrick-street, Cork, on WEDNESDAY, the 17th day of OCTOBER, 1855, at the hour of ONE o'clock p.m., the valuable LEASEHOLD PREMISES, known as the VICTORIA BATHS and HOTEL, the handsome marine residence in occupation of Philip O'Connell, esq. and the PLOT of BUILDING GROUND ADJOINING, containing a frontage of about 750 feet, all held under lease for a term of ninety years and six months, from the 20th August, 1840, at the yearly rent of 105l. This extensive property, on which a sum of over 5,000l. has been expended, is within a few minutes' walk of the railway terminus at Passage, and about an equal distance from the fashionable watering-place of Monkstown, from which steamers ply every half hour to and from Queenstown. It is beautifully situated on the River Lee, and possesses the important advantage of a quay, and the strand to low water-mark in front. The baths have been fitted up in the best style, and contain gentlemen's and ladies' plunge baths. The gentlemen's plunge bath is 150 feet in length, by 40 feet in breadth. There are also twelve hot, six shower, and two vapour-baths, with dressing-rooms attached to each. The hotel contains two kitchens, three sitting rooms, and six bed rooms, with servants' apartments, &c. These concerns are at present let to Mr. Archibald M'Dougal, at a rent of 60l. per annum, which is considerably under their value, but his tenancy is determinable on the 1st day of May in each year. The house and premises in occupation of Mr. O'Connell are held by him, part under a lease for eighty six years from the 1st day of May, 1843, at the yearly rent of 4l., and part under proposal as yearly tenant, at 1s. per annum. The latter premises he is bound to surrender on getting three months' notice. The building ground lies within about 100 yards of the Hydropathic Establishment of Dr. Curtin. It commands a perfect view of the river, and is admirably situated for a terrace or for marine villas. A free ticket for three years will be given on the Cork, Blackrock, and Passage Railway, to the head of the family occupying every newly built house of the annual value of 25l. and upwards.—For abstract of title and rental, with conditions of sale and map of premises, apply to DAVID HALL, Solicitor, 30, South mall; to HENRY B. O'KEEFE, Secretary, Cork and Passage Railway Company; or to PETER PENNINGTON, the Auctioneer, 81, Patrick-street, Cork.

Valuable Building Materials of Queen Charlotte's Lying-in Hospital, New-road, Paddington.—TO BE SOLD by

MR. F. HALL, on the PREMISES, on MONDAY, OCTOBER 1, at ONE for TWO, to clear the site for rebuilding, the first portion, comprising excellent sound Timber, in flooring joists, girders, rafters and plates, clean floor-boards and battens, sashes and frames, doors, partitions, statuary and other chimney-pieces, excellent duchess and countess slates, stone coping and sills, 2- squares of York paving, hand some pilasters and caps, in terra cotta; Portland landings, water closet fittings and apparatus, stoves, ranges, iron fencing, paving tiles, several stacks of firewood, and various other effects.—May be viewed, and catalogues had on the Premises; at the Yorkshire Stingo; and of Mr. F. HALL, Builders' and Material Auctioneer, Chester-street, Kennington.

Commanding Business Premises, Dwelling-house, and small Shop at Paddington, Semi-detached Villa Residence at Bayswater, and Four Cottages at Kensal New Town.

MR. GEORGE DEEKS is instructed by the Administratrix of the late Mr. Edward Hunt, deceased, to SELL by AUCTION, at the MART, on TUESDAY, OCTOBER 9th, at ONE o'clock punctually, desirable BUSINESS PREMISES, with spacious Show rooms, Work-shops, Dwelling rooms, and Stabling attached, situate No. 26, Sale street, Edgeware-road; a Dwelling-house adjoining, and a small House with Shop, being Nos. 27 and 28, Sale-street, aforesaid, the whole held for a term of 6- years unexpired, at the low ground rent of 6l. per annum. A Semi-detached Villa Residence, with Coach-house and Stable and Garden front and rear, situate No. 1-, Newton-road, Westbourne grove, Bayswater, let to a respectable tenant, held for a long term, at a ground-rent of 6l. per annum. Also, Four small Dwelling-houses, with Gardens, situate Nos. 3, 4, 5, and 6, West place, Wise-row, Kensal New Town, held for 2- years unexpired, at 2l. 1-s. per annum ground rent, and producing rentals amounting to 11l. 5s. per annum. The several premises may be viewed by permission of the tenants, where printed particulars and conditions of sale may be had; also at Messrs. HUME and BIRD's, Solicitors, 10, Great James-street, Bedford-row; at the Royal Oak, Bishop's-road, Bayswater; at the Auction Mart; and at the Office, 26, Albion-Street, Hyde-park-square.

TO BUILDERS and OTHERS.—Stock of Chimney-pieces, Two Enamelling Stoves, Dipping-trough, Sawing-bed, Two Horses and Carts, and Items in Trade.

MR. GEORGE DEEKS is instructed by the Administratrix of the late Edward Hunt, deceased, to SELL by AUCTION, on the PREMISES, 26, SALE-STREET, PADDINGTON, on THURSDAY, OCTOBER 11th, at TWELVE for ONE o'clock precisely, the entire STOCK in TRADE of a SLATER, comprising about 100 Chimney-pieces, various; unfinished ditto, caps, trusses, &c.; marble slabs, slate cisterns, and sundry items in trade. Also, the household furniture of the usual description.—The same to be viewed prior to and morning of sale. Catalogues may be had on the Premises; at Messrs. HUME and BIRD's, Solicitors, 10, Great James-street, Bedford-row; at the Royal Oak, Bayswater; and at the Offices, 26, Albion-street, Hyde Park-square.

Freehold Building Land, Battersea.

MR. W. R. GLASIER will SELL by AUCTION, at GARRAWAY'S, on TUESDAY, OCTOBER 2, at TWELVE for ONE, in lots, by direction of the Executors of the late Mr. George Carter, 14 PLOTS of valuable FREEHOLD BUILDING LAND, most eligibly situate in Plough-lane, Ann-street, George-street, Hope-street, and Field-place, York-road, Battersea, Surrey. Land-tax redeemed. May be viewed, and particulars, with plans, had of C. C. FREEMAN, Esq., Solicitor, 11, Bucklersbury; of Mr. EDWIN CARTER, York-road, Battersea; of Mr. W. EDWARDS, 1, Salamanca-terrace, Fulham-road; at Garraway's; and of the Auctioneer, 41, Charing-cross.

MARK-LANE, CITY.—Extensive Sale of Building Materials.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, OCTOBER 9, at TWELVE, in lots, all the valuable BUILDING MATERIALS of five large houses and warehouses, Nos. 37, 38, 39, 40, and 41, Mark-lane, adjoining the Worshipful Company of Drapers, comprising good sound brickwork, 40,000 plain tiles, capital oak and fir timber in roofs, floors, and quartering, 10 tons of lead, in gutters, flats, cisterns, and pipes; plate glass and other sashes, nearly new skylights glazed with plate glass, doors, wainscoting, glazed and panelled partitions, flooring and lining boards, iron columns, a circular iron staircase, stone paving, and a variety of useful materials and fittings up.—May be viewed the day previous. Catalogues had on the Premises; and of PULLEN and SON, 80, Fore-street, Cripplegate.

CHANCERY LANE.—Building Materials of the Mitre Tavern.

PULLEN and SON will SELL by AUCTION, on the PREMISES, on FRIDAY, OCTOBER 5th, at TWELVE, in lots, by order of the Hon. Commissioners of Sewers, all the valuable BUILDING MATERIALS of the Mitre Tavern, Chancery-lane, and Mitre-court, Fetter-lane, comprising sound brickwork, plain tiles, timber in useful scantlings, sashes, doors, floor boards, modern plate glass front, lead flat, gutters, and various fixtures and fittings up. May be viewed on THURSDAY. Catalogues had of PULLEN and SON, 80, Fore-street, Cripplegate.

SALES BY AUCTION.

Seven Freehold Houses and Building Land, Upper Holloway, and two Leaseholds, St. John-street.

MR. BOYES is directed by the trustees of S. W. Hunt, Esq. deceased, to SELL by AUCTION, at GARRAWAY'S, on WEDNESDAY, OCTOBER 10th, in three lots—Lot 1. SEVEN FREEHOLD HOUSES, Nos. 3, 4, 5, 6, 7, 8, and 9, Gordon-place, near the Whittington and Cat, Upper Holloway. Lot 2. A plot of Freehold Building Land opposite lot 1. Lot 3. Two Leasehold Houses with Shops, Nos. 60 and 61, St. John-street, Smithfield, let at 26l. and 32l. per annum.—May be viewed by permission of the tenants. Particulars may be had of Messrs. BISGOOD and SON, Solicitors, 36, Carey-street, Lincoln's-inn; at the Archway Tavern, Upper Holloway; at the Angel, Islington; and at the Auctioneer's Offices, 3, Abchurch-lane, Lombard-street.

POSTPONEMENT of SALE. Bishop of London's Estate.—Unfinished Houses in Cornwall-terrace, and Stabling in Chichester-mews and Blomfield-mews, Westbourne terrace North.

MESSRS. LOCKWOOD are directed to SELL by AUCTION, in lots, at the LORD HILL, Harrow-road, on WEDNESDAY, OCTOBER 3, and not September 26, as previously advertised, at TWO o'clock punctually, THREE UNFINISHED HOUSES, substantially erected and in a very forward condition, situate and being Nos. 4, 5, and 6, Cornwall-terrace, Westbourne-terrace North, estimated, when finished, to produce 60l. per annum each house; also Nos. 1 to 9, inclusive, in Chichester-mews, immediately in the rear; and No. 16, Blomfield-mews adjoining. Seven of these are finished and let, and produce 225l. per annum; the remaining four are nearly finished. The whole are held for long terms, at low ground-rents.—May be viewed and printed particulars obtained fourteen days before the sale, of Messrs. UNDERWOOD and COLMAN, Solicitors, 13, Holles-street, Cavendish-square; and at the Offices of the Auctioneers, No. 1, Burwood-place, Hyde-park, or 44, Upper Baker-street. Part of the purchase-money may remain on mortgage.

TO ENGINEERS, BUILDERS, SAW-MILL PROPRIETORS, TIMBER MERCHANTS, and OTHERS. STRATFORD, ESSEX.—By

MESSRS. FULLER and HORSEY, on the PREMISES, Broadway, Stratford, opposite the new church, on MONDAY, OCTOBER 8, at ELEVEN, in lots, the STEAM SAW MILL, MACHINERY and PLANT, and TOOLS, manufactured by Horne, of Whitechapel: comprising pair of 10 horse high pressure table steam engines, capital cylindrical wrought-iron steam boiler, with tubes; 130 feet wrought-iron shafting, with riggers, pulleys, and plummer blocks; 200 feet leather and gutta percha bands; a capital board planing machine, with ploughing apparatus attached; a powerful rack sawing frame 40 feet long; self-acting saw-bench, with fences and apparatus; a saw bench with self-acting moulding machine; two cast-iron circular saw benches; a powerful mortise machine; fifty circular steel saws; thirty cross-cut saws, buckled; a drilling machine; capital screw-cutting machine, capable of cutting from ¼ to 2 inches, with double over-head motion, taps and dies; a powerful drilling machine; wrought-iron tank; fly punching press; vices and benches; gas fittings, and numerous other effects. To be viewed on Friday and Saturday previous to the sale, when the machines will be in motion. Catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, 13, Billiter-street, City.

TO LIGHTERMEN, COAL FACTORS, AND MERCHANTS, PIER MASTERS, BARGE BUILDERS, AND OTHERS.

MR. ARBER will SELL by AUCTION, by direction of the trustees, at the COAL EXCHANGE TAVERN, adjoining the Coal Exchange, St. Mary-at-Hill, Upper Thames-street, on MONDAY, OCTOBER 1, at THREE punctually, a capital FLOATING WROUGHT-IRON DUMMY, 61 feet long and 21 feet wide, 148 shutes, 98 planks, 584 baskets with iron trivets, 6 cranks, 127 gins, 479 sheaves, and other articles; now lying under the arch of Waterloo bridge, Surrey side. May be viewed any time previous to sale, when catalogues may be had of the person on board; of the Beadle, Coal Exchange, Lower Thames-street; of the Solicitors to the Trustees, Messrs. COLLIS and BERNARD, and Mr. HENRY CORSER, Stourbridge; and of the Auctioneer, 1, Mount-street, Berkeley-square.

PECKHAM.—TO BUILDERS AND OTHERS.

MR. ARBER is instructed by the Trustees (under a deed of assignment) to SELL by AUCTION, on the GROUND adjoining St. Mary's Church and the Cemetery-road, Peckham, on TUESDAY, OCTOBER 2, at TWELVE for ONE, 200,000 BRICKS and TWENTY LOADS of TIMBER. Also, the Materials of some Unfinished Houses, comprising sound brickwork, joists, &c.—May be viewed the day previous and morning of sale, when catalogues may be had of the Solicitors to the Trustees, Messrs. COLLIS and BERNARD and Mr. HENRY CORSER, Stourbridge; or of the Auctioneer, 1, Mount-street, Berkeley-square.

Nos. 124 and 125, GOSWELL-STREET. To IRONMONGERS, COACH-MAKERS, WHEELWRIGHTS, ENGINEERS, BUILDERS, CARPENTERS, and OTHERS.—The valuable and well-assorted Stock of the late Mrs. C. Alexander.

MR. ARBER will SELL by AUCTION, unreservedly, on the PREMISES, 124 and 125, Goswell-street, on WEDNESDAY, OCTOBER 10, and two following days, by direction of the Executors, Coach, Black, and Furnishing IRONMONGERY; comprising 100 tons of Staffordshire iron in bars and hoops, three tons of new spring and shear steel, 100 sets of patent axletrees, 100 pair of cart arms, two tons of coach bolts, three tons of cut and wrought nails, two tons of cart nails, three tons of rivets, 100 dozen of spades and grafting tools, fifty navigators' barrows, three tons of sash weights, one ton of air bricks, fifty dozen files, carpenters' edge tools, mortise and other locks, screws, ranges, stoves, pot boilers, wire, rain water and gutter pipes, fenders, fire-irons, a large quantity of brass-work; also the tools and fittings of a black-smith's shop, a town-built cart, two gigs, a truck, two horses, four sets of harness, and miscellaneous items. May be viewed two days previous and morning of sale, when catalogues may be had on the Premises; and of the Auctioneer, 1, Mount street, Berkeley square.

BUILDING GROUND.

MR. TINDALE will include in his SALE of ESTATES, at GARRAWAY'S, on WEDNESDAY, OCTOBER 17, 1855, a PLOT of GROUND, having a frontage to a good road of 32 feet 6 inches, and a depth of 204 feet, now held under agreement for a lease direct from the freeholder, for 71 years from Christmas, 1855, at 1l. a year ground-rent. Land-tax redeemed. Conditions of sale may be had of Messrs. BOYS and TWEDIE, Solicitors, Ely-court, Holborn; and of the Auctioneer, Portland place, Commercial-road, Stepney.

TO CARPENTERS AND BUILDERS.

MR. TINDALE will SELL by AUCTION, without reserve, on the PREMISES, Norfolk-street, and Carlton-road, Globe-road, Mile-end, on THURSDAY, OCTOBER -, 1855, at TWELVE o'clock (by order of the proprietors, dissolving partnership), the entire STOCK-IN-TRADE of Builders and Carpenters, comprising four dozen new-framed and panelled doors, thirty six pair of new sashes and frames, prepared floor boards, cut stuff, fir scantling, prime yellow battens, two loads of laths, work-benches, ladders, scaffold-poles, scaffold-boards, 2- pulleys, chaise, and two sets of harness, new spring chaise, cart, patent axles; nearly new brick-cart, and numerous other effects.—On view the day before sale. Catalogues may be had on the Premises; and of the Auctioneer, 1, Portland-place, Commercial-road, Stepney.

Near STRATFORD, ESSEX.—To BUILDERS and OTHERS.

MESSRS. CRAWTER will SELL by AUCTION, at GARRAWAY'S COFFEE-HOUSE, Change-alley, Cornhill, on FRIDAY, OCTOBER 12, 1855, at ONE o'clock precisely, thirty plots of FREEHOLD BUILDING LAND, very eligibly and pleasantly situated between Stratford and Leytonstone, only a short distance from the railway stations at Stratford, and a few minutes' walk from the station on the branch line of railway to Woodford, now forming near the West Ham Union-house. The soil is perfectly dry, with elevated site, commanding the surrounding neighbourhood, and offers a favourable opportunity for investment, with the advantage of immediate possession. Particulars and plans may be had ten days before the sale, at the Inns in the neighbourhood; at Garraway's; of JAMES HEATHER, Esq., Solicitor, 17, Paternoster-row; and of Messrs. CRAWTER, 5, Bedford-row.

SALES BY AUCTION.

DALSTON.—NINE SHOPS.—PROFITABLE INVESTMEN[T]

MR. W. F. HAMMOND is instructed by th[e] Mortgagee to SELL by AUCTION, at GARRAWAY'S, [on] TUESDAY, OCTOBER 16, at TWELVE for ONE, in single lo[ts,] a very desirable PROPERTY, comprising nine shops, situate N[os.] 8, 9, and 10, Church-row, and Nos. 2 to 7, inclusive, Cotton-ro[w,] Marlborough-road, Queen's-road, Dalston, held on lease for eight[y-] nine years,—the nine houses producing a net rental of 135l. p[er] annum. Particulars and conditions of sale to be had of Mess[rs.] COODE, KINGDON, and COTTON, Solicitors, 10, King's Arms yar[d;] Mr. E. HUGHES, Surveyor, 3, Marlborough-terrace, Marlboroug[h-] road, Dalston; at Garraway's; and at the Auctioneer's Office[s,] 3, Carey-street, Lincoln's-inn.

ISLINGTON.—Three Residences for investment or occupatio[n.]

MR. W. F. HAMMOND is instructed t[o] SELL by AUCTION, at GARRAWAY'S, on TUESDA[Y,] OCTOBER 16, at TWELVE for ONE o'clock, in three lots, t[he] above valuable PROPERTY, situate Nos. 9, 12, and 13, Oxfor[d-] terrace, Gerrard-street, St. Peter's, Islington, held for a term [of] 500 years, at a ground-rent of 8l. each per annum, and each let [at] 4-l. per annum. Particulars and conditions of sale to be had [of] Messrs. GALSWORTHY, Solicitors, 16, Old Jewry chambers; [at] Garraway's; and at the Auctioneer's Offices, 3, Carey street, Lin[-]coln's-inn.

BRICKLAYERS' ARMS.—PROFITABLE INVESTMENT.

MR. W. F. HAMMOND is instructed t[o] SELL by AUCTION, at GARRAWAY'S, on TUESDAY[,] OCTOBER 16, at TWELVE for ONE, in one lot, THRE[E] HOUSES, being Nos. 5 and 6, York-terrace, and 1, York-plac[e,] near the Bricklayers' Arms, Old Kent-road; held on lease f[or] eighteen years, and producing a net rental of 44l. per annum. Particulars and conditions of sale to be had at Garraway's, Cor[n-]hill; and at the Auctioneer's Offices, 3, Carey-street, Lincoln's-in[n.]

TO BUILDERS, TIMBER DEALERS, and OTHERS.—TO BE SOLD by AUCTION, by

THORNELOE and SON, at the GEORG[E] INN, FAZELEY, near Tamworth, on WEDNESDA[Y,] OCTOBER 17th, 1855, at SIX o'clock, all that very valuab[le] PROPERTY lately belonging to Mr. Francis Yeomans, decease[d] (and occupied by him), including new and commodious dwellin[g-]house and out-offices, joiners' shopping, warehouses, timber-shed[s,] garden, &c. situate in Atherstone-street, Fazeley. The good will [of] the trade will be sold with the property, and as immediate posse[s-]sion can be given, the above affords an opportunity rarely offere[d] for a builder to succeed at once to a very good and lucrative bus[i-]ness. The household furniture, &c. will be sold on the 18th an[d] 19th of October, and the stock in trade on the 22nd and 23rd [of] October, 1855.—Further particulars can be obtained from M[r.] APPLEBY, at the House; or from Mr. ALFRED WATTON, Bonehi[ll,] Fazeley.

TO BUILDERS, MASONS, &c.—Thre[e] hundred MARBLE CHIMNEY-PIECES, executed in gre[at] variety of designs, and manufactured in a superior manner, WIL[L] BE SOLD by PUBLIC AUCTION on the following days:—WE[D-]NESDAY, 3rd of OCTOBER; WEDNESDAY, 17th of OCTOBER; WEDNESDAY, 31st of OCTOBER. Sale to commence precise[ly] at THREE o'clock, and on view the day of sale only. The fir[st] and second portions will consist of the smaller class Chimne[y-]pieces. The Third Days' Sale will consist of the larger cla[ss] Chimney-pieces, suitable for Mansions, Public Buildings, an[d] Clubhouses.

Westminster Marble Company.
Earl-street, Holywell-street, Millbank.

TO SCULPTORS, MARBLE MASONS and BUILDERS.—Now landing from barges at Whiteh[all] wharf, ex Conquest, from Leghorn, upwards of FIFTY BLOCK[S] of fine STATUARY (for figures) VEIN and SICILIAN. M[r.] FRANKLIN begs to call attention to the above, also to his exte[n-]sive stock of marble, in blocks and slabs; consisting of statuar[y,] vein and Sicilian, Irish green and black, dove, Bardilla, Sienn[a,] Brocatella, rouge royal, St. Anne's, Emperor's Red, black an[d] gold, &c. which he is enabled to offer on advantageous terms. Depôt, Whitehall wharf, Parliament-street, Westminster, Londo[n.]

PHOTOGRAPHY.—A complete Apparatu[s,] 3l., 5l. 5s. and 11l. 11s.—Send for a List, post-free, at GI[L-]BERT FLEMING'S, 498, Oxford-street, Author of "First Steps [in] Photography," price 6d.; by post, seven stamps.

MATHEMATICAL DRAWING INSTRU[-]MENTS.—JOHN ARCHBUTT, 20, Westminster-Bridg[e-]road, Lambeth (near Astley's Theatre), begs to call attention [to] his Stock of Instruments manufactured by superior workme[n.] The prices will be found considerably lower than ever charg[ed] for articles of similar quality and workmanship. Rules, scale[s,] tapes, &c. at equally low prices. An illustrated price-list will [be] immediately forwarded, free, on application.

N. B. A few New and Second hand Levels and Theodolites always for Sale.

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instrument[s,] and considerably cheaper.—Apply to Mr. S. BARLOW, 2, Thavie[s] inn, Holborn (between 1 and 3½ p.m.); or to Mr. H. B. BARLOW, Office for Patents, Ducie place, Exchange, Manchester.

TO ARCHITECTS.

COMPETITION and other DRAWINGS.—Mr. THOMAS S. BOYS, Member of the New Society [of] Painters in Water Colours, and author of "The Picturesq[ue] Architecture of Paris, Ghent, Rouen," &c. and of "London [as] it is," offers his services in Tinting Backgrounds, Landscap[es,] Perspective Views, Interiors, &c. From the long experience [he] has had in such subjects, he is fully aware of the points essential [and] necessary to be attended to. Drawings and designs lithographe[d] in a superior manner.—Address, Mr. BOYS, 32, Albany-stree[t,] Regent's-park.

ARCHITECTURE, CIVIL ENGINEER[-]ING, and SURVEYING CLASSES. Established by Mess[rs.] HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Su[r-]veyors, &c. For Preparing Gentlemen for Architects, Builder[s,] Engineers, Surveyors, Draughtsmen, Measurers, &c. and for givin[g] EVENING INSTRUCTION in Architectural and Civil Enginee[r-]ing, Drawing, and Colouring. Making Finished and Workin[g] Drawings, Preparing Specifications, Taking out Quantities, Est[i-]mating, &c. &c. Terms—Day Pupils Three Guineas per Quarte[r;] Evening Pupils, One Guinea per Quarter, which includes Drawi[ng] Boards, T Squares, Plans, Drawings, Models, &c. For Prospectus apply at the Offices, 24, Guildford-street, Russell-square.

TO DRAUGHTSMEN.

MESSRS. WATERLOW and SONS, 65 t[o] 68, London-wall, being frequently applied to by Arch[i-]tects, Surveyors, and Engineers for DRAUGHTSMEN, would b[e] glad to receive the ADDRESSES of parties competent to ma[ke] fair tracings of plant and drawings, or to make out and prepa[re] competition drawings, in common or isometrical perspectiv[e,] from original plans and elevations.

REMOVAL.—MACINTYRE'S (late W. S[.] KENNEDY and CO.) CHINA LETTER and MORTIS[E] FURNITURE DEPOT REMOVED to No. 40, Watling-stre[et,] corner of Queen-street, City.

JAMES ARTHUR MILES, Agent.
Mortise Furniture in China, Porcelain, Glass, Wood, &c. mounted with PITT'S NEW PATENT SPINDLE.
Bell Furniture of every description.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-stre[et,] Brunswick-square, in the Parish of St. George, Bloomsbur[y,] Printer, at the Printing-office of COX (Bros.) & WYMA[N,] 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Pari[sh] of St. Giles-in-the-Fields; and published by the said CHARL[ES] WYMAN, at the Office of "THE BUILDER," 1, York-street, in t[he] Parish of St. Paul, Covent Garden, all in the County of Mi[d-]dlesex.—Saturday, September 29, 1855.

The Builder.

A JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

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BUILDERS' BENEVOLENT INSTITUTION.—THE EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate street, on TUESDAY, the 30th of OCTOBER next.

CHARLES LUCAS, Esq. President, in the chair.

STEWARDS.

Bird, Stephen	Freeman, Wm. jun	Pearse, L. B.
Bird, George, Treasurer	Hayward, J.	Plunkett, W.
Bird, Joseph	Godwin, George	Piper, Thomas
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Cubitt, Thomas	Jackson, E. and H.	Smith, Frank
Cozens, Thomas	James, Jabez	Smith, Thomas
Dove, Shadbolt, and Co.	Jay, John	Stephens, S J.
Collins & Stanbury, Birmingham	Jennings, Geo.	Simkin, W. S.
Collingford, W. H.	Kelk, John	Stirling, William
Dunnage, Wm.	Lawrence, Wm. jun.	Stirling, Thomas
Doulton, Henry	Lucas, Thos. C.	Soward, John, jun.
Dowell, Joseph	Lee, Wm. Field	Sloper, J seph
Day, Ebenezer	Mashman, William	Strickfield & Cooper
Davis, James	Myers, George	Sewell, G Edward
Eales, Christ.	Newson, John, sen.	Tolley, James
Ellis, William	Newson, John, jun.	Thorn, John
Evernfield and Horne	Nicholson, D.	Todd, William, jun.
Forest, Robert	Nicholson, D. junior	Taylor, James
Formby, Charles	Nixon, J.	Twyman, Thomas
	Norris, William	Webb, William
	Peto, Sir S. Morton, bart.	Williams, J. junior
		Wright, William

Gentlemen desirous of promoting the interests of the institution by becoming stewards, will be pleased to forward their names to the Treasurer, Mr. GEORGE BIRD, 38, Edgware-road; or to the Secretary, at the Office, 19, Southampton-street, Bloomsbury.

A. G. HARRIS, Secretary.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-Superintendent—RICHARD REDGRAVE, Esq. R.A.
Head Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful and practical education, to develope its relation to the requirements of trade and manufacture, and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects:—Freehand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera, and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still-life, &c, the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of Design and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two best Classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees 4l. per session, or part of the session. For Evening Classes only, 2l. per session.

The Class for Practical Geometry and Perspective, or that for Modelling in Clasting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the Museum and Library, either for consultation or copying, as well as to all the lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent. Mrs. M'Ian. Fees per session.—Advanced Class, 2l and 1l., Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall mall, London.

THE ARCHITECTURAL EXHIBITION. All Drawings, Models, &c. or Specimens of Manufactures Patents, &c connected with Building, must be delivered at the Galleries, 61, Suffolk-street, Pall-mall East, on the 3rd or 4th of DECEMBER next.

Subscriptions may be paid to the honorary treasurer, or to either of the honorary secretaries, who will be happy to afford every information.

JAMES FERGUSSON, F.R.A.S. 20, Lansham-place, } Honorary
JAMES EDMESTON, Jun. } Secretaries.
5, Crown-court, Old Broad street

THE ARCHITECTURAL MUSEUM. Canon-row, Westminster.—Autumn Session, 1855.—On MONDAY, OCTOBER 15, a LECTURE will be delivered at the Museum, on Heraldry, in its connection with Architecture, by the Rev. CHARLES BOUTELL, M.A. Hour of admission, SEVEN o'clock. The chair to be taken at EIGHT o'clock.

Cards for the course of Lectures may be had on application at the Museum, and at the Office of "The Builder."

HENRY CLUTTON, Honorary Secretary.

October 4, 1855

THE EXHIBITION of the PHOTOGRAPHIC PICTURES, by ROGER FENTON, Esq. of the SEAT of WAR in the CRIMEA, is NOW OPEN at the Gallery of the Water colour Society, Pall-mall East, from TEN to SIX daily. Admission, One Shilling. Catalogues forwarded to the country on receipt of six postage stamps.

CONTRACTS.

Royal Engineer's Office, Sheerness, September 25th, 1855.

CONTRACT for CONSTRUCTING a PILED FOUNDATION for the Soldiers' Hospital, Sheerness.—The Commanding Royal Engineer, Sheerness, gives notice that TENDERS will be received at the Office of Ordnance, Pall-mall, on or before SATURDAY the 6th day of OCTOBER, 1855, from such persons as may be desirous of Tendering for the CONSTRUCTION of a PILED FOUNDATION for the Soldiers' Hospital at Sheerness. The plans may be seen, and printed specifications obtained at the Office, between the hours of TEN and FOUR each day (Sundays excepted), till the 12th day of OCTOBER, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London district hereby gives Notice, that sealed TENDERS addressed to the Director General of Contracts, will be received at the Office of Ordnance, Pall-mall, on or before the 11th OCTOBER, 1855, for the ERECTION of a RANGE of BUILDINGS for SCHOOLS and Schoolmaster's Quarters, at the Wellington Barracks, St. James's-park. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's Office, 31, James-street, Pimlico, between the hours of TEN and THREE o'clock, from the 20th SEPTEMBER, to the 11th OCTOBER, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 27th September, 1855

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives Notice, that sealed Tenders, addressed to the Director General of Contracts will be received at the Office of Ordnance, Pall-mall, on or before the 8th OCTOBER, 1855, for SUPPLYING and LAYING DOWN GRANITE PAVING at the Tower of London. The specification and plan for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's Office, Tower, between the hours of ELEVEN and THREE o'clock, from the 3rd to the 8th OCTOBER, 1855. The Ordnance Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, 27th September, 1855.

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, on or before WEDNESDAY, the 10th OCTOBER, 1855, from such persons as may be willing to enter into a CONTRACT with the Ordnance for ERECTING a BAKERY, with MAGAZINE &c. near Southsea Castle, Portsmouth, county of Hants.—The plans, specification, and conditions of Contract, may be seen, and every information obtained, on application to Mr. HAWKEN, Clerk of Works, at this Office, any day, Sunday excepted, until the 10th OCTOBER, and where forms of Tender may be obtained.

N B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders

Royal Engineers' Office, Portsmouth, Sept. 27, 1855.

ORDNANCE CONTRACT.—NOTICE to BUILDERS and IRONMONGERS.—Sealed TENDERS, addressed to the Director General of Contracts, Ordnance Office, London, will be received on or before SATURDAY, the 13th of OCTOBER, 1855, from parties willing to contract for the CONSTRUCTION and ERECTION of a large IRON STORE for straw, at the temporary encampment at Aldershot. Plans may be seen, and specification and form of Tender obtained on application at the Royal Engineer Office, Aldershot, on and after MONDAY, 8th inst. The Tenders to be marked on the envelope "Barracks," and endorsed "Tender for Straw Store, Aldershot."

Royal Engineer Office, Camp, Aldershot.

ORDNANCE CONTRACT.—To BUILDERS and CONTRACTORS.—Notice is hereby given, that TENDERS will be received by the Ordnance, at their Office, Pall-mall, London, on WEDNESDAY, the 17th OCTOBER, 1855, before TEN o'clock in the forenoon from persons willing to undertake DEEPENING and WIDENING the DITCHES, and Raising the Parapet of Hilsea Lines, near Portsmouth, county Hants. Plans, specimen casting, and conditions of contract may be seen, and every information obtained on application to Mr. HAWKEN, Clerk of Works, at this Office, between the hours of TEN and FOUR o'clock each day, Sundays excepted.

Royal Engineer Office, Portsmouth, Oct. 3, 1855.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 9th day of OCTOBER, 1855, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK and TILE SEWERS, 6,660 feet in length, or thereabouts, with other works in connection therewith in Lisle-street, Hastings-street, Brunswick street, Newman's, Saint Chad's-place, Britain-street, Gray's-inn road; Ormond-place, Queen-square; Tennis-court, Middle-row, Holborn; and other streets and places in the county of Middlesex; and the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the principal office of the said Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE A.M. and FOUR P.M. on the 8th OCTOBER. The said Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the said works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.
Dated this 29th day of September, 1855.

LONDON and NORTH-WESTERN RAILWAY.—CONTRACT for PERMANENT WAY MATERIALS.—The Directors of the London and North-Western Railway Company are prepared to receive TENDERS for the supply of the undermentioned MATERIALS.—

100,000 SLEEPERS.
40,000 CHAIRS.
60 TONS HIGH PLATES.
275 TONS SPIKES.
120 TONS BOLTS and NUTS.

Specifications, with particulars, may be obtained on application to the Permanent Way Office, Railway Station, Stafford, addressed to the Secretary, at this Office, to be sent in on or before WEDNESDAY, OCTOBER 17, 1855.

By order, CHAS. EDWD. STEWART, Sec.
Secretary's Office, Euston Station, Sept. 15, 1855

EAST LANCASHIRE RAILWAY.—To CONTRACTORS and BUILDERS.—The Directors are prepared to receive TENDERS for the ERECTION of LOCOMOTIVE WORKSHOPS at Bury, comprising Erecting Shops, Machine Shop, Offices, Smiths' Shop, Boiler House, Tender, Brass Foundry, Engine House, &c. Plans and specifications may be seen at the Engineer's office, Bury Station. Sealed Tenders, addressed to the undersigned, and endorsed "Tenders for Locomotive Shops," will be received on or before the 17th day of OCTOBER next. By order, JAMES SMITHELLS, Secretary.

Bury, Lancashire, Sept. 19, 1855.

PUMPING-ENGINE.—The Committee acting under the Hereford Improvement Act of 1854, are prepared to receive TENDERS from parties who may be willing to undertake the CONSTRUCTION and ERECTION of a PUMPING-ENGINE for the Hereford Waterworks. A description of the engine required, with all the particulars, may be obtained on application to Mr. T. CURLEY, C.E. Tenders to be sent in on or before TWO o'clock, p.m. on MONDAY, the 29th day of OCTOBER next, addressed to the Committee of the Hereford Improvement, and endorsed "Tender for Pumping-Engine." The Committee do not pledge themselves to accept the lowest or any Tender.

By order of the Committee,
T. CURLEY, C.E.

Hereford Improvement Office, 17th September, 1855.

ARLSEY CHURCH, BEDFORDSHIRE. To BUILDERS. It is proposed to RESEAT and RESTORE the INTERIOR of the CHURCH situate close to the Arlsey Station of the Great Northern Railway, and Builders are hereby invited to send in TENDERS for the same. The plans and specifications may be examined at the Vestry-room of the church, from MONDAY, the 1st OCTOBER, till SATURDAY, the 13th OCTOBER, on which day the Tenders are to be forwarded to the Architect, Mr. NORTON, of 34, Old Bond-street, London. Further information may be obtained of the Rev. ROGER SMITH, Vicar of Arlsey, or of the Architect.

TO BUILDERS.

PARTIES desirous of TENDERING for the ERECTION of No. 6 HOUSE, to be built in Walter-street, Stepney, may see the drawings, specification, and obtain further particulars, by applying to Mr. THOMAS WALTER, Green Dragon, Stepney. The Architect does not bind himself to accept the lowest or any Tender.

R. I. BRIDE, Architect, Amersham road, New-cross.

TO BUILDERS.

THE GODALMING BURIAL BOARD are prepared to receive TENDERS and contract for the ERECTION of TWO CEMETERY CHAPELS on their new burial-ground at Godalming. Plans and specifications will be deposited for inspection at the Angel Inn, Godalming, on and after the 4th of OCTOBER next. Tenders made by sent or delivered (free of expense, and endorsed "Tender for Chapels" to Mr. G. C. WOODS, Solicitor, Godalming, before TWELVE o'clock on WEDNESDAY, the 17th of OCTOBER next. The Board do not undertake to accept the lowest or any Tender. Persons desirous of making proposals may obtain any further information from C. H. HOWELL, Esq. of Godalming, the architect of the Board

TENDERS are required for the COMPLETION of FIVE FOURTH-RATE HOUSES in Bethnal-green.—Plans, &c may be seen daily between the hours of TEN and FIVE, at the offices of Mr. WILLIAM H. WILLIAMS, Architect, No. 75, Coleman-street. Mr. W. does not bind himself to accept the lowest or either of the Tenders

[For remainder of Contracts see next page.

CONTRACTS.

TENDERS are required for the FORMATION of some NEW ROADS, near Hornsey Station; also for LARCH POLE FENCING to enclose the same. Plans may be seen, and further particulars had, between the hours of TEN and FIVE daily, at the Office of Mr WILLIAM E. WILLIAMS, Architect, No 73 Colman-street. Mr W. does not bind himself to accept the lowest or any other of the Tenders.

SHIPLEY WATER-WORKS.—To WROUGHT-IRON TUBE MANUFACTURERS, BRASS-FOUNDERS, PLUMBERS, and OTHERS.—The Local Board of Health for the District of Shipley are prepared to receive TENDERS for the following CONTRACTS:—

CONTRACT No. 6.—For the supply of an Iron Galvanized Iron, and Lead Piping, High-pressure Cocks, Ferrules, and other Fittings for a temporary water supply.

CONTRACT No. 7.—For Excavating the Ground, Tapping Mains, Laying, Jointing, and Fixing Pipes, Cocks, and other Fittings for house service water supply.

Specifications may be inspected, and printed forms of Tender obtained, at the Offices of Mr. J. McLANDSBOROUGH, Civil Engineer, 24, Queen-street, Bradford, from whom any further necessary information may be procured. Sealed Tenders, properly endorsed, must be sent to me on or before MONDAY, the 29th of OCTOBER next ensuing.

By order, JO THOMPSON, Clerk to the Local Board.
Bradford, October 1st, 1855.

BOROUGH of BLACKBURN.—CONTRACTS for SEWERAGE WORKS CONTRACT No. 1.—The Blackburn Corporation are prepared to receive TENDERS from competent persons for the CONSTRUCTION of 1,200 lineal yards, or thereabouts, of first-class MAIN BRICK SEWER, 6 feet by 4 feet inside, including brick and pipe-built tributary sewers, junctions, gullies, side-entrances, shafts, flushing apparatus, and all other work connected therewith; also for the Formation and Completion of a New Road of 300 yards in length, and the Deviation of a Portion of the River Blakewater, in connection with the above Sewerage Works.—Drawings and specification may be seen, and forms of Tender and Abstract of Quantities obtained, at the Borough Surveyor's Office Sessions-room, Heaton-street, on and after the 4th instant; and all Tenders must be sent in to the Town Clerk before TWELVE o'clock at noon, on the 18th instant, sealed, and endorsed "Tender for Sewerage Works, Contract No. 1."—By order,

THOS. AINSWORTH, Town Clerk.

Town Clerk's Office, 32, Clayton-street, Oct. 2, 1855.

TO BUILDERS.

PERSONS willing to CONTRACT for the ERECTION of a MEMORY HOUSE, at Hawkchurch, can see the plans and specifications, on and after MONDAY, OCTOBER 8th, until SATURDAY, OCTOBER 20th, on which day the estimates are to be delivered at the Office of the Architect, Mr. JNO. HICKS, South-street, Dorchester.

TO BUILDERS, CARPENTERS, UPHOLSTERERS &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.	3	4	5	6
	5s.	6s. 3d.	7s. 6d.	per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK.

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 151, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler.

	30	32	34	36-inch
	28s.	30s.	32s.	34s.

Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

	34	36	38	42-inch.
	54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2s.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bar and Trivets, 1 per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe { 2 in. 2½ in. 3 inch.
{ 11d. 1s. 2d. 1s. 4d. per yard.

Cast Gutters—4 inch, 9d. per yard.

O G Gutters..... { 4 in. 4½ inch.
{ 1s. 1d. 1s. 3d. per yard.

Patent Line { 3 in. 4 in. 5 in. 6 in.
{ 4½d. 5d. 7d. 9d. 1s. per knot.

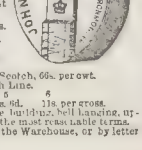
4-inch Rd. Ward Mantles, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 2s. 6d. each

An extensive stock of bar, rod, hoop, and sheet Iron Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any House in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register stoves, 6d., 6½d., 7d. 8½. and 9½ per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings—

3 ft., 3l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

3-feet self-acting ditto, ditto, 39s. each

Air Bricks, 1s. per doz.

Best Town Glue, 5s. Ditto, Scotch, 6s. per cwt.

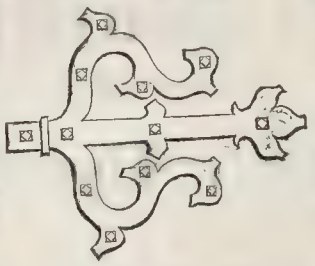
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	10s. per gross.

And every material required in the building, bell hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

HART AND SON,
IRONMONGERS AND MANUFACTURERS,
53, 54, 55, & 57, WYCH-STREET, STRAND.



LOCKS, HINGES, HANDLES, BOLTS, &c.

Paris Exhibition, No. 1717.
Also Specimens at the Crystal Palace, Sydenham.
Illustrated Price catalogues on receipt of four postage-stamps.

JOHN WALKER,
MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.
JOHN WALKER,
GALVANIZED IRON MERCHANT, &c.—The trade supplied Corrugating by steam power capable of doing 100 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.
JOHN WALKER,
IRON-FOUNDER AND ENGINEER.
Orders to any extent can be executed at his Works, Mill-wall, Poplar. Apply at the Works.

BUILDER AND CONTRACTOR.
JOHN WALKER,
Having his own Saw-mills, is enabled to CONTRACT for BUILDERS' WORK,
At low prices, consistent with good work.
Apply at his Offices, Arthur-street West, London bridge.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON.
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets.
PLAIN or CORRUGATED, and Curved, Cast Gauges.
Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c., of all sizes.
Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building, at the
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SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always in view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TO ARCHITECTS, BUILDERS, AND THE TRADE.
PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about	18 oz.	per foot	super.
	16 "	"	"
	13 "	"	"
	14 "	"	"

Full particulars and the reduced price sent by post on application to
A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM.
LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch-street, City.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).
WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

LIVERPOOL and MANCHESTER PATENT GALVANIZED IRON WORKS.—FRANCIS MORTON and CO. Galvanized Sheet Iron of the best quality; ditto, expressly prepared for Tinmen and Brasiers. Corrugated Sheets, Painted or Galvanized, of all sizes, for Roofing, Fire-proof Partitions, Ceilings, &c. always kept in Stock. Gas and Water Tubing, Rain-water Gutters and Pipes; Wire of all numbers; Nails, Screws, Spikes, Hoops, &c.; Wrought Iron Hurdles, Field Gates, &c. An allowance to Shippers and the Trade. Head Offices, 13, James-street, late Goulbrook-lane Company's Premises), Liverpool, and at 18, St. Mary's-gate, Manchester.
N.B. Parties are particularly requested to note the address, LIVERPOOL.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

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PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators. HULETT and CO. 53, High Holborn.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES:
Office, No. 7, Bise-lane, London.

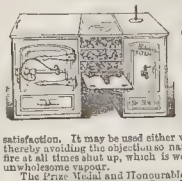
TO ARCHITECTS AND BUILDERS.
PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom. Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.
THIS IS THE ORIGINAL PATENT

for important improvements in stable fittings, including a method of dressing all others for conveying the straps and halter-weights to the back of the fittings, to prevent the horse getting cast in the stall. Stable Fittings of every description, enamelled or galvanized. All kinds of stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of Kites Patent Noiseless Cast-Iron Smoke Curing Chimney-Caps.—20 Oxford-street, Backingham-palace.—Price Lists sent on receipt of two postage-stamps.
JAMES BARTON, Iron Founder, &c. 370, Oxford-street, a few doors East of the Pantheon.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.
BARKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

IMPERIAL IRON FOUNDRY, and ECONOMIC RANGE MANUFACTORY.



Three ft. wide.....	£6	10
Three ft. three in.....	7	0
Three ft. six in.....	7	15
Three ft. nine in.....	9	0
Four ft.....	10	10
Four ft. six in.....	12	12
Five ft.....	14	14

Ceilings, 5s. per foot.
Fixing, 3s. per foot.
This valuable KITCHEN RANGE, the Manufacturer has much gratification in stating, has been in use several years, and given the utmost satisfaction. It may be used either with the fire open or closed, thereby avoiding the objection so naturally felt against having the fire at all times shut up, which is well known to generate a close unwholesome atmosphere.
The Prize Medal and Honourable Mention was awarded to this Range at the Great Exhibition of 1851.
To be seen in operation at the Manufactory,
J. SHERWIN, 62, TABERNACLE-WALK, FINSBURY.
Castings of every description in Loam or Sand.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hole Plates, Trunk Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

FOUNDRY AND IRON WORKS,
88, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.
GLOVER, BROS.,
Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.
Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Book-rails and Stands, Lamp Rooms, Chairs and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.
GLOVERS' IRONWORKS,
168, DRURY-LANE, and CHARLES STREET.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

'ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

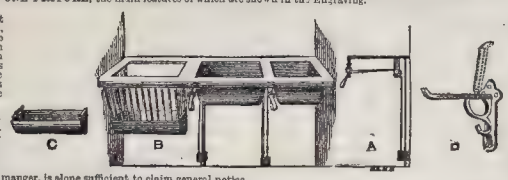
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

are made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



A represents the Patent Halter-guide and Collar-rein, the ball of which is taken to the back of the manger-works with freedom and ease up or down the guide bar, and is noiseless in its operation, as also a sure preventative against the most restive horse being cast in the stall.

B. The Patent Portable Seed-box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers; Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Saddle and Harness Brackets, and every Article in Stable Furniture in stock

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

SKAIFE'S GALVANIZING WORKS,

COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form. Sheets plain and corrugated. Roofs fixed complete.

J. SKAIFE is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

AN ALLOWANCE TO THE TRADE.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the Stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO., opening to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes and accidents from fire are effectually prevented by its use, while at prevents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 300 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope street, Clare-market, London.

No. 1081, Class 5, Section 3, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

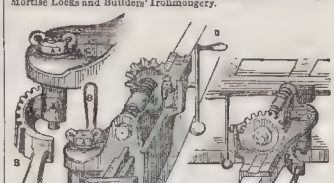
5 AND 6, BROAD-STREET, BLOOMSBURY.

PATENT CORRUGATED IRON.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES

W. BISSELL, PATENTEE,

WOLVERHAMPTON. Manufacturer of Rein and Mortise Locks and Builders' Ironmongery.



AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 2 to 4 inches.

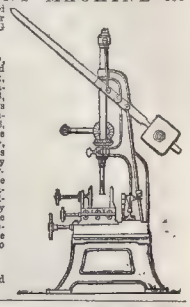
B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist, then fix the set screw FIRM. Turn the notched lever B against the joist, then, by turning the handle D, the lever will gradually fix itself and hold the cramp firm: the greater the strain, the more tightly, by its eccentric action, will the lever bind. The Patentee, in asking the attention of Builders and others, assures them that the cramp possesses great advantages. It is a BENCH cramp of the best kind, and as well suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be more quickly and safely used than any yet brought out, and at the same time it is light and portable.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 500 feet in length, at the small expense per day in fuel and labour of 3s. 3d. This achievement in heating by hot water is unprecedented.

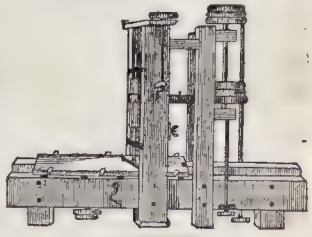
NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.



House and Cosch Builders, Joiners, Cabinet-makers, and others, doing similar work, are invited to call at the Patentees', FOWLS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see the action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

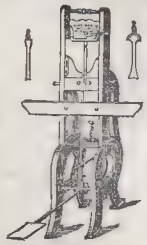
VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



PLANING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and waggon builders, machinists, agricultural implement makers, shipbuilders; and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee, 20, Lawton-street, Liverpool from whom full particulars may be obtained.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.



MORTISING MACHINE. 32l. to 35l.

KIMBERLEY'S PATENT MORTISING MACHINE.

The Patentee feels justified in calling attention of all Builders, Cabinet-makers, and others to this simple, strong, cheap, and most effective machine. Hundreds are in daily use all over the Kingdom, and ref rences to any extent can be given to prove it really is what it is represented, viz the most valuable tool ever offered to the trade.

Amongst testimonials of the highest character, he would respectfully invite attention to the following:—

"Rugby, June 14, 1855.

"Dear Sir,—In reply to your inquiry respecting the Patent Mortising Machine I purchased from you THREE YEARS AGO, I have to inform you I consider it a most SIMPLE, EXCELLENT, and DURABLE article, indeed I think it saving more than it deserves when I state it is highly superior every way to one I was recently induced to purchase from a London house, which, although represented to be unexcelled in its principle and make, has totally deserved myself and all others, as it is always breaking, and is useless in comparison with your own, upon which I believe not a sixpence has been expended since received from you, although in constant work. I candidly assure that its use in my shop is of GREAT VALUE, as it must, indeed, be to every builder who possesses it.

"I am, Sir, yours faithfully,

"JOHN PARNELL."

London Agents: Messrs. PUGH and CO. 14, King-street, Snowhill, who keep Stock of all Kimberley's Patent Goods, Flooring Cramps, &c.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, Irons and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-pole, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.

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212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporizing) with all the improvements, under their Quintuple patents of 1849, 51, 54 and 1855, including their Gunpowder Proof Solid Lock and Door (without which no safe is secure)

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CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS BROTHERS, Nine Elms, London.

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Self-acting ditto, with ditto, from 25s.
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	1s.	1s. 1d.	1s. 2d. 1s 6l per yard.
Best Cut Clasp	1½	2	2½ 3 inch and larger.
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1-inch Best Cut Lath, 13s 6d. per cwt.
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Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

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TO STONE-MASONS AND BUILDERS.

GEO. S. TOVELL, Stone Merchant, Three Cranes Wharf, Ipswich, embraces this opportunity of thanking his friends for the liberal patronage he has received; and begs to inform them, and the trade in general, he is now enabled to supply them with every description of stone of the best quality, and at the lowest remunerative profits. Also fire-bricks, lumps, and quarries glazed and unglazed, socket drain-pipes, chimney-pots of every size and shape, and pan and plain tiles, of the best Yorkshire make. Also, wanted to purchase an OVERHEAD TRAVELLING CRANE, capable of lifting from 15 to 20 tons. Price and particulars to the above address.

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TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the province of Massa Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake Contracts for any quantity of Statuary, Veined, Sicilian, Bardilla, Dove, and other Marbles, in blocks of all dimensions, delivered on shipboard at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt, Orders for Paving Slabs, Garden and Hall Statues, Vases, Terrass, Consoles, &c executed and delivered at reasonable rates.—For further particulars apply at the Offices of the Company, 18, Cannon-street, City.

WILLIAM W. BONNIN, London Secretary.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Macclesfield-street North, City-road, for the sale of CHIMNEY-PIECES, and other articles, useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

July 25, 1855. C. ADENEY, Secretary.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 20, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
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THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces in Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

FLINT and CORNISH STONE MILLS, MILLWALL ISLE of DOGS, opposite Greenwich Hospital.—Messrs. WILSON and CO. beg to call the attention of potters, enamellers, asphalte, and other manufacturers, to their GRINDING MACHINERY, by which they can produce ground flint and Cornish stone, of a greater degree of fineness than is obtainable by any other process.—Orders for the home market, and for exportation, promptly attended to.

ANCASTER STONE QUARRIES.—JOHN WILSON, of Grantham, the Original Lessee of the Ancaster Stone Quarries, finding that stone got from the Haydor Quarries is being sold as Ancaster Stone, begs to caution Architects and Builders against the imposition.

The Ancaster Stone, which has stood the test for 500 years, needs no comment from him; but he thinks it right to let the world know that the Haydor Stone is defective, and not fit to be worked up with Ancaster Stone.

As a proof, he begs to say that he holds two quarries in Haydor (one of which has twelve years' lease to run), paying rent for them without daring to work them. Finding the stone was defective, he closed them some years ago. This is a fact which ought to be made known to all Architects and Builders.

J. WILSON would suggest to Architects the propriety of stating in their specifications where Ancaster stone is to be used, that the stone is to be "Wilson's Ancaster Stone."

Grantham, October 3, 1855.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS, MILLBANK-STREET, WESTMINSTER. Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

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January 1, 1855.

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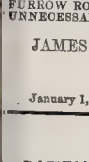

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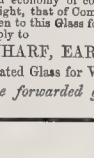

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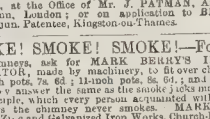

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The Builder.

Vol. XIII.—No. 661.

ALTHOUGH the war, and influences which happened to be in operation during its continuance, repressed the advancement of *art*, it will not have been assumed that all works were in abeyance.* In spite of high prices, private residences on an extensive scale, as we lately found, were completed; and long before the year 1815, more important works had been successfully accomplished.

What railways are now in relation to the engineering skill of the time, the canals were formerly. The chief works of the kind, those which originated with the Duke of Bridgewater, had been commenced shortly after the year 1756. But we find it stated that up to about the year 1800, application had been made for 165 Acts of Parliament for canals; from which we may infer, that these undertakings were hardly checked during the first years of the war.

After a quarter of a century's familiarity with the railroad system, the country still has reason to congratulate itself upon the commercial advantages of ample means of cheap internal communication. We shall have to mention other works more closely associated with our subject, which were undertaken, though some were not immediately commenced. Individuals realized largely by the Government contracts,—under circumstances, amongst those which we have still to regret are incidental to a state of war,—all possible inference to the contrary from the rhapsody of poet-laureates notwithstanding. And the possessions of the large landed proprietors quadrupled in value.

We have already brought the course of our history to about the year 1809 in England—the date of Covent-garden Theatre—at which period the singular character of our later architecture, as to contemporaneous practice of different imitations and divergent systems, had become fairly established. The importance of an active principle in art was under-estimated, and this in the practice of all the styles. The little tendency in the required direction which we discovered in the case of the Gothic style, defeated itself,—because, being not supported by knowledge of the old models, ignorance of available beautiful forms rather than *design* was that which was striking in the new work. In the practice of the Grecian style, the flight of art was further bound down by the utterly erroneous notion that the system was one limited in scope to the range of the known details,—though these were sufficient to allow of greater variety than was attempted. The reduced scale of expenditure on art, usually contemplated, and the seeming irreconcileability of three-storied façades with porticoes, were further difficulties. Whatever the style—and there were many styles attempted—whether we look at the whole, or at one such feature as a portico, it must be confessed that the result is generally unsatisfactory, whether the object be considered as *art*, or as mere imitation. A few remarks in the *Times* leader of a recent date, are quite apposite to the state in which art was found towards the end of the war period in Europe. The writer is speaking of political matters with which we have no present concern; but we may quote the whole passage to show the suggestiveness which there is often in a train of thought apparently far from *architectural*. The article says:—"The common sense of mankind has agreed that there is something inevitably little and narrow-minded in imitations. No imitator, no follower, *ever thoroughly understood his original*, or was anything else than *a reduced and bad copy*; and the best pupils have invariably found it necessary before long to sacrifice their love and admiration for their master to the higher instincts of independence and self-respect. Why Sir Robert Peel's small band of followers have not done this—why they make such a religion of doing what Peel did, and finding out what Peel would have done,—and why in this hopeless pursuit they put themselves into a bad position with nineteen-twentieths of their fellow-countrymen—which Peel certainly would never have done—we cannot divine. There is something morbid in the whole affair, and it is not to be explained by any common rules of action." Whether the reasoning applies to the case there in question, we say we take no trouble to seek; but we are very sure that it fits exactly on to that of many modern buildings, and the old models.

Eventually, indeed, in the use of the Grecian style, greater variety of detail was ventured upon, as by the Messrs. Inwood: whilst the method of combination of the portico and façade was modified by Wilkins, somewhat on the principle of the Glyptothek at Munich, commenced in 1820. The arrangement referred to (of which we shall have to speak in a subsequent place) is that of a central portico, rising so far above the general level, as to allow the line of roof and returning entablature to pass clear above the roof of the wings: in other words, the general building butts against the sides of a portico building;—the ordinary method reversing that arrangement, so as to give the appearance of a mere *superficies* of portico, stuck on to a building or façade. Even where the portico spans nearly the full extent of the front, in such cases usually at the end of the building, there may be a similar defect.

We have already referred to several omissions in the adaptation of Greek architecture, and we may again allude to the advantages of internal columns, and of recessing the back wall of the portico, as helping greatly, in lieu of the continuous roof. Windows at the back of the portico destroy the effect of breadth, and contrast of shade; and, moreover, at once convey the idea, that for the purposes of the building, the portico has no business there. Thus we may gather a few general principles, calculated to assist us much in the critical examination of the numerous attempts at the adaptation of Greek architecture which were made in London, in several important towns of the north of England, and in Edinburgh, and in Munich and Berlin. There are many old examples of porticoes which have neither internal columns, nor recession of the back wall,—perhaps the larger number may be of this character. But in such cases, whilst the portico has ample area and projection, it is made unmistakeably the whole end of the *building*. Where the width of the portico is less than that, a good design is not impossible; but the case is entirely altered. The old examples often differ from the plans given by Vitruvius; yet it would have been well had the Latin author received a little attention at this juncture,—for all his plans recognise the importance of what we are referring to. His temple *in antis* provides the depth of shade; and every addition by which the plan becomes prostylar, peripteral, pseudo-dipteral, or dipteral, leaves the original requisite for effect intact, or adds one other element of beauty. The points in question had been perceived by Holland; but it cannot be said that in Covent-garden Theatre, and some other works of Sir Robert Smirke, the same importance was attached to them, as by the Germans, Schinkel and Klenze. We shall have to instance, at Berlin, the Wachtgebäude and Museum, and at Munich the work we have already named. The application of the principles varied: still, the German architects would have at least recognised the importance of all that we have contended for. But it is probably an error to refer to the Glyptothek at Munich—as we have somewhere seen it done—as the first modern example of the application of the internal columns, and of some other features of effect. The further remark that such points were *never* considered in Great Britain, after the application of the Greek orders, is unquestionably a mistake. The Hunterian Museum at Glasgow has, if we recollect rightly, the hexastyle prostyle according to the Vitruvian precept,—at least so far as regards the retention of columns at the back, *in antis*. One who was mentioned in our last, Thomas Harrison, of Chester, at all events, was in his works alive to the points in question. His portico to the prison at Chester is hexastyle, with a double row of Grecian Doric columns. In the "Portico News Rooms" at Manchester he adopted the arrangement *in antis*. The order is Ionic, the columns, two in number, being unfluted; but the details are defective,—the echinus of the capital being even uncarved. Harrison deserves notice, as having been a considerable worker in the pseudo-Greek school, whose career seems to have commenced earlier than that of Sir Robert Smirke. Born in the year 1744; he visited Italy when very young; and on his return he built a bridge at Lancaster,—architects formerly, being not excluded from this branch of their calling. His chief works were executed at the beginning of the present century, when he was sixty years of age and upwards; and he adds one more to the number of those of former generations, of architects who lived to a green old age,—a piece of testimony to the value of our pursuit as it was formerly, of late years often rudely reversed. Harrison died at Chester, in the year 1829,—or, in his eighty-fifth year. Besides his works at Manchester and Chester, he was employed at Liverpool; at Shrewsbury, where he built the Hill Column; and at other places. He has also been recognised as the architect of the celebrated Dee Bridge, at Chester,—still, for the span of its single arch, a remarkable work; but, some of the chief contrivances in the structure have been ascribed to others. What he attempted in Gothic, is not better than the average of the day: St. Nicholas Church, Liverpool, is, we think, his principal work. In his ordinary style, his taste was highly estimated; of which the best evidence is the fact of his employment by the Earl of Elgin, on his house, Broome Hall, in Scotland, where the order used was Grecian Doric. The building which we mentioned as contemporary with Covent-garden Theatre—1809—the Manchester Exchange—was Greek, only so far as regards the use of a Doric order. The columns were attached to a semi-circular front, and there was a podium and attic. Perhaps few persons recollect that both three-quarter columns, and pilasters not used as *antæ*, are to be met with in the Erectheion, and that there are examples of the podium and attic, and some other especially Roman and Italian features, in Grecian architecture. With the general principle of the Greek architects, such forms were hardly consistent. The Manchester building was covered by a half dome, coffered, rising from an internal order of reeded Ionic columns. Externally the dome was concealed, thus according with what we shall find the practice of the German architects. The effect gained by contrast of the interior, and expanding vault, with the somewhat low appearance of the building by which the eye had been impressed externally, was not without value, and afforded a good lesson in proportion. Harrison would be an important person in the history of modern architecture, if only from the influence which his example had during many years

* See p. 469, *ante*.

afterwards, in rivetting the Greek style upon the architecture of the north. In parts of Lancashire especially, for some years, hardly any building of pretension, no matter what its purpose or general plan, was thought complete until it had received a porch, or a portico,—generally composed of Grecian Doric columns. The details of the original order were expressed with some fidelity; but the real artistic feeling infused into the work became even less than had been shown by Harrison,—to degenerate being, as often before this we have found, one result of the mistaken method in following a model.

One of the best instances which London affords of the erroneous use of the Greek models, is the building in Great Coram-street, now the Russell Institution, and which, possessing a peculiarly heavy version of the Greek Doric, was originally built for the light and festive purpose of an assembly-room. In referring to the pseudo-Greek architecture, in regard to deficiency of sculpture, we ought fairly to allude to the front of Covent-garden Theatre. On the portico, however, no sculpture was attempted. Covent-garden Theatre must have been an early modern instance of the use of cement for important public buildings; and the miserable condition of much of the surface just now, testifies, in one way, to the *value* of the innovation. The old building had been burnt down on September 20th, 1808, after the performance of the play of *Pizarro*, and it was supposed that ignited wadding from the guns had lodged in some part of the scenery. The first stone of Sir Robert Smirke's building was laid on December 31st, in the same year; and the new theatre was *opened* on September 18th, following. The private boxes, which were more numerous than in the old building, were handsomely fitted up, and had ante-rooms. It got bruited about that the object was to admit of assignations; so that, at length, no respectable lady could appear in these boxes. Probably this explains what was very remarkable in the plan of the main box-lobby, as independent of the saloon, namely, the *vacancy* of the ample space which had been intended for rest and promenading between the acts, and where Mr. Kemble expected that parties would take refreshments.

The theatre of Drury-lane, by Benjamin Wyatt, which one authority said was commenced on the 29th of October, a correspondent in a former number recollects under his supervision from the 21st of the month. In any inquiry into the principles of disposition in theatres, Wyatt's building would deserve particular notice, and his "Observations on the Design," &c. should also be consulted. We certainly think that some arrangement of the auditory in theatres, better calculated for convenience as regards seeing and hearing, if not productive of other advantages, might be carried into practical execution. Wyatt is understood to have followed the model of the theatre at Bordeaux, at the time considered the best theatre in Europe for music. The lesson which had been afforded by the destruction of two theatres within a few months, led to an amount of care in the planning and construction of the new building, which we believe has not been surpassed in any modern edifice, as perhaps it had not even in the works of the Romans. The staircases and landings (which are of stone) the architect was careful to have large enough to contain as many persons as could possibly be collected in the auditory. The opposite staircases, to the boxes — "King's side," and "Prince's side" (so called from the situations of the King's box and the Prince's box) —which ascend in one centre and two side flights alternately, have the centre flight exactly double the width of each of the side flights; and they would contain even more persons than were accommodated in the boxes, the number of persons for the whole of the boxes being 1,286, and that for the two staircases, 1,528. The "two-shilling gallery" in Wyatt's plan would hold 550 persons, whilst the two staircases to it would hold 805 persons. In the upper gallery the space allowed of 350 persons, and the staircase leading to it would hold 480 persons. In this calculation, the usual space for each person seated is taken,—being, of course, more than would be really occupied in a crowded staircase. Similar attention, it was considered, was given to the sizes of the openings; the doorways in the main part of the house being from 5 to 6 feet in width. Some of the means of internal communication, however, were found to be inconvenient, and had to be altered in 1822, when the auditory was remodelled by Mr. Beazley.

Certainly, with reference to the danger from fire in most of the London theatres, with their single, long, and narrow passage of entrance to several parts of the house, a nightly peril is run which will some day lead to a calamity of appalling character,—a result which has actually followed in other cases. At the Glasgow theatre, in 1849, some seventy persons were killed, through a mere panic. The temporary barriers in that case happened to be the chief cause of the loss of life; and we should say that some of these contrivances in the present theatre of Drury-lane would call for attention, if, as we apprehend, their arrangement would negative what merit there may be in the building plan. During the same year 1849, an accident at the Victoria Theatre and other occurrences were duly instanced and commented on in these pages*; and on the occasion of the destruction of the Olympic Theatre, which rivalled in rapidity the fire at Drury-lane, it was urged, that had the accident occurred during the performance, many persons would inevitably have been roasted alive. This terrific fate once befel the greater number of the audience in a theatre at Quebec. There, a struggling mass of human beings were jammed in the narrow doorway, and *could not* be drawn out by those outside; whilst the *smell of roasted flesh*, and other sickening details, are described in the account, which we find in the *United Service Magazine*, of some years ago. Are a few such lessons required in London? The great point which Wyatt had in view was, that each person in the house might be able to *feel* that sufficient means of escape were in existence. Thus the chief occasion of disaster—panic, might be prevented. Without attributing anything to such a cause—with present methods of construction—experience has shown that the progress of fire might be enough to leave little chance of escape. Even at Drury-lane—at least as the theatre exists at present—as regards area of openings, attention is called for, especially in the case of the pit. One of the original pit entrances seems to have been lately disused,—if have not others. The staircase and hall space of the boxes may be a trifle larger than might be allowed in cases where ground is valuable; but it is clear that apertures for egress should be always abundantly provided What we notice in the case of Drury-lane, shows that the lesson of the fire there is being gradually forgotten. All these matters should be placed under proper supervision.

Besides the structural provisions at Drury-lane against chances of fire, several tanks for water were placed on the roof, and pipes were conveyed into every part of the house; whilst in a cellar beyond the outer wall of the stage, was an engine on Bramah's principle, of sufficient power to throw water 10 feet above the roof of the building. In addition to this, an elaborate series of contrivances was placed, at great expense, under the direction of the celebrated inventor of Congreve rockets, by which it was supposed that the whole building could be at any time deluged with water. In the centre of the ceiling over the pit, was a pipe furnished with a contrivance for rotary motion at the end, on the principle of the Catherine-wheel, so as to throw water over the whole auditory. It was afterwards doubted whether the air-reservoir—to be filled by a condensing-pump—which was to set these contrivances in operation—had been made sufficiently air-tight. As experiment could not be resorted to in such a matter, it remained a moot point; and, fortunately, there has been no occasion for either the saving or the destroying agency of water. The writer in Britton and Pugin's "London," doubts whether the contrivances remained when he wrote.

The omission of the portico contemplated in the first design, we find commented upon in a number of the *Examiner* of the time, where the fault is laid to the "instructions of employers." Soane's reputation has no cause to thank our correspondent, for fixing it with the credit of the "miserable abortion" in Brydges-street. The steps here should be looked to; and perhaps require altered plan: we have often seen accidents. The amount of contract as given by Mr. Hodson, exceeds what is stated by the writer before referred to. The cost of Mr. Beazley's alterations and additions, was about 21,000*l.* The colonnade in Russell-street has little merit of any kind. The want of some protection had been loudly expressed. It is strange that all our theatres are still so inadequately provided with what might be made the means of expressing some novelty and beauty. The architecture of Drury-lane Theatre, as seen in the interior, was classical Italian in character, and the Rotonda, obviously designed with a recollection of the Pantheon, is not undeserving of praise. Much improvement might be effected here, and in the staircases, with attention to colour. The large outer hall is excessively mean; and just now, it is so dirty as to produce an impression of that kind which is not always *reasoned* upon by the public, but which we beg to say deserves the attention of any theatrical proprietary. The architect prided himself on the construction of the staircases,—as with reference to the abutment afforded by the circular landing of the Rotonda.

Benjamin Wyatt was the son of James Wyatt. Belonging to the same inexhaustible family was Samuel Wyatt, a builder in extensive practice, who built the Trinity House; Heaton Hall, near Manchester; Tatton Hall, Cheshire; and other works, of which he is called the architect. This Wyatt and James were brothers. Jeffry Wyatt, afterwards Sir Jeffry Wyatville, born in 1766, was nephew to these. He was educated at the free school at Burton-on-Trent, his birthplace, and up to the age of seventeen was filled with a passion for the sea. He made several attempts to get away, and at last was to have joined Admiral Kempenfeldt in the *Royal George*; but not reaching the vessel in time he escaped the disaster. He then visited London, still bent on the same object; but was taken into the office of his uncle Samuel, for seven years, and afterwards into that of James Wyatt, where he became known to the Prince of Wales. In 1799, he entered into partnership with a builder, Mr. John Armstrong, who had large Government contracts—valuable things in the case of buildings, as well as other kinds of work at that time. He was, however, employed extensively as an architect. His union of the two callings was not regarded with much favour by the profession; indeed, it also interfered for some time with his election to the Royal Academy; and great was the surprise when in 1824 he was summoned to Windsor by George IV.

MEMORIALS OF FATHER THAMES.*

An examination of the adjoining map (fig. 1), copied from an engraving made in 1771, will show better than words can express the march of London. We would, however, at present particularly direct attention to one or two points which more particularly bear on the condition of the Thames, and the question of drainage. G. is Old St. Pancras Church. It is not long since that was surrounded by fields. H. is the New Cattle-market, which will soon be hemmed in with houses. From this point to the Thames is now a dense mass of dwellings, from Paddington to the Tower. The Marylebone-fields, Brompton, and Chelsea, have grown into populous districts. Eastward we have Bethnal-green, Hoxton, Mile-end, Poplar, and all adding to the mass. The Isle of Dogs will in a few years be covered with buildings. Greenwich and Deptford are both growing. Beyond the black portion, shown in the engraving, which marks the extent of the Borough in 1771, we have Newington, Walworth, and other large neighbourhoods; and it is evident that before a quarter of a century has passed, London will not only have taken possession of the Isle of Dogs, but also of the ground now vacant on the west of Bow-creek. We are urged to direct attention to this circumstance in consequence of the present intention being to take the sewerage of the metropolis to the Plaistow Levels, or else to Barking-

* See pp. 375, 387, 419, 423, *ante*.

LONDON AND THE THAMES.

Fig. 1.—*Plan of London in 1771.*

Fig. 2.—*Plan of part of the north margin of the Thames, showing encroachments.*

creek, and then pass it into the Thames. This is done with a view towards purifying the river. It is to be feared, however, that this measure will not have the desired effect, particularly when we consider that the tide runs strongly in for *seven hours*, and *returns but five*.

When we remember the statement of Liebig, that "Thousands of hundred-weights of phosphate flow annually into the sea with the Thames and other British rivers," and that "thousands of hundred-weights of the same material flow annually back again to the land in the form of guano," we must hope, notwithstanding the difficulty of the subject, that the valuable materials from the sewerage will not be much longer wasted.* It therefore becomes a matter for serious consideration if we shall, in this instance, still persist in half measures, and convey our drainage to such a short distance from an immense population. The Dagenham Levels would allow a greater fall, and be attended with less danger. We ought at any rate not to establish a "Laystall" too close to London.

We have already alluded to the circumstance that in the wars, about a century ago, the watermen of the Thames could, in a case of necessity, supply 20,000 able men to the Royal fleet. This was an important arm of the national service; and it may not be without use and interest to gather up a few particulars respecting the regulations of the watermen, and the manner of conveyance on the Thames at that time, when the most rapid stage-coach did not probably exceed in speed the rate of seven miles an hour. Then a voyage up or down the Thames was an event to be well considered beforehand, and also to be held in memory for long after it took place; and so important were some of their voyages considered, that the daring travellers have, on certain occasions, *by the advice of numerous friends*, gone to the expense of printing and paper to place the particulars before the public.

In 1738, one Weddell, as we learn by a published account, accompanied by four or five friends, determined upon a voyage from London to Windsor. A large store of provision, wine, brandy, &c. was laid in, and, after grave discussion, it was determined that they should start from London at seven o'clock in the evening, in order that they might watch the break of day in the pleasant country. Their vessel was a barge partly covered at the stem, in the same manner as those of the Lord Mayor and City companies. After running aground, and experiencing some other alarms, the travellers put into port at Chelsea for refreshment, when some of them are desirous to spend the night ashore: this, however, is overruled. In the neighbourhood of Fulham, they again land about midnight, and an account is given of this hostelry on the Thames' bank, thronged with persons of all descriptions, who are here halting on their journeys of business or pleasure up and down the river. Here the travellers sup, and at the earnest entreaty of the *sailors*, are prevailed upon once more to embark, in order that they may catch the remainder of the tide. The daylight discovers them near Richmond; and, in course of time, and after calling at many ports, they arrive, nothing loath, at Eton, where they rest three days, the vessel in the mean time lying up in the harbour awaiting their pleasure. Weddell employs the greatest portion of this time in writing the book of the voyage, and is anxious to proceed again to London by water, but is overruled by a majority of his companions, and they proceed to town by chaise conveyance, preferring the dangers of the heaths and highways rather than trusting to those of Father Thames. Hogarth's voyage to Rochester, too, will be in the recollection of our readers.

Thames-street, a hundred years ago, was a place of very considerable trade, on account of its convenient situation near the river, the custom-house, &c. The quays, wharfs, and docks which were assigned by Act of Parliament for shipping, lading, and landing of goods, were as follows;—Brewer's-quay, Chester's-quay, Galley-quay, Wool-dock, Custom House-quay, Porter's-quay, Bear's-quay, Sorter's-quay, Wiggun's-quay, Young's-quay, Rafe's-quay, Dix-quay, Smart's-quay. Somer's-quay, Gaunt's-quay, Cock's-quay, Fresh-wharf, and Billingsgate; the latter of which, says Chamberlain, "is not so remarkable for loading and landing of goods and merchandize as it is for being the greatest market for fish in England, and the only port for fish in London. It is a large water-gate or quay, or port for small vessels laden with fish of all sorts, oranges, lemons, Spanish onions, and other commodities." Here, also, at that time, boats and wherries took in their fare for the "*Port of Gravesend*." Each vessel was obliged to depart at the ringing of a bell erected near the stairs for that purpose, which rung a quarter of an hour to give notice of the time of high water at London-bridge, and the time of ebb. On the wharf, the masters of colliers and dealers in coals held a common exchange every day at noon.

The vessels for the conveyance of passengers were something similar to that engaged by Mr. Weddell, and afforded accommodation for both inside and outside passengers, and during high winds and in stormy weather a voyage to Gravesend was not without adventure and inconvenience: sometimes the tide would turn before the journey was completed, and then the passengers were called upon in turn to assist the rowers. We knew an old gentleman, not many years since dead, who has often related, with great glee, that seeing the approaching necessity for this rough work, he has in sufficient time begun to complain to his neighbours of his crippled condition, he having the art of putting his fingers into certain unnatural shapes.* Besides the vessels above referred to, the traveller on the Thames could avail himself of either "oars" or "scullers." Some of the charges were as follows:—

	Oars. s. d.	Scul. s. d.
For crossing the river in every part between Limehouse and Vauxhall ...	0 4	0 2
From the Temple, Dorset-stairs, Blackfriars-stairs, or Paul's-wharf, to Lambeth	0 8	0 4
From London-bridge to Limehouse, New Crane, Shadwell dock, Bell-wharf, and Ratcliffe-cross	1 0	0 6

RATES OF OARS UP AND DOWN THE RIVER AS WELL FOR THE WHOLE TIME AS COMPANY.

	Fare. s. d.	Comp. s. d.
To Chelsea, Battersea, and Wandsworth	1 6	0 3
,, Kingston	5 0	0 9
,, Hampton-court	6 0	1 0
,, Chertsey	10 0	1 0
,, Windsor	14 0	1 0
Down the River.		
From London to Gravesend	4 6	0 9
To Blackwall	2 0	0 4
,, Greenwich or Deptford	1 6	0 3

The hire of a whole tilt-boat for goods to Gravesend was £1 2s. 6d.

It may be also worth while to mention, because the same sort of restriction might be usefully applied to the steam-vessels on the Thames at present, that to prevent the losing of lives of persons passing on the river, no tilt-boat or

* In 1849, the value of the guano imported was 507,362*l.*; in 1850, 707,633*l.*; and in 1851, about two millions sterling.

* The covered boats similar to the above plied between Newcastle-on-Tyne and Shields, and were called comfortable.

row-barge could take in at one time more than thirty-seven passengers, and three more by the way; nor in any other boat or wherry, more than eight, and two more by the way; nor in any ferry-boat or wherry, allowed to work on Sundays, any more than eight passengers, on pain of forfeiting for the first offence, 5*l.*; for the second offence, 10*l.*; and for the third offence, to be disfranchised from working on the river, and from enjoying the privileges of the Company. "And in case any person shall be drowned, when a greater number of passengers is taken in than is allowed, the watermen shall be deemed guilty of felony, and transported."

Every tilt-boat was to be of the burden of fifteen tons, and every other boat or wherry three tons: the wherries were also limited to 12½ feet long, and 4½ broad in the midship: those not agreeing with this scale could be forfeited.

An idea of the value of some of the ferries in the Thames may be formed from the circumstance that in 1766, the committee of the New Blackfriars-bridge agreed to invest the Watermen's Company with 13,650*l.* Consolidated 3 per Cent. Annuities, to satisfy them for the loss of the Sunday's ferry at Blackfriars, which was proved to have produced, upon an average for fourteen years, the sum of 409,210*l.*

It must be granted that the above notes show that fares, as regulated by the Watermen's Company, were moderate, and the regulations excellent; but 100 years since, the cost of traffic above bridge was enormous.

Respecting the stops, dams, or locks, on the Thames, Maitland, in 1756, says:—

"For though the Thames is said to be navigable for 138 miles above bridge, yet there are so many flats in that course, that in the summer season the navigation westward must be entirely obstructed for want of water when the springs are low—a misfortune not to be remedied by any other means than by locks—or certain machines called weirs — placed quite across the river, and so contrived as to confine the current of water as long as found convenient—that is, till the water rises to such a height as to allow depth enough for the barges to pass over the shallows, which being effected, the confined water is set at liberty, and the loaded vessel proceeds on its voyage until another shoal requires the same contrivance to hurry it forward; a great convenience, but the charge attending it is the subject of great complaint amongst the bargemen, being obliged to pay near 14*l.* in one voyage, if the barge passes through all the locks to and from London."

It is not worth while to give a list of all the locks. We may, however, mention, that the cost of a vessel passing the weirs, &c. from Lechlade to Oxford, a distance of 25½ miles, was 14*s.* 6*d.*: from Oxford to Bolter's Lock, 53½ miles, was 11*l.* 3*s.* 6*d.* or about 4*s.* 2*d.* a mile: at Kingston-bridge a further charge of 10*s.* was made. At Kingston the cost for locks, &c. from London to Lechlade, was about 13*l.* for each vessel.

We have already mentioned various enactments against the encroachments on the Thames, the extent of which may be partly seen by reference to fig. 2:—A, is the Tower; B, London-bridge; C, Wapping; D, Blackfriars-bridge; E, St. Saviour's Dock. The dotted line shows the direction of the old water wall of the city: it is therefore evident that all on the south has been taken from the river. The sketch is from a plan of 1771, and shows the Tower ditch completely surrounding the fortress.

On the north side of the dotted line we have amongst other old names, Addle-street, St. Peter's-hill, Old Fish-hill, Bread-street-hill, Garlic-hill, College-hill, Dowgate-hill, &c. On the other side are Blackfriars-stairs, Puddle-dock, Castle-street, Paul's-wharf, Trig-stairs, Queenhithe, Three Cranes'-stairs, Steel-yard-stairs, Coal-harbour-stairs, &c. East of St. Catherine's-lane, towards Wapping, the only places of old name near the present margin of the river, marked in this map, are St. Catherine-street, St. Catherine-lane, Pillory, Red-cross-street. Of places smacking of more modern times we have Artichoke-lane, Virginia-street, James's-rope-walk, King-street, Green-lane, Nightingale-lane, &c. On the edge of the river we have that far-famed landing-place, Wapping-old-stairs. There are also Wapping-new-stairs, Execution-dock, King Edward's-stairs, and King James's-stairs.

We have no distinct authority respecting the exact line of the river dyke from the Tower across the marshes of Wapping. It is, however, stated that about the year 1565 divers breaches were made therein, caused by frequent inundations of the river Thames, which were no sooner repaired than another happened in the year 1571, when the Commissioners of Sewers, after viewing the same, were of opinion that the most effectual way to secure the bank of the river in these parts would be to erect houses thereon; to which end ground was taken, and the first foundations of houses laid where Wapping is at present situated.

There is a Harleian MS. (1668) consisting of a roll of parchment of several yards in length, on which is inscribed the report of an inquest held in Smithfield in 1663, on the encroachments on the Thames and streams in the neighbourhood of Limehouse, Stepney, Barking-creek, &c. The damages with which numerous parties were charged, and in most instances fined various sums, were for buildings intruding upon the creeks, broken drains, refuse passed into them, and such like.

At the time when it was proposed to establish the docks at Blackwall, it was suggested that the Isle of Dogs should be devoted to the new docks: there were then only two or three houses on the island, and parties came forward who gave evidence of the *dryness and salubrity* of the place. Much discussion arose respecting the cutting a channel from the Thames to the docks, many fearing that it would cause a greater obstruction to the river than was at that time complained of in this part. The Isle of Dogs was, however, not eventually approved of, and the East and West India Docks were placed on their present site. Numerous reports, &c. on this subject, will be found by referring to the catalogue of the British Museum, under the heading "Thames."

In a report made about this time by Mr. J. Walker, engineer, that gentleman says,—"Whenever small rivers discharge themselves into larger ones, they then form banks and shelvings in proportion to the quantities of soil brought down by them. The common sewers bring down great quantities of soil into the Thames: one of the greatest of these is the principal sewer from Shoreditch, through Spital-fields, Bethnal-green, Whitechapel, Mile-end, Stepney, and Ratcliff, and discharges itself into the river at Limehouse, where it has formed a very dangerous bank of gravel, which has from time to time been brought down by it. The sand is carried farther down, and forms banks at Limehouse-reach."

REFERENCES TO FIG. 1.

A. Chelsea.
B. Brompton, Knights-bridge, &c.
C. Hyde-park.
D. Paddington.
E Marylebone.
F. Battle-bridge.
G. Old St. Pancras Church.
H. The site of the New Cattle-market.
I. Islington.
J. Hoxton.
K. Bethnal-green, Hackney.
L. Stratford, Bow, &c.
M. Poplar and Blackwall.
N. Mile-end.
O. Deptford.
P. Greenwich.
Q. Woolwich.

THE CHEMISTRY OF BUILDING MATERIALS.*

The occurrence, in sandstones, of sulphuret of iron, is the cause generally of the unpleasant spots which appear in them. Copperas, or sulphate of oxide of iron, is readily formed in sandstone containing the sulphuret, when the stone is brought to the surface. The air penetrates through the pores of the sandstone, and effects the change. When rain-water brings the sulphate to the surface, then what was originally a green spot soon changes to a dark brown one; in fact, to brown oxide of iron, or iron rust. The less of all such things the better. The mica makes the stone more easily split: the clay destroys its tenacity and homogeneousness: the vegetable matter irregularly blackens it: the iron pyrites stains it after exposure to the air; and, if there be soluble substances, as potash, these promote vegetable growths; therefore, the more uniform, crystalline, hard, granular, and unmarked by dark spots, or glistening particles, or iron pyrites, a stone is, the better fitted is it, in the estimation of a chemist, for building with. A notion seems to prevail among builders and architects, which is largely warranted by the style adopted by writers on the subject, that stones like sandstone, known to have been produced by particles originally derived from older rocks, have some cement uniting together the little grains, and converting them into one mass. Now, no doubt, we have rocks thus cemented, as we see in pudding-stones, and brick-stone or laterite, and as we shall afterwards see when we come to mortars. Unquestionably there are certain bodies, such as lime, clay, and oxide of iron, more or less present in even those stones or rocks which we speak of, as if entirely consisting of something else, and these substances have a remarkable cementing power. But certainly the notion of the need of cement has been carried much too far, for what is it that cements together the particles of cement? Is there some cement within cement, and some cement again within that? There was a similar notion in Sir Isaac Newton's time in reference to chemical combinations, and it was a puzzle to know how an acid could combine with an alkali. This idea of a necessary cement is one which has too much prevailed among writers on architecture, Professors Daniell and Wheatstone leading the van in the matter. I do not pretend to say, that there are not cementing bodies distinct from the other components of a stone in many cases, but I think it a matter of great importance to say, that there is no need for supposing that such cements always occur. The most homogeneous rocks which the chemist or natural philosopher would prefer for building stones, are those which are least likely to have, and in which one would least desire to have, any such cementing matter. There is no point on which we can more confidently speak than this, that the particles of a powder will of themselves, without any cement of any kind, by mere pressure, and still better if, in addition to pressure, you supply heat, aggregate into a solid mass. In illustration, I may refer to the conversion of snow into a glacier. It is true, that the objection may be made, that there is a plasticity in snow favouring the union of its particles. But let us take blacklead powder. Probably most artists are aware, that their blacklead pencils are now no longer cut out of blocks of native blacklead or plumbago, these blocks having become exceedingly scarce and very costly. Instead of using this, coarse blacklead is taken, ground to very fine powder, rammed into a mould without any gum or cementing material, and merely subjected to a strong pressure: it comes out a solid mass, which can be cut into pencils like the native block. In the same way clay powder is now compressed into tiles for tesselated pavements: in the same way we can consolidate silica powder. There is no reason, therefore, why we should insist on cement occurring in sandstone; and when reporters state that the fine quartz grains in the Craigleith stone have a silicious cement, they are only saying that silica is cemented by silica; *i.e.* that a thing is cemented by itself. The truth is, that the best sandstones are those which simply have their particles compressed together closely, even though the particles are pretty large, as in a grit, and where they only touch each other at certain points. Once brought close together by mere compression, they adhere with a tenacity which the most powerful force can hardly overcome. We can imitate that result with the polished surface of glass. In our laboratories we may find, that if the stoppers of bottles are too nicely ground, and fit the neck of the bottle too neatly, they cannot, when once put in, be got out. You may make the same experiment by putting two panes of glass together, and firmly clamping them once, after which they will not come asunder; but, as has been found in the polishing of plate glass, they so cohere that you may saw them at right angles to their surfaces, and even polish their edges without separating them. I wish, therefore, that the notion of cement were

* See pp. 435, 447, and 460, *ante*.

laid aside, and that the builder would see that the less of foreign matter the greater the solidity, the tenacity, and the enduringness of a stone.

As far as regards sandstones, they are almost devoid of soluble matter. The great objections to them are the difficulty of hewing them, and the injury to the workmen's health in chiselling them,—this injury mainly occurring from the fact, that the very fine powder, into which the sandstones chisel, is alike irritating and irremovable. Chemists like myself are largely exposed to irritating agents, such as gases, acid vapours, and fumes of various kinds; but though their action is a very marked one, and chemists may suffer from affections of the lungs in consequence, still these vapours are sooner or later absorbed in the system, if their action is survived; but if the fine powder of silica dust once enter the lungs, it remains there like a foreign matter—like the fine steel dust from which the Sheffield knife-grinders and sword and razor sharpers suffer; continually exciting inflammation, irritation, cough, and ultimately consumption; and it is so notorious to hear of masons perishing early, who are solely employed in hewing, that I found one of them not apparently able to conceive of a mason surviving his wife. He spoke as if every one of them must of necessity leave a widow, and as if the notion of the husband living the longest was not to be thought of. The Rev. Dr. Nisbet lately devised a horn respirator, manufactured by Messrs. Blackhall and Scott, to save the masons inhaling this fine dust; but it would have needed also to cover the nostrils to have been of great service. Besides, you cannot give a man whose lungs are healthy, a respirator to wear all day long without enervating him. You compel him to breathe a warm air to which he is not accustomed, and it comes to a question, whether you do not do more injury to the lungs in one direction, than you prevent in another. Respirators are most serviceable to those whose lungs are injured, but no one would recommend a man with stout lungs to begin wearing one. No remedy has yet been introduced which the workmen have been found willing to adopt, while the moustaches and beard are but imerfect respirators. As already hinted, the only effectual mode of doing good, is so to arrange their sheds, that the hewers may be saved from the fine dust entering their lungs; and that, as much as possible, they should only work at these hard stones in summer, when they can chisel them in the open air.

It is quite enough to say, that sandstone is *one* of the best building stones, without saying that it is *the* best. In Scotland, we have little experience of the use of limestone as a building stone; but when one finds, that to a great extent the architects have preferred a limestone for the Houses of Parliament, certainly I would not be dogmatic enough to affirm, that sandstone was necessarily better.

The other silicious stones can be disposed of in a word. Under the head of basalt, trap, or greenstone, we include igneous rocks—that is, rocks which are believed to have been melted by heat, like the volcanic lavas, and afterwards consolidated. There are only two of these rocks I shall stop to mention. The one is basalt, a dark rock, very prone to throw itself into the columnar form. The other trap rock is what we call whinstone, or greenstone. It is mainly used as road metal, in the causewaying and Macadamising of roads. It is occasionally employed as a building stone, but there is an objection to its use as such, from its difficult working, its hardness making it difficult to chisel. No one calls it a freestone. Its dark colour also makes it objectionable in our climate. I wish, however, to direct attention to a softer greenstone, which is applied to a curious use in some countries and even in our own. It is called in our neighbourhood "Leck" stone. It is very soft for a trap rock, and it has not the ordinary objection made to trap rock, namely, its difficulty of cutting. Even with a knife one can cut it with little trouble. It is very smooth, and when you rub it, the surface has a soapy touch. These stones are preferred for the insides of bakers' ovens, and for other places to which heat is to be applied. A stone of the same kind is largely used in Norway for the insides of furnaces. It has a remarkable power of resisting heat, such as the ordinary greenstones have not, and is less liable to crack and break, or give way, when so employed. Some such stones are also used in Lapland, Norway, and India, for making pots and other vessels used in cooking. The peculiarity of this class of greenstones is, that they contain silica, and in addition, a large amount of magnesia. Magnesia is one of the most infusible bodies we know, and when united with silica, it forms a kind of stone more suitable than any other for resisting high heats.

A very beautiful rock is now coming into use as a building material in England and elsewhere, called Serpentine, from its being mottled like a serpent's skin. Those who visited the Great Exhibition, or have seen the Government Museum in Jermyn-street, London, may remember seeing large blocks of this serpentine. It consists of little else than silica, magnesia, and oxide of iron, the latter of which serves to colour the stone green and red. It is a soft stone, not very suitable for out-door exposure, but admirable for inside pillars. It is more easily wrought than marble, and is exceedingly beautiful. A rock analogous to serpentine is used as a building stone in our own country. It is the stone of which Inverary Castle is built—but is found on the opposite side of Lochfyne. It is of a bluish colour, and so soft that it can be cut by a saw. This stone is used in Glasgow like "leck" stone, for bakers' ovens; and if touched, it will also be found to have a soapy feel.

This curious class of stones consists chiefly of silica, much of which is present in a body much softer than mica, called "Talc." Talc has something of the look of spermaceti, and when touched feels soapy. The Inverary stone has the peculiarity of being pliant, and of being easily cut and sawed into mantlepieces and the like, by much simpler tools than are used for even our freest freestone. It hardens a little by exposure to the air, but never becomes very hard, yet it is capable of resisting much higher heats than harder stones.

The last class of silicious stones, which I merely name, are slates. They are the muds of worn-down rocks, converted by a process of consolidation into slates. Let us take, for example, the manner in which granite is ground down. It is sometimes ground down as a whole, and all its three constituents, quartz, mica, and felspar, deposited together. The rock of this finely-powdered matter, is called Gneiss, which may be regarded as granite, made up again into a solid stone—laminated as all these rocks are, showing that they have been deposited in water, and often also twisted and contorted by exposure to powerful forces. One can see the white felspar here and there, the glistening, shining mica, and, with a microscope, even the crystalline grains of quartz. It more often happens, however, that granite is reduced to a coarse powder and carried along in a stream, its ingredients becoming separated owing to their different density. The felspar in granite becomes a fine clay, and is carried furthest by the stream; the quartz, which is heavier, remains behind, and may form a sandstone. The mica is carried on further than the quartz, and very often predominates in sedimentary rocks, forming shining micacious schists. The name of Shale is given to a consolidated clay; when it gets hard, it is called a schist, and if very hard a slate, though in truth shales, schists, and slates, suffer imperceptible gradations into each other. They, however, have one character in common — they all have a more or less laminated or foliated structure. In other words, they are made up of leaves like mica. Occasionally, nay, frequently, they change, and all lamiuation ceases, and thus they form flagstones or clay-stones. They are easily wrought, and sometimes used as building stones, as in Wales, but more frequently as paving stones. The term slate or schist is restricted to the hard muds when they present a splitting character, which makes them suitable for the roofing of houses. Without entering into their derivation from other rocks, I will only notice, that in many roofing slates mica predominates. Clay alone, thoroughly consolidated, forms the best roofing slates; so that in many parts of the country these splittable stones are called tile-stone.

LIBRARIES, LECTURES, AND READING-ROOMS FOR VILLAGES.

A CONVERSAZIONE, in connection with the Berks and Bucks Lecturers' Association, was held on the 25th ult. in the Town-hall, Windsor, on which occasion the walls were covered with educational drawings, lent by the Society of Arts, the Working Men's Educational Union, and the Hants and Wilts Educational Society.

The Mayor (Mr. Clode), presided, and introduced the object of the meeting. He then introduced,—

The Hon. and Rev. Samuel Best, who described, at considerable length, the means which had been taken by the Hants and Wilts Educational Society, a kindred institution.

He said they had procured a large stock of geological drawings and diagrams illustrative of geology, anatomy, mechanical powers, &c. About 150*l.* had been expended on drawings, models, and books, although they had not as many of the latter as they could have wished. The next thing was to secure the service of lecturers. About eighteen gentlemen lectured for the last year, and this year they had about thirty-five lecturers, while the number of lectures would be between 160 and 200. The operations of the society had, in the first instance, been confined to four parishes in the north-west of Hants. Then they took in the whole of the county, and eventually, Wiltshire. All this had been accomplished within two years. With a view of creating an interest in the proceedings of the society among as many people and in as many districts as possible, they held their meetings alternately in Winchester, Salisbury, and Southampton. Books they were enabled to obtain at a reduction of twenty-five or thirty per cent. The institution was perfectly unsectarian in its character. Their great object was to promote the education of adults. They had divided the work among three secretaries,—one attended to purchases, &c. of books, another to the reading-rooms, and a third to the arrangements connected with lectures. Thus they had invaded some of the rural districts, in which ignorance prevailed to as great an extent as the warmest friends of ignorance could desire. Some people might think such proceedings pregnant with evil. What a shocking thing it was to teach a nursemaid, who took charge of their children, to speak good grammar! Those children might, at some inopportune moment, bring out some awkward expression which had been taught them in the nursery. What a heinous offence it was to enable ploughboys to understand the principles upon which the steam-engine or a thrashing-machine, which he would be called upon to work, was constructed! If they stopped the impartation of education at ten or twelve years of age, it would be impossible to teach such "common things" as common sense required.

Mr. Godwin said, the importance he attached to the object prevented him from declining the invitation sent him. Many persons would attend a library to read books who could not be induced to join a class in a mechanics' institution, or regularly to attend lectures. In this respect he believed that the amended Act of the last session, with the view of enabling towns to establish museums and libraries, would prove to be a great boon. To increase the facilities of obtaining good books was of the utmost importance. Books, as Wordsworth says, are,—

> "A substantial world, both pure and good:
> Round these, with tendrils strong as flesh and blood,
> Our pastime and our happiness will grow."

The opportunities which these libraries would afford children who had been brought up in our national and other schools, to read, would be the means of enabling them to preserve what they had learnt, and to perfect their education. It was never intended that man should devote all his powers to the maintenance of his animal existence only. Although it was necessary man should work to live, it was not intended he should live merely to work. The progress of events greatly tended to shorten the hours of labour, so that man might be enabled to devote his time to mental improvement and the benefit of his fellow men. After alluding to the wonderful progress which this age has made in science, to photography, which enabled the countenances of those who were so bravely fighting our battles in the Crimea to be handed down to posterity, to the still more wonderful invention of the electric telegraph, by means of which the directors of the East-India Company in London could, in an incredibly short space of time, communicate with the millions of inhabitants peopling

that vast empire, the speaker proceeded to observe that it was the fashion among some people to despise the theorist, and talk contemptuously of his projects; they said that they wanted "practical men." The practical man was to be admired, but he would not, on that account, say that "the thinker"—the theorist—did not produce an equal amount of benefit to the community. All these mighty projects—these conquests of mind—to which he had referred, a very few years ago were simply "dim obscure thoughts" in the minds of men who would be deemed mere theorists. They thought and pondered, and laboured hard to perfect these wonderful inventions, and having perfected them, thousands of practical men employed their powers to carry them out. The mere practical man could make no progress without the theorist, who could aid him in the application of his practice for the benefit of his fellow men. It had been argued by some that Bacon had never given expression to the sentiment 'Knowledge is power;' but whether he had used it or not, its truth, to a great extent, could not be controverted. Look at the simple question of the preservation of health. What lamentable ignorance and indifference prevailed in reference to it. Science pointed out the way to remove the causes of poverty, crime, disease, and death. Knowledge here was power over life and death. The public had only lately begun to appreciate the fact that drainage and pavement in a town would save hundreds of lives annually. He would venture to say that to drain and pave is to raise and save. It was better that the state should expend large sums of money to educate the people in these matters than to expend them on gaols and policemen. It was not only the interest, but the duty of the state to educate the people.

Mr. Charles Knight said forty years ago, as a young man, he had, in conjunction with his revered father, attempted the establishment of a newspaper in this borough. That journal still existed, and he was glad to state that it was carried on in a highly honourable and creditable manner. He looked back to that period and compared it with the present. That comparison afforded a striking illustration of the advancement of knowledge and the progress of the community, although at that time the success attending his efforts were as great as could be expected from the then condition of society. After some further observations, Mr. Knight remarked that he noticed the presence of one respected gentleman (Mr. Bedborough), a former fellow-townsman, who could well remember the period of the Peninsular War, and the extraordinary excitement with which it convulsed society. At that time people did not celebrate their rejoicings in quite so moderate a manner as those of the present generation. Notwithstanding the great interest excited in the minds of the middle and upper classes at that eventful period, the mind of the agricultural labourer appeared to be almost unmoved by what was passing around him. He was glad to observe that some vigorous efforts were being made to improve this class. He had not the advantage of living long in the country, but he was sorry to learn that in many districts—indeed, there were very few exceptions—the only place of resort which this class had, after the day's labour, was the beer-shop. No doubt could be entertained on the point that that was about the worst school he could have. The object of societies similar to that they were assembled to promote was to provide him with means of recreation, amusement, and instruction, in lieu of the beer-shop. The great improvement which had taken place was in a great measure due to the newspaper press. He knew of no more powerful engine for the diffusion of knowledge. Some people thought that the agricultural labourer had no business to meddle with such things. Why, they were the very people called forth, by means of voluntary enlistment, to go out and fight the battles of the country, and to suppose that feelings of honour, patriotism, and glory could be promoted in his mind, and kindled in his breast without reading the newspaper, was, in his opinion, absurd. Let him, therefore, read the newspapers: let this be aided by lectures on interesting topics, illustrated by such diagrams as they saw in that room: let him have access to a library, and the agricultural labourer would make strides in advancement almost beyond what they could now contemplate. The fear that the people would be elevated above their own rank, and that they would be discontented with their positions, was rapidly passing away. He would say, let them do their best to develop talent among all classes. Let all have an opportunity to learn. That was not the object of the formation of societies of this character: it was not to be expected they could convert people into great poets or wise statesmen. They did not attempt to make "village Hampdens" or "glorious Miltons." True genius would develop itself wherever found, but their object was, in addition to producing "a bold peasantry, their country's pride," to have also an "intelligent peasantry," which would be the source of still greater pride.

The Rev. Mr. Tooke next addressed the meeting, and entered into a variety of details with reference to the initiatory proceedings taken in the establishment of the Berks and Bucks Society. The general objects to be obtained, as described by the rev. gentleman, were similar to those detailed by Mr. Best in his description of the Hants and Wilts Institution.

The Rev. Mr. Bent, the Hon. and Rev. Lord W. Russell, and the Very Rev. the Dean of Windsor, also spoke briefly in furtherance of the Association; and some votes of thanks having been passed, the meeting separated.

The exertions of the Rev. Edward Hale, as hon. sec. should not be passed over without mention.

BELLE-ISLAND, ISLINGTON.

In all inquiries into the sanitary condition of the metropolis, the enormous increase in the population must be always borne in mind. We cannot go on in the old fashion with nearly more than two and a half millions of people packed in a limited space. Science has put into our hands various means to meet the requirements which the altered state of the population has caused. It is really difficult to be patient with persons who, in spite of common sense and the opinions of thousands, will persist in saying that we must not do what is right. It has been our object on all occasions to get at the truth. We have heard the tales of the suffering poor, and have weighed the value of that evidence with others. It is painful to do what may in any way damage individual interests, but a duty we owe to the bulk of the community forbids the consideration of this.

We have recently made some fresh inquiries in connection with *Belle-Island*,—a place so wrongly named,—and will for the present mention a few facts.

On this spot thirty gentlemen are engaged in various trades,—such as soap-boiling, and the manufacture of artificial guano. There is on the island a population of 320 persons, or nearly that number of men, women, and children, while towards the east there live closely adjoining 60,000 people. In other directions there are masses of persons, and much valuable property, who are injured by the doings in the "island."

The manufacturers there say that all their works are perfectly wholesome: the surrounding people are of a very different opinion. It is difficult to give an idea of the extent of the nuisance. On all sides we hear: "It is shocking;" "Why should we be poisoned, when we pay rent and parish rates?" "It is worst when most people are asleep: why should we be poisoned in our beds?" "It is of very little use shutting the windows." Strangers who come into the neighbourhood often exclaim against the odour. "I have lost some of my best tenants," says a neighbour: "they cannot put up with it, and others have given notice to quit;" and then one chimes in, "Yes, but you should get up about 3 o'clock in the morning: they are artful."

Some of the inhabitants of the island, and the manufacturers, are the only persons who say a word in defence of the present occupation of this neighbourhood. The greater part of the 320 people are engaged in the various works, and "Where in the world can I go with these little children," says one of them. "On one occasion such a smell came out of that place that we went out and cried 'Shame!'" The thousands of persons surrounding Belle-Island say "Shame!" At a meeting of the inhabitants on this subject, a gentleman connected with the parish stated that about twenty-five or thirty years ago an action was brought against a varnish manufacturer of Belle-Island. The judgment was that the circumstance of the pollution of the air by any unpleasant smell was an offence. It would seem, however, that the law is not effective, for though vigorous steps have been taken in Islington, they are at present without effect. Something surely should be done to relieve this crowded and increasing neighbourhood.

Thames Tunnel.—The amount of tolls for the week ending 29th September, 1855, was 68*l.* 8s. 3d. derived from 16,419 passengers.

NUMBER 21, FLEET-STREET.

There is an advantage attending the use of the material of which the houses in London are generally built, which is useful in its way to this extent, that when they begin to give such evident symptoms of decay that there is no gainsaying the fact,—there is nothing for it but to consign them to the professional house-breaker, carefully remove them, and make room for a new creation adapted to the wants and requirements of the present day,—an advantage not afforded by those cities that seem built as if they would endure for ever, and gradually become more interesting to the archæologist than the sanitary reformer. The premises that formerly occupied the site of the building we illustrate this week, on the 14th of September, 1853, owing to some alterations in the house adjoining, gave such hints of their intention to give up by settling down, that the district surveyor was sent for in a great hurry, which led to a call for shores and hoarding, the result of all which was a clearance, and the letting of the site for a term of 80 years to the Directors of the London and Provincial Law Assurance Society, at a ground-rent of 84*l.* per annum. The frontage next Fleet-street is only 18 feet from centre to centre of party-wall, which would give the letting as at the rate of 4*l.* 13s. 4d. per foot of lineal frontage, or, the depth being about an average of 110 feet, at the rate of 1,341*l.* per acre per annum,—one more proof of the great value of sites within the City when they abut upon the leading thoroughfares.

The Directors having approved of the design and plans of their architect, Mr. John Shaw, of Christ's Hospital, called for tenders for the erection of their new premises. The result showed, in a select competition, Messrs. Locke and Nesham the lowest, at 4,988*l.* The Directors used a wise discretion, and adopted stone as the facing material,—that from Swanage, in the Isle of Purbeck, a stone which has good reputation.

The character of the architecture, as will be perceived, is Italian, of the Palladian school, and by the treatment of the return flanks of the party-walls, an extension of front is obtained, not to be expected from the limited space at the architect's disposal. A strongly marked rustic basement raises the ground-floor four steps from the pavement, and a Tuscan rusticated order of lighter cast than the basement, with an archivolt, gives elevation to the story required for the public offices. The first floor is Doric, the second Ionic; and this floor, which is the drawing-room of the resident manager, is marked by a balcony, having carved trusses and ornamental iron railing. Another feature on this floor is the oval windows, with droops of flowers. The top floor is Corinthian in its order, the line of the caps being filled in with masks and festoons of flowers. The attic floor being thrown back, is not visible from the street. The elevation finishes with the attic of the order having vases over the pilasters at the level of that floor.

In the arrangement of the plan care was required, the clear space between the walls being only 16 feet 6 inches. Entrance to the private residence of the manager would have fatally cut up the public office. This entrance is therefore carried under the office in an arched passage, lit in compartments from the floor above, and leads to a stone staircase in the rear, which gives access to the upper floors. The public office, which is 16 feet 6 inches wide, 23 feet long, and 15 feet high, has its walls and ceiling panelled in Parian cement. The manager's room is immediately behind the public office, having a private door from the staircase already mentioned, and also a communication with the corridor leading to the board-room, which is also arched and divided by pilasters into compartments. The board-room, with a physician's room and a lavatory, cover the remainder of the site, so that all the ground-plot is built over. The board-room is 36 feet long and 15 feet high. It is divided into three parts by Ionic pilasters, and the walls and ceiling are panelled in Parian. Light is introduced through ground-glass plates, which fill the ceiling panels.

LONDON AND PROVINCIAL LAW LIFE ASSURANCE COMPANY, FLEET-STREET.—Mr. John Shaw, Architect.

CHURCH-BUILDING NEWS.

Croydon.—An east window of stained glass has recently been placed in St. Peter's Church, Croydon. The work was executed by Mr. William Holland, of Warwick. The window is in the Decorated style. The five bottom lights contain figures of the Evangelists, St. Matthew, St. Mark, St. Luke, and St. John, standing under decorated canopies; and the centre light St. Peter, to whom the church is dedicated. Underneath each figure are their respective emblems, with an inscription in Latin. The openings are in tracery, with angels bearing scrolls, playing upon musical instruments, &c.

Easthothly.—The exterior of the new church here is approaching completion, the rafters being affixed ready to receive the roofing; and the interior is in a state of forwardness at Messrs. Cheale's workshops at Uckfield. Mr. Cheale is the architect. It is at last decided to remove the remainder of the old chancel.

Windsor.—The local *Express*, in reference to new churches in the neighbourhood, states that active exertions are being made by the vicars of Datchet, Egham, and Ashford (near Staines), to obtain the necessary funds for the erection of new churches in their respective parishes. At Datchet and Ashford it is proposed to replace the present structures with larger edifices. At Egham, an additional church at Englefield-green is contemplated, towards which the sum of 1,100*l.* has already been raised by the Rev. J. B. Monsell. Her Majesty has contributed 100*l.* towards the proposed church at Datchet.

Aylesbury.—A second painted window, the gift of Mr. Z. D. Hunt, has been placed in the north chapel of the parish church of Aylesbury. The centre figure represents St. John the Baptist, with a lamb at his feet, and a cross in his hand, pointing upwards to the motto "Behold the Lamb of God," &c. On the sides of the motto are the Greek letters Alpha and Omega, and on the sides of the principal figure, in ancient Greek characters, are the monographs, representing the names of our Saviour, "Iesous" and "Christos." The artist was Mr. J. G. Waller. The new window now being erected in the chancel will be completed in October. It will be of painted glass.

Buttermere (Wilts).—The parish church having become very dilapidated, it was resolved to take down and rebuild the same on a more extended site, and the new church is in course of erection. The nave and chancel are under one roof, with a wooden bell-cot at the intersection. The style is Geometrical Decorated. The builder is Mr. Salisbury, of Newbury, and the architect, Mr. Withers, of London.

Weston-super-Mare.—On Wednesday before last Lord Auckland, Bishop of Bath and Wells, consecrated the new edifice called Christ Church, situate on Montpelier, in this parish. The church is in the Gothic style, from designs by Messrs. Manners and Gill, of Bath, and is capable of accommodating 525 persons, including 250 free sittings. Mr. E. Gregory was the builder.

Bristol.—It appears that owing to a pressure of circumstances, the annual meeting of the Canynge's Society, which for some years past has been a means of directing special attention to the slowly-progressing renovation of St. Mary Redcliffe church, will not take place this year. The architect has addressed a letter to the Restoration Committee, wherein he says,—"I think it my duty to remind you, and through you the public, of the dilapidated, and, indeed, dangerous state of the structure. I have cried 'Wolf!' several times, and accident has not followed, but it must not thence be concluded that no danger threatened or threatens. The flying buttresses on the south side of the nave and some of the windows are in so bad a condition, that although they *may* continue for some time yet to hang together, parts might, on the other hand, fall at any moment. Of the state of the turrets at the foot of the spire I have already spoken on more than one occasion, and this is now even worse than it was. One of the small shafts in the front of the south porch fell a few days ago: had this happened while the congregation were leaving the church, serious consequences might have been the result. The prosecution of the work on which the committee are engaged is not simply a matter of taste and feeling: it does not afford a question which the friends and opponents of restoration generally might discuss; but is a matter of absolute necessity, about which no time should be lost." He adds,—"We have cleared away the temporary screen from the south transept, so that what we have been doing recently may now be seen, including the Ladies' Window. I have reason to think that the latter will be considered, by all, creditable, alike to the liberality of the donors and the skill of the glass painter."

Bath.—It has been determined that an obelisk shall be erected in the Abbey Cemetery at Lyncombe, to perpetuate the memories of the officers connected with Bath who have fallen in active service during the present war. The site of the intended monument is considered eligible, and has been given by the rector and churchwardens, who have likewise relinquished payment of all fees otherwise attached to such an erection.

Blackburn.—St. Alban's Roman Catholic Chapel has recently undergone a revivification internally. It has been painted and decorated, under the directions of Mr. Ellwood, of Blackburn, and Mr. Austin, of Liverpool. Four figures have been added to the number wherewith the walls of the chapel are decorated: they were painted by Mr. Austin from some German designs. The subjects are,—St. Alban, Our Saviour knocking at the door, "Our Lady of Sorrows," and "Our Saviour crowned." There are also three figures in the dome, by Mr. Austin. The cost of the decorations is about 165*l.*——At a late meeting of the Burial Board, Mr. R. Ibbotson's tender for the construction of the fence walls at the projected cemetery was accepted.

Carlisle.—The foundation-stone of a new Presbyterian Church, in Fisher-street, was laid last week. The old building was pulled down a few weeks ago. The new building will be in the Norman style of architecture, and will occupy the site of the former structure. It is intended to accommodate between 600 and 700 persons, and will have a school-room beneath. Mr. Stewart is the architect, and the work has been contracted for by Mr. T. Jones, builder.

Gateshead.—The parish church of St. Mary, Gateshead, which, by the memorable explosion of the 6th October, 1854, was sorely rent and shattered, has since been restored, under the direction of Mr. Dobson, of Newcastle, architect. The sash windows, and other barbarities, says the local *Observer*, have disappeared, and the venerable pile has reassumed its ecclesiastical aspect. The uncouth tower of the eighteenth century remains, serving as a foil to the church; and there are other excrescences—but not so obtrusive. The contractors were Messrs. Kyle. 1,127*l.* 9s. covered the work comprised by the original contract. But there are extras. In the progress of the works, the S.W. angle of the transept was found to be much decayed and shaken, and required to be taken down. The under-part, too, of the chancel wall, which was to have remained intact, proved to be defective; and when it was removed, the discovery was made that it was built on the surface; so that foundations had to be laid before the wall could be rebuilt. A memorial window was projected, to commemorate the necessity of the restoration; and one of the townsmen having offered 50*l.* towards Mr. Wailes's charges, the window was ordered, in reliance on the readiness of the community to defray the cost. Thus there must yet be raised some 200*l.* or 300*l.* to defray the cost of the extras.

Glasgow.—The repairs and alterations in the Glasgow Cathedral are now nearly completed, and a great change has been effected in the appearance of its interior. The organ screen, or gallery, says the local *Gazette*, is a great obstruction to the view from east to west, and though a comparatively recent erection, it has no chance to be removed; but the walls, pillars, and roof having been all cleaned and refitted, where that was necessary, present an appearance such as no other building now existing in Scotland can exhibit.

THE LINCOLN DIOCESAN ARCHITECTURAL SOCIETY.

The autumnal meeting of this society was held at Newark, on September 24th, Sir Charles Anderson taking the chair.

The Rev. J. F. Dimock read a paper on the documentary history of the fine parish church of this town, and Mr. G. Gilbert Scott followed with the architectural history; the two papers mutually illustrating each other. The party then adjourned to the ruins of the castle, built by Alexander, Bishop of Lincoln, in the twelfth century, and the scene of the death of King John. They afterwards went to the church, where Mr. Scott, who has recently directed its restoration, gave a peripatetic lecture on its architecture. Almost every style was illustrated by one portion or other of the fabric. The crypt, and some portion of two piers in the centre of the church, were contributed by the period of transition from the Norman. The Early English gave the lower portion of the tower; the Decorated, the upper portion, the lofty spire, and the south aisle of the nave, with some fragments at the east end. Then came the Perpendicular, furnishing the spacious chancel with its aisles, and also the nave and its north aisle; and at the period of the Tudors giving the transepts.

In the evening, another meeting was held; and Mr. Bailey, architect, read a paper on some of the churches of the neighbourhood, which was illustrated by drawings: these were presented by him to the society. Sir Charles Anderson then read some observations on cottage architecture, which elicited from Mr. P. Thompson, the historian of Boston, an offer of 5*l.* for the best plan of a cottage that should combine economy in construction with the accommodation requisite for a family. Mr. Scott afterwards read some remarks on the present state of our domestic architecture.

On the following day, an excursion was made to some of the churches of the neighbourhood,—Balderton, with its well-known Norman porch, and carved bench ends, and Claypole, with its fine tower and spire, and its Decorated foliage round the capitals of the piers. The font is much like the one at Heckington. In the sacristy is the original stone altar. Pity that this church should not be better cared for. The reading-pew is on low wheels, with a view to its being moved to the north or south side of the aisle, according as the rector of the north or south mediety officiated. The next church visited was Doddington, whose tower and broach spire appear toppling to the ground. Then came Westborough, Bennington, and Staunton; the last recently restored, but not in the most satisfactory manner. The excursion terminated with Hawton, where Mr. Place, whose drawings of the sedilia and Easter sepulchre have rendered them well known to the architectural world, gave the party an exposition of the beauties of the Hawton chancel.

PROVINCIAL NEWS.

Lynn.—The New Assembly-rooms here were opened on Wednesday before last by a grand concert, under the patronage of Sir S. M. and Lady Peto. The room thus opened for public purposes is situate in Crown-street, and occupies the site of the old theatre, a part of the walls of which, through the arrangement of the architect, Mr. Glover, have been worked up into the present building. The concert-room is approached by a hall having on the left a committee-room, and on the right a room for the clerk to the magistrates. The room is 50 feet long, by 26 broad, and 16 high.

Cambridge.—The Working Men's College is being formed at the rear of the premises at Market-hill. It consists of a suite of three class-rooms, separated, or rather united by folding-doors, and forming, when opened up, one large hall, or lecture-room, capable of accommodating 200 persons. Ventilation and warming have been attended to, and the college will shortly be opened with evening classes.

Bristol.—A meeting to promote the establishment of day schools in connection with the Wesleyan body, was held in this city on Tuesday before last. From a report which was read to the meeting, it appeared that a few

months ago, a committee was appointed to look out for a site on which to erect the proposed schools, and that an eligible one had been fixed upon, which will cost 1,100*l.* It was proposed to provide suitable accommodation for 400 boys and girls, and 200 infants, with class-rooms, playground, and a house for the master. The total cost was estimated at 3,500*l.* Nearly 1,130*l.* had been promised, and a grant of 1,200*l.* was expected from Government, but the latter depended entirely upon the whole of the cost, with the exception of that sum, being previously obtained. Resolutions in favour of further procedure in the matter were unanimously passed, and a list of the subscriptions already obtained was read to the meeting.——The firm of Messrs. Jones and Co. have completed their building in Wine-street. The front elevation is in the Early Venetian style at the period when it was advancing towards the Palladian school of architecture. It is 50 feet long and 50 feet high, and consists of bronze and plate-glass fronts 16 feet high, two stories of columned arcades above, built of Bath stone, brick, and glass, and finished by a panelled attic story, the panels in which give light and ventilation to the rooms behind the parapet. The shop, from front to rear 100 feet, having galleries around, and the area of the floor, exceeds 12,000 square feet, exclusive of those floors to be used for domestic purposes, and which embrace various recent improvements, having shower and slipper baths, reading-rooms and lifts. Upwards of 3,500 feet of glass, 100,000 feet of deal, 5,000 feet of mahogany, and many tons of iron, have been used in the construction of the building, and it will be lighted by 320 gas lamps. It will afford accommodation for more than seventy persons, employed by the firm. The architectural plans for the building were drawn out by Messrs. Pope, Bindon, and Clarke. The masonry was executed by Mr. Lee; plastering and painting by Mr. Dimond; carpentering by Mr. Brooks; glazing by Mr. Williams; iron work by Mr. Allen; plumber's work by Mr. Tuckey; and gas fitting by Mr. Harris.

Bath.—The improvement of the Bath Corn-market was prayed for in May last, in a memorial presented to the Town-council, and signed by 137 farmers and others attending the market. The subject was referred to a special committee, who obtained the sanction of the council to expend 1,000*l.* in enlarging the corn sheds, or erecting a new building. It was resolved that a new corn loft should be erected. The contracts were let to Messrs. Morgan and Lovell, joiners and builders, and the work is now advancing towards completion. The site of this new corn-loft is on the left-hand side of the market, where the sheds for exhibiting corn formerly stood. The building will be 167 feet long, and 18 feet wide. It will have an entrance into Walcot-street. At one end, nearest Walcot-street, will be a separate room, 16 feet by 22 feet, appropriated for the exhibition of small seeds. The interior will be lighted by twenty-seven casements, extending the whole length on each side, and further light will be admitted by filling in the space under the eaves of the roof with glass. Ventilation will be secured by perforated zinc plates inserted in the roof, and, to keep out cold, a coating of air-felt will extend along the roof between the slates and the boarding. The roof in the interior will be quite open and constructed of stained wood.——A project for a hot-water fountain in the Abbey churchyard has been sanctioned by the City Act Committee, and by the house-owners and occupiers of the neighbourhood, and the architects of the city are to be written to for designs for the proposed erection.

Priddy.—The first school-house ever erected in this small rural parish was opened on Friday before last by the bishop of the diocese.

Halifax.—One of the tallest chimneys in this neighbourhood has just been completed at Deanclough. It is an octagon shaft with a square base, each side of the base measuring 21 feet. It gradually tapers off, so that the diameter at the top is reduced to 10 feet 6 inches. The flue is cylindrical, of equal dimensions throughout, that is, 11 feet in diameter. Its height is 264 feet 6 inches, and the ornamental ashlar work at the top weighs 70 tons 9 cwt.

Sunderland.—The friends of temperance in Sunderland are making an effort to raise a sufficient fund to erect a public hall in the town. Lord Shaftesbury and Lady Williamson are among the contributors.——A vigorous attempt is now in progress to raise 7,000*l.* by voluntary subscriptions, for the purpose of erecting the talked of "Crystal Palace" on Building-hill. Ward sub committees are being formed, and are said to be meeting with encouraging support from all classes. A public meeting of the inhabitants has been held to give countenance to the project, and it has been received, it appears, with general favour. Upwards of 2,000*l.* were subscribed up to Thursday week, of which the Dowager Marchioness of Londonderry contributed 100*l.*

Blyth.—The harbour works here are being prosecuted with vigour. A large portion of the eastern pier has been commenced, and the river is being dredged. On the sea-banks, near Bathrow, yards have been erected for storing goods, and for blacksmiths' and joiners' shops. It is expected that the western pier will soon be completed.

Jarrow.—The Commercial Docks of the Tyne at Jarrow and Hayhole, on Jarrow Slake, are making rapid progress. The contractors have a large number of men engaged making the approaches, and the locally well-known gibbet, "upon which Jobling was hanged," will soon be levelled to the ground. Embankments are being thrown up previous to the piling for the river wall, which will be forthwith commenced. The contractors have purchased a powerful Nasmyth engine, which will give seventy strokes a minute, and will also drive vertical and angular piles, and make its own road as it goes. The Brinkburn will be taken outside the dock by a covered way, and will be discharged into the Don. There will be at least a dozen approaches from the North-Eastern Railway to the Dock, and the warehouses will be on a large scale. The Hayhole Docks, opposite to Jarrow, are also making progress. More men have to be immediately set to work.

Gateshead.—The corporation of Gateshead have resolved to purchase the property in Hillgate required for the town improvements, to carry out which they further propose to apply to the Exchequer for a loan of 35,000*l.*

Linlithgow.—The improvements upon the park and loch at Linlithgow Palace, according to the *Falkirk Herald*, are now complete. The authorities have now turned their attention to the court-yard of the palace.

THE SMOKE NUISANCE IN THE COUNTRY.

IRON WORKS.

The *Builder* did good service by the efficient assistance it rendered to the abatement of the great Smoke Nuisance in London. The compulsory application of the Act of Parliament has sensibly purified the air, and turned to profitable use countless tons of disintegrated fuel, which (but for its wholesome vigour) would now load the lungs, obstruct the vision, besmear the skin, and begrime the furniture of the inhabitants of the metropolis. So far, so good. An inestimable benefit has been secured; but I must entreat you not to lay down your pen, or to rest satisfied with the partial appliances of a remedy which ought to be universal. "We have scotched the snake, not killed it;" but what has been done in London is certainly feasible elsewhere. In Manchester, Bradford, the Potteries, and other places, the public spirit of individual manufacturers has done enough to establish the practicability of ridding them of the foul pest, but not enough to effect a perceptible diminution of its black and filthy influence, —*that*, nothing but a legal compulsion will ever accomplish, for England is, of all countries in the world, the most pertinacious in her resistance to every scheme, however advantageous, which disturbs the routine of ancient practice. The experiment has been successfully tried in London. In the name of health, cleanliness, and the once fair aspect of this pleasant land, extend it to the provinces!

I make this exhortation as a unit of the general public. How far it may tend to the benefit of my particular case must depend upon the answer, which I hope through your medium to obtain, to the question with which I shall conclude my letter.

I inhabit a midland district, which, notwithstanding its mineral substratum, was, much within my memory, in every sense rural,—green, richly wooded, and blessed with a clear pure atmosphere. The rapid development of its mineral resources in recent years has created and multiplied iron furnaces and iron forges, tall chimneys and coke ovens. Do not suppose me so absurd as to complain that these subterranean riches are not kept locked up in the bowels of the earth. It is quite right, as well as an inevitable necessity, that they should be extracted, converted, and made to minister to individual and national wealth; but if it be a fact that such legitimate objects be achieveable without a hideous desolation, then it is most reasonable to complain of, and seek to arrest, the process by which a beautiful country is being needlessly changed into a dismal sooty wilderness, where the sun is blotted out of Heaven, all vegetation blighted, and every fine old tree converted into a black, withered, leafless skeleton. I have reason to believe that more than one of the proprietors of the works and forges in the neighbourhood would willingly incur any (not unreasonable) expense to stay the plague, if they could be satisfied of the existence of any effectual method of doing so. The question, therefore, which I would address to you,—and you have correspondents whose practical science might enable them to impart the desired information,—is this:—

Is there any peculiarity in the construction of smelting, refining, or puddling furnaces, or of *any* used in the manufacture of iron, which renders the several patented inventions for the consumption of smoke (all are modifications of the same principle) inapplicable to them? or has any one—and which—of these patents been successfully applied to any known ironwork?

One more query. Are the ovens of a brick-kiln within the saving help of such appliances?

A. B. C.

A COLLEGE FOR ARCHITECTURAL DIPLOMAS.

Many years since Mr. Bartholomew strove earnestly in the *Builder* to awaken the profession, to arouse the Institute, and to arrange means whereby diplomas might be not only granted—as by a chartered body—but that without the possession of which it would be *criminal* for any one to pursue the practice or calling of architect. The view taken of the subject by Mr. B. was, I think, a rational one, though his machinery might have been too complicated, and the restrictions too severe. Without a college in which a certain course of education is pursued, but little can be effected. Of what value would be the medical diploma were there no distinct branches of study, at the colleges of Dublin, London, Edinburgh, &c. whereby a thorough training could be effected before the student entered the surgery or walked the hospitals? How could he be prepared for the struggles of after life, if left solely to the information and tutelage to be derived from the majority of the profession? He might leave with a mind stored perhaps with dogmas,—but without that vehicle, practice, by which alone that knowledge can be adapted to the various cases, and rendered of their full value.

Witness the hundreds who are yearly turned out as "finished," from various offices. Finished! indeed, is the period for which they were articled; but how seldom is the object of that instrument thoroughly effected.

Trained as most young men are—with the narrow and hard-to-be-applied educational course through which too many of them are literally *dragged*,—how can we look for that progress which ought reasonably to be expected from five years at the studio, or, if you will have it so,—the drawing-board? It too frequently happens that a pupil should have as intimate a knowledge of the principles of architecture when he enters an office, as he sometimes possesses when he leaves. And herein, I presume, is the real difficulty we have to surmount. Not that good outsiders should be kept out of the profession, but that those who have entered through the door should be rendered fit for the responsible positions

hich most of them are intended to fill. It is e want of this which has sunk architecture to s present level in the estimation of the world. has also given to those without any other eans of existence an opportunity to christen emselves "architects," and to take their stand such, for with the majority of the public this se metal too frequently passes as the current in.

By such a provision alone can we elevate our rofession. When we find in large letters upon ge spaces of brickwalls, as well as upon cap- rating door and window plates, "Architect d Builder, Surveyor, and General Agent, uctioneer and Appraiser. N.B. Rents col- cted," surely it is high time for us to act. et us do this, and speedily. Let us memo- alise her most gracious Majesty for a charter enable us to found a college, duly furnished ith the necessary professors' chairs, and recog- ised professors to fill them, with all the other ceteras that in the working out of the detail ill be found necessary; and that accomplished, et about the issue of diplomas, and obtaining ie sanction of Parliament to the same, so that one can risk the lives or money of the public ithout possessing the knowledge whereby lone that diploma can be obtained.

We should then have our pupils thoroughly repared for office duties, a vast amount of abour (and unnecessary labour) saved the rincipal, and five years of actual practice as ell as study, would then accomplish more than now sometimes effected during the whole of long and comparatively useless life. Vast enefit would also be conferred upon him to hose care the pupil would be entrusted.

Earnestly recommending the question to the onsideration of the Institute, I will for the resent conclude. In the meantime, let Mr. hamberlain test the Architectural Association, nd the professors at large, to whose expression f feeling upon this point, if made, I feel con- inced the council of the Institute will give orce. Let him, therefore, seek for that expres- ion: a memorial to the Institute to act in this natter would, I am sure, receive the warmest upport from nineteen-twentieths of the prac- ising architects in town and country.

W. Wigginton.

SUPPLY OF QUANTITIES BY ARCHITECTS.

In reply to your correspondent's query on this head, I beg to observe that I invariably have the quantities taken out, and insert a charge of 1 per cent. to be paid by the builder, as a matter of course.

I hold that your correspondent was only following the usual course, and if the proprietors did not wish the quantities to be taken out, they should have informed him at the time of making the other arrangements.

As the quantities are paid for by the builder, it cannot be held that the cost of taking them out is included in the sum agreed to be paid for the plans and specifications by the proprietors. J. P. P.

*** Other communications on this subject are unavoidably postponed.

THE OPENING OF THE NEW MUSEUM (PICTURE GALLERY) DRESDEN.

After a protracted labour of several years, and the raised expectation of the whole of Europe, the above new temple of art was opened to the public on the 25th of September. No special opening ceremony took place, being incongruous to such grand sights. What had been predicted before, that no one would recognise the gallery, really was the case,—and an unguessed treasure of art bursts on our eyes. Old paintings, which we were obliged formerly to view with strained eyes, are now to be seen in a clear, wide light of day. The greatest improvement has accrued to the Italian school, which is now exhibited in the broad light of the upper room. The Dutch pictures, however, which are placed in the northerly room, with an exterior and wide light, have not improved much in their position. The finest pictures are exhibited in the middle saloons, which conclude towards the west with an especial piece, containing the Madonna del Siste di Raffaelle. This jewel of pictorial art has been now freed of its plate-glass covering, which lay like a damper between the canvas and the eye. Holbein's Maria, also, the German sample of the Italian Madonna, is exhibited on a separate scaffolding. The whole impression of the first visit to the new Dresden gallery is one of quiet grandeur, and by-and-by one gets accustomed to the expanse and comfort of the new spaces. The gallery will be open every day, except the Saturday; twice in the week at a fee of four groschen (about 4½d.); the other days gratis. It is to be borne in mind that the transfer of these numerous and costly pictures to this new museum was accomplished within the short space of three months.—*From German sources.*

SHORTENING SPOFFORTH CHURCH.

"An Old Member of the Yorkshire Architectural Society" writes us on this subject. He says:—

Your correspondent, "M. R. F." should rather have said "reducing the chancel," as the church at Spofforth is not altered beyond the removal of its modernisations. It is of the twelfth century. Its pillars and arcades remain as constructed, and, where defective, have been restored to the original form. The walls of the church have been rebuilt in harmony with them, and the south-west portal, plain, yet in keeping with many of the early churches of west Yorkshire.

The beautiful chancel of the fifteenth century was unsafe and required renovation, but the cost would preclude it. Doubtless it was built by the Percys, who had a castle near; and in those Catholic days might have been a prelude to a larger church, as it was out of all proportion to the earlier nave.

The chancel is built upon the foundations (recently discovered) of the earlier one, and harmonizes with the body. The tower is good of its kind, but late and overbanded.

Another point to be considered is the sound, which was defective in the larger one; but in the Roman Catholic service this would have mattered little, while in our own it is of the greatest importance.

I am an advocate for perfect restoration of our venerable and beautiful ecclesiastical buildings, yet I must consider their original form and intentions, and also our modern requirements, and not advocate a headlong restitution of alterations and adjuncts, in each variety of style, as though the building were intended for a museum rather than a sacred purpose.

Could ample funds be at all times commanded, believe me, I would have all our churches worked out in the beautiful varieties of the fourteenth century, but, where limited in means, act according to circumstances.

To prevent future cavilling about this church, it would be desirable to remove the indications of the late chancel, which remain eastward of the restoration. In all such cases may we work harmoniously.

LITHOGRAPHS BY PHOTOGRAPHY.

At the recent meeting of the British Association, in the section of Chemical Science, Professor Ramsey described a process by which Mr. Robert M'Pherson, of Rome, had succeeded in obtaining beautiful photo-lithographs—specimens of which had been hung up in the Photographic Exhibition in Buchanan-street. The steps of the process are as follow:—1. Bitumen is dissolved in sulphuric acid, and the solution is poured on an ordinary lithographic stone. The ether quickly evaporates, and leaves a thin coating of bitumen spread uniformly over the stone. This coating is sensitive to light, a discovery made originally by Mr. Niepce, of Chalons. 2. A negative on glass, or waxed paper, is applied to the sensitive coating of bitumen, and exposed to the full rays of the sun for a period longer or shorter according to the intensity of the light, and a faint impression on the bitumen is thus obtained. 3. The stone is now placed in a bath of sulphuric ether, which almost instantaneously dissolves the bitumen which has not been acted upon by light, leaving a delicate picture on the stone, composed of bitumen on which the light has fallen. 4. The stone, after being carefully washed, may be at once placed in the hands of the lithographer, who is to treat it in the ordinary manner with gum and acid, after which proofs may be thrown off by the usual process. Professor Ramsey then proceeded to state that the above process, modified, had been employed with success to etch plates of steel or copper, without the use of the burin. 1. The metal plate is prepared with a coating of bitumen, precisely in the manner noticed above. 2. A positive picture on glass or paper is then applied to the bitumen, and an impression is obtained by exposure to light. 3. The plate is placed in a bath of ether, and the bitumen not acted upon by light is dissolved out. A beautiful negative remains on the plate. 4. The plate is now to be plunged into a galvano-plastic bath, and gilded. The gold adheres to the bare metal that refuses to attach itself to the bitumen. 5. The bitumen is now removed entirely by the action of spirits and gentle heat. The lines of the negative picture are now represented in bare steel or copper, the rest of the plate being covered by a coating of gold. 6. Nitric acid is now applied as in the common etching process. The acid attacks the lines of the picture formed by the bare metal, but will not bite into the gilded surface. A perfect etching is thus obtained.

Miscellanea.

The New Pier at Margate.—Sir: I, for one, as an old inhabitant of Margate, am much obliged by your frank expression as to the appearance of our new pier. You have uttered the opinion, to my certain knowledge, of scores of the inhabitants to whom the pier is a perfect eyesore, and who grieve over their old jetty for the sake of its associations. It is really too bad that in a structure on which so much money has been spent as on this, there should not be one morsel of art, or striving for art, exhibited. A few horizontal beams carried on some groups of iron pipes constitute the pier. It is quite time some one spoke out: this is not the only engineering work which, on the ground mentioned, will make us the scoff of the next generation.—D.

Kilkenny Archæological Society.—The September meeting of the Kilkenny and South-east of Ireland Archæological Society was held at Kilkenny on Wednesday week, the Rev. J. Mease in the chair, when thirteen new members were elected, besides the Dublin Mechanics' Institute, which appears among the list of new members. The secretary read a letter from Mr. S. C. Hall, who had just been elected a member, and also from Mr. Rhind, under like circumstances. Various presentations were made to the library and museum of the society. Mr. W. Hackett, of Middleton, then communicated some observations on Stone Circles in India and in Ireland. Mr. Prim read a paper, giving an interesting account of the discovery of some Ogham stones and other antiquities in the raths of Dunbel, county of Kilkenny, since his previous report of 1852. Two Ogham stones, found in course of excavation, were broken into numerous pieces by the workmen employed, but the pieces were carefully collected, and the Oghams restored, as far as possible. One of them was 5½ feet long and 2 feet wide, tapering to 11½ inches. The other was 6 feet 3½ inches in length and 1 foot 1 inch wide, narrowing to 11 inches where there is a step within 8½ inches of the top, at which point the width decreases to 7½ inches, and again enlarges at the top to 9 inches. The inscriptions were pretty fully restored. The stones were of red or purple sandstone, only obtainable about seven miles distant, at Thomas-town, whence others, previously found in different parts of the same district, appear to have also been got, a circumstance which led Mr. Prim to the conclusion that such stones were carved by some tradesman located at the spot where the sandstone on which the carvings were cut was to be had. Blue limestone is the stone peculiar to the locality where the two described were discovered. Communications were laid before the meeting from the Rev. Samuel Hayman, on the Ecclesiastical Antiquities of Youghal; the Rev. Constantine Cosgrave, on the Hill of Keash; and the Rev. G. H. Reade, on the Round Tower of Inniskeen. Mr. James F. Ferguson, local secretary for Dublin, communicated the first portion of a translation of an Ancient Norman-French Poem descriptive of the Anglo-Norman conquest of Ireland, which has been epitomised by Harris, and published from the original in the British Museum. The committee intend to commence the publication of this interesting contribution to Irish history with the new year.

The Crimean Navvies.—A private letter says: "The immense loads carried by the Turks employed in the transport service perfectly astounded the English navvies. It is no uncommon thing for the Turkish labourer to convey 8 cwt. on a knot on his head three or four miles, and this too with perfect ease."

Increase of Steam Power.—It is said to have been ascertained, by a series of experiments at New York, that opaque steam—that is, steam when it becomes visible by being exposed to the influence of an atmosphere cooler than itself—acquires an increased in place of a diminished power of expansion, which is accounted for by supposing that the expansion of the air on being heated by the steam is greater than the loss of expansion in the steam itself from its being cooled. An engine has been constructed by Mr. Storms with a double acting air-pump, which is enveloped in water to keep the air cool. The water is admitted into the steam-chest just above the valve, where it is admitted immediately after the stroke of the piston has commenced. An engine so constructed, it is said, was found with equal resistance to give per pound of coal used 107 revolutions when steam alone was employed, and 190 when air was combined with the steam, so as to produce the cloud vapour.

The Iron Trade.—The usual meeting preliminary to the quarterly meetings of the Staffordshire and Worcestershire ironmasters was held on 28th ult. when strong endeavours were made to induce a rise of 40s. a ton, which, as designed, led to a sort of compromise, by an agreement of the less speculative amongst the masters to recognise a nominal rise of 20s. a ton. This by no means settles even the mere nominal price, for it may be remembered that a strange shuffle occurred at a recent quarterly dictum, when some were bent on taking the rise,—not from any specific sum previously declared by the combination, but from any alleged price which might have been forced up in the interval by others, or individually by some of the masters. Accordingly, while the new price is declared by the more moderate authorities to be 9*l.* for bars, the more reckless and gambling "parties" coolly quote the decision to be 10*l.* for bars, while pretending to blame the "small masters" as "undersellers" who desired to raise the price another pound, or to 11*l.* for bars!! What respect are "authorities" such as these entitled to by the really respectable portion of this extraordinary "trade?" An advance having thus meanwhile been declared, the puddlers and other workmen are already in for a share of the plunder, and perhaps nothing will tend so much to compel moderation and steady conduct as a thorn such as this in the sides of the trade combination.——The ironmasters of Cleveland and the surrounding district, we hear, have formed themselves into a combination also, and hold their meetings once a month at the Talbot Inn, Middlesbro', where they settle the price of iron and concert measures to promote the iron trade of the district.

Building and other Accidents.—A joiner, employed in the erection of the Blackburn Townhall, met with injuries on Friday in last week, which resulted in his death, a short time afterwards. He was working near the roof, and the plank upon which he was standing gave way, so that he was cast upon the floor of the next room, a descent of 12 yards.——Part of the Oakengates Tunnel, on the Shrewsbury and Birmingham line, fell in on Wednesday before last. It appears that close to the wall of the tunnel is an old pit shaft, which had never been filled up, except the upper portion; a platform having been constructed about 18 feet from the surface. Under this platform, the pit shaft was generally full of water, but this having been exhausted in some way, the platform gave way, and the water of the canal, which flows close by the spot, rushed in with such force as to burst in the wall of the tunnel. The breach made was about a yard square; and the line was inundated, as also were some of the houses in Oakengates.——The Bullo Pill Railway Station, on the South Wales Railway, about 12 miles from Gloucester, has been totally destroyed by fire.——A company is in progress of formation for carrying out the several inventions of Mr. G. H. Ingall, for preventing every class of railway accident it is possible to have control over. The association will be called the "Railway Accidents Prevention Company."——A balcony at Milan gave way on 17th ult. and twenty-five persons were precipitated from it into the street. Two of them died the same day, and the others were dangerously injured.

Experiments with Electric and other Lights.—Experiments took place on the upper part of the Common at Woolwich, in the presence of a select committee, on Monday in last week, when three different kinds of lights, for war and other purposes, were tested. The first was the electric light, which was exhibited by Mr. Inglis; the second the "Drummond Light," exhibited by Sergeant R. P. Jones, of the Royal Sappers and Miners; and the third the "Bude Light," of Mr. Gurney, who also entrusted it to the care of Sergeant Jones. The electric light is reported to have appeared to possess the power of penetrating farthest into darkness, and was the most brilliant; but the Drummond also possessed some advantages. It was more portable, and could be carried by two or three men, each taking a portion of the apparatus, whereas the electric light required a waggon drawn by two horses to convey it from place to place.

Fire-Bricks.—Mr George Noble, of Pensher, has recently patented an invention, by which it is proposed to do away with manual labour in the manufacture of fire-bricks made from ground clay, by passing it directly from the grinding mill to the machine, where it is made into bricks ready for the kiln, instead of adding water and making it into a paste, according to the present process. This operation will save the expense of drying flats and coals, now used for preparing bricks for the burning kiln, and will prevent any alteration in form of the wet brick by handling. The invention consists of a combination of hydraulic machinery, for compressing clay in a pulverized state into bricks, and for changing the position of the moulds in which the clay is compressed, so that they may fill and discharge themselves after compression.

Screw Propellers.—An improved construction of this important accessory of modern steam navigation has been patented by Messrs. Kenworthy and Greenwood, of Leeds. This improved propeller is constructed in three pieces. By this arrangement the blade, in case of accident, can be refitted, being dovetailed upon the main shaft, upon which it can be set to any required angle; and, being entirely of wrought-iron, less liability of fracture exists. Captain Williams, of the City of Dublin Steam Packet Company's ship, *Windsor*, has also patented improvements in the propeller. This screw revolves in the water "end on," and the inventor claims this as an advantage, on the ground that it has more propelling surface than ordinary screws, combined with a less diameter.

Strike.—The shipwrights lately in the employ of Mr. Colchester, of Ipswich, have struck work, it seems, in consequence of a man being engaged who was not of their fraternity. The men readily obtained employment at other yards in the town, but all efforts then made to obtain hands from a distance to supply the vacancies in Mr. Colchester's yard were ineffectual.

Suffolk Institute of Archæology, &c.—A migratory meeting of this society was held on Friday before last. The members started from Bury St. Edmunds, making Woolpit church their first halting-place. Here they were met by the Rev. L. F. Page (the rector), and Mrs. Page, and a large number of ladies and gentlemen. After an examination of the church, the party assembled were told its history in a paper from Mr. Page. The next spot noted in the order of route was Haughley-park, in which stands a mansion, in the Tudor style, to the whole of which unlimited access was permitted by the Misses Crawford, and after a paper on the "History of Haughley," read by Mr. Tymms, the visitors were indebted to the hospitality of the ladies for luncheon. From thence the company proceeded to Haughley-castle, where they were met by Mr. C. Tyrrell, Sir H. J. Austin, and others. After ascending the lofty mound on which the castle formerly stood, its records were given in a paper from Mr. Tymms, and some lines in reference to the spot, written by the Rev. F. Aldrich, were read. The Rectory, where a variety of interesting objects had been arranged for inspection, was next visited, and then the church. At Stowmarket church, a paper describing its architectural features, with a sketch of its history, was read by Mr. Tymms, and the company then proceeded to inspect the vicarage—which the Rev. Mr. Hollingsworth had thrown open—not omitting a visit to "Milton's Mulberry Tree." Antiquities and curiosities were arranged at the County Court, and were examined prior to summons to dinner at the Assembly-room, where between thirty and forty ladies and gentlemen dined. The chair was occupied by the Rev. Lord Arthur Hervey, the president of the Institute.

City Baths and Washhouses. — Sir James Duke, M.P. is to present, at a Common Council, on Thursday next, the petition from the Guardians of the West London Union to the Corporation, praying for the establishment of Baths and Washhouses in the City.

Lectures on Church Building at Newcastle. —The first of a series of original papers intended to be delivered to the members of the Newcastle Church of England Institute during the winter session, was read by Mr. S. Oswald, architect, on Monday before last, the subject being the rise and progress of church building in England, from the introduction of Christianity, during the Roman occupation, until the Reformation, with notices of the subsequent period. The distinctive peculiarities of the various styles were pointed out in a familiar manner, and illustrated by numerous drawings and references to the churches of Newcastle and the neighbourhood.

"Leaden Pipes in the Supply of Water and Beer."—Having noticed your important article in last Saturday's *Builder*, relative to "leaden pipes in the supply of water and beer," we think it proper to call your attention to the fact, that a patent was taken out on the 19th April, 1853, by Mr. John Chatterton, a talented engineer of Birmingham, for coating gutta-percha tubing with lead. This combination of gutta-percha and lead secures remarkable strength, and at the same time avoids the danger arising from the use of the ordinary leaden pipes. We have much pleasure in handing you a specimen of tubing (made under Mr. Chatterton's patent), which has been subjected to the extraordinary pressure of 600 lbs. on the square inch, without exhibiting any symptoms of giving way.

The Gutta-Percha Co.

*** The specimen referred to appears to be well adapted to the purpose in view. The gutta-percha tube enclosed in the leaden one, though not attached to its interior, is perfectly protected by it, and the inner tube is of considerable thickness.

Metropolitan Gas-fitters' Association.—On Monday, a dinner was held at the George and Blue Boar, Holborn, as a means for getting together the gas fitters of the metropolis and suburbs, for the purpose of revivifying this association, which has been in abeyance for some year or two past. The value of such an association, under the energetic presidency of Dr. Bachhoffner, for disseminating the knowledge of the almost daily progress making in their calling, for obtaining lectures, to be delivered by the best authorities, and for the formation of a library of works more especially referring to the manufacture of gas and its application to domestic uses, must be too clear to the trade to require to be pointed out to them, so that we may now hope to see the matter established on a firm basis.

The Wiltshire Archæological Society.—The members of this society have just had their annual gathering. Among those who attended, were the Marquis of Lansdowne (patron of the society); Messrs. Sotheron, Heneage, Gladstone, Neald, and Scrope, M.P.'s.; Mr. Britton, &c. The Rev. J. Wilkinson, of Broughton-Gifford, read a paper on "Parochial Histories." He suggested that committees of parish historians should be formed in towns, who should divide the work between them; and generally in every parish the clergyman should call in what coadjutors he pleased. All reports of several parishes would be in answer to certain heads of inquiry, and the whole would have to be revised and consolidated by competent editors. To this scheme of parochial history by the parochial clergy, the Bishop of Salisbury had given his warm approval. The whole of Scotland has already been treated in a similar manner, the work occupying from 1831 to 1854, and comprising fifteen imperial octavo volumes. On the last day the members were entertained by the Marquis of Lansdowne, at his lordship's seat at Bowood.

Indigenous Art in South America. — Rio de Janiero. — M. F. Pettrich, a German sculptor, possesses the largest sculpture *ateliers* in the Brazilian metropolis, and is engaged in a great many works for public buildings, and for the rich Brazilians. Amongst the former is a cycle of six figures, life-size, amongst which are the Indian Chief Te-cum-seh dying, and another, Tat-ruh-reh, leaning on a spear. To this belongs a row of basso-relievo, 5 or 6 feet high, representing the history of the North American Indians,—first their primordial state in the forest and the prairie, until their chiefs held council with four State ministers of the United States. M. Pettrich is also engaged in the models of two equestrian statues of the late Emperor Don Pedro I. the one representing him as a young man, the other as he proclaimed the Brazilian constitution on the *Plaza* of Rio de Janeiro.

TENDERS

For enlargement of Anderton's Hotel, Fleet-street Mr. J. H. Stevens, architect. Quantities supplied by Mr. Elliot:—

Little and Sons	£3,450	0	0
Mansfield and Sons	3,387	0	0
W. Sivil	3,270	0	0
Pritchard and Son	3,048	0	0
Ashby and Sons	2,949	0	0
Lawrence and Sons	2,943	0	0
T. Hawker	2,874	0	0
J. Rudkin	2,871	0	0
Brass and Son (accepted)	2,717	0	0

For erecting a pair of semi-detached villas, at Sydenham, for Messrs. Ralph. Quantities furnished by Mr. Roberts:—

Lawrence and Sons	£2,028	0	0
Gammon	1,949	0	0
Patrick and Son	1,878	0	0
Parry and Son	1,784	0	0
Macey	1,770	0	0
Maskill	1,134	0	0

For the erection of schools and teacher's residence for the parish of St. Matthias, Bristol. Mr. Norton, architect:—

Beaven and Son	£1,234	10	0
William Marquiss	1,200	0	0
John King	1,195	0	0
Jas. and Jos. Foster	1,144	0	0
Thomas Brooks (accepted)	1,036	0	0

For the erection of three houses with shops, at St. John's-wood. Mr. William C. Reed, architect:—

H. and R. Holland	£1,998	0	0
R. Ashby and Sons	1,912	0	0
John Salmon	1,695	3	0
R. Thomas	1,600	0	0

The Jewish Hospital, Mile End-road.—We are informed that none of the tenders for this hospital were accepted on 27th ult. there being an explicit understanding with the competitors to that effect.

TO CORRESPONDENTS.

"W. S."—"H. C."—"J. G. S. Jun."—"G. T."—"W. R."—"G. W."—"F." (brother)—"J. E. G."—"A. B."—"X. T. L."—"W. G."—"J. D."—"S. H."—"H. W."—"W. W."—"M. R. I. B. A."—"G. A. C."—"L. C."—"W. L. S."—"A Sub."—"O. G. P."—"T. E."—"R. D."—"W. and Sons."—"J. S."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

ADVERTISEMENTS.

METROPOLITAN BUILDINGS ACT.—Office of Metropolitan Buildings, 6, Adelphi-terrace, Strand.—NOTICE—An examination of persons desirous to obtain a CERTIFICATE of qualification for the Office of DISTRICT SURVEYOR, will take place on MONDAY, the 29th day of OCTOBER instant, at ONE o'clock, P.M. Persons desirous to be examined must apply on or before the 27th OCTOBER instant; and the application must be accompanied by a preliminary statement according to the course of examination, prescribed in the Rules for that purpose; copies of which may be had at this Office.
ARTHUR SYMONDS, Registrar of Metropolitan Buildings.

AGENTS WANTED, for the SALE of BATH, PORTLAND, and ROMAN CEMENTS, for the Export Trade, and for any of the large Towns of the United Kingdom. The highest references will be given and required.—Address to A. B. C. care of Mr. W. H. Hayden, 17, Warwick-square, Paternoster-row, London.

CLERK of WORKS.—WANTED, immediately, for a few months, to superintend the completion of a Public Building in a Provincial Town.—Application to be sent to Mr. JAMES MURRAY, Architect, Coventry.

FOREMAN of JOINERS.—WANTED, a working SHOP FOREMAN (a constant job), capable of setting out work for and superintending a few Joiners. Must understand keeping an account of the materials used and the work executed. State where so employed before, age, wages, &c. to E. H. Office of "The Builder."
N.B. A Builder's Spring-cart, Horse, and Harness, wanted.

REQUIRED, a MAN acquainted with the quality and measurement of SAWN TIMBER. Wages, at first, 28s. per week. State age and where last engaged, by letter only, to S. R. 3, Queen's-terrace, Bayswater, London.

SAWING and PLANING-MILLS.—WANTED, a steady MAN, thoroughly competent to work a Planing Machine rotary; also to manage a saw frame and Circular Saw-Bench. Satisfactory references or testimonials required.—Apply, stating terms, to F. J. UTTING, Wisbech.

TO BUILDERS' ASSISTANTS AND DRAUGHTSMEN.
WANTED, by a Builder, a steady, respectable Person, not less than 30 years of age, to ASSIST in the OFFICE DUTIES, in preparing plans, specifications, estimates, bookkeeping, &c. and to be practically acquainted with joiners' work, as he would be expected to see to the carrying out of staircase work, and the construction of the different branches of the business. None need apply unless fully competent to carry out these requirements, and can give satisfactory reference as to honesty, sobriety, and ability. Applications to be made addressed to Mr. STAINTON, Surveyor and Builder, Boston, Lincolnshire, stating salary required, with age and particulars.

TO BUILDERS' FOREMEN.
WANTED, a practical BUILDER'S FOREMAN, thoroughly acquainted with all the several branches of the business.—Address, stating age, particulars, and wages, and where last engaged, to Mr JOHN ELLIOTT, Builder, Darlington street, Wolverhampton.
N B—None need apply but those whose character will bear the strictest investigation.

TO STONEMASONS AND PLASTERERS.
WANTED, TWELVE good hard STONEMASONS and EIGHT PLASTERERS.—Apply to GEORGE M'CANN, Malvern, Worcester.

WANTED immediately, in the Office of a Builder, a competent CLERK, one who is thoroughly competent to undertake the entire management of the Office. He must be a good penman, accurate and expeditious at accounts, and able to take out quantities. Direct, stating salary expected, age, and reference to last employer, G. PARSONAGE, Builder, Cheltenham.

ARCHITECTURAL PUPIL.—WANTED, an ARTICLED PUPIL (now resident) in an Architect's Office in London, of extensive practice and long standing, and holding two public appointments.—Apply (by letter), to A. Z. Mr. Woodwell's, 93, Berner's-street, Oxford-street.

WANTED, a SMITH: a good workman, and steady.—Apply by letter to A. O. care of Messrs. Saunders Brothers, Stationers, &c. 106, London-wall.

TO GAS-FITTERS, STOVE-MAKERS, AND SMITHS' FIREMEN.
WANTED, an experienced and thorough WORKMAN in each of the above branches. The gas-fitter, if really capable of plumber's work, would be preferred. The strictest inquiry will be made as to integrity, sobriety, &c.—Address by letter only, X 98, Margaret-street, Cavendish square.

WANTED, a SITUATION as outdoor or general FOREMAN, or CLERK of WORKS, by the Advertiser, who is thoroughly competent, and can produce good testimonials and references from previous engagements.—Address, E. M. 13, Addington-street, York-road, Lambeth.

TO PLUMBERS.
WANTED, a SITUATION, by a Young Man of respectable connections, who well understands the glazing business and wishes to improve himself in the plumbing.—Apply by letter, post paid, to H. HOLDING, Northampton.

TO STONEMASONS.
WANTED, by the Advertiser, a SITUATION as a GENERAL MASON; has had fifteen years' experience as a letter-cutter and stone and marble carver.—Address, W. S. 6, Evans-street, Upper North-street, Poplar, London.
N.B.—The country preferred.

TO BUILDERS, DECORATORS, UPHOLDERS, &c.
WANTED, by an experienced Person of respectability, an ENGAGEMENT in an extensive business of the above description; aged 29 years; active, and well qualified to superintend, estimate, assist in bookkeeping, prepare plans and specifications, also an agency departm nt. Has had fifteen years' practical experience. Can give satisfactory references and testimonials, and security, if required. No objecti n to the country (London preferred).—Address, P. R. Post-office, 103, Tottenham-court-road.

WANTED, by a Young Man, a SITUATION in an Architect's Office. Is a very neat and expeditious draughtsman, and can have a good testimonial from the firm he has just left.—Address, E. B. Mr. Jolly's, Trinity chambers, Charing-cross. The country would not be objected to.

TO BUILDER-PAINTERS.
WANTED, by a Young Man, who has a thorough practical knowledge of the Painting, Paperhanging, Decorating, and Graining, a PERMANENT SITUATION, or otherwise. Good reference can be given, having conducted a business for the last five years.—Address, A. B. 3, Portland-place, Walworth common.

TO BUILDERS AND CONTRACTORS.
WANTED, by a Young Man, a SITUATION in the Office of the above. Is thoroughly acquainted with the general routine. Reference given from last employer. No objection to the Country.—Address, A. B. 17, Upper King-street, Bloomsbury.

DRAINAGE WORK.
WANTED, by the Advertiser, a SITUATION as CLERK of WORKS, or For man over Public or Private Drainage Works. One who has just completed a large town. Highest testimonials as to ability and character can be given.—Address, W. E. Office of "The Builder."

EMPLOYMENT.
WANTED, by a Gentleman, an ENGAGEMENT as Counting-House, or Wharf Clerk, for a permanency; to post up books in accurate, a copyist, (writing a quick, clear hand); or in any way that his services can be made useful to those requiring assistance, having a general knowledge of, and being well experienced, in business. Salary moderate.—Address, U. X. Office of "The Builder."

TO PLUMBERS AND BUILDERS.
WANTED, by a Young Man, a permanent SITUATION as PLUMBER, PAINTER, GLAZIER, GAS-FITTER, &c.—Address, A. B. No. 18, Prince-street, Haggerston.

TO ARCHITECTS OR BUILDERS.
WANTED, an ENGAGEMENT (temporary or otherwise), by a gentleman who is thoroughly acquainted with practical building. Can make fair and working drawings, write specifications, measure and estimate, and is fully capable of conducting a business under the direction of the principal.—Address, A. B. at Sparham's Newspaper Office, 14, Prospect-place, Old Brompton.

TO STONEMASONS.
THE Advertiser, the son of a Master Mason, requires EMPLOYMENT in Town or Country, as Letter-cutter and Writer, in Stone, Marble, or Granite. Has six years' experience. Is competent to manage a small or branch business. Good references can be given.—Address, B. B. Post-office, Brighton, Sussex.

TO CIVIL ENGINEERS AND SURVEYORS.
THE Advertiser, a Young Man, having just been engaged on an extensive town survey for the Local Board of Health, where he has been mostly occupied as draughtsman, is desirous of meeting with a similar ENGAGEMENT. Has a good knowledge of surveying and levelling. Salary moderate.—Address, F. F. No. 2, Nelson-terrace, Great Yarmouth.

TO BUILDERS AND OTHERS.
THE Advertiser, being about leaving his present situation as shop foreman, wishes for a RE-ENGAGEMENT as SHOP or GENERAL FOREMAN, or to Superintend the Erection of Buildings. Good references as to stability and qualifications.—Address to H. P. J, Swinton-street, Gray's-inn-road.

TO ARCHITECTS, &c.
THE Advertiser, as COPYIST, will undertake to prepare, expeditiously, any number that may be required for Supply of Quantities, on much lower terms than those charged for lithographing the same. Specifications, Contracts, Agreements, &c. neatly, correctly, and speedily copied, at very moderate charges. Any work copied for the Profession with despatch.—Address, ZETA, Office of "The Builder."

TO ARCHITECTS, &c.
THE Advertiser is desirous of an ENGAGEMENT. Can attend to the duties of an Office, make general, finished, and perspective drawings; is a good colourist in sepia or colour, and can give the highest references and specimens of ability. Salary a secondary consideration.—Address, Mr. W. HUE, 13, Westbourne-street, Pimlico.

TO ARCHITECTS AND SURVEYORS.
THE Advertiser is desirous of a SITUATION in either of the above offices. Salary moderate.—Address, A. B. C. 35, Jonson's-place, Harrow-road.

TO ARCHITECTS.
THE Advertiser, who is a good Draughtsman, has been accustomed to get out finished and working drawings, and has had considerable experience in Gothic detail, wishes an ENGAGEMENT. Good references.—Address, X. Z. 60, Newsrooms, 66, Cheapside, City.

TO BUILDERS AND OTHERS.
THE Parents of a respectable Youth wish to place him as an OUT-DOOR APPRENTICE, where he would acquire a practical knowledge of the Business of a Builder. Address, A. B. 16, Bowling-green-street, Kennington-park.

GAS-FITTING, BELL-HANGING, &c.—A practical Man will be glad to EXECUTE WORK for the TRADE in the above, and all other kinds of work in the locksmith and jobbing business, hackering, bronzing, fitting and fixing lamps, chandeliers, &c. by time or contract. French moderator lamps properly repaired.—Address, J. BROOKES, at Mr. Ryan's Wire-works, High-street, Camberwell.

PLUMBING, PAINTING, or GLAZING.—The Advertiser, having some surplus labour, would be glad to TENDER for any quantity of WORK in the above line (with or without materials) in town or country. Any party requiring work done would find this worthy their notice.—Address, T. S. 10, Dorset-street, Portman-square, London.

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ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.
SECONDS, PAVIORS', STOCKS, and other BRICKS.
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Date of St. Mary-street, Bridgewater, July 26th, 1854.

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WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT and ESSEX BRICKS.
Also Yellow and Pale Malm Stocks, Cutters, Facers, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
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VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent — Mr. J. UNWIN, Private Road, No. 30, Nelson-square, Blackfriars-road.

TO BRICK-MERCHANTS.—WANTED, FIFTY THOUSAND BRICKS, fit for Fronts of a Party Wall of Fourth-rate Houses, to be delivered near Shoreditch Church. Price for cash on delivery is requested.—Address to Mr. JEREMIAH LONG, Union-street, Hackney-road.

BRICKS.—Builders wanting Bricks of good colour, are solicited to call on B. PARKS, Lewisham, and see the quality at low prices. Carriage within six miles on the most reasonable terms. Red facing bricks at 30s. All kinds of tiles, paving bricks for cow-houses, &c. Manufactured stone pipe manufactured, also all kinds of red pipes and pots. Application by letter punctually attended to.

TO BUILDERS, CONTRACTORS, and OTHERS.—TO BE DISPOSED OF, at very low prices, a large quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 12 inch red Socket Drain Pipes, in 3 feet lengths.—Apply to St. JOHN HEWITT, Redhill Works, Southampton.

DUTCH CLINKERS, 32s. per thousand, by the best Makers
WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices. The BUSINESS to be DISPOSED OF, with the valuable connection, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Honduras Wharf, Bankside, Southwark, London.

GREAT REDUCTION of PRICES.—It being now ascertained that the importation of Pine Planks will be unusually short this year, a great advance in price is inevitable; but E. F. having a considerable stock on hand, is still enabled to quote the following reduced prices:

Pine Planks, 12 ft. 3 in. by 11 in.	from	4s. 6d.	each.
Spruce Deals	"	2s. 9d.	"
Yellow ditto	"	4s. 6d.	"
Yellow Battens, 12 ft. 3 in. by 120.			
Honduras Mahogany, in logs	"	0s. 4½d.	per ft. sup.
Ditto ditto, in boards and planks	"	0s. 6d.	

Prepared Flooring, Veneers, &c. at equally low prices. A list forwarded on application.
SAMUEL PUTNEY, Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, beg to acquaint Builders and the Trade that he has now on hand at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well seasoned OAK and DEAL PREPARED FLOORING-BOARDING and MATCH BOARDING of all sorts, from ¼ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Stiles, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

¼ inch White, 13s. 6d. per square.		¼ inch Yellow, 16s. per square.	
1 ditto 15s.	"	ditto 18s. 6d.	"
1 ditto 18s.	"	ditto 20s.	"

Laths, 3os. per load.

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.
ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, and others, that he is now generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

PADDINGTON TIMBER-YARD.—SAWING, PLANING, and MOULDINGS.—3, Irongate Wharf, Praed-street, Paddington, and 30, St. John's-wood-terrace, St. John's-wood.—GEORGE WILLIAM FRY begs to draw attention to his large stock of SEASONED and PREPARED WOOD GOODS, at the lowest current prices. Liberal allowance for cash, and facility for immediate despatch by rail or canal, which affords a very advantageous country as well as town buyers. Illustrated and priced sheets of moulding designs and general price lists of goods forwarded post free on application. Goods free to any part of town, including the various railway and canal stations.

N.B.—Sawing and planing for the trade.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, slating battens, laths, English oak plank, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, for cash only, at C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 81, Munster-street, Regent's-park. A large quantity of PAPER-HANGINGS, CHEAP. 21s. per cwt. given for old lead.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Sold by W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford street; also Manufacturer of Improved Knotting and Decorative Varnishes.

TO BUILDERS, CARPENTERS &c.
SAMUEL CROWHURST, JUN. begs to call the attention of Builders, Cabinet-makers, &c. to his Stock of seasoned and well-assorted Timber Goods, Deals, and Mahogany in Logs, Planks, Boards, &c. at prices which will be found equal if not less than any advertised. Country Builders supplied on the most liberal terms. Tanhouse-yard, Hanover-street, Walworth; and Francis-street, Newington, near the Church.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. so returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments, tombs, and every description of marble and Imitation work manufactured by patent machinery. NEW WORKS, No. 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 10 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps. Please note the address—20, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

PURE WATER.—The attention of Boards of Health, Water Companies, Engineers, &c. &c. is particularly requested to a newly-invented PIPE for CONVEYING WATER, which possesses most important advantages. It can be made strong enough to resist any pressure; it is comparatively flexible, easily joined, has great power of resisting the effect of frost, and what is of still higher consideration, is perfectly innocuous. This combination of desirable properties is produced by lining lead-n pipes with gutta-percha. Further information may be obtained on application to the Patentees, Messrs. SPENCE and SON, Lead Works, Birmingham; or the GUTTA PERCHA COMPANY, 18, Wharf-road, City-road, London.

DRAINAGE of LAND.—WANTED, to undertake the DRAINAGE of LAND by CONTRACT, or to erect temporary Tenements in order to supply Drain-pipes at a reasonable price. J. JOHNSON, Drainage Engineer and Contractor, Abington-street, Westminster.

LAND DRAINAGE.—MR. THOMAS SCOTT, Land Agent and Valuer, 5, Charing cross, London, is prepared to undertake the PLANNING and EXECUTION of LAND DRAINAGE, in large or small quantities, by contract or on commission. He has now at work around London steady and well-organized "gangs," under competent foremen and pipe-layers. Mr. SCOTT is at present carrying out extensive drainage works on Crown lands, which he will be happy to show to gentlemen desirous of seeing them. Communications addressed to him as above will be immediately attended to. September 22, 1855.

WOOD-CARVING and FRET-CUTTING.—T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Founders, Cabinet and Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—T. H. particularly solicits the attention of Ironfounders, having had many years' experience in ornamental pattern making. Estimates furnished.

J. CHILLINGWORTH, Modeller and Letter Maker, respectfully invites the attention of the building public, to his well assorted stock of Enrichments in Composition, Cement, and Plaster, consisting of Bed Mouldings, Ceiling Flowers, Cases, Trusses, &c. &c. Workmanship, Materials, and charge low. Projecting letters in every variety of pattern, in wood or composition.—Specimen of letters on front of "The Builder" Office, and in all the main thoroughfares of London.—Manufactory, 32, Francis-street, Westminster-road.

ROYAL POLYTECHNIC. Patron—HIS ROYAL HIGHNESS PRINCE ALBERT.—The Sixth Course of Monday Evening LECTURES to the Industrial Classes will commence on Monday, October 8th, at Eight, with a Lecture by Jacob Bell, esq. on the Adulteration of Food. Sir Robert Kane, M.D., F.R.S.; George Godwin, esq., F.R.S., Editor of the "Builder;" Dr. Versalius Pettigrew, Hon. F.R.C.S.; Dr. Trevethan Spicer; J. H. Pepper, esq.; and G. Buckland, esq. will lecture in this course.

ON LONG BUILDING LEASE.—TO BE LET, an eligible PLOT of GROUND, at a very low ground-rent.—Apply to Mr. WALTER ERRINGTON, No. 7, Tanner's-hill, Deptford.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz.:—
FOREST-HILL, Croydon Railway.
ST. MARGARET'S, near Richmond, South Western Railway.
OAKLANDS GRANGE, Woolwich, Surrey, ditto.
HOUNSLOW, Middlesex, ditto.
TOTTENHAM GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
The WADDINGTON ESTATE, ENFIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsey, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.
Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Several Plots to be Let on Building Lease. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

LEIGH, ESSEX.—TO BE LET, a PLOT of GROUND, sufficient for ten houses, and 180 feet deep, on a lease of ninety-nine years, commanding a good view of the sea, and in the best part of Leigh, one minute's walk from the railway station. For particulars, apply to Mr. R. L. CURTIS, Surveyor, 1, Riches-court, Lime-street, City, and of D. MONTAGUE, Esq. Leigh.

HAVERSTOCK-HILL.—To BUILDERS. TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some commodious FRONTAGES for Shops and Private Houses. All the sewers are in on the estate, roads well formed, and now making. Term, ninety-nine years. Low ground-rents. Bricks supplied at a low price, and liberal cash advances. Apply to Mr. JOHN MOORE, 36, Charlton street, Euston-square.

TO TIMBER MERCHANTS and OTHERS. The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Seasoning Docks, and 10-ton Cranes, Sawpits for converting Timber, &c. Freights paid on delivery.—Apply to G. NOKES and Co. as above.

FREEHOLD BUILDING LAND TO BE LET on building lease for 99 years, at 1s. 6d. per foot frontage, 80 feet deep, for small fourth-rate houses, in large or small plots, and on very advantageous terms, close to Forest-gate station, and not far from Stratford station, Essex and the Eastern Counties Railway, four miles from the City. Leases granted at once. No law charges or Surveyors' fees.—Apply to Mr. PARSONS, 7, Union-court, Old Broad-street, City.

BUILDING LAND TO BE LET, at HALLSVILLE....Term 1,000 years, for small cottages,
CANNING TOWN " 1,000 " for small cottages,
NORWOOD..... " 1,000 " for villa residences,
STRATFORD .... " 100 " for small cottages,
POPLAR..... " 98 " for fourth rate houses.
Advances 70l. to 100l. at 5 per cent. on each cottage.
Apply to Mr. Wm. ELLISON, Architect, Stainsby road, Limehouse.

TO BUILDERS, MARKET-GARDENERS, NURSERYMEN, and OTHERS.—TO BE LET, a PLOT of GROUND, of about Seven Acres in extent, situate at Brixton, Surrey, for many years occupied as a Nursery Ground.—For terms, apply to Mr. ALLEN DAVIS, 11, Old Jewry-chambers, City.

TO BUILDERS and OTHERS.—A most eligible PLOT of FREEHOLD GROUND TO BE LET, suitable for Fourth-rate Houses, and lying near the Hackney Railway, low ground rents, 99 years' lease, direct from the Freeholder. For particulars apply by letter, to R. G. care of Mr. Doyle, 4, Maze pond, Borough.

GUILDHALL, London, 2nd October, 1855. The COMMITTEE for LETTING the BRIDGE-HOUSE ESTATES, will meet at GUILDHALL, on FRIDAY, the 12th day of OCTOBER instant, at One o'clock precisely, to LET by TENDER, on repairing leases, TWO HOUSES, and a PIECE of GROUND, on the west side of Hughes's-fields, near Peacock-row, Deptford, and TWO HOUSES and LAND on the east side of High-street, Stratford, near the Railway Station.—Plans of the properties and conditions for letting, may be seen at the Architect's Office, Guildhall.
FERDINAND BRAND, Comptroller.

TO BREWERS, HOTEL-KEEPERS, AND OTHERS.

TO BE LET, a commodious HOUSE, situate at Leigh, Essex, commanding a good view of the sea, about half way up the hill, and near to the railway station, with outbuildings, extensive garden and yard, well adapted for a genteel hotel, with tap-house, stables, &c. the whole occupying a space of about 2 roods. For particulars apply to Mr. R. L. CURTIS, Surveyor, 1, Riches-court, Lime-street, City, and of D. MONTAGUE, Esq. Leigh.

TO BUILDERS.—A Gentleman having some very valuable BUILDING FRONTAGE in one of the most popular and rising watering places on the South Coast, where houses are much wanted, is willing to treat with builders for building on the same. Liberal advances would be made, but any application must be in a position to give good references, and satisfy the Advertiser as to his responsibility and ability to carry out the arrangements he enters into. The site is a very attractive one, and any builders with capital would find it a profitable investment.—Apply, stating name of applicant, and also names of references, to D. E. F. Office of "The Builder."

THE CONSERVATIVE LAND SOCIETY. FOURTH YEAR.—The third financial year being ended, a favourable opportunity is presented to persons desirous of investing capital or savings, at the opening of the fourth year, whether as investors for the sake of drawing half-yearly the guaranteed 5 per cent. interest per annum payable on completed shares and on uncompleted shares upon which a years subscription and upwards have been paid, and receiving whatever bonus may be annually declared, or whether as allottees, for the purpose of acquiring building land to secure lucrative ground rents. The taking of land is quite optional. No risk and no responsibility. Monthly payments, 5s. per share. For prospectuses, apply to
33, Norfolk-street, Strand, London, October, 1855.
CHARLES LEWIS GRUNEISEN, Secretary.

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for speedy loading by travelling cranes, either into barges or carriages. Portland, Caen, Bath, and Yorkshire Block Stone always in stock; Landings, Paving, &c. &c. Marble in Slab, Chimney-pieces, Slab and Paving Slates from the Penrhyn Quarries. Timber, Deals, Limes, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's station.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSSS' WHOLESALE WAREHOUSE, 23, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

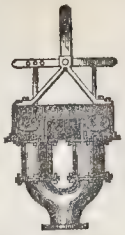
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for square and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



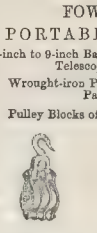
AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



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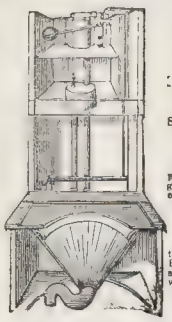
Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. W. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 70, Strand.

To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE VALVES, acknowledged to be the best in use; hydrants or fire plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

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PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work. Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 92, Blackfriars-road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

JAMES STIFF,

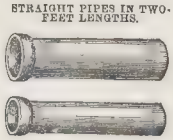
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



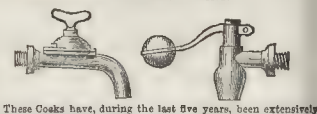
IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Hanover Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; CUTHILL, Brothers, 32, Bryanston-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

PRIZE MEDAL, CLASS 2.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 160 to 360 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

TO ENGINEERS, MACHINE MAKERS, AND OTHERS.

CHARLES MACINTOSH and CO., Patentees and Manufacturers of the VULCANIZED INDIA-RUBBER in all degrees of elasticity, recommend this material as capable of sustaining the action of hot or cold water, gas, steam, acids, and grease. It is used extensively for valves in marine and land engines, railway buffers and springs, washers for pipe-joints, hose and tubing; also for gas-holders, acid pumps, alkali cisterns, &c. &c. Articles, moulded or otherwise, made to any size or figure.—Address, 3, Cannon-street West, London; and Cambridge street, Manchester.

WARNER'S PATENT VIBRATING STANDARD PUMPS.—PATENT CAST-IRON PUMPS, for the use of farms, cottages, manufactories, and wells of a depth not exceeding 30 feet.

Diameter of Barrel.	Length of Barrel.		£ s. d.
2½ in.	short	1 ft. 7 in.	1 12 6
2½ „	long	3 3	1 15 0
3 „	ditto	3 6	2 2 0
3½ „	ditto	3 6	2 18 0
4 „	ditto	3 6	3 5 0
2½ „	short, with 15 feet of lead pipe attached, ready for fixing		2 12 0
2½ in.	long ditto	ditto	2 15 0

Fitted for lead, gutta percha or cast iron flanged pipe, as required.

The short barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from underground tanks, or in hot, forcing, and plant houses: they may be fixed, when desired, under the stairs. May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin street, London. Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

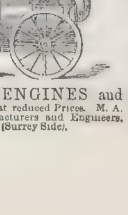
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS, Engineers and Contractors, John's place, Holland-street, Southwark, London.

PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

TO CONTRACTORS, BUILDERS, AND OTHERS.

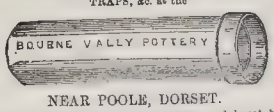
TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 113, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

DURABILITY of GUTTA PERCHA TUBING. Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR RAYMOND JARVIS, Bart., VENTNOR, ISLE of WIGHT, —Second Testimonial.—"March 10th, 1852. In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

THE GUTTA PERCHA COMPANY, PATENTEES,
18, WHARF-ROAD, CITY-ROAD, LONDON.

ALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the est quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon applition to

THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

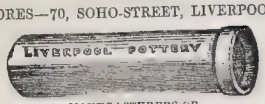
Where a large stock is always kept on hand.

JOHN DOULTON, BROTHERS, AND CO.

LIVERPOOL POTTERY,

ST. HELEN'S.

STORES—70, SOHO-STREET, LIVERPOOL.



MANUFACTURERS OF

DOULTON'S STONE-WARE PIPES. DOULTON'S HALF-SOCKET PIPES. | DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS. DOULTON'S PATENT JUNCTION BLOCKS.

TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

HENRY MILLICHAMP,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Waterloset Pan with Syphon-Trap, 5s. 6d. each.

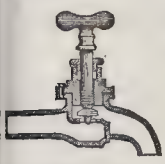
A LARGE ASSORTMENT OF STRAIGHT TUBES IN 9-FEET LENGTHS.

Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

Waterloset Pan with Syphon-Trap connected, price 5s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)



CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM, and 37, SOUTHAMPTON-STREET, STRAND, London. Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS.

Bateman and Moore's, and Chrimes' Patent Hydrants, or Fire Cocks. Improved Self-lubricating and other Sluice Cocks.

Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.

Siemens' Patent Balance Water Meter.
Pilbrow's Patent Water-Waste Preventer.
Morris's Patent Water Supply Regulator.
Rawlinson's Patent Self-acting Drainage Valves.
Higginbotham's Patent Slide Stop Cocks.
Lowe's Patent Stench Trap. Beggs's Improved.

And all other Articles required for Water-Works Purposes, &c.

LONDON HOUSE.

Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.

Plumbers' Brass Work of every description.

BATEMAN AND MOORE'S PATENT HYDRANT.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.

DOULTON & WATTS,

LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

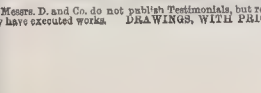
Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

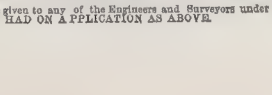
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

SOCKET.





HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

SUPERIOR GLAZED STONEWARE

DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

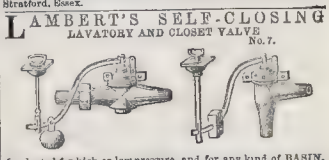
Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Hullwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britton-street, Chelsea: and at the Pottery.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE No. 7.

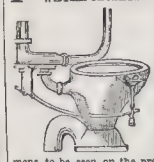


is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 300 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 11s. 6d. each.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 39, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 13 TABLES, 32s. PER CRATE.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers. Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

SUPERIOR STONEWARE GLAZED PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction, the price being also lower than many in the trade, viz. 25 per cent. discount off the list for cash. Junction Bends, &c. Pans and Traps of the first quality, Yorkshire Paving, Sinks Slate, &c. all at low cash prices. E. and W. STURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered. October 1, 1855.

BY HER MAJESTY'S ROYAL LETTERS PATENT, APRIL 27, 1855.

JAS. LEWIS'S PATENT STENCH-TRAP.

FOR STREET USE.

Price, with Gutter Plate, 19 inches by 13 inches, each 25s.; weight about 2 cwt. Larger sizes made, if required.

FOR AREAS, &c.

Price, with Back Plate, 6 inches by 7 inches, each 6s.

FOR COURTS, YARDS, &c.

10 inches by 8 inches, each 3s.

The above articles are protected for the Patentee by the British Government, on account of their construction, for the advantages they possess, being a perfect trap for preventing smell proceeding from itself or the drain, should there be water or not in the pan. When stench-traps are put down generally speaking no attention is ever paid to them afterwards; this renders them defective. The above, therefore, are a desideratum, as they require no attention. It is well known when cholera has visited this country, it commences and leaves last in the places where the air is vitiated by obnoxious gases proceeding from drains, &c.

Any inhabitant suffering by the nuisance, is entitled, by the Sanitary Act to lay complaint before the public or private authorities of the property, to lay down stench traps where they are required. Any persons interested in this advertisement will be kind enough to write to the patentee for drawings and if wished, testimonials. Please order from any respectable ironmonger, contractor, or the Patentee, JAMES LEWIS, Ironfounder, Abergavenny. Specimens to be seen in the Court of Inventions, Crystal Palace, Sydenham.

SALES BY AUCTION.

DESIRABLE INVESTMENT.

MR. PENNINGTON has been instructed by the Trustees of the Cork, Blackrock, and Passage Railway Company to SELL, by AUCTION, at the Auction Room, 51, Patrick-street, Cork, on WEDNESDAY, the 17th day of October, at the hour of One o'clock precisely, the LEASE, for 999 years, from 1st May, 1851, of those valuable PREMISES, situate in VICTORIA-VILLA and HOPE-HILL, the handsome marine residence in occasions of Philip Cosgrave, Esq., and the PLOT of BUILDING GROUND ADJOINING, containing a frontage of about 220 feet, all held under lease for a term of ninety years and six months, from the 30th day of September, at the yearly rent of £50. The extensive property is held in a single lot, and has been recently divided, within a few minutes' walk of the railway terminus at Passage, and about an equal distance from the fashionable watering-place of Monkstown, from which it commands a very fine view of Cork Harbour and Queenstown. It is beautifully situated on the River Lee, and possesses the important advantage of a quay, and the strand to low water-mark in front. The baths have been fitted up in the best style, and contain hot and cold salt water, and shower baths. The pool measures 60 feet in length by 45 feet in breadth. There are also twelve hot, six shower, and two vapour-baths, with dressing-rooms and bedroom. The hot baths are each three feet deep, and the cold baths of the same width and length, but three feet six inches deep. The dressing-rooms are presented to Mr. Arnold by Dr. Leigh, at a rent of 60l. per annum, which is considerably under their value. The tenancy will determine on the 1st day of May in each year. The house and premises in occupation of Mr. Arnold, at the rent held by him, part under a lease for eighty-six years from the 1st day of May, 1851, at the yearly rent of £40, and part under a parol tenancy, at 15l. per annum. The first-named premises may be viewed by permission of the tenants, where printed particulars and conditions of sale may be had; also at Messrs. Hume and Bird's, Solicitors, 14, Great James-street, Bedford-row; at the Royal Oak, Bishop's-road, Bayswater, at the Auction Mart; and at the Office 20, Albion-street, Hyde Park-square.

TO BUILDERS and OTHERS.—Stock of Chimney-pieces, Two Enamelled Stoves, Dipping-trough, Sawing-bed, Two Horses and Pairs and Items in Trades.

MR. GEORGE DEEKS is instructed by the Administrator of the late Mr. Edward Hunt, deceased, to SELL by AUCTION, on the PREMISES, at SALE-STREET, PADDINGTON, on THURSDAY, 11th OCTOBER, at TWELVE o'clock precisely, the entire STOCK in TRADE of a SLATER comprising about 100 Chimney-pieces, various; unfinished ditto, cups, trusses, &c.; marble slabs, slate cisterns, and sundry items in trade. Also, the household furniture of the usual description.—The same to be viewed prior to and morning of sale. Catalogues may be had on the Premises, at Messrs. Hume and Bird's Solicitors, 14, Great James-street, Bedford-row; at the Royal Oak, Bayswater; and at the Offices, 20, Albion-street, Hyde Park-square.

MARK-LANE, CITY.—Extensive Sale of Building Materials.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, OCTOBER 9, at TWELVE, in lots, all the valuable BUILDING MATERIALS of three warehouses, Nos. 3, 4, 5, 6, 7, 8, and 9, Mark-lane, belonging to the Worshipful Company of Drapers, comprising good sound bricks, fine plain tiles, capital oak and fir timber in scantling and flooring, a ton of lead, in gutters, flats, cisterns, and pipes; plate glass and other sashes, nearly new skylights, glazed with plate glass, doors, wainscoting, and other partitions, flooring and lining boards, iron columns, a circular iron staircase, stone paving, and a variety of useful materials and fittings up. May be viewed. Also to be taken down from the Premises, and of PULLEN and SON, 7, Pore-street, Cripplegate.

WORMWOOD-STREET, BISHOPSGATE. Building Materials of several Houses, Coach-houses, Stabling, &c.

PULLEN and SON will SELL by AUCTION, on the PREMISES, on FRIDAY, OCTOBER 12, at TWELVE, all the valuable BUILDING MATERIALS of THREE HOUSES, Wormwood-street, and a range of stabling and coach-houses in the rear, comprising sound and useful work, plain and rubbed slates, lead gutters and pipes, timber, sashes, doors, 3 or 4 tons of iron, fine marble mantels, and stable fittings, paving, &c. May be viewed the day previous. Catalogues had at the Architect's Office, Guildhall; and of PULLEN and SON, 7, Pore-street, Cripplegate.

TO MARBLE MASONS, SCULPTORS, BUILDERS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE are instructed to SELL by AUCTION, at Mr. LLOYD'S MARBLE WHARF, foot of Vauxhall-bridge, Millbank, on WEDNESDAY, the 10th of OCTOBER, a small and choice selection of MARBLE, comprising Statuary (suitable for Easels), Vein, Sicilian, and Black and Gold, in block and slabs, which must be immediately cut, to allow certain alterations to be carried out. May be viewed two days previous, and catalogues had, at the Place of Sale, and of the Auctioneers, 53, Parliament-street, or Cash Exchange. Approved bills at six months will be taken in payment.

TO CONTRACTORS AND OTHERS.—Genuine Sale of Cart Horses at Pimlico.

MESSRS. EVERSFIELD and HORNE are instructed to SELL by AUCTION, on the PREMISES, No. 5, West, Wilton-road, Pimlico, on TUESDAY, OCTOBER 9, at TWELVE for 1, by order of the Receiver, TWELVE powerful CART-HORSES, taken from constant work, and in excellent condition, the property of a contractor.—May be viewed on SATURDAY and MONDAY previous, and catalogues had on the Premises, and of the Auctioneers, 53, Parliament street, or Coal Exchange.

TO BUILDERS, MASONS, &c.—Two Hundred MARBLE CHIMNEY PIECES, executed in various designs and manufactured in a superior manner, WILL BE SOLD by AUCTION by Mr. W. A. OAKLEY on the following days:—WEDNESDAY, 7th OCTOBER; WEDNESDAY, 31st OCTOBER. Sale to commence precisely at THREE o'clock, and on the first day of each sale the last Day's Sale will consist of the larger class Chimney-pieces, suitable for Mansions, Public Buildings, and Clubhouses.—Westminster Marble Company, Earl-street, Holywell-street, Millbank.

$80,000 STOCK BRICKS.—TO CONTRACTORS, BUILDERS, AND OTHERS.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the BRICKFIELDS, Goose-green, Peckham Rye, during the present month, in Lots, about 80,000 useful STOCK BRICKS. Note detailed particulars, and day of Sale, will be announced in future advertisements.—Auction and Estate Agency Offices, 70, King William-street, City, Oct. 5, 1855.

TO BUILDERS, CONTRACTORS, and OTHERS.—London and South-Western Railway Company's Wharf, Wandsworth-road, adjoining Brunswick House and the Nine Elms Station. Peremptory sale of about 2,000 Yards of White and Yellow Deals, to clear the wharf in consequence of the completion of the contract for the conveyance of materials for the Crimea.

MR. PEAKE is favoured with instructions from the proprietors to SELL by AUCTION, on TWELVE, in lots, about 4,000 WHITE and YELLOW DEALS, sawn and unsawn Fir Spars, Battens, &c. The choice Lots remaining for sale. Catalogues obtained at the Wharf, and at Mr. PEAKE'S Offices, 41, Tooley-street, Southwark.

SALES BY AUCTION.

Important and extensive Sale of capital Nearly new Building Materials on Fulham.

MR. F. HALL will SELL by AUCTION, on THURSDAY, OCTOBER 11th, 1855, at TWELVE for ONE o'clock precisely, on account of the Member of the Building Society, a capital Stock of MATERIALS of the Pavilion Park, of several Houses and Shops, in High-street, Fulham, only erected about eight years, on a long gallery down for that object Waterworks Company, all cleaned and lotted to suit large and small purchasers, comprises several thousand feet of long floor and other boards, oak and fir joist quartering, scantling, &c.; fifty lads of second Memel timber, on rollers, breast-high; shutter, plates, &c.; sixty four and six panelled doors, forty pairs of sash and frames, panelled and glazed partitions, 6-inch pan and plain tiles, slates, 3 cwt. narrow coping, steps, lamps, &c. Also, iron railing, girders, firewood, and a vast accumulation of first-rate building materials, on view one day previous and morning of sale. Catalogues obtained on the premises, and of the Auctioneer, Crest-street, Kensington-lane. Nearly a capital stock bricks for sale, cleared and loaded into the carts at the rate of 3s. per 1,000.

Commanding Business Premises, Dwelling-house, and Small Shop at Paddington. Small detached Villa Residence at Bayswater, and Four Cottages at Kensal New Town.

MR. GEORGE DEEKS is instructed by the Administrators of the late Mr. Edward Hunt, deceased, to SELL by AUCTION, at the MART, on TUESDAY, 16th OCTOBER, at ONE o'clock precisely, (by call) BUSINESS PREMISES with Dwelling-house, Workshops, Dwelling-house, and Stabling attached, situate No. 2, Sale-street, Edgeware-road; a Dwelling-house adjoining, and a small House with Shop, being Nos. 29 and 30, Sale-street, aforesaid. The whole held for a term of 60 years unexpired, at the low annual rent of 8l. per annum. A capital detached Villa Residence with Coach-house and Stable, and Garden front and rear, situate No. 10, Newton-road, Westbourne-grove, Bayswater, let to a respectable tenant, held for a long term, at a ground-rent of 6l. per annum. Also, Four small Dwelling-houses, with Gardens (all being Nos. 3, 4, 5, and 6, West place, Westrow, Kensal New Town, held for 79 years unexpired, at 21 5s. per annum each rent), and producing rentals amounting to 31 5s. per annum.—The several premises may be viewed by permission of the tenants, where printed particulars and conditions of sale may be had; also at Messrs. Hume and Bird's, Solicitors, 14, Great James-street, Bedford-row; at the Royal Oak, Bishop's-road, Bayswater, at the Auction Mart; and at the Office 20, Albion-street, Hyde Park-square.

TO BRICKMAKERS, BUILDERS, and OTHERS.

MESSRS. CRAWTER will SELL by AUCTION, at GARRAWAY'S COFFEE-HOUSE, Change-alley, Cornhill, on FRIDAY, OCTOBER 12, 1855, at ONE o'clock precisely, thirty plots of FREEHOLD BUILDING LAND, very eligibly and pleasantly situated between Stratford and Leytonstone, only a short distance from the railway stations at Stratford, and a few minutes' walk from the station of the branch line to Woodford, now forming near the West Ham Union-house. The soil is perfectly dry, with elevated site, commanding the surrounding neighbourhood, and offers a favourable opportunity for investment, with the advantage of immediate possession.—Part of the clays and plans may be had ten days before the sale at the Rose, in the neighbourhood; at Garraway's, of JAMES CRAWTER, 5, Bedford-row.

TO BE SOLD by AUCTION, on FRIDAY next, the 12th instant, at TWELVE o'clock at noon, in the BROKERS SHIPS, Southend, Brunswick Dock, Liverpool.

178 Logs Mexican Baywood,
20 " " Cedar just landed, ex Colonel Cutts.
Apply to Messrs. H. BRANDT and Co. Merchants.
4-2 Logs and Cuts St. Domingo Mahogany, being the cargo just landed, ex Thetis and Puerto Plata, on account of the importers.
111 Cuts and 1 Planks Cuba Mahogany.
13 Tons Cocus Wood, ex Coon Amiweh.
17 Logs Jamaica Mahogany, ex the Water Raleigh.
Apply to Messrs. B. HALL and Co. Merchants.
86 Logs Jamaica Mahogany, ex Garland.
Apply to Messrs. HENRY and FRANCIS, and Co. Merchants.
95 Logs City St. Domingo Mahogany and Yellow Wood.
Apply to Hy. KELLICK, Esq. Merchant.
14 Planks Italian Walnut Wood, ex Torquate Tasso, on account of the importers.
116 Planks Rio Ebenge Maple, ex Manhattan.
17 Logs Rio Zebra Wood, ex Martha.
Apply to Messrs. CLEMENT and HOLT, Merchants.
186 Tons Barwood.
Apply to Messrs. HY. GLYNN and SON, Merchants.
To which will be added, quantities of Rio and Bahia Rosewood, Lignum Vitæ &c. &c. particulars of which apply to EDWARD CHALONER, Timber Broker and Measurer, 6, Lime-street, Queen's Dock, Liverpool.

TO ENGINEERS, BUILDERS, SAW-MILL PROPRIETORS, TIMBER MERCHANTS, CONTRACTORS, and OTHERS.—STRATFORD, ESSEX.

MESSRS. FULLER and HORSEY, on the PREMISES, Broadway, Stratford, opposite the new church, on MONDAY, OCTOBER 8, at ELEVEN, in lots, the STEAM SAW-MILL, MACHINERY and PLANT, and TOOLS, manufactured by Horsey, of Winchelsea; comprising part of 8-horse high-pressure table steam engines, capital cylindrical wrought-iron 30-horse steam boiler, two with tubes; 300 feet wrought iron shafting, with riggers, pulleys, and plummer blocks; 200 feet leather and gutta percha bands; a capital board planing machine, with ploughing apparatus attached; a powerful rack sawbench, 40 feet long; self-acting saw-bench, with fences and apparatus; a saw bench, with self-facing moulding machine; two cast-iron circular saw benches; a powerful mortising machine; fifty circular saws, thirty frame saws, buckled; a drilling machine; capital screw-cutting machine, capable of cutting from 6 to 3 inches, with double lever-head motion, taps and dies; a powerful drilling machine; wrought-iron tank; 6-hp. punching press, shears and lathe; gas fittings, and numerous other effects.—May be viewed on Friday and Saturday previous to the sale, when the machines will be in motion. Catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, 13, Billiter-street, City.

18, COMMERCIAL-PLACE, CITY-ROAD.—MODERN STOCK OF PAPER HANGINGS.

MR. BRAY, Jun., will SELL on the PREMISES as above, on WEDNESDAY, OCTOBER 10, at TWELVE, modern stock of PAPER-HANGINGS, comprising 7,000 Pieces, including elegant French and English Decorations, Gold Embossed and Burnished, rich Crimson and other Flocks, hand-some Satins, Parlour and Bed-room Chintz, Hand Plates, Oaks, Grounds for Staircases, in every variety of modern devices. May be viewed the day prior to and morning of sale, and Catalogues had on the Premises, and at the Auctioneer's Offices, 10, King's-road, Bedford-row.

TO BRASS-FOUNDERS, PUMP and WATER-CLOSET MANUFACTURERS, and OTHERS.

TO BE DISPOSED OF, by private contract, the STOCK, PLANT, and GOODWILL of a MANUFACTURING BUSINESS, carried on in London, established upwards of forty years, having a first-rate connection with plumbers, builders, &c. Satisfactory reasons can be given for the disposal of the same.—For particulars apply to Messrs. REDSDALE and CRADOCK, Solicitors, 5, Gray's-inn-square.

TO BUILDERS, CARPENTERS, and OTHERS.

TO BE SOLD, the GOODWILL of an old-established BUILDER'S BUSINESS, employing on an average thirty men, in a good situation in the county of Hertfordshire, within 15 miles from town. The stock could be taken at a valuation, or would be sold by auction on the premises, if declined by the party in taking the business. The premises comprise a newly-built House, with good garden, &c. yard and workshop, shed, &c. for coastal stable and cart-house, &c. Rent, 45l. per annum, on lease, the present owner being the freeholder.—For further particulars and terms, apply to Mr. W. R. GLASIER, Auctioneer, &c. 41, Charing-cross.

TO IRONMONGERS, WHITESMITHS, FARRIERS, and OTHERS.—TO BE DISPOSED OF, an old-established BUSINESS in the above trade, about seven miles from London, with extensive frontage, workshops, &c. and with every convenience for a good and improving trade. Rent and taxes low. Coming in, stock, fixtures, and seventeen years' unexpired lease, 200l. This is a most favourable opportunity for any person wishing to enter into the above, and whose means are limited. Satisfactory reasons given for the disposal of the same.—Apply to Messrs. PEELE and STEDALL, Broad-street, Bloomsbury; or to Messrs. BROOKE, BROTHERS, 9, Tothill-street, Westminster.

TO BUILDERS and OTHERS.—TO BE DISPOSED OF, in consequence of the death of the Principal, an OLD ESTABLISHED BUSINESS, with immediate possession, producing upwards of 300l. per annum, forced (or with all the Materials) Lease of House, which is let at a low rental. It is situate about five miles from the Metropolis, and in the most delightful vicinity of the Crystal Palace.—For further information apply to Mr. SIDE, the Academy, 60, Union-street, Borough; or Mrs. COLLINS, opposite the Crown, Dulwich.

TO CABINET-MAKERS, the BOTTLING TRADE, and OTHERS.—A strong FOUR-FLOORED WAREHOUSE TO LET, by the Rod or together, in the heart of London. Apply to S. ROBERTS and CO. 65, Shoreditch.

TO BUILDERS, LINENDRAPERS, and OTHERS.—A CORNER SHOP-FRONT, with Mahogany Sash and Plate-glass, quite new, TO BE SOLD, for half price.—For particulars, apply at 61, Prebend street, New North-road, Islington.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Brad) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, October 6, 1855.

Stock Freehold Houses and Building Land, Upper Holloway, and two Leasehold, St. John's-street.

MR. BOYES is directed by the trustees of the late Mr. Wm. Hall, to SELL by AUCTION, at GARRAWAY'S, on WEDNESDAY, 17th OCTOBER, 1855, at 2 for 3 precisely, in three lots—Lot 1, SEVEN FREEHOLD HOUSES, Nos. 3, 4, 5, 6, 7, 8, and 9, Gordon-place, near the Whittington and Cat, Upper Holloway. Lot 2, A plot of Freehold Building Land, opposite lot 1. Lot 3, Two Leasehold Houses with Shops, Nos. 60 and 61, St. John-street, Smithfield; let at 52l. and 32l. per annum. May be viewed by permission of the tenants. Particulars may be had of Messrs. Bisgood and Son, Solicitors, 38, Carey-street, Lincoln's-inn; at the Archway Tavern, Upper Holloway; at the Angel, Islington; and at the Auction Offices, 3, Aberdeen-buildings, Lombard-street.

Nos. 121 and 123, GOSWELL-STREET. TO IRONMONGERS, COACHMAKERS, WHEELWRIGHTS, ENGINEERS, BUILDERS, CARPENTERS, and OTHERS.

MR. ARBER will SELL by AUCTION, on the PREMISES, Nos. 121 and 123, Goswell-street, on WEDNESDAY, OCTOBER 10, at TWO for THREE precisely, by direction of the Executors, the Stock-in-Trade of Messrs. HOWARD and Co., comprising about ten tons of Staffordshire iron in bars and rods; three tons of best spring and tire steel; one ton of patent cast steel; two tons of fine wrought nails, two tons of coach bolts, three tons of rivets, two dozen of grates and a variety of other articles in iron; two tons of cast iron weights, one ton of smith's tools, anvils and bellows, grindstone, moulds, mortice and other vices, screws, planes, stoves, iron rollers, gas, rain water and gutter pipes, fenders, fire-irons, a large quantity of brass-work; also the tools and fittings of a blacksmith's shop, a town-built cart, two gigs, a truck, two horses, four sets of harness, and miscellaneous effects. May be viewed two days previous and in frame of sale, when catalogues may be had on the Premises; and of the Auctioneer, 1, Wharf-street, Berkeley-square.

KNAP-HILL, ROSEHILL, and CHOBHAM, SURREY. — Freehold and long Leasehold Land and Cottages.

MESSRS. WATLRER and SON beg to announce that they have received instructions to SELL by AUCTION, on THURSDAY, OCTOBER, the 25th, 1855, at CHOBHAM, FIFTY-SIX ACRES of FREEHOLD LAND and COTTAGES, the property of the late Samuel Mumford, Esq.—Further particulars will appear in future advertisements, and may be had of Messrs. Mayo and Ayrton, Solicitors, Basinghall-street; and of Messrs. WATLRER and SON, Chertsey, Surrey.

INVERNESS BRIDGE WORKS. Sale of Plant.—To Contractors, Builders, and Wood Merchants.

TO BE SOLD by PUBLIC AUCTION, at TWELVE o'clock, on FRIDAY, 12th OCTOBER, in the shed of the extensive and valuable PLANT of the INVERNESS BRIDGE WORKS, consisting of one Measom and Hall's improved portable twelve horse power steam engine, fitted with gearing for punping. A Rochling power circular punching machine with drilling and planing fly-wheel driving; one three-power drill, with many cutters attached, on wheels; one Cross-kill's three-power drill; one ditto; two 4-inch pumps, two 3-inch ditto, one 2-inch ditto; one 6-inch ditto, with quadrants, &c. &c.; four sitting engines, with two rams; powerful double and single purchase crabs; machinery for five travelling gantries; a fifteen-ton stone-boat; a quantity of Memel and second timber; about a quarter of cord of chains, for the use of contractory tools, two sets of boring tackle; shafts and masons' tools; quarry crates and tools, &c. &c.

CHARLES CROTCHIE, Auctioneer.

Inverness, Sept. 28th, 1855.

UNDER BANKRUPTCY, &c. —TO BUILDERS AND OTHERS.

MR. LEREW will SELL by AUCTION, at No. 9, UNION STREET, Somers-town, on MONDAY, OCTOBER 8th, at TWELVE, by order of the assignee, about 10 scaffold poles, 100 boards and sixteen cords of small ends, planks, deals, and battens, 100 feet of quarter iron, 250 boards, tile board, cut tiles, ladders, screens, trestles, 2 new removed lamps and 1 ditto for conservatory, 2 table lamps, 2 bronzed ditto, 1 Letts's Diary, 1 ditto for 1856, 1 copying press, of W. Westwood, Esq. Official Assignee, 2, Basinghall-street; and at the Auction Offices, Cardington-street, Hampstead-road, near the Euston Station.

DE BEAUVOIR TOWN, KINGSLAND.—Brickmaking Plant, Materials of Six Houses in the Church-road, Brick Carts, and Effects, by

MR. RICHARDS, on the PREMISES, De Beauvoir Brickfield, and near the Jolly Farmers, Southgate-road, Kingsland, on WEDNESDAY, 10th OCTOBER, at TWELVE o'clock, comprising a capital wash-mill complete, four pug-mills, 20 crowding and off-bearing barrows, 6 pumps, 250 feet of slate hoarding, a variety of iron hinges, implements and effects of the kiln. The last-built Kiln contains about Five Millions sample bricks, and is in good working order. Also, the old materials of six brick-built houses, comprising 60 squares of slate, 60 fathoms of paling, 40 doors, 200 squares of deal flooring, 100 squares of lath and plaster, 60 fireplaces, two stoves, 1 copper, 1 pair of brick-cutting, and other effects. On view two days prior to the sale. Catalogues may be had at the principal Taverns in Kingsland, and at the Offices of the Auctioneer, 20, St. Martin's-lane, Charing-cross.

SYDENHAM, RENT.—Stock and Place Bricks, Timber, Two Horses, Two Brick-carts, and Hay.

MR. CHADWICK is instructed to SELL by AUCTION, by order of the Executors of the late T. Hedger, at WELLS-ROAD, at LOWER SYDENHAM, on MONDAY, NOVEMBER 5th, at TWELVE, 30,000 STOCK and PLACE BRICKS, oak posts and rails, timber, scaffold-poles, and ladders, 2 capital cart-horses, 2 brick-carts, 1 dung-cart, 2 sets of harness, truck, plant for brickmaking, and other effects. On view two days prior to the sale. Catalogues may be had at the principal Taverns in Sydenham, and at the Offices of the Auctioneer, 20, St. Martin's-lane, Charing-cross.

The Builder,

A JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

VOL. XIII.—No 662. OCTOBER 13, 1855. PRICE FOURPENCE *Stamped 5d.*

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BUILDERS' BENEVOLENT INSTITUTION.

THE EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate street, on TUESDAY, the 30th of OCTOBER next.

CHARLES LUCAS, Esq. President, in the chair.

STEWARDS

Bird, Stephen	Grayson, George	Plunkett, W.
Bird, George, Treasurer	Godwin, George	Piper, Thomas
	Gardiner, W. J.	Piper, William
Bird, Joseph	Harrey, John	Peters, William
Brown, E.	Hutchons, Wm.	Peters, Joseph
Brass, William	Higgs, Joshua	Rose, Ald. & Sheriff
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Balmer, Edward S.	Head, Geo. junior	Stimpson, Edward
Burr, R. P.	Hood, Edward	Saunders, Wiltshire
Burton, W. S.	Helling, J. N.	Sapwell, John
Christian, Ewan	Herbert, Wm.	Smithberry, Wm.
Cubitt, Alderman W., M.P.	Jackson, Thos.	Smith, G. Spencer
Cubitt, Thomas	Jackson, Wm.	Smith, Alfred
Cogens, Thomas	Jackson, E. and H.	Smith, Frank
Coles, Shadbolt, and Co.	James, Jabez	Smith, Thomas
	Jay, John	Stephens, S. J.
Collins & Stanbury,	Jennings, Geo.	Simkin, W. S.
	Kelk, John	Stirling, William
Burningham	Lawrence, Wm. jun	Stirling, Thomas
Collingford, W. H.	Lucas, Thos. G.	Sward, J. jun.
Cubitt, ford, Wm.	Lee, Wm. M.P.	Sleper, Joseph
Dunnage, Wm.	Mashman, William	Stringfield & Cooper
Dudley, Henry	Myers, George	Sewell, G. Edward
Dowel, Joseph	Newson, John, sen.	Talley, James
Dent, Ebenezer	Newson, John, jun	Thorn, John
Davis, James	Nicholson, D.	Todd, William, jun.
Eales, Christ.	Nicholson, D. junior	Tuff, r, James
Ellis, William	Nixon, J.	Perryman, Thomas
Eversfield and Horne	Morris, William	Webb, William
Forest, Robert	Peto, Sir S. Morton, bart.	Williams, J. junior
Formby, Charles		Wright, William
Freeman, Wm. jun.	Pearce, L. B.	

Gentlemen desirous of promoting the interests of the institution by becoming stewards, will be pleased to forward their names to the Treasurer, Mr. GEORGE BIRD, 38, Edgware-road; or to the Secretary, at the Office, 19, Southampton-street, Bloomsbury.

A. G. HARRIS, Secretary.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-superintendent, RICHARD REDGRAVE, Esq R.A.

Head Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object, the systematic training of teachers, male and female, in the principles of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others careful Art-education, to develope its relation to the requirements of trade and manufacture, and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects:—Free-Hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling, include Architectural and other Ornament, Flowers, objects of Still life, &c., the figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the Technical processes of Design and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two last Classes for female students only.

Hours of Study: Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees for each session, or part of the session. For Evening Classes only, 20s. per session.

The Class for Practical Geometry and Perspective, or that for Modelling and Casting may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the Museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session,—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

Sir Robert Smirke, R.A. | George Stanley Repton, Esq

PRESIDENT—Sydney Smirke, A.R.A.

TRUSTEES.

Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq. R.A.

Philip Hardwick, Esq. R.A.

TREASURER—William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Crane-court, Charing-cross.

J. TURNER, Hon. Secretary, 13, Wilton-street.

ARCHITECTURAL ASSOCIATION.—At the NEXT ORDINARY MEETING, OCTOBER 19, Mr GOODMAN will read a paper, entitled "An Architect's Office, its Management and Mismanagement." The CLASS of DESIGN will meet on OCTOBER 26th. Subject for sketch—"A Pedestal to a Statue."

T. W. GOODMAN, } Hon Secs.
J. A. BUNKER, }

Lyon's-inn-hall, Strand.

MINING SCHOOL in CORNWALL.—A School for the instruction of pupils in the following branches has been commenced, and is now in operation, at Truro, viz.:—

PRACTICAL MINING, including drilling, surveying, and general mine operations

CHEMISTRY, in all its branches, more especially as it is applied to mining and metallurgy.

MATHEMATICS, as applied to engineering generally.

Instruction may be obtained in any one of the above named branches separately.

The terms of admission are the payment of 20l. in advance for two years, or 12l. for one year. The period of attendance from the 1st October to the end of June, with the exception of a vacation at Christmas. A public examination will be held at the end of each session, when certificates of proficiency will be offered and an exhibition of 50l. will be awarded to the best qualified pupil, to enable him to proceed to the Government School of Mines, in Jermyn street, London.

Further particulars may be obtained on application to

W. H. BOND, Hon. Secretary.

NOTICE is hereby given, that a GENERAL QUARTERLY MEETING of MEMBERS of the INSTITUTION of BUILDERS' FOREMEN and CLERKS of WORKS will take place on WEDNESDAY EVENING next, at the BAY-TREE TAVERN, St. Swithin's-lane, for the purpose of transacting the usual quarterly business.

W. ALLARD, Secretary.

COMPETITIONS.

TO ENGINEERS and SURVEYORS.—TWENTY POUNDS PREMIUM. The Committee for improving the Drainage of the town of Cheltenham, in the county of Wilts, are desirous of receiving DESIGNS, together with the necessary plans, sections, and specifications, for efficiently DRAINING the TOWN: any drains already in existence to be taken into consideration, as far as may be practicable with an efficient system of drainage. The Committee offer a premium of 20l. for the best design—reserving to themselves the option of carrying out the design approved under their own Surveyor; or of employing experts to whom the premium may be awarded on the usual commission. The designs, plans, sections, and estimates, are to be sent to me (free of expense) on or before SATURDAY, the 27th day of OCTOBER instant. Further particulars may be had on application to me, either personally, or by letter.

JOHN BINGHAM, Jun. Clerk to the Committee.

Chippenham, Oct. 1, 1855.

CONTRACTS.

TENDERS are required for the FORMATION of some NEW ROADS, and the RE-MAKING of others, for the Drainage of the Dowlais Freehold Land Society. Also for the SUPPLYING and PAVING of the same, with Broken Stone. Plans, Sections, and Specifications may be seen at the Offices of Mr. WILLIAM WILLIAMS, Solicitor, No. 76, Cheapside, where TENDERS will be received until FIVE o'clock, P.M., on TUESDAY, the 16th day of OCTOBER instant.

OXFORD PAVING ACTS.—CONTRACT for PAVING.—Persons desirous of TENDERING for PROVIDING and LAYING down the CURB and PAVING of FOOTWAYS and GRANITE PAVING for ROADWAYS and other Works in the Oxford Improvements, for a term of One Year, from the 1st of JANUARY next, may see the specifications and lists of quantities of Mr. WILLIAM WILLIAMS, Solicitor, No. 76, Cheapside, at whose Office TENDERS will be received until FIVE o'clock, P.M., on TUESDAY, the 16th day of OCTOBER instant.

Tenders to be endorsed "Tender for Paving," and addressed to the Commissioners' Office, Town hall, Oxford, and to be delivered by the Contractors' Office on or before MONDAY, NOVEMBER 5, endorsed "Tender for Paving."

By order of the Commissioners,

FREDERICK J. MORRELL, Clerk.

PUMPING-ENGINE.—The Committee acting under the Hereford Improvement Act of 1854, are prepared to receive TENDERS from eligible parties for undertaking the CONSTRUCTION and ERECTION of a PUMPING ENGINE for the Hereford Waterworks. A description of the engine required, with all the particulars, may be known on application to Mr. T. CURLEY, C.E. Tenders to be sent in on or before TWELVE o'clock, on MONDAY, the 29th day of OCTOBER next, addressed to the Committee of the Hereford Improvement, and endorsed, "Tender for Pumping Engine." The Committee do not pledge themselves to accept the lowest or any Tender.—By order of the Committee,

T. CURLEY, C.E.

Hereford Improvement Office, 19th September, 1855.

CONTRACTS.

ORDNANCE CONTRACT.—To BUILDERS and CONTRACTORS.—Notice is hereby given, that TENDERS will be received at the Office, Pall-mall, London, on WEDNESDAY, the 17th of OCTOBER, 1855, before TEN o'clock a.m. from persons willing to undertake DEEPENING and WIDENING the DITCHES, and Repairs of the Parapets of Hilsea Lines near Portsmouth, according to Plans, Sections, and Specifications of Contract to be seen and every information obtained on application to Mr HAWKINS, Clerk of Works, at this Office, between the hours of TEN and FOUR o'clock on Week days (Sundays excepted).

Royal Engineer Office, Portsmouth, Oct 3 1855

ORDNANCE CONTRACT.—NOTICE to BUILDERS and CONTRACTORS.—Sealed TENDERS, addressed to the Director General of Contracts, Pall-mall, London, will be received until TEN o'clock on MONDAY, the 22nd of OCTOBER next, respectively endorsed RELATIVE to the ERECTION of Eight BRICK OVENS near the Old Barracks at Aldershot. Plans may be seen, and specifications of the work obtained on application at the Royal Engineer Office, Aldershot, on and after MONDAY next, the 15th inst., whereat may be obtained forms of Tender and all further information required. The Tenders to be marked on the envelope "Barracks," and endorsed, "Tender for Building Ovens at Aldershot." The Ordnance reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Aldershot, Oct 10, 1855.

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that Tenders will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of undertaking the WORKS required for ERECTING a SECOND BARRACKS near Aldershot, in the County of Southampton, in accordance with Plans, Sections, and Specifications, which may be seen at the Royal Engineer Office, Aldershot, on and after MONDAY, the 15th inst., and at the Office of Works, at the Ordnance Barracks, Chatham, on and after MONDAY, the 22nd inst., whereat Forms of Tender may be obtained. The Tenders are to be delivered at the Office of Works, Aldershot, on or before the 5th NOVEMBER next, and when Forms of Tender may be obtained. N.B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.

Portsmouth, Royal Engineer Office, October 10, 1855.

Royal Engineer's office, Portsmouth, 2d October, 1855.

NOTICE to BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of undertaking the CONTRACT for the ERECTION of proposed CASEMATED BARRACKS, and for the completion of the Fort behind Gomer Pool, Brown Down, near St. Helens, Isle of Wight, in the parish of Alverstoke, in accordance with Plans, Sections, and Specification in a locker at the Royal Engineer Office, Portsmouth, where also forms of Tender may be obtained. Every description of Tender must be delivered on or before the 5th NOVEMBER, 1855. The Ordnance reserve to themselves the right to reject the whole or any of the Tenders. No Tender will be taken of any Tender unless delivered in the printed forms, to be obtained at the Royal Engineer Office, Portsmouth.

NOTICE to BUILDERS.—Royal Engineer's Office, Portsmouth, October 8, 1855.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed OFFICERS' MESS and SCHOOLMASTERS' QUARTERS, at Haslar Barracks and Fort Monckton, Gosport, County of Hants. Plans and Specification may be seen at the Royal Engineer Office, Portsmouth, where forms of Tender may be obtained every day Sundays excepted, until the 23rd OCTOBER, 1855. Tenders to be delivered by or before the 31st OCTOBER 1855. Tenders not printed forms, to be obtained at the Royal Engineer Office, Portsmouth.

RURAL DISTRICT OF TONTEIN PARK, NEAR LIVERPOOL.—PUBLIC HEALTH ACTS, 1848 and 1854.

TO CIVIL ENGINEERS and SURVEYORS.—The Local Board of Health for the Rural District of Toxteth-park, desire to receive PROPOSALS for a SURVEY and PLANS (the first of the kind), necessary to be made for publishing to the Local Board of Health, subject to the approval and to the approval of the Local Government Board, a Plan, Book of Reference, and Schedule of the Property to be taken and purchased under the Act, and the Plans and Sections of the Sewers, &c., intended to be made, the contract, accompanied by testimonials as to general experience and practice in such Surveys, &c., to be sealed and endorsed "Tender for Survey and Plans," addressed to "The Chairman of the Local Board of Health," and delivered at the Office, on SATURDAY, the 27th day of OCTOBER instant. The Local Board will not be responsible for any Tender not delivered as required. Further particulars and general conditions may be had on application at the Office of the Board, Park-house, Norris Green, Toxteth Park, where sealed plans may be seen. By order,

J. ROWLAND, Clerk to the Local Board of Health.

Public Office, Toxteth-park, October 8, 1855.

SEWAGE of the CITY of COVENTRY.—The Corporation for the City being desirous of making arrangements for the COLLECTION of the SEWAGE of the City, with power to sell and dispose of the same, are prepared to receive TENDERS or negotiations from any persons willing to lease or otherwise take the sewage of the corporation, for a term of years, as may be agreed upon. The sewage will be collected and discharged at one mouth, in a situation convenient for a site for the necessary buildings. The population of Coventry is about 50,000. For further particulars apply at the Town Clerk's Office, Coventry.

[For remainder of Contracts see next page.

CONTRACTS.

EAST LANCASHIRE RAILWAY. — To CONTRACTORS and BUILDERS. The Directors are prepared to receive TENDERS (save EXCEPTION of LOCOMOTIVE WORKSHOPS at Bury, comprising Erecting Shops, Machine Shops, Stores, Boiler Making Shops, Smiths' Shops, Foundry, Pattern Rooms, Plans and specification may now be seen at the Engineer's Office, Bury station. Sealed tenders, addressed to the undersigned, and endorsed "Tender for Locomotive Shops" will be received up to Saturday the 27th day of OCTOBER next. — By order, JAMES SMITHELLS, Secretary.

Bury, Lancashire, Sept. 19, 1855.

SHIPLEY WATER-WORKS — To WROUGHT-IRON TUBE MANUFACTURERS, BRASS FOUNDERS, PLUMBERS, and OTHERS. — The Local Board of Health, for the Local District of Shipley, are prepared to receive TENDERS for the following CONTRACTS:

CONTRACT No. 7. — For the supply of Cast Iron Galvanized Iron, and Lead Pipes, High-pressure Bends, Ferrules, and other Fittings for house service water supply.

For Excavating the Ground, Tapping Mains, Jointing, and Fixing Pipes, Cocks, and Plant (time for house service only required).

Specimens as may be required, and printed forms of Tender obtained, at the Offices of the Shipley Local Board of Health, Old Engineer, 24, Queensgate, Bradford, from whom any further necessary information may be procured. Sealed Tenders, properly endorsed, must be sent to me on or before MONDAY, the 22nd of OCTOBER next ensuing.

By order, JAMES THOMPSON, Clerk to the Local Board.

Bradford, October 1st, 1855.

TO CONTRACTORS AND OTHERS.

CONTRACT.—The COMMISSIONERS of HIGHWAYS for the ISLE of WIGHT are prepared to receive TENDERS for forming and completing a NEW ROAD from Little Park to Seaview, or the Red Lion, three miles westwards Carisbrooke, in the Isle of Wight, being in length about 1 mile and 2 furlongs, or thereabout, and including the carriageway of Ashey Down, Seaview, and Wootton Bridges, and for the purpose to make Footpaths and Gutters where required, to pull down Banks, and to execute and do all other necessary works, in accordance with the plans, sections, and specification to be seen for inspection at the Office of Mr. ESTCOURT, Clerk to the said Commissioners, at Newport. Persons willing to contract with the Commissioners of Highways for making the above improvements, are requested to forward Tenders, addressed "To the Chairman of the Commissioners of Highways," at the Guildhall, in Newport, on THURSDAY, the 25th day of OCTOBER instant, by TWELVE o'clock. Further particulars may be known on application to the General Surveyor, Mr. F. WHITE, Sandle, near Newport, Isle of Wight. The Commissioners will not bind themselves to accept the lowest Tender.

By order of the Commissioners,

CHARLES WYATT ESTCOURT,
Clerk to the said Commissioners.

Newport, Isle of Wight, Oct. 2nd, 1855.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of well-seasoned Foreign TIMBER and MAHOGANY PLANKING of all descriptions. Also an extensive stock of Dry White, Yellow and Pine Cut Stuff, Skirting, Battens, Panelled Doors, Cask Heads, Sash Cases, Oak and Fir Planks, Deals and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

GREAT REDUCTION of PRICES.— It having now ascertained that the importation of Pine Planks will be unusually short this year, a great advance in price is the result, but by having a considerable Stock on hand, is still enabled to quote the following reduced prices: —

Pine Planks, 12 ft. 3 in. by 11 in.	from 4s. 6d.	each
Spruce Deals	" 2s. 9d.	"
Yellow ditto	" 3s. 6d.	"
Yellow Battens, 12 ft. 3 in. by 220	" 6s. 4½d. per ft. sup.	
Honduras Mahogany, in logs	" 6s. 4½d. per ft. sup.	
Ditto	" all other saw-able sizes	" 6d. "

Prepared Flooring, Veneers, &c. at equally low prices." A list forwarded on application.

SAMUEL PUTNEY, Borough-road, Southwark, and Elm street, Gray's-inn-lane.

REDUCED PRICES.—EDWARD SIMMS (late William Chesse), of 9, Bonsrand, Poplar, Beg leave to acquaint Builders and the Trade that he has now on hand at his Wharf, very different and extensive Stock, a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from nine inches and three-quarters down to small and thickness, and at greatly Reduced Prices. Also, Timber Deals, 3x11 Inch, Planks, Battens, Sash Stuff, &c., also prepared by Machinery, Laths for Lathing, Cooper's Cask Staves, and W. Cheese's Flooring Manufactory Wilton road Pimlico Basin.

SEASONED FLOORING.—GEO. NOKES (late of 109, New Ann-street, Commercial-road, Limehouse, and Lathes, Hall-place, Paddington) have in Stock STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:

4 inch White, 13s. 6d. per square.		4 inch Yellow, 15s. per square.	
3 ditto	12s.	ditto	13s. 6d. "
1 ditto	10s.	ditto	10s. "

Lath, 9s. per 1,000.

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.

ST. PANCRAS SAW MILLS, Camden-street, Old St. Pancras-road.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvedere-road, Lambeth. The Proprietor of the above Works has recently had the machinery greatly increased, and is now enabled to execute any orders that may be intrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, supplied at the shortest notice. Turning done for Balusters, Lecterns, Reed Rails, Chair backs, Newel Posts, Mast Rails, Tables, Chairs, &c. every description of Joinery, Mouldings, and Fret Work, suitable for various purposes, can be seen at the Works, and Estimates furnished on application.

PADDINGTON TIMBER-YARD. — SAWING, PLANING, and MOULDINGS.—To Builders, Wharf Proprietors, and others.—Mr. SEELY has opened premises at St. John's-row, Harrow-road, Paddington, for the above purposes, and begs to inform his friends and the public that he is now prepared to execute orders with the greatest despatch, and on the most reasonable terms. Mr. SEELY's Machinery is entirely new, and of the most improved description, and he is enabled to offer the trade and others a first-class article at very moderate prices. Estimates given for any description of Sawing, Planing, Moulding, Tongueing, Grooving, Rebating, Chamfering, Dovetailing, Mortising, Tenoning, Boring, Shaping, Sash-bar Making, Circular Sawing, &c. Orders executed with punctuality and despatch. Timber Yard, Wharf, and Steam Saw Mills, St. John's-row, Harrow-road, Paddington, near the Great Western Railway Bridge.

A CORN TIMBER WHARF.—Mr. RICHARD MAYS continues to receive, Per steamer, a fine assortment of PARA MAHOGANY, Honduras and Spanish, to be supplied in any size of Planks, Boards, Scantlings, Battens, and Mouldings, also Cuban Cedar, Spanish Cedar, Lancashire oak plank, mahogany slabs, at reduced prices for cash. The Monthly Price Current forwarded on application.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, for cash only, at C. LEETWICH'S Lead, Glass, and Colour Warehouse 21, Munster-street, Regent's-park. A large quantity of PAPER-HANGINGS, CHEAP. 21s. per cwt. given for old lead.

TO BUILDERS, CARPENTERS, &c.

SAMUEL CROWHURST, JUN. begs to call the attention of Builders, Cabinet-makers &c. to his Stock of well-seasoned and well-assorted Timber Goods, Deals, and Mahogany in Logs, Planks, Boards, &c. at prices which will be found equal if not less than any advertised. Country Builders supplied on the most liberal terms.—Timber-yard, Hanover-street, Walworth; and Francis-street, Newington, near the Church.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. is returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of moulds now on hand. Mitre & other pieces, ornaments executed, and every description of machine work also manufactured. patent planers. NEW WORKS, No. 2, BRIDGE-TERRACE, HARROW ROAD, PADDINGTON, about 200 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if for warded, by enclosing six postage stamps.—Please note the address 20, BRIDGE-TERRACE, HARROW ROAD, Paddington, near the Great Western Railway Bridge.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d.

These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the ext.rnal wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment. Particulars and prices may be obtained, and specimens seen, at the office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London, or on applicat on to BENJAMIN LOOKER and Patentee, Kingston-on-Thames.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention. WILLIAM PIGGOTT, 115, Fore-street City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

FOR SALE, on very moderate terms, a 12-h nes STEAM ENGINE complete (nearly new) together with all the necessary joints and connections for attaching to a marble or stone saw-frame.—For particulars, apply to Mr. SIMMONS, Ironfounder &c. Borough Market.

TO MILLWRIGHTS

FOR SALE, a CAST-IRON PIT-WHEEL, good as new, 12 feet in diameter, with 174 cogs.—Apply to EVANS, BROTHERS, Soho-fields, Lyon.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Works, 21, 22, 23, Horseferry road, and 1, New Pye-street, Westminster. Contractors, Builders, &c supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven and boiler, complete, 22s. each.

Self-acting ditto, with ditto, from 25s.

Self-acting Oven and Boiler Ranges, with wrought fittings, &c.

Register Stoves, from 5d. per inch.

Elliptic ditto, with ditto bucks, from 2½d. per inch.

Cast-iron Rain-pipe	2	2½	3 inch
	11d.	1s. 3d.	1s. 6d. per yard.

4-inch Eaves Gutters, 9d. per yard.

O G Gutters	4½	5	5½ inch,
	1s.	1s. 3d.	1s. 6d. per yard.
Best Cut Clasp	1½	2	2½ inch and larger
and Rose	10s. 6d.	12s. 6d.	15s. 6d.

1-inch Best Cut Lath, 16s. per cwt.

Sheet Iron Bends, 1½, per cwt.

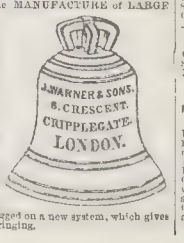
H. op Floor Brads 12s. 6d. per cwt.

Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 5s. per doz.; strong Coal Plates, with hooks, 9s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

NAILS and IRONMONGERY, from BIRMINGHAM direct. Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the LOWEST BIRMINGHAM PRICES a complete LIST of which will be forwarded upon application. FREDERICK BEITH, Nail Manufacturer and General Factor, Regent-parade, BIRMINGHAM; or 81, Great Grorham-street, LONDON.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the Practical part of Bell Casting, have recently invented and patented a new process connected with casting, by which they are enabled to manufacture Bells of any size, note, or weight, of a superior tone, truer in form, and at less cost than has hitherto been supplied.



Bells for Churches, Chapels, Collegiate, Schools, Turrets, Clocks, &c. for any size, note, or weight, single or in peals.

TUNED BY MACHINERY.

Steam and Manual Power for fixing Old Bells to set or falsen in octave.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler, 20 22 24 26-inch. 28s. 30s. 32s 34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

24	26	28	42-inch.
54s.	56s.	58s	90s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 5½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 5½ per inch.

Best Solar ditto, with Fire-Brick Back, per inch, 10d.

Bright Stoves, with Two Flues, 40s. to 100s. each.

Cast Rain-water Pipe	2	2½	3 inch.
	1½d.	1s. 3d.	1s. 6d. per yard.

Cast Gutters—4 inch, 9d. per yard.

O G Gutters	4½ inch.
	1s. 1d. 1s. 3d. per yard.

Patent Line	2	3	4	5	6
	4d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet Iron Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and bars, 18s. best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 32s. each.

3-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 4s. per doz.

Best Town Glue, 56s. Ditto, Scotch, 60s per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	5s.	7s. 9d.	8s. 6d.	11s. per gross.

And every material required in the building, bell hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

EAST LONDON WATERWORKS COMPANY, Old Ford, 10th October, 1855. For SALE, near the Company's Wharf, at old Ford, TWO WROUGHT-IRON WAGON-BOILERS, from the Ajax Engine. Length, 24 feet; breadth, 6 feet; height, 8 feet 6 inches.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with the hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and self-acting spring hinges, and another gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Pivot and ornamental cast and wrought iron work, for railing and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
4s.	5s.	6s. 3d.	7s. 6d. per gross.

At JOHN YOUNGS, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, coming out of Baker-street, Portman-square. Every other article equally reasonable.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

AUSTIN'S IMPERIAL

PATENT SASH and BLIND LINE, can be obtained of all ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY. Established 1774.

212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES non-conducting and unrusting with all the improvements, under the Queen's Patents of 1854 and 1855, including their Gunpowder Proof Safes Lock and the new Bramah which defies picking.

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX 212° SAFE WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool; London Depôt, 57a, Moorgate-street, City.—Circulars free by post.

J. MICHIE, Engineer and Machinist, Battersea-park, Nine-elms, manufacturer of all kinds of Steam-Engines, Portable and Stationary, Sawing and Planing Machinery, Pumps, Cranes, Crabs &c.

N.B. Several high-pressure Engines for Sale.

TO LOCAL BOARDS of HEALTH, WATER COMPANIES, and OTHERS.—The Swansea Local Board of Health have FOR SALE, about 1,000 yards of 12-inch cast-iron pipes of 10 and 16 inch NEW WATER PIPES, principally in 9 feet lengths, each length weighing about 7 cwt. The pipes are of good strong quality inside and outside with Dr. Angus Smith's patent, and made by Messrs. Cochrane and Co. Woodside Iron Works, near Dudley. They have the Board wish to dispose of them (owing to their not being of a suitable size for their works.—Tenders to be sent in to Mr. EDWARD TOPLISS, surveyor, the Board Guardhouse, Swansea, from whom any further information respecting them may be obtained.

Swansea, Oct. 1, 1855.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

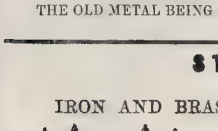
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds, these have been recently fixed at New College, Oxford; St. George's Cathedral, Southwark; and numerous Churches, Chapels, &c

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

PARKIN AND MARSHALL,

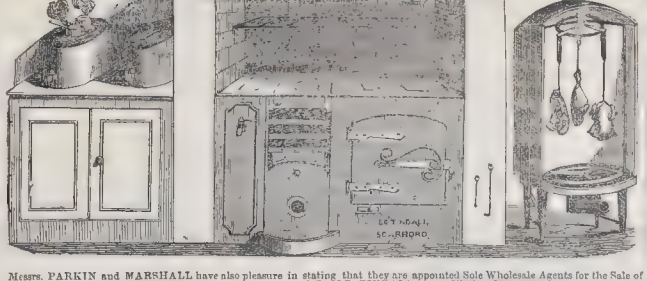
GENERAL MERCHANTS, AND MANUFACTURERS OF

TABLE CUTLERY, PEN and POCKET KNIVES, SCISSORS, RAZORS, ELECTRO PLATED WARES, FILES, SAWS, EDGE and JOINERS' TOOLS, AUGURS, STEEL, &c. &c.

TELEGRAPH WORKS, SHEFFIELD.

OFFICES { NEW YORK—71, JOHN-STREET. BOSTON—2, KILBY STREET. MELBOURNE—91, COLLINS-STREET EAST.

CORPORATE MARK—XLALL.—Granted by the Cutlers' Company, 1789.



Messrs. PARKIN and MARSHALL have also pleasure in stating that they are appointed Sole Wholesale Agents for the Sale of the undermained Articles, manufactured by Mr. ENOCH OLDFIELD TINDALL, Iron Works, Scarborough:—TINDALL'S PATENT PORTABLE MANGLES, WASHING AND WRINGING MACHINES, NAPKIN PRESSES, CURLING RANGES, LAWN OR SPORTS, SAWYER'S TRAP AND GRATE, CHAFF CUTTERS, OAT, BARLEY, MALT, AND LINSEED MILLS, BEAN MILLS, OILCAKE BREAKERS, PORTABLE SAW-MILLS, TURNIP CUTTERS, &c.

THE PATENT COOKING RANGES AND ROASTERS are now amongst the most complete and inexpensive before the Public, and are rapidly superseding the antiquated Ranges of our Country.

THE IMPROVED LAUNDRY STOVE will heat Fifteen Plate at once, occupies only 12 inches in space, is removable from one room to another, and will be found invaluable for Public Laundries and Private Families.

E. O. T.'S SANATORY GRATE AND TRAP is now acknowledged to be the best and most secure from effluvia (as well as not being liable to close), and can be easily fixed to any Grate.

THE MANGLES AND WRINGING MACHINES have been introduced into the Royal Household, most of the Public Laundries, and also into many thousand Private Families, who bear testimony to their efficiency and superiority over all others.

THE OAT BRUISERS AND CHAFF CUTTERS, like the above, unite cheapness with the greatest simplicity of construction, and only need to be tried to be appreciated. They effect great saving, and should be in every stable

Drawings of Mangles, &c. with Testimonials, can be had on application at Telegraph Works, Sheffield, or of the Retail Agents, who are appointed in almost every principal Town in the United Kingdom.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent,—Mr. HARTNELL, 71, York-buildings, Adelphi

PARQUETRIES AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvement in door-springs, being the most perfect and durable yet invented. Their power at mid to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

CHUBB'S LOCKS, with all the recent improvements. STRONG FIRE-PROOF SAFES, CASH and DEED BOXES.—Complete lists of sizes and prices may be had on application.

CHUBB and SON, 57, St. Paul's-churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the great Exhibition of 1851, which marks the attention of Builders, &c. to his Stock of Iron (cased), Brass Fumbly, Nickel (cased and cut), Copper and Zinc Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 30 years, for the supply of Goods from the best Manufacturers, at the lowest prices.

11, Seel-street, Clerkenwell, London

No. 1851, Class 27, Section 3, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

TWO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Fancy of all descriptions for Gas fitting in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Bed Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.

RICHARD EVERARD'S Brass and Bell Foundry and Metal Warehouse, Nos. 10, 11, and 12, Charles-street, Long-acre, London

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK, also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, and doors for the same, hot-water pipes, elbows, bends, stubs, double valves, stop-cocks, flange and chatelbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron Bridge wharf No. 6, Bankside, London, near the Southwark Iron Bridge

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42, Poland-street, Oxford-street, where it may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of arrangement, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO. opening to the Monument, London-bridge. Established A.D. 1700.

ROYAL POLYTECHNIC GAS FIRE. BUCHHOFFNER and DEFRIES'S PATENT The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIES'S office, 147, Regent-street, London.

GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO. 1, Arthur-street East, London-bridge.

Testimonial respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and CO.

8, Richmond place, Hampstead, March 9th, 1855.

Gentlemen,—I have great pleasure in bearing testimony to the capabilities of your extraordinary Gas Cooking Apparatus, being the largest and most perfect yet in use. Suitable for hotels mansions, club houses, private houses, and the army; having cooked in one day four fowls and many cwts. of ham, beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 300lbs. in four hours, fifty-three minutes, presented by J. Banister, esq. Threadneedle-street, to the directors, for the banquet given to the foreign marines. They have been in full operation for ten months, and are now in as perfect order as when first finished. "They have not cost one shilling for repairs."

I am, Gentlemen, yours respectfully,

EDWARD HORNE.

Messrs. Deane, Dray, and Co.

EXHIBITION PRIZES.—HARRISON'S PATENT KITCHENER cannot be equalled for the economy of fuel, cure of smoky chimneys, and for facilitating and improving the various operations of cooking. One on a very extensive scale, being the largest in the world, and roasting beef to cook abundantly for 1,000 persons, with one small fire, may be seen daily in operation at the Merchants' New Dining-rooms, Castle street, Liverpool, acknowledged by all to be the largest and most comfortable restaurant in the kingdom. Made in sizes to suit both cottage and mansion. Manufactory, Emscote Foundry, near Warwick; and Windsor Foundry, 63, Renshaw-street, Liverpool. Depôt, 43, Bathe street, Leamington

CUNDY'S PATENT PURE WARM-AIR STOVES, the only Pedestal Stove which gained a Prize Medal (class 27), at the Great Exhibition in 1851, especially adapted for warming, with great economy, Churches, Chapels, Schools, Entrance halls, Libraries, and Ware-rooms.—CUTLER and SONS, Sole Inventors and Manufacturers, 10, Great Queen-street, Long-acre, London.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article entered in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern book and price list, 1s.—55 and 56, High Holborn.

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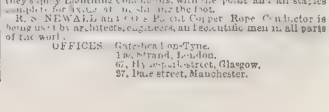
PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, patent enamelled from 82 to 86, Upper Thames-street.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the public, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 1s. 6d. per foot.

R. S. NEWALL and CO.'s Royal Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES Gateshead-on-Tyne.

148, Strand, London.

67, Hyde-street, Glasgow.

27, Lime street, Manchester.

THE LIVERPOOL AND MANCHESTER

PATENT GALVANIZED CORRUGATED IRON WORKS,

AND IRON ROOFING MANUFACTORY.

Head Offices: 13, JAMES-STREET (late the Coalbrookdale Company's Premises), LIVERPOOL,

Where all Letters are requested to be addressed.

FRANCIS MORTON AND CO.

Beg to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by the purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of BIRMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied with the exact size from the same dies.

FRANCIS MORTON and Co. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other house in the trade, comprising every intermediate size from 2 inches up to 7 inches each corrugation, in all lengths up to 40 feet; also the angular or step corrugation.

STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; also FLAT ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON ditto, expressly prepared for Tinmen's use; General Ironmongery and Iron Goods in stock or galvanized to order.

Trade Sundries, part wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal Wire, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters plain and moulded, Gas Tubing, much cheaper and more durable than lead; Water Cisterns, Wire Ropes, Window-sash Cords, Signal Cords and Pulleys; Copper Rope Lightning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in long lengths.

The inventor of the PATENT WIRE STAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, CATTLE and SHEEP HURDLES, and DEER FENCING of every description.

The PATENT ASPHALTE ROOFING FELT, at 11 per square foot. Dry hair Felt for Deadening Sound, for Boilers and Steam Pipes, made in rolls 36 yards long, at greatly reduced rates.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

Ships fitted with Wire Rope Rigging, Galvanized Chains, Anchors, &c.

THE TRADE SUPPLIED ON LIBERAL TERMS

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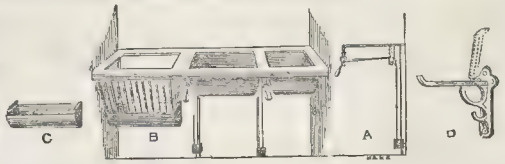
Also 18, ST. MARY'S-GATE, MANCHESTER.

N.B. All kinds of Iron and Ironwork Galvanized, and Sheet-iron Corrugated at very moderate prices.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

are made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



A represents the Patent Halter guide and Collar-rein, the full of which is taken to the back of the manger-work with freedom and ease up or down the guide-bar, and is noiseless in its operation, as also a sure preventative against the most restive horse being cast in the stall.

B. The Patent Portable Seed box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAMS MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers; sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Tubing and Horse Buckets, and every Article in Stable Furniture, at the Exhibition.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental, Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham,
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON in Sheets
PLAIN or CORRUGATED, and Cut to all Gauges
Manufactured here is always kept in stock, such as pails, scoops, bowls, dishes, skips, &c., of all sizes.
Also the Patent Galvanized Tinned Iron Tubes, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, or every description of Galvanized Boiling at the
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SKAIFE'S GALVANIZING WORKS,
Commercial road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets 6 ft. and 9 ft. long.
J. Skaife sells Agent's Morewood and Rogers's Patent Galvanized Tinned Iron, Planished Zinc, and Files.
An Allowance to the Trade.

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MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.
JOHN WALKER,
GALVANIZED IRON MERCHANT, &c.—The trade supplied
Corrugating by steam power capable of doing 1 tons per day, at the lowest remunerative prices, for bulk.

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IRON-FOUNDER AND ENGINEER.
Orders to any extent can be executed at his Works, Mill-wall, Poplar—Apply at the Works.

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JOHN WALKER,
Having his own Saw-mills, is enabled to CONTRACT for
BUILDERS' WORK,
At low prices, consistent with good work.
Apply at his Offices, Arthur-street West, London-bridge.

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WORKS—GLASS HOUSE YARD, opposite the Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

TUPPER and CARR, Contractors and Manufacturers of all sorts of
IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
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TUPPER and CARR'S (Crauford's)
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For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSE, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

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PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than the fourth or one fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price consist but little more than Sheet Zinc.

No. 11 gauge weighs about	16	oz. per foot sup.		
12	"	"	20	"
13	"	"	24	"
14	"	"	30	"

Full particulars and the reduced price sent by post on application to
A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

JOHN HENDERSON PORTER,
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IRON BUILDING AND ROOFING WORKS,
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LONDON OFFICE 1, RICHES COURT, LIME-STREET.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, cheering and sound-deadening, and being fire-proof. Drawings and estimates furnished.
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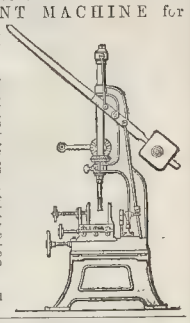
KIMBERLEY'S PATENT FLOORING CRAMPS, Scaffolding Brackets, Door Springs, Mortising Machines, Casement Fasteners and Stays, Skylight Screws, &c. &c. Also, KIMBERLEY'S PATENT GAS STOVES, may be had from any Ironmonger in town or country; from the Patentee, Inge-street, Birmingham; or from the London Agents, Messrs. PUGH and CO. 18, King-street, Snow-hill, where a stock is kept.

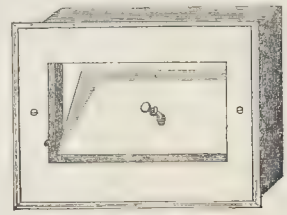
NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.



House and Cabinet Builders, Joiners, Cabinet makers, and others, doing similar work, are invited to call at the Inventors', DOMES, JAMES, and Co. Wholesale Builders and Cabinet makers, Ironmongery Establishment, No. 26, Wathne-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

DR. ARNOTT'S VENTILATING



CHIMNEY-VALVE.

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MANUFACTURERS,
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TO IRONMONGERS, BUILDERS, &c.
PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

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W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Bank Plates, Area Gratings, sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

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THE LARGEST STOCK AT
THE LOWEST PRICE,
5 AND 6, BROAD-STREET, BLOOMSBURY.
PATENT CORRUGATED IRON.

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Ranges, Hall Stoves, Gas Cooking Apparatus, Baths, &c.
Ornamental and Constructive Ironwork.

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This invention is now in operation upon Steam-engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.
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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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LEGENDRE, TURPIN, AND CLARK

Take leave to inform the Trade that they have

Opened an Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality; Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at

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Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

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OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT

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By Her Majesty's Royal Letters Patent.

F. McNEILL and CO. of LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON, Manufacturers and ONLY Patentees of

THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronized by

HER MAJESTY'S WOODS AND FORESTS,
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HONOURABLE EAST-INDIA COMPANY,
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And by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under slates at the Royal Agricultural Society's House, in Hanover-square. Its advantages are lightness, warmth, durability, and economy. It is impervious to rain, snow, and frost, and a non-conductor of heat and sound. The Felt can be cut to any length, by 32 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its uses and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen, and Gentlemen, who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Boilers, &c. is also manufactured by which a saving of about 25 per cent in fuel is effected. The TRADE are respectfully requested to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their roofs. They are likewise CAUTIONED AGAINST MISREPRESENTATION as FOR ONLY WORKS in Great Britain where the above roofing is made are F. McNEILL and CO.'s Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW. Roofs covered with the Felt to be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the New Houses of Parliament. A Liberal Discount allowed to the Trade.

GOOD FOREIGN SHEET-GLASS.—Thirds, 40s.; common thirds, 36s.; fourths, 28s.; in cases 200 feet each average size, 40 by 30. English or foreign ground ditto, 3½d. per foot. Crown and sheet squares, in 100 feet boxes, from 14 by 10 to 22 by 14, 2d. per foot. ¼ inch rough plate tiles, 21s. per dozen; CCC crown 18 tables, 30s. per crate; H 15 oz. sheet, 2d. per foot. Cast, rolled, and patent plate, fluted and stained glass, glass slates, &c. Crystal white glass, first, second, and third quality, in cases of 200 to 300 feet each, at 4d. 6d. and 8d. per foot. Cathedral glass, various tints, sheet lead, pipes, white lead, oils, turpentine, colours, &c.

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The Builder.

Vol. XIII.—No. 662.

BEAUTIFUL Paris! Wonderful Paris! Clever people! These have recently been the exclamations of thousands of our countrymen and countrywomen in that sparkling and exciting city,—exclamations fully justified. Such a sight as the Place de la Concorde, with its extraordinary vistas, its fountains, obelisk, and statuary, presents in the sunlight; and the Boulevards offer at night, with their thousand lights, bright lofty houses, and myriad people, talking, laughing, sipping,—everything but working,—is scarcely to be seen elsewhere. Great and costly works are going on, in the Louvre, the new Rue de Rivoli, the cathedral of Notre Dame, the church of St. Clotilde, and other structures and places. French manufactures which involve art command the markets of the world. The Paris *cafés* exhibit decorations of the most elegant and costly description: artistical sculpture is seen scattered on every side; and justly, we say again, may all exclaim, "Clever people! Wonderful Paris!"

So much, however, has been heard of this lately,—of the advanced state of the fine arts in France—of the glories of her capital—the rapidity with which municipal improvements are made, and the admirable effects which the French architects and artists contrive on all occasions to produce,—such stress has been laid on the superior powers of organization exercised by our neighbours, and the foresight which they exhibit, that we seem likely to forget that the bright picture has a dark side also, and, what would be worse, may assist in persuading our allies that they have nothing to improve, nothing to reform. There are many, many points on which our anomalous neighbours—so great and so little, so advanced and so backward,—may with great advantage take a lesson from what has been done in England. Shall we not go farther,—and say there are few things in which they could not do so. Incomplete and impure as is our water supply, compared with what it should be, that of Paris is not to be compared with it: open to objection as the state of our drainage may be, that of Paris is a hundred times worse. Many of the best-looking houses in Paris are, as relates to health, in a perfectly fearful and thoroughly abominable condition,—whited sepulchres literally and truly. At this moment the beautiful city contains a vast magazine of destructive materials, which may explode at any moment, carrying ruin and death into thousands of families. The danger to their brave troops from suspected mines in the Malakoff, when they first entered it, was not more imminent than it is to the home-staying citizens themselves from the unsuspected "sap" in Paris. You need not go into the slums to prove it. Don't go there, if you wish to keep a good opinion of Paris. We will travel no farther than to one of the chief establishments in the Rue de Richelieu,—say, the Hôtel des Princes,—where people are charged from five to ten francs a night for a middling bed up in the seventh heaven, and have the honour of paying two francs for a small sole for breakfast, and three francs for four penn'orth of boiled rice, called a *boudin de riz*. We mean no offence, but thus mark the great respectability of the house. Well, we have before us the personal evidence of four separate individuals, who, previously in good health, were here attacked on the same day and again afterwards with violent diarrhœa, sickness, and acute pains, distinctly attributable to the want of proper sanitary arrangements in the building. We looked into the circumstances ourselves, and can therefore speak positively. We have entered houses of a lower grade, so full of injurious emanations that healthful life could not possibly be maintained therein, and we have found, in such few inquiries as we were able to make, the people dying off, notwithstanding their out-of-door life and other advantageous circumstances, at such ages as would prove the truth of the assumption. Many of the houses contain a fever-still always at work. Paris is at this moment pervaded by foul smells and poisonous gases, rivalling in variety those sung by Coleridge in Cologne; and the advantages which Nature has given to this beautiful city are thus more than counterbalanced by the blindness and carelessness of man. Truly, 'midst all its beauty and its brightness there is no lack of materials for a book of "Paris Shadows," thick and threatening, and we would commend to those who are in power the special duty of forthwith stirring to lessen them. Beauty in front will not compensate for filth, disease, and death behind.

Even in the matters of Beauty, Taste, and Fitness,—administrative power and organisation, we must be permitted to say that the unqualified admiration that we are just now hearing of everything French will do much more harm than good. A catalogue of failures in these respects discoverable in the Universal Exhibition alone would not be a short one. The main building itself is ill adapted for the purpose: you have four stone walls, of no use but to keep out light, with a structure of iron and glass, *wholly independent of the walls*, put down within them. The unnecessary quantity of iron used would lead to the belief that the contractors were to be paid by the cwt. The galleries are so wide (85 feet), and so heavily constructed, that all beneath them is in darkness; and there, in consequence, you may wander in solitude through long alleys,—with ranges of cases on either side,—gloomy, depressing, and deserted. The staircases, as we have before noticed, are the best features of the building, and are unquestionably effective and elegant. On entering the great nave, full, by the way, of charming things, but as little to be compared, for general effect, to the Exhibition of '51 as Soho Bazaar is to this of '55, the small size of the building surprises one. You find that from "out to out" it is not very far from half the length of the building in Hyde-park (834 feet), but it does not look one-fourth the length. Why is this? A little examination will give a reason. The arched roof has gable ends at the terminations, and these ends occur not at the extremities of the building,—beyond the galleries,—but in a line with the *face* of the latter; and then, to make the matter worse, these ends are glazed with stained glass, representing,—one, France convoking all nations to the Congress (inscribed *La France convie les Nations à l'Exposition Universelle*); the other, Equity distributing recompenses to the deserving (*L'Equité préside à l'accroissement des échanges*), wherein the size of the figures is so great that they come close to the eye, serve as a deceiving scale, and interfere with the effect of the whole. Another error in judgment is shown in the great size of the stalls or cases, which are built up in the nave twice as high as they should be, or need to be. Look, again, at the shafting for the machinery in motion, in the Annex—as it is termed—ponderous and absurd; and with all its heaviness not without a great weakness in construction. The little piece of shafting put up by Mr. Fairbairn contrasts amusingly with it.

Much of the French furniture is very indifferent in taste (all praise, nevertheless, to many beautiful exceptions), carpets covered with sprawling flowers of Brobdignagian aspect, and paperhangings full of very violent contrasts. As to arrangement of specimens, notwithstanding the opinion expressed in a recent communication in our pages, there is little, if any: it is notoriously a failure:—those who seek examples of a specialty must search all over the three buildings for them. The duties of the jurors must have been very heavy in consequence.

In the Palace of the Fine Arts, the cold leadeny tones of the majority of the French painters (more eminent in design and drawing) give increased value to the colouring of the English School, which there shows itself with a power which the most prejudiced Briton could scarcely have hoped for. A walk through the English department is like going through a flower garden; and notwithstanding the poohpoohs and qualifications of the local critics, it is quite evident that they feel it so too. Passing up to the gallery,—the French architects have omitted to illustrate the present advanced state of practical architecture in France, having confined themselves, as we have already pointed out (p. 302), to academic studies of existing monuments and designs for restorations. Many of these are set forth in drawings of exquisite beauty, which should obtain the attention of our architectural students.

If, to continue our reactionary observations, we seek out of doors for specimens of bad taste in restoration, we may look at the work done at St. Denis, a few years ago, including most of the modern glass; and as to new buildings, the details of the Church of St. Clotilde are very indifferent, and the ornament on the front of the "Bibliothèque Impériale du Louvre," opposite the Palais Royale, has a barbaric richness, which Visconti could scarcely have designed. Even in the new street, the elongated Rue de Rivoli, wherein this front plays a part, we may ask why there should be no departure from the elevation which formerly prevailed there,—the only feature in which is the balcony on modillions to the windows of the first floor? A mile of this will be more than enough, nevertheless it will be a noble street.

And many, many other noble things are there in Paris,—Paris ancient, and Parish modern,—to some of which we shall hereafter refer. We are not afraid that our observations in the present article will be misunderstood. We have already shown in the short series of papers on the Universal Exhibition of 1855* (papers to which, after a careful re-consideration of the collection, we with confidence refer our readers, as conveying a good general notion of its contents), how highly we estimate its importance and beauty, and we have during many years borne willing testimony to the skill of our allies, the advantages they derive from early cultivation in art, and the good results which the capital exhibits. But we do, nevertheless, feel it right to protest against the indiscriminate praise of everything French now heard, as compared with what is done in England, tending as it does to increase vanity, already sufficiently great, and to justify the opinion, founded in ignorance, which has been expressed by one of their popular writers, that in matters of art we are still but 'varnished barbarians."

Paris is a wonderful city, and the inhabitants are a clever people: but they have still a vast deal to learn and to do.

Bells in New Churches.—A correspondent, who urges that our new churches should be furnished with peals of bells, to diffuse cheerfulness, gives a *list of prices* for *eight*, whose largest (or tenor) varies in weight (the hanging of them included) as cast at a well-known bell-foundry:—

Eight bells, tenor weighing	14 cwt.	£600
Eight ditto ditto	18 cwt.	715
Eight ditto ditto	20 cwt.	770
Eight ditto ditto	22 cwt.	845

* See pp. 253, 280, and 301, *ante*.

THE CHEMISTRY OF BUILDING MATERIALS.*

The word "*calcareous*" strictly signifies "of or belonging to lime," and implies the presence and, in general, the predominance of that substance in the body to the title of which it is prefixed; but it has long been extended, both by theoretical and practical men, so as to include bodies containing magnesia as well as lime, and chemists embrace under the term "calcareous earths" both of these substances.

The English word "limestone" has a similar meaning. It signifies a stone which certainly contains lime, but may also contain magnesia; and as these earths occur in limestones united with carbonic acid, so as to form carbonate of lime and carbonate of magnesia, a calcareous building stone or limestone may be defined to be a stone consisting in greater part of carbonate of lime, or of carbonate of lime and carbonate of magnesia. This definition has reference solely to the chemical composition of limestones, but their physical structure is of equal importance in estimating their architectural value.

Considered chemically, the calcareous building stones may be divided into three groups:—

1. *Simple Limestones* or *Limestones Proper*, consisting of carbonate of lime.
2. *Magnesian Limestones*, consisting of carbonate of lime and carbonate of magnesia.
3. *Composite Limestones*, containing, in addition to one or both of the calcareous carbonates, silica (sand), silicate of alumina (clay), oxide of iron, bitumen, phosphate of lime (bone-earth), and the like, and which are named according to the predominating additional ingredients, silicious, argillaceous, clayey, bituminous, or phosphatic limestones.

In the preceding enumeration, those recent aqueous calcareous deposits, called by geologists *calc-tuffs*, analogous to *stalactites* and *stalagmites*, are omitted, because, though used in other countries as building materials, they are unknown as such in Great Britain. Many of the Roman edifices, alike ancient and modern, are constructed of such a stone, called *travertino* or travertine.

Simple limestones, so far as their application in building is concerned, may be divided into three classes:—

1. Crystalline limestones or marbles.
2. Compact or massive limestones.
3. Oolitic limestones or roe-stones.

1. *Crystalline Limestones.*—Simple limestone is most perfectly represented by white statuary marble, such as that of Paros or Carrara. It may be regarded as chemically pure carbonate of lime, consisting of fifty-six per cent. of lime and forty-four per cent. of carbonic acid. Its structure is uniform and crystalline; the component crystals being very small, but closely adherent, so that it resembles loaf sugar, except that it is much less porous. The crystals are in thin scales, transparent, and plates of marble of considerable thickness allow a certain amount of light to traverse them, and are indebted to its passage for a portion of the peculiar lustre, so devoid of opaque chalkiness, which belongs to pure white marble. Its uniformity of structure allows it to be quarried in large blocks, and its comparative softness and crystalline texture to be easily chiselled, nor does any stone take a more uniform and beautiful polish.

The coloured marbles (properly so called) are all less pure than the white, the colouring matter being always some foreign body; but even where the tint is considerable, the amount of colouring matter is frequently very small, and, except for the purposes of the sculptor, their good qualities are as marked as those of the white marble. From this enumeration are excluded all the non-calcareous stones which, in the language of artists, find a place among marbles, and all the calcareous aggregates of fossil shells and corals, which will be considered under the head of composite limestones.

2. *Compact or Massive Limestones.*—Under simple limestones, we must include substances less pure than statuary marble; nor, in truth, is it possible to draw a line of sharp demarcation between them and the magnesian or the composite limestones. We must certainly refuse the title of limestone proper to any stone containing less than half its weight of lime, or less than 90 per cent. of carbonate of lime; but within these limits it may be justly enough applied, especially if no *single* ingredient makes up the percentage. Where small quantities of different bodies, such as water, bitumen, iron, alumina, and magnesia together, constitute 5 per cent. of a mass otherwise consisting of carbonate of lime, its suitability for building purposes is so substantially identical with that of the pure carbonate, that it may be included in the same category.

Marble, also, is rather an artist's than a chemist's or geologist's word, and may be applied to any limestone which, from its colour and susceptibility of polish, is thought worthy to become the vehicle of the sculptor's art; so that marbles and limestones shade away into each other, and do not admit of being placed apart in separate groups. What an Italian, for example, might refuse to call other than a limestone, an Englishman might honour with the name of native marble.

There is this distinction, however, between the marbles in their best examples and the limestones, simply so called, in theirs; that the marbles are crystalline, and therefore granular in structure, are easily wrought, and take a high polish; whilst the limestones are non-crystalline or imperfectly crystalline, are not granular but compact in structure, are harder and less easily wrought, and do not take a high polish; but the hardest limestone is much softer than any building sandstone, and is more enduring as a building material for outer walls in a climate like ours than a marble would be.

No stone is superior to limestone for building with, where the conditions of climate are suitable. In Great Britain, however, the fine crystalline limestones or marbles suffer rapidly, if freely exposed. They are soluble to a minute yet appreciable extent in pure water, which their porosity allows readily to enter. They are still more soluble in water containing carbonic acid, such as rain water or melted snow; and in water containing the products of combustion, viz.—carbonic acid, sulphurous, and sulphuric acid, which are added to rain when it falls within the precincts of large cities, and especially when it runs over the roofs or walls of houses. They are liable to be splintered in cold weather by the freezing of the water retained by their pores, and are readily stained by the substances which enter these, and by the growth of the green *confervæ* which cover readily wet stones of all kinds. For sculpture, accordingly, to be exposed in all weathers, whether statuary or fine carving, they are unsuitable in climates like our own; but for ordinary building purposes, the marbles, especially the darker ones, would be suitable enough; and the non-crystalline or compact simple limestones are extensively employed all over the world as building stones.

3. *Oolite or Roe-stone Limestones.*—One of the most extensively employed limestones in England, throughout the eastern and midland counties, is named oolite, literally *egg-stone*, from its peculiar structure. It consists of a multitude of small spherical grains, resembling in colour and appearance mustard-seed, and adhering together like the ova or eggs which constitute the roe of a fish; hence its English name of *roe-stone*. The component particles vary in size from that of pin-heads to that of small peas; but when they exceed the latter size, the resulting mass is termed *Pisolite* or *pea stone*. The oolitic globules appear to have been formed by depositation of carbonate of lime from solution in water charged with carbonic acid. Agitation of the water in which they have been deposited prevented for a time the carbonate from falling quietly as a sediment, so that it gathered round separate nuclei, each of which became converted into a calcareous globule. These globules afterwards settled down to the bottom, and gathered together into a mass, ultimately consolidating into an oolite or roe-stone. The nucleus of each globule appears frequently to have been a crystalline grain of carbonate of lime, round which similar grains clustered, as we see a minute snow-flake attract others to itself, and become a large snow-feather—a spherical configuration not being attainable in the circumstances. Where the globules have been formed round particles of the same nature as themselves, they are solid, often radiated in structure, or simply compact; frequently they consist of consecutive layers covering each other, like the different coats of an onion. A stone consisting of such solid globules, adhering together without interposed cement, or only with a calcareous one of the same composition as themselves, affords the best building oolite, and may (as implied already) be as pure as the simple crystalline limestone. Such, for example, is the character of the oolite from Kelton in Rutlandshire, with which many of the public edifices in Cambridge, the modern portions of Peterborough and Ely Cathedrals, and some of the churches in London have been built.

In other cases, the component ovules of the oolite are hollow within, as if they had formed round a perishable nucleus, such as a particle of vegetable matter or a grain of salt, which has afterwards been decomposed and washed or dissolved away. Such hollow globules occur in the well-known Bath limestone, employed largely in that city and elsewhere—Buckingham Palace, London, among other edifices, being built of it. The same peculiarity of hollow ovules occurs to some extent in the most famous English oolite, the Portland stone, with which St. Paul's Cathedral and a host of other churches and edifices in the metropolis have been erected. When such ovules, by superficial disintegration, have their cavities laid open, these must afford a lodgment to water, dust, and smoke, and lead to the disfigurement and decay of the stone. Many oolites, accordingly, are found to give way very rapidly when exposed to atmospheric action, partly from this peculiarity, but also from the interposed cementing matter wearing at a different rate from the ovules themselves. Many limestones, in their general structure oolitic, contain also fragments of shells and non-calcareous matter. They thus approximate to the composite limestones, under which they will be referred to.

2. *Magnesian Limestones.*—The term magnesian limestone is applied to a compound of lime, magnesia, and carbonic acid, which occurs both in regular crystals, like those of Iceland Spar, and in rocky masses, forming whole mountains. The lime and magnesia are united with the carbonic acid as carbonate of lime and carbonate of magnesia, and as these can crystallize together in any relative proportion, different magnesian limestones contain very unlike quantities of their common ingredients. That variety, however, is considered the most typical and characteristic which contains the two carbonates united in equivalent proportions, *i.e.* fifty parts of carbonate of lime to forty-two of carbonate of magnesia, and forty-four of carbonic acid.

More than half this variety, which nearly resembles in composition the Bolsover limestone used in the construction of the Houses of Parliament, is thus carbonate of lime; and in all the varieties, it preponderates over the carbonate of magnesia. The majority of magnesian limestones contain, in addition, small quantities of iron, silica, alumina, and water, like the simple limestones.

The fact of a stone of the class we are considering having been preferred for the Houses of Parliament, shows the high esteem in which it is held in England. The Bolsover magnesian limestone contains about 10 per cent. of foreign matter, of which about one half is silica, and the other half water. Its specific gravity in mass is 2,316, and in powder 2,833, both being higher than those of Craigleith stone, which stands at the head of our sandstones. Its cohesive power is 117; that of Craigleith stone 111. In structure it is semi-crystalline, and it is little altered by the atmosphere.

Throughout England, and especially in Yorkshire, many buildings exist constructed of magnesian limestone from different quarries. Some of those edifices date from the twelfth, thirteenth, and fourteenth centuries, such as Beverley Minster, Knaresborough Castle, Roche Abbey, Spofforth Castle, and are still, in great part, in good condition, and in some cases in perfect preservation. It is not surprising, therefore, that the reporters on the stones most

* See pp. 465, 467, 471, and 479, *ante*.

suitable for the Houses of Parliament should have given the preference to magnesian limestone, not only for them, but for all edifices. They are as lasting as most sandstones, have as pleasing a colour, and are more easily and economically wrought.

It is not denied, however, by the reporters, that some magnesian limestones, not apparently different from those which are so lasting, decay with great rapidity, as a large portion of York Minster and many of the churches of York illustrate.*

REVIEW OF ARCHITECTURAL DOINGS.

THE ARCHITECTURAL ASSOCIATION'S CONVERSAZIONE.

The Architectural Association commenced the session on Friday evening, the 5th; Mr. Alfred Bailey in the chair. It was stated in the report read by the secretary, that the subject of the formation of a Lending Architectural Library had been under consideration, and the committee had resolved to carry it out—the subscribers not to be formed exclusively of members of the association. In consequence of the interest taken in the paper on architectural diplomas, it had been determined to memorialize the Royal Institute of British Architects on the subject.

On the motion of Mr. Rickman, seconded by Mr. Hovenden, the report was adopted.

The Chairman said, meetings like that, when they were accustomed to deviate somewhat from their ordinary routine of proceedings, were extremely useful to the association, and maintained their connection with the profession and the public. They had also been thereby enabled to profit by the kindly advice and encouragement, and often by the not less kindly censure, which had been expressed by that portion of the profession which, though not enrolled in their numbers, had always taken an interest in their proceedings. With reference to the affairs of the society, he certainly was afraid that, from want of energy, they had gone in a backward direction, and he called upon the profession generally to help them to scotch the wheel. He thought that the society had suffered rather from over-management: while thinking of their society, they had forgotten their art. In an architectural point of view, the present year had been one of the least eventful known for some time. They had no new buildings to notice, few antiquarian discoveries to rejoice in, and the architectural press had become almost silent. The present stagnation might at least be productive of some good: they might hope that by this time their old friend the National Gallery, yielding to the entreaties of his friends, had abandoned his intention of residing in the fashionable suburbs. Rumours were rife of new buildings round the Palace of Westminster, and large additions to Whitehall, but as yet they only existed in the blue books. The agitated question of the vacant ground near St. Paul's had almost dropped, and they were looking in vain for a new public building to discuss. There was, however, one question which ought soon to occupy their attention: what is to be done with Smithfield? He was afraid, if they were not on the alert, it would be covered with small houses. Now, he knew nothing which would so much improve that part of London, or would more benefit the inhabitants generally, as to take this opportunity of making a public place. With the exception of Trafalgar-square and the Poultry, we have not one open space which can be rightly called public. What a lamentable compound of ugliness, exclusiveness, and melancholy dulness, do most of our London squares present! There were few small possessions more coveted by cockneys than the right of way to an iron gate,—the right of trapball to a piece of green. In this age of new inventions, he never remembered seeing a new design for laying out a London square. They are all concocted on the old recipe,—the same iron railing, the same privet hedge, the same wallflowers, the same central rustic temple, the same level walks and ground, and the same gardener of sixty-five years of age. When he said the same iron-railing, he was not quite correct; there were in London three different varieties of this interesting feature,—there was the Bedford railing, the Grosvenor railing, and the Portland railing,—all other patterns were only impertinent imitations of those three great species. Some of the squares had, it was true, certain local peculiarities,—some had pumps, some had not; Berkeley-square had a revolving-pump, and the pump in Hanover-square must be seen to be appreciated. A few squares only were enlivened with lilac trees, and the blossoming of the almond tree in Grosvenor-square was the annual event of that locality. It only remained to notice that some of our squares were adorned with statues of great British worthies, such as John, Duke of Bedford, or Charles II. or George IV. As a kind of relief to this exclusive dulness, would it not be possible to obtain the space now occupied by Smithfield for a real public square, without railing or privet hedge, adorned by suitable ornaments, and a few statues of really great men, which might conduce to the health, enjoyment, and ornament of a part of the metropolis which much needed all three? A subject to which the attention of architects had lately been directed, and was likely to be still more so, was the arrangement of cemeteries. Competitions offering amounts of a very inadequate kind, had lately been advertised. Still there was something to be said on both sides: the projectors fixed themselves with a limited sum of money—a misfortune which was this year remarkably common: joined to this deficiency of funds, they had also a legal obligation to construct a cemetery as soon as possible, and if they were obliged to make pence do the duty of shillings, it was not their fault. Be that as it may, the architect's part in those cemeteries had certainly not been done as it might. In all the designs for cemetery chapels that he had lately seen, they had the painful fault of being large churches in miniature, and there was no evidence of any attempt at those new ideas which an almost new subject might be expected to bring forth. There was one class of private buildings which seemed to bid fair to alter the character of all the large towns of England. He alluded to the large warehouses of which we have lately seen such noble specimens, especially in Manchester. These afforded a very fine field for new thought on the part of the architect. He trusted he might not be considered over fastidious, when he said that the very handsome buildings of this class recently erected, struck him as having one defect—they were too like palaces. He did not object to the ornament lavished on them, but he did object to the mode of fenestration—a number of windows spaced out after the manner of an Italian palace, which always give the idea of a number of apartments, and not of vast storehouses on each floor. Cannon-street resembled too much a large street of mansions and club-houses. Now, it had generally been considered right in architecture, that external design should give some evidence of internal distribution. In this respect our warehouses failed. He would suggest that an arrangement either of a few large windows, or a large number of small ones close together, would be more appropriate than the present practice. The latter was the arrangement common in the old Italian town-halls in every age, and admirably it gave the notion of internal space. Warehouses seemed also to afford great opportunity for the development of brick design, but the experiment had not yet been tried. Of new discoveries in the antiquarian part of their art, this year had been barren. He could only hope that in the course of this session, their member, Mr. Boutcher, would have something to tell them of his wanderings in Asia Minor, and of his recent experience at Nimrod and Wurka. He could not help here alluding to the new field which seemed recently to have been opened to the student in ancient art—when we shall have become masters of the Crimea (he did not pretend to fix the date). He sincerely trusted that some traveller in Greece or Turkey would extend his wanderings to the seat of war, and give us something more than the present vague accounts that we hear of the old buried Pompeii on the Heracleotic Chersonese; of the sepulchres of an ancient race which lie buried under our own dead in the caves of Inkerman; and last, though not least, of the old palace of the Tartar Khans at Batchki-Serai. He could not leave the subject of ancient art without expressing a hope that the directors of the Crystal Palace might some day be induced to add two more fine-art courts to their collection at Sydenham. Among their illustrations of ancient art they have given us an Assyrian Court, an Egyptian Court, and a Pompeian Court; but from them nothing could be gleaned of the art of that wonderful people, the ancient inhabitants of the Italian peninsula. A complete restoration of an Etruscan tomb, paintings and all, would be a valuable contribution to art history. Having given us an Etruscan Court, he could not but wish that, with Mr. Fergusson's assistance, they might one day see another court containing numerous illustrations of the architecture of India. Two books that had been recently published could not be passed over in silence. They had Mr. Street's "Notes on the Gothic Architecture of Northern Italy," garnished with his own peculiar views as to the universal applicability of Gothic art, extremely ably written. Now that they were becoming so alive to the beauties of Italian Gothic art, a good and cheap book on the Gothic of the south-eastern part of Italy would be very valuable. During the recent dearth of art-literature, no book could have been more welcome than Mr. Pettit's "Notes in France." It had given them information about a neighbourhood which students had strangely neglected, and had arranged and classified the early French Mediæval styles in an entirely new manner; and the chapters which treated of the Angevine, the Perigueux, and the Auvergnat system of vaulting were of the greatest value. He had read nothing lately more abounding in sterling originality and unostentatious common sense than the last chapter, the views in which Mr. Pettit had still further elaborated in his recent paper at the Institute of British Architects. Mr. Ruskin had not favoured them lately with anything architectural. The piazza of St. Mark had been abandoned for Trafalgar-square; and they had been rather startled to hear that Mr. Maclise not only paints badly, but that he does it on purpose. He believed that he was justified in saying that they would shortly see a building in the north of England erected from Mr. Ruskin's designs, with the constructive assistance of an architect. He (the chairman), for one, was delighted to hear it. They were rather tired of his singular recipes, and were anxious to see the pudding itself. Let them wish it every success, and may it be as rich and juicy as the mind that made it. But if it should turn out a failure, if it should prove flat, crude, and indigestible, then by every architectural stomach in the kingdom they would not spare him. The excuse about the Edinburgh windows, "that he did not care to perpetuate them," would not avail him now. They were much in want of new books, treatises, or other information on new modes of construction. They had recently adopted so many new applications of material, that the old and valuable treatises on the strength of materials were not enough. The results of a series of well-conducted experiments on bent timber and laminated ribs would be of incalculable value, and they were strangely deficient, even now, in proper information with regard to boiler plate girders. If it were not presumptuous, he would there make a humble suggestion to a senior society. It was no secret that the Royal Institute of British Architects intended shortly to remove to other premises. It would be a great boon to the profession generally, if these premises should contain a yard or other open space fitted up with an hydraulic press and other apparatus, where architects would find facilities for making experiments on building materials. The only place where an architect could prosecute such researches was a builder's yard, and the builder was just the man to whom the architect did not wish to be under obligation. As the report had told them, they were about to memorialize their seniors to set on foot a public architectural examination, and an honorary diploma. It might perhaps be thought somewhat presumptuous in a junior society to take the first step in such a matter; but that was surely a mistaken view of the case. The institution of a public architectural examination

* To be continued.

must be the work of the old and experienced, but it was no less the duty of the student strongly to insist on its necessity. He knew well that in these days of free trade it would be idle to insist upon that examination being a compulsory one, nor was that necessary. To say that no man could give an opinion as to the safety of a parapet, or the construction of a chimney-pot, without having passed an examination, would be manifestly absurd, and he had often heard this kind of argument used against examinations altogether. Let the examination only be a good one, and a stiff one, let the "plucking" be probably numerous, and he was sure that there would be no necessity for a penal law to create candidates. Among the gentlemen he was addressing, there were many of great practical experience; he appealed to them if they recollected many things in their own career more harassing or more difficult, than the process of getting their first job? If they could only begin practice with their second job instead of their first, the necessity for a public examination would be much lessened. A wants to build a house, and likes to encourage rising talent; he hears that B and C are clever young men; he calls on both. B is asked what he has executed in his own name: "Nothing," says poor B. "And you, Mr. C.?" "I, sir, have covered the suburban estate of the Toe and Heel Land Society, with third-rate houses." B retires within himself. But if B could only have said, "I have passed my examination with honours," and C, in spite of his third-rate houses, was egregiously plucked, B would be deservedly employed; and C would grind again, go up again, and perhaps again, would eventually pass, and be a good architect instead of a bad one. Another thing which this examination would effect, would be to protect the architect from the quack. He was not going to indulge in any solemn rant about the dignity of the profession; a man who was always talking of the dignity of his profession, lost dignity himself at every boast. Provided a design be good, he would honour the name who made it, whether he be architect, builder, engineer, or what. If the design were bad, he would abuse the man that made it; not because he was, perhaps, a builder, but because he had made a bad design. The only qualities which the public cared about, or ought to care about, in a professional man, were capacity, industry, and integrity; and the public would go to find these where they could get them best and cheapest, for brains are always a marketable commodity, and every architect has a right to sell them at whatever price he pleases. When therefore, he spoke of quacks, he did not allude to the quacks from without. They could build them down, but nothing less than a public examination would purify the profession of the quacks within their pale. Those were a numerous and a daily increasing class. They were not to be found in the first ranks of the profession, and not often in the second; but in the third rank their name was legion. It was quite time that these men should be exposed, because many of the respectable portion of the profession were quite ignorant of their existence. They were in fact a modern invention, and he must in justice add, they were not always young men. Those were the men that make a trade by practising on the good nature, the inexperience, and often the dishonesty of competition committees: they compete under the cloak of a secret motto, which is a mere sham, and which they know to be so; and then, if their roguery should prove unsuccessful, they are the first to denounce the committee whom they helped to corrupt, and the system of which they were the authors. These men were generally wholesale takers of pupils, with premiums varying in proportion to the means of gullibility of their parents and guardians. These pupils, not cared for, but left to petrify over plans of estates, the five orders, and the squaring of dimensions, in due time become quacks themselves, because they could not help it. How did these architects make their designs? He (the chairman) knew more than one of that class who could not draw a line with the ruling-pen. Their offices were nothing more than retail architectural shops, where second-hand articles were sold at more than their first-hand value. But where were these designs made? There were various small houses in the neighbourhood of Camden town and Islington tenanted by middle-aged men with large families, and apartments to let. In these houses designs in every style are got upon reasonable terms, and very often an allowance was made if the competition was not successful. On entering one of these small houses might be seen, in a low, chill, comfortless room, a man with a pale face and a sunken eye, but with the education and manners of a gentleman, sitting over a drawing-board — his post from early morning till often long past midnight. He was early used to work. In the days of his pupilage he did the same. He studied hard, his heart was lighter, his eye was brighter, and his cheek was fuller then. Many a joyful night did he once spend over that assemblage of columns in a dingy frame which hangs over his mantelpiece, and for which he did *not* get the gold medal in 1836. Just look at him now. The boy's enthusiasm for a glorious calling has all passed away, to give place to the set, stolid, indifference of a *blasé* being without any pursuit but his drudgery, which, from constant habit, has become for him a sort of mechanical dram-drinking. Weak and poor indeed are the designs he makes: how could it be otherwise? To him they would bring no fame. Where could excellence exist where ambition is not, and where the only object is to earn a miserable pittance for a struggling family? It was thus that a fine nature was spoiled, a thriving charlatan encouraged, and one more ugly building went to swell the number of those that have been manufactured in the same way. He (the chairman) believed it was the first time since the association had been established that it had been the painful privilege of their president to allude to the death of an old and valued member. Mr. Burt had been taken from them. His loss would be deeply felt by all; they would miss much his singularly profound, practical knowledge, his great facility for expressing his ideas, and above all, that candid and amiable bearing which endeared him to all who knew him. In conclusion, he could not help alluding to a circumstance much more pleasant than the last. He congratulated every student present that the chair of architecture at the Royal Academy was not, as had been feared, vacant. To criticise the lectures of Professor Cockerell would ill become one who had attentively listened to them for the last eleven years. On the substance of those lectures he therefore did not presume to offer an opinion, but on the manner in which they had been presented to them he conceived it to be neither presumptuous nor ungrateful if they took that opportunity of tendering to the professor their humble tribute of respect and gratitude. How many of them could remember that when the lecture was over, with what disinterested kindness their professor was ready to answer the question of the humblest student; and one thing more glorious than all was the sense of the fact, that the grey-headed man addressing them had not lost one tittle of the youthful enthusiasm of the discoverer of the Ægina Marbles, and that their accomplished professor was still, in the best sense of the word, as much a student as the youngest probationer on the back benches.

On the conclusion of the president's address, and at his invitation, Mr. Tite, M.P. who was present as a visitor, addressed the meeting. On the public topics touched upon he stated that he had no doubt whatever that the vacant space near St. Paul's was secured, and would not be built upon; that he had also no doubt the Corporation would keep Smithfield an open space; but that its appropriate, or rather fitting arrangement, so as to present any agreeable, or architectural features, was an object of great difficulty. He invited the sketching class of the society to turn their attention to the subject, and to make suggestions with this view. Mr. Tite then proceeded at considerable length to discuss the question of scientific education in England. He considered the great defects were, first, the want of a good sound elementary education, and then proper examination afterwards by the Institute, or some competent body, so as to give the scientific teaching at lectures, or in the architect's office, a proper direction. He accepted, so far as he was individually concerned, the offer to submit to a voluntary examination suggested in the president's address; but he thought that, in all government or public appointments, such as corporations, &c. no scientific position ought to be given without the fullest examination, such as existed at the present moment in France, or by the "Bau-verein," in Prussia. He regretted to observe a disposition in England to employ uneducated men, on the pretence of their practical attainments, which he considered must more advantageously co-exist with education, and which might at all times be easily found in combination. Mr. Tite, in adverting to the sketches on the walls, regretted the universal desire to introduce and study mediæval architecture in preference to the Italian, and in abandonment of the styles so elegantly applied by Perrault, Vignola, and Sir Christopher Wren, which he considered more appropriate and more convenient for social purposes than the frequently forced applications of the types of the Middle Ages. Mr. Tite concluded his address by pointing out the advantages of association, for the purposes of study and mutual advancement, such as this society afforded, and by urging its members to continued and renewed exertions.

EGRESS FROM THEATRES AND OTHER PLACES OF AMUSEMENT.

EXETER-HALL.

Some remarks in the *Builder*, in reference to the inadequacy of means of egress from the theatres, have opened up a question in which the public generally are much interested. I do not know much of the particular arrangement of theatres in this respect, but the deplorable deficiency of *exits* at nearly all places of public resort is notorious. With no small experience of large assemblies, I fear that it will only be when some lamentable catastrophe has occurred that due attention will be given to the subject.

With the professional knowledge you can bring to bear, you will do good service by using your best exertions to mitigate the evil.

In the hope that you may be induced to do so, I have much pleasure in placing at your disposal information in reference to Exeter-Hall, which enjoys a most unenviable notoriety in this respect.

The large hall may be taken as capable of seating 3,000 persons. It has but three points of exit, their united width being about 18 feet. There are two tiers of offices under the large hall, so that at least fifty steps have to be descended before the street level is gained. It does not require much discrimination to perceive that a building used for large assemblies, at a considerable height from the ground, presents points of danger greatly in excess of one that is on the ground level. Two of the three staircases are very narrow, full of angles, and awkward turning points: in a time of excitement they would be dangerous. The third staircase, leading into the Strand, is wider, but it is nearly straight, with but one landing, and the danger resulting from a sudden rush down the fifty or sixty stairs composing it, may readily be noted by any one looking through the swinging doorway in the Strand.

In connection with the Sacred Harmonic Society, I have had twenty-one years' experience of the alarming deficiency of Exeter-Hall in this respect. Through this series of years I can testify to repeated complaints and warnings from all classes. The *absolute danger* has been frequently pointed out to the directors of the building, and, although opportunities have offered, and schemes readily practicable been proposed to them, yet they have been steadily ignored. That you may not think I am indulging in unmerited remark, I enclose you the report of the Sacred Harmonic Society for the past year: I refer you to page 30 therein.

Even this representation has passed unheeded, and thus matters are likely to remain, unless some authority interposes. It would be highly desirable that authority should reside somewhere to prohibit meetings in places of public resort unless previously certified to be safe and commodious. As the best means, therefore, which suggests itself to me to provide a remedy, I do intreat that you will follow up your

remarks. You may rely upon it that by so doing, you will do good public service.

It will be but little satisfaction to the relatives of those losing life by any such calamity as would probably ensue upon a sudden alarm taking place at one of the crowded meetings held in Exeter-Hall, to know that the four-and-twenty directors who watch over its interests were liable to answer a charge of manslaughter at the Old Bailey, as one of the results of their criminal negligence in this respect; and, therefore, in the hope that the old saying may be verified, that "prevention is better than cure," I do trust that you will draw attention to the subject. R. B.

COLOGNE.

On the 3rd of October the King of Prussia laid the first stone of a proposed stone bridge between Cologne and Deutz, designed by Herr Lohse. When he struck the stone, with the hammer with which he laid the first stone of the new works at the cathedral in 1842, the king said:—"The mercy of God has permitted us to commence this work in peace. Let us pray Him to grant that it may be continued in peace. Let us entreat of Him that it may flourish under the golden horn of plenty, of peace; that it may remain for ever and ever untouched, and that, long before the last stone is laid, all Europe, in peace, may be once more reunited."

Afterwards the king witnessed the depositing of the last stone of the south portal of the Cathedral of Cologne, which has been built at his majesty's expense. Herr Zwirner, the architect who superintends the work of continuation, spoke a few words *apropos* of what had been done and of what remained to be done—intimating his belief that the cathedral (except the great towers) could be finished in seven or eight years; but that, if the funds were augmented, two or three years at the most would suffice.

His majesty then went to lay the first stone of a new museum in the Minoriten-platz, for which funds have been provided, as we mentioned some time ago, by Herr Richartz, a merchant.

One of the most interesting stands in the nave of the Palace of Industry, in Paris, comprises Herr Zwirner's drawing for the portal of the cathedral, a number of large photographs, showing the progress of the works at different periods, and some of the prepared stonework itself, including a mighty finial, exceedingly well cut.

CHURCH-BUILDING NEWS.

Skellingthorpe.—The opening of Skellingthorpe new church took place on Wednesday before last. The church, dedicated to St. Lawrence, having fallen into great dilapidation, a meeting of the parishioners was held in 1853, and a resolution passed to restore and enlarge it. Application was also made to the Spital Hospital, who hold the great tithes, to restore the chancel. A survey was made in each case, plans were prepared, and the work was entrusted to Mr. Pope, of London, architect. The plan, as prepared for the new church, made it consist of the same chancel rebuilt, the same sized nave rebuilt, the north aisle widened, and an entirely new aisle on the south side, with a porch. The work was put to competition in May, 1854, and Mr. William Huddlestone, of Lincoln, builder, was chosen by the committee as the builder. On exposure by the removal of the nave, defects were discovered which rendered it almost necessary to rebuild the tower. The old tower was removed, the nave and aisle lengthened, another bay and an enlarged tower and shingled spire erected. The style chosen is that of the original chancel, Early Pointed English, and the church is finished as follows:—The chancel same width and length as originally proposed; the nave and aisle about 48 feet, and tower 16 feet square and 63 feet high, surmounted by a timber spire covered with shingle. The paving of the floor is of Minton's encaustic tiles, the chancel having ornamental ones. The roofs are all open-timbered, and stained. The chancel fittings are of oak; those of the nave and aisle stained deal. The pulpit and font are of Caen stone. The glazing is of cathedral caste, with stained and painted margins, and centres to double lights. Three windows, one in the tower, one at the west of north, and one at the west of south, were presented by Mr. R. Carline, Mr. Huddlestone, the builder, and Mr. Pope, the architect. Mr. Carline's is a figure of St. Lawrence, filling the window. Mr. Huddlestone's presents two groups,—Christ raising Lazarus, and Christ restoring the widow's child. Mr. Pope's has also two groups,—John baptizing Christ, and Christ blessing little children. Polychromatic decoration has been slightly used, and is progressing, Mr. Geo. Wallhead, of Lincoln, being the artist employed.

Horsenden.—The church here was reopened on Tuesday before last, by the Bishop of Oxford. The cost of the restoration was defrayed by the rector, the Rev. W. E. Partridge.

Newport (Isle of Wight).—The foundation-stone of the new tower of the church here was laid on the 3rd inst. by the mayor.

Weston-super-Mare.—On Wednesday week Lord Auckland, Bishop of Bath and Wells, consecrated the new edifice called Christ Church, situate on Montpelier, in this parish. The church is in the Gothic style, from designs by Messrs. Manners and Gill, of Bath, and is capable of accommodating 525 persons, including 250 free sittings. Mr. E. Gregory was the builder.

Wednesfield.—The new cemetery here was consecrated on Tuesday week, by the bishop of the diocese. The cemetery is situate about half a mile from the church, and is about two acres in extent, one of which was given by Mr. Pigeon, the other being purchased with subscription. It is enclosed, and is being laid out under the direction of Mr. E. Banks, of Wolverhampton, architect.

Chesterfield.—Scropton Church, built in 1111, has been taken down, and the first stone of a new edifice was laid on 27th ult. by Mr. J. Broadhurst, who gave all the workmen a dinner of old English cheer on the occasion.

Liverpool.—It is proposed, by way of memorial of the late Earl of Sefton, to place a memorial window in the west end of the parish church now erecting at West Derby. The foundation-stone of this church was laid by the late Earl of Sefton, in April, 1853. A subscription for the purpose in view has been opened in Liverpool.

Haslingden.—There are now in this town two new chapels being erected, the Independent, nearly completed, in Dearden-gate, and the Wesleyan, in Manchester-road. Extensive alterations are also being made in the roof, &c. of the parish church. The Roman Catholics of Haslingden have staked out ground for a proposed new chapel situate between the Ebenezer Baptist chapel and West View House.

Salford.—The recently decorated chancel of St. John's Roman Catholic Church, or Cathedral, Salford, was opened on Thursday in week before last, by Cardinal Wiseman. The church is cruciform, the upper arm of the cross being devoted to the choir and chancel, with Lady chapel, chantries, and side aisles. The whole of this part, including four entire bays, next what is called the east end of the church, has been walled up from the nave (at the point where the rood screen should divide nave from choir), for the last two years, with the object of completing the choir, and indeed all the internal work of that end of the church. It is now all but finished. The church stands nearly due north and south; but the old nomenclature is retained, for the end or choir window (nearly north) is called the great east window; what are really the east and west side aisles of the chancel are called the north and south aisles, and so on. Retaining the names given them, we may briefly mention the principal works of this part of the church, which may be generally characterised as in the Decorated style. The choir, from the place of the rood screen to the high altar, filling three bays, is enclosed by side screens, from the north and south aisles, with two entrances thence. At the lower end it will, for the present, be separated from the nave by the carved oak seats of the choir. At the upper end is the high altar, and its central canopied screen with lower screens flanking it. The other side of this screen, and reredos, is in the Lady chapel, which has its own altar and reredos, with piscina, &c. beneath the great east window. The Lady chapel has a private chantry on each side, the Lee chantry, on the north, being founded by Mr. D. Lee, and the Leeming chantry, on the south, by the family of the late Mr. John Leeming. Each of these chantries has its altar and reredos, its windows of stained glass, and its canopied family tomb. All the five principal windows at this end of the church (as well as the smaller clerestory windows) are of stained glass. The great east window, the gift of Bishop Turner, is the work of Mr. Wailes. The four chantry windows, as well as the brasses of the tombs, have been executed by Mr. Hardman, of Birmingham; and the groined roof has also been painted by him, azure, with gilded stars. The whole of the stone work is of fine Caen stone, with the exception of one altar frontal of Derbyshire alabaster, and the columns of two small arcades, which are specimens of the Devonshire porphyry. All the stone erections, sculptures, and carving, as well as those in alabaster, the carving of the oak seats for the choir, and the groined roof, have been executed by Messrs. Lane and Lewis, of Birmingham: the work has been done by about a dozen trained workmen of theirs, under the superintendence of Mr. Lane. The architects are Messrs. Weightman, Hadfield, and Goldie, of Sheffield. With the exception of the east window (the gift of the Right Rev. Dr. Turner), the whole of the works—choir, Lady chapel, chantries, and the side aisles, with the screens, altars, reredoses, tombs, windows, and roof—have been executed at the cost of two families, the founders of the chantries; and we are told that these works will not cost the Lees and the Leemings a less sum than about 5,000*l.*

Monkwearmouth.—Amongst the numerous cemeteries about to be formed in this neighbourhood under the new Act, that of Monkwearmouth appears to have made the greatest progress. The Episcopal chapel will soon be ready, and the Dissenters' chapel, lodge, and gateway, are in progress. The whole of the grounds are enclosed by a wall. The chapels, which are of stone, are detached, cruciform in plan, the nave forming the chapels, and the transepts forming, on the one side a reception-house for depositing the coffins, and on the other a vestry and porch. The chapels are both alike, in the decorated style of Gothic architecture, with bell turrets at the west gables, and accommodate 100 persons each. The lodge has a waiting-room and open verandah for visitors. Mr. Thomas Oliver, jun. of Sunderland, is the architect.

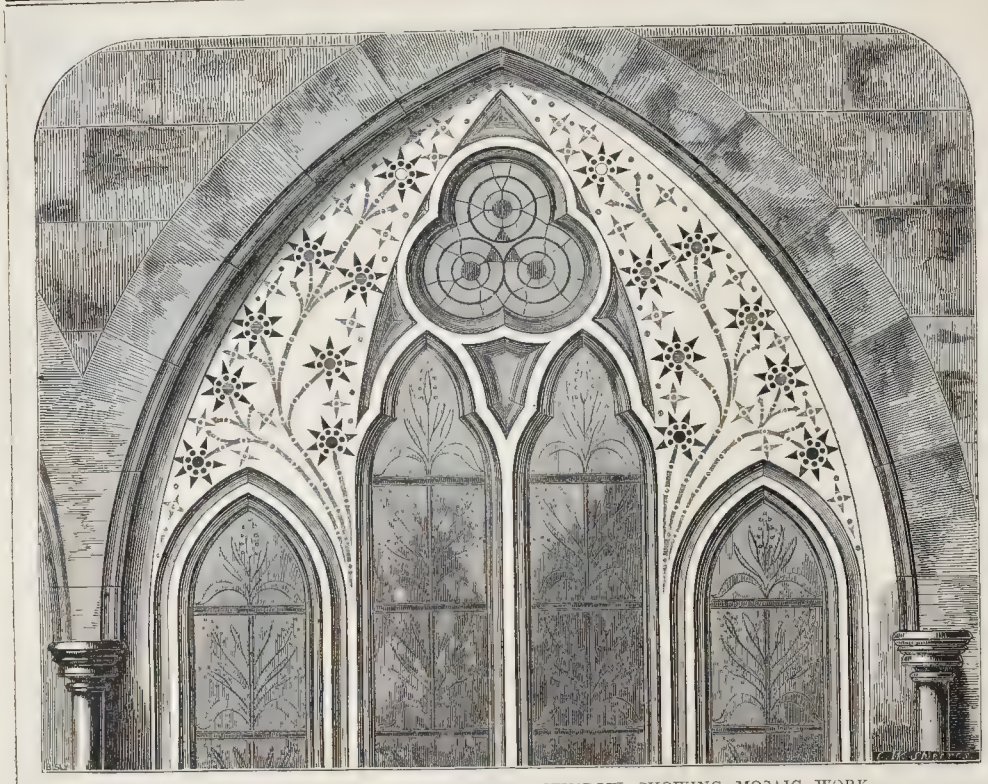
Elgin.—The walls of the towers of the cathedral ruins at Elgin, according to the local *Courant*, are now in course of repair. For some years back the stones were getting very loose, both lime and stone decaying. The Woods and Forests, therefore, employed Mr. Innes, of Bishopmell, builder, to cement the walls and replace decayed stones, and the greater part of this repair is now completed. A new iron gate, and new house for the keeper, are also contemplated. What does "cement the walls" mean? Surely not covering them with compo?

THE ARCHITECTURAL MUSEUM.

We would remind our readers that the Museum is open on all days of the week, excepting Saturday, from ten till four o'clock; and (from Monday, the 1st of October), till Wednesday, 19th December next, both inclusive, on the evenings of Monday and Wednesday from 7 till 9 o'clock. One guinea per annum makes a member: for students, the subscription is 10s. 6d. Admission to non-subscribers is 6d. for the day: Art-workmen have admission in the evening, free. Lectures will be delivered at the Museum during the autumn session, viz.:—

Oct. 15. On Heraldry in connection with Architecture, by the Rev. C. Boutell.
Oct. 29. On Architectural Metal Work, by Mr. Skidmore.
Nov. 12. On Form, Light, and Shade in Architectural Foliage, by Mr. J. K. Colling.
Nov. 26. On Colour, and its use in Architectural Art, by Sir Walter C. James.
Dec. 10. On the formation of a National Museum of Architectural Art, by Mr. Bruce Allen.

Moreover, an evening class for the *practice* of stone and wood carving has been organized. Some of our readers should avail themselves of it.



ALL SAINTS', KENSINGTON: CLERESTORY WINDOW, SHOWING MOSAIC WORK.

NOTES OF IRISH WORKS.

The new Roman Catholic church of St. John, at Limerick, is to be built according to designs by Mr. P. C. Hardwick (of London), architect.

It may be in the recollection of our readers that some years since a competition was advertised, and premium offered for the *best* design for this church; but after a lapse of many months, it seems to have been decided that *no* plan *was the best*, for the premium was *not* given, and the plans returned in some instances without a word of apology. This called forth some appeals to the public press, ourselves amongst the number, and we are even now informed that at the time the competitors' drawings were in Limerick, suggestions for the proposed building were taken in a substantial form therefrom. However, if such account be correct, the high professional character of the gentleman now engaged may at once set at rest any apprehensions as to plagiarism. We always, however, as a matter of justice to the profession, bring before the public complaints received of parties acting out of the usual course.

A new lattice girder bridge, by Messrs. P. Mc Swiney and Co. has been fixed on the Glanmire road, in connection with the terminus at Cork of the Great Southern and Western Railway. It crosses the south face of the tunnel at an elevation of about 17 feet, connecting the new road made by the company, and consists of two main girders of plate and angle iron, rivetted at top and bottom, and connected by lattice-work. The roadway is 31 feet, and footpaths 8 feet each. The roof of the goods store, 40 feet span, is supported by wrought-iron lattice girders, on the same principle. Messrs. Mc Swiney and Co. are stated to have several iron girder bridges in course of completion for Limerick and Foynes and Mullingar and Longford lines.

Additions are to be made to the barracks at Cork for the accommodation of an extensive force, according to the local journals.

The first stone of a new hospital under the direction of the Sisters of Mercy has been laid by Archbishop Cullen. The site is in the open space at the top of Eccles-street, Dublin, and the proposed building is to be called the "*Mater Misericordiæ*."

A new harbour and pier is to be built at Wicklow by Mr. John Killen, who has been declared the contractor.

A new church is to be erected between Richhill and Portadown.

CHURCH OF ALL SAINTS, KENSINGTON-PARK.

This church is situate near the northern extremity of the Ledbury-road, Kensington-park. It was commenced three years ago, and is now covered in and glazed. It is faced, both internally and externally, with Bath stone: this is relieved by the introduction of bands and arch-stones of coloured stone,—red, grey, and buff,—brought from Sudely, in Gloucestershire, Nailsea, in Somerset, and St. Columb, in Cornwall. The pillars of the nave are Devonshire marble: three of these are monoliths, and three coursed. Devonshire marble is also extensively used in the monials of the clerestory and other detached shafts. These are not yet fixed. The octagonal stage of the steeple contains a great deal of constructional colour, both in bands and in shafts.

Internally, the lower part of the walls, from the floor to the string all round, is lined with black, red, and buff tiles, and bricks in courses, the gradation of colour being so arranged as to increase in lightness upwards. The height of the lining also increases eastwards, *i. e.* in the transepts, chancel aisles, and chancel, by proportionate gradation. There is an extensive and lofty clerestory. The windows are in pairs: a portion of the head forming a spandril between the heads of the side lights and middle lights, instead of being pierced as tracery, is left plain, and filled with inlaid mosaic work. The design consists almost entirely of an arrangement of gold, red and blue circles, and triangles: on the inside of the church these are formed into flowers, and connected with green stems, as shown in our illustration. The colour of the green is chrysopase: that of the blue is turquoise, cerulian, and ultramarine. The workmanship of this was executed by Mr. Steven, of Pimlico. These windows internally have moulded Bath stone caps and bases, to receive detached marble shafts. The roofs are as yet neither stained nor painted. The window-sills of the north aisle are raised, for the formation of a cloister to connect the church with future domestic buildings. The span of the chancel is the same as that of the nave (27 feet 6 inches in the clear), and allows of the pier of the chancel-arch being very small, thus adding to the general effect of spaciousness. The glazing is in large rectangular panes of cathedral tinted glass, separated in their height by bands of blue and ruby. Each pane extends from mullion to mullion, and is from 10 inches to 14 inches in height. A running pattern is painted up the centre of each light, and the lights of the tracery are slightly relieved by the introduction of a little coloured glass in simple geometrical patterns.

The architect's assistant, Mr. T. Butler, has been acting as clerk of the works. The builder is Mr. Myers, of Lambeth; and the architect, Mr. William White.

The buttresses against the west front of the tower are not yet built, but their erection has been determined on: nor is the spire yet finished.

CHURCH OF ALL SAINTS, KENSINGTON-PARK.—Mr. W. White, Architect.

PROVINCIAL SCHOOLS OF ART.

Several of the annual meetings of provincial hools of art have been held within the last week or o, and, on the whole, a good deal of interest con-nues to be manifested in favour of such schools.

At *Sheffield*, the annual meeting was held in the usic-hall, on Wednesday week; the Right Hon. John rker in the chair, supported by Lord Denman, and ner gentlemen. The report refered to the arduous ty which the council had had to discharge of select-g from 116 designs the plan for a new school, pressing gratification that their choice appeared to ve been approved, and hoping that within a year it uld be in active operation. Mr. Ald. Mycock had ntracted for the erection, at a cost of 4,400*l.* cluding some alterations in the original plan for ating and ventilation. This, with 949*l.* paid for e land, 1,000*l.* for furnishing, architect's com-ission, &c. would make a total of 6,349*l.* The bscriptions were 3,500*l.* leaving 2,849*l.* to be pro-ded for. Desirous that the building should be free om debt, it was proposed that a bazaar should be eld, to which the noble families of the neighbour-ood had become patrons, and the council had such ssurances of support, that they anticipated the bazaar ould be one of the most successful ever held in the own. As soon as it could safely be accomplished, he council proposed to open an exhibition of paint-gs, ancient and modern, and they had reason to ope they should be able to place before the public ch an exhibition of works of art as had never been en out of the metropolis. The school continued to old its honourable position. The students of the ast year were—males, 242; females, 52. These umbers, considering the defective arrangements of he present schools, indicated a strong desire for art-ducation. It appeared from the accounts that the Government grant was 520*l.*; students' fees, 220*l.*; ubscriptions, 204*l.* The principal expenses were—ent, 80*l.*; salaries of master and assistant-secretary, 352*l.*; attendants, 58*l.*; expenses, 128*l.*

Mr. Parker, in his able address, remarked that to btain a proper understanding of art, the new and wise theory was, that we must endeavour to attract nto affiliated connection every school disposed to join in the organization, in order that we might have an educated taste. We aimed to produce works of art, and when they were produced, we desired to have a population able to tell us whether they be really works of art. This had been done in several districts with success. Its advantages were obvious, and he trusted they would be participated in more largely than hitherto in this neighbourhood. The plan was to allow all schools within a reasonable distance to affiliate themselves to the central school, and thus to promote in them correct drawing, and such other parts of artistic education as the time their pupils could give to the subject might permit. The more this object was pursued, the sooner we should have a community educated in art. In point of fact, the carpenter and the mason, besides learning to do the mere work of their trades, would learn to make sections, to draw lines correctly, and to understand better the plans by which they were to work. It was to the want of artistic education that we were to ascribe much of what was said as to the superior understanding of art on the continent, and to our uninformed and inadequate appreciation of works of taste in England. We were now come to an age in which people and nations were brought nearer together than before. Railways, steamboats, the electric telegraph, the tendency of expositions, all had increased the communication between neighbouring nations, and had brought them so near that, to say nothing of higher considerations, other things being equal, the country that did not cultivate its taste—that in producing articles durable and useful did not also make them such as it was pleasing to look at by the side of those of other countries—was very likely to be distanced in the race. Not only our ambition, but our national interests forbade us to neglect these subjects. He was struck the other day, in reading the *Builder*, to find, in an article on the education of the lower classes, some remarks on the miners' school at Alston, which Mr. Parker quoted, with a kind and complimentary allusion to our journal. The speaker then strongly recommended both student and master to

> "Let Grecian models be their chief delight,
> Read them by day and study them by night."

At the meeting of the *Coventry* school, Sir Joseph Paxton was in the chair, and delivered an energetic address, in which he expatiated on the necessity of an active art-competition with France, where, during the last three centuries, whatever had been her troubles or her difficulties, and they had been many, she never for one moment had relaxed in her efforts to foster and push forward by every possible means the arts and designs in connexion with manufactures: indeed, he remarked, the objects of interest in the country were such, that no person could go from London to Paris without being made aware of the fact, as it was at once before his eyes: all kinds of excellent designs were in every place of amusement, in the cafés and restaurants; for the decorations in a restaurant cost as much as any room of her Majesty in Buckingham Palace. These decorations, he was going to say, were as common as bilberries: they were to be seen at every corner of the street, and for one penny expended in orange water, anybody could go in and see the decorations of the rooms. This was carried on, not only at Paris, but in every town in that country, so that the people had constantly before their eyes excellent and beautiful designs. This certainly did not accord with our notions in this country; for if they were to take their wives or families to London to-morrow, and wanted to get some refreshment, they would not know where to go. There was this difference of character between the two great places, and he must say London suffered very much in the comparison. He dared say that they would think it very curious, and a great talk would be made of it, if his friend on his right, the mayor, were found sipping his coffee at a restaurant's in their Market-place; but this was common in every town in France, where they all assembled to hear and read the news: they also took their wives and daughters, there being no difference in this respect between the sexes, so that the people were enabled to get some idea of the decorative arts. It was this which employed such a vast number of persons in performing these decorations, which were enjoyed by everybody in France, from the highest to the lowest.

As to the interest in art displayed in Coventry, although the school had suffered from the change in Government tactics, as well as from other causes, amongst which, perhaps, Sir Joseph might have urged a little more strongly the necessity for the ribbon and watch manufacturers dipping their hands a little more deeply into their own pockets, he adduced the fact, that in the course of four days' exhibition of the art works sent down from Gore House, 11,000 persons had visited and seen these works at Coventry, which, more than anything else, he said, satisfied his mind as to the progress of a desire to foster the school of art in this town. In conclusion, Sir Joseph remarked that one thing had struck him with much surprise in walking round the room—he should tell them the truth—when he got to the end, he could not help asking, "Where are the ribbons?" "Where is the staple commodity?" There was everything merely done—but no patterns of ribbons. He thought he should offer a prize—a good one, next year, to be competed for by the ladies, but it would be for ribbons.

The *Burslem* meeting was held on Friday in last week, and the attendance was an overflowing one. Mr. C. B. Adderley, M.P. was in the chair, and Mr. Minton was amongst those on the platform. Mr. Adderley also expatiated on the art-precedence of France, but in giving the statistics of art-works at the Paris Exhibition, he forgot one amongst various, certainly right reasons, why France was ahead of us in the number of art-works exhibited, namely, that France contains a good many more *people* than England does. Still the conclusions which he drew from the whole were in the main correct. It appeared, he remarked, that of the works of art, 2,700 were contributed by France, 800 by England, 650 by the German States altogether, and three by Turkey. Now, he asserted that any just comparisons instituted as to the relative importance of these nations would be borne out in the main by a comparison of these statistics. The two leading contributors they saw to be France and England, the nations which might be said without vanity to stand foremost in the world. The German States, which, he thought, by their own admission, in this great European struggle that must be looked on as a test of the relative power of nations, had occupied a secondary place on the theatre of the world, were also found in a secondary position in the Paris Exhibition. As to Turkey, he might observe that her three works of art were no unit representation of the triple alliance, which alone saved her from annihilation at this moment.

The Burslem School is almost in its infancy as yet, this being but the second year of its existence, but it is considered to be making favourable progress. The average number of students on the books is fifty-six, according to the report, which states that the success of the school is exceeding the most sanguine expectations.

In reference to the subject now under notice, we may observe in conclusion, that the School of Art at *Dunfermline* appears to be taking root. The master, Mr. L. Baker, delivered a kind of general and introductory lecture on the subject of science and art last week, which was largely and respectably attended. The Lord Provost and other public men of the locality were present, and all appeared to take much interest in the subject.

THE SUPPLY OF QUANTITIES BY ARCHITECTS.

Touching the query raised, p. 467,—in "Scott's Reports," vol. vi. p. 1, is to be found the record of the opinion of the judges (*in banco*), on the point in question.

The case arose thus:—The guardians of the Whitney Union employed Mr. Kempthorne to prepare plans for a new workhouse, and afterwards directed him to get in tenders.

He appointed (without any authority from the guardians) Mr. Moon, a surveyor, to take off the quantities, but before the tenders were delivered to the guardians, they and Kempthorne disagreed, and the works, as then intended, were abandoned. Subsequently Kempthorne received payment for his services, and Moon, having been refused payment by the guardians, tried the case, on circuit. The defence set up by the guardians was, "No privity," or "contract." The jury found for the plaintiff (Moon), but the defendants, having moved for a new trial, the case was argued in the Common Pleas, Westminster, before Chief-Justice Tyndall, and Justices Parke, Collier, and Bosanquet; the late Serjeant Talfourd appearing for the guardians, and Serjeant Wilde (now Lord Truro) for the surveyor (Moon). The four judges held that "An architect has the right and power to pledge his employer's credit to a surveyor for the quantities, and that in so doing he is acting as their agent."

About the year 1850, another case was tried in the Court of Exchequer, before Baron Martin (Wright *v.* Attenborough); and this year I recovered payment from the Board of Guardians of Brighton for quantities supplied for the Industrial Schools that they contemplated building, but which they afterwards abandoned. I was appointed by their architect, Mr. Collins. In my case a greater difficulty arose, namely, the guardians of Brighton have a local Act, and are, therefore, differently constituted to the generality of boards of guardians. The clause they brought forward was one that requires "All contracts to be reduced to writing, and signed by the parties." Fortunately for me, by that local Act, the guardians had no power to build schools, and, therefore, the judges held, that the local Act could not apply in my case.

In the case of an architect being his own surveyor for the quantities, no doubt a legal difficulty would arise, independently of which it is in principle bad, and places the architect in a wrong position with reference to the contractor.

I have gone into greater length than I at first intended, but as the profession generally do not know that the point is a settled one, perhaps you will give this statement a place in your columns.

Robt. W. Armstrong.

Surely your correspondent "Sub" will not venture to contend that he, or any architect, is permitted to entail any additional expense upon his clients, without first obtaining their sanction.

If it is necessary that the quantities should be got out, the client should in all cases be told openly that the expense will ultimately fall on him. This is the honest way of doing business, and the only one an honest architect should follow.

It is a surveyor's and not an architect's duty to take out quantities, and, although many architects perform such duty, on account of its being a lucrative contingent to their profession, still, they place themselves in the position of the surveyor, and can only expect to be remunerated for their trouble when a *direct order* for such work has been given them.

W. G.

THE WORKS AT WORCESTER CATHEDRAL.

WORCESTER ARCHITECTURAL SOCIETY.

At the annual meeting of this society held a few days ago, a communication was read from Mr. Truefitt, in the course of which he said:—The numerous copies of old buildings which had sprung up of late years were almost a disgrace to the present generation, inasmuch as they were servile imitations, exhibiting nothing original. He did not mean to say that the architectural profession had not many members who knew how to use their own ideas, but such men at present were in the minority, probably because they were so little wanted; most people therefore continued to be guided by the greater number and by unprofessional societies. These societies, he admitted, did good up to a certain point, by bringing people together and making them think and ask questions about what they had never cared for before; but when their members had to do with church *building*, they almost always went wrong—their ideas being antiquarian, not architectural. Now, it was quite right, in *restoring* a building, to take the antiquarian view of the case,—never to pull down any work and rebuild it in another style, but always to prop up and patch an old building in all its varieties

of form,—never to pull down elegant spirets at the angles of our cathedrals because they were not of the date of the original building, but to restore them,—never to remove such quaint original buttresses as those flying ones at the east end of a certain structure not a hundred miles from the Faithful City, merely because they were not there when the building was first erected; for if such mutilations were fully carried out, nearly all our churches would be eventually pulled down with the exception of the original portions; namely, the Norman doorways and broken fonts. Our buildings should be restored just as we found them: if there were a Norman nave and a Decorated chancel, restore each, but do not try to make them alike: a building should be mended just as we patch an antique chair or rivet an old china bowl. If such societies as this confined themselves to restoration in this spirit, it would be well; but in new buildings it generally happened that these societies would make them imitations of some existing and favourite church; and thus it was we had so many Skelton churches about the country, so many Newark and Stamford spires, Sompting towers, Suffolk roofs, Malvern pavements, Norbury glass—in fact, one might go into a new church now, and find an authority for everything, from the tower down to the vestry poker. People would not look at a design that was new and to be fitted up for a building of the present age; and thus an architect was bound to reproduce works of a former generation to meet the views of a society or committee of *taste*. The sensible and correct way, however, was to use all that had been done in past times as our A.B.C. to make ourselves thoroughly acquainted with that alphabet, and then to design simply with the materials of the present day—bricks, glass, iron, everything that could be got, so that we built for the wants of the time we live in, endeavouring to advance and not to retrograde in church architecture as well as our domestic buildings. What would people say if, at the next exhibition of the Royal Academy, Sir Edwin Landseer, Dyce, Mulready, Eastlake, or Stanfield, were to send nothing but copies of old pictures, instead of producing new and beautiful compositions? Would such a thing be tolerated, however truthful the copies? No. Neither should architects be allowed—or rather obliged—to copy from their old masters.

THE IRON TRADE.

The following statement of the principal orders for castings in the Glasgow iron market, during September, 1855, has been forwarded to us by Mr. T. Edington:—

4,000 tons railway chairs for Cheshire; 700 tons railway chairs for Nova Scotia; 4,000 tons railway chairs for London; 1,200 tons railway chairs for Liverpool; 1,000 tons water-pipes for Bombay; 500 tons water-pipes for Sunderland; 50 tons water-pipes for Hastings; water-tanks for Honduras and Isle of Wight; 3,000 tons water-pipes for Liverpool; 500 tons tank-plates for London; 300 gas-pipes for Rome; gas-pipes for Tower of London, Carnarvon, &c.; 40 tons iron beams for Cork; steam-engine, &c. for Exeter. Also contracts for British, French, and Turkish munitions of war. The Copenhagen gas and water contract has been lately taken by a London firm, and they have applied to the Glasgow iron founders to supply them with a large quantity of castings.

The ironfoundry trade of Glasgow, says our informant, has been, on the whole, very good, and the demand for castings considerable during the last five years. In that period a number of new works have been erected, and old ones extended. There are now upwards of 100 iron foundries in the west of Scotland, which can produce, when in full occupation, a very large quantity of castings, more particularly for railway, gas, and water works, public buildings, and bridges. The demand for the next five years has every prospect of being greater than during the last five years. A few of the principal new contracts in view at this time are as follow:—Very large quantities of castings for Loch Katrine Water; gas and water supply for Copenhagen; gas supply for Buenos Ayres; railways in Egypt, India, Australia, and Nova Scotia. Besides all these, there will be castings required for railway, gas, and water companies, over the greater part of the globe by-and-by, the principal part of which will be produced in Scotland.

The first cargo of the Ballycastle, Blackband Ironstone, county Antrim, Ireland, which is said to be very rich, will be delivered at Glasgow this month: it is quite equal in quality (adds our authority) to the very best Monkland stone, and is twenty-six miles square, and nearly 3 feet thick.

"We very much fear" (says the *Birmingham Journal*), "that the mischief resulting from continued changes in the price of metals has not been fully experienced. Last week we reported the resolution of the preliminary meeting of the ironmasters at Handsworth, declaring an advance upon the price of iron of 1*l.* per ton. It was hoped, and, indeed, believed, that that resolve would have been adhered to; but we are since informed that the attempt is to be renewed to put on still another pound. . . . It is more than doubtful whether so considerable an advance as is contemplated can be maintained. The ironmasters will have themselves to blame for whatever mischief results from this unwise attempt to push up prices in existing circumstances: if persisted in it will operate most prejudicially on the trade generally, both of the town and the district."

THE BARRACKS COMPETITION.

We are told that more than 130 designs have been sent in in reply to the offered premiums, including some by men of high standing in the profession. We have received four letters to the effect of the following, but cannot vouch for the accuracy of the statement:—

Sir,—I have just heard that ———, who is on the Barrack Accommodation Committee, is a competitor, though the particulars have been asked for, and the design submitted under the name of the chief of his staff.

I invite you, sir, and all competitors, to protest with me against this last phase of architectural competition.

M. R. I. B. A.

IMPROVED DWELLINGS FOR THE POOR IN LAMBETH.

The Directors of the Lambeth Association for providing improved Dwellings for the Labouring Classes have determined to avail themselves of the facilities afforded by "The Labourers' Dwellings Act," and to proceed at once to obtain the certificate of incorporation. Ten thousand pounds of the proposed capital are already subscribed for. H. R. H. Prince Albert has consented to become the patron, and has added his name to the list of shareholders. The Council of the Duchy of Cornwall has also subscribed for 100 shares of 10*l.* each on behalf of the Prince of Wales. The Archbishop of Canterbury, Miss Coutts, Sir M. Peto, Mr. Wilkinson, M.P. and other influential and benevolent persons are among the shareholders. It is most probable that this will be the first association formed under the new Act, as no application has yet been made to the officer appointed by it for the certificate of incorporation. We much fear that the great advantages which the Act confers are not generally known.

TEMPLE OF SERAPIS, POZZUOLI.

A writer in the *Athenæum* speaks of an event here which must awaken the regret, if not the indignation, of the whole artistic and scientific world. He says,—The circumstances I allude to are connected with a new arrangement of the columns in the Temple of Serapis at Pozzuoli, and it is impossible to think of it without lamenting deeply that the superb ruins of this kingdom, so rich in antiquities, should be at the mercy of men who display the utmost ignorance of the first principles of art and science. I express myself strongly as the occasion seems to me to require, for this sacred spot, with its three grand columns, has now lost its character, and been transformed into a piece of mere patchwork. But to the point. The Temple of Serapis, built at a very remote period, has for many years been used as a place of deposit for marbles, fragments of sculpture, and columns, of which the precious columns of alabaster now in Caserta formed a part. In fact, everything of an antiquarian interest that has been discovered in this neighbourhood was placed within the precincts of this Temple, and lay here like the dry bones of an age past away until modern taste or caprice should restore them to a new architectural existence. The stranger who has visited Pozzuoli must well remember the interesting fragments which lay scattered round the lateral porticoes of this ruin. So placed, they harmonized well with the spot; they seemed like the representatives of former magnificence, and their fragmentary forms breathed forth homilies on the littleness of human greatness. Well, our Neapolitan *savans* have "*changé tout cela*," and in the true spirit of a London bricklayer who sets about building a snug smoking box for your small citizen, have set up the columns on end, and have transformed the Temple of Serapis into a Temple of Folly. Walk round it, and you will no longer recognise it—the spirit of the place has fled—it is no longer the solemn site of a venerable temple—it is a doll-shop—a toy which boys have put together on a fine summer morning "*pour passer le temps*." It is but justice, however, to state the motive which led to this ridiculous violation of the rules of taste and of art, though the very exposition of the motive will render the folly of the proceeding only the more apparent. The entire area of the Temple is, as must be well known, under water, the drainage of which was deemed impossible without removing the fragments lying around. So in a happy moment, as happy a thought struck our *savans*, that it would be as well to stick them up on end and clear the space by improvizing a new Temple. No sooner said than done. Now it should be known that the sea is much higher than the level of the Temple, and that from the high grounds around during the rainy season an ocean of water descends, which it is impossible to carry off. It may be taken out, but cannot be carried off, and with such an operation twice the number of prostrate marbles would not have interfered. There is nothing, therefore, to justify the act.

The columns, both prostrate and erect, were a species of self-registering hydrometer. At intervals, one marks the holes in them where, with the rise of the sea, "*mitili*" and "*folaoli*" penetrated the marbles and made their temporary homes,—and, about forty palms high, are visible the last labours of these little animals to convey to a future age information of the turning point in the last ebb of the Mediterranean. The confusion, therefore, which has now been introduced destroys the certainty of this great natural hydrometer, and tears, as it were, from history a page which can never be replaced. By whose counsel this most wanton act has been performed I will not inquire; but in the interests of correct taste, art, and science, it ought to be denounced, so that men who call themselves *savans* may be deterred from committing future errors, if they cannot redeem the past.

CAST AND WROUGHT IRON.

A reference having been made in your last number but one to Mr. Fairbairn's work on cast and wrought iron, may I make a remark or two on my perusal of that work? On referring to p. 77, it is stated that a wrought-iron beam of the same depth, bearing, and strength of a cast-iron one, would only weigh a little more than one third that of the cast-iron beam. Now the constant numbers used by Mr. Fairbairn are 26 for cast iron, and 75 to 80 for wrought iron, or as 1 to 3;

Mr. Fairbairn's formula, $W = \frac{a\,d\,c}{l}$, and Mr. Fairbairn's form of sections in cast iron, is bottom flange to top flange as 6 to 1, and in wrought iron, is bottom flange to top flange as 1 to 2: it therefore follows that a cast-iron beam with area of bottom flange 12 inches, and top flange 2 inches, equals 14; while a wrought-iron beam of equal strength will have bottom flange 4 inches, and top flange 8 inches, = 12; and the weight of a cast-iron beam is to the weight of a wrought-iron beam of equal strength as 14 to 12, instead of 3 to 1, supposing cast and wrought iron of the same weight. But the difference would be still less if we follow Tredgold, who makes the weight of cast iron to that of wrought as 3·2 is to 3·3. I have not taken into account the vertical portion of the beam between the ribs, as it does not enter into the formula of Mr. Fairbairn, and which appears to me to be the only portion as 3 to 1, by making the wrought-iron beam $\frac{7}{8}$ in. thick, while the cast-iron beam is 1 inch (see p. 77). There is one other matter in Mr. Fairbairn's work which I will notice: it has reference to his report on the causes of the fall of the cotton-mill at Oldham (p. 170). In note to p. 173, it is stated that the beams supporting the arches, of 10 feet 6 inches and 11 feet span, had to support loads of 10 to 11 tons respectively. Now if we take the superficial extent of flooring for weight, the longitudinal beam resting on the gable end wall and on the centre of the transverse beam will be loaded with about 8½ tons, diffused along its length, and being supported at both ends, would necessarily throw but one-half of its load, or 4¼ tons on the centre of the transverse beam which gave way, instead of the 8½ tons mentioned by Mr. Fairbairn (see top line of p. 174). I shall be glad to be put right if in error. Z. Z.

PATENTS.

Amongst the specifications of patents recently filed is the following, as given in the *Mechanics' Magazine*:—

"Roberts, Charles Henry, of Cornwall-road, Lambeth, Surrey. An improvement in the manufacture of rubbers for painters and others. Patent dated February 26th, 1855. (No. 421.) This invention consists in the use of ground pumice-stone in the manufacture of artificial rubbers, in place of employing pumice stone in the natural state."

The following appears under the head of "Provisional Protection:"—

"Johnson, John Henry, of Lincoln's-inn-fields, Middlesex, gentleman. Improvements in machinery or apparatus for rolling and slapping metals. (A communication.) Application dated March 1st, 1855. (No. 457.) This invention consists in combining an ordinary plain roll, or a roll slightly modified in form according to circumstances, with a block or plate running on a centre, and having a groove or slot

ded in its surface corresponding in curvation and
e to the article required."

he following come under the head of "Provisional
ifications not proceeded with:"—

Cooper, Joseph, of Lioucl-street, Birmingham,
wick, brace and bit manufacturer. Certain im-
rements in joiners' braces, and in the mode of
ing or partially forming the various bits to be
t with such or any other kind of brace. Appli-
on dated February 27th, 1855. (No. 428.)

s invention comprises an alteration in the form of
spindle or mount which unites the head to the
k, and on which the head works. This spindle is
parabolic form, curving outwards at the base,
the purpose of giving a proper bearing to the
k, and equalizing the friction from the pressure
action on the head, while in use. Also the use
a screw-pin to be placed in the front or side of the
k, just below the base of the spindle or mount,
the purpose of better securing the some to the
k, &c."

"Taunton, William George Henry, of Liver-
l, Lancaster, civil engineer and patent wind-
-purchase manufacturer. Improvements in pumps,
np-gear, and pump-buckets. Patent dated March
, 1855. (No. 466.) This invention consists
enlarging the barrel of the pump above the lower
ve, so as to form a spherical, egg-shaped, or
er conveniently-formed chamber, between the
ver valve and the lowest point which the spear
ve reaches in its downward stroke."

Miscellanea.

Photographs from the Crimea.—The import-
ce of photography has never been more strikingly
own than it is by Mr. Roger Fenton's singularly
eresting series of photographic pictures taken in
e Crimea, and now on view at the Old Water
olour Gallery, Pall-mall. They divide themselves
o three sections, scenery, views of the camp; inci-
nts of camp life, groups of figures; and historical
rtraits, and under these headings are about to be
blished by Messrs. Agnew and Sons. Mr. Fenton
entitled to the thanks of all for what he has done:
is no common achievement. Some of his landscapes
the Paris Exhibition distance those of all com-
titors.

The Smoke Question at Leeds.—After a long
scussion, it has been resolved at a meeting of the
habitants of Leeds, "that a subscription of 120*l.* a
ar be raised for three years, for the purpose of
ating the nuisance arising from smoke, and that a
mmittee of five be appointed to carry this resolu-
on into effect; and that a further subscription of
20*l.* a year for three years be raised, for the purpose
giving premiums to such enginemen as shall, under
fficult circumstances, consume their smoke in the
ost effectual manner." It is surely time that some-
ing complete was done.

Shortening of Stofforth Church.—Your cor-
espondent, "M. R. F." accuses the Yorkshire Archi-
ectural Society of apathy in the case of the late
teration of Spofforth Church, and it is probable that
he letter of "An Old Member of the Society," which
ppeared in your last, may be looked upon by some as
t least a corroboration of your correspondent's charge.
beg, therefore, in defence of the society, to state
hat it was entirely in consequence of its representations
o the ecclesiastical authorities that the matter was
rought before the diocesan court, and that a memo-
ial, protesting in the strongest manner against the
hreatened mutilation and transformation of the
hurch was drawn up, and *unanimously* adopted by
he committee, and submitted by them to the court.—
William Hey Dykes, Secretary of the Yorkshire
Architectural Society.

Sanitary Paints. — My attention having been
alled to a communication in your valuable journal of
29th September, describing the Lacboracic Paint,
wherein the writer alludes to my patented sanitary
paints, apparently classing my invention with his,
which I consider may have a tendency to engender
erroneous ideas as to the nature and character of my
invention, which is no mere theory, having been
practically tested, and declared to be of great public
benefit,—I may state that it is the result of upwards
of eleven years' study and practice by myself, as a
colour manufacturer and house-painter of nearly forty
years' standing, and having acquaintance with the
affinities of all available chemicals and ingredients
necessary. Therefore, I court the investigation of
any chemical or practical men in any branch of trade,
and am also ready to prove all I have asserted in
writing, or in print, as also by ocular demonstration,
submitting the same to the severest tests. The cause
of my invention not having yet been carried out
arises from the difficulty to obtain a *bonâ fide*
capitalist, or to form a company for that purpose.—
Arnold Morton.

East-end of St. Paul's.—Would you allow me
to suggest a plan for the disposal of the ground at
the west-end of Cannon-street, Cheapside? Would
it not be possible to set back the projecting corner of
the house on the south side of St. Paul's School,
flush with the school, and when the houses at the
other end, the Cathedral Coffee-house, &c. shall also
have been taken down (as I believe it is not the
intention of the City authorities to renew the leases), a
fine wide roadway, with the massive front of the school
standing out, would be obtained. Also, pull down the
houses, forming part of Old Change, the baker's shop,
and Phillips's warehouses, and bring new houses, in
character with the rest of the street, forward, as far
as a line drawn from the front of St. Paul's School:
thus covering the present roadway, and enabling, at
least, two large houses or warehouses additional, to
be added to the length of the street. And, further,
if at any time the bridge at Paul's Wharf should be
thrown across the Thames, what better road could be
had than one direct from the Post-office and Alders-
gate-street?—Amateur.

Brighton and Sussex Society of Arts.—The
object of this society is the promotion of the fine arts
in the town and country, by means of annual exhi-
bitions of paintings, the application of its surplus
funds to the formation of a permanent gallery, &c.
Their first exhibition (already referred to) was opened
on the 17th ult. and besides a number of local artists,
they have had the assistance of upwards of eighty
artists from London and elsewhere. It is intended to
open the gallery in the evening for the benefit of the
working classes, and also, if it meet with sufficient
encouragement, to have an exhibition of the works of
the old masters and others, to be borrowed for the
purpose from private collections.

Homes for the People. — Sir: Your August
monthly part contains on page 370, a notice of a re-
cently published work of mine, "Homes for the
People," to which I beg leave to reply. The re-
semblance to the quoted sentences of the book in
question, to passages in your excellent little work,
"History in Ruins," is so justly shown, that I can-
not blame the feeling that has led you to speak so
warmly of the absence of all credit to the source from
which the spirit of my remarks had been derived.
You do me, however, an injustice in two instances—
the one, sir, speaking of the "Homes for the
People," as a compilation, which a perusal will show
you it is not; and, although of course you could not
know it, the absence of reference to your own well-
known little volume was entirely accidental, and
occurred in the following manner:—The "Homes
for the People" was ready for publication a year ago,
and by a disastrous fire in this city, the whole—then
ready for issue the *next day*—was one Sunday,
entirely destroyed—stereotype plates, MSS. and, in
fact, every vestige of the book, excepting two portions
of the work, of about ten, and in another portion,
about twenty consecutive pages. In the original
work, I specially called attention of my readers to
the excellent little manual "History in Ruins;" but
it so happened in re-preparing the present volume
for the press, the portions saved contained the
passages you have quoted, and I forgot to give the
credit where it is so justly due. Although this does not
alter the public impression of the work, you will, I
trust, believe my assurance of the purely accidental
omission of proper recognition of your claims. I
have consulted my publisher in reference to the
semblance of dishonest appropriation of the brain-
coinage of another should appear in a work which I
have endeavoured honestly and carefully to write;
and as the work is stereotyped, there being no course
but in a future edition to append a foot-note, which
will seem but a bungling after-thought, I hope you
will content yourself with this explanation, at the
same time remarking that, if you wish me so to do,
I will with very great pleasure, add any reference to
your work that can effect the object you desire. In
a work I am now writing, I will make the *amende*,
and were it not that I so entirely sympathise with
your proper author-jealousy, I would not thus take
the liberty to write you. I may add, as a Yankee
consolation, that perhaps it is better for *you* as it is,
for *had* I referred to your little volume, and had I
praised it, as I must have done, some enterprising
publisher would have pounced upon it, and would
have got out a cheap reprint here at once, to the
destruction of all hope of profit to you from its
legitimate sale. I have to write hastily to save this
present English mail, but I trust I have given you
sufficient explanation to satisfy you I intended no un-
gentlemanly picking and stealing from your own flower
border. I shall be glad if you will publish this note
in the *Builder*.

New York. Gervase Wheeler, Architect.

*** This frank acknowledgment on the part of Mr. Wheeler entirely disarms us. We shall hope to find the work successful.

Improvements in Ship-Building. — We lately noticed the providing of iron ships with hollow or tubular iron spars. It now appears that not only foreyards, but mainyards and even masts are likely to be made of tubular iron. A mainyard 112 feet long and 2 feet 4 inches diameter at the slings, has just been made of tubular iron at Liverpool. It weighs only 7 tons, or about one-third less than a timber *yard*. What we at present desire more particularly to notice, however, is the novel application of vulcanized India-rubber to the sheathing of ships, and the fabric of sails. Among the patents taken out by a Mr. Goodyear, in respect of the application of India-rubber, is that of sheathing, on the ground of its less cost, that it will not corrode, that it is as easily applied as copper, and that its durability is greater. When used in the construction of sails, it is found that they will not stiffen, nor will ice adhere. It is also proposed to be rendered available in the construction of ships' boats. The patents further include the application of this substance in packing, paying seams, in the formation of buoys, ships' letter-bags, provision-bags, water-tanks, tarpauling, &c.

Coal and Iron Trade of West of Scotland. —From returns obtained through Mr. Williams, inspector of mines for Scotland, it appears that while in 1854 there were 367 collieries in Scotland, 337 of these belonged to the West country. It also appears that, during the same year, there were 7,448,000 tons of coals raised in Scotland, and of these about 6,448,000 were drawn from pits in the four western counties alluded to. The produce in 1854 (at an average of 7*s.* 6*d.* a ton), is estimated at about 2,418,000*l.* sterling. Of the coals so produced, 2,152,800 tons were consumed in the manufacture of pig iron; 367,200 in the conversion of pig into malleable—making in all 2,520,000 tons used in connection with the manufacture of iron; while 926,221 tons were shipped, and 148,312 tons were sent beyond the boundaries, northward and southward, per railways, leaving for the manufacturing consumption, steamboats, and domestic use of the Glasgow district, 2,853,427 tons. During the same period the number of persons employed in the collieries producing this quantity of fuel, were in all, 22,980. So late as 1830 there were only sixteen blast furnaces in the west of Scotland, and the whole produce scarcely reached 40,000 tons. It appears, however, that during 1854, of 118 furnaces for the smeltiug of iron ore, then in full blast in Scotland, and producing 796,640 tons of pig-iron, 102 were situated in the two western counties of Lanark and Ayr, and the produce of these amounted to 717,600 tons. At 79*s.* 8*d.* per ton, the gross value of this industry was 2,858,440*l.* Of this, 122,684 tons were shipped direct to foreign countries, and 294,194 tons were sent coastwise; while 22,865 were sent by railways, and 171,360 were converted into malleable iron, leaving 106,497 tons for foundry and other purposes of the district. The number of men employed in the iron mining in this district during 1854 was 5,585. In malleable iron almost nothing was done in the west of Scotland till 1839, and in 1842 the production did not exceed 35,000 tons. During 1854, however, the manufacture reached 122,400 tons. At an average of 10*l.* per ton, the gross amount of this industry was 1,224,000*l.* The number of men employed was about 4,000.

Polytechnic Institution.—The Monday attendance of the industrial classes here fully justifies the experiment made by the directors. Last week the visitors were so numerous that entertainments were going on simultaneously in both theatres. It is worth noting that on these evenings there is no diminution in the receipts from the full price attendants; and if one may judge from the satisfaction evinced by many members of the aristocracy present on a recent Monday evening, no small part of their gratification was derived from the evident enjoyment displayed by their less exalted fellow countrymen.

Ovens.—I have seen ovens of sheet-iron constructed upon the principles suggested by your correspondent "E." They are admirably adapted to cooking purposes, being in this respect greatly superior to those upon the old plan. The saving of fuel consequent upon their use is considerable, and their construction is simple. They are heated from the kitchen grate, through an opening in the side plate, a little above the bottom of the grate. A space of say 3 inches betwixt the brickwork and the oven is left on four sides, viz. the bottom, the side most distant from the fire, the back, and the top: round these the flame from the beforementioned opening passes; and thence by means of a flue the smoke is conducted into the chimney. A damper in this flue enables you to let on or shut off the heat at pleasure, while a piece of thin iron, an inch or so in breadth, girthing the oven, placed with the edge upon its sides, and worked backward and forward by an iron rod from the front, serves to remove the soot that in process of time will accumulate.—J. F.

Brushes for the Lacboracic Paint.—Again must I trespass to a small extent upon your time and space, in connection with the "*Lacboracic Paint.*" Such of your correspondents as may honour it with a trial will find, if they employ the ordinary brushes (bound with twine, and fastened by *glue*), that the latter will speedily fall to pieces, the *Lacboracic* being a water-paint. This awkward occurrence may be prevented by the following simple process:—Pour a quart of boiling water upon 1 oz. of powdered *nut-galls*, and, when cool, pour off the clear supernatant liquid: soak the brushes in the same for forty-eight hours; at the expiration of which time the *glue* they are fastened with will be entirely converted into *leather*, and, consequently, they are then quite unalterable by either oil or water paints, and stronger than they were before. I did not use brushes of the above description in my first experiments, or the above would have been thought of, and sent to you sooner. —W. L. S.

Scarcity of Labour in Wales.—Owing to the railway, dock, and other extensions going on in South Wales, labourers are realizing 3s. 6d. while blacksmiths range from 5s. to 6s. a day.

Electro-telegraphic Progress.—An attempt to lay down the submarine telegraph across the Gulf of St. Lawrence, seventy miles in length, to St. John's, Newfoundland, which would have reduced the interval for news between Liverpool and New York to six or seven days, has unfortunately proved unsuccessful. After forty miles of the cable had been run out, during a period of heavy weather, which had already occasioned many interruptions, the line parted, and had to be abandoned. The season being now over, the enterprise cannot be renewed till next year. It appears that, instead of a large steamer being employed, the cable was shipped on board a sailing barque, which was towed by a small steamer, and that the disaster is to be attributed to the difficulty of their keeping together in a rough sea. It is to be hoped this misadventure will not have the effect of checking farther progress in the same direction. ——Messrs. W. J. Macquorn Rankine, C.E. and Mr. John Thomson (of the East-Indian Railway), have patented a method of laying electrical conductors, for submarine telegraphic communication. The resistance of fluids is employed under this patent, the fluids being forced by pumps through adjustable valves to regulate the speed of the drums and pulleys by which the cable is dropped. The inventors calculate on thus saving the labour of twenty or thirty men, enabling *one man* to regulate the speed of the cable by opening and closing a valve, and rendering the whole operation, in great depths of water, incomparably safer, more certain, and more expeditious, as well as cheaper, than it is at present.—— The preparations for laying down the submarine telegraph cable between Sardinia and Africa have been progressing satisfactorily. Intelligence was lately received, according to *Galignani's Messenger*, from Mr. Brett, dated Cagliari, 22nd ult. on board the ship *Resolt*, 2,000 tons, with the submarine cable, 162 miles in length, on board, ready to start. Mr. Brett has determined that the cable shall be laid from Cape Spartivento (Sardinia) to Bona direct. The length of cable is said to allow largely for the sweep and variation of the vessel's course and the profile of the bottom of that part of the Mediterranean, as shown by the soundings previously taken.

Serpentine Stone.—Some who are interested in the *exploitation* of serpentine write to us as follows:—"In the able and useful papers on the Chemistry of Building Materials, by Dr. Wilson, which have recently appeared in your journal, allusion is made to the 'very beautiful rock now coming into use as a building material, called Serpentine,' and the author states that it is 'a soft stone, not very suitable for out-door exposure, but admirable for inside pillars.' As the subject is becoming every day of increasing interest to the building world, we trust you will allow us space in your columns to point out that the statement in question is not correct in reference to the Lizard Serpentine. You are probably aware that the whole, or the greater part, of the Lizard Promontory is composed of serpentine—those picturesque cliffs which have become an object of great attraction to tourists, having been placed by nature on the most exposed portion of our coast, where they have resisted for ages the broad sweep of the Atlantic. It is not, however, generally known that the stone of the district has been used for building purposes conjointly with the granite, also found in the neighbourhood, and that it is proved to resist the destroying hand of time in a far higher degree than its kindred rock. The parish churches of Grade and Landewednack, in the Lizard district, are built of granite and serpentine, in alternate courses, and are of considerable antiquity. The granite exhibits manifest symptoms of decay, while the serpentine is as sound, and the edges of each stone as sharp, as on the first day of erection."

Sanitary Progress at Swindon.—A correspondent, who has occasionally sent us communications on this subject, points attention to the completion of a pair of labourers' cottages for the lord of the manor, in which there has been manifested a lamentable want of sanitary considerations. Into the detail of these, however, it would be useless as impossible for us to go. It is painful to hear of such facts, but we fear they are but too prevalent in more places than Swindon. The House of Commons, of which the proprietor of the cottages referred to is said to be a member, has now been pretty fully impressed with the necessity of carrying out stringent laws for the prevention of the possibility of every such alleged infringement of the laws of sanitary science and of common sense; and it is to be hoped that ere long every member of that House will become, without exception, even in his extra-official capacity, an individual promoter, exponent, and upholder, of such laws, and neither a breaker nor a neglecter of them, as but too many of them still appear to be.

Lismore Castle Towers.—The foundation-stone of a new tower at Lismore Castle, an Irish seat of the Duke of Devonshire, was laid by the Lord-lieutenant of Ireland, on Tuesday in week before last. The tower is to be called the "Carlisle Tower," in honour of the noble layer of the foundation-stone. It is one of a series of new or restored towers with which Lismore Castle is being adorned. The foundation of the Carlisle Tower is 15 feet beneath the surface. From the ground line to the battlements it will be over 140 feet, whilst a turret will rise 30 feet from the battlements, making its entire height 170 feet; and it will thus look down upon and dominate every other part of the castle. The first of the series of towers built within the last two years, to replace those of times gone by, was what is called "The Bloody Tower," from some old legend connected with it. This tower, which has been for centuries an ivy-covered ruin, now forms one of the most prominent features in the various approaches to the castle, more particularly that from the north. It is built in the Machicolated style, with battlements and embrasures, and is surmounted with a light turret, which springs from the tower itself, by means of a corbel. The interior contains various apartments. Another tower, which also lay for centuries in ruins, has been rebuilt. It forms the south-eastern angle of the square, and is known as "King John's Tower." Like the other, its interior has been made available for modern usages. Beyond this, on the south side, is the gate or entrance-tower, over the gateway of which is a stone tablet bearing the arms and motto of the great Earl of Cork. This has also undergone various repairs, and is brought more in unison with the rest of the castle. The eastern wing, which was of a modern style of architecture, has just been rebuilt in the castellated style, having two bay windows. The round tower, forming the entrance to this wing, has just been raised and castellated. These works have been carried out under the inspection of Mr. John Browne.

Gas.—The half-yearly meeting of the Surrey Gas Consumers' Company was held on Thursday in last week, when a dividend of eight per cent. per annum, free of income-tax, was declared, leaving a surplus in hand of 749*l.* 1s. 9d.——The result of the inquiry which has been going on in Liverpool as to the charges made by the gas company, and the accuracy of the metres, it is said, has not been creditable to the company, as many of the metres are found to register against the consumers. The superintendent of St. John's market stated, that whilst the dry metre registered 354,000 feet, the wet metre indicated 483,000.——One of the most alarming gas explosions which has taken place since the memorable one in Albany-street, Regent's-park, occurred on Thursday night in last week, at the Torriano Tavern, Torriano-terrace, Kentish-town. The landlord went round to see that all was safe, and on entering one apartment with a lighted candle, an explosion took place, which shook not merely the house, but the foundations of every house in the neighbourhood, for a considerable distance. The entire north front of the building was blown out. The door of the wholesale department, as well as the corner door and windows, were blown completely across the street, and several windows in the neighbourhood were shattered by the concussion. The walls which surrounded the parlour on either side were nearly blown down, and the unfortunate landlord, Mr. Dance, was carried across the bar and against a mahogany compartment with such violence as to split it to pieces. Mr. Dance was found lying in front of the bar, in an insensible state and dreadfully burned about the head, face, and body, but strange to say, no bones were broken. It is believed that the escape of gas originated from the upper part of the chandelier, which was upon the hydraulic principle. The house and stock are insured.

Surveyorship of Bridges.—At the Wakefield quarter sessions, Mr. Bernard Hartley, of Pontefract, was appointed to the office of surveyor of bridges, vacant by the death of his late father, Mr. Jesse Hartley. The salary is 400*l.* per annum.

Central School of Art.—We are informed that the two following names have been added to the staff of masters for the Central School of Science and Art, Marlborough House, viz.—Mr. H. Hagreen, late of the Charter House School, Goswell-road, to the class for "Architectural Drawing," in place of Professor Semper, who, in the early part of last session, accepted an engagement in Switzerland; and Mr. C. P. Slocombe, who some time since conducted the Finsbury District School, to the class for "Ornamental Design." It is to be hoped that this branch of the arts, which has so long had but a nominal existence in our head school, will acquire greater importance. Mr. O. Hudson has succeeded Mr. R. N. Wornum as lecturer on "Ornament."

The Synagogue, Great St. Helen's, Bishopsgate.—This edifice, built some years ago from the designs of Mr. John Davies, architect, has been recently decorated under his direction, at a cost of 3,000*l.* and now presents a very rich and elegant appearance. Some of the metal-work here is exceedingly well designed.

A Testimonial.—On Tuesday last a chased snuff box was presented by the workmen of the new Houses of Parliament to Mr. Samuel Chilvers, as a mark of esteem for his conduct during the years he was employed as foreman on those works.

TENDERS

For a house at Penge. Mr. Kelday, architect. Quantities by Mr. Wells:—

Taylor and Copeland	£1,435 0 0
Fisher (accepted)	1,348 0 0

For the new market-hall and shed at Warrington. Mr. James Stevens, architect. Quantities supplied by the architect:—

FOR THE IRON-WORK ALONE.

Fox, Henderson, and Co.	£2,490 0 0
Cochrane and Co.	2,436 0 0
J. Heywood	2,365 0 0
Melling and Son	2,171 12 6
J. and J. Cliff	1,999 10 0
A. Handyside	1,908 0 0
Picksley and Sims	1,875 0 0
T. Ferry and Sons	1,860 0 0
James Gibson and Co.	1,840 0 0
James Featherstone	1,749 0 0
Williamson and Roberts	1,725 0 0
Hemming and Co.	1,549 0 0
Wrightson	1,375 0 0

FOR THE WHOLE.

S. Denison	£3,750 0 0
Edward Bann	6,700 0 0
John Evans	6,600 0 0
Jos. Gibson and Co.	6,345 0 0
Walter Mabon	6,330 0 0
Clarke and Jones	6,264 0 0
Ligley and Shawcross	6,103 0 0
Brownhill and Co.	6,100 0 0
Mellor, Son, and Terras	6,069 0 0

Revised Estimates, the Council having decided not to expend more than 5,000*l.*

Clarke and Jones	£5,473 0 0
Mellor, Son, and Terras	5,173 0 0
Brownhill and Co.	5,140 0 0
Jos. Gibson and Co.	5,069 0 0
Ligley and Shawcross	5,060 0 0
Edward Bann (accepted)	5,000 0 0

For the erection of a new house, stable, coach-house, &c. for Mr. J. Gladding, at Havering-atte-Bower, near Romford, Essex. Mr. J. Saul, architect:—

Wilson	£1,640 0 0
E. Curtis	1,142 0 0
Hill	1,134 0 0
Marter	1,100 0 0
Hammond (accepted)	1,093 0 0

TO CORRESPONDENTS.

"Margate Pier" we shall by-and-by to see the paper in question, but do not think it desirable to enter into the dispute between the contractor and the directors *ex parte*).—"R. J. S."—"Mr. G."—"W. P."—"H. R."—"J. Y."—"J. T."—"J. B."—"R. R. B."—"T. J. F."—"An Improver."—"B. and C."—"W. R."—"H. C."—"C. H."—"J. R."—"W. M. F."—"R. S."—"J. S."—"An Old Architect."—"X. Y. Z." (Designs for such quays were made by John Martin, and others, long ago)—"J. B." Lincolnshire (thanks).—"W. W."—"Messrs. F."—"W. R."—"H. M."—"D. E. F. G."—"S. J."—"J. J."—"W. P. G."—"G. H. W."—"T. R."—"J. S."—we do not know of any decision on the point. It was simply our own opinion we expressed).—"G. A. C."—"O. G. Q."—"H. W."—"Ely."—"C. R."—"W. C."—"Mr. H."—"T. P. M."—"N. E. S."—"C. B."—"T. O. W."—"W. H."—too late).—"J. T."—"G. E. S."—"An Architect."—"A Subscriber."—"W. Y."—"W. P."—"R. S. T."—"Dr. L."—"H. B. H."—"R. K." (next week).—"T. J."—"G. E. J." (in such a position, salt-water must be used. Fresh water would, nevertheless, be preferable).—"W. H." (yes: the Patent-office).

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the Editor, and not to the Publisher.

ADVERTISEMENTS.

AGENTS WANTED, for the SALE of BATH, PORTLAND, and ROMAN CEMENTS, for the Export Trade, and for any of the large Towns of the United Kingdom. The highest references will be given and required.—Address A. B. C. care of Mr. W. H. Hayden, 17, Warwick-square, Paternoster-row, London.

ARCHITECTURAL PUPIL.—WANTED, in a West-end office, a gentlemanly, well-educated YOUTH; with a natural taste for drawing. Ability and gentlemanly address more an object than a premium.—Address, A. B. C. 16, Great Marlborough-street, Regent-street.

TO PARENTS AND GUARDIANS

AN Architect and Surveyor, of the West end, of thirty years' practice, and holding appointments, has a VACANCY for an OUT-DOOR PUPIL, who would have familiar advantages and other privileges. Premium, 150 guineas.—Address, B. A. care of Messrs. Websters, Stationers, 60, Piccadilly.

TO FOREMEN AND CLERKS OF WORKS.

A LEADING BUILDER, in a provincial town, requires a MANAGING FOREMAN, with a good knowledge of materials, and conversant with all the "branches." He must be able to set out and direct practically every description of work; be ready and accurate in taking out quantities, prepared "measuring up," and of perfectly sober and industrious habits. No one who is not possessed of these qualifications need apply.—Applications, with particulars, stating age, where previously engaged, salary required, &c. to be addressed W. W. Office of "The Builder."

ENGINEERING PUPIL.— A Railway Engineer has a VACANCY for a PUPIL.—For particulars, address, ENGINEER, Box 133, Post-office, Bristol.

TO ENGINEERS, IRONFOUNDERS, &c

MECHANICAL DRAUGHTSMAN.—WANTED, by a Young Man, a SITUATION; can make working drawings, take out quantities for iron-work, &c.; has had some experience in mining, three years in last situation. Reference given.—Address, ALPHA, care of J. Saunders, Druggist, New Radford, near Nottingham.

THE COMMISSIONERS of SEWERS of the CITY of LONDON, acting as the Burial Board for the said City, will meet in the Guildhall, on TUESDAY, the 23rd of OCTOBER inst. at TWELVE o'clock, to ELECT a SUPERINTENDENT and a PORTER or GATEKEEPER to the City of London Cemetery, at Little Ilford. The candidates must be not less than 30 or more than 45 years of age, and must be free of the City. They will be required to reside in their respective houses provided for them at the cemetery, and to give up all their time to the duties of their respective offices. The Superintendent must understand accounts, and be capable of writing a good hand; of good address; and duly acquainted with burying matters. He will be recommendation. Salary 150l. a year, and a house to live in, rent and taxes free. He must find approved security for 100l. The Gatekeeper will be required to act as Clerk in the services of the Chapel, and to attend to interments, and he must write a good hand. His wages will be 21s. a week; and a house to live in, rent and taxes free. Candidates must send in their testimonials, with certificates of age, to the Clerk of the Board, as undermentioned, immediately.

JOSEPH DAW, Clerk.

Sewers Office, Guildhall, October 9, 1855.

TO PARENTS and GUARDIANS.—A VACANCY is open for a Youth having acquired the rudiments of drawing, as a PUPIL in the office of an Artistic Decorator. A small premium required.—Address letters to A. Z. care of Mr. Weekin, Stationer, Parrin-buildings, Strand.

EMPLOYMENT

WANTED, by a Gentleman, an ENGAGEMENT as Counting House, or Wharf Clerk, for a permanency. Is past up books in arrear, as copyist (writing a quick, clear hand); or can supply that he serving can be made useful to those requiring assistance. Has a general knowledge of, and being well experienced in business. Salary moderate.—Address, U. X. Office of "The Builder."

TO BUILDERS' FOREMEN.

WANTED, a practical BUILDER'S FOREMAN, thoroughly acquainted with all the several branches of the business.—Address, stating age, particulars, and wages, and where last engaged, to Mr ROBERT SMITH, Builder, Dereham, Norfolk.

N.B. None need apply but those whose character will bear the strictest investigation.

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TO STONE AND MARBLE MASONS.

WANTED, a WORKING FOREMAN, capable of taking orders, and superintending a few men; must understand the keeping accounts of materials used, and the work executed. Address, stating age, wages, particulars, where last employed, &c. in own handwriting, R. V. Mr. Holmes, Post-office, 133, Tottenham-court-road.

P.S. A married middle aged man would be preferred.

WANTED, in the Country, a Person who understands PAINTING and PAPERHANGING. Wages, 21s. None but experienced hands need apply.—Address to W. GIBBONS, Builder, Buntingford, Herts.

WANTED, by the Advertiser, a RE-ENGAGEMENT as OUT DOOR or GENERAL FOREMAN. Good references and testimonials from previous engagement as to competency and stability.—Address, H. W. Office of "The Builder."

TO STONE AND REDWARE POTTERS, BRICK AND TILE MAKERS, AND OTHERS.

WANTED, by a Practical Man, a SITUATION to SUPERINTEND or take the work to make, burn, and deliver from the kiln; understands the whole or the business, and who can give security, also if required, to purchase and close kiln; is a good accountant, and has no objection to go to any part.—Apply by letter to A. B 43, Mount-street, Westminster-road.

TO PLUMBERS, BUILDERS, &c.

WANTED, by a respectable Man a SITUATION as PLUMBER, GLAZIER, and PAINTER.—Address, J. G. Bloomsbury-chambers, George-street, St. Giles's, London.

TO MAHOGANY AND TIMBER MERCHANTS

WANTED, by a Young Man, who has been nine years in the business, a SITUATION as CLERK or SALESMAN, either in town or country. Would have no objection to travel.—Letters addressed T Z care of Mr. Hall, Stationer, 78, Old Broad-street, City.

TO BUILDERS, PLUMBERS, &c.

WANTED, a SITUATION as THREE-BRANCH HAND. A good reference can be given. Apply 34, Henry street, St. John's-wood.

TO BUILDERS AND OTHERS.

WANTED, by a Young Man, two years from the country, EMPLOYMENT as a PAINTER and GLAZIER, and to make himself useful. Used to a house Town or country.—Address (prepaid), to A. B. C., Witham-street, Manchester-square.

TO BUILDERS.

WANTED, by a Young Man who is about to leave his present Situation, a RE-ENGAGEMENT in a BUILDER'S OFFICE. He has a thorough knowledge of accounts, and the general routine of a Builder's Office. Unexceptionable references can be given.—Address, A. B. C. Post office, Little Sussex place, Hyde-park-gardens.

WANTED, by a thoroughly experienced Bricklayer, EMPLOYMENT in Town. An excellent reference can be given if required.—A letter, addressed to A. W. 41, Queen's road, Bayswater, will receive immediate attention.

TO PAPER HANGERS, DECORATORS, AND OTHERS.

WANTED, by a respectable Man, who thoroughly understands Paper-hanging and Distempering in all its Branches, and competent to fill up his time at Painting if required, a constant SITUATION in the above line. Wages not so much the object as permanent employment. Unexceptionable references for character and workmanship. No objection to the country. Address, A. B No 4, Rosomon street, Clerkenwell.

TO BUILDERS AND CONTRACTORS.

WANTED, a SITUATION, by a young Man, who thoroughly understands taking out quantities, measuring and estimating works, and who is a good accountant. Good references will be given.—Address, D. A. Post-office, Amwell-street.

WANTED to PLACE a YOUTH in an ARCHITECT and SURVEYOR'S OFFICE in London, of good standing and practice. He writes a good hand, and has a taste for drawing and the arts.—Address, Y.Z. Stevens's Newspaper Office, 49, Tottenham-court-road.

TO ARCHITECTS AND OTHERS.

WANTED, by a Gentleman, aged 26, an ENGAGEMENT with an architect or others, as DRAUGHTSMAN and GENERAL ASSISTANT. The advertiser has had about 3 years' experience, is familiar with office practice, speaks French and Italian, and knows the continent well. Salary not so much an object as an engagement in an office transacting large business. Abroad preferred.—Address, X. Y. Z. 9, Coleshill-street, Eaton-square, London.

TO ARCHITECTS AND BUILDERS

WANTED, a SITUATION, for EVENING EMPLOYMENT, by an experienced CLERK, who will furnish correctly and well written quantities, specifications, or accounts, on very reasonable terms, or, if required, keep the books.—Address, A. B. Office of "The Builder."

TO BUILDERS AND CONTRACTORS.

WANTED, a SITUATION, by a practical and experienced Man, as GENERAL or SHOP FOREMAN, who has a knowledge of house work in machinery in all its branches. No objection to town or country. Satisfactory references can be given.—Address, X. Y. Mr. Jones, 88, Goswell-road, opposite New River, Islington.

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WANTED, an ENGAGEMENT, by the Advertiser (aged 18 years). Has been accustomed to prepare drawings, written out specifications, estimating measuring, and taking work, and the routine of the above offices. First-class references given. Apply by letter, U. S. Mr. Parker's, 12, Moor street, Soho.

TO BUILDERS, &c.

WANTED, by a Young Man, aged 22, EMPLOYMENT as PLUMBER, GLAZIER, and PAINTER.—Address, H. B. 14, Robert-street, Bedford-row, Holborn.

TO ARCHITECTS, BUILDERS, &c

WANTED, a SITUATION, for three or more days in the week, in an Architect or Builder's Office.—Address, for terms, &c. G. C 12, Old Dorset terrace, Clapham-road.

WANTED, by a respectable young Man of business habits, a SITUATION in a Builder's Office. Has a knowledge of builders' accounts and of bills of quantities. As improvement is the object, a very moderate salary only would be required. Unexceptionable references can be given.—Address, ALPHA, care of Mr. Hatch, 31, Hunting-terrace, Farnsbury-park.

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WANTED, by a good GRAINER, accustomed to London work, a permanent SITUATION. Is willing to fill up time with painting.—Address, A. B. 9, Crawford-street, Baker-street.

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THE Advertiser, whose articles with an Engineering Surveyor, have just expired, is desirous of a SITUATION in the Office of a Civil Engineer. Salary no object in comparison of improvement. Satisfactory reference can be given. Town preferred.—Address, C. E. F. 2, Inverness-terrace, Bishop's road, Bayswater.

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THE Advertiser, aged 30, a thorough competent and practical person, is desirous of an ENGAGEMENT, in town or country. Has a general knowledge of drawing plans, writing specifications, taking out quantities, measuring, estimating, &c &c.—Address, W. H. 21, Lee-terrace, Mildam, Portsmouth.

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THE Advertiser is desirous of an ENGAGEMENT in town, in either of the above offices. Good references can be given.—Address, O. Y. Literary Institution, Camberwell grove.

THE Advertiser, aged 23, being about to leave his present employer, is desirous of a RE-ENGAGEMENT. He has been accustomed to get out working and detail drawings and prospectuses, can take out quantities, and has a good knowledge of land surveying. Excellent references and testimonials can be given. Salary moderate.—Address, A. B. Messrs. Halifax and Co. Stationers, 315, Oxford-street.

CLERKSHIP WANTED.—To Manufacturing Firms, Engineers, and Others.—A well-educated and intelligent Young Man, of high respectability and good connexions, is desirous of obtaining a RE-ENGAGEMENT as Clerk, Collector, or Traveller. Aged 31; married. Is an excellent accountant, writes a fine and rapid hand, and is perfectly competent to take the management of a manufacturer's or engineer's counting house, having been accustomed to the same for the last fourteen years. References of the first class. This will be found a desirable opportunity for any one requiring the services of a trustworthy and confidential man.—The advertiser preferring permanent employment in a good firm to embarking his own capital in business.—Address, Z A care of Mr. Boswell, No. 15, Mincing lane, City.

A YOUNG MAN, who has served his articles with an Architect and Surveyor, a quick accountant, and possessing a knowledge of the building business generally, is open to an ENGAGEMENT, on moderate terms, with a firm of respectability.—Address, A. C. 7, Nottingham-street, Marylebone.

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TO ARCHITECTS, &c.

AN experienced Practical Man is desirous of an ENGAGEMENT. He is a first-rate draughtsman, designer, and perspectivist, and is thoroughly conversant with office work in general. Designs made for builders upon moderate terms.—Address, J. P. office of "The Builder."

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A YOUNG MAN, aged 26, wishes to meet with a permanency, in town or country, as PLUMBER or THREE-BRANCH HAND.—Apply, J. H. Office of "The Builder."

A MECHANICAL DRAUGHTSMAN wants a SITUATION. One who has been used to make fair and working drawings of engines and machinery in general, and who has a knowledge of railway work. About 22 years of age, and has no objection to go abroad.—Address, P. T. G. 3, London-street, Paddington.

AN active Man, aged 30, is in WANT of a SITUATION as OUTDOOR FOREMAN to a Builder, having filled an engagement in the same capacity for the last four years, from whence he can be well recommended. Address, A. L. 4, Sussex Villas, Richmond-hill.

A THOROUGH PRACTICAL CLERK of WORKS is desirous of an ENGAGEMENT; well acquainted with Gothic detail, and can prepare working and detail drawings. Terms, two-and-a-half guineas per week.—Address, VESTA, 64, Theobald's-road, London.

TO ARCHITECTS AND SURVEYORS.

A GENTLEMAN, of first-rate abilities, both as a Draughtsman and Surveyor, being a thoroughly practical man, and having references to many gentlemen in the profession, desires a SITUATION, either as general assistant, or to take the management of an office. Age 28.—Address, ARCH, City News-room, Cheapside.

TO CARPENTERS AND BUILDERS

A YOUNG MAN, aged 21, is desirous of meeting with EMPLOYMENT where he could improve himself. Bench preferred.—Address, J. A. B Office of "The Builder."

TO ARCHITECTS AND BUILDERS

A CLERK of WORKS, a thorough Practical Man, having just completed some very extensive buildings, is open for an ENGAGEMENT. Is well acquainted with drawings and setting out works.—Address, post-paid, to C. D. Office of "The Builder."

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A CLERK of WORKS, who has just completed an engagement in the country, would be happy to meet with a RE-ENGAGEMENT, to carry out works of any magnitude. The be best testimonials as to references given.—Address, Y Z Mr Born, Stationer, 19, Crawley street, Oakley square, Camden town.

ORNAMENTAL CHIMNEY-POTS.—More than 100 Patterns of the above-mentioned Articles are manufactured in Artificial Stone by J. SEELEY, at Austin and Seeley's Artificial Stone Works, 1 to 4, Keppel row, New-road.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is at 60 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter, and price per yard.									
¾	1	1¼	1½	1¾	2	2½	2¾	3	3 in.
9d.	11d.	1s 1d.	1s 3d.	1s 5d.	1s 7d.	1s 9d.	2s	2s 3d.	2s 6d. 2s 9d.

Super-extra stout quality.

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2s.	2s 3d.	2s 6d	2s 9d.	3s. per yard.

No. 2. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

1	1¼	1½	2	2½ inches.
9d.	1s.	1s 3d.	1s.	1s 6d. per yard.

The hose is warranted at an extra charge of 3d. per yard. Union Joints, Branch Pipes, and Jets are also supplied.

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SCAGLIOLA done on an IMPROVED PRINCIPLE.—I refer to the Gothic Arch by D Dolon in the Great Exhibition of 1851, which gained the only Prize Medal awarded for the manufacture of the above work. Specimens to be seen at 12, Drury lane, two doors from Holborn, superior to any yet offered to the public, with a choice Collection of Ornaments for building purposes, Trusses for Shop-fronts, &c &c.

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This Paint possesses in an eminent degree the following advantages over all other known Pigments:—
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MESSRS. C. GRABHAM AND CO. 4, BARGE-YARD, BUCKLERSBURY, LONDON.

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The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint dealers in Original Packages, each cask stamped—HUBBUCK LONDON—PATENT. And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

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PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Leadstreet, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster &c.

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6, South Wharf Paddington.

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BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone CHARLES RICHARDSON, 8 South Wharf, Paddington.

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Gibbs, Canning, and Co's Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the first quality.

SECONDS, PAVIORS, STOCKS, and other BRICKS.

CHARLES RICHARDSON 8, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-street, London, March 2, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders, deliveries, canals, or railway stations, should be given a few days before required.

TATHAM & CO.—**No. 14,** SOUTH WHARF, PADDINGTON,
BRICK, LIME, CEMENT MERCHANTS,
SOUTHAM BLUE LIAS LIME DEPOT

Bath Portland, Lias, and Roman Cements, Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewage Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in London direct from the Works in Warwickshire, to any part of the river or canal

SOUTHAM BLUE LIAS LIME DEPOT,
No. 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged for a constant supply of the above very superior BLUE LIAS LIME, which for the last two years has been extensively used at most of the large works constructed during that period or now in hand, and any orders they are favoured with will command their best attention

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PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs ROBINS and Co. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bridgwater and Taunton Canal, two miles north of Bridgewater, and adjoining the Parrett, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is so fine as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obnoxious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large consumers and exporters.

Dated 1st March-street, Bridgewater, July 26th, 1854.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well known and Stuccoes dry quickly, and can be painted upon within a few days Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS Millbank-street, Westminster, who prepare one quality only of Portland Cement.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade Portland Cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth

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PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days FRANCIS BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, Ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Portzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. MILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied for shipment on advantageous terms

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
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TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.
IN EVERY VARIETY.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, M.I.E., and CO. beg to inform the public and the trade generally, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable. Orders received at Great Scotland yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bridgwater and Taunton Canal, two miles north of Bridgewater, and adjoining the Parrett, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is so fine as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obnoxious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large consumers and exporters.

Dated 1st March-street, Bridgewater, July 26th, 1854.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best Grey Stone Lime in any quantities from the above wharfs, or per barge direct from the kilns, Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester. March 31, 1855.

JOHNS and CO.'S PATENT PERMANENT SILICO WASH prices NON ABSORBENT in quantity of PARIS WHITE and sheet upon it, and will not VEGETATE or RUB OFF Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers Office, 4, Gerrard-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES either old or new, whether of thatch, slate, or tile), and other structures. Sole agent J. B. LAWES, 89 King William street, City, London. Having been appointed, the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvelsoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d

THE KINSON CLAY-WORKS POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole Dorset. Manufactures of every description of Sanitary Glazed Sewage-pipes, Closet pans, Furnace-blocks, Fire-bricks, Gas-retorts, Cornices, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally, with any quantities of the above description of Articles of good fire prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal to all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, upon favourable terms

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.

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GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—E. B. RAINES and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

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BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings of good and sound quality, constantly on sale at H. DODD'S Brick-fields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, before taking delivery.

Malm Place, half washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects, a very large proportion of the stock being suitable for external facing

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brick-fields, near the Rosemary Branch, Hoxton.

N.B Light-coloured Pit Sand of a good quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviers, &c. &c. on low terms—to any part of the Thames, the various canals, the River Lea, &c.—or rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building and hard walk stables, cottages, &c. by going which or either of the above may be saved. Also lime, chalk, chalk rubble, gravel, loam for foundries, &c. &c. Whiting of the best quality for both white and stone bricks, fire goods, &c. can be obtained at Messrs. MEESON'S wharf Kobs at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex. Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

THE BEST HERTFORDSHIRE MALM STOCKS;
THE BEST WHITE SUFFOLK and RED FACINGS:
DEEPRED RUBBING BRICKS
Also COWLEY and KLNGSTOCKS, in any quantity.
J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY
(Within a short distance of the fire bridges).
THE BEST MALM-CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity
Also, STOCKS, of FIRST QUALITY.
J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE, of the FINEST QUALITY.
MILLS and PRICE, 6, ADELAIDE-PLACE, London bridge.

TO BRICKMAKERS and TIMBERMERCHANTS.—WANTED to EXCHANGE, Two or Three Lots of LEASEHOLD HOUSES for TIMBER or BRICKS. For further particulars apply to Mr. CARTER, 18, Gloucester-place, Park-road, Old Kent-road

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Staffordshire Fire Goods, &c. of all descriptions, and of best quality—WOOLD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

NO BUILDERS, CONTRACTORS, and OTHERS—TO BE DISPOSED OF, at very low prices, a quantity of very hard BUILDING BRICKS, TILES, and PAVING WARE; also, 3, 4, 6, 9, and 18 inch red Socket Drain Pipes, in 2 feet lengths.—Apply to St. JOHN HEWITT, Redhill Works, Southampton.

TO CAPITALISTS, POTTERS, CHINA, BRICK, AND TILE MAKERS, AND LANDOWNERS NEAR RAILWAY STATIONS.

MESSRS. LANDS'S great economising PATENT KILN. Capitalists, and persons engaged in the above trades, owners of land near railway stations containing any description of pottery clays, brick or other valuable earth, are hereby invited to look at MESSRS. LANDS'S great economising PATENT KILN; from its construction it enables persons to burn and do one on any suitable spot where they may please, so to economise the heat, that all that great waste and extra expense looked upon as a matter of course in the old system, is completely avoided, causing the heat to dry and burn, and deliver any description of articles of the finest class, AT ANY SEASON in time of burning and finishing, with perfection and economy. Any one requiring to work the works all the year round, beyond the consumption of about seven tons of coal, to burn off 20,000 goods in each kiln. Any person desiring of availing himself of this opportunity for a short license or otherwise, may apply, if by letter, pre paid, to Mr. JOHNSON HANDS, Brick and Tile Works, Egham, Surrey, where the kiln is to be seen, by appointment only.

BRICK and DRAIN-TILE WORKS to be SOLD or LET, with immediate possession. The stock of bricks may be taken at a valuation. Ten miles from London, adjoining a railway, with a railway siding up to the brick clamps. A liberal business is done, and Lon on manure may be carried on extensively. D. B. at Brook's, Newsagent, Raquet-court, Fleet-street, London.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices. THE BUSINESS to be DISPOSED OF, with the valuable connection, and a portion of the PREMISES to carry on the same. TO BE LET, at almost a nominal rent.—For particulars inquire of the premises, Hinduras Wharf, Bankside, Southwark, London.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Brèche, dove, black and gold, Sienna, St Ann's, statuary, serpentine, verd antique, &c. Portland, Harehill, Park Spring, and other stone, in blocks and landings, and hearthstones. Yorkshire paving, granite kerbs, &c. All goods carefully packed and forwarded to any part of England.—THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any other.

Mr. B. The well-known qualities of Mr. Fabbricotti's marble are illustrated throughout all Italy, England, and America.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the vicinity of Masse Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake contracts for any quantity of Statuary, Sienna, Veined, Slabs, &c. Works, and other Marbles, in blocks of all dimensions, delivered on board at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt. Orders for Paving Slabs, Garden Seats, Statues, Vases, Tazzas, Consoles, &c., executed and delivered at reasonable rates.—For further particulars apply at the offices of the Company, 18, Cannon-street, City.

WILLIAM W. BONNIN, London Secretary.

THE LONDON and PENZANCE SERPENTINE COMPANY beg most respectfully to announce that their SHOWROOM, at No. 18, Wharf, Meadow-street North, City-road, for the sale of CHIMNEY PIECES, and other articles, of an Architectural and ornamental character, is now open to the trade generally, to inspect the same. A large assortment of the articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

C. AGENEY, Secretary.

Oct 2, 1855.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 29, Piccadilly-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

TO STONE MASONS AND BUILDERS

LEO. S. TOVELL, Stone Merchant, Three Cranes Wharf, Ipswich, embraces this opportunity of asking his friends for the liberal patronage he has received, begs to inform them, and the trade in general, that he is now enabled to supply them with every description of stone of the best quality, at the lowest remunerative prices. Also hearthstones, paving, and quarries glazed and unglazed, socket drain-pipes, chimney-pots of every size and shape, and pan and plain tiles, of the best Yorkshire make. Also, wanted to purchase an OVERALD TRAVELLING CRANE, capable of lifting from 35 to 2 Price and particulars to the above address.

BENJAMIN GILL, 7 Wharf, New Basin, Leeds, Yorkshire, STONE MERCHANT in all its branches. Stone dressed, &c. executed to any design. Stone forwarded to any part or port, any place or port in the kingdom. Prices, &c. sup- on application at the above address. Charges moderate.

WILLIAM S. LAWRENCE, PENNANT STONE MERCHANT, Stapleton. Office—10, Merchants'-street, Bristol. All descriptions of Steps, Landings, Troughs, Sinks, Curb, Ashlar, Paving, &c. &c. on Sale at St. ne Quarries, late at Stapleton, and at Cobham, on Banks of River Avon, Bristol.

BATH STONE DEPOT, BOX STATION.

ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Ground Stone, Scallett Block, Ashlar, Rangework, &c. &c. supplied direct from the Quarries; also every description of Stone for Building purposes, both plain and ornamental, prepared by hand, and forwarded to any part of the kingdom. Stone in elegant variety always on view; Urns, Fountains, Chimney pieces, Tombs, &c. &c.

BANGOR WHARF, King's-road-bridge, Camden-town. STRINGFIELD and COOPER, late W. Collins, beg to call the attention of Builders and others to their stock of Bangor slates, lathe, plaster, Roman, Portland, and Parker's cement, blue lias, Dorking, and chalk lime, plastering hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, 9-inch traps, and traps, Welsh bricks, gravel and shells for garden paths, ballast, sand, &c. Materials landed, wharfed, and stacked.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,
MILLBANK-STREET, WESTMINSTER

Marble of all kinds and of best quality, in block and slab, Portable mortars, &c.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE PLACE.

SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen or Aubigny pits. Contracts taken for any quantities. Depôts—Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 240, High street, Southwark, near the Tabernacle.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Lord, Beechum, and Co.), Caen wharf, Rotherhithe Low-wall, General Stone Merchants and Quarriers, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND and PORK-HILL STONE.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, King's-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slabs on hand suitable for shelves.

FLINT and CORNISH STONE MILLS, MILLWALL, ISLE of DOGS, opposite Greenwich Hospital. Messrs. WILCOX and CO. beg to call the attention of pottery, cornmill, asphalte, and other manufacturers, to their GRINDING MACHINERY, by which they can produce ground flint and Cornish stone, of a greater degree of fineness than is obtainable by any other process.—Orders for the home market, and for exportation, promptly attended to.

GRANITE.—King William and Nelson Monuments Plinths and Steps of the Royal Exchange, and Terraces at the Crystal Palace. Supplied by the Haytor Company under Royal Charter.—For terms apply to Mr. C. HOAR, Haytor Granite Office, 4, Millbank-row, Westminster.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents—TRIBELLIS and TAYLOR, 3, Pinner's court, Old Broad-street, Manager—JAS. J. TRATHAN, Liskeard.

This Granite is selected for the New Westminster-bridge.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons, that they can supply, to any extent, all kinds of YORK STONE, including Paving, Bramley Fall, Park Spring, &c. of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.

GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

MARKET-WHARF, REGENT'S-PARK-BASIN, WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Lime, Cement, Plaster, Slabs, &c. Works Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. COALS and WOOD without the attention of Builders, Masons, and others, to their Stock as above, are exceptionally well charged at the lowest prices. Head-stones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tonfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truck-loads of five tons. Paving, Landings, 2 to 4 ozs. Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

IRONSTONE (WELSH), of superior quality, for SALE. Principals only will be treated with for a regular monthly or weekly supply by railway or ship. Address X Y Z. (from care of Mr. Hammond, 27, Lombard-street, City.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, new Lunatic Asylums, the ordnance Office, the Model Prison, Pentonville, and other Government arcas; Making Floors in Bedfordbury and Heal, public, Breweries, the Race Stand at Brighton, Portsmouth, Hare Park, and kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Bruby's, Belvidere-road, where terms may be obtained.

SLATING, 21s. per Square, with best Small Countess.—HENRY MARYON, 54, Small street, Jubilee street, Mile-end.

LLANGOLLEN FLAG and SLATE COMPANY. The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-stone Company and the Llantysilio Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney-pieces, Baths, Filters, Larders, Mangers, Badging, and every other application of the beautiful material, all of superior quality. The Llangoll n Slate, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, mill-houses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices.—Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE P. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEY-PIECES, of all patterns and superior workmanship, in great variety, at prices from 21s. to 5 guineas. Slate Cisterns made to any size.—J. HOWELL, Manufacturer, 5, Cook's-grounds, Kingsland-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work. PIMLICO SLATE WORKS, 30 and 31, Upper Belgrave-place, Pimlico.

BANGOR SLATES, of all sorts and sizes; SLABS of all dimensions, and of superior quality.—For prices and particulars, apply to J. EASTWOOD and SONS, Surrey Canal-bridge, Old Kent-road.—Export orders supplied promptly.

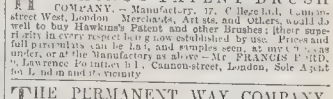
PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents and Railway Engineers and Contractors, supplied with fitch at the rate of a crown per Arches.

CROGGON and COMPANY, Manufacturers of PATENT ASPHALTE ROOFING, BOILER, RAILWAY, SHEATHING and INODOROUS FELT For Damp Walls, and Lining Iron Houses, 9, DOWGATE-HILL, LONDON.

PAPER-HANGINGS.—The CHEAPEST House in London for every description of PAPER-HANGINGS is CROSSS'S WHOLESALE WAREHOUSE, 21, GREAT PORTLAND-STREET, Oxford-street, where pattern sent free to the LARGEST and MOST EXPENSIVE Assortment in the kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.



HAWKINS'S PATENT BRUSH COMPANY.—Manufactory, 17, College-hill, Cannon-street West, London. Merchants, Artists, and Others, would do well to buy Hawkins's Patent and other Brushes; their superfine Hair in every respect being now established by use. Prices and full particulars can be had, and samples seen, at most reasonable rates, or at the Manufactory as above.—Mr. FRANCIS FORD, 10, Lawrence-lane, Cheapside, 1, Cannon-street, London, Sole Agent for London and its vicinity.

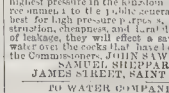
THE PERMANENT WAY COMPANY, 24, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and grant licenses for their use. From the facilities thus afforded to companies to negotiate for a manner of inventions, much to utile and of chance of litigation is avoided. The Company are for ready arrangements for bringing new inventions on the subject before the public upon the most advantageous terms to the proprietors of patents. Applications may be made to CHARLES MAY, F.R.S. the Manager; or to

WILLIAM HOWDEN, Secretary.

TO CAPITALISTS.—FOR SALE, a SHARE of a very valuable RECENTLY PATENTED INVENTION connected with the Fine Arts, which will ensure an extensive manufacturing business to be carried on so as to realise a handsome profit without risk. The favourable opportunity may possess persons wishing to embark in a light genteel business to any amount, but a moderate amount is wanted. None but principals treated with.—For particulars apply to J. R. 26, Oxford-street.

TO WATER COMPANIES AND PLUMBERS.

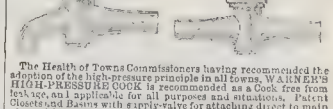
BURDEN'S PATENT HIGH-PRESSURE COCKS. These cocks are remarkably simple in their construction, very durable, cheap, not liable to get out of order, and have been most successfully used for a period of three years, under a continuous head pressure varying from 240 to 360 feet. The following is one of the latest testimonials received:—"Stirling, 4th September, 1855. At a meeting of the Water Commissioners it was unanimously resolved to recommend Burden's Water Cock for general use. It has been on trial here for nearly the course of a year during that period it has successfully resisted the high pressure of water in Stirling, amounting to from 200 to 400 feet, about the highest pressure in the kingdom. The Commissioners consequently intend to fit up publicly generally the above cocks, as the very best for high pressure purposes, from the simplicity of its construction, cheapness, and durability. Owing to the entire absence of leakage, they will effect a saving of from 15 to 20 per cent. of water over the cocks that have been hitherto in use. By order of the Commissioners, JOHN SAWERS, Provost Chairman."



SAMUEL SHEPPARD, & Co. Manufacturers,
JAMES STREET, SAINT PAUL'S, BIRMINGHAM.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.



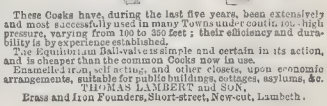
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as the most free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 3.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11, 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast iron, copper and brass, for hot or cold liquors &c. &c. Long barrel and hydraulic lift pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

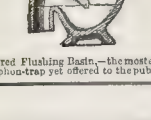
STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Grace ins. to.

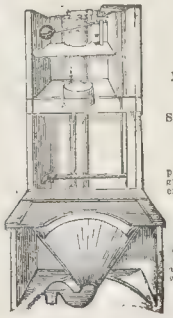
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

Gentlemen,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HODGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

Gentlemen,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

JAMES STIFF,

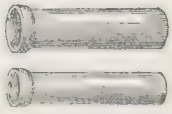
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES.

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

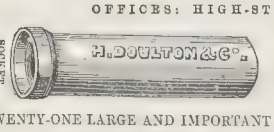
HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey, Panyer's Wharf, foot of Butler-causeway, Chelsea, Pratt Wharf, Kings-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryd ges-street, Covent Garden; and at EDWARD COCK'S 84, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

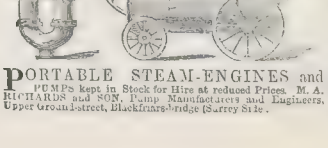
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

STEAM-ENGINES.—TWO PORTABLE STEAM-ENGINES TO BE LET or SOLD, also for Sale, several small Stationary Engines, and Two Drilling Machines.—Apply to D. W. ASH, 187, South-wark-bridge-road, Newington-causeway.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw more water with one-third the labour as any other pump. One of these pumps at work at No. 71, Strand.

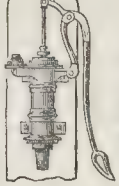
To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description; locomotive engines for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

TO CONTRACTORS.

PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for a period, of 8-horse, 10-horse, 12-horse, 18-horse, 30-horse, and 4 horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL and CO. Ludgeers, 92, Blackfriars road, Sole Patentees and only Manufacturers.—N.B. Any of these Engines may be purchased.

VAST IMPROVEMENT in PUMPS.—PARSEY'S REVOLVING PUMP, all metal, without valves, leather, or packing. Liability of choking and disarrangement removed; and equally superior for hot or cold liquors. Contractors, brewers, distillers, shipowners, water and gas companies, agriculturists, &c. are hereby to see them in action at MR. PARSEY'S Depôt, Great Scotland yard, where orders are received and executed.



TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP, which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than Pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 23 feet, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin street, London,
Manufacturers and Patentees.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

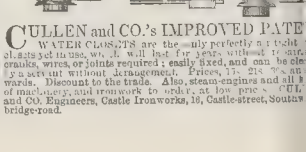
DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—

SIR RAYMOND JARVIS, Bart., VENTNOR, ISLE of WIGHT.
—Second Testimonial.—March 13th, 1852.—In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately applied it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N.B. From this Testimonial it will be seen that the Chairman of the GUTTA PERCHA COMPANY, RESIDE WATER of the ISLE of WIGHT has no effective Gutta Percha Tubing.

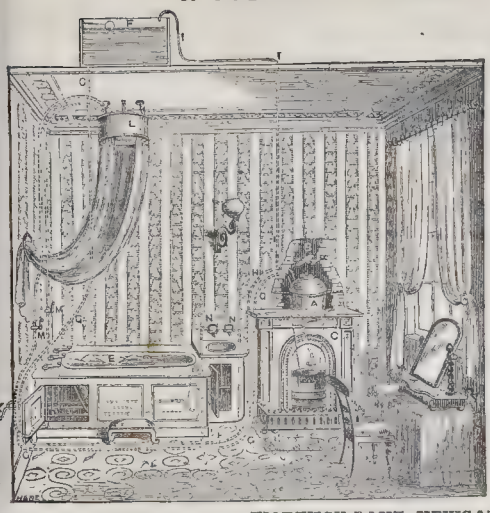
THE GUTTA PERCHA COMPANY, PATENTEES,
18, WHARF-ROAD, CITY ROAD, LONDON.

CHAS. MACINTOSH and CO. Patentees of the VULCANIZED INDIA-RUBBER, and GENERAL MANUFACTURERS of WATERPROOF, AIRPROOF, ELASTIC RUBBER GOODS beg to inform all persons who desire to correspond with them direct, that their SOLE ESTABLISHMENTS are No. 3, Cannon-street West, London, and Cambridge-street, Manchester. This notice is necessary, as the term Macintosh Depôt, Macintosh Warehouse, &c. is frequently adopted both in London and the country by vendors of India-rubber goods, who deal in articles not of the manufacture of CHAS. MACINTOSH and CO.—Goods manufactured by CHAS. MACINTOSH and CO. are stamped with the name of the firm.



CULLEN and CO.'s IMPROVED PATENT WATER CLOSETS are the most perfectly practical closets yet in use, which will last for years without repair, cranks, wires, or joints required; easily fixed, and can be cleaned by a servant without derangement. Prices, 7l. 2l. 7s. and 8l. 8s. Discount to the trade. Also, steam-engines and all kinds of machinery, and ironwork to order, at low prices. CULLEN and CO. Engineers, Castle Ironworks, 16, Castle-street, Southwark-bridge-road.

J. TYLOR AND SON'S BATH APPARATUS.



To fix a Bath, the apparatus for heating which can be fixed in the same room, and the luxury of an Open Fire retained.

A. Copper Boiler of sufficient capacity to make a warm bath, clasped by an iron band to support it, and fixed in the breast-work of a chimney. A flue is carried all round, and the draught is regulated by a revolving damper, *B*, which covers the opening into chimney. When set, the Boiler is entirely concealed from view.

This Boiler can be adapted for any chimney, by making it of an oval or elongated form.

A soot-door is fixed just underneath the damper for the convenience of cleaning, which, however, is rarely required, on account of the great draught round the boiler preventing any deposit of soot.

C. An ordinary stove front with sliding blower for the additional regulation of the draft.

E. Copper or tinned iron Bath, enamelled white marble inside, having three copper pipes, for the hot, cold, and waste water, which are indicated by the engraved levers on the cocks. The overflow is carried into waste-pipe *K*.

F. Cistern for cold water, say 100 gallons, which can be made of tinned iron, or any suitable material, either fitted into a recess or made of a cylindrical shape to stand on the floor of any room above the bath. The overflow can be carried into the waste or other convenient outlet.

G. Inch pipe from cistern to the pipe which goes to the bottom of boiler to fill it with water. A branch from this pipe also supplies the bath with cold water.

H. Inch pipe from the top pipe of boiler, to deliver the hot water into bath.

I. Half-inch pipe taken from the hot pipe *H*, and turned over the top of cistern to relieve the boiler.

K. Inch or 1½-inch pipe to take away waste water from bath into soil-pipe or drain, as may be most convenient, and must be well trapped before entering.

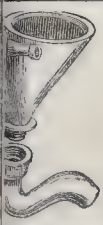
L. Round copper or tinned iron Shower Bath, suspended from ceiling, and filled with hot or cold water by branches from the pipes *G* and *H*, the supply being regulated by the two cocks *M M*, which are let in the wall, and have levers fixed on them, engraved, "hot and cold shower."

A thermometer can be fixed in the shower-bath to regulate the temperature.

N N. Wash-hand basin supplied with hot and cold water, by branches from the pipes *G* and *H*, the waste being carried into the overflow of bath.

By this simple arrangement, the boiler is always kept full of water, and cannot, by any means, be emptied by the action of the fire. The draught is so regulated by the blower and damper, that a bath can be made in twenty minutes, or an open fire kept continually alight.

WARWICK-LANE, NEWGATE-STREET, LONDON.

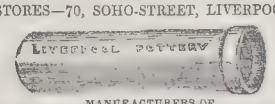


REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.



MANUFACTURERS OF
DOULTON'S STONE-WARE PIPES. DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS. DOULTON'S PATENT JUNCTION BLOCKS.
TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 3s. 6d. each.

Whole Socket.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 2 FEET LENGTHS
Bends, Elbows, Urinals, Gulley Traps, Flap Traps, Syphon-Traps, &c. always kept in Stock.

Half Socket.

Watercloset Pan with Syphon-Trap connected, price 3s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain pipes, at greatly reduced prices. (1179)

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

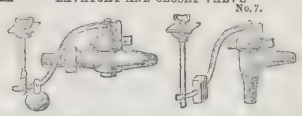
W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.
SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

SUPERIOR STONEWARE GLAZED
PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction.—The price being also lower than many in the trade, viz. 15 per cent. discount off the list for sale. Junction Bends, &c. Pans and Traps of the first quality. Yorkshire Paving, Sinks, Slabs, &c., all at low cash prices. E. and W. STURGE, Bridge Wharf, City-road.
N.B. A small extra charge is made upon goods required to be delivered.—October 1, 1855.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

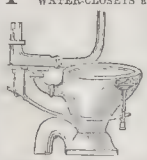
DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 90, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING
LAVATORY AND CLOSET VALVE
No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet; they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured only by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Silk-street, New Park, Lambeth.
NB No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 14s. 6d each.

PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured on an improved principle, discharging with extra energy, and less trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, and by numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post.
PRICE for Closet and Apparatus COMPLETE FROM 25s. and performance guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 2, Old Fish-street, near St. Paul's, London
CROWN GLASS, 14 TABLES, 12s. PER CRATE.

COLLIER'S TERRO-METALLIC and
RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and TRAPS, &c., this ware, allowed by all to be of the most durable quality, is a superior article of pottery, combium best, cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

SALES BY AUCTION.

DESIRABLE INVESTMENT.

MR. PENNINGTON has been instructed by the Directors of the Cork, Blackrock, and Passage Railway Company to SELL by AUCTION, at his SALES-ROOM, 81, Patrick-street, Cork, on WEDNESDAY, the [illegible] day of OCTOBER, [illegible] ONE o'clock [illegible], the valuable LEASEHOLD PREMISES, known as the VICTORIA BATHS and HOTEL, the handsome marine residence [illegible] Philip [illegible] Connell, esq. and the PLOT of BUILDING GROUND ADJOINING, containing a frontage of about 750 feet, all held under lease for a term of ninety years and six months, from the 29th August, 1840, at the yearly rent of [illegible]. This extensive property, on which a sum of over 5,000*l.* has been expended, is within a few minutes' walk of the railway terminus at Passage, and about an equal distance from the fashionable watering-place of Monkstown, from which steamers ply every half hour to and from Queenstown. It is beautifully situated on the River Lee, and possesses the important advantage of a quay, and the strand to low water mark [illegible]. The baths have been fitted up in the best style, [illegible] gentlemen's and ladies' plunge baths. [illegible] gentlemen's plunge bath is [illegible] feet [illegible] by [illegible] in breadth. There are also twelve hot, six shower, and two vapour [illegible], with dressing-rooms attached to each. The hotel contains [illegible], three sitting-rooms, and six bed-rooms, with servants' apartments, &c. These concerns are at present let to Mr. Archibald M'Dougal, at a rent of 60*l.* per annum, which is considerably under their value, but his tenancy is determinable on the 1st day of May in each year. The house and premises in occupation of Mr. O'Connell are held by him, part under a lease for eighty-six years from the 1st day of May, 1843, at the yearly rent of 42*l.*; and part under proposal as yearly tenant, at 1s. per annum. The latter premises he is bound to surrender on getting three months' notice. The building ground is within about [illegible] yards of the Hydropathic Establishment of Dr Curtin. It commands a perfect view of the river, and is admirably situated for a terrace or for marine villas. A free ticket for three years will be given on the Cork, Blackrock, and Passage Railway, to the head of the family occupying every newly built house of the annual value of 2[illegible]*l.* and upwards.—For abstract of title and rental, with conditions of sale and map of premises, apply to DAVID HAY, Solicitor, 3[illegible], South mall; to HENRY B. O[illegible], Secretary, Cork and Passage Railway Company; or to PETER PENNINGTON, the Auctioneer, 81, Patrick street, Cork.

800,000 STOCK BRICKS. TO CONTRACTORS, BUILDERS, AND OTHERS.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the BRICKFIELDS, Goose-green, Peckham Rye, during the present month, in lots, about seven capital STOCK BRICKS. More detailed particulars, and day of Sale, will be announced in future advertisements.—Auction and Estate Agency Offices, 79, King William-street, City, Oct. [illegible], 1855.

SAW MILL AND PATENT DESICCATING WORKS FOR SALE.—TO BE SOLD BY AUCTION, at the TURF HOTEL, Collingwood street, Newcastle-upon-Tyne, on THURSDAY, the 25th of OCTOBER, at FIVE for SIX o'clock precisely, by

MR. BROUGH, the LEASE of the extensive SAW-MILLS, with the valuable PLANT and MACHINERY, now in the occupation of Messrs. Grey, situated in Newgate-street, Newcastle-upon-Tyne, consisting of a 16 horse engine, with extra large boiler, and now worked up to 22 horses; one large balk frame, capable of cutting timber 3 feet square; a double deal frame, planing machine, two circular saws, with self-acting frames; veneer wheel, 1[illegible] feet in diameter; patent desiccating chamber, 40 feet long, 15 feet broad, 14 feet high, with commodious sheds for seasoned stuff, large and powerful crane, in the yard, offices, and every other accommodation for carrying on an extensive business. The machinery is by M'Dowall and Sons, of Glasgow. The business has been established since 1850, and there is a large connection to the mills. The stock may be taken at valuation. Also, all that freehold PUBLIC-HOUSE, known by the sign of Sir William Wallace, situated in Stowell-street, now in the occupation of George Luke, containing, on the ground floor, spirit-bar, parlour, and kitchen. First-floor—club room and three bed-rooms.—Further particulars may be obtained of Messrs. T. and W. C[illegible], Solicitors, 1[illegible], [illegible] street; Mr. George Armstrong, Solicitor, Dean street; or of the Auctioneer, Blackett-street.

PADDINGTON.—Surplus Stock of a Railway Contractor and Builder.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, opposite the Ben Jonson Tavern, Westbourne-green, Harrow-road, Paddington, on TUESDAY, the 23rd of OCTOBER, at [illegible], by order of the Executors of the late Thomas Nesham, esq. a quantity of useful MATERIALS, comprising sound timber, in log and quarterings, scaffold poles and boards, wheeling and other planks, [illegible], brick barrows, single and double purchase crabs, [illegible], cart and other stone, and a variety of other effects, removed from the Great Western Railway. May be viewed two days previous, and catalogues had, at the Place of Sale; and of the Auctioneers, 40, Parliament-street, or Coal-Exchange.

GOVERNMENT STORES, WESTMINSTER.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, at the STORE YARD, Great Smith street, Westminster, on TUESDAY, OCTOBER 16th, 1855, at ELEVEN for TWELVE, by order of the [illegible] Her Majesty's Public Works and Buildings, a large quantity of STORES, comprising mahogany, wainscot, [illegible], desks, tables, [illegible] and shelves, [illegible], fibre and other matting, leather and cloth cuttings, drugget, rope-mats, rugs, brooms, chairs, stools, [illegible], and various other effects. May be viewed [illegible], and catalogues had at the Office of Public Works and Buildings, 12, Whitehall-place; at the Store Yard; and of the Auctioneers, 40, Parliament-street, Westminster, or Coal Exchange.

HOLBORN-HILL.—Building Materials, Modern Fixtures, Bar Fittings and Utensils in Trade of a Public House.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on MONDAY, OCTOBER 22, at TWELVE, the BUILDING MATERIALS, Bar-Fittings, and Utensils in Trade of a Public-house, situate No. [illegible], Holborn-hill, comprising sound brickwork, [illegible], floors and roofs, plain and pantiles, [illegible], shop front, lead flat, gutters, cisterns, and pipes, [illegible] beer engine, metal top counter, taps and pipes, [illegible] casks, useful china, glass and pewter, [illegible], stoves, range, and all the house and trade fixtures. May be viewed on the morning of sale. Catalogues had of PULLEN and SON, [illegible], Fore-street, Cripplegate.

FARRINGDON STREET EXTENSION.—Building Materials of Thirty Houses.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on THURSDAY, OCTOBER 25th, and following day, at TWELVE, in lots, by order of the Improvement Committee of the Corporation of the City of London, the valuable BUILDING MATERIALS of about thirty houses, shops, [illegible], in [illegible]-street, [illegible]-street, New-street, and [illegible]-street, Clerkenwell, comprising [illegible] and fir timber in roofs and floors, sashes, doors, partitions, flooring boards, shop fronts, large quantity of [illegible] and plain tiles, York and pebble paving, lead gutters and pipes, [illegible], copper, and useful fixtures and fittings, &c.—May be viewed two days previous. Catalogues had at the Architect's Office, Guildhall; and of PULLEN and SON, [illegible], Fore-street, Cripplegate.

DOWGATE-HILL, CITY.—Building Materials of several Houses.

PULLEN and SON are favoured with instructions from the Worshipful Company of Dyers, to SELL by AUCTION, on the PREMISES, on THURSDAY, NOVEMBER 1, at TWELVE, all the valuable BUILDING MATERIALS of six houses, situate at Dowgate-hill and [illegible]-street, adjoining Dyers'-hall, comprising good sound [illegible] brickwork, plain and pan tiles, oak and fir timber, in roofs and floors, several tons of lead, in gutters and pipes, [illegible], doors and interior flooring boards, shop-fronts, paving, coping, and sills, and useful fittings-up. May be viewed two days previous. Catalogues had at the Clerk's Office, Dyers'-hall, and of PULLEN and SON, 80, Fore-street, Cripplegate.

SALES BY AUCTION.

TO BUILDERS, TIMBER DEALERS, and OTHERS.—TO BE SOLD by AUCTION, by

THORNELOE and SON, at the GEORGE INN, FAZELEY, near Tamworth, on WEDNESDAY, OCTOBER 17th, 1855, at SIX o'clock, all that very valuable PROPERTY lately belonging to Mr. Francis Yeomans deceased (and occupied by him), including a new and commodious dwelling-house and outoffices, joiners' shopping, warehouses, timber sheds, garden, &c. situate in Atherstone-street, Fazeley. The goodwill of the trade will be sold with the property, and as immediate possession can be given, the above offers an opportunity rarely offered for a builder to succeed at once to a very good and lucrative business. The household furniture, &c. will be sold on the 18th and 19th of October, and the stock in trade on the 22nd and 23rd of October, 1855. Further particulars can be obtained from Mrs. APPLEBY, at the House; or from Mr. ALFRED WATERS, Bonehill, Fazeley.

TO BUILDERS, MASONS, &c.—Two Hundred MARBLE CHIMNEY-PIECES, executed in great variety of designs, and manufactured in a superior manner, WILL BE SOLD by AUCTION by Mr. W. A. OAKLEY on the following days: WEDNESDAY, 17th OCTOBER; WEDNESDAY, 31st OCTOBER. Sale to commence precisely at THREE o'clock, and on view the day of sale only. The last Day's Sale will consist of the larger class Chimney-pieces, suitable for Mansions, Public Buildings, and Club-houses.—Westminster Marble Company, Earl-street, Holywell-street, Millbank.

UNDER BANKRUPTCY, &c.—TO BUILDERS AND OTHERS.

MR. LEREW will SELL by AUCTION, at No. 12, UNION STREET, Somers-town, on MONDAY, OCTOBER 1[illegible]th, at TWELVE, by order of the assignee, about [illegible] scaffold-poles, 1[illegible] boards and six dozen cords, 5[illegible] putlogs, 120 planks, deals, and battens, [illegible] feet of quartering, 250 ledger boards, pine boards, 2[illegible] [illegible], ladders, screen, trestles, &c. removed from Hampstead and Islington for convenience of sale. Catalogues had of A. D[illegible], Esq. Solicitor, 1, [illegible]-place, Finsbury; of W. Whitmore, Esq. Official Assignee, 2, Basinghall-street, City; and at the Auction Offices, Carlington street, Hampstead-road, near the Euston Station.

NURSERY STOCK.

MESSRS. PROTHEROE and MORRIS will SELL by AUCTION on MONDAY, OCTOBER 22nd, and following day, at the NURSERY, Albion-road, Stoke Newington, NURSERY STOCK of all kinds, ornamental trees, fine evergreens, choice fruit trees, &c. for planting new gardens, &c. Catalogues had by post.

ON LONG BUILDING LEASE.—TO BE LET, an eligible PLOT of GROUND, at a very low ground-rent. Apply to Mr. WALTER LARINGTON, No. 7, Tanner's-hill, Deptford.

FREEHOLD LAND.—To BUILDERS or Parties wishing to build Suburban Residences.—FREEHOLD LAND TO BE SOLD, on some of the most eligible building estates in the neighbourhood of London, viz.:—

FOREST-HILL, Croydon Railway.
ST. MARGARET'S, near Richmond, South Western Railway.
OATLANDS GRANGE, Weybridge, Surrey, ditto.
HOUNSLOW, Middlesex, ditto.
TOTTENHAM GREEN, Eastern Counties Railway.
PUTNEY, South Western Railway.
RECTORY ESTATE, EALING, Great Western Railway.
THE WADDINGTON ESTATE, [illegible] FIELD, Eastern Counties Railway.
WOOD-GREEN, Green-lanes, Hornsea, Great Northern Railway.
OLD FORD, Stratford, Eastern Counties Railway.

Part of the purchase-money may remain at 5 per cent. interest. Parties assisted in the building of their own residences. Several Plots to be Let on Building Lease. Money advanced to respectable parties.—Apply to Mr. GEORGE MORGAN, 5, Chancery-lane.

HAVERSTOCK-HILL.—To BUILDERS. TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some commanding FRONTAGES for Shops and Private Houses. All the sewers are in on the estate, roads all formed, and now making. Term ninety-nine years. Low ground-rents. Bricks supplied at a low price and liberal cash advances.—Apply to Mr. JOHN MOREL, [illegible], C[illegible] street, Euston-square.

TONBRIDGE WELLS, near the Railway Goods Station.—TO BE SOLD, by private contract, the LEASE for an unexpired term of forty-seven years, from Christmas next, of all those excellent, substantial, and extensive BUSINESS PREMISES, now in the occupation of Mr. Thomas Carter Cloutt, builder, &c. Also [illegible] for house and [illegible] premises, [illegible] yards from the railway station [illegible]. The yard, which is spacious, is [illegible] sheds and [illegible] walls, and [illegible] strong [illegible] doors. [illegible] shop is [illegible], with every requisite [illegible] feet by [illegible] feet, with an excellent stowage [illegible] of [illegible], and quite free from damp. The [illegible] compact and [illegible] built [illegible] feet by [illegible] feet, the same [illegible] within the last [illegible] years. Adjoining is a most eligible, unique, and well-built VILLA RESIDENCE, delightfully situated, with a walled-in garden, containing two sitting-rooms, [illegible] bed-rooms, kitchen, scullery, an excellent cellar, closets, and every required office attached, with a plentiful supply of excellent water, and built within these two years past. Parties in request of premises as builder, or any other branch requiring room and stabling in the business department, and comfort and convenience in a home, may meet with a most desirable investment in the above.—For further particulars, apply to Mr. BEAUMONT, Auctioneer, Osborne Lodge, Tonbridge-wells; or of Mr. THOMAS CARTER CLOUTT, on the Premises.

FREEHOLD RESIDENCE TO BE SOLD, situate at Lee, Kent, near the Blackheath Railway Station. The house contains every accommodation for a family of moderate size, and [illegible] dining, drawing, and morning room, with conservatory [illegible]. There are also coach houses and stables, kitchen and pleasure gardens, and paddock. The site presents an excellent frontage on the high road, and a portion [illegible] well adapted to building purposes.—For particulars and terms apply to HAMMACK and LAMBERT, 59, Bishopgate-street, City.

FREEHOLD BUILDING LAND, with excellent BRICK-EARTH, Islington.—TO BE SOLD or LET, in large or small Lots, about TWENTY-TWO ACRES of LAND, between the Upper Holloway and Hornsey Roads, within two miles and a half from the Angel, in a most eligible situation for building, and particularly for small villa residences, for which there is a great demand.—Apply to Mr. PEACHEY, 17, Salisbury-square, Fleet-street.

TO BRICKMAKERS AND BUILDERS.

TO BE LET by TENDER at a Royalty and Surface Rent, about EIGHT ACRES of capital BRICK EARTH, fronting the Uxbridge-road, at Shepherd's-bush, Hammersmith, and within a short distance of a station on the West London Railway.—For particulars apply to Mr. STEPHEN GANCM, Jun. Architect and Surveyor, Lorrain House, King street, Hammersmith, where a plan of the estate may be seen.

FREEHOLD BUILDING LAND TO BE LET, on Building Lease for ninety-nine years, at 1s. 6d. per foot frontage, 80 feet deep, for small fourth-rate houses, in large or small plots, and on very advantageous terms, close to Forest-gate Station, and not far from the Stratford Station, Essex, on the Eastern Counties Railway, four miles from the City. Leases granted at once. No law charges or surveyor's fees. Advances if desired, after the progress of buildings. Apply to Mr. PARSONS, 7, Union-court, Old Broad-street, City.

TO BUILDERS.

FREEHOLD BUILDING LAND TO BE LET or SOLD, at HARROW, UPPER HOLLOWAY, and TULSE-HILL. Liberal advances made.—For plans and particulars, apply to Mr. CHARLES LAWS, Architect, 12, Doughty-street, Mecklenburgh-square.

OLD FORD, near Victoria-park.—FREEHOLD BUILDING LAND with ADVANCES.—TO BE LET, several eligible sites for fourth-rate houses in this rapidly improving neighbourhood, where houses are much required, and let and sell rapidly. To respectable men, liberal advances will be made as the buildings proceed.—For plans and further particulars, apply to Mr. GEORGE CLARKSON, Surveyor, 18, Penton-street, Pentonville.

WHARF and WAREHOUSES in the CITY, TO BE LET, on Lease, VULCAN WHARF, Puddle Dock, Earl-street, next the City Corn Mills; with dwelling-house, counting-house, offices, and very extensive warehouses and sheds. Water-frontage, 65 feet to the Thames, and 130 feet to Puddle Dock; depth, 220 feet. Rent, 500*l.* per annum, clear of taxes, insurance, and repairs. If alterations or additional warehouses are desired for any particular trade, the freeholders will be [illegible] to pay for them, and increase the rent 10 per cent. on the outlay.—May be viewed from Eight a.m. to Six p.m. Proposals to be sent in writing to Mr. HUTCHINS, at W. Murray's, esq. 11, London-street, City.

PALACE-ROW, NEW-ROAD.—TO BE LET, on Lease, the extensive YARD, BUILDINGS, and PREMISES, Nos. [illegible], and 11A, Palace-row, near Tottenham-court-road. Part of the whole premises, including the two shops and house in front, 140*l.* a year. Rent of the yard only 80*l.* a year. May be viewed.—For further particulars, apply to Mr. BOYES, Auctioneer, 4, Abchurch-lane, Lombard street.

CITY of LONDON and COUNTIES FREEHOLD LAND SOCIETY.
Offices, 79, Farringdon-street.
Shares, 30*l.* each. Entrance Fee, 1s. per share. Monthly subscription, [illegible] per share.

TRUSTEES.

Sir J. Duke, bart. Ald. and M.P.	A. A. Croll, esq. ex-Sheriff.
D. W. Wild, esq. Ald. and ex-Sheriff	T. Cotterell, esq. ex-Sheriff.

ON and AFTER MONDAY, the 22nd instant, the PRICES of the few remaining LOTS of the SUTTON, HARROW, WALTHAMSTOW, and BEXLEY ESTATES will be increased [illegible] per cent. above the prices marked on the plans. Persons desirous of choosing forthwith, can do so either by purchasing rights to choose, which may be obtained at the Office, or by paying a deposit of 10 per cent. on the purchase-money, and the balance, with interest, within twelve months.

JAMES HIGHAM, Secretary.

HOUNSLOW (adjoining the Station).—PUBLIC-HOUSE or TAVERN PLOT.—To BREWERS, BUILDERS, and parties requiring a large and conveniently placed Plot of Ground.—TO BE LET or SOLD, upon reasonable terms. The Plot adjoins the Station at Hounslow. Is specially appropriated for the erection of a tavern or public-house, by the Conservative Land Society. There is but one [illegible] in the immediate vicinity. Road frontage, [illegible] feet, extending [illegible] out 100; 300 feet deep. Accommodation in the purchase if required. Conveyance free.—Apply, by post, to Mr. MORTIMER, 17, Clifford's-inn, London.

TO BUILDERS and OTHERS.—Extraordinary advantages are offered on the BELMONT ESTATE, Lee, Kent, which is within ten minutes' walk of the Blackheath Station, and opposite Lee Church, on any part of which Plots for Houses will be LET at very reasonable rates. Stock Bricks can be supplied and delivered on to any part of the estate [illegible] the thousand, or [illegible] per rod. For further particulars apply at the Office in Church lane, Lee, or of Messrs. J. and C. W. TODD, at their Office, Milner street, Brompton, London.

N.B. No money required until leases are taken up.

TO CABINET-MAKERS, the BOTTLING TRADE, and OTHERS.—A strong FOUR FLOORED WAREHOUSE TO LET, by the floor or together, in the heart of London.—Apply to S. ROBERTS and CO. [illegible].

CLERKENWELL, near the New Street.—ELIGIBLE PREMISES TO BE LET, [illegible] feet by [illegible] feet. Moderate rental and can be had on Lease.—Apply on the Premises, Cherry Tree, Bowling-green-lane, Clerkenwell.

TO CARPENTERS AND OTHERS.

TO BE SOLD, several good CARCASES, the completion of a terrace near the Regent's park; work or materials taken as part payment and 2[illegible]*l.* advanced to finish if required.—Address letters, W. H. care of Mr. Hooker, 4, Old Church street, Paddington.

TO BE SOLD, to pay 10 per Cent. close by Stratford Railway Station and Workshops, a CORNER-SHOP and TWO COTTAGES: lowest price, 400 guineas. Term [illegible] years. Ground-rent [illegible]. Law charges, fourteen guineas. Apply to Mr. WILLIAM ELLISON, Architect, 10, Stainsby road, Limehouse.

TO BUILDERS.—TO BE SOLD, a BUSINESS as above, near the East End of London, together with the stock, implements, &c. Also, the unexpired Lease of twenty years [illegible] Houses, producing a rental of [illegible]*l.* per annum. Premium required [illegible]. None but principals treated with.—Direct to G. A. R. Office of "The Builder."

BUILDING MATERIALS.

BECK'S WHARF, ISLEWORTH.—Builders having works to execute south-west of London, will find a good supply upon this wharf, on reasonable terms, with every convenience for readily delivering by travelling [illegible], either [illegible] large [illegible]. Portland, Caen, Bath, and Yorkshire Block Stone, always in stock; Landings, Paving, &c. Also, Marble in Slab, Chimney-pieces, &c. Slab and Roofing Slates, from the Penrhyn Quarries, Lime, Bricks, Tiles, Cements, Clay Goods, &c.—N.B. This wharf is very near the St. Margaret's [illegible].

LAND DRAINAGE.—MR. THOMAS SCOTT, Land Agent and Valuer, 5, Charing-cross, London, is prepared to undertake the PLANNING and EXECUTION of LAND DRAINAGE, in large or small quantities, by contract or on commission. He has at work around London several well-organized "gangs," under competent foremen and pipe-layers. Mr. SCOTT's present engagements [illegible] extensive drainage works on Crown lands, which he will be happy to show to gentlemen desirous of seeing them. Communications addressed to him as above will be immediately attended to.—September [illegible], 1855.

PATENT SOLID SWISS PARQUETERIE.—This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is introduced into this country. An extensive assortment of specimens and patterns, as well as a [illegible] per foot super, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

LONDON: Printed by CHARLES WYMAN, of 14, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing Office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, October 13, 1855.

The Builder.

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METROPOLITAN BUILDINGS ACT.
Office of Metropolitan Buildings,
6, Adelphi-terrace Strand, Oct 2, 1855.

NOTICE.—An Examination of Persons desirous of obtaining a Certificate of Qualification for the office of DISTRICT SURVEYOR, will take place on MONDAY the 29th day of OCTOBER instant, at ONE o'clock p.m. Persons desirous to be examined, must apply on or before the 27th of OCTOBER instant, and the application must be accompanied by a preliminary statement according to the course of examination prescribed in the rules for that purpose, copies of which may be had at this Office. Signed ARTHUR SYMOND,
Registrar of Metropolitan Buildings.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL MALL, LONDON.

Art Superintendent—RICHARD REDGRAVE, Esq. R.A.
Head-Master—R. BURCHETT, Esq.

The Course of Instruction pursued in the School have for their object the systematic training of teachers, male and female in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufacture and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects:—Free-hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, Objects of Still-life, &c., the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Drawing and Painting on Wood, and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees 1l per session, or part of the session. For Evening Classes only, 2l per session.

The Class for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of 1l per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session.—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall mall, London.

THE ARCHITECTURAL MUSEUM, Cannon-row, Westminster.—Autumn Session, 1855.—On MONDAY, OCTOBER 29th, a Lecture will be delivered at the Museum, on ARCHITECTURAL METAL-WORK, by F. A. SKIDMORE, Esq. Hour of admission, 7 o'clock. The chair to be taken at 8 o'clock. Cards for the Course of Lectures may be had at the Museum, and at the Office of "The Builder." The Museum is now open on the Evenings of MONDAY and WEDNESDAY, between the hours of SEVEN and NINE.—Admission to art workmen free. HENRY CLUTTON, Hon. Sec.
October 18th, 1855

ARCHITECTURAL EXHIBITION.—PACKAGES from the FRENCH EXHIBITION, whether of Drawings or Specimens for the Department of Materials, Patents, &c. may be sent direct to the Galleries, Suffolk street, Pall-mall East—notice to the Honorary Secretaries being first of all given. All other contributions on the 3rd and 4th DECEMBER next. Every information may be obtained of

JAMES FERGUSSON, F.R.A.S. 20, Langham-place.
JAMES EDMESTON, Jun. 5, Crown-court, Old Broad street, } Honorary Secretaries.

EVENING LECTURES at KING'S COLLEGE, LONDON.—On and after MONDAY, OCTOBER 29th, KING'S COLLEGE will BE OPEN on Five Evenings in the Week for Classes in the Hebrew Scriptures, Latin, French, German, English Language and Composition, Modern History and Geography, Mathematics, Arithmetic and Book-keeping, Italian, Spanish, Figure and Model Drawing, the Elements of Chemistry, and on the Principles and Practice of Commerce.

A prospectus will be forwarded, on application to J. W. CUNNINGHAM, Esq. King's College, London; and full information may be obtained at the College from Ten to Four daily, and from Six to Eight every evening, except Saturday.
October 17, 1855. R. W. JELF, D.D. Principal.

MINING SCHOOL in CORNWALL.—A School for the instruction of pupils in the following branches, has been commenced, and is now in operation, at Truro, viz.:—

PRACTICAL MINING, including drilling, surveying, and general mining operations.

CHEMISTRY, in its various branches, more especially as it is applied to mining and metallurgy.

MATHEMATICS, as applied to engineering generally.

Instruction may be obtained in any one of the above-named branches separately.

The terms of admission are the payment of 2ol. in advance for two years, or 12l. for one year. The period of attendance from the 1st October to the end of June, with the exception of a vacation at Christmas. A public examination will be held at the end of each session, when certificates of proficiency will be conferred and an exhibition of 3ol. will be awarded to the best qualified pupil, to enable him to proceed to the Government School of Mines, in Jermyn-street, London.

Further particulars may be obtained on application to
W. H. BOND Honorary Secretary.

COMPETITIONS.

TO ARCHITECTS, &c.

THE BURIAL BOARD for the PARISH of TOTTENHAM, in the County of Middlesex, are desirous of receiving PLANS and ESTIMATES for TWO CHAPELS, to be erected in the New Burial Ground of the said Parish. It is proposed that such chapels should be connected by an archway, and either from the gate now in the ground, or from a gate to be made in a new entrance. The whole or no more than one plan of the ground, and other information, on application to Mr. W. H. CUNNINGTON, Vestry Clerk, Tottenham, to whom Drawings and Estimates must be delivered on or before FRIDAY, NOVEMBER 2nd, 1855.

WHITECHAPEL WORKHOUSE.—The Guardians of the Whitechapel Union beg to inform the Architects who applied relative to the Erection of the above Workhouse, that having originally sixty-seven applications, they with much difficulty made a selection of twenty-seven gentlemen. This number was again reduced to six, from which number they on Tuesday last appointed Mr. THOMAS BARRY.

G. A. AMS PARR, Clerk to the Guardians.
1, Princes street, Spitalfields, 12th October, 1855.

CONTRACTS.

OXFORD PAVING ACTS.—CONTRACT for PAVING.—Persons desirous of TENDERING for PROVIDING and LAYING YORK CURB and PAVING for FOOTWAYS, and GRANITE PAVING for ROADWAYS, and other Works for the Oxford Paving Commissioners, for the term of One Year, from the 1st of JANUARY, 1856, may see the specifications and obtain forms of Tender at the Surveyor's, at the Commissioners' Office, Town Hall Buildings, from NINE to FOUR, or by letter, addressed to Mr. J. GRIFFIN, the Surveyor. Sealed Tenders, to be delivered at the Commissioners' Office on or before MONDAY, NOVEMBER 5, endorsed "Tender for Paving."

By order of the Commissioners,
FREDERICK J. MORRELL, Clerk.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 23rd day of OCTOBER, instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK and PIPE SEWERS, 3,973 feet in length, or thereabouts, with other Works in connection therewith, in Brockley-lane, Ladywell, Lewisham; Perrybill, Sydenham; and other places in the county of Kent; and the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the principal office of the said Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE and FOUR o'clock, until the 22nd instant. The said Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the said works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.
No. 1, Greek-street, Soho-square.
Dated this 17th day of October, 1855.

PUMPING-ENGINE.—The Committee acting under the Hereford Improvement Act of 1854, are prepared to receive TENDERS from parties who may be willing to undertake the CONSTRUCTION and ERECTION of a PUMPING ENGINE for the Hereford Waterworks. A description of the engine required, with all the particulars, may be obtained on application to Mr. T. CUBLEY, C.E. Tenders to be sent in on or before TWO o'clock, p.m. on MONDAY, the 29th day of OCTOBER next, addressed to the Committee of the Hereford Improvement, and endorsed, "Tender for Pumping-Engine." The Committee do not pledge themselves to accept the lowest or any Tender.
By order of the Committee, T. CUBLEY, C.E.
Hereford Improvement Office, 19th September, 1855.

CONTRACTS.

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that Tenders will be received at the Ordnance Office, Pall-mall, London, on or before WEDNESDAY the 7th of NOVEMBER, 1855, from such person as may be willing to enter into a CONTRACT with the Ordnance for ERECTING a KINGSTON BATTERY and DEFENSIBLE BARRACKS near Shoreham in the County of Sussex. The plans and specification and conditions of contract may be seen and every information obtained upon application to Mr. HAWKEN, Clerk of Works, at that office, any day (Sundays excepted) until the 5th NOVEMBER next, and where forms of Tender may be obtained. N.B. The Ordnance reserve to themselves the right of rejecting all or any of the Tenders.
Portsmouth, Royal Engineer Office, October 19, 1855.

Royal Engineer's Office, Portsmouth, 5th October, 1855.

NOTICE to BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed CASEMATED BARRACKS, and for the completion of the Fort behind Fort Head, Down, near Stokes Bay, Gosport, in the parish of Alverstoke, in the county of Hants. Plans and specification may be seen at the Royal Engineer Office, Portsmouth, where forms of Tender may be obtained every day (Sundays excepted) until the 5th day of NOVEMBER, 1855. Tenders are to be delivered on or before the 7th NOVEMBER. The Ordnance reserve to themselves the right to reject the whole or any of the Tenders. No notice will be taken of any Tender unless made on the printed forms, to be obtained at the Royal Engineer Office, Portsmouth.

NOTICE to BUILDERS.—Royal Engineer's Office, Portsmouth, October 8, 1855.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed SCHOOL ROOMS and SCHOOLMASTERS QUARTERS, at H. M. Barracks and Fort Pitt, Chatham, Kent. Plans and specification may be seen at the Royal Engineer Office, Portsmouth, where forms of Tender may be obtained every day (Sundays excepted) until the 27th OCTOBER. Tenders are to be delivered on or before the 29th OCTOBER 1855. The Ordnance reserve to themselves the right to reject the whole or any of the Tenders. No notice will be taken of any Tender unless made on the printed form, to be obtained at the Royal Engineer Office, Portsmouth.

GREAT GRIMSBY WATERWORKS and DRAINAGE.—The Local Board of Health of Great Grimsby desire to receive TENDERS for the CONSTRUCTION of WORKS for supplying the town with water and for draining the town. The work required to be done consists of supplying and laying upwards of 6 miles of cast-iron pipes, making and fixing 2 pairs of engines and boilers, and wrought-iron tank; building tank tower, engine house, boiler house, and various other work, according to the drawings and specifications which may be seen at the Office of the Surveyor to the Local Board of Health, from the 24th of this month to the 30th of NOVEMBER next, inclusive. Tenders are to be sent in sealed to the Clerk to the Local Board of Health Town clerk's Office, Great Grimsby, on or before the 11th day of NOVEMBER next. The Board do not bind themselves to accept the lowest or any Tender.—By order, GEO. BABB, Clerk to the Local Board of Health.
Great Grimsby, Oct 9 to 17, 1855.

SHIPLEY WATER-WORKS.—To WROUGHT-IRON TUBE MANUFACTURERS, BRASS-FOUNDERS, PLUMBERS, and OTHERS.—The Local Board of Health for the District of Shipley are prepared to receive TENDERS for the following CONTRACTS:—

CONTRACT No. 6.—For the supply of Plain Iron Galvanized Iron, and Lead Piping, Hydrants, Cocks, Turncocks, and other Fittings for house service water supply.

CONTRACT No. 7.—For Excavating the Ground, Stopping Mains, Laying, Jointing, and Repairing Pipes, Cocks and other Fittings for house service water supply.

Specifications may be inspected, and printed forms of Tender obtained, at the Offices of Mr. J. McLANDSBOROUGH, Civil Engineer, 24, Queensgate, Bradford, from whom any further necessary information may be procured. Sealed Tenders, properly endorsed, must be sent to me on or before MONDAY, the 29th of OCTOBER next ensuing.

By order, JO. THOMPSON, Clerk to the Local Board.
Bradford, October 1st, 1855.

TO CONTRACTORS AND OTHERS.

CONTRACT.—The COMMISSIONERS of HIGHWAYS for the ISLE of WIGHT are prepared to receive TENDERS for forming and completing a NEW ROAD, from Little Park to Shanklin, on the road from Carisbrooke towards Calbourne, in the Isle of Wight, being in length about 1 mile and 220 yards, or thereabouts, and in forming the existing down of Apse Down and Shanklin Down, and for the purpose to make Embankments and Cuttings where required, to lay down Bunnies and Culverts, and to do all other necessary works, in accordance with the plan, section, and specification to be deposited for inspection at the Office of Mr. ENTWISTLE, Clerk to the said Commissioners, at Newport. All persons willing to contract with the Commissioners of Highways for effecting the above improvements, are requested to forward Tenders, addressed "To the Chairman of the Commissioners of Highways," at the Guildhall, in Newport, on THURSDAY, the 25th day of OCTOBER instant, by TWELVE o'clock. Further particulars may be known on application to the General Surveyor, Mr. J. WHITE, Sen. Esq. of Newport, Isle of Wight. The Commissioners will not bind themselves to accept the lowest Tender.

By order of the Commissioners,
CHARLES WYATT BESTCOURT,
Clerk to the said Commissioners.
Newport, Isle of Wight, Oct. 2nd, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TO CONTRACTORS. — BIRMINGHAM CANAL NAVIGATIONS.—Contractors disposed to TENDER for executing the WORKS of a proposed CANAL, about 2¼ miles in length, from near Dudley Port to the Netherton Branch Canal, (both of which belong to the Company,) passing through Rowley Hills with the necessary bridges, aqueducts, &c., may see the plans, specifications, and conditions, at the Canal Company's Office, Paradise-street, Birmingham, from THURSDAY the 1st to THURSDAY the 15th NOVEMBER, which is the latest day for receiving Tenders. Information as to the general character of the work may also be had on application to Mr. T. TELFER, BURGES, and COMPTON, 2, Great George-street, Westminster.

By order, ROBERT THOMAS, Clerk to the Company.

Birmingham, October 16, 1855.

CHATTERIS BURIAL BOARD. — To BUILDERS and OTHERS.—The Burial Board for the Parish of Chatteris, in the county of Cambridge, intend entering into a CONTRACT for BUILDING TWO MORTUARY CHAPELS, SEXTON'S LODGE, and EN TRANCE GATES, together with a WALL round the Burial Ground, and other works upon the said ground in the parish of Chatteris aforesaid, and are desirous to have the same prepared for that purpose by C. HUTCHINSON EDWARDS, Esq., of No. 2, St. James's-street, Piccadilly, London. All persons willing to enter into a contract for the above-named works are hereby invited to send their Tenders for the same, under cover, and sealed up, addressed to me, the undersigned, and endorsed "Tenders for Mortuary Chapels &c." such Tenders to be opened at my office aforesaid, on or before the 20th day of OCTOBER instant. The Board will not be bound to accept the lowest or any Tender. Dated this 3rd day of October, 1855.

JOHN LAWRENCE, Clerk to the Board.

4 St. Ives Hants 11th October 1855

CHATTERIS BURIAL BOARD.— To CONTRACTORS and THERS. The Burial Board for the Parish of Chatteris, in the county of Cambridge, intend entering into a CONTRACT for DRAINING the BURIAL GROUND, in the parish of Chatteris aforesaid, according to the design prepared for that purpose by C. HUTCHINSON EDWARDS, Esq., of No. 2, Saint James's-street, Piccadilly, London. All persons willing to enter into a contract for the above-named works are hereby invited to send their Tenders for the same, under cover, and sealed up addressed to me the undersigned, and endorsed "Tenders for Draining Burial-ground" Such Tenders to be delivered at my office aforesaid, on or before the 29th day of OCTOBER instant. The Board will not be bound to accept the lowest or any Tender Dated this 11th day of October 1855 JOHN LAWRENCE, Clerk to the Board.

St. Ives Hunts, 11th October 1855

TO BUILDERS AND CONTRACTORS.

DUDLEY UNION WORKHOUSE.— Builders and others are invited to send in TENDERS for the EXECUTION of the several Works required to be performed in the ERECTION of a WORKHOUSE, proposed to be built at Shaver's End, near Dudley, in the parish of Sedgley in the county of Stafford. The plans and specifications may be seen on application to the Architect, Mr. J. B. NICHOLS, at his Offices, at West Bromwich, on and after the 15th of OCTOBER instant. Sealed Tenders must be forwarded under cover, directed to Mr. THOMAS SHORTHOUSE, Esq., Clerk to the Guardians, Dudley, and endorsed "Tender for Workhouse," and must be received on or before the 10th day of DECEMBER next. The Tenders must be made agreeably to the Form directed with the plans and specifications, to which parties are referred for all further information relating to the proposed contract. The lowest Tender will not necessarily be accepted. N.B. Parties making out Tenders are requested to notify the same to the Architect, on or before the 24th OCTOBER inst.

TO BUILDERS

SCHOOLS to be BUILT, BOXMOOR.— The plans, elevations, sections, and specifications for the ERECTION of NEW BOYS' and GIRLS' SCHOOLS, and TEACHER'S RESIDENCE, to be built at Boxmoor End, near Boxmoor, Hemel Hempstead, Herts, may be inspected at the Office of Mr. GEORGE ALEXANDER SMITH, Architect and Surveyor, Hemel Hempstead; with whom sealed TENDERS are to be sent on or before TWELVE o'clock, on the 31st day of OCTOBER. The lowest or any other Tender will not necessarily be accepted.

GEORGE ALEXANDER SMITH, Architect, &c.
Hemel Hempstead.

Hemel Hempstead, October 16th, 1855

PARISH of ST. JOHN, at HACKNEY.— To CONTRACTORS.—The Board of Surveyors for the Repair of the Highways for the Parish of St. John at Hackney, are desirous of receiving TENDERS at the Townhall, Hackney, on or before TWELVE o'clock in the Afternoon of WEDNESDAY, the 31st day of OCTOBER, 1855, for the LETTING of a BRIDGE over the River Lea, on or near the site of the present South Bridge. Tenders must be made in accordance with the drawings and specification, which may be seen at the Townhall Hackney any day between the hours of NINE and FIVE o'clock except on the Board do not pledge themselves to accept the lowest or any other tender.

CHAS. HORTON PULLEY, Clerk to the Board.

October 17, 1855

TO BUILDERS

PERSONS desirous of TENDERING for the ERECTION of a GENTLEMAN'S RESIDENCE, with stabling, lodge, &c., at Oil Packs, in the county of Leicester, may learn the particulars thereof on applying at the Offices of Mr. T. C. HINE, of Nottingham, Old Parks is about a mile from Ashby-de-la-Zouch. Carrier's message. No Tender necessarily accepted. THOMAS C. HINE, Architect.

October 15, 1855

TO BUILDERS AND OTHERS

PARTIES desirous of TENDERING for the following WORKS, to be done on the ERECTION of a VILLA RESIDENCE, with surrounding walls, fencing, stables, coach-house, &c. &c. to be situated in Swinton-park, near Penistone, may inspect the drawings and specification, with conditions of Tender, at my office, 2 Princes-street, Leeds, up to the 30th instant, upon which date the Tenders are to be left at my office, and to be sent to the Proprietor, not later than TEN o'clock, A.M. The conditions have been drawn out, and can be had upon application.

JAMES SEVENS, Architect.

32, Pitt-street, Manchester, October 18, 1855.

RURAL DISTRICT OF TOXTETH-PARK, NEAR LIVERPOOL.—PUBLIC HEALTH ACT, 1848.

TO CIVIL ENGINEERS and SURVEYORS.—The Local Board of Health for the Rural District of Toxteth-park, do hereby give notice that they are desirous to receive PROPOSALS for a SURVEY and PLANS of the district, according to the conditions published by the Local Board of Health, and to which alone approval and to the approval of the Local Board to be surveyed and plans will have to be executed. The district to be surveyed for the present purpose comprises about 800 houses. Tenders, stating the sum which the party tendering will undertake to complete the contract, accompanied by two memorials as to general experience and practice in town surveying and levelling, sealed and endorsed "Tender for Survey and Plans," addressed to "The Chairman of the Local Board of Health," must be delivered to me at or before SATURDAY, the 27th day of OCTOBER instant. The Local Board do not bind themselves to accept the lowest or any Tender. Further particulars and general conditions may be had on application to me, at the Office of the Board, Public Office, No. 22, Park place, Toxteth-park, where specimen plans may be seen.—By order,

2 JOHN ROWAND, Clerk to the Local Board of Health.

Public Office, Toxteth-park, October 8, 1855.

CONTRACTS.

TO BUILDERS

THE SAFFRON WALDEN BURIAL BOARD are prepared to receive TENDERS for the ERECTION of a LODGE and TWO ISSA PRES, on their New Burial ground, on the road to Audley End. The plans may be seen, and Bills of the specification and quantities obtained, at my office, from the morning of MONDAY the 22nd inst. to the evening of MONDAY, the 5th day of NOVEMBER next. Sealed coders, to be indorsed "Tenders for Lodge," which may be obtained on application, delivered to me and left open on or before TUESDAY, the 6th of NOVEMBER. Any further information may be obtained from the Architects, Messrs. PRITCHET and SONS, Darlington.—By order of the Board,

SIMEON J. KING, Clerk.

Saffron Walden, Essex, October 17, 1855

SEWAGE of the CITY of COVENTRY.— The Corporation for the City being desirous of making arrangements for the SOLE EXECUTION of the SEWAGE of the city, will receive TENDERS from Engineers and others for the same on or before the 31st instant. Plans, sections, and other documents may be seen at the Office of the Surveyor, and further information obtained from him. The sewage will be concentrated and discharged at one month, in a situation convenient for a site for the necessary buildings. The population of the county is about 40,000. For further particulars apply at the Town Clerk's Office, Coventry

TO BUILDERS, CONTRACTORS AND OTHERS.

THE RUNCORN IMPROVEMENT COMMISSIONERS are prepared to receive TENDERS for the ERECTION of a MARKET-HALL, comprising the following principal sorts of work, viz.: Excavators, stonemasons, bricklayers, carpenters and joiners, plumbers, plasterers, and slaters slaters, and ironwork. Tenders for all or any may be made either separate or separate. The drawings and specifications in the meantime Surveyor's office, near the Town-hall, Runcorn. Sealed Tenders, marked "Tender for Market-Hall," addressed to "The Chairman of the Market Committee," to be forwarded to the Secretary's Office, on or before WEDNESDAY, the 28th inst. The Commissioners do not bind themselves to accept the lowest, or any Tender.—By order, EDWARD SHAW, Secretary to the said Commissioners.

Dated Public Offices, Runcorn, October 3rd, 1855.

AUSTIN'S IMPERIAL

PATENT SASH and BLIND LINE, can be obtained of all

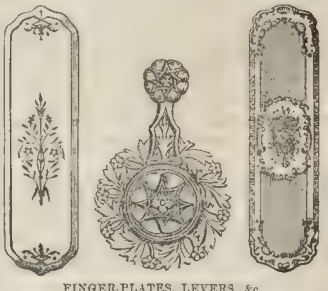
ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY,

Established 1774

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.



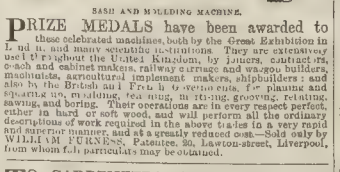
FINGER-PLATES, LEVERS, &c.

Paris Exhibition, No. 1717.

Also Specimens at the Crystal Palace, Sydenham.

Illustrated Price-catalogues on receipt of four postage stamps.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.



SASH AND MOULDING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, cabinet-makers, coach and cabinet makers, railway carriage and waggon builders, machinists, agricultural implement makers, shipbuilders: and also by the British and Foreign Governments, for planing and squaring up, moulding, tenoning, mitring, grooving, rebating, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee, 30, Lexton-street, Liverpool, from whom full particulars may be obtained.

TO CARPENTERS, BUILDERS, BOXMAKERS, and OTHERS.—FOR SALE, price 20l a New Hand power Circular SAW BENCH, on an improved principle. One man can turn it to cut 3-inch stuff.—To be seen at work at Mr. PRICE'S, Carpenter, &c. Tyers street, Lambeth-walk.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

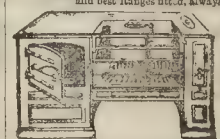
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

NEW PATENT MACHINE for MORTISING and TENONING HAND or FOOT-Wood and BORING WOOD or IRON.

House and Coach Builders, Joiners, Cabinet-makers, and others, using similar work, are invited to call at the Patentee's, DOWIE, JAMES, and Co. Wheelwrights and Cabinet Makers, Ironmongery Establishments, 26, Wattle-street, City, and see in action this very simple, powerful, and expeditious machine, which is readily one set brought out, for performing these separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the other inventions introduced. In fact either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 15a, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and Best Ranges fitted & Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler, 20 22 24 26-inch. 28s. 30s. 32s 34s.

Best self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

24 36 33 42-inch.
62s. 56s. 58s. 66s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 9½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivits, 5d per inch.

Best Oven ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe {	2	2½	3 inch.
	11d.	1s. 2d.	1s. 4d. per yard.
Cast Gutters—4 inch, 9d. per yard.			
O G Gutters {	4½ inch.		
	1s. 1d.		1s. 3d per yard.
Patent Line {	5	6	8
	4½d.	5d.	7d. 9d. 1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron.

Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 3d 4d. 7d. 8d. and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 3s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

2-feet self-acting ditto, ditto, 36s. each.

Air Bricks, 3s. per doz.

Best Town Glue, 36s. Ditto, Scotch, 60s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid

PARAGON ZINC WORKS, Paragon-place, New Kent-road, opposite Bermondsey New road.—JOHN BROWN, Zinc Worker, begs to inform the building trade and the public generally, that he now makes hips, patent ventilating and smoke curing Albert chimney caps, he having the patentee's permission for the same. Every description of zinc work executed in town and country. Terms—Cash, a liberal discount on large orders. Baths, skylights, sashes, moulded gutters, &c. made to order or drawing.

ESTABLISHED 1817

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven or boiler, complete, 22s. each.

Self acting ditto, with ditto, from 28s.

Self-acting Oven and Boiler Ranges, with wrought fittings, &c.

Register Stoves, complete, from 4s. each.

Register Stoves, from 5d. per inch.

Elliptic ditto, with double backs, from 2½d. per inch.

Cast-iron Rain-pipe {	2	2½	3 inch.	
	11d.	1s 2d	1s 4d. per yard.	
4-inch Eaves Gutters, 9d. per yard.				
O G Gutters {	3½	4	4½	5 inch.
	1s. 1d.	1s. 2d.	1s. 3d.	1s. 6d per yard.
Best Cut Clasp {	1½	2	2½	3 inch and larger.
and Rose..... {	16s. 6d.	18s. 6d.	20s.	14s. 6d.

1-inch Best Cut Lath, 16s per cwt.

1-inch Inferior Floor Brads 14s. per cwt.

Hoop Floor Brads, 13s. 6d. per cwt.

Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 3s. per doz.; strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES

a complete LIST of which will be forwarded upon application.

FREDERICK BLYTH,

Nail Manufacturer and General Factor,

Regent-parade, BIRMINGHAM;

or at 16, Gresham-street, LONDON.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

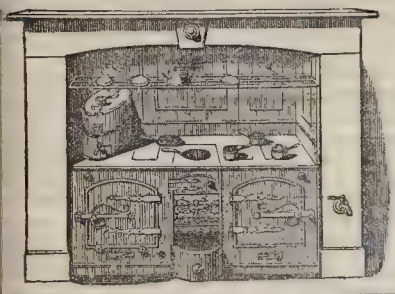
THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS.

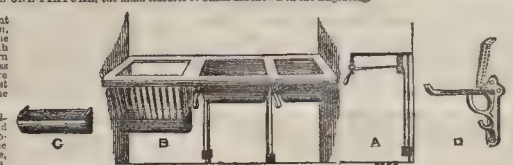
19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

are made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



A represents the Patent Water-guide and Collar-rein, the fall of which is taken up to the back of the manger-works with freedom and ease up or down the guide-bar, and is noiseless in its operation, as also a sure preventative against the most vexatious horse being cast in the stall.

B. The Patent Portable Seed-box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and longer open to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers; Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

CUNDY'S PATENT PURE WARM-AIR STOVES, the only Pedestal Stove which gained a Prize Medal (Class 27), at the Great Exhibition in 1851, especially adapted for warming, with great economy, Churches, Chapels, Schools, Entrance halls, Libraries and Ware rooms.—CUTLER and SONS, Sole Licensees and Manufacturers, 16, Great Queen-street, Long-acre, London.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, submit the attention of architects, &c. &c. to their superior APPARATUS At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 6d. This achievement in heating by hot water is unprecedented.

BUILDINGS HEATED by HOT WATER. G. B. COOPER, IRONWORKS, 121, DRURY-LANE. Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, cinders, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc, Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, as used and the new registered Venetian Ventilator, so much admired, &c. &c. &c. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

No. 1081, Class 4, Section 16, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855

A. MOREWOOD and CO. (late Morewood and Rogers),

Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham,

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets.

PLAIN or CORRUGATED, and Curved, of all Gauges.

Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

JOHN WALKER,

MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.

Works—Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.

JOHN WALKER,

GALVANIZED IRON MERCHANT, &c. The trade supplied Corrugating by steam power capable of doing 1 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.

JOHN WALKER,

IRON-FOUNDER AND ENGINEER.

Orders to any extent can be executed at his Works, Mill-wall, Poplar. Apply at the Works.

BUILDER AND CONTRACTOR.

JOHN WALKER,

Having his own Saw-mills is enable to CONTRACT for BUILDERS' WORK.

At low prices, established with good work.

Apply at his Offices, Arthur-street West, London-bridge.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).

WORKS—GLASS-HOUSE YARD, opposite the Entrance to THE TOWER, LONDON.

GALVANIZED SHEET IRON and WIRE of every description superior in all respects to that produced by any other process THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated. Roofs fixed complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Planing Zinc, and Tiles.

An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY REMOVED from BRISTOL to BOW, near London, close to the New Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, cottages, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trusses, and carriages made to any plan on the shortest notice.

PATENT IRON ROOFING and IRON BUILDING MANUFACTORY (late the Cosborough Company's premises), 14, James-street, Liverpool.—N.B. Parties are particularly requested to note the address. LIVERPOOL. FRANCIS MORTON and Co. will supply estimates, plans, &c. for Iron Roofs and Iron Buildings, manufactured or fabricated, to be erected in any part of the United Kingdom. Roofs and buildings prepared from their long experience, and the erection of such work on the most moderate terms consistent with good materials and workmanship.

N.B.—The attention of Agriculturists and Landed Proprietors is particularly invited to their Corrugated Iron Farm Buildings, Sheds, Roofs, &c.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON.

For Roofs, Flats, Cisterns, Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; and BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth, or one-fifth as thick as Sheet Lead, is consequently very much more cheap than that material, and at the reduced price costs but little more than Sheet Zinc.

No.			
No. 11 gauge weighs about	18	oz.	per foot super.
12	"	20	"
13	"	24	"
14	"	28	"

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and Co., DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders and others, requiring to finish the superior Iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

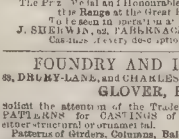
Island Foundry and Ironworks, Millwall, London.

Offices: 12, Fenchurch-street, City.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's.—JONES and BLANTON, have made great additions to their STOCK of PATTERNS, best to inform the Trade that they can now supply them with Cast Ornamental Iron Columns, Girders, Railings, Gates, Iron Cornice, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Iron Fencing, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

IMPERIAL IRON FOUNDRY, and ECONOMIC RANGE MANUFACTORY.



Three ft. wide	£6 10
Three ft. three in.	7 0
Three ft. six in.	7 15
Three ft. nine in.	9 0
Four ft.	10 10
Four ft. six in.	12 12
Five ft.	14 14

Cornice 9s per foot.

Fixing 5s per foot.

The celebrated KITCHEN RANGE, the Manufacturer has much pleasure in stating has given universal satisfaction. It may be used either with the fire open or closed, thereby avoiding the objection so many ply felt against having the fire all time shut up, which is well known to generate a close unwholesome vapour.

The Prize Medal and Honourable Mention was awarded to the Range at the Great Exhibition of 1851.

To be seen in operation at the Manufacturer's,

J. SHERWIN, 82, FARRINGDON-STREET, FINSBURY.

Catalogue of every description of Iron or Steel.

FOUNDRY AND IRON WORKS,

83, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tazzas, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapting for furnished work.

A large stock of Rain-water Pipes, Pans, and OG Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Hook-and-bolt Strong Rooms, and every description of Ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,

165, DRURY-LANE, and CHARLES-STREET.

IRON FOUNDRY,

HARROW-STREET, LANT-STREET, SOUTHWARK.

W. K. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rigsers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

TO FURNACE PROPRIETORS, BUILDERS, &c.

MR. WOODCOCK, Consulting Engineer for Furnaces, Patentee of the Smoke Consumer, and other improvements, 19, BISHOPSGATE-STREET-WITHIN, London. Mr WOODCOCK having paid great attention to the general Setting and Flue System of Steam Boilers, in regard to their economical and satisfactory working, to which proper care is seldom given, begs to submit the few following testimonials, selected from a number of others, which can be seen on application:—

Horse Shoe Brewery, London, March 29, 1855.

Dear Sir—In reply to your application, we have much pleasure in stating that your Smoke Consuming Apparatus, which we have had in use now some time, under our blowing-off coppers, fully answers our purposes, and we think there can be no doubt of the success of your invention.

Yours, obediently,
Mr. Wm. Woodcock. H. MEUX and CO.

No. 6, Norfolk-street, Sheffield, April 23, 1855.

We have applied Mr. Woodcock's Smoke Consuming Apparatus to our seven-engine furnace, and are well pleased with the result. The smoke is entirely consumed; even directly after firing no smoke can be perceived. It is in every respect perfectly satisfactory to us.

JOSEPH ROGERS and SONS.

Esteemed Friend, William Woodcock,—I willingly bear testimony to the efficacy of thy "Patent Smoke Consumer." With but little attention from the engine-driver, the smoke may be satisfactorily consumed, and I am quite satisfied as to its economy.

I remain, thine respectfully,
Pro JAMES H. KING, GEO. BENSON.

York, 7 mo. 30, 1855.

I shall be glad to give any particulars to any individual, either by letter or otherwise. We are quite satisfied yours is the best we could have applied to our furnace.

Bristol Blue Works, 55, Milk-street, Leek-lane, and Callow Hill-street, Bristol, Sept. 24, 1855.

Dear Sir,—I feel it to be due to yourself to bear my testimony in favour of your plans, in the late erection of a 20-horse power steam engine boiler, and also in the application of the principle of your smoke-consuming apparatus, on my premises in this city. The result has fully justified the correctness of your plans, and the manner of your carrying them out; and I am gratified thus to signify my approval, for the satisfaction of any other firm employing steam-power. This letter is quite at your service, and I remain, dear Sir, yours respectfully,

W. Woodcock, esq. G. BREILLAT CHICK.

You will please to proceed with the other engine, to which I wish the same principles to be applied.

Boilers set, and Furnace Engineering in all its branches on reasonable terms where desired. Annual contracts for repairs, &c. are taken.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been considered.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior axe fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No.	3	4	5	6
	4s.	5s.	6s. 3d.	7s. 6d. per gross,

At JOHN YOUNG'S, Birmingham and Wolverhampton. Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporizing) with all the improvements, under their Quadruple patents of 1846-51-54 and 1855, including their Gunpowder Proof Solid Lock and Door (without which no safe is secure).

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX 212° SAFE WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47A, Moorgate-street, City. Circulars free by post.

J. MICHIE, Engineer and Machinist, Battersea-park, Nine-elms, manufacturer of all kinds of Steam-Engines, Portable and Stationary, Sawing and Planing Machinery, Pumps, Cranes, Crabs &c.

N.B. Several high-pressure Engines for Sale.

TO LOCAL BOARDS of HEALTH, WATER COMPANIES, and OTHERS.—The Swansea Local Board of Health have FOR SALE, about 2,200 yards of 12-inch, and 150 yards of 14 and 16-inch NEW WATER PIPES, principally in 9 feet lengths, each length weighing about 7 cwt. They are good strong castings, coated inside and outside with Dr. Angus Smith's solution, and made by Messrs. Cochrane and Co Woodside Iron Works, near Dudley. The reason the Board wish to dispose of them is owing to their not being of a suitable size for their works.—Tenders to be sent in to Mr. EDWARD COUSINS, Surveyor to the Board, Guildhall, Swansea, from whom any further information respecting them may be obtained.

Swansea, Oct. 9, 1855.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE, Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and STEWART'S PATENT CAST-IRON GAS and WATER PIPES. Office, No. 7, Stea-lane, London.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

PATENT CORRUGATED IRON.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kingsland, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
2, Strand, London.
67, Hyde-park-street, Glasgow.
37, Dale-street, Manchester.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 13, Charles-street, Long-acre, London.

TO ARCHITECTS AND BUILDERS.

PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

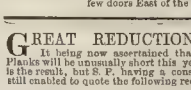
This invention is now in operation upon Steam-engine Furnaces of Cornish and Waggon Boilers, and upon Ovens. It is adapted to other descriptions of Furnaces, as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the Inventions extant for subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

The furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

THOMAS EDINGTON, PURCHASER and INSPECTOR of CASTINGS on COMMISSION, 17, GORDON-STREET, Glasgow.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS. THIS IS THE ORIGINAL PATENT



for combining the most important improvements in stable-fittings, including a method of raising all others for securing the chains and halter-weights to the back of the fittings, to prevent the horse being cast in the stall. Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of Kite's Patent Noiseless Cast-Iron Smoke-Curing Chimney Caps.—200 on Buckingham-palace.—Price Lists sent on receipt of two postage-stamps.

JAMES BARTON, Iron Founder, &c. 370, Oxford-street, a few doors East of the Pantheon.

GREAT REDUCTION of PRICES.—It being now ascertained that the importation of Pine Planks will be unusually short this year, a great advance in price is the result, but R. P. having a considerable stock on hand, is still enabled to quote the following reduced prices:—

Pine Planks, 12 ft. 3 in. by 11 in.....	from	4s. 6d. each.
Spruce Deals.....	"	2s. 9d. "
Yellow ditto.....	"	4s. 3d. "
Yellow Battens, 15 ft. 3 in. by 13. per 120.		
Honduras Mahogany, in logs	"	0s. 4½d. per ft. sup.
Ditto ditto, in boards and planks	"	0s. 6d.

Prepared Flooring, Veneers, &c. at equally low prices." A list forwarded on application.

SAMUEL PUTNEY, Borough-road, Southwark, and Elm-street, Gray's-inn-lane.

REDUCED PRICES.—EDWARD SIMMS (late William Cleave), of Wilton-road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK and DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber Deals, Oak Planks, Scantlings, Sash Sills, Mouldings prepared by Machinery, Laths, &c.—Apply at E. SIMMS'S (late W. Cleave's) Flooring Manufactory, Wilton-road, Pimlico Basin.

PADDINGTON TIMBER-YARD.—SAWING, PLANING, and MOULDINGS.—3, Irongate Wharf, Praed-street, Paddington, and 96, St. John's-wood-terrace, St. John's-wood.—GEORGE WILLIAM FRY begs to draw attention to his large stock of SEASONED and PREPARED WOOD GOODS, at the lowest current prices. Liberal advance for cash, and facilty for immediate despatch by rail or canal, which affords every advantage to country as well as town buyers. Illustrated and priced sheets of mouldings, designs and general price lists of goods forwarded post free on application. Goods free to any part of town, including the various railway and canal stations.

N.B.—Sawing and planing for the trade.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cant deals, slating battens, laths, English oak plank, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, for cash only, at C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 21, Munster-street, Regent's-park.—A large quantity of PAPER-HANGINGS, CHEAP. 20s. per cwt. given for old lead.

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

¾ inch White, 13s. 6d. per square.		¾ inch Yellow, 13s. per square.	
¾ ditto 16s.	"	¾ ditto 16s. 6d.	"
1" ditto 18s.	"	1" ditto 20s.	"

Laths, 3s. per load.

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.

ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

STAINING DEAL to IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Mouldings may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

TO BUILDERS, CARPENTERS, &c.

SAMUEL CROWHURST, JUN. begs to call the attention of Builders, Cabinet-makers, &c to his Stock of seasoned and well-assorted Timber Goods, Deals, and Mahogany in Logs, Planks, Boards, &c at prices which will be found equal if not less than any advertised. Country Builders supplied on the most liberal terms.—Timber-yard, Hanover-street, Walworth; and Francis-street, Newington, near the Church.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his Customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments fonts, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No. 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps.—Please note the address 20, BRIDGE-TERRACE, HARROW ROAD, Paddington, near the Great Western Railway Bridge.

ANGLO-ROMANO GAS COMPANY.—At the Half-yearly General Meeting, held at the London Tavern, on the 17th inst. the following resolutions were unanimously passed:—

1st. That the report of the Gérant be received and adopted.

2nd. That a dividend upon the last half-year, at the rate of 5 per cent. per annum, be paid on and after the 24th inst.

In accordance with the foregoing resolution, the shareholders are informed that Coupons No. 3 will be payable on and after WEDNESDAY next, the 24th inst.

J. SHEPHERD, Gérant.

London Agency of the Company, 1, New Broad-street, October 17, 1855.

NORWICH UNION FIRE INSURANCE SOCIETY.
(Established 1797.)
Total Amount Insured, £1,000,000.

Insurances may be effected with this Company upon more favourable terms than with other Offices.

For prospectuses apply at the Society's Offices, Surrey-street, Norwich, and 6, Crescent, New Bridge-street, Blackfriars, London.

UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION.
APPOINTMENT OF GENERAL MANAGER.

The Court of Directors have to intimate that the final arrangements of the Bank, previously to the commencement of business, are about being concluded.

The appointment of General Manager has not yet been made. The Directors are now therefore ready to receive and consider applications from gentlemen of Practical Banking and Commercial experience, capable of undertaking the responsibilities and duties appertaining to that most important position.

The aim of the Directors is to secure the services of a first-class Manager, to whom they will be willing to give handsome terms. He must be a man of great energy, sound judgment, firmness in business, and thoroughly versed in all the necessary details incidental to the successful Management of a Bank.

It is necessary that applications should contain the name and address of the writer, together with testimonials as to experience, ability, &c. and be addressed to the Court of Directors, at the principal Offices of the Bank, Unity Buildings, 10, Cannon-street, City.—By order, HENRY LAKE, secretary.

Principal Offices, Unity Buildings, 10, Cannon-street, City, October 16, 1855.

HAWKINS'S PATENT BRUSH COMPANY.—Manufactory, 17, College-hill, Cannon-street West, London. Merchants, Artists, and Others, would do well to buy Hawkins's Patent and other Brushes; their superiority in every respect being now established by use. Prices and full particulars can be had, and samples seen, at my Offices as under, or at the Manufactory as above.—Mr. FRANCIS FORD, 9, Lawrence Pountney-hill, Cannon-street, London, Sole Agent for London and its vicinity.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 119, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

WOOD-CARVING and FRET-CUTTING. T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Iron-founders, Cabinet and Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—P. H. particularly solicits the attention of Ironfounders, having had many years' experience in ornamental pattern making.—Estimates furnished.

CLARK & CO.'S

NEW PATENT IRON AND WOOD REVOLVING SHUTTERS

ARE CHEAPER, MORE SECURE, MORE DURABLE, AND HAVE A BETTER APPEARANCE THAN ANY OTHERS.

BRASS AND GLASS SASH-BARS OF EVERY PATTERN, BRASS STALL-BOARD PLATES, &c. &c.—PROSPECTUSES AND ENGRAVINGS FORWARDED.

CLARK & CO. 15, GATE-STREET, LINCOLN'S-INN-FIELDS, LONDON.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE AND FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK

Take leave to inform the Trade that they have

Opened an Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality; Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at

131, UPPER THAMES-STREET.—WORKS: SEVRES, NEAR PARIS.

ARCHITECTURAL AND ORNAMENTAL DECORATIONS.

Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

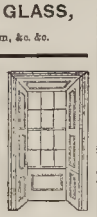
Show-rooms, 46, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

SANDS AND EMERY,

CURSITOR-STREET, CHANCERY-LANE.

MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

Lists of Prices and Estimates forwarded on application.



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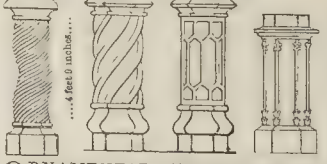

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The Builder.

Vol. XIII.—No. 663.

THE committee appointed by the vestry of St. James's, Westminster, to investigate the causes (arising out of the sanitary condition of the parish) of the dreadful outbreak of cholera in the districts of Golden-square and Berwick-street, which occurred in the autumn of last year, have published their report, together with reports from Dr. Snow and the Rev. H. Whitehead.* It is arranged under four heads—1st. History of the outbreak; 2nd. Circumstances attending the outbreak; 3rd. Hypotheses concerning it; and 4th. Recommendations of the committee to the parochial authorities. The inquiries appear to have been made in the most careful manner, and we cannot allow the report to pass by without bringing it before our readers, and pointing out something of what it teaches, for general advantage. More than a year has passed since that fearful visitation, but the scenes we witnessed in the district at the time come as freshly before us as if it had occurred but yesterday,—closed shops, anxious woe-begone faces, and death everywhere. On the 2nd of September, 127 persons died: and in the whole 700 persons were there carried off. In Broad-street, containing forty-nine houses, only twelve houses escaped without a death.

Abounding in cesspools, ill-drained, and poorly supplied with water, the liability of the district to the inroads of the epidemic was evident, and we had ourselves long before drawn attention to this probability, and given sketches illustrative of its miserable condition.

After referring briefly to the conditions affecting the metropolis generally, the committee proceed to search for some peculiar and local conditions which may help to explain why the mortality in their district was so disproportioned to that in the rest of the metropolis. To the notion that the pest-field, used in the time of the Great Plague as a cemetery, produced the attack, they rightly attach no importance. They show that streets and courts are so built as to impede ventilation: that "in calm weather the stagnation of the street atmosphere must be almost complete:" that parts of the district are densely overcrowded (in one of the smaller streets fifty-four persons were living in one house): that cesspools existed in large numbers, and that the drains and traps were of faulty construction. Of the escape of foul and noxious vapours, they have no doubt, and to the existence of cowsheds, grease-boiling houses, and slaughter-houses, they could not shut their eyes. "One large establishment," says the reporter, "drains into the short piece of sewer at the lower end of Marshall-street, near Silver-street. There is no surface drainage above, and the house-drainage must be insufficient to keep the sewer clear from obstruction. Direct evidence is on record of the accumulation, during last August, of the blood, offal, and ordure of animals in the short piece of this sewer, as far as its entrance into the Silver-street sewer, and even beyond this point. The presence of such accumulations must hold up the house drainage as far as the corner of Broad-street. There is no gully-hole along this part of the sewer, and no ventilator at the top. It forms, therefore, a closed and underground retort, 200 feet long, its inclined floor being partly choked with animal matter and refuse (the most prone of all to dangerous putridity), partly covered with the closet drainage from occupied houses, and empty only at its upper end. Its beak dips down into Silver-street, into which the products of its distillation must slowly fall."

In this way of course, during the cholera outbreak, the local atmosphere might be seriously tainted; and they are disposed to think that probably no such other example exists throughout the metropolis, of large slaughtering-premises draining into a short and closed sewer, with insufficient head-water to carry away the filth. Who knows, however, what horrors would be disclosed were a complete investigation made. As to the public water-supply, they attribute no influence to it in increasing cholera, but they mention with proper emphasis, that "the condition of the water-butts and cisterns, as stated in the visitors' inquiry lists, must have been exceedingly bad. Particular instances the committee forbear to mention; but enough was revealed to make them hope for the speedy abolition of the cistern and for the consummation of the long-advocated plan of a constant supply. Often these butts and cisterns are without covers; and, very frequently, owing to the smallness of the back yards, they are in close proximity to accumulations of dirt."

The state of the receptacles, and we will add, though the committee do not, the absence of any supply at all in places, drove many to the well-water of the district for drinking purposes. "I feel bound to say," writes Mr. Whitehead, that, as far as Broad-street is concerned, there is this connection between defective sanitary arrangements and the cholera, that a house ill-regulated in other respects is but little likely to have its receptacles for the company's water well attended to. Without pointing, as I could, to individual instances of sad and culpable neglect, I shall content myself with saying that I well know that many of the unfortunate deceased were literally driven to resort to the pump through mistrust of the cistern. A constant supply from the main, with total abolition of cisterns, is an imperative necessity."

And this brings us to the only distinct assertion with reference to the cause of the visitation which the committee make, namely, that "the sudden, severe, and concentrated outbreak beginning on August 31st and lasting for the few early days of September, was in some manner attributable to the use of the impure water of the well in Broad-street."

In this conclusion the committee find support from the gradually accumulating evidence collected in other localities, as to the important influence of contaminated water in increasing cholera, especially in the districts of the metropolis lying south of the Thames, wherein, as stated by the Registrar-General,—"the balance of mortality is heaviest in every district and in every week against the impure water, to an extent that leaves little room for doubt on the mind."

It was Dr. Snow who first showed that a relation existed between the Broad-street well and the cholera outbreak. Our readers may remember the exposition of his book which appeared in our pages, containing some of the evidence on which the assertion rested. The Rev. Henry Whitehead, entertaining at first adverse views, has ended his special investigation of Broad-street by a remarkable confirmation of Dr. Snow's result. "It is shown by Dr. Snow, 1st. That the outbreak, properly so called, was confined to the area about the Broad-street pump. 2nd. That sixty-one out of seventy-three persons who died during the first two days had been accustomed to drink the pump-water either constantly or occasionally. 3rd. That the water was used in various other ways, and might so have been taken in cases where its use in the ordinary way could not be distinctly traced. 4th. That in the Workhouse, where the well water was not used, only five deaths occurred, whereas fifty would have been a ratio proportionate to that of the neighbourhood around. 5th. That in a factory employing 200 people, where the water was drunk daily, eighteen people died. 6th. That seventy men, employed at the Brewery, in Broad-street, never drank the water, and escaped cholera. 7th. That in a number of individual instances which were particularly investigated, the drinking of the water was followed by cholera: in one case, a lady living quite away from the district, who had the water sent out to her, died after drinking it: her niece also died under the same circumstances. 8th. That at any point decidedly nearer to another pump, the mortality from cholera, as a rule, ceased; and that, in an inquiry extending over forty-eight fatal attacks which took place nearer to another pump, many apparent exceptions were found to be cases of death in persons who really had a preference to the more distant Broad-street water. 9th. That in a particular street, containing fourteen houses, the only four which escaped without a death were those in which the Broad-street water was never drunk. 10th. That this water was employed for drinking purposes only, and was used cold; a statement which, we may so far anticipate as to say, is confirmed by the experience of Mr. Whitehead, who met with but a single exception to this rule. From all these several facts Dr. Snow is of opinion that, although the early cases of cholera and the later cases were due to some other mode of diffusion, the outbreak between the 31st August and the 10th September was attributable to the well-water as the medium of dissemination of the cholera poison. He believes moreover that the well-water must have been not merely generally contaminated by cesspool drainage, but specially with the evacuations of a cholera patient."

Without entering into the last part of Dr. Snow's theory, which is of the utmost importance, and demands the most careful investigation on the part of the medical profession, we would say that the evidence of connection between the well-water and the loss of life seems so conclusive, as scarcely to admit a doubt; and the question that at once arises is, what was the position of the well and the condition of the water? On this point we have the report of a practical man, and well-known inhabitant of the parish, Mr. Jeht. York.

What do we find? the well adjoins the vault of No. 40, Broad-street: through this vault proceeded the main drain of the house, constructed on the old plan of a flat bottom, 12 inches wide, with brick sides, about 12 inches high, and covered with old stone. There was a deposit of soil about 2 inches thick, in the drain, and on clearing this away, the whole was found to be in the condition of a sieve, through which the house-drainage must have percolated a considerable time. In the front area there was a common open convenience, with a cesspool 3 feet deep, *intended for a trap*, but misconstructed, and fully charged with soil. "Upon removing the soil, the brickwork of the cesspool was found to be in the same decayed condition as the drain, and which may be better comprehended by stating that the bricks were easily lifted from their beds without any the least force; so that any fluid could readily pass through the work, or as was the case when first opened, over the top course of bricks of the trap into the earth, or made ground immediately under and adjoining the end wall eastward, this surface-drainage being caused by the accumulation of soil in, and the misconstruction of, the cesspool, which was intended to prevent effluvia and vermin coming into the house from the main sewer in the street, but which, in fact, it facilitated rather than prevented." And its effect was to force the deleterious fluid-matter into the parish well adjoining, by preventing it

* Churchhill, New Burlington-street.

from running direct into the current of the house-drain. To place the matter beyond a doubt, Mr. York had two spaces of the brick steining, 2 feet square each, taken out, and the ground dug out between the cesspool and the well, when its black, saturated, and swampy condition, clearly demonstrated the fact.

Without reference to the assertion that matter from a choleraic patient who early died in the house, thus found its way into the well, or to the theory which this would materially strengthen, we have here a state of things prejudicial to health in the highest degree, and which, nevertheless, may be paralleled, we do not hesitate to say, in hundreds of places in the metropolis. Shall we not take warning from past events?

What has been done in the districts of which we have been speaking? At the time of the late attack, we expressed a fear that, notwithstanding large main sewers had been made through the streets, the houses were imperfectly drained, and that in many instances the cesspools still remained, disguised by pans. This belief was contradicted in some quarters, but since then we have learnt with certainty that a very small proportion of the houses were properly joined to the sewer at the time of its formation. Even in Broad-street it would appear that little has since been done. Some of the inhabitants say—"Oh, there will be no cholera this year; and it is ten to one against it visiting us here when it does come." Have people who reason in this way forgotten the frequent visitations of the disease to Newcastle-on-Tyne? In St. Anne's-place, and St. Anne's-court, the open cesspools are still to be seen; in the court, so far as we could learn, no change has been made; so that here, in spite of the late numerous deaths, we have all the materials for a fresh epidemic.

Early in our inquiry we described the houses in and about New-square, Berwick-street, as being in a miserable condition, particularly the back parts. In some the water-butts were in deep cellars, close to the undrained cesspool. Some of the houses have been partially repaired, but the worst conditions remain. In a passage at the south-west corner, the house which was formerly so ill supplied with water that the people at the little chandler's shop had hit upon the ingenious device of smuggling in a supply from the pipe which passed through the place, is in a shocking state, the pavement broken: the drainage, we believe, is in the same condition as formerly, and this passes under two inhabited cellars, where daylight is barely visible. In this house, said a person living in it, nine persons died of cholera, that is, "they did not all die here; some were taken to the hospital, and never came back, but those, together with the deaths in the house, made nine."

While our assistant was making some notes in this place a few days ago, a fierce detachment of Irishmen rushed out, and accosted him. The leader, with many angry gesticulations and numerous oaths, said—"I'll have no writing down in my place—I'll have no writing down in my place—not a divil amongst you shall write anything down here." Reasoning with them was useless. The overcrowding appears to increase, and go where you will you hear complaints as to the difficulty of finding lodgings for "such as they." This is partly the secret of the violence to which we have referred; a shelter for the very poor in London has become so valuable, that they suspect us all of endeavouring to rob them of it. Some provision must be made for them, and improvements effected for others.

The Committee of Inquiry in the Report we have noticed recommend,—the building of model lodging-houses; the abolishment of slaughter-houses, grease-boiling houses, and other noisome works, from this and all other densely-inhabited districts; the necessity of giving attention to the state of the sewers; that the surface-wells should be closed, stand-pipes being erected in lieu, and the propriety of sinking Artesian wells for the supply of the parish discussed; that cisterns should be abolished, and the method of constant supply introduced; that a medical inspector be appointed, and a code of sanitary instructions forthwith distributed. They omit, however, one of the most important steps required, and that is, the immediate abandonment and clearing away of all cesspools—not the disguise of them, but their complete removal. In the cesspools we may find one of the strongest reasons why 26,000 persons die every year in our metropolis before their time.

Just think over this, good reader. *Twenty-six thousand persons!*

ROSE WINDOWS, ASSISI.

The accompanying sketches of two elegant rose windows are taken from the west façade of the duomo of Assisi: they light the north and south aisles.

The church is dedicated to Saint Rufino, and is a very good specimen of Early Romanesque work, of a comparatively plain character. The three doors are more especially ornamented, the central one with mosaic (no longer existing) and sculptured foliage, having a marked Greek character, which runs round the arch, together with an attached circular shaft, curiously carved with quaint grotesque animals and figures.

The jambs of the side doors have a series of circular hollows, filled in with rosettes, animals, crosses, the symbols of the Evangelists, &c.; and on each side, resting on the paving, are lions and winged animals of great size, projecting rectangularly from the jambs. The door openings are made square, and the semicircular space or tympanum over them is filled in with sculpture; in the centre door (which is considerably larger than the others) is represented the Almighty enthroned, a priest on the right side, and the Virgin and Child on the left: in the side doors are lions and peacocks drinking out of a vase. The windows are placed centrally over these doors, but are separated by an arcade of detached shafts, having circular arches springing from their caps, while their bases rest on a slightly projecting string course, profusely carved with quaint nondescript species of animals: under the string course, and supporting it, are a series of grotesque heads, human and bestial.

The lower portion of the façade is remarkable from the kind of panelling introduced, which arises from Bolection mouldings (forming part of jambs and arch mould of doors), which divide the façade horizontally and vertically, carried up just below the string course before described, and connected by small semicircular arches. The windows illustrated are about 8 feet 4 inches in the clear in diameter, and the glass is fixed behind in the thickness of the wall. The central window is also circular, a sketch of which will be given on a future occasion. The stonework is 4 inches thick; the open boss mouldings and the moulded ribs project to the plane of the wall face; the foliage and ornamentation are very well executed and preserved, and the windows have a very good effect. There is no rough stone arch around the windows, the wall being of well-dressed plain-faced freestone, and the joints abut against the curve of the external enriched moulding. The care taken in their construction, from the weight of the superincumbent mass of walling and (for that period) a highly pitched gable above it considered with relation to the lightness of the stonework and the elegance of the forms, shows great power and skill in the architects of that early period. The nave and aisles are of modern Roman work (inside), the apse alone on the exterior remaining as originally built, with the exception of two large windows, which have been inserted. To the north aisle is attached a high massive tower, the lower part of which has been built against: the upper part is of the usual Romanesque character, divided by string courses, slightly projected buttresses, connected with arches, corbel table, &c. The belfry has two windows on each side, with circular arches springing from cap of central column. Above, it has been modernized. On each side of the windows are animals, very grotesquely carved, descending as it were down the walls, and projecting very boldly from their face. The whole façade, indeed, is well worthy of examination, the doors being very original and curious, and the windows beautiful and characteristic.

S. B. Fripp.

THE RECENT HISTORY OF ARCHITECTURE.*

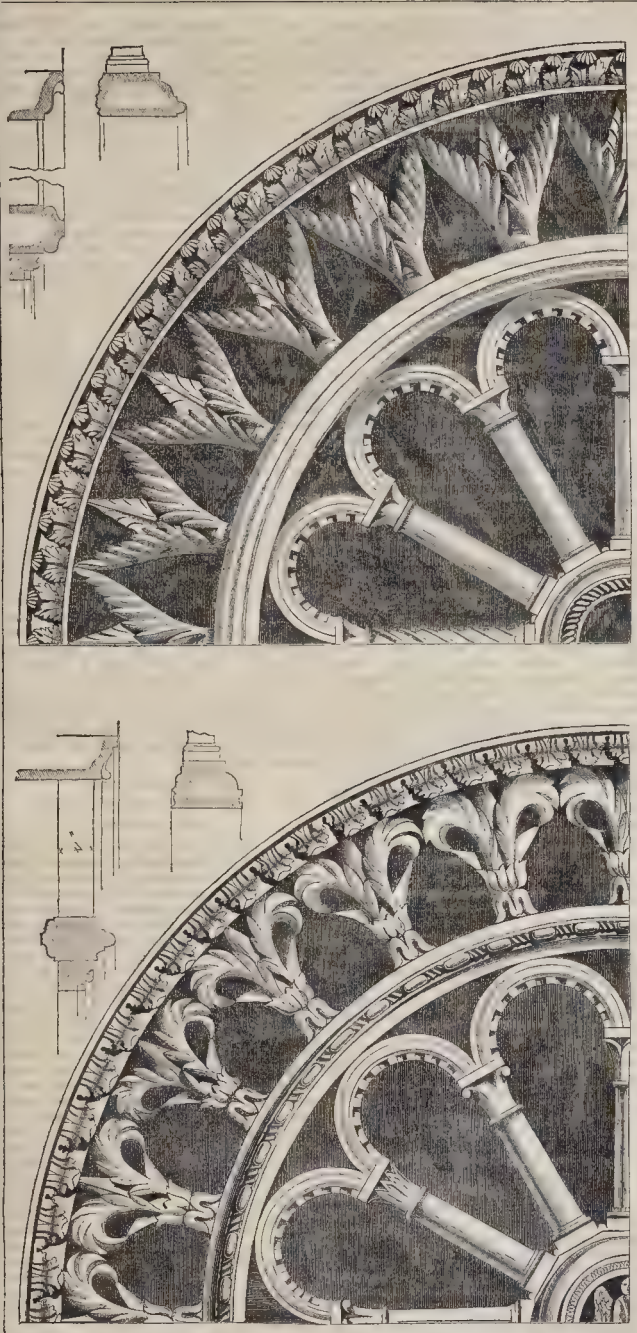
FRANCE, ENGLAND, AND GERMANY.

Whilst the spirit of Greek revivalism was growing in England, it appears to have declined in France. The architect who had chiefly followed that manner was dead, and though the Palladian school had its votaries, the works founded on the Roman manner were sufficiently important to stamp the character of the epoch. Besides the works already alluded to as commenced at the Louvre in 1805, and the arch of the Tuileries in 1806, we should not omit to mention the church of the Madeleine, which had been commenced, as to its present form, in 1804. The Madeleine was not completed till 1836. Vignon, Huvé, and others, were the architects. The interior displays much originality. The exterior reproduces the architecture of the Roman temple—having a peristyle of fifty-two Corinthian columns, eight at each end,—with this important difference, however, that the columns are built up of such small stones, that we are reminded of the columns in brickwork, rather than of those of the more magnificent temples. The gigantic monument, the Arc de l'Etoile, as it exists, is less marked by Roman taste than is the elaborately-ornamented arch of the Tuileries. The Arc de l'Etoile also was commenced in 1806, and, like the church, was completed only in 1836. Chalgrin was the first architect; Debret conducted the completion. It occupies an area of 144 feet by 70 feet, and reaches to 147 feet in height. Its one large arch is 46 feet wide and 98 feet in height; and this is intersected by a transverse arch, 26 feet wide and 59 feet in height.

In Germany, there is necessarily little to record during the time of the war, in actual execution of public works. The Brandenburgh Gate, which some claim as an adaptation, and others stigmatise as a copy, of the Propylæa, commenced in 1789, would seem to indicate a state of taste not dissimilar to that which was growing in England. But, in the tendency of popular views which it will be necessary for us to notice shortly, and in the gradual preparation which the minds of one or two architects of future celebrity were undergoing, the vigorous growth of modern German art had even then commenced.

Returning to our own country, the regency, which began in 1811, was marked by the commencement of several important works besides Drury-lane Theatre, and even before the termination of the war. In the year mentioned, Vauxhall Bridge, and one then called Strand (afterwards Waterloo) Bridge, were begun; and on the expiration of the Duke of Portland's lease of the Marylebone-fields, the Regent's Park was commenced, but it is remarked upon in the course of the next year as not promising speedy completion. In 1812, designs for a new Custom-house by David Laing were considered, and approved of; and the new Bethlehem Hospital, by James Lewis, was commenced. Amongst buildings completed, we find mention of Surgeon's College, by Dance and Lewis, since enlarged and otherwise somewhat modified by the present Sir Charles Barry. The next year, 1813, in which died James Wyatt, is memorable in the history of Europe as the date of the battle of Leipzig. The new Custom-house was commenced on August 1st, on a site a little to the west of the old building. The money expended in land and premises was 41,790*l.*; and the original estimate for foundations and superstructure was 228,000*l.* The lowest tender for works, exclusive of foundations, was for 165,000*l.* Even these large amounts, however, were greatly exceeded, from first to last, through the

* See p. 469, *ante*.



WINDOWS IN THE CHURCH OF SAN RUFINO, ASSISI.

disasfrous result in the case of the works. On the site were discovered three distinct lines of old wooden embankments, within the actual line of wharfs; so that the ground had been part of the bed of the Thames. The architect, therefore, observed what were thought to be extraordinary precautions. Piles, 3 feet apart, were driven over the whole area. They were about 30 feet in length, and 9 inches diameter; and were of beech, as a wood esteemed peculiarly durable under water. They were used green, with the bark on. Sleepers and planking, with spaces filled in with brickwork, followed; and round the footings a tier of oak bond, 12 inches by 9 inches, "dovetailed, halved, and corked," was laid, arches being then omitted. These particulars and others may be found in the architect's publication of his works. The structure progressed during the next few years, the old building being meanwhile destroyed by fire; and the new building was opened in 1817 with every appearance of stability. However, in 1825, the foundations failed, and the result was a most extensive underpinning, carried out under the direction of Sir Robert Smirke. The use of planking to foundations was far too common about the commencement of our century. There must have been some general misconception as to the liability of timber to decay in such situations. But we have found walls of about this date built even without *footings*; and such cases are by no means uncommon about the neighbourhood of Grosvenor-square. The reintroduction of concrete was a very great advantage; and the principle adopted in the Houses of Parliament, in that respect affords a marked contrast to the practice of twenty to thirty years earlier. The exterior of Laing's building presented a centre with arch-headed windows, whilst the wings displayed an order. Thus, though one part was not without good character as to "breadth"—being indeed more satisfactory than what there is at present—the whole was rather discordant. In the present arrangement, the character of the wings is preserved—by a portico ranging with the original order. In the year already named (1813), as we gather, Regent-street began to be built, pursuant to the Act of Parliament of the same year; but we have failed to discover note of any important work completed till some years later. In the same year, one of the latest of the Palladian churches was commenced, namely, Marylebone Church, by Mr. T. Hardwick. Having been originally designed for a chapel-of-ease, and subsequently altered extensively when it was determined to make it the parish church, the architect was hardly placed in an advantageous position. It is, however, a meritorious work. The figures at the top of the tower are well introduced. The interior arrangements are in striking contrast to those which are insisted upon in the present day: for example, there are two tiers of galleries.—The winter of the year 1813-14, we may remark, was that in which there was a fair on the Thames.

In 1814, the allied sovereigns were in London, and there was a general thanksgiving for what was anticipated would be the permanent ratification of peace. Projects of all kinds were discussed within the peaceful haven of Carlton House, and the Prussian monarch despatched to the architect Schinkel, then rising into fame, a command to make designs for a grand cathedral, to commemorate the pacification of Europe. But the time for either commemorative or useful public works had hardly yet arrived, and with the exception of the commencement of Southwark Bridge, the enthusiasm of 1814 left little more than a "pagoda" in St. James's Park, and the rickety "Chinese bridge," of which the London world has lately heard something. During the year 1815, however, there were some important undertakings. The Mint, on Tower-hill, by Sir Robert Smirke, was erected, and the London Institution, by the late W. McIntosh Brooks, was commenced in Finsbury-circus, which was formed on the removal of old Bethlehem Hospital. In these buildings, the English version of pseudo-Greek architecture is seen fully established. The new Bethlehem Hospital was completed, having cost about 100,000*l.*; and a new Post-office was projected. The Hospital is now varied in character by the altered dome. The Burlington-arcade, we believe, belongs to the same date, and should be instanced as an exceptional effort in style, and one of some comparative merit. The architect's name we have not met with. Some alterations in the front of Burlington House at this date, may be mentioned: they consisted in the raising the Venetian windows to the level of the others. The whole of the house, except the front and one or two rooms, was at the same date rebuilt. Sir John Soane's manner at this date, is exemplified

by his tomb—to which we have before referred. As regards general projects for public works in 1815, things were beginning to settle a little, when Europe was startled by news of Buonaparte's return from Elba. The battle of Waterloo at length effected the final pacification of Europe, and left free scope for the diviner arts of Pallas and of Peace. Then,—"Divina Palladis arte ædificant."

Without we could place side by side, the London of 1815 with the London of one out of some few years later, it would be difficult to realise how great was the change to be credited to the Peace. The grand thoroughfare of the Strand, narrow from end to end,—the western portion and Charing-cross of course unimproved; before Regent-street was practicable, the horrors of the middle passage of Swallow-street; the western entrance of London at Hyde-park-corner adorned by a simple toll-gate; Regent's-park in embryo; architecture in Pall-mall unborn; Old London-bridge mean and dangerous; City improvements wanting; Belgravia and Tyburnia undreamt of; and the navigation and commerce of London carried on with a mere tithe of its present appliances;—these would be a few of the items in the account. Here let us pause to examine what was the preparation that had been making elsewhere for the great works which followed.

It is remarkable in how few years, countries which had been apparently prostrated, began to prefer a claim to position in the world of art. Architecture, indeed, had necessarily more obstacles than other branches of art, and in the very year that Schinkel had returned from Italy, 1805, the Prussians were defeated in the battle of Jena, and Berlin was opened to the conqueror; so that, though the great architect soon extended his reputation, little demand could be made upon his talents till the year 1814, or later.

In Germany, during a long course of years, little had been effected in architecture by native talent. Great at one time in mediæval art; giving to Italy, as it would seem, a style of architecture, and the practice of oil-painting; Germany, during the period of the chief influence of the Cinque Cento school, presented in architecture a reflection of the styles of the neighbouring countries—generally through the hands of Italian and French architects. Carlo Fontana had been employed at Fulda and Vienna; Guarini on the church at Prague; and Scammozzi on the cathedral at Salzburg. Andrea Pozzo was architect of several churches at Vienna, and died there. Amongst French architects, Blondel, towards the end of the seventeenth century, was much employed, and from that time, French fashions prevailed. Mr. Gwilt remarks* that "it is a curious fact, that at "the period when Germany was borrowing architects" from France and Italy, "England could boast of architects whose fame still resounds through Europe." It is true, that Mr. Gwilt has omitted to allow for the particular influence of the order of Jesuits, in some of the instances to which he refers. However, this had not been always the state of art in Germany. To the Romanesque churches, it is only necessary to allude. The Gothic style was invented probably in Germany, and that it reached northern Italy from this direction, appears probable from the names of German architects. Such was the reputation of the Germans at one time, that architects of Cologne were engaged to build the cathedral at Burgos, in Spain. The employment of Germans on the original plan of Milan Cathedral, has been lately questioned: still, there were Gothic buildings in Italy by German architects in the thirteenth century. But we are approaching to a glorious epoch for the German race. This commenced with a *revival* of the old Teutonic spirit; and sought expression through the medium of all the arts, though chiefly through the art of painting. In a view of the history of architecture, we have thought fit to look at the progress of painting during one period, in France. It is even more necessary now, not to disregard the latter art. For, with the Germans, the several branches of art have been once more brought into alliance, as parts of that comprehensive field of effort, wherein is the only true expression of the scope and capabilities of the grand united art—architecture.

Haydon, who argued that nothing good had come of the very means taken to nourish the lamp of art, had grounds for his opinion, from the results in many cases where academies had been established. These institutions, which were common after the time of the Caracci, were copied in Germany. Just as the Accademia della Crusca preserves the purity of Tuscan Italian; but with some cost, as regards the nervous life and originality derivable from foreign sources—(thought itself being fostered by copiousness *as well as* precision of *language*)—so the academies of art succeeded in repressing effort, unless where they provoked extravagance in opposition. Allegorical and mythological subjects, such as were common in Italy, were the staple for pictorial art,—except where any different influence might be derived from the other direction,—that is, from the school of David.

At this juncture, some time before the end of the war, a few very young students dared to question the teaching of the Academy of Vienna. Devoting themselves to subjects of the highest order, they believed in the possibility of an inspiration by the very dignity of a subject. They therefore did not seek even such advantage as they might have acquired from academic precept; whilst it seems that they did not correct the teaching of the models they chose, by that close observation of nature which characterizes the corresponding English school. To the early masters, however, German and Italian, Overbeck, Vogel, and others resorted. To oppose the error that prevailed, they proposed to establish a revival of the characteristics of the predecessors of Raffaelle. Their expulsion from the Academy was the consequence. Overbeck resorted to Rome, where shortly afterwards were found Cornelius, Schadow, and Veit. These men became the founders of the modern German schools of painting—those of Munich and Düsseldorf. The latter is that which is to be viewed as the chief school of *oil* painting. It was otherwise remarkable for its minute and too reproductive imitation of nature. Schadow eventually became director of the Düsseldorf academy; Vogel, of that of Dresden; and Veit, of the Stadel Institution at Frankfort. Meanwhile, the revival had commenced of that vehicle for pictorial art—fresco,—which most concerns us as architects.

Overbeck, Cornelius, and the others reached Rome when about twenty years of age. They applied themselves to their art with extraordinary energy. The simplicity and piety which they found in the early masters, became reflected in their works, and indeed in their lives. Somewhere about this time, it was that Sulpice Boisserée, after a period of great neglect of the Cathedral of Cologne, undertook those careful drawings of the building which were subsequently published, and of which important use was made in the restoration. The brothers Boisserée were devoted to mediæval art. The Boisserée collection of German and Italian masters was formed; a public taste for early art grew up, and was fostered by Goethe, the Schlegels, and the *literati* of the time. The circumstances inducing the change referred to, corresponded very much with those which are within recollection in our own country—for which, indeed, we may already have found parallels in the course of our history. A corrective to an insipid state of art had become necessary; and in applying this, an opposite extreme was fallen into. The language of allegory was exchanged for character marked by simplicity and earnestness, but in which the stiffness of treatment was not more closely allied to nature; whilst for mythology was substituted rather, religious mysticism. These peculiarities, however, coupled with the novelty, were sufficient to secure for the works great attention. Eventually, in 1814, Overbeck, and ten others who belonged to the Lutheran Church, consummated their adherence to their tenets in art, by becoming Roman Catholics. One who saw them at the Café Greco from time to time in 1814, describes Overbeck to us as a pale ascetic, with long, lank hair,—keeping himself apart from the throng, and usually occupied in telling his beads. But before the date of these conversions, there had been a revival of the vehicle of painting to which we have referred, and which seemed most accordant with the simplicity of treatment that was growing into fashion.

Such attributes of the art of painting as are mainly characteristic of the English school, are those to which the vehicle, oil, lends itself readily. These were subordinate in the works of the section of German artists with which we are now concerned. Outline received the greatest share of their attention; chiaro-scuro and colour were comparatively neglected. In fresco, the exigences of the process are necessarily less favourable to the two last-named elements,—independent of the fact that masses of low half-light and deep shade have been seldom used successfully on large surfaces, and that they "are especially ill-adapted for fresco, on account of its tendency to reflect light only from its surface."* Fresco, again, has but a limited scale of colour, so that the varied effects are impossible which can be produced in oil-painting. At the same time, it affords ample scope for the attainment of a grand style of art, in the decoration of large surfaces—for which it is especially well fitted by its freedom from the reflection, which in such cases becomes a serious disadvantage to the distinctness of the subject; whilst its very restrictions seem to promote, whilst they demand, the greatest possible attention to the expression of the design and to the drawing. The course of the Germans was thus directed to that branch of art which in their hands, through the medium of fresco and encaustic painting, eventually contributed so much to modern German architecture. Cornelius, like Michelangelo before him, avoided oil-painting altogether. The first commissions for works in fresco were given, it is said, by M. Bartholdi, the Prussian consul at Rome. A saloon was painted for him in 1809, by Cornelius, Overbeck, and Veit. Canova, the most worthy exemplifier of the value of *classical* models, was also amongst the early patrons of the school of German fresco painters.†

* "Elements of Architectural Criticism."

* "It may at first appear that all pictures reflect light from their mere surface, but this is not, strictly speaking, the case. One great element of oil-painting is its power to reflect light from an internal surface, through semi-opaque substances more or less discoloured."—C. L. Eastlake on "Styles and Methods of Painting suited to the Decoration of Public Buildings," in Fifth Report of the Commissioners on the Fine Arts: Appendix.

† To be continued.

THE BAR GATE, SOUTHAMPTON.

TOWN DEFENCES.

The room over the Bar Gate, at the northern entrance of Southampton, having been found too small for the increasing population of the town, the idea occurred to the mayor, Mr. Andrews, that it was capable of enlargement, and the council approving of his suggestion, the task was confided to me in 1852, of carrying the improvement into effect. In its then state it could be seen from the exterior that the old Norman gate had been enlarged in the fourteenth century, by the addition of a semi-octagon, fitting on to the two round towers of the old fortress, in its northern face. In the interior, at some subsequent date, an oblong room had been partitioned off in the old portion of the structure to form a town-hall, and a small room obtained for the use of the magistrates in the fourteenth century addition. On removing the partitions put up to form these rooms, it was found that the architect who made the additions in the fourteenth century had left the Norman structure complete, and I was thus enabled to make accurate drawings of its original state. The south side of the building could easily be restored: at present it stands covered with cement, and disguised in the carpenter's Gothic of forty years' since. The mullions of the windows are gone, but the jambs remain, and the inner arched heads were discovered when the lath and plaster improvement was removed.

The style of the Norman Bar Gate shows it to have been erected late in the twelfth century. The style of the addition points to the latter part of the fourteenth century. Between these two periods the greater portion of the fortresses in this country were erected. They owed their

rection chiefly to the development of the feudal ystem, by which a people became split up into nall communities and little sovereignties, by hich general nationality became extinct, and entral government all but impossible. During ie continuance of this system there was a onstant succession of small fightings between val barons, or lords and vassals, with occaonal variations when municipal bodies in their rtified towns set at defiance some over rapaous patron in the neighbourhood.

When the feudal system fell into decay foreign ars commenced—no longer between lord and assal, but nation against nation, government gainst government. Isolated castles and small rtified towns then became useless; the art of rtification was greatly improved and exercised a far more gigantic scale.

The study of the military monuments of the iddle ages possesses an interest beyond the ere gratification of curiosity. It serves to ustrate the page of history, it gives an insight to the customs of our ancestors, and shows us e origin of many of our own peculiarities, abits, and opinions.

The Normans were the conquering race, the axons the conquered: the latter, therefore, ere permitted to rear and name while alive the omestic animals of the country, but these when ead chiefly went to the Norman's table, and e swine became porc, the sheep mouton, and e oxen bœuf. In like manner, though Saxon orkmen were the real builders of the fortified wns and castles, the style and the names of ch detail of the work show them to all time have been for the victors' use. But these ildings show more than this; they point back the time when Norman and Saxon had each common master, for although the Norman yle can be distinguished by its greater refineent from the Saxon, both arose from the forts of each to imitate the work of the omans. In military architecture especially e Romans were the masters, Norman and axon each but pupils; we must, therefore, xpect to find our cities and castles in the middle ges fortified on Roman principles. This is rticularly the case with Southampton, which xemplifies the favourite method of the Romans choosing sites for their fortified camps or ties on ground sloping up from the shore or ver side. The sides thus protected being the rongest, it became necessary to strengthen e works facing the open country, by digging ater ditches to keep the enemy from close pproach to the walls. In those days it was ly by the sap, undermining, the battering-m, or some other mechanical contrivance, all quiring a nearer approach to be of any use, at a fortification could be injured.

The passive resistance of the mass was the ief thing relied on. An extended front was a sadvantage, a castle being more easily defended an a town, and a small city than a great one. he advantage was so much on the side of the esieged, that a small but determined garrison ecame all but invincible. It was necessary to ke each tower in succession, and if these, and e town itself, were taken, the garrison could tire into the castle, and from that into the yet ronger donjon within the castle enclosure. o secure the chance of assistance from without such an emergency, the castle was placed ose to the outer boundary of some part of the alls. In Southampton its position was admirly chosen on the western side, on a mound hich stood in what is now Lansdown-place.

The Romans had brought to great perfection variety of complicated machines, both for tack and defence: after their departure the rt of making and applying these appears to ave been in great measure lost. During the rusades our countrymen appear to have recovered the knowledge of some of the old Roman ilitary mechanism. The fruits of this knowdge, their own experience, and the lessons ught by their adversaries, may be seen by the nprovements made subsequent to the great astern wars in the means of defence. When ie besiegers learned to bring formidable maines close up to the walls, and to protect eir men in trenches covered with sloping mbers, the old flanking towers did not afford fficient protection; and from the embrasures f the old parapets, in a line with the walls, no missiles or weapons could be discharged at an enemy close to the base without leaning out through the loops, with the chance of an arrow passing through the body in the operation. As a remedy to this evil, machicolated parapets were invented, by which, the upper wall of defence being carried out from the main wall on corbelles, a series of openings right over the foot of the walls were left, through which stones or melted lead could be dropped, or arrows shot with impunity to the archer. As the space left for the purpose in question was only alternate with the solid work over the corbelles, an improvement was devised by building up a series of piers from the ground, arching them above, and building the parapet over, leaving a continuous opening vertical to the base of the main wall, through which stones and missiles, *ad libitum*, could be poured down on the unlucky besiegers who might venture to sap or mine.

In the addition made to the Bar Gate in the fourteenth century, the former mode of building machicolations is exemplified, and an example of the latter mode may be seen in the arcaded machicolations added during the fifteenth century, in front of the old walls along the western shore-road.

The invention of gunpowder introduced new principles in military engineering. It became the great object to compel the besiegers to scatter their fire, and extend their line of attack. The power of sending missiles from a safe distance gave such advantages to the besiegers, that it soon became an axiom, "that a place attacked is a place taken." One of the chief reasons, however, why this saying was so near the truth was, that in devising the means of attack, the engineers, having no precedents before their eyes to control their inventive powers, resorted to trenches, earthworks, and gabions, to defend themselves, from the fire of the fortress; but the old system of fortification, which was established on other principles, was too stubborn to bend to the real requirements of a defence by cannon. Military engineers could not shake from their minds the influence of such centuries of existing precedents, and the consequence has been, that they have obstinately adhered to a defective system, from which it will take all the disasters of Sebastopol to sever them.

JOHN ELLIOTT.

PROVINCIAL NEWS.

Lowestoft.—The sum of 300 guineas, we hear, was recently subscribed for a statue of the late Duke of Wellington, at a dinner at the Royal Hotel, Lowestoft, at which the Duke of Wellington (while visiting here), Sir S. M. Peto, Sir S. Bignold, the Mayor of Norwich, and other gentlemen connected with the projected railway and the new buildings at Kirtley, were present. The statue is to be erected in front of the new terrace at Kirtley, which will be called the Wellington Terrace and esplanade, and is to be united with the present Esplanade.

Norwich.—The new free library building is making satisfactory progress, and will be roofed in, in a few days.——The new workhouse question still remains *in statu quo*.

Ipswich.—The corporation of Ipswich have contracted for raising the new cattle-market site selected in the marshes to the required level: the contractors, Messrs. Fisk and Cooper, are now under covenant to raise and drain the site for 1,025*l*.

Ware. — In the little town of Ware, in Hertfordshire, two large malting-houses have been erected in ten weeks. The buildings are each 185 feet long, 40 feet wide, and three floors high. The brickwork was completed in five weeks. Upwards of 3,000 yards of composition floors were required. Gas has been laid on. Messrs. Coker and Oakes are the contractors.

Harrow.—The Elizabethan villa designed by Messrs. Habershon, on the Harrow-park estate, says a *Harrow* paper, is nearly completed. A mansion is being erected for Mr. A. Lang, near the site where the old Amphitheatre was, from which the public and masters of the school beheld the annual competition for the silver arrow. A large mansion is also being erected by the Misses Copland, on their estate at Sudbury; and a villa, designed by Mr. Hopkinson, on London Hill, Roxeth. The foundations are being dug out for a mansion on the estate of the late Dean of Peterborough.

Oxford.—The new mess and reading rooms, which are being fitted up, contiguous to the new Museum of the University, for the accommodation of the men employed on the works, will, we understand, be formally opened on 23rd inst. by the Vice-Chancellor and University authorities, after which the men will be regaled with a substantial supper. The cost of fitting up and maintaining the mess-room and reading-room will be borne by the University authorities and the contractors of the works now in progress.

Uttoxeter.—The old schools in Bradley-street having been found too small and inconvenient, the trustees procured plans, &c. for entirely new schools, with enlargement of master's residence, which they submitted to the Council of Education. The Privy Council, approving of the plans, made a grant in aid of same, as also have several educational societies. There are now two school-rooms, one for boys and the other for girls, each 53 feet by 18 feet, with a class-room, 21 feet 6 inches by 12 feet. The greater part of the teacher's residence remains. The building is of red brick, with stone dressings, Late Tudor; the roofs high pitched, open timbered, and stained. The floors are boarded, the chimney-pieces of stone, and the roofs slated. The architect was Mr. Fradgley, of Uttoxeter, and the builder Mr. Wm. Evans, of Ellastone.

Wednesfield.—On Tuesday, in week before last, the foundation-stone of new national schools was laid here by Lord Calthorpe. The schools are being erected on a piece of ground near the parish church, from the designs of Mr. E. Banks, of Wolverhampton, Mr. G. Spilsbury, of the same place, being the builder. The building consists of a boys' school fronting to the south, 51 feet 3 inches by 18 feet; at right angles to which is the girls' school, 48 feet 3 inches long, and 10 feet wide. The two rooms are separated or united by sliding-doors. A class-room, 18 feet by 14 feet, is provided for each sex, that belonging to the girls being also used as a committee-room. The walls will be 12 feet high to the spring of the roof, which will be plastered over the rafters about two-thirds the height, the principals being stained, and at that height ceiled, apertures being left for ventilation in the cavity between the roof and ceiling, and by openings in the gables. On the east side, which is the principal elevation, there is a bay window lighting the committee-room, and above the gable a bell-turret rises to the height of 40 feet. The building is to be of red brick, with stone dressings to the doorways, windows, quoins, &c. Play-grounds are provided for each sex, with other conveniences, including lavatories, and a house for the master will be attached on the west side. All the floors will be boarded. The whole cost will be about 1,400*l*.

Dudley.—At a recent meeting of the Board of Poor-law Guardians for Dudley, a letter from Mr. Nicholls, architect, was read, which stated that by the 10th of this month the plans of the new workhouse would be ready for the inspection of builders, and that he would be obliged by a meeting of the Building Committee being called, to arrange for the advertising of a notice to builders, inviting them to send in proposals for contracts for the execution of the work. Tuesday, the 9th, was named as the day on which the meeting of the Building Committee should be held.

Warminster.—A site has at last been procured for the erection of an "Athenæum" in this town. The sum of 1,300*l*. is the proposed outlay.——The Corn-market House (Mr. Wyatt's) is nearly completed.

Nantwich.—A public meeting was held here lately, to consider the project of erecting a Town-hall. Mr. J. Tollemache, M.P. has offered the donation of an eligible piece of land. It was unanimously resolved to accept Mr. Tollemache's offer with thanks. The chairman stated that several subscriptions had been already promised.

Frome Selwood.—The opening of John the Baptist's new infant school took place on Saturday before last. In the evening the workpeople were regaled. The architect was Mr. Cundy, and the builder, Mr. Brown.

Torquay.—By the exertions of the Rev. R. Rolfe, an Infant National School has been erected in the populous new district of Bostonfields here. The school, which is built from the designs of Mr. Edward Appleton, architect, is Italian in character, constructed of the native limestone with red brick and red sandstone dressings, the whole pointed with black mortar. The roof, which is open, the timbers stained, and tied with wrought-iron rods, is covered with red Italian tiles, projecting deeply over the eaves, and surmounted with a lantern finished with a gilt cross. The work throughout is simple. The windows are double lights, divided with brick mullions.

Milford.—A new National School for the Established Church is about to be erected in this town. The site fixed upon is in the Backstreet, near the Tabernacle School-room. Like the Hubberston National School, its erection will be under the superintendence of Mr. W. H. Lindsey, architect.

Castle-hall.—The architect just named is at present engaged with some extensive works now in progress at Castle-hall, the seat of Colonel the Hon. Fulke Greville. The new front is supported with lofty columns, and has wings. On the south side is a small tower, and on the north, one about 90 feet high, nearly finished, in which will be sculptured figures emblematical of the four winds. Beneath the northern tower is the principal entrance. At the base of the structure preparation is making for a raised ornamental terrace, and beneath that a gravel terrace, with, still lower, another, and the whole gradually sloping to a fish-pond.

Cwmyoy (Monmouthshire).—The committee appointed to superintend the erection of schools here have fixed upon a site. The school-house and residence for master (on the National School principle) are to be built from the design of Mr. J. H. Evins, architect, Abergavenny.

Castle Cary.—The new Market-house here was opened on Tuesday, in week before last, and celebrated by a public dinner. The Market-house was built by a joint-stock company. The architect is Mr. Penrose. The building consists, on the ground-floor, of a pitched market-house for corn and cheese, with shambles behind for meat, bacon, &c. Over the main building is a Mezzanine floor, forming a store for corn, and by its side is a reading-room. Above these, approached by a winding stair, is the assembly-room, 52 feet long, 21 feet wide, and 21 feet high, with oriel window, open-timbered roof, and music gallery: adjoining is a refreshment-room. The centre of the building is surmounted by a turret. The building is Gothic, of the end of fourteenth century. The chief effect is given by the pointed relieving arches within which the entresol is placed. The general forms have arisen out of the peculiar nature of the ground and the levels. The building has been erected of Castle Cary stone and blue lias, dressed with Doulting stone, by Mr. M. Davis, of Langport, who has recently restored the church of Castle Cary. The cost, we hear, will be about 2,300*l.*

Tarbert.—Mr. Miller is the contractor with the board of works for the new pier at Tarbert, for 10,300*l.*

Bardwell.—New schools were opened here on Saturday, in week before last. They are in the Tudor style of architecture, and have been erected from designs by Mr. Thos. Farrow. They comprise boys', girls', and infant schools, and a dwelling-house for master and mistress. They are built of black flint, with Caen stone dressings, and the entrance in front is surmounted by a bell-turret. Sir Henry Blake gave an acre of land to the parish to build the schools upon, and the cost of erection was defrayed by the Rev. A. P. Dunlap, the rector, in accordance with the wish of his deceased mother, Mrs. Dunlap, of Bardwell.

Manchester.—The extensive premises for the new Mechanics' Institution, in David-street, are progressing, the basement story being completed, while the ground-floor is in an advanced state. The design for the new building was made by the late Mr. J. E. Gregan, architect. It is expected that the institution will be completed by Midsummer, 1856. The cost of the building and its interior fittings will not be less than 22,000*l.* It is to be opened with an exhibition.——In the Levenshulme suburb of the city a committee was formed in December, 1853, with a view to promote the building of a church, schools, and parsonage. One-half of the school has been built. The room affords space for 300 persons. The site of the schools consists of an acre of ground, given by Mr. C. C. Worsley, of Platt, Rusholme. A sum of 456*l.* was raised in the neighbourhood, and the committee of council on education awarded 494*l.* towards the estimated cost (1,150*l.*) of completing the schools and master's house. The building committee require a further sum of 200*l.* to meet a debt of 70*l.* upon the portion already built, and additional outlay essential according to the plan. The school is in the form of the letter T, the girls' room being the top, and the boys' the upright part of the letter, and the whole will hold about 600 persons.

Edinburgh.—The drainage committee of the city police commission having recommended the board to accept the estimate of Mr. John Alexander for completing the drains in Nicolson-street and neighbourhood, which had been left unfinished by the original contractors, the estimate, which amounted to 5,895*l.* with 6s. additional per cubic yard for excavating rock, has been accepted.

MODEL DWELLINGS, DUDLEY.

Some time in October, 1853, a movement was commenced in Dudley to promote the improvement of the dwellings of the industrious classes, which ended in the formation of a Branch of the London Society. We are pleased to hear that our observations on this head influenced the promoters in Dudley.

The capital of the Branch is 10,000*l.* about 3,000*l.* of which are paid up. With this encouragement the committee purchased a plot of land of upwards of 10,500 yards, including mines and minerals, and bounded on two sides by roads. Upon this a quadrangle is planned for distinct blocks of family dwellings, having in the centre baths, laundries, washhouses, and bakery. Detached from this is to be an infant school, for the safe keeping of those poor children who would be otherwise left alone while their parents are at work. The quadrangle is about 240 feet by 120 feet in the clear. A large gas-lamp, with reflectors, will light the whole of the quadrangle. Including 500*l.* from Lord Ward, the committee have sufficient in hand to pay for the land, and to liquidate the builder's contract. A new clause in the charter will enable the committee to declare a dividend of 5 per cent. which will tend to strengthen the hands of the promoters in this good work.

Each house comprises three distinct bedrooms, living-room, kitchen, pantry, water-closet, coal-cellar, and back and front lobbies.

The living-room will have Nicholson's patent kitchen-range, with a smaller one in the scullery. A copious supply of water is laid on through gutta-percha tubing to the sink, which has a plate-rack over, and cupboard beneath for pots, &c. The cisterns are of slate, and Jennings's water waste-preventers, india-rubber tube-cocks, &c. are used throughout. Besides a commodious pantry, having a settle for beer, &c. there are two cupboards in living-room, with place for books. A press for clothes is arranged in bed-room, over portions of the landing. The coals are under the stairs, sunk two steps and arched: provision is made for two tons, it being a comparatively cheap article in the "black country."

Instead of "wood-bricks" the architect has adopted "Round's patent" for the jambs of doorways, having a plug inserted in the brick itself, dovetail-wise, and secured with cement. The architect intended using hollow bricks, but was prevented by the dispute between the patentees, and the disinclination of the local brick-yards to undertake the contract. In the bedrooms will be grates and chimney-pieces in one piece, to which a valve will be attached to prevent the admission of cold air to the smoke-tube. The front chambers have the ordinary breast, which forms a feature in the elevation. The water-closet on landing is fitted with Guest's self-acting apparatus, together with a pottery hand-basin and drain, to which water is conveyed by gutta-percha tubing. From this tap the chambers will be supplied with water.

The smoke from the flues in the houses (excepting small front room) will be conveyed by 9-inch tubes to a 12-inch central shaft, formed of socket-jointed tubes, with the necessary junctions, placed in the centre of a shaft 2 feet 3 inches wide, thus leaving a space on either side for a vitiated air-chamber. The plan adopted by the Metropolitan Association, of having distinct air-chambers and smoke-flues, answers well, we are told, but takes up a considerable space, besides adding greatly to the expense.

It was this which induced Mr. Wigginton, the architect, to try and obviate what he considered a difficulty and drawback, by the plan which he has carried out at Dudley, saving thereby some pounds in each building. The heat imparted to the air-chamber from the smoke will create a current able to draw off any impure air which would otherwise accumulate in the rooms, and sufficient heat will be retained at night (from the universal practice of "raking" the fires) to cause an equal velocity, when, in fact, the means of ventilation are more required than in the daytime.

Each room will be ventilated by a valve and tube communicating with the air-chamber, the valve being placed in the ceiling of the bedrooms, and in the chimney-breast of the ground-floor apartments.

The work is being executed by Mr. Nelson, contractor, of Wolverhampton.

REFERENCES.

A—Living-room.	HHH—Bedrooms.
B—Kitchen.	J—Landings.
D—Coals.	K—Pottery-basins.
F—Smoke-flue.	L—Air-chamber.
G—Water-closet.	M Press over Landing.

LIVERPOOL ARCHITECTURAL AND ARCHÆOLOGICAL SOCIETY.

The meetings of this society were resumed on the 3rd inst. when Mr. John Hay, president, read an inaugural address. He observed that, notwithstanding the great struggle which was going on between the nations, the public mind was not distracted from those pursuits which ennobled and elevated the human mind. The arts and sciences were being studied with renewed vigour, and there was scarcely a town or village in the empire in which the architect or the engineer was not engaged in constructing great works.

Mr. Picton then read "Some Account of Crewe Hall and Nantwich," with reference to the excursion of the society in July last. To this we shall return hereafter.

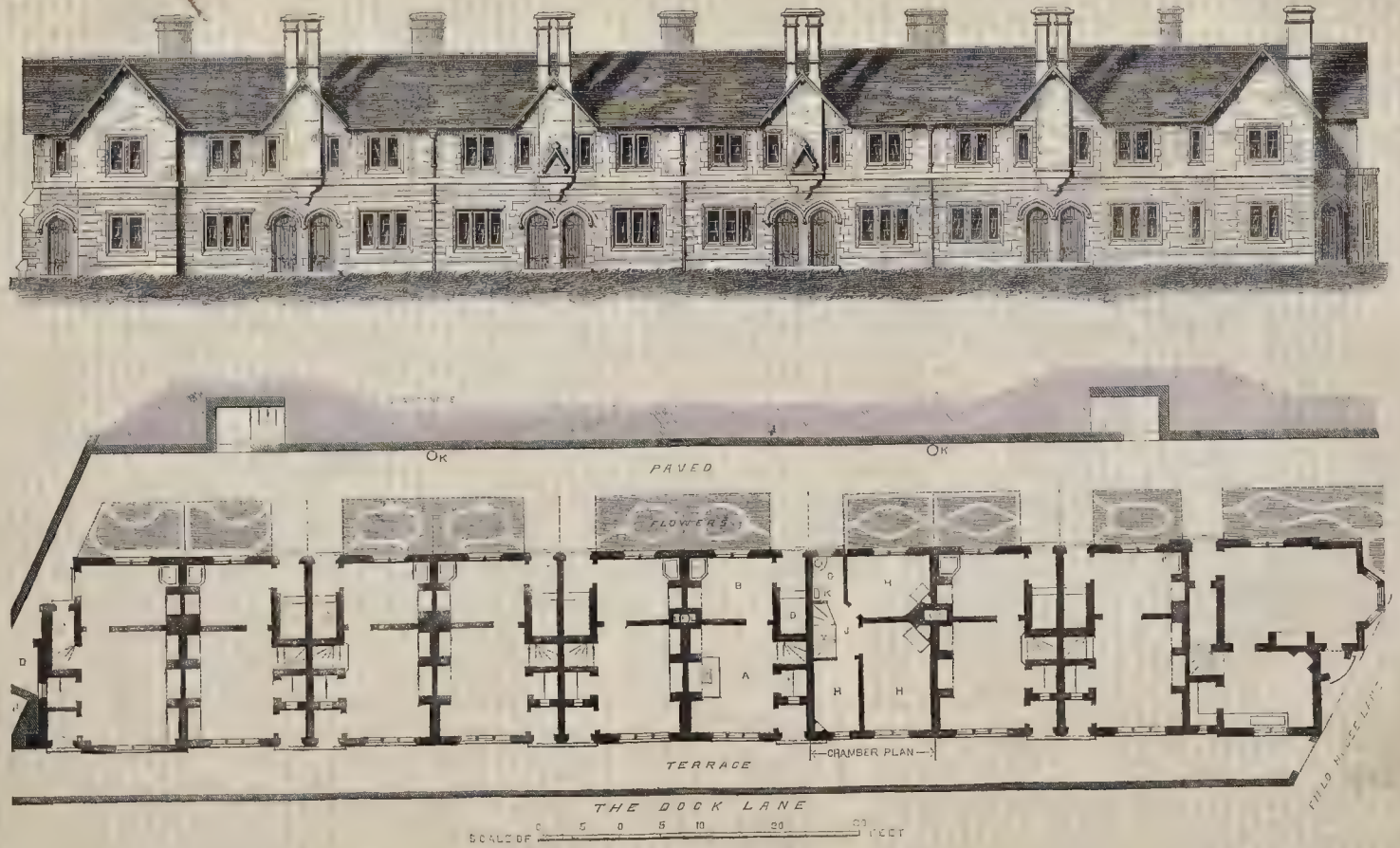
THE BUILDERS' BENEVOLENT INSTITUTION.

At a recent meeting of the supporters of this charity, Mr. Thomas Cozens in the chair, it was resolved that an election of pensioners, one male and one female, should take place on the 29th November next. Mr. Joshua Higgs expressed a hope that the builders generally would liberally patronize the annual dinner of the charity on the 30th instant. We echo this hope sincerely. There is already a very full list of stewards, but there cannot be too many. We trust that there will be a weighty addition made by the dinner to the funds of the charity.

The subscriptions and donations received last year amount to 1,225*l.* 9s.; and 400*l.* stock have been added to the amount funded in the names of the trustees, making the total amount invested, 4,750*l.*—3,250*l.* stock to the relief fund, and 1,500*l.* to the building fund, with a balance at the bankers' of 338*l.* 2s. 11½*d.*

The number of pensioners now enjoying the bounty of the subscribers and donors is twenty-nine,—sixteen of them males, and thirteen females.

Hobson's Conduit, Cambridge.—In answer to our observation as to the removal of Hobson's conduit, the *Cambridge Chronicle* says,—"Our fellow-townsmen feel too strong an attachment to his memory to permit any memorial of him to be destroyed. It has been proposed to put up the old conduit at the entrance to the town in Trumpington-street—a very appropriate spot, where it would form an additional ornament to that already beautiful promenade. For our contemporary's information we may state, that a large picture of Hobson on horseback is preserved in the Town-hall, and that one of the streets in the town is named after him."



MODEL DWELLINGS, DUDLEY.—Mr. Wigginton, Architect.

CHURCH-BUILDING NEWS.

Lincoln.—It is understood that the Dean and Chapter purpose almost immediately to remove the stained glass from the window of the north end of the great transept, and to have it replaced securely and restored perfectly, Mr. L'Estrange, who some years since inspected it closely, having pronounced that the glass was placed in very insecurely, and was liable to damage from strong gusts of wind. Two more memorial windows are shortly to be added to the two already placed in the south aisle of the nave; and the memorial window to the late bishop will, ere long, be ready to be placed in the southern part of the small transept. In two or three years, therefore, considerable regeneration of the cathedral windows will have been worked out. The new eastern window throws a coloured light amongst the old carved work of the choir; and if the west-end windows were also of stained glass, the "dim religious light" would be largely obtained. To secure this object it is proposed that a public subscription be commenced, and it is understood that the Dean and Chapter would contribute liberally.

Ilkeston.—The following are the alterations that have been made in Ilkeston Church, under the superintendence of Mr. L. Walker, of Leicester, architect:—The aisles have been rebuilt, and produced westward, to their original length; a large new area enclosed within the church; a new vestry built; a chancel arch erected; the principal entrance made through the tower, and the western arch, which was blocked up, has been re-opened and restored: the whole of the windows, doorways, roofs, and nearly all the seats, are new: additional churchyard space has been enclosed; and provision has been made for warming and lighting. The style of the tower is to be altered from Italian to Early English. In addition to replacing the old decayed pews by new seats, further accommodation has been gained for 345 worshippers. The new buildings are said to be in strict accordance with the ancient design (Early Decorated). The stained glass window on the south-east end is the work and offering of a neighbouring clergyman. The additions to the font, to make it correspond with a marble base discovered under the flooring, are presented by Mr. Walker, the architect; and the whole of the new carving, the parapet, and several additions, by a friend. The works have been executed by Messrs. Lindley and Firn, of Leicester, builders and contractors.

Nottingham.—The foundation-stone of the New Congregational Church, at Snenton, Nottingham, was laid on Monday before last. It is in the Italian style, and will accommodate 800. The design was selected from amongst the "model" designs of the English Congregational Chapel Building Society. Mr. Oliver, jun. is the architect.

Harvington.—The restoration of the church of Harvington, near Evesham, has now been brought almost to a conclusion. On the re-opening in December, 1853, an unexpected piece of good fortune awaited the parishioners in the shape of a cheque for 1,000*l.* which the rector put on the plate as a present from Mrs. Lydia Ward, a native of the parish, then in her 98th year. This donation has been expended. The old Norman tower, built originally for a smaller edifice, has been surmounted by a broach spire with four louvre windows, made of timber, in order not to try too much the old and loosely-connected Norman walls of the tower, and covered with heart of oak shingles. A vestry has been added to the church. The three old bells have been replaced by a peal of six, cast and fixed by Messrs. Mears, of London. The bells are fixed on a frame, and instead of being swung on a wheel and hit by clappers, are struck by hammers on the inner edge of their rims, the hammers being put in motion by wires directed by pulleys into a chamber below, where they are connected with a key-board (as in a similar instance at Abberley new church). The keys are made with knobs of wood, and tunes may be easily played on them. In the bell-chamber has been also fixed a clock, made by Mr. Dent, of London. The windows of the nave have received new glass, with coloured borders, and the tracery is filled in with glass restored partly from remains found in the windows of the choir, and partly from fragments of the same date found in the neighbouring church of Sedgeberrow. Stained glass has been inserted in the flamboyant east window, as a memorial to Mrs Lydia Ward. It is the production of Mr. F. Preedy, of Worcester. The design of the east window is the Ascension. The spire was erected by Mr. C. Hunt, builder.

Abbot's Bromley.—The re-opening of St. Nicholas Church, Abbot's Bromley, took place on Thursday, in week before last. The architect employed was Mr. G. E. Street, of Oxford. The work of restoration has included the re-building of almost all the external walls, new roof to chancel, the whole of the aisles, and a new south porch, and new sacristy; and where the old walls have been sound enough to stand, they have been scraped and restored. The whole floor of the church has been lowered considerably, so as to show the bases of the columns. The whole eastern part of the church is entirely new; no traces of its original design having been left by the church despoilers of last century. The east window has seven lights with geometrical tracery and mouldings. It is flanked by buttresses, and the gable surmounted by a cross. The vestry terminates the east end of south aisle, and beneath it there is a chamber for the heating apparatus. The windows, &c. in the eastern part of the north aisle have been restored by Mr. T. Turnor and friends, as a mark of respect for Lord Bagot. The whole south aisle is new, and has buttresses and windows founded upon the whole windows of the nave. The new south porch is of wrought oak, and its sides filled in with open tracery work. The nave and aisles are filled with simple moveable open seats. The chancel is divided from the nave and aisles by low screens of stone and alabaster, with gates of open tracery work, and is raised on steps gradually ascending to the east. The chancel stalls are temporary, for want of funds to execute the stall-work originally designed. The old sedilia, &c. have been restored. The architect prepared a design for a steeple. The cost of the restoration amounts to more than 4,000*l.* of which 1,500*l.* have been borrowed on the rates, to be repaid in twenty years, and there still remains a deficiency of upwards of 500*l.*

St. Hilary.—The rebuilt church of St. Hilary, Cornwall, consists of porch, nave, chancel, and north and south aisles. The roof is lined throughout with Memel pine. The style adopted is that of the thirteenth century. The chancel and sacrarium arches are supported by detached columns of black marble. The benches are low, open, and uniform, the ends being of oak. The chancel is fitted with stalls, and the floor is paved throughout with tiles.

Truro.—The new church in St. George's district, lately consecrated, is the fourth which has been built in connection with Truro, and the third within the town itself, within the last twelve years. The new church is 135 feet long, including the apse and base of the tower, and thirty-two and a half wide at the nave. It is planned to admit of enlargement by side aisles to the extent of the transepts. The style is Early English. The roof is open. The seats, of stained deal, are all open and free. Three windows of stained glass occupy the several faces of the apse, the centre representing the Crucifixion, the other two, the Beloved Disciple and the Mother of our Lord, as on either side the Cross. Two other windows in the choir represent the instruments of the crucifixion; and there are three other windows of stained glass, two in the chancel, and one in the east side of north transept. A font, of St. Stephen's granite, stands at the west end, in the base of the tower. The tower is fitted for a peal of bells, but these, as well as the spire, wait for funds.

Birmingham.—The Church of the Saviour here has been decorated in the interior. Mr. Dawson, who is the pastor, is said to be somewhat sceptical as to the influence of whitewash and ugliness on piety, and has made his chapel a standing protest against the supposition that Christianity is inimical to the progress of the arts, or that because they were patronised at Rome, therefore they were to be held up as objects of aversion and abhorrence to all Protestants. This chapel, remarks the local *Journal*, forms, if we mistake not, the only provincial example of how colour may be used somewhat freely in an ecclesiastical edifice. Mr. William Harris, of Birmingham, was the architect entrusted with the preparation of a suitable design. One of the chief principles on which the architect acted was the rejection of imitative painting, from the necessity of strict truthfulness being specially observed in church architecture. The style of decoration is Italian, in accordance with that of the building. In the ceiling only are primary colours used to any large extent. The prevailing colour here is blue. The divisions between the lights and between the compartments in the centre, the soffits of which are coloured deep red with a yellow fret, are in dark shadow. Symbols of the Christian religion are introduced in the ceiling. The colour upon the walls is a delicate aërial grey, designed to show out the ornamentation and the architectural construction, and keep up in effect the size of the building. There is light salmon colour on the pilasters, architrave, and frieze. The capitals of the pilasters form a prominent part of the design: they are decorated with a white and gold lily upon a blue ground. In the centre of the side wall panels are placed the symbols of the four evangelists, together with the dove, the cross, and the inverted torch within the symbol of eternity. These are quiet in form and colour. On the glass in the ceiling is painted a vine illustrative of the text, "I am the vine and ye are the branches." Mr. Whitworth, of Birmingham, carried out the designings. The lighting is also being improved. There will be a couple of sunlights on the same principle as those in the Town-hall; but an additional source of light will be placed between the glass ceiling and the roof, strong reflectors being used to throw it into the body of the building. Warming apparatus has been laid down.

Sheffield.—The foundation-stone of Ebenezer Wesleyan Reform Chapel, Portmahon, was laid on Monday in last week. The chapel and schools are designed by Mr. Edward Macdougall, in the Anglo-Norman style of architecture; and the cost is to be under 800*l.* They are to be built by Mr. Hinde.

Skellingthorpe.—The group in Mr. Huddlestone's window, named "Christ raising Lazarus," should have been "Christ raising Jairus's daughter." The windows in the church, with the exception of Mr. Carline's, were executed by Messrs. Clowson and Fussell.

GAS.

The Anglo-Romano Gas Company.—A meeting of this company was held on the 17th, in London, when the chairman, Mr. Keep, of Birmingham, read the report of the Gerant (Mr. Jas. Shepherd), upon which he passed encomiums. There was also a very satisfactory report from the President of the Conseil de Surveillance. The affairs of the company were discussed, the Gerant, in reply to several shareholders, giving detailed information upon the working of the concern, the satisfactory progress of which was demonstrated by the fact that contrary to the general run of continental gas affairs, the first six months' working presented a profit of 28*l.*; the second six months' 350*l.*; the third six months, 780*l.* The report, proposing a dividend of 2½ per cent. for the half-year past, payable on and after the 24th inst. was received and adopted, and thanks were voted to the Gerant for his zeal and energy.

Miscellaneous—"The South London Gas Consumers' Mutual Protection Association," has been organised, for the purpose of withstanding the combination of gas companies on the south side, whereby they have literally mapped out and shared and divided the South London district amongst them, under pretence of being thereby *able* (and truly so, too, were they but *willing*) to promote the interests of the gas consumers, whilst in reality, as alleged, boasting that now "there was nothing to prevent the directors from raising the price of gas to 20s. per 1,000 feet," as indeed it once actually was. A company established on free trade principles was the most active of all in promoting this rapacious and selfish combination, and they had almost juggled the House of Commons into legalizing the monopoly last session. Amongst the special objects which the Protective Association have in view, as stated in their prospectus, is a close and constant attention to the quality and price of gas, and to "the extraordinary and inexplicable increase of registration by meters experienced

by almost every consumer," an increase against consumers, said to have been discovered to be equally prevalent elsewhere, as at Liverpool.——Mr. Warner, of London, lectured lately to the Liverpool Polytechnic Society on "the System of Retailing Gas." Having explained the construction of a meter, the lecturer proceeded to correct, as he said, an error of Mr. Clegg's, that the gas was displaced by the water; and contended, in opposition to Mr. Taunton, that a meter, wet or dry, would, if properly constructed and properly placed, act equally well to whatever temperature it was exposed. He then alluded to the three systems of retailing gas, namely—selling it by weight, by contract, and by measurement, and urged that the last was the only one practicable.——The London Gas Company have declared a half-yearly dividend of 15s. per share, and the South Metropolitan Gas Company have appropriated 3,000*l.* for dividend at the rate of 3 per cent. for the half-year, 1,000*l.* as a bonus of 5s. per share, and the balance to be placed to the credit of the wear and tear account. The dividend is thus estimated to be at the rate of 8 per cent. per annum, clear of income tax.

MASTERS AND MEN.

WESTMINSTER COUNTY COURT.

Hayes *v.* Sir Morton Peto and Co.—Mr. Roberts, in opening the plaintiff's case, said the claim arose out of the contract which the defendants had entered into with the Government to make a railway in the Crimea. In this action, the plaintiff was a mason, and sought to recover 18*l.* for wages due under a contract entered into between him and the defendants.

Wm. Henry Hayes, the plaintiff, said, "I signed an agreement, which has been referred to. In consequence of the hurry, I did not sign it until I reached the Crimea, some time after. I entered the defendants' service on the 7th December last, and started for the Crimea on the same day. On arriving at the seat of war, I proceeded to fulfil my duties in the first instance as staff-man. I eventually became traffic manager. Col. McMurdo had the command of the Land Transport Corps, and on the 9th of June last he directed me to procure some waggons to enable him to send up some ammunition and powder to the camp. I had sent up six waggons that morning. He requested me to get more. I had no waggons at my end of the line, and I therefore proceeded to the heights of Kadikoi, about two miles and a half from Balaclava, to get some from thence. I found all the waggons there loaded with the sick and wounded, and the line blocked, owing to some disarrangement. I was then obliged to go on to the terminus, and I there found some waggons, but they were not in a fit state to be brought down, and I was unable to carry out Col. McMurdo's orders. I then returned to Balaclava; but it was rather late, as I had to walk both ways. I lost no time in endeavouring to carry out my instructions. The next day I received a letter from Mr. Beattie, informing me I was dismissed for being absent from my duty. I saw Mr. Beattie on the following Monday, when he told me to go to his secretary, Mr. Stone, to get a ship. I saw him again on the 2nd of July, when I signed a letter stating that I had been paid up to the time of my discharge, the 9th of June. Mr. Stone wrote that letter, and I signed it; but I distinctly understood from Mr. Stone that I was to be paid up to the time of my arrival in England. My claim for wages due from the 9th of June to that time, together with my railway fare from Portsmouth to London, amounts to 18*l.*"

Cross-examined by Mr. Woodman.—"I went out first as staff-man. Acted as such for two months. I then went into the commissariat department. I used to draw the commissary stores. I then became traffic manager. I was once discharged and reinstated by Mr. Beattie. My duties were to see the waggons loaded and send up the ammunition, &c. to the camp. I received orders from Col. McMurdo. I conceive it was my duty to obey him as well as Mr. Beattie."

Mr. Woodman, on behalf of Sir S. M. Peto and Co. said they had no desire to act illiberally; but they believed this claim to be unjust and an after-thought. The accounts they had received of the plaintiff's conduct were most unsatisfactory. He had habitually neglected his duty, and seemed to have gone out under the impression that he was to do nothing, and live like a gentleman. By his own admission, he had been reinstated once, and the letter he had signed acknowledged that he had been discharged on the 9th June. In addition, there had been two cash accounts prepared, one on the 21st of June, and the other on the 2nd of July, which had been accepted by the plaintiff, and signed by him, and by which he admitted that his claim was only for 209½ days. The sum that he was entitled to was 4*l.* 16s. being the balance of 62*l.* 17s. This sum had been tendered, and was now paid into court. The only object Sir S. M. Peto and Co. as the agents of the government, had in view, was to resist a claim they considered unjust, and which they, therefore, could not ask her Majesty's Government to sanction.

The learned Judge, after looking at the accounts, said he could not get over the difficulty the plaintiff himself had created, by assenting to limit his claim to the 209½ days, and his verdict must be for the defendants.

Mr. Woodman, on behalf of the defendants, waived their claim to costs.

RAILWAY MATTERS.

French Lines.—The following are recent returns of the gross receipts of the principal French lines of railway.—

	Week ending	Passengers.	Goods.	Total.	Corresponding week last year.
		F.	F.	F.	F.
Northern ...	Sept. 16	635,272	522,303	1,157,575	885,239
West and N.-west	,, 16	681,250	302,892	984,142	679,669
Orleans and branches ...	,, 15	588,669	607,615	1,196,184	985,495
Strasburgh ...	,, 9	557,546	443,376	1 000,922	765,019
Montereau ...	,, 16	26,285	29,545	55,330	—
Lyons	,, 15	585,532	564,502	1,049,034	623,262
Lyons to Mediterranean	,, 9	220,406	257,377	479,783	—
Gd. Central (Lyons to Roanne) ..	,, 8	51,643	162,367	214,010	185,591

Remunerativeness of Low Railway Fares.—For some time past the Lancashire and Yorkshire and East Lancashire Railway Companies have been carrying passengers from Manchester and other places to Southport at very low fares. At the recent half-yearly meeting of the Lancashire and Yorkshire Company, an inquiry was made as to the effect of this competition, and the vice-chairman is reported to have replied that "the result had been so far satisfactory. From the 5th of August to the 2nd of September the Company received 100*l.* more at the low rates than before, and the result to the East Lancashire had been similar. It had developed one of the most extraordinary facts in connection with railway history. He was not at all prepared to find, as had been the case, that the receipts for the two companies had been 1,523*l.* instead of 708*l.* for the previous half-year."

American Progress in Railway Construction.—In the formation of the Troy and Greenfield Railway the application of machinery, aided by steam power, is about to be carried into effect on an extended scale, more particularly in the formation of tunnels. This line is forty-two miles in length, and will connect the present railway from Boston to Greenfield at Troy with the Buffalo line. The tunnel in which the experiment is proposed to be first made will pass through the Hoosack Mountain, in the range of the Green Mountains. The Hoosack Mountain is mainly of mica slate. The stratification, or pitch of the seams, is nearly vertical, almost at right angles with the line of the railway through the tunnel. The length of the tunnel is 24,300 feet, rather exceeding 4½ miles, having an ascending gradient of 1 in 210 in each direction. The eastern summit of the mountain rises 1,700 feet, and the western 1,200. The tunnel will pass directly through the mountain, and will be 20 feet in height, and about 24 feet in diameter. The total contents of the tunnel are estimated at 390,000 cubic yards. It is proposed, by machinery worked by steam power, to drive a heading through the mountain 8 feet in diameter, and by means of cross-cut drills to cut into the face of the rock transversely in sections, which, by aid of gunpowder, will readily be displaced, the machinery in its progress removing and distributing the soil at either end as the work proceeds. Owing to the height of the mountain, it is impossible to sink shafts: recourse, therefore, must be had to artificial means to thoroughly ventilate the tunnel, which will be accomplished by the process of exhaustion. The inclination of the railway being from the ends upward toward the centre of the tunnel, complete drainage will be attained. This tunnel will be longer even than the Box Tunnel, on the Great Western line.

Odds and Ends.—The London and North-Western train miles have been reduced 1,000 a week, by which, and other matters, 800*l.* a week will, it is said, be saved, or, in round numbers, 42,000*l.* a year. ——According to a report of the Wellington and Severn Junction Company, a contract has been entered into for the works between Ketley and Horsebay, and economy will be exercised in the outlay.——At a meeting held lately at Great Malvern, resolutions were passed in favour of the immediate construction of the Worcester and Hereford Railway.——The project of a line from Epsom to Letherhead has received the support of the inhabitants of the latter town.——It is stated that the East Suffolk Railway will be leased by Sir S. M. Peto at six per cent. per annum for fourteen years, on the actual cost, interest to be paid at the rate of three and a half per cent. during construction.——Great exertions are being made to carry out the line from Yeovil to Exeter. ——Several new projects have been brought forward to complete railway communication in Aberdeenshire, and they have received the sanction of the inhabitants and others locally interested.——The shareholders of the Ulster Railway have empowered the directors to create additional capital for completing the extension from Armagh to Monaghan.——The Turkish Government have resolved to throw open to the competition of European capitalists the exclusive privilege of constructing and working certain projected lines of railway. In this view, the line between Constantinople and Belgrade has been selected to commence with.

DRURY-LANE THEATRE; AND EGRESS.

The difference in the dates of the alleged commencement of the building of Drury-lane theatre may be accounted for in this way. The 21st October was the day on which the builder took possession of the premises, and the first workmen were taken on; but the first stone (as it is called) was probably not laid till the 29th; the intervening time being occupied in preliminary works; for it is well known to professional and practical men that "laying the first stone" is only a ceremony, and that much previous work is generally executed.

Among the contrivances for guarding against accidents and loss of life by fire, one was, that the door-frames of the outer doors were made to act on pivots, so that if, on an alarm, the doors should get closed (a thing not unlikely), the pressure of the crowd would force the doors outwards from the frames moving on a centre: this I presume still exists, unless they have been altered, or rust and neglect have rendered them useless.

H. B. H.

SCENERY AT DRURY-LANE.

Accustomed as we have been for some years past to comment on the efforts of our scene-painters, a practice, we venture to say, that has led the daily press to give more attention to these artists than was given formerly, it would not be just if we allowed Mr. E. T. Smith's spirited endeavours in this respect at Drury-lane to pass unnoticed. A very large sum of money, and much thought, have been expended on the production of "Nitocris," and some very striking effects have been produced. We may not say that the scenery is perfect; it is hard and over coloured: the executants, able as they are, wanted a Grieve or a Beverley to advise with; but there is, nevertheless, much to admire and praise. The effect of space in the last scene is very striking, and we must not omit praise to Dykwynkyn for the costumes. A good scene, the Sphynx at the foot of the great pyramid, used in the first instance, is now omitted. The artists named in the bills are Messrs. Nicholls, Cooper, Cuthbert, Aglio, and others.

"Married for Money" is a capital little comedy, capitally acted by Mr. Charles Mathews, Mrs. Frank Matthews, and others.

THE SHEFFIELD THEATRE.

Considerable alterations and improvements have been made here, at the cost of more than 3,000*l.* under the direction of Messrs. Flockton, architects.

The decoration and gilding are by Mr. Anderton and Messrs. Hinkins and Eccles, of Manchester; the upholstery by Mr. Johnson, of Sheffield. The audience portion of the house is much improved, both as regards comfort and convenience. When the house is full the box lobby may be used for spectators, it being so constructed as to give a full view of the stage. While the comfort of the more aristocratic portion of the audience will be fully provided for, that of the humbler visitors has not been forgotten. The ventilation is effected by means of two cold-air chambers, one on each side of the house. Fresh air from these sources can be admitted at pleasure at the back of the boxes; while the hot air, on the other hand, will be carried off by tubes over gas-lights at the back of the boxes, and thence conveyed through a large ventilating shaft in the roof.

The auditory, in shape, somewhat resembles the old Lyceum. The pit will contain about 1,000 persons, with two rows of stalls in front. The gallery will contain above 1,000 persons. The decorations are of composition, on pink

ground, and etched in with gold. The stage and machinery, under the direction of Mr. R. Strachan, are constructed with care, commencing with a mezzanine floor, similar to Drury-lane. The stage itself is so formed as to be adjusted to any position that dramatic effect may require, by means of slides, on an entirely new principle, so arranged as to draw off at any point for the purpose of working screws. It is well fitted with traps and other stage appliances, all of which are on a new principle, embracing every improvement that modern theatrical machinery possesses. At the back of the stage there is a large painting-room, fitted with every required convenience. There are two tiers of flies, as in large theatres.

The gas department was entrusted to Mr. J. D. Palmer, jun. of the Royal Italian Opera, Covent Garden, who has made many improvements in the lighting department, particularly a double-action float for three colours, working from one cock: there is also a regulation-plate, for arranging the whole of the lights on the stage.

AN APPEAL FOR THE ARCHITECTURAL EXHIBITION.

The Great Exhibition of Paris, differing from that of London in several essential principles, has established accordingly several essentially different results. Among the most remarkable of these I believe is generally admitted to be the decided superiority of the English school of architecture; a superiority which we never claimed, and which comes upon us by surprise. If we are deficient in that brilliant but ephemeral taste which, animated by a brighter sky, can make a street a gallery of the graces, or a square the garden of a palace, we are none the less supreme (so it appears), in our colder air, in that substantial and manly statuesque building—aiming at less and succeeding in more—that great art—which through the ages marks the road of time, and writes the record of the just pride of nations, as in the hand of God they rise, and culminate, and fall.

There is a reason for everything, and a reason for this; but rather than discuss the unsuspected cause, let us adopt the grateful result, and affirm at once that it is obviously worthy of exertion to follow it up.

Some years ago an annual architectural exhibition was established in London. Like all such efforts, it has had to pass through early times of patience and hope. The original promoters, so soon as their project could walk alone, generously relinquished their authority: in plain language, the enterprising young men who set the exhibition first on foot, and for a year or two paid its expenses, handed it over cheerfully to a committee of subscribers as soon as better men than themselves could be found to adopt this charge. A scheme so set on foot and so conducted deserves success.

This institution forms a nucleus now around which the architects of England are this year called upon (in view of their success in Paris) to collect an exposition of their art, which shall display at home that supremacy which has so unexpectedly appeared abroad. The public will now look for something different from our former exhibitions: they will drop in upon us this year to see what was seen in Paris. They must not be disappointed: we must show them rather that if we had been warned to exertion we might have done better still. There is no doubt that upon office walls throughout the kingdom there hang at this moment the materials for such a display as the architectural world may find it worth their while to come to London this winter to see, to say nothing of the two months yet before us for the preparation, every one of us, of something special; and to say nothing too of the specimens of building manufactures, which England, beyond all the world besides, can in such interesting abundance and excellence supply.

To produce the desirable result of an Architectural Exhibition, this year, which shall keep up our reputation, so suddenly but justly acquired, I would beg to suggest one or two proceedings which I think are worthy of consideration by the Exhibition Committee, the profession at large, and the Institute of Architects: and in passing, I would congratulate the Institute upon the position which a late legislative enactment gives to that body, and which I trust will dispose it to such exertions on behalf of professional objects as befits its now recognised authority.

First, an extraordinary appeal to be addressed to the profession, every man to have in readiness by December next the best illustrations he can supply of his favourite style of design.

Secondly, a regulation to be established that every exhibitor's works shall, as far as possible, be kept together on the walls.

Thirdly, a special request to be made to such gentlemen as are known to possess superior drawings, that they will send them for exhibition; and a similar request to the architects of works of recognised superiority and importance.

Fourthly, a complete assortment of articles of manufacture to be collected under a special committee.

Fifthly, a proper and liberal recognition of merit (a diploma will be sufficient), to be provided for under a jury of architects of the first rank.

Sixthly, the Institute to be memorialized to bestow their medal upon a certain number of the best designs and specimens exhibited.

Seventhly (to make up the perfect number), all jealousy to be, as far as in us lies, carefully put in our boots and trodden under foot for the occasion,—not merely that jealousy by which weak human nature is blind to the antagonistic merit of another, but that jealousy more dangerous still—more opposed to the progress of one's order and of one's self — by which we are induced to fall back on pride, and decide the friendly contest by declining it.

In conclusion, I beg you, sir, to give us the weight of an article on the subject, and to request and insert in your columns the suggestions of the profession upon this assuredly interesting theme. R. K.

A NOTE FROM CORK.

Building has been tolerably active during the past summer, and all classes of building artizans are at present fully employed. The timber jetty to the new pier at Queenstown is just completed, from the designs of Sir John Benson, harbour engineer; contractor, Mr. John Edwards. Cost, 3,200*l*. Queenstown is said to be looking up: the new Scotch Church there has been just completed; style, Early English, consisting of a nave, chancel, robing-room, and tower and spire at the south-west corner of nave. The enterprising shipping firm of James Scott and Co. are building almost a new town at the west end. In addition to the new square completed some time since, they have built a spacious hotel, facing the Columbine Quay, and are now erecting a row of large houses to the west of the hotel.

The Middleton Park Estate has been thrown open at last to building adventurers, but such are said to be the restrictions imposed upon those disposed to speculate that none have yet ventured to do so. Messrs. Wheeler and Co. ship-builders, are erecting spacious docks adjoining Queenstown, Sir John Rennie, engineer. Mr. Alexander Deane is the contractor.

In Cork, the great tunnel under the Barrack-hill, on the Great Southern and Western line, is completed, and would have been opened for traffic some weeks ago, were it not for the giving way of some arches which carry the Glanmire-road over the line at the southern mouth of the tunnel.

The new terminus on Penrose's-marsh is erecting, from the designs of Sir John Benson; contractor, Mr. John Bignel

On the Blackwall side of the river, a private lunatic asylum is being erected, for Dr. Osborne, from the designs of Mr. William Atkins. The building is of red brick, with limestone dressings. The same gentleman is also superintending improvements at Ryves Castle, for Mr. Franks.

SPOFFORTH CHURCH AND TOPCLIFFE CHURCH.

Concerning the animadversion of "The old Member of the Yorkshire Architectural Society," on the editor's heading to my communication, I shall not offer any remark. As to the chancel, which he considers out of all proportion to the other parts of the building, perhaps I may be allowed to differ with him. Besides, they have so reduced their accommodation, that the rector's and Sir Jos. Ratcliffe's pews fill a great portion of the remaining room between the chancel arch and the rails, and, for want of a better situation, they have placed a fine old monument behind the rector's pew, which is of course very much hid; but I suppose, as the church is not a museum, we may be thankful that it has not shared the fate o many other beautiful specimens in the church. You correspondent complains of want of money, as on reason why the chancel was shortened, which seem to me strange indeed, for the chancel is in the rector' hands; and when the rector receives above 1,500 per annum from the church, he surely would no grudge to keep his portion of the church in repair at least under the circumstances, I think, the libertie which have been taken ought not to have bee allowed. But others managing this restoration, seem to have acted in a like spirit, for the churchwarden (no one caring to prevent them), sold all the lead o the church to defray the expenses with, and no some slates are put on.

I can only reiterate my opinion, that by thi scandalous proceeding they themselves have been th chief losers, for there is an impression in the neigh bourhood, that the church has been thoroughl spoiled, an opinion I myself am far from agreein with; as the church was before in a disgraceful con dition, and many new features speak to the taste an care of their architect, though I cannot help speakin out against some of their measures; and I hope an trust that they will not follow the advice of your co respondent, and root up the only remains of the caster portion of the late chancel.

While on this topic, I may, perhaps, be allowed t make a few remarks on another church, undergoin restoration in this neighbourhood. I allude to Top cliffe, where the rector and churchwarden have eac got his own architect, and (if we may judge fro the work in hand) with good reason on the part o the rector. The chancel mostly stands as yet: wh they are intending to do I cannot say; but I hop if they think of pulling it down, that they will thin again, and repent of such an idea. The body of th church we are too late to put in a plea for, as it is a down, and the old stones, bearing the venerabl marks of many a century, have all got neatly chiselle over, and replaced, and now the wall

> "A modern motley garb incongruous wears,
> Veiling the venerable form of years."

I hope the rector will keep an eye on the old bra there, and see that it is replaced, for some old ston and crosses that have stood on the church for age and should still be allowed to remain on the post th have so long and faithfully held, have been rejecte by the architect, and given to some of the com mittee. Such is the spirit in which this is unde taken! The old tower is down; its window tracer used for through stones on the new walls: all th lead off the church has been sold. About 900*l*. hav been got for it. The body of the church has bee shortened; and whether they are going to make goo the accommodation by a huge gallery to what th church would formerly hold, or leave it short of wh it was before, I cannot tell. M. R. F.

Notices of Books.

Isometrical Drawing. By Robert Scott Burn Books I. and II. W. and R. Chamber London and Edinburgh.

These two Parts form a portion of Messr Chambers's Educational Course, "Drawing an Perspective, in a series of Progressive Lesson with general Instructions;" and may be safel recommended. They contain a number of exam ples for practice.

Handbook for Travellers in Portugal. London: Murray.

In the "Hand-Book for Travellers in Po tugal" we have much more information as t the churches, palaces, and other public build ings, towns, &c. of Portugal, than has t now been collected in one focus. Portug is little known to the sightseer: from wa of common roads, far less of railroads, as we as from want of civilized "provender," trave ling is there anything but a mere jaun flight. A large mass of information h been gathered together, whether from pe sonal experience or by collation from previo sources. Here is a new country for the touri to conquer; and now that Mr. Murray "Spies" have pervaded the land, we may so expect to find it taken full possession of "the enemy." Of the churches of Lisbon, t author gives us an interesting chapter. T Cathedral Sé, or Basilica de Santa Maria, gloomy without being grand: it is a modera sized plain building, with two low weste towers. The whitewashed walls and colum contrast disagreeably with the gilding of t capitals. This is one of the most ancie

edifices in Lisbon. "Sao Vicente de Fora" is the most magnificent church; in its way, of all those in the capital. It entirely eclipses the cathedral. The west front is 100 feet in breadth, 97 to the balustrade, and 147 to the summit of the tower. The interior is 222 feet by 82 feet. The vaulted roof is of black and white marble. S. Antonio da Sé is a moderate-sized modern church, near the cathedral, with handsome fittings, and a number of pictures. S. Engracia is a vast edifice, which never was finished, and it is prophesied never will be. It was designed to constitute the largest rotunda known, with a single altar in the centre. The church of Nossa Senhora da Graça is a lofty cruciform building, without aisles. The Basilica do Coraçao de Jesus, or the Estrella, is the most gorgeous and conspicuous of the Lisbon churches: it is a copy on a reduced scale of St. Peter's, at Rome. The church of S. Roque is very plain externally, but contains the chapel of Sao Joao Baptista, which cost the incredible sum of 14,000,000 crusados, though filling only a moderate-sized recess. It was got up at Rome, and there consecrated by the Pope, and taken to pieces again to be sent to Lisbon. Numerous other Lisbon churches are described in Mr. Murray's very interesting "Hand-Book of Portugal."

VARIORUM.

Mr. Herbert Spencer's trenchant and logical article on "Railway Morals and Railway Policy," originally published in the *Edinburgh Review*, has been reprinted in the "Travellers' Library" of Messrs. Longman and Co. (No. 89), together with as much more matter by other writers, chiefly American, connected with Mr. Spencer's exposure of railway mismanagement and the remedy.——In a tract titled "Bread for the People secured by the skilful Cultivation and efficient Supervision of Estates" (Dalton, Cockspur-street, publisher), Mr. Layton Cooke, land-agent and surveyor, points out that there is abundance of land in England to feed the whole population if skilfully cultivated and particularly by a proper granulation of the soil. He does not appear to specify how, but doubtless either by the adaptation of digging-machines, &c. to the purpose, or by spade cultivation, which that energetic old fellow, William Cobbett, so pressingly urged. As a small spoke in the wheel of progress towards that full expansion of the agricultural branch of our manufactures which we have long and hopefully anticipated, we recommend Mr. Cooke's little tract to notice.——The General Board of Health have issued in a printed form a "Report on the Results of the different Methods of Treatment pursued in Epidemic Cholera in the Provinces throughout England and Scotland in 1854," being supplemental to the Metropolitan Report addressed to the president of the Board by the Treatment Committee of the Medical Council. Though too strictly medical for more detailed notice here, the result is interesting and instructive. Astringents, with opium and ether, appear to have been most successful in the recovery of patients from the cholera, and aperients from the consecutive fever (which it may be noted, however, would probably not have supervened at all, in many cases, but for the injudicious use or continuance of such agents as ether and opium after the crisis of the choleraic stage had been conquered by aid of these most valuable medicines and other astringents besides the opium. That the chief influence of ether and opium, camphorated ether, &c. was attributable to their power to centrifugalize, as it were, the circulation, and withdraw its excess from the bowels, so curing the diarrhœa, while astringents also assisted in stopping it, seems very evident; and hence the consecutive fever, when this centrifugal pendulation of the blood was too violently and rapidly brought about. Cholera, in fact, is a twofold and pendulative disease, of contrary phases, in many cases probably beginning with slight fever).——Bournemouth, as a healthful and favourite watering-place, has found an able illustrator in Mr. Philip Brandon, in "The Illustrated, Historical, and Picturesque Guide to Bournemouth," just published by Messrs. Longman, and at Poole, by Mr. Sydenham. By the way, the new Sanitarium of the Brompton Consumption Hospital at Bournemouth was opened on Tuesday in last week. The "Guide" under notice contains an engraving of it.——Messrs. Blackwood and Sons, of Edinburgh and London, have published a second edition of "Page's "Introductory Text-book on Geology," which we are glad to see fulfilling its earlier promise as one of the very best of the numerous text-books now published for the use of the general reader, and the student of geology.——In No. 4 of the new series of the "Edinburgh New [or very old, rather, and long established] Philosophical Journal" (Black, of Edinburgh, and Longman, of London, publishers) there is an interesting article on the results of the drainage of Haarlem, by M. Gevers D'Endegeest, president of the Drainage Commission, and author of the previous work on this subject. From this article it appears that 16,866 hectares of land have been sold as well as redeemed, and have yielded 8,030,553 florins, a result in itself which has surpassed all expectation, inasmuch as the grand object of the drainage was rather to put an end to the encroachments of the lake than to make a lucrative speculation of it. Of the land, thirty-two hectares are reserved in two different places in the centre of the new Poldar, in order to build villages there. This ground will be sold for thirty cents per square metre, for building houses after a given plan, which, after deduction of ground for streets and squares, will bring in 70,000 florins more. The ultimate profit, however, is not a money one so much as one of general improvement, for the total expense for the works of drainage from 1839 to the 31st of December, 1855, is set down at 3,981,344 florins; but on the whole calculations are given which result in the satisfactory conclusion that as respects outlay the works will have cost the state *nothing*, while the centre of the country has been delivered from an immense lake which was always increasing, and constituted an enemy ever becoming more and more dangerous, and while, moreover, no less than 18,000 hectares of fertile land have been acquired for agriculture in a great centre of population and of capital towns. Two powerful steam-engines are still at work, and must be constantly kept at work, together with a third, about to be formed, and besides the irregular work of 250 windmills, in order to withdraw the ever accumulating water, so as to keep it down to its present level. In fact, it is stated that the two engines at work "have raised from the basin *since* the lake was drained in July, 1852, till the 1st of May, 1855, more than two-thirds of the mass of waters raised from the same basin by the engine at Spaarndam, throughout the period of the whole drainage, or during more than six years. This is attributed to heavy rains during the latter period. The same number of the "Edinburgh Philosophical Journal" also contains some chemical details as to two pigments, Indian Red, and Sienna, burnt and unburnt, besides other valuable articles on electricity, Geology, Botany, &c.——Mr. Mitchell, of Red Lion-court, Fleet-street, London, has issued a practical explanation of the new Limited Liability Act in combination with the Joint Stock Companies' Acts;—written for laymen and men of business, who may happen to be either projectors, promoters, directors of companies, or simply shareholders. It explains, in different sections, the proceedings to be adopted in forming a company under the Limited Liability Act, or applying it to companies already established; and it also especially explains the liabilities of directors, promoters, or shareholders. The author, Mr. Finlason, is a barrister of good standing.——The *Ecclesiologist* of the present month contains an elaborate notice of the Paris Exhibition, and fully confirms our objection to the material arrangement. In stone work, the writer gives the palm to the French, in wood to the English. "In glass-painting it would be difficult to assign the prize; or rather, it would, perhaps, be the fairest to say that the art is in a condition equally hopeless both in France and England!"——In a recently published work, "On the Nature, Treatment, and Prevention of Pulmonary Consumption" (Longman and Co.), Dr. Henry McCormac maintains that for its prevention, or cure if in time, a pure, fresh, untainted atmosphere, *at all hours, times, and places*, is the one single condition, which nothing whatever must interfere with or set aside. He attributes consumption, in all cases in the first instance, to the continued inspiration of impure air. The book shows a large amount of curious reading and a strong conviction. Even if the theory should not be wholly true, the circulation of the essay, by leading to the adoption of properly ventilated bed-chambers especially, would do a great amount of good.

Miscellanea.

The Proposed Washington Monument.—Some time ago we pointed out the questionable character of the proposed monument to Washington, in the national capital. Others are now saying the same thing in that country. One writer, Mr. Jarves, says,—"When the public are deluded, as in the case of the Washington monument at the national capital, into the expenditure of hundreds of thousands of dollars to perpetuate a violation of the first principles of art, it is time that the indignant protest of good taste should be heard all over the land, to spare it a disgrace as lasting as the firm material of which the monument is being constructed. A simple obelisk, as an expression of aspiring thought, is well enough; but to surround its base with Grecian architecture detracts from the dignity of the one and ruins the beauty of the other. Neither is in keeping with the character of Washington. Independent of the object of the monument, the nation, if it be completed according to its present design, will be in possession of the tallest shaft in existence, rising from out of a forest of Lilliputian columns,—I speak in a comparative sense,—much the same as a handle is stuck within the broom at its base. The sole idea in its erection appears to be to build something *higher* than any one else has ever built. Much good may this do us! Our children will be glad, it is to be hoped, to pay a million of money to pitch the monstrosity into the ocean."

Lambeth.—The nest of nuisances, from Lambeth Church, by the river side, up to Vauxhall-bridge, and on to Nine-elms, would be a disgrace to a city of barbarians, and I question very much if such people would allow such places to exist near their dwellings; yet we, forsooth, who boast of being the most civilized nation under the sun, seem to revel in the filth and nastiness of such factories as any person for the sake of gain may choose to plant in our great highways, and thereby poison a whole neighbourhood. Why should any tradesman be permitted to carry on any business in the metropolis which produces stenches and smoke which are disagreeable to his neighbours? The site of these stench factories at Lambeth might be converted into one of the prettiest suburbs of the town, if the whole was cleared from the river back to the railway, and the river front have a grand terrace of houses, and a wide road, planted with trees, next the river. It would also be a great improvement if the footpath next the river, in the front of the Penitentiary, was paved, and a row of trees planted there the whole length.—Improver.

A Coating for Lead wanted.—May I request some of your correspondents to inform me whether there is any description of paint, varnish, or other coating which, if applied to the surface of lead flats, gutters, valleys, &c. on roofs, will have the effect of preventing rain-water from being acted on injuriously by coming into contact with the lead exposed to the sun, air, &c.? I am desirous of obtaining a large supply of rain-water in as pure a state as possible, and it has to pass over a considerable surface of lead on the roof; and I wish, if practicable, to avoid any injurious results.—Belfast.

Prince of Wales-road.—There is a road,—no, there is not a road, but an elongated slough,—which extends from the high Hampstead-road, at the Tailors' Almshouses, for upwards of a quarter of a mile towards the Kentish-town main causeway: it is built throughout on both sides with neat houses, paved for the most part, and yet the drift way is axle-deep in mud. It has been in this state above three years! Often have I seen teams stuck fast therein—coal-waggons frequently—and twice vans loaded with furniture overset: on one occasion mirrors, tables, porcelain, and effects, were broken; and now that rain has set in, the line is wholly impracticable. The occupiers on either side or coast of this broad Acheron (for the lake or slough is 80 feet wide) pay paving and lighting as well as sewage rates—no thanks to them for that, it is compulsory—yet they apprehend that the levy is not legal under the circumstances, and look to the editor of the *Builder* to give an opinion on the matter, if Sir Benjamin Hall will not pull them through the difficulty.

The Oldest Inhabitant.

Condition of the Atmosphere during Cholera.—A paper on this subject, detailing some curious experiments by Dr. R. D. Thomson, was read at the late Glasgow meeting. Without going into the details, suffice it to say these experiments render it sufficiently obvious that organic living bodies constantly surround us in close apartments, and particularly that animal matter, under certain circumstances, is likewise diffused through such atmospheres. They fail to point out any matter capable of communicating cholera from one individual to another through the medium of the air, and, therefore, are so far important to the public; but they show that foreign animal matter injurious to health may speedily be concentrated in certain localities which will undoubtedly assist in the production and propagation of disease in conjunction with meteorological conditions.

St. Pancras and Marylebone Preventive and Reformatory Institution.—The foundation stone of a building, intended as a Preventive and Reformatory Institution for the parishes of St. Pancras and Marylebone, was laid last week, by Lord Robert Grosvenor. The intended institution is to be erected in the rear of the premises in the New-road, near Gower-street, temporarily occupied for the same object, and it is to be constructed from designs furnished by Mr. A. J. Baker, architect. The building will cost 850*l.* of which but 450*l.* are as yet subscribed.

Bell Founding.—Awhile since you did me the honour to insert a brief statement of the geometrical mode of dializing the twelve hours' lapse. I have purposed to bring to your notice the mode of belling the hours' knells so as greatly to increase the probability of ascertaining throughout the circle of resonancy what is struck, though but part be heard. At present I am wishful to put a little question anent bell-casting, as the art seems to be rather asleep among us. Witness the continental trip of Sir C. Barry and Professor Wheatstone to arrive at knowledge thereon. Sir, there are good peals in this country: let them be examined: let their proportionate *capacity* from note to note throughout each peal be ascertained; and then let the comparison of contents of peal with peal be made,—and I venture to prognosticate that this aerial music will be found true to itself in the requisite tumuluses of atmosphere wherewith the tremor of the metal plays being found correlative in all true sounding peals of bells, and that observance of those diatonic capacities in moulding the bell-cores, and rigid precaution that for the same peal a holo-amalgam be cast, will go far to ensure having a set needing little chiselling.—W. W.

Relic of Antiquity.—A Roman sudatory was discovered lately on the Castle-hill, at Lincoln, about 3 feet below the surface. It was composed of five arches, springing from different basements, and conjoining in the centre. The flue was discovered near the base of one of the arches. After a drawing had been taken, the entire relic was destroyed.

Scarcity of Labour in Wales.—Owing to railway, dock, and other extensions in South Wales, says the *Bristol Mirror*, the labour market is very inefficiently supplied. During the summer, wages have been exceedingly high, and at the present are from 25 to 30 per cent. above ordinary prices. In Pembrokeshire, where the contractors for the Government works now in progress take on all the hands they can get, common labourers are realizing 3s. 6d. while blacksmiths range from 5s. to 6s. a day. The wages of the men employed in the construction of the Briton Ferry Docks, have been increased to 3s. 4d. solely from difficulty in securing a sufficient number of hands. In the hill and colliery districts no man need be out of employment, for good workmen readily find occupation.

Iron Plate-cutting Machine.—A new machine for cutting iron plates has been made in the yard of Mr. Caldwell, engineer, Glasgow. It weighs between six and seven tons. The action of cutting the plates is said to be exceedingly simple. The machine can cut plates varying in thickness from $\frac{1}{8}$ths of an inch to the thinnest made, and 7$\frac{1}{2}$ feet in length. One of the blades is stationary, the other circular, and fixed to a wheel and pinion, and can be driven either by the hand or by any other power. It is expected to supersede the present tedious method of boring and chipping the edges of plates used in ship-building, as it can cut the plates at any angle, and with a straight edge. The invention is American, but the patent, it is said, has already been secured for Britain. There is a machine of this kind in operation in one of the Government dockyards.

Drainage of Oxford.—It may be of some public utility to point out, through the medium of your journal, the necessity which exists for applying an efficient system of drainage to the university and city of Oxford; and that, notwithstanding the large resources of the university, and the great amount of illness prevalent here during last year, this desideratum still remains in abeyance.—Hygeia.

Proposed Cemetery at Isleworth.—It is proposed to establish a cemetery at Park-hill, near Isleworth, under the new Act affording limited liability. The lands, extending to about fifty acres, can be obtained, it appears, by the directors at a price which, according to estimate and plans, will admit of their being drained, enclosed, and fully completed, with chapels and every proper convenience, for a sum under 50,000*l.* the soil being sand and gravel. The capital of the Company is fixed at 50,000*l.* in 10*l.* shares, with a deposit of 2*l.* per share. Each original holder of twenty shares and upwards, is to have right to free space for a vault, and each holder of not less than five shares to space for one free grave. Sheriff Rose is one of the trustees, and Alderman Wire one of the directors.

Birkenhead Dock Works.—At a recent meeting of the Liverpool Dock Committee, a report from Mr. J. B. Hartley was read, which stated that he proposed to construct, in the first instance, an open basin of about 4$\frac{1}{2}$ acres area; and opening from this in the line of its direction, three locks of the various widths of 50 feet, 28 feet, and 80 feet. The entrance-locks are intended to open into an intermediate dock of about 8$\frac{1}{2}$ acres area. Between this dock and the pool there will be a 50-feet and a 28-feet lock of similar size to those opening from the river, and a passage 80 feet in width. The report enters into various details for providing accommodation and carrying out the works. The design provides a double river entrance, having openings 70 feet and 60 feet in width, giving access to a half-tide basin 5$\frac{1}{2}$ acres in area: from this open two docks of a long and narrow character, of the respective areas of 6$\frac{1}{2}$ and 7$\frac{1}{2}$ acres; the former, or north dock, being distinct in itself, the latter joining to and forming an enlargement of the present Egerton Dock. In connection with this half-tide basin, Mr. Hartley has laid down the design for four graving docks. He estimated that the cost of the works for the No. 1 plan, submitted by him, would be 1,055,000*l.* and for the No. 2 plan to 1,078,000*l.* The consideration of the report and plans was referred to the Works Sub-committee.

Christ Church, North Brixton.—This church was consecrated last week. Under the directions of Mr. V. Arnold, the whole work has been carried out by Messrs. Haward and Nixon, of Lambeth. The ceiling is decorated with white and gold, and the galleries are supported by iron pillars in imitation of marble. Over the altar are three stained-glass windows, painted by Messrs. Gibbs, of the New-road.

St. Paul's Cathedral.—Upon attending St. Paul's Cathedral on Monday, I was struck with the present unsightly appearance of the west side of its fine organ. An alteration has been made in the organ-gallery, supported by eight marble columns: the front facing the west, with Latin inscription upon it, has been taken down, and the present unsightly work put up to enable the organist to play on that side.—P.

The Iron Trade.—At the quarterly meetings, held at Wolverhampton, Birmingham, Stourbridge, and Dudley, attempts were made to force up the nominal prices the threatened 40s. a ton, but no further advance than the 20s. already agreed to was recognised.

The Whitechapel Competition.—The extraordinary advertisement inserted by the Whitechapel Board was responded to by a certain number of applicants, who must have felt themselves in a very wrong position when waiting to be called in to "bid." It appears that six have been selected to be treated with by the guardians.

Birmingham Architectural Society.—The session of the Birmingham Architectural Society was opened last week, by an address from the president, Mr. J. W. Hornblower, in which he traced the origin, progress, and usefulness of kindred societies on the Continent. Allusion was also made in the address to the position of the Birmingham Society, on the success and prospects of which the president congratulated the members. Mr. John H. Chamberlain, architect, was elected a Fellow. The secretary, Mr. J. R. Botham, made a very favourable report of the financial position of the society.

Who will explain?—Tenders for constructing the roads on the Temperance Permanent Land and Building Society's estate, at Stratford, Essex; Mr. William Ellison, surveyor:—

Geo. Boys	£1,017	0	0
C. Hawkes	650	0	0
J. Bunn	550	0	0
King and Mills	475	0	0
J. Ellis	458	10	0
P. Pound	426	0	0
Jas Stemp	325	15	0
E. Hughes	315	10	0
G. Rogers	295	0	0
J. Manning	274	10	0
W. Davis (accepted)	245	0	0
T. Gardiner	230	0	0

Smoke from Iron Works and Brick Ovens.—In reply to the paragraph thus headed last week, three or four patentees have written to us, simply undertaking to consume the smoke in such cases, if employed. One adds that he has "erected above fifty brick ovens within the last few years, in all of which the smoke can be thoroughly consumed."

Stained Glass at All Saints' Church, Kensington-park.—We should have mentioned that the glass in this church (illustrated last week), and which has a feature of novelty, was executed by Lavers, of Southampton-street, Strand, from the designs of the architect.

Street Pitching.—The *Bristol Times* describes a method of street pitching proposed by a Mr. Hoskings, and which consists of iron framework, diamonded and cast in square yards, to be so set in the streets. The diamond-shaped hollows between the bars (the bars to be about 6 inches deep, half-inch thick at top, and about three-quarters at bottom, the better to hold in the ground), he proposes to be filled up either with concrete or blocks of wood, about 4$\frac{1}{2}$ inches square, this being the space between the bars, which, by being grooved, are intended thus to furnish a secure footing for horses. The expense of laying this pitching would be about 2*l.* the square yard.

Patent Bricks.—A form of bricks for drainage, sewering, culverts, and other purposes, has been patented, which, instead of showing a plain surface on each joint, presents a small goggle, or toothing, upon each bed, which butts upon the actual joint, and thus, by covering the joint itself, the interstice is met by a resisting face. In circular work, either for shafts or sewers, the joints are radiated upon the same principle. The patent is taken out by Mr. Samuel Monk, Engineer, Smethwick.

New Plan of Hereford.—We are told that a plan of Hereford has been made by Mr. Curley, of that city, and that it is "the only plan of a town for which an independent trigonometrical survey, computed from the meridian, has been made by any civil engineer." A base line was measured on the meadow opposite the Bishop's Palace, on the south side of the river, that being a place well adapted for this purpose from the evenness of the ground. From the extreme ends of this base angles were taken, with a theodolite, to all prominent and well-defined objects on the opposite side of the river, such as church steeples, weather-cocks, station poles placed at certain places, &c. The theodolite was then removed to all accessible stations on the opposite side of the river, and angles taken to all the former objects, and also to new stations, and bolts placed in the streets; this operation being repeated from every station in the streets, &c. The whole area to be surveyed was by this means triangulated, and the distance from one object to another computed without any actual measurement except the base line already alluded to. There were still several stations in the streets that could not be observed, in consequence of buildings intervening: these stations had to be computed, and their respective positions determined by "traverse," an operation which was performed by running the working meridian from St. Nicholas's-square across Wye-bridge to Blackmarston. Its position was determined from the base line. From this meridian the traverse commenced, and from every station that had to be traversed, a round of angles was taken to all the visible objects that had been fixed trigonometrically.

TENDERS

For warehouse and dwelling, in Little Carter-lane, City, for Mr William Edwards. Mr. Horace Jones, architect. Quantities furnished by Mr. Reddall.

Willson	£2,030	0	0
Ashby and Son	1,998	0	0
Gammon	1,992	0	0
Mansfield and Son	1,980	0	0
Johnson	1,973	18	10
Ashby and Horner	1,950	0	0
Scott and Cornwall	1,944	9	0
Lawrence and Sons	1,942	0	0
Pritchard and Son (accepted)	1,881	0	0

For six houses, in Walter-street, Stepney, near the Green Dragon. Mr. Robert J. Brede, architect:—

Freeman (Bow)	£1,480	0	0
G. F. Moore	1,399	0	0
Hall	1,392	0	0
Tarrant	1,380	0	0
S. Denton	1,369	0	0
Milverton	1,212	0	0
Morgan	1,153	0	0
C. Goodman	1,138	0	0
N. B. Stevens	1,125	0	0
Simmonds	1,095	0	0
Cousins	1,050	0	0

For erecting parochial schools and master's house, for the parish of St. Barnabas, Homerton, Middlesex. Mr. Edmeston, architect. Quantities not supplied:—

	Schools.	Master's House.	Total.
Norris	£1,097	£34	£1,444
Hack and Son	1,083	270	1,353
Fox	1,000	—	—
Deane	975	359	1,334
Perry (accepted)	777	296	1,073

TO CORRESPONDENTS.

"F. S. M." (must refer, for himself, to the guide-books, &c.)—"S. and Son."—"R. S. T."—"O. J. S."—"C. and P."—"W. S." "W." (the suggestion has been made before. We may return to it).—"T. F."—"Observer"—"W. H. T."—"R. S."—"T. C."—"T. C."—"J. R." (declined with thanks).—"A. and C. S." (no).—"A. G. H."—"J. H."—"J. G. S." (and it)—"W. D."—"H. C." (we cannot advise).—"J. M. F."—Mr. G. "Ambulus."—"W."—"G. J. F. B."—"W. M."—"Peckwith."—"W. L. S." (unnecessary)—"T. A." (his name has been sent to the firm).—"R. W. W." (we have already mentioned the report).—"V. A."—"Mr. W."—"W. D."—"G. R. C."—Mr. H."—"Palladio."—"R. W. R."—"E. W. G."—"Omnibus."—"An Architect."—"E. B. D." (will appear).—"J. L." (remarks on the subject have appeared in early numbers).

"*Books and Address.*"—We are forced to decline pointing out books or trade addresses.

ADVERTISEMENTS.

AGENTS WANTED, for the SALE of BATH, FOR LAND, and ROMAN CEMENTS, for the Export Trade, and for any of the large towns of the United Kingdom. The highest references will be given and required. Address to A. B. C. care of Mr. W. H. Hayden, 17, Warwick-square, Paternoster-row, London.

AN ARCHITECT, with one of the highest appointments and best connections in the City, will shortly have a VACANCY in his Office for a PUPIL.—Address, C. R. Messrs. Pottie, Newspaper Agents, Royal-Exchange.

FOREMAN of SMITHS WANTED.—Inquire at the Iron Works, 168, Drury-lane.

TO PLUMBERS AND TINMEN.

TWO PLUMBERS and TWO TINMEN WANTED, immediately. Good workmen required. Constant employment. Apply to STEPHEN GREEN, Ironmonger, Haverfordwest.

TO CONTRACTORS, AGENTS &c.

WANTED, Two experienced Persons, who have been accustomed to public works, to take the management and superintendence of Railway Works in India. Address stating qualifications, and when and where last employed, to A. B. care of Mr. J. J. Tourle, 13, Southamp on-buildings, Chancery-lane London.

WANTED, 200 MEN to excavate soft clay in the Hon. Hole Drain, near Boston, Lincolnshire.—Inquire on the Works.

N.B.—The hard excavations are d ne.

WANTED, a few PLAIN CARPENTERS from the Country.—Apply, by letter, to J. H. Office of "The Builder."

WANTED, immediately, for a permanency, a steady, active MAN, as PLUMBER, who thoroughly understands the business.—Address, H. COPER, Hadlow, Kent, stating references and wages required.

WANTED, immediately, an ASSISTANT, thoroughly conversant with Gothic Architecture and Perspective Drawings. He must be a first-rate hand and must do the work at the Office. Those unable to compete may do so, but they will be required. Apply by letter stating terms, to A. B. care of the Housekeeper, Old Jewry-chambers.

TO SURVEYORS AND DRAUGHTSMEN.

WANTED, an expeditious, first-class, DRAUGHTSMAN, fully capable of setting up finished plans of towns, to examine and correct on the ground the plans drawn in the office. None but thoroughly-experienced draughtsmen, with good testimonials, need apply. Address, post-paid, stating salary, to E. W. 8, Post-office, Notting-hill.

WANTED, a good MAPPER and ORNAMENTAL WRITER, with a general knowledge of building.—Apply personally, stating particulars, to Mr. P. 8, Vassall-terrace, Hou ndsditch, Brixton.

TO ARCHITECTS AND SURVEYORS.

WANTED, a SITUATION, to take the MANAGEMENT of an OFFICE or as DRAUGHTSMAN, SURVEYOR, or CLERK of the WORKS. The advertiser is thoroughly conversant in the practice of a first-rate draughtsman and Surveyor. His references are to gentlemen of eminence in the profession with whom he has held engagements of years' standing. Has a silver medal from the Royal Academy. Age 28. No objection to the country. Address, X. X. Mr. Harrowbine's, 15, Bramgh-ll-st eet, Hy.

TO BUILDERS AND CONTRACTORS.

WANTED, a SITUATION as BUILDER'S FOREMAN, the advertiser having just completed a Government contract. Unexceptionable references can be had as to ability, &c. Address H. P. 9, Sun-street Workhouse, Bethnal-green.

TO ARCHITECTS AND BUILDERS.

WANTED, by a Young Man, an ENGAGEMENT as CLERK of WORKS, or GENERAL FOREMAN; has a thorough practical knowledge of the whole of the building business; is by trade a joiner, and can produce good references from whom he has served, and where he has been employed the whole time of the business. Address, A. B 84, Portland-street Walworth.

EMPLOYMENT.

WANTED, by a Gentleman, an ENGAGEMENT as Counting-House, or Wharf Clerk, for a permanency; to post up books by letter; as deposit (being a quick, clear hand); or in any way that his service can be made useful to those requiring assistance, having a general knowledge of and being well experienced in business. Salary moderate.—Address, U. X Office of "The Builder."

WANTED, by the Advertiser, a RE-ENGAGEMENT as OUT-DOOR or GENERAL FOREMAN. Good references and testimonials from present and parties as to competency and stability.—Address, H. W. Office of "The Builder."

TO CIVIL ENGINEERS.

WANTED, a RE-ENGAGEMENT, as ASSISTANT by an English gentleman, aged 25 years, educated abroad, and who has been for some time occupied on railway works in France. Unexceptionable references as to capability. Address, R. W. 21, Al ny-street, Regent's park.

WANTED, EMPLOYMENT by a BRICKLAYER, aged 37, who is thoroughly competent in all the branches of the business. Can be strongly recommended.—Address, A. Z. 47, Alfred-road, Harrow-road, Paddington.

TO LANDLORDS, HOUSE AGENTS, AND OTHERS.

WANTED, by a steady Mechanic, a permanent SITUATION, who thoroughly understands the general repair of houses, such as whitening, plast ring, slating, painting, gilding, paperhanging and every kind of general dilapidation; also understands the roof and drain work.—Apply to A. B 57, Garden-row, St. George's road, Southwark. Not particular to town or country.

TO BUILDERS AND OTHERS.

WANTED, by a practical PLASTERER, a SITUATION as WORKING FOREMAN. Can have good references.—Address, R. F. 39, Paradise-walk Chelsea.

TO BUILDERS AND OTHERS.

WANTED, a RE-ENGAGEMENT, by a BUILDER'S ACCOUNTANT, experienced in getting out the accounts of the Trade's various departments, and pricing for prime cost, charge, or estimates. No objection to the country, or temporary services.—Address, A. Z. Messrs. Bullon's, Grocers, Larkhall-lane, Clapham Surrey.

TO ARCHITECTS.

WANTED, a SITUATION, by the Advertiser, who can make perspective, working, and detail drawings. He is thoroughly conversant with Gothic in detail and mouldings, and qualified either for the routine or for superintendence of works. First-class testimonials. Address, S. K. P. Office of "The Builder."

TO PLUMBERS, PAINTERS AND GLAZIERS.

WANTED, to APPRENTICE a Lad to the above trade. Aged 17. Only a small premium will be given.—Address to A. C. at Cole's Newspaper Office, 3, Crozier str et, Lambeth.

TO BUILDERS.

WANTED, by a young Man, a RE-ENGAGEMENT in a Builder's Office. Has a good knowledge of drawing measuring, and co ts; as also of the routine of a builder's office; has had with a practical knowledge of the bench. Address, X. Y. Z. Mr. Cowtram, Post-office, Connaught-terrace, Edgware-road.

WANTED, by the Advertiser, EMPLOYMENT as PLUMBER and GAS-FITTER. Is a good iron-pipe fitter. Can be well recommended by his last employer. No objection to the country.—Address, A. H. Mr. Arter, Builder, Kennington cross, Surrey.

TO BUILDERS AND OTHERS.

WANTED, by a practical and experienced Man, a SITUATION as GENERAL or SHOP FOREMAN. No objection to the country.—Address, J. B. Office of "The Builder."

TO SURVEYORS, BUILDERS, AND OTHERS.

THE Advertiser, 33 years of age, a thorough SURVEYOR and practical accountant with 11 years of the building business, desires a SITUATION in a Surveyor's or Builder's establishment, or as General Manager of a Building Estate by salary or commission.—Apply by letter, C. T. T. South Western Railway Station, Guildford, Surrey.

TO THE BUILDING TRADE.

THE Advertiser, a steady industrious Man, having nearly finished his last job, is desirous of taking the JOINER'S WORK of one or more Houses to finish, the work either to prepare and fix, or fix only.—Address, M. M. Office of "The Builder."

TO BUILDERS.

THE Friends of a respectable Youth wish to place him as an APPRENTICE.—Address, A. Z 2, Walnut-tree-walk, Lambeth.

THE Advertiser, aged 23, being about to leave his present employer, desires one A RE-ENGAGEMENT. He has been accustomed to get out working detail drawings, and to estimate for small quantities, and has a good knowledge of land surveying. Excellent references and testimonials can be given. Salary moderate.—Address, A. B. Messrs. Hallifax and Co. Stationers, 315, Oxford-street.

A PRACTICAL CLERK of WORKS, accustomed to the charge of extensive works is open to an ENGAGEMENT. Salary 2 guin as per week.—Address, B. Office of "The Builder."

TO ARCHITECTS.

A GENTLEMAN, aged 27, well qualified, is open for RE-ENGAGEMENT as MANAGING CLERK, where he can be useful.—Address, J. F. T. Mr. Walford's, 17, Marlborough-square, Chelsea.

A S CLERK of WORKS or FOREMAN.—The advertiser, aged 29 years, is desirous of a RE-ENGAGEMENT, in either of the above capacities, in town or country; or to superintend alterations, &c. on a gentleman's estate. Has a thorough knowledge of taking out quantities, estimating, &c. Satisfactory testimonials will be produced.—Address I. J. 37, Hughstreet, Marylebone.

A LAND SURVEYOR, with fifteen years' experience in railway, parli, estate and town surveying, seeks EMPLOYMENT. The advertiser has recently finished a town survey of about 5,000 houses.—For further information address R. G. D. care of Messrs. Gilbert, Brothers, Book-sellers, 18, Gracechurch-street, City.

TO BUILDERS.

A YOUNG MAN, 23 years of age, fully capable of measuring, taking out quantities, and the routine of the office wishes a RE-ENGAGEMENT. Carpenter by trade. References to present employer.—Address, A. B 38, Great Marylebone-street, Portland-place.

A CLERK of WORKS would be happy to meet with an ENGAGEMENT in a superintending works of any magnitude; understands surveying, architectural drawing and estimating. Has no objection to undertake the entire management of a nobleman's or gentleman's estate. The highest references given.—Address, CANDUS, Mr. Maddox's, Stationer, 10, Albany-street, Regent's park.

TO BUILDERS, SURVEYORS, &c.

AS MANAGER of a large JOBBING BUSINESS, SALE of WORKS, or PRINCIPAL CLERK, the Advertiser offers his services, being fully competent to fulfil the duties of either of the most satisfactory references and testimonials will be given, and security, if required. Permanency is the advertiser's chief object.—Address, Y. Z. Retreat Cottage, Corking, Surrey.

A YOUNG MAN is desirous of an ENGAGEMENT in an ARCHITECT, SURVEYOR or BUILDER'S OFFICE. Is a good plan draughtsman, quick at figures, and thinks generally, steady in habits, and could make himself generally useful. No objection to the country. Salary moderate.—Address, B. F. C. Mr. Bannister's, 26, Chichester-place, Kin s Cross, London.

TO ARCHITECTS AND CIVIL ENGINEERS.

A GENTLEMAN of considerable ability is desirous of an ENGAGEMENT in London, or some important town, as an ARCHITECT. He will be found a most efficient department of his profession, in design and execution. Is well acquainted with general construction in various applications, and a superior surveyor and draughtsman. The advertiser is a single young man, of good address, who could take the management of an office in the absence of the principal, would be found very effective where competition drawings are required, and be as a rapid sketcher. would not object to going abroad. Can produce most satisfactory specimens, and if necessary, excellent testimonials. For particulars, apply with real name and address, to ARDIFICO, Mr. Parkes, Town-hall Printing-office, Burningham.

A MECHANICAL DRAUGHTSMAN (assistant) wants a SITUATION. One who has been used to make fair and working drawings of engines and machinery in general, and who has a knowledge of railway work. About 22 years of age, and has no objection to go abroad.—Address, P. T. G. 5, London-street, Paddington.

TO ARCHITECTS AND BUILDERS.

A CLERK of WORKS, a thorough Practical Man, having just completed some very extensive buildings, is open for an ENGAGEMENT. Is well acquainted with drawings and setting out works. address, post-paid, to R. K. Office of "The Builder."

A YOUNG MAN is in want of a SITUATION in a Builder's Office, either in town or country, who understands bookkeeping, taking off quantities, &c. and is willing to make himself generally useful.—Address, A. D. Office of "The Builder."

TO MASTER PLUMBERS.

A YOUNG MAN wishes to ARTICLE himself to the above BUSINESS for eighteen months. A premium of 5l. will be given.—Direct, F. S. C. 6, James-street, Nottnm-hill gate.

AN ARCHITECTURAL DRAUGHTSMAN who has an ENGAGEMENT in an office in town or country; the former preferred. Can give good references. Salary moderate.—Address, H. H. Mr. Oldham, Cutler, 3, Dudgeon-row, King's-road, Chelsea.

TO ARCHITECTS

AN ARCHITECT, who has seen considerable practice, desires to undertake the entire or partial MANAGEMENT of an OFFICE. Unexceptionable references, and specimens of ability may be obtained by addressing GUILLAUME, Office of "The Builder."

TO ARCHITECTS AND SURVEYORS.

AN ASSISTANT, well acquainted with the general routine of the Office, is desirous of obtaining an ENGAGEMENT.—Address, S. B. R. 3, 16 Bath-street, Shoreditch.

TO ARCHITECTS AND SURVEYORS.

A YOUTH, aged 18, with two and a half years' experience, is open to ENGAGE, in town or country. Can copy and prepare drawings neatly, writes a good hand, and is quick at accounts. Most references from previous employers.—Address, VERITAS, Chilton-on-Teme, Worcestershire.

TO BUILDERS AND OTHERS.

AN experienced practical MAN, proficient and accustomed to measuring, estimating, taking out quantities, drawing, bookkeeping, and conducting works, is desirous of an ENGAGEMENT.—Address, A. B. No. 3, Yorkplace, Upper-street Islington.

TO CARPENTERS AND BUILDERS.

A YOUNG MAN, aged 20, who has been at the trade between three and four years, would like to BIND himself for another Two or Three Years. Salary not so much an object as improvement.—Address, G. W. Black Horse, Kingston-hill, Surrey.

TO ARCHITECTS AND SURVEYORS.

A GENTLEMAN, aged 21, is in want of a SITUATION in an Architect's Office, either in town or country. He has been five years studying the profession, is a good draughtsman, masters and perspective, surveying, taking dilapidations, and all duties of the office.—Address, E. C. Old Bell Inn, Holborn.

TO ARCHITECTS AND BUILDERS.

A YOUNG MAN who has served his Articles with an Architect and Surveyor, is a good accountant, and possesses a knowledge of the building business, and the routine of an architect's office generally, is in want of an ENGAGEMENT. Terms moderate. Good testimonials.—Address, R. C *Taunton Courier* Office, Taunton.

TO BUILDERS, &c.

A PRACTICAL MASON, thoroughly acquainted with the details of his business, and a good accountant and draughtsman, wishes to meet with a permanent SITUATION. Age 28.—Address, A. B. 24, New-street, Vincent-square Westminster.

A CLERK of WORKS, who has had the superintendence of very extensive works, in town and country, is desirous of a RE-ENGAGEMENT. Address, C. E. care of Mr. Newman, 194, Bishopsgate-street Without London.

AN experienced practical Person is open to an ENGAGEMENT for two or three days a week, to superintend works in the building trade as CLERK of WORKS. Every satisfaction can be given of ability and respectability.—Address, W. H. Post-office, Saltham-terrace, Russell-square.

TO ARCHITECTS AND SURVEYORS.

A GENTLEMAN, who has been six years in the profession, is desirous of an ENGAGEMENT, with a view to a partnership, or to take a business.—Address, J. H. PONTENS, 68, Cannon-street, City.

TO DECORATORS, CABINETMAKERS, GILDERS, &c.

A MIDDLE-AGED MAN, who is at present conducting the business of a first-class wood and Iron, and who is about to leave, will be glad to meet with a similar SITUATION, or as Shopman, Clerk, or Traveller; is a good salesman, has a perfect knowledge of business and can give estimates for general repairs, &c. Satisfactory reasons will be given for leaving his engagement, and references to his present employer as well as out ers.—C. C. Office of "The Builder."

A PARTNER.—WANTED a PARTNER, to succeed a principal in an old-established LEAD and WINDOW GLASS WAREHOUSE in London, the principal having sufficient to retire. The amount required, from 1,000*l.* to 1,500*l.*; to any person seeking a business, the above offers a very advantageous opportunity as such security and low situation will be found a most desirable and eligible one for entering. None but principals or their solicitors will be treated with. For particulars, apply to A. B. care of Chas. Cooke, esq. 19, Gray's-inn square.

A CTIVE PARTNERSHIP WANTED, with an Architect of establ hed practice, in town or country. A premium given, if necessary; but it must be considered that the advertiser is fully qualified to take an active part in the business. References given and required.—Address, J. H. care of Mr Wheeler, Exc ange-arcade, Manchester.

TO ARCHITECTS, SURVEYORS, BUILDERS, AND HOUSE AGENTS.

A PARTNERSHIP.—A Gentleman, who has had considerable experience as an Architect and Surveyor, and who has a small capital at his command, is desirous of meeting with a party or parties in good practice, with whom he could remain a short a period as Clerk, previous to making a final arrangement. Ref rences unexceptionable.—Address, E. W. T. Office of "The Builder."

TO TIMBER MERCHANTS and OTHERS. The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks 30 and 16 feet Cranes, sawpits for converting Timber, &c. Freights paid on delivery.—Apply to G. NORES and Co. as above.

TODD'S PATENT METALLIC PROTOXIDE PAINT.

This Paint possesses in an eminent degree the following advantages over all other known Pigments:—
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The Protoxide Paint, as at present produced, is of one shade of colour, viz.:—a pale drab, but it may be tinted with any other colour to suit the taste and purpose for which it may be required. It is not affected by sulphuretted or carburetted hydrogen gas, bilge water, or indeed foul air of any kind, and is therefore well adapted for the interior of Ships, Warehouses, Offices, Stabling, &c.; and from its total freedom from deleterious properties, it will be found of great value for painting the interior of Hospitals, Asylums, Unions, Gaols, and other Buildings which may require to be painted during occupation.—Sole authorized Agents for England

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STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Westminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 48, Mary-street, Dublin.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in oil; also for Plaster Precipitations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK—LONDON—PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has cut and CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extra tenacity, cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its emulent hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The reputation constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS' STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London. March 20, 1855. CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT. Messrs ROBINS and CO. with much pleasure announce their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very finest PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

TATHAM & CO.—No. 14, SOUTH WHARF, PADDINGTON,
BRICK, LIME, and CEMENT MERCHANTS,
SOUTHAM BLUE LIAS LIME DEPOT.

Bath, Portland, Lias, and Roman Cements; Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewage Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in boat-loads direct from the Works in Warwickshire, to any part of the river or canal.

SOUTHAM BLUE LIAS LIME DEPOT,
No. 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged for a constant supply of the above very superior BLUE LIAS LIME, which, for the last two years has been extensively used at most of the large works constructed during that period or now in hand, and many orders they are favoured with while manufactured for retention.

Boatloads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the Rivers Thames or Lee, alongside any wharf on canal, or by boat or rail to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to
No. 14, SOUTH WHARF, PADDINGTON,
will receive the best and most prompt attention.

NOTICE.—BLUE LIAS LIME.—L. B. PEARSE and CO. beg to inform Architects, Engineers, Builders, and Contractors generally, that they have now accepted the AGENCY for the above valuable HYDRAULIC LIME, from the original quarries, Stockton, Warwickshire, and are now supplying direct from the works in their own boats, at a reduced rate.

L. B. PEARSE and CO. beg further to give notice to consumers, that they have erected, at a considerable expense, large buildings and machinery for grinding lime and cement, so as to ensure genuine quality and large supply, at their extensive premises, situate on the Great Northern Railway, York-road, Kings-cross.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers; to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on applicat on, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by G. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied or shipment, on advantageous terms.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Establishments, &c. will not twist, warp, or give after set, but will retain its hardness and sharpness.

Superfine, per ton	£7 0 0
Fine	3 0 0
Course	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

D. George-yard, Lombard-street, City.

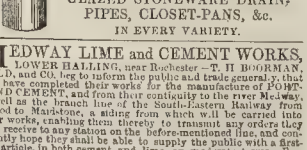
ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland yard, Westminster

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAIN, PIPES, CLOSET-PANS, &c.
IN EVERY VARIETY.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, WILD, and CO. beg to inform the public and trade that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London: Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known Hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour, resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

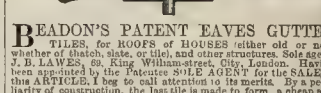
GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "Terro-Metallic," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 331, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.



BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES either old or new, whether of thatch, slate, or tile, and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of the ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses in a cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Hevetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 8d.

THE KINSON CLAY-WORKS POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Sewage-pipes, Closet pans, Furnace-blocks, Fire bricks, Saggers, Crucibles, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles on the shortest notice. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, up n favourable terms.

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.—Grey stocks, 25s. per thousand; Grizzles, 29s. per thousand; Rough Stocks, 30s.; Place, 18s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Pavors, and Puckings, of good and sound quality, constantly on hand, at H. DODD'S Brick fields, which are only a quarter of an hour's walk from the City. H. D earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

THE BEST HERTFORDSHIRE MALM SECONDS;
THE BEST WHITE SUFFOLK and RED FACINGS:
DEEP-RED RUBBING BRICKS.
Also COWLEY and KENT STOCKS, in any quantity.
J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY
(Within a short distance of the five bridges).
THE BEST MALM-CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity.
Also, STOCKS, OF FINEST QUALITY.
J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE, 3, ADELAIDE-PLACE, London-bridge.

PRIZE BRICK-MAKING MACHINE.—CHAMBERLAIN'S PATENT.—This portable machine will make 20,000 solid bricks per day, with 3-horse power. One man to feed the machine with clay, and boys to remove the bricks. Was awarded a silver medal by the Liverpool and Manchester Agricultural Society, at St. Helen's, September 6th; a silver medal by the Staffordshire Society at Leek, September 27th; and a prize at Worcester, October 5th, 1855. Apply for particulars to Mr HUMPHREY CHAMBERLAIN, Kempsey, Worcester.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Staffordshire Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent — Mr. J. UNWIN, Private Residence, 59 Nelson-square, Blackfriars-road.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickmes, rough stocks, place, red kiln bricks, paviors, &c. &c on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also flints for building boundary walls, stables, cottages, &c. by wine which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and flare, bricks, pre go ds. &c can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

TO BRICKMAKERS.

CLAY GROUND and STOCK BRICKS made at one and the same time, with ease, by one horse, at the rate of from eight to ten bricks the minute. Price of machine at Hull 35l. Reference given and particulars forwarded.—Apply to W. HODSON, Patentee, Kingston-square, Assembly Rooms, Hull. Agents wanted for the several counties in England. A liberal per-centage allowed. Reference given and expected as to respectability.

TO FARMERS, BRICKMAKERS, and OTHERS.—TO BE SOLD, 20,000 CHALDRONS of ASHES and BREESE; also, a quantity of good Mixture and Horse dung, close adjoining the Ponsonby Canal and Great Northern Railway, can be taken away by boats and barges, or delivered in carts.—For further particulars, inquire of Mr. GEORGE TILLEY, Saint George's-wharf, Cambridge-street, Agar-town.

TO THE COMMISSIONERS OF THE BOARD OF HEALTH, AND TO ALL PERSONS INTERESTED IN THE SMOKE QUESTION.

HANDS'S PATENT is the only simple and certain remedy for the REMOVAL of the SMOKE NUISANCE. It has comb ned, when necessary, the advantages of a drying process without a particle of complicated machinery.—Address to Mr. J. HANDS, Epsom.

TO CAPITALISTS, POTTERS, CHINA, BRICK, AND TILE MAKERS, AND LANDOWNERS NEAR RAILWAY STATIONS.

HANDS'S great economising PATENT KILN.—Capitalists, and persons engaged in the above works, owners of land near railway stations, containing any description of pottery, china, brick, or other valuable earth, are particularly invited to look at HANDS'S great economising PATENT KILN; from its peculiar construction it enables persons to build one on any suitable spot where they may please, so to economise the heat, that all that great waste and extra expense looked for as a matter of course in the old system, is completely avoided, by causing the heat to dry sand, and every description of strong moulded clays, AT ANY SEASON, in time of burning and cooling the kiln, with perfect soundness. It is also ensured to keep up the works all the year round, beyond the consumption of about six or seven tons of coal, to burn 6l 20,000 goods in each kiln. Any person desirous of availing himself of the opportunity for a district, incense or otherwise, may apply, if by letter, pre paid, to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom, Surrey, where the kiln is to be seen, by appointment only.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 35s. per 1,000; 9-inch pavings, at 37s. 6d. per 1,000; 8-inch pavings, at 27s 6d, per 1,000; 9-inch pavings, at 22s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of Majolica, Parian, Statuary, and Encaustic, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Copings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 2, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent Staffordshire.

GROUND FLINT
AND CORNISH STONE, UNADULTERATED,
Manufactured by MACHINERY, which produces the greatest degree of fineness.
WILCOX & CO.
Flint Mills, Mollrail, near Scott Russell's.
CARRIAGE FREE.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 240, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, Kingscross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terrace at the Crystal Palace.—Supplied by the Haytor Company under Royal Charter.—For terms, apply to Mr. C. HOAR, Haytor Granite Office, 4, Millbank-row, Westminster.

GRANITE.—The Checsewring Granite Company, Liskeard, Cornwall.
London Agents.—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager.—JAS. J. TRATHAN, Liskeard. This Granite is selected for the New Westminster-bridge.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

ANCASTER STONE, *not* from Ancaster.—In consequence of an invidious and very silly advertisement inserted in this paper the week before last, I am desirous to make the following statement:—

"HAYDOR" is the lordship in which the original and, I believe, very ancient Quarries now the estate of John Archer Houblon, esq.) from which the so-called "ANCASTER STONE" was procured, which has stood the test of 500 years, as is truly stated by Mr John Wilson, but these Quarries have been for some time past worked out.

"HAYDOR," in the opinion of eminent geologists, is the place from which the stone of Tattershall Castle and other elaborate buildings in this district, so remarkable for their durability, was obtained.

"HAYDOR" is the lordship in which I (as lessee upon the above estate) have opened a Quarry nearly opposite to and adjoining the same road as the Ancaster Quarry.

"WILSFORD" is the lordship in which Mr. John Wilson's Quarry is situated and which nearly adjoins the present Haydor Quarries, but is further removed from the ancient Quarries than my own; Mr. John Wilson can, therefore, upon his argument, have no pretension to call his "ANCASTER STONE," whilst upon his authority I have a right to do so.

It is presumed that Mr John Wilson, as tenant of the ancient Haydor Quarries now works, out of necessity, and being at the same time tenant of the WILSFORD QUARRIES, thinks himself entitled exclusively to appropriate the name by which the former were known, to the Wilsford Quarry, and to call the latter "The Ancaster Quarries."

To guard against Mr. John Wilson's stone being mistaken for mine, which I have been and still am most anxious to do, my blocks are invariably marked with T; and if Mr. John Wilson will add me in this distinction by marking his with W I shall feel greatly obliged to him, and in this case it will serve both to mark the Quarry and the occupier (Wilsford or Wilson), or he can adopt the double W. If he thinks it more appropriate.

Practical men of great experience have given their opinion that the stone from my Quarry is unequalled in its working and other advantageous qualities by any other stone denominated "Ancaster Stone," and it is the opinion of experienced quarrymen, that the appearance of the rock promises greater advantages than any Quarry before opened.

The opening of my Quarry had the effect of breaking up a mischievous monopoly, purchasers having formerly to pay monthly; and in case of their success-ful competition with Mr. John Wilson, a supply of the material was refused to them. Equal advantages can now be had by all Building Competitors, and Architects will be saved the trouble, and their employers the serious disadvantages of altering their arrangement after works are let. If architects are guided by Mr. John Wilson's suggestion in "The Builder," to state in their specifications that "Wilson's stone is only to be used," the monopoly will be secured

I have supplied a very considerable quantity of stone from my Quarry, opened for sale to the public last April, and have now a stock on hand of equal, if not superior, quality, to any other offered under the name of Ancaster Stone."

WILLIAM THOMPSON, Architect and Surveyor.
Elmer-street, Grantham, Oct. 17, 1855.

P.S.—What is the meaning of "Original Lessee?"—and is Mr. John Wilson really the bona fide tenant of the Wilsford Quarry, or merely the nominal occupier?

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.
THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Peonia, Veral Antique, Brocatella, Dove, Sienna, and Serpentine Marbles, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Giano, Emperor's Red and Asiatic Marble, for Boudoirs, Bedroom Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Chimney Wood, &c., in the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Cresent terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.

Mr. B Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better a vantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the province of Massa Carrara, Italy, beg to announce to the marble trade in the United Kingdom that they are prepared to undertake Contracts for any quantity of Statuary, Veined, Sicilian, Bardilla, Sienna, and other Marbles in blocks of all dimensions, delivered on shipboard at Leghorn, or in dock, London.—A constant stock is always kept at the London Depôt. Orders for Paving Slabs, Garden and Hall Slabbing, Vases, Vazzas, Consoles, &c. executed and delivered at reasonable rates.—For further particulars apply at the Offices of the Company, 18, Cannon-street, City.
WILLIAM W. BONNIN, London Secretary.

MARBLE and STONE CHIMNEY-PIECES.—WM. HUSTLER, Marble and Stone Sawing Mills, Cambridge-heath, Hackney, begs to call the attention of the Trade to his STOCK of CHIMNEY-PIECES, suited to all classes. W. H. has enlarged his workshops and improved his machinery, so as not only to compete, but is able to sell lower than any other house in the trade.

N.B. Good marble mason and polishers wanted.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Macclesfield-street North, City-road, for the sale of CHIMNEY-PIECES, and other articles, useful, architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of Chimney-mantles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.
C. ADENEY, Secretary.
July 25, 1855.

BENJAMIN GILL, 7 Wharf, New Basin, Leeds, Yorkshire, STONE MERCHANT in all its branches. Worked orders, &c. executed to any plan. Single truckloads or cargoes sent to any place or port in the kingdom. Prices, &c. supplied on application at the above address. Charges moderate.

WILLIAM S. LAWRENCE, PENNANT STONE MERCHANT, Stapleton. Office—10, Merchant-street, Bristol. All descriptions of Steps, Landings, Troughs, Combs, Curb, Ashlar, Paving, &c., &c. on Sale at Stone Quarries and Yards at Stapleton, and at Conham, on Banks of River Avon near Bristol.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truckloads of five tons. Pavings, Landings got out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons, that they can supply to any extent all kinds of YORK STONE, including Paving, Bramley Fall, Park Spring, &c of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, on the most reasonable terms.

GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. STEELE and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,
MILLBANK-STREET, WESTMINSTER.
Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

TO MASONS, BUILDERS, &c.

TO BE SOLD, cheap, a Quantity of SINKS, 24 inch tooled Paving, self-faced ditto, 18 and 6 inch Landings, Aberdeen Curb, 12 by 8.—Apply to GEORGE BOOTH, 11, George-yard, Lombard-street.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prisons, Penitentiaries, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag Stone Company and the Llantysilio Slate Company, are now prepared to supply Builders, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description: Cisterns, Chimney pieces, Baths, Filters, Larders, Mangers, Ridging, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices. Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr GEORGE P. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEY-PIECES of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the sizes of a large and increased diversity of the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 30 and 40, Upper Belgrave place, Pimlico.

BANGOR SLATES, of all sorts and sizes; SLABS of all dimensions, and of superior quality.—For prices and particulars, apply to EASTWOOD and SONS, Surrey Canal-bridge, Old Kent-road.—Export orders supplied promptly.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN PILKINGTON, POLONCEAUS BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for concrete Bridges and Arches.

SCAGLIOLA done on an IMPROVED PRINCIPLE.—I refer to the Gothic Arch by D. Dolan in the Great Exhibition of 1851, which gained the only Prize Medal awarded for the manufacture of the above work. Specimens to be seen at 192, Drury-lane, two doors from Holborn, superior to any yet offered to the public, with a choice Collection of Ornaments for building purposes, Trusses for Shop-fronts, &c. &c.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. CORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.
These Pencils are prepared in various degrees of hardness and shades.

H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto.
H B hard and black for drawing.	B B B dit o ditto.
M medium.	B B B B ditto ditto.

Sold by all the principal Stationers in town or country.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSS'S WHOLESALE WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

ROYAL POLYTECHNIC INSTITUTION.
Unceasing novelties. Re-engagement of S. Buckland, Esq. Entirely new series of Dissolving views, by Clare, illustrating the fashion of Ladies' Head Dresses from the time of the Conqueror to that of our gracious Queen, with a Dissertation thereon by Dr. Trevethan Spicer. The unique Ornithological Collection, arranged in a new room. Dubosq's curious Photographs of the Blood Globules; also, Views of Paris and Thames Water, in the microscope. Lecture on the large Bar of Aluminium, and the Art of Pottery, by J. H. Pepper, Esq. Hine's new Dissolving Views, with effects, of the Attack on the Malakhoff, and Fall of Sebastopol; concluding with the Fireworks at Versailles, &c. &c.—Admission to the whole, 1s.; except the Ornithological Collection, which will be 6d. extra.

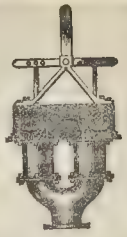
FOWLER'S
IMPROVED FARM AND
COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for square and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron copper and brass, for hot or cold liquors &c &c Long barrel and hydraulic lift pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE
SINGLE
PUMPS,
BARRELS
AT SHORTEST
FOR HAND
STEAM



AND HIRE,
AND DOUBLE
3 in. to 15 in.
to any depth,
NOTICE,
OR
POWER.

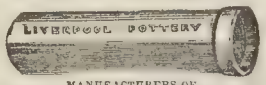
FOWLER'S
PORTABLE PUMPS,
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.



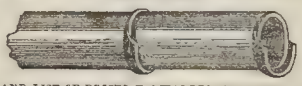
MANUFACTURERS OF
DOULTON'S STONE-WARE PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.
TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES,
COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

Whole Socket.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 9-FEET LENGTHS
Bends, Elbows, Urinals, Grilly-Traps, Flap Traps, Syphon-Traps, &c. always kept in Stock.



Half-Socket.

Watercloset Pan with Syphon-Trap complete, price 5s. 6d. each.

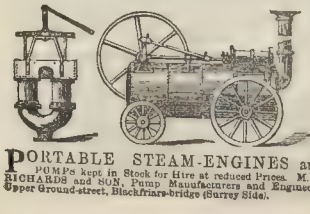
DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain pipes, at greatly reduced prices. (1179)

TO WATER COMPANIES AND PLUMBERS
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with self-ply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—
LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 320 feet; their efficiency and durability is by experience established.
The Equilibrium Ball-valve is simple and certain in its action and is cheaper than the common Cocks now in use.
Enamelled iron, self acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders, short-street, New-cut, Lambeth.

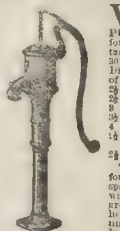


PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS,
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, soaps, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 48s per doz. painted.
Ditto ... 48s per doz. galvanized.
Upper Ground-street, Blackfriars Bridge, Surrey Side.

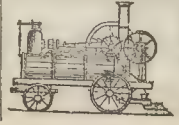


WARNER'S PATENT
VIBRATING STANDARD
PUMPS. PATENT CAST-IRON PUMPS, for the use of farms, collieries, manure-tanks and wells of a depth not exceeding 30 feet

Diameter of Barrel.	Length of Barrel.		£ s. d.
2½ in.	short 1 ft. 7 in.	(Fitted for lead,)	1 19 0
2½ „	long 3 5	gutta percha	1 15 0
3 „	ditto 3 6	or cast iron)	2 12 0
3½ „	ditto 3 6	flanged pipe,	2 18 0
4 „	ditto 3 9	as required.	3 3 0
4½ „	short, with 15 feet of lead pipe attached, ready for fixing		2 19 0
2½ in.	long ditto ditto		3 12 0

The short barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from underground tanks, or in hot forcing, and plant houses, they may be fixed, when desired, under the stage.—May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin-street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

STEAM PUMPING ENGINES.—
PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c &c
Contracts taken for pumping any quantity of water.



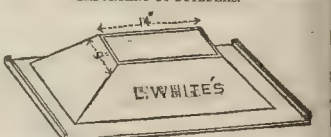
JAMES BURTON & SONS,
Engineers and Contractors,
Johns-place, Holland-street,
Southwark, London.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c
PARSEY'S PATENT REVOLVING
PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No 7, Strand.
To LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps for hire.
W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM ENGINE, with tubular boiler, for SALE. Can be seen at work at Mr GOODWIN'S, 67, Great Guildford-street, Southwark, of whom particulars may be obtained

TO CONTRACTORS.
PORTABLE STEAM-ENGINES TO BE LET, on HIRE, by the WEEK, MONTH, or for any period, of 8-horse, 10-horse, 12 horse, 16-horse 20 horse, and 25-horse power, adapted for Contract work generally. These engines have been successfully employed for years by all the principal contractors, and are ready for delivery at a day's notice. Several may be seen at work.—Apply to Messrs. MEDWIN, HALL, and CO. Engineers, 62, Blackfriars-road, Sole Patentees and only Manufacturers. N.B Any of these Engines may be purchased.

IMPORTANT TO BUILDERS.



REGISTERED CAST-IRON CHIMNEY-HOPPER and CHIMNEY-BAR COMBINED, ensuring a perfect formation of the flue, and rendering smoky chimneys impossible. General will raise their adoption in every building.
Price from 3s. 6d each, according to size.
IRON GIRDERS and COLUMNS to MODEL or DRAWING.
IRON PIPES and connections for gas, water, and liquid manure.
RAIN-WATER PIPE and EAVE GUTTERS, at wholesale prices. Also, O.G Gutters, Sash-weights, STABLE FITTINGS, pumps, tomb railing, cattle and pig troughs, and COLUMNS with caps and bases, and every kind of builders' castings, in stock, at LYNCH WHITE'S Iron Wharf, Upper Ground-street, London, near Blackfriars-bridge.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 6s. 6d.
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 196, Blackfriars road, and 117, Union-street, Borough; and of all respectable Ironmongers, builders, &c.

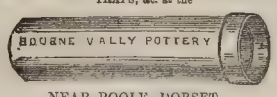
LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air without a perceptible draught. Decorated to suit any building or apartment. Particulars and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

SUPERIOR LAND DRAINAGE.—AGRICULTURAL DRAIN-PIPES, of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronized by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 23, Old Fish-street, near St Paul's, London.
CROWN GLASS, 18 TABLES, 23s. PER CRATE.

ALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



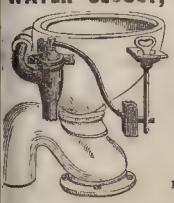
NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset: they are made of clay of the first quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to THE AGENTS,

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.



DOULTON & WATTS,

LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

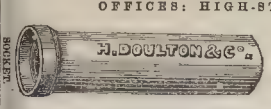
With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

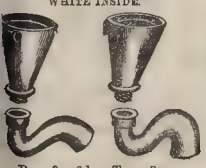
Messrs. D. and Co do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which. Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

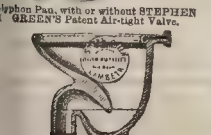
May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's acre, Westminster-bridge, City-road Wharf, Cite Basin; Richhead, Bermondsey; Danvers Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kings-road, Camden New Town; TURNER, 9, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 33, Brydges-street, Covent Garden; and at EDWARD COX'S 94, Wardour-street, Oxford-st. reet. Drawings and List of Prices will be forwarded free on application.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

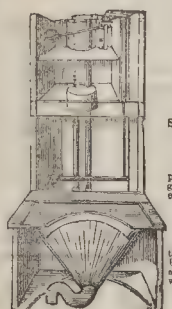
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

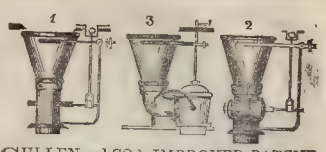
HENRY J. UNDERWOOD, Architect.
R. S. HOGGARD, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.



CULLEN and CO.'s IMPROVED PATENT WATER-CLOSETS are the only perfectly air-tight valve closets yet in use, which will last for years without repair. No cranks, wires, or joints required; each fixed part can be cleaned by a servant without derangement. Prices, 15, 21s. 30s. and upwards. Discount to the trade. Also, steam engines and all kinds of machinery, and iron work to order, at low prices.—CULLEN and CO. Engineers, Castle Ironworks, 16, Castle-street, Southwark-bridge-road.

SUPERIOR STONEWARE GLAZED PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes which they are enabled at present to make such as must give great satisfaction.—The price being also lower than many in the trade, viz. 5 per cent. discount off the list for cash. Junction Bends, &c. Pans and Traps of the first quality. Yorkshire Paving, Sinks, Sills, &c. all at low cash prices.—E. and W. STURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered.—October 1, 1855.

UNDERHAY'S PATENT REGULATOR CLOSETS for constant or intermittent supply, dispenser with Cisterns, Service Boxes, Valves, Levers, Cranks, Levers &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and I am not aware of a single instance of failure has occurred.

These Steel-valves are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

Manufactured by
CHARLES BETTEN and SON,
Brass Founders, Crawford passage, Clerkenwell, London.

SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipe and socket, the fitting being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and renders the pipes in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

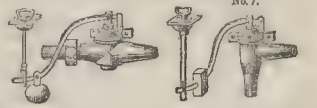
Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharf, Kensington Road, and Green Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea: and at the Pottery.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, so, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE, No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 1st to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the patentees,

THOS. LAMBERT and SON,
Brass Founders and Enamelers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers. Sole Agents, L. B. PEARSE and CO. Great Northern wharf, York-road, King's-cross.

SALES BY AUCTION.

SAW-MILL AND PATENT DESICCATING WORKS FOR SALE.—To BE SOLD BY AUCTION, at the TURF HOTEL, Collingwood-street, Newcastle-upon-Tyne, on THURSDAY, the 25th of OCTOBER, at FIVE for SIX o'clock precisely by

MR. BROUGH, the LEASE of the extensive SAW-MILLS, with the valuable PLANT and MACHINERY, now in the occupation of Messrs. Grey, situated in Newgate-street, Newcastle-upon-Tyne, consisting of a 16-horse engine, with extra large boiler, and a new worked one to 22 horses; one large talk frame, capable of cutting timber 3 feet square; a double deal frame, planing machine, two circular saws, with self-acting frames, vertical wheel, 14 feet in diameter; patent desiccating chamber, 40 feet long, 15 feet broad, 11 feet high, with common drying sheds for seasoned stuff, large and powerful crane, in the yard; offices, and every other accommodation for carrying on an extensive business. The machinery is by Mebowell and Sons, of Glasgow. The business has been established since 1850, and there is a large connexion to the mills. The stock may be taken at valuation. Also, all that freehold PUBLIC-HOUSE, known by the sign of the Wellington Waggon, situate in St. Andrew's-street, now in the occupation of George Lake, a tenant, on the ground floor, single bar, tap, and kitchen. First floor, club room and three bed rooms. Further particulars may be obtained of Messrs. T and W. CLAPHAM, Solicitors, 19, Mosley-street; Mr. GEORGE ARMSTRONG, Solicitor, Dean-street; or of the Auctioneer, Blacketstreet.

TO BUILDERS, MASONS, &c.—Two Hundred MARBLE CHIMNEY-PIECES, executed in great variety of the most approved and fashionable manner, WILL BE SOLD by AUCTION, by Mr W A. OAKLEY, on WEDNESDAY, next, at 12 for 1 precisely at THREE o'clock, and in case the day of sale only. The Sale will consist of the larger class Chimney-pieces, suitable for Mansions, Public Buildings, and Clubhouses. Westminster Marble Company, Earl-street, Holywell-street, Millbank.

HOLBORN-HILL.—Building Materials, Modern Fixtures, Bar Fittings, and Premises in Trade of a Public-House.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on MONDAY, OCTOBER 22, at TWELVE, the BUILDING MATERIALS, Bar-Fittings, and Utensils in Trade of a Public-house, situate No. 84, Holborn-hill, consisting of sound brickwork, boarded and timber floors and roofs, plain and pan tiles, sashes, doors, wainscoting, shop front, lead flat, gutters, cisterns and pipes, capital six-motion bar-engine, several lofty rooms, and pipes, mirror and several casks; useful china, glass and pewter, gas fittings, at ves, range, and all the house and trade fixtures. May be viewed on the morning of sale. Catalogues had of PULLEN and Son, 19, Fore-street, Cripplegate.

FARRINGDON-STREET EXTENSION.—Building Materials of Thirty Houses.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on TUESDAY, OCTOBER 23rd, and following day, at TWELVE, in lots, by order of the Improvements Committee of the Corporation of the City of London, all the valuable BUILDING MATERIALS of about thirty houses, shops, and premises in Turnmill-street, Bowling-street, New-street, and Peter-street Clerkenwell, comprising about 60,000 good sound bricks, stock and fire bricks in roofs and floors, sashes, doors, partitions flooring boards, shop-fronts, large quantity of plain and pan tiles, York and pebble paving, lead, gutters and pipes, stoves, fenders, coppers and useful effects. May be viewed on the premises one week previous. Catalogues had at the Architect's office, Guildhall, and of PULLEN and SON, Fore-street, Cripplegate.

MOORGATE-STREET. Office Fittings, Surplus Stores, and Materials.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, Moorgate-street-buildings, on TUESDAY, OCTOBER 30, at TWELVE, a large quantity of OFFICE FIXTURES principally solid walnutoil, and stained deal counters, and fittings, 5 sets of desk fronts, 16 feet run of ruled and secure bookcases, shelves, and presses, 20 panel doors and sashes glazed and panelled partitions, 7 counters, and tables, with desk fronts, 16 feet run of lead, large quantity of iron railing and iron work, cocoanut matting, and oilcloth, and various useful effects. May be viewed the day prior to and Catalogues had of PULLEN and SON, Fore-street, Cripplegate.

DOWGATE-HILL, CITY. Building Materials of several Houses.

PULLEN and SON are favoured with instructions from the Worshipful Company of Dyers, to SELL by AUCTION, on the PREMISES, on FRIDAY, the 2nd of NOVEMBER, at TWELVE, all the valuable BUILDING MATERIALS, of the houses, situate and standing hill and College street, adjoining Dyers hall, comprising good sound brickwork, plain and pan tiles, oak and fir timber, in roofs and floors, several iron girders, and part of the floor, glazed sashes, doors and interior flooring boards, shop-fronts, paving, coping, and rails, and useful fittings on. May be viewed two days previous. Catalogues had at the Clerk's office, Dyers'-hall, and of PULLEN and SON, 8, Fore street, Cripplegate

KNAPHILL, BROOKWOOD, WOKING, AND CHOBHAM, SURREY. FIFTY-SIX ACRES of FREEHOLD and Part LEASEHOLD LAND and COTTAGES, TO BE SOLD BY AUCTION by

MESSRS. WATERER and SON, at the WHITE HART INN, Chobham, Surrey, on THURSDAY, NOVEMBER 1, 1855, at TWELVE o'clock, in Ten Lots.

Lot 1 will comprise 1a. 0r. 27p. called "Seven Acres, Stony Field, and Office" situate near the Anchor Inn, Knaphill, well adapted for building purposes.

Lot 2 is 4a. 2r. 33p. of productive Arable Land, called "Dolleys," near the former lot.

Lot 3 is 3a. 0r. 19p. of very superior Arable Land, called "Well Field" situate on the verge of Knaphill, near the Anchor Inn, commanding most extensive views of the surrounding country, and offering a most desirable site for building a country residence.

Lot 4 contains 16a. 0r. 9p. of Arable and Meadow Land, called "Sand-pit Field, Further Three Acres, Lane Field, First Brook Mead, Second Brook Mead, and Warner's Mead," situate at Littlewick, in the parish of Horsell.

Lot 5, 1a. 3r. 20p. of productive Meadow Land, called "Slip Mead," near Lord Brook Mead.

Lot 6 is 1a. 1r. 35p. of productive Arable Land, called "Common and Hilly Field, the Three Acres, and Oak tree Field" situate in the parish of Horsell, in the occupation of Mr. James Steadman, at 15l. per annum.

Lot 7 is a Cottage and Garden, containing 0a. 3r. 4p. situate near Lot 6 Knaphill, in the parish of Woking, in the occupation of Mr. Richard Hayward, at 8l. 8s. per annum.

Lot 8 is two Freehold Cottages, with Gardens and two pieces of Arable Land, together 2a. 3r. 11p. called "Grove," situate at the west end, Chobham, in the occupation of Messrs. Edward Sturt, Moses Gibbons, and Joseph Grainger.

Lot 9 is Three Freehold Cottages and Outbuildings, with Garden, and two pieces of Arable and Meadow Land, together 2a. 3r. 26p. adjoining Lot 8, in the occupation of Messrs. Edward Sturt, William Chapman, James White, and Mary Goodson.

Lot 10 is a piece of Freehold Pasture Land, containing 0a. 3r. 11p. called the "Rick Yard," situate opposite Lot 9, in the occupation of Mr. Edward Sturt.

Particulars, with conditions of sale, may be had at the Place of Sale; Anchor Inn, Knaphill, Swan Inn, Blackwater; of Messrs. MARSH and ANDREWS, Solicitors, Bagshot, Surrey; JOSEPH VINES, Esq. Solicitor, Newbury, Berks; Mr JAMES LEACH, Chobham; and of Messrs. WATERER and SON, Auctioneers, Chertsey, Surrey, who will forward them on application by post.

Stock of Statuary, Founta ns, Vases, &c.

MR. SITGRAVE will SELL by AUCTION, at his ROOMS, 28, Leadenhall street, on THURSDAY, OCTOBER 25, at TWELVE o'clock, STOCK of STATUARY, &c. comprising several elegant fountains and figures, thirty pairs of vases, of various sizes, of classic designs, with architectural embellishments, and a variety of statuary, adapted for the park, garden, or conservatory, all manufactured in the best manner of imperishable stone.—May be viewed the day prior to Sale, and catalogues had at the Rooms.

SALES BY AUCTION.

SUPERIOR DRAUGHT AND HARNESS HORSES for SALE by AUCTION, at the SOUTH DOCKS, SUNDERLAND.

MR. ARTHUR T. CROW has the honour of announcing that he has been commissioned by Mr. W BROWN, Contractor for the extension of the South Docks, to SELL by AUCTION, without the least reserve, at the STABLES, on the West Side and South End of the South Docks, Sunderland, on MONDAY, 22nd DAY of OCTOBER, 1855 the following Young, Active, and Powerful DRAUGHT and HARNESS HORSES, viz:—

Lot.	Colour.	Name.	Age	Hands. In.
1	Bay Horse	Jack	7	16 1
2	Bay Horse	Dandy	7	16 0
3	Bay Horse	Matcham	7	16 0
4	Grey Horse	Badger	7	16 1
5	Black Horse	Drummer	6	16 0
6	Bay Horse	Joe	6	17 0
7	Bay Horse	Briton	7	16 0
8	Bay Horse	Buck	6	16 2
9	Grey Horse	Jim	5	15 3
10	Black Horse	Barly	5	15 3
11	Bay Horse	Charlie	4	16 0
12	Grey Horse	Charlie	5	16 1
13	Dark Grey Horse	Farmer	4	16 1
14	Brown Horse	Smuggler	6	16 1
15	Brown Horse	Prince	6	16 0
16	Grey Horse	Farmer	6	16 2
17	Grey Horse	Matcham	6	16 1
18	Grey Mare	Fanny	6	15 3
(By "Gallor," dam by "Remembrance," with capital action.)				
19	Black Horse	Gallor	5	16 1
20	Bay Horse	Smiler	6	16 0
21	Bay Horse	Lofty	7	16 0
22	Bay Horse	Jack	7	16 1
23	Black Horse	Bobby	8	16 0
24	Brown Horse	Billy	8	16 2
25	Black Horse	Jemmy	7	16 0
26	Brown Horse	Jumper	7	16 0
27	Black Horse	Captain	9	17 1
28	Grey Mare	Jessie	aged	16 1
29	Bay Mare	Beauty	9	16 0
30	Black Horse	Farmer	9	17 0
31	Grey Horse	Charlie	aged	16 0
32	Brown Horse	Charlie	aged	16 0
33	Bay Horse	Farmer	8	16 0
34	Bay Mare	Jessie	5	15 2
35	Bay Horse	Hero	6	16 3
36	Grey Mare	Nelly	6	16 0

These valuable Horses have been selected with great care and judgement by Mr Brown, who spared neither expense nor trouble in raising one of the best studs in the North of England, having purchased them from some of the most celebrated breeders in the neighbourhood. Amongst them will be found sons of the "Doddington" and "Derwent" Lads; the "Wallaces" also, and other noted sires, have their progeny amongst them. The whole are in excellent working condition, clean-legged, strong bone, and high action and the Auctioneer can with confidence recommend them to the public as being honest good workers, and cannot fail of giving satisfaction to the purchasers. The lots will be on the premises in the stables between Ten and Twelve on the Morning of sale.

Luncheon at TWELVE, and Sale to commence at ONE o'clock precisely.

Bishopwearmouth Sale and Appraising Offices, 51, Sans-street, 26th September, 1855.

Spacious Freehold Family Residence, with large Garden, situate in Great Ormond-street, Queen-square, Bloomsbury, suitable for a professional gentleman, or from its central position, well adapted for a public institution; also Stabling in Great Ormond-yard.

MESSRS. RUSHWORTH and JARVIS are directed by the executors of the late John Hibbert, Esq. to SELL by AUCTION, at GARRAWAYS, in DECEMBER next, in two lots, with possession unless an acceptable offer should be previously made by private contract), a capital modern FREEHOLD RESIDENCE, situate in the centre of the metropolis, and within a short walk of the Inns of Court, being No. 47, Great Ormond-street, Queen-square, formerly occupied by members of the legal or medical profession, architects, and others, a most excellent residence for a family, with suitable offices for professional purposes. The house contains lofty and lofty and lofty rooms and suite of three lofty drawing-rooms, extending 75 feet, four good rooms on the ground floor, excellent domestic offices, and large garden in the rear. GREENHOUSE, COACH-HOUSES, and STABLE, in Great Ormond-yard. May be viewed with cards, which, with particulars, may be had of Messrs. RUSHWORTH and JARVIS, 25, Bedford-row, Holborn; of Messrs. CLARKE and CORNHILL; particulars may also be had at GARRAWAY'S; and of Messrs. BOSANQUET, DAIRYMPLE, and DRAKE, Solicitors, 46, Parliament-street.

FIFTY-FOUR PLOTS of valuable FREEHOLD BUILDING LAND, at Sutton, in the county of Surrey, conveyances free, and land-tax redeemed.

MR. JOHN COLLINGS will SELL by AUCTION, at the COCK INN, Sutton, at ONE for TWO o'clock, FIFTY-FOUR PLOTS of FREEHOLD BUILDING LAND, situate on the Benhill estate, Carshalton road, about half a mile from the Sutton station, Epsom line, with commanding views of the surrounding country, and a magnificent prospect of the Crystal Palace. Particulars and plan, to be had of H. D. DRAPER, Esq. Solicitor, 23, Threadneedle, Westminster; at the Cock Inn, Sutton; of Mr. BARNES, Ironmonger, and of Mr. KING, Schoolmaster, Sutton; Mr. BALDISTON'S Printing-office, North End, Croydon; Mr. WARD'S Printing-office, Mitcham; Mr. NORMAN, Post-office, Carshalton; White Hart, Merton; George Inn, Morden; Red Lion, Cheam; Bull's Head, Ewell; at "The Builder" Office, Catherine-street, London; and of Mr COLLINGS, Land's Agent, Kingston, Surrey.

TO BUILDERS and OTHERS.—North Hyde, Southall, Middlesex.—About Four Millions and a Quarter of Capital BRICKS, lying on the Banks of the Grand Junction Canal.

BAKER and SON will SELL by AUCTION, on THURSDAY, OCTOBER 25th, 1855, at ONE, on the PREMISES, Ordnance Brickfield, a short distance from the Southall Station of the Great Western Railway, 4,000,000 of good sound STOCK, GRIZZEL, and PLACE BRICKS, lying very convenient for removal, a branch of the Grand Junction Canal surrounding the whole of the property, they may be loaded and delivered, either at Paddington or intermediate places, or to the River Thames, at 3s. per Thousand—May be viewed the day prior, and Catalogues had on the Premises, and of the Auctioneers, Kilburn.

TO MARBLE MASONS, SCULPTORS, BUILDERS, AND OTHERS.

MESSRS. EVERSFIELD and HORNE are instructed to SELL by AUCTION, at LLOYD'S MARBLE WHARF Thames Bank, Pimlico, on WEDNESDAY, OCTOBER 24, at TWELVE for ONE (being a postponement from the 10th), a SMALL and CHOICE SELECTION of MARBLE, comprising Statuary suitable for figures, Vein, Sienna, and Black and Gold, in block and slab, which must be immediately cleared to allow certain alterations in the premises to be carried out. May be viewed two days previous, and catalogues had at the place of Sale, and of the Auctioneers, 40, Parliament-street, or Coal Exchange. Approved bills at six months will be taken in payment.

PADDINGTON.—Surplus Stock of a Railway Contractor and Builder

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, opposite the Ben Jonson, Westbourne-green, Harrow-road, Paddington, on TUESDAY, the 23rd of OCTOBER, at TWELVE for ONE, by order of the executors of the late Thomas Nesham, esq. a quantity of useful MATERIALS, comprising sound timber, in log and quartering, scaffold-poles and boards, wheeling and other planks, new gates and brick barrows, single and double purchase crabs, York paving, curb and other stone, and a variety of other effects, removed from the Great Western Railway. May be viewed two days previous, and catalogues had, at the Place of Sale; and of the Auctioneers, 40, Parliament-street, or Coal-Exchange.

SALES BY AUCTION.

NORTHAMPTON.—To ENGINEERS and OTHERS.

MESSRS. FULLER and HORSEY are instructed by the Assignees to SELL by AUCTION, on TUESDAY, NOVEMBER 6th, at ELEVEN o'clock, at the BRIDGE-STREET WORKS, Northampton, in lots, without reserve, the valuable collection of ENGINEERS' TOOLS, new within four years, by Whitworth, Sharp, Roberts and Co. Lewis, Parr, Curtis, and Madeley, including a powerful self-acting surfacing and boring lathe, capable of taking a surface 7 feet diameter, one 9-inch screw cutting lathe, one 8-inch and one 6-inch ditto, six engine and foot turning back geared slide lathes from 4 to 20 inch centres, self-acting crank planing or shaping machine with 30-inch traverse, self-acting planing machine, to plane 6 feet in length and 2 feet in width, self-acting vertical drilling-machine very powerful, nut-shaping machine, two standard drilling-machines, 250 feet turned bright shafting riggers and straps, three sets Whitworth's taps and dies, steel tools, fifteen vices and benches, a highly-finished double cylinder horizontal steaming one of 14-inch nominal power, with Cornish boiler boring bar, lathe and screwing-tools; valuable assortment of engine patterns in wood, from 2-horse to 14-horse power, and numerous other effects. To be viewed on Monday previous, and morning of sale, when catalogues may be had at the Works; of Wm. PENNETT, Esq. Official Assignee, Bedford-street; at the "Midland Counties Herald" Office, Birmingham; and of Messrs. FULLER and HORSEY, Billiter-street, London.

NORTHAMPTON.—To Agriculturists, Wheelwrights, Smiths, Boiler-makers, Contractors, Ironmongers, and Others

MESSRS. FULLER and HORSEY are instructed by the Assignees to SELL by AUCTION, on WEDNESDAY, NOVEMBER 7th, at ELEVEN, at the BRIDGE-STREET WORKS, Northampton, in lots, with no reserve, two portable agricultural steam-engines, of five and ten horses power, one to the assignees' portable contractor's engine, 3-inch oak spokes, 1,000 ash felloes, ash and elm planking, seasoned yellow pine, fifteen tons of iron bar, and plate iron; two tons cast steel, ten tons scrap iron, eleven new copying-machines, 120 dozen new files, five cwt. brass castings, five tons boiler-makers' and smiths' tools, in anvils, swages, hammers and punches, punching and shearing machine, shaping plates, new Cornish boiler, 18 feet long, 4 feet diameter; one 10 feet egg-end boiler; one 14 feet new boiler, for portable engine; two new cases for portable boilers, one case for boiler, 30 feet long, 5 feet 9 inches diameter; plate furnace, ten forges, fan blowing-machine, four pair bellows, two crab cranes, seven-ton weigh bridge, three platelayers' trolly, four-wheel truck, counting house furniture, and other effects. To be viewed on Monday previous and morning of Sale, when catalogues may be had at the Works; of Wm. PENNETT, Esq. Official Assignee, Basinghall street; at the "Midland Counties Herald" office, Birmingham; and of Messrs. FULLER and HORSEY, Billiter-street, London.

PROFESSOR DONALDSON'S LECTURES on ARCHITECTURE and CONSTRUCTION, in UNIVERSITY COLLEGE, LONDON, will commence on TUESDAY, the 23rd OCTOBER, and continue through the Session 1855-56, on TUESDAY and FRIDAY EVENINGS, at 8 o'clock. Further particulars of fees, &c. may be procured at the Office of the College.

PARLIAMENTARY PLANS and SECTIONS, Books of Reference, Bills of Quantities, Specifications, Plans for Prospectuses, Briefs, Circulars, &c. LITHOGRAPHED in the shortest notice and in the lowest possible prices. Every other description of Lithographic and Letterpress Printing executed on the Premises, by METCHIM and BURT, 20 and 35, Parliament-street, Westminster.

MATHEMATICAL DRAWING INSTRUMENTS.—JOHN ARCHBUTT, 20, Westminster Bridge-road, Lambeth near Astley's Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen in the Improved and Considerably Reduced Prices than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. An illustrated price-list will be immediately forwarded, free, on application.

N.B. A few New and Second-hand Levels and Theodolites always for Sale.

TO ENGINEERS AND ARCHITECTS.

LEVELS, price 6l. of first-class work, consisting of a 16-in. telescope adjusted by rack, sun-shade, parallel plates on tripod stand, or jointed legs for use in a case; this instrument is perfectly adapted for draining.—To be had of the maker, JOHN DAVIS, Optician, Derby.

SWISS DRAWING INSTRUMENTS of equal in quality to the very best London-made instruments, and considerably cheaper. Apply to Mr. S. BARLOW, 2, Thavies-inn, Holborn (between 1 and 3½ p.m.); or to Mr. H. B. BARLOW'S Office for Patents, Bucle-place, Exchange, Manchester.

PHOTOGRAPHY.—A complete Apparatus, 3l., 5l. 5s. and 11l. 11s.—Send for a List, post-free, at GILBERT FLEMING'S, 498, Oxford-street, Author of "First Steps in Photography," price 6d.; by post, seven stamps.

TO ARCHITECTS.

COMPETITION and other DRAWINGS.—Mr. THOMAS S. BOYS, Member of the New Society of Painters in Water Colours, and author of "The Picturesque Architecture of Paris, Belgium, and Rhine," and of "London as it is," offers his services in Tinting Backgrounds, Landscapes, Perspective Views, Interiors, &c. From the long experience he has had in such subjects, he is fully aware of the points essential necessary to be attended to. Drawings and designs lithographed in a superior manner.—Address, Mr. BOYS, 32, Albany-street, Regent's-park.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural and Civil Engineering, Drawing, and Colouring. Making Pupils and Working Drawings, Preparing Specifications, Taking out Quantities, Estimating, &c. &c. Terms: Day Pupils, Three Guineas per Quarter; Evening Pupils, One Guinea per Quarter, which includes Drawing Boards, Tee Squares, Plans, Drawings, Models, &c. For Prospectuses apply at the Offices, 24, Guildford-street, Russell-square.

THE ARCHITECTS, BUILDERS, CIVIL ENGINEERS, and MECHANISTS' DRAWING CLASSES Offices, 16, Gerrard-street, Soho, conducted by Mr. T. J. HILL, Architect, &c. The course of instruction comprises the preparing of plans, elevations, and sections of architectural, mechanical, and engineering subjects, preparing perspectives in colour, &c. measuring and taking out quantities, estimating, &c.—For terms of day and evening classes, as well as list of references, principally Architects, Builders, &c. (see prospectuses), which are to be had at the offices.

GREAT SAVING in GAS.—The Lava non-corrosive GAS-BURNERS are sold by all respectable Gas fitters, and at the Depot, 41, Queen-street, Cheapside, London.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, October 20, 1855.

The Builder,

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BUILDERS' BENEVOLENT INSTITUTION.—The EIGHTH ANNIVERSARY DINNER will be held at the LONDON TAVERN, Bishopsgate-street, on TUESDAY next, the 30th of OCTOBER. Dinner on table at FIVE o'clock precisely.

CHARLES LUCAS, Esq. President, in the chair.

Tickets may be obtained at the Offices of the Institution, 19, Southampton-street, Bloomsbury-square (Sis. each); of Mr. GEORGE BIRD, the Treasurer, 36, Edgware-road; the Stewards; and at the London Tavern.

Oct 22, 1855. A. G. HARRIS, Secretary.

PROFESSOR DONALDSON'S LECTURES on ARCHITECTURE and CONSTRUCTION at UNIVERSITY COLLEGE, London, every TUESDAY and FRIDAY evening, at 6:30, first year's class; and 7:45, second year's class. Further particulars may be had at the Office of the College.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-Superintendent—RICHARD REDGRAVE, Esq R.A.
Head-Master—R. BURCHETT, Esq

The Course of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufacture, and its application to the common uses of life. Special courses are arranged in order to qualify School-masters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects:—Free-hand, Arch tectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still-life, &c. the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Drawing and Engraving on Wood and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees 4l. per session, or part of the session. For Evening Classes only 1l. per session.

The Class for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. Mitan. Fees per session,—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall mall, London.

ARCHITECTURAL EXHIBITION.—A PACKAGES from the FRENCH EXHIBITION, whether of Drawings or Specimens for the Department of Materials, Patents, &c. may be sent direct to the Galleries, Suffolk-street, Pall mall East—notice to the Honorary Secretaries being first of all given. All other contributions on the 3rd and 4th DECEMBER next. Every information may be obtained of

JAMES FERGUSSON, F.R.A.S. } Honorary
20, Lansdown-place. } Secretaries.
JAMES EDMESTON, Jun. }
3, Crown-court, Old Broad street, }

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, November 2nd, Mr T. R Smith will read a Paper "On the Fine Art Department of the Paris Universal Exhibition, with Notes on the Mode of Lighting employed there."

The Class of Design will meet on November 9th, subject for sketch "The Interior of a Dome."

T. W. GOODMAN, } Hon. Secs.
Lyon's-inn Hall, Strand. J. A. BUNKER, }

CONTRACTS.

Royal Engineer's Office, Portsmouth, 5th October, 1855.

NOTICE to BUILDERS.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed CASEMATED BARRACKS, and for the completion of the Fort behind Bonner Pond, Brown Down, near Stokes Bay, Gosport, in the parish of Alverstoke in the county of Hants. Plans and specifications may be seen at the Royal Engineer Office Portsmouth, where also forms of Tender, may be obtained every day (Sundays excepted), until the 6th of NOVEMBER next. Tenders to be delivered on or before the 9th NOVEMBER, 1855. The Ordnance reserve to themselves the right to reject the whole or any of the Tenders. No notice will be taken of any Tender unless made on the printed forms, to be obtained at the Royal Engineer Office, Portsmouth.

NOTICE to BUILDERS.—Royal Engineer's Office, Portsmouth, October 8, 1855.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed SCHOOL ROOMS and SCHOOLMASTER'S QUARTERS, at Haslar Barracks and Fort Nouchton, Gosport, county of Hants. Plans and specification may be seen at the Royal Engineer Office, Portsmouth, where forms of Tender may be obtained every day Sundays excepted) until the 27th OCTOBER, 1855. Tenders to be delivered on or before the 30th OCTOBER, 1855. The Ordnance reserve to themselves the right to reject the whole or any of the Tenders. No notice will be taken of any Tender unless made on the printed form, to be obtained at the Royal Engineer Office, Portsmouth

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that Tenders will be received at the War Department, Pall-mall, London, on or before WEDNESDAY, the 14th of NOVEMBER, 1855, from such persons as may be willing to enter into a CONTRACT with the War Department for BUILDING ADDITIONS to HILSEA BARRACKS, near Portsmouth, County of Hants. The plans, specifications, and conditions of contract may be seen, and every information obtained, on application to Mr. H. HAWKINS, Clerk of Works, at this office, any day (Sundays excepted) on and after the 7th to the 13th NOVEMBER, 1855, and where forms of Tender may be obtained.

N.B. The War Department reserve to themselves the right of rejecting all or any of the Tenders.

Royal Engineer Office, Portsmouth, Octol er 24, 1855.

GREAT GRIMSBY WATERWORKS and DRAINAGE.—The Local Board of Health of Great Grimsby desire to receive TENDERS for the CONSTRUCTION of WORKS for supplying the town with water and for draining the town. The work required to be done consists of supplying and laying up wards of 10,000 yards of cast-iron pipes, making and fixing a pair of engines and boilers, and wrought-iron tank, building tank tower, engine-house, boiler-house and various other work, according to the drawings and specifications, which may be seen at the office of the Surveyor to the Local Board of Health, from the 24th of this month, to the 14th of NOVEMBER next, inclusive. Tenders are to be sent in addressed to the Clerk to the Local Board of Health, Town Clerk's Office, Great Grimsby, on or before the 14th day of NOVEMBER next. The Board do not bind themselves to accept the lowest or any Tender.—By order,

GEO. BABB, Clerk to the Local Board of Health.

Great Grimsby, October 17, 1855.

SOUTH STAFFORDSHIRE WATERWORKS COMPANY.—Notice is hereby given, that the Directors of this Company are prepared to receive TENDERS for a pair of DOUBLE-ACTING CONDENSING ENGINES, each capable of lifting 2,500 gallons of water per foot high in twelve hours. Drawings and specifications may be had on application at the Offices of the Engineers, Messrs. McCLEAN and STILEMAN, 27, Great George-street, Westminster; or of Messrs. MARTEN, 19, Darlington-street, Wolverhampton. Tenders to be sent in on or before WEDNESDAY, NOVEMBER 14, addressed to the Secretary, as below. By order,

J. CHURCHILL, Secretary.

Darlington-street, Wolverhampton, Oct 22, 1855

ILFORD BRIDGES, ESSEX.—Persons willing to CONTRACT for certain WORKS and ALTERATIONS at and in these Bridges, may deliver sealed Tenders for the same, at the House of Correction, Little Ilford, on or before FRIDAY, the 9th of NOVEMBER. The plans, drawings, and specifications may be inspected and copied at the said House of Correction. The Justices will not be bound to accept the lowest nor any Tender. The contractor, with a sufficient surety, will be required to enter into security for the due completion of the Works, at a time to be named in the Tender, and under a penalty for each day they shall remain incomplete.

GILSON, Clerk of the Peace.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of a GENTLEMAN'S RESIDENCE, with stabling, garden walls, lodge, &c. at Old Parks, in the county of Leicester, may learn the particulars thereof on applying at the Offices of Mr T. C. HINE, of Nottingham. Old Parks is about a mile from Ashby-de-la-Zouch. Quantities supplied. No Tender necessarily accepted.

THOMAS C. HINE, Architect.

October 16, 1855.

TO LIME BURNERS AND OTHERS.

THE DIRECTORS of the CHARTERED GAS COMPANY are desirous of receiving TENDERS for the purchase of BREEZE, to be removed from their several stations, viz:—

Horseferry-road, Westminster, quantity about	3,000	} At per Chaldron,	Chaldrons.
Brick-lane, Old-street	8,000		
Curtain-road, Shoreditch	1,600		

during a period of twelve months. Payments to be made monthly, in cash. Proposals to be sent in on or before MONDAY the 29th inst. addressed to the Secretary, Horseferry-road, Westminster, and endorsed "Tender for Breeze."—October 20, 1855.

CONTRACTS.

TO BUILDERS.

THE SAFFRON WALDEN BURIAL BOARD are prepared to receive TENDERS for the ERECTION of a LODGE and TWO CHAPELS, on their New Burial ground in the parish aforesaid. The plans may be seen, and lithographed copies of the specification and quantities obtained, at my office, from the morning of MONDAY, the 22nd inst. to the evening of MONDAY, the 5th day of NOVEMBER next. Such Tenders (on printed forms only, which may be obtained on application), directed to me, and delivered on or before TUESDAY, the 6th of NOVEMBER, Ant further information may be obtained from the Architects, Messrs. PRITCHET and SONS, Darlington. By order of the Board,

SIMEON J. KING, Clerk.

Saffron Walden, Essex, October 17, 1855.

ATHERTON GENERAL CEMETERY.—To BUILDERS and CONTRACTORS.—Notice is hereby given, that the Atherton Burial Board intends to contract for the ERECTION of several FENCE WALLS and IRON PALISADING, and also for DRAINING the new CEMETERY, and that persons willing to contract may inspect the plans and specification from the 24th inst to the 3rd NOVEMBER, at the Atherton National School, on application to Mr BROADHURST, the Master, and also at the Office of Mr THOMAS D BARRY, Architect, 47, Bedford-street North, Liverpool. The Tenders to be forwarded sealed to the undersigned, on or before the 7th NOVEMBER, at noon. The Board will not pledge itself to accept the lowest nor any Tender.

G. MAYLAND, Clerk to the Board.

Bolton-le-Moors, Octol er 19th, 1855.

TO CONTRACTORS.

CEMETERY CHAPELS.—The Godalming Burial Board having decided on EXTENDING the TIME for completion of their new Cemetery Chapels to the 24th of JUNE next, give Notice that they shall remain open to consideration till TWELVE o'clock on WEDNESDAY, the 7th of NOVEMBER next, up to which time the drawings and specification will be deposited for inspection at the Angel Inn, Godalming. Sealed proposals, endorsed "Tender for Chapels," are to be sent or delivered to Mr. C. J. WOODS, Solicitor, Godalming; and the Board is not authorised to accept the lowest or any Tender.—Any further information may be obtained of C. H. HOWELL, Esq. Architect, at his Residence, Godalming; or his Offices, No. 14, Union-street, New Bridge-street, Blackfriars.

PUBLIC HEALTH ACT, DISTRICT of HEANOR.—The Local Board of Health for the District of Heanor, in the County of Derby are desirous of BORROWING, under the provisions of the "Public Health Act, 1848," upon the security of the rates authorised to be levied under the said Act a SUM of MONEY not exceeding 3,000l. for the construction of Water-works. Payable by Half-yearly Instalments, with interest. Persons willing to advance such sum, or any portion there, are requested to forward Tenders to me on or before the 14th NOVEMBER next, stating rate of interest upon which such advance will be made.—By order,

R. BIRCH SPENCER, Clerk to the said Local Board.

Basford, Notts, this 15th October, 1855.

TO CONTRACTORS.

HEANOR (DERBYSHIRE) WATERWORKS. The Local Board of Health for this district are prepared to receive TENDERS for the execution of the following CONTRACTS:—

CONTRACT No. 1.—The Manufacture and Erection of a HIGH-PRESSURE STEAM-ENGINE, BOILER, and PUMPS, capable of raising 8000 Gallons of Water 360 feet high in twelve hours.

CONTRACT No. 2.—The Sinking and Steining of a SHAFT, six feet clear diameter, and about nine yards deep.

CONTRACT No. 3.—The Construction of an ARCHED BRICK RESERVOIR, sixty feet square, and twelve feet deep.

CONTRACT No. 4.—The Manufacture and delivery of about five miles of CAST-IRON PIPES, from two inches to six inches in diameter.

CONTRACT No. 5.—The Supply of the requisite SLUICE VALVES and HYDRANTS connected with the above Pipes.

CONTRACT No. 6.—The LAYING, FIXING, and JOINTING of the above Pipes, Sluice-valves, and Hydrants.

The drawings and specifications may be inspected, and forms of Tender and bills of quantities for Contracts No. 2, 3, 4, and 6, may be obtained on payment of half-a-crown each copy, and other information had, by applying at the Office of Mr. JOHN S. BURTON, of Nottingham, the Engineer to the Local Board. Tenders will be accepted for any single Contract, but the Board would prefer letting the works to parties tendering for two or more Contracts. The Tenders are to be delivered at my office in Basford, Nottinghamshire, on or before MONDAY, the 12th day of NOVEMBER next.

R. B. SPENCER, Clerk to the Board.

Basford, Oct 18, 1855.

TOWN of CARDIFF.—CARDIFF GAS-LIGHT and COKE COMPANY.—To BUILDERS and CONTRACTORS.—The Directors of this Company are prepared to receive TENDERS for the BUILDING of a SUITE of OFFICES, and a DWELLING-HOUSE, at their Works, Cardiff. Plans and specifications of the work may be seen, upon application to the Engineer, at his Office, Gasworks, on and after the 20th inst. Sealed Tenders, addressed to the Chairman of the Directors, to be forwarded under cover to the Engineer of the Works and still "Tender for Offices, &c." on or before the 5th day of NOVEMBER. The lowest or any Tender not necessarily accepted.—By order,

HENRY BOWEN, Engineer.

Cardiff, October 21, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TO CONTRACTORS. — BIRMINGHAM CANAL NAVIGATIONS.—Contractors disposed to TENDER for executing the WORKS of a proposed CANAL, about 2½ miles in length, from near Dudley Port to the Netherton Branch Canal, about ¼ mile of which is tunnelling through the Rowley Hills, with the necessary bridges, culverts, &c. may see the plans, specifications, and conditions, at the Canal Company's Office, Paradise-street, Birmingham, from THURSDAY the 1st to THURSDAY the 15th NOVEMBER, which is the latest day for receiving Tenders. Information as to the general character of the works, may also be had by application to Messrs. WALKER, BURDER, and COOPER, 24, Great George-street, Westminster.
By order, ROBERT THOMAS, Clerk to the Company.
Birmingham, October 16, 1855.

SHIPLEY WATER-WORKS.—To WROUGHT-IRON TUBE MANUFACTURERS, BRASS-FOUNDERS, PLUMBERS, and OTHERS.—The Local Board of Health for the District of Shipley are prepared to receive TENDERS for the following CONTRACTS:—
CONTRACT No. 6.—For the supply of Plain Iron, Galvanized Iron, and Lead Piping, High-pressure Cocks, Ferrules, and other Fittings for house-service water-supply.
CONTRACT No. 7.—For Excavating the Ground, Tapping Mains, Laying, Jointing, and Fixing Pipes, Cocks and other Fittings for house-service water supply.
Specifications may be inspected, and printed forms of Tender obtained, at the Offices of Mr. J. McANDS BOROUGH, Civil Engineer, 24, Queen-gate, Bradford, from whom any further necessary information may be procured. Sealed Tenders, properly endorsed, must be sent to me on or before MONDAY, the 29th of OCTOBER next ensuing.
By order, JO THOMPSON, Clerk to the Local Board.
Bradford, October 1st, 1855.

SCOTTISH CENTRAL RAILWAY.—CONTRACTS for WORKS.—The Directors of this Company are prepared to enter into CONTRACTS for the EXECUTION of the following WORKS, according to plans and specifications in the hands of Messrs. A. and A. HUTON, Architects, Perth, viz.:
GOODS SHED and OFFICES, at Stirling Station.
DRYING SHED, at Perth.
WORKSHOP and DWELLING-HOUSE, at Perth.
Tenders must include all the departments of works connected with each building and will require to be lodged with the Secretary at, or before, 1st NOVEMBER next, when the Directors will bind themselves to accept the lowest offer.
By order, JOHN A. JAMIESON, Secretary.
Perth, October 20th, 1855.

GREAT NORTHERN LONDON CEMETERY.—TENDERS for the SUPPLY of SNEATON RAG STONE are requested to be sent to the Offices of the Great Northern London Cemetery Company, 122, High Holborn London, addressed to Mr. E. A. SPURR, Architect. The Tenders to state the price per foot cube, delivered on trucks at the Colney Hatch Station of the Great Northern Railway, are requested to be sent, addressed to Mr. E. A. SPURR, Architect, at the Offices of the Great Northern London Cemetery Company, 122, High Holborn, London.

CONTRACT for ROADS.—The CITY of LONDON and COUNTIES FREEHOLD LAND SOCIETY.—The Committee are desirous of receiving TENDERS for making ROADS on their Tufnell Estate. The specification and plan may be seen at the Society's Offices, 70, Fore-street, City, where the Tenders are to be left before FOUR o'clock on WEDNESDAY next the 31st instant.

THE ESTATES COMMITTEE of the CORPORATION of the SONS of the CLERGY will MEET on FRIDAY, the 9th of NOVEMBER next, at ELLY'S Office, in Bedford-row, to receive TENDERS for a BUILDING LEASE for 30 years, of a piece of ground on the north side of Panmure-place, Queen-street, Cripplegate. Printed forms of Tender may be obtained of C. C. BARKER, Esq. the Registrar, at 2 Bloomsbury-place, Bloomsbury-square, and of Messrs. HUNT and STEPHENSON, 5, Parliament-street, Westminster.

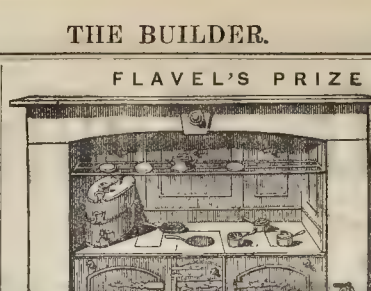
FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.
This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to every DESCRIPTION OF BUILDING, whether public or private.
The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.
The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete, so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.
Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in the better, safer, and more economical construction of cast iron girders and brick arches, and as ensuring the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, without the fear of ruin to everyone.
Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 13, York-buildings, Adelphi.

CHUBB'S LOCKS, with all the recent improvements, STRONG FIRE-PROOF SAFES, CASH and DEED BOXES.—Comprete lists of sizes and prices may be had on application.
CHUBB and SON, 57, St. Paul's-churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester, and Horsley-fields, Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who manufactures for Builders, &c. to his Stock in Ironmongery, Brass Foundery, Nails (wrought and cut), Copper and Zinc, Patent Locks of all descriptions; Cisms, Glass, and Wood Warranters of all kinds, with Patent Shifting Spindles, Dr. Arnott's Ventilator, 4s.; and the new reversed Venetian Ventilator, so much admired, &c. 6s. 6d. each.
N.B. BOOBBYER'S late STURGE and BOOBBYER, established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.
14, Staunton-street, Clare-market, London.
No. 1081. Class 6, Section 16, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kings-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times be short in the supply them. S. W. and Co. beg to state that they continue their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.
These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.
The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.
They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.
They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:
BENHAM AND SONS,
19, WIGMORE-STREET, LONDON;
and at the Crystal Palace, Sydenham.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).
WORKS—GLASS HOUSE YARD, opposite the Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated—Roofs fixed complete.
J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tunnel Iron, Plumbs Zinc, and Tiles.
An Allowance to the Trade.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, when used for construction, and being free from dirt. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch-street, City.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; and BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Crauford's) PATENT GALVANIZED IRON.
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Sheeting, &c
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.
PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about	18 oz.	per foot super.	
12	"	" 20	"
14	"	" 24	"
14	"	" 26	"

Full particulars and the reduced price sent by post on application to
A. MOREWOOD and CO., DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

A. MOREWOOD and CO. (late Morewood and Rogers), Dowgate Dock, Upper Thames-street, London, and Bakerville Works, Birmingham.
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets.
PLAIN or CORRUGATED, and Curved, of all Gauges.
Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.
Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building, at the
OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

JOHN WALKER,
MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.
JOHN WALKER,
GALVANIZED IRON MERCHANT, &c.—The trade supplied Corrugating by steam power capable of doing 100 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.
JOHN WALKER,
IRON-FOUNDER and ENGINEER.
Orders to any extent can be executed at his Works, Mill-wall, Poplar.—Apply at the Works.

BUILDER AND CONTRACTOR.
JOHN WALKER,
Having his own Sawmills is enabled to CONTRACT for BUILDERS' WORK.
At low prices, and work done well.
Apply at his Offices, Arthur-street West, London-bridge.

SAMUEL HEMMING'S PATENT MUCH approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the B.W. Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, mansions, ornamental villas, dwelling-houses, farm buildings, and fire-proof do. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, scrodoors for the same, hot-water pipes, elbows, ters, syphons, throttle valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on application to J. JONES, Iron-bridge, wharf No. 6, Bankside, London, near the Southwark-iron bridge.

CUNDY'S PATENT PURE WARM-AIR STOVES, the only Pedestal Stove which gained a Prize Medal (class 4?6), at the Great Exhibition in 1851, especially adapted for warming, with great economy, Churches, Chapels, Schools, Entrance-halls, Libraries, and Ware rooms. CUTLER and SONS, Sole Licensees and Manufacturers, 13, Great Queen-street, Long-acre, London.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42, Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO. 1, Arthur-street East, London-bridge.
Testimonial respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and Co
2, Ridgmount-place, Hampstead, March 9th, 1853.
Gentlemen,—I have great pleasure in bearing testimony to the capabilities of the extraordinary Gas Cooking Apparatus, being the largest and most perfect yet in use. Suitable for hotels mansions, club houses, private houses, and the service, having cooked in the last few days fowls, and many sorts of ham, beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 84lbs. in nine hours, fifty-three minutes, presented by J. Baucer, Esq. Threadneedle-street, to the directors, for the banquet given to the foreign ministers. They have been in full operation for seven months, and are now in as perfect order as when first finished. "They have not cost one shilling for repairs."
I am, Gentlemen, yours respectfully,
EDWARD HORNE.
Messrs. Deane, Dray, and Co.

BUILDINGS HEATED by HOT WATER. G. R. COOPER, IRONWORKS, 21, DRURY-LANE. Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

ROYAL POLYTECHNIC GAS FIRE, BACHHOFFNER and DEFRIES'S PATENT. The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c., smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

ESTABLISHED 1817
WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.
Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting Ditto, with ditto, from 35s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 45s. each.
Register Stoves, from 9d. per inch
Eliptic ditto, with double backs, from 3½d. per inch.

Cast-iron Rain-pipe	2	2½	3 inch.
	10d.	1s. 3d.	1s. 6d. per yard.
O G Gutters	3½	4	5 inch.
	1s.	1s. 1d.	1s. 3d. per yard.
Best Cut Clasp	1½	2	2½ inch and larger.
and Rose	10d.	1s. 6d.	1s. 6d.

1-inch Best Cut Lath, 16s. per cwt.
Sheet Floor Brads, 14s. per cwt.
3-in Floor Brads, 12s. 6d. per cwt.
Sash Weights, 7s. 9d. per cwt., 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 8s. per doz.; strong Coal Plates, with hooks, 20s. per cwt. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

TO IRONMONGERS AND THE TRADE GENERALLY.
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on view.—Every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price-list, Nos. 55 and 56, High Holborn.

LARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.
This invention, is now in operation upon Steam engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.
Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS BROTHERS, Nine Elms, London.
Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"18, Hyde-park Gate, Kensington, February 24, 1854.

"My dear Sir. The Air Warmer continues to work very satisfactorily indeed, with regard to he main body of the house, and during this weather is charming, even in the painting-ro m Mrs. Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,
"Mr. J. Jobson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq. late M.P. for Sheffield.

"Stanhope-lodge, St. John's-wood, London, January 27th, 1855.

"Dear Sirs,—I am happy to be able to report to you most favoura' ly as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in Englan l, and this has increased with increasing years and decreasing strength; I have, theref re, had recourse, from time to time, to various stoves and other modes of warming the hall and passages of my house; but I have never succeeded till now in producing an equal temperature over every part, and having that temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and have the climate of May within doors in the months of December and January. The servants learnt its proper management in a few days without difficulty, and its economy in fuel is as remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall ose no opportunity of heartily advising its adoption to all who desire to protect themselves against the changes of temperature in their dwellings.—I am, dear Sirs, yours faithfully,
"JAMES SILK BUCKINGHAM.
"To Messrs. Stuart and Smith, Roscoe-place, Sheffield."

M. E. HADFIELD, Esq Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir,—We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable oppressive odour produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective.—I am, my dear Sir, yours faithfully,
"Mr J Jobson Smith, Roscoe-place." "M. E. HADFIELD.

WILLIAM RUTSON, Esq.

"Newby Wiske, Thirsk, 15th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the disadvantages incident to an uninhabited and unfurnished house, with all the doors open into the adjacent rooms, it is keeping up a very genial influence over the temperature, even during this severe weather The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 16s. 8d. per ton, the rate at which it has been fired for the last two or three months, is 1d. per hour.
"I am, Sirs, yours truly, "WILLIAM RUTSON.
"Messrs. Stuart and Smith
"P.S.—Mr. Rutson, on looking again, sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3s. 6d. for coke say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop-road, February 27th 1855.

"My dear Sir, -I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the late severe frost, the comfort has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase, and passages, being a reservoir of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the general run of the house without the fear of a relapse To many invalids the invention will prove invaluable, giving them the freedom of their habitation instead of confining them prisoners to one apartment.—Believe, me, my dear Sir, very truly yours, "EDWARD MARTIN.
"Mr. Jobson Smith."

E. F. SANDERSON, Esq.

"West-street, Sheffield, 27th March, 1855

"Gentlemen,—The Gill Air Warmer you put up for me last year at Endcliffe, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been painfully sensitive of the damp and chilly air of this country; but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your effective plan of rendering dwelling-houses most equably comfortable in point of temperature.—I am yours very truly,
"Messrs. Stuart and Smith, Roscoe-place." "E. F. ANDERSON.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

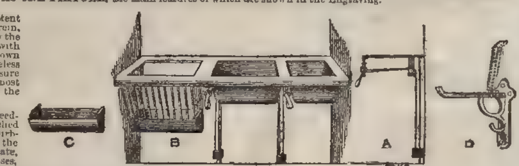
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

ave made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



A represents the Patent Halter-guide and Collar-rein, the ball of which is taken to the back of the manger-works with freedom and ease up or down the guide-bar, and is noiseless in its operation, as also a sure preventative against the most restive horse being cast in the stall.

B. The Patent Portable Seed-box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers, Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application

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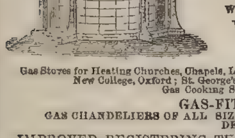
ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;



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FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS. DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

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Signals for communication between Guard and Engine Driver Railway Stores and Lamps of every description

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TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

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212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporizing) with all the improvements, under their Quadruple patents of 1840-51-54 and 1855 including their Gunpowder Proof Solid Lock and Door (without which no safe is secure

THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX (212°) SAFE WORKS, LIVERPOOL the most complete and extensive in the world Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47A, Moorgate-street, City.—Circulars free by post.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self acting Cottage Ranges, with Large Oven and Boiler,
30 33 34 36 inch.
28s. 30s. 32s 34s.

Best Self acting Ranges, with Oven and Back Boiler, Bright Wrought Bars
34 36 38 42-inch.
54s. 56s. 58s. 60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Cheek Register, with strong Bars and Trivits, 5d per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe { 2 — 11d. 2½ — 1s. 2d. 3 inch — 1s. 4d. per yard.

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6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

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An extensive stock of bar, rod, hoop, and sheet iron

Brick Moulds kept in stock. Any size made to order.

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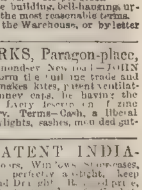
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 6½d. 6¾d. 7d. 8d and 9d. per inch.

Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

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Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.

Best Patent Sash Line.

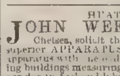
1 — 4s. 6d. 2 — 5s. 3 — 6s. 4 — 7s. 6d. 5 — 8s. 6d. 6 — 11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

PARAGON ZINC WORKS, Paragon-place, New Kent-road, opposite Bermondsey New-road.—JOHN BROWN, Zinc Worker, begs to inform the building trade and the public generally, that he now makes kites, patent ventilating and smoke-curing Albert chimney caps, he having the patentee's permission for the same. Every description of zinc work executed in town and country. Terms—Cash, a liberal discount on large orders. Baths, skylights, sashes, moulded gutters, &c. made to order or drawing.

GREENWOOD'S PATENT INDIA-RUBBER STOPS render Doors, Windows, Staircases, Closets, &c. perfectly air-tight, keep out Dust and Draught. Reduced price, 4d per foot. Spring slides for the bottom of Doors 1s each.



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NAILS and IRONMONGERY, from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which will be forwarded upon application.
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TO IRONMONGERS, BUILDERS, &c.
PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 85, High Holborn.

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R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
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PATENT SASH and BLIND LINE,
can be obtained of all
ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY,
Established 1774.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.
ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

IRONMONGERY.
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THE LARGEST STOCK AT
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5 AND 6, BROAD-STREET, BLOOMSBURY.
PATENT CORRUGATED IRON.

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PATENT CLIMAX DOOR-SPRINGS.—The attention of architects, builders, and ironmongers is particularly directed to the above patented improvements in door-springs, being the most perfect and durable yet invented. Their power is equal to doors of any size and weight, and they are warranted to stand the wear and tear of any bank, public building, or business establishment in the kingdom.—Drawings, with full particulars, may be had from the manufacturers, WEBB and GREENWAY, Steelhouse-lane, Birmingham.

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No.	3	4	5	6
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N.B. Several high-pressure Engines for Sale.

TO LOCAL BOARDS of HEALTH, WATER COMPANIES, and OTHERS.—The Swansea Local Board of Health have FOR SALE, about 2,200 yards of 12-inch, and 150 yards of 13 and 15-inch NEW WATER PIPES, principally in 9 feet lengths, each length weighing about 7 cwt. They are good strong castings, coated inside and outside with Dr. Angus Smith's solution, and made by Messrs. Cochrane and Co. Woodside Iron Works, near Dudley. The reason the Board wish to dispose of them is owing to their not being of a suitable size for their works. Tenders to be sent in to Mr EDWARD COUSINS, Surveyor to the Board, Guildhall, Swansea, from whom any further information respecting them may be obtained.
Swansea, Oct. 9, 1855.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

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J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.
Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any tune, note, or weight, singly or in peals.
TUNED BY MACHINERY.
Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST IRON GAS and WATER PIPES.
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HART AND SON,
IRONMONGERS AND MANUFACTURERS,
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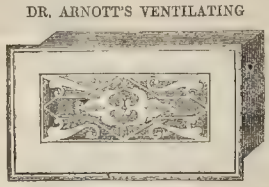
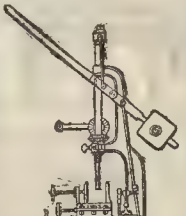
DR. ARNOTT'S VENTILATING

CHIMNEY-VALVE.
Illustrated Price-catalogues on receipt of four postage-stamps.

PATRONISED BY H. R. H. PRINCE ALBERT.

S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.
Castings Warehouse removed from 81 to 63, Upper Thames-street.

KIMBERLEY'S PATENT FLOORING CRAMPS, Scaffolding Brackets, Door Springs, Mortising Machines, Casement Fasteners and Stays, Skylight Screws, &c. &c.
Also, KIMBERLEY'S PATENT GAS STOVES, may be had from any Ironmonger in town or country; from the Patentee, Inge-street, Birmingham; or from the London Agents, Messrs. PUGH and CO. 13, King-street, Snowhill, where a stock is kept.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.

House and Coach Builders, Joiners, Cabinet-makers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.
P.S. Steam Engines and Machinery contracted for.

CAST-IRON PIPES, IRON-WORK FOR OVENS, &c.
RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and G-G Gutters, Socket Pipes for Water or Gas, Flange Pipes, Hot Water Pipes and Connections, Sash Weights, and other castings; Iron-work for Bakers' Ovens of every description, fitted complete, to be had in sets or in parts.—Prices equal to all competition. Contracts taken to any extent. Goods landed. A powerful crane.

TO WHARFINGERS and WAREHOUSEMEN.—TO BE SOLD, a powerful CAST-IRON CRANE, suitable for waterside premises. May be seen on application to the Quarter-master Sergeant, at the Militia Depôt, at Guildford. Purchasers will address proposals to the Commanding Officer, or the Adjutant of the Second Royal Surrey Militia, at Guildford.

WAREHOUSE GATES.—TO BE SOLD, a large PAIR of FRAMED and BRACED GATES, well fitted for a warehouse or manufactory, 13 feet by 10 feet, strong framed posts and head, 12 feet by 15, large cast-iron bases to posts and spurs, granite cell, hung with four pair of hinges and fastenings, all in good condition. Also, a quantity of Feeble Pitching for Stables.—To be seen at the Works, Messrs. EPICENS, Tudor-street, Blackfriars.

P. O'CONNOR'S PATENT LEVER HINGE.—The most perfect and simple INVENTION for CLOSING SWING DOORS and GATES yet produced. The motive power being a weighted lever, it may be easily adapted to any size door, and is not liable to get out of repair as spring hinges generally are. May be had from all Ironmongers and Factors; J. CARTLAND and SON, Manufacturers, Birmingham; or from the Patentee, P. O'CONNOR, Ironmonger, Wavertree, Liverpool.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, bank, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

DREDGING-MACHINE.—WANTED, immediately, a new or second-hand Dredging Machine, complete, for use in a harbour and docks.—Apply, stating particulars and price, to EASTON and AMOS, Grove, Southwark.

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR, IRON BUILDING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM.
LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

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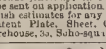
By Royal  Letters Patent.

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Ditto ditto, in boards and planks	„ 0s. 6d.	„

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1 ditto	18s.	„	ditto	20s.	„

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The Builder.

Vol. XIII.—No. 664.

IN our present number will be found a view of one of the mediæval glories of Paris, the Sainte Chapelle, as it now appears in its restored state;* and we propose to give some little account of it, and to say a few words about other parts of the ancient city. The observations we thought it our duty to make recently touching Paris and the Parisians of the present day, have brought us a heap of letters from both Frenchmen and Englishmen, admitting their justice, and urging us to a continuance of the remarks. It is to be hoped that what has been said may assist in leading to improvements in a sanitary point of view, in which case the Parisians will have more cause to be thankful than if we had joined the ranks of their indiscriminating adulators. We shall have more to say on this head, and of some of the modern buildings. We have some memoranda, too, of special objects in the Universal Exhibition, aided by notes furnished to the Board of Trade by some of the English Commissioners and jurors, about to be published: but these must bide their time.

The germ of this Paris of the nineteenth century is the small island in the Seine, now known as *La Cité*, whereon stands the cathedral of Notre Dame. This was the *Lutetia* of the Romans; a bridge over the Seine on either side, beyond the east end of the cathedral, connecting the city with the roads to the provinces north and south. At the other end of the island, the western, the kings of France fixed their habitation. There, too, the parliament met, and the judges dispensed the law. The palace occupied more than a third of the whole area of the island, and bristled with turrets and spires. Fire devastated it in 1618, and again in 1776. The Palais de Justice was afterwards modernized, and at the present time the remains of the mediæval building are comparatively few. Chief amongst them is the Sainte Chapelle.

In 1239, through the necessities of the reigning Emperor of Constantinople, Louis IX. ("Saint Louis") obtained possession of the Crown of Thorns. Two years afterwards, other relics of the Saviour came into his possession, and he determined on building an edifice for their reception. He therefore instructed his architect, Pierre de Montereau, or Montreuil, to prepare a magnificent shrine, and himself laid the first stone in 1245. In three years, with the expenditure it is estimated of 40,000*l.* Peter finished his noble work;† and on the 25th of April, 1248, it was consecrated. Well did Pierre de Montreuil realise the wishes of his master, and in so doing he raised a monument to himself. He died, we may add, in 1260, or as some state, in 1266, and was buried in the Chapel of the Virgin, in the abbey of St. Germain des Prés. A Latin inscription on his monument, according to M. Froche, in his account of the Sainte Chapelle, said (using M. Froche's words), "*Ici repose Pierre de Montereau, l'honneur des mœurs et le maître des ouvriers. Dieu l'appela à lui à l'âge de 54 ans.*"

The building is in two stories, the lower chapel and the upper chapel: the extreme outer length, including the buttresses, is 118 feet; the extreme width, 55 feet; the width between the wall, 35 feet; the height from the ground externally, to the apex of the gable, 138 feet; the height of the upper chapel from the pavement to the crown of the vault, 67 feet; and the height of the spire from the ridge to the weather-cock, 114 feet. The rose-window, we should add, was the work of a later period.

In the decoration of it internally, gilding, painting, enamel and stained glass, were used lavishly, and all the resources of art were drawn upon. Royal marriages, betrothments, and coronations, took place in the Sainte Chapelle; and it was the starting point of numerous expeditions to the Holy Land. In 1791, it was given up to lay purposes, became the meeting-place of a club and a depôt for flour, and was much injured.

Louis XVIII. and Charles X. showed their desire to bring it back to its original purpose and condition, but it was not till the reign of Louis Philippe, in 1837, that its restoration was decided on, the task being entrusted to M. Duban, architect, with Messrs. Lassus and Viollet-le-Duc as assistants. After twelve years' work it came wholly into the hands of M. Lassus, by whom it has been carried satisfactorily to completion. The accompanying view of the exterior renders description unnecessary, and we shall hereafter give a view of the interior. It will be noticed that on the pinnacles of the turrets at the west end, on each side of the rose-window, the Crown of Thorns is represented above the Crown of France.

The spire, which M. Lassus has erected with much skill and taste, adopting, nevertheless, the style of a later period than that of the building, is the fourth that has surmounted the Sainte Chapelle. The third of these, erected by Louis XIII. was destroyed in 1791. Around the octagon base of the spire are figures of the twelve apostles, larger than life. The figure of St. Thomas is a representation of the architect, M. Lassus; St. Philip is a likeness of M. Steinheil, glass painter; and various figures scattered about the spire represent the carver, the modeller, the lead-worker, and others immediately concerned in the restoration, and are inscribed with their names. With the exception of the cross and weathercock, which are of iron and copper, the whole of the ornamental work is of lead, formed with the hammer, and gilt: the ornamental work on the ridge, very large and elaborate, is also of lead. At the eastern termination of the ridge is the figure of an angel, nearly 10 feet high, which revolves, by means of clockwork, with the sun. One hand holds a cross and the other points to the position of the sun. Messrs. Durand, of Paris, by whom the works in lead were executed, deserve mention. "No hammered leadwork," says M. Froche, "had been executed since the fifteenth century; this, then, is the first instance wherein for four centuries such work has been done, a circumstance we consider as a fresh and precious conquest for industry. We must, logically, infer that one of the unquestionable advantages of monumental restoration is to establish intelligent workmen, to elevate them in a degree, by bringing them nearer to the artist, and to create new resources for the arts and commerce." In this way, restorations, and more especially this of the Sainte Chapelle of Paris, have revived branches of industry extinguished, or rather forgotten, for a long time, such as working in iron, painting in enamel, glass staining, repoussé work, and embroidery.

The interior glows with colour, gilding, and enamel: the windows are filled with stained glass, and every inch of the walls and ceiling is painted,—on the whole, as it seems to us, very successfully. There is a prodigious quantity of stained glass, and the ancient portion is particularly valuable in the history of the art, because we know that, with the exception of that in the rose-window, it was there when the chapel was consecrated in 1248. Much of the ancient glass was destroyed. The building had been used previously to the restoration, as a depository for records (like the Chapter-house, at Westminster), and the lower part of each window had been removed, and the openings blocked up: no care had been taken when repairs were executed to make the subjects perfect, and the whole was in disorder. The importance and difficulty of this part of the restoration being felt, a public competition was invited, and the Minister of Public Works, named a commission to make the selection. The artist chosen for the undertaking was M. H. Gérente, but he had made but small progress with the work before, unfortunately in 1852, death carried him off. M. Steinheil, with the practical co-operation of M. Lusson, was then appointed in his place, and by these gentlemen the windows have been perfected. Each window, as is usual with glass of the thirteenth century, presents a number of subjects, one as many as 121, all taken from the Old and New Testament, with the exception of those in one window, which relate to the history of Saint Louis and the translation of the holy crown of thorns. The first window on the north side, beginning from the west end, illustrates the Creation of the World, the Fall of Man, and the History of the Patriarchs: the second, the History of Moses, the Captivity of the Jews, their Deliverance and Victories, the Tables of the Law, and so on. M. Guilhermy points out the curious circumstance that in the sixth window, the second in the Absis, which exhibits the history of Isaiah, the prophet is shown reprimanding *Mahomet*, who is represented as the personification of Idolatry. The name of the Arab legislator is written by the glass painter of the thirteenth century exactly as we write it to-day.

The windows, we may add, consist mostly of a dark blue ground, with red and yellow upon it. The ceiling is blue, sprinkled with the everlasting gold stars, and there is a large amount of gilding amongst the colours on the stonework. We shall return to the subject when we give a view of the interior, and in the meanwhile we have said enough to show that there is much to be seen in the Sainte Chapelle of Paris.

* See p. 511

† In the "Itinéraire Archéologique de Paris," by M. Guilhermy, the cost is stated at 800,000 *livres*. But this must be an error; France must be meant. Including the relics and the shrines to contain them, about 150,000*l.* were spent.

THE CHEMISTRY OF BUILDING MATERIALS.*

With the following we conclude our report of the papers read at meetings of the Architectural Institute of Scotland, by Dr. George Wilson, and printed in its "Transactions."

Composite Limestones.—The majority of limestones contain other ingredients besides one or both of the calcareous carbonates. A cursory examination is sufficient to demonstrate that many of them are aggregations of shells, corals, and the stony skeletons, habitations, or other solid appendages, of fresh water and marine animals.

Those shells, corals, and the like, are sometimes tolerably perfect, but more frequently are broken into fragments of various sizes, or reduced to a chalk-like powder, in which the larger fragments are imbedded. They have been fractured, comminuted, and pulverized under water, from which they afterwards deposited in sedimentary strata; these have ultimately consolidated into limestone rocks, and as such, now form in many parts of the world whole mountain masses. Rocks formed in this way must contain more or less of all the substances originally present in the calcareous (as well as some of the other) appendages of the animals from whose remains they are produced. Organic matter, accordingly, generally in the form of coaly or bituminous deposits, and phosphate of lime, may generally be looked for in such limestones. The cavities also left empty in the shells and corals, by the death of the animals once occupying them, become filled up, in some cases, by shell powder or chalk; in others by crystals of carbonate of lime; in others by silicious sand, or clay, or bitumen, or mixtures of all.

* See pp. 375, 387, 410, 439, 435, 447, 460, 472, and 482, *ante*.

Further, as the process we are describing is carried on under water, and irregular fragments of shells cannot cohere without leaving spaces unoccupied between them, these spaces cannot fail to become filled up with such substances as are in solution or suspension in the water; but these will be very much the same things as have already been referred to as liable to fill the emptied shells.

It would serve no practical end to discuss, one by one, all the varieties of composite limestone. Suffice it to consider the following:—

1. Petrifaction limestone.
2. Silicious limestone.
3. Aluminous limestone.
4. Phosphatic limestone.
5. Bituminous limestone.

1. *Petrifaction Limestone.*—This variety of stone is most familiar in its form of shell or shelly limestone; but as many beautiful building stones of our own country consist chiefly of *madrepores* and other corals, and others of *encrinites* or stone lilies (the skeletons of animals allied to star-fishes), it is better to employ a title sufficiently comprehensive to include them, as well as the shelly limestones.

The petrifaction limestones are generally dark in their ground tint, probably from the presence of animal matter more or less reduced to a coaly or bituminous consistence; but this colour of ground favours by contrast the display of the shells, corals, and other fossils, which are white or cream coloured. Fossiliferous stones of this character are of necessity unequal in structure and solidity, the matter interposed between the fossils, and binding them together, being either harder, or, as more frequently happens, softer than they are. Such a mass cannot take a uniform polish, and must wear unequally; for atmospheric and other destructive agencies act with greater energy on the softer portions. But this unequal wearing does not interfere with the use of the highly fossiliferous limestones for internal decorative purposes, to which, under the name of marbles, they are largely applied; nor does it, where the stone is compact, interfere with its application in external architecture. Several of the oolitic limestones contain, interspersed among their characteristic ovules, fragments of shells, occasionally in large number. Such shelly oolites, however, are in high esteem in England, and have stood, in well-known edifices, the wear and tear of all the destructive agencies to which they are exposed for ages.

2. *Silicious Limestones.*—Mixtures or combinations of silica and carbonate of lime occur frequently in nature, and as they unite, in certain cases, the good qualities of a sandstone to those of a limestone, they are unexceptionable as building materials.

In a well-known calcareous sandstone, that namely of Fontainebleau, we find the crystalline form of pure carbonate of lime assumed by it. Chert or hornstone, on the other hand, which is used, on account of its hardness, for making mill-stones, represents, in certain of its specimens, an exceedingly silicious limestone passing into silica, and in all cases too hard for a building material.

A moderate amount of silica is not prejudicial, but probably rather beneficial to a limestone in relation to architecture. Thus, Salisbury cathedral is built of a limestone quarried at Chillmark, in the neighbourhood of the cathedral town, containing 10 per cent. of silica; and the excellent condition of that edifice, as well as of Wilton Abbey, and many other buildings in Wiltshire, constructed of the Chillmark stone, amply proves its durability.

3. *Aluminous Limestones.*—This class of limestones is likewise named *argillaceous*, and owes its peculiarities to the presence, in the stones included under the title, of silicate of alumina or clay. Mixtures of carbonate of lime and clay are exceedingly common in nature; but few of them are sufficiently hard and compact to come within the category of stones. It will presently appear, however, that they are of high value, though not stony in structure, as sources of hydraulic mortar. Where they are thoroughly consolidated, they are equal to combinations of limestone and slatestone, and as such cannot be wanting in durability. One may be named,—the limestone from Totternhoe, near Dunstable, Bedfordshire, with which Woburn Abbey, and many other edifices in Bedfordshire and Hertfordshire have been erected. It is described by the reporters on the stones for the Houses of Parliament as "consisting of calcareous and argillaceous matter in about equal portions."

4. *Phosphatic Limestones.*—This variety of limestone has not as yet been recognised as a class, and perhaps scarcely deserves to be specially noted. It takes its name from the phosphate of lime and phosphate of magnesia, which, as they occur in the shells and other calcareous skeletons and marine animals, must be present in most limestones derived from them. Its quantity is never large, in general not exceeding $\frac{1}{100}$ of the weight of the limestone: occasionally, however, it is ten times more abundant, amounting to more than 1 per cent. on the stone. As calcareous phosphates are among the most essential, and at the same time least abundant constituents of the food of plants, limestone containing them is of special value for agricultural application; and, conversely, a phosphatic limestone is the least desirable variety of its class for architectural purposes, where the growth of lichens and other vegetable matters is objectionable.

Reference has already been made to the very uncertain nature of the information we possess concerning the conditions which favour the growth of plants upon stones. It does not appear even to have been ascertained whether sandstones or limestones foster their growth most. Speaking solely from a speculative point of view, it may be inferred, that as the materials for plant-growth are much more abundant in limestones than sandstones, the former would more readily cover with vegetable incrustations than the latter; and this view appears to be justified by the tenor of the Report on the Stones for the Houses of Parliament. Yet a very competent judge, Hugh Miller, refers to the village of Olney, in Bedfordshire, as "built of a calcareous yellow stone from the oolite, which, as it gathers scarce any lichen or moss, looks clean and fresh after the lapse of centuries." (First Impressions of England and its People, p. 277.) After all, however, the Olney stone must be an exceptional one, for the ancient ecclesiastical buildings of England, constructed of limestone, are notoriously spotted with lichens and mosses, at least in country places; but perhaps not more so than the sandstone buildings of equal age. The question must be open for future inquiry, and with it the further query, does a stone gain or lose in beauty by lichen incrustations?

In whatever way æsthetical judgment may be satisfied in reference to the lichen spots and moss stains on stones, however, it must sometimes be desirable to avoid them as long as possible. Where this is the case, the purest simple or magnesian limestone should be preferred; and where, on the other hand, a quick spotting is desired, the composite limestones, and especially those rich in phosphates, should be preferred.

5. *Bituminous Limestones.*—From the circumstances under which limestones have been formed, they must be liable to contain vegetable matter, derived from the water in which they were originally deposited, and animal matter, resulting from the decay of the shell-fish and coralline creatures from the tenements of which they have been mainly produced. These vegetable and animal remains have, in the course of ages, become converted into a carbonaceous or coaly substance, often accompanied by bitumen. In some cases, this matter is so equally distributed in the stone, as to give it the uniform dark colour so much admired in black marble. In others it produces streaks or veins, sometimes beautifying, sometimes disfiguring the limestone. Occasionally limestones, such as the white marble from Skye, discolour and darken when exposed to the air, in consequence, it may be supposed, of retained organic matter becoming carbonised by a change such as we are familiar with in exposed beds of coal. It is probably owing to a similar but less advanced change or decay, that certain limestones, when struck or rubbed, emit an offensive odour, and have been distinguished as a class by the title of *fetid*.

Bituminous limestones, accordingly, must not be rashly selected as building materials; but where not otherwise unsuitable, it is likely that their bituminous impregnation will make them more durable, by rendering them less permeable by air and water.

From what has been said, it will be seen that there is large choice of building materials among the limestones. Their greater softness makes them more easily wrought, at a smaller cost, and with less injury to the health of the workmen, than is the case with the sandstones. Their colour is generally pleasing, and they are not liable to iron-spots. Theory would indicate that they are less durable than the sandstones as a class, and this inference is borne out by the fact, that in Oxford, York, and other English cities, the decay of certain limestones employed in building has been so great in from twenty to fifty years, as to render inscriptions on monuments illegible, and to efface all the finer lines of carving. This, however, is not the general character of the building limestones, which, even in our climate, have endured, without undergoing serious decompositions, the storms of many centuries.

In reviewing the list of building stones now discussed, it is worth while to observe that there are special purposes for which each of the more important ones is adapted. Thus, granite is justly preferred for such a building as the Skerryvore Lighthouse; slate-stone for floor-slabs; and slate for roofing. Greenstone, uniting hardness to a texture which prevents its acquiring a polish and becoming slippery, is peculiarly suitable for causeway stones and road metal. Fine-grained, hard, compact sandstones, are superior to every other building material for the construction of edifices where delicate tracery and minute carving are exposed to the destructive meteoric agencies of a variable northern climate and a city atmosphere. Where, on the other hand, due protection can be given, the petrifaction limestones and true marbles can be economically wrought into pillars, slabs, wall-tablets, and the like, possessed of a beauty of colour and lustre such as no other stone can rival.

For general building purposes, sandstone or limestone will always be preferred where they can be procured. It would be folly, of course, for the inhabitants of Aberdeen to send to a distance for either, when they have inexhaustible supplies of granite close at hand; but where there is a choice, that beautiful rock is too difficult to work to be preferred to the calcareous or silicious freestones.

As to the relative advantages of sandstone and limestone, they are so nicely balanced, so far as ordinary buildings are concerned, that a small matter may be allowed to decide the choice betwixt them. The inhabitants of Bath are not likely to send to Edinburgh for sandstone, nor those of Edinburgh to Bath for limestone. Nor is there probably any district in the country where limestone and sandstone occur equally good of their kind, equally abundant, and equally accessible. Where these rare conditions are realised, limestone would be preferable for the humbler edifices, and for the less exposed portions of the more stately ones. Such a combination of limestone and sandstone is not uncommon in our older ecclesiastical buildings, and is being carried out to some extent in the new Houses of Parliament, where the Bolsover magnesian limestone is chiefly employed, but not to the exclusion of sandstone.

In conclusion, it must be admitted that much more requires to be done by professors of chemical science, in the way of analysis and research, before they can give great *positive* assistance in the selection of building stones; for at present we must confess we are at a loss to explain why one granite, or sandstone, or limestone, rapidly decays, whilst another, of appearance and analysis the same, is practically indestructible. But this only shows that our analysis has not been sufficiently full and minute to bring out the points of difference between the destructible and indestructible specimens of stone, not that such points of difference do not exist. We can already, however, negatively assist by pointing out, as already done, *certain* signs of destructibility and indestructibility in building materials.

ST. PAUL'S TEMPORARY CHURCH, KENSINGTON.

ST. PAUL'S TEMPORARY (IRON) CHURCH, KENSINGTON.

A TEMPORARY church has been fitted up in the grounds of the Vicarage at Kensington, and was opened on the 30th ult. by Archdeacon Sinclair. It affords accommodation for about 800 persons, and is the first temporary church of iron put up in the metropolis. The edifice consists of a nave 72 feet in length, 30 feet wide, and 24 feet high to the ridge; north and south aisles, 84 feet long, 13 feet in width, and 17 feet high; and a chancel of the same width and height as the nave, and 24 feet in length. At the end of the north aisle, immediately adjoining the chancel, is the vestry, 12 feet square; and the organ is placed in the corresponding portion of the south aisle. The porch extends the width of the west end, and has a depth of 12 feet. The roof, internally, is open, and of stained deal. The church is warmed by means of hot-water pipes, which traverse the walls. The seats are open, with panelled ends, and like the roof, are of stained deal. The whole of the building is externally of corrugated galvanized iron. It would not be difficult on a future occasion to give a more ecclesiastical character to such a structure externally. The arrangement is, that 5s. a year shall be paid for each sitting to the contractors, Messrs. Hemming and Co. of the Clift-House Works, in the parish of Bow. If the proceeds of the seat-rents do not suffice to meet the annual expenses, the deficiency is to be made up by the archdeacon: if a surplus is realised, it will be applied in aid of the fund for building a permanent edifice of stone.

Messrs. Hemming, we may mention, have contrived an iron hut for barracks and other purposes, which appears to possess several advantages.

SOME ACCOUNT OF CREWE HALL AND NANTWICH.*

ONE of the most prominent signs of the times in which we live is said to be the principle of combination,—that voluntary but most efficient act of mutual effort by which we explore the mine, construct the rail, bridge the ocean, and girdle the earth with a cord of lightning. Science, literature, and art, feel the influence and experience the benefit of this all-powerful principle, and the society to which these remarks are addressed is an evidence of its efficiency when applied to a particular branch of knowledge.

Another principle not less powerful, and perhaps more innate, has been of late called into extensive operation in connexion with unions for scientific and literary purposes; I mean the love of nature,—that unquenchable instinct in man's nobler part which every advance in intellect tends only to purify and exalt. Hence we find that every society of any pretension has its summer excursion. Some meet in general conclave to bring up the reports on every branch of science to the latest date. Others explore the mountains hammer in hand, and extract the wondrous tale of their geological history. Many wander through the lovely valleys of our land in search of fresh contributions to botanical science; whilst others, like ourselves, are more attracted by the ancient castle, the quaint manor-house, the hoary cathedral, or the quiet village church, nestling in its garden of graves. But whatever be the pursuit,—the free air, the lovely landscape, the out-of-door-enjoyment contributes much to its attraction.

> "Knowing that Nature never did betray
> The heart that loved her; 'tis her privilege,
> Through all the years of this our life, to lead
> From joy to joy: for she can so inform
> The mind that is within us, so impress
> With quietness and beauty, and so feed
> With lofty thoughts, that neither evil tongues,
> Rash judgments, nor the sneers of selfish men,
> Nor greetings where no kindness is, nor all
> The dreary intercourse of daily life,
> Shall e'er prevail against us, or disturb
> Our cheerful faith, that all which we behold
> Is full of blessings."

The Liverpool Architectural and Archæological Society has had its annual excursion every summer since its commencement, and many a pleasant reminiscence is called up by the allusion,—of lovely valleys and pleasant streams, of feudal castles and hoary mountains, of moving accidents by flood and field, of difficulties overcome, and enjoyments realised, "in spite of wind and weather."

The present year's arrangements called the society to Crewe Hall and Nantwich. * *

The situation of the Hall is agreeable and pleasant. A noble sheet of water extends eastward from the house, backed by woods and undulating grounds extending on every side. Before attempting to describe the building, a few words may be desirable on the history of the locality.

At the time of the Domesday Survey the township belonged to Richard de Vernon, Baron of Shipbrook. It is found in the middle of the twelfth century in the possession of Thomas de Criwa, with whose heirs in a direct line it continued down to the time of Edward I. when it passed by marriage to the family of Foulshurst. In the reign of Elizabeth it was sold, and after passing through several hands it was purchased by Sir Randolph Crewe (Chief Justice of the King's Bench in the reigns of James I. and Charles I.), a descendant of the original Crewes, the old possessors of the soil. There is something pleasing to contemplate in the spectacle of the youth going forth from the little town of Nantwich to devote himself to the study of the law, winning fame and fortune in the great metropolis, repurchasing the lands of his ancestors, building a mansion worthy of the times and of himself, and reinstating his successors in a higher position than that which his ancestors had lost. John Crewe, esq. his descendant in the fifth degree, was raised to the peerage in the year 1806, under the title of Baron Crewe, which is now enjoyed by his grandson.

Crewe Hall is a fine specimen of the manor-house of the Jacobean period of art. It is quadrangular in plan, the north and south sides being longer than the others. There was originally a small inner court, which has recently been covered and formed into a saloon on the ground floor. The exterior of the house is built with red brick, with white stone quoins and facings. The fronts are broken by slight projections and recesses, the projections being surmounted by curved and kneed gables with pinnacles. The windows are large, having stone mullions and transoms: several of the fronts have projecting bay windows. The red bricks of the exterior fronts are diversified by lozenge-shaped figures worked in dark blue brick. The principal entrance is in the south front, and presents a bizarre combination of columns surmounted by pilasters, with scroll-work, ornamental quoins, balustrades, and pinnacles. The cornice round the mansion is finished with an open-work balustrade. From a print in King's Vale Royal, showing the house as it then stood, it would appear that this balustrade has been subsequently modified from the original design. The chimneys are well grouped, and characteristic of the style. A well-designed stone balustrade surrounds the house.

The grounds surrounding the mansion, originally laid out in the formal stiff manner of the period, have been much altered, and retain very little of their original arrangement. The present noble owner has done much to improve the external aspect, by carrying out balustraded terraces between the house and the lake, laid out with parterres of flowers,—imparting a feeling of modern elegance, without detracting from the quaintness of their older style.

The interior is very interesting for its very characteristic style of decoration, though the interest, in an archæological point of view, is somewhat abated by the changes and alterations which have been made. It is only justice, however, to state that the alterations have been made with much judgment and taste, and that in the adaptations and changes called for by modern ideas of convenience, the antique feeling has in no instance been interfered with. This, in fact, to the antiquary, becomes rather a source of annoyance, since it is difficult, without careful examination, to distinguish between the new and old work, and the domestic arrangements have been so far altered as to render the building no longer an example of the *ménage* of a country gentleman in the early part of the seventeenth century. However, the decorations remain, though removed in many instances from their original site. The principal staircase is curious, both in its plan and its quaint carvings. The great dining-room contains a fine screen of wainscot, removed from the entrance-hall. This room, together with another called the carved parlour, exhibit very fine illustrations of the wainscot and plaster work of the period. The drawing-room retains the original ceiling with its pendants; but the wainscotting has been removed. The upper story contains a noble gallery, extending the whole length of the south front, with recesses formed by the projecting bay windows. The domestic chapel is neatly fitted up with dark wainscot.

Illustrations, both of the exterior and interior, will be found in Richardson's "Studies of Old English Mansions," first, second, and fourth series. The staircase is given in Britton's "Antiquities," and views are given in Ormrod's "Cheshire," and Lysons' "Magna Britannia." The building was commenced by Sir Randle Crewe, in the year 1615, and completed in 1636. Seven years afterwards it was garrisoned for the Parliament, taken by Lord Byron on behalf of King Charles, and again retaken by the Parliamentary forces. Fortunately, the building does not appear to have sustained much injury from these warlike operations.

On the whole, Crewe Hall presents many points of great interest to the architectural student. The combination of brick and stone mellowed by the hand of time during the lapse of 220 years, is agreeable to the eye. The design is pleasing in itself, and while sufficiently characteristic of the age and style, is free from many of the barbarisms which disfigure the greater part of the buildings of the Elizabethan and Jacobean periods. If this style is to be adopted at all for modern buildings, it would be difficult to find a specimen more free from objection and more worthy of careful study than the one now under review.

There is something in the quaint old English mansions of the latter half of the sixteenth and first half of the seventeenth centuries full of interest to a contemplative mind. They open out a chapter not merely in the history of architectural styles, but a far higher one in the progress and development of the human mind. The history of architecture requires to be rewritten, in one of its departments, and that probably the highest of all—the relation of architectural forms to the mental and moral condition of the races and periods in which they prevailed. If architecture be, as it has been well said, history in brick and stone, it must be the history not merely of dead matter, but of living, breathing thought, considered from a point of view calculated to throw much light on the progress of the human race.*

So far as we are aware, the field is almost an untrodden one. The only writer who has at all touched upon the subject is the eloquent author of the "Stones of Venice;" and were he to undertake the task of fully developing the subject, there is none so well calculated by his great talents and well-stored mind to do it justice.

To glance for a moment before quitting Crewe Hall, at the relation of Elizabethan and Jacobean architecture to the times of its production. The century, extending from 1550 to 1650, was one of the most stirring in the history of our country. Religion, politics, literature, language, all underwent serious, and, in some instances, radical changes. The minds of men, losing sight of their accustomed landmarks, eagerly sought for light and direction from any quarter. The spirit of freedom and political right was roused, never again to slumber. Literature, shaking off its ancient trammels, carved out for itself new roads to immortality, and especially distinguished itself in the drama—that living picture of human nature intensified,—which never flourishes but in times of intellectual vigour and action. It was the age of Shakspeare, the age in which Milton was nurtured, the age in which the genius

* Read by Mr. J. A. Picton, at a recent meeting of the Liverpool Architectural Society.

* On this subject M. Viollet le Duc, in his excellent "Dictionnaire Raisonné de l'Architecture," just published, thus observes:—"C'est difficile de rendre compte des transformations successives des arts de l'architecture, sans donner en même temps un aperçu de la civilisation dont cette architecture est comme l'enveloppe; car nous ne saurions admettre l'étude du vêtement, indépendamment de l'étude de l'homme qui le porte."

Bacon burst through the fetters of the ancient schools of philosophy, and pointed out the only sure and safe way for the advancement of learning and science. Now we cannot help thinking that this peculiar state of the English mind, experimenting, feeling its way, trying its strength, and occasionally indulging in quaint conceits and grotesque extravagances, is powerfully reflected, or we might rather say is crystallized, in the architecture of the period. Gothic forms and Gothic modes of thought had been equally departed from, but still lingered about the thresholds of our homes and the pages of our writers. Classical literature had already begun to exert a powerful influence, but had not yet interwoven itself into the texture of current ideas and daily thought, as it has done in more modern times. Between the departing faith of the past and the coming influence of the future, a space was left for originality of invention, which may appear odd, capricious, and in bad taste, but which unmistakably presents vividly before our eyes the form and pressure of the times. Examine the front of Crewe Hall or the screen in the dining-room. The mullioned and transomed windows of the former, and the clustered tabernacle work of the latter, exhibit the lingering mediæval feeling. The columns and entablatures in both bear witness to the influence of the classic revival; but the rich open scroll-work, the fanciful panels, the quaint carvings, the embroidered surfaces, evidence a buoyant sense of freedom, a joyous feeling of imagination, revelling in its own strength, peculiarly belonging to the age and country, and in close connection with the fairy festivities of the "Midsummer Night's Dream," and the wonders of the enchanted isle in "The Tempest."

The Elizabethan and Jacobean architecture is peculiarly English, and differs materially from the works of the same age on the Continent, and even in Scotland. Whatever be its merits æsthetically, it is a link in the chain of architectural history, and should be studied in a discriminating and candid spirit.

A pleasant drive of forty minutes through an open country somewhat flat, along rich pastures dotted with milch cattle, past clean tidy farm-houses, with their bright dairy apparatus visible through the half-open door; by straw-roofed cottages with timber framing, which have outlived revolutions levelling noble structures with the earth,—and we obtain at length glimpses of a small river winding peaceably through the meadows, full to the brim of its grassy banks. A church tower detaches itself from a mass of surrounding buildings, we turn a corner, and rattling up the *pavé* of a narrow street, we are in the market-place of Nantwich.*

* To be continued.

OUR COINAGE—THE PENNY.

Heraldry has no special representative in the periodical press: I seek therefore the aid of your columns; for architecture and heraldry are nearly allied. I doubt not that you are far better acquainted with the precious metals than with the coppers of the nineteenth century; still you can hardly fail to be the occasional possessor of a penny. It is a highly-respectable and ancient coin; of some weight in the world, and of a size that forbids its passing wholly unnoticed. One of my little boys has been laboriously studying a specimen, and has discovered that Britannia wields the toasting-fork (as he will keep calling the Trident) in her *left* hand: the little vagabond dares further to pronounce the lady's left leg to be out of drawing, and to aver that it would be hurtful to the feelings of any full-grown woman to sit on the edge of a round tea-board (as he irreverently calls the shield). But these are not the matters on which I would address you, although I concur with my boy in thinking, that the state of art in this country is but indifferently represented by our coinage.

As a humble student in heraldry, I wish to point out a highly penal offence committed by the author of our current *penny*, in the total omission of Scotland in the shield, on the edge of which Britannia finds so precarious a seat.

Every true-born Briton knows that the Union Jack comprises the Cross of St. George, gules—the saltire of St. Andrew, argent,—and the saltire of St. Patrick, gules. He knows also, that in order to accommodate the two latter saints, the saltire in our national shield is divided down the centre, half gules, half argent. He further knows that, as the field is azure, and as heraldry forbids the contact of two furs, the Irish saltire needs a line of metal (argent) by way of bordure, intervening between the gules and azure. All this the true-born Briton knows very well, because he sees it on every flagstaff in the United Kingdom.

The Mint medallist must therefore be no Briton proper, but some base Russian in disguise, otherwise he would never hold out so seditious a sign as that on the coin in question. You will there see no double saltire, but a single saltire with the bordure argent on either side, plainly with a view to seduce Scotland from her allegiance. The Scotch have been long wanting a grievance; here is a grievance for the whole Caledonian race!

Seriously, this omission must be an error arising from carelessness or from ignorance. In either case, let Sir John look to it. Let him consider what an explosion of patriotic wrath would burst over his head, if he were to omit the Lion rampant of Scotland from the royal shield that graces our half-crowns; yet such an error in the royal quarterings would be no greater offence to the Crown, than would the omission of Scotland's saltire in our Union Jack be to the majesty of the people.

I trust that after this warning, you and I, sir, may live to see, in the pennies of 1856, the noble art of Blazon vindicated, "the knavish tricks" of the enemy "frustrated," and the integrity of the empire secured. S.

COUNT DE LABORDE'S ATHENS.*

All admirers and searchers of Greek antiquity, from Leake downwards, have felt the importance of information on Athens during the last three or four hundred years, when, after the darkness of the middle ages, it began to emerge again from obscurity by the successive researches of antiquaries and archæologists. Still, the materials for a history of the Greek metropolis from the fifteenth to the seventeenth centuries are most scanty, and were mostly hidden amongst the neglected lumber of the libraries of Rome, Paris, Vienna, &c. It was, therefore, a fortunate occurrence, that while Count de Laborde was engaged on his splendid work on the Parthenon, collateral research led him to embrace the whole history and locality of this once famous city. The work begins with some extracts from Bondelmonte's Liber insularum, and the Portolani and charts of the fifteenth century, showing, however, the great ignorance which then reigned on that subject, although Athens had previously stood in communication with Florence and other parts of Italy, through the family of the Princes of Acciajuoli. The first document of any consequence is the usanonym "Viennensis," being a short description of Athens by a Greek author, in the middle of the fifteenth century. It had been discovered in a theological manuscript of the library of Vienna, and a reprint and *fac-simile* are given here. It bears the strange title of "The Theatres and the Schools of Athens," because the fame of the ancient wisdom and learning of Athens have been preserved so strongly in the whole of Greece, that many other monuments and ruins bore the name of schools (Dascalia). Another pious mistake also occurred then, viz. to refer all great monuments to some great men—viz. the arsenal of Lycurgus, as the Acropolis has been called during several centuries. Other like names were, the Palace of Themistocles, &c. To the "usanonym Viennensis" follow extracts from the sketch-book of San Gallo, also from the end of the fifteenth century. Then is a great gap in our knowledge of Athens during greater part of the sixteenth century, as M. de Laborde could find but scanty notices of H. Blancard (1537), on the Lion at the Piræus, and the Columns at Cape Sunium; A. Thevets on the obelisks, columns, and schools (!) of Athens, which were followed by the Greek letters of Zygomalas and Kabasilas.

* Athènes aux 15, 16, et 17me Siècles. Par le Comte de Laborde Paris, 1854. 2 vols. 8vo.

At a subsequent period decried diplomacy did some good here, by the appointment of consuls (French and English) at Athens. Lord Arundel also, the Duke of Buckingham, and even Charles I. imported fragments of Greek architecture and sculpture to England. Catholic convents were also established in the city of Minerva; and the Capuchin friar, P. Simon, purchased in 1669, the monument of Lysicrates, and built a convent close to it. It was, however, this very same P. Simon and his colleague, P. Barnabi, who first made a plan of Athens from the southern high banks of the Ilissus, whereon the principal monuments, churches, &c. were consigned. M. de Laborde has been so lucky as to find a copy of this plan, together with some MS. notes in the library of Paris, which he has copied in his work. Of the greatest importance was the mission of M. de Naintel, by Louis XIV. (1670), as he ordered the painter, M. Carrey, to make drawings of the pediment and other sculptures of the Parthenon, which was then still in its entire and complete state. In 1674 appeared the short but valuable description of Athens by P. Babin, of which only a very few copies are in existence. About this time Guillet's "Athènes ancien et moderne" also was printed, which, although its author had never been in Greece, but merely followed the plan drawn by the Capuchins, and the "Collectanea" of Meursius, was a very valuable compilation. The ulterior researches of Spon, Vernon, and others, fall within the later period of Hellenic and Athenian researches, sufficiently known to most readers.

WHAT HAS BEEN DONE IN ST. JAMES'S, WESTMINSTER?

In your recent review of the Report of the Cholera outbreak in St. James's, Westminster, you demand, with an emphasis to which your evident personal acquaintance with the scene and the circumstances of the outbreak gives peculiar right, "What has been done in the districts of which we have been speaking?"

I will tell you, sir, "what has been done." You know the pump in Broad-street: you know that there is good reason for believing that it played a very important part in the tragedy of last autumn: you say that "the evidence of connection between the well-water and the loss of life seems so conclusive as scarcely to admit a doubt:" you have, moreover, dwelt upon the fact, so incontestably established by Mr. York, of the gross pollution of this well-water by percolation from an adjoining cesspool—"a state of things" which you characterise as "prejudicial to health in the highest degree, which, nevertheless, may be paralleled," you do not hesitate to say, "in hundreds of places in the metropolis!"

"A state of things," one might almost be tempted to hope, calculated to make an impression even "upon parochial authorities." If, however, any one, in reading your remarks, ventured to indulge in such a hope, let him know, once for all, that he is of very sanguine temperament.

"Go preach to the coward, thou death-telling seer!"

is the answer of the St. James's Paving Board, to any one who thinks to discompose them about any such trifles. "Why make such a fuss about a matter that is past and gone? Do you want to frighten the people into the cholera again, by reminding them of it? Depend upon it, man, fear does all the mischief. Talk about the water! Why, there's Bumper has lived fifty years in the neighbourhood, and has had his 'cold without,' mixed from this very water every night, and is none the worse for it. And Pumper, the teetotaller—how about him? And isn't there at this very moment a memorial before the Board, headed by Stumper of the vestry, and Thumper of the Poor Board, complaining of detriment to their health, through being deprived of their accustomed beverage during the temporary locking-up of the pump pending the investigation. To say nothing of Grumper, the worthy landlord of 'The Parish Hampden,' whose customers are indignant at the bare idea of not being permitted to mix their grog with the water they like best."

Be assured, sir, that this parochial Redan is a wonderfully strong fortress, untenable even

when taken, as you shall now learn from the account of "what has been done."

It appears from the report that so early as September 7th, Dr. Snow had "an interview with the Board of Guardians, the result of which was that the handle of the pump was removed the next day." Soon, however, did the handle return to the scene of its labours, till at length a new enemy, in the shape of the committee, laid hold upon it, and enchained it, straightway proceeding to excavate and explore the subterranean mysteries of well and cesspool with all their deadly contrivances for annihilation of human life. Never was Redan or Malakhoff more infernally mined than this mute mock-looking plague-battery. But what were the Paving Board about all this time, that they submitted to these invasions of their territory? Why did they suffer the enemy, under cover of a flag of truce, to lay bare the apparatus of destruction? Were they taken by surprise? Not they. You have heard, sir, of magnanimous commanders leading spies through their camp, showing them everything, and then sending them off in contempt. Even so with the Paving Board. They know their strength. Why should they care for this petty prying into their affairs? It would only make their final triumph the more glorious and complete. They even disdained to take the paltry advantage of unfettering the handle before the enemy should have had time to marshal his forces for the grand assault. The pump-handle should rise amid the din of battle. In this heroic state of mind did they await "The Report." You are aware, sir, of the power of artillery that was brought to bear upon them. A section was for capitulating, but the majority were of sterner stuff than to yield even to a *feu d'enfer*. Up rose the pump-handle, and the enemy retired discomfited and forlorn. Day and night, for nine long months, had he toiled with his zigzags, and his parallels, and his batteries, but had known neither the strength of the fortress, nor the iron resolution of its defenders.

High festival was held that day in Broad-street, to celebrate the victory of the Board and the defeat of the foe. Full many a copious stream, arrears of libation to offended Cloacina, did the pump send forth. Loud and long the exulting shouts of children working the handle in very wantonness of exuberant joy, whilst ever and anon some veteran hero of a hundred jobs would pause in his passage through the street, to smile complacently upon the exhilarating spectacle. But who shall depict the radiant countenance of Grumper, as he once again tempered the parochial grog with the long-lost fluid, or hazard a description of that evening's *réunion* in his parlour, as toast followed toast, "Long live the Board!" "Confusion to the Committee!" "Success to the Pump!"

I imagine, sir, that you will no longer wonder why the committee recoiled in dismay from an attack on the cesspools. Take my word for it, there is more than one man on the Paving Board prepared to die in the last cesspool.

Mens Sana in Corpore Sano.

METROPOLIS LOCAL MANAGEMENT ACT.

Very much will depend on the election of proper persons in the metropolitan parishes to serve as vestrymen under the new Act. The churchwardens of some of the parishes, feeling the importance of this step (those of St. Martin's, for example), have issued a circular, calling upon their fellow-parishioners to exercise proper caution in the selection. A brief reference to some of the more important features of the Act will show how great are the powers which will devolve on the vestrymen:—

All the sewers of the parish now vested in the Metropolitan Commissioners of Sewers (except the main sewers) will be vested in the new vestry; with powers to repair and construct new sewers, to compel owners of houses, at their own expense, to construct drains into the common sewers, and in default, to perform the work, and charge the owner; no house to be built without drains constructed to the satisfaction of the vestry; all new erections to be for certain purposes under the supervision of the vestry;* penalties imposed upon proceeding without consent of vestry; power of vestrymen at all times to inspect dwelling-houses, and open the ground to inspect the state of the drains, waterclosets, and cesspools; to provide and maintain public conveniences; to pave, light, water, cleanse, and improve the parish; to compel owners of property to incur various expenses, under considerable penalties; to control and regulate the occupation of cellars and underground rooms; to water streets, and to sink wells and erect pumps for supplying water to the inhabitants; to appoint and pay crossing-sweepers; no hoard or scaffold allowed without consent of vestry; to appoint medical officers of health and inspectors of nuisances; powers to purchase lands.

Further, the vestry is directed to execute all the powers given by the "Nuisances Removal and Diseases Prevention Acts," and is empowered to order rates to be raised and levied on the inhabitants, with the poor's rate. It is advisable that every parishioner should well consider the Act, and we cannot do better than recommend the edition of it, just now published,* by Mr. J. J. Scott, barrister, wherein care has been taken to facilitate reference to every portion of it by the subdivision of the various clauses, summaries at the heads, and an elaborate index. It contains, too, the various sections of the Metropolitan Buildings Act, which confer powers upon the Metropolitan Board of Works.

* We have in type those clauses of the Act which are more immediately connected with the Buildings Act, and shall publish them in an early number.

PROVINCIAL NEWS.

Sheffield.—The Sheffield ragged schools committee having accepted tenders for building new schools in Peacroft, the work has been commenced. The new schools are estimated to cost about 1,000*l.* and towards this 600*l.* have been realised. The laying of the chief stone is to take place in a few weeks.

Wisbech.—The following tenders have been given in to the Local Board of Health for the main sewerage and other works in the district:

G. Munday, Wisbech	£11,870	0	0
R. Goodison, Lewisham	10,004	0	0
T. Bothamley and W. Merryweather, Little Bytham	7,899	0	0
R. Barnes, Westminster	7,811	0	0
C. Garrett, London	7,555	0	0
W. Dethick, Hackney-road	7,541	0	0
Friend and Hammill, London	7,466	0	0
R. T. Carlisle	7,404	5	1
Durham and Pearson, Sutton Marsh	7,300	0	0
Swithinbank and Higginbotham, Gloucester	7,300	0	0
J. G. B. Marshall, Westminster	7,259	11	6
J. Phillips, Holloway	7,196	0	0
G. Savage, Northampton	7,145	15	0
T. Gardner, City-road	6,992	0	0
Coker and Co. Ware	6,910	0	0
J. H. Brown, Southampton	6,850	0	0
J. Yeoman, Kentish Town	6,780	0	0
Armstrong and Hudspeth, Alnwick	6,539	4	3½
W. Hill, Whitechapel-road	6,350	0	0
Lee and Lavers, London	5,850	0	0
Pocklington and Sparrow, Sheffield	5,520	0	0

Five or six out of the lowest of the twenty-one tenders were ordered to be selected for further consideration by a committee appointed for the purpose. The estimates provided that the drainage of private properties was to be separately charged for: these charges varied from 8d. to 1s. per foot and more, according to the depth of the drain.

Long Sutton.—A plan for the removal of nuisances in this town, and for draining the same, has been deposited with the vestry clerk for inspection of the ratepayers. The report of the surveyor of sewers states that the natural falls are so small that no system of barrel drainage could be made efficient, and therefore, proposes a main drain of glazed stone and ware pipes, 15 inches in diameter, discharging into a brick tank, 20 feet in diameter, and 20 feet deep. From this tank it is proposed to pump the refuse by a steam-engine of 10-horse power, into another tank, provided with straining apparatus for collection of the solid matter. The estimated cost of the whole is 2,574*l.*

Leicester.—At a recent meeting of the Leicester Corporation, a letter was read from Mr. Wicksteed, consulting engineer, announcing the completion of the main or deep sewers of the town. Mr. Wicksteed states that the run through the sewers is good, and that the process of disinfecting the sewage water, carried on at the Patent Solid Manure Works, is complete. The water, he continues, passes through their works, and is delivered into the Navigation, not only in an inoffensive, but in a drinkable state; and this operation has been going on without interruption day or night since 18th April last.

* London: Knight and Co. Fleet-street. 1855.

Bedminster.—The British Schools, Back-lane, Bedminster, having been enlarged and improved, were re-opened on Tuesday before last. The new school-room is 60 feet by 36, and the class-room 12 by 12. They will accommodate 300 additional children: the under room will take 250, thus making provision for the education of 550 poor children. The mason's work was done by Mr. Bevan; the carpenter's by Mr. Banner; the plasterer's and painting, by Mr. Hill; and the plumbing and glazing by Mr. Osborne.

Birmingham.—Great preparations are being made by the corporation and council of the Midland Institute to give to his Royal Highness Prince Albert a welcome befitting the Consort of her Majesty, and the errand upon which he will come. Birmingham has much to gain by the success of the scheme on foot.

Warrington.—The foundation-stone of the new market was to be laid on Thursday, by the mayor.

Liverpool.—The marine surveyor of Liverpool, Lieut. Lord, has announced his intended resignation of the surveying department of his official duties. He expressed his willingness to undertake the duties of his office on shore, but required his present salary of 600*l.* per annum to be increased. The subject has been referred to the Marine Surveyors' Committee, with the understanding that the salary is not to be increased beyond its present amount.

Bury.—The local Workhouse Building Committee met Mr. Holmes, the architect, on Wednesday before last, as to alleged errors in the erection of the workhouse. The guardians alleged that the beams intended to support a belfry were much too heavy, and that others, one-fourth the strength, would have sufficed. Mr. Holmes, in explanation, asserted that the plan of the turret had received the approval of the Board, and the beams had been made stronger than otherwise because the walls were not of sufficient strength to bear the additional weight. He believed that if the alteration proposed by the guardians were to be carried into effect, the building would be down in twelve months. Some of the points complained of, the architect attributed to the blunders of the guardians themselves, and he refused to give up the work to others who might be incompetent.

Bolton.—On Tuesday before last a *soirée* was held in the Temperance-hall here, to celebrate the completion of the new premises in Oxford-street, for the new mechanics' institution. The premises contain large reading and class rooms, library, &c. The *soirée* was attended by about 600 persons, and afterwards some 300 more were admitted. Lord Stanley presided, and was supported by the principal townsfolk. Lord Stanley promises well.

Penrith.—The building of baths and wash-houses has been commenced. The contracts for completing the design come within the limits of the proposed capital, viz. 2,500*l.* in shares of 1*l.* each.

Peebles.—The local Gas Company are getting erected a new tank and gasometer, which are nearly completed. The new tank, according to the *Border Advertiser*, is 25 feet in diameter, and 12½ feet in depth, capable of containing 5,000 feet of gas, the old tank being only calculated to contain 2,000 feet. The estimate for the new tank and gasometer is 400*l.* exclusive of the digging or founding work.

St. Paul's Cathedral.—Your correspondent "P." in last week's *Builder*, says he "was struck with the unsightly appearance of the organ. It is *some months* since I myself observed the same thing, and I am really concerned to see that so late as last Monday the Latin inscription, serving as our only public recognition, "Hujus ecclesiæ et urbis conditor," was missing from its place,—haply lying (as I saw it last) in chaotic fragments on the pavement of the church. Is *this* City memorial to share the fate of the crypt of Gerard's Hall?

W. Y.

THE "SAINTE-CHAPELLE" OF PARIS.

[See page 505, *ante*.]

CHURCH-BUILDING NEWS.

Worsley.—The new Independent Methodist Chapel just completed at Roe-green, near Worsley, was opened on the 7th instant. The building is rectangular in plan, 48 feet in length and 33 feet in width. The style adopted is Early English, and the materials used in the section are red brick, with St. Helen's stone, and white brick dressing. The front, exteriorly, is divided into three compartments, or bays, by buttresses of white bricks, which are continued by a slight projection above the water-tables, up to what may be termed a parapet to the gable, also of white brick; on the top of which is a moulded stone-coping, and moulded corbels and cusped gablets at the springers, and terminated at the apex by stone gablets and an ornamental finial of terra cotta. In the centre compartment is the entrance doorway, with jambs, arch, and label of splayed and moulded white bricks; and outside the label is an arch of blue bricks. Over the doorway is a large three-light window, resting on a moulded string of white brick; and above this window is a small triangular window, which serves to relieve the space between the head of the three-light window and the lower apex of the white brick parapet. In the side compartments are single-light windows resting on white brick strings. The sides of the chapel are each divided into five bays by white brick buttresses, and there is a double-light window in each bay on white brick strings as before. The whole of the windows have jambs, arches, and labels of white brick, with blue brick arches outside the labels. The windows are glazed with cathedral glass. The roof is entirely open. The principals have semi-circular laminated ribs, springing from moulded stone corbels. Each rib is in six thicknesses of 1½ inch red pine deal, steamed and bent. The whole of the timbers will be stained and varnished. At the rear of the chapel is a vestry for private meetings. The walls are all plastered, rough stucco in the interior, and line drawn in imitation of stone. The chapel will be heated by Walker's patent stove, placed in a chamber beneath the floor. There are no galleries, and more than one-third of the sittings are free. The architect was Mr. Sugden, of Leek, under whose direction and superintendence the works have been executed by Mr. Pollitt, of Worsley.

South Wales.—An ecclesiological movement has long been at work in and around the ancient town of Cardigan. The churches of Tremayne, Verwick, St. Dogmell's, and Kilgawen have either been rebuilt or thoroughly restored; and although neither possesses any great artistic merit, are still highly creditable to those whose liberality aided and directed the work. To these may be added the old parish church of Cardigan, now being reseated throughout; the church at Llanfair Nantgwyn, about to be almost entirely rebuilt; and the new churches now rising at Aberpoth and Llandugwydd. The three last-named churches are being carried out, together with others in the same neighbourhood, from the designs and under the superintendence of Mr. Withers, of London.

Derby.—The alterations for some time in hand at St. Mary's (R.C.) Church here (the first work of the late Mr. Pugin) are almost drawing to a close. The aisles have been prolonged into cast end chapels, one 60 feet long by 22 feet wide (which is used for daily Mass, and school children on Sundays), the other small, and intended for the reception of a Pieta group, from a design of Mr. John Powell, which appeared in this year's Exhibition of the Royal Academy. The additions also comprise an extensive sacristy, or series of sacristies, fitted up with conveniences for carrying out the services, and which are built, together with the chapels, in the Decorated style of Gothic architecture, the Decorated being added to the Perpendicular style of Gothic. The wooden altar and triptic have been removed, and replaced by one carved in Caen stone and marble. The floor will shortly be laid with Minton's encaustic tiles. The chancel is divided from the nave by a wrought-iron screen, with brass ornaments. In the chancel the ribs of the groin have been gilt, and the panels or spandrils ornamented with foliage and angels. The walls have been also gilt and coloured. The decorations do not include the usual stars and fleur-de-lis on blue ground. The three east windows are of perpendicular glass from Messrs. Hardman and Co.'s, of Birmingham. The whole of the works have been carried out from the design of Mr. E. W. Pugin, assisted in the decoration by Mr. J. Powell, who is also the designer of the glass.

Preston.—The new cemetery here is being opened to the several Church denominations amongst whom it is divided. The whole is comprised in an area of forty-five acres, situate in the township of Ribbleton. Thirty-six acres are apportioned to the Church of England, the Roman Catholics, and the various dissenting bodies. Of the remaining nine acres, eight at the south-west corner remain unapportioned, and one is occupied by the chapels of the various religious denominations, the entrance lodges, &c. A small chapel, in the early English style of architecture, has been erected in each of the three divisions; and the ground is intersected with winding walks. The whole is enclosed by a stone wall, surmounted by a high iron railing. After passing through the entrance-gates, to the right is the unconsecrated portion devoted to the use of Dissenters. Here a chapel has been erected, 64 feet by 22 feet, consisting of carriage porch, inner porch, chapel, and robing-room. At each end of the carriage porch is a buttress, finished above the string course with open wrought and traceried sides, with cross stays, open timber roof, and carved brackets. Above the roof of the chapel, in the form of a cross, rises the bell turret, supported by ornamental buttresses, with canopies, moulded string courses, carved bosses, and finials. The turret is surmounted with a spire. At the termination of the roof the turret is changed by arches into an octagonal form, and is carried up to the belfry by tracery canopies with moulded weatherings and carved terminations. The belfry, the total height of which is 55 feet from the ground, is open at the sides with eight lights and trefoil heads, with hood mouldings and carved terminations. The windows of the chapel have two lights, with foliated heads. The east window is a triplet lancet, having over it a trefoil gable light. A three-lighted window, with a high-pointed foliated head, appears in the western gable. To the left is the ground set apart for the Church of England, recently consecrated by the Bishop of Manchester. The chapel consists of a nave, side aisle, vestry, and robing-room, and a tower and spire. The nave is 65 feet by 26 feet, and is separated from the aisle by a stone arcade, consisting of five arches. The side aisle is 40 feet by 10 feet, and the nave and aisle windows are two-lighted. There is a carriage porch through the tower, and archways to the entrance to the chapel from the porch. The spire, with the tower, is 90 feet in height from the ground. The exterior of the building has buttresses, and the angles of the tower are supported by buttresses. In the interior the east window is five-lighted, the west window four-lighted. The north side of the cemetery is set apart for the use of Roman Catholics, and was consecrated on Tuesday, in week before last. The chapel consists of nave, 52 feet by 25 feet, chancel, vestry, tower, and spire, and an open porch in the tower. The chancel is 20 feet by 9 feet. A rather low spire crowns the tower. In the interior of the chapel, the double-mullioned windows have been used for the side lights to the nave. The west window has four lights, and the east window three lights. The whole of the chapels are of random coursed rubble work, with Longridge stone dressings. The sittings in the inside and the roofs are of Baltic timber, stained as oak, and varnished. Minton's coloured tiles compose the floors. The roofs are covered in with blue slate from the Penrhyn quarries, surmounted by crested ridge tiles. Mr. T. D. Barry is the architect of the chapels and lodges, and the laying out of the ground has been entrusted to Messrs. Myres and Veevers, of Preston. Mr. Armstead, contractor, has executed the masonry, Mr. T. Turner the carpentry work, and Messrs. Ferguson and Whitwell the plumbing and glazing.

Bishopwearmouth.—The new cemetery at Bishopwearmouth is situated about a mile out of the town, and consists of four fields of 36 acres. There is now in the process of erection a brick ramped wall, 8 feet in height, to surround the whole. There are also to be two chapels, built in the Gothic style of architecture, from designs by Mr. Moore, of Sunderland, architect. These chapels will be built in different places for the use of Churchmen and Dissenters. A portion of the ground is to be set apart for the burial of Jews. There are two lodges to be built. The bricks used in the erection are made from the local clay. In the grounds the works are making progress under Mr. Neal, contractor.

Glasgow.—A site for the new Free Church Theological Hall here has been obtained in the vicinity of Woodlands terrace. It will form one of the principal entrances to the West-end-park.

CAUTIONS ON CHURCH BELLS.

I am glad to see you have published a suggestion, which has also been copied into the *Times*, that the old practice of furnishing churches with peals of bells should be more frequently followed, now that we have got past the times when everything not strictly utilitarian was condemned as Popish, or unchristian. But I take the liberty of adding to that suggestion what I am convinced is a very necessary caution, viz. that in this, as in other points of church building, people should not be so ambitious as they generally are, to get grand effects out of insufficient materials.

There are two ways in which this mistake is committed with regard to bells. The first is the simple one of putting more bells into a peal than is suitable to their weight. I was lately consulted about a clock to strike the Cambridge quarters, on a peal of twelve bells; and I was astonished to find the tenor is only 19 cwt.—a bell which in olden times, even in the last century, they would never have thought of making the tenor of more than eight. I see, too, in the paragraph I have referred to, 14 cwt. suggested as a suitable tenor for a peal of eight. The six larger bells of such a peal (if good ones), would make a nice peal of six; but six bells of that weight are only fit to be the first six, and not the last six, of a peal of eight. The best of all peals of eight is in the key of E flat, a favourite peal with the old bellfounders; and it requires a tenor of 30 cwt. to do it justice. This was the old Doncaster peal, and a much better one than the heavier peal, with a thinner tenor, that was substituted for it in 1835.

The other mistake is far worse, because it produces not *too many* bells to be rung in a peal, but a whole peal *too bad*. It is the miserable device of making bells of a deep note, by diminishing their thickness instead of increasing their size and weight proportionally. I have just now said that this was done to a small extent and with bad effect, in the peal lately burnt at Doncaster. It is now done to a far greater extent, and with far worse effect, systematically, by one of the only three makers of large bells in England, and not for want of warning of what the effect would be, or of complaint about what it had been in peals already made by him. If ever I hear the larger bells of a peal (which are always thinner in proportion than the small ones, even when right), of a clanging, *potty* sound, instead of a full rich one, I know immediately where they have been cast. And I believe I can tell equally well the birthplace of bells like those of St. Paul's, Knightsbridge, with a dull, harsh sound, as if they were made of something else than bell-metal, or of bell-metal cast unsoundly.

The old-established bell-founders are, of course, very angry at my saying, at the Royal Institute of Architects lately, in a discussion reported in the *Builder*, that the art of bell-founding had retrograded rather than advanced. They will find that Professor Wheatstone, judging from the three successive attempts of the two founders I have alluded to, at the Royal Exchange, has expressed the same opinion in the Parliamentary paper lately published about the Westminster clock and bells. The experiments there mentioned as in progress at Messrs. Warner's, have confirmed most of the opinions I then expressed. I hope before long to be able to publish, in some form or other, some definite conclusion from these and other experiments now in progress; and that the time is come when bell-founding has seen its worst. In

the mean time, I wish to caution church builders against being tempted, either by low estimates, or low notes, or high-numbered peals of small weight, into ordering such an expensive article of ecclesiastical furniture without some very sufficient guarantee of its quality, of which bell-ringers, rather than mere musicians, are generally the best judges.

E. B. Denison.

MEMORIALS.

The Huskisson memorial window, designed by Mr. Digby Wyatt at the request of Mrs. Huskisson, has been put up in the north aisle of Chichester Cathedral. The subject is "The Last Supper." Three tables are introduced, thus affording scope for the introduction of additional figures in the side lights. Above are small sitting figures of angels, with musical instruments; and the whole is surmounted by such symbols as the dove, the entire subject being relieved on a richly-traced background, mingling geometrical with floral and other forms. The full-sized cartoons were made by Mr. Clayton, under Mr. Wyatt's direction; and the glass was painted by Messrs. Gibbs.——A monument is about to be erected in the nave of York Minster, to the late Archbishop of York, by the Harcourt family. The sculptured figure is recumbent and in full canonicals: the wig is to be regretted. The design was by Mr. Noble.——It is proposed to erect at Manchester, in front of the Infirmary, a bronze statue of Watt, on the pedestal corresponding to the one on which the statue of Dalton has lately been placed. The same economical plan that was adopted in the case of Dalton's statue is suggested for that of Watt: as it is supposed that it would not be possible to raise the requisite sum for an original statue, it is intended that a copy be made of the statue of Watt in Westminster Abbey, the estimated cost of which would be 900*l*.——A monumental slab, designed by Sir C. Barry, has been erected at Dowlais, over the remains of the late Sir J. J. Guest, at the desire of his widow and family. The centre slab is of red Cornish porphyry, and the columns the same: the rest of the ornamental work is in Derbyshire alabaster.——Mr. Evan Thomas has submitted to the Vivian Monument Committee at Swansea, his designs for the proposed statue of the late representative for that borough. The committee approved of the design, as being well adapted for the intended site, the open space in front of the Guildhall. The committee requested Mr. Thomas to furnish them with a design of a suitable pedestal for the bronze statue. ——From Berlin, says the *Literary Gazette*, we learn that the sarcophagus of the late king of Hanover, which is now being shown in Professor Rauch's studio, is to be forwarded in a few days to Herrenhausen, where the monument to the late queen, also from the chisel of Rauch, is to be erected. The sarcophagus is of marble, with the statue of the king in a recumbent posture on the cover: the head leans on a cushion, the body is clothed in the hussar uniform, and enveloped in the royal mantle.

RESTORATION *v.* DESTRUCTION.

If the arguments of an old member of the York Architectural Society, trying to justify the grievous mutilation of the chancel of Spofforth Church, are to stand good, we may soon introduce the principle of last century, viz. the wholesale destruction of our ruinous churches, and the replacement of them by our own so-called improvements. If by restoration we are to understand a return to the original state of a building in its very first stage according to the scale that *our funds permit*, we shall assuredly have to destroy most of our pointed work, to restore the old Norman or Saxon, as the case may be; for there are few churches restored that do not in some part show traces of the original Norman work, whatever else may have been superadded in later times. If this is really to be admitted as a principle of restoration, we may tremble for our cathedrals, and our best examples of ancient architecture, which may be speedily reduced to their primitive rudeness and small dimensions, on the plea of "bad repair" and want of funds. It is surely a wretched argument for the destruction of a fine chancel, that it was larger than was required for the use of the parish. If we were to apply the same rules to our restorations in other cases, we should sacrifice our finest buildings to the shabby utilitarianism of the slop builder; and if we cannot run up our new work at a few months' notice, it will follow that we must prefer our cheap and nasty substitutes, and ruthlessly destroy what time has spared us.

What would have been said had the church of St. Mary Redcliffe, Ely Cathedral, or a hundred other fine buildings, been "restored" in the same fashion. The chancel was too large, it is said. Screen it off, then, and as funds come in, give it that loving and reverend repair and restoration foot by foot, nay, inch by inch, if it cannot be done more quickly. Forego for a time the little luxuries of encaustic tile and stained glass: don't throw away money on those worse than useless appendages, pew doors; and do not think that, because a restoration cannot be done at once, it is therefore necessary to destroy what cannot be now restored. Rather let us have a piece of interesting ruin than nothing at all, and wall off the ruinous end. The remark that the indication of the former chancel should be removed is characteristic: like the maid who breaks the china cup, and throws away the pieces to prevent detection; like the pavior, who throws sand over the mistakes in his work, or the jerry builder, who daubs his compo over rottenness, he would smooth over the evidences of the shabby act. Nay, let them remain: perhaps at some time, from these stray bones a more loving hand may restore to its pristine beauty the desecrated remains.

E. W. C.

GAS IN SEWERS.

In the forenoon of Friday, the 19th, that portion of Brompton lying between Alexander-square and Pelham-crescent was disturbed from its habitual quiet by a violent explosion, which was, fortunately, attended with more alarm than positive damage to the inhabitants or to the locality. For some days past there had been an escape, we are told, from the pipes of the London Gas Company, which was undiscoverable, and in the course of tracing it, it was found that the main was carried through the crown of the sewer, under the Brompton high-road. A junction showing itself in the sewer, the very unsafe means of testing its tightness, namely, by the application of a light, was resorted to: the connexion was as it should be, but the light caused the gas that had accumulated in the sewer, mixed of course with the atmospheric air, to explode: this, acting in the confined space, forced up the heavy cast-iron covers to the man-holes, to the great danger of the passers by, forcibly dislodged the bell-traps, and disturbed the drains in some of the houses. In one case of which we are cognizant, it displaced the York stone paving all along the course of a 12-inch drain of rebated brickwork, without doing any apparent damage to the drain itself. Had there been any men in the sewer, not an unusual occurrence, loss of life must have ensued. This accident should induce caution.

VISITORS IN PARIS.

I have read, on my return from Paris this week, your article on the state of the health of that capital, and coincide with you in every line. I only regret the Emperor may not, perhaps, have an opportunity of reading such an excellent article, which is but too *véridique*. Pray do not relent in your exertions.

During my residence, I could not help noticing the bad smell prevailing in many parts of that now beautiful city.

The day before my departure, his Majesty had approved of a report presented him by the corporation for the pulling down of 5,000 houses.

Paris next year will be supplied with water *à l'instar de Londres*, and the Seine will be canalized from Rouen to Paris, besides the new Boulevards about to be laid out, the extent of which will be nearly five miles each, commencing from the Lyons Railway and Strasbourg Railway.

L. F. De P.

Will you permit me, through your columns, to thank your correspondent "D. W. R." for his useful hints, in a late number, to intended visitors to Paris. I took his advice most catholically,—always asked for "*mon addition*" after dining; for "*une groseille*," "*un café*"—in fact, for nearly everything eatable, in the singular number, even to "a leg of mutton *à la female gardener*," whatever that may mean; dined in the Palais Royal at 2 francs 50 centimes, and lodged at the Maison de Goest, Rue Neuve, St. Augustin, No. 46, "*au cinquième*," and I believe occupied the same room as your correspondent "D. W. R." but Mdme. De Goest was not sure upon that point. It would not further identify the room if I were to say it contained a milk-jug and slop-basin for matutinal ablution, a cambric handkerchief you are expected to regard as a towel, and a large clock with a gold face, apparently afflicted with an internal complaint, that makes hideous noises through the night; as I believe these are the usual concomitants of all French bed-rooms.

I entirely agree with your remarks on the defects of the Paris Exhibition, and the causes thereof, and your commendation of the works of our artists, which really show to great advantage beside the dull chalk-colouring of Ingres and Decamps, touching which the feuilletonists (M. Gautier at their head) throw themselves into such wonderful ecstacies of frenetic admiration. In water-colour the English are quite alone, and every Frenchman with whom I have conversed has acknowledged our supremacy in this branch of art. As to architecture, as you observe, the French are inadequately represented, and you must look in the Rue Menars, Rue de l'Alma, Rue St. Honoré, and not in the Palais des Beaux Arts, for proofs of their progress; and in design and constructive skill, I would particularly mention a house in the Rue de l'Alma, by M. Leroy, as a very pleasing and correct specimen of modern French architecture. In the Ecole des Beaux Arts there are exhibited the designs to which the annual prizes for the best design for a School of Elocution were awarded, also very commendable, and two out of three bear strong marks of the peculiar modern style which has produced the Library of St. Geneviève, the Ecole des Beaux Arts, and many more recent buildings in Paris.

Palladio.

A NEW EFFECT IN WINDOWS.

I have lately found that by the following simple process a very beautiful effect may be produced in stained glass, adapted for ecclesiastical purposes, at a very moderate price. Take some pieces of flashed glass having a clear pattern *cut* upon them, and unite any two of different colour and pattern. The result will be a design of great beauty of form, richness of colour, and especially of a sparkling brilliancy, almost unrivalled in any other kind of glass. I have had some leaded up in diamonds, and the effect is so pleasing that they will probably be adopted in the chancel of a church which I built some years since, and about which my opinion had just been asked. If the makers of this sort of glass would manufacture it specially for the purpose, the result would be doubtless still more satisfactory; but with the ordinary specimens any of your readers may satisfy themselves of the truth of my statement. The kinds of pattern best adapted for the purpose are stars, crosses, circles, and generally good geometrical forms. I may add that the expense is very trifling, considering the effect produced, as the glass in single colours is manufactured at a very low price, and the process of combining the two, by which the rich effect is produced, costs comparatively nothing.

Edw. Ellis.

REMAINS IN BEAUFORT-ROW, CHELSEA.

A correspondent has favoured us with particulars of some remains cut into during an excavation now in progress for a new sewer in Beaufort-street, leading to Battersea-bridge, Chelsea. "It occurred to me," he says, "that such relics of a barbarous age, in bricklaying (namely, of a time when stability and consequent durability were ignorantly viewed as amongst the essentials in house-building), might, peradventure, be the vestiges of some mansion of note, and entitled as such to a place in my Antiquarian Note-book; and I consequently became more heedful of what was doing, especially when I one morning heard it declared, with some confidence, by a bystander, that these fragments undoubtedly belonged to an old residence of a duke of Beaufort, said to have stood here; and that the porter's lodge which had belonged to this same dukely dwelling, was even now standing, and was, in fact, no other than the well-known old Clock-house and Herb Distillery still extant, in humble guise, at a short distance hence, in the King's-road. The principal portion of the wall in question appeared, then, to me, to extend for about 80 feet opposite, and northward of a snug dwelling, on the east side of the street, named Victoria Villa. Its thickness, judging from that of portions running off from it at right angles, might fairly be considered to be not less than 3 feet. Its depth for about 45 feet of the southernmost portion, appeared to extend to about 7 feet below the roadway, whilst the depth of its northern portion was only 3 or 4 feet. At about an equal distance from each end, and of the greater depth, was found what appeared to be an arched doorway, about 3 feet wide, through the massive wall, and situate as if at the end of a passage of about double the width of the doorway, which was in the middle, the space being filled up with brick rubbish, and the returns-or side-walls of this passage seemed about 3 feet thick. At a distance of 30 feet of blank space, of gravel, southward, another portion of transverse wall of about 2 feet thick, was cut through; and at about the same distance farther southward still, another portion about 2 feet thick.

The northern portion of the wall, which, as I have before said, was only about 3 or 4 feet deep, appeared to terminate, with a transverse portion running westward, opposite to the door of the house named Linden Cottage; from whence there was a blank space of gravel for about 20 feet, when a quantity of brick rubbish was cut through; and whence the trench for the sewer is still proceeding. Not being (as you will doubtless have discovered), a craftsman in human habitations, nor provided with any other measuring apparatus than the pair of compasses common to all bipeds, my phraseology and quantities must be taken as only an approximation to what I have endeavoured to describe, and allowances made accordingly."

W. Y.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The session 1855-6, will be opened on Monday, November 5th, at eight o'clock, and there will be meetings on the following Monday evenings:—

1855—November	... ...	19th
December	3rd ...	17th
1856—January	14th ...	28th
February	11th ...	25th
March	10th ...	31st
April	14th ...	28th
May	5th*...	19th
June	2nd ...	16th

* The annual general meeting of members *only*.

The profession, whether members of the Institute or not, may advance the general interest by contributing the result of their experiences, notes of their travels, or such suggestions as may occur to them.

THE BUILDERS' BENEVOLENT INSTITUTION.

Sir,—On Tuesday next, October 30, the anniversary festival of the Builders' Benevolent Institution, will be held at the London Tavern, and I do sincerely hope the meeting will be a profitable one for the interesting object in view. There are some persons who seem to have a dislike to a dinner on occasions of this sort, yet I cannot entertain the idea that the most fastidious will charge any of the directors, stewards, or any of the numerous assembly who may attend to take part in the business of that day, that they do so only for the sake of eating and drinking. No, indeed. I am quite sure the great object is to bring together as large a number as possible of generous, liberal-hearted Britons, for the purpose of mutual congratulation for the great good already done, and to encourage and stimulate each other to steady perseverance for the future, to aid and assist those of our fraternity who are aged, afflicted, unfortunate, and unable to help themselves.

Looking over the list of subscribers, I find a good many who have done well; but I do think there is only a very small part of our brethren engaged in all the various branches of the building trade who have seriously thought upon the matter. I would say to all, "Come, and give us a long pull, a strong pull, and a pull altogether."

I should likewise greatly rejoice to see the wealthy freeholders, merchants, and others, whose estates have been vastly enriched in ground-rents and other improvements by the persevering, industrious efforts of the builders. Pray, ladies and gentlemen, do come forward and give, by your liberal donations, a new impetus to the meeting. A thrill of gratitude and joy will be experienced by all, and not only so, but many widowed hearts will rejoice, and the blessings of many who are ready to perish will rest upon you.

Kingsland. Thomas Smith.

Notices of Books.

Reading Lessons. Advanced series, in Five Books. Edited by E. Hughes, Head Master of the Royal Naval Lower School, Greenwich Hospital. London: Longman and Co. 1855. Books I. and II.

Though forced to decline answering such inquiries, we are often asked as to a good series of "reading books" for juveniles not exactly children. Here is one of a new and sterling description. It is made up of brief essays, chapters, or articles on various subjects, written by authors well acquainted with the particular subjects on which they write,—as for instance, "On Beauty in Form and Nature," by Mr. Digby Wyatt; "On Colour in the Decorative Art," by Mr. Owen Jones; "On the various Forms of Poetry," and on other literary subjects, by Mr. G. L. Craik; "On Natural Philosophy," by Professor Tyndall; "On Chemistry," by Dr. Frankland; "On Language," by Mr. Latham; "On Food," by Dr. Lyon Playfair; "On the Life of James Watt," by Mr. Hugo Reid; and "On Physical Geography," and other subjects, by Mr. Hughes himself. The whole series is disposed on a distinct plan of development, comprising Philosophic Method, from "How to Observe," in the first book, to "Scientific Habits of Mind and Method," in the fifth; followed up by a section on scientific biography, beginning with the herdboy, Ferguson, the astronomic observer, and ending with Michelangelo and the ideal of art. Next follow in a like way, lectures on physical geography, geology, vegetable physiology, animal physiology and health, natural history and ethnology, political and domestic economy, chemistry, arts and manufactures, mechanics and mechanism, natural philosophy, astronomy and navigation, decorative and fine arts, and lastly literature. Thus each 3s. 6d. book contains a little on all these subjects, every subsequent book going a little more deeply or a little more in advance of its predecessor on all. The work is pretty fully illustrated with engravings, and each section or article has the name of its special author appended. There can be no question that these are the best "reading lessons" ever published, so far as regards suitability to the times in which we live; and many more than mere juveniles (nineteenth century enlightenment notwithstanding) will be likely to take "lessons" from them. The whole series is not yet issued.

Miscellanea.

A Statue of Wren near St. Paul's.—A correspondent "W." re-urges that, as there can now be little doubt of the vacant space near St. Paul's being left open, we should erect there a statue of Wren. "We can boast [he says] of statues in various parts of the metropolis,—some to great men, some to mere notabilities of a day, but not one have we of any of our great masters in art! Could we begin with a more fit subject than the '*conditor hujus urbis?*' Could any place be better adapted for a statue in his honour than one in close proximity with the greatest effort of his genius? Such of your readers as have been at Florence cannot but have been struck with the effect of the statue of Brunelleschi, on the Piazza del Duomo, the plan of his *opus magnum* on his knee, and comparing it, as it were, with the reality. Could we not do something in the same spirit? On the pedestal there might be bas-reliefs of remarkable incidents in Wren's life, and most especially would I suggest as one subject the old man's annual pilgrimage to the scene of his triumph."

Model Dwellings, Dudley.—We are informed that the architect has altered the system of smoke conduction laid down in the plan—carrying up *four* flues instead of *one* smoke tube—the action of which was not satisfactory.

Labourers' Cottages.—Sir Charles Anderson, in his paper on "Cottage Architecture," read at the recent meeting of the Lincoln Diocesan Architectural Society, said—"In these days the poor have been driven into the towns from the country, and much obloquy has been thrown on landowners as if they had been the sole cause of this. No doubt they shared in the blame; but many causes had been at work to bring about this evil: the former poor law—the natural tendency of men to shift the burden of supporting the indigent from themselves upon others. But there was one other cause—the cost of building cottages. This was the problem he wished to see solved—viz.: how a cottage having three good bedrooms, with suitable conveniences, could be built so as to be substantial, warm, convenient, not so unsightly as to destroy self-respect, and yet pay a fair interest on the money spent. Many proprietors had most laudibly spent their money in building cottages near their own residences, which were models of beauty and excellence. He named the villages of Belton, Blankney, and Hanton, as affording examples of this admirable munificence; but such models could not be followed in ordinary cases. We must have something less costly before we could expect proprietors to lay out their money. In different localities different materials would be found,—stone, brick, tile, slate, and the relative cost of each would make estimates differ, as well as the cost of labour. A simple mode of drainage, the quality of mortars, the pitch of roofs, the height of rooms, the situation of doorways—all these require careful consideration; and it would be one of the most beneficial tasks of the society to endeavour to obtain plans which had been tested, with vouchers for the cost of all the items, and the experience of the inmates as to their comfort, in order to arrive at what was wanted.

The Infirmary at Dundee.—A considerable disagreement has arisen between the building committee, the architects, and the builder. The architects have been superseded, and Mr. Peddie, of Edinburgh, called in to report. We have received some statements on the subject.

Architectural Society of Northampton.—This society held its annual meeting on Wednesday before last, Lord Alwyne Compton in the chair. The Rev. Thomas James read the report, and afterwards a paper on "Church Work for Ladies." Lord Overstone moved the adoption of the report, and the Rev. Sir G. S. Robinson, in seconding the motion, drew an amusing contrast between the present care for the decent service of the church, and the neglect which prevailed five and thirty years ago. He was afraid, he said, at that period to ascend his pulpit, lest it should give way with him, and, upon representing the case to the churchwarden, that functionary asked him, after due deliberation, and with the utmost gravity, whether he did not think an old pipe barrel, with a door cut in the middle, would make an excellent new pulpit. He mentioned, also, the case of a friend of his, who found, on going into the pulpit to preach, two mangold wurzel roots, with holes in them for the reception of the candles! The Rev. G. A. Poole read a paper on "Photography as applicable to Architecture," in the course of which he suggested the association of parties of photographers and sketchers, who should supply each others' defects, and be of mutual service in the way of architectural and archæological illustrations. The Rev. W. Law, of Marston Trussell, controverted the allegation that photography was incapable of representing aërial perspective, and exhibited some negatives in confirmation of his opinion. Various objects of antiquarian interest were exhibited at the meeting.

Project for Sewerage of Surrey Side of London.—A correspondent, "W. R." a practical engineer, sends us a sketch of a plan which he suggests for the conduction of the sewage of the south side from Barnes to Plumstead-marshes, whereby he designs to overcome the difficulties arising from the fact of so much of the ground on that side lying below the level of high tide in the river. He proposes what certainly at first sight does not much recommend itself to approval, namely, the formation of a cast-iron tube sewer, to be raised 24 feet above the surface, on iron columns, or brick piers, at its commencement, and gradually to fall throughout to the marshes, or below, if requisite. This tube is to be air and water tight, and lined with glazed pottery. It would be of oviform shape, made in segments, bolted and screwed together, and should be 4 feet 6 inches by 3 feet 6 inches at Barnes, and gradually widen to 10 feet 6 inches by 7 feet 6 inches at the marshes. The sewage would be pumped up by steam power into this tube at pumping-stations, from tanks; the first draining above Barnes, Richmond, Sheen, and Mortlake included, by means of brick sewers ending in the tank. Water might also, if necessary, be pumped up from the river to flush the tunnel, but our correspondent contemplates the transference of all that is left, after absorption, of the rain fall of the district through the tunnel sewer, and he gives estimates of quantities, from which he concludes that the drainage and sewage of twenty-four hours could thus be disposed of in ten hours. At Plumstead marshes he proposes to have four large receiving reservoirs, each capable of containing a whole day's sewage, which will here deposit its sediment, the fluid to be conveyed to the river through an open canal after being deodorized; the gas over the reservoirs also to be burnt, and the solid matter to be barged away coastwise. The whole line of tunnel is proposed to be made ornamental, and probably even to form part of a more general scheme for a railway and promenade, and a medium for gas, and water pipes, &c. The estimated cost of the sewer project is, 2,667,500*l*.

Surrey County Gaol, Horsemonger-lane.—Greater accommodation being desired here, the magistrates applied to Mr. Hill, the architect of the gaol at Wandsworth, to Messrs. Banks and Barry, and to Mr. Lapidge, the county surveyor, for plans and information upon the subject, and the first named gentleman sent in a report, in which he expressed an opinion that the gaol could never be altered in a satisfactory manner, and that the only plan was to pull it down and build a new prison. Messrs. Banks and Barry sent in plans for altering the present building in a manner that was satisfactory to the committee, at an expense of about 15,000*l*.; and Mr. Lapidge, the county surveyor, also sent in plans to carry out the proposed object, at a cost of 10,000*l*.; and the committee, in their report, recommended that the plan of this gentleman should be adopted and carried out. The matter has since been referred back to the committee, who are empowered to consider the whole subject, and report upon the advisability of altering the present building or to recommend the erection of a new prison.

The Cambridge Survey.—In the last number of the *Builder* (October 20), it is stated by a correspondent, that the new plan of Hereford, is "the only plan of a town for which an independent trigonometrical survey, computed from the meridian, has been made by any civil engineer." This statement is not correct. The Cambridge survey commenced in the early part of 1851, by Mr. William Radcliffe, in conjunction with whom I was subsequently engaged, was also "an independent trigonometrical survey," computed from the meridian of the Cambridge Observatory, the base line being measured on that portion of the Eastern Counties Railway, lying between the Cambridge Station and Newmarket road, and the proper correction applied for the difference of level. From the extremities of this line the position of a third station on the Castle-hill was determined, the three forming a well-conditioned triangle, from which other available and convenient points as church towers were observed as in the Hereford survey. The streets were all traversed and the stations plotted by computation.—Lewis Angell.

Chapel at Canonbury, Islington.—In consequence of the deficiency of church and chapel accommodation in this fast increasing neighbourhood, the committee of the London Congregational Chapel Building Society purchased an eligible plot of freehold land, at the corner of Alma-road, St. Paul's-road, Canonbury, for the erection of a chapel, and a few days ago the foundation stone was laid by Mr. Henry Spicer. The proceedings closed with the presentation of a bound copy of the Holy Scriptures, to each of the workmen, as also a gratuity in money. The chapel will be a very neat edifice, in the geometrical Gothic style, octagonal in form; length, 92 feet 6 inches; breadth, 66 feet; having a Gothic lantern turret, 110 feet high from the ground to top of vane. The roof is open timbered. There are minister's vestry, and deacons' vestry, lavatory, &c. entrance porches, staircases up to galleries, which will contain sittings for about 500 persons, and about 630 on the ground-floor. The communion-table is placed nearly in the centre of the building, in front of the pulpit. The chapel will be built of bricks, with white facings from Colchester. If the bricklayers go on as they have begun, it will be a good specimen of brickwork. Messrs. W. G. and E Habershon are the architects. Messrs. Rowland and Evans, of Coleman-street, Islington, the builders.

Cast-iron Fountain for South America.—The Coalbrookdale Company have executed a fountain and public light for the Chilian Government, to be placed in the City of Conception. A view is given in the *Illustrated News*. It consists of a Corinthian column, on which stands a figure of Ceres. The base, which is cruciform, has on each of its quadrangular projections the figure of a mermaid. The head and body lean inwards towards the pillar, the hands uplifting a large shell, through which the jets of water forming the fountain will rush. Immediately above, the column is surrounded by scroll-work projecting over the intervals between the mermaids, and terminating in winged snakes, which support the lamps. It weighs 14 tons 5 cwt, is 12 feet square at the base, and is 34 feet high to the top of the figure Ceres. It is a very incongruous affair. The Corinthian column and its capital would seem to be scarcely six diameters in height.

Liverpool Architectural Society.—On Wednesday evening in last week the usual fortnightly meeting of the above society was held in the Royal Institution. Mr. G. Kenneth read a paper on "Serpentine applied to Decorative Purposes," and said he thought it capable of being wrought into the most beautiful ornamental designs, capable of minute carving, and that it was superior to marble, as its chemical composition enabled it to resist the absorption of either grease or acids, whilst fire had but little effect upon it. Serpentine was not brought into use to any extent, although its existence has been known for many years, until 1848, when Prince Albert recognised its beauties, and suggested its employment for decorative purposes. Mr. George Mouier Williams afterwards read a paper "On the Use of Chemical Tests as applicable to Lime and other Matters connected with Building."

Railway Profits in America.—The Rutland and Burlington road, says the *Philadelphia Ledger*, shows net earnings for eight months and eleven days of 118,942 dollars. The Cleveland and Pittsburg road, for eight months, shows increase over corresponding time last year of 55,432 dollars. The earnings of the Black River and Utica Railroad for the month of August were 4011-84 dollars. The largest earnings of any previous month were 2 50S dollars, in July. The receipts of the Macon and Western road in August were 30,508 dollars, against 25,157 dollars, showing an increase of 5,251 dollars. The authenticated result of eight months' traffic this year on the Southern Michigan road, shows an increase of 286,181.

The Great Hotel du Louvre, at Paris.—At the recent meeting of the shareholders of the Société des Immeubles de la Rue de Rivoli, held at Paris, some details respecting this building, which promises to be one of the curiosities of Paris, were given. The building itself consists of one enormous house, the sides of which measure respectively 488, 458, 195, and 147 feet, the longest side facing the palace of the Louvre, and the longest end forming one side of the Place du Palais Royal. Round these two sides an arcade runs, with shops, in the style of the Palais Royal; the other two sides are also formed of shops, but without any arcade. Above the range of shops is an *entresol*, and above that the rooms belonging to the hotel, four stories high, and comprising 800 apartments. The principal court is entirely glazed over, and an external staircase admits the visitor to a vaulted gallery, from which doors lead to the various staircases, and also to the dining saloon. Both these apartments have the walls and ceilings decorated with wall paintings and gilding, in the style of the galleries at the Louvre. The building is entirely of stone, and has cost 294,000*l*.; the ground on which it is situated, 137,591; and the furnishing and capital for carrying it on are estimated at 80,000*l*.; forming a total of 511,591*l*.

The Iron Trade.—As was to be expected, the late attempt to force up prices beyond what the fair demand necessitated, has already damped and depressed even the previous demand, so that the Birmingham trade correspondent of the *Times* declares the trade to be "flat compared to what it was immediately preceding the late quarterly meetings." Indeed, it is rumoured that a fall of prices has been taking place instead of a rise, and many ironmasters already repudiate the quarterly decision, which is treated as if it were no decision at all, the actual majority, as it is urged, being the other way. Meantime the masters have been deliberately bringing themselves into a new mess in consequence of the attempt which failure induces them now to repudiate. The workmen in several of the most important establishments of the central iron district have given notice for an advance of wages, some of which notices have now expired. Simultaneously there is talk of a reduction of 10s. a ton on bars having actually taken place. The stock of pigs is becoming superabundant, and a fall of prices on these is also said to have occurred.

Surveyor: Cardiff Board of Health.—We learn from the *Silurian* that the appointment of surveyor to the Cardiff Board of Health has been conferred upon Mr. Thomas Wareing, at a salary of 250*l*. per annum. There were thirty-seven candidates. Mr. Wareing, before his appointment, was superintendent of the sewerage works now proceeding in Cardiff, according to the plans of Mr. Hawkshaw; and he will continue to hold this office, with an addition of 50*l*. to his salary as surveyor. The salary of the superintendent of sewerage works was 250*l*.

War Maps.—Mr. Wyld, the Queen's geographer, is usually ready to meet the public desire in regard to all places that become celebrated in the course of events, but he has almost anticipated the public curiosity by a map of the new point of interest in the war—Nicolaiev. It shows the keys of that naval building-port of Russia, Kinburn and Otchakoff, now in our hands. One result of the war will be, a knowledge of geography to thousands, some of whom will have to thank Mr. Wyld.

City of London and Counties Land Society.—In reply to the advertisement for an architect and surveyor to this society, twenty-eight applications were received: the gentleman selected is Mr. T. E. Knightley, of Cannon-street West.

Architectural Association.—At a meeting on the 19th instant, Mr. Rickman in the chair, a paper by Mr. Goodman, "On the Lights and Shadows of an Architect's Office," was read.

Church Stagnation in Camden-town.—In a populous and improving section of the northern limb, called Camden-town, a tasteful Gothic structure has stood for now two years; complete as to masonry, but vacant and windowless. There is the steeple with its vane, and the area railed round: it is to all appearance designed for a church, and as is usual in the suburbs, houses of some pretension to gentility encircle the building. But the works are suspended, and it stands like the house of the foolish builder, who counted not at first the cost. Seeing how many churches have been built within ten years throughout the kingdom, it is difficult to conceive wherefore in the heart of a wealthy neighbourhood a temple so well placed should be left open to the elements, some 10,000*l*. having been expended: possibly as many hundreds are required to complete. Suppose, Mr. Editor, we were to address the circumjacent residents, and put piety "*ad misericordiam?*" a voluntary subscription would soon supply the wherewithal to complete.

Ambulans.

The Improvement of our Towns.—It might be productive of much good if county societies were formed to improve the towns and the public institutions by erecting annually one useful institution by the united subscription of the residents and owners of property in each county, independently of all improvements that are being made by individuals or otherwise. Although this is comparatively a small country, and we have enjoyed centuries of civilization, some parts are almost in a primitive state, yet all are under the same Government, and expected to aid in supporting and maintaining the institutions of the country. The pressure of the population in the metropolis is excessive; several counties of larger extent than Middlesex having no towns with 10,000 inhabitants, and scarcely a public institution of any note or character. The united contribution required to erect one of such useful institutions as public libraries, museums, baths, &c. annually in such county would require but little self-denial in comparison with the advantages to be obtained, not only to the locality, but to the county.—A. B.

New Chapel at Walworth.—The foundation-stone of a new Primitive Methodist Chapel, was laid last week in Richmond-place, East-street, Walworth, by Mr. Apsley Pellatt, M.P. About 600*l*. or one-half the cost of the building, has been received. The chapel will be in the Italian style, faced with white perforated bricks, and constructed from a design furnished by Mr. T. Humphreys, of Camberwell, the builder. It will be 45 feet long, 34 broad, and about 32 feet high, with three galleries, and affording accommodation for 600 persons. There will be also two vestries in the rear, and beneath the building are extensive schools of same dimensions as the chapel.

Tyerman's Patent Bond for Building Purposes.—In the Hoop-iron Bond for building purposes, patented by Mr. Tyerman, of Weymouth-street, the iron, 2½ inches wide, is notched to a depth of about one-sixth of its width, at intervals of 12 inches, on alternate sides; that is to say, any notch on one side is opposite to a blank space on the other side. One side of each notched or severed part is bent out to an angle of 45 deg.; these bendings being in reverse directions as regards the two sides of the iron, thus forming reversed claws, which, when the metal is built into the brickwork, become imbedded in the structure, and so prevent all chance of the hoop-iron being drawn out. It is an evident improvement.

Lighting.—Mr. J. Longbottom, of Leeds, has recently patented a method of combining atmospheric air with hydro-carbons, for the purpose of producing light and heat. The invention consists in causing the air, passed in contact with pumice stone, or other porous substance, saturated with caustic potash, and then with similar substance, saturated with sulphuric acid, in order to free the air from water. The dry and pure air is then passed in contact with the hydro-carbon to be used. It is propelled through the process by bellows or blowing apparatus. The combined matters then pass into a gasometer. The air may be freed from carbonic acid in a similar way.

Kingsgate-street Chapel, Holborn.—The foundation-stone for rebuilding the Baptist Chapel in Kingsgate-street was laid on Wednesday last, by Sir S. M. Peto. The new building will seat from 800 to 1,000 persons, front and side galleries inclusive. The probable cost of the whole, with school-rooms, vestries, &c. will be about 3,000*l*. Mr. C. C. Searle is the architect, and Mr. S. S. Wilson, the builder.

Plymouth, America.—The corner stone of an immense granite monument, commemorative of the landing of the Pilgrims, is to be laid at Plymouth (U.S.) on the 1st of August, 1856. Thirteen years is the maximum allowed for its construction, and it is expected to be one of the most important monumental structures in the world. It is to be hoped due care will be taken to make the desire a reality.

Splendid Yankee Project for the Equalization of Summer and Winter.—I intend to lay down in every street, court, lane, place, and alley of Boston 10,000 miles of iron main, 4 feet diameter, with 12-inch service-pipes entering each house. So far so good. Then I shall commence at the top of the White Mountains to lay a pipe 10 feet in diameter into the ground 6 yards deep, from the said White Mountains to the main in Boston, which will have been constructed as before remarked: this done, I shall build a steam-engine, 718,000-horse power [this way, if you please, I'm afraid some one hears me] I shall force the freezing atmosphere from the mountains into every house in B. There's no mistake about this—it's bound to go; and when it's finished, I mean to go in, that's flat-footed, for a line of pipes to the tropics to pump hot air into the houses in winter. These little jobs completed, and we will have our cool weather in July, and in January it shall be warm and comfortable, as it ought always to have been. I guess Nature's jig is about up, ain't it?—*The Toronto Globe.*

TO CORRESPONDENTS.

"M. J. L."—"Ego"—"Playgoer"—"G. and T."—"W. H."—"W. W."—We have already stated our opinion that the drawings for a building do not belong, as a matter of right, to the employer.—"F. F."—"P. and W."—"H. W."—"P. W."—"Quondam"—"E. A."—"J. McW."—"S. L."—"J. C."—"Paris"—"E. C." (our informants differ)—"J. V."—"W. C."—"J. C."—"S. S."—"T. C."—"J. W."—"P. A."—"X Y Z." private individuals—"E. B." (thanks. We shall be glad to hear from him)—"J. L. C."—"L. A."—"W. B."—"J. F."—"Dr. R. B."—"W."

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

"Books and Addresses."—We are forced to decline pointing out books or finding addresses.

ADVERTISEMENTS.

AGENTS WANTED, for the SALE of BATH, PORTLAND, and ROMAN CEMENTS, for the Export Trade, and for any of the Home Towns of the United Kingdom. The highest references will be given and required.—Address to A. B. C. care of Mr. W. H. Hayden, 17, Warwick-square, Paternoster-row, London.

TO BUILDERS, FOUNDERS, AND OTHERS.

AGENTS are wanted by the undersigned, to introduce DUPRE'S PATENT HYDROMETIC and ECONOMIC OVEN, for all towns, and the whole of England, Ireland, Scotland, and the Channel Islands. This Bread Baking Oven, which has been recently patented, is an invention of great importance to the trade, as well as to the country at large, inasmuch as it possesses vast advantages over the present system, there being not only 50 per cent. saving in the consumption of fuel, but it is much more expeditious From its construction, all sulphuric air is withdrawn, and consequently the bread is much purer. The cost of building is not much above that of the present. The model may be seen in the Inventors' Court of the Crystal Palace, Sydenham; and the first and only oven built from which the experiments have been made at Mr MATHEWS'S, Baker, Guildhall house, Plymouth.—Apply to JOHN DUPRE, Gibbons-street, Plymouth.

A VACANCY will shortly offer in the country, to a respectable person, as BUILDER'S ASSISTANT. Qualifications required:—To be of steady, honest, industrious habits, a good writer, capable of preparing finished in tint style and working drawings, make specifications, set out quantities, &c. accurately, when not engaged superintending workmen: good ideas about alterations, repairs, &c.; fond of early rising: age about 30. Salary will be 26s. per week.—Apply (post-paid) to A. M. 8 Newgate-street, London. None need apply unless they have a desire to remain in the situation, and would be anxious to promote the employer's interest; also their references and testimonials must be in every way satisfactory.

BRADFORD CEMETERY, Yorkshire.—WANTED IMMEDIATELY, a PERSON qualified to fill the office of ASSISTANT REGISTRAR at the above cemetery. He must write a good hand, understand accounts, and be a good draughtsman and colourist.—Apply (post paid), stating age, salary, and references, to Mr WILLIAM GAY, as above.
Bradford, 24th October, 1855.

GREAT NORTHERN LONDON CEMETERY.—WANTED, immediately, an efficient CLERK of WORKS, accustomed to ecclesiastical works and stone masonry, to superintend the works connected with the above Cemetery, at Colney-hatch.—Apply to Mr. E. A. PUGIN, Architect, at the Offices of the Great Northern London Cemetery Company, 128, High Holborn. Letters, containing a reference to recent employe s, will alone be attended to.

TO SURVEYORS AND DRAUGHTSMEN.

WANTED, an expeditious, first-class, DRAUGHTSMAN, fully capable of getting up finished plans of towns, to scale and correct on the ground the plans drawn in the office None but thoroughly-experienced draughtsmen, with good testimonials, need apply.—Address, post-paid, stating salary, to E. W. S. Post-office, Nottingham.

WANTED, 200 MEN to excavate soft clay in the Hob Hole Drain, near Boston, Lincolnshire.—Inquire on the Works.
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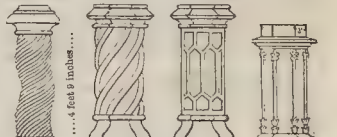

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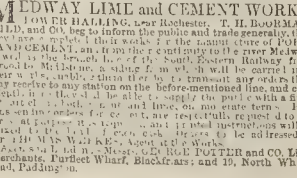

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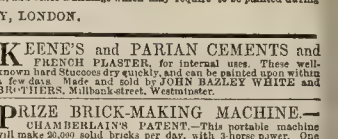
PRIZE BRICK-MAKING MACHINE.—CHAMBERLAIN'S PATENT.—This portable machine will make 30,000 solid bricks per day, with 3 horse power. One man to feed the machine with clay, and boys to remove the bricks. Was awarded a silver medal by the Liverpool and Manchester Agricultural Society, at St. Helen's, September 6th; a silver medal by the Staffordshire Society at Leek, September 27th; and a prize at Worcester, October 26th, 1853.—Apply for particulars to Mr. HUMPHREY CHAMBERLAIN, Kempsey, Worcester.



BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landowner, the builder, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Sewage pipes, Closet pans, Furnace-blocks, Fire-bricks, Gas-retorts, Crucibles, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity all of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, upon favourable terms.

Lists of prices and other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers Office, 4, George-yard, Lombard-street Works, Grand Surrey Canal Bridge, Old Kent-road.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 25s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 18s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour Him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

THE BEST HERTFORDSHIRE MALM SECONDS;
THE BEST WHITE SUFFOLK and RED FACINGS:
DEEP-RED RUBBING BRICKS.
Also COWLEY and KENT STOCKS, in any quantity.
J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS QUEEN'S-ROAD, PECKHAM, SURREY
(Within a short distance of the five bridges).
THE BEST MALM-CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity.
Also, STOCKS, of FIRST QUALITY.
J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge.
Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c Staircase ridge Fire Goods, &c of all descriptions, and of best quality All Saints and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent — Mr. J. UNWIN, Private Residence, 58, Nelson-square, Blackfriars-road.

TO BRICKMAKERS.
CLAY GROUND and STOCK BRICKS made at one and the same time, with ease, by one horse, at the rate of from eight to ten bricks the minute. Price of machine at Hull 25l. Reference given and part culars forwarded.—Apply to W. HODSON, Patentee, Kingston-square, Assembly Rooms, Hull. Agents wanted for the several counties in England. A liberal per-centage allowed. Reference given and expected as to respectability.

TO ARCHITECTS AND BUILDERS.

PAVING TILES, White, Red, and Blue, of different sizes and patterns, ornamental ridge tiles, coloured plain and brown, and a large assortment of white fancing bricks and landing pipes, convenient for water carriage FOR SALE also a good horse-power BONE-MILL.—Apply to E. HOOPER, Portland-street, Southampton.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 30s. per 1,000; floor bricks and 6-inch pavings, at 27s. 6d. per 1,000; 8-inch pavings, at 27s. 6d. per 1,000; 9-inch pavings, at 35s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

BEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for the WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 561, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

TO CAPITALISTS, POTTERS, CHINA, BRICK, AND TILE MAKERS, AND LANDOWNERS NEAR RAILWAY STATIONS

HANDS'S great economising PATENT KILN.—Capitalists, and persons engaged in the above works, owners of land near railway stations, containing any description of pottery clays, brick, or other valuable earth, are particularly invited to look at HANDS'S great economising PATENT KILN; from its construction it enables persons to build one on any suitable spot where they may please, so to economise the heat, that all that great waste and extra expense looked for as a matter of course in the old system, is completely avoided, by causing the heat to dry sand, and every description of strong moulded clays. AT ANY SEASON, in time of burning and cooling the kiln, with perfect soundness. No cost required to keep up the works all the year round, beyond the consumption of about 20 or seven tons of coal, to burn off 20,000 goods in each kiln. Any person desirous of availing himself of this opportunity for a district, license or otherwise, may apply if by letter, pre paid, to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom, Surrey, where the kiln is to be seen, by appointment only.

TO FARMERS, BRICKMAKERS, and OTHERS.—TO BE SOLD, 20,000 CHALDRONS of ASHES and BRESSE; also, a quantity of good Manure and Horse-dung, close adjoining the Regent's Canal and Great Northern Railway; can be taken away by boats and barges, or delivered in carts.—For further particulars, inquire of Mr. GEORGE TILLEY, Saint George's-wharf, Cambridge-street, Regent-town.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices. The BUSINESS to be DISPOSED OF, with the valuable connection, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Honduras Wharf, Bankside, Southwark, London.

BALLAST for SALE, cheap, situated in the New North-road, Hoxton; also, a PIECE of LAND TO BE LET, on a Building Lease for eighty years, for two third-rate houses and shops, in the main road, omnibuses passing every few minutes. The reason for parting with the ground is ill health. This is a valuable piece of land; the houses will let on lease at 35l. and 36l.; there are first-rate tenants waiting for them.—Apply to Mr. CASS, 23, Mintern-street, New North-road, Hoxton.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, arches, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it; also, flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and flare, bricks fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

GROUND FLINT AND CORNISH STONE, UNADULTERATED, Manufactured by MACHINERY, which produces the greatest degree of fineness. WILCOX & CO. Flint Mills, Millwall, near Scott Russell's. CARRIAGE FREE.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames-bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 30, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Macclesfield-street North, City-road, for the sale of CHIMNEY-PIECES, and other articles, useful, architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

July 25, 1855. C. ADENEY, Secretary.

MARBLE and STONE CHIMNEY-PIECES.—WM. HUSTLER, Marble and Stone Sawing Mills, Cambridge-heath, Hackney, begs to call the attention of the Trade to his STOCK of CHIMNEY PIECES, suited to all classes. W. H. has enlarged his workshops and improved his machinery, so as not only to compete, but is able to sell lower than any other house in the trade.

N.B.—Good marble masons and polishers wanted.

TO BUILDERS, MASONS, AND OTHERS.

THE largest STOCK in England of MARBLE in Blocks and Slabs, veined, Bardilla, dove, black, black and gold, Sienna, St. Ann's, statuary, serpentine, verd antique, &c. Portland, Harelhill, Park Spring, and other stone, in blocks, slabs, landings, and headstones. Yorkshire paving, granite curb, &c. All goods carefully packed and forwarded to any part of England.—THOMAS JACKSON, Marble and Stone Sawing-Mills, Commercial-road, Pimlico, London.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the province of Massa Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake Contracts for any quantity of Statuary, Veined, Sienna, Bardilla, Dove, and other Marbles, in blocks of all dimensions, delivered on shipboard at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt. Orders for Paving Slabs, Garden and Hall Statues, Vases, Tops, Consoles, &c., executed and delivered at reasonable rates.—For further particulars apply at the Offices of the Company, 18, Cannon-street, City.

WILLIAM W. BONNIN, London Secretary.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quality—direct from the Quarries in truck loads of five tons. Paving, Landings cut out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

BATH STONE DEPOT, BOX STATION. ROBERT STRONG, STONE MERCHANT, Box, Wilts.—Box Ground Stone, Scalelt Block, Ashlar, Rough-work &c. &c. supplied direct from the Quarries: also every description of Stone-work for Building purposes, both plain and ornamental, prepared ready for fixing, and forwarded to any part of the kingdom. Vases in elegant variety always on view; URNS, Fountains, Chimney pieces, Tombs, &c. &c.

BANGOR WHARF, King's-road-bridge, Camden-town.—STRINGFIELD and COOPER, late W. W. Rawlins, beg to call the attention of Builders and others to their stock of Bangor slates, laths, plaster, Roman, Portland, and Keene's cement, blue lias, Dorking, and chalk lime, plasterers' hair, Yorkshire plain, pan, and ridge tiles, glazed sewer pipes, closet-pans, and traps, Welsh fire-bricks, gravel and shells for carriage paths, ballast, sand, &c. Materials lauded, wharfed, and carted.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beehen, and Co.), Caen wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, King's-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terraces at the Crystal Palace.—Supplied by the Haytor Company under Royal Charter.—For terms, apply to Mr. C. HOAR, Haytor Granite Office, 4, Millbank row, Westminster.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall. London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TAATHAM, Liskeard. This Granite is selected for the New Westminster-bridge.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

PIMLICO MARBLE WORKS, BELGRAVE-WHARF, LOWER BELGRAVE-PLACE.

SAMUEL CUNDY,

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

YORKSHIRE STONE.

GEO. VINT and BROTHERS beg respectfully to inform Architects, Surveyors, Contractors, Builders, and Masons, that they can supply to any extent all kinds of YORK STONE, including Paving, Bramley Fall, Park Spring, &c. of the very best quality, direct from their Quarries, to all Railway Stations and Ports in the Kingdom, at the most reasonable terms.

GEO. VINT and BROTHERS will gladly forward prices by post on application.—Address, Idle, near Leeds.

MARKET-WHARF, REGENT'S-PARK-BASIN WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. MOULES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Lettering, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS, MILLBANK-STREET, WESTMINSTER. Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Government Buildings, also for Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street, also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and the Llangollin Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney-pieces, Baths, Filters, Larders, Mangers, Ridging, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, and the extraordinary size in which they can be obtained, are particularly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices.—Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE P. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's-park.

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c.

ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 10 guineas. Slate fenders made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

ENAMELLED SLATE.—REDUCTION in PRICE.—Mr. MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the shape of a large and increased discount to the TRADE. His best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave place, Pimlico.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

SCAGLIOLA done on an IMPROVED PRINCIPLE.—I refer to the Gothic Arch by D Delon in the Great Exhibition of 1851, which gained the only Prize Medal awarded for the manufacture of the above work.—Specimens to be seen at 153, Drury lane, two doors from Holborn, superior to any yet offered to the public, with a choice Collection of Ornaments for building purposes, Trusses for Shop-fronts, &c. &c.

CROGGON and COMPANY, Manufacturers of PATENT ASPHALTE ROOFING, BOILER, RAILWAY, SHEATHING and INODOROUS FELT For Damp Walls, and Lining Iron Houses, 2, DOWGATE-HILL, LONDON.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 50 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter, and price per yard.

¼	⅜	½	⅝	¾	⅞	1	1¼	1½	2
9d.	11d.	1s.	1s. 3d.	1s. 6d.	1s. 9d.	2s.	2s. 3d.	2s. 6d.	2s. 9d.

Super-extra stout quality.

2	2½	2½	2¾	3 inches.
2s.	2s. 3d.	2s. 6d.	2s. 9d.	3s. per yard.

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

¼	½	¾	1	1¼ inches.
6d.	10d.	11d.	1s	1s 3d. 1s. 8d. per yard.

The hose is Burnettized at an extra charge of 9d. per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

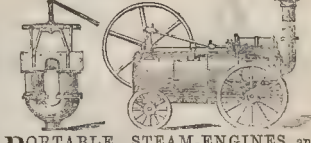
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, canes, whitening, &c. adapted for any depth. Hydraulic Pumps for deep wells. PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 18-in. diameter, kept ready for use at reduced prices.

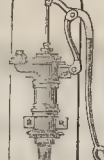
N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).



TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP, which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous marriage and expensive slides and guides are unnecessary, rendering the price considerably less than Pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 25 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS, 8, Cresent, Jewin-street, London, Manufacturers and Patentees.

TO WATER AND DOCK COMPANIES, CONTRACTORS, &c.

PARSEY'S PATENT REVOLVING PUMP will throw as much water with one-third the labour as any other pump. One of these pumps at work at No. 79, Strand.

TO LOCAL BOARDS of HEALTH and GAS and WATER COMPANIES.—FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

VAST IMPROVEMENT in PUMPS.—PARSEY'S REVOLVING PUMPS, all metal, without valves, leather, or packing to choke or get out of order, and equally superior for hot or cold liquors. Contractors, brewers, distillers, shipowners, water companies, agriculturists, &c. are solicited to see them in action at Mr. PARSEY'S, Engineer and Patentee, Great Scotland-yard, where orders are received and executed. Hand Pumps to throw 350, 600, 1,800, and 2,700 gallons per hour. Pumps for engine power to any quantity.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE
SINGLE
PUMPS,
BARRELS
AT SHORTEST
FOR HAND
STEAM

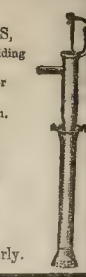
AND HIRE,
AND DOUBLE
3 in. to 15 in.
to any depth,
NOTICE,
OR
POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

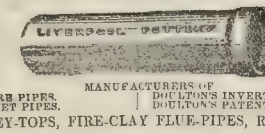
Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

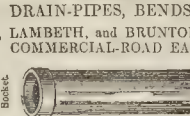
JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.



MANUFACTURERS OF
DOULTON'S STONE-WARE PIPES. DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S HALF-SOCKET PIPES. DOULTON'S PATENT JUNCTION BLOCKS.
TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

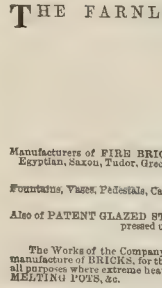
Watercloset Pan with Syphon-Trap, 5s. 6d. each.



A LARGE ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.
Bends, Elbows, Urinals, Gulli-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

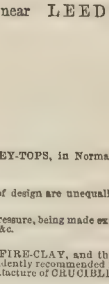
Watercloset Pan with Syphon-Trap connected, price 5s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain pipes, at greatly reduced prices. (1179)



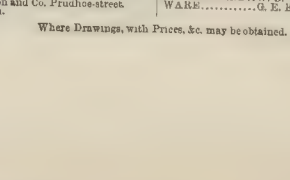
CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM, and 37, SOUTHAMPTON-STREET, STRAND, London.
Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS.
Bateman and Moore's, and Chrimes' Patent Hydrants, or Fire-Cocks Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet Improved Self-acting and other Water Closets.
Siemens' Patent Balance Water Meter.
Pilbrow's Patent Water-Waste Preventer.
Morris's Patent Water Supply Regulator.
Rawlinson's Patent Self-acting Drainage Valves.
Higginbotham's Patent Slide Stop Cocks.
Lowe's Patent Stench Trap, Beggs's Improved.
And all other Articles required for Water-Works Purposes, &c.
LONDON HOUSE,
Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Ping Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.
Plumbers' Brass Work of every description.



BATEMAN AND MOORE'S PATENT HYDRANT.

THE FARNLEY IRON COMPANY, WORTLEY, near LEEDS.



Manufacturers of FIRE BRICKS, TILES, QUARRIES, &c., White Building Bricks, Fire-clay CHIMNEY-TOPS, in Norman, Egyptian, Saxon, Tudor, Grecian, Gothic, and Elizabethan styles.

TERRA COTTA

Fountains, Vases, Pedestals, Capitals, Trusses, Brackets, &c., in great variety, which for beauty and elegance of design are unequalled The designs of Architects modelled with the greatest exactness.

Also of PATENT GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, &c., well adapted for pressure, being made extra pressed under "Spencer's Patent." Superior White Glazed CLOSET PANS, TRAPS, &c.

The Works of the Company are situated in the immediate vicinity of the well-known bed of WORTLEY FIRE-CLAY, and their manufacture of BRICKS, for the use of Forges, Gas Companies, Foundries, Potteries, and Glassworks, is confidently recommended for all purposes where extreme heat is required. Their GROUND CLAY is also particularly adapted for the manufacture of CRUCIBLES, MELTING POTS, &c.

OFFICES AND STORES:

LONDON .....No. 14, York-chambers, York-buildings, Adelphi; No. 16, Bath-place, New-road; St. Ann's-wharf, Limehouse.
BIRMINGHAM..No. 7, Easy-row; also 22, Cambridge-street, and Lawley-street.
BRISTOL .....No. 14, Nelson-street.
LIVERPOOL....No. 9, Russell-street, 83, Renshaw-street, and Shippine-wharf Leeds-street.
NEWCASTLE ...W. B. Wilkinson and Co. Prudhoe-street.
GRIMSBY.....P. G. Skipworth.
MANCHESTER..No. 46, Travis-street, and 23, 24, and 25, Birmingham-street, London-road.
HULL.....No. 50, Queen-street, and Wellington-street.
BRADFORD ....Horton-road.
LEEDS .....Wellington-street, adjoining the Midland Station; and Shipping-wharf, Victoria-works, Hunslet;
SUNDERLAND..W. B. Wilkinson and Co. Queen-street.
WARE.....G. E. King, Sloan Merchant.

Where Drawings, with Prices, &c. may be obtained.

PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM-ENGINE, with tubular boiler, for SALE.—Can be seen at work at Mr. GOODWIN'S, 67, Great Guildford-street, Southwark, of whom particulars may be obtained.

TO CONTRACTORS.

STEAM-ENGINES, for PUMPING, WINDING, SEWING, &c.—TO BE LET on HIRE by the day, week, or for any time required, strong and simple PUMPING and WINDING ENGINES, made portable, with reversing motion, pumps and driving gear, complete. These engines have been successfully employed for years by all the principle contractors, and for a variety of other purposes. Also ready for immediate delivery, of 4-horse, 6-horse, 10-horse, 13-horse, 16-horse, 20-horse, to 40-horse power.—Apply to Messrs. MERDWIN and HALL, Engineers, Surrey Iron Works, 93, Blackfriars-road, where they may be seen.

CENTRIFUGAL PUMP for SALE, second-hand, yet little used; as good as new; on the best principle—12 in. fan Also, one, a 6 in. fan.—Apply at the East-London Ironworks, near Mile-end-gate.

TO ENGINEERS and SAW-MILL PROPRIETORS.—WANTED, a new or good second-hand BOILER and ENGINE, from 12 to 20-horse power. Also, Machines for Sawing Log Timber and Deals. Also, a Circular-Saw Bench.—State particulars, and price of each at cle separate, full, and maker's name Address, A. J. R. care of Mr. Ferris, 193, Temple-street, Bristol.

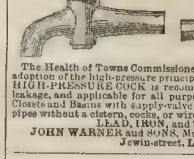
TO WATER COMPANIES AND PLUMBERS.

BURDEN'S PATENT HIGH-PRESSURE COCKS.—These cocks are remarkably simple in their construction, very durable, cheap, not liable to get out of order, and have been most successfully used for a period of three years, under continuous head pressure, varying from 200 to 450 feet. The following is one of the latest testimonials received:—"Stirling, 4th September, 1855. At a meeting of the Water Commissioners held that it was unanimously resolved to recommend Burden's Water Cock for general use. It has been on trial here for nearly three years. During that period it has successfully resisted the high pressure of water in Stirling, amounting to from 200 to 450 feet, about the highest pressure in the kingdom The Commissioners confidently recommend to the public generally the above cocks, as the very best for high-pressure purposes, from the simplicity of their construction, cheapness, and durability owing to the entire absence of leakage, they will effect a saving of from 10 to 20 per cent. of water over the cocks that have been hitherto in use—By order of the Commissioners, JOHN SAWERS, Provost, Chairman."

SAMUEL SHEPPARD, Sole Manufacturer,
JAMES STREET, SAINT PAUL'S, BIRMINGHAM.

TO WATER COMPANIES AND PLUMBERS.

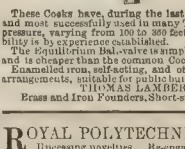
HIGH-PRESSURE COCKS & CLOSET



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 4.

HIGH-PRESSURE VALVE COCKS.
LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 360 feet; their efficiency and durability is by experience established.
The Equilibrium Bal.-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.
Enamelled iron, self-acting, and other closets, upon economical arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

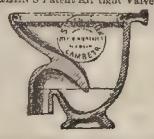
ROYAL POLYTECHNIC INSTITUTION.
Unceasing novelties. Re-engagement of S. Buckland, Esq., to illustrate his new series of Dissolving views, by Claro, illustrating the Fashion of Ladies' Head Dresses from the time of the Conquest to that of our gracious Queen, with a dissertation there on by Arrectan Spicer. The unique Ornithological Collection, arranged in a new room. Dubosq's curious Photographs of the Blue Globules; also, Views of Paris and Thames Water, in the microscope. Lecture on the large Bar of Aluminium, and the Art of Pottery, by J. H. Pepper, Esq. Hines' new Dissolving Views with effects, of the Attack on the Malakhoff and Redan of Sebastopol, concluding with the Fireworks at Versailles, &c. &c. Admission to the whole, 1s.; except the Ornithological Collection which will be 6d. extra.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

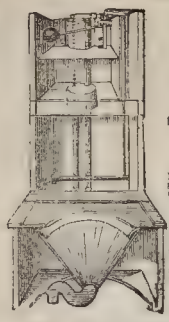
Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and readyto use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

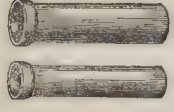
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

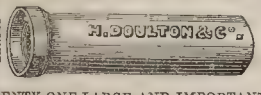
HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kingsroad, Camden New Town; J. TURNER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryd es-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



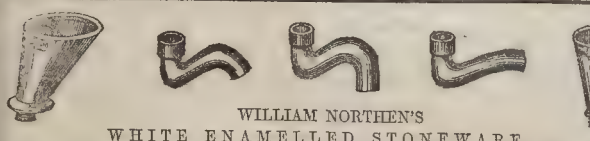
TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.



WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public,

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

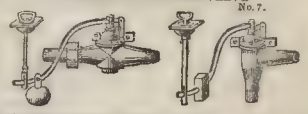
MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c. &c. Agents, CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article of Stone Ware on reasonable terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 39, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING
LAVATORY AND CLOSET VALVE
No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful PLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 22s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 15 TABLES, 42s PER CRATE.

SUPERIOR STONEWARE GLAZED PIPES of a quality not to be surpassed.—P. and W. PURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction, the price being also lower than many in the trade, viz. 25 per cent. discount off the list for cash. Junction Bends, &c. Pans and Traps of the first quality, Yorkshire Paving, Sinks, Slabs, &c. all at low cash prices.—P. and W. PURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered.—October 1, 1855.

SUPERIOR LAND DRAINAGE.—AGRICULTURAL DRAIN-PIPES, of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

VENTILATION.—PURE AIR.

Sheringham's Ventilator for the admission of pure air through an

EXTERNAL WALL.

With single pulley, from 6s. each; with leading pulley, from 6s. 6d. These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants, and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 105, Blackfriars-road, and 17, Union-street, Borough, and of all respectable ironmongers, builders, &c.

LOOKER'S PATENT TUBULAR VENTILATOR is the CHEAPEST and most ORNAMENTAL yet introduced for effectually admitting pure air with a perceptible draught. Designed to suit any building or apartment. Particulars and prices may be obtained, and specimens seen, at the Office of Mr. J. PATMAN, Architect, 4, Serjeant's-inn, London; or on application to BENJAMIN LOOKER, jun. Patentee, Kingston-on-Thames.

SALES BY AUCTION.

MOORGATE-STREET.—Office Fittings, Surplus Stores, and Materials.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, Moorgate street-buildings, on TUESDAY, OCTOBER 30, at TWELVE, a large quantity of OFFICE FIXTURES (principally solid wainscot), and surplus stores, comprising about 150 desks, of all sizes, 100 feet run of railed enclosure, bookcases, shelves, and presses, 20 doors and sashes, glazed and panelled partitions, 20 counters, and tables, with nests of drawers, 10 tons of lead, large quantity of iron railing and iron work, encaustic matting, and oilcloth, and various useful effects.—May be viewed the day previous. Catalogues had of PULLEN and SON, 96, Fore street, Cripplegate.

FARRINGDON-STREET EXTENSION.—Building Materials of Thirty Houses.

PULLEN and SON have the honour to announce that they will SELL by AUCTION, on the PREMISES, on THURSDAY, NOVEMBER 1, and following day, at TWELVE, in lots, by order of the Improvements Committee of the Corporation of the City of London, all the valuable BUILDING MATERIALS of about thirty houses, shops, and premises, in Turnmill-street, Bowling-street, Newcastle, and Peter-street, Clerkenwell, comprising about 800 good sound bricks, oak and fir timber in roofs and floors, sashes, doors, partitions flooring-boards, shop-fronts, large quantity of plain and pan tiles, York and pebble paving, lead, gutters and pipes, stoves, ranges, coppers, and useful fixtures and fittings up.—May be viewed two days previous. Catalogues had at the Architect's Office, Guildhall; and of PULLEN and SON, 96, Fore street, Cripplegate.

DOWGATE HILL, CITY.—Building Materials of several Houses

PULLEN and SON are favoured with instructions from the Worshipful Company of Dyers, to SELL by AUCTION, on the PREMISES, on TUESDAY, the 6th of NOVEMBER, at TWELVE, all the valuable BUILDING MATERIALS, of two houses, situate 1 at Dowgate hill and 6 Bezer-street, adjoining Dyer's-hall, comprising good sound brickwork, plain and pan tiles, oak and fir timber, in roofs and floors, several tons of lead, in gutters and pipes, glazed sashes, doors and interior flooring boards, shop fronts, paving, coping, and sills, and useful fittings up.—May be viewed two days previous. Catalogues had at the Clerk's Office, Dyer's-hall, and of PULLEN and SON, 96, Fore-street, Cripplegate.

TO SURVEYORS, CONTRACTORS, BUILDERS, RAILWAY, WATER, FIRE INSURANCE, AND OTHER PUBLIC COMPANIES.

MESSRS. TATUM, Building Material Dealers, of Park-place, East-street, Walworth, Surrey, beg to acquaint the above, that they PURCHASE and CLEAR with the utmost care and despatch, in town or country, every description of BUILDING MATERIALS; valuable warehouses, fireproof builders' yards cleared out; old and dilapidated houses and buildings purchased and removed. All letters, addressed as above, will receive immediately attended to.

KNAPHILL, HORSELL, WOKING, AND CHOBHAM, SURREY.—FIFTY-SIX ACRES of FREEHOLD and long LEASEHOLD LAND and COTTAGES, TO BE SOLD BY AUCTION, by

MESSRS. WATERER and SON, at the WHITE HART INN, Chobham, Surrey, on THURSDAY, NOVEMBER 1, 1855, at TWELVE o'clock, in Ten Lots.

Lot 1 will comprise 1a. 0r. 27p. called "Seven Acres, Stony Field, and Copper," situate near the Anchor Inn, Knaphill, well adapted for building purposes.

Lot 2 is 4a. 2r. 38p. of productive Arable Land, called "Dolleys," near the former lot.

Lot 3 is 3a. 0r. 19p. of very superior Arable Land, called "Well Field," situate on the verge of Knaphill, near the Anchor Inn, commanding most extensive and picturesque views of the surrounding country, and offering a most desirable site for building a country residence.

Lot 4 contains 6a. 0r. 9p. of Arable and Meadow Land, called "Sand pit Field, Further Three Acres, Lane Field, First Brook Mead, Second Brook Mead, and Warner's Mead," situate at Littlewick, in the parish of Horsell.

Lot 5, in all 2a. 0r. 0p. of productive Meadow Land, called "Ship Mead," near First Brook Mead.

Lot 6 is 10a. 2r. 29p. of productive Arable Land, called "Common and Hilly Field, the Three Acres, and Oak tree Field," situate in the parish of Horsell, in the occupation of Mr. James Steadman, at 12l. per annum.

Lot 7 is a Cottage and Garden, containing 0a. 2r. 4p. situate near Lot 6, at Knaphill, in the parish of Woking, in the occupation of Mr. Richard Hayward, at 6l. 6s. per annum.

Lot 8 is two Freehold Cottages, with Gardens and two pieces of Arable Land, together 2a. 3r. 11p. called "Groves," situate at the west side of the Bagshot-road, in the occupation of Messrs. Edward Moses Gibbons, and Joseph Grainger.

Lot 9 is Three Freehold Cottages and Outbuildings, with Garden, and 1a. 1r. 19p. of Arable and Meadow Land, together 2a. 3r. 39p. lying Lot 8, in the occupation of Messrs. Edward Stait, William Chipman, James White, and Wm. Gosden.

Lot 10 is a piece of Freehold Pasture Land, containing 0a. 3r. 11p. called the "Rick Yard," situate opposite Lot 9, in the occupation of Mr. Edward Staff.

Particulars, with conditions of sale, may be had at the Place of Sale; Anchor Inn, Knaphill; Swan Inn, Blackwater; of Messrs. Munns and Andrews, Solicitors, Basing, Hants; Messrs. Joseph Vines, Esq. Solicitor, Newbury, Berks; Mr. James Locker, Chobham; and of Messrs. Waterer and Son, Auctioneers, Chertsey, Surrey, who will forward them on application by post.

FIFTY-FOUR PLOTS of valuable FREEHOLD BUILDING LAND, at Sutton, in the county of Surrey, conveyances free, and land tax redeemed.

MR. JOHN COLLINGS will SELL by AUCTION, at the COCK INN, Sutton, on WEDNESDAY, the 7th of NOVEMBER, at ONE for TWO o'clock, FIFTY FOUR PLOTS of FREEHOLD BUILDING LAND, situate on the Seahill estate, full in front of, and about half-a-mile from the Sutton station, Epsom line, with commanding views of the surrounding country, and a magnificent prospect of the Crystal Palace. Particulars and plans to be had of Mr. David Draper, Esq. Solicitor, 45, Vincent-square, Westminster; at the Cock Inn, Sutton; of Mr. Barnes, Ironmonger, and of Mr. King, Schoolmaster, Sutton; Mr. Mitchell's Printing-office, North End, Croydon; Mr. Wade's Printing-office, Mitcham; Mr. Norman, Post-office, Carshalton; White Hart, Merton; George Inn, Morden; Red Lion, Cheam; Bull's Head, Ewell; at "The Builder" Office, Catherine-court, London; and of Mr. Collings, Estate Agent, Kingston, Surrey.

Extensive and Important Sale of Ironmonger's Stock, High-street, Bedford.

MR. JOHN USHER begs to announce he is favoured with instructions from the Assignees of Mr Thomas Morten to SELL by AUCTION, on MONDAY, the 5th day of NOVEMBER, 1855, and following days, the whole of the well-selected, valuable, and extensive assortment of IRONMONGERY GOODS. Catalogues will be so arranged as to suit the convenience of all parties. To families furnishing, the catalogue will comprise patent kitchen-ranges, elegant drawing-room, dining-room, and bed-room stoves, fenders, and fire implements, copper stew-pans, boilers, kettles, and saucepans, warming-pans, coal-hods, baking-dishes, chafing-dishes, flat-irons Italian and tea-irons, frying-pans, omelette-pans, and tin bush-kettles. Britannia metal goods, spoons, dish-covers, tea-pots, excellent table cutlery, Japanned goods, lamps, moulds, pestle and mortars, weighing-machines, canisters, colanders, sugar-nippers, corkscrews, assortment of brushes, turnery, and other effects, suitable either for the mansion or the cottage. To Builders and Ironmongers—The catalogue will be found to enumerate several tons of bar, hoop, and other iron, and a well-selected stock of ironmongery goods. Brass Founding.—A general assortment of carpenters' tools and fittings. The Sportsman and Agriculturist will also find a good variety of sporting material, a large quantity of gunpowder, single and double-barrel guns, revolver and other pistols, a capital dog-cart, weighing-machines, chaff machine, mowing-machines, and many lots adapted for the farm.—Catalogues may be had seven days prior to the Sale price 6d. each, at the Auction Mart, London; at the Office of "The Builder," 2, York-street, Covent-garden, and of Mr. John Usher, Architect and Surveyor, St. Peter's green, Bedford.

SALES BY AUCTION.

NORTHAMPTON.—To ENGINEERS and OTHERS.

MESSRS. FULLER and HORSEY are instructed by the Assignees to SELL by AUCTION, on TUESDAY, NOVEMBER 6th, at ELEVEN o'clock, at the BRIDGE-STREET Works, Northampton, in lots, without reserve, the valuable collection of ENGINEERING TOOLS, new within four years, by Whitworth, Sharp, Roberts and Co. Lewis, Parr, Curtis, and Madeley, including a powerful self-acting surfacing and boring lathe, capable of taking surface 7 feet diameter, one 16-inch screw cutting lathe, one 8-inch and one 6-inch ditto, six engine and foot turning back geared slide lathes from 6 to 20 inch centres, self-acting crank planing or shaping machine with 24-inch traverse, self-acting planing machine, 17 plane 6 feet in length and 9 feet in width, self-acting vertical drilling-machine (very powerful), nut-shaping machine, two standard drilling-machines, 250 feet length of Whitworth shafting riggers and straps of the sets Whitworth's taps and dies, steel tools, fifteen vices and benches, a highly-finished double cylinder horizontal steam-engine of 14-horse power, with Cornish boiler 30-inch bar, lathe and screwing-tools; valuable assortment of engine patterns in wood, from 2-horse to 14-horse power, and numerous other effects. To be viewed on Monday previous, and morning of sale, when catalogues may be had at the Works; of Wm. Pennell, Esq. Official Assignee, Bedford-street; at the "Midland Counties Herald" Office, Birmingham; and of Messrs. Fuller and Horsey, Billiter-street, London.

NORTH AMPTON.—To Agriculturists, Wheelwrights, Smiths, Boiler makers, Contractors, Ironmongers, and Others.

MESSRS. FULLER and HORSEY are instructed by the Assignees to SELL by AUCTION, on WEDNESDAY, NOVEMBER 7th, at ELEVEN at the BRIDGE-STREET WORKS, Northampton, in lots, without reserve, two portable agricultural steam-engines, of five and ten horses power, one tenchine 20-power portable contractor's engine, 3,000 oak spokes, 1,000 ash felloes, ash and elm plank &c. seasoned yellow pine, fifteen tons rod, bar, and plate iron; two tons best steel, ten tons scrap iron, eleven new coppin-machines, 150 dozen new files, five cwt brass castings, five tons boiler makers' and smiths' tools, in anvils, swages, punches, and punching, punching and shearing machines, shaping plates, new Cornish boiler, 18 feet long, 4 feet diameter; one 10 feet egg-end boiler; one 14 feet new boiler, for portable engine; two new cranes for portable boilers, one case for boiler, 30 feet long, 5 feet 9 inches diameter; plate furnace, ten forges, fan blowing machine, four pair bellows, two cast cranes, seven-ton weigh-bridge, three plate-bending rolls, four-wheel truck, counting-house furniture, and other effects. To be viewed on Monday previous and morning of Sale, when catalogues may be had at the Works; of Wm. Pennell, Esq. Official Assignee, Bearshall street; at the "Midland Counties Herald" office, Birmingham; and of Messrs. Fuller and Horsey, Billiter-street, London.

Important Sale of a large and varied Stock of Gas Lamps, of various sizes and of the most elegant designs.

MESSRS. FULLER and HORSEY are instructed to SELL by AUCTION, at the SALE ROOMS, 21, Old Bond-street, on WEDNESDAY, NOVEMBER 14, and following days, at ELEVEN each day, in lots, by direction of Mr. William Potts, of Birmingham, who has disposed of his manufactory, and is retiring from business, an extensive and varied STOCK of GAS LAMPS, lanterns, brackets, &c. chandeliers, candelabras of various sizes, inkstands, and other ornamental works, in the highest style of manufacture, and of the most modern and artistic designs, superior to ordinary productions. From the high reputation this long enjoyed by Mr. Potts, whose collection at the Great Exhibition of 1851 will be long remembered, and gained for him the distinguished patronage of H.R.H. Prince Albert, in addition to very flattering recommendations from Mr. Cornum, the Government reporter, on that great display of art. This sale may be strongly recommended as a most eligible opportunity of obtaining works of originality and merit.—To be viewed on MONDAY and TUESDAY previous to the sale, when catalogues may be had at the Rooms, or of Messrs. Fuller and Horsey, Billiter-street.

N.B. Approved bills at four months' date will be taken from purchasers to the extent of 5l. and upwards.

Important Absolute Sale of First-class Paper hangings, worthy the attention of Shippers, Merchants, Builders, Upholsterers, House decorators, and others.

MR. EDWIN WHITE, in consequence of the dissolution of partnership of the firm of Erwood and Co will SELL by AUCTION, positively without reserve, on the PREMISES No. 49, Bagshot-row, Pimlico, on WEDNESDAY and THURSDAY, 7th and 8th NOVEMBER, at ONE o'clock punctually each day, the first portion of the superior STOCK IN TRADE, which comprises about 50,000 Pieces of fashionable PAPER-HANGINGS, including unique flocks and damasks, bold and handsome satins, rich decorations and landscapes, excellent marbles, oaks, granites, chintzes, and other extensive variety of new and elegant designs, which will be two days before, and mornings of sale, when card copies may be had on the Premises, and at the Auctioneer's Offices, 170, Bishopsgate street, Without.

BISHOPSGATE.—Stock of neat and elegant Paperhangings

MR. EDWIN WHITE will SELL by AUCTION, without reserve, at the SALE ROOMS, 170, Bishopsgate street Without, on WEDNESDAY, OCTOBER 31st, at TWELVE for ONE o'clock precisely, in convenient lots, a stock, consisting of PIECES of PAPER HANGINGS, of the usual description and of modern designs, including some rich French hangings and decorations.—On view day prior and morning of sale, when catalogues may be had.

GENUINE ANTIQUE FURNITURE, &c. GEORGE HOTEL, CONEY-STREET, YORK.

MESSRS. HANDS and SON are favoured with instructions from Mr. Winn, to SELL by AUCTION, on TUESDAY, the 6th day of OCTOBER, 1855, in the ANCIENT STATE DINING-ROOM of the GEORGE HOTEL, once used for the banquets of Charles II. and his courtiers, all the beautiful PANELLED WAINSCOTING of that stately and interesting apartment, with bold projecting cornice, and MAGNIFICENT CHIMNEY-PIECE, the whole in perfect condition, and effectively adorned with elaborate carvings in figures, fruits, foliage, and flowers. A curious STAINED GLASS WINDOW, of the time of Charles II. divided into compartments, containing a heraldic shield, bearing respectively the arms of the king his brother the duke of York, and several of his favourites including Buckingham, Strafford, and Monmouth. The whole of the valuable ANTIQUE OAK FURNITURE of the above apartment, including a magnificent carved oak pedestal sideboard (6 feet), two richly panelled cabinets, large 8-day timepieces, twelve elaborately carved chairs, seats covered with crimson Utrecht velvet, two noble octagonal centre tables, fire-screens, eight oval mirrors, old china, &c. &c. Sale to commence at ELEVEN o'clock in the forenoon. The whole may be viewed on MONDAY, OCTOBER 29th, from ELEVEN to FIVE o'clock. To omit secure this unique and most recent relic of the days of the "Merry Monarch," offers a collection of articles of vertu, combining in a rare degree historic interest with artistic merit, and deserving the attention of all collectors of taste. Catalogues (sixpence each postage included), may be had of the Auctioneers; of Messrs. Hanwell, Auctioneers, Leeds; of Mr. Stamp, Auctioneer, Hull; at the Royal and Bull Hotels, Scarborough; and at the White Hart Hotel, Harrogate.—Office, 7, Bridge-street, York.

50,000 STOCK BRICKS, TO CONTRACTORS, BUILDERS, AND OTHERS.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the BRICKFIELDS, Goose-green, Peckham Rye, on WEDNESDAY, NOVEMBER 7th, in lots, a fine lot of 50,000 capital STOCK BRICKS. More detailed particulars will be announced in future advertisements.—Auction and Estate Agency Offices, 75, King William-street, City, Oct. 26, 1855.

TO BUILDERS, MASONS, &c.—Two Hundred MARBLE CHIMNEY-PIECES, executed in great variety of designs, and manufactured in a superior manner, WILL BE SOLD by AUCTION, by Mr. W. A. OAKLEY, on WEDNESDAY, 31st OCTOBER. Sale to commence precisely at THREE o'clock, and on view the day of sale only. The Sale will consist of the larger class Chimney-pieces, suitable for Mansions, Public Buildings, and Clubhouses. Westminster Marble Company, Earl-street, Holywell-street, Millbank.

SALES BY AUCTION.

REGENT'S-PARK.—TO PIANOFORTE CABINET, AND CHAIR MAKERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, Edward street, Regent's-park, on TUESDAY, NOVEMBER 6th, at TWELVE for ONE, about 600 feet very fine Veneers of Walnut, Spanish and Honduras Mahogany, Sycamore, Beech, American Oak, White and Yellow Batten's, Scantling, Slating Battens, Pantile Laths, &c.—May be viewed the day prior, and catalogues had on the Premises; and of Mr. Lerew, Auctioneer and Valuer, 2, Carlington-street, Hampstead-road.

VALUABLE BUILDING MATERIALS, 15,000 good plain Tiles, 7,000 Pantiles, hip and ridge Tiles, &c. at Widmore, near Bromley, Kent, to be SOLD by AUCTION, by

MR. T. BAXTER, on TUESDAY, OCTOBER 30th, 1855, including large oak and fir girds and quartering boards, coach-house and other doors, window-frames and sashes, stable racks, &c. all laid out in suitable lots.—May be viewed two days preceding the sale, and catalogues had of the Auctioneer, Bromley, Kent.

SCOTTISH EQUITABLE (MUTUAL) LIFE ASSURANCE SOCIETY.
Established 1831.

At 1st March, 1855, the amount of the accumulated Capital exceeded £910,000
And the Annual Revenue exceeded 163,000
The number of Members was upwards of 600
This affords the strongest evidence of the continued prosperity of this institution, and of the immense benefit to the families of deceased members.—For prospectuses and all information, apply to WILLIAM COOK, Agent.
126, Bishopsgate-street, London.

THE ASYLUM LIFE ASSURANCE OFFICE, 73, CORNHILL, LONDON.
Established 1824.

Policies on healthy and diseased lives, at home and abroad, for civil, military, and naval employments.
The office being on purely proprietary principles, no participation among policy holders is involved.
For prospectuses, proposal papers, &c. apply to MANLEY HOPKINS, Resident Director.

EVENING LECTURES at KING'S COLLEGE, London.—On and after MONDAY, OCTOBER 29th, King's college will be OPEN on FIVE EVENINGS in the week for CLASSES in the Holy Scriptures, Latin, French, German, English Language and Composition, Modern History and Geography, Mathematics, Arithmetic and Bookkeeping, Landscape, Figure, and Model Drawing, the Elements of Chemistry, and the Principles and Practice of Commerce.—A prospectus will be forwarded on application to J. W. CUNNINGHAM, Esq. King's College, London; and full information may be obtained at the College from TEN to FOUR daily, and from SIX to EIGHT every evening except Saturday.
Oct. 17, 1855. R. W. JELF, D.D. Principal.

THE EXHIBITION of CRIMEAN PHOTOGRAPHS is NOW OPEN daily, from 10 to dusk, at the Gallery of the Old Water-Colour Society, Pall-mall East.—Admission, One Shilling. Catalogues, Sixpence.

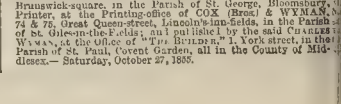
REGENT-STREET.—The whole or a portion of a PLOT of GROUND, about 85 feet by 65 feet, TO BE LET on a BUILDING LEASE, or the CROWN LEASE TO BE SOLD, offering a most eligible site for a concert or lecture room, bazaar, gallery of art, religious or scientific hall, suites of chambers, or other building requiring a first-rate and central position at the west-end of the metropolis. A plan may be seen, and terms obtained, at the Offices of Messrs. RUSHWORTH and JARVIS, Savile-row, Regent-street.

TO BUILDERS.—TO BE SOLD, the CARCASSES of FOUR excellent HOUSES near the Kingston-road, Wimbledon, and may be had a decided bargain, either freehold or on lease. Advances will be made, and the whole of the purchase money may remain.—Apply to Mr. HIGHAM, 76, Farringdon-street.

TO BUILDERS, &c.—An old-established BUSINESS, with a good connection, and in an excellent situation, to be DISPOSED OF, with a comfortable residence, on account of the retirement of the proprietor retiring.—Further particulars to principals, may be had at Mr. ELGOOD'S Offices, 98, Wimpole-street.

TO BUILDERS, DECORATORS, &c.

FRENCH POLISHING done for 7s. 6d. per day, material included, or at your option, the price agreed for. Plain oval handrails any length, anywhere, not more than 7s. 6d. and closets from as each; per square foot mahogany, 6d. By C. HARNETT, 14, Wild-court, Great Wild-street, Lincoln's inn fields.



HAWKINS'S PATENT BRUSH COMPANY.—Manufactory, 17, College-hill, Cannon-street West, London.—Merchants, Artists, and Others, would do well to buy Hawkins's Patent and other Brushes; their superiority in every respect being now established by use. Prices and full particulars can be had, and samples seen, at my Offices as under, or at the Manufactory as above.—Mr. FRANCIS FURLD, 9, Lawrence Pountney-hill, Cannon-street, London, Sole Agent for London and its vicinity.

THE PERMANENT WAY COMPANY, 96, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licence for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to WILLIAM HOWDEN, Secretary.

TO TIMBER MERCHANTS and OTHERS.—The Proprietors of Leith Wharf, Commercial-road, London-docks, offer the most convenient wharf for landing all sorts of English Timber. The Spacious Dry and Drawing Docks, 30 and 40 to 50 Cranes, Sawpits for converting Timber, &c. Freights paid on delivery.—Apply to G. NORES and Co as above.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Brok) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "The Builder," 1, York street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, October 27, 1855.

The Builder,

A JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

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CRYSTAL PALACE.—The ARUNDEL SOCIETY.—On SATURDAY, the 3rd of NOVEMBER, in EXHIBITION of WORKS of ART, the property of the Arundel Society, will be opened to the public in the Industrial Court, adjoining the Music Court. The objects exhibited will consist of—A complete Series of Tracings in Outline, from the celebrated Frescoes by Giotto, in the Chapel of the Arena at Padua; a Set of Drawings from the Chapel of Nicholas V. in the Vatican; a Chronological Series of Specimens of the Art of Ivory Carving in the Early and Middle Ages; and other Illustrations of Art-History.

AT THREE o'clock on the above-mentioned day Mr. DIGBY WYATT will offer a few Observations on the Collection, in the Court in which it will be exhibited.

GEORGE GROVE, Secretary.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-superintendent—RICHARD REDGRAVE, Esq R.A.

Head-Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufacture, and its application to the common uses of life. Special courses are arranged in order to qualify School-masters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The instruction comprehends the following subjects :—Freehand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still life, &c., the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of Chiaro and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE ; Evening, SEVEN to NINE, daily, except Saturdays. Fees 4l. per session, or part of the session. For Evening Classes only, 2l. per session.

The Class for Practical Geometry and Perspective, or that for Modelling and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session,—Advanced Class, 2l. and 4l. ; Elementary Class, 1l. ; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

THE ARCHITECTURAL MUSEUM, Cannon-row, Westminster.—Autumn Session, 1855.

On Monday, November 19th, a LECTURE will be delivered at the Museum, "On Form, Light, and Shade in Architectural Foliage," by J. K. COLLING, Esq. Hour of admission, Seven o'clock. The chair to be taken at Eight o'clock. Cards of admission may be had at the Museum, and at the Office of "The Builder."

The Museum is now open Monday and Wednesday Evenings, from seven till Nine o'clock.

The Annual subscription for Art workmen is 5s. due on the 1st of January in each year.

HENRY CLUTTON, Hon. Sec.

November 3, 1855.

COMPETITIONS.

TO ARCHITECTS, &c.

WANTED, by the West Hartlepool Improvement Commissioners, DESIGNS for a PUBLIC MARKET. A PREMIUM of 20l. will be given for the most approved design. Further particulars will be furnished on application to me, to whom all plans must be sent on or before the 19th inst.

WM. W. BRUNTON, Clerk to the Commissioners.

November 1, 1855.

CONTRACTS.

ORDNANCE CONTRACT.—To BUILDERS.—Notice is hereby given, that Tenders will be received at the War Department, Pall-mall, London, on or before WEDNESDAY, the 21st of NOVEMBER, 1855 from such persons as may be willing to enter into a CONTRACT with the War Department for BUILDING ADDITIONS to HILSEA BARRACKS, near Portsmouth, County of Hants. The plans, specifications, and conditions of contract may be seen, and every information obtained, on application to Mr. HAWKEN, Clerk of Works, at this office, any day (Sundays excepted) on and after the 7th to the 20th NOVEMBER, 1855, and where forms of Tender may be obtained.

N.B. The War Department reserve to themselves the right of rejecting all or any of the Tenders.

Royal Engineer Office, Portsmouth, October 24, 1855.

NOTICE to CONTRACTORS and BUILDERS.—ORDNANCE CONTRACT.—Sealed TENDERS, addressed to the Director-General of Contracts Ordnance Office, Pall-mall, London, will be received until TEN o'clock a.m. of FRIDAY, the 9th NOVEMBER, 1855 from parties willing to CONTRACT for the CONSTRUCTION and ERECTION of SIXTEN WOODEN BUILDINGS, for officers' quarters, mess establishments, and tailors' and shoemakers' shops, at Aldershot, in the county of Hants. Plans, estimate, and specifications and forms of Tender obtained, on application at the Royal Engineer Office, Aldershot, on and after MONDAY, the 5th NOVEMBER, 1855 Tenders to be marked on the envelope, "Barracks," and endorsed "Tender for Wooden Buildings at Aldershot." The Ordnance reserve the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Aldershot, Oct. 31, 1855.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives notice, that sealed TENDERS will be received at the Office of the Director-General of Contracts, Pall Mall, London, on or before THURSDAY, the 13th day of NOVEMBER, 1855, from persons desirous of CONTRACTING for the following WORKS at Sandown Castle, near Deal, viz. :

1st CONTRACT.—For REBUILDING a portion of the MASONRY WALL on the sea face of Sandown Castle.

2nd CONTRACT.—ERECTING THREE GROYNES on the beach in front of Sandown Castle.

Plans and specifications of the works to be executed, may be seen by competent persons, none others need apply, and forms of Tender obtained at the Royal Engineer Office, Walmer, between the hours of TEN and FOUR o'clock, from the 7th of NOVEMBER, to the 14th of NOVEMBER, 1855 (Sunday excepted).

The parties whose Tenders may be accepted for the works will be required to enter into a bond, with two sufficient sureties, jointly and separately, to be bound under a penalty of 200l. for the due performance of such of the Contracts.

Separate Tenders for the above works to be addressed to the Director-General of Contracts, Pall-Mall, London, and endorsed "Tender for Ordnance Works at Sandown Castle."

N.B. The War Department reserve to themselves the right of rejecting the whole or any of the Tenders

Royal Engineer Office Dover November 1, 1855.

EASTERN COUNTIES RAILWAY COMPANY.—The Directors are prepared to receive TENDERS for the SALE of a quantity of OLD STORES, consisting of brass and iron tubes, metal borings, iron and steel scrap, waste paper, &c. The stores may be seen, and forms of Tender obtained, on application to the Storekeeper, at Stratford Works, from the 1st to the 8th NOVEMBER inclusive, and not later—by order.

J. B OWEN, Secretary.

October 29, 1855

CONTRACTS WANTED.—The Directors of the Reform Freehold Land and Building Society invite TENDERS for the CONSTRUCTION of a ROAD, on their estate at Carshalton.—The plan and specification may be seen on application at the Chief Office, 147, Cheapside ; and sealed Tenders to be delivered, addressed to the Chairman of the Survey Committee, on or before the 11th of NOVEMBER next

By order, A. KINTREA, Sec.

London, October 27, 1855.

THE ESTATES COMMITTEE of the CORPORATION of the SONS of the CLERGY will MEET on FRIDAY, the 9th of NOVEMBER next, at ELEVEN o'clock in the forenoon, to receive TENDERS for a BUILDING LEASE for 99 years, of a piece of ground on the north side of Pancras-lane, Queen street, Cheapside. Printed forms of Tender may be obtained of J. C. BAKER, Esq. the Registrar, at 2, Bloomsbury-place, Bloomsbury-square ; of Messrs. HUNT and STEPHENSON, 4, Parliament-street, Westminster.

PUBLIC HEALTH ACT, DISTRICT of HEANOR.—The Local Board of Health for the District of Heanor, in the County of Derby are desirous of BORROWING, under the provisions of the "Public Health Act 1848," upon the security of the rates authorised to be levied under said Act, a SUM of MONEY not exceeding 2,000l. for the construction of Water works, to be repaid by certain annual instalments, with interest. Persons willing to advance such sum, or any portion thereof, are requested to forward Tenders to me on or before the 12th NOVEMBER, stating the rate of interest upon which such advance will be made. By order,

R. BIRCH SPENCER, Clerk to the said Local Board.

Basford, Notts, Last 13th October, 1855.

CONTRACTS.

TO CONTRACTORS.

HEANOR (DERBYSHIRE) WATER-WORKS.—The Local Board of Health for this district are prepared to receive TENDERS for the execution of the following CONTRACTS :—

CONTRACT No. 1.—The Manufacture and Erection of a HIGH-PRESSURE STEAM-ENGINE, BOILERS, and PUMPS, capable of raising 86,000 Gallons of Water 350 feet high in twelve hours.

CONTRACT No. 2.—The Sinking and Steining of a SHAFT, six feet clear diameter, and about ninety yards deep.

CONTRACT No. 3.—The Construction of an ARCHED BRICK SERVICE RESERVOIR, sixty feet square, and twelve feet deep.

CONTRACT No. 4.—The Manufacture and delivery of about five miles of CAST IRON PIPES from two inches to six inches in diameter.

CONTRACT No. 5.—The Supply of the requisite SLUICE VALVES and HYDRANTS connected with the above Pipework.

CONTRACT No. 6.—The LAYING, FIXING, and JOINTING of the above Pipes, Sluice-valves, and Hydrants.

The drawings and specifications may be inspected, and forms of Tender and bills of quantities for Contracts No. 2, 3, 4, and 6, may be obtained on payment of half-a-crown each copy, and other information had, by applying at the Office of Mr. JOHN S. NORRIS, of Nottingham, the Engineer to the Local Board. Tenders will be accepted for any single Contract, but the Board would prefer letting the works to parties tendering for two or more Contracts. The Tenders are to be delivered at my Office in Basford, Nottinghamshire, on or before MONDAY, the 12th day of NOVEMBER next.

R. B. SPENCER, Clerk to the Board.

Basford, Oct. 18, 1855.

GREAT GRIMSBY WATERWORKS and DRAINAGE.—The Local Board of Health of Great Grimsby desire to receive TENDERS for the CONSTRUCTION of WORKS for supplying the town with water and for draining the town. The work required to be done consists of supplying and laying upwards of 10,000 yards of cast-iron pipes, making and fixing a pair of engines and boilers, and wrought-iron tank ; building tank tower, engine-house, boiler-house and various other work, according to the drawings and specification which may be seen at the Office of the Surveyor to the Local Board of Health, from the 24th of this month to the 9th of NOVEMBER next, inclusive. Tenders are to be sent in addressed to the Clerk to the Local Board of Health, Town-clerk's Office, Great Grimsby, on or before the 14th day of NOVEMBER next. The Board do not bind themselves to accept the lowest or any Tender.—By order,

GEO. BABB, Clerk to the Local Board of Health.

Great Grimsby, October 17, 1855.

LONDON and NORTH-WESTERN RAILWAY.—CONTRACTS for STORES for the year 1856 The Directors are prepared to receive TENDERS for the supply of the undermentioned STORES ; viz. :—

No. of Contract.		No. of Contract.	
1.	Brass Sheet and Tubes for Locomotives.	19a.	Leather.
2.	Iron Tubes.	19.	Lead, White and Red.
3.	Copper.	19a.	Lead, Ingot, Sheet, and Pipe.
4.	Canvas.	20.	Iron, Yorkshire.
5.	Carpets and Rugs.	23.	Ironwork.
9.	Crucibles	24.	Oil, Burning, &c.
10.	Curled Hair.	25.	Oils, various, and Turpentine.
11.	Copper and Brass Work.	26.	Oilcloth.
12.	Colours	28a.	Augers, Hammers, &c.
12a.	Drysaltery.	28.	Tin, Block.
13.	Dosch Trimmings.	30.	Tin, Sheet and Spelter.
14.	Cotton Waste.	31.	Varnishes.
16.	Glass, Plate.	32.	Sundries, consisting of Baskets, Felt, Candles, Soap, Brooms, Pitch, Rushes, Sponges, Hosepipes, Fog Signals, Sieves, Cement, India-rubber, Flannel, Calico, &c. &c.
16a.	Glass, various.	34.	Hats.
17.	Hardware.	35.	Caps.
17a.	Brushes and Pencils.		
17b.	Nails and Tacks.		
17c.	Screws.		
17d.	Gas Fittings.		
17e.	Locks.		
17f.	Lamp Cottons.		
18.	Leather.		

Specifications and forms of Tender may be had on and after MONDAY, NOVEMBER 5, on application, in writing, to the Secretary, Euston Station, London. Forms of Tender for each Contract are printed separately, and parties applying should state the particular Contract or Contracts for which they propose to Tender. Patterns may also be inspected on and after MONDAY, NOVEMBER 5, from TEN till FOUR o'clock, at the Company's Pattern-room, Euston Station ; and any further information required may be obtained on application to the heads of the several departments. Tenders to be sent in on or before TEN o'clock on MONDAY, NOVEMBER 19.

By order of the Directors,

CHAS. E. STEWART, Secretary.

Euston Station, October, 1855.

BRAINTREE CEMETERY.—To CONTRACTORS and OTHERS.—The Burial Board for the Parish of Braintree, in the County of Essex, are desirous of receiving TENDERS for MOVING EARTH and MAKING SEWERS and ROADS at their new Burial-ground. The plans, specification, and contract may be seen at my Office, and at the Office of WILLIAM DAVIDSON, Esq. Engineer to the Board, 26, Great Russell-street, Bedford-square London, of whom further particulars and bills of quantities (price 10s. 6d.) may be obtained. Sealed Tenders, addressed to me, and indorsed "Tender for Cemetery Works" to be sent free on or before TWELVE o'clock at noon on the 13th day of NOVEMBER next. The Board will require approved security for the due performance of the contract, but do not pledge themselves to accept the lowest or any Tender.

A. CUNNINGTON, Clerk to the Board.

Braintree, Oct. 31, 1855

[*For remainder of Contracts see next page.*

CONTRACTS.

TOWN of CARDIFF.—CARDIFF GAS-LIGHT and COKE COMPANY. To BUILDERS and CONTRACTORS.—The Directors of the Company are prepared to receive TENDERS for the BUILDING of a SUITE of OFFICES, and a DWELLING-HOUSE, at their Works, Cardiff. Plans and elevations of the work may be seen, on application to Mr. Lancaster, at his Office, Gasworks, on and after the 20th inst. Sealed Tenders, addressed to the Chairman of the Directors, to be forwarded under cover to the Engineer of the Works, on or before Tuesday, the fourth day of NOVEMBER. The lowest or any Tender not necessarily accepted.—By order, HENRY BOWEN, Engineer.

Cardiff, October 25, 1855.

TO ROADMAKERS, CONTRACTORS, AND OTHERS.

THE BURIAL BOARD for the PARISH of WALTHAM HOLY CROSS, Essex, are prepared to receive TENDERS for LAYING OUT their NEW BURIAL GROUND, at WALTHAM ABBEY, Essex, and FORMING ROADS and DRAINS thereon. Duplicates of specification may be seen at the Offices of the Clerk to the Burial Board, Mr. JOSEPH JESSOPP, Waltham Abbey, and plans at the Architect's Office, Mr. S. HEWITT, Montague-close, Southwark, of whom also all further information may be obtained. Tenders to be sent to the Clerk's Office, on or before MONDAY, NOVEMBER 19, at FIVE o'clock.

JOSEPH JESSOPP, Clerk to the Board.

Waltham Abbey, October 20, 1855.

TO CONTRACTORS.

CONTRACTORS are WANTED for EXECUTING certain REPAIRS to the TIMBER JETTY in the Old Harbour of Holyhead.—Drawings, specification, and conditions may be seen at the Engineer's Office, New Harbour Works, Holyhead, on and after the 1st of NOVEMBER, and TENDERS for the work must be delivered at Somerset House, London, addressed to the Secretary of the Admiralty, not later than SATURDAY, the 17th day of NOVEMBER next.

October 30th, 1855.

TO CONTRACTORS.

CEMETERY CHAPELS.—The Godalming Burial Board having decided on EXPENDING the TIME for completion of their new Cemetery Chapels to the 24th of JUNE next, give Notice that the Works will remain open to competition till TWELVE o'clock on WEDNESDAY, the 14th of NOVEMBER next, up to which time the drawings and specification will be deposited for inspection at the Angel Inn, Godalming. Sealed proposals, endorsed "Tender for Chapels," are to be sent or delivered to Mr. T. WOODS, Solicitor, Godalming; and the Board do not undertake to accept the lowest or any Tender.—Any further information may be obtained of C. H. HOWELL, Esq. Architect, at his Residence, Godalming; or his Offices, No. 14, Dacre-street, New Bridge-street, Blackfriars.

BUILDINGS HEATED by HOT WATER. G. & J. COOPER, IRONWORKS, 123, DRURY-LANE. Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIESS'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation.—To be seen in action at DEFRIESS'S Office, 145, Regent-street, London.

TO IRONMONGERS AND THE TRADE GENERALLY.

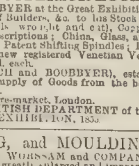
D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on view, and marked in plain figures. Tureenes and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

HOT-WATER APPARATUS, comprising an excellent wrought-iron boiler, horseshoe shape, fitted expansion tubes and about 12 feet of socket pipe, unions, bends, &c., thoroughly adapted to heat a large conservatory or building, will be sold as a bargain.—Apply, A. Stanly Tavern, Kings-road, Chelsea.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler only is in daily operation, heating buildings measuring 500 feet in length, at the small expense per day of 8d. And labour of 8s. This achievement in heating by hot water is unprecedented.

JOHN PARKIN and CO. late BLAKE and PARKIN, NEW MEADOWS STEEL WORKS, SHEFFIELD, MANUFACTURERS of CIRCULAR and MILL SAWS, IMPROVED CAST-STEEL FILES, &c. &c. For the use of carpenters and manufacts. PATENT TEMPERED MACHINE KNIVES and CUTTERS, manufacture, for planing and grooving wood, for cutting paper, iron, stone, leather, &c., to any pattern or dimensions with the utmost exactness. Warranted to work with a harder and finer edge than any other mode of temper.



INVENTORS of CORE-ANNEALED CAST STEEL for taps, pistons, &c. MANUFACTURERS of RAILWAY SPRINGS, BLISTER, SHEAR, and CAST STEEL, &c.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851. He invites the attention of Builders, &c. to his Stock of Iron-mongery, Brass Foundry, Nails wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furniture of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c. &c. 6d. each.

J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufacturers at the lowest prices.

14, Stanhope-street, Hare-market, London.

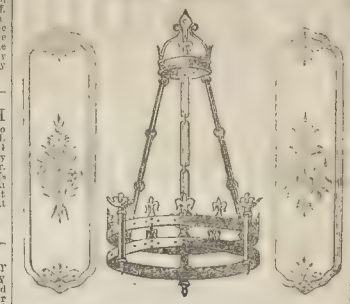
No. 1081, Class 6, Section 16, BRITISH DEPARTMENT of the PARIS UNIVERSAL EXHIBITION, 1855.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORNHAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on Land Machinery cut, steadily, and ready made, so that they can at all times supply orders promptly. S. W. and Co. beg to state that they call particular attention to this sort of machinery, and have had the honour of supplying some of the most distinguished contractors in the world with their Machines for home and foreign use.

THOMAS EDINGTON, PURCHASER and INSPECTOR of CASTINGS on COMMISSION, 17, GORDON-STREET, Glasgow.

HART AND SON,

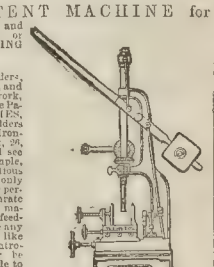
PROPRIETORS AND MANUFACTURERS OF PITT'S PATENT SELF-ADJUSTING SPINDLED DOOR FURNITURE.



GAS STANDARDS, CORONAS, SCONCES, &c.

53, 54, 55, & 57, WYCH-STREET, STRAND.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.



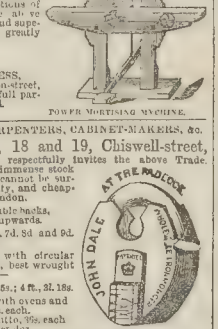
House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 20, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

F.S. Steam Engines and Machinery contracted for.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

PRIZE MEDALS have been awarded to these celebrated Machines both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom by joiners, contractors, coach and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring.

Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.



POWER MORTISING MACHINE.

Sold only by WILLIAM FURNESS, Agent, No. 20, Lawton-street, Liverpool, from whom full particulars may be obtained.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.

Register Stoves, 5id 6d 7d. 8d and 9d. per inch.

Self-acting Ranges, with circular ovens and bank bolders, best wrought bars and bright fittings:—

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 28s. each.

3-feet self-acting ditto, 3l. 10s. 0d.

Air Bricks, 4s. per doz.

Best Town Glue, 8d. Ditto, Scotch, 6d. per cwt.

Best Patent Sash Line.

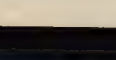
1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.

List of Prices had on application at the Warehouse, or by letter prepaid.

PARAGON ZINC WORKS, Paragon-place, New Kent-road, opposite Bermondsey New road.—JOHN BROWN, Zinc Worker, begs to inform the building trade and the public generally, that he now makes kites, patent ventilating and smoke cans, Albert chimney cans, he having the patentee's permission for the same. Every description of zinc work executed in town and country. Terms—Cash, a liberal discount on large orders. Baths, skylights, sashes, moulded gutters, &c. made to order or drawing.

GREENWOOD'S PATENT INDIA-RUBBER STOPS render Doors, Windows, Show-cases, Closets, &c. perfectly air-tight. Keep out Dust and Draught. Reduced price 4d. per foot. Spring Slides for the bottom of Doors, 1s. each.



J. GREENWOOD, 19, Arthur-street West, London-bridge.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cocks, Bibbs, Rings and Lacquered Case Tube for Picture Rods, Desk Rods, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Long-acre, London.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

20	22	24	24-inch.
28s.	30s.	32s.	34s.

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

24	26	28	32	42-inch.
54s.	56s.	58s.	60s.	80s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivets, 5d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe {	3	3½	3 inch.
	11d.	1s. 2d.	1s. 4d. per yard.

Cast Gutters—4 inch, 9d. per yard.

O G Gutters {	3	4	4½ inch.
	1s. 1d.	1s. 3d.	1s. 3d. per yard

Patent Line {	3	4	5	6
	4½d.	5d.	7d.	9d.

Is. per knot

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.

An extensive stock of bar, rod, hoop, and sheet iron

Brick Moulds kept in stock. Any size made to order.

NAILS and IRONMONGERY, from BIRMINGHAM direct.

Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

LOWEST BIRMINGHAM PRICES a complete LIST of which will be forwarded upon application.

FREDERICK BLYTH, Nail Manufacturer and General Factor, Regent-parade, BIRMINGHAM; or at 16, Gresham-street, LONDON.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby destroying Smoke.

This invention is now in operation upon Steam-engine Furnaces, of Cornish and Wagon Boilers, and upon Ovens. It is adapted to other descriptions of Furnace, such as Marine Boilers, Coppers, Coke Ovens, Bakers' Ovens, Potteries, Chemical Works, &c. Its effect is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

Ten furnaces, of various construction, to which it has been successfully applied, may be seen in operation at the Cement Works of Messrs. FRANCIS, BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY, Nine Elms, London.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Instructions for erecting, with the point and all staples complete for fixing, at on. shilling the foot.

R. S. NEWALL and Co.'s Patent Copper Rope Conductor is being used by Architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne, 13a, Strand, London. 67, Hyde-park-street, Glasgow. 27, Dale-street, Manchester.

AUSTIN'S IMPERIAL PATENT SASH and BLIND LINE, can be obtained of all ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY, Established 1774.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS, THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of UNITING LEAD TO LEAD WITHOUT SOLDER.

Lessen Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

PATENT CORRUGATED IRON.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
4s.	5s.	6s. 3d.	7s. 6d. per gross.

AT JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

J. MICHIE, Engineer and Machinist, Battersea-park, Nine-elms, manufacturer of all kinds of Steam-Engines, Portable and Stationary, Sawing and Planing Machinery, Pumps, Cranes, Grabs &c.

N.B. Several high-pressure Engines for Sale.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE, Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, cast-iron Goods, and STEWART'S PATENT CAST-IRON GAS and WATER PIPES. Office, No. 7, Sise-lane, London.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

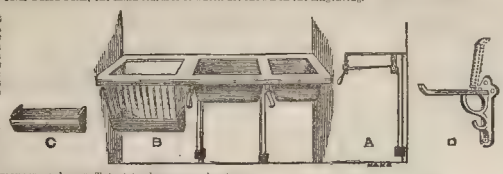
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

...e made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



...t represents the Patent ...iter-guide and Collar-rein, ...shull of which is taken to the ...k of the manger-works with ...dom and easy up or down ... guide-bar, and is noiseless ...te operation, also a sure ...reventative against the most ...ive horse being cast in the ...l.

..., The Patent Portable Seed- ...can be instantly detached ...n the rack without disturb- ...the hay. The saving of the ...l in a clean and useful state, ...ser for agricultural purposes,

...mixing with the food in the manger, is alone sufficient to claim general notice.

... The Seed-box detached, made of galvan...ed sheet iron, is at once durable.

..., The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an ...ject, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, ...rable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers. Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta percha Pre- ...ving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron ...rk for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

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SKAIFE'S GALVANIZING WORKS,

COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

...kaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.—Sheets plain and corrugated.—Roofs fixed complete.

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AND IRON ROOFING MANUFACTORY.

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FRANCIS MORTON AND CO.

...s to inform ENGINEERS, CONTRACTORS, and the PUBLIC that they have increased their manufacture of Corrugated Iron by ... purchase of the machinery and all the working dies of the late firm of Messrs. PORTER, BROTHERS, and STUART, of ...RMINGHAM.

Parties accustomed to use the PARTICULAR SIZES of Corrugations heretofore manufactured by that Firm can be still supplied ...h the same sizes from the same dies.

... FRANCIS MORTON and CO. manufacture now a greater variety of Corrugated Iron either galvanized or black, than any other ...se in the trade, comprising every intermediate size from 3 inches up to 10 inches each corrugation, in all lengths up to about 11 feet; ...h the angular or step corrugation.

...STRONG PLATES CORRUGATED EXPRESSLY for FIRE-PROOF FLOORS, ROADWAYS, BRIDGES, PARAPETS; ...o for ALL KINDS of ROOFING, RAILWAY WAGGONS, &c.

All kinds of GALVANIZED SHEET IRON Gutter, expressly prepared for Tiumen's use; General Ironmongery and Iron Goods ...tock, or galvanized to order.

...The Trade supplied wholesale with Galvanized Water-buckets, Wire, Poultry, and other Netting, of every size; Best and Charcoal ...n, of all gauges; Wove Wire for Ventilation, &c.; Galvanized Water-pipes, Eaves Gutters (plain and moulded), Gas Tubing, much ...aper and more durable than lead, Water Cisterns, Wire Ropes, Window-sash Cords, Signal Carils and Pulleys; Copper Rope ...htning Conductors, with Points and Attachments, complete.

Fencing Wire and Telegraph Wire, in our lengths.

The inventors of the PATENT WIRE STRAND FENCING, which is supplied and erected complete, at per yard.

Wrought-iron FIELD GATES, GATE-Rails, SHEEP HURDLES, and DEER PENNING of every description.

The PATENT ASPHALTED ROOFING FELT, at 1d. per square foot. Dry-hair Felt for Deadening Sound, for Boilers and ...am Pipes, made in rolls 20 yards long, at a greatly reduced price.

Contractors for all kinds of Wrought and Cast-iron FENCING, PALISADES, ENTRANCE-GATES, and VERANDAHS.

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...UPPER and CARR, Contractors and ... Manufacturers of all sorts of IRON ROOFING.

...PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Drawings furnished on application.

Experienced Workmen sent to all parts of the Country.

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...UPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON, ... For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

To be obtained only at

...IPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.

...Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and ...anufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. ...ays in Stock.

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GREAT REDUCTION IN PRICE.

...PLUMBIC ZINC is a perfect combination of Lead and Zinc, and ...t requiring to be more than one-fourth or one-fifth as thick as ...ost Lead, is consequently very much cheaper than that ...terial, and at the reduced price costs but little more than Sheet ...c.

No. 11 gauge weighs about 18 oz. per foot super.			
12	"	20	"
13	"	23	"
14	"	26	"

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JOHN WALKER,

GALVANIZED IRON MERCHANT, &c.—The trade supplied Corrugating by steam power capable of doing 1 ton per day, at the lowest remunerative prices, for bulk.

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Orders to any extent can be executed at his Works, Mill-wall, Poplar. Apply at the Works.

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JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cheapness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

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IRON BUILDING AND ROOFING WORKS,

GAS STREET, BIRMINGHAM.

LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process)

WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description, equal in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

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Dowgate Dock, Upper Thames-street, London, and Packerville Works, Birmingham.

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets.

PLAIN or CORRUGATED, and Cresting, Finials, &c.

Manufactured work always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Pipes, Oval and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

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SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from Bolt-court to 109, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, schools, lodges, lamp posts, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any gauge on the shortest notice.

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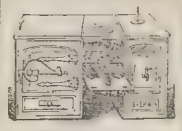
CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's. JONES and BRANSON, most grateful for all favours to their STOCK of PATTERNS, beg to call to the Trade that they can now supply them with Plain or Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Stoneware Panels, Iron Staircases, Trap Doors, Area Plates, Lamp Standards, Cast Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wood Patterns, &c.

BARRIES' OVEN Works, Force Backs, and Treacles, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

IMPERIAL IRON FOUNDRY, and ECONOMIC RANGE MANUFACTORY.



Three ft. wide	£6 10
Three ft. three in.	7 0
Three ft. six in.	7 15
Three ft. nine in.	8 5
Four ft.	11 10
Four ft. six in.	12 12
Five ft.	14 14

Coupings, per foot, Three-pence, per foot

This valuable KITCHEN RANGE, the Most Useful Invention of the present day, is now in use in many hundreds of houses in the several years, and given the most satisfaction. It may be used either with the fire open or closed, thereby enabling the cook to roast in front, and at the same time set all the fire at all times shut up, which is well known to generate a close unwholesome vapour.

The Prize Medal and Honourable Mention was awarded to this Range at the Great Exhibition of 1851.

To be seen in operation at the Manufactory.

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Castings of every description in Loam or Sand.

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W. R. BARTLETT, manufacturer of Girders, Cabinets, Stable-fevers, Newel and Railing Bars, Purlins, Iron Columns, Pipes, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rickers, Pinions, Engine and Lathe Castings, Force Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

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GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tazza Tops, Wheels, Pintons, Lathes, all Steam-engine Gear, Ranges and Hobs, and Metal. An improved Soot Door, Register Front and Wards.

A large stock of Rain-water Pipes, Plain and O.G. Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

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GLOVERS' IRONWORKS,

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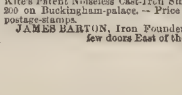
BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.

THIS IS THE ORIGINAL PATENT



for important improvements in stable fittings, including a method of effectually securing the cast-iron bolt-rowels to the back of the fittings, to prevent the horse biting at the metal. Stable Fittings of every description, enamelled or galvanized. All kinds of Stable Furniture in stock; Iron Hurdles, Gates, Fencing, &c. &c. Manufacturer of Rite's Patent Noiseless Cast-iron Smoke Curing Chimney Pots—200 on Buckingham-palace.—Price Lists sent on receipt of two postage-stamps.

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ESTABLISHED 1817.

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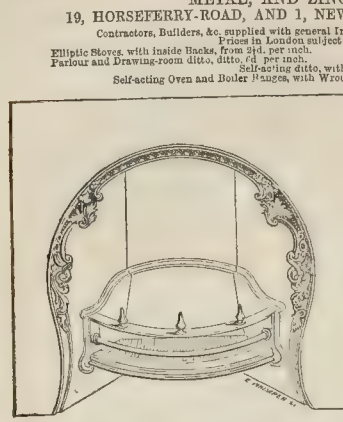
Contractors, Builders, &c. supplied with general Ironmongery at prices equal to all competition.
Prices in London subject to future alterations.

Elliptic Stoves, with inside Backs, from 24s. per inch. Bedroom Register Stoves, from 5d. per inch.
Parlour and Drawing-room ditto, ditto, 6d. per inch. Cottage Ranges, with Oven or Boiler, 22s. each.
Self-acting ditto, with ditto, from 35s.
Self-acting Oven and Boiler Ranges, with Wrought Fittings, &c. complete, from 45s. each.



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1¼ in.	1½ in.	2 in.	2½ in.	3 to 6 inch.
16s. 6d.	16s. 6d.	15s. 6d.	15s.	14s. 6d. per cwt.

Best Sheet Cut Floor Brads..... 14s. per cwt.
" Hoop ditto..... 13s. 6d. "
" Cut Lath Nails..... 16s. "
" Zinc Slate ditto..... 40s. "
" Copper ditto..... 1s. 6d. per lb.
Very superior Glue..... 47s. per cwt.
Best ditto, suitable for any purpose 53s. "

RAIN WATER CASTINGS, per yard.

Sizes—2 in.	2½ in.	3 in.	3½ in.	4 in.	4½ in.	5 in.
Rain Pipes.....	11d.	1s. 2d.	1s. 4d.	1s. 8d.	2s.	
Half-round Gutters.....		8d.	8d.	9d.	1s.	1s. 2d.
O G Gutters.....		1s.	1s. 1d.	1s. 2d.	1s. 5d.	1s. 8d.
Ditto, with plain clips cast on.....		1s. 2d.	1s. 3d.	1s. 5d.	1s. 6d.	
Ditto, ditto, with Lion ditto.....		1s. 3d.	1s. 5d.	1s. 7d.		
Ditto, ditto, deep pattern, 6 inches.						

Heads, Shoes, and all the usual Connections to Pipes and Gutters at similar rates.

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Furnace Pans..... 12s. "
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A large Stock of Elliptic and Register Stoves, and Kitchen Ranges, at the lowest wholesale prices.

TERMS—NETT CASH.

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THE IMPROVED CHIMNEY-COWL,

MANUFACTURED OF MOREWOOD AND ROGERS'S PATENT GALVANIZED TINNED IRON, JAPANNED STONE COLOUR.

Combines a perfect and ready action, with facility of sweeping and freedom from noise; and the working parts being wholly contained in the Dome Top, impervious to Smoke or Weather, it is not liable to become out of repair, and effectually prevents the annoyance experienced in gusty weather, or where the Chimney is subject to the Eddies produced by a higher building. A Lithographed Drawing and Description can be had of

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SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTER'S PATENT WIND-GUARD.—This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

NO CHIMNEY WANTED for RICKETS'S

PATENT CALORIFERE GAS STOVES.

In Churches, Halls, or Shops, and for Conservatories, or any close apartment, a pipe can be attached to carry away the burnt air.

RICKETS'S CHEAP GAS STOVE,

Price, £1. 15s.

Made of Sheet Iron, suitable for Heating small Countinghouses, Bedrooms, Cellars &c. &c.

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Liberal Discount to Builders.

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212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporizing) with all the improvements, under their Quadruple patents of 1849-51-54 and 1855, including their Gunpowder Proof Solid Lock and Door (without which no safe is secure).
THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX 212°, SAFE-WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47a, Moorgate-street, City.—Circulars free by post.

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THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocadella, Dove, St. Ann's, and Serpentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

TO THE MARBLE TRADE.

MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 8, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account, Mr. Thompson being no longer his agent.

Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.

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July 25, 1855. C. AGENEY, Secretary.

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MARBLE and STONE CHIMNEY-PIECES.—WM. HUSTLER, Marble and Stone Sawing Mills, Cambridge-heath, Hackney, begs to call the attention of the Trade to his STOCK of CHIMNEY-PIECES, suited to all classes. W. H. has enlarged his workshops and improved his machinery, so as not only to compete, but is able to sell lower than any other house in the trade.

N.B.—Good marble mason and polishers wanted.

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Marble of all kinds and of best quality, in block and slab. Marble mortars, &c.

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This Granite is selected for the New Westminster-bridge.

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THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

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N.B. Good 2-inch Tooled Paving, at 40s. per 100 feet, cash.

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*** A large Stock of Ornamental Chimney-tops.

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Manufactured by MACHINERY, which produces the greatest degree of fineness.
WILCOX & CO.
Flint Mills, Millwall, near Scott Russell's.
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BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, Kings-cross, London, continue to supply the trade with all descriptions of Marble in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

VALENTIA SLATE SLABS.—The Valentia Slate Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Work, Model Prisons, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; and by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag Stone Company and the Llantysilio Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cistern, Chimney-pieces, Baths, Filters, Larders, Mangers, Ridging, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, of the enormous sizes in which they can be obtained, are particularly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of split-faced flags for street paving, &c. can be supplied at the moderate prices.—Prices and further particulars can be had on application to Messrs. JOHN TAYLOR and SON's, 6, Queen-street, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE P. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

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ENAMELLED SLATE.—REDUCTION IN PRICE. Mr. MAGNUS having completed some new machinery, is enabled to announce a further reduction in price on the shape of a large and increased discount to the TRADE. The best goods are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave-place, Pimlico.

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ENAMELLED SLATE CHIMNEY PIECES, of elegant designs and superior workmanship, great variety, at prices from 21s. to 10 guineas. Slate Cisterns to any size. J. HOWELL, Manufacturer, 5, Cook's-ground, King's-road, Chelsea, Middlesex.

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ARE CHEAPER, MORE SECURE, MORE DURABLE, AND HAVE A BETTER APPEARANCE THAN ANY OTHERS.

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LEGENDRE, TURPIN, AND CLARK

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131, UPPER THAMES-STREET, LONDON-BRIDGE.——WORKS: SEVRES, NEAR PARIS.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

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FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps. Water-closet Cocks and Plumbers' Brasswork. Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at THOS. MILLINGTON'S Warehouse, 67, Bishopsgate-street, London. Established more than 100 years.

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J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock. By enclosing a postage-stamp, a full list of prices will be returned. Workshops, 109, Broadwall.

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WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 3, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 8d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 3s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

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DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR RAYMOND JARVIS, Bart., VENTNOR, ISLE of WIGHT.—Second Testimonial.—March 19th, 1852.—In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

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Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

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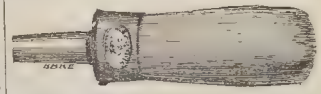

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PLAN FOR THE CURRENT YEAR.

THE LIST IS NOW OPEN, AND EVERY SUBSCRIBER OF ONE GUINEA WILL BE ENTITLED TO—

I. An Impression of a Plate, by J. T. WILLMORE, A.R.A. from the original important and well-known picture by Sir EDWIN LANDSEER, R.A. and Sir AUGUSTUS CALLCOTT, R.A. "HARVEST IN THE HIGHLANDS;" and

II. The chance of obtaining one of the Prizes to be allotted at the general meeting in April, which will include—

THE RIGHT TO SELECT FOR HIMSELF A VALUABLE WORK OF ART FROM ONE OF THE PUBLIC EXHIBITIONS.
STATUETTES IN BRONZE OF HER MAJESTY ON HORSEBACK, by T. THORNEYCROFT.
COPIES IN BRONZE, from an original Model in relief by J. JEFFERSON, of "The Entry of the Duke of Wellington into Madrid."
STATUETTES IN PORCELAIN OR PARIAN.
PROOF IMPRESSIONS OF A LARGE LITHOGRAPH, by T. H. MAGUIRE, after the original Picture by W. P. FRITH, R.A. "The Supper Scene," from Molière's "*Bourgeois Gentilhomme*."

The Prints of "Harvest in the Highlands" will be ready in February next. A subscription of Ten Guineas entitles to a Proof of the Plate, before letters, on India paper, and Ten Shares in the distribution of Prizes. A subscription of Five Guineas, to a lettered Proof on India paper, and Five Shares.

The Prizes consist of the right to select, by the Prizeholder himself, a Work of Art of the value of Ten Pounds to Two Hundred Pounds or more, from the Public Exhibitions of the current year, under certain regulations; also of Statuettes and other Works in Bronze, Iron, and Porcelain, produced expressly for the Society, and of Impressions of Fine Works engraved or lithographed solely for distribution as prizes. A General Meeting of the Members is held on the last Tuesday in April, at which the Prizes are publicly distributed by lot, by two ladies then chosen, and each Member who gains a Prize receives intimation of it by the same night's post. The Council select Works of Art for such Prizeholders as desire it, and for all those residing in distant parts of the world who may not have delegated the selection to friends in this country.

444, West Strand, Nov. 1, 1855.

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LEWIS POCOCK, } *Secretaries.*

LOANS from 25*l.* to 1,000*l.* upon approved personal or other security, repayable by easy instalments, extending over a period proportioned to the amount borrowed. ORDINARY Shares in the BRITISH MUTUAL SUPERANNUATION LOAN ASSURANCE COMPANY. Prospectuses, Tables, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6*d.* each copy. By post, 8*d.*

CHARLES JAMES THICKE, Resident Secretary.

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The Builder.

VOL. XIII.—No. 665.

WE continue our contributions to the History of Modern Architecture.* In 1810, the continuation of Cologne Cathedral appeared to Boisserée a desired object, which it would be hopeless to realize,—or, except "under the special favour of a mighty prince, and the auspices of a long and happy peace." But, in 1814, the event seemed possible: the French were no longer in Cologne, and the Rhenish provinces were attached to Prussia. Projects for all kinds of public works were entertained. But, although a loud appeal was made to defer everything in favour of the completion of the cathedral, the spirit for restoration and for revival in one class of art-works, had yet to reach its development. Boisserée, however, was not idle, and good fortune befriended him.

A scene-painter happened to be engaged at an inn at Darmstadt in getting up a decoration for a festival. He discovered, nailed on a stretcher, so as to be used for the purpose of drying beans, a piece of parchment, 13 feet by 3 feet 2 inches, on which appeared, and in good condition, a well-executed drawing. It was, in short, the original design for the northern tower of the cathedral, including the whole spire and the greater part of the western front. Boisserée was at once informed of the discovery, and was able to secure the valuable document. But this was not the only discovery. In Willemin's "Monumens Français Inédits," the publication of which commenced in 1806, there is a plate representing a great western window, with the name Peter Van Sardaam below. Boisserée found that this window so far corresponded with the Cologne design, that he wrote to the editor of the work in Paris—though, it would seem, only under the idea that some general information might be afforded him as to the Cologne school of architecture, and the name Van Sardaam. It turned out that there was a large drawing in the editor's possession, from which the engraving had been taken, the name having been appended to the latter by the editor, without any authority. This drawing Boisserée purchased, and was delighted to find that it was one showing the *southern* tower of the cathedral,—being, in short, the fellow drawing to the one he had already acquired. The second drawing was not in good condition, and a name upon it, which might have been that of the architect, was too much obliterated to be deciphered. With this drawing were too smaller ones, showing part of the choir. The first disappearance of the drawings is fairly chargeable to the French, during their occupation of Cologne, referred to in a former article.

Again, however, years elapsed, and the crane which had stood for centuries on the unfinished tower, fell down. The feeling of veneration which appears to cling to all who dwell under the shadow of a great cathedral, extended even to this long-disused piece of mechanism; and the erection of a new crane at Cologne, was the first practical inauguration in Europe of the spirit of architectural *restoration*. This was in the year 1819; and such was the importance of the event in the eyes of the people of Cologne, that a history of the town, published in the following year, is dated, "1820, the year after the erection of the new crane upon the tower of the cathedral."† The Crown Prince of Prussia shortly afterwards visited the cathedral, and took so much interest in the building, that its condition was reported upon, and money voted for the roof and other seriously defective parts. The Prussian finances, though barely reinstated after the difficulties of the war, at once contributed a sum equal to 18,000*l.* with which the works were commenced in 1824. Whilst these were going on, further calculations were made as to the sum required to repair the whole building. It then appeared that an amount equal to 65,000*l.* in addition would be wanted,—thus making the whole cost of *repairs*, 83,000*l.* At this, the government hesitated, and would have abandoned the remaining works, but for the urgency of the archbishop, appointed to the restored see; who also contributed to the defrayal of expenses, by a revived tax on marriages, baptisms, and burials. The requisite provision appearing to be made, the works were commenced, and lasted during twelve years. They included every description of structural and decorative work, as the securing the roof and walls, the rebuilding fourteen of the great buttresses, pinnacles, and flying buttresses, and the repairing the remainder; the renewal of the tracery of the choir windows, 54 feet in height (all these requiring extraordinary care and skill); the repair and restoration of all ornaments; the cleaning and repair of the stained-glass, and the decoration of the interior in colour. During this time one project was put forth by the city for the completion of the whole building, by levying a tax of seven *pfennings* per head *throughout Germany*; and another (which was at one time about being acted upon), by an architect, who must surely have been cousin-German to him who "restored" the nave of St. Saviour's, Southwark,—the proposal being to dispense with the buttresses and pinnacles, putting larger piers within, and supporting the roof, as it is said, by iron shafts instead of stone groining, all ornaments being left *en bloc*. That project was stopped by the death of the architect in question. Still it was desirable to complete the cathedral; and notwithstanding what had been done, it appears that the choir was considered somewhat unsafe without the support of the portion adjoining, as intended in the original plan. The appointment of Herr Zwirner as *Dombau-meister*; the succession of the Crown Prince to the throne; the seizure of the opportunity to raise the enthusiasm of the German people; the formation of the *Dombau-Verein*, or Cathedral-Building Society; and the petitioning of the new sovereign on his coronation in September, 1840, and the eventual prosecution of the work, are matters which might form an interesting story; but would lead us to dates somewhat more recent than those to which we would just now make reference. That however, to which we wish to draw attention, is the steady growth in Europe, of this desire of "restoring" architectural monuments. We have given the cathedral of Cologne, as an instance; but a similar spirit was at work in France, and at our own cathedrals. It is true, that for many years, either proper professional knowledge was wanting, or it did not occur to the guardians of fabrics how important it was to make a wise election as to such assistance. But, the desire was growing; and in certain cases, the common mason of the fabric made his work a labour of love; and the enthusiast who is ever to be found, the student of that only pile, kept jealous watch and ward over the hazardous duty of the "restorer." That such veneration for one work of mind should grow into the nature of a man, is no more to be wondered at, than that others should devote their lives as many do, to the study of a single poet, or other author; and that the fact as to many of the great cathedrals is as we put it, we think will be known to any one who has spent much time about those structures. The fine work of G. and L. Kreutz, on St. Marc's, at Venice, is one of the results of such veneration; but at home, Halfpenny's book on the Gothic Ornaments in York Cathedral, published in 1795, is an equally suitable illustration. At York, the restoration was wholly consigned to the mason; and as the work of a time when little attention generally was given to Gothic details, it must be considered as very successful. At Henry the Seventh's Chapel also, the works by Gayfere were well executed; though the stone was a most unfortunate selection.

Returning to the progress of modern Germany in art, the love of archæological research to which was due the growth of the spirit of *conservation* and "restoration," was not limited in its scope and its results to mediæval art. No nation has contributed more to our knowledge of Greek antiquities than have the Germans. The architect Klenze himself is known to have paid great attention to this branch of archæology, and though some of his own works may be more nearly reproductions of antique forms than such efforts should be with us in future, he has offered ample proof—though with the work of Elmes at Liverpool, it may not now be needed in England—of the possibility of combining the results of such study with breathing art. To Schinkel, and Klenze both, belongs prior claim to praise which has been accorded to Elmes—that of having afforded a triumphant vindication of the ever-living power of Greek art. With them the knowledge of such art neither stopped with the mimicry of a few forms, nor did it interfere with invention and design. Concurrently, however, with the growth in Germany of a new and worthy school of ART in architecture, was the gradual progress of the revivalism which has been alluded to, and these several forms of development,—archæological research; conservation and restoration of monuments; and reproductive imitation—each ranging over several different styles—should be fully comprehended as facts, before entering upon the study of the extraordinary state of architecture which succeeded both in England and Germany.

The quarterly organ from which we derived some of the particulars of the Cologne restoration, in another number, says,—"We must own to being sceptical about revivals in general;" and alluding to the comparison of Raphael Mengs with Raphael of Urbino, and to other circumstances, proceeds:—"It is not for us, however, to wonder with a kind of contempt that such revivals should have been hailed and followed by the hope and faith of the generation to which they belonged. Men's minds are too full of satisfaction at what is aimed at, to be fair judges of what is done. They are too warmly possessed with the praiseworthiness of the effort, coolly to estimate the value of the result; and it is only when the halo of such an enthusiasm has passed away, and the works are seen by their own unassisted light, that the world can pronounce whether they are real or sham. Then comes the reverse, as in the nature of things must be—what they pretended to be, from being their greatest virtue becomes their greatest sin, so that scarcely what they really are has a chance of being valued at its proper worth." Though the writer is speaking of a period so recent as the year 1846, the same spirit, as we have shown, had been growing from a date much earlier, so that we may with advantage proceed with the quotation:—"In such a mood of deification are the Germans now. They see the highest objects striven for with the most fervent zeal. They see men of intellect, education, and goodness devoted to the art; not from the thirst of gain, vanity of display, or ambition of fame, but, as much as in human nature lies, from the pure love of art itself. They see academies founded, exhibitions opened, public works carrying on; in short, all the outer paraphernalia of a great artistic period,

* See p. 491, *ante*.

† "Quarterly Review." No. CLVI. October, 1846. "The Cathedral of Cologne."

and believe, as is most natural, that great artists must be at the bottom of it. This we believe also in part, though by no means in their power of judging them; we believe that there are men of great capacity and fine feeling among these German painters, but we doubt whether there be one, who will occupy the same place in the judgment of posterity as in the enthusiasm of the present day.* Those who would pursue the inquiry into this branch of our subject, may do well to consult the work of Count Raczynski, "Histoire de l'Art Moderne en Allemagne."

The revival referred to was a national and general one, acting primarily through the poetry and literature of the German people, aided, doubtless, by the pride of recovered liberty. The long habit of resorting to French taste was eradicated, partly because on open sore on that side was still rankling, but more, because the German history and mythology presented really, materials in which native art might produce works to rival the antique. The German-Greek, to which we have referred as the most valuable of the styles of architecture which came into use of course exhibits this spirit in a less degree than the general arts of poetry, painting, and sculpture: but it nevertheless—whilst seizing that attribute of the old Greek to which we have said too little importance has been attached, in England—elevated the character of the architecture, by making those sculpturesque accessories in unison less with Greek than with Teutonic history and associations. Still the revivalism extended in architecture far beyond that of the field of Greek archæologists, and even beyond the Mediæval and German associations which had grown up,—and of this tendency the State of Bavaria was shortly to present a most remarkable exemplification. The revived Gothic of Germany, however, we confess ourselves unable to appreciate.

* "Quarterly Review," No CLIV. March, 18[illegible] "Modern Germ a Painting"

HERALDRY IN ITS CONNECTION WITH ARCHITECTURE.†

From the very earliest periods in the history of mankind, of which any authentic records remain to us, we find it to have been a usage universally prevalent, for both individuals and communities to be distinguished and known by some *sign*, *device*, or *cognizance*.

On many occasions the use of some such distinctive insignia would be not desirable merely, but actually necessary. Thus, in the ratification of important documents, whether of a public or a private character, it would be requisite for the contracting parties to be provided with seals, which, both at the time then present and throughout all time to come, might appear as their corroborative witnesses. Again, the seal or signet of a potentate would form a peculiarly expressive as well as a most consistent symbol of high trust or of delegated authority. The same device with which the seal would be charged would also provide a ready and appropriate mark for various articles of property, as it might be employed for purposes of decoration and adornment. And then in war—that terrible condition of human life, which occupies so prominent a position in the history of past ages—some modification of the device of the chief would naturally be adopted by his followers, as being at once a token for mutual recognition and a sign of community of feeling and purpose; while the presence of the chief himself would be indicated by the display of his cognisance about his own person upon his dress, his armour, and his shield, and also upon some banner or ensign which might be raised aloft, and so be seen and distinguished from afar. In process of time, certain devices would be naturally invested with national as well as with personal symbolism: they would be held to express the sentiment of a people's nationality with no less significance, than to denote the individuality of certain personages and the succession of particular families.

† Read at the Architectural Museum, Canon-row, Westminster on Monday evening, October 1st, 1855, by the Rev. Charles Boutell, M.A.

The idea of symbolical expression appears to form one of the component elements of the human mind in its present condition. Through the agency of such figurative imagery, the mind is able both to concentrate a wide range of thought within a very narrow compass, and to give to the whole a visible form under a single image. Thus can the mind speak to the eye, each word being an ample volume; it can by such blazonry convey not only a multiplicity of definite impressions, but it is also by this means empowered to combine the imaginative with the real, and, while extending its speculations beyond the bounds of ascertained verities and actual facts, to impart a definitive character to the visions of the imagination.

The mind of the Oriental, which, in its entire scope of thought and tone of feeling, sympathizes after so remarkable a manner with the gorgeous aspect of nature in the East, and with the lavish profusion in which she there pours forth her treasures,—the mind of the Oriental would feel it to be as a primary impulse, to embody (or, at least, to indicate) under symbolical devices its fantastic reveries and shadowy imaginings: nor would the facts, the incidents, the experiences, and the manifold circumstances of actual life, be destitute of their particular symbolism. Symbols would, indeed, be a natural language with the Oriental; and by the Eastern sage in symbols would that language be written.

Accordingly, while we must admit a tendency to symbolism to be, to a certain extent, inherent in mankind in general, many of the most striking forms, both of symbolical thought and expression, were unquestionably derived by the nations of Europe from that wonderful people who, from so remote a period, were established in the valley of the Nile. Greece was the channel by which Egypt transmitted her symbols and her arts, hand-in-hand, towards the West. The particular class of symbolical devices with which we, on this occasion, are specially concerned, so far as relates to their use by ourselves in common with the other nations of Western Europe, certainly have their origin from the East. Such heraldry as might, with scarcely any modification, have been adopted by the warlike followers of Richard of the Lion's Heart, appears, nearly 500 years before the Christian era, amongst the Greek chivalry whom Æschylus has gathered in hostile army around the walls of Thebes. The splendid individuality with which the ancient dramatist has invested each one of the seven chieftains who were present at that early siege, owes its effectiveness in no slight degree to the appropriateness of the heraldic bearing displayed upon the *shield* of each, together with the minute exactness with which these several bearings are described.

These ancient Greeks, the orientals of Europe, we may entitle the fathers of European heraldry. At the same time, however (as I have already intimated), the spirit of symbolism appears to have been so far universally diffused, that we find the savage warriors of the "far West" cherishing with jealous care the distinctive insignia of their fathers and of their tribes. Such a general view of the use of these heraldic symbols confirms in a remarkable manner the theory, that they were in the first instance adopted by warriors, and that by them they were considered to have an express association with actual warfare.

There was abundant occupation for every warlike device throughout the stormy period of the Middle Ages. The Crusades then brought the rude yet gallant soldiers of the west into close contact with all that was left in Eastern lands of the refinement (if I may be permitted the expression), both military and social, of earlier times. Amongst other important results of those strange and strangely romantic enterprises, were great changes in the weapons and armour of the Western chivalry; and these changes were accompanied with the introduction of an infinite variety of armorial devices. The use of defensive armour, indeed, rendered it necessary for each warrior to assume and wear some personal cognizance, without which he could not have been distinguished. *Crests* were for this purpose placed upon basinets and helmets, and both the rich *surcoats* which the knights wore over their armour, and the *shields* which so long formed most important components of their defensive equipment, were emblazoned with some device,—whence the heraldic phrases, "*Coats of arms*" and "*Shields of arms*." These devices, thus used, partake in the ideal attributes of all symbols: they are, however, directly, and in a peculiar manner, associated either with individuals, families, or the community at large, so that they may be considered after a definite method; their varieties readily admit of classification, their characteristics may be clearly elucidated and fully set forth, and they may be subjected to certain general laws, and treated as forming a system in themselves. This classification and description, and these general laws we unite with the devices or insignia themselves, under the common title of heraldry.

I am now to make some remarks upon the *application of heraldry to architecture;* in so doing, I shall first point out certain conditions under which heraldry appears to have been applied to *their* architecture by the great mediævalists; and secondly, it will be my endeavour thence to deduce some practical inferences for our own guidance in the use of heraldry in architecture by ourselves, for such I consider to be the proper object of all lectures delivered in our Architectural Museum,—that is to say, they ought at least to aim at producing some practical results, having a direct bearing upon our own study and practice of architecture.

Heraldry, as we now understand that term, appears to have rapidly attained to a complete organization amongst the nations of Western Europe, and to have been recognised by them as a distinct science.* It was admirably suited, both to the peculiar requirements of the feudal system, and to the prevailing sentiments of the age in which it arose. It at once defined and maintained the distinctions of right, usage, and pretension, when these very distinctions were held to be matters of primary importance, and the observance of them was rigidly enforced. Combining in itself the indefiniteness of a figurative system with the exact precision of specific forms and inviolable rules, it was able to impart a fresh lustre of its own to chivalrous deeds, while it assigned to those very deeds their suitable recompense. Thus, in rewarding a valiant warrior with the right to bear and to transmit to all future generations some device which, with an accompanying word, perhaps, or sentence of deep significancy, should indicate his achievements, heraldry enhanced the glory which had been won, in the very act, as also by its peculiar method of securing for it a lasting memorial. The arms of the noble family of Hay (Marquis of Tweedale) are *three red shields* upon a shield of silver. The first of this name, with his two sons, are said to have won a battle through their own personal gallantry; and their three blood-stained shields were thereupon appointed by their sovereign to be borne by them and by their descendants for ever, as their armorial insignia, in token of their having proved themselves in the hour of peril to be the three shields of Scotland, their country. This may probably be merely a mythic legend: still it is one which furnishes an apposite illustration of the feeling which was entertained for heraldry, and also of the impression which heraldry was capable of producing: and, more especially, we here have an instance of the historical sentiment which was associated with heraldic insignia from the earliest period. The three ruddy shields of the Hays were not merely to symbolize their successful devotion in the eyes of the three trusty Scots themselves, or in the eyes of their grateful and admiring countrymen: far from this, they were designed to constitute an imperishable memorial of the men, and of what they had done for Scotland, and of what Scotland thought of them and of their deed. It is when regarded in this capacity, as a handmaid to history, that heraldry is at once so interesting and so valuable. This is also the quality (independently of all external fitness and sympathy) which, without doubt, framed the close alliance between the heraldry of the middle ages and their architecture. *Both* were essentially historical: the two in union rose to become a noble form of history. The

* Heraldry was not introduced into architecture before the Crusades.

architecture was the production and growth of the times in which it appeared: the *heraldry* grew and was developed with the growth and developement of our English national architecture. *Heraldry* symbolized the men who flourished from time to time. *Architecture* gave expression to the prevailing tone of feeling in succeeding generations, and, itself the greatest art, invited its sister arts to associate their several resources with its own.

And *heraldry* would find in the *architecture* of our country both a cordial welcome, and the most valuable co-operation: there would be an inherent sympathy (so to speak) between the strong, expressive redundant naturalness of the *Gothic*, and the singular compound of ideality and fact named heraldry: if the one would rejoice in the ornamental accessories furnished by the other, both would at once receive and impart reciprocal advantages through such an alliance in their historical capacity. The heraldic shield, while commemorating a benefactor, or denoting the influence of a particular family, would add greatly to the effectiveness of the *Gothic* spandril or boss; and the living stone of the Gothic architect would share its own faculties of display and durability with the heraldic shield.

Hence, it is easy to understand how readily heraldry was introduced, with one accord, both by architects and heralds into architecture. Heraldry made architecture more essentially, and exactly *historical*, than it could have become without it; and *architecture* exalted heraldry into a permanent record, and one which should be continually read.

We may estimate the value of *heraldry*, as an accessory to architecture, in an historical point of view, from considering how valuable to ourselves, is a group of shields of arms in an early building, or even a single shield upon some architectural fragment. Such heraldic insignia open a chapter of history before us at once: the well-known devices, and their peculiar method of artistic treatment, combined with the mouldings, or other chisel-work of the Gothic mason, tell their own tale; and this is a tale which, if not in itself complete, points out the way of readily attaining to completeness.

The singular value of heraldic insignia in architecture as exponents of history also becomes apparent in a remarkable manner, by comparing them with inscriptions carved in Gothic friezes, and elsewhere. These inscriptions are almost universally found to be more effective as a felicitous form of ornamentation, than really of much value as records: whereas in a series of heraldic devices, their historical importance is well-nigh sure to take precedence of their high worth as ornaments.

In determining the character of their heraldic accessories, the architects of the Middle Ages appear to have carefully adhered to the laws of the heralds. They thus secured for these accessories the reputation of "true heraldry," and, in so doing, they at the same time maintained their *historical accuracy*, and extended as widely as possible the range of this all-important element in their composition. *The historical capacity of heraldry is indeed measured by the degree of fidelity with which heraldic laws are observed.* Accordingly, in the heraldry of our purest Gothic architecture, we find a careful adherence to the fundamental principles of heraldry as a science. Every "coat of arms" has its own peculiar signification; and all heraldic marshalling (as the combination and arranging of several coats in a single shield, or in a succession of shields, is termed) is designed to contribute, after a certain definite manner, to the historical composition. The quarterings of a shield, and the order of the various shields which compose a group, and even the form of the shields themselves, are all adjusted upon a definite principle. The bearings on each shield are also subject to no less precise regulation: they are (with rare exceptions) restricted to such a device, or to such a composition of devices, as make up a "coat of arms," properly so called, and distinguished from all other cognizances and badges. The shield of arms, as it appears in our Gothic architecture, resembles the shield with its armorial blazonry as actually carried by the Mediæval knight; in the nature of the bearings with which it is charged, and in the fact that these bearings invariably range over the entire field, it also resembles the banner, which was altogether a distinct ensign from the pennon and the standard of the Mediæval chivalry,—distinct in this respect, that it bore the "coat of arms," and that only, and no other device. The "coat of arms" having an hereditary as well as a *personal* character, and being also in many instances invested with much contingent as well as direct symbolism, its historical value differs widely from that of the generality of merely personal badges and such like devices; and, on the other hand, the "*coat of arms*" has in it so much of personal symbolism and of a personal character, *that it requires to be, and it alone can rightly be, emblazoned upon a shield.* Accordingly, in architecture (as a general rule), the "coat of arms" has a distinct individuality of its own: it appears upon a shield, while all other devices, of whatsoever kind, are introduced into architectural compositions either by themselves or in immediate contact with some strictly architectural work,—certainly without a shield.

Deviations from this rule of restricting the shield to the "coat of arms," are very rare in architectural heraldry until a late period of the Gothic; and then the principal exceptions are small shields bearing monograms and merchants' marks,—devices, it may be added, which were designed to appear in the place of "coats of arms," when more regular heraldic blazonry was not obtainable. I may also here refer to the introduction of the symbols of the Crucifixion upon shields: shields with these remarkable bearings—the ladder, hammer, nails, spear, scourge, hyssop, the seamless garment, the dice, the crown of thorns, and the cross itself, frequently appear in late work; they were usually designated the "Arms of the Passion."

In *Monumental Heraldry* (the heraldry of monuments, which are most intimately connected with architecture itself) the same rule with reference to the shield generally obtains; but here the shield is occasionally seen charged with a personal device, as distinguished from the coat armour. Such cases, however, are strictly exceptional; and they appear almost exclusively in monumental compositions, which include in their heraldry the personal devices of royal personages.

The panels which surround the noble tomb of the Black Prince, in Canterbury cathedral, each contain (within their often-repeated cusping) a shield of arms in enamel; and these shields alternately bear the paternal "coat of arms" of that illustrious son of England,—the lilies and lions quarterly, differenced with the prince's own label, and three ostrich feathers. The shields charged with the feathers were introduced into the monument in accordance with the express provisions of the prince's will: the three feathers themselves are golden, and are set separately upon a sable field. This bearing may be considered as a second "coat of arms" adopted by the prince, and as such, it does not form any exception to the rule for the use of the shield.

I may here observe that there exists no authority whatever for the popular legend which derives the three ostrich feathers grouped within a coronet, the distinctive cognizance of the princes of Wales, from the Black Prince, and which asserts that this device was first assumed by him as a trophy and a memorial of Cressi. It is true that the blind old king of Bohemia fell on that day; but it is certainly not more than *probable* that the ostrich feathers afterwards borne by the Black Prince, were emblazoned on the banner of the ill-fated old king, and thence adopted by the victor. The German mottoes borne by the Black Prince with the three feathers, support such a *probable* origin for the cognizance itself; it is also singular that an ostrich was the badge of Anne of Bohemia (grand-daughter of the blind king who died at Cressi), the queen of Richard II. (himself son of the Black Prince), as is apparent in the decorations of the monumental effigy of this royal lady in Westminster Abbey.

The brass to Sir Symon de Felbrigge, K.G. Banner-bearer to King Richard II. (A.D. 1416) affords an example of the introduction of a royal badge upon a shield.* The badge is the shackle and fetter-lock. Besides these two badge-bearing shields and the royal banner, which rests on the knight's arm (an unique example), there are several other shields and heraldic devices of the utmost interest included in the composition of this brass.*

The shield of arms, and more especially in its earliest simple elongated form, always adds greatly to the effect of those architectural members with which it is associated; and this telling effect is due as well to the admirable skill with which the early Gothic architects and masons introduced heraldic shields, as to the inherent effectiveness of the shields themselves. Sometimes the heraldic shields appear as if suspended from their guiges (shield-belts) from the crockets of canopies (as in the brass to Alianore de Bohun, in Westminster Abbey; and in those to Sir Symon de Felbrigge; to Alice de Bryan, at Acton, in Suffolk; and to Lady Tiptoft, at Enfield); or they hang from pateræ which stud a group of mouldings forming a string, or from knots of foliage, after such a manner as to occupy the central area of spandrils; or, in other instances, the guige is passed over small bosses or hooks, introduced for that particular purpose; and then, again, they frequently rest upon the cusping of a spandril, of a panel, or of a three or four foil, or multifoil; or they are placed independently in relief, in similar positions. The deeply interesting architectural tombs of Edward III.; Philippa, his Queen; Eleanor, Queen of Edward I.; of Aymer de Valence; of Edmund Cronchback; of William de Valence; and of John of Eltham; with several others in Westminster Abbey, abound in the very finest examples of all these usages. And the grand series of shields of arms which, in diminished numbers, have survived the ruthless attacks both of wanton destroyers and of time, in the aisles of the choir and nave of the same venerable church, may be studied with the utmost advantage as examples of *architectural heraldry*. They are, indeed, to be numbered among the most precious relics of their class which Gothic art has left for the admiration and instruction of students. These shields are admirable in form; the artistic composition and execution of their charges, are equally worthy of the highest praise: and, they are alike excellent as examples of heraldry of the highest order, and also as illustrations of "heraldry in its connection with architecture." These shields are specially remarkable from the manner in which they are introduced into the architectural composition of the aisle-arcading: they are apparently suspended from *two* guiges, of which one passes over a corbel-head on either side of each shield. (Actual shields were in reality thus suspended by the guige.)

There is one form of introducing heraldic shields into their compositions, in favour with the architects of the closing years of the fourteenth century, and with their successors, which I cannot describe in terms of approbation: I refer to the representations of angelic figures holding shields of arms. However graceful in themselves these figures may chance to be, this duty of heraldic supporters (commonly discharged by some of the animal creation), is altogether inconsistent and derogatory for such forms as we assign to these celestial ministers. Figures of angels may very feliciously be placed, as in positions of watchful tending on their brethren of our race, and more especially in our seasons of extreme trial; but proper feeling must rescue them from every servile office, and from every unworthy association,—from every office, and from every association, at all at variance with our ideas of the angels, and of their mission as connected with ourselves.

The most beautiful examples of such angelic figures grouped with heraldic shields (the angels are here rather guarding the shields than supporting them), are those which fill the cusped circles of the spandrils of the great entrance-doorway (or porch) of Westminster Hall.

* See Rev. C. Boutell's "Monumental Brasses of England," in which work this fine brass is figured.

* A description of the tomb of Lord Bourchier, banner-bearer to Henry V. in Westminster Abbey, was here introduced, together with notices of numerous shields and other examples of heraldic insignia in the same abbey church, and in the cathedrals of Gloucester, Chichester, Hereford, York, Canterbury, and Lincoln. The shields upon the tomb of Eleanor, queen of Edward I. in Westminster Abbey, as also upon her memorial cross at Waltham, were referred to as the earliest known examples of *quartered* arms in architectural heraldry.

The abbey church of St. Alban supplies us with a characteristic example of a shield *held* by an angelic figure:—the shield bears the arms of one of the greatest of the forty, who in succession presided over the abbey of the British protomartyr, Abbot John de Wheathamstede.

The shields which appear in architecture before the close of the fourteenth century, bear witness to the high artistic powers of the men by whom they were produced. The plain surfaces both of the simple ordinaries of arms and of the field in their armorial compositions, are, in very many of these shields, richly diapered with various patterns; and upon a field of such rich and varied diaper, the devices with which the shields are charged are worked in bold relief. Animal forms thus attain to a truly wonderful degree of effectiveness. The cusping-spandrils of the main arch in the canopy of the justly celebrated "Percy Shrine" at Beverley Minster (of which we may congratulate ourselves on possessing casts in the Architectural Museum), have each a shield of arms, which yields in excellence to no other examples of architectural heraldry in existence. The singular beauty of the diapers, and the undercutting which causes the several devices almost to stand to the front of their respective shields, are but imperfectly rendered in these casts, though they are casts of unusual merit. In the originals, the lions, in the royal shield, appear as in the very act of leaping forth with characteristic bounds; while the fleurs-de-lys may be best described as lilies waiting to be gathered. The expression of the lions is also admirable; and it is varied, with the utmost skill, in each individual animal; and these animals are drawn almost to heraldic perfection: they may, perhaps, be a little too much conventionalized, they may have a little too much of the weasel in their proportions, and in their general contour there may be, in a slight degree, too little of the true "Felis Leo" of the veritable lion of Gordon Cumming and the naturalists; but they are first-rate heraldic lions for all that; and this never will be said even of a very fac-simile of the king of beasts, if it be placed upon a shield as an armorial ensign. And so, in like manner, in the case of the other figures. The fleurs-de-lys in the Beverley shield are eminently beautiful; indeed, this elegant device is rarely otherwise, but more rarely still is it *so* beautiful as here.

Each of these shields rests upon an armed figure, which reposes within the cusping: these figures, which, with the other details of this really extraordinary canopy, remain in a condition of almost untouched freshness and perfectness, afford various illustrations of armour of the utmost interest and value, and are themselves sculptured with combined delicacy and vigour.*

SLIPS OF LONDON'S HISTORY.

BLACKFRIARS AND WHITEFRIARS.

Last week Sir Francis Graham Moon, the Lord Mayor, entertained right pleasantly at the Mansion House the "Noviomagians" (an antiquarian and social club, of which our readers have heard something before now), and invited the office-bearers of the Society of Antiquaries and others to meet them. There were Mr. J. Y. Akerman, Mr. Anderton, Mr. Bennoch, Mr. Butterworth, Mr. Alderman Carter, Mr. G. R. Corner, Mr Durham,† Mr. Godwin, Mr. Edward Hawkins, Mr. S. C. Hall, Mr. Charles Hill, the Rev. Joseph Hunter, Mr. Edward D'Anson, Mr. Robert Lemon, Mr. Lott, the Rev. Edward Moon, Mr William Moseley, Mr. Ouvry, Mr. Parry, Mr. Henry Stevens, of Vermont, Mr. Stevenson, Mr. William Tite, M.P. Mr. W. Wansey, Mr. Alderman Wire, and several besides.

To maintain the ordinary character of the club-meetings, some short papers were read after dinner, including one by Mr. Lemon (of the State Paper Office), which is sufficiently curious to lead us to make the foregoing note, and to print the paper entire.

Distinguished as our host has been in his presidency of the first city of modern times, it occurred to me that a note of the abodes of some few of the celebrated personages who passed their lives in quietude and retirement in those parts of London where commercial activity now reigns paramount, would not be unacceptable.

The migration of the citizens westward is a very curious and interesting problem, which I hope some day to see fully worked out by abler hands than mine. Within the compass of two centuries, a race of men have wholly disappeared from the City as inhabitants. In the fifteenth and sixteenth centuries, numbers of the nobility and gentry possessed houses and estates in the City, in which they permanently dwelt—not for the purposes of traffic or commerce, but as independent gentlemen residing in the pleasantest localities they could select. While on the one side the Tower was a royal residence, and on the other, Bridewell was a favourite resort of royalty, and the gorgeous tilts and tournaments of Smithfield were pageants of the utmost attraction, it cannot be wondered at that spots in Cheapside and Cornhill, in the fair lanes leading to the river, and on the banks of the river itself, were eagerly sought for by the followers of the court and the votaries of pleasure.

In arranging the noble collection of State archives under my charge, I have occasionally made a note of the residences of some of the most celebrated characters of the Elizabethan period, and I confine myself to the notice of a few only on the present occasion. Previous to Elizabeth I find that,

In 1548, John Lisle, Earl of Warwick, afterwards Duke of Northumberland, resided in Ely-place, and at the same time Sir Anthony St. Leger, Lord Deputy of Ireland, had his abode in Southwark, at Chamberlain's-wharf in Tooley-street, formerly called from him "St. Leger's-wharf."

In 1549, Sir Edward Wootton had a house in Warwick-lane.

In 1552, Sir Philip Hoby, at the Tower.

In 1556, Sir Roger Cholmeley lived in the Old Bailey; and in 1558, Sir Francis Englefield, then Secretary of State, rusticated in the pleasant paths of Whitefriars.

Coming now to the time of Elizabeth, in the first year of her reign, John de Vere, Earl of Oxford, resided at London Stone itself, so of course he must have been a thorough Londoner.

In 1559, Frances, the celebrated Duchess of Suffolk, lived at the Charter-house.

In 1567, Richard Bertie, ancestor of the Earls of Lindsey, lived in elegant style on his estates in the Minories and the Barbican; and in 1568, the learned John Jewell, Bishop of Salisbury, resided in St. Lawrence-lane. I doubt if the smallest bishop that now exists, even Sodor and Man, would voluntarily prefer living in that locality.

In 1570, Sir Thomas Gresham had Gresham-house, and there very properly, as a citizen, he carried on his immense mercantile transactions, as well as his diplomatic agencies.

In 1571, Lady Eleanor Pelham is found in the Minories; Sir Ralph Sadleir, the ambassador, in Howard-place; and Margaret, Countess of Lennox, the mother of Lord Darnley, at Islington and Hackney.

The Lord Chief Justic Catlyn, in 1572, was fashionable enough to take up his abode in St. Bartholomew's the Great; and in 1576, I find that Sir Walter Mildmay, the Chancellor of the Exchequer, was his next neighbour in the same place. In that same year, Lady Mary Sydney lived at St. Paul's-wharf, Sir Richard Baker in St. John's Zachary, Sir George Peckham at St. Sepulchre's, and Dame Elizabeth Leigh at St. Olave's Jury.

In 1579, a serious affray took place in Fleet-street, between Mr. Edmond Wyndham and Lord Rich, when Wyndham, being nearly overpowered by his assailants, found refuge in the house of the French ambassador, in Salisbury-court.

I will not trouble you with more details of this nature, but proceed at once to read a document singularly illustrative of them, and highly important as to the jurisdiction of the City in relation to the curious localities of the Black and the White Friars. It appears to be a claim made by the resident inhabitants there, for a confirmation or grant of exclusive privileges, and to relieve themselves from the troublesome interference of the Lord Mayor and his officers, whose presence, no doubt, was on many occasions personally inconvenient. The document is as follows:—

> A Note of Liberties as the Inhabitantes of the late dissolved Houses of the Blacke and White Friers do claime to have exempte from the Cittie of London:—

Inprimis.—To be free from all arrestes to be made within the precinctes of the said howses by the maiour or anie officers of the said Cittie.

Item.—No searche to be made within the said precinctes, but by the cunstables, with the assistance of the inhabitantes of the same, at the commandement of the justices of the peace, to be appointed by speciall commission for the same.

Item.—That all artifficers and craftesmen whatsoever (althoughe theie be no freemen of the Cittie) lawfullie to exercise theire trades, misteries, and occupations, without controllment of the maior or other officers of the Cittie.

Item.—To be free from all tenthes and 15ths to be granted as well to the Queene's Matie and of all other tenthes, 15ths, taxes, tallages, coates, and other burthens whatsoever, to be imposed uppon them by the Cittie as hitherto hathe bin accustomed.

Item.—To be free from watches, wardes, juries of enquiries, and others, to be charged within the Cittie.

Item.—To be free from all offices, lawes, statutes, custommes, and ordinances of the Cittie.

> A Declaration of such interest as Her Highnes hathe in the said precinct, with the casualties herunto belonging, together with a petition for the well government of the same:—

Inprymis.—Her Highnes hathe all landes and goodes of traitours and fellons, &c.

Item.—All waifes, straies, escheates, bloodeshedes, fines, amercementes, and casualties whatsoever.

Item.—Authoritie to appointe justices of the peace, bailifes, constables, and other officers within the said precinctes.

And therefore.—Wee, whose names are subscrybed, beinge resiante within the said precinctes, moost humblie beseech Her Matie that it wold please Her Highnes to appointe commissioners of the peace, not only for the preservation of Her Majestie's said interest, but also for the good governement of the said precinctes.

The names of all such persons, as well honorable as worshipfull, inhabiting within the said precinctes, or neere adjoyninge to the same, of which it maie please Her Highnes to make choice of commissioners.

INHABITING WITHIN THE PRECINCTS.

Inprimis — The Earl of Lincoln, L. Admirall of England.	Sir Wm. Morgan.
The Bishop of Wigorne.	Tho. Gorge.
The Lord Cobham.	Charles Morrison.
The Lord Cheynie.	William Moore.
The Lord Lawarr.	Thomas Browne.
The Lord Russell.	Roger Alforde.
The Lord Clinton.	Henry Knoles, senr.
Sir Ambrose Jermyn.	George Haies.
Sir Nicholas Poynes.	Robert Croswell.
Sir Tho. Gerrarde.	Vincent Skinner.
	Frances Kempe.
	Anthony Kempe.

ADJOININGE TO THE SAIDE PRECINCTE.

The Lord Buckhurst.	The Master of the Rolles.
The Lord Chief Justice of England.	The Queene's Sollicitour.
The Lord Chief Justice of the Common Pleas.	Mr. Tho. Fanshawe.
	Peter Osborne.
	Mr. Powle, of the Chancery.

Item.—In eclesiasticall jurisdiction to be subject to the Ordenary of the Diocesse, as we are alreadie annexed to the same by Acte of Parliamente.

Memd.—That the Lord Steward hathe bothe claymed and exercised jurisdiction within the said precinctes in Her Ma^tes^ right.

The order of the presente governement nowe used in the Blacke Friers.

Firste.—Theie have a churche and churcheyarde, founde of benevolence.

Item.—A preacher there maintained by the benevolence of the inhabitantes, whoe every Sonday and holliday preachethe in the said churche, saiethe Divine Service, and every first Sunday in the monethe ministerethe the Communyon.

Item.—A house prepared, also of benevolence, for his habitation.

Item.—The gates of the said precincte are shutt every eveninge, and opened againe in the morninge, and a porter maintained for that purpose.

Item.—A scavenger for the cleane keepinge of the streates.

Item.—The bridges at the Thames and Brydewell ordenarylie kepte.

Item.—A conducte of water for the inhabitantes maintcyned within the saide precincte; whereby theie are not forced to go into the Cyttie for anie water.

* To be continued.

† I fine first of the Queen wearing a mural crown; by this settler, all was exhibited

Item.—Lanterne and light orderly kept, as in the Citye.

Item.—If any house be infected of the plague, the doore is shut up, and a bill set over the same, and a collection made for the sustentation of the infected house.

Item.—A collection monethlie made for the reliefe of the poore, at every communyon.

Item.—If any incontinent person be taken, he or she is punished by carte, and sent to Brydewell, and presented to the ordenary by the churchwardens.

Item.—If anie be disordered, the cunstable seethe him to be corrected; which cunstable is sworn and appoynted by the justices of the verge.

Item.—All victualers are bounde before the justices of the verge for there good order.

(Signed) T. Cobham.
Henry Cheyney.
Anthony Kempe.
Thomas Browne.
Willm. Moore.

Touchinge Ordinances for the Whitefriers.

The inhabytantes there, since the death of the late steward, and the determynation of the commission of the justices of the peace appoynted by him for the governement of the same, duringe which time theie were well governed, beinge often empeached by the maior and other officers of the city, have not of late bin willinge to make suche contribution as were necessarie for the good order of the same. But uppon the determination for the quiet enjoyenge of the libertie, theie will take order as followethe:—

Inprimis; for theire churche, havinge none and beinge for the smale nomber not able to build any, the precincte beinge annexed to the diocese of London, theie will all be bounde to Paules Churche, and there to frequent service and to communycate as the lawes requier.

Item.—Theire gates shalbe orderly shutt and opened at convenient times, and porters appointed for the same.

Also, a scavenger to keepe the precincte cleane.

Item.—Tipling howses shalbe bound for good order.

Item.—Searches to be made by the cunstables with the assistance of the inhabitantes at the commandemente of the justices.

Item.—Rogues and vagabondes, and other disturbers of the public peace, shalbe corrected and punished by the authoretie of the justices.

Item.—A bailife to be appointed for leavienge of suche duties and profittes which apperteine unto Her Matie.; as also for returne of proces for execution of justice.

Item.—Incontinent persons to be presented unto the Ordenary, to be tried and punished.

Item.—The poore within the precincte shalbe provyded for by the inhabitantes of the same.

Item.—In tyme of plague, good order shalbe taken for the restrainte of the same.

Item.—Lanterne and light to be mainteined duringe winter time.

(Signed) Willm. Lawar.
Charles Morison.
Geor. Puttenham.
Tho. Gorges.
Fran. Alford.

There is no date to this curious and interesting paper, but from the signatures attached to it, and the appearance of the handwriting, it must have been as nearly as possible about the middle of the reign of Queen Elizabeth, or about the year 1581. What immediate effect this memorial had does not appear; but it is quite certain that both the precincts of the Black and White Friars enjoyed exclusive, and even dangerous privileges, for nearly two centuries afterwards. According to Maitland, the inhabitants of the Black Friars not imagined, but exercised, a right, independent of the jurisdiction of the City of London, until the year 1735, when it was terminated by an action brought by the City in the Court of King's Bench, and the jury returned a verdict in favour of the City. The exclusive privileges of the White Friars precinct grew to be so dangerous, that they were determined by Act of Parliament in 1696.

It seemed to me this slight but authentic notice of a curious little republic—an *imperium in imperio*—might be interesting as a scene of bygone time, and might even lead us to regret that such scenes were gone for ever. What delight it might be, even now, if a portion of the citizens could enjoy such a pleasant retreat, free from troublesome lord mayors and their more troublesome officers, to have their own exclusive pump, to light up their own lanterns, to dwell where incontinent persons dare not show their naughty wicked heads, or to indulge in the excitement of a cart exhibition, if any such were unwise or unlucky enough to be caught. But all our pleasures are gradually disappearing before the march of reform and the flight of the rail. Hanging is difficult, and even unfashionable.

I will not detain you any longer. The state of society here indicated continued in London throughout the reign of James I.

How the glorious fire of London broke out, and how, thereupon, everybody that could migrated westward; and how streets arose and markets were planned; and how the Lord Mayor opposed all the buildings he could; and how, by main force, he demolished the stairs at the New Hungerford Market; and how he got a sharp rap of the knuckles from the Privy Council for so doing; and how he was obliged to submit, and build them up again:—behold, it is all written in manuscript, in a very large book, from which, some day or other, if I ever have an opportunity, I shall make it more at large appear unto your lordship.

SOME ACCOUNT OF CREWE HALL AND NANTWICH.*

Nantwich is the beau ideal of a peaceful, quiet old English town, carrying the mind back to that golden age when as yet spinning-jennies were not, when the whistle of steam and the roar of the locomotive had never been heard. Its streets are narrow and somewhat tortuous, but clean and well kept. Many of the houses are half-timbered black and white, some with considerable pretence in their architecture. This seems to have been a distinguishing feature of Nantwich in times of old. Master William Webb, in his "Itinerary," written in the reign of James I. thus discourseth thereon: "Whatsoever hath been the causes, or howsoever the inhabitants there have had their invancement, sure I am, there can hardly be found a town merely uplandish as we term it, neither traded unto by waters, nor enriched by any special trades or manufactures, that hath such a knot of wealthy and landed men in so small a compass. . . . . The buildings within the same town are very fair and neat, and every street adorned with some special mansions of gentlemen of good worth; the middle and principal parts of the town being all new buildings, by reason of a lamentable fire which happened there in the year 1583, that consumed in one night all the dwellings from the river side to the other side of the church."

Another beauty of Nantwich is thus alluded to by Master Webb: "It may not seem amiss, though I reckon it not as a note of antiquity, yet (out of my love) to note one lustre of this town; that into the five entrances into the same, which way soever you come, your eye is entertained with a fair, gentlemanly house at the end or entry of the first street every way." There are other towns which might be mentioned in which a similar "lustre" at the principal entrances would be a very desirable acquisition.

The origin and meaning of the name "Nantwich" are obscure, and have given rise to considerable discussion. The good people of the locality find no difficulty in settling the question. Wich, according to their interpretation, signifies, in Saxon, a salt-work, and Nant, in Welsh, a brook or valley. Nantwich is, therefore, the salt-work on the brook, which correctly gives its designation. This etymology is the exact counterpart of the famous one in the "Antiquary," which led to such a keen contention between Jonathan Oldbuck and Sir Arthur Wardour. To say nothing of the absurdity of deriving each syllable from a separate language, we cannot find, after the most diligent research, that *wich* means a salt-work, or has any connection with salt, either in Latin, Welsh, Anglo-Saxon, German, or English. As to the prefix, *nant*, it is of comparatively modern application. Even in the seventeenth century, the town is said to be vulgarly called Nantwich; but in ancient deeds and other writings, Wicus Malbanus, or Wich Malbank.

The true history of the name, so far as it can be ascertained, appears to be as follows. The manufacture of salt in the locality dates from a very remote origin, and there is little doubt was carried on before the arrival of the Romans. By the ancient Britons it was called "Hellath Wen," or the white pit, from the whiteness of the salt made here.

That the Romans formed settlements here is sufficiently proved by the remains of their roads, and other constructions. Amongst the Romans a small collection of houses was called "Vicus," which has been perpetuated in the Saxon termination Wick, or Wich, so common in various parts of the country. The presence of the salt having been the cause of the Roman settlements originally, and of their preservation under the Saxon dominion, seems sufficiently to account for the curious fact that all, or nearly all the places where brine-pits are found, have the suffix "Wich" attached to their names. At the time of the Domesday Survey, the town bore the simple appellation of "Wich." "Erat in Warmundestron hundred unum Wich, in quo erat putens ad salem faciendum. Modo tenet eundem Wich, Willielmus Malbedeng de comite, cum omnibus consuetudinibus ibidem pertinentibus." From this family of Malbedeng, or Malbank, the town received the name of Wich Malbank, which it retained many hundred years. When the present name of Nantwich obtained currency, or how it arose, does not appear. It may possibly be a corruption of Malbank Wich, softened into Bank Wich, but of this each will judge for himself.

Though long the most considerable town in the county next to Chester, Nantwich does not seem to have sustained many vicissitudes. The great fire of 1583 has already been alluded to. "In the year of grace 1617, the British Solomon, James I. vouchsafed," according to Master Webb, "to make this town the lodging-place for his royal person; and after he had for some hours accommodated himself in the house—then his royal court—it pleased him to walk so far as the brine-seth, and with his eye to behold the manner of the well, and to observe the labours of the briners. And after his majesty's gracious inquiry among the poor drawers, of many things touching the nature of the same brine, and how they proceeded to convert it into salt, most princely rewarding them with his own hand, his majesty returned to the court."

The peaceful tranquillity of Nantwich was rudely interrupted during the time of the civil wars, the contending parties having made it an arena of strife. It was taken and retaken several times, but held out stoutly for the Parliament. One Captain Sandford, a truculent cavalier, addressed a letter of summons to the garrison, in which he says, "You see my battery is fixed, from which fire shall eternally visit you day and night, to the terror of your old and females, and the consumption of your thatched houses. Believe me, gentlemen, I have laid by my former delays, and am now resolved to batter, burn, and storm you." Alas, for big words and sounding threats! a few days afterwards, the sturdy roundheads of Nantwich resisted and repulsed the threatened attack, and the redoubtable Captain Sandford was laid low.

During the last two centuries, Nantwich has pursued the even tenor of its way, without much vicissitude or incident. The salt manufacture has dwindled down to a mere trifle, but the town, nevertheless, shows no symptoms of poverty or decay. It is placed in the midst of a fertile district, overflowing with milk and butter, and especially rejoicing in cheese, for which the locality has been famous from time immemorial.

Besides the half-timbered houses already mentioned, there are a few objects of interest which may be briefly alluded to. In the churchyard stands an ancient timber building, now a free school, but originally the common hall of the freemen of the guild. The projecting two-storied porch, a fine specimen of half-timber construction, bears the date of 1611.

The sessions house, situated in the market-place, built over an open arcaded space, occupied as a market-house, was erected in 1720, by King George II. then Earl of Chester. It presents nothing worthy of remark.

There are several sets of almshouses, situated

* See p. 506, *ante*.

near the principal entrances to the town, some of which, erected in the seventeenth century, are worthy of examination for their design and arrangement.

The main architectural ornament of Nantwich is its venerable church, a noble specimen of the ecclesiastical architecture of the fourteenth century. Historically, it appears to have been originally a chapelry under the parish church of Acton, belonging to the Abbey of Combermere, and it is doubtless to this connection that the architectural beauty of the church is owing. Since the year 1677 it has ranked as a parish church. The building is in plan a Latin cross, being the only church of this form in Cheshire, except Chester Cathedral. The nave has four bays, with clerestory and aisles; the chancel three bays; and the transepts three bays, each without aisles. The dimensions are spacious, being 170 feet in length, and 120 feet across the transepts. The principal parts of the structure, most of the windows of the side aisles, the chancel, and the north transept, are of early fourteenth century work: many of the windows have tracery heads of beautiful flowing designs. The east and west windows, and the south transept, are of the fifteenth century, or Perpendicular work, of large dimensions, and well-executed designs. The west window, in particular, has nine lights, and is extremely elaborate. The chancel is very richly ornamented: the buttresses are very bold, with double pinnacles and gargoyles, and the remains of a rich open-work crenellated battlement. The east window has had a fine open-work canopy rising above the battlement of the roof. A small vestry, harmonizing beautifully with the architecture of the church, is projected from the north-east corner of the chancel. A porch, in two stories, projects from the south-western corner.

The clerestory of the nave is of late Pointed design.

The tower rises from four bold piers at the intersection of the cross. Immediately above the roof it takes the octagonal form, the angles being cut off by squinches, and broached up into the plinth of the octagon. The octagonal portion has one window in each face, except the northern one, which is occupied by a stair turret. A buttress is carried up at each angle, finished with crocketted pinnacles. The summit finishes with a crenellated battlement. The tower rises about 100 feet above the soil. Its architecture is in a *later* style than the body of the church, probably after the middle of the fourteenth century.

Internally the nave and transepts are finished comparatively plain. The chancel is very elaborate. The ceiling is vaulted with stone of a complicated pattern, almost approaching fan groining, springing from attached columns in the walls. The capitals and the bosses at the intersections are richly carved. There are richly carved sedilia and a piscina on the south side, and a priest's door under the middle window, of beautiful design.

The chancel is fitted up with oak stalls and tabernacle work. There is a tradition that this work was brought from Combermere Abbey, but its appearance does not justify the statement. It has evidently been prepared for, and fitted to, the place which it now occupies. The workmanship and design are good, but many parts appear never to have been completed.

Attached to the north-east central pier there is a stone pulpit and stair of elaborate panelling, but of late date. A stone balustrade across the chancel archway of similar design seems to have formed the base of the wood rood-screen now destroyed.

The present state of the building is most deplorable. Having been erected, like most of the Cheshire churches, with the friable sandstone of the district, the exterior is frayed by the weather to a lamentable degree. Many of the pinnacles are gone; the rich carved work an undistinguishable mass; the battlements dilapidated, and the tracery scarcely able to hang together. An attempt was made some years ago to restore the south-western angle of the nave, but the work is coarse, and incompatible with the original construction. The interior, though not so much dilapidated, presents an unsightly conglomeration of galleries, partitions, pews, and staircases, in which neglect and disorder are the most prominent features. Above the southern porch is a vaulted chamber containing a library of books, principally the Christian fathers, many of rare and valuable editions. These are allowed to rot and mildew without the slightest care or attention. It is stated, however, that a vigorous attempt is about to be made to clear and renovate the interior, and to restore the exterior to its original beauty. The worthy rector, the Rev. Mr. Cheator, is, we understand, earnestly enforcing the matter upon the Christian liberality of the county, and we heartily wish success to his efforts.*

There are one or two points connected with the proposed restoration which are open to controversy. The gentleman who has been professionally consulted on the subject is probably the highest authority to whom application could have been made, and it is with considerable diffidence that we offer an opinion; but, if we have been rightly informed, a principle has been enunciated in reference to this restoration, which, if acted upon, would, as we think, be fraught with the most disastrous effects to the ancient architecture of this country.

The prevalent style of the architecture of the church, as already stated, is early fourteenth century, or what is usually termed Flowing Decorated. It is proposed, we understand, that the whole of the building shall be restored in conformity with this style, that the clerestory of the nave shall be removed or remodelled, and that the magnificent fifteenth-century west, east, and south transept windows shall be demolished and superseded by new designs of flowing tracery. Against this proposition we beg to enter our earnest protest, and call upon the lovers of ancient English art, and on all who are imbued with the true antiquarian spirit to join us in so doing. What is it which constitutes the value of our ancient architectural remains? Not their mere æsthetical beauty, though that may be great; not the excellence of their workmanship and the mathematical skill displayed in their construction, though these are well worthy of study: it is, as already stated, the history of mind and progress which they display,—it is that they bear upon every line the impress of the age which produced them,—that they are actual and tangible portions of the history of our country: they are part and parcel of that dear old England which we all so much love,—all the better, perhaps, for a few inconsistencies and defects. This charm once broken, the glory is departed, and nothing remains but the mere question of taste and convenience, too feeble, except in special instances, to produce any glow of enthusiasm or affection. But it may be said, why not remove inconsistencies and interpolations, and restore a building to its pristine beauty, in accordance with the ideas and intentions of its original designers?

The question is a wide one, but admits, we think, of a very simple reply. What is meant by restoring a building? Is it not simply the act of taking out the decayed and injured portions, and replacing them by parts identical in design with what they were before? In regard to mediæval structures, the idea of restoration generally includes the removal of any renaissance or pseudo-classical excrescences which may interfere with its unity as a whole. On this principle the extensive restorations which have been in progress in France for some years have been conducted, and with excellent effect. Anything which goes beyond this may be improvement, but certainly is not restoration. Suppose, in the case of the church before us, the building had been constructed with materials comparatively imperishable, would the idea have been entertained for a moment, of destroying any genuine mediæval part of the structure because of any fancied inconsistency in the style? If such a principle could be established, what havoc would be made in our noble cathedrals, which are for the most part histories of the progressive changes from the heaviest Norman to the most delicate fifteenth century work. What difficulties also would exist in the way of substitutions. In the present case, if the large perpendicular windows are destroyed, who is to be the judge of what would have been the design if erected at the time of the remainder? There is no end to the confusion and uncertainty of such a procedure, which would produce a result both false to history and unsatisfactory to the lovers of ancient art. We sincerely trust that such barbarous interference and mangling of our ancient specimens will never be permitted.

J. A. Picton.

* This church is beautifully illustrated in Bowman and Crowther's magnificent work on Gothic architecture, recently published.

CANONBURY CHAPEL, ST. PAUL'S-ROAD, ISLINGTON.

In our last number (p. 516) we gave some particulars of a chapel which has been commenced in Islington, for the Evangelical Nonconformists, by Rowland and Evans, from the designs of Messrs. Habershon. The building has been undertaken by the London Congregational Chapel Building Society, in connection with a local committee; and it is situate in a neighbourhood said to be much in want of accommodation for religious worship.

The committee state, that "the large and rapidly-increasing district of Islington has a population of about 110,000, with church and chapel accommodation for less than 30,000; that is, for little more than one-fourth of the population. That the present number of inhabitants is about twice as great as it was fifteen years ago, and, during that period, very little has been done by all religious bodies for providing increased accommodation for public worship. Only one additional chapel has been erected by the Congregationalists for an additional population of about 55,000 persons."

We may add to our former memoranda, that the height of the building to the apex of gables is 57 feet; the interior height to lantern, 60 feet: the span of the roof is 66 feet. There will be transverse arches at the four transepts, and three large windows and eight clerestory windows. The fittings will be deal, stained. The contract for building and fittings is 3,500*l*. The clerk of the works is Mr. Houghton; the honorary secretary, Mr. T. A. Burr.

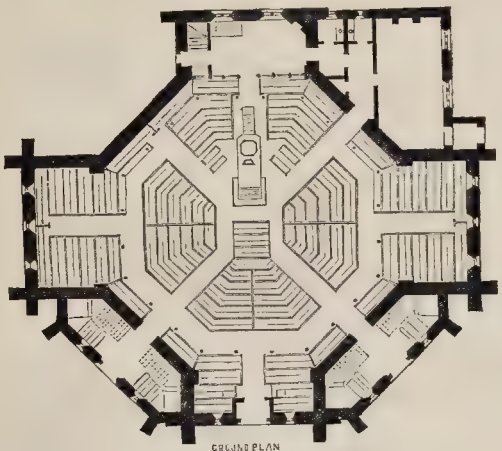
CHURCH-BUILDING NEWS.

Lincoln.—The chief stone of the cemetery chapels was laid on 20th ult. The architect is Mr. M. Drury, and the builder, Mr. W. Huddlestone.

Sudbury.—The reopening of St. Peter's Church, Sudbury, after a restoration, in which the substitution of free chairs for boxed pews presents the chief feature, took place on Tuesday week. The nave, and a considerable part of the aisles, have been furnished with chairs of a light and inexpensive kind, and benches, of a skeleton character, have been placed against the outer walls. The east end of the chancel has been treated with colour on the walls around the window, with a painted reredos beneath it, and a stained glass window of five lights, representing the four major prophets and the four evangelists in the outer lights, with the Nativity of our Lord and an enthroned figure of Him in the centre light, supported by the other eight figures; the gift of Mr. E. Stedman. The organ occupies one of the chancel aisles, and the chancel itself is fitted with choir-stalls of wainscot, agreeing with the old remains. Some colour has been restored on the ceilings and throughout the nave and chancel; and the old font has been in part relieved with gold and colour. The west entrance of the church has been brought into use, and an internal screen, with doors, formed to protect it from the market-place, upon which the church abuts. The funds for the restoration have been provided by subscriptions from the town. Mr. Butterfield was the architect employed.

Aylesbury.—A second painted window, the gift of Mr. Z. D. Hunt, has been placed in the north chancel of the parish church here. The centre figure represents St. John the Baptist, with lamb, cross, and motto. The artist was Mr. J. G. Waller. The new window now being erected in the chancel will shortly be completed: it will also be of painted glass.

Southampton.—The foundation-stone of the new district church of Christ Church, Northam, was laid on Monday before last. The church is to be built by Mr. Joseph Bull, and will be



CANONBURY CHAPEL, ISLINGTON.—Messrs. Habershon, Architects.

capable of seating about 500 persons.—The consecration of the new church of St. John the Evangelist, Rownhams, took place on Thursday before last. The church is situated opposite one of the entrance-gates of Rownhams, in the centre of an extensive piece of ground, presented by Mr. Chamberlayne, and owes its origin, as the *Hampshire Advertiser* states, to the late Major Colt, who bequeathed a large sum for its erection, as well as for the parsonage-house and schools. Some subscriptions have been added to the building fund. Mrs. Colt has invested 2,000*l.* for the endowment. The church is quite finished, and the house and schools nearly so. The church is in the Decorated Gothic style of the middle period: it consists of nave, transept, and chancel, with tower and spire. The exterior of the walls is Plymouth whinstone, relieved with Caen dressing, of which latter the spire is built. The interior open Gothic arched roof is of grained oak; the open pews also of oak. The side windows are all of stained glass, containing many old medallions, consisting of designs from Scripture history in the Mediæval style, worked up with modern glass, by Mr. Ward, of London. The east and west windows are plain at present. The chancel is raised. The pavement of the centre of the aisle is tesselated, and the remainder of the floor is in encaustic tiles. The front of the carved communion-table is of Maltese stone, sent as a present. The architect is an amateur, the Rev. Mr. Grey; the builder, Mr. Pedley. The edifice is heated with hot air. The parsonage-house and school-house, and schools, are of deep red brick, in the Gothic manner. The grounds, which are several acres in extent, are being laid out.

Newport (*Wales*).—The restoration of St. Woollos Church, Newport, has just been completed. Its chief peculiarity arises from the fact that the different portions of the buildings which form the present church, were executed at different periods of time. The portion between the tower and nave, now called St. Mary's, was the original fabric, erected, it is said, by St. Woollos. This appears from the nature and character of the masonry, and its disunion from that of the other portions which lie in contact with it. The present nave, which consists of an arcade for five arches on each side, was next added; and this was flanked, on each side, by Norman aisles. The corbel stones, which supported the roof, are still remaining in the south aisles. Clerestory windows were placed above the roof of the aisles, but these were subsequently diverted from their original

use, by being enclosed in loftier aisles of the Perpendicular style. The windows in these are of large dimensions. The chancel is of geometric date, with many details of interest. The tower was added about the same period as the aisle. The canopied figure is replaced without restoration: it is still doubtful whom it was intended to represent. The gallery in the north aisle has been removed: the west one, which contained the organ, has been taken away; and the rood-loft, which formerly occupied the east end of the house, has given place to a chancel aisle, the effect of which is to increase the apparent length of the church. The roof, which was formerly plastered, has been cased with boarding and rib work, with large carved bosses at the intersections. The old pews have been removed and others substituted. The floor is paved with red and black tiles, and the sacrarium contains a diapered pattern in encaustic tiles. The present church is calculated to seat upwards of five hundred persons, and its restoration has been effected at a cost of about 2,500*l.* The heating is by hot water, and the lighting by gas. The gas standards are of brass, and a corona is suspended from the chancel. The gas fittings were supplied by Mr. Middleton, of Newport. The architects were Messrs. W. G. and E. Habershon, of London and Newport; and the builders, Messrs. Edy, Basford, and Knight, of St. Neots. The staining and glazing were by Mr. James Sanders, of Pillgwenlly. The opening took place on Thursday in week before last. The restoration fund is still short of the requisite amount.

Anglesey.—The re-opening of Penmon Priory Church, Anglesey, took place on 19th ult. after being closed for nearly four years. The church has been restored, at a cost of about 1,180*l.* in accordance with plans prepared by Messrs. Weightman, Hadfield, and Goldie, of Sheffield, architects, and under the superintendence of Mr. T. Ellis, of Beaumaris. The principle adopted in renovating the fabric was, to restore it, as it had come down to this generation; and as the chancel was of the Decorated period, it was restored in that style,—the rest of the building, being Norman, in the Norman style. The chancel has had a new east window of three lights inserted instead of the old one of two lights, and six new windows in the north and south walls; copied from an old window. The walls have been only partially rebuilt. The roof over the old church is new, as well as the gable stones and crosses; and the entire floor of the nave, transepts, and tower, and the chancel aisle, have been laid with polished Yorkshire flagging. The space within the communion rails is floored with encaustic tiles, manufactured by Messrs. Maw and Co. Against the east wall are two tablets, containing the Commandments—painted in ancient letters, by Miss Owen, of Trefdraith; the joint gift of herself and sister. The chancel end of the church is occupied by open benches, all free: the rest of the church is unencumbered with seats, excepting some moveable benches. The corona, branches, and sconces, were furnished by Messrs. Hart, of London. The north transept, which had been levelled, has been rebuilt on the old foundation, discovered in excavating, and is separated off by a curtain, so as to form a vestry. A Norman window, the design of which has been borrowed from the arcades in the south transept, is placed in the east wall, and two plain semi-circular headed windows in the north gable. The arcades in the south transept have been cleaned and restored, and a Norman window occupies the east wall. This window, and the corresponding one in the north transept, have been filled with stained glass, taken out of the old east window of the chancel, and repaired by Mr. Evans, of Shrewsbury. On one of them St. Christopher is represented bearing Christ through a river, with a bishop standing by; on the other, St. Catherine, attended by a mitred bishop. The nave and tower have been repaired, and an old window in the former released from the coats of mortar which concealed a moulding surrounding the edge of the splay. The precincts of the church have been improved by the addition of a piece of ground to the graveyard, the gift of Sir Richard Bulkeley, Bart. There is still a deficiency of 200*l.* in the restoration fund.

Fillingham.—A memorial to the late Major Dalton, who fell at Inkermann, has been erected in the churchyard of Fillingham, by the tenantry of Mr. J. Dalton, of Fillingham Castle. It consists of a Gothic pillar, with square shaft, surmounted by crocketted pinnacle and cross, the pediment bearing the inscription. There is a disproportion between the pinnacle and the shaft, which gives the former a cumbersome appearance. The carving was by Mr. Keyworth, of Hull.

Ugthorpe.—The opening of St. Ann's Roman Catholic Church, at Ugthorpe, nine miles north of Whitby, took place on Thursday before last. The design was furnished by Messrs. Weightman, Hadfield, and Goldie, of Sheffield. Mr. Goldie superintended the work, and the plans were carried out by Mr William Falkingbridge, of Whitby, the contractor. The church is in the transition from the Early English to the decorated style of architecture, and consists of a nave and aisles, with tower at the west end of north aisle, the lower story of which forms a porch. The chancel and a large sacristy are to the north. The tower is formed of two stages, the upper one intended for bells, the lower containing the organ gallery, which opens into the nave by an arch. The nave is separated from the aisles by arcades, with pointed stone arches, carried upon circular shafts, with moulded capitals and bases. The aisles are lit by two-light windows, with simple tracery in the heads. The clerestory is lit by small trefoil windows, and a large four-light window of geometrical tracery occupies the western gable. The chancel has an eastern window, with tracery of a more ornate description, together with two small side windows, at the sills of which respectively are the sedilia and piscina. The altar and reredos are by Messrs. Lane and Lewis, of Birmingham, and are sculptured in Caen stone. The roofs throughout the church are of open timbers stained, the space between the rafter being coloured blue. The nave and aisles are seated with open seats. It is intended to fill the eastern and western windows with stained glass, to be furnished by Messrs. Hardman, of Birmingham. The walls of the edifice are lined with brick, so as to insure dryness. The total cost will be about 1,400*l.* The church is calculated to contain 500 persons.

BRONZE CASTING FOR THE COLOSSAL WASHINGTON MONUMENT.

The casting of the horse for the above monument at Munich is one of the great feats of modern foundry, as 15 tons of bronze had to be melted and kept in a state of fluidity. For several days and nights previously a large body of fire was working at these huge masses, which required to be stirred at times, to which they answered in a grumbling tone. Still, when the bronze was entirely liquified, an ultimate essay was made in a small trial cast, and for heightening the colour some more copper was even then added. Successively all the chambers through which the metal had to flow in the form were cleared of the coal with which they had been kept warm, and the master ultimately examined all the air spiracles and the issues of the metal; then the props of the different tubes were placed, and every man had his duty and place assigned to him. Finally, the master, amidst the intense expectation of the many art-amateurs present, pronounced the words, "In the name of God;" and then three mighty strokes opened the fiery gulf, out of which the glowing metal flew in a circuit to the large form. The sight was magnificent; and in the little sea of fire stood the master, and gave his commands about the successive opening of the props. Hot vapour poured forth from the air spiracles; in the conducts the metal boiled in waves; still, no decision yet, as the influx of the bronze in the very veins of the figure could be but slow. At once flaming showers jumped out of the air conducts, and the master proclaimed the cast to have *succeeded*. A loud cheer followed, when the master approached Mr. Crawford, the artist of the Washington monument, to congratulate him on this success. Another cheer was given to M. de Miller, the chief of the Royal Foundry of Munich, who had personally conducted the work.

FOREIGN INTELLIGENCE.

Austria.—Discovery of an Unknown Roman Town.—It has been known before, that there existed near the Saalfeld of Klagenfurth (Carinthia) the ruins of an ancient Roman town, whose name, however, has been hitherto doubtful. Still, many inscriptions and other documents make it probable that it is the ancient *Virunum*, which there lies before our eyes. In the forest of Tältschach the traces of houses are so distinct that one may wander from street to street, and the surrounding space is covered with the ruins of larger buildings. The Historical Society of Carinthia made excavations here last summer, when a large house was discovered, containing six rooms, but without windows, while the entrance was formed by a portico. The exterior of this building has some fresco paintings: the interior is deficient; leading to the belief that it has been the amphitheatre of this old Roman municipium.

Italy.—Censure of Stones.—The bronze tablet which had been erected in the church of Santa Croce, in Florence, to the memory of those who fell at Cortenone in defending Italian liberty, has been removed thence, and found an asylum in the Townhall of Turin, with the following inscription—a sample of modern lapidary style:—

I nomi di questi prodi,
Che la carità del natio luogo aven collocato ad onore
In Santa Croce di Firenze;
E non poterano durarvi per tristizia di tempi,
Il Municipio Torinese
In questi tavole conforme pianeuto accoglieva.
Addì, 9 Giugnio, 1855.

Rome.—The Papal Government is not entirely inactive in restoring some of the old buildings of its metropolis. The lower portion of the Pantheon, and especially that side which looks towards the Piazza della Minerva, has been freed of those little buildings which have been plastered to it during the Middle Ages. Those parts have been surrounded by an iron railing in the same way as was done around the Temple of Mars Ultor, which affords now an easy access to the lower parts of the above huge building.——At Benevento the Arch of Trajan has been cleared all around of the extraneous masonry and rubbish which hitherto disfigured that fine monument.

Rome.—Cornelius's last Cartoon.—As the works of this great artist are viewed successively by thousands, his personal occurrences also are reported throughout Europe. Cornelius has painted a portion of his cartoon "The Eve (*Ervcartung*) of the Last Judgment," at Aricia, near Rome, a place redundant of traditions and oldest history. The picture reaches now to the lower parts where the fathers and teachers of the Church form the connecting link between heaven and earth. The Saviour, whose figure in the "Last Judgment" of the Ludwigskirche, at Munich, is 12 feet, will have on this cartoon the colossal height of 16 feet. The last touches will be given to this picture when executed in *fresco*, when also the semicircle of the apsis of the Basilica will impart to the horizontal row of the blessed choirs a more lively configuration.

Cialine Peat.—M. C. J. Brocke, a chemist at Cologne, has made a new invention in the preparation of peat, to which he gives the above name. He says that Cialine peat can be made of most sorts of common peat, and that it will surpass every other fuel in the intensity of flame and heat. The experiments hitherto made in forges show that Cialine will produce a flame several feet long, while common peat will only give one 7 or 8 inches long.

Restoration of the Dom of Speyer.—The restoration of the western portion of the dome, which is carried on under the direction of building director Hübsch, in the pure Romanic style, proceeds successfully. The King of Prussia has undertaken the expense of rebuilding the two western steeples, the Austrian government pays for the construction of the entrance-hall and the lower portion of the principal front, and the upper part and the great circular window will be completed by the assistance of the Duke of Nassau,—a strange, but perhaps the only practicable way of completing those huge bequests of the Middle Ages. The Dom of Speyer is the largest building of Romanic style in the whole of Germany, its length being 450 feet, the width 120 feet, and

the height of the middle nave up to the top of the roof, 148 feet. Besides, its interior, wider in the middle nave than the Dom of Cologne, which has been of late adorned by fine fresco paintings, makes it a sight worthy of general admiration.

LATE WAGES—DRUNKEN WORKMEN.

Early closing has of late become an approved principle: it is practised by numerous large establishments (chiefly mercantile), and it is embodied in an association duly organized, with its secretary, offices, and bankers. Nevertheless, early closing is not the general usage, for Saturday nights still discover the shambles and provision business quarters replete with life and radiant of gas, until midnight chimes the Sabbath in.

Whatever repression may be exercised in the prevention of Sunday trading, whatever exhortations are poured from the pulpit, to discourage drunkenness, nothing is so sure to lead to infraction of the existing laws in this behalf, as the inconsiderate and inhuman habit of paying the artizan the wage of his toil at a late hour on the Saturday.

In any case, even that of the most skilled mechanic, the late hour brings with it a temptation and a fatality, but too seldom overcome.

It has come to my knowledge that there are highly respectable firms, tradesmen, and others, employing very numerous hands, who delegate the office of paymaster to a foreman, or clerk, and that the hard-earned vails of the tired mechanic are paid to him at nine, ten,—ay, at eleven o'clock; and there are instances of such transactions being settled in *public houses!*

If it could be proved that employers were cognizant of such practices, would it not be worse than the tally-shop factory system, so deprecated by provincial senators? As it is, no language of reprobation can be too forcible to stigmatize the diabolical system.

That a public-house should be chosen as a place for disbursement, argues that the pay-clerk has an interest in the unrighteous profits grasped under such circumstances. The later the hour, the longer has the faint expectant had to conflict with his patience. Companions of the tap-room, in the same dilemma, must, while occupying the place, have something *for the benefit of the house;* and how much more (perhaps on an empty stomach), for his own injury, and for the perdition of his family?

Wherever such a system is ordinarily practised, the wife and family soon learn: she or they attend at the accustomed place and hour, trying to save all they can from the demon of drink; but despite the claims on paternity, nay, despite prospective starvation, too much of the week's pay is expended on the draught, at all times too inviting, and, under the anxious circumstances detailed, but too irresistible; and the debauch of Saint Monday is the sure sequel, until the riot of ruin is played out.

Preachers may declaim, and philanthropists may prose against excesses of the poor in this beastly propensity; but until an interdict is placed on late and irregular payment of wages, and until the regulation of these matters become, like the Factory Labour Bill, part and parcel of the law of the land, no thorough reform can be hoped for amongst the working classes.

For such there is no alternative but to make their frugal market on the Sunday morn. The Sabbath sun should rise to cheer the labourer of every other day: he might on that day of remission, if released from the charge of purveying for *his only family dinner*, be enabled to emerge from the tainted alley, and, by recreation beyond the verge of town or city, escape the more polluted contamination of evil associates, and evil habits,—not that the public-house is necessarily the source of malignant influences,—it ought by no means to be so; for it must be *in winter*, the poor man's only resort,—there he meets his equals,—there hears and details all he knows of news, and of interests personal to his section and order of being. This communion, however, can only be held *in moderation* and in *temperance;* and the existing state of tap-rooms (wholly neglected as they are by Government, *except as to the interests of excise*) is but little calculated to school the people, either in morals or right political knowledge and feeling.

A fair day's pay for a fair day's work, is a good English maxim. Let it be rendered at a fair time, and a suitable hour.

Let the quality of the beer and spirits, as well as their quantity and strength, be tested by the police, or some Governmental authority,—the quality, alas, is notoriously bad and unwholesome; but above all, let the strictest scrutiny be imposed upon the vintner who measures out to the customer already intoxicated, one drachm, one scruple more of the body-destroying liquor. A first offence in this regard should be amerced in a heavy penalty; a second, in the *irremediable forfeiture of license.*

To insure the discontinuance of the baneful practice of paying the labourer late on Saturday, but especially to stop the use of public-houses for that purpose, perhaps the best way will be to give to the public the names of all who continue to do so. QUONDAM.

PROVINCIAL NEWS.

Spalding.—At the Corn-Exchange, in course of erection, the contractor, Mr. W. Sharman, has commenced fixing the principals for the roof of the new building: the beams weigh between three and four tons each.

Bury St. Edmunds.—In pulling down the house in Abbeygate-street (late Hine's) for Messrs. Harvey and Hudson's Bank, some fresco (?) painting has been discovered in one of the first-floor chambers. It consists of foliage in a dead green, with lilies and other flowers, and the peacock, squirrel, and snail resting upon it, and above is a border in dull red with grapes, figs, and promegranates. The fresco is painted on the timbers as well as on the plaster, which is flushed between them, and appears by some small remnants to have been afterwards covered with tapestry, and at later periods with successive paper-hangings. It is probably of a date prior to Elizabeth. The house, including the adjoining property, was built on the old plan of a front with wings running backward, and a courtyard between, the windows in the court being of the old mullioned form without transoms, and there is a carved cornice round the top, which is dated 1610.——The site is nearly ready for the foundations of the new bank; the design for which has been prepared, as we are informed, by Mr. Farrow, builder and mason, of Bury. The works will not be executed by Mr. Farrow.——At the Cemetery Chapels the works are progressing.——There is nothing else new to note at Bury.

Chelmsford.—The two rival Corn-Exchange Companies here are proceeding with their object. That which adopts the Black Boy announces that its deed is ready for signature. The other, according to the local *Chronicle*, has deputed the architect and two directors to visit some of the best corn-exchanges in the kingdom, in order to avail itself of the information thus acquired to render the structure which is about to rise in Tindal-square as perfect and commodious as possible.

Newport (Isle of Wight).—At a recent meeting of the local Highway Commissioners, for the purpose of receiving tenders for altering the high road near Apse Down, the following amounts, according to the *Hampshire Independent*, were given in by six competitors for performing the work in question:—

Mr. Mayo, of Wales	...£5,454
Mr. Croft, of Brighton ...	... 3,213
Mr. Tycehurst, ditto ...	... 3,029
Messrs. Cox and Brown, Southampton	2,455
Mr. Booker, Isle of Wight ...	... 2,418
Mr. Denness, ditto ...	... 2,275

—"It will be thus seen," adds the paper named, "that the successful contractor has offered to perform the work for 3,179*l.* less than the highest! a sum in itself amounting to no less than 904*l.* over the tender sent in by Mr. Deuness."

Winchester.—The contractors for carrying out the alterations and additions at the barracks here, are about to commence operations. Messrs. Piper, of Pimlico, are the contractors, and the alterations will cause an outlay of about 20,000*l.* exclusive of a large sum for the removal of the present hospital, which is to be built on a more commodious scale, upon a healthier spot.

Cambridge.—The inauguration of the Cambridge waterworks took place on Tuesday before last. Three collecting tanks are sunk in the chalk, one of them at the pumping station, the other two at the springs that supply the Cherry-hinton brook. They are all made to communicate with a well, or lower reservoir, directly under the engine-house, and thence the water is pumped through a 10-inch main to the upper reservoirs, which are on the highest point of the hill known as the "Fifty-acre allotments." These reservoirs are of brick throughout. Tanks and sluices are provided to drain them, as well as delivering valves and screens, through which the water must pass before it reaches the town. They are calculated to hold 1,200,000 gallons, raised by steam power capable of lifting it at the rate of 40,000 gallons per hour, 135 feet high. The water, of which there is an abundant supply, is said by the local *Chronicle* to be remarkable for its softness and purity. The works were designed by Mr. James Simpson, civil engineer, and executed by Mr. George Peters, contractor, under the immediate superintendence of Mr. Lea.

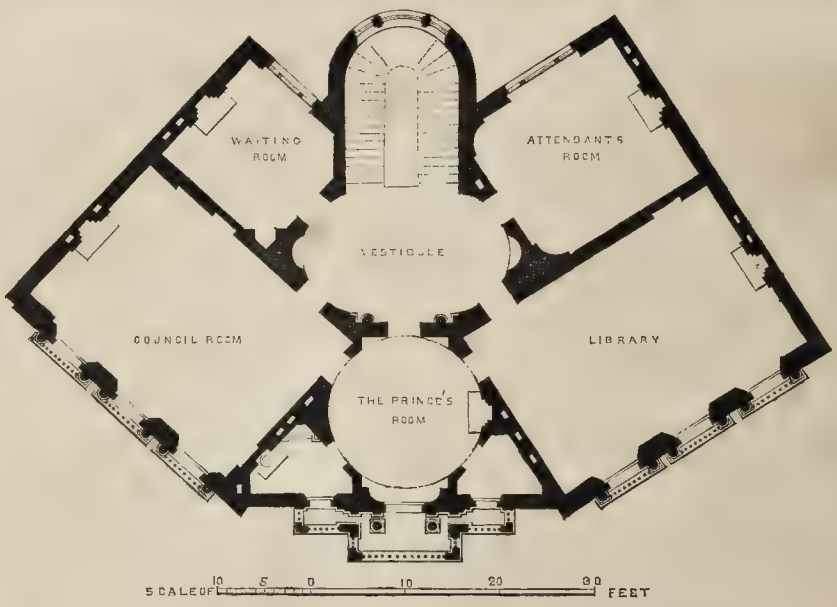
Ashby.—The inhabitants of Ashby have resolved to build a corn exchange. They have formed themselves into a committee, and fixed on a site, with provision for butchers' shambles, and a fish and vegetable market, under the same roof. The project has been gone into under the sanction of Lord Howe. The site fixed on is where the Lamb Inn at present stands (opposite the Post-office). The capital is estimated at 3,000*l.* to be raised in 10*l.* shares, and the company is to be registered under the Joint Stock Companies' Act. The building is intended to be 310 feet long, by 40 feet wide, and to be lighted from the roof. Mr. Stevens, architect, Derby, has been instructed to make preparatory plans.

Doncaster.—At a recent meeting of the local Board of Health, the surveyor, while reporting that the flagging in Printing-office-street had nearly been completed, stated that in Sheffield, Leeds, and other large towns in that part of the country, the self-faced Greenmoor flagging had been extensively used, and that it "was found to answer exceedingly well, being as durable as the other, with a cost, including the kerb, of 1s. per square yard, or 2s. per running yard, less than that which had been lately finished."

Darlington.—Active steps are being taken to establish a branch Government school of art for this town and district. The local *Times* trusts the inhabitants will come forward to defray the expenses of starting what will before long be a self-supporting institution.

Monkwearmouth.—There is now in the process of erection here a large manufactory, for the purpose of making ships' tanks and steam-boilers. The building is about 150 feet in length by 60 feet in breadth. There are eight fires, the smoke of which is conveyed along a flue built on the top of the south wall, leading to a chimney 60 feet in height. The whole of the masonwork has been executed by Messrs. James Young and Co. builders, Sunderland.

Edinburgh.—The City Water Company here has resolved to apply to Parliament for power to bring in a further supply of water from the estate of Colzium, a few miles to the west of the aqueduct at Westrigg. The proposed supply consists of the waters of Colzium, Baddpark, and North Listonshiels; which, it is considered, will furnish a security against a deficiency for many years to come. The present sources of supply, as enumerated by the local *Post*, are Comiston, Swanston, Glencorse, and the Listonshiels, Bavelaw, and Black Springs. Connected with these sources are seven large reservoirs in different parts of the Pentland Hills; and they have furnished, up to a recent period, from 530 or 540 to 600 cubic feet per minute for the use of the inhabitants of Edinburgh, Leith, and Portobello. The excessive drought of the past season, from January downwards, has reduced this quantity to from 420 to 450 cubic feet per minute, arising from the Clubbiedean, Torduff, and Bonally reservoirs having become wholly dried up.



THE OFFICE OF THE DUCHY OF CORNWALL: PLAN OF FIRST-FLOOR.

THE CRYSTAL PALACE AS AN EDUCATOR.

The time is now near at hand when the Crystal Palace must either become a school of art, and the grandest that has ever been instituted, or degenerate into a huge amusement garden, a national theatre for the relaxation of the million, a Vauxhall on a larger scale.

The partial success which attends the present direction of the institution proves in a decided manner that a continual attempt to unite the two purposes must ultimately result in a comparative failure. As long as the whole is a novelty the public, ever anxious for something new, will flock in continued streams to the building, but when that phase in its character no longer exists, the attraction will fade away. That it will always be one of the lions of the day its size alone insures—the marvel of a new mode of building—or alone the wondrous beauty of that grandly majestic garden. Flower-shows and concerts, too, may occasionally infuse something like national life into it, but they must necessarily be periodical.

These are all means to an end, and admirable means no doubt they are; but if the scheme of a popular educator is to be carried out, the directors have a long journey before them, whilst as yet they have only collected the necessary materials for the task. If the original idea of a people's palace—a vehicle of instruction and elevating recreation—a high and holy sympathiser with the hidden affections of a Christian people, be still the ideal of the Crystal Palace, then it is surely time that a decided character for this purpose should be given to the whole exhibition.

The first feeling of astonishment at the general effect is now wearing away, and giving place to the very proper spirit of inquiry which follows, as to what meaning all the present arrangements of the individual objects and courts can possibly be intended to convey. After the second or third visit, when the whereabouts of the several courts and distinguished statues are ascertained, the visitor who attempts to appreciate the materials for examination systematically commences an inquiry into the courts of styles and schools of sculpture,—the reproduction of the most attractive system of architecture and decoration—and the cherished relics of Grecian sculpture, in order to compare them with the productions of the modern architect and sculptor of every country. This is the manner in which those who study to appreciate the Exhibition endeavour to derive instruction from, and arrive at conclusions concerning, the treasures which it contains. But on commencing the examination, he is surprised to find how few facilities are afforded him for such scrutiny. He finds that the courts, as a whole, have no *progressive* arrangement, but seem to have been placed where they are by mere accident,—that Greek and Roman, French and English, German and Italian sculpture, are distributed more with a view to the approximation in size of the subjects, than distinction of schools, or comparison of merit; and that, in fact, the arrangement of so many beautiful objects is managed so as to *astonish* rather than *educate*, perplex rather than define.

This need not be so. Classification need not give rise to sameness, and would materially assist education. The feelings of those who tremble for the freshness, the lovely disorder, and fairylike confusion of their luxurious lounge, should not be weighed in the balance with the moral culture and intellectual refinement of a whole people.

The Crystal Palace may be looked upon as a huge alphabet, by which the English people are to be taught to read what is true to nature, and beautiful in art. But under existing circumstances, it requires a large amount of pre-existing knowledge of the language to be able to distinguish the *A* from the *B*, and the *B* from the *D*.

It is evident, therefore, that the education of the people has not been the primary consideration in the present arrangements, for had that been the case, a simple and more effective scheme would have been adopted — a scheme which would make the Crystal Palace that which it is so well fitted to become—a school of art, and science, and beauty, and not a mere place of periodical idleness for the throngs of holiday folk, who, unconscious of the riches which surround them, mistake that grand establishment for an immense amusement gallery, revel for a while amidst its scattered treasures, and return to London with a mind confused and a brain bewildered.

WALTER SMITH.

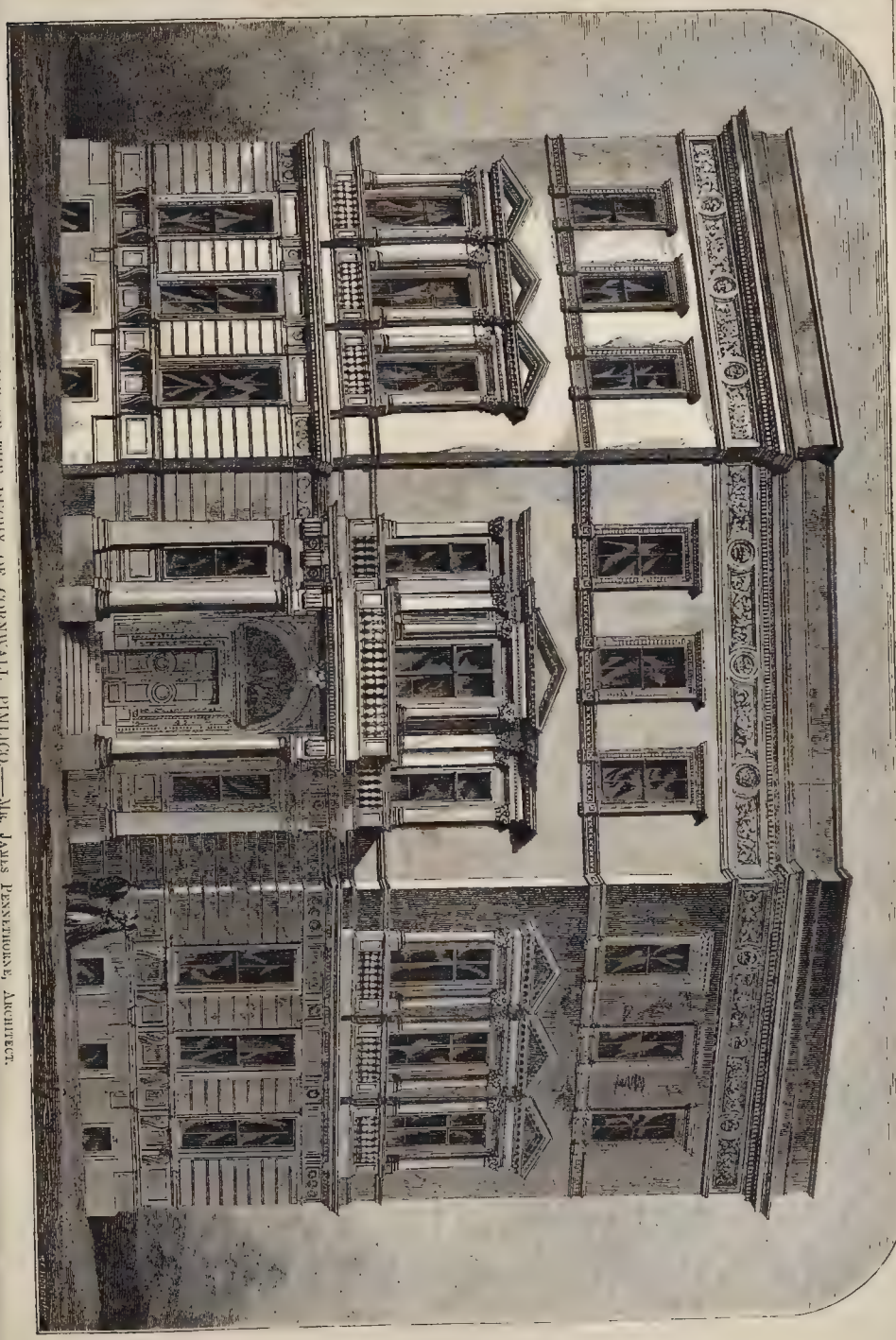
THE OFFICE OF THE DUCHY OF CORNWALL, BUCKINGHAM-GATE.

By an Act passed in the reign of King George III. the office of the Duchy of Cornwall was built and established in Somerset House. This office was wanted for the Commissioners of Inland Revenue, and the Commissioners of Works and Public Buildings thereupon agreed with the representatives of the Prince of Wales, who is also Duke of Cornwall, to purchase a piece of land in Pimlico, close to Buckingham Palace, and to build thereon an office for the duchy, in lieu of the office in Somerset House, under certain arrangements settled by an Act of Parliament passed in the 17th and 18th of Victoria, cap. 93. The new site was part of the hereditary possessions and land revenues of the Crown.

In the session of 1854, Parliament voted 16,889*l.* for carrying out the agreement referred to in this Act, and for other expenses. The plans for the new building were prepared by Mr. Pennethorne, and submitted to competition, and Messrs. Haward and Nixon's tender of 9,377*l.* being the lowest, the contract was made with them for the erection.

The site was purchased by the public from the land revenues at 4,300*l.* It is an awkwardly-shaped piece of ground at the angle where two roads meet, and it will be seen that Mr. Pennethorne has ably met the difficulty in his plan. The fronts are, for the most part, formed in cement, and will be painted stone colour in the spring. The entrance doorway is handsome.

PROPOSED MEMENTO OF SIR HUGH MYDDLETON.—A correspondent draws our attention to a proposal in the *Clerkenwell News*, by "D. H." that the beneficent founder of the New River water-supply should have some monument erected to his memory, and that the top of the new building in Claremont-square, Pentonville-hill, where his statue would stand over his own element, as it may be called, is an appropriate site for such a memorial. It is certainly a just reproach to the Londoners of several generations, past and present, that no such monument has ever been erected to one who spent a large fortune in obtaining for them a bountiful supply of one of the chief necessaries of life, and we heartily second the proposal to erect a suitable monument to Sir Hugh Myddleton.



THE OFFICE OF THE DUCHY OF CORNWALL, PIMLICO.—Mr. James Pennethorne, Architect.

METROPOLIS LOCAL MANAGEMENT ACT AND BUILDERS.

THE following are those clauses in the new Act for the better Local Management of the Metropolis," to which it is more especially desirable, with reference to the Building Act and otherwise, that the attention of builders and architects should be given. The Act itself should be obtained, but we have drawn out these clauses, that they may have the better chance of being read and remembered:—

Vestry or District Board in certain Cases may compel Owners, &c. of Houses to construct Drains into the Common Sewer. Penalty on Owners, &c. for Neglect.

73. "If any house or building, whether built before or after the commencement of this Act, situate within any such parish or district, be found not to be drained by a sufficient drain communicating with some sewer, and emptying itself into the same, to the satisfaction of the Vestry or Board of such parish or district, and if a sewer of sufficient size be within 100 feet of any part of such house or building, on a lower level than such house or building, it shall be lawful for the Vestry or Board, at their discretion, by notice in writing, to require the owner of such house or building forthwith, or within such reasonable time as may be appointed by the Vestry or Board, to construct and make from such house or building into any such sewer a covered drain, and such branches thereto, of such materials, of such size, at such level and with such fall as shall be adequate for the drainage of such house or building, and its several floors or stories, and also of its areas, watercloseta, privies, and offices (if any), and for conveying the soil, drainage, and wash therefrom into the said sewer, and to provide fit and proper paved or impermeable sloped surfaces for conveying surface water thereto, and fit and proper sinks, and fit and proper syphoned or otherwise trapped inlets and outlets for hindering stench therefrom, and fit and proper water supply and water-supplying pipes, cisterns, and apparatus for scouring the same, and for causing the same to convey away the soil, and fit and proper sand-traps, expanding inlets, and other apparatus for hindering the entry of improper substances therein, and all other such fit and proper works and arrangements as may appear to the Vestry or Board, or to their officers, requisite to secure the safe and proper working of the said drain, and to prevent the same from obstructing or otherwise injuring or impeding the action of the sewer to which it leads; and it shall be lawful for the said Vestry or Board to cause the said works to be inspected while in progress, and from time to time during their execution to order such reasonable alterations therein, additions thereto, and abandonment of part or parts thereof, as may to the Vestry or Board or their officers appear, on the fuller knowledge afforded by the opening of the ground, requisite to secure the complete and perfect working of such works; and if the owner of such house or building neglect or refuse, during twenty-eight days after the said notice has been delivered to such owner, or left at such house or building, to begin to construct such drain and other works aforesaid, or any of them, or thereafter fail to carry them on and complete them with all reasonable despatch, it shall be lawful for the Vestry or Board to cause the same to be constructed and made, and to recover the expenses to be incurred thereby from such owner in the manner hereinafter provided."

Provision for combined Drainage of Blocks of Houses.

74. "If it appear to the Vestry or Board of any parish or district that a group or block of contiguous houses, or of adjacent detached or semi-detached houses may be drained and improved more economically or advantageously in combination than separately, and a sewer of sufficient size already exist or be about to be constructed within 100 feet of any part of such group or block of houses, whether contiguous, detached, or semi-detached, it shall be lawful for such Board or Vestry to order that such group or block of houses be drained and improved, as hereinbefore provided, by a combined operation."

No House to be built without Drains constructed to the satisfaction of the Vestry or District Board.

75. "It shall not be lawful to erect any house or other building in any parish mentioned in Schedule (A.) to this Act, or in any district mentioned in Schedule (B.) to this Act, or to rebuild any house or building within any such parish or district which has been pulled down to or below the floor commonly called the ground floor, or to occupy any house or building so newly built or rebuilt, unless a drain and such branches thereto and other connected works and apparatus and water supply as hereinbefore mentioned be constructed and provided to the satisfaction of the surveyor of the vestry of such parish or board of works for such district, of such materials, of such size, at such level, and with such fall as they may direct, so that the same shall be available for the drainage of the lowest floor of such house or building, and of its several floors or stories, and also of its areas, watercloseta, privies, and offices (if any), which drain shall lead from such house or building, or the intended site of such house or building, to such sewer, already made or intended to be constructed near thereto, as the Vestry or Board shall direct and appoint, or if there be no such sewer existing or intended to be constructed within 100 feet of any part of the intended site of such house or building, then to such covered cesspool or other place, not being under any dwelling-house, as the Vestry or Board shall direct; and whenever any house or building is rebuilt as aforesaid, the level of the lowest floor of such house or building shall be raised sufficiently to allow of the construction of such a drain and such branches thereto and other works and apparatus as are hereinbefore required, and for that purpose the levels shall be taken and determined under the direction of the Vestry or District Board."

Notice of Buildings to be given to the Vestry or District Board before commencing the same.

76. "Before beginning to lay or dig out of the foundation of any new house or building within any such parish or district, or to rebuild any house or building therein, and also before making any drain for the purpose of draining directly or indirectly into any sewer under the jurisdiction of the Vestry or Board of or for any such parish or district, seven days' notice in writing shall be given to the Vestry or board by the person intending to build or rebuild such house or building or to make such drain; and every such foundation shall be laid at such level as will permit the drainage of such house or building in compliance with this Act, and as the Vestry or Board shall order, and every such drain shall be made in such direction, manner, and form, and of such materials and workmanship, and with such branches thereto and other connected works and apparatus and water supply as hereinbefore mentioned, and as the Vestry or Board shall order, and the making of every such drain shall be under the survey and control of the Vestry or Board; and the Vestry or District Board shall make their order in relation to the matters aforesaid, and cause the same to be notified to the person from whom such notice was received within seven days after the receipt of such notice, and in default of such notice, or if such house, building, or drain, or branches thereto or other connected works and apparatus and water supply, be begun, erected, made, or provided in any respect contrary to any order of the Vestry or Board made and notified as aforesaid, or the provisions of this Act, it shall be lawful for the Vestry or Board to cause such house or building to be demolished or altered, and to cause such drain or branches thereto and other connected works and apparatus and water supply to be relaid, amended, or re-made, or, in the event of omission, added, as the case may require, and to recover the expenses thereof from the owner thereof in the manner hereinafter provided."

Power to branch Drains into Sewers constructed by Metropolitan Board, or any Vestry or District Board under certain Regulations. Penalty.

77. "It shall be lawful for any person, at his own expense, to make or branch any drain into any of the sewers vested in the Metropolitan Board of Works or any Vestry or District Board under this Act, or authorized to be made by them under this Act, such drain being of such a size, and of such conditions, and branched to such sewer, in such a manner and form of communication in all respects as the Vestry or Board shall direct or appoint; and in case any person make or branch any drain into any of the said sewers so vested in the Vestry or Board, or authorized to be made by them under this Act, of a larger size, or of different conditions, or in a different manner and form of communication than shall be directed or appointed by the Vestry or Board, every person so offending shall for every such offence forfeit a sum not exceeding 50*l.*"

78. Gives power to Metropolitan Board or Vestry or District Board to branch private drains into sewers, at the expense of the party to whom they belong.

79. Vestry or District Board may agree to make house drains at the expense of owners or occupiers.

80. Vestry or District Board may order a contribution towards construction of sewers in certain cases.

Penalty on erecting or rebuilding Houses without proper Watercloseta, &c. Power to Vestry, &c. to require Owners, &c. to provide sufficient Watercloseta, &c. If Owners fail, Vestry, &c. to cause the Work to be done at their Expense.

81. "After the commencement of this Act it shall not be lawful newly to erect any house, or to rebuild any house pulled down to the extent aforesaid, within any parish mentioned in Schedule (A.) to this Act, or any district mentioned in Schedule (B.) to this Act, without a sufficient watercloset or privy and ashpit furnished with proper doors and coverings, and also furnished as regards the watercloset with suitable water supply and water-supply apparatus, and with suitable trapped soil-pan and other suitable works and arrangements, so far as may be necessary to ensure the efficient operation thereof; and whosoever shall offend against this enactment shall be liable to a penalty not exceeding 20*l.*; and if at any time it appear to the Vestry or District Board of such parish or district that any house in any such parish or district, whether built before or after the commencement of this Act, is without a sufficient watercloset or privy and ashpit furnished with proper doors and coverings, and with other apparatus and works as aforesaid, the Vestry or District Board shall, in case the same can be provided without disturbing any building, give notice in writing to the owner or occupier of such house, requiring him forthwith, or within such reasonable time as shall be specified in such notice, to provide a sufficient watercloset or privy and ashpit so furnished as aforesaid, or either of them, as the case may require; and if such notice be not complied with, it shall be lawful for the Vestry or District Board to cause to be constructed a sufficient watercloset or privy and ashpit, or either of them, or do such other works as the case may require, and to recover the expenses incurred by them in so doing from the owner of such house in manner hereinafter provided: Provided always, that where a watercloset or privy has been and is used in common by the inmates of two or more houses, or if in the opinion of the Vestry or District Board a watercloset or privy may be so used, they need not require the same to be provided for each house."

82. Power for Vestries and District Boards to authorize inspection of drains, privies, and cesspools.

83. Penalty on persons improperly making or altering drains.

84. Where no default found expenses to be paid by Vestry or Board.

85. Vestry or District Board to cause drains, &c. to be put into proper condition, &c. where necessary.

86. Vestry and District Board to cause offensive ditches, drains, &c. to be cleansed or covered.

87. Power to Vestries and District Boards to fill up ditches by the side of roads, and substitute pipes.

88. Power to Vestries and District Boards to provide public conveniences.

98. Vestry or District Board to cause streets to be paved.

99. Owners possessing freehold of courts, &c. to pave the same.

100. Owner of courts to drain them, and keep the pavement, &c. in repair.

Vaults and Cellars under Streets not to be made without the Consent of the Vestry or Board.

101. "No vault, arch, or cellar, shall be made under any street without the consent of the Vestry or District Board of the parish or district in which the same is situate; and all such vaults, arches, and cellars hereafter to be made within any parish or district mentioned in either of the Schedules (A.) and (B.) to this Act shall be substantially made, and so as not to interfere or communicate with any drain or sewer under the control of any Vestry or District Board, or of the Metropolitan Board of Works, without their consents respectively first obtained; and if any vault, arch, or cellar be made contrary to this provision, it shall be lawful for the Vestry or District Board, or for the Metropolitan Board of Works, to fill up or alter the same, and the expenses incurred thereby shall be paid by the owner of such vault, arch, or cellar."

102. Vaults, &c. under streets to be repaired by owners or occupiers.

Provisions as to the Occupation of underground Rooms as Dwellings.

103. "Any room of a house, the surface of the floor of which room is more than 3 feet below the surface of the footway of the adjoining street, and any cellar, where such room or cellar is or has been occupied separately as a dwelling at or before the time of the passing of this Act, may continue to be so let or occupied if it possess the following requisites; that is to say,

If there be an area not less than 3 feet wide in every part from 6 inches below the floor of such room or cellar to the surface or level of the ground adjoining to the front, back, or external side thereof, and extending the full length of such side;

If such area, to the extent of at least 5 feet long and 2 feet 6 inches wide, be in front of the window of such room or cellar, and be open or covered only with open iron gratings;

If there be in every such room or cellar an open fireplace, with proper flue therefrom;

If there be a window opening of at least 9 superficial feet in area, which window opening must be fitted with a frame filled in with glazed sashes, of which at the least 4½ superficial feet must be made to open for ventilation:

And no such room nor any cellar not so let or occupied as aforesaid at or before the time of the passing of this Act shall be so let or occupied unless it possess the following requisites; that is to say,

Unless the same be in every part thereof at least 7 feet in height, measured from the floor to the ceiling thereof;

Unless the same be at least 1 foot of its height above the surface of the footway of the street adjoining or nearest to the same;

Unless there be outside of and adjoining the same room or cellar, and extending along the entire frontage thereof and upwards, from 6 inches below the level of the floor thereof up to the surface of the said footway, an open area at least 3 feet wide in every part;

Unless the same be effectually drained and secured against the rise of effluvia from any sewer or drain;

Unless there be appurtenant to such room or cellar

the use of a watercloset or privy and an ashpit furnished with proper doors and coverings kept and provided according to the provisions of this Act;

Unless the same have a fireplace with a proper chimney or flue;

Unless the same have an external glazed window of at least 9 superficial feet in area clear of the frame, and made to open in such manner as is approved by the surveyor of the Metropolitan Board of Works;

Provided always, that in any area adjoining a room or cellar there may be placed steps necessary for access to such room or cellar, and over or across any such area there may be steps necessary for access to any building above the room or cellar to which such area adjoins, if the steps in such respective cases be so placed as not to be over or across any such external window;

And whosoever lets, occupies, or continues to let, or knowingly suffers to be occupied, any room or cellar contrary to this Act, shall be liable for every such offence to a penalty not exceeding 20s. for every day during which the same continues to be so let or occupied; and every room or cellar in which any person passes the night shall be deemed to be occupied as a dwelling within the meaning of this Act; and every district surveyor acting under the Act of the session holden in the seventh and eighth years of her Majesty, chap. 84, or under any Act appealing or amending the same, shall, without any fee or reward, report periodically, and otherwise, as the said Metropolitan Board may order, to such Board all cases in which rooms or cellars are occupied contrary to this enactment in the district of such surveyor, and also to the respective Vestries and District Boards all such cases occurring within such parts of his district as may be within their respective parishes and districts; but nothing herein contained shall be construed to disable other persons from enforcing this enactment, and taking proceedings for penalties thereunder."

Power of District Surveyors to enter underground Rooms and Cellars. If admission refused, Justice may issue an Order.

104. "For the purpose of enforcing the enactment lastly hereinbefore contained, it shall be lawful for any such district surveyor, or for any other person, having reasonable grounds for believing that any room or cellar is occupied contrary to such enactment, to demand admission to inspect the same at any time between nine o'clock in the morning and six o'clock in the evening; and if admission be not granted, any justice having jurisdiction in the place where such room or cellar is situate may, on oath before him of belief that such room or cellar is occupied contrary to the said enactment, by order under his hand authorize such district surveyor or other person to enter into and inspect such room or cellar between the hours aforesaid."

105. Makes provisions for paving new streets.

110. Streets not to be broken up, except under the superintendence of Vestry or Board. Streets broken up to be reinstated without delay.

111. Penalty on persons taking up pavements neglecting to reinstate them, and to place lights during the night-time to prevent accidents.

Owners, &c. to remove future Projections on Notice from Vestry or District Board. Penalty for Neglect.

119. "If any porch, shed, projecting window, step, cellar door, or window, or steps leading into any cellar or otherwise, lamp, lamp-post, lamp-iron, sign, sign-post, sign-iron, showboard, window shutter, wall, gate, fence, or opening, or any other projection or obstruction placed or made against or in front of any house or building after the commencement of this Act, shall be an annoyance, in consequence of the same projecting into or being made in or endangering or rendering less commodious the passage along any street in their parish or district, it shall be lawful for the Vestry or District Board to give notice in writing to the owner or occupier of such house or building to remove such projection or obstruction, or to alter the same, in such manner as the Vestry or Board think fit; and such owner or occupier shall, within fourteen days after the service of such notice upon him, remove such projection or obstruction, or alter the same in the manner directed by the Vestry or Board; and if the owner or occupier of any such house or building neglect or refuse, within fourteen days after such notice, to remove such projection or obstruction, or to alter the same, in the manner directed by the Vestry or Board, he shall forfeit any sum not exceeding 5*l.* and a further sum not exceeding 40s. for every day during which such projection or obstruction continues after the expiration of such fourteen days from the time when he may be convicted of any offence contrary to the provisions hereof."

Vestry or District Board may remove existing Projections, and make Compensation for the same.

120. "It shall be lawful for every Vestry and District Board, if any projection or obstruction which has been placed or made against or in front of any house or building in any such street before the commencement of this Act shall be an annoyance as aforesaid, to cause the same to be removed or altered as they think fit: Provided always, that the Vestry or Board shall give notice in writing of such intended removal or alteration to the owner or occupier against or in front of whose house or building such projection or obstruction shall be, seven days before such removal or alteration shall be commenced, and shall make reasonable compensation to every person who shall incur any loss or damage by such removal, excepting in cases where the obstruction or projection may now be removable under any Act, in which case no compensation shall be made.

Hoards to be erected during Repairs. Penalty on not erecting Hoards.

121. "Every person who shall build or begin to build, or to take down or begin to take down, any house, building, or wall, or alter or repair, or begin to alter or repair, the outward part of any house, building, or wall, shall, in all cases in which the footway is thereby obstructed or rendered inconvenient, cause to be put up a proper and sufficient hoard or fence, with a convenient platform and handrail, if there be room enough for the same, to serve as a footway for passengers outside of such hoard or fence, and shall continue such hoard or fence, in such cases as aforesaid, with such platform and handrail, standing and in good condition, to the satisfaction of the Vestry or District Board of the parish or district in which such house, building, or wall is situate, during such time as may be necessary for the public safety or convenience, and shall, in all cases in which the same is necessary to prevent accidents, cause such hoard or fence to be well lighted during the night; and every such person who fails to put up such hoard or fence and such platform, with such handrail as aforesaid, or who does not, whilst the said hoard or fence is standing, keep the same well lighted during the night, shall for every such offence forfeit a sum not exceeding 5*l.* and a further sum not exceeding 40s. for every day during the continuance of such default."

122. No hoard to be erected without licence from Vestry or District Board.

123. If hoard be erected or materials be deposited in any manner otherwise than to the satisfaction of the Vestry or District Board, the same may be removed.

Providing against Accidents in laying out new Streets, &c.

124. "Every person laying out or opening any new street, or building therein, shall, during the operations necessary for forming such new street, or for building therein, take all such precautions for guarding against injury to the passengers along such street as may be directed by the Vestry or District Board of the parish or district within such operations are being carried on; and if any person fail to comply with the directions of such Vestry or District Board, within such time as may be limited by them, such Vestry or District Board may do whatever may be necessary for carrying the same into effect, and the expenses thereby incurred shall be repaid to such Vestry or District Board by the person laying out or opening such new street, or building therein, as aforesaid, and shall be recoverable by them from such person in manner provided by this Act."

141. Metropolitan Board to regulate naming of streets and numbering of houses.

Buildings not to be brought beyond Line of Street.

153. "No building shall, without the consent in writing of the Metropolitan Board of Works, be erected beyond the regular line of buildings in the street in which the same is situate, in case the distance of such line of buildings from the highway do not exceed 30 feet, or within 30 feet of the highway where the distance of the line of buildings therefrom amounts to or exceeds 30 feet, notwithstanding there being gardens or vacant spaces between the line of buildings and the highway; and in case any building be erected contrary to this enactment, it shall be lawful for the Vestry or District Board in whose parish or district such building is situate to cause the same to be demolished or set back (as the case may require), and to recover the expenses incurred by them from the owner of the premises in manner provided by this Act."

BYELAWS.

Power of Metropolitan Board of Works to make Byelaws. Penalty for Breach of Byelaws. Power to Justices to remit Penalties.

202. "The Metropolitan Board of Works and every District Board and Vestry respectively may from time to time make, alter, and repeal byelaws for all or any of the purposes following (that is to say); for regulating the business and proceedings at their meetings and of committees appointed by them, the appointment and removal of their officers and servants, and the duties, conduct, and remuneration of such officers and servants; and the said Metropolitan Board may also from time to time make, alter, and repeal byelaws for regulating the plans, level, *width*, surface inclination, and the material of the pavement and roadway of new streets and roads, and the plans and level of sites for building, and for regulating the dimensions, form, and mode of construction, and the keeping, cleansing, and repairing of the pipes, drains, and other means of communicating with sewers, and the traps and apparatus connected therewith; for the emptying, cleansing, closing, and filling up of cesspools and privies; and for other works of cleansing, and of removing and disposing of refuse, and for regulating the form of appeal and mode of proceeding thereon; and generally for carrying into effect the purposes of this Act; and every such Board and Vestry may thereby impose such reasonable penalties as they think fit, not exceeding 40s. for each breach of such byelaws, and in case of a continuing offence a further penalty not exceeding 20s. for each day after notice of the offence from the Board or Vestry: Provided always, that under every such byelaw it shall be lawful for the justices before whom any penalty imposed thereby is sought to be recovered to order the whole or part only of such penalty to be paid, or to remit the whole penalty: Provided also, that no byelaws shall be repugnant to the laws of England or to the provisions of this Act; and that no byelaw shall be of any force or effect unless and until the same be submitted to and confirmed at a subsequent meeting of the Board or Vestry: Provided also, that no penalty shall be imposed by any such byelaw unless the same be approved by one of her Majesty's principal Secretaries of State."

Buildings not to be made over Sewers without consent.

204. "No building shall be erected in, over, or under any sewer vested in the Metropolitan Board of Works, or in any Vestry or District Board, without their consent first obtained in writing, and if any building be erected contrary to this provision, the Board or Vestry in whom such sewer is vested may demolish the same, and the expenses incurred thereby shall be paid by the person erecting such building."

PROGRESS IN THE COLONIES.

TORONTO.—ADELAIDE.—MELBOURNE.—SYDNEY.

In Toronto we have a Canadian city preparing to become a capital, and making no small exertions to appear worthy of the distinction, not only as regards government offices and other public buildings, but in the spread of its streets and private dwellings in the true aristocratic direction,—literally *westwards*, as in all distinguished cities. The Belgravians of Toronto have even their Pimlico-and-park grievance, oddly similar to our own, "the Avenue" intervening with its barriers between the western and the eastern districts of the city; so that we have the *Timeses* of Toronto, such as the *Globe*, steel-pen in hand, tilting against the tabooed circle which obliges the citizens "when journeying in an easterly or a westerly direction to make a considerable detour to arrive at their place of destination," whereas,—taking "the examples of the parks in London and the Champs Elysées in Paris,—all [not all, Mr. Editor, at least so far as regards carriage-ways] intersected by public ways, and affording short communicating roads,"—if "the Avenue" were made "a place of greater public resort," and its fences and barriers removed, "a positive advantage would ensue, as respectable people would be able to pass through it without that molestation to which all are now too much exposed."

The seat of government is to be removed from Quebec to Toronto during the ensuing four years: hence the activity, alluded to, in various branches of the trade of the latter city, but especially amongst the building trades.

The Parliament-buildings, facing the bay, in Front-street, are having various additions and alterations. It is with difficulty that the architect has made the Lower House capable of accommodating the increased number of the representative body, and the *Globe* states positively that "no further increase of the number can take place during the holding of the Parliament at Toronto, for the simple reason of want of room." An addition, however, has already been made to the main building of two extensive wings, each containing a large and spacious room, one to be used as a library for the Legislative Council, another as a reading-room for the members of the House of Assembly. A number of committee-rooms occupy the ground-floors of these wings. The library is 45 feet long by 25 feet wide, and lighted from six large windows. The interior of the building has been completely renovated, painted, papered, &c. A detached dwelling for the messengers of the House has been erected on the western side. The works altogether are in an advanced state: they are under the direction of Mr. William Hay.

The Government House, as it is called, has been the scene of still more extensive alterations. It is intended as the future residence of the Governor-General, and from long disuse had been allowed to become uninhabitable. Like the Parliament buildings, this also was found to be too circumscribed in its dimensions, and large additions were accordingly immediately undertaken. These consisted in the erection of a large wing of three stories in height, the basement containing vaults, cellars, hot-air furnace, and store-rooms. On the next floor, the buildings in progress consist of a new portico, an orderlies' room, by the side of an apartment intended for the use of his Excellency while giving official receptions, and which is 31 feet in length by 20 feet in breadth, with, nearly opposite, the new dining-room, 46 feet long by 24 feet wide, and lighted by four windows, in addition to glass doors, with side fans. All the newly-built rooms on the floors above consist of numerous ser-

,' dormitories. Among the alterations in pro- are mentioned the widening of the staircase isite the private entrance of the mansion, and the ion of a new portico for the residents or private ors. The ball-room is undergoing a thorough vation and ventilation. This is a room 75 feet 8 feet. The windows open into a new conserva- in course of construction. Baths are being d up adjacent to the state and other bed rooms. remarkable that there are no preparations for the duction of gas into the Government House, his llency having an aversion to it. Apart from the se, a new building, intended for stabling, is in se of erection. In the rear of this the guard- se is to be raised, and made more convenient.

The Mechanics' Institute, at the corner of Church Adelaide streets, has been leased to the Govern- t for public purposes, for a period of four years. works in progress here consist principally of rations, the building being in preparation for the of the Crown lands and post-office departments. he beautiful music-hall, of which Toronto was aring to be proud, says the *Globe*, has been porarily destroyed."

The old General Hospital, situated at the corner of g and John streets, has also been called into uisition for Government purposes, and is at pre- t noisy with the ceaseless industry of many work- s. This building is intended to be used as offices the Executive Council, and it is in course of rapid version to its new purposes, as also are the esar's office, at Dorset-street, and the Albany Cham- s. The Medical School, which occupied a portion the Parliament Buildings, has been sent back to the onto University, where, one would think, it just ght to be.

Amongst the numerous streets and dwellings ich are being run up in this city, there are, it pears, many frame or other easily destructible uses, a circumstance much to be regretted, and to ich the attention of the Corporation has been ded. A great majority, however, of the houses cted this season, are of brick. Besides these works rious other public buildings are in progress. mong these stand numerous railway works, consist principally of extensive freight-houses, engine- uses, for the western section of the Grand Trunk ne, and for the Toronto and Hamilton Railway mpany; the latter a substantial brick structure, 0 feet long by 53 broad. These are all situated ar the Old Fort. The Northern Company is erect- g, at the corner of Front and Bathurst streets, a ng frame building, containing twelve or fourteen oms, to be used as clerks' offices.

Another large public edifice not yet finished, is the oronto Exchange.

A new Congregational church at the corner of Bay d Adelaide streets, is intended as a substitute for e building destroyed on same site by the fire last inter.

A Presbyterian church is about to be commenced the corner of Victoria and Gould streets.

A contract is about to be entered into for a Roman atholic Hospital, called the New Home of Provi- ence, to be erected on a vacant piece of ground outhward of St. Peter's Church, Power-street. The yle of the edifice is that which prevailed in the north f France about the early part of the sixteenth cen- ary. Mr. Wm. Hay is the architect; as also of the ollege of St. Michael and St. Basil's Church, another ndertaking in progress at the expense of the Roman atholics. When complete the college will accommo- ate about 200 pupils. The principal wing is 90 feet n length by 40 in breadth, and of a height of 48 eet. The dimensions of the church are 100 feet in ength by 50 in breadth. The church is in the style hich prevailed in England about the middle of the hirteenth century. The style, it seems, is novel n Canada.

Some idea may now be conceived of the active oings in Toronto within the past few months. In ddition to the public and private edifices in course of onstruction, there are many other large works going n with great rapidity; for instance, new sewers are eing opened, the Esplanade is progressing, and the everal railway lines, running into or through the ity, are hastening to completion. A large accession o the population has thus been gained, merely in the urplus number of mechanics allured thither. One irm alone, that of Messrs. Worthington and Co. who ave extensive contracts in and around the city, give mployment, at present, to 350 men, and lately paid early 7,000 dollars a month for their services. The reat abundance of work, while it has kept up wages, as made it difficult to obtain mechanics in sufficient umbers. Some leading houses have been even com- elled to send to the United States in search of men o enable them to do work contracted for within the pecified time; and some hundreds of additional en, it would appear, might yet find employment at Toronto in the different trades connected with building.

The following are the prices per *diem* at present paid:—Carpenters, locksmiths, gasfitters, and plas- terers, 8s. 9d.; bricklayers and masons, 10s.; pain- ters, 7s. 6d.; labourers, 5s. This scale is that which has ruled since the spring of 1854, when an advance of a quarter of a dollar per day was made in the wages of workmen engaged in mechanical trades con- nected with house-building.

While there has been an advance, since the corre- sponding period of 1854, in lumber, an article exten- sively required for building purposes, a diminution has taken place in the cost of bricks of about three dollars per thousand, though they are still quoted much higher at Toronto than in the markets of the United States. While an inferior article is easily sold in Toronto at seven dollars per thousand, the New York papers note the prices in that State as but little over three dollars and a half. This is said to be rather attributable to the depressed state of the build- ing interest in that portion of the United States, than to any advantage, natural or artificial, that the American maker enjoys. The fall in the price of bricks at Toronto is generally attributed to the intro- duction of machinery in the manufacture—an innova- tion of quite recent date. Messrs. Worthington and Co. have established extensive works for this purpose, with steam power.

At Adelaide, in South Australia, there are various public works in progress or completed. The City and Port Railway is in hand. The station at the Adelaide terminus is completed, and the line is ex- pected to be opened by the end of the year. The Adelaide station is a brick and stone building, in the Anglo-Italian style. In the immediate vicinity are the new Legislative Chambers,—a more stately pile than the former one, Elizabethan in style, and elaborately finished, according to the *South Australian Register*. New police-barracks and other Govern- ment offices have just been completed; and the embanked road leading from King William-street to the Torrens is formed, and the solid masonry of the new City-bridge all ready and waiting for the iron structure that will eventually span the river. Till it arrived from England, however, it was proposed to throw a temporary wooden bridge across the river upon the masonry already formed. The intended alterations at Government-house were not yet begun, although the money has long since been voted. In various parts of Adelaide new stores have been erected, many of which are large and substantial buildings.

The Commissioners of the Adelaide and Gawler Town Railway have been appointed, and were adver- tising for tenders by last accounts. The inhabitants of the Port are showing symptoms of good progress. A new steam flour-mill, the largest in the colony, had just been opened. A dwarf wharf was in course of con- struction at the Port; and the new Trust, empowered to spend the 100,000*l.* sanctioned last session by the Legislative Council, had got so far as to appoint their secretary. The Trinity Board have been down to Cape Borda to select a suitable spot for the erection of a new lighthouse, ordered and expected from England. Building and investment societies are now becoming exceedingly numerous both in town and country. In the suburban districts of Adelaide are several popular and flourishing societies. All the localities surrounding the town, or within two or three miles, are being rapidly built upon, especially the eastern suburbs. The majority of new houses are of a good substantial character, and either sell or let with great readiness. Scarcely a house is built without its surrounding garden-plot. The site for the Botanical Gardens has been appointed by the Government, and a Board of Management has been nominated.

At Melbourne, matters are not proceeding so swim- mingly, there being great complaints of want of em- ployment there, and a sad tendency towards disorgan- ization generally, though, it is to be hoped, but of a temporary character.

The value of a knowledge of mechanics in Australia was well illustrated in an inaugural address lately de- livered at the Mechanics' School of Arts in Sydney, by Sir Thomas Mitchell, D.C.L. the president of the institution. From some noticeable details of the pro- gress of that colony, and of the difficulties overcome in acquiring a geographical knowledge of Australia, reported in the (London) *Athenæum*, we extract the following:—"In first scaling the heights of Australia Felix," Sir Thomas remarked, "a house carpenter was to me, in a small way, what Tullius Labienus was to Julius Cæsar in his passage into Gaul. Wheel- wrights and blacksmiths were my best soldiers on the banks of the Murray. Few are aware that but for very nice mechanical appliances, the expeditionary party that reached the shores of the Southern Ocean would never have returned." In building bridges for the infant colony there were great difficulties until Sir Thomas accidentally lighted upon "a mechanic, who was then employed on day wages, cutting the coping-stone of the dwarf wall in front of the Council Chambers in Macquarie-street. I allude," the lec- turer stated, "to Mr. David Lennox, who left his stone wall at my request, and with his sleeves still tucked up, came with me to my office, and undertook to plan the stone bridges we required, make the cen- treing for arches, and carry on such works, by direct- ing and instructing the common labourers then at the disposal of the Government. Thus originated all the bridges this colony possesses at all worthy of the name."

THE WATER SUPPLY OF THE LONDON POOR.

In addition to the notes on this subject, already given, it may be worth while to mention that notwithstanding the great benefit caused by the water supply in certain districts, still the scarcity is very great. This is caused by the short time, sometimes only half or three-quar- ters of an hour per day, during which the water is allowed to run amongst a multitude of peo- ple from a single pipe. The butts and cisterns have been either done away with, or have never been fixed; so that the poor can only catch water in the insufficient vessels which their miserable homes contain. We believe that amongst the middle and upper classes, where the water supply is adequate, very little water is wasted; and after careful inquiry into the matter amongst many sections of the Lon- don poor, the sanitary officers of police, and others, we have a strong conviction that if the poor of the metropolis were furnished with taps of water from the main fixed at convenient places, they would be greatly benefited, and the quantity of water which runs to waste in the present arrangement would be lessened.

At any rate it is necessary that a sufficient quantity of water should be at hand in crowded neighbourhoods, for at least three hours in the morning, and three hours in the evening, of every day.

In many instances the landlords of the un- wholesome houses in which the poor *live*—if it can be so called—pay, instead of *for one water service for each house, for one service for three or four houses*. This is not just either to the water companies or to the tenants.

THE COMMERCIAL TRAVELLERS' SCHOOLS, PINNER.

On Saturday, the 27th of October, the Com- mercial Travellers' Schools, at Pinner, for orphan and necessitous children, were opened by H.R.H. Prince Albert, in the presence of Sir F. G. Moon, Lord Mayor, and a large assem- blage of friends. The Lord Mayor afterwards presided at luncheon, and a number of appro- priate addresses were made.

A view of the building externally will be found in our last volume, at p. 159.

The arrangement of the plan is an extended parallelogram, about 305 feet long and 46 feet wide; the centre and wings being double, the intermediate portion single. The basement is appropriated to the kitchen and washing pur- poses, cellaring, and officers' rooms, together with the general sanitary accommodation of the scholars, their dining-rooms, &c. The ground- floor, which is approached by a double flight of steps (under which access is obtained to the kitchen), is appropriated to the matron's apart- ments, the board-room, secretary's offices, &c.; the large school-room, 81 feet by 30 feet, and averaging 35 feet high; the head master and mistress's apartments, and accommodation for a few beds for smaller boys.

The general dormitory accommodation is ob- tained in the upper floor throughout, subdivided into classes; each provided with the customary lavatories, closets, baths, &c. The wings are appropriated to infirmaries, divided from the general building by separate staircase thereto, to which there is convenient approach through efficient classification.

It should be remarked in this building, that all the rooms have a lofty, cheerful appearance, and the usual close offensive odour, so generally prevailing about all such institutions, where numbers are collected together, is obviated. Very few of the rooms appropriated to the scholars are plastered, but generally neatly painted, and coloured a warm colour, harmonizing with the

stonework visible; the corridors throughout, connecting the dormitories with the staircases, are arched with the hexagonal bricks.

The building is generally executed in brickwork, and covered with red tiles, according to the old custom of the neighbourhood, and of which Lord Holland's house is a good precedent.

It is intended to light the building with gas from small works erected on the premises. Water is obtained from a depth of 140 feet, good in quality, and never-failing, laid on in all parts of the building, and raised by a small steam-engine to the wings of the building, about 80 feet perpendicular. The lavatories and footroughs are fitted with Jennings's patent taps and basins. The closets are also on Jennings's principle. A small farm is erected on the north-west side of the property. The gas-works adjoin this building. The works have been in progress about two years. The total cost, exclusive of land, will probably be over 21,000*l.* including fittings, fixtures, approach, playground, drainage of land, fencing, &c. The school-room is fitted up with oak, and is a fine room, 80 feet by 30 feet. The dining-hall under it has the same dimensions.

When the committee said, in their address to Prince Albert,—"To the cultivated taste of your Royal Highness, the edifice may present many architectural imperfections and defects," they thought more of flattering the Prince than doing justice to their architects. We were pleased to hear from the mouth of the treasurer that he had been requested to convey to the public his Royal Highness's approbation of both the arrangement and details of this structure, even to the consideration of some portions thereof in the building of the Wellington Testimonial. The architects were Messrs. Lane and Ordish; the builder, Mr. Walter Parker, of Thrapston, who appears to have done his work particularly well.

DINNER OF THE BUILDERS' BENEVOLENT INSTITUTION.

The dinner in aid of this Institution, and already referred to several times in our columns, took place at the London Tavern, on Tuesday, the 30th of October, when Mr. Charles Lucas presided, and about 200 friends of the charity attended, including Messrs. Barry, Jay, Myers, jun. Burton, G. S. Smith, Joseph Bird, Grissell, Wm. Piper, Josiah Biggs, Newson, Cozens, Hunt, Gardner, Freeman, Meakin, Thorn, R. Richardson, &c. Let us say at starting that the chairman showed himself to possess the clear head and good heart which characterize the school out of which he comes. The various loyal toasts having been drunk (Mr. Myers jun. returning thanks for the Army and Navy, because of the "hutting" he is doing),—

The chairman proposed "Health and Prosperity to the Builders' Benevolent Institution." In the course of his address, he said,—The Institution, notwithstanding its importance, was 160*l.* in debt, and there were twelve applicants for its bounty whom they were unable to relieve. It was hard to be compelled to refuse assistance to men of their own class. He would suggest a plan which had occurred to him, and which would relieve them from their present difficulties. If 40 gentlemen in the room would give their subscription of 10*l.* a year, with himself, there would be no necessity for turning away a single applicant. They knew not what reverses of fortune might ever befall themselves, and cause them to become supplants to the bounty of the institution whose objects they were now supporting. There was another mode which suggested itself to him; and that was, that if every gentleman present would but secure one contributor of a guinea to the funds of the institution, a sum of 200 guineas would be secured, sufficient to enable them to relieve all the applicants they had. It appeared that a sum of 1,800*l.* had been paid up to the building fund; and he was sure that they were all most eager to co-operate in the good work they had in hand. What he wanted was, that ten of the principal firms should contribute 100*l.* each for five years. In talking the matter over that morning with his brother, he had expressed his willingness to be one of ten who would thus come forward with their donation. When he considered the large amount of capital represented by the builders of this country, the influence they wielded, he felt sure that they would all do their utmost to support this institution, which was a credit to the craft.

Mr. Joshua Higgs, in proposing the health of the president, re-urged the suggestions he had made, and showed that the committee were constantly obliged to reject deserving applicants for want of funds.

Mr. Higgs afterwards replied for the patrons and trustees, Mr. Joseph Bird, for "The Brighton Branch;" and toasts were duly drunk, to the health of Mr. George Bird, the treasurer; "The Architects and Surveyors" (for which Mr. Meakin returned thanks); the directors and stewards (for which Mr. Thomas Cozens, the founder of the institution, returned thanks); and the Press.

The secretary, Mr. A. G. Harris, announced subscriptions and donations to the amount of 1,200*l.* including, as we are informed, Sir Saml. Scott, bart. 26*l.* 5s.; Messrs. Grissell, Brothers, 25*l.* 10s.; Messrs. Cheesewright and Sheffield, 21*l.*; Mr. W. Webb, 21*l.*; Mr. Thos. Lucas, 25*l.*; Messrs. Collins and Stanbury, 10*l.* 10s.; Mr. George Myers, 10*l.* 10s.; Mr. G. Spencer Smith, 10*l.* 10s.; Messrs. W. Cubitt and Co. 10*l.* 10s; Mr. A. F. Livesay, Portsmouth, 10*l.* 10s.; Mr. W. Webb, 10*l.* 10s. and 10*l.* 10s. for building fund; Mr. Wright, 21*l.*; Mr. Alderman Cubitt, 10*l.* 10s.; "Gray-stone Lime," 10*l.* 10s.; Mr. Barry, 5*l.* 5s.; Mr. Hunt, 5*l.* 5s.; Messrs. Wood and Son, 5*l.* 5s. The following became subscribers of 10*l.* 10s. annually for five years:—The Chairman; Mr. George Bird, the Treasurer; Mr. R. Richardson, Camden-town; Mr. Charles Richardson, Paddington; Mr. Thos. Lemon; Mr. Wm. Piper, Lambeth; Mr. Geo. Jennings, Blackfriars; Mr. Joseph Bird, Regent's-park; Mr. John Jay, City-road; Mr. Henry Myers; and Mr. George Burge.

SPA-FIELDS CHAPEL,

EXMOUTH-STREET, CLERKENWELL.

The original leases of valuable property in Clerkenwell, belonging to the Marquis of Northampton, have just expired, and the alterations and improvements consequent upon their renewal, have been extensive. Even already these have added much to the appearance and importance of the neighbourhood, particularly in Exmouth-street; and when the long contemplated line of Victoria-street shall be complete, must necessarily enhance the value of the property. Considerable alterations have been made to the old Northampton Chapel, called after the marquis, but better known as "Spa-fields Chapel."

A tablet within the building informs us the chapel was opened for divine worship by Lady Huntingdon nearly eighty years since. The exterior has been improved with porch and iron fence. The inside of the building is a circle, with two galleries, each supported by small columns, and surmounted by a dome of large size, with lantern at the top. To light the building, a circular pipe, about 144 feet in circumference, is supported on brackets at about a foot from the base of the dome, from which project upwards of sixty-four gas burners, fitted with globes. The alterations have been made under the superintendence of Mr. T. W. Constantine, architect. The chapel will hold upwards of 2,000 persons.

WHAT MAKES A BUILDER?

I wish you, or some of your numerous readers, could devise some means of restoring the respectability of the building business, and excluding unworthy members from exercising the art. I think we need to be restricted from practising without a diploma as much as architects. Had the *Lancet* Commissioners the proper knowledge, there would be a much greater amount of rascality for them to expose in the speculative buildings that are continually running up in both town and country, than in the field in which they are at present engaged.

It has always, up to the present time, been my practice to execute work in a substantial manner, with the best workmanship and materials that could be obtained for money, and this work has never been found fault with in regard to *quality* (price I will say nothing about); but as it costs me 25 to 30 per cent. more than the kind of work now in the market, of cours cannot compete in price with that article, should feel ashamed of turning out such rasc joinery work in particular. Journeym bricklayers, plasterers, wheelwrights, and c sons of Crispin, are now dubbing themsel "builders," and taking contracts all round neighbourhood. Few of them are capable taking off quantities, and never attempt they make a guess at the amount, and all risks. Hence the great discrepancies tenders.

The public seem determined to be suppl at ruination prices, and architects are obliged shut their eyes to many things that are what they ought to be, well knowing the f of expecting skill where it does not exist.

Some of these contractors, who have a li money to commence with, get rid of it; those who have not, which are much the grea number, swindle their creditors and ret with the spoil. It is quite useless under present system, parents apprenticing their s seven years to learn the *art* of building: it only requisite they should be placed a months with a sharp practitioner to learn tricks of *trade*, for building is no longer *science*. I cannot bring my mind to descend these practices; and were I a few years young should be inclined to leave this country in d gust, and try my chance in one of the colonie

Fair Play.

ON THE PRESENT STATE OF OUR KNOWLEDGE OF THE SUPPLY OF WATER TO TOWNS.

At the late meeting of the British Association the Advancement of Science, a report on this subj from Mr. J. F. Bateman was read. After alluding the interest which attaches to the consideration this question, and its importance as affecting health, the comfort, and well-being of the inhabita of large towns, Mr. Bateman remarked that till a ve recent period the question of water supplies on a lar scale has in this country been much neglected. works, however, now designed and carried out amongst the largest, the boldest, and most successf productions of the age, rivalling the greatest unde takings of the ancients and the Romans. Towns now almost universally supplied with an unlimit quantity of water, in the most perfect and convenie manner, the water being conducted into the interi of the houses, and thus applied to every domest want. Towns were formerly supplied by artifici means, by the collection of springs, which were co ducted to public fountains, from which the inhabitan fetched water as they required it. The supply Rome on this system is said to have amounted at o time to 50,000,000 cubic feet per day to 1,000,0 inhabitants, which is upwards of 300 gallons a day each person. After glancing at the early attempts this country to procure water by artificial means, shortly described the manner in which Peter Morio a Dutchman, first raised water from the Thames f the supply of London, in 1581, by means of wate wheels worked in the arches of Old London Bridg and the construction of the New River works, which water was brought to London from Hertford shire by Sir Hugh Myddleton—a distance of fort miles—in the beginning of the seventeenth century He stated that London is now supplied with water b nine companies, who deliver about 44,000,000 gallon per day, and derive an annual revenue of abou 236,000*l.* He then went on to say, that the differen sources from whence a town can derive a supply o water, beyond that which the inhabitants can collec in cisterns from rain, or procure by wells on their own premises, may be classed as follows:—1st, From springs; 2ndly, From artesian wells, or from water t be obtained from absorbent geological strata; 3rdly From rivers; 4thly, From gathering grounds, where the surplus water of wet seasons is collected into large storage reservoirs, and 5thly, From natural lakes. The most abundant supply of spring water, from an extended area, was stated to be in the green sand formation near Guildford, in Surrey, where between 30,000,000 and 40,000,000 gallons of water per day, not exceeding 2½ degrees of hardness, might be produced for the supply of London. As to artesian wells, the artesian well at Grenoble, in France, yields 880,000 gallons per day: fifteen wells at Tours, in France, yield about 4,000,000 gallons daily; and it is estimated that the quantity obtained in this way in London and its immediate neighbourhood is equal to 8,000,000 or 10,000,000 gallons per day. The most important supplies of modern times have been procured from gathering grounds. Many points of considerable interest enter into this branch of the sub-

—the annual fall of rain—the loss by evaporation and absorption—the quantity of water flowing the ground or issuing in springs—the duration of ights—the heaviest falls of rain—and the capacity reservoirs. Mr. Bateman entered largely into e questions, showing that the rain varied from nches to nearly 200 inches per annum, according ocality; that from 12 to 16 inches of that which was lost by evaporation, vegetation, &c. and that storage capacity of reservoirs should vary from 000 to 60,000 cubic feet and upwards, according he annual rain-fall for every acre of collecting und.

TRIGONOMETRICAL SURVEYS.

Your readers must not be allowed to suppose, n the wording of a notice of the survey of reford, in your paper of 20th instant, that a ect base, and computed distances from observed les, are a new contrivance of the surveyor ded to. All surveyors know, or ought to know, t such triangulation is indispensable as a check the chained distances, and if left undone, as rted, it must be owing to the "cheap and nasty" tem generally prevailing. I myself triangulated a ge district some years since in Devonshire, in conction with Mr. John Pasley Luckraft, of the Royal vy, a gentleman who considered everything, whether land or sea, worth doing well if it were to be done ll. We chained a horizontal base of nearly a mile, kward and forward, to within a fraction of an h; and connected the extremities with other proent objects, by observed angles, &c. but we were h perfectly aware at the time that old Euclid made rvey of the town of Alexandria, precisely on the ae system, more than twenty centuries before. ere are also other towns in England besides Hereid that are properly surveyed. METATOR.

In reply to an article in the *Builder* (p. 504, *ante*), ncerning the Trigonometrical Survey of Towns, mit me to say a few words on behalf of the survey this town, Cheltenham. The survey commenced February last: the trigonometrical observations re completed in March. The base-line was meed twice with a standard chain. Commencing at h ends of the line, both measurements were preely the same length. It forms nearly an equilateral angle with St. Mary's Church spire, extending over f the town, and it is the first side of a complete tem of major triangulation extending over the ole district.

The trigonometrical angles are proved correct the 32nd prop. 1st Book of Euclid, and this tem of triangulation was reduced to a minor tem, calculated to obviate the ordinary way of versing, which is not trigonometrical, and is well own to every proficient civil engineer to be in that se computed from the contained angle and two des; which sides are not calculated from the base-e, but measured on the ground for that purpose. they are calculated from the base-line, why do they me under the denomination of a traverse, which is ways used to finish an imperfect triangulation? and at relation do these measured lines bear to a duced base-line? So much for the boasted talent trigonometrical surveyors.

JAMES M'CLEARY.

The Cambridge Survey.—With reference to this rvey, Mr. Radcliffe asks us to say it was comenced in 1851, by Mr. R. R. Rowe, the town surveyor, by whom the former was subsequently engaged a general assistant, so that he has no right to appear the principal.

OLD FATHER THAMES.

Passing over Waterloo-bridge the other day on y return from a visit to Twickenham, I was more an ever reminded of the noxious condition of the hames in its meanderings through our grimy city. happened to be low tide, and the appearance , and odour from, the black and dismal banks were ch as to produce a terrible revulsion of feeling the unfortunate pedestrian. There might be seen rtain of the sewers discharging their contents along e muddy way in seemingly vain attempt to seek a fuge and a "home" amidst the congenial wave, hilst the human abodes on either side called forth sions in the mind of sure and welcome refuge therein be found for Pestilence—foul, gaunt, and dire. The ntrast between the limpid stream I had been erst beolding and that which I *now* beheld, sluggishly rolling beneath my feet, was painfully striking. Why, r, I would ask (and through the medium of your lumns may the echo be prolonged), why is this ily-increasing nuisance allowed to accumulate? We now that a scheme for its relief is "under consideration," and as such it is likely so to continue; but would not the wiser course be at once to advise with competent professional men, and, abiding by the decision of the majority, adopt an efficient present remedy and future preventive for the evil? Nothing short of creating a new passage and outlet for the sewage beyond the danger of reflux can accomplish the desired object; and as regards the question of expense, where interests so paramount and all-embracing are concerned, it should form but a secondary consideration. There is the greater necessity also for promptitude, as the work must necessarily extend over a considerable period of time, and will be confined to one side of the river at a time: let, therefore, vested interests no longer stand in the way of public necessities, nor men further delay to seek after the dearest blessing of life—Health; but secure, as far as in them lies, the means to attain it, and so avoid the reproach of hypocrisy in beseeching God to avert what their own wilful neglect has created. OMNIBUS.

A COATING FOR LEAD.

I have made some experiments for the benefit of your correspondent "Belfast," and beg to submit the following process to his consideration.

Boil together, in one quart of soft water, three ounces of subcarbonate of potass (commercial pearlash), and one-and-a-half ounce of powdered rosin, just moistened with boiled linseed oil, until the latter ingredients are dissolved, or nearly so; then mix the whole with a gallon of a boiling solution of shell-lac and borax (prepared as directed for the lacboreic paint):* allow it to cool, and strain through coarse flannel.

A colour must next be made of a lead-grey tint, without, however, containing any of that metal. As *pure* rain-water is the desired object, it may be thus prepared:—

Dilute some commercial oil of vitriol with two or three times its bulk of water, raise it to the boiling-point, and throw in gradually a quantity of fine porcelain clay (or pipe-clay), keeping the liquid boiling until it becomes quite neutral, *i.e.* free from acidity (this will take several hours); then strain, and add a saturated solution of common washing soda in slight excess: the precipitate of alumina produced should be washed upon a cloth, dried, and four-fifths of it calcined in a crucible for half-an-hour; when cool, to be mixed with the remaining fifth;† finely ground upon a stone slab, with enough ivory-black to form the required colour. This alumina-grey is ready for the menstruum named in the preceding paragraph, which should be added to it, till a creamy consistence is obtained.

The rules before given for lacboracic painting apply equally well to this, which will be found very serviceable where poisonous colours may not be employed. If "Belfast" will give his lead-flats two coats of it, and allow it forty-eight hours to dry, his rain-water will be found free from all impurities, except such as are furnished by the atmosphere. Should he deem the alumina-white process too troublesome, requiring only a small quantity, a mixture of 1½ lb. best modelling clay, and 4 lbs. of broken tobacco-pipes (to be had at any place where they are made), finely ground together, answers nearly as well.

If "Belfast" at any time likes to send half a gallon of his rain-water, addressed to me, "Care of the Royal College of Chemistry, Oxford-street, London," I will analyse it with pleasure.

WENTWORTH L. SCOTT.

MEMORIAL TO LIEUTENANT BELLOT.

A monument to the memory of the late Lieut. Bellot, of the French Navy, who unfortunately perished in the last Arctic expedition, has just been erected on the west wharf of Greenwich Hospital.

It is a very prominent object from the river, and consists of an obelisk of Aberdeen red granite, standing on a plinth and three steps, the obelisk itself highly polished, and the faces of the other work fine-axed. On the plinth is cut the simple inscription, "Bellot," and the total height is about 34 feet. The base of the obelisk itself is 3 feet square. The drawing was furnished by Mr. Hardwick, R.A. The foundations, extending 15 feet from the surface, through loose ground, were put in by Mr. James Suter, of Greenwich, and the monument was supplied and fixed by Mr. McDonald, of Aberdeen.

Iron Theatres.—Mr. Richard Turner, of Dublin, has lately contracted to fit up a wrought-iron roof and all the upper machinery of a large theatre at Buenos Ayres, the cost of which will be upwards of 4,000*l.*

* See p. 466, *ante*.

† This Alumina-white is original, and will be found a useful white for oil or lacboracic painting.

AMERICAN PATENTS.

The following are quoted from a recent number of the *Journal of the Franklin Institute of Pennsylvania*:—For an Improvement in Metallic Blinds for Doors and Windows.—William L. Worthen, City of New York. Claim.—"1. A tubular metallic window blind slat containing in the cavity thereof a non-conductor of heat. 2. Pivots and grooves, or their equivalents, in combination with metallic slats, capable of vibration and of rising and falling, by which a firm, secure shutter is constituted, while the ordinary uses of inside Venetian blinds are still retained. 3. A locking bar in combination with slats, capable of vibration and motion, in a plane vertical, or nearly so. 4. Arranging arms to which are attached vibrating chains, and also vibrating chains in a recess separated from the slats proper. And, lastly, a supporting chain in combination with slats capable of vibration and motion."——For an Improved Window Blind: Frank Chase, South Sutton, New Hampshire. Claim.—"Constructing blinds by nailing or securing oblique or diagonal slats to both sides of a frame, the slats on one side of the frame being opposite to or covering the spaces between the slats on the opposite side."——For an Improvement in Machines for Pulverizing Clay: John O'Neil, Kingston, New York. Claim.—"The combination of the spring blades with the ridged surface of the cylinder against which they act. Also, the combination of the aperture in the depressed part of one or more of the ridges with the spring blades, which eject or force out the stones. Also, the combination of the cutting or pulverizing blades with the ridged surface of the cylinder. Also, the perforated or grated door and slide, for the purpose of regulating the discharge of tempered clay."——For an Improved Machine for Cutting Screws on Bedsteads: Orson Parkhurst and Daniel Bullock, Cohoes, New York. Claim.—"Arranging and operating the rotary cutters at an angle, so that we can traverse them parallel to the rail, and cut under the concave shoulder."

THE METROPOLITAN BUILDING ACT OF 1855.

The Metropolitan Building Act, 18th and 19th Vic. c. 122. *With Notes and Suggestions.* By Edward Ward Lower, Architect, Surveyor to the Office of Metropolitan Buildings. London: Waterlow and Sons, Parliament-street.

The Metropolitan Building Act. With Notes, Index, and Engravings. By David Gibbons, Special Pleader; and R. Hesketh, Architect and District Surveyor. London: John Weale, High Holborn.

Both these editions of the new Act, which is to come into operation on the 1st of January next, contain the unrepealed clauses of the present Buildings Act, and of the Act of Geo. III. c. 78, and the arbitration clauses of the Companies Clauses Consolidation Act. The main difference is, that Mr. Lower gives in his book the building clauses of the Metropolis Local Management Act; while Mr. Weale publishes the whole of that Act separately, in a cheap form, to accompany Mr. Hesketh's edition. The name and position of the editors give complete assurance of correctness. Both editions contain a full series of diagrams, showing the required thickness of walls, and point out the various troublesome qualifications contained in the Act which will have to be considered. There seems to be a little error in Mr. Lower's diagram showing the thickness required for the walls of dwelling-houses up to 40 feet in height. In the wall without limit as to length, the topmost *two* stories are shown to be of 9 inches work: it should be the topmost story only. This, however, is corrected by the table. Mr. Lower adds a diagram, which makes more strikingly apparent than words that the section which regulates the dimensions of footings is a very bungling one.

A hardship appears to threaten the district surveyors of Hornsey and Tottenham, which are not included in the limits of the new Act. Sec. 32 provides that places which were constituted districts by the existing Buildings Act shall continue to be districts. But lawyers seem to doubt if Hornsey or Tottenham will come within the operation of the new Act. The section, 32, to us, nevertheless, seems clear.

A question will arise, amongst others, as to the mode in which buildings carried higher than the footings before the 1st of January next are to

be completed—whether in accordance with the old Act or the new,—the new Act declaring such to be "old" buildings. Mr. Gibbons says on this point:—

"Buildings which have been carried higher than the footings previously to the 1st of January, and are then in progress of construction, should, it would seem, be completed under the old Building Acts, and so far as regards the regulation of such buildings, the provisions of those Acts will continue in force according to the enactment of 13 & 14 Vict. c. 21, s. 4, that whenever any Act repeals any former Act, and substitutes provisions instead of the provisions repealed, the repealed provisions remain in force until the substituted provisions come into operation. The alteration, addition, or other work mentioned in the next section can hardly be construed as referring to the continuation of a building in course of erection; but such section is probably confined to works commenced after this Act commences to operate. Sec. 38, as to notice to the district surveyor, favours this construction. The notice is to be given before the work is commenced. If this be so, the present Act does not operate as to the building under consideration until it is finished, when it will apply to any alteration afterwards made to it, or if it should become dangerous; and consequently the repealed provisions remain in force."

Bearing on this question, Mr. Lower points to the Repeal Clause, sec. 109, which says that proceedings pending before the official referees, or any other tribunal, shall not be affected by the repeal; and also that proceedings may be had after 1st of January, 1856, where any act or omission in respect of which proceedings might have been taken under the 7th and 8th Vict. occurred *previously to that date*. But he thinks this does not seem to meet the case of works executed *after* January 1st, upon an "old building." Should it be held that the completing of an unfinished building constitutes an "alteration, addition, or other work," under sec. 9, some difficulties might occur. There will be time, however, for the discussion of this and other points.

Notices of Books.

Practical Geometry. The Course of Construction of Plane Geometrical Figures, used as a part of the Course of Instruction in the Training School, Marlborough House, &c. By R. BURCHETT. London: Chapman and Hall. 1855.

THE method of teaching masters in training at Marlborough House is that of lecture, with the black-board for illustration; and the principal object of the work before us is to extend this method of oral teaching. For those who cannot attend the Training School, and yet desire to prepare themselves for examination, it will be found particularly useful. It is, moreover, such a course as should be taught in all schools. Mr. Burchett is the head master of the Training and Normal School in connection with the Department of Science and Art, and knows, by experience, what is wanted. He advises students to draw the figures large, say for each line 1 inch long in the plates, to draw one 3 inches long himself, and instead of *copying* the description, to write one of his own, and then compare them. He properly urges, too, that neatness and care are essential to success in drawing geometrical figures.

"It has been the endeavour," says the author, "to make this course of the construction of Plane Geometrical figures full and complete, without being limited or overloaded by the requirements of any specialty, to impart to the students of the schools a knowledge useful in every branch of art, and only so frequently unapplied from being so commonly unknown." As it seems to us, he has succeeded in the endeavour.

VARIORUM.

THE Society of Arts have issued an edition of a well-intentioned little pamphlet, "Good Times; or, the Savings-bank and the Fireside." The author, Mr. C. W. Sikes, of the Huddersfield Banking Company, is an earnest advocate of all those things which are calculated to make better citizens, by giving every one an interest in the state, inducing the habits of saving, of thrift, industry, and temperance. He produced the pamphlet in this spirit, and hoped that employers would largely purchase it to give to their workmen, with which object in view, fifty copies are sold for half-a-guinea. They might usefully do so. One chapter is devoted to building and investment societies.——"Childe Harold" is so largely an architectural and topographical poem, as to afford a good reason why we should mention the new edition of Byron's poetical works now being issued, an edition with all the advantages of good paper and printing. For the use of subscribers to the Art-Union of London who received this year a set of designs from "Childe Harold," Mr. Murray has printed this poem separately, so that it may be bound up with the illustrations,—and a beautiful volume the whole makes. —— The same publisher's new and cheap edition of Hallam's standard historical series, will place these works within reach of a fresh class of readers. "Europe during the Middle Ages" is completed in three vols. and of "The Constitutional History," two volumes are out.—— The illustrations of "The Kirk and the Manse" (Fullarton, London, &c.), lithographed by A. and J. Macpherson, have much improved since our first notice.——"The Royal Gallery of Art" (Colnaghi) is making very satisfactory progress, increasing rather than diminishing in excellence. The last three numbers contain some charming specimens of both painter's and engraver's art: we would especially mention the "Bay of Naples," by Callow (engraved by Wallis); "Amalfi," by G. E. Hering (engraved by E. Goodall); "The Star in the East," by Warren (engraved by R. Brandard); and "The Wolf and the Lamb," by Mulready (engraved by C. W. Sharpe). The first volume is now completed. We are glad to hear that the subscription for the proposed testimonial to the editor of this work, Mr. S. C. Hall, for his manful behaviour as editor of the *Art-Journal*, is going on well, and promises to reach a sum worthy of the object in view. We have reason to know that the number of the subscribers will be more regarded, both by the recipient and those who have set it afoot, than the amount subscribed,—that ten subscribers of ten shillings each will afford more gratification than one subscriber of ten pounds.

Miscellanea.

SALTS IN CEILINGS.—A correspondent asks for information as to how "salt water" can be got out of a ceiling without taking off the plaster,—no easy task, we fear. Our correspondent may be referred to page 334 of our present volume, although the remarks and suggestions there made, as well as in other numbers about the same time, refer to salts, and especially to saltpetre, in walls only. Other methods, besides extraction of the salt, have been suggested,—washing with silicate of lime, if we mistake not, amongst other plans.

CEMETERY AT ISLEWORTH.—An undertaking on the limited liability principle has been set on foot to establish a cemetery, at Park-hill, near Isleworth. The population of the district within eight miles of the spot selected, exceeds 500,000 persons. The lands, extending to about 50 acres, can be obtained, it is said, and fully completed, for a sum under 50,000*l*. The soil is sand and gravel.

LINING OF LEADEN WATER-PIPES.—In reference to what we some years since, and again lately, said as to the desirability of settling the question of lead contamination in water supply, without awaiting the decision and agreement of conflicting chemists as to what peculiar properties in water really do render it most liable to such contamination, we have already recorded several inventions since brought to our notice, whereby leaden pipes are intended to be protected from the action of the water passing through them, as by interior coatings of tin, aluminium, lac-compositions, gutta percha, &c. and it is satisfactory to find that the subject must have been exciting special interest of late years, from the various inventions to which our attention is now being successively drawn. One of these, just brought under our notice, is a patent granted in April, 1853, to Mr. Chatterton, of Birmingham, manager to Messrs. Stock and Son of that town, whereby leaden pipes are lined with gutta percha. The lining, as appears by a specimen sent us, is in this case fixed to the interior of the leaden pipe, and is of considerable thickness.

FALL OF A CHAPEL ARCH.—One of the arches of the Episcopal Chapel in the cemetery at Rochdale fell down during a storm on Thursday before last. The chapel is 66 feet long and 29 feet wide. In the centre there rises a square tower 60 feet high, and from the square of this tower a spire, 30 feet high, was in course of being slated. The tower rests upon two arches, the span of each being 19 feet. On either side of these arches there is an abutment, 7 feet wide. Some time ago one of these abutments gave way a little, and the cemetery committee met Mr. Cheetham, the contractor; Mr. Foulds, the clerk of the works, and Mr. M. Smith, of Manchester, the architect. Mr. Cheetham, it is reported, was of opinion that the abutments were too narrow and weak for so large an arch, while Messrs. Smith and Foulds were of opinion that it would stand. The whole of the square tower, it appears, will have to come down nearly to the base, and the damage is estimated at nearly 300*l*. The contractor says he has worked to his plans.

FALL OF A CHIMNEY.—A new chimney at a mill in course of erection at Belthorn, near Blackburn, fell on Sunday before last, in consequence, it is said, of defective foundation. The chimney was of stone and 33 yards high. It fell upon the engine-house driving in the roof. The damage is estimated at 120*l*. Falls of buildings are very frequent in some parts of the undermined districts of Lancashire.

FALLING IN OF A RAILWAY TUNNEL.—The traffic on the main line of the Great Northern Railway between Peterborough and Grantham was suspended last week from Thursday to Sunday, in consequence of the falling in of a considerable portion of Stoke tunnel, a few miles south of Grantham.

BUILDING ESTIMATES.—(Birmingham County Court.)—In the matter of Whiston *v.* Selman, plaintiff was a builder (conducting his own case), and defendant a mechanician. Deciding to erect three houses, defendant and plaintiff had some conversation respecting them, and with others plaintiff furnished estimates for such building. The work was, however, finally given to another party, and now Mr. Whiston sought to recover from Mr. Selman a sum of *1l.* 5*s* for making such estimates. It was shown that no agreement took place as to any the least remuneration for such a labour, and indeed the trade usages went to show that estimates were not paid for. Finally it was shown that plaintiff did go to see the borough surveyor, Mr. J. P. Smith, at defendant's request, relative to the plans, &c. of these houses, and his Honour holding that no claim as for the preparation of these estimates could be enforced, gave plaintiff a sum of 5*s*. for his trouble as to such visit to the borough surveyor.—*Birmingham Journal.*

THE LIVERPOOL FREE LIBRARY AND MUSEUM.—From the third annual report of this excellent institution, just issued, it appears that the advantages of it are appreciated by those for whose benefit it was established. During the year ending August 31, 1855, 100,507 books have been issued and returned, and, in addition, there have been, on an average, 110 readers a day of periodicals, making an average total of 462 works perused per day. During the last twelve months 88 new books have been added by donation, and 3,285 by purchase; the total number in the library being 18,112. This number is exclusive of 1,200 volumes and 490 parts, duplicates of Parliamentary papers. Upwards of 360 volumes have been transferred to the lending libraries. The report also states that during the last session of Parliament an Act was passed authorizing the council to purchase land between Shaw's-brow and Clayton-street as a site for a new library and museum. With respect to the lending libraries, the committee speak very encouragingly. There are at present 4,090 persons entitled to select from 8,054 volumes, the present weekly circulation being 3,014 volumes. Out of a circulation of 140,000 volumes only one has been lost to the library. The number of readers last year included 3,879 males and 365 females: of these 2,689 were under age, and 102 above fifty years of age. During the year 2,050 catalogues of the books were sold. The number of visitors to the Derby Museum during the year was 111,931.

"LIVRES" AND FRANCS.—In a foot-note to your last number, page 505, you observe that M. de Guilhermy's statement that the Sainte Chapelle cost, in the thirteenth century, 800,000 *livres*, was an error, and that *francs* must be meant. The fact is that these two words are identical in French. The word *franc*, which may either be taken to signify *French* or *Free*, was introduced at the French revolution, to designate a silver coin *approximately* (but the standard before that event varied in the different provinces) the same as the old *livre*, which was adopted as the unit of account. It was, I believe, the old *livre Tournois*. Old-fashioned people continued to call the *franc* the *livre* till very recently. I have often heard it so termed. The *gold* pound of England is always distinguished as "livre sterling."—Y. K.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.—The first meeting to be held on the 5th inst. the chair will be taken by Mr. Tite, Vice President, M.P. He will offer some remarks on the present condition and future prospects of architecture in England. The paper to be read is entitled,—"Considerations upon some of the Objects connected with Architecture in the Exposition des Produits de l'Industrie at Paris, 1855," by J. W. Papworth, Fellow.

CAST-IRON LIGHTHOUSE FOR THE WEST INDIES. There is now in the course of erection at the engineering works of Messrs. Grissell, Canal Basin, near the City-road, a cast-iron lighthouse, the ultimate destination of which is the Island of St. Isaac, among the West Indian Islands. This lighthouse is 8 feet diameter at the base, and will rise to the elevation of 150 feet to the top of the lantern. It will diminish upwards from its lower diameter to 5 feet. The entire work is formed of a series of cast-iron plates, of about $1\frac{1}{2}$ inch in thickness upon the lower courses, with radiated joints, diminishing in a thickness of $\frac{1}{2}$ of an inch in the upper courses. The lower portion of the lighthouse, to the height of 20 to 25 feet, will be filled in with solid concrete, and will at this elevation be entered by an external staircase. The interior will have a spiral staircase ascending to the lantern, and will be fitted with store rooms, offices, and apartments necessary for the purpose of the lighthouse.

ANOTHER FORM OF THE CHANNEL TUNNEL PROJECT.—A survey has of late been going on about Dover on the one hand and Calais on the other, with the view of forming a submarine tunnel and railway to unite the British and French lines, the chief feature of which form of the general project is the formation of wells in the Channel, whereby the work can be proceeded with simultaneously in different parts of the tunnel, and the whole be afterwards ventilated. Five years, it is estimated, would thus suffice to complete the work. M. L. Favre, the engineer, has published the details of his project, from which it appears that the tunnel would be so pierced that a bed of earth 25 metres deep would divide it from the sea at the greatest depth. It would be lined with a double arch, the first of granite and impermeable cement, and the second of thin iron plate perforated in different places to reveal any risk of filtration. The excavated matter would be cast into the sea round the wells, and so form little islands around them for their protection. The cost of construction is estimated at 500,000,000 francs for thirty-four kilometres of tunnel, five maritime wells, four kilometres of trenches, and two stations, leaving 23,000,000 francs for unforeseen contingencies. An Anglo-French Company, it is said, is to be "immediately organized upon the most powerful basis to execute the railway."

ART-UNIONS.—There are more than fifty Art-Unions in Germany, says the *Athenæum*, some of which are connected among themselves, so as to form distinct provinces or districts (*Kreise*). There is no Art-Union in Berlin, but every year a large academical Exhibition. In the course of last year, 1,549 pictures, realizing a total amount of 195,404 thalers, have been sold by the combined means of the German Art-Unions, including the sales of the Berlin academical Exhibition.

MUD AT A PREMIUM.—Adverting to the cleansing out of the river Brayford, the *Stamford Mercury* says:—"The men get out 200 tons of rich soil daily, or 1,200 tons weekly, and it is turned into the diggings to fill up the swamp. One person has offered 1s. per ton for 4,000 tons, another the same price for 4,000, and another the same price for 700—all to put on land, as it forms very superior manure. A farmer who put 2,000 tons on some land some years since states that the land has not yet forgotten it. This is the same person who now wants 4,000 tons. The cost of getting the stuff out is 25*l.* weekly, and 1,200 tons at 1s. per ton would realise 60*l.*—a profit of 35*l.* weekly. After this demonstration it is to be hoped that Brayford and the rivers will be kept constantly cleansed of mud.

NOTE FOR LONDON TOPOGRAPHERS.—A writer in *Notes and Queries* says Cole has preserved the following epigram on the removal of the London sign-posts:—"On the back of a scrap of paper which I found in the register-book of my parish of Burnham, in Buckinghamshire, written in my brother Apthorp's hand, and probably composed by him, as I know he had a turn for epigrammatic writing, is the following punning epigram on new paving London streets with Scotch marble or rock stone, at which time all the sign-posts, and other posts to divide the coach way from the common walking way, were removed:—

"'*Epigram on the New Pavement in London*, 1764.

"'The Scottish new pavement deserves well our praise;
To the Scots we're obliged, too, for mending our ways:
But this we can never forgive, for they say,
As that they have taken our *posts* all away.'"

MEASURE OF COMBE DOWN STONE.—Can any of your numerous readers tell me if the law which inflicts a penalty on rogues in grain, for dealing out short weight and measure, can reach rogues in stone also? Having for a length of time been working up a considerable quantity of Combe Down Stone, I have, after carefully measuring, found almost every block short of the cubical quantity in the quarry mark, and charged for in the merchant's invoices; so much so, that in blocks containing from 15 to 40 feet, I have found from 4 to even 9 feet short. The quarry masters, when remonstrated with, tell me they can make no allowance for whatever may be deficient, as "it is the custom of the Down to measure close." Close measure I would not complain of, but of dishonest measure I do, and if such is the custom, for the credit of the Down's people, and the satisfaction of their customers, the sooner it is abolished the better. They may call it close measuring—I call it by its proper name, a fraud, and I think it very proper that those who have not already been taken in and done for, by their close measuring, should be put on their guard. If you think this exposure worthy a space in your columns, you will by inserting it oblige one who only wishes money's worth for his money—a foot of stone for a foot, no more nor no less.—A VICTIM.

CESSPOOLS IN THE CITY.—At the time the cholera was raging in the metropolis, the police made a visit to every house in the City, to ascertain and report if any cesspools were existing, in order that the occupier might have notice to remove them, or be proceeded against according to the statute; and in consequence there is a general opinion that the City of London is entirely free from such nuisances. Judge then my surprise, on looking over the premises now being pulled down at the corner of Mark-lane, to find a large cesspool overflowing, and the soil draining through an old wall into the basement, where several men worked at a forge daily. Who is to blame for allowing such an abomination to exist in a crowded neighbourhood?—"ANTI-CHOLERA."

GAS SMOKE CONDENSER.—An invention has been patented by Mr. Simons, of Birmingham, consisting of a gas-shade, to supersede the old bell glasses, and intended to condense the smoke and absorb noxious vapours. The invention is said to be simple, and cheap. It is manufactured in glass, porcelain, and metal.

THAMES TUNNEL.—During the week ending 27th October, 17,783 passengers passed through the tunnel, and paid in tolls 74*l.* 1s. 11d.

GREENWICH CEMETERY.—Tenders have been received for the east and west boundary walls and iron railing for the Greenwich cemetery at Kidbrook, ranging from (Norris) 895*l.* to (Rolfe) 702*l.*

TENDERS

For a dwelling-house at Blackheath, for Mr. C. Redout. Quantities not supplied. Mr. F. F. Thorne, architect:—

Pearson (Kensington)	£1,799	0	0
Wellmott (Blackheath)	1,778	0	0
Penny (Lewisham)	1,758	0	0
Searle (Deptford)	1,588	0	0

For erection of villa at Sutton, for Mr. A. Looke. Mr. Woodthorpe, architect. Quantities supplied by Messrs. Fox and Enoch:—

Lawrence and Sons	£1,666	0	0
Ashby and Sons	1,626	0	0
Brown and Co.	1,537	0	0
Haynes and Eyre (accepted)	1,515	0	0

For painting, re-decorating, and sundry other alterations to the Hall of Commerce, to be fitted up for the use of the Bank of London. Mr. Woodthorpe, architect. Quantities supplied by Mr. Fox:—

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Lawrence	1,342	0	0
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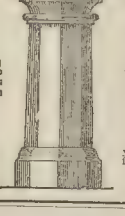

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ODDINGTON TIMBER-YARD.—SAWING, PLANING, and MOULDING 3, Ironcutt Place-street, Paddington, and 96, St. John's-wood terrace, St. John's-wood.—GEORGE WILLIAM FRY begs to draw attention to his large stock of SEASONED and PREPARED GOODS, at the lowest current prices. Liberal allowance given, and facility for immediate despatch by rail or canal. Such goods every advantage to country as well as town buyers. Planed and priced sheets of moulding designs and general details of goods forwarded post free on application. Goods free from any part of town, including the various railway and canal depôts.

N.B.—Sawing and planing for the trade.

MOULDINGS by MACHINERY, of any Design, carefully packed and sent to all parts of the country.

Address, E. SIMMS,
SAWING, PLANING, AND MOULDING MILLS,
King's-road, Chelsea, and Wilton-road, Pimlico.

MACHINE CARVING, JOINERY, and MOULDING WORKS. Belvidere-rd, Lambeth. The Proprietor of the above works begs respectfully to apprise the public, clever, architects, builders, cabinetmakers, and trades generally requiring Carved and Moulded Work, that he is now prepared to execute any orders that may be entrusted to him with the most promptitude. Every description of Carved Work and Joinery roughed out by the machines for the trade only. Pulpits, Pews, Reading-Desks, Screens, Altar-Rails, Tables, &c., executed at the shortest notice. Specimens of Carved Work suitable for various purposes, can be seen at the Works, where estimates furnished upon application.

MASONED FLOORING.—GEO. NOKES and Co., late Architect and Atkinson), beg to acquaint the public and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, on sale, at the following reduced prices, for cash:—

9in. White, 14s. 6d. per square.		4 inch Yellow, 10s. per square.	
10	18s. "	4 ditto	16s. 6d. "
10	18s. "	3 ditto	20s. "

Laths, 30s. per load.
Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.
PENCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

YELCONY PANELS. — About 70 cwt. of Panels, 10 cwt. of Newell Bars, and 15 cwt. of Railing TO BE SOLD, at 9s. 4d. per cwt. Also, a quantity of strong Iron Rooper Stores and Rennet to be Sold, very cheap. SCHOOLING and CO., Wholesale Ironmongers, 14, Great street, Whitechapel road, London.

OAK TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Wharf, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, battens on sale, direct from the importers; cleaned floor-boards, mouldings, pine and cut deals, slating battens, laths, &c. Oak plank, and sash sills, at reduced prices for cash. The Duty Price Current forwarded on application.

BLACK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, for cash only, at LEWICH'S Lead, Glass, and Colour Warehouse, 21, Monmouth-street, Seven-dials.—A large quantity of PAPER-HANGINGS CHEAP. 2½d. per cwt given for old lead.

IMPERIAL OAK STAIN, cheapest and best, 6d. per gallon.—J. ELLIOTT, Health Cottage, Camden-heath, Hackney, near Cambridge-heath-gate. Estimates free.

GRAINING DEAL TO IMITATE ALL KINDS of WOODS. Requires NO SIZING, and will stand 7 years to the weather. Price 6s. per gallon. Varnishes for the above Stains may be had at the Factory, 44, James-street, Oxford street; also Manufacturer of Improved Knotting and Decorative Varnishes.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increasing trade and patronage he is continually receiving, he find it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are highly esteemed by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. In returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments and every description of marble and stone work also made to order by improved machinery. NEW WORKS, No. 29, BRIDGE-STREET, HARROW-ROAD, PADDINGTON, about two yards from the Great Western Railway Bridge. New Price Lists will be sent by post, to be had on application, or if forwarded, by enclosing four postage-stamps.—Please note the address 29, BRIDGE-STREET, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 60 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO., Bentham, Lancaster.

No 1 quality, inches diameter, and price per yard.

½	1	1¼	1½	2	2½	3	3½	4 in.
4½d.	7d.	1s.	1s. 3d.	1s. 6d.	1s. 7d.	1s. 9d.	2s.	2s. 3d.

Super-extra stout quality.

2	2½	3	3½	4 inches
2s.	2s. 3d.	2s. 6d.	2s. 9d.	3s. per yard.

No. 2. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

½	1	1½	2	2½ inches.
9d.	1od.	11d.	1s.	1s. 3d. 2d. per yard.

The hose is Burnettized at an extra charge of 3d. per yard. Brass Joints, Branch Pipes, and Jets, are also supplied.

THE HOLLOWAY and NORTH METROPOLITAN FREEHOLD LAND and PERMANENT BUILDING SOCIETY, for the Purchase of Freehold, Copyhold, and Leasehold Property; for the Redemption of Mortgages, Investing Savings, &c.

PRESIDENT.—Thomas Challis, esq. M.P. Alderman.

TRUSTEES.

Alexander Angus Croll, esq. Ex-Sheriff of London and Middlesex, 24, Finsbury circus.
Frederick Goodhart, esq., 35, St. Paul's churchyard.
Farmery, John Law, esq. 14, Mansfield-street, Cavendish-square, Director of the London and County Bank.

Offices, 21, Belle Vue Villas, Seven Sisters-road, Holloway.

A PUBLIC MEETING will be held on TUESDAY, NOVEMBER the 6th, 1855, at SEVEN o'clock in the Evening, at the KING'S HEAD TAVERN, Holloway, opposite Cumberland-road, to explain the principles of the Society, and to enrol shares.

The peculiar object of this Society, as regards the Land Department, is to combine its operations exclusively in the immediate vicinity of London; and in pursuance of that object the purchase of a very eligible estate in Holloway is in the course of completion, a plan of which will be prepared forthwith; and persons joining prior to the Public Meeting will be entitled to participate in a ballot for the shares to be distributed by ballot; and any persons joining and completing their shares will participate in the portion of the estate to be allotted to completed shareholders. Land Shares, 50l. each; Subscriptions, 4s. per lunar month; Entrance Fee, 1s.

Building Shares, 100l. each; subscriptions according to tables annexed to the rules; Entrance Fee, 2s. 6d.

Subscriptions received and members enrolled at the meeting. Subsequent enrolments will be held at the office, on TUESDAY EVENING, the 27th NOVEMBER, 1855, from SIX to NINE o'clock, and on TUESDAY in every succeeding fourth week, at same time.

J. T. BARLOW, Secretary.

TO CABINET-MAKERS, CARPENTERS, &c.

BUSINESS PREMISES, near Sun-street, Bishopsgate.—A convenient HOUSE, enclosed with yard, light workshops, &c. the whole of which will be put in thorough repair.—For further particulars, apply to Messrs. GOODMAN and CO. Timber Merchants, 41, Compton-street, Goswell-street.

TO TIMBER MERCHANTS and OTHERS.—To be DISPOSED OF, by private contract, the entire STOCK-IN-TRADE, BUSINESS, and PREMISES, of the late Mr. Thomas Walker, Timber Merchant, Ramsden street, Hadgerfield. The business is a first-class one, centrally situated, and has been carried on by the late owner near forty years.—Applications to be made or addressed to Mr. JOHN H. WALKER, Saw and Planing Mills, Hadgerfield.

TO BUILDERS, &c.—An old-established BUSINESS, with a good connection, and in an excellent situation, to be DISPOSED OF, with a comfortable residence, on moderate terms, in consequence of the proprietor retiring.—Further particulars to principals, may be had at Mr. ELGOOD'S offices, 38, Wimpole-street.

TO CARPENTERS, BUILDERS, &c.

ONE or MORE HOUSES, in CARCASE, with Garden Walls and Washhouse, TO BE LET, on a ground-rent, or TO BE SOLD; the purchase money can stand over a given time at five per cent.—Inquire of Mr. CHARLES MARSHALL, Builder and Brickmaker, Albert-terrace, Kentish-town.

TO TIMBER MERCHANTS and OTHERS.—The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks, 20 and 15 ton Cranes, Sawpits for converting Timber, &c. Freights paid on delivery.—Apply to G. NOKES and Co. as above.

WOOD-CARVING and FRET-CUTTING. T. HEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton-garden, London, begs to inform Architects, Builders, Ironfounders, Cabinet and Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—T. H. particularly solicits the attention of Ironfounders, having had many years' experience in ornamental pattern making. Estimates furnished.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country; an extensive assortment of the most approved patterns commencing at 4s. per foot superficial, together with every particular of its cost and adaptation, can be obtained of Mr. BUNT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 30, New Bond-street.

SHOP FIXTURES, BOOKSHELVES.—TO BE SOLD, a Quantity of very excellent OPEN RANGES of SLIDING SHELVES, in divisions, suitable for drapers or any other business, being the fittings up of two Hosiers at the late Alfred Club-house.—Apply on the Premises, 24, Albemarle-street, to Mr. WARBURTON, the Clerk of Works, between ELEVEN and ONE.

TO BUILDERS AND OTHERS.

THE Advertiser is willing to SUPPLY MANUFACTURED JOINERS' WORK in EXCHANGE for CARCASES of six or eight-roomed houses, either freehold or long leasehold. Address, with full particulars, by letter only, to Mr JAMES DEACON, 6, Baron-street, Pentonville.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, areat all times ready to communicate on the subject, and to grant licenses for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents.—Applications may be made to CHARLES MAY, F.R.S. the Manager; or to

WILLIAM HOWDEN, Secretary.

INFRINGEMENT of SIR W. BURNETT'S PATENT. The Proprietors of this Patent having reason to believe that unauthorized parties are offering to supply the public with Chloride of Zinc for preserving TIMBER, CANVAS, CORDAGE, COTTON, WOOLLEN, &c. all persons are hereby cautioned against purchasing the same from such unauthorized parties; and

NOTICE is hereby given, that a REWARD of £5 will be paid to any person who shall give such information as shall lead to a legal conviction of any person or persons using Chloride of Zinc for preserving any of the above mentioned articles without having purchased the same from the Proprietors of the Patent, at their Offices, No. 18, Cannon-street, City, London, where, only, it may be obtained, undiluted, at the REDUCED RATE of 8s. PER GALLON, with instructions for its use.

N.B.—Any person suspecting that the said SOLUTION is being used without the knowledge or license of the said Proprietors, is invited to address a letter to the Secretary upon the subject, or to call upon him, and he will immediately attend to the communication.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN, PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

TO ARCHITECTS AND OTHERS.

MR. EDWARD L. PARAIRE is desirous of Meeting Gentlemen who require COLOURED ARCHITECTURAL DRAWINGS. External, Internal, Isometrical Perspectives set up; outlines of same neatly coloured, with background, at terms that will insure approval. Temporary assistance given in getting up Plans, Elevations Sections, Details, and Working Drawings.—Mr. E. L. P. makes a consideration in his charge where competition drawings prove unnecessary.

Address, 8, Ralphone place.

36, John-street, Bedford-row, London.

MR. SAMUEL PEYTON, Architect, begs to offer his services to gentlemen in the profession, in town or country, or others requiring professional assistance. Sketches, designs, contract, detail, and other drawings, specifications, and estimates, made and copied, or traced. Plans mounted and coloured, or photographed plans taken. Terms according to the amount of service required.

N.B. Excellent chambers or Residence to be had as above, partially furnished.

PHOTOGRAPHY.—A complete Apparatus, 3l. 3l. 5s. and 11l. 11s.—Send for a List, post-free, at GILBERT FLEMINGS, 388, Oxford-street, Author of "First Steps in Photography." Price 6d.; by post, seven stamps.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.

H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London. These Pencils are prepared in various degrees of hardness and shades.

HHHH for drawing on wood.	FF light and shading.
HHH for architectural use.	F for general use.
HH for engineering.	B black for shading.
H for sketching.	BB ditto.
HB hard and black for drawing.	BBB ditto ditto.
M medium.	BBBB ditto ditto.

Sold by all the principal Stationers in town or country.

T-SQUARES, SET-SQUARES, DRAWING BOARDS, SCALES, RODS, and every description of drawing instrument, wholesale and retail of the Manufacturers, STANLEY and ROBINSON, 3, Great-turnstile, Holborn.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Pale, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 25s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery. Apply to Mr G SMEED, Sittingbourne, Kent.

THE BEST HERTFORDSHIRE MALM STOCKS; THE BEST WHITE SUFFOLK and RED FACINGS: DEEP-RED RUBBING BRICKS. Also COWLEY and KENT STOCKS, in any quantity. J. EASTWOOD and SONS, Belvidere road, Lambeth; and Surrey-canal bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY (Within a short distance of the bridges). THE BEST MALM CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity. Also, STOCKS, of FIRST QUALITY. J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS. COWLEY, KENT, and ESSEX BRICKS. Also Yellow and Pale Malm Seconds, Cutters, Paviors, Sippers, &c. KENTISH RAG-STONE of the FINEST QUALITY. MILLS and PRICE, 5, ADELAIDE-PLACE, London bridge. Depôt, Azar Wharf, Kings road, St. Pancras.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. on the most favourable terms. Lime of the finest and purest quality, and on the cheapest terms, for agricultural purposes, for building boundary walls, stables, cottages, &c. by using which one third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the finest quality, pure blue, both white and flake prices. Specimens can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Grays, Essex.—Orders, by letter, to Messrs. MEESON and CO. Grays, Essex, executed with despatch.

BRICKS.—To Builders and Contractors.—Capital Hard burnt STOCKS, of good colour, GRISSELS, and PLACE, at very reduced prices. Cash.—J. F. SMITH, Further Field, Acton Bottom, near Shepherd's Bush.

BRICKS.—To ARCHITECTS, BUILDERS, and OTHERS. WHITE and RED FACING BRICKS and HARD CLINKERS, for paving stables, &c. Tiles pipes of every description, and every article in the trade may be had of superior quality and on the cheapest terms, of W. and W. WRIGHT'S Brick and Tile Works, Springfield, Essex.

W. W. in returning his grateful acknowledgements for the liberal support he received during the last twelve months, embraces this opportunity of informing his friends and the public that he has removed to Springfield, Essex, and can supply them as above at my siding, station on the Eastern Counties Railway, or alongside in the Thames, at as per cent under the usual prices.

DUTCH CLINKERS, 32s. per thousand, by the best Makers.

WELSH, STOURBRIDGE, AND NEWCASTLE FIRE-BRICKS, LUMPS, AND TILES, at much less than cost prices. The Premises to be DISPOSED OF, with the valuable satisfaction, and a portion of the PREMISES to carry on the same, TO BE LET, at almost a nominal rent.—For particulars inquire on the premises, Honduras Wharf, Bankside, Southwark, London.

NOTICE TO ROAD CONTRACTORS, NURSERYMEN, AND OTHERS.

W. and J. STUDDS, Sole Proprietors of the WEST DRAYTON GRAVEL PITS, lately removed from No 31 Wharf, Harrowroad, to 3, North Wharf-road, Paddington, have now on sale good Gravel and Screened Gravel. For terms, &c. apply at the Wharf.

Contractors supplied to any extent.

POTTERS' CLAY FOR SALE.—An ESTATE, of nearly 400 acres, with residence, suitable for a gentleman, and containing an inexhaustible deposit of Potters' Clay; situate 4 miles from a port and 3 miles from a railway station. For particulars, &c. apply, post-paid, to T. RAWLINS, Esq Solicitor, Wimborne.

TODD'S PATENT METALLIC PROTOXIDE PAINT.

This Paint possesses in an eminent degree the following advantages over all other known Pigments:—
INDESTRUCTIBILITY BY HEAT—PRESERVATION OF IRON FROM OXIDATION, WOOD FROM DECAY, AND MASONRY AND BRICKWORK FROM DAMPNESS—PERMANENCY OF COLOUR AND FREEDOM FROM DELETERIOUS PROPERTIES—SUPERIORITY OF BODY.

The Protoxide Paint, as at present produced, is of one shade of colour, viz.—a pale drab, but it may be tinted with any other colour to suit the taste and purpose for which it may be required. Not affected by sulphuretted or carburetted hydrogen gas, bilge water, or indeed foul air of any kind, and is therefore well adapted for the interior of Ships, Warehouses, Offices, Stabling, &c.; and its total freedom from deleterious properties, it will be found of great value for painting the interior of Hospitals, Asylums, Unions, Gaols, and other Buildings which may require to be painted during occupation.—Sole authorized Agents for England:—

MESSRS. C. GRABHAM AND CO. 4, BARGE-YARD, BUCKLERSBURY, LONDON.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 84, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK—LONDON PATENT. And if not so marked, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington.

6, South Wharf, Paddington.

PORTLAND CEMENT.—CHARLES RICHARDSON has the greatest confidence in introducing to the Trade the above superior CEMENT, being of uniform colour and quality,—a desideratum never before attained in Portland Cements. It possesses extraordinary cementitious qualities, resists the action of frost and heat, and is more durable than any other Cement; does not vegetate, turn green, or crack; combined with which, its eminently hydraulic properties stamp it at once as the first Cement of the day for work where all the above qualities are requisite. It is manufactured on the only principle Portland Cement can be, and contrary to the statements put forth by those who have hitherto had the monopoly.—Manufactured by R. GREAVES, Esq. at his Works, near the River Avon, and sent to all parts of the kingdom per boat or rail, at a reduced price to the trade.

GREAVES'S BLUE LIAS LIME.—The superior manner in which the above is ground renders it cheaper for concrete or stucco than any other lime or cement. The shell lime for mortar is burnt on an improved principle, leaving scarcely any core. The satisfaction constantly expressed by Engineers, Architects, and Contractors, of the above, is its best recommendation.

Gibbs, Canning, and Co.'s Blue Vitrified Bricks, Pipes, Junctions, Bends, and Fire Goods.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PARIS, and STOCKS, and other BRICKS.

CHARLES RICHARDSON, 6, South Wharf, Paddington.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855. CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

BATH CEMENT.—This Cement is equal to Portland in strength and durability, does not vegetate in damp situations, is perfectly hydraulic, of a regular and warm colour resembling the Bath stone.—CHARLES RICHARDSON, 6 South Wharf, Paddington.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting cement, that requires no coarsing. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

NOTICE.—BLUE LIAS LIME.—L. B. PEARSE and CO. beg to inform Architects, Engineers, Builders, and Contractors generally that they have now accepted the AGENCY for the above valuable HYDRAULIC LIME, from the original quarries, Stockton, Warwickshire, and are now supplying direct from the works in their own boats, at a reduced rate.

L. B. PEARSE and CO. beg further to give notice to consumers, that they have erected, at a considerable expense, large buildings and machinery for grinding lime and cement, so as to ensure genuine quality and large supply, at their extensive premises, situate on the Great Northern Railway, York road, King's-cross.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME, in any quantities from the above wharfs, or per barge direct from the kilns.

Large Grey Stone, or Grey Chalk, free on board at Works, 1s. 9d. per ton.

Small ditto, ditto, 4d. per ton.

Barges loaded in a few minutes.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

TATHAM & CO.—No. 14, SOUTH WHARF, PADDINGTON.

BRICK, LIME, and CEMENT MERCHANTS.

SOUTHAM BLUE LIAS LIME DEPOT.

Bath, Portland, Lias, and Roman Cements; Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewer Pipes, Fire Go te Vitrified Blue Bricks, White Bradley Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in boat-loads direct from the Works in Warwickshire, to any part of the river or canal.

SOUTHAM BLUE LIAS LIME DEPOT, No. 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged for a constant supply of the above very superior BLUE LIAS LIME, which for the last two years has been extensively used in most of the large works constructed during that period or now in hand, and any orders they are favoured with will command their best attention.

Boat-loads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the rivers Thames or Lee, alongside any wharf on canal, or by boat or rail to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to No. 14, SOUTH WHARF, PADDINGTON, will receive the best and most prompt attention.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, East-street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement as manufactured at these works with especial reference to its destination, whether for stemming, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly exceeds them in its constituents properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the last meeting of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster, who prepare one quality only of Portland Cement.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes. Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-pots, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 2, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied or shipment, on advantageous terms.

NOTICE.—M. H. BLANCHARD, 7½, Blackfriars road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c. will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7	0	0
Fine	3	0	0
Coarse	2	10	0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

11, George yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality manufactured on the above works. Also SCOTCH and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BJORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, they are enabled to be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Messrs. THOMAS WEEKES, Agent at the Works.

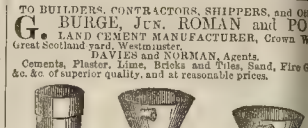
Agents in London:—Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Ot

G. BURGE, Jun. ROMAN and PO LAND CEMENT MANUFACTURER, Crown W Great Scotland yard, Westminster.

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire &c. &c. of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAI PIPES, CLOSET-PANS, &c. IN EVERY VARIETY.

PRIZE BRICK-MAKING MACHINE CHAMBERLAIN'S PATENT This portable ma will make 30,000 solid bricks per day, with 3-horse power. man to feed the machine with clay, and boys to remov bricks. Was awarded a silver medal by the Liverpool and chester Agricultural Society, at St. Helen's, September 0 silver medal by the Staffordshire Society at Leek, September and a prize at Worcester, October 8th, 1855.—Apply for partic to Mr. HUMPHREY CHAMBERLAIN, Kempsey, Worces

BEADON'S PATENT EAVES GUTT TILES, for ROOFS of HOUSES (either old or whether of thatch, slate, or tile), and other structures. Sole a J. B. LAWES, 59, King William-street, City, London. H been appointed by the Patentee SOLE AGENT for the SAL this ARTICLE, I beg to call attention to its merits. By a hanty of construction, the last tile is made to form a cheap lasting water-trough; and by means of an open and angular joint for the reception of cement, a solid and compact gutter i trained. The invention has been tested by four years' extensive with unfailing success. It supersedes the present expensive an perfect modes of conducting rain from the roofs of houses. It is and permanent, and removes all drip. It merits the attenti the landlord, the agriculturist, the owner of house property philanthropist, and the economist. Delivered free on ra canal, at the works, Aylestoft, near Rugby; or in London, Leicester, or Bridgewater.

Price 3d. per Tile, of about 13 inches long. Stop-ends Outlets, 6d.

TO ARCHITECTS AND BUILDERS

PAVING TILES, White, Red, and Blue different sizes and patterns, ornamental ridge tiles, colo slate and brown, and a large quantity of white facing bricks land drainage pipes, convenient for water carriage FOR SA Also a good horse-power BONE-MILL.—Apply to E. HOOP 2, Portland-street, Southampton.

PANTILES, PAVINGS, &c.—J. ANDREWS, Wilbraham, Cambridgeshire, begs to offer tiles at 50s. per 1,000; floor bricks and 8-inch pavings, at 3 per 1,000; 8-inch pavings, at 6s. 6d. per 1,000; 9-inch paving 7s. 6d. per 1,000. Cash prices. Delivered on trucks in London Eastern Counties Railway

PEAKE'S TERRO-METALLIC TIL PIPES, &c. Notice is hereby most respectfully given, the LONDON DEPOT for this WARE is REMOVED to N WHARF, Macclesfield-street North, City-road Basin. Recol that the trade term, "Terro-Metallic," is the exclusive r of the Proprietor; and, thirdly, that the "Rewards or Jenkins," page 1351, of the Great Exhibition, rank the Mas tories known so long as "The Tileries," Tunstall, Staffordshi the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC other PATENT TILES, for Churches, Entrance H Conservatories, Balconies, &c.; Antique, Geometrical, and All bric Mosaics, manufactures of a highly decorative character, combine durability. Sole and Tiles for Fireplaces at 1 Hea Covings for Grates, Door Furniture, White Glazed and C mental Tiles for Baths, Panes, and Kitchen Ranges, may be in great variety at their Warehouse, 9, Alfred-place, Blackfr bridge, London; and at their Manufactory, Stoke-upon-T Staffordshire.

THE KINSON CLAY-WORK POTTERIES, and FIRE-BRICK ESTABLISHME near Poole, Dorset, Manufacturers of every description of Sand Glazed Sewage-pipes, Closet pans, Furnace blocks, Fire br Gas retorts, Crucibles, &c. &c. The completion of the Ki Pottery places the Proprietors in a position to supply Build and the Trade generally with any quantities of the above des tion of Articles at moderate prices. The pottery is situate a a mile and a half from the town and port of Poole. It is wo by steam power, and the pipes are made by the most appro patent machinery, and will bear favourable comparison with manufactured in the kingdom. The fire-bricks have been te and are found fully equal in all respects to those manufactur Stourbridge and Newcastle. All articles are made from the c and materials found on the estate. There is an inexhaust quantity of all descriptions of Dorsetshire Clay, used for ref purposes, which can be supplied to the Staffordshire, N Country, and London markets, upon favourable terms

Lists of prices, and further information will be furnished, u application to Mr. T. W. GREEN, at the Works.

JOHNS and CO.'S PATENT PERMANE STUCCO WASH, perfectly NON-ABSORBENT (no quan of rain having any effect upon it), and will not VE-ETATE RUB OFF. Stucco Cement and Stucco Paint. CLARK BENGOUGH, 31, manufacturers' colour, 4, George-yard, Lomb street. Works, Grand Surrey Canal Bridge, Old Kent-road.

GREAT NORTHERN WHARF, York-ro King's-cross.—WHITE BRICK and TILE DEPO L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchan Builders, contractors, and others supplied with every descrip of building material at the lowest market prices.

VITRIFIED STAFFORDSHIRE BL BRICKS, Paving, Roofing, and Ridge Tiles, Sani Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, at Best quality.—WOOD and SON, Manufacturers, Portway, bury, near Birmingham. Agent.—Mr. J. UNWIN, Fri Residence, 59, Nelson-square, Blackfriars-road.

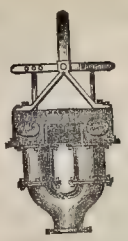
FOWLER'S
IMPROVED FARM AND
COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

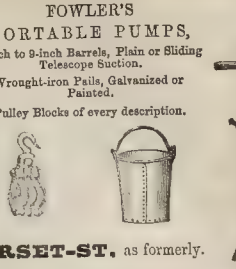
PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE
SINGLE
PUMPS,
BARRELS
AT SHORTEST
FOR HAND
STEAM



AND HIRE,
AND DOUBLE
3 in. to 15 in.
to any depth,
NOTICE,
OR
POWER.

FOWLER'S
PORTABLE PUMPS,
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.
Wrought-iron Pails, Galvanized or Painted.
Pulley Blocks of every description.



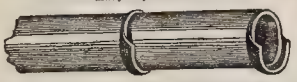
BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.**, as formerly.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

Whole Socket.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 3-FEET LENGTHS.
Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

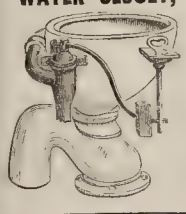


Half-Socket.

Watercloset Pan with Syphon-Trap connected, price 7s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.
DOULTON & WATTS,
LAMBETH POTTERY, LONDON.



DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,
AND
LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,
With Handle, Lever, and Weight, ready for fixing.

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

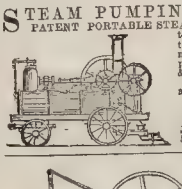
WARNER'S PATENT
VIBRATING STANDARD PUMPS.—PATENT CAST IRON PUMPS, for the use of farms, cottages, manure-tanks, and wells of a depth not exceeding 30 feet.

Diameter of Barrel.	Length of Barrel.		£ s. d.
2½ in.	short	Fitted for lead,	1 12 0
2½ "	long	gutta percha	1 15 0
3 "	ditto	or cast iron	2 12 0
3½ "	ditto	flanged pipe,	2 16 0
4 "	ditto	as required.	3 5 0
2½ "	short, with 15 feet of lead pipe attached, ready for fixing		2 19 0
2½ in.	long ditto ditto		3 15 0

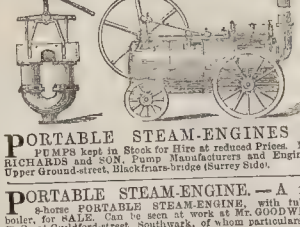
The short-barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from under-ground tanks, or in hot, forcing, and plant houses; they may be fixed, when desired, under the stage. May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin-street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

TO CONTRACTORS.
STEAM-ENGINES, for PUMPING, WINDING, SAWING, &c.—TO BE LET on HIRE, by the day, week, or for any time required, strong simple PUMPING and WINDING ENGINES, made portables, with a reversing motion, pumps and driving gear, complete. These engines have been successfully employed for years by all the principle contractors, and for a variety of other purposes. Are ready for immediate delivery, of 4-horse, 6-horse, 8-horse, 10-horse, 12-horse, 16-horse, 20-horse, to 40-horse power.—Apply to Messrs. MEDWIN and HALL, Engineers, Surrey Iron Works, 99, Blackfriars-road, where they may be seen.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile driving, raising materials, &c. &c.
Contracts taken for pumping any quantity of water.



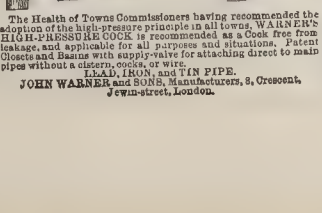
JAMES BURTON & SONS, Engineers and Contractors, John's-place, Holland-street, Southwark, London.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM-ENGINE, with tubular boiler, for SALE. Can be seen at work at Mr. GOODWIN'S, 67, Great Guildford-street, Southwark, of whom particulars may be obtained.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

TO ENGINEERS AND MACHINISTS.
WANTED to PURCHASE a PORTABLE STEAM-ENGINE, of from 12 to 15 horse-power, mounted on wheels, with tubular boiler, suitable for driving "Appold's Patent Pumps." Also an "Appold's Pump," of 15-inch diameter. Apply, stating maker's name, &c. to Mr. W. RITSON, Contractor, Neath, South Wales.

PRIZE MEDAL, CLASS 3.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.

These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.
Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

TO BUILDERS AND HOUSE-PAINTERS.
THE BRIDGEWATER PAINT will be found CHEAPER and SUPERIOR to white lead for oiling out new walls or priming wood-work, &c.
Testimonial.—"This is the most extraordinary paint I ever used. When its merits become known, it cannot fail to be generally used. For priming and second colouring to all new work, it is superior to that now in use, being equal in body to white lead, is superior to that now in use, being equal in body to white lead, and much lighter. It is also cheaper. I am using it to paint canvas linen for gardeners' pits, frames, and greenhouses, and also as a substitute for tarpaulin, being impervious to rain, of singular flexibility, more durable, and not half the weight of the tarpaulin in general use. J. LE CRAS, House painter,
26, Moorgate-street.
Sold by L. FRANK and SON, Oil Merchants, 14, Borough, London-bridge.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.
The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily used or of its produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase of weight, it then produces a very inferior instead of a very superior paint, and the economy realised by purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.
The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and Co.; when ground and dry, by Messrs. T. R. MORLEY and CO. and by the Company's Grinding Agents, in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William street, City; FREDERICK BRADY, Wholesale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-hush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.
The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.
For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP to TERRA COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noblest buildings, and is the only tried material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition. A large stock of newly-designed Chimney-shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs. Capitals, Consoles, Tracery for Parapets, Balusters, String Courses, Friezes, Bas-relievi, Vases, Statues, Chimney-shafts, and all other Architectural Ornaments modelled, finished, and burnt, in the best manner, and warranted to stand heat and frost, either in Buff or Red coloured Terra-cotta. A great variety and large stock may be seen at BLASHFIELD'S Warehouse and Show-rooms, No. 1, Pratd-street, Paddington.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSS'S WHOLESALE WAREHOUSE, 52, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

THE FARNLEY IRON COMPANY, WORTLEY, NEAR LEEDS,

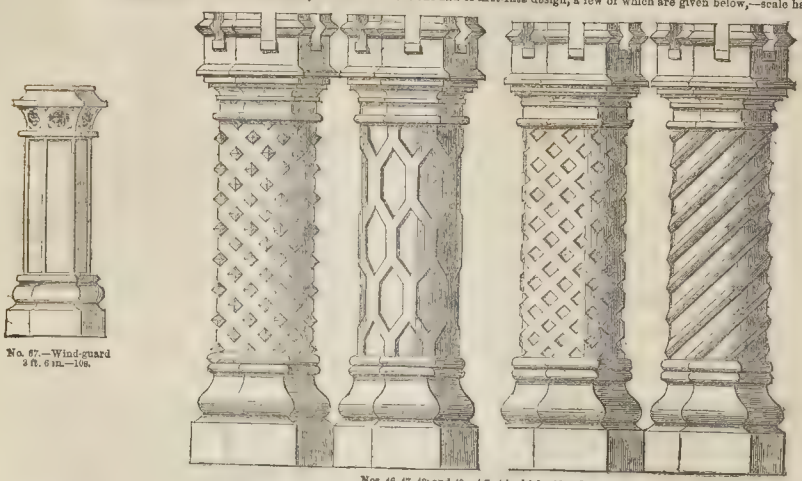
MANUFACTURERS OF

FIRE-BRICKS, PATENT GLAZED STONEWARE DRAIN PIPES, CLOSET PANS, ORNAMENTAL TRUSSES, BRACKETS, MODILLIONS, PEDESTALS, VASES, &c.;

ALSO OF

TERRA COTTA CHIMNEY-TOPS,

In upwards of One Hundred Patterns, of various dimensions and of first-rate design, a few of which are given below,—scale half an inch to a foot.



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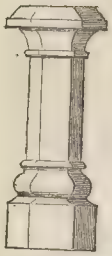
3 ft. 6 in.—10s.

Nos. 46, 47, 48, and 49.—4 ft. 4 in. high—16s. 6d.
" " 6 ft. 6 in. " 25s. 0d.
" " 9 ft. 0 in. " 60s. 0d.

No. 65.—2 ft. 6 in.—7s. 6d.



No. 26.—3 ft. 6 in.— 9s. 0d.
4 ft. 3 in.—10s. 6d.

No. 18.—Oblong or Square.
2 ft. 3 in.—2s. 3d.
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No. 24.—Wind guard.
3 ft. 6 in.—5s.

No. 3.—2 ft. 0 in.—1s. 6d.
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No. 66.—Plain or Wind-guard.
3 ft. 10 in.—10s. 6d.
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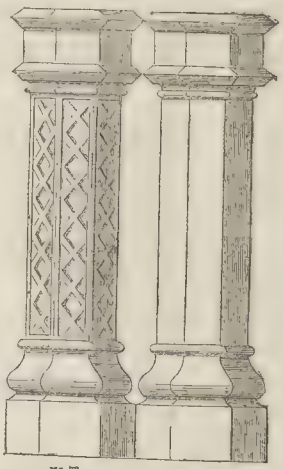
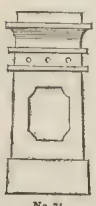
No. 76 (round).—1 ft. 10 in. high—2s. 6d.



No. 75 (square).—1 ft. 10 in.—2s. 6d.

No. 30.—4 ft. 2 in.—15s.
6 ft. 9 in.—20s.



No. 24.
2 ft. 9 in.—4s. 6d.

No. 12.
2 ft. 9 in.—4s.

No. 73.
6 ft.—28s.

No. 74.
6 ft.—25s.

No. 21.
Oblong or Square.
2 ft. 6 in.—2s. 6d.
3 ft. 0 in.—3s. 6d.
3 ft. 6 in.—3s. 6d.

No. 4.
2 ft. 8 in.—2s. 6d.

No. 70.
4 ft. 3 in.—15s.

ARCHITECTS' DESIGNS CAREFULLY EXECUTED, AND WITH QUICK DESPATCH.

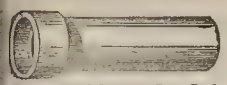
Prices quoted are delivered free in Leeds, on Boat or Rail, for any part of the Kingdom.

OFFICES AND STORES.

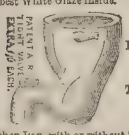
LONDON..... No. 14, York Chambers, York Buildings, Adelphi; No. 16, Bath-place, New-road; St. Ann's Wharf, Limehouse.
BIRMINGHAM.. No. 7, Hasy-row; also 22, Cambridge-street, and Lawley street.
BRISTOL..... No. 14, Nelson-street.
LIVERPOOL..... No. 9, Russell-street; 83, Renshaw-street; and Shipping Wharf, Leeds-street.
NEWCASTLE.... W. B. Wilkinson and Co. Prudhoe-street.
GRIMSBY..... F. G. Skipworth.
MANCHESTER.. No. 43, Travis-street, and 23, 24, and 25, Birmingham-street, London-road.
HULL..... No. 60, Queen-street, and Wellington-street.
BRADFORD..... Horton-road.
LEEDS ..... Wellington-street, adjoining the Midland Station, and Shipping Wharf, Victoria Works, Hunslet.
SUNDERLAND.. W. B. Wilkinson and Co. Queen-street.
WARE ..... G. E. Kins, Stone Merchant.

WHERE DRAWINGS, WITH PRICES, &c. MAY BE OBTAINED.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

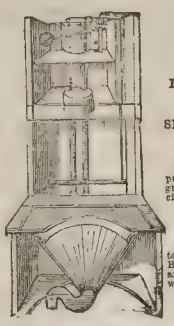


Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

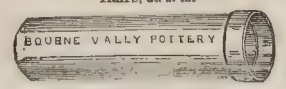
Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

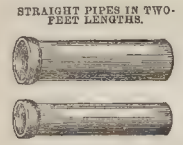
JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES.
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

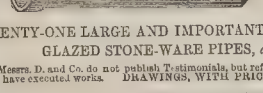
May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Denver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 9, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 39, Bryd ges-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

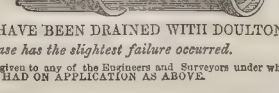
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

SOCKET.



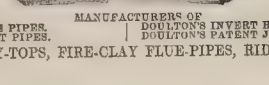


HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOUTH STREET, LIVERPOOL.



MANUFACTURERS OF
DOULTON'S STONE-WARE PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.
TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

SUPERIOR GLAZED STONEWARE

DRAIN PIPES, invented and manufactured by
WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Specimens" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the disadvantage of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 8, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

SUPERIOR STONEWARE GLAZED

PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction, the price being also lower than many in the trade, viz. 25 per cent. discount off the list, for cash. Junction Bends, &c. Pans and Traps of the first quality. Yorkshire Paving, Sinks, Sills, &c. all at low cash prices. E. and W. STURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered. October 1, 1855.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

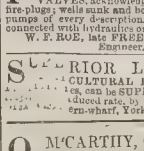
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.

The ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co. Great Northern-wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post.

PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 32s. PER CRATE.

TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES.

FREEMAN ROE'S PATENT SLUICE-VALVES,

acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

SUPERIOR LAND DRAINAGE.—

AGRICULTURAL DRAIN-PIPES, of all sizes, and in all qualities, can be SUPPLIED, either by water or land carriage, at reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

O. McCARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street, City. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

SALES BY AUCTION.

Extensive and Important Sale of Ironmonger's Stock, High-street, Bedford.

MR. JOHN USHER begs to announce he is favoured with instructions from the Assignees of Mr Thomas Worley, to SELL by AUCTION, on MONDAY, the 5th day of NOVEMBER, 1855, and following days the whole of the well-selected valuable, and extensive assortment of IRONMONGERY GOODS Catalogues will be so arranged as to suit the convenience of all parties. To families furnishing, the catalogue will comprise patent kitchen-ranges, elegant drawing-room, dining-room, and bed-room stoves, fenders and fire implements, copper steamers, boilers, kettles, and saucepans, warming-pans, coal-hods, baking-tins, dust-pans, flat-irons Italian and box-iron frying-pans, omelette-pans, and the fish-kettles Britannia metal goods, spoons, dish-covers, tea pots, excellent table cutlery, japanned goods lamps, moulds, pestle and mortars, weighing-machines, canisters colanders, suaw-snippers corkscrews, assortment of brushes, turnery, and all other effects suitable either for the mansion or the cottage. To Builders and Ironmongers.—The catalogue will be found to enumerate several tons of bar, hoop, and other iron, and a well-selected stock of ironmongery goods Brass Foundry —A general assortment of carpenters' tools and fitt ngs. The Sportsmen and Agriculturist will also find a good variety of sporting material, a large quantity of gunpowder, single and double-barrel guns, revolver and other pistols, a capital dog-cart, weighing-machines, chaff-machines, mowing-machines and many lots adapted for the farm —Catalogues may be had seven days prior to the Sale price 3d. each, at the Auction Mart, London; at the Office of "The Builder," 2, York street, Covent-garden; and of Mr JOHN USHER, Architect and Surveyor, St. Peter's-green, Bedford.

NORTHAMPTON.—To ENGINEERS and OTHERS.

MESSRS. FULLER and HORSEY are instructed by the Assignees to SELL by AUCTION, on TUESDAY, NOVEMBER 6th, at ELEVEN o'clock, at the BRIDGE-STREET WORKS, Northampton, in lots, without reserve, the valuable collection of ENGINEERS' TOOLS, new within four years, by Whitworth, Sharp, Roberts and Co Lewis, Parr, Curtis, and Madeley, including a powerful self-acting surfacing and horizontal lathe, carable of taking a surface 5 feet diameter, one 16-inch screw cutting lathe, one 8-inch and one 6-inch ditto, six engine and foot turning back geared slide lathes from 6 to 20 inch centres, self-acting crank planing or shaping machine with 30-inch traverse, self-acting planing machine, to plane 6 feet in length and 2 feet in width, self-acting vertical drilling-machine (very powerful), nut-shaping machine, two standard drilling-machines, 250 feet turned bright shafting riggers and straps, 3 tree nails Whitworth's taps and dies, steel tools fifteen vices and benches, a highly-finished double cylinder horizontal steam-engine of 14-horse power, with Cornish boiler by ring bar, lathe and screwing-tools; valuable assortment of engine patterns in wood from 2-horse to 14 horse power, and numerous other effects To be viewed on Monday previous, and morning of sale, when catalogues may be had at the Works; of Wm. PENNELL, Esq. Official Assignee, Bank-hall-street; at the "Midland Counties Herald" Office, Birmingham; and of Messrs. FULLER and HORSEY, Billiter-treet London.

NORTHAMPTON.—To Agriculturists, Wheelwrights, Smiths, Basket-makers, Contractors, Ironmongers, and Others.

MESSRS. FULLER and HORSEY are instructed by the Assignees to SELL by AUCTION, on WEDNESDAY NOVEMBER 7th at ELEVEN at the BRIDGE-STREET WORKS, Northampton, in lots, without reserve, two portable agricultural steam-engines, of five and ten horse power; one ten-ho se power portable contractor's engine, 3 000 oak spokes, 1,000 ash f llocs, ash and elm planks, seasoned yellow pine, fifteen tons rod, bar, and plate iron; two tons cast steel, ten tons scrap iron, eleven new copying-machines, 150 dozen new files, five cwt. brass castings, five tons boiler-makers' and smiths' tools, in anvils swages, hammers and punches, punching and shearing machine, shapine plates; new Cornish boiler, 15 feet long, 4 feet diameter; one 10 feet end boiler; one 14 feet ditto ditto, for portable engine; two new cases for portable boilers, one case for boiler, 30 feet long, 5 feet 9 inches diameter; plate furnace, ten forges, fan blowing machine, four cast-iron pillars, four cranes, seven-ton weigh bridge, three plate-bending rolls, to r-wheel truck, counting house furniture, and other effects To be viewed on Monday previous and morning of sale, when catalogues may be had at the Works; of Wm. PENNELL, Esq. Official Assignee, Bank-hall-street; at the "Midland Counties Herald" office, Birmingham; and of Messrs. FULLER and HORSEY, Billiter-street, London.

Important Sale of a large and rarred Stock of Gas Lamps, of various sizes and of the most elegant designs

MESSRS. FULLER and HORSEY are instructed to SELL by AUCTION at the SALE ROOMS, 21, Old Bond-street, on WEDNESDAY, NOVEMBER 14, and following days, at TWELVE each day, in lots, by direction of Mr. William Potts of Birmingham, who has disposed of his manufactory, and is retiring from business, an extensive and varied STOCK of GAS LIGHTS, lanterns brackets, &c chandeliers, candelabra of various sizes, tubulants, and other ornamental works in the highest style of manufacture, and of the most modern and artistic designs, many of the ordinary productions From the high reputation so long enjoyed by Mr Potts, whose collection at the Great Exhibition of 1851 will be long remembered, and gained for him the distinguished patronage of H R H Prince Albert, in addition to very flattering commendations from Mr. Wornum, the Government reporter, on that great display of art, this sale may be strongly recommended as a most eligible opportunity of obtaining works of originality and merit —To be viewed on MONDAY and TUESDAY previous to the sale, when catalogues may be had at the Rooms, of Messrs FULLER and HORSEY, Billiter street.

N B Approved bills at four months' date will be taken from purchasers to the extent of 30l and upwards.

Experienced packers will be in attendance to render their assistance, if required, at a small fixed charge.

Important Absolute Sale of First-class Paper-hangings, worthy the attention of Shippers, Merchants, Builders, Upholsterers, House Decorators, and Others.

MR. EDWIN WHITE, in consequence of the dissolution of partnership of the firm of Erwood and Co will SELL by AUCTION, positively with out reserve, on the PREMISES No 84, Watling-street, City, on WEDNESDAY and THURSDAY, 7th and 8th NOVEMBER, at ONE o'clock punctually each day, the first portion of the superior STOCK IN TRADE, which comprises about 20 000 Pieces of fas nable and handsome patterns, rich decorations and landscapes excellent marbles, rails, cornices, centres, and others, in every variety of new and elegant designs. On view two days before, and mornings of sale, when catalogues may be had on the Premises, and at the Auctioneer's Offices, 170, Bishopsgate street, Without

HIGHGATE.—750,000 Bricks for unreserved Sale.

MR. EDWIN WHITE will SELL by AUCTION, absolutely without reservation, at the BRICK-FIELDS, on the west side of the Archway road, Highgate Middlesex, on WEDNESDAY NOVEMBER 14th, at ONE o'clock for TWO o'clock precisely in convenient lots, 750,000 capital BRICKS, comprising Stocks, Grizzles, and Place, and 50 000 good RATS. On view two days prior and morning of Sale, when catalogues may be had at the Field; and at the Auctioneer's, 170, Bishopsgate-street Without.

DOWGATE-HILL, CITY.—Building Materials of several Houses.

PULLEN and SON are favoured with instructions from the Worshipful Company of Dyers, to SELL by AUCTION on the PREMISES, on TUESDAY, the 6th of NOVEMBER, at TWELVE all the valuable BUILDING MATERIALS, of six houses, situated at Dowgate hill and College-street, adjoining Dyers'-hall, comprising good sound brickwork, plain and pan tiles, oak and fir timber in roofs and floors, several tons of lead, in gutters and pipes, glazed sashes, doors and interior flooring, boards, stone fronts, paving coping, and sills and useful fittings up —May be viewed two days previous. Catalogues had at the Clerk's Office, Dyers'-hall; D A CONSETT, Esq Architect, 57, Fenchurch-street; and of PULLEN and SON, 80, Fore-street, Cripplegate.

SALES BY AUCTION.

SURREY CANAL BANK, near the Commercial Docks, Rotherhithe.

MR. JOHN ASHFORD will SELL by AUCTION, on MONDAY, NOVEMBER 19th, 1855, at TWELVE, 2 lock of good Yellow and Red pine Memel TIMBER (50 loads whole timber, 50 l ads half timber); quantity of sashes, frames, and partitioning, large quantity of pantiles; ryebile jambs and slabs; about 5 000 feet of boards and slabs; 5,000 feet of capital fir, in rafters, joists, &c.; stoves, ranges, &c; large quantity of firewood, and miscellaneous items.—On view the morning of sale. Catalogues may be had on the Premises, and of the Auctioneer, &c. High-street, Deptford.

REGENT'S PARK.—TO PIANOFORTE, CABINET, AND CHAIR MAKERS AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, Edward-street, Regent's-park, on TUESDAY, NOVEMBER 6th, at TWELVE for ONE, about 1 0 0 feet very dry Walnut, Spanish and Honduras Mahogany, Sycamore, Beech, American Oak, White and Yellow Battens, Seantling Sizings Battens, Pant le Laths, &c —May be viewed the day prior, and catalogues had on the Premises; and of Mr. LEREW, Auctioneer and Valuer, 3, Cardington-street, Hampstead-road.

800,000 STOCK BRICKS.—TO CONTRACTORS, BUILDERS, AND OTHERS.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the BRICKFIELDS, Goose-green, Peckham Rye, on WEDNESDAY NOVEMBER 14th, in lots, about 800,0 0 capital STOCK BRICKS More detailed particulars will be announced in future advertisements. Auction and Estate Agency Offices, 79, King William-street, City, Oct 27, 1855.

RAGNIGGE-WELLS-ROAD —Remaining Stock-in-Trade of a Builder

MR. D. A. RAMSAY is instructed to SELL by AUCTION, on the PREMISES, Baker street, on TUESDAY, NOVEMBER 20, at TWELVE o'clock, the remaining STOCK-IN-TRADE, comprising prepared and other floorboards, planks and battens, marble chimney-pieces, Portland and other stone, scaffolding ironmongery, and numerous other items.—To be viewed one day previous to the sale when catalogues may be had on the Premises; and of Mr D. A. RAMSAY, Auctioneer and E-tate Agent, No 79, King William-street, City.

TO BUILDERS or OTHERS having the Equities of Mortgaged Property to dispose of.

MR. D. A. RAMSAY is instructed to DISPOSE of some well built CARCASSES, at low ground-rents, in a first-class locality in exchange for same —Mr. D. A. RAMSAY, Auction and Estate Agency Offices, 79, King William street, City.

TO CONTRACTORS, BUILDERS, MERCHANTS, WHARFINGERS, AND OTHERS.—Important Sale of Bricks.

ROBERTS and ROBY are directed to SELL by AUCTION on the PREMISES known as the Caledonian Brick fields, Caledonian road, Islington, on WEDNESDAY, NOVEMBER 28th, at ELEVEN, and following days, the extensive and excellent STOCK, consisting of 7 000,000 well-burnt malm, ravioirs, bright stock pecking, place, and other BRICKS, conveniently lying within a few yards of the railway station of the Great Northern Railway.—On view two days prior, and morning of sale, and catalogues had on the Estate; at the various Inns in the neighbourhood; and at the Auctioneers' Offices, 24, Moorgate-street, and 9, Adam-street, Adelphi.

TO BUILDERS, BUILDING MATERIAL DEALERS, AND OTHERS.

ROBERTS and ROBY will SELL by AUCTION on the PREMISES, known as the Caledonian Brick Fields, Caledonian-road, Islington, on WEDNESDAY, NOVEMBER 7, and following day, at ELEVEN, stock of BUILDING MATERIALS, comprising pre-ent dry seasoned flooring battens, deals, scaffolding, stone, and the general stock of a builder. On view two days prior, and morning of sale; and catalogues had on the Premises; at the various Inns in the neighbourhood; at the Mart; and at the Auctioneers' Offices, 24, Moorgate-street and 9, Adam-street, Adelphi.

TO CONTRACTORS AND OTHERS.—Sailing Barges and other Craft

MESSRS. EVERSFIELD and HORNE are instructed by Mr John Gore to SELL by AUCTION, at WESTERN WHARF, Adelphi, on WEDNESDAY, the 7th of NOVEMBER, at TWO o'clock in the Afternoon FOUR very excellent SAILING BARGES, with their rigging and gear, and FIVE OPEN BARGES now lying at Rotherhithe, in convenient dock May be viewed and catalogues had on the Premises; and of the Auctioneers, 93, Parliament street.

Spacious Freehold Family Residence, with large Garden, situate in Great Ormond-street, Queen square, Bloomsbury, suitable for a professional gentleman, or from its central position, well adapted for a public institution; also Stabling in Great Ormond-yard

MESSRS. RUSHWORTH and JARVIS are directed by the executors of the late John Hibbert, Esq. to SELL by AUCTION, at GRAWAY'S, in DECEMBER next, in two lots, with possession unless an acceptable offer should be previously made by private contract, a capital modern FREEHOLD RESIDENCE, situate as before mentioned in the metropolis, and within a short walk of the Inns of Court, being No. 47, Great Ormond-street Queen-square, presenting to members of the legal or medical profession, architects, and others, a most excellent residence for a family, with suitable offices for professional purposes. The house contains nine bed and dressing rooms, a suite of three lofty drawing-rooms, extending 73 feet, four good rooms on the ground floor, excellent domestic offices, and large garden in the rear. Also, a FREEHOLD COACH-HOUSE, and 4-stall STABLE, in Great Ormond-yard May be viewed with cards, which, with particulars, may be had of Messrs Rushworth and Jarvis Saville-row, Regent street, and 19, Change alley, Cornhill; particulars may also be had at Garaway's; and of Messrs Buncan, Dalrymple, and Drake, solicitors, 43, Parliament street

REGENT-STREET.—An eligible Plot of Building Ground, suitable for an Exhibition Room, or for any other purpose requiring a first-rate and central position in the west-end of the metropolis

MESSRS. RUSHWORTH and JARVIS are directed to announce for SALE by AUCTION, in the month of DECEMBER next, unless previously disposed of by private treaty, the CROWN LEASE of a PLOT of GROUND, about 83 f et by 65 feet, situate in the rear of Hanover Chapel, Regent street, offering an eligible site for an exhibition, concert, or lecture room, bazaar, gallery of art, religious or scientific hall, or suites of chambers. It is held for an unexpired term of sixty-five years, and further particulars may be had at the offices of Messrs. Rushworth and Jarvis, Saville-row, Regent street, where a plan of the property may be seen

TO BUILDERS, MASONS, &c.—THREE HUNDRED MARBLE CHIMNEY PIECES having been offered for SALE by AUCTION, and a portion remaining undisposed of, consisting of the larger class chimney-pieces, suitable for mansions and public buildings, they are now offered by PRIVATE SALE at a considerable reduction in price In consequence of the death of one of the company, the accounts must be balanced by the 1st JANUARY next. An early inspection is recommended. Wo-timster Marble Company, Earl-street, Holywell-street, Millbank

PROPERTY.—SALES by AUCTION take place on the first day of every month, at the MART, by Messrs FLOOD and SCHALLER Terms arranged to suit the case; a nominal charge only for any entry not disposed of —Apply for terms, and send particulars to their Auction and Estate Offices, 11, Charles-street, Mid lesex Hospital. Builders and others will find this Office worthy of notice.

HAVERSTOCK-HILL.—To BUILDERS.

TO BE LET, in the MALDEN and QUEENS ROAD (both main roads), some commanding FRONTAGES for Shops and Private Houses. All the sewers are in on the estate, roads all formed, and now making. Term, ninety-nine years. Low ground-rents. Bricks supplied at a low price, and liberal cash advances. —Apply to Mr. JOHN MOORE, 86, Chalton-street, Euston-square.

LUDGATE-HILL.—TO BE LET, by the Worshipful Company of Cutlers, on repairing or building leases, a large portion of the BELLE SAUVAGE ESTATE, consisting of several houses, stabling, and vacant ground, eligible for warehouses, manufactories, public or private offices For plans and further particulars apply to Messrs. BEAUMONT and THOMPSON, Solicitors, 19, Lincoln's-inn-fields; or to Messrs. RICHARD THESS and CHAMBERS, Architects, 27, Queen-street, City. JAMES BEAUMONT, Clerk.

GROUND TO BE LET, on Lease, in the best part of Euston-square, close to the London University, suitable for public buildings, or good private houses.—Apply to Mr. GRAHAM'S Office, Taviton-street, Gordon-square

TO OMNIBUS PROPRIETORS, CARMEN, and OTHERS, requiring extensive STABLING and YARD. The above TO BE LET, in the HAMPSTEAD ROAD, or Ground upon which to erect the same.—Apply to CHAS. G. BARLOW, 11, Portman-street, Portman-square.

ELIGIBLE PLOTS of GROUND TO BE LET for Building, at Castlebear-hill, seven miles from London, and ten minutes from the Ealing Station, on the Great Western Railway.—For particulars, apply to GEORGE LESLIE, Upper-mall, Hammersmith.

TO BUILDERS and OTHERS.—TO BE LET, a SIX-ROOMED HOUSE, with spacious WORKSHOPS and YARD; also, a 6-horse Engine, Saw-bench, &c. complete for use.—Apply at Ann-street, Cambridge-road, Mile-end, near the Mile-end station, Eastern Counties Railway.

FREEHOLD BUILDING LAND, with excellent Brick-earth, Islington.—TO BE SOLD, or LET, in large or small lots, about TWENTY ACRES of LAND, between the Upper Holloway and Hornsey roads, within 2½ miles from the Angel, in a most eligible situation for building, and particularly for small villa residences, for which there is a great demand.—Apply to Mr. PEACHEY, 17, Salisbury-square, Fleet-street

FREEHOLD BUILDING LAND TO LET, in the High-street, Peckham, direct from the Freeholder. The whole of Belmont-grove, room for Fourteen Houses, 16 feet frontages, walls all round 7 feet high.—Apply on the Premises, or of Mr. RAWLINS, Queen's-road, Peckham.
Drains and Roads made.

CROWN-HILL, NORWOOD.—BUILDING LAND TO LET, in large or small Plots.—For plans and particulars apply at the Horns Tavern, Norwood, where Tenders will be received on the 15 h day of NOVEMBER next.
The first year at a peppercorn, Term, 90 years

TO JOINT-STOCK COMPANIES, BANKERS, MERCHANTS, BUILDERS, CONTRACTORS, and OTHERS.—For SALE, the BOARD-ROOM, OFFICES, COMMITTEE-ROOMS, STRONG ROOM, HOUSE, ENCLOSED YARD, and extensive PREMISES, belonging to the Commissioners of the Southampton Paving Trust, No. 10, Edward-street, Hampstead-road; and also the House, Yard, and Premises, No 7, Charles-street East, Hampstead road. The Commissioners of the above Trust will meet in their Board room, 10, Edward street, Hampstead-road, on TUESDAY, the 13th day of NOVEMBER, 1855, at SEVEN o'clock in the evening, to receive sealed TENDERS in writing from any person or persons willing to purchase either of the aforesaid premises The premises in Edward-street, Hampstead road, comprising an area of ground 119 feet, and rear by a depth of 114 feet 10 inches, including the very substantial erection at present used as the board-room, offices, committee-rooms, strong room, house for inspector, large enclosed yard, stables, sheds, and foreman's lodge, with back entrance into Robert-mews. These premises are in excellent repair, and suitable for any public purpose; held for an unexpired term of eighty-six years from Michaelmas, 1855, at a ground-rent of 23l. 12s. per annum. The premises in Charles-street East, Hampstead-road, comprising a frontage of 14 feet, are underlet to Messrs. Marshall and Tracey, for a term of seven, fourteen, or twenty-one years from Lady day, 1856, at 70l per annum These premises are in excellent repair, and held by the Commissioners for an unexpired term of fifty three years from Michaelmas, 1855, at a ground-rent of 3l. 13s. per annum. The Commissioners will not be bound to accept the highest Tender. Further particulars may be known at the Office, 10, Edward-street, Hampstead-road, daily, between the hours of TEN and FOUR o'clock. No Tender will be received after SEVEN o'clock in the evening on the said 13th inst. All Tenders must be addressed to the Commissioners of the Southampton Paving Trust, 10, Edward street, Hampstead-road, and also have "Tenders for the Purchase of the Boardroom and Premises," or "Tender for the Purchase of the House and Premises, Charles-street East," as the case may be, written on the outside.—By order of the Commissioners.
JOHN ARNELL, Clerk.
Board-room, November 1st, 1855.

TO BRICKMAKERS.

TO BE LET, an established BRICKFIELD, within a short distance of the Grand Junction Canal, and intersected by the Uxbridge Branch of the Great-Western Railway, close to the capital market-town of Uxbridge, where bricks are always in demand. Average depth of earth, 6 feet, and of a superior description. Space to work five stools. Terms easy.—Particulars of Messrs. HARDY and SON, Builders, Cowley, Middlesex.

THE HACKNEY ESTATE, and THIRTEENTH PUBLIC DRAWING.—The CONSERVATIVE LAND SOCIETY'S PUBLIC MEETING will be held on THURSDAY, NOVEMBER 15th, at SEVEN o'clock, at the MANOR ROOMS, Church-street, Hackney, Viscount RANELAGH in the Chair, when a deputation of the executive committee, consisting of Lord Alfred Churchill, Henry Pownall, Esq.; Horlace Hill Adams Esq. &c. will attend to explain the objects of the Society, and the mode of allotment of the Hackney estate, to be divided among members on the 22nd of NOVEMBER, at the Offices, 33, Norfolk-street, Strand, London, together with the Guildford Estate Worksop Estate, and the Thirteenth Public Drawing for rights of choice on all the Society's estates will take place at the Hackney Meeting, on the 15th of NOVEMBER —For prospectuses, plans, &c. apply to CHARLES LEWIS GRENESIEN, secretary; or to Mr. JOHN LLOYD, House Agent, Church-street, Hackney, Agent for Members.

TO BE LET, ELM-TREE LODGE, a convenient family residence, containing six bedrooms, parlour, drawing-room, dining-room, kitchen, and scullery, with large front and back gardens, and outhouses. Inquire of Mr PLEDGE, Wandsworth-road; or on the premises, adjoining "The Lawn," South Lambeth, three minutes' walk from the Railway Station.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 2, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, November 3, 1855.

The Builder,

A JOURNAL FOR THE

Architect, Engineer, Operative & Artist.

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BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-Superintendent—RICHARD REDGRAVE, Esq. R.A.

Head-Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of Art and in the Art-science on its severeign principles, with the view of qualifying them to impart, to others a careful Art-education, to develope its relation to the requirements of trade and manufactures, and its application to the common uses of life. Special courses are arranged in order to qualify School-masters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concommercially with writing.

The Instruction comprehends the following subjects: Free-hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still-life, &c., the Figure from the Antique and the Life, and the study of Anatomy as applied to Art. Also, Classes for instruction in the technical processes of Chintz and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two last Classes for female students only.

Hours of Study.—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees 2l. per session, or part of the session. For Evening Classes only, 1l. per session.

The Class for Practical Geometry and Perspective, or that for Modelling and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the Museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session.—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

ARCHITECTURAL EXHIBITION.—Suffolk-street Galleries, Pall-Mall East. All works for Exhibition must be sent on the 3rd or 4th of DECEMBER,—except works from the French Schools, which, to save trouble, may be delivered direct, notice being given first of all. The Committee are endeavouring to get a jury appointed, who shall recognise by a diploma or certificate, merits in the articles exhibited in the department for materials and manufactures connected with Architecture, and for which two rooms will be set apart as before. They hope also to arrange for the delivery of lectures during the continuance of the Exhibition, but are not yet able to announce full particulars, although several gentlemen have signified their willingness to assist. All information will be given immediately on application to the Honorary Secretaries.

JAMES FERGUSSON, F.R.A.S., 9, Langham-place, } Honorary Secretaries.
5, Crown-court, Old Broad street, }

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.

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The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, NOVEMBER 13th, Mr. T. R. SMITH will again read a paper "On the Fine Art Department of the Paris Universal Exhibition, with Notes on the mode of lighting employed there." The Class of Design will meet NOVEMBER 23rd. Subject for sketch, "A Gothic Exit."

T. W. GOODMAN, } Hon. Secs.
J. A. BUNKER, }

Lyons Inn Hall, Strand.

LOWESTOFT IMPROVEMENT ACT, 1854.—Notice is hereby given, that the Lowestoft Improvement Commissioners intend to meet on THURSDAY, the 6th day of DECEMBER, 1855, at the Office of the Commissioners in Lowestoft, at ELEVEN o'clock in the FORENOON, to elect a SURVEYOR and INSPECTOR of NUISANCES for the Town of Lowestoft, and Parishes of Lowestoft and Kirkley, otherwise Kirkley, comprised within the limits of the Act. He must be competent to prepare plans, drawings, estimates, and specifications for all works connected with the sewerage, paving, making, and repairing of the streets, and the public roads and highways within the limits, as well as surface cleansing, and to superintend the execution thereof, test materials, and see to the fulfilment of the conditions of contracts for executing any such works, and to do and perform all the duties imposed upon him as Surveyor and Inspector of Nuisances by the said Improvement Act, and the Towns' Improvement Clauses Act, 1847, and other Acts incorporated therewith. The salary will be 50l. payable quarterly, and the person elected will be required to give three months' notice on resignation. The party will not be restricted from private practice.—Applications, with testimonials, to be sent in on or before SATURDAY, the 1st day of DECEMBER next, addressed, under cover, to the undersigned Clerk of the said Commissioners, High-street, Lowestoft. By order, EDMUND NORTON, Clerk.

Lowestoft, 5th November, 1855.

CONTRACTS.

NOTICE to BUILDERS.—ORDNANCE WORKS.—The Commanding Royal Engineer of the Dover District hereby gives notice, that sealed TENDERS will be received at the Office of the Director-General of Contracts, Pall-Mall, London, on or before THURSDAY, the 29th day of NOVEMBER, 1855, from persons desirous of CONTRACTING for the following WORKS at Sandown Castle, near Deal, viz.—

1st CONTRACT.—REBUILDING a portion of the MASONRY WALL on the sea face of Sandown Castle

and CONTRACT.—ERECTING THREE GROYNES on the beach in front of Sandown Castle

Plans and specifications of the works to be executed, may be seen by competent persons, none others need apply, and forms of Tender obtained at the Royal Engineer Office, Walmer, between the hours of TEN and FOUR o'clock, from the 7th of NOVEMBER, to the 14th of NOVEMBER, Sundays excepted

The parties whose Tenders may be accepted for the works will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 500l. for the due performance of each of the Contracts.

Separate Tenders for the above works to be addressed to the Director-General of Contracts, Pall-Mall, London, and endorsed "Tender for Ordnance Works at Sandown Castle."

N.B. The War Department reserve to themselves the right of rejecting the whole or any of the Tenders

Royal Engineer Office, Dover, November 1, 1855.

TO ROAD-CONTRACTORS AND OTHERS.

THE Executive Committee of the Second Tower Hamlets Freehold Land Society are prepared to receive TENDERS for the FORMING and COMPLETING of the ROADS on an estate situate at Forest gate, Essex.—Plans and specification to be seen at the Eagle and Child Tavern, Forest-gate-lane, on TUESDAY, the 13th inst. at TWELVE o'clock. The Committee do not bind themselves to accept the lowest or any Tender.—November 7, 1855.

TO CONTRACTORS.

CONTRACTORS are WANTED for EXECUTING certain REPAIRS to the TIMBER JETTY in the Old Harbour of Holyhead. Drawings, specification, and conditions may be seen at the Engineer's Office, New Harbour Works, Holyhead, on and after the 1st of NOVEMBER, and TENDERS for the work must be delivered at Somerset House, London, addressed to the Secretary of the Admiralty, not later than SATURDAY, the 17th day of NOVEMBER next.

October 30th, 1855.

LONDON and NORTH-WESTERN RAILWAY.—CONTRACTS for STORES for the year 1856.—The Directors are prepared to receive TENDERS for the supply of the undermentioned STORES; viz.:—

No. of Contract.	
1.	Brass, Sheet and Tubes for Locomotives.
2.	Iron Tubes.
3.	Copper.
4.	Canvas.
5	Carpets and Rugs.
9.	Crucibles.
10.	Curled Hair.
11.	Copper and Brass Work.
12.	Colours.
12a.	Drysaltery.
13.	Coach Trimmings.
14.	Cotton Waste.
15	Glass, Plate
15a.	Glass, various.
17.	Hardware
17a.	Brushes and Pencils.
17b.	Nails and Tacks.
17c.	Screws.
17d.	Gas Fittings.
17e.	Locks.
17f.	Lamp Cottons.
18.	Leather.
18a.	Leather
19.	Lead, White and Red
19a.	Lead, Ingot, Sheet, and Pipe.
20.	Iron, Yorkshire.
22.	Ironwork.
24.	Oil, Burning, &c.
25.	Oils, various, and Turpentine.
26.	Oilcloth.
26a.	Augurs, Hammers, &c.
29.	Tin, Block.
30.	Tin, Sheet and Spelter.
31.	Varnishes.
32.	Sundries, consisting of Baskets, Felt, Candles, Soap, Brooms, Pitch, Links, Sponge, Hose pipes, Fog signals, Stoves, Cement, India-rubber, Flannel, Calico, &c. &c.
34.	Hats.
35.	Caps.

Specifications and forms of Tender may be had on and after MONDAY, NOVEMBER 5, on application, in writing, to the Secretary, Euston Station, London. Forms of Tender for each Contract are printed separately, and parties applying should state the particular Contract or Contracts for which their proposals to Tender. Patterns may also be inspected on and after MONDAY, NOVEMBER 5, from TEN till FOUR o'clock, at the Company's Pattern-room, Euston Station; and any further information required may be obtained on application to the heads of the several departments. Tenders to be sent in on or before TEN o'clock on MONDAY, NOVEMBER 19.

By order of the Directors,

CHAS. E. STEWART, Secretary.

Euston Station, October, 1855.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek street, Soho square, on TUESDAY, the 13th day of NOVEMBER, instant, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK and PIPE SEWERS, 1,100 feet in length, or thereabouts, with other works in connection therewith, in Whitehall and Whitehall-place, in the county of Middlesex, and the maintenance of such works in complete repair for 12 calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained at the principal Office of the said Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 12th NOVEMBER inst. The said Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the said works. No Tender will be received after the hour above mentioned.

E. H. WOOLKYCH, Secretary.

No. 1, Greek-street, Soho-square.

Dated this 3rd day of November, 1855.

TO MASONS AND PAVIORS.

THE BOARD for REPAIR of the HIGHWAYS for the PARISH of WEST HAM, ESSEX, are ready to receive TENDERS for about 16,770 feet superficial of 3 inch YORK PAVING, to be laid down in various parts of the parish, from the eastern end of Bow-bridge to certain places in Stratford, West Ham, and Plaistow, as are detailed in the specification to be seen at the residence of Mr. JAMES LOUDON, the Assistant Surveyor of West Ham. Also, 2,500 feet run of ABERDEEN GRANITE CURB; 2 yards of GRANITE CROSSINGS, 45 inches wide, 9 inches in depth, and upon an average 6 inches in length; 1,260 feet of the present pavement to be taken up, part of it re-laid and part to be stacked, and 221 yards of the present pitchings to be taken up and relaid. Such York paving, granite curb, and pitchings to be supplied forthwith, the same laid down, and other works completed by the 31st of DECEMBER next, unless prevented by frost or other inevitable accident, or unless otherwise ordered by the Assistant Surveyor. Persons willing to supply all or any of such York paving, granite curb, and pitchings, and to perform such works, may see the Specification and obtain all other particulars of Mr. JAMES LOUDON'S. The Tenders are to be delivered in to the meeting of the Board, in the Vestry-room of West Ham Church, on TUESDAY, the 20th day of NOVEMBER next, at SEVEN o'clock in the evening precisely, and the Board do not bind themselves to accept the lowest or any of the Tenders unless satisfactory in all particulars.

GEORGE DACRE, Clerk to the Board.

Stratford, Essex, 6th November 1855.

TO NURSERYMEN AND OTHERS.

HALSTEAD CEMETERY.—The BURIAL BOARD for the parish of Halstead, in the county of Essex, hereby give Notice, that they are prepared to receive TENDERS for SHRUBS, &c. for planting their Cemetery. Forms of specification and plan of the intended Cemetery, and all information, may be obtained either at my Office, or at the Office of WILLIAM DAVIDSON, Esq. 36, Great Russell-street, Bedford-square, London, on and after the 12th of NOVEMBER. All Tenders must be sent in to Mr. DAVIDSON on or before SATURDAY, the 24th of NOVEMBER next. The Board reserve to themselves the right to accept or reject, in the whole or in part, any Tenders submitted to them.

G. P. ARDEN, Clerk to the Board.

Halstead, Nov. 8 1855

GREAT GRIMSBY WATERWORKS and DRAINAGE.—The Local Board of Health of Great Grimsby desire to receive TENDERS for the CONSTRUCTION of WORKS for supplying the town with water and for drainage of the town. The work required to be done consists of supplying and laying upwards of [illegible] cast-iron pipes, making and fixing a pair of engines and boilers, and wrought-iron tank; building tank tower, engine-house, boiler-house, and various other work, according to the drawings and specifications, which may be seen at the Office of the Surveyor to the Local Board of Health, from the 9th day of NOVEMBER next, to the 16th day of NOVEMBER next, inclusive. Tenders are to be sent in, addressed to the Clerk to the Local Board of Health, Town-clerk's Office, Great Grimsby, on or before the 24th day of NOVEMBER next. The Board do not bind themselves to accept the lowest or any Tender.—By order,

GEO. BABB, Clerk to the Local Board of Health.

Great Grimsby, October 31, 1855.

TO BUILDERS.

TENDERS REQUIRED for FINISHING TWO PAIR of VILLAS, and four others at Peckham. The plans and specifications may be inspected on and after MONDAY, the 12th, between the hours of NINE and TWO o'clock, at the Architect's Office. The Tenders to be forwarded, sealed, to the Architect, on or before the 21st day of NOVEMBER. The lowest or any Tender will not necessarily be accepted.

JAMES SHEPPARD COLE, Architect,

15, Commercial road, St. George's East.

CHESTERFIELD WATERWORKS.—CONTRACTS for CAST-IRON PIPES, VALVES, HYDRANTS, and other CASTINGS.—The Directors of the Chesterfield Waterworks Company will meet at their Office, in Chesterfield, on WEDNESDAY, the 21st of NOVEMBER instant, at TWO o'clock, in the afternoon, to receive TENDERS and PROPOSALS for the SUPPLY of CAST-IRON MAINS and SERVICE-PIPES; as also for a number of STOP-COCKS, HYDRANTS, AIR-VALVES, GRATES for BRIDGES, and other CASTINGS.—Plans and specifications may be seen, and further information may be had, from and after MONDAY, the 12th instant, on application at the Chesterfield Waterworks Office, Old Brampton.

By order,

SHIPPON and HALLOWELL,

Joint Clerks to the said Company.

Chesterfield, November 1, 1855.

[For remainder of Contracts see next page.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"18, Hyde-park Gate, Kensington, February 24, 1854

"My dear Sir—The Air Warmer continues to work very satisfactorily in bed, with regard to the main body of the house, and during the late warm days even in the painting-room. Mrs Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,

"Mr. J. Jobson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq. late M.P. for Sheffield.

"Stanhope Lodge, St John's wood, London, January 27th, 1855

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in England, and this has increased with increasing years and decreasing strength; I have, therefore, had recourse, from time to time, to various stoves and other modes of warming the halls and passages of my house; but I have never succeeded till now in producing an equal temperature over every part, and have not thus a temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and have the climate of May within doors in the months of December and January. The servants learnt its proper management in a few days with great facility, and its economy in fuel is a remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall lose no opportunity of hearing a trial of its adoption to all who desire to protect themselves against the changes of temperature in their dwellings. I am, dear Sirs, yours faithfully,

"JAMES SILK BUCKINGHAM.

"To Messrs. Stuart and Smith, Rosse-place, Sheffield."

M. E. HADFIELD, Esq Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855

"My dear Sir,—We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the House has been pleasant and equable, and the atmosphere perfectly free from the disagreeable oppressive sensation usually met with in Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective. I am, my dear Sir, yours faithfully,

"Mr. J. Jobson Smith, Rosse-place." "M. E. HADFIELD.

WILLIAM RUTSON, Esq.

"Newby Wiske, Thirsk, 15th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the dreadful cold we dent to an unoccupied and unfurnished house, with all the doors open into the adjacent rooms, it is keeping up a very genial influence over the temperature, even during the severe weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 16s. 8d. per ton, the rate at which it has been dried for the last two or three months is 1s. per hour.

"I am, Sirs, yours truly, "WILLIAM RUTSON.

"Messrs. Stuart and Smith

"P.S. Mr Rutson, on looking again, sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3s. 6d. for coke—say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop-road, February 27th, 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the late severe frost, the comfort has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase, and passages being cold, and a reserve of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the general run of the house without the fear of a relapse. To many it valids the invention will prove invaluable, giving them the freedom of their habitation instead of confining them prisoners to one apartment.—Believe me, my dear Sir, very truly yours,

"Mr Jobson Smith." "EDWARD MARTIN.

E. F. SANDERSON, Esq.

"Sheffield, 27th March, 1855.

"Gentlemen,—The Gill Air Warmer you put up for me last year at Endcliffe, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been painfully sensitive of the damp and chilly air of this country; but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your effective plan of rendering dwelling-houses most equably comfortable in point of temperature.—I am, yours very truly,

"Messrs. Stuart and Smith, Rosse-place." "E. F. ANDERSON.

CONTRACTS.

TOWN of TUNBRIDGE WELLS.—NOTICE. The Commissioners acting under the Tunbridge Wells Improvement Act, 1848, are desirous of receiving TENDERS for a contract to LIGHT the TOWN with GAS, for the term of three years, from the 25th of JUNE, 1856, when an existing contract will determine. Further information may be obtained on application to the Clerk. Sealed Tenders to be addressed "To the Paving Committee Tender for Gas Contract," under cover, to Mr JOHN ELLIOTT, Clerk to the Commissioners, to be delivered at the Clerk's Office, at the Town hall, Tunbridge Wells, on or before FRIDAY, the 30th NOVEMBER instant.

NOTICE to BUILDERS and CONTRACTORS.—The Secretary of State for the War Department being about to enter into a special contract for ERECTING ADDITIONS to the CELLS at the Royal Artillery Barracks, Woolwich, such persons as may wish to TENDER for the same, may inspect the plans and specification of the work, and obtain forms of Tender, by applying to the Clerk of Works, at the Royal Engineer Office, Royal Artillery Barracks, Woolwich, on or before the 21st NOVEMBER, 1855. Tenders are to be delivered in the printed form, to be delivered, pre-paid, at the War Department, Pall mall, London, on the 22nd NOVEMBER, 1855, addressed to the secretary, and marked "Tender for Work at Woolwich Barracks."

Woolwich, 6th Nov 1855.

GREENWOOD'S PATENT INDIA-RUBBER STOPS render Doors, Windows, Show-cases, Closets, &c. perfectly air-tight, keep out Dust and Draught. Reduced price, 4d. per foot. Spring Slides for the bottom of Doors, 4s. each.

J. GREENWOOD,
10, Arthur-street West, London-bridge.

THE PATENT DRAUGHT and DUST EXCLUDER, from 1s. to 4s. per yard, at R. HELIWELL'S French and German Fancy-work Establishment, 265, Regent-street, near Oxford-street; and at Messrs. BURGESS and KEY, 109, Newgate-street.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 176, Horseferry-road, and 1, New Peter-street, Westminster. Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven or boiler, complete, 22s. each.
Set of Bright Bars, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 35s. each.
Register Stoves, from 3d per inch
Elliptic ditto, with loose backs, from 2d per inch.
Cast-iron Rain-pipe { 2 3 4 inch.
{ 1½d. 1s. 2d 1s. 8d. per yard.
4-inch Eaves Gutters, 9d per yard.
O G Gutters { 3½ 4 4½ 6 inch.
{ 1s. 1s. 1d. 1s. 3d. 1s. 6d per yard.
Best Cut Clasp { 1½ 2 2½ 3 inch and larger
and Rose.... { 10s. 0d. 13s 6d. 16s. 18s. 6d.
1-inch Best Cut Lath, 16s per cwt.
Sheet Floor Brads, 14s per cwt.
Hoop Floor Brads, 13s 6d per cwt.
Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 3s. per doz.; strong Coal Plates, with hooks 2½s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE,
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Bucklersbury, London.

IRON FOUNDRY,
HARROW-STREET, LANT-STREET, SOUTHWARK,
W. R. BARTLETT, manufacturer of Girders, Columns, Pantiles, Screws and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Pans, Area Gratings, Sash Weights, Fly and other Wheels, Rosses, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

CLARK'S PATENT SMOKE-BURNER: an improved means of perfecting Combustion, and thereby the Smoke.

The present is now in operation upon Steam-engine Furnaces, of Cornish and Waggon Boilers, and upon Ovens. It is adapted to all descriptions of Furnace, such as Marine Boilers, Coppers, Ovens, Bakers' ovens, Potteries, Chemical Works, &c. Its effects is acknowledged by Government Inspectors to be amongst the most perfect of the inventions extant in subduing the Smoke Nuisance, and in many instances with a diminished consumption of fuel.

The furnaces, of various construction, to which it has been successfully applied, may be seen in operation, at the Cement Works of Messrs. FRANCIS BROTHERS, Nine Elms, London.

Address, THE SMOKE-BURNER COMPANY,
Nine Elms, London.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO 55, High Holborn.

TO BUILDERS, CARPENTERS UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE.—

No.	4	5	6
	4s.	5s. 6d.	7s. 6d. per gross.

At JOHN YOUNG'S, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester square, running out of Baker-street, Portman-square. Every other article equally reasonable.

HART AND SON,
PROPRIETORS AND MANUFACTURERS OF
PITT'S PATENT SELF-ADJUSTING SPINDLED DOOR FURNITURE.

COAL-PLATES, AIR-BRICKS, &c.
53, 54, 55, & 57, WYCH-STREET, STRAND.

JOHN HENDERSON PORTER,
ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS,
GAS-STREET, BIRMINGHAM.

LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

PATENT GALVANIZING and CORRUGATING IRONWORKS Improved Process.
WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

SKAIFE'S GALVANIZING WORKS,
Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated.—Roofs fixed complete.
J. Skaife is also Agent for Morew ood and Rogers's Patent Galvanized Tinned Iron, Patent Zinc, and Tiles.
An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station. A large variety of build ings always on view, churches, chapels, schools, boxes, lodges, manors, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

PARAGON ZINC WORKS, Paragon-place, New Kent-road, opposite Bermondsey New road JOHN BROWN, Zinc Worker, begs to inform the building trade and the public generally, that he now makes kites, patent ventilating and smoke curing Albert chimney caps, he having the patentee's permission for the same. Every description of zinc work executed in town and country. Terms—Cash, a liberal discount on large orders. Baths, skylights, sashes, moulded gutters, &c made to order or drawing

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON, or
BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.
PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.			
12	"	20	"
13	"	23	"
14	"	30	"

Full particulars and the reduced price sent by post on application to
A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

TO BUILDERS, &c.—FOR SALE, cheap, a 30 feet 4 inch GALVANIZED IRON PUMP, by Richards (has been used a week only)—Apply to A. R. SMITH, Carpenter, next the Organ Factory, West Brompton, by letter, inclose 1s. a stamp for reply.

PATENT CORRUGATED IRON.
JOHN WALKER,
MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.
JOHN WALKER,
GALVANIZED IRON MERCHANT, &c. The trade supplied
Corrugating by steam power capable of doing 5 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.
JOHN WALKER,
IRON-FOUNDER AND ENGINEER.
Orders to any extent can be executed at his Works, Mill-wall, Poplar. Apply at the Works.

BUILDER AND CONTRACTOR.
JOHN WALKER,
Having his own Saw-mills, is enabled to CONTRACT BUILDERS' WORK,
At low prices, consistent with good work.
Apply at his Offices, Arthur-street West, London bridge.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.
Island Foundry and Ironworks, Millwall, London.
Offices: 12, Fenchurch-street, City.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets,
PLAIN or CORRUGATED, and Curved, of all Gauges.
Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c of all sizes.
Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building, at the
OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

HE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

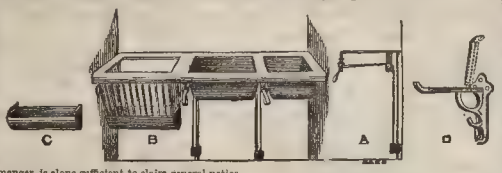
NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

ave made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.

A represents the Patent itter-guide and Collar-rein, ball of which is taken to the th of the manger-works with ection and case up or down e guide-bar, and is noiseless its operation, as also a sure eventative against the most tive Horse being cast in the all.

B. The Patent Portable Seed- x can be instantly detached om the rack without disturb- g the hay. The saving of the id in a clean and useful state, ller for agricultural purposes,



mining with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an ject, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, rable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers. Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Pre- ving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-Iron ork for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental, Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

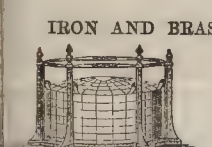
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

SOLE AGENTS:

BENHAM AND SONS,

19, WIGMORE-STREET, LONDON;

and at the Crystal Palace, Sydenham.

HEATING by HOT WATER.—J. JONES, Iron Merchant, has always a great variety of CONICAL and SADDLE BOILERS in STOCK; also fire and furnace bars, ornamental and plain supply cisterns, double doors and frames, furnace-grates, soot-doors for the same, hot-water pipes, elbows, ses, syphons, throttle-valves, stop-cocks, flange and socket elbows, &c.; also, trough-pipes. Drawings and prices of the above, on plication to J. JONES, Iron-bridge-wharf No. 6, Bankside, London, near the Southwark-iron bridge.

CUNDY'S PATENT PURE WARM-AIR STOVES, the only Pedestal Stove which gained a Prize Medal (class 4?0), at the Great Exhibition in 1851, especially adapted for warming, with great economy, Churches, Chapels, Schools, Entrance-halls, Libraries, and Ware-rooms.—CUTLER and SONS, Sole Licensees and Manufacturers, 16, Great Queen-street, Long-acre, London.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by F. EDWARDS, SON, and CO. 42, Poland-street, Oxford-street where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S Office, 145, Regent-street, London.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

HEATING BY HOT WATER.

JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 3s. 2d. This achievement in heating by hot water is unprecedented.

NO CHIMNEY WANTED for RICKETS'S PATENT CALORIFERE GAS STOVES in CHURCHES, HALLS, or SHOPS;

And for Counters, stories, or any close apartments, which can be attached to carry away the burnt air.

RICKETS'S CHEAP GAS STOVE, Price, £1. 15s.

Made of Sheet Iron, suitable for Heating small Countinghouses, Bodrooms, Cellars, &c. &c.

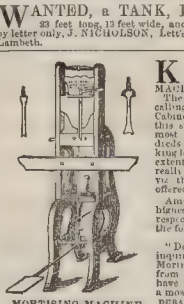
MANUFACTORY,

AGAR-STREET, STRAND, LONDON.

Liberal Discount to Builders.

BUILDINGS HEATED by HOT WATER. G. B. COOPER, IRONWORKS, 121, DRURY-LANE. Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

WANTED, a TANK, IRON or WOOD, 23 feet long, 13 feet wide, and about 7 feet deep.—Apply, by letter only, J. NICHOLSON, Lett's Wharf, Commercial-road, Lambeth.



MORTISING MACHINE. 12l. to 15l.

KIMBERLEY'S PATENT MORTISING MACHINE.

The Patentee feels justified in calling attention of all Builders, Cabinet-makers, and others to this simple, strong, cheap, and most effective machine. Hundreds are in full use all over the kingdom, and references to any extent can be given to prove it really is what it is represented, viz. the most valuable tool ever offered to the trade.

Amongst testimonials of the highest character, he would respectfully invite attention to the following:

"Rugby, June 14, 1855.

"Dear Sir,—In reply to your inquiry respecting the Patent Mortising Machine I purchased from you three years ago, I have to inform you I consider it a most simple, efficient, and durable article; nor do I think it saying more than it deserves when I state it is highly superior every way to one I was recently induced to purchase from a London house, which, although represented to be unexcelled in its principle and make, has totally deceived myself and all others, as it is always breaking, and is useless in comparison with your own, upon which I believe not a sixpence has been expended since received from you, although in constant work. I candidly assert that its use in my shop is worth twice the value, as it must, indeed, be to every builder who possesses it.

"I am, Sir yours faithfully,

"JOHN PARNELL"

London Agents: Messrs. PUGH and CO. 13, King-street, Snowhill, who keep Stock of all Kimberley's Patent Goods, Flooring Cramps, &c.

KIMBERLEY'S PATENT FLOORING CRAMPS, Scaffolding Brackets, Door Springs, Mortising Machines, Casement Fasteners and Stays, Skylight Screws, &c. &c. Also, KIMBERLEY'S PATENT GAS STOVES, may be had from any Ironmonger in town or country; from the Patentee, Inge-street, Birmingham; or from the London Agents, Messrs. PUGH and CO. 13, King-street, Snowhill, where a stock is kept.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES

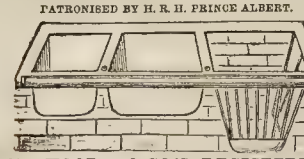
W. BISSELL, PATENTEE, WOLVERHAMPTON. Manufacturer of Rim and Mortise Locks and Builders' Ironmongery.

AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 2 to 4 inches.

B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist, then fix the set screw FIRM. Turn the notched lever B against the joist, then, by turning the handle D, the lever will grasp all firmly and hold the cramp firm: the greater the strain, the more tightly, by its eccentric action, will the lever bind. The Patentee, in asking the attention of Builders and others, assures them that his cramp possesses great advantages. It is a newer cramp of the best kind, and as well suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be more quickly and safely used than any yet brought out, and at the same time it is light and portable.

PATRONISED BY H. R. H. PRINCE ALBERT.



S. HOOD and CO.'S REGISTERED STABLE-FITTINGS, with FRONT REVOLVING ROLLER, plain or enamelled.
Castings Warehouse removed from 81 to 88, Upper Thames-street.

FIRE-PROOF CONSTRUCTION.— FOX and BARRETT'S PATENT.
This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.
The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.
The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.
Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, both as superseding the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.
Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 12, York-buildings, Adelphi.

CHUBB'S LOCKS, with all the recent improvements; STRONG FIRE-PROOF SAFES, CASH and DEED BOXES.—Complete lists of sizes and prices may be had on application.
CHUBB and SON, 57, St. Paul's-churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c to his Stock of Ironmongery, Brass Foundry, Nails (wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. 8s. 6d. each.
J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.
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TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.
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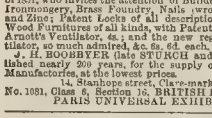
CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 169, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,
30 32 34 36-inch.
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 56s. 58s. 60s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in 3½d.
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Bright Stoves, with Two Fires, 40s. to 100s. each.

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11d. 1s. 9d. 1s. 4d. per y rd.
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An extensive stock of bar, rod, hoop, and sheet Iron.
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ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

IRONMONGERY,
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THE LARGEST STOCK AT
THE LOWEST PRICE,
5 AND 6, BROAD-STREET, BLOOMSBURY.

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N.B. Several high-pressure Engines for Sale.

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PATENT SASH and BLIND LINE, can be obtained of all
ROPEMAKERS, IRONMONGERS, FACTORS, AND WHOLESALE HOUSES IN TOWN OR COUNTRY.
Established 1774.

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NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.

House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 98, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

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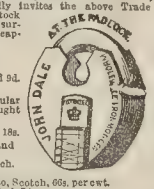
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 6½d. 6d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 33s. each.
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Best Patent Sash Line.
1 2 3 4 5 6
4s. 6d. 5s. 6s. 7s. 6d. 8s. 6d. 11s. per gross.
And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
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TUNED BY MACHINERY.
Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

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N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.
THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for billiard-tables.
Diving-dresses of superior make, and improved Vulcanised Rubber Supply-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
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N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, is manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

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Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality; Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at

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MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.

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THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

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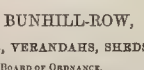
and by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under sides at the Royal Agricultural Society's House, in Hanover-square. Its advantages are lightness, warmth, durability, and economy as it is impervious to rain, snow, and frost, and a non-conductor of heat and sound. The Felt can be cut to any length, by 32 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its uses and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen, and Gentlemen who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Rollers, &c. is also manufactured, by which a saving of about 50 per cent in fuel is effected. The TRADE are respectfully solicited to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their works. They are likewise CAUTIONED AGAINST MISREPRESENTATION as none ONLY WORKS in Great Britain where the above Roofing is made are F. McNEILL and CO.'s Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW. Roofs covered with the Felt may be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the New Houses of Parliament.—A Liberal Discount allowed to the Trade.

GLASS PAN-TILES, packed in cases of fifty, one-quarter of an inch thick, 1l. 17s. 6d.; three-sixteenth, per case of sixty, 2l. 1s. 3d.; one-eighth, per case of sixty, 1l. 17s. 6d. Foreign Sheet Glass, in cases of 200 feet, 34s., 38s and 40s. per case. Crown Glass, in crates of eighteen tables, from 28s. Cry-tal White Glass, for pictures, at 1l. 6l. and 8l. per foot. —JAMES PHILLIPS and CO. 116, Bishopsgate-street Without, London.

By Royal  Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 296, Oxford-street.

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CCC CROWN, 18 Tables, per crate 30s.; H 15 oz. SHEET, 2d. per foot; FOREIGN SHEET, 200 feet cases, 34s. per case; CROWN or SHEET SQUARES, 50 feet boxes, 2l. per foot; HARTLEY'S PATENT ROUGH PLATE from 6l and PERFORATED VENTILATING GLASS, 1s 6d. per foot; CRYSTAL SHEET GLASS, 4d., 6d. and 8d. per foot; FLASHED RUBY, 1s GROUND SHEET, 3½d. ENAMELLED, 8d. per foot. Sashes primed and glazed, 3d. per foot.

Catalogues free, on application to the Managers, as above.

CRYSTAL WHITE SHEET-GLASS, first, second, and third quality, in cases of 200 feet, at 3d. 4d. and 6d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

PATENT and BRITISH PLATE GLASS.—JAMES HETLEY and CO. beg to inform Architects, Builders, and the Trade generally, that their new Tariff of Prices for the above will be sent on application; they will also send a copy of particulars, furnish estimates for any description of Glass now manufactured.—Patent Plate, Sheet, Crown, and Ornamental Window Glass Warehouse, 35, Soho-square, London.

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No. 1 quality, inches diameter, and price per yard.

¼	⅜	½	⅝	¾	⅞	1	1¼	1½	2	2½	3	3½ in.
9d.	11d.	1s.	1s. 3d.	1s. 5d.	1s. 7d.	1s. 9d.	2s.	2s. 3d.	2s. 6d.	2s. 9d.	3s.	3s. 6d.

Super-extra stout quality.

2	2½	3	3½	4 inches.
2s.	2s. 3d.	2s. 6d.	2s. 9d.	3s. per yard.

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

1	1¼	1½	2	2½ inches.
8d.	10d.	11d.	1s.	1s. 3d. 1s. 6d. per yard.

The hose is Burnettized at an extra charge of 3d. per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

The Builder.

VOL. XIII.—No. 666.

VIRTUALLY the Industrial Exhibition in Paris is closed: the huge cases have been removed from the nave, many of the things sent back to their owners, and workmen are making the arrangements, such as they are, for the ceremonial of distributing the prizes on Thursday, the 15th. If our neighbours' much talked of powers of organization make it a success, it will be the one solitary instance to be recorded in the history of the *Exposition Universelle* of 1855. At any rate, it is not likely, we fancy, that the mixture of stupidity and blackguardism exhibited on the occasion of the fête given the other day to S. A. I. the Prince Napoleon, president of the Commission, will be outrivalled.

On Saturday last, the Emperor and Empress visited the Gallery of Domestic Economy, established in the Palace of Industry, on the suggestion of Mr. Twining, who desired to bring together those productions which bear directly on the physical welfare and moral development of the working classes. The element of *cheapness* is here largely involved, and the people of Paris see in this exhibition, for the first time, how much may be done with a little money, by going to the right place to spend it.

When Mr. Twining was presented, the Empress said to him, "This exhibition is very interesting: it is a good and useful creation. I trust that it will be made permanent: I desire it much."

Neglecting the Exhibition, however, for a time, we would have our readers travel back with us to the more ancient part of Paris, and look again at the Sainte-Chapelle, in order to see the interior, with its polychromy, enamels, and stained glass.* It will be seen that it is in one span. The side walls are divided into four compartments by clustered columns, from the capitals of which spring the groins of the vaulted roof. The absis is divided into seven compartments, and in all the spaces thus formed, above an arcade, which runs round the walls, are the stained-glass windows of which we have already spoken. The capitals of the small columns forming the arcade each exhibit different foliage, and in the quatrefoils are paintings of saints and other personages. In the spandrils are sculptured angels and foliage, the whole aided by a ground-work of enamel and mosaic work. It is worth noting, that the ornamentation is all derived from the indigenous Flora.

On the main pillars against the walls, at the height of about 13 feet from the ground, are figures of the twelve apostles, one against each pillar, with an enriched corbel and canopy. These are of stone, and mark, what is called in Roman Catholic churches, the Stations,—or, the places where the officiating priest when consecrating the building, leaves the mark of the Cross. These statues, which are of admirable design, are elaborately draped, and, like every other portion of the interior, richly coloured. Part of the number only are the original statues, and these were preserved by the rarest chance.

In 1791, the National Assembly having appropriated the property of the church, charged a committee with the preservation of such works of art as were attached to religious edifices. Alexander Lenoir, who was the director of the museum of French monuments, established at the Convent of the *Petits-Augustins*, caused the carvings, altars, staircases, and statues of the Sainte Chapelle, to be brought there, and thus saved them from destruction. Soon, however, this museum was broken up, and the various monuments were dispersed without reference to their original locality. Thus the bishop of Nancy obtained four of these statues of the apostles to ornament his chapel, where they remained till 1830, when they were mutilated by the rioters of that period, and were afterwards buried to prevent the recurrence of disorders, and lost sight of. Fortunately, however, M. Lassus succeeded in discovering them when excavations were being made for a fortress, on the spot where they were buried. The figures had been decapitated, but further endeavours brought the heads to light in the little garden of an old lady, who had preserved them in 1830, by carrying them away, one by one, in her apron. Another of the statues which was recovered had first figured in the park at Sceaux, as "Mercury," and had then found a resting-place in the church of Corbeil as a St. John, the beard being first cut to make it accord with tradition. Two others were dug from under the pavement of the Sainte Chapelle, in a very mutilated condition.*

When you leave the Sainte Chapelle, you are very near to the metropolitan cathedral, Notre Dame, and may look at what has been done there, as well in clearing away the circumjacent buildings at the east end, as in restoring the structure itself. The magnificent west front, and, indeed, nearly the whole of the building, has been put into a good sound state by the expenditure of large sums of money during a considerable period of time. A glance at its history must suffice. The first stone of the Notre Dame of to-day was laid in 1163, in place of a more ancient church; but it was more than fifty years after that, namely, somewhere about 1215, that the west front, as we now see it, was commenced. About the year 1223, it had been carried up as high as the underside of the gallery which connects the two towers. About 1257, the front of the south transept was rebuilt to accord with the western portion, and the two topmost stories of the towers belong also to that period. The erection of the side chapels occupied the remainder of the century.† A more majestic specimen of the architecture of the thirteenth century than this west front is not to be found. It is at once severely grand and delicately beautiful. In mass it is overwhelming, in detail charming,—a grand monument, and a marvellous story-book in stone! The building was much mutilated at the beginning of the eighteenth century by those who desired to *improve* it, and more so under Soufflot, the well-known architect, in 1771, who even destroyed some of the extraordinary sculptures in the central doorway of the front. In 1793, the time of trouble, the destruction of all the effigies of kings was ordered, and was only prevented by the readiness of one lover of the arts in the fanatical band, who declared that the astronomer Dupuis had discovered the planetary system in one of the doorways of the church; and so forthwith Dupuis was added to the administration of public works, in order that he might preserve the monuments worthy to be left for posterity, and thus the statues that remained were saved.

The doorways contain an immense amount of curious sculpture, disposed in six concentric receding orders around the openings, and in the space between the horizontal doorhead or transom and the outline of the arch. A quadrangular pier, adorned with bas reliefs, and with a statue on the front face, divides each doorway between the transom and the ground into two openings. This was removed by Soufflot from the great central doorway, but has been restored. The groups, in three rows, in the space over the doors, represent subjects from the Scriptures: saints, martyrs, and apostles people the sides. A complete description and inquiry would fill a volume. The doorway at the foot of the north tower is known as the door of the Virgin, that in the south tower, as the doorway of St. Anne. The latter would seem to have belonged to the fabric of the twelfth century, and has a Romanesque character not observable in the others. The wooden doors are covered with very elaborate wrought ironwork, and we have engraved a view of one of them, but we postpone the insertion of it till our next notice. In the "Annales Archéologiques," by Didron, *aîné*, it is given as a specimen of the ironwork of the twelfth century; while, on the other hand, the Abbé Sauval, in his "Antiquities of Paris,"* says this ironwork was executed by Biscornette, a famous smith of the sixteenth century. "The iron of the doors," says Sauval, "has been admirably bent (*roulé*), by Biscornette. The sculpture, the birds, and the ornaments, are marvellous: they are made of wrought iron, the invention of Biscornette, which died with him. He melted (*fondoit*) the iron with an almost incredible industry, rendering it flexible and tractable, and gave it all the forms and scrolls (*enroulements*) he wished, with a *douceur et une gentilesse*, which surprised and astonished all the ironworkers. Gaegart, *serrurier du Roi*, broke off some pieces of the hinges, in order to discover the secret; but confessed that he got nothing for his pains and experiments, and had great difficulty to use even that little: these gates have been made 120 years, and are yet admired by all smiths. The wonder is that none of the trade have ever been able to tell precisely the mode of manufacture: some say it is cast (*fondu*), and filed up; others that it is wrought with the hammer; others that it is *fer moulé*, which they call *fer de barreau*: the most skilful of them think that it is cast-iron, without any soldering. However, the secret died with Biscornette, for nobody ever saw him work."

A cast of some of this ironwork will be found in the French Mediæval Court, at Sydenham. The authors of the handbook, Messrs. Wyatt and Waring, are of opinion that the hinges "are of wrought-iron, that they were executed in the latter part of the thirteenth century, and that all that Biscornette ever did to them was, most probably, to repair them." Having given them some little consideration, we must confess that we go with Sauval, at least as far as regards much of the work, which has the aspect of being of two periods. The scrolls of the more elaborate hinges terminate in birds and lizards of Renaissance character. One tradition views Biscor-

* See p. 543.

* In our previous notice we mentioned the date of the erection of the Sainte Chapelle. As it is remarkable for the early introduction of tracery in the windows in fact, it is a specimen of what we should call the Geometrical style,—our readers may like to see some authorities. The following are given in Mr. Lukeraley's 'Inquiry into the Chronological Succession of the Styles of Romanesque and Pointed Architecture in France:'—

"LA SAINTE CHAPELLE. Anno eodem MCCXLI ut existimo, cepta est Sancta Capella. Anno MCCXLVIII die XXVI. mensis Aprilis, Rex Ludovicus, sub nomine Coronæ Spineæ et Sanctæ Crucis dedicationem Sanctæ Capellæ celebrari curavit. Celebritas magna fuit. Serram rem erit Odo Episcopus Tusculanensis Apostolicæ sedis Legatus."—*Hist. Eccl. Parisn, Dubois*, fol. xv. cap. iv. p. 356.

"SACRA CAPELLA — . . . ut liquet ex hisce duabus inscriptionibus, quæ adhuc existant in sua quæque capella ad murum septentrionalem. 'Anno Domini 1248. VII. cal. Mail, dedicata est ecclesia ista a venerabili patre Odone Tusculanensi, episcopo, in honore Sacro sanctæ, Coronæ spineæ, Domini, et vivificæ crucis.'" —*Gallia Christiana*, Vol. VII. col. 230.

† SOUTH TRANSEPT FRONT OF NOTRE DAME. — "Anno domini MCCLVII. mense Februario, id. II. Hoc fuit inceptum Christi genitrici honore Kalensi Latino vivente Johanne Magistro." En l'une desquelles (chapelles) d'autour le Chœur, est escrit et paint soubs la statue d'un evesque eslevée debout sur une col une de pierre audessus d'un tombeau de marbre. "Cy est l'ymage de Bonne Mémoire Simon Matifas du Bucy, Eueque de Soissons et iadis Euesque de Paris, par qui furent fondées premièrement ces trois chapelles où il gist en l'an de grace, 1256: et puis on fit toutes les austres enuiron le Chœur de ceste Eglise." *Les Fastes Antiquitez de Paris.* By Pierre Bonfous 1605. I. vol.), p. 132. *Le Theatre des Antiquites de Paris.* Jacques du Breuil (1612. I. vol.), p 16.

* Quoted in the "Handbook for the Mediæval Courts," Sydenham.

nette as the devil in disguise; and another, that he was a mortal, but aided by the evil one, for which aid he had sold himself. The smith has always been regarded as an object of interest. As Longfellow sings of Basil, the blacksmith, he

> "—— was a mighty man in the village, and honoured of all men;
> For since the birth of Time, throughout all ages and nations,
> Has the craft of the smith been held in repute by the people."

In the same court and the adjacent gallery, at Sydenham, casts of the extraordinary series of sculpture in relief from the choir of the cathedral, twenty-three in number, will be found, together with some smaller carvings.

An arcade above the doorways in the west front of Notre Dame, is known as the gallery of kings, and growing out of an open parapet which surmounts this are pedestals, which carry five stone statues,—one in the centre of the face of the north tower (Adam), one in the centre of the south tower (Eve), and three over the middle doorway and in front of the great rose window,—with the effect of which, by the way, at a distance, they interfere greatly. The latter group represents the Virgin bearing the infant Saviour, with an angel on each side; the whole symbolising, it may be thought, the Fall and the Redemption. These figures are modern work, as indeed is much of the sculpture below; and it is to be hoped that an exact account is preserved of the interpolations, for the sake of posterity and truth.

Full of romance and poetry is this suggestive old building. The history of Paris is associated with its venerable aisles, and Quasimodo looks out from the belfry window.

SOME OBJECTIONS TO POLYCHROME CONSIDERED.

It has long been a disputed point amongst architects and men of taste generally, whether or not our churches gain by the use of colour; whether bold and beautiful mouldings are seen to better effect when the material in which they are cut is visible in its pure natural colour, or when the effect at which the designer aimed is heightened by a judicious application of polychrome; giving apparent depth to the hollows, and apparent prominence to the projecting members; whether the introduction of large painted surfaces does or does not distract the attention from the moulded and constructive parts of a building; and, in fine, whether the brush of the decorative painter is or is not necessary to the production of a perfect building, in order to unite the works of the builder and the sculptor, by a skilful use of diapers, flat tints, scrolls, and large mural pictures, so that our churches shall present a union of the sister arts of architecture, painting, and sculpture.

Those who have any respect for the works of preceding ages generally declare for colour. Indeed, all those who are in favour of a strict adherence to precedent must, to be consistent, support this side of the question, for they find that almost every ecclesiastical edifice that they would regard as a model church, whether it be Basilican, Byzantine, Gothic, or Italian, is, or has been, partially, if not entirely, adorned with painted decorations.

The opponents of polychrome are either those who have no regard for what has been done before; those whose tastes are so sickly, that they shrink from anything that is of a bright colour; those who have not the keen perception of the beauty of colour that adds so much to the enjoyment of the man of healthy tastes; or those who object to the use of coloured decorations on religious grounds. Of these classes of objectors, the first and fourth alone require to be noticed or answered.

The second class of objectors is composed of those who have not yet conquered the prejudices of early education, or have not strength of mind to assert their freedom from them. A morbid fancy for drabs, greys, and undecided tints crept over the country in the middle of the seventeenth century. Since then, all those brought up in this dim atmosphere of prejudice have been taught to regard the use of grey, drab, vapour, or any other indescribable shade of colour, as a mark of refinement. These men will tell you that they object to bright colours; that their eyes are offended by them; that they see no beauty in them; that they are gaudy, tawdry, garish, and vulgar. We have only to contrast the perfection of coloured nature with their cold standard of art, to convince them that unless they boldly profess to surpass by their art the works of Nature, she will prove that on their side lies the want of healthy taste, and the vulgarity, *i.e.* unthinking adhesion to the common irrational opinion.

We may ask them if they find the azure of the heavens so intolerable; if they turn with disgust from the vivid green of budding trees and growing grass; if they are overpowered by the gorgeous dyes of the peacock's plumage; if they look upon the glories of the amethyst, the ruby, the emerald, as gaudy and meretricious? We may ask them if they do not think it would be a dull world, if the varied works of creation were destitute of that element of colour which pervades them all? And we may tell them that unless their art will admit the use of every one of the hues we find in nature, it will be vapid, and also, as art is but a humble imitation, unreal and untruthful.

Religious objections are not fit subjects to be discussed here; but we may assert with truth, that the principle which would exclude colour would exclude ornament of any kind; that there is no halting-place between the richness of St. Mark's, and the simplicity of four plain walls. We may assert that St. Peter's at Rome has not a less devotioned effect than St. Paul's in London; that the Certosa at Pavia looks as much like a building devoted to religion as St. Luke's at Chelsea. We may add that austerity should not be a characteristic of a church, and that if we go from our richly-furnished houses to our cold undecorated churches, we shall be apt to prefer the former to the latter, as conveying a sense of repose, richness, and beauty, while the others make us shiver when entering their precincts,—they present such a cold, poverty-stricken, and uninviting appearance.

Objectors of this class, too, can be referred to nature for an answer as to the propriety of using colour in religious edifices. They may be told that the natural and untutored taste of the simple Italian peasant girl teaches her that she can present no more appropriate offering, at the shrine where she performs her evening devotion, than the many-hued flowers she gathers on her way thither.

Those who advocate thorough colouring of churches generally pass through two or three phases of opinion. They begin by objecting,—some never get beyond the slough of despond,—and do not see, even in dim perspective, the glories of the perfect and richly coloured mediæval church. Those who reach another stage have gained courage to gild a few ribs, pick out a few mouldings, scatter about a few scrolls, and perhaps even venture to do a diaper two shades of the same colour, proving by the results that thorough colouring is the thing to be desired. But those who have thoroughly studied the works of the Middle Ages have found that every production of those times glowed with colour; that the men and women attired themselves in doublets of scarlet, jerkins of green, and petticoats of purple; that the houses they inhabited were hung with rich tapestries of Arras; that their windows glowed with rich armorial bearings; that the books they read were illuminated with ultramarine and vermilion; that the chapels in which they worshipped had vaults of azure, studded with golden stars. They accordingly endeavour to introduce this essential element of colouring into every work they undertake, in imitation of the works of mediæval times, knowing that unless they do this, however fine the proportions, however carefully studied the detail, however highly finished the execution, their work will but resemble a well-drawn and excellently designed picture before the processes of glazing and scumbling have given it transparency, texture, and harmony of parts.

P.

THE ARCHITECTURAL EXHIBITION.

We are glad to learn that the Architectural Exhibition is progressing satisfactorily. The committee seem to be exerting themselves, and have determined to make the approaching exhibition as attractive as possible. The drawings and specimens are to be sent in on the 4th and 5th of December. It will be opened with a *conversazione* on the evening of the 16th. During the exhibition, papers will be read on stated evenings, and it is proposed to appoint juries to grant testimonials in the department of materials (alone). Materials and manufactures in connection with architecture will, for this reason, no doubt be more largely exhibited each year, and will in time form a very useful and attractive portion of the exhibition. With respect to the drawings, in looking over an old catalogue we find amongst those who have exhibited on former occasions the names of Allom, Ashpitel, Bury, Britton, Chantrell, F. P. Cockerell, Donaldson, Fergusson, Griffith, E. P'Anson, Kendall, Lamb, Little, Papworth, Petit, Richardson, Ruskin, Scott, Tite, St. Aubyn, Walters, J. D. Wyatt, &c.: these we hope, amongst others, will exhibit again this year. Messrs. Sydney Smirke, Hakewill, Slater, Ferrey, Wright, Digby Wyatt, &c. will, we are told, exhibit for the first time. Also Messrs. T. Wyatt, Chamberlaine, A. Gilbert, and many others will be seen as exhibitors or subscribers. Mr. Tite has joined the committee.

It is very desirable that the exhibition should be made to show the actual state of the art amongst us. Those who cannot send drawings this year, can aid by subscribing: and we shall be happy to serve as their medium, for such "table-rapping."

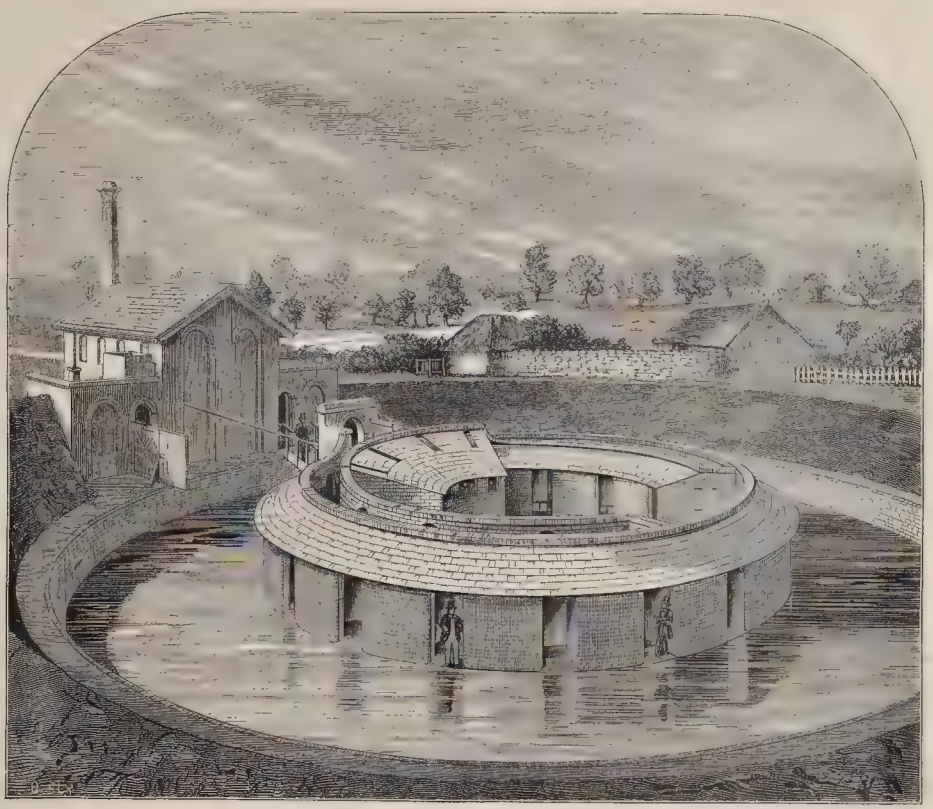
THE BANBURY SWIMMING-BATHS.

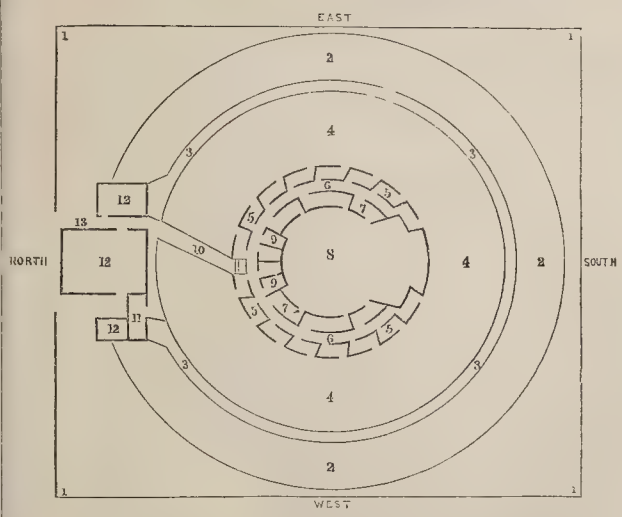
In our last volume (XII. p. 629), a plan was suggested for an annular swimming-bath, as having certain advantages over the present usual arrangement. Mr. Thomas Draper, of Banbury, one of our non-professional readers, adopted the idea, and has erected baths in that town, in order to meet an avowed public want. In former numbers, we have referred to the progress made towards completion of these baths, and we now present our readers with a view, sketch-plan, and explanatory notes, which will convey to their minds a clear impression of the arrangement. The leading feature or novelty in their construction consists in the shape of the men's swimming-bath being annular, as we have already said, and whether this is or is not an improvement, the verdict of the public is sought. The local users say it is. Privacy in bathing, and economy of water, are the advantages. The dressing-boxes being around the inner circle of the ring of water, each bather enters the swimming-bath in a comparatively private manner, whereas every bath in England which has hitherto been constructed has been either circular, oval, or quadrangular, with dressing-boxes around the outside, and consequently public to all the bathers. A further improvement has been accomplished at Banbury, by making the boys' swimming-bath separate from the men's, and by so arranging it, in the shape of a central and nearly circular basin, as that one circular passage will suffice as the way to each. The swimming-baths were opened to the public in August; and whilst the warm weather lasted, the bathers, in a population of 9,000, were about 900 per week.

Royal Academy.—Mr. George Gilbert Scott and Mr. John Callcott Horsley, have been elected Associates. Mr. Lumb Stocks is elected Academician Engraver.

Royal Institute of British Architects.—The Session was opened on Monday, the 5th, by an address from Mr. Tite, M.P. the chairman of the evening, upon the progress and position of the profession. If we gave a report of it in our present number, we should be forced to curtail it. We elect, therefore, as it contained matter of interest, to give a full report of it next week. A night will be set apart for the discussion of it at the Institute. After the address, a paper on objects connected with architecture in the Paris Exhibition, announced in our last, was read.

THE BANBURY SWIMMING BATHS, WITH PRIVATE BATHS ATTACHED.





GROUND PLAN.

References to Ground Plan.

1. Square piece of ground taken for baths.
2. Circular grass embankment, 10 feet high above surface ground, terminating in a ridge, the base being about 16 feet wide, securing privacy to baths.
3. A walk for attendant only round large swimming-bath, on the top of its outer boundary-wall.
4. Ring-shaped men's swimming-bath, open to the air, about 80 yards round and 6 yards wide, the water level 3 feet 6 inches below surface ground, but the outer side wall 9 feet high, built as high as surface of ground, the inner side wall 5 feet high, the depth of water 4 feet 3 inches on entering, increasing gradually to 5 feet 3 inches; the bottom washed gravel.
5. Sixteen dressing-rooms, entered from circular passage No. 6, and opening at opposite ends, with steps, into men's swimming-bath; the roof slated.
6. Open circular passage leading right and left from descending steps from bridge, to men's dressing-boxes, and to boys' also.
7. Six boys' dressing-boxes, with slated roof, entered from circular passage, and opening at opposite ends, with steps, into boys' swimming-bath.
8. Boys' swimming-bath, open to the air, about 34 feet by 24 feet, walls and floor being brick; the depth on entering 2 feet 6 inches, increasing gradually to 4 feet.
9. Four private baths, hot or cold.
10. Bridge at entrance over large swimming-bath, and steps descending about 3 feet to circular passage, the bridge being about 4 feet above surface of water.
11. Conveniences attached to baths.
12. Attendant's dwelling-house and offices, boiler-room, and extra private warm baths.
13. Entrance.

HERALDRY IN ITS CONNECTION WITH ARCHITECTURE.*

AMONG the many rich examples of Heraldic Diaper which yet remain, I may here specify (as being peculiarly worthy of both admiration and study) the shields of Sir Robert de Vere, at Hatfield Broadoak, in Essex; of Sir Hugh Hastings, at Elsyng, in Norfolk; and those of England, and of the Earls de Warenne, at Castleacre Priory, in the same county.

I may here observe that *heraldic supporters*, properly so called, rarely appear in the heraldry of architecture before the Tudor age; and when they are present, they do not produce a satisfactory effect, nor do they seem to be in their right place in architectural compositions. The long and gorgeous array of supported and crowned shields in the chapel of King's College, Cambridge, does not affect this opinion; they will not endure a comparison with the shields that hang above the arcades of Westminster.

I now pass on to remark that wherever a shield forms a part of any architectural composition, it ought always to be charged with a "coat of arms." Shields are not in themselves architectural ornaments or details: they are heraldic accessories, and nothing else than heraldic accessories,—and, as such, they are most beautiful *in* architecture and most valuable *to* architecture. But all heraldic shields *are* of necessity charged with their own blazonry; and, consequently, all shields in architecture which are *not* so charged, are simply anomalies;—they have no right to be where they are,—they are unmeaning intruders and empty pretenders. And they also *look this:* witness the dreary lines of misshapen shields in shallow panels, without any heraldic bearing, and never intended to have any heraldic bearing, which lend such efficient aid towards debasing the Gothic in its decline, during the fifteenth and sixteenth centuries. Their only parallels are niches devoid of statues, and which were never intended to have a statue stand upon their pedestal, and take shelter beneath their canopy. Many a beautiful niche, indeed, which now is statueless, has lost its original occupant, while others appear, from some cause or other, to have been left thus incomplete, contrary to the original intention. Thus, the exterior of Westminster Hall, on either side of the grand entrance, displays a series of niches which, though statueless now, were, I am persuaded, originally destined each to have a statue of its own. Beneath these niches is a corresponding series of panels, and within each of these is a shield; all are plain, except one close to the doorway on its eastern side, and this one shield bears the royal arms of Richard II. very effectively carved. Does not this solitary coat of arms convey the impression that it was not intended to have been without numerous companions: and may not this inference extend to a once proposed completion of the niches above—their completion with statues?

In many instances, the heraldic devices were not carved in relief upon the shields introduced into architecture, but were expressed upon them in *colour* only; and not uncommonly plates of copper were affixed to the stone shields, upon which the armorial bearings were emblazoned in *enamel*. Again, I may refer you to Westminster Abbey for some beautiful illustrative examples: the large enamelled shields within the panels of the massive plinth of the tomb of Edward III. exhibit alternately the quartered arms of France and England, and the red cross of St. George upon its field of silver; and the smaller shields below the beautiful statuettes (or "weepers") in the canopied niches of the tomb itself, display the differenced and impalled arms of the royal personages there portrayed.†

Where a series of shields occurs, charged with a variety of armorial insignia, and the whole form a single group, the heraldry thus displayed will be found to convey a complete chapter of family, or perhaps of national history. I may mention the Burghesh tombs in Lincoln cathedral as examples, amongst many others, which still preserve, in their heraldic accessories, such passages of history.

Besides their more customary positions in panels and spandrils, shields of arms are often sculptured upon the face of the large bosses of the later Gothic vaulting, and upon corbels and brackets; and, much smaller in size, they also may very frequently be observed, grouped with ornaments composed of foliage, figures, parts of figures, and with monograms and other devices, in strings, corbel-tables, and elsewhere.

And, in addition to the shields with their own specially appropriate insignia, helmets, with wreath, crest, and mantling, together with every variety of heraldic badge and cognizance, are commonly employed for the purpose of combining symbolical records of personal history with architectural ornamentation.* These various devices may be seen in every possible position, and reiterated in almost interminable succession, in the architecture of the Tudors: the badges of that much-to-be-remembered house—rose, portcullis, and fleur-de-lys—are scattered, with never-sparing profusion, over almost every important edifice throughout the realm; and with these, other badges more strictly personal in their character are, in many instances, interspersed. The correct method of placing a badge (as distinguished from a coat of arms) in an architectural or monumental composition, was to charge it upon a roundle instead of a shield, or to introduce it amidst foliage, or simply by itself.

The practice of repeating a single device, or a small number of devices, again and again, instead of grouping together a rich variety of heraldic insignia, was in strict accordance with the prevailing tone and character of the architecture of the fifteenth and sixteenth centuries; and it is also strikingly expressive of the spirit of personal ambition which then exercised so powerful an influence upon every condition of society and every circumstance of life. Amongst other changes for the worse in architectural heraldry which advancing time brought with it, the altered forms of the shields will not fail to attract the notice of the student. The fine form of the early shield was altogether discarded, and various designs—each continually less consistent and more unsightly—were adopted in its stead. And, at length, with the Renaissance, shields gave way, in many instances, to wreaths of curious composition; and heraldic ensigns of every kind, which had then for some time been degenerating into all sorts of strange fashions and fantasies, at length were well nigh lost in a maze of nondescript symbolism, of which boys' heads with wings but without bodies, skulls, hour-glasses, scythes, cornucopeias, and such like, were the leading features. Shields of arms were, indeed, still retained, and their quarterings were multiplied exceedingly, but the old feeling—the noble old feeling of *combined architectural and heraldic art*—was gone, and these shields served but to show, to an artist's eye, that the *forms* of heraldry might survive the extinction of its *spirit*.

As the heraldry of architecture and of monuments was one and the same thing in the works of the Gothic artists, so also this same identity of general feeling and of practice may be said to have extended to the *heraldry of stained glass* during the same periods. It is unnecessary for me to particularise examples of shields of arms and other insignia of the heralds' science employed in this beautiful accessory of Mediæval architecture, which, from its very nature, was pre-eminently calculated to receive an heraldic tone, and to convey, with the lustrous brilliancy so peculiarly its own, the blazonry of heraldry. Neither is it necessary for me to add any particular notices of shields of arms, and other heraldic devices introduced (as was very commonly the practice) into the inlaid paving-tiles, which formed such effective accessories of mediæval architecture.

II. I pass on then, at once, to the second division of the subject now before us, and proceed to some consideration of *the use of heraldry in its connection with architecture;* or, rather, of the use of heraldry *in* architecture, *by ourselves*. Without such an application as their result, our researches into the architectural heraldry of past ages would be of but little worth to us: did not the shields of Westminster Abbey,—did not these heraldic casts in our own museum here, convey to us some lessons for our own direction and governance; as practical and experimental students, we should gain but little from either the one or the other.

I have been endeavouring to sketch out before you the manner in which heraldry was used in our country during the rise amongst our ancestors of that great and noble expression of art, which we call Gothic Architecture; and I have added a few words, with a view to indicate how it was, that with the decline and decadence of the architecture its heraldic accessory declined and fell away. But such a sketch will afford us none of the practical information for which we now propose to seek,—nay, which now we propose to derive from this very sketch, unless we carry our glance inward, from the manifest usages of the Gothic architects in this matter of heraldry, to the principle which actuated them, first, to employ such an accessory to their architecture, and then to use it as they did.

To study architectural heraldry as it has been practised, with a view to apply the usages of the past as "authorities" in our own practice during the present, implies that we treat the heraldry of Gothic architecture precisely as we must treat Gothic architecture itself, if we would ourselves be true and truly great Gothic architects. In other words, we must, both in the case of the architecture and of its heraldic accessory, make ourselves masters of the principles of this great art, and of all pertaining to it; we must become imbued with its animating spirit, and then we must set to work, in the fulness of that spirit, and through the strength and under the direction of those principles. And I venture to consider that we have but too generally failed to realise such views of our position with regard to the Gothic, even if we have not failed to entertain them. I am unable to shake off the conviction, that we have taken by far too low a position in our study of the Gothic, and have also, very frequently, inverted the proper course for studying. We have not aspired to more than to awaken Gothic art from its long, deep, entranced sleep, and to restore the fallen "dynasty of mediæval architecture" (I use Mr. Ruskin's most felicitous expression) to its former power and grandeur. We have, for the most part, been content to strive to make the Gothic once more what it once was: that is to say, we have only thought of making it reproduce itself under some one of its former aspects; we have laboured to give a renewed activity to "Early English Gothic," and "Decorated," and "Perpendicular" English Gothic; we have striven to revive, upon fresh and sharp-cut stone, what the worn, and broken, and stained, and moss-freckled relics of the mediævalists were, when themselves fresh and sharp-cut: but we have forgotten to regard the Gothic as one great style of architecture, we have not felt the unity of the Gothic as one style,—one style which, at different times and in different places, expressed itself after different forms; consequently, in our zeal for "First Pointed," and "Middle Pointed," and "Third Pointed," we have been led away from the one true point of search, the Gothic itself: aiming only at being copyists, we have signally fallen short of the original standard. Now, so long as we only seek again to build after some former form or condition of the Gothic, we shall surely fail, unless we copy literally; and then our literal copy (however successful in itself) will be but a copy after all. But, if we base our revival of the Gothic upon a recognition of its *unity* as a Style; if we seek, not the reproduction of parts or phases of this great style, but its development as a whole; if we draw together and consolidate the teachings which the past put forth gradually, age by age, and step by step, and apply the whole to the acquiring fresh wisdom,—we then may really hope to equal the great mediævalists, because thus we aim at surpassing them. This is indeed the only way in which we may make the Gothic of our own times equal to

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* See p. 518, *ante*.

† Reference was also made to the heraldic enamel of the tomb and effigy of William de Valence, in Westminster Abbey.

* The bold strine which traverses Westminster Hall is enriched with the helmet and the "hart" of Richard II. carved with great spirit in long sac ceston. Amongst many other illustrative examples of heraldic devices which occur as decorative accessories in architectural compositions, reference was here made to a group of Tudor roses, which were discovered a few years back in the remains of the sepulchral chapel of Abbot Wallingford, and of which both a cast and a coloured engraving were exhibited from the collections of the Architectural Museum.

at of times past,—by both endeavouring and xpecting to make it better. And, I must add, at when we are actually equal, in the matter Gothic architecture, to the architects of the iddle Ages, we shall speedily prove ourselves eir masters. The style, once revived in the vival of its spirit and its principles, will neces- rily advance to a "perfection unknown fore."

Permit me to enter somewhat more fully on this point: it is not only of moment in self, but it will be found to bear, at least indi- otly, upon our actual subject.

In our study of the Gothic, our object is to animate a great art, and to reproduce it in tion. This object we have to achieve through e visible and tangible works of that art. hese works are to teach us the principles, and inspire us with the spirit which called them to existence. Our business with these works (in the purest and strongest sense of that rm) to study them, not to copy them. In our udy of these works, we must always endeavour trace out the spirit from which they emanated. et us beware, lest we mistake Gothic details r Gothic architecture; for, it is not the details hich will develope the style, but the style hich will produce the details. This museum not formed to enable us to make just such nother set of details as here we have in fac- mile; on the contrary, these casts have been rought together to aid us in attaining to that pirit, to that faculty in art, of which they are ticulate expressions. Our Gothic buildings, ke those of old, must result from certain chitectonic principles: we are not to seek ose principles from our buildings. In order ally to effect the restoration of Gothic chitecture, we must first master the true othic spirit, and then apply its practical work- gs; we must first learn what we have to do, d then do it. Hence, it becomes apparent w vast is the difference between studying cient edifices and copying from them. A py is at best but the reproduction of an ex- mple (it matters not how excellent in itself), what Gothic architecture was, at a certain riod of its progressive development. But cannot reproduce any period of Gothic chitecture, and call it the *Gothic style:* neither ll the simultaneous reproduction of the culiar works of several periods reproduce the yle. On the other hand, in the various works the Gothic "masters," we study the one com- rehensive principle which pervades them all; trace the diversified workings of the one ble spirit which yet animates them all. And, mprising within the wide range of our research e entire period, from the first struggle of the othic spirit to shake off the fetters of Roman- queness to its final catastrophe, and consider- g the traces and relics of the art in every untry and province as possessing equal claims on our attentive investigation,—we are led to gard Gothic architecture as a whole, as one and style. We discover that our true course to search out the entire spirit of the entire yle, through its developments in successive ges and in various places. Thus only is othic architecture to be restored, because thus ly can it be understood. And Gothic archi- cture being thus understood, thus restored, we at once that our success in restoration ually implies the faculty for onward progress th this great art. For, partiality and pre- dice, and every similar weakness, must have lted away before the strength of vision, cessary to pierce the remote depths of the long ta of years through which we had to look k. We may concentrate the powers of the with an effect denied even to Alan de Wal- ngham and his compeers; and we may employ s concentration of all that has been, as the ith upon which all that shall be may rest in solidated strength. We may combine the re freshness of invention with the elaborate inement of matured experience, and *so*, may , aspire towards realising a "hitherto un- own architectural perfection."

And, as with the artist-architect, so also with artist-workman the same law obtains. Nei- r will attain to full equality with the men of Middle Ages, without aiming at taking pre- ence of them. In the case of the artist- rkman, I mean that he, too, must rise far above being a mere copyist: while he studies the best works of the mediævalists (and he must study them with equal care and diligence), his true object must be to acquire their spirit; and he will no less carefully, no less diligently, study Nature; and thus, with the advantages which he possesses (but which they did not possess) for making himself really an artist, he may look to his own chisel as a more powerful implement than the mediævalists were able to wield: and yet they were strong in hand, and in touch most delicate.

Apply what has been said to the matter of "heraldry in its connection with architecture;" observe how we are to search out every point of early practice, and to choose out all that is most excellent in itself, and most worthy in its application, and then to bring our accumulated experiences, in connection and combination with our general stores of information, to bear upon our work. For example (I assume that we first familiarize ourselves with the technicalities, with the mere bookwork of heraldry as science): in the drawing of our heraldic figures, we shall be able to adjust to its true level the balance between natural exactness and conventional exaggeration. Convinced of the necessity of idealizing the real, we shall see how to give the living power of reality to the ideal. Our lions will be lions, but yet heraldic lions. And so with every other device and bearing.

Again, in workmanship, we shall see how far to refine, and how far to carry breadth and boldness; we shall neither sacrifice art to elaborate finish, nor mistake rudeness for natural vigour: we shall be true to both Nature and Art.

Our compositions will be true to the essentially symbolical character of heraldry,—but there will be in them no affectation of symbolism; nor, on the other hand, will historical fidelity be ever permitted to yield, in any one single point, to any fanciful yearnings after originality.

Historical exactness and fidelity we must, indeed, make the keystone of our heraldic system; and it will be well for us to carry out our system in general accordance with early usage. Remembering the true character and use of shields, and whence the shield of arms in architecture was derived, we shall be very particular always to have our heraldic shields in the true form of shields,—always to have them charged with "coats-of-arms,"—always to have their heraldry "true heraldry," and their marshalling rigidly exact. We shall exclude from our shields all mere badges and cognizances, restricting them absolutely to coat armour; we shall admit no "coats-of-arms" which do not possess indisputable heraldic authority; we shall provide that each single shield be expressive, and, if need be, comprehensive in its expressiveness; and our groups of shields will combine order and precision. Badges and other personal devices we shall use with caution, lest their historical character be misunderstood or misapplied; and for such as we introduce we shall always secure distinctive positions. In every instance we shall keep in remembrance that our heraldry is really to be our own heraldry; we shall not introduce an early shield, or an early device, or an early mode of expression, because we happen to have built after an early method, or in an early form.

In restoring early examples (if ever we do restore them), we must, indeed, reproduce the original shields or other devices, otherwise the historical propriety is violated, and the historical record broken through; but, in new buildings, the heraldry must be contemporaneous with the structure,—at least, it ought always to begin with the date of the architecture,—I mean with the period when the architectural work is erected, not the period in which the architectural type may have been originally produced.

In a word, it is for us to preserve to our architectural heraldry the character of a historical record and memorial under a symbolical form: in it, therefore, we must discriminate between personal and general symbols,—between what appertains to the realm in its collective capacity, and to individuals as members of the community,—between what possesses heraldic authority, and what is purely fanciful: we shall avoid the purely mythic, and adhere to the intelligibly figurative; we shall indicate facts, and not indulge in fancies. We shall take care that our drawing, composition, and execution be good and true, yet in keeping with the laws of heraldic truth and excellence. Our ornamentation will be natural, appropriate, really ornamental,—yet in similar keeping with what are laws in heraldry. Moreover, our heraldry will be in its right place, and will appear, in our architecture, to be in its right place. We shall keep in remembrance that architecture is the art, and heraldry the accessory; and consequently, we shall duly subordinate their respective positions. Our heraldry will also be a really ornamental accessory, valuable from what it does for our architecture,—valuable, also, because of its intrinsic importance.

I believe that by thus keeping equally in view all that the past has handed down to us, and all that the present is continually communicating, we may, in our architectural heraldry, surpass what has heretofore been done, even in the best times of Gothic art. Exactly equal in every point to the architectural heraldry of the past in its best condition, I am persuaded that we cannot be; we must be inferior, unless, by aiming at superiority, we become superior. It will be the same with Gothic art itself; the knowledge of to-day combining with the experience of past ages, will raise it to an eminence not hitherto reached, and, by developing its full powers, open to it a new career of brilliancy and renown.

In treating of the heraldry of Gothic architecture throughout its varied career, I have now endeavoured to illustrate my statements and remarks with examples,—and of those examples by far the greater number have been from Westminster. Westminster contains, besides its Abbey Church and Hall, another national pile—its new Palace, a Gothic (or Gothesque) work of our own times. This is a structure peculiarly heraldic in its own character. I deeply regret that I cannot adduce its many heraldic accessories as (on the whole) examples of success and excellence in modern architectural heraldry.* We have much to study and much to accomplish in this matter before it will be easy to point to surpassing excellence displayed in the heraldry of modern architecture. Doubtless, as we have much good modern architecture, so we have much (or, at least, some) good modern architectural heraldry; but I desire and hope to see both the one and the other much better than good,—much better than the best that now is.

And I look to the Architectural Museum as to an Institution which, if properly supported and properly used, may be the means of rendering most important service in maintaining and setting forward amongst us the great cause of architecture,—and with architecture, the cause of all architectural accessories. Let heraldry be included amongst the accessories of our great art, which we may study with mingled pleasure and advantage here, as well as in the neighbouring treasure-house of precious relics, the Abbey Church of St. Peter.

Architects certainly ought to be good heralds; and so ought architectural workmen also to be good heralds; otherwise they can read but in part the stone-writ lessons of early architecture. Their predecessors, the men whose works we all study here, were good heralds. Had they not been such—instead of its being rare indeed to find that they have fallen into an error, or committed a blunder through ignorance, we should have had many warnings against ignorance in ourselves from their failures; but, being good heralds, they did not fail. I cannot point in early architecture to a single instance of such an error, as you may see repeated throughout the whole length of the fine open-timber roof of the equally fine new Hall at Lincoln's-inn. In each of the small spandrils, formed by the upper hammer-beams and braces with the rafters, is a carved shield: these shields are without charges—merely ornaments. The shields are of that peculiar form which was in actual use by the knights

* The opinion here expressed must be considered to apply to the selection, composition, arrangement, and drawing, of the heraldic devices which cluster so thickly around the panelled surfaces (I cannot call them "walls") of the Palace of the Legislature. The workmanship in these accessories is generally worthy of that high praise which I am truly happy to accord to it.

in Tudor times, and in which a notch was cut out on the dexter side, to admit the lance being levelled when the shield was placed in front of the warrior's person. In all the shields along one side of the hall these notches are cut out correctly, on the dexter side of the shield; but in the shields on the other side, the notches are all cut out on the sinister side—evidently to cause the shields along the two sides of the roof to resemble each other, in having this peculiar feature always in the same relative position in the spandril. The heraldic usage of this piercing of the shield was clearly unknown. But the "Architectural Museum" was not then in being.

This is, I know, but a trivial error: still it is like a fragment of straw, which shows the current of the gale: it significantly supports my proposition, that architectural workmen as well as architects, should be good heralds, and for this reason only I have mentioned it.

I leave many curious and interesting, and also important details respecting "heraldry in its connection with architecture," in the hope of being permitted on some future occasion to address to you another lecture on this subject. In what I have now advanced, being merely an amateur, I desire to be considered to have spoken with all deference: at the same time I have spoken without hesitation, and freely, as I really feel: and believe me, that in the matter of architecture and its accessories, my feelings are deep and earnest.

CHARLES BOUTELL, M.A.

FOREIGN ART INTELLIGENCE.

Munich Walhalla.—The latest addition to the German Pantheon is the bust of Schelling. In the year 1852 the sculptor M. Holbig had modelled a bust of the great philosopher after life, from which a colossal copy in white marble was made by M. Lasson, of Munich. This latter has been now placed, by order of King Ludwig, in the Walhalla. On its margin is inscribed, "Fried. Wilh. von Schelling, Weltweiser." (F. W. de Schelling, the world-wise.) The king has also purchased of late a picture made by M. Klotz, and which is much spoken of in Germany,—the astrologer of Wallenstien, Seni, arriving in the morning in his master's bed-chamber and finding him dead! M. Rugenda's "Columbus" is also a recent work of great stamp.

Rome: Excavations.—Prince Barberini has made some excavations near Preneste, which, amongst others, have brought to light a grave, which much resembles that of Cerveteri, especially some little gold plates are very like those of the Museo Gregoriano. It contained also some carving of ivory and several vases, some Etruscan and others painted. Amongst the bronzes are two mystic cisti. Similar excavations will also be shortly undertaken near Ostia, the ground having been already cleared for that purpose.

Nüremberg: a Reflex of the Crystal Palace.—When, three years ago, the Sydenham art-committee had commissioned Messrs. Fleischmann and Rodtermundt to model in plaster of Paris some of the fine Mediæval art-works of Nüremberg, the idea was raised to establish themselves a museum of such monuments in their native city. This has now already reached 200 specimens, of which some are of great importance. Amongst those are the splendid portal of the Frauenkirche, the sepulchre of the Duchess Anna (1512), which alone contains twenty-four figures of saints, &c. There are also models of the passion stations of Adam Kraft, epitaphs of Peter Vischer, and especially some fine carvings of the best Mediæval style, amongst which one of the "Last Judgment," from the Emperor's Chapel, in the Castle of Nüremberg. Messrs. Fleischmann and Rodtermundt have also a work entitled, "Monuments of Mediæval Sculpture," with engravings by Prof. Walther, dedicated to Maximilian, of Bavaria.

Restoration of Ulm Minster.—The transactions of the Archæological and Art Society in Suabia, are amongst the most interesting in regard of Mediæval architecture and art. The present issue contains a paper on the excavations of Celtic and Roman tumuli; on the architecture, sculpture, and painting of Suabia; on the industry and commerce of Ulm in olden times; and finally, on the restoration of its ancient minster. The architect, M. Thrän, renders a detailed report of the works done here since 1851, to which a very correct plan of this famous building is added. The same gentleman has written an ingenious explanation of the old baptismal fonts at Heiningen, Arnegs, &c. The documentary history of the great Suabian painters, Frederic Henlen, Barthol. Zeitbloom, Martin Schöngraver, are of equal interest. Large lithographed plates of the fonts by M. Thrän conclude the transactions.

German National Festivals.—The town of Hall, in Suabia, has witnessed this year the meeting of the German *turners* (gymnasts), who assembled there, carrying banners, wreaths, maypoles, &c. They were hospitably received by the private citizens of Hall. This was a public prize-contention, like in ancient Greece, and after an excursion in the neighbourhood, the sturdy gymnasts returned to their homes, many, a hundred miles off.

GLEANINGS IN IRELAND.

THE new Roman Catholic Church at Tipperary has been commenced by Messrs. Doolin, of Dublin, contractors, and is expected to be completed on the 1st of November, 1857. The plan comprises nave and aisles, with chancel and side chapels, sacristy on the north side, and tower and spire at the west end of south aisle. Dimensions in clear are 141 feet by 65 feet. The height of the clerestory walls is 48 feet, and from floor to ridge 75 feet. The total height of tower and spire will be about 170 feet. Style, Early English. The material is limestone of the neighbourhood, with white sandstone for internal columns and dressings. Probable cost about 7,000*l*. Mr. J. J. M'Carthy, architect.

A small convent chapel, 60 feet by 20 feet, with cloisters and sacristy, is to be built (under the same architect) at the Presentation Convent near Clontarff, county Dublin. The material will be red bricks, with Bath stone dressings. The style Decorated Gothic. Cost about 1,000*l*.

The improvements at the harbour of the town of Wicklow comprise a pier and breakwater 460 feet in length and 45 feet in breadth, 4 feet high over high-water mark. Piles have been driven into the bed of the river to strengthen the quays. The channel of the river is to be dredged out, and sunk 8 feet below low-water level. His Excellency the Earl of Carlisle visited the town recently on the occasion of an experimental trip on that portion of the line from Bray which has been since opened, and which presents some objects of engineering skill. The first stop was at the point of the head known as Ram Scalp, opposite Bramstone tunnel, where a viaduct of timber 300 feet in length, at an altitude of 75 feet, has been constructed. The next tunnel is the Brandy Hole, and a third is cut through the cable rock. The railway runs along the Murrough for five miles, and the scenery on the entire line is (as may be expected) very picturesque and romantic.

The new church of St. Cronan, at Roscrea, has been dedicated. The original entrance to the chapel on this site was through the basement of the belfry of a Franciscan church, founded in 1490. The building recently erected was commenced about the year 1843, but the works were for some time suspended owing to the famine of 1848, which presented necessary subscriptions from coming in. Mr. William Deane Butler, of Dublin, is the architect.

The report of Captains Kellett and Frazer, as to the respective merits of Messrs. Rendell's and Barry D. Gibbon's plan for the improvement of Kingstown Harbour, has been published, and recommends the adoption of Mr. Gibbon's plan, as affording "all the necessary accommodation and safety for the packets and convenience for the travelling public."

The pedestal of the statue of the late Earl of Belfast has been designed by Mr. Charles Lanyon, architect (Mr. McDowell, sculptor), and is of Irish granite. The Lord Lieutenant attended, and delivered an appropriate address, at the inauguration of the monument.

The O'Connell Monument, in Limerick, will consist of a granite pedestal 12 feet high, with a statue 8 feet high, in bronze, from a model by Hogan placed thereon. It is to be cast in Paris.

Kidbrogan Church, Bandon, built by the first Earl of Cork, on the ground of an old Danish intrenchment, and in a locality replete with historical interest, is being re-modelled. The western gable has been removed, and an enlarged projection built with a large Gothic window. The tower is being built, and an octagon spire is to be raised thereon. Mr. Welland, architect; Mr. Matthew Parrett, builder.

THE CAMP AT SHORNCLIFFE.

SEVERAL weeks ago we were informed on very good authority that the men of the Foreign Legion had no sooner entered the new huts at Shorncliffe, than a violent outbreak of cholera occurred, and carried off a number of them. Our informant said that being seen in the camp by a medical acquaintance, he had been warned that "it was no place for one who wished to keep well." We have delayed mentioning the circumstance, hoping, as we heard no confirmation, that our correspondent had been wrongly informed. Now, however, that we see in the Registrar's returns thirty-four deaths from cholera reported amongst the men of the Foreign Legion stationed in the Folkestone district, it seems to us unwise to allow so sad an occurrence to pass over in silence, and without inquiry. Possibly some of our readers may be able to throw light upon it, and to say how the huts were constructed.

ACTION OF BEER ON LEAD PIPES.

IN a large London brewery to which I am surveyor, a number of old lead beer mains have recently been removed. They have had porter running through them for about sixty years, and, at intervals, ale also. During the time that the pipes were not charged, the air had access to the interior. On removing them, we found that the beer, &c. had had no effect whatever upon the lead, beyond leaving a very thin brown crust (apparently of sediment), which being removed, the lead was seen quite smooth, and with the bloom upon it, as though put up only yesterday.

As one cannot often get the experience of so many years, I thought the statement worth sending. T. H. L.

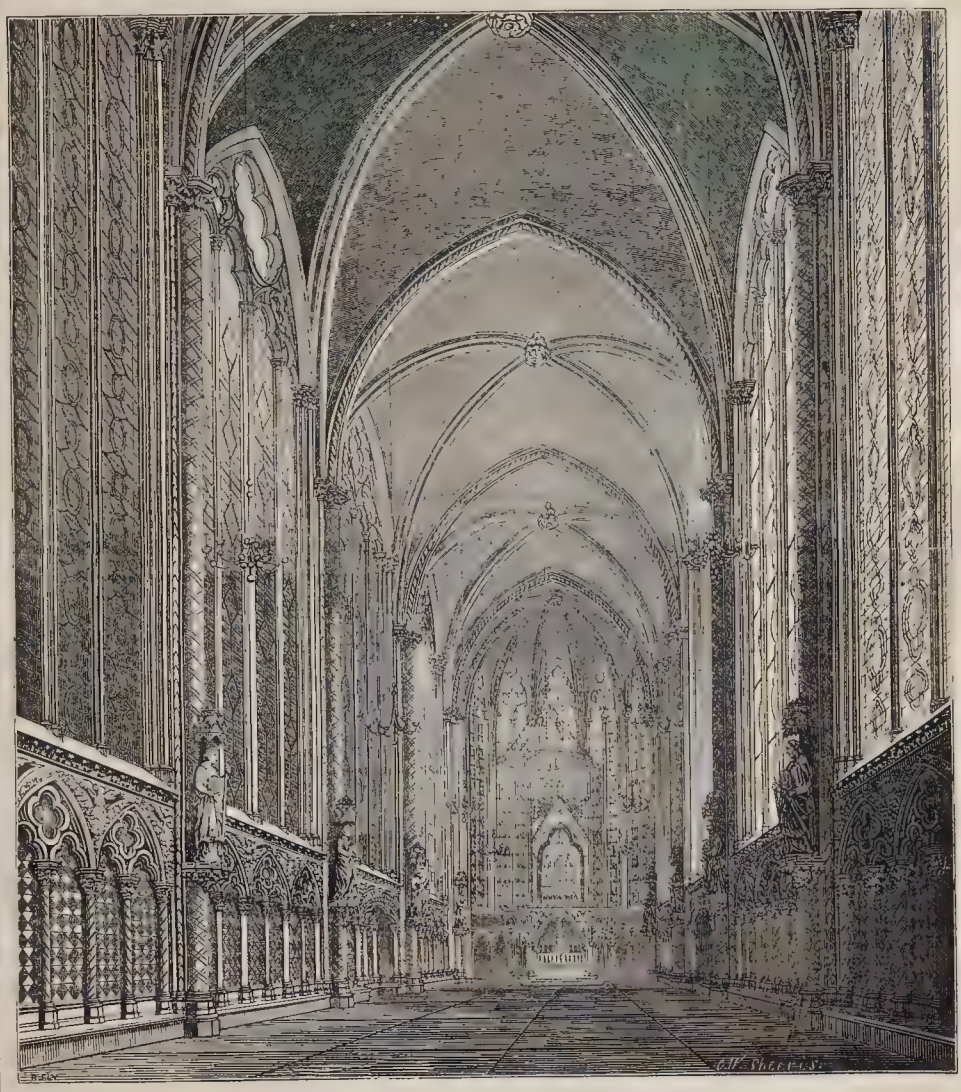
*** This experience, it will be seen, is at variance with the statement of the French minister already referred to. Probably the result is regulated by the quality of the *water* with which the beer is made.

YORKSHIRE ARCHITECTURAL SOCIETY.

THE annual meeting of the members of this society was held in York on Thursday, October 25th, when a visit was paid to the church of S. Mary Bishophill, Junior, for the purpose of examining its architectural features. The tower of the church naturally attracted the chief attention of the members present, and after a minute inspection was pronounced to be an undoubtedly Saxon example, although it was evident that it had been much tampered with, and repaired at a considerably later period, and was supposed originally to have been constructed in a great measure with materials taken from some destroyed Roman building. The remainder of this church is principally of Middle Pointed date, with the exception of the north arcade of the nave, which is of Norman character. The two arches of the south arcade are very curious. They are evidently of Middle pointed date, but are nearly straight-sided. These were considered to have supplied the place of more ancient Norman arches, and to have been built in this form in order that their height might not exceed that of the former ones.

At two o'clock the members met at the Society's Rooms, Minster-yard. The Rev. John Sharp, of Horbury, near Wakefield, occupied the chair. The Report, read by Mr. W. H. Dykes, one of the honorary secretaries, said, as to Spofforth Church;—

During the course of the past year information was received by the committee, that considerable work



INTERIOR OF THE SAINTE-CHAPELLE OF PARIS. [See p. 537, *ante*.

were in progress in the nave of the magnificent church of Spofforth, and that there was an intention of extending these works to the choir, which it was proposed should be taken down and rebuilt upon a very contracted scale. On investigation it was found that the whole of the nave, with the exception of the north arcade, had already been pulled down, and was in the course of being rebuilt without regard being had to the style of the building that had been destroyed, and that the stately chancel was already unroofed for the purpose of its demolition; and further, that these works were proceeding without any faculty being had from the Ecclesiastical Court. The committee at once sent information of what was going on to the Archdeacon of Craven, who inhibited the further progress of the work until the matter should be brought before the Consistory Court. The rebuilding of the nave was already far advanced in accordance with a new design, but the committee still thought that they might succeed in saving the chancel, which was one of the noblest and most spacious of its date within the county; and in this opinion they were confirmed by the remarks which were made by the Chancellor, when the question was first brought into court. They therefore at once drew up a memorial, which they submitted to the court, praying for the preservation of the chancel, and protesting earnestly against its threatened mutilation or curtailment. It was long before any decision was given, so long, in fact, that the elements virtually decided the case, for the roof having been removed before the commencement of the proceedings, and the walls being left during some months unprotected from the weather, at length gave such evident signs of approaching ruin, that it was determined that they must come down, and a faculty was accordingly granted, allowing the rebuilding of the chancel, after a new design, and of contracted dimensions. The church formerly appeared, externally, as a noble structure of middle and third-pointed character: now it has been rebuilt, with the exception of the tower, in imitation of Romanesque, and with a chancel reduced to nearly one half of its original size. By some, this change has been called a "restoration;" but the true state of the case is, as it seems to your committee, that one of the noblest parish churches in Yorkshire has been ruthlessly destroyed, and that a building which bears no resemblance to the former structure, has been substituted in its place. Another object which has occupied the attention of the committee, with like ill success, has been the endeavour to preserve the fine old gateway of Holy Trinity Priory, in Micklegate, in this city. The site of this priory, which, since the dissolution of the house, has lately been sold, has been thrown upon the market by the new proprietor as building ground, across the centre of which a street has been laid out. As the committee were deeply anxious that the gateway should be retained, they suggested that the entrance to this new street from Micklegate should be made through the old archway, which was of ample dimensions for the purpose, and offered, if their proposal was accepted, to make themselves responsible for raising the necessary funds for the repair of the

gateway. Their proposal was, however, rejected, except upon the condition of their purchasing for the proprietor additional property, which would have involved them in an outlay of some hundred pounds, with which condition they were unable to comply. They had, consequently, the mortification of seeing this venerable structure sold to a stonemason, for the sake of the materials, and piece by piece demolished."

The Rev. J. B. Scriven read a financial statement, from which it appeared that during the year there had been received in donation 13*l.* 2s.; and in subscriptions and arrears 102*l.* 2s. 4½d. The expenditure for the same period had been 26*l.* 13s. 8d.; leaving a balance in hand of 88*l.* 10s. 8½d. The actual balance, however, due to the society, was only little more than 15*l.* as when all the outstanding accounts were got in and paid, the 88*l.* odd would be reduced to about 15*l.*

The Rev. R. E. Batty, of Pontefract, then read a paper on the subject of "The Cross as an appropriate Symbol for a Tombstone." The rev. gentleman referred to instances of the cross being employed in early Christian times, and then observed that in the Lutheran Church, the sign of the Son of Man is adopted without any hesitation. He argued, that viewed as an architectural ornament the cross demanded our attention. It was capable of great display of artistic skill on the one hand, and might be made simple and unassuming on the other.

CHURCH-BUILDING NEWS.

Salford.—The polychromatic decorations of St. John's Roman Catholic Church here were designed and executed, with one small exception, by Mr. H. T. Bulmer.

Tillingham (*Essex*).—The restoration of the chancel of the church here has just been completed. The east window has been glazed with Powell's quarries, at the expense of Dean Clarke's trustees. Mr. C. Ainslie, of London, was the architect, employed, and Mr. Wm. Brown, of Lynn, the builder.

Greenstead.—The church here, being too small, the rector has issued an appeal for assistance to enlarge it. It is proposed to repew the area and to add an aisle, whereby nearly twice the number of sittings will be provided—the increase to be free. To this the ecclesiastical authorities have consented, and the plans and specifications have been approved by the Essex Church Building Society: funds to more than half the amount required have been contributed.

Ridgmount (*Bedford*).—The new church of All Saints for this parish was consecrated on Thursday in last week. The edifice is in the Decorated style, and consists of nave with north and south aisles in five bays, chancel, and vestry. The organ is at the end of south aisle close to the vestry. The tower, with broach spire, is at the west end—the arch open, showing the west window. The east window is of three lights, with flowing tracery, and is soon to be filled, according to the *Bedford Times*, with stained glass. The other windows are of two lights, filled with cathedral glass. The clerestory windows are of trefoil form. The nave roof is of open timber-work. The tower and spire constitute the chief features of the exterior. It is built of Cosgrove and Stagsden stone with Box Bath stone dressings, and the sandstone of this neighbourhood occasionally introduced for decoration. The admixture of colours is thus a creamy white, grey, and dark brown. At the north-east angle of the tower is a belfry-turret, from the top of which a very extensive view is obtained, the site of the church itself being an elevated one. The spire has canopies at the openings, and crockets running up the angles. The church is paved throughout with Minton's tiles, encaustic in the chancel. The sittings are uniform and open, being constructed of pitch pine, stained. The font has been brought from the old church. The building throughout is warmed by hot-water pipes. Mr. Scott was the architect, and Messrs. G. H. Miller and Son, of Bedford, were the contractors for the building. Mr. W. Freshwater, of Bedford, undertook the woodwork, and Mr. Smith, of Bedford, the glazing.

Lapley.—The parish church at Lapley, near Penkridge, says the *Wolverhampton Chronicle*, requires immediate repair; and the chapel-of-ease at Wheaton Aston, a mile and a half to the westward of Lapley, and in the neighbourhood of which the principal portion of the inhabitants of the parish live, is alike deficient in accommodation as it is unsightly, both externally and internally. In May last Messrs. Bidlake and Lovatt, of Wolverhampton, architects, prepared plans for the restoration of both the church and chapel-of-ease. The plans for the restoration of the church involve an expenditure of 850*l.* 250*l.* of which are required to protect the tower, some of the buttresses of which have been cut away, one of them to make room for a gravestone. To complete the alterations in the chapel-of-ease, by which 140 additional sittings would be gained, an outlay of 600*l.* is required.

Shrewsbury.—The new Roman Catholic Church here is rapidly drawing towards completion. The style is Decorated, and consists of a chancel 24 by 21 feet; side chapel; nave, with aisles, 75 by 48 feet; two sacristies, one for the clergy, and one for the servers. The nave is separated from the aisles by five arches, supported on octagonal Painswick stone pillars, with moulded bases and carved caps, and ornamented with wood moulds and bosses. The east window is of seven lights, the upper portion filled with geometrical tracery, and it occupies almost the entire of the east end. The chancel has four side windows, of three lights each: it is separated from the nave by a Painswick stone arch, 38 feet high. There is a clerestory, and a small bell-cott at the west end for one bell. The clerestory in nave is lighted by triangular tracery windows, with simple tracery. The ceiling of the chancel is panelled, and that of the nave and aisles open. The west door is approached by a flight of nine steps. The whole of the exterior is built from stone obtained at the Grinsal quarries. The total cost will be about 3,500*l.*; and the building is calculated to hold 1,000 souls.

Bedminster.—The new church here has at last been consecrated by the Bishop of Gloucester and Bristol, attended by nearly 100 of his clergy. The edifice is cruciform, with aisles and western tower, and is capable of containing upwards of 1,000 persons. The chancel, which is raised by three steps above the level of the nave, is separated from the transept, or transeptal chapels, by two lofty wooden screens, surmounted by a metal cresting, bearing innumerable leaf-shaped gas jets, and from the nave by a low arcading in Caen stone and Purbeck marble, to which it is intended, on some future occasion, to add handsome brass gates. At the east end is the reredos, carved in Caen stone, and representing, in three alto-relievo compartments, the Nativity, Crucifixion, and Ascension of our Lord, surmounted by elaborate canopies, with Babbicombe marble shafts. Between the compartments are niches containing statues of the four Evangelists; and on the canopies are angels, also in Caen stone, with a cross in the centre. The nave is seated throughout with low open benches. The roof of chancel is waggon-headed, and the two easternmost bays decorated with painting and gilding: that of the nave is open, with intersecting braces. The pulpit, which is in Caen stone, and square, stands at the north-east corner of the nave, and is entered from the chancel. The windows at the east and west ends have been painted by Mr. O'Connor, of London; those in the clerestory by amateurs. The east window is of three lights, representing our Lord on a jewelled cross in the centre, enclosed in a vesica of passion-flowers, with the Holy Women below. On the two side lights are groups of adoring angels, with St. John the Baptist below them on the north, and St. Stephen the Deacon on the south.

Cardiff.—The foundation-stone of a new Wesleyan Methodist Chapel, was laid here on Wednesday before last, by Mr. S. D. Jenkins, Bude Docks, the principal contributor towards its erection. Mr. J. Wilson, of Bath, is the architect, and Mr. William Backhouse, of the same town, the builder. The cost will be about 2,000*l.* The site is in London-square. The length of the chapel will be about 70 feet, and the breadth 50: it will be without a gallery, and will contain 150 free sittings. The style is Early English. Schools will also be built, with vestry and other conveniences.

Seaham.—During a high wind on the night of Tuesday week, the greater part of the new building, now being erected here for a Congregational Church was blown down. The damage done is reported to be between 300*l.* and 400*l.* The loss, it is said, will fall on the builder.

Newcastle-upon-Tyne.—St. John's Church has, for the last few weeks, been closed to the public, and in the interim various improvements have been effected in the chancel, which was rebuilt in 1848, but was then left unfinished in the interior, owing to want of funds. The embellishments in the vicinity of the communion table of the church comprise carved oak panelling and railings executed by Messrs. Burnup, from designs by Mr. John Dobson, of this town; figures and scrolls added to the large east window by Mr. Wailes, and the painting of the decalogue, creed, &c. by Mr. Potts. The organ has been refitted by Mr. Nicholson; and Mr. Rattee, of Cambridge, supplied some furniture. Owing to the funds having proved insufficient, part of the side panelling has not been completed. The whole of the interior of this ancient building requires a thorough repair.

PROVINCIAL NEWS.

Alford.—It has been the talk during the last few days, says the *Lincolnshire Chronicle*, that a new corn exchange will shortly be erected at Alford.

Kelvedon.—This improving town is now partially sewered and lighted. About twelve months ago, Mr. J. Fenton, of Chelmsford, made a survey, and gave a plan, &c. for draining a part of the street at the eastern entrance, which has now been carried out, and nuisances removed. To complete the drainage at once throughout the town would have incurred an impracticable expense: it is therefore proposed to do it by degrees, that it may not press too heavily upon the ratepayers. The lighting of the town with gas was carried into effect on Wednesday before last. The gas-works were then not quite completed.

Liverpool.—The promoters of the association recently formed here for improving the dwellings of the poor, have chosen eligible building sites in Northumberland-street, not far from the South Docks, and near a populous district. Designs, approved by the Health Committee, have been adopted, as convenient and economical, for about forty cottages, in three separate stories, with an infant school adjoining, a wash-house in the basement, and a drying-room in the attics, for the use of the tenants.

Manchester.—The re-opening of the Sunday and day schools in connection with All Saints' Church, in York-street, off Oxford-street, took place on Tuesday before last. The old schools have been re-modelled and partially re-built, and a considerable increase of accommodation has been provided. The large room is about 80 feet by 30 feet, and 18 feet in height, with two class-rooms adjoining. The infant school on the ground-floor is about 30 feet square, and of good height. The industrial department is behind. The schools will now afford accommodation for nearly 700 children. There are also wash-houses, ironing-rooms, kitchens for cooking, &c. attached to the schools, in which the industrial instruction is imparted. Towards the sum of 1,800*l.* incurred in the purchase and alterations, 1,300*l.* have been raised, so that there is a deficiency of about 500*l.*

Sheffield.—The chairman of the Sheffield Board of Guardians has given notice of his intention to propose, amongst other resolutions, to the Board, that 30,000*l.* be laid out in the purchase of fifty to sixty acres of land and in the erection of a new workhouse and premises for the union.——The first stone of the new school of design was laid by Dr. Branson, the president, on Wednesday before last. The council resolved to reserve all public demonstrations for the opening of the school. Messrs. Manning and Mew are the architects, and Mr. Ald. Mycock the contractor.

Glasgow.—Messrs. Wylie and Lochead have commenced to re-erect shops and warehouses on property in Union-street, destroyed by fire lately. The Procurator's Hall, in George's-place, is another new building lately erected. A commencement has been made with a large pile of buildings, projected at Madeira-court, and with a range on the opposite side of Argyll-street. The iron edifice in Jamaica-street is also making progress.—*See* also under "Railway Matters."

Dundee.—The foundation-stone of a new industrial school building was laid here on Thursday in week before last. The site is in the Wards, in the open space in front of the jail. The design is by Mr. Charles Edward, and was selected in a competition by local architects. The walls are of rubble work, of local stone, and the dressings are of Fifeshire stone. The design is after the old English model. The extreme length is 128 feet, having slightly projecting wings. On the south elevation there is a small tower. A corridor runs the whole length of the building. In the centre of the building is a dining-hall, 55 feet by 20 feet. The building was estimated for at an aggregate sum of 2,329*l.* Of this sum upwards of 1,000*l.* were raised by a subscription for a testimonial to Mr. Duncan, M.P. for the burgh, who proposed that it should be expended in the erection of a new building for the industrial schools established here in 1846. By means of a ladies' bazaar, an additional sum of no less than 1,100*l.* was procured. The chief stone was laid by Mr. Duncan as Grand Master of the Provincial Grand Lodge of Freemasons, who attended from their various lodges in procession.

Fraserburgh.—The new town-house at Fraserburgh, according to the *Banffshire Journal*, was opened on Tuesday before last, by a ball and supper, given by Lord and Lady Saltoun. The building is of freestone, and occupies the site of the old town-house. It is surmounted in its centre by a dome. The lower floor is occupied by a market-place, with stalls for fleshers, &c. To the wing fronting the west are the police-office, cells, &c.

FREE LIBRARY FOR THE CITY OF LONDON.

On Monday last a meeting, numerously attended, was held in the Egyptian-hall, in the Mansion-house, to consider the propriety of establishing a free library for the city of London; and we are the more sorry that it was determined in the negative by a very large majority, because there is too much reason to fear that the example of London will be followed by other corporations in the provinces.

In the city of London, it is true, there are several libraries of great value, but these, owing to various causes, are to the great body of the community useless.

First, the Guildhall Library, consisting of upwards of 12,000 volumes. "Here," says Mr. Deputy Peacock, "in the month of October, only seven persons attended." It is a mistake to suppose that this library consists only of dry, antiquarian books connected with the history of the City. It is true that it is rich in this respect, and contains many drawings and important manuscripts, which have been scarcely looked at since the time that they were lodged there at considerable expense; but there are many books of general interest.

The recommendation of any common-councilman or member of the corporation is sufficient for admission here for life. How is it, then, that this important library is, as it were, a dead letter?

There is nothing to be urged against the librarian for want of attention, but visitors are so scarce that a feeling is induced that one ought not to give trouble to the single attendant. The place wants a more business-like appearance, and the library should be enlarged. The value of the library as one of general use requires to be more generally known,—it requires to be thrown open on the recommendation of any responsible person in the city,—clergymen, merchants, bankers, and respectable shopkeepers; and, above all, it ought to be opened in the evening, say from five o'clock till ten, when the young men of the City, relieved from business, would be able to attend. At present the Guildhall library is open from about eleven o'clock till three or four in the afternoon, hours when every brain in the City is engaged in business, and has no time to spare for books. The Guildhall library is a nucleus for a useful institution, in which, at moderate expense, could be collected the standard and more general works as they appear. The corporation should at once see to this.

The library of Sion College is also of great extent, and contains, in addition to the more rare theological works, many hundreds of volumes of general information; but this, for public purposes, is also a lost library; so is Dr. Wilson's. Each of these, with the large funds available, might, to some considerable extent, be made a public benefit.

Connected with the Bank of England, a library, by the exertions of a few of the gentlemen in the establishment, has been successfully formed; the results in every way showing that the City youths are not disregardful of the means of knowledge. This library is open in the evening, and we have reason for believing that many young men in the large houses, who sleep in the City, would gladly avail themselves of the Guildhall, or any other library to which access could be had during convenient hours.

THE METROPOLITAN COMMISSIONERS OF SEWERS AND THEIR ENGINEER.

At a recent meeting, Mr. F. O. Ward, with reference to principles, made a serious charge against the engineer of the Commission, Mr. Bazalgette, having previously asserted that the plan prepared for diverting the sewage of London, approved by Sir William Cubitt and Mr. Robert Stephenson, is founded on wrong principles, and that the engineering details for carrying out these principles are unscientific. Mr. Ward, at the meeting referred to, accused the engineer of having made serious engineering errors; of having concealed those errors, and sought to establish his own conclusions by tampering with the details;—such as altering the declivity of the ground in particular instances, omitting important data, and introducing, without acknowledgment, formulæ prepared by persons who are not recognised by the Commission. Mr. Ward moved a resolution for appointing a committee to investigate and report upon the engineer's own statement; the committee to be assisted by three eminent professors of mathematics; such as Professor Willis, Professor Moseley, Mr. Babbage, or Mr. Wheatstone. The Court postponed the consideration of the subject, and appointed a special day on which Mr. Bazalgette could appear to state his own case in answer.

Mr. Stephenson has since published a letter, wherein he says,—

"This plan was prepared and submitted to me as a commissioner by Mr. Frank Forster, in 1850-1. It has since been altered and improved by the extended experience of Mr. Bazalgette and Mr. Haywood, the engineer of the City sewers, who have given their attention to it for more than three years.

Every detail has been submitted to Sir W. Cubitt and myself; the levels have been most carefully taken by Mr. J. Smith, the surveyor of the commission.

Each part of the whole plan has been separately and conjointly deliberated and reported on by Sir W. Cubitt and myself. At least three of these reports have been printed by the Commissioners of Sewers.

I have personally checked all the calculations; the formulæ or rules used in making these calculations are those accepted by every engineer of hydraulic reputation: of their accuracy I have no manner of doubt.

I am therefore prepared to be personally answerable for the soundness of the principles and the accuracy of the details of the London sewage intercepting plan which Sir W. Cubitt and myself have approved as consulting engineers; and I beg leave here to express in the most decided manner my full confidence in Mr. Bazalgette's professional skill and personal integrity, as well as my opinion, that he has furnished the commissioners with all the information which he was bound to furnish."

Mr. Stephenson terminates his letter with the expression of his opinion, that Mr. Ward's objections are "nothing better than puerile."

Mr. Ward, in reply, says the question is *size and cost*:—

"How big must the intercepting tunnels be? How much must the ratepayers spend on them?

Mr. Stephenson, calculating by a formula, fixes 272 square feet as the collective sectional area of the north-side tunnels, and 1,627,000*l.* as their collective cost.

I and my friends, on the contrary, relying on John Roe's observations of the run of the Fleet in all weathers, for more than twenty years, and adopting (subject to modifications) John Roe's proposed lines and sizes, fix 108 square feet for the north-side tunnel capacity; and so reduce the cost to 753,000*l.*

Our object is to save, for north-side ratepayers, three quarters of a million sterling of capital (besides heavy annual pumping costs); and the economy we aim at for the south side is relatively larger still.

Whether we are right or wrong, is a matter for technical decision; but we submit that our broad proposition is neither 'intricate' nor 'puerile.' It is clearly for the ratepayers' interest that the question we raise should be discussed; nor can such a debate be properly suppressed by the weight of an eminent name.

This tunnel controversy is, in point of fact, only the tubular controversy renewed on a greater scale. We have carried, against the vehement opposition of the very engineers whom we now find against us, the substitution of small pipes for great culverts in the drainage of streets and houses. We have already saved for the public by that system, so strenuously decried up to a year ago, several hundreds of thousands sterling. We can point to scores of provincial towns drained on the new principle at a third of the cost of the old mode. We have already between 200 and 300 miles of pipe working successfully in the metropolis. And at Croydon, where the pipes were said to have caused an epidemic, the zymotic mortality has declined since their introduction (partly, no doubt, because of their introduction), upwards of forty per cent."

Here stands the matter at present.

REAL CEMENT!

What a sad state we poor moderns are reduced to in architecture. This morning, one of the cement vases on a neighbouring house came to pieces, and fell into the street in lumps several pounds weight. If any person had been beneath, the consequences might have been as fatal as a round shot or shell at Sebastopol. There are several more vases up in the same place. It is to be hoped they will not come down in a similar manner. There are also vases in Belgrave and other squares. Cement! real cement!!

But joking apart, this cement work is the bane of us weak and flashy moderns. Cement fronts, cement columns, cement balustrades, cement cornices, and cement vases; the latter ready at any moment to fall and break our heads. Pray take warning, gentlemen. If we must have cement, life and limb at least ought to be safe. A jury would give heavy damages against the builder or owner of such cement abortions.

ON TENORS AND BELLS IN GENERAL.

Mr. Denison deserves praise, for his remarks, from every campanologist. Having been allowed by the *Builder* insertion of a list of London peals and tenors, about four years ago, I may claim to be a campanophilist. The avidity for weak—numerous—bells in our day may plead that "anything is better than nothing;" and, certainly, a few "lively tinklers," as Dr. Parr, a great campanologist, expressed himself, may be preferable to the mockery of *one* dull bell in a large tower, whose "campanological" use might have been supplied by a gable or turret. But there is another adage, that "what is worth doing is worth doing *well*," and those who can put up bells might consider that a little more liberality would be a greater boon to posterity.

When "St. Barnabus" had a peal of *ten*—tenor, 19 cwt.—it might have been thought the minimum was reached, though there is a "pretty" peal, with twenty, at St. Dionis', in Fenchurch-street, and a tolerable at Horselydown. Now, it appears, a family of *twelve* have an equally weak head, which would greatly resemble, in suitability, a "father of ten children," at the age of thirty.

Thirty years ago, it was supposed that St. Bride's—28 cwt.—was the lightest tenor of twelve in England. I believe there is a good tenor of ten, about 21 cwt. at Fulham; also at Aston (Birmingham). At Cheltenham, I am told, loud, at 22; better, 24 or 25, as at St. Magnus, Bermondsey, and Poplar. (?) Better still, as at Wrexham, 33. Of "Bow" (53½), the largest in London, I will only observe, I have heard, the peal is similar in weight and key to York Minster. According to the *Family Herald*, some time back, the heaviest in England is Exeter—"tenor" (not the "clock bell," 6 tons), 75 cwt.

I more than agree with Mr. Denison on the absurdity of a tenor of 14 cwt. for eight. I would venture to predict that there are few peals of eight a century and a half old, especially in towns of any pretension, with tenors under 20 cwt. and that weight is

not "grand." The smallest I have known within that date is Brighton, 16. I am sorry to see in the *Morning Advertiser* that weight only for a peal of eight recast by the Duke of Norfolk (and said to "reflect great credit" on Messrs. Mears), at Arundel.

The average, in my experience, is from 20 to 23,—the latter at Portsmouth. Sometimes 26 or 27, as at East Grinstead, Sussex, and St. Paul's, Bedford. There is a very musical, though not loud peal, at All Saints', Northampton, 22½ cwt. A fine one at All Saints', Derby, but I know not the weight. Greenwich (now ten, but I have not heard the trebles used); and Hackney Old Church, both good, 25. At South Hackney is a peal I must agree to be the best in tone and effect, for the weight (I know not the founder), of late years 20 cwt.

Mr. Denison may be very right in his expression "potty," and the larger of three at Knightsbridge is harsh enough. At Christchurch, Newgate-street, said to be built for twelve, is a new bell of 23 cwt. (much inferior to All Hallows, Thames-street, *ib.*) termed very "full-toned," and certainly powerful, but I should conceive it "sullen," if poets have thought that picturesque.

Perhaps there were scarcely any peals of eight before the Reformation. The only record I have seen is of Tewkesbury Abbey. Although their "fives" and "sixes" might be far heavier, as at Christchurch, from Osney Abbey (*vide* "six" in the catch), at Luton and Dunstable, Beds, there were five, with tenors of about 50 cwt. and 36 cwt.* both now eight: at the former is now a poor substitute, only 20 cwt. At Leighton Buzzard, recast from six, now 27 cwt. The weights of the Oxford College peals, Christchurch, Magdalen, and New, ten, Merton (also parochial), eight, have never, I believe, been given, and would interest.

I venture to differ with Mr. Denison, as to 14 cwt. being a sufficient tenor for six; unless where lightness be essential, when I have known 12 cwt. or even less. The average in country villages, may be from that, or 15, to 18 cwt.; the latter at Ticehurst, Sussex, and Eversholt, Beds. Sometimes, as also of five, 20 cwt. or upwards. I have known of a tenor of six, 36 cwt. at Baldock; and know there is one of 33 cwt. at Wing, a Bucks. village, between Aylesbury and Leighton. And have been assured of 56 cwt. at some Oxfordshire village, worth inquiring into.

The most beautiful ring of six I know (two recast in the present century), and expect to be unexceeded in Europe, and worth a journey to hear, is at Hasborn Crawley, about 1½ mile from Woburn, Beds. Here there is the peculiarity, at least in my experience, of beginning "high." The "treble" weighing full 11 cwt. and the tenor about 21½ cwt. with, perhaps, 1 cwt. each difference between the first five. There is a class idea that the tenor should weigh "half as much more" than the preceding bell (though at Cripplegate, an excellent set, when rung, it is 38 and 28 cwt.) But here the effect, with the weight of the fourth and fifth (15 or 16 cwt. probably), is much augmented. J. D. PARRY.

THE SYMBOLS ON THE PENNY.

A WRITER in your paper of the 27th October last, under the signature "S." is very facetious upon the subject of our present penny; and he imagines that he has made the discovery of the omission of the Saltire of St. Andrew in the shield.

With his young hopeful's criticisms upon it as a work of art, I have little to do; although I see no reason why Britannia should not hold the trident in her left hand if she be so minded; but with regard to the Scotch Saltire, I think it will be found that "S.'s" discovery of its omission is one of which he may be left to the sole and undisputed enjoyment.

The Saltire of St. Andrew is there. As the colours are not marked on the coin, we may suppose the field to be azure. Then we have first the Saltire Argent of St. Andrew on its field azure: upon this is the Saltire of St. Patrick, gules on its field argent; the whole surmounted by the cross of St. George gules, fimbriated argent. And this arrangement of the three badges of the United Kingdom I take to be far better than that which is usually made in our Union Jack.

The late Sir Harris Nicolas, well known as a good herald, some years back wrote a paper upon the absurdities of our Union Jack; and his suggestions for its alteration were, I think, such as are represented upon our penny. PENNY-ROYAL.

NEW CHURCH IN SOUTHWARK.—A church is to be erected in Union-street, Blackfriars-road, one of the worst parts of the densely-populated parish of St. George the Martyr, Southwark. The new church will be dedicated to St. Michael.

* See "Bibliotheca Topographica Britannica."

THE SUBSTRUCTURE OF OLD LONDON.

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THE FLEET VALLEY.

IN making the excavation for the great sewer which will soon convey from view the Fleet-ditch, at a depth of about 13 feet below the surface in Ray-street, near the corner of Little Saffron-hill, the workmen came upon the pavement of an old street (A), consisting of very large blocks of ragstone of irregular shape. An examination of the paving-stones shows that the street had been well used: they are worn quite smooth by the footsteps and traffic of a past generation.

Below the old street we find another phase of Old London. Thickly covered with slime are piles of oak, hard and black, which have seemingly been portions of a mill-dam. The formation of the ground indicates that in ancient times, a water-mill with all its appurtenances, had stood here. To the north of Ray-street has been a large pond banked up, and where Ray-street now is, on the south, was probably one of the city mills referred to by the London historians. In course of time the mill-pond and dam became filled with slime, and the water scarce, and then the old mill road became the centre of a street.

A few feet below the stakes were very old wooden water-pipes, nothing but the rough trunks of trees: as shown in the sketch. The course of time and the weight of matter above the old pavement have pressed the gravel, clay, granite, portions of tiles, &c. into a hard and almost solid mass, and it is curious to observe that near the old surface are great numbers of pins.

Whither have the pins gone? is a query which has puzzled many. In comparatively modern days, "Pinne money" was an important item in the dame's accounts. Pins were then expensive: those which fastened the dresses of the old English-Saxons were made at wonderful pains and cost: the specimen of now hard concrete in the sketch, stuck with these useful articles, almost like a pincushion, is a partial reply to the query. The 13 feet of newer deposit would seem to have accumulated in two or three centuries: it is not unlikely that a portion of the rubbish from the City after the Great Fire was shot here.

THE BARRACK-COMPETITION DESIGNS.

REFERRING to the paragraph on the above subject in your publication of the 13th October, 1855, from which it appears that over 130 designs have been submitted to the Barrack Committee, and as considerable anxiety must be felt by the public as well as by the competitors, I would suggest that before, or at any rate after, the decision of the War Department or committee on these designs, the whole should be exhibited for public inspection, so that all interested as well as disinterested parties may have an opportunity of inspecting and examining the designs in question.

This course would appear extremely desirable. The barrack establishment proposed to be erected from the *best* design submitted, will probably be the model on which many such extensive establishments will be erected in the British empire, and as their erection will be at the cost of many thousands, if not millions, of the public money, it is but fair and reasonable that the public, who pay, should have an opportunity of criticizing all the designs submitted by the competitors previously to any of the designs being carried into execution. COMPETITOR.

UXBRIDGE CEMETERY.

THE cemetery for the township of Uxbridge, situate in Kingston-lane, about one mile distant from the town, was consecrated on Monday, the 29th October, by the Bishop of Oxford (in the absence of the Bishop of London, who was prevented by serious illness).

The quantity of ground enclosed is 4 acres, and the cemetery has been laid out and drained, the roads formed, and the ground equally divided into consecrated and unconsecrated portions; the central road forming the separation, distinguished only by boundary stones at intervals.

There are two chapels, both similar in arrangement, with the exception of a bell turret to the Episcopal Chapel: the style adopted is Early Decorated, with open timber roofs. The walls are built of flint, with Box stone dressings. The bell turret is built from the ground, and is square below, with buttresses at each angle, and octagonal in the upper part, with a spire and small dormers, all covered with lead, dressed closely, and indented at the joints, with wrought iron finial on the spire, and on the gable of each chapel.

The residence for the sexton is similar in character to the chapels, and built also of flint, with stone dressings. Attached to the residence is a waiting-room, for the use of persons attending the funerals of their deceased relatives.

The entrance is in Kingston-lane, with large oak entrance gates in the centre, and smaller gate to the residence, all filled in with wrought-ironwork in the

per part. The cemetery on this side is enclosed ith a dwarf flint wall and piers, having Yorkshire one coping and Box stone dressings, and wrought-n railing, with standards.

The north side is enclosed with a brick wall and ers. The two remaining sides are enclosed with k park-pale fencing.

The works have been executed from the designs Mr. Charles John Shoppee, architect. Messrs. eharne and Son, of London, were the contractors r the chapels. Messrs. Hardy and Son, of Cowley, ar Uxbridge, were the contractors for the sexton's sidence, walls, fences, gates, and iron railing. Mr. Cole, of Norwood, was the contractor for the roads d drainage; and Mr. John Collett was clerk of the orks.

RAILWAY MATTERS.

Sir S. M. Peto has offered to make the proposed owestoft and Beccles line for 10,000*l.* per mile ncluding all Parliamentary expenses, directors' harges, the purchase and conveyance of land, &c.); pay the shareholders 3½ per cent. upon the ms they advanced during the progress of the orks; and, on their completion, to take the ncern at 6 per cent. upon the capital advanced. ——Two of the iron girders of the Great Northern ilway-bridge that crosses the great north road near rantham are cracked, but have been secured by a mber support. —— The Edinburgh and Glasgow ompany some time ago purchased the hotel at the rner of North Queen and George streets, Glasgow, e church of the late Dr. Wardlaw, and contiguous roperty in Dundas-street, for the purpose of erecting greatly extended station and offices. The plan is ot yet fully matured, but a commencement has been ade with the work. The shell of the church will main, and be reconstructed as the business-chambers f the company. The entrance to the station will be rom Dundas-street, by four arched gateways.—— he select committee of the Royal Arsenal at oolwich have been engaged in witnessing the erec-on of a machine, named an aërial railway, introduced y the inventor, M. Balan, a working engineer, who as obtained a patent from the British Government. propels cars or waggons by their own weight on nclined wire-ropes. For earthworks, such as cut-ngs, embankments, quarries, &c. this apparatus, it said, will be found useful, as it requires few hands o work it, the weight of the load depressing the rope th that the car travels without assistance to the lever here it is unloaded, and, the other rope being raised, e car slides to its loading-place. It may be also sed for crossing rivers, where bridges would interfere ith the navigation, and in any place where the dis-nce does not exceed 400 yards, to convey either oods or persons. An Englishman, who solicits our nterference, claims having published a similar inven-ion some time ago.——The traffic returns of railways n the United Kingdom for the week ending Oct. 27 mounted to 405,947*l.* and for the corresponding eek of 1854, to 373,304*l.*; showing an increase of 2,643*l.* The gross receipts of the eight railways aving their termini in the metropolis amounted, for he week ending as above, to 185,144*l.* and for the orresponding week of last year to 169,096*l.*; showing n increase of 16,048*l.* The increase on the Eastern ounties Railway amounted to 708*l.*; on the Great Northern, to 3,370*l.*; on the Great Western, to 5,335*l.*; on the London and North Western, to 1,060*l.*; on the London and South Western, to 1,334*l.*; and on the South Eastern, to 3,640*l.*: ogether, 16,947*l.* But from this must be deducted 24*l.* decrease on the London and Blackwall, and 75*l.* on the London, Brighton, and South Coast.

Notices of Books.

The Metropolis Local Management Act, 1855, *with an Introduction, &c.* By Toulmin Smith, Barrister-at-law. London: Sweet, Chancery-lane. 1855.

Practical Proceedings for the Removal of Nuisances and Execution of Drainage Works under the Nuisances Removal Act, 1855, *&c.* To which is added, *The Diseases Prevention Act*, 1855. By Toulmin Smith. Sweet, Chancery-lane.

In these volumes we have not merely the Acts referred to, but the author's comments and peculiar views and teachings regarding them. The first contains, besides an introduction, copious practical notes and a full double index, also a table of qualifications for voters, vestry-men, auditors, &c.; and the last comprises forms and instructions for the conduct of parish committees. The author states, in reference to the first, that the objects of the notes added in this edition of the Act are to help in securing its sound practical working, and the overcoming of many omissions and imperfections, so that, as a matter of duty, and whatever its defects may be, the Act may be made to work well, notwithstanding its difficulties. Doubtless these, as expressed, are very proper objects and motives; but it must be recollected that the author has preconceived ideas of his own, which he desires to see carried out, and that what he may regard as sound working, others, not seeing through his spectacles, may (perhaps with some prejudice too) look upon as much liker a frustration of some of the purposes of the new Act. To readers of deliberative mind, however, the author's comments and views cannot but be useful, whether they induce dissent or assent. As regards the second of the two volumes, the author appears to claim the Act embodied in it as a product of his own teachings, and recommends the volume as directly applicable to the subject of the first.

An Elementary Atlas of History and Geography. By the Rev. J. S. Brewer, M.A. London: Longman and Co.

The author of this work is a professor of English history and literature, and late a lecturer on modern history at King's College, London. The maps were compiled and engraved by Mr. E. Weller, F.R.G.S. The whole constitutes a series running from the commencement of the Christian era to the present time, and containing maps arranged in chronological order, with illustrative memoirs, and is intended for the use of colleges and schools. Such a work was a desideratum. The condition of the world at successive eras is here represented, so that, in connection with the illustrative memoirs, all the great changes of territory in the rise and downfall of empires, within its scope, may be traced by comparison of the various maps, and a familiarity with the great bearings and landmarks of history be thus easily and rapidly attained. Spruner's maps wanted the advantage of co-ordinate narrative, which, in this Atlas, completes the idea.

VARIORUM.

The issue of a new and improved edition of Dr. Lardner's "Hand-book of Natural Philosophy," by Messrs. Walton and Maberly, needs no recommendation, and only claims a general notice of issue: the treatise on Mechanics now before us forms the first of the series, of four volumes, intended either for school education, or for the general student of the Universities. The present volume is illustrated with engravings, cleanly printed, along with a clear type, upon excellent paper.——Messrs. Houlston and Stoneman, of Paternoster-row, and Orr and Co. of Amen-corner, have issued, in "Orr's Circle of the Sciences," Mr. J. Scoffern's treatise on "Elementary Chemistry of the Imponderable Agents and of Inorganic Bodies," including light, heat, electricity, and magnetism, the simple chemical bodies, and their inorganic compounds. The treatise is in some respects based on Dr. Henry's well-known work, but as about thirty years have passed since it appeared, only the more permanently valuable portions of that work have been made available, and, in fact, the whole constitutes a treatise of modern chemistry brought up to a recent standard, and adapted to a pretty far advanced state of intelligence as to chemical matters as well as to more elementary instruction. It contains a section, we observe, on photography, in which the various chemical processes are described. The latter has become a very interesting branch of chemical science.

Miscellanea.

Statue of Sir Robert Peel at Bradford.—The ceremony of inaugurating the Bradford memorial of the late Sir Robert Peel took place on Tuesday last, under the auspices of the Mayor and corporation. The memorial consists of a colossal statue in bronze, 11 feet 6 inches in height. It is from the studio of Mr. Behnes, and represents the deceased baronet in the act of addressing an assembly. It is placed upon a circular stone pedestal, 13 feet high, upon which is inscribed the word "Peel," and it stands in an open space of ground. It is stated that the amount paid to Mr. Behnes was 1,000 guineas.

Institution of Mechanical Engineers.—The general meeting of the members of this institution was held on the 24th ult. at the house of the institution, Newhall-street, Birmingham; Mr. William Fairbairn, F.R.S. president, in the chair. The secretary, Mr. W. P. Marshall, having read the minutes of the last meeting, the nomination took place of the president and officers for the year, to be elected at the annual general meeting. A paper was then read on a "New Expansive Valve-motion for Steam-engines," by Mr. George M. Miller, of Dublin: the next was a description of a "Set of Six Blast-engines, made for the East-Indian Iron Company," by Mr. Edward A. Cowper, of London: the third was on an "Improved Spring for Railway Carriages," by Mr. W. Bridges Adams, of London; and the last was a description of a new "Packing for Steam-engine Pistons," by Mr. David Joy, of Worcester. After the meeting, a powerful hydraulic lifting-jack was exhibited by Mr. Thornton, of Birmingham, of simple and convenient construction, and capable of lifting a weight of fifty tons by the labour of a single man.

Accident to Mr. Locke, M.P.—We regret to observe, from *Galignani's Messenger*, that a very serious accident occurred on Thursday week to Mr. J. Locke, the eminent engineer. In company with Mr. W. Locke, Mr. Brassey, and Mr. Moffat, M.P. he went down the Caen Railway, to inspect the works which are going on there, and when examining the tunnel of Boissy, now in course of construction, he and the other gentlemen ascended a scaffolding about 10 feet high, which fell with the whole party, and Mr. Locke had a very severe fracture of the right leg below the knee, the others escaping with some slight contusions. By subsequent report we are glad to hear that Mr. Locke is progressing favourably.

Soiree of the Manchester School of Art.—The annual *soirée* in connection with the Manchester School of Art was held at the Royal Institution in that city, on Monday in last week. The attendance of ladies and gentlemen, and students, was very numerous. The antique sculpture-rooms, and one of the corridors, were filled with a large collection of drawings and paintings, executed by students of the different schools of art throughout the country, and in particular those produced in the Manchester school. The visitors inspected these works for an hour, and then adjourned to the lecture-theatre, which was crowded.—Mr. Edmund Potter, president of the local School of Art, occupied the chair. He read a paper on "The Position of Schools of Art," of which the local *Courier* gives an abridgment. One main point on which the lecturer dwelt at some length, was to the effect that the schools of art in this country not only are not self-supporting, but are not likely to be so; and that hence the system adopted by Government ought to be altered. He advocated the foundation of a ministry of art, and urged what we presume he would call justice to the provinces. As for the shortcomings of the provincial magnates, who are the most likely to benefit substantially or pecuniarily by the cultivation of a taste for art and by the education of art-designers, not one word appears to have been uttered by the lecturer on that subject, except at the conclusion of his discourse, when he urged the necessity of contributing to the support of the institution until they could either establish some scheme for general art-education, or force the Government to bring forward a measure which should give the provinces their due. Parisian art dazzled and charmed, but there were points of warning connected with it. There was the essence of art centralisation in Paris: we wanted the reverse,—art increased, but diffused amongst the mass of the people, so that they could enjoy it at their firesides. Professor Scott and other gentlemen then addressed the meeting, and the prizes were distributed.

Westbury Burial Board.—The Burial Board here, after rejecting all the plans which were delivered in answer to an advertisement inviting a competition, applied to Mr. Bruton, of Oxford, who furnished them with designs for two chapels and an entrance lodge. At a meeting held on the 30th ult. these designs were approved, and the architect was instructed to make working drawings. Mr. Bruton's estimate for the erection of the chapels, lodge, and boundary walling, was 2,500*l.*

Hoop-iron Bond.—If—and I doubt it—any tie in brickwork be required more than the weight of the mass bearing on the ordinary iron bond offers, is it not much easier to obtain such tie by depressing or raising the courses of iron-hooping occasionally, by altering the layer of bricks on which the bond is bedded, thus ——|_____|—— than by the patent hoop-iron bond you have mentioned? by these means entirely preventing all fear of a longitudinal escape of the bond, occasioned by any strain exerted upon it, unless of such a character as to exceed the weight of the work *above* the bond, which in most instances is very improbable.—R.

The Peel Statue in London.—The Commissioners of Sewers think they have done all that is necessary for the statue of Peel, when they have hoisted it to the top of a square block of stone, which is afterwards eulogised as a pedestal of "very chaste and appropriate design;" and I believe that I express the feeling of every lover of art when I exclaim against the beggarly proceedings of this "commission." We need not servilely copy our neighbours in France, but we can at least think how they would have treated an opportunity like this. They know well that a colossal statue of a great man, erected in a great city, must be so displayed as to command the admiration of all who pass by, and to this end the pedestal should be as much the work of an artist as the statue itself. Such a pedestal should be of elaborate design and of lofty proportions—a monument in itself, surmounted by the statue of the man whose deeds it serves to record. It cannot be a question of money, when Peel is the man whose memory is to be honoured, and the "City of London" is the paymaster. And why is the railing "inevitable?" The present state of things certainly does not require special keeping, and the obelisk which formerly stood there did not suffer any injury. I always hoped that a fountain of *running* water would adorn the top of Cheapside, and that a few trees might have been planted there. Such a plan, in connection with the Peel statue, I only dare to hint at, but it would be worth waiting for, and would be a refreshing change in the dulness of our thoroughfares.—G. C.

Builders' Benevolent Institution.—We are glad to learn that at a meeting of the Directors on Friday, the 2nd, after receiving the secretary's report of the noble response to the appeal of the president at the dinner on Tuesday, at the London Tavern, it was resolved that *six* candidates out of the twelve should be elected on the 28th inst. instead of two as previously advertised, and the directors confidently hope to be able to announce the remaining six to be elected in April next. This is a step in the right direction, and will, it is hoped, stimulate other friends to come forward to give their aid in carrying out the objects of this institution. We believe, with the president, it only requires to be brought more immediately under the notice of our wealthy builders and contractors, and the requisite funds for the almshouses would be realized. His proposition to raise 5,000*l.* for that object by ten gentlemen or firms giving 100*l.* a year for five years is a good one, and we trust will meet with that response which so liberal an example deserves.

The School of Arts Watt Club, Edinburgh.—A fruit *soirée* was held on Wednesday evening before last, under the auspices of the School of Arts Watt Club, in the lecture-room of the School of Arts, on occasion of the retirement of Professors Lees and Wilson, as lecturers in the school, and also to introduce their successors, Mr. William Lees and Dr. Macadam. Mr. Alexander Black, president of the club was called to the chair. After the meeting was addressed by the chairman and the retiring lecturers, Professor Pillans said he could not but congratulate the members of the Watt Club, and the friends of the School of Arts generally, on the appointment which had been conferred on Dr. Wilson. He owned that when he had first learned they were about to lose the services of the two gentlemen whom they had met that night to honour, he had felt that the prospects of the School of Arts were somewhat gloomy; but from that feeling he had been relieved by the happy choice which had been made in the selection of their successors. Mr. William Lees then proceeded to deliver an address "On the Advantages of studying Physical Science;" and Dr. Macadam afterwards spoke at some length on "The Atmosphere." Mr. Sheriff Gordon finally addressed the meeting.

Liverpool Architectural Society.—At a meeting held on the 31st ult. as we learn from the *Journal*, Mr. Chantrell exhibited a number of bricks, of various colours, designs, and quality. Amongst them, a light, perforated brick excited much interest. Mr. Picton observed that he was glad to see the subject of bricks brought before the society so frequently, for something would, no doubt, come out of it. He suggested that bricks of various colours should be made in moulds of one size, so that architectural ornamentation might become more practicable. Of late there had been a perfect passion for pressed bricks, but for what virtue they possessed more than the others he could not see. A little more care used in preparing the material in the first place, and a little more care and attention bestowed in moulding them, would produce a much superior brick than at present, at very little more cost. The common brick was charged at the rate of 25s. a thousand, and if a little extra labour was bestowed in making them, the price was 65s. If a medium brick was sent into the market, he had no doubt it would be a profitable speculation. A paper was then read on Town Improvements.

The Dwellings of the People.—At the West Brompton Mutual Improvement Society, on Friday, the 2nd inst. a lecture on "The Homes of the People," was delivered by Mr. G. Godwin. At the close of it Mr. Godrich, who was in the chair, said, in moving a vote of thanks to the lecturer, that the most distressing of the details given by Mr. Godwin could be paralleled in the Royal parish of Kensington, in which they were: the condition of Jennings'-buildings, the Potteries, and Hooper's-court, was a disgrace to the country. The Rev. Thomas Pearson confirmed the assertion of the lecturer, that the efforts of the clergyman were unavailing with people housed as he had described. The lecture will be repeated at the Polytechnic Institution on Monday, the 12th.

Dover Drainage.—The Local Board of Health, at their meeting on Saturday last, made a stand against the demands of the engineers, Messrs. Rammell and Lister. So serious has the expenditure become, without producing corresponding results, that the ratepayers are naturally frightened, and have become suspicious of the men who have led them into it. The estimates of these engineers, which deluded people into the belief that the whole town would have a perfect system of drainage and water supply for about 50,000*l.* have been so alarmingly wrong, that at the present time, when 60,000*l.* or 70,000*l.* have been spent, we seem as far off as ever from a participation of the much-needed boon. Either Messrs. Rammell and Lister were wanting in that engineering talent which Dover required, and for which it will have most dearly to pay, or they omitted to give that close attention to the works that was needed, so as to be enabled to form a correct estimate of the expenditure likely to be entailed.—*Dover Chronicle.*

Workmen's Club-houses.—A large number of workmen being engaged in building the new Museum at Oxford—many, strangers to the town—it occurred to Dr. Acland that if a temporary building for their accommodation were set up, containing a kitchen, mess, and reading-room, it would keep the men from the pot-house. The authorities adopted the suggestion; the building was rapidly completed; and it was formally opened last week.

The Railway Club.—An association has recently been formed at Manchester, with this title, having for its object the promotion of more frequent communication between the principal officers of all railway companies, for interchange of information and friendly offices, and for securing the comforts and conveniences of a club-house for miscellaneous meetings. The association already includes a large proportion of the principal officers of the railways of this country, and it is intended, we believe, as the precursor of a more extended and complete establishment in London, as soon as circumstances are deemed favourable for its removal to the metropolis. The institution was inaugurated by a dinner at the Clarence Hotel, Manchester, on Friday in last week, presided over by Mr. Edward Watkin, the general manager of the Manchester, Sheffield, and Lincolnshire Railway, and president of the club.

Cast-iron and Concrete Pavement.—On the recommendation of Mr. Haywood, the surveyor to the City Sewers Commission, 400 yards of a new pavement have been ordered to be laid down experimentally in one of the City thoroughfares, probably about London-bridge, if it is to be tested to the fullest possible extent. From a report to the commission by the surveyor, it appears that the pavement to be tried is an American modification of the British invention of paving with iron, and is patented by General Knapp. It consists of cast-iron frames, divided into small sections filled with gravel, concrete, or stones, and when laid looks much like macadamization studded with large iron nails. The patentee states the cost of the paving, weighing 250 lbs. to the yard super. when laid, complete, to be about 18s. 6d. a yard for the quantity to be now tried. Mr. Haywood is dubious as to its alleged superiority to good granite paving as regards wear, and it has not been tested as yet anywhere to his knowledge beyond three years; but it is said to have other advantages, such as noiselessness, a good foothold for horses, and freedom from dust, as well as facility and rapidity of repair.

Covent-garden Theatre.—For M. Jullien's annual concerts Mr. Frederick Gye has added a wide balcony, projecting into the house on the face of the "grand tier," such as is found in the Paris theatres, and with very good effect. The hangings throughout the house, of white and gold, are scarcely so attractive in appearance as some previous arrangements have been: remembering, however, how many combinations Mr. Gye has made of the same few elements, this is not to be wondered at. M. Jullien has always our best wishes and applause for his endeavours to supply the multitude with the best music at small cost: and on the present occasion he has brought together an irreproachable band, and an admirable singer—Madame Gassier.

The Southampton Shipwrights have had a meeting to obtain an advance of wages. It was stated that the London shipwrights were paid 10s. and 11s. a day, while those in Southampton were only paid 5s. a day. Considering the briskness of the trade and the rise in the price of provisions, they thought they were justified in claiming an advance of 1s. a day; and a deputation was appointed to wait on the master shipbuilders to urge their claims.

The Liverpool Timber Trade.—Messrs. Holme, Slater, and Crook, in their last monthly circular say, "The arrivals into the docks of the Mersey, during the month, containing timber from British North America, are 69 vessels, 48,019 tons, against 58 vessels, 41,893 tons, for the corresponding period last year. The tonnage employed in the Canadian timber trade, as compared with last year to this time, is only 50,000 against 102,000 tons; but from St. John and other ports it is greatly in excess, being 184,000 tons against 136,000 tons to the same period last year. The great deficiency in the supply of Quebec timber, and an extensive consumption, have reduced the stock and enhanced the price so considerably, that cargoes which sold at the commencement of the import season at 16½d. per foot for 78 feet average, are now worth 20½d. per foot."

Fall of a Church Roof.—In the parish church of Kintail, Inverness, on 8th ult. during a crowded attendance, the crashing of breaking timber was heard right over the west gallery. The falling roof, however, rested on the sarking and plaster, and did not fall into the body of the church; otherwise it is fearful to think of the probable consequence. The parish church of Kintail is a very old fabric.

The Northern Union of Mechanics' Institutions.—The annual meetings of this union were held in Newcastle on Wednesday week, under the presidency of Earl Grey. The first of these meetings was in the Victoria Hall, Grey-street, Newcastle, which was opened for a fortnight as an Exhibition of Works of Art.

The Oxford Architectural Society.—The first meeting of this society was to be held on Wednesday in this week, when a paper was to be read by Mr. F. Hingston, B.A. of Exeter College, on the Ecclesiology of Cornwall, past and present. The annual meeting will take place on Tuesday, Nov. 27.

Subscriptions in Kind.—The village of Burringham, a short distance from Gainsborough, is without a church, and for some time past efforts have been made to raise funds to erect one. The following novel announcement has been circulated in Brigg:—"For the benefit of Burringham Church.—To be raffled for, at half-past three o'clock, a pure-bred Skye terrier dog, direct from the island; twenty shares at 5s. each. Also, a pure-bred terrier puppy, four months old, same breed; twelve shares, 5s. each."

Gas.—The Chartered Gas Company held their half-yearly meeting on Friday in last week, Mr. Benjamin Hawes in the chair, when a dividend at the rate of 6 per cent. per annum was declared.——The special committee of the Liverpool Town-council, appointed to consider certain complaints made by the public against the United Gas Company there, chiefly to the effect that the charge for gas was exorbitant, and that the bills for the past year were heavier than the year preceding, notwithstanding that there had been a decrease in the price to the extent of 6d. per 1,000 feet, have presented their report. It stated that the charges had been more than substantiated, and recommended that arrangements be made for the transfer of the company's affairs to the management of the corporation, or that the corporation construct works themselves, and supply gas to the public, as the only means of protecting them from the exorbitant charges and reckless management of the existing company.——There have been several serious gas explosions of late. At the United Service Institution, Whitehall, last week, some workmen, employed to ascertain the cause of a serious and continued escape of gas at the basement, carelessly took a lighted candle with them to test the pipes, though cautioned by the officials of the institution, and the immediate consequence was a powerful explosion, by which one man was severely burnt, and another had his clothes set on fire, while the earthwork and paved carriage-road above an old drain in the roadway were blown up for nearly 30 feet. On Tuesday in last week also, no less than thirty-one persons were more or less seriously injured by an explosion at the Birmingham Workhouse. It appears that a gas stove is placed between the ranges of beds in the tramp ward: the feeding-pipe connected with the main passes from the stove into the wood-work of the room, in which there is a tap or a recess with a door inclosing the gas-tap. From one or more of the joints of the feeding-pipe the gas had escaped during the night, and the room became filled with it: the inmates, half-suffocated, gave an alarm, and a lighted lantern was introduced: the gas rushed in at the top of the lantern, and the explosion instantly ensued.

EFFECT OF SANITARY IMPROVEMENT.—The decrease of mortality in some districts is striking, and the registrars in their notes endeavour to account for this evident fact. According to the quarterly returns,—"Some refer the improved health of the people to the fine weather, others to active employment in the harvest, others to the removal of the population, either in search of employment or by draughting into the militia and into the ranks of the army. One registrar makes the following statement: 'The deaths are below the average. In the township of Workington, containing a population of 6,122, the deaths during the last nine years have averaged forty-two quarterly; this quarter they are twenty-one. In the other nine townships, containing a population of 3,412, there have been only four deaths. Some ascribe the decreased mortality to Providence; others to improved sanitary arrangements." Various causes in operation undoubtedly contributed to this happy result—that if all the deaths of British soldiers in the Crimea during the last three months were added to the deaths in England, the sum would be less by some 20,000 than the deaths registered in England during the three summer months of 1854. More lives may be saved by sanitary arrangements at home every year than have ever perished abroad in the years of our greatest losses in war; and the enlightened people of this kingdom will suffer no such embarrassment as the registrar of Workington has recorded if this result be realized, as they know that all effectual measures for the improvement of the human race receive the blessing, because they are the inspirations, of Divine Providence."

TENDERS

For the Leamington New National Schools and Master and Mistress's Residences. Messrs. Clark and Worthington, architects. Quantities supplied :—

Hart	£2,555	0	0
Taylor	2,444	0	0
Wilson	2,435	0	0
Ballard	2,426	0	0
Pratt	2,360	0	0
Clark	2,313	0	0
Gascoine	2,308	0	0
Hunt	2,337	0	0
Goold	2,060	0	0
Overton (accepted)	1,997	0	0

For alterations and fittings at the Bank of London: Mr. Edmund Woodthorpe, architect. Quantities supplied by Messrs. Fox and Meakin :—

Lawrence and Sons	£2,748	0	0
Haynes and Eyre	2,710	0	0
Trollope and Sons	2,645	0	0
Ashby and Sons	2,620	0	0
Brass and Sons	2,584	0	0
Piper and Son	2,567	0	0
Myers	2,523	0	0
Brown and Co.	2,527	0	0

For Parochial Schools, Sherborne, for 600 children, and Residences for Master and Mistress. Mr. H. Hall, architect :—

Harris, Sherborne	£2,300	0	0
Green, Sherborne	2,162	0	0
Down, Sherborne (accepted)	2,060	0	0
Guppy, Sherborne	1,990	0	0

TO CORRESPONDENTS.

"A Builder" (increase of time should be allowed: but how the law of the case may stand we are not in a position to tell). "G. T."—"T."—"Lord E."—"Delta" (plans to that effect, have been proposed, but not successfully).—"H. C."—"E. G."—"J. J. L."—"E. W."—"W. T."—"T. D."—"J. P."—"T. E."—"J. W." (unable to assist).—"G. R. C."—"C. J. G."—"P. W. O."—"An Old Subscriber."—"J. C."—"Aqua" (advertised).—"W. H." (thanks).—"B. H. T." (inquire at Horse Guards).—"J. V." (let us know the nature of the business).—"J. G."—"W. A."—"Salt in walls" (will appear).—"T. E."

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor;" all other communications should be addressed to the EDITOR, and not to the Publisher.

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

ADVERTISEMENTS

CRIMEAN PHOTOGRAPHS.—EVENING EXHIBITIONS from SEVEN to TEN. The public is respectfully informed, that the 300 photographs taken by ROGER FENTON, Esq. in the Crimea, are exhibited each evening from SEVEN to TEN, and daily, from 9 TEN to FIVE. Admission, One Shilling.—Crimean Photograph Gallery, 5, Pall-mall East.

FIFTH SEASON.—The WINTER EXHIBITION of PICTURES, SKETCHES, and WATER-COLOUR DRAWINGS, of the British School, including a complete collection of all the Engraved Works after Sir Edwin Landseer, R.A. will OPEN for the SEASON, on MONDAY, 12th NOVEMBER, at the Gallery, 121, Pall-mall, from TEN till FIVE o'clock.—Admission, 1s. Catalogues 6d.

PARTNER WANTED.—A Builder and Plumber, within two miles of the City, is desirous of taking in as PARTNER, a person of business habits, and used to the general routine of Contracts and Repairs. The business has been established upwards of 30 years. For particulars apply to Mr. I. R. PEACOCK, Architect, 11, Coburg-place, Upper Kennington-lane.

TO JOURNEYMEN PAINTERS &c.

AN opportunity offers of a constant SITUATION, for a steady, middle-aged man, as FOREMAN, PAINTER, &c. He must be a sound tradesman, have acquired knowledge of the trade, competent to manage jobs in a systematic way, and ready to make himself generally useful to his employer. Apply by letter to W. Z. 20, Store street, Bedford square. Also, a good handy Youth wanted.

WANTED, in an Iron Establishment partly manufacturing and partly mercantile, a thoroughly competent MANAGER, to take the entire charge in the absence of the principals. He must be thoroughly systematic both in office and fine three hours and the works. None need apply who have not had good experience in a similar situation, and if conducted with the iron trade will be preferred. Salary 150l. to 200l. per annum. All applications to give full particulars and references. Address, R. H. D. Office of "The Builder."

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TO FARMERS, BRICKMAKERS, and OTHERS.—TO BE SOLD, 20,000 CHALDRONS of ASHES and BREESE; also, a quantity of good Mixture and Horse dung, close adjoining the Regent's Canal and Great Northern Railway; can be taken away by boats and barges, or delivered in carts.—For further particulars, inquire of Mr. GEORGE TILLEY, Saint George's-wharf, Cambridge-street, Agar-town.

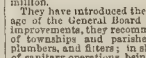
NOTICE TO ROAD CONTRACTORS, NURSERYMEN, AND OTHERS.

W. and J. STUDDS, Sole Proprietors of the WEST DRAYTON GRAVEL PITS, lately removed from No 21 Wharf, Harrow-road, to 9, North Wharf-road, Paddington, have now on sale good Garden and Screened Gravel. For terms, &c apply at the Wharf.

Contractors supplied to any extent.

POTTERS' CLAY FOR SALE.—An ESTATE, of nearly 400 acres, with residence, suitable for a gentleman, and containing an inexhaustible deposit of Potters' Clay; situate 4 miles from a port and 3 miles from a Railway station. For particulars, &c. apply, post-paid, to T. RAWLINS, Esq. Solicitor, Wimborne.

CARR'S PATENT BRICKMAKING MACHINE.—A PORTABLE MACHINE, drawn by two horses, of the best construction, the most effective that has yet been invented. A FIXED MACHINE, on the same principle, has been working most successfully the last two years, of which testimonials can be had, price 260l. A PORTABLE STEAM-ENGINE to accompany the same, if required, the same price.—Apply to EDWARD SPENCER and CO. Carpenters and Builders, 18, Billeter-street, City.

SANITARY  DEPARTMENT.

JOHN RIDGWAY, BATES, and CO. CAULDON-PLACE, STAFFORDSHIRE POTTERIES, beg to inform their friends and the public that they have appointed Mr. F. LOCKE, Brook-street, Holborn, their TOWN AGENT for their SANITARY VESSELS, including Fountain Basins, Closet-pans, complete and inclosed; Urinals, Slate Tanks, Cabinet Stands, Domestic Ovens, Washing-tubs, Tiles of all kinds, Single and Swimming Baths, Anti-corrosive Taps, &c. &c. The whole of stone and granite pottery-ware, of all kinds, forms, and colours, both first-class and for the million.

They have introduced these most useful goods under the patronage of the General Board of Health. With many subsequent improvements, they recommend them confidently to the patronage of townships and parishes, architects and builders, founders, plumbers, and fitters; in short, to all who have the carrying out of sanitary operations, being prepared to give such references and to quote such prices as they have the best reason to believe will ensure the public favour.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climate act up to it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in original Packages, each cask stamped HUBBUCK'S LONDON PATENT. And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained (at his Works, Mill-wall, Poplar, or at his Warehouse, Praed street, Paddington.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

NOTICE.—BLUE LIAS LIME.—L. B. PEARSE and CO. beg to inform Architects, Engineers, Builders, and Contractors generally, that they have now accepted the AGENCY for the above valuable HYDRAULIC LIME, from the original quarries, Stockton, Warwickshire, and are now supplying direct from the works in their own boats, at a reduced rate.

L. B. PEARSE and CO. beg further to give notice to consumers, that they have erected, at a considerable expense, large lime kilns and machinery for grinding the same, in order to ensure genuine quality and large supply, at their extensive premises, situate on the Great Northern Railway, York-road, King's-cross.

GREY STONE LIME WHARFS, 19, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Large Grey stone, or Grey Chalk, free on board at Works, 1s. 9d. per ton.

Small ditto, ditto, 4d. per ton.

Barges loaded in a few minutes.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GIBBS, CANNING, and CO.'S BLUE VITRIFIED BRICKS, PIPES, JUNCTIONS, BENDS, and FIRE GOODS.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

PORTLAND CEMENT.

CHARLES RICHARDSON,

6, SOUTH WHARF, PADDINGTON.

GREAVES'S BLUE LIAS LIME.

CHARLES RICHARDSON,

6, SOUTH WHARF, PADDINGTON.

BATH CEMENT.

CHARLES RICHARDSON,

6, SOUTH WHARF, PADDINGTON.

TATHAM & CO.—No. 14, SOUTH WHARF, PADDINGTON,

BRICK, LIME, and CEMENT MERCHANTS,

SOUTHAM BLUE LIAS LIME DEPOT.

Bath, Portland, Lias, and Roman Cements; Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewage Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in boat-loads direct from the Works in Warwickshire, to any part of the river or canal

SOUTHAM BLUE LIAS LIME DEPOT, No. 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged for a constant supply of the above very superior BLUE LIAS LIME, which for the last two years has been extensively used at most of the large works constructed during that period or now in hand, and any orders they are favoured with will command their best attention.

Boatloads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the Rivers Thames or Lee, alongside any wharf on canal, or by boat or rail to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to No. 14, SOUTH WHARF, PADDINGTON, will receive the best and most prompt attention.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first class quality, for the home and foreign trade Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied or shipment, on advantageous terms.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not re-state in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements tried at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank street, Westminster, who prepare one quality only of Portland Cement.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL,—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Parrs White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Coarse	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise. Apply to G. BOOTH, Agent, as above.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days. Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with at moderate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London: Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

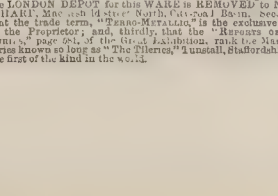
JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.

DAVIES and NORMAN, Agents

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Welbeck, Cumberlidge, Yorkshire, begs to offer pantiles at 50s. per 1,000; floor bricks and 6-inch pavings, at 37s. 6d. per 1,000; 8-inch pavings, at 57s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin, Security, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Reasons for our Junction," page 681, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4l. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PRIZE BRICK-MAKING MACHINE.—CHAMBERLAIN'S PATENT.—This portable machine will make 20,000 solid bricks per day, with 3-horse power. One man to feed the machine with clay, and boys to remove the bricks. Was awarded a silver medal by the Liverpool and Manchester Agricultural Society, at St. Helen's, September 6th; a silver medal by the Staffordshire Society at Leek, September 27th; and a prize at Worcester, October 5th, 1855.—Apply for particulars to Mr. HUMPHREY CHAMBERLAIN, Kempsey, Worcester.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Sewage-pipes, Closet-pans, Furnace blocks, Fire bricks, Gas-retorts, Crucibles, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, upon favourable terms.

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality. WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea bridge, at the following prices, viz.:—Grey Stocks, 23s. per thousand; Grizzles, 27s. per thousand; Rough Stocks, 31s. Place, 35s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

THE BEST HERTFORDSHIRE MALM SECONDS;

THE BEST WHITE SUFFOLK and RED FACINGS:

DEEP-RED RUBBING BRICKS.

Also COWLEY and KENT STOCKS, in any quantity.

J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY

(Within a short distance of the five bridges).

THE BEST MALM-CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity.

Also, STOCKS, of FIRST QUALITY.

J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENTISH, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY, MILLS and PRICE, 5, ADELAIDE-PLACE, London-bridge.

Depôt, Agar Wharf, Kings-road, St. Pancras.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. on low terms for any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, lists for building boundary walls, cottages, &c. by using which one third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and pure, bricks, fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs MEESON and CO. Gray's, Essex, executed with despatch.

BRICKS.—To ARCHITECTS, BUILDERS, and OTHERS.—WHITE and RED FACING BRICKS and HARD CLINKERS, for paving stables, &c. Tiles pipes of every description, and every article in the trade, may be had (of superior quality and on liberal terms) at W. and W. WRIGHT'S Brick and Tile Works, Sprat-hall, Essex.

The Proprietors of these Works acknowledgements for the liberal support they have had, and embrace this opportunity of informing their friends and the public, that the late removed to Messrs. Meeson and Co.'s Wharf Kilns at Bow, any goods station on the Eastern Counties Railway, or alongside in the Thames, at the usual prices.

500,000 BRICKS.—TO BE SOLD by TENDER, 500,000 BRICKS, made by the London Patent Brick Company, now lying on their Premises adjoining the Grand Junction Canal, near Northolt bridge. Tenders to be sent to Mr. JOHN A. DUFFY, No. 5, Old Jewry, Secretary to the Company, on or before the 15th day of November next. N.B. The Bricks may remain on the premises for a limited time.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 13s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, large, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

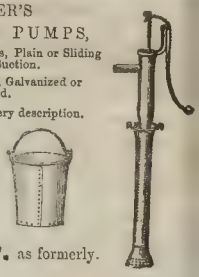
AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.



BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

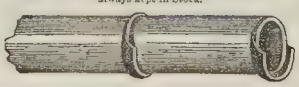
AYLESFORD POTTERY COMPANY,
BELVEDERE-ROAD, LAMBETH.
MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly six years, and having during this period supplied DRAIN PIPES, &c to some of the largest Works in and around London, viz.:—The New Cattle Market, Wellington and Chatham Barracks, Deptford Dockyard, Her Majesty's Commissioners of Works, &c. and in all instances parties using them expressing themselves satisfied therewith, take this as a fair test of the quality of the articles supplied by them, and as they now feel themselves established as Potters, beg to offer their goods to Contractors, the Trade, &c. of a first rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

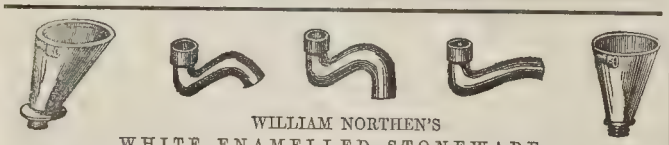
Watercloset Pan with Syphon-Trap, 3s. 6d. each.

A LARGE ASSORTMENT OF STRAIGHT TUBES IN 9-FEET LENGTHS.
Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.



Watercloset Pan with Syphon-Trap connected, price 3s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta." Chimney-pots of various patterns and sizes, also Red Earthenware Drain pipes, at greatly reduced prices. (1179)



WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF CLOSET-PANS.

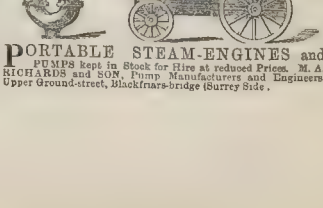
DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

VAST IMPROVEMENT IN PUMPS.—PARSEY'S REVOLVING PUMP, all metal, without valves, leather, or packing. Liability of choking and disarrangement removed; and equally superior for hot or cold liquors. Contractors, brewers, distillers, ship-owners, water and gas companies, agriculturists, &c. are solicited to see them in action at Mr. PARSEY'S Depôt, Great Scotland-yard, where orders are received and executed.

TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP, which is recommended for the simplicity of its construction, and the ease with which it works.
By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than Pumps made on the old plan.
Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.
JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.

TO CONTRACTORS.
STEAM-ENGINES, for PUMPING, WINDING, SAWING, &c. TO BE LET on HIRE, by the day, week, or for any time required, strong simple PUMPING and WINDING ENGINES, made portable, with a reversing motion, pumps and driving gear, complete. These engines have been successfully employed for years by all the principle contractors, and for a variety of other purposes. Are ready for immediate delivery, of 4-horse, 6-horse, 8-horse, 10 horse, 12-horse, 16-horse, 20-horse, to 40-horse power.—Apply to Messrs. MEDWIN and HALL, Engineers, Surrey Iron Works, 93, Blackfriars-road, where they may be seen.

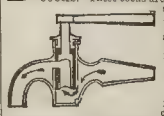


PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

STEAM-ENGINE and BOILER for SALE, to make room for larger ones. TO BE SOLD, a 10 horse high-pressure TABLE ENGINE, and BOILER large enough for a 14 horse engine, both nearly new.—Can be seen at work at 130, Great Suffolk-street, Southwark.

ENGINES.—For SALE, THREE 12-horse high pressure horizontal ENGINES, admirably suited for winding; 12-inch cylinders, metallic pistons, either with or without lever. Also two powerful double-purchase CHAINS, capable of lifting 30 tons each. Also a wrought-iron TANK, 36 feet by 4 feet, by 4 feet, ¾ plates.—Apply, by letter, to No. 20, BOX, Post-office, Derby.

TO WATER COMPANIES AND PLUMBERS.
BURDEN'S PATENT HIGH-PRESSURE COCKS.—These cocks are remarkably simple in their construction, very durable, cheap, not liable to get out of order, and have been most successfully used for a period of three years, under a continuous heat pressure, varying from 200 to 350 feet. The following is one of the latest testimonials received:—"Stirling, 4th September, 1855. At a meeting of the Water Commissioners held this day it was unanimously resolved to recommend Burden's Water Cock for general use. It has been on trial here for nearly three years. During that period it has successfully resisted the high pressure of water in Stirling, amounting to from 200 to 350 feet, about the highest pressure in the kingdom. The Commissioners confidently recommend to the public generally the above cocks, as the very best for high-pressure purposes, from the simplicity of their construction, cheapness, and durability. Owing to the entire absence of leakage, they will effect a saving of from 15 to 20 per cent. of water over the cocks that have been hitherto in use. By order of the Commissioners, JOHN SAWERS, Provost, Chairman."
SAMUEL SHEPPARD, Sole Manufacturer,
JAMES STREET, SAINT PAULS, BIRMINGHAM.



M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 38s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

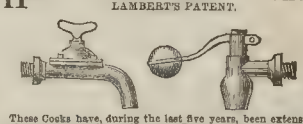
Upper Ground-street, Blackfriars Bridge, Surrey Side.

PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM-ENGINE, with tubular boiler, for SALE.—Can be seen at work at Mr. GOODWIN'S, 67, Great Guildford street, Southwark, of whom particulars may be obtained.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

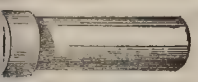
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 9.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.
Enamelled iron, self acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



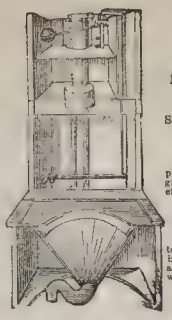
arior Glazed Stoneware Pipes, Bends, dions, Traps, &c. Hopper and other Pans, est White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

hon Pan, with or without STEPHEN REEN'S Patent Air-tight Valve.

tered Flushing Basin,—the most effective yphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

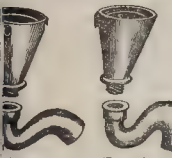
This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

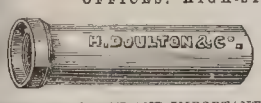
LF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the se of which, Drains may be readily examined, and Junctions nserted, in the event of requiring further connections.

fay be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin ; ehead, Bermondsey ; Danver's Wharf, foot of Battersea-bridge, Chelsea ; Pratt Wharf, King's-road, Camden New Town ; JERNER, 3, South Wharf, Praed-street, Paddington ; COLWILL, Brothers, 32, Brydges-street, Covent Garden ; and at EDWARD CE 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE ; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

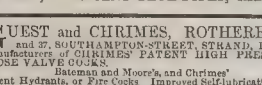


MARK BOOK 123

ENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

ssrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

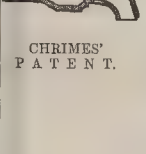
JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.



MANUFACTURERS OF

DOULTON'S STONE-WARE PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

ERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.



CHRIMES' PATENT.

GUEST and CHRIMES, ROTHERHAM, and 27, SOUTHAMPTON-STREET, STRAND, London, Manufacturers of CHRIMES' PATENT HIGH PRESSURE LOOSE VALVE COCKS.

Bateman and Moore's, and Chrimes'
Patent Hydrants, or Fire Cocks Improved Self-lubricating and other Sluice Cocks.
Kirkwood's Tubular Water Closet. Improved Self-acting and other Water Closets.
Siemens' Patent Balance Water Meter.
Pulbrow's Patent Water-Waste Preventer.
Morris's Patent Water Supply Regulator,
Rawlinson's Patent Self acting Drainage Valves.
Higginbotham's Patent Slide Stop Cocks.
Lowe's Patent Stench Trap, Beggs's Improved.
And all other Articles required for Water-Works Purposes, &c.

LONDON HOUSE.

Mr. THOMAS BEGGS, 37, Southampton-street, Strand, General Depôt for Sanitary Articles, including Wash and Plug Basins, Hoppers, Urinals, &c. The attention of Architects and Builders is particularly requested to the various appliances for supplying common Closets and Urinals, manufactured by Guest and Chrimes, and to Thomas's Improved Urinals for angles and flat walls, as fitted at the King's College Hospital, and other Public Institutions.

Plumbers' Brass Work of every description.

BATEMAN AND MOORE'S PATENT HYDRANT.

SUPERIOR STONEWARE GLAZED PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction,—the price being also lower than many in the trade, viz. 25 per cent. discount off the list for cash. Junctions, Bends, &c. Pans and Traps of the first quality, Yorkshire Paving, Sinks, Sills, &c. all at low cash prices.—E. and W. STURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered.—October 1, 1855.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by its unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers. Sole Agents, I. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 23s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 22s. PER CRATE.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE.

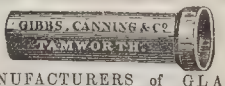
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Backwall. Orders executed from the above places, from Falcon-wharf, 89, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE No. 7.

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet, they are found to be exceedingly durable, and are cheaper than common corks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 15s. 6d. each.



MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers. White Fire Clay, Facing Bricks, &c. &c. Agents, CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.

BY HER MAJESTY'S ROYAL LETTERS PATENT, APRIL 27, 1855.

JAS. LEWIS'S PATENT STENCH-TRAP

FOR STREET USE.

Price, with Gutter Plate, 18 inches by 12 inches, each 24s.; weight about 2 cwt. Larger sizes made, if required.

FOR AREAS, &c.

Price, with Back Plate, 6 inches by 7 inches, each 6s.

FOR COURTS, YARDS, &c.

10 inches by 8 inches, each 10s.

The above articles are protected for the Patentee by the British Government, on account of their construction, for the advantages they possess, being a perfect trap for preventing smell proceeding from itself or the drain, should there be water or not in the pan. When stench-traps are put down generally speaking, no attention is ever paid to them afterwards; this renders them useless. The above, therefore, are a desideratum, as they require no attention. It is well known when cholera has visited this country, it commences and leaves last those places where the air is vitiated by obnoxious gases proceeding from drains, &c.

Any individual suffering any inconvenience, is entitled, by the Sanitary Act to lay complaint before the public or private authorities of the property to lay down stench-traps where they are required. Any persons interested in this advertisement will be kind enough to write to the patentee for drawings, and if wishful, testimonials. Please order from any respectable ironmonger contractor, or the Patentee, JAMES LEWIS, Ironfounder, Abergavenny. Specimens to be seen in the Court of Inventions, Crystal Palace, Sydenham.

TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES.

FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics, or gas. Pumps, etc. on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

SUPERIOR LAND DRAINAGE.—AGRICULTURAL DRAIN-PIPES of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to I. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

SALES BY AUCTION.

HIGHGATE—750,000 Bricks for unreserved Sale

MR. EDWIN WHITE will SELL by AUCTION, absolutely without reservation, at the BRICK-FIELDS, on the west side of the Archway-road, Highgate Middlesex, on WEDNESDAY, NOVEMBER 14th, at ONE for TWO o'clock precisely, in convenient lots, 700,000 capital BRICKS, comprising Stocks, Gr zles, and Place, and 50,000 good RATS.—On view two days prior and morning of Sale, when catalogues may be had at the Field; and at the Auctioneer's, 170, Bishopsgate-street Without.

SURREY CANAL BANK, near the Commercial Docks, Rotherhithe.

MR. JOHN ASHFORD will SELL by AUCTION, on MONDAY, NOVEMBER 12th, 1855, at TWELVE o'clock, about 1,100 loads of prime Memel TIMBER (60 loads whole timber, 50 l ads half timber); quantity of sashes, frames, and partitioning; large quantity of panelled; marble jambs and slabs; about 5,000 feet of board on and slabs; 2,000 feet of capital fir, in rafters, joists, &c.; stoves, ranges, &c.; large quantity of firewood, and miscellaneous it ms. On view the morning of sale. Catalogues may be had on the Premises, and of the Auctioneer, &c. High-street, Deptford.

REGENT-STREET.—An eligible Plot of Building Ground, suitable for an Exhibition Room, or for any other purpose requiring a first-rate and central position at the west-end of the metropolis.

MESSRS. RUSHWORTH and JARVIS are directed to announce for SALE by AUCTION, in the month of DECEMBER next, unless previously disposed of by private treaty, the CROWN LEASE of a PLOT of GROUND, about 80 feet by 65 feet, situate in the rear of Hanover Chapel, Regent-street, offering an eligible site for an exhibition, concert, or lecture room, bazaar, gallery of art, religious or scientific hall, or suites of chambers, &c., for an unexpired term of sixty-five years, and further particulars may be had at the Offices of Messrs. Rushworth and Jarvis, Saville-row, Regent street, where a plan of the property may be seen.

Important Sale of a large and varied Stock of Gas Lamps, of the various sizes, and of the most elegant designs

MESSRS. FULLER and HORSEY are instructed to SELL by AUCTION, at the SALE ROOMS, 21, Old Bond street, on WEDNESDAY, NOVEMBER 14, and following days, at ELEVEN each day, in lots, by direction of Mr. William Potts, of Birmingham, who has disposed of his manufactory, and is retiring from business, an extensive and varied STOCK of GAS LAMPS, lanterns, brackets, & chandeliers, candelabra of various sizes, inkstands, and other ornamental works, in the highest style of manufacture, and of the most modern and artistic designs, superior to ordinary productions. From the high reputation so long enjoyed by Mr. Potts, whose collection at the Great Exhibition of 1851 will be long remembered, and gained for him the distinguished patronage of H.R.H. Prince Albert, in addition to very flattering commendations from Mr. Wyman, the Government reporter, on that great display of art, this sale may be strongly recommended as a most eligible opportunity of obtaining works of quality and merit.—To be viewed on MONDAY and TUESDAY previous to the sale, when catalogues may be had at the Rooms, or of Messrs. Fuller and Horsey, Billiter-street.

N.B. Approved bills at four months' date will be taken from purchasers to the extent of 3.1 and upwards.

Experienced packers will be in attendance to render their assistance, if required, at a small fixed charge.

SAW-MILL MACHINERY.

MESSRS. FULLER and HORSEY will SELL by AUCTION, on MONDAY, NOVEMBER 19, at ELEVEN, on the PREMISES, Belvedere-road, Lambeth, in lots, the MACHINERY of the SAW-MILLS, including one powerful timber-sale frame, with carriage; five iron deal saw frames, in excellent working order; 25? feet shafting, with drums and straps; double-purchase jib crane, with travelling gear; self-acting circular saw bench; circular saws; 18 frame saws; one iron circular saw bench; planing, tonguing, and matching machine; two carts, timber carriage, useful cart-horse, harness, and other effects. To be viewed in motion on Saturday previous to the sale, when catalogues may be had on the Premises, and of Messrs. Fuller and Horsey, Billiter-street, City.

Two Condensing Steam engines, of 25 and 8 horse power, and three steam-boilers.

MESSRS. FULLER and HORSEY will SELL by AUCTION, at the SAW-MILLS, BELVIDERE-ROAD, LAMBETH, on MONDAY, NOVEMBER 19th, at ELEVEN, TWO CONDENSING STEAM-ENGINES, one of 25-hor e power, by Cramred, of Manchester, and one of 8 horse power; one Cornish boiler, 16 feet long; two waggon-boilers, 18 and 20 feet long; 20 rods of brickwork, 5 tons of furnace-work, bricks, ashe, smiths' tools and other effects. To be viewed in motion on Saturday previous to the sale, when catalogues may be had on the Premises, and of Messrs. Fuller and Horsey, Billiter-street, City.

VALUABLE PATENT, AND PLANT FOR WORKING IT OUT To Paperhangings Manufacturers, Embossers, Delaine and Furniture Printers, and Others.

MR. PETER BROAD will SELL by AUCTION, at the MART, on WEDNESDAY, NOVEMBER 14, at TWELVE, a valuable PATENT, securing the exclusive right of numerous, novel, economical, and improved methods of ornamenting paperhangings and textile fabrics, and producing the most elaborate patterns in gilding, flocking, powdering, embossing, watering, &c. at a nominal cost of labour and material. Also machinery for working the Patent.—The patent and specification, with specimens of the manufacture, may be seen, and particulars had, at the Auctioneer's Offices, 38, Poultry.

TO BUILDERS, CARPENTERS, PIANOFORTE AND CABINET-MAKERS, AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, 42, Union-street, Somer's-town, on MONDAY NEXT, NOVEMBER 12, at TWELVE, about 3,000 Yellow White, and Pine Planks, Deals, and Battens; 5,000 feet dry deals, pine boards, 4,6 feet quartering, ladders, tarrows, scaffolding, 2,000 feet wood mouldings, 2,000 pieces of paper hanging, and other useful stock. May be viewed the Saturday prior, and catalogues had, on the Premises, and at Mr. Lerew's Offices, 9, Cardington-street, Hampstead-road.

Annual Sale of Timber at Cassiobury, Watford, comprising 480 Ash, mostly clean-grown Trees, and of unusually large dimensions; 300 Alder, 50 Oak, 25 Elm, 600 Fir, and a few Lime Walls, and Birch

MR. HUMBERT will SELL by AUCTION, at the ROSE and CROWN INN, WATFORD, on WEDNESDAY, the 14th day of NOVEMBER, at TWO o'clock, an unusually fine lot of Ash, comprising 480 trees, also 50 oak 300 alder, 25 elm, and some walling, birch, lime, and timber. May now be viewed, and catalogues may be had at the Inns in the neighbourhood, and free by post of Mr. Humbert, Land Agent, Watford.

TO BUILDERS AND OTHERS.—Valuable first-rate Fittings and Effects.

MR. F. HALL is instructed to SELL by AUCTION, on TUESDAY, the 13th of NOVEMBER, at TWELVE for ONE, on the PREMISES, opposite Chapter street, Regent-street, Vauxhall-bridge road, Pimlico, the very excellent INTERNAL FITTINGS, &c. of a Game Club-house undergoing alterations at the west-end, and removed for convenience of sale, comprising handsome and lofty folding-doors, with dressings complete; first-rate room-doors, with architraves, jamb linings, &c.; mahogany and plate-glass sashes and frames, two pairs of handsome columns, complete roof of large conservatory, large wood tank, tweet, sets of iron revolving shutters, with lifting gear, complete; Gothic doors and framing, cabinet-work, quarter-inch hanging boards, shutters, pilasters, marble pilasters, windlass, and a variety of other first-rate materials.—May be viewed, and catalogues had, on the Premises; and of Mr. F. Hall, Building Material and General Auctioneer, Chester-street, Kennington.

SALES BY AUCTION.

ANNUAL TIMBER SALE, Audley-end, near Saffron Walden, Essex.—250 Oak, Ash, Elm, Alder, Poplar, Chestnut, Willow, Beech, Sycamore, and Cherry TIMBER TREES (many of which are of good dimensions and quality). 268 capital Larch Firs (well suited for farm buildings and fencing), and 400 Oak Saplings, to be SOLD by

MESSRS. NOCKOLDS and KING, upon the PREMISES, at TEN o'clock, on TUESDAY, the 20th of NOVEMBER, 1855. Catalogues may be had of Mr. Richard Horton, Audley-end; and of the Auctioneers, Church-street, Saffron Walden. Six months' credit will be given, subject to the usual conditions. The whole of the timber is lying in convenient lots, and contiguous to good roads. The company are requested to meet at Littlebury Paddock, near the mill.

FOLKESTONE, KENT.—To CARPENTERS and BUILDERS. Sale of well-seasoned Joinery,

MESSRS. GODDEN and VENABLES will SELL by AUCTION, on THURSDAY, NOVEMBER 15, 1855 by direction of the trustees of Messrs. Christopher Pyrke and Son, at the FOUNDRY, Tontine-street, Folkestone, 300 PANEL DOORS and SASHES. Also FIFTY-NINE SETS of double-rebated DOOR JAMBS. The goods will be on view on the morning of the day of sale, and particulars may be obtained of the Auctioneers, Church-street, and Sandgate-road, Folkestone.—Sale to commence at ONE o'clock precisely.

TO BUILDERS, MASONS, &c.—THREE HUNDRED MARBLE CHIMNEY-PIECES having been offered for SALE by AUCTION, and a portion remaining undisposed of, consisting of the larger class chimney-pieces, suitable for mansions and public buildings, they are now offered by PRIVATE SALE, at a considerable reduction in price. In consequence of the death of one of the company, the accounts must be balanced by the 1st JANUARY next. An early inspection is recommended.—Westminster Marble Company, Earl-street, Holywell-street, Millbank.

800,000 STOCK BRICKS.—TO CONTRACTORS, BUILDERS, AND OTHERS.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, at the BRICKFIELDS, Goose-green, Peckham Rye, on WEDNESDAY, NOVEMBER 14th, in lots, about 800,000 capital STOCK BRICKS. More detailed particulars will be announced in future advertisements.—Auction and Estate Agency Offices, 79, King William-street, City. Oct. 8, 1855.

CHALK FARM, HAVERSTOCK-HILL.—Building Materials, Furniture Fixtures, Handsome Door Fittings, and appendages of the ab ve well-built Residences and Premises

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES on TUESDAY, NOVEMBER 27th and following day, at TWELVE, in lots, all the BUILDING MATERIALS, furniture, utensils, bar-fittings and effects, of Chalk Farm Tavern, comprising good sound brickwork plain and panelled, excellent slating, useful timber, sashes, doors, partitions, floorboards, stone paving, lead gutters, 200 feet iron railing, 300 feet run wood fencing; also the furniture and tavern fittings, including the usual articles for bed rooms and sitting-rooms, china and glass, prints and paintings, three clocks, metal-top counter, three beer-engines, liquor-fountain taps and pipes, twenty moveable drinking boxes in the gardens, drinking-tables, and seats, 100 forms, and numerous useful tavern fittings. May be viewed the day previous. Catalogues had of Messrs. Pans, Architects, 9, Laurence Pountney-lane; of Mr. Younger, 5, South Side, St. James' square; and of Pullen and Son, 80, Fore-street, Cripplegate.

CANNON-STREET WEST.—Important Sale of Building Materials of extensive Warehouses, and the spacious Residence with Offices, known as "St. Thomas Apostle Chambers."

PULLEN and SON respectfully announce that they are instructed to SELL by AUCTION, on the PREMISES, on WEDNESDAY, NOVEMBER 21, and following day, at TWELVE, in lots, all the capital BUILDING MATERIALS and FIXTURES of the extensive stock in trade warehouses, with spacious Residence and Offices adjoining, forming a large portion of the division between Queen-street and Bow-lane, and entered ng in the rear from Cannon-street-west, comprising about 800,000 prime stock bricks; 12 tons of lead, in gutters and pipes; capital oak and fir timber, in rafters, joists, and girders; 5,000 plain tiles; 200 pair of moulded sashes; modern doors, partitions, lining boards, marble chimney-pieces, and interior fittings; 200 squares of stout boarded floors; loop-hole doors, with cranes and jibs; iron columns; 300 feet of coping; stone cills and paving; entrance gates; stoves, ranges, coppers, cisterns, and a great variety of fixtures and fittings up.—May be viewed two days previous, and catalogues had of Pullen and Son, 80, Fore-street, Cripplegate.

BUILDING LAND TO BE LET, at HALLSVILLE..., Term 1,000 years, for small cottages.

CANNING TOWN	„	1,000	„ for small cottages.
NORWOOD.....	„	1,000	„ for villa residences.
STRATFORD	„	100	„ for small cottages.
POPLAR.....	„	93	„ for fourth-rate houses.

Advances 2nd to 10?. at 5 per cent. on each cottage.

Apply to Mr. Wm. ELLISON, Architect, Stainsby-road, Limehouse.

TO BE SOLD, a valuable ESTATE, expensively laid out, and producing a large and increasing income; in a fashionable situation, and on which has been discovered productions capable, with ordinary attention, of raising the value to a great extent. The property in the present state has been valued at 28,0?. and any gentleman might become sole purchaser, or the proprietor would admit one, or more, by investing 5,000?. or upwards, as joint proprietors with himself; they taking an active part, and having, if desired, a residence on the estate, with interest commencing at 6? per cent. Principals, or their solicitors, only will be treated with, by addressing, in the first instance, Y. Z. 19, Arundel-street.

HAVERSTOCK-HILL.—To BUILDERS.

TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some commanding FRONTAGES for Shops and Private Houses. All the sewers are in on the estate, roads all formed, and now making. Term, ninety nine years. Low ground-rents. Bricks supplied at a low price, and liberal cash advances. Apply to Mr. JOHN MOORE, 86, Chalton-street, Euston-square.

GROUND TO BE LET, on Lease, in the best part of Euston-square, close to the London University, suitable for public buildings, or good private houses.—Apply to Mr. GRAHAM'S Office, Tavton-street, Gordon-square.

ELIGIBLE PLOTS of GROUND TO BE LET for Building, at Castlebear-hill, seven miles from London, and ten minutes from the Ealing Station, on the Great Western Railway.—For particulars, apply to GEORGE LESLIE, Upper-mall, Hammersmith.

LARGE WORKSHOP or WAREHOUSE TO BE LET, Arthur-mews, Caledonian-road, Islington, next the Railway Station. Well constructed, with slate roof, light and dry; over stabling. Length, 100 feet; width, 22 feet. Rent moderate.—Inquire at the Premises.

TO BUILDERS and OTHERS requiring ROOMY PREMISES.—To BE LET, a capital DWELLING-HOUSE, with convenient shop, office, large yard, excellent workshops, stabling, &c. The premises are fitted with every convenience for carrying on a large business, and situated in the front of the high road, Upper Holloway, in the centre of a populous and growing neighbourhood, nearly on, over the Red Cap Tavern.—For particulars, apply to D. BARRETT, 2, St. John's-park-villas, Upper Holloway.

GUILDHALL, 5th November, 1855.—The Committee for Letting the City's Lands will meet at Guildhall on WEDNESDAY, the 14th of NOVEMBER inst. at ONE o'clock precisely, to receive PROPOSALS for LEASES of a HOUSE, No. 19, on the north side of Duke-street, Aldgate; a House, No. 2, St. Agnes-terrace, Tabernacle-walk; Two Houses, Nos. 59 and 60, on the west side of Wilson-street; a House, No. 14, on the north side of Providence-row; and a House, No. 54, on the north side of Featherstone-street, Finsbury.—Further particulars and plans may be seen, and forms of Tender obtained, at the Architect's Office, Guildhall.

FERDINAND BRAND, Comptroller.

TO JOINT-STOCK COMPANIES, BANKERS, MERCHANTS BUILDERS, CONTRACTORS, and OTHERS.—For SALE, the BOARD-ROOM, OFFICES, COMMITTEE-ROOMS, STRONG ROOM, HOUSE, ENCLOSED YARD, and extensive PREMISES, belonging to the Commissioners of the Southampton Paving Trust, No. 10, Edward-street, Hampstead-road; and also the House, Yard, and Premises, No. 7, Charles-street East, Hampstead-road. The Commissioners of the above Trust will meet in their Board-room, 10, Edward street, Hampstead-road, on TUESDAY, the 13th day of NOVEMBER, 1855, at SEVEN o'clock in the evening, to receive sealed TENDERS in writing from any person or persons willing to purchase either of the aforesaid premises. The premises in Edward-street, Hampstead road, comprising an area of ground 119 feet, more or less, by a depth of 114 feet 10 inches, including the very substantial erection at present used as the board-room, offices, committee-rooms, strong room, house for inspector, large enclosed yard, stables, sheds, and foreman's lodge, with back entrance into Robert-mews. These premises are in excellent repair, and suitable for any public purpose; held for an unexpired term of sixty-six years from Michaelmas, 1855, at a ground rent of 29. 12s. per annum. The premises in Charles-street East, Hampstead-road, comprising a frontage of 114 feet, are underlet to Messrs. Marshall and Tracy, for a term of seven, fourteen, or twenty-one years from Lady day, 1849, at 34. per annum. These premises are in excellent repair, and held by the Commissioners for an unexpired term of fifty-three years from Michaelmas, 1855, at a ground-rent of 3?. 16s. per annum. The Commissioners will not be bound to accept the highest Tender. Further particulars may be known at the Office, 10, Edward-street, Hampstead-road, daily, between the hours of TEN and FOUR o'clock. No Tender will be received after SEVEN o'clock in the evening on the said 13th inst. All Tenders must be addressed to the Commissioners of the Southampton Paving Trust, 10, Edward street, Hampstead-road, and also have "Tenders for the Purchase of the Board-room and Premises," or "Tender for the Purchase of the House and Premises, Charles street East," as the case may be, written on the outside. By order of the Commissioners,

JOHN ARNELL, Clerk.

Board room, November 1st, 1855.

TO CARPENTERS, BUILDERS, &c.

ONE or MORE HOUSES, in CARCASE, with Garden Walls and Washhouse. TO BE LET, on a ground-rent, or TO BE SOLD; the purchase money can stand over a given time at five per cent.—Inquire of Mr. CHARLES MARSHALL, Builder and Brickmaker, Albert-terrace, Kentish-town.

TO TIMBER MERCHANTS and OTHERS.

The Proprietors of Leta's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks, 30 and 10 feet Cranes, Saw pits for converting Timber, &c. Freights paid on delivery.—Apply to G. NOKES and Co. as above.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphurous or any other impurities or corrosions. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure (oxide of Zinc.) Any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increase i weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. R. TAYLOR and CO. and by the Company's Grinding Agents in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRABY, Wholesale and Retail Agent, 5, Tottenham court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in Kegs of 14, 21 and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and Isle of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 13, Manchester-buildings, Westminster.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so deservedly adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noble buildings, and is the only true material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Entablements, at prices and quality that will defy competition. A large Stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs.—Capitals, Consoles, Trusses for Parapets, Balusters, String Courses, Friezes, Bas-reliefs, Vases, Statues, Chimney-shafts, and all other Architectural Ornaments modelled, finished, and burnt, in the best manner, and warranted to stand heat and frost, either in Buff or Red-coloured Terra-cotta.—A great variety and large stock may be seen at BLASHFIELD'S Warehouse and Show-rooms, No. 1, Praed street, Paddington.

MONEY.—12,000?. and 250?. to be invested, the former in freehold, the latter, if in Leasehold, the term must not have less than sixty years unexpired. Either would be lent on mortgage.—Full particulars to be addressed to Messrs. LOCKWOOD, surveyors and Auctioneers, 1, Barwood-place, Hyde-park; or 44, Upper Baker-street.

London: Printed by Charles Wyman, of 13, Hunter street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of Cox (Bros.) & Wyman, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said Charles Wyman, at the Office of "The Builder," No. 46, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, November 10, 1855.

The Builder.

AN ILLUSTRATED JOURNAL FOR THE Architect, Engineer, Operatives & Artist.

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BUILDERS' BENEVOLENT INSTITUTION.—An ELECTION of SIX PENSIONERS (four females and two females, instead of one male and one female, as previously advertised), will take place at the London Tavern, Bishopsgate-street, on THURSDAY, the 29th inst., CHARLES LUCAS, Esq. President, in the chair. Polling commences at TWELVE, and closes at THREE o'clock precisely.
7, November 15, 1855.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTITUTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-Superintendent—RICHARD REDGRAVE, Esq. R.A.
Head-Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to adapt its principles to the requirements of trade and manufacture, and its application to the common uses of life. Special courses are arranged in order to qualify School-masters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects: Free-hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still life, &c. the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Pencil and Engraving in Wood and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study: Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees if per session, or part of the session. For Evening Classes only, 5s. per session.

The Class for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students and training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session, Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

ARCHITECTURAL EXHIBITION, 9, SUFFOLK-STREET, PALL-MALL EAST. The following Local Honorary Secretaries will furnish every information personally in their respective districts:—

Birmingham	W. W. Bateman, esq.
Bristol	S. C. Fripp, esq.
Bury St. Edmund's	John Johnson, esq.
Chester	James Harrison, esq.
Cork	R. R. Brash, esq.
Coventry	James Murray, esq.
Derby	H. Shaw Peach, esq.
Durham, and County of	J. P. Pritchett, esq. Darlington.
Exeter	Edward Ashworth, esq.
Edinburgh	
Glasgow	
Huddersfield	Charles Pritchett, esq.
Ipswich	Frederick Barnes, esq.
Leeds	W. Reid Corson, esq.
Liverpool	J. Boulter, esq.
Llandaff	J. P. Seddon, esq.
Manchester	
Newark	Charles Baily, esq.
Norwich	H. Ketton, esq.
Nottingham	T. C. Hine, esq.
Oxford	T. Lainson Beckham, esq.
Plymouth	W. H. Rut, esq.
Reading	Charles Heaman, esq.
Stoke-upon-Trent	Charles Lynam, esq.
Taunton	C. C. Giles, esq.
Tunbridge Wells	J. N. Stevens, esq.
Wolverhampton	F. Banks, esq.
York	George F. Jones, esq.

JAMES FERGUSSON, F.R.A.S. } Honorary
JAMES EDMESTON, Jun. } Secretaries.

ARCHITECURAL EXHIBITION.—All Works for Exhibition must be delivered at their lodgings, Suffolk-street, Pall-mall East, on the order of the 1st DECEMBER. The Committee are endeavouring to get a proper jury appointed, whose certificates of merit shall confer a benefit on exhibitors in the department for materials and manufactures connected with architecture, and Travelling Bursaries will be set apart, as before.

On the TUESDAY evenings, beginning with the 8th of JANUARY, Lectures will be delivered at the galleries, and arrangements are so far complete as to enable the Committee to announce the following:—

JAS. FERGUSSON, Esq. F.R.A.S. Hon. Sec. Architectural Exhibition, on the Ancient Architecture of Assyria.

GEORGE SCHARF, Jun. Esq. on Early Christian Art, as Illustrated in Mosaic Paintings.

The Rev. J. L. PETIT.

ROBT. WM. BILLINGS, Esq. on the Ancient Architecture of Scotland.

THOMAS ALLOM, Esq. on the influence of Light and Shadow upon Architectural Composition.

Season Ticket holders will be free to the Lectures, and also subscribers, who will have, in addition, the privilege of introducing a friend. New subscribers should send their names in good time, in order that they may be included in the first edition of the catalogue. All information will be instantly given on application to

JAS. FERGUSSON, F.R.A.S. }
29, Lancaster-place, } Hon Secs.
JAS. EDMESTON, Jun. }
5, Crown-court, Old Broad-street, }

THE ARCHITECTURAL MUSEUM, Canonbury, Westminster. Autumn Session, 1855.

On Monday, November 26th, a LECTURE will be delivered at the Rooms of the Museum, "On Colour and its Use in Architectural Art" a continuation of a former Lecture, by Sir WALTER C. JAMES, Bart.

Hour of admission, Seven o'clock. The chair to be taken at Eight o'clock.

Cards for the Course of Lectures may be had at the Museum, and at the office of "The Builder."

The Museum is now open Monday and Wednesday Evenings, from Half past seven till Half past Nine o'clock.

The Subscription for Artisans is 2s. per annum, due on the 1st of January in each year. HENRY CLUTTON, Hon. Sec.
November 15, 1855

LOWESTOFT IMPROVEMENT ACT, 1854.—Notice is hereby given, that the Lowestoft Improvement Commissioners, acting by power of the said Act, will, on THURSDAY, the 6th day of DECEMBER, 1855, at the Office of the Commissioners, at Gisleham, in the County of Suffolk, in the FORENOON, proceed to elect a SURVEYOR and INSPECTOR of NUISANCES, for the Town of Lowestoft, and Parishes of Lowestoft and Kirkley, both being Districts under the Provisions of the Act. He must be competent to prepare plans, drawings, estimates, and specifications of all works enacted by the said Commissioners, pavior's walking, and the air of the streets, and to be able to demand and obtain within the limits, as well as surface cleansing, and to superintend the execution thereof and test materials, and keep the fulfilment of the conditions of contracts for executing any such works, and to do and perform all the duties imposed upon him as Surveyor and Inspector of Nuisances by the said Improvement Act, and the Towns' Improvement Clauses Act, 1847, and other Acts incorporated therewith. The salary will be 80l. per annum, paid by quarterly, and the person elected will be required to give Security for the due performance of his duties on his appointment. The party will not be restricted from private practice.—Applications, with testimonials, to be sent to me before SATURDAY, the 1st day of DECEMBER next, addressed, and endorsed, "To the Chairman of the Commissioners, High-street, Lowestoft, Suffolk."

EDMUND NORTON, Clerk.
Lowestoft, 7th November, 1855.

COMPETITIONS.

PREMIUM for DESIGN.—To ARCHITECTS, LANDSCAPE GARDENERS, and Others. The Council of Hastings are desirous of inviting DESIGNS for LAYING OUT and DRAINING their BURIAL GROUND at Ore, near Hastings, comprising about nineteen acres. The laying-out should comprise the sites for the required Chapels, Lodges, and Buildings, describing their several purposes by reference; also, Roads, Paths, Planting, and Fencing. A premium of 10l. will be paid to the person whose design, in the judgment of the Council, is approved the best Design. All designs not approved will be returned. Each design is to be distinguished by a motto; and a sealed letter, similarly and ruled, containing the author's name and address, is to be sent therewith. No design bearing the author's name will be received. The plan of the ground may be seen at the Office of the Town Clerk, Hastings, where designs, marked "Burial-ground," are to be sent on or before TEN o'clock of WEDNESDAY, the 5th day of DECEMBER next. The Council do not bind themselves to accept any design.

JOHN G. SHORTER, Town Clerk.

November 7, 1855.

TO ARCHITECTS AND OTHERS.

THE BURIAL BOARD for the Parish of Northwood, in the Isle of Wight, in the county of Southampton, invite Designs of receive PLANS, DESIGNS, and ESTIMATES, comprising ground plans, sections, and elevations for laying out a new BURIAL-GROUND of four and a-half Acres, permanently enclosing and planting the ground, building a reception-house, lodge with entrance-gates, and two chapels, one to be consecrated and one not. The party whose plans, &c. may be approved, will, at the discretion of the Board, either have the superintendence of the works, or be paid to guarantee the plans, designs, and estimates, which will be the property of the Board. All plans, &c. must be delivered at my office in West Cowes, free of expense, without the author's name, but with a motto, on or before the 8th day of DECEMBER next, addressed to me, and endorsed "Designs &c. for Northwood Burial-ground." A sealed letter containing real name and address to accompany each design. A plan of the ground can be seen, and any further information obtained, at my office.

By order, HENRY JAMES DAMANT,
West Cowes, 13th Nov. 1855. Clerk to the Board.

SUPPLY of WATER to the town of Neath. Twenty-five guineas will be given for the best PLAN of supplying the town with water from the Gnoll property. There is no doubt as to quantity and quality. For further particulars, apply to WILLIAM BULLOCK WEBSTER, Esq Gnoll Castle, Neath, Glamorganshire.

CONTRACTS.

Royal Engineer Office, Portsmouth, 14th November, 1855

NOTICE to BUILDERS.—The Commanding Royal Engineer, Portsmouth, hereby gives notice, that sealed TENDERS will be received at the Office of the Director-General of Contracts, War Department, Pall-mall, London, on or before WEDNESDAY, the 19th day of DECEMBER next, from persons desirous of contracting for certain ADDITIONS and ALTERATIONS to Cambridge Barracks, Portsmouth; the plans and specification for which may be seen, and all necessary information obtained, together with printed forms of Tender, at this Office, between the hours of TEN and FOUR each day (Sundays excepted) until the 18th proximo. The person whose Tender may be accepted, will be required to provide two sureties to be bound with him jointly and severally in a sum of 100l. for the due performance of the contract by the 25th NOVEMBER, 1857. The War Department reserve the right of rejecting the whole or any of the Tenders. No notice will be taken of any Tender unless upon the printed forms.

NOTICE to BUILDERS.—Royal Engineers' Office, Portsmouth, November 8, 1855.—Notice is hereby given, that TENDERS will be received at the ordnance Office, Pall-mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed HOSPITAL at Winchester Barracks, county of Hants. Plans and specification may be seen at the Royal Engineer's Office, Portsmouth, where also forms of Tender may be obtained every day (Sundays excepted) until DECEMBER 1, 1855. Tenders to be delivered on or before DECEMBER 15, 1855. The War Department reserve to themselves the right to reject the whole or any of the TENDERS. No notice will be taken of any Tender unless made on the printed forms, to be obtained at the Royal Engineer Office, Portsmouth.

NOTICE to BUILDERS and CONTRACTORS.—The Secretary of State for the War Department being about to enter into a special contract for ERECTING ADDITIONS to the CELLS at the Royal Artillery Barracks, Woolwich, and persons may wish to TENDER for the same, may inspect the plans and specification of the work, and obtain forms of Tender, by application at the Clerk of Works' Office of the Royal Engineer Office, Royal Artillery Barracks, Woolwich, on or before the 21st NOVEMBER. Each Tender, on the printed form to be delivered, or sent at the War Department, Pall-mall, London, on the 22nd NOVEMBER, 1855, addressed to the Right Honourable Secretary at War, and marked "Tender for Work at Woolwich Barracks."

Woolwich, 6th November, 1855.

PLYMOUTH BREAKWATER.—Contract for Granite.—The Lords Commissioners of the Admiralty propose CONTRACTING for upwards of 1,000,000 FEET of GRANITE for Plymouth Breakwater, the conditions and specification for which may be obtained at the Offices of Messrs. WALKER, BURGES, and COOPER, Civil Engineers, 24, Great George-street, Westminster; and at the Office of COMMANDER WALKER, Superintendent, Oreston, Plymouth, from the 16th to the 30th instant.

London, November 9, 1855.

WELLS and FAKENHAM RAILWAY COMPANY. The Directors of the Company are prepared to receive TENDERS for the supply of about 20,000 TIMBER SLEEPERS, of which a specification may be had at the Office of GEORGE BIDDELL, Esq. 24, George-street, Westminster. The Tenders must be endorsed, "Tenders for Sleepers," and left at the Office of the Company, on or before the 20th instant. The Company do not bind themselves to accept the lowest Tender.

JAMES HUTT, Secretary.
63, Lombard-street, London, Nov. 13, 1855.

HEYWOOD CEMETERY.—To CONTRACTORS and OTHERS.—The Burial Board for the Township of Heap, in the parish of Bury, in the county of Lancaster, is desirous of receiving TENDERS for the formation of the Cemetery, and the erection of the Chapels, &c. The Boundary-wall, Draining, Excavations, &c.; also, an Approach-road thereto. Persons willing to Tender for any or all of the above works may see the drawings and specifications on and after MONDAY next, the 12th inst. at the Office of Mr. T. D. BARRY, 47, Bedford-street North, Liverpool; or at the House of Mr. T. WOLSTENHOLME, Clerk to the Board, St. Luke's, Heywood, and further information, if required, may be had upon application to Mr WILLIAM GAY, Cemetery, Heywood.

N.B.—Tenders to be delivered on MONDAY, the 26th, to the undersigned, not later than TWELVE o'clock at noon, the Board not being liable to accept the lowest or any Tender.

THOMAS WOLSTENHOLME, Clerk to the Board
Town's Office, Heywood, Nov. 7, 1855.

TO BUILDERS.

TENDERS required for ERECTING and COMPLETING TAP HOUSE, BILLIARD and other ROOMS, to the Manchester Wine Shades, Old Fish street, Doctors' commons. The plans, specification, and conditions of contract may be inspected at the Architect's office on and after MONDAY, the 19th inst. between the hours of NINE a.m. SIX o'clock. Tenders to be delivered, sealed, to the Architect on or before WEDNESDAY, the 28th day of NOVEMBER. The lowest or any Tender will not necessarily be accepted.

JAMES SHERGOLD SCARD SCOTT, Architect.
19, Commercial-road, St. Gentle st. let.

[For remainder of Contracts see next page.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS.—I. BUILDERS, CONTRACTORS and Others.—The Metropolitan Commissioners of Sewers hereby give Notice that they will be ready to receive TENDERS, No. 1, Greek-street, Soho-square, on or before TUESDAY, the 27th day of NOVEMBER, instant, at ONE o'clock P.M. precisely, in one vessel or TENDER, for the several undermentioned WORKS, viz.:—PART for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING, with cement, BRICK SEWERS and IRON PIPES, of various lengths and Depths, with other works in connection with new Outfall, which is situate at Hare Marsh, and in Parishes of St. Mary, Stoke Newington, Hackney, and the maintenance of such works in proper repair for twelve calendar months, the time, price, and specification of the above works, together with the form of Tender, may be inspected on either or both days aforesaid at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE and FOUR o'clock, and the 5th NOVEMBER inst. The Commissioners do not by this Advertisement bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the works. N. Tender will be signed unless the bond above mentioned is E. H. WOOLCOTT, Secretary.

No. 1, Greek-street, Soho-square.
Dated this 15th day of November, 1855.

TO BUILDERS.

TENDERS are required for the ERECTION of a new Chapel-of-Ease, at Hare Street, Essex. The plans and specifications may be seen at the office of the Architect, Mr. E. SWANBOROUGH, 25, Broad-street Buildings, City, between the hours of TEN and FOUR, on and after MONDAY, the 19th instant. The lowest or any Tender will not necessarily be accepted.

NEWARK CEMETERY.—To BUILDERS and CONTRACTORS.—The Burial Board for Newark-upon-Trent hereby give Notice that any person desirous of CONTRACTING for the ERECTION of the CHAPELS, LODGE, &c. &c. for the use of such Board, and forming Roads, Drains, and fence out the new Burial ground, may inspect the plans, specifications, and forms of Tender at the Town Hall, in the parish of Newark-upon-Trent aforesaid, after the 24th day of NOVEMBER instant to the 1st day of DECEMBER next. Sealed Tenders for the execution of the works, endorsed "Tender for the Cemetery Buildings, &c." are to be sent to me not later than TWELVE o'clock at Noon on the 3rd day of DECEMBER next. The Board reserve to themselves the right to accept or reject any Tender submitted. Any other information may be obtained on application to me, or to Messrs. BELLAMY and HARDY, Architects and surveyors, 30, Bargate, Lincoln.

By order,
WILLIAM NEWTON, Clerk to the Board.
Kirkgate, Newark 15th Nov 1855

TO CONTRACTORS

LINCOLNSHIRE.—NEW TUNNEL, with SLUICE DOORS, SEA RACE, LAND DOORS, &c. at Ingoldwells Outfall.—All persons willing to CONTRACT for Building a New Tunnel of Brick and Stonework, with Sluice-Doors, New Channel, Sea Race, Land Doors &c. in the parish of Ingoldwells, in the county of Lincoln, agreeable to plans and specification at the Office of the undersigned, on application to Mr LEWIN, Eng neer, Boston, or at my Office in Spilsby, are desired to deliver in their proposals in writing (sealed up) at a Court of Sewers to be held at the Session House in Spilsby on MONDAY, the 17th day of DECEMBER next, at ELEVEN o'clock in the forenoon. The contractors will have to enter into acceptable and bonds, with sufficient sureties, for the performance of the Contract.

By order
W WALKER, Jun. Clerk of Sewers.
Clerk of Sewers' Office, Spilsby, Nov 9, 1855.

Note.—The situation of the intended new works may be viewed by applying to Mr JOHN DAVEY, of Ingoldwells, the Dikereeve, who will point out the same

TO GAS-FITTERS.—Kingsgate Chapel, Holborn.—ESTIMATES are required for LIGHTING the above Chapel (Vestries, and School-rooms) with GAS. Every information respecting the same can be obtained at the Office of the Architect, CHARLES G. SEARLE, Esq 29, Poultry, on and after MONDAY, 19th NOVEMBER inst.

TO ENGINEERS.—Kingsgate Chapel, Holborn.—ESTIMATES are required for WARMING and VENTILATING the above Chapel, on the most approved principle. The drawings can be seen at the Office of the Architect, CHARLES G SEARLE, Esq 29, Poultry, on and after MONDAY, 19th NOVEMBER, inst.

HIGHWAYS.—CONTRACT.—The Commissioners of Highways are ready to receive TENDERS from persons willing to CONTRACT for the REPAIRS of the ROADS in the EAST and WEST MEDENES in the Isle of Wight, to commence on the 1st day of JANUARY next, and to continue from year to year, subject to be determined by either party giving two months' notice in writing, to expire at the end of any year. The Tenders may be for both Medenes, or for one separately, at the option of the contractor, but the amount tendered for each Medene, must in any case be stated separately. Each contractor will have to find two sureties to the satisfaction of the Commissioners for the due performance of the Contract, and the names of the sureties must be stated in the Tender. Each of the sureties to be responsible for an amount equal to one half the amount of the Contract. All the work to be done under the superintendence of the Improvement Committee and the general Surveyors. One-sixth of the amount of the Contract to remain in the hands of the Commissioners until after the due fulfilment of the Contract, the remainder to be paid in equal monthly instalments, if the work is carried on to the satisfaction of the Commissioners. The contractor will be required, at his own expense, to sign an agreement for the due performance of the Contract; the Contract to be in the form of a draft, which can be inspected at the Office of the Clerk to the Commissioners. Tenders to be delivered, addressed to "The Commissioners of the Commissioners," at the Guildhall, Newport, on WEDNESDAY, the 21st of NOVEMBER next, by ONE o'clock.—Further particulars and the terms of the Contract may be known on application to the Clerk to the Commissioners, or to the General Surveyors, Mr. HENRY HEAVEN, residing at Lake, near Sandown, and Mr. FRANK WHITE residing at Shide, near Newport. The Commissioners will not bind themselves to accept the lowest or any other Tender.

CHARLES WYATT ESTCOURT, Clerk to the Commissioners.
Newport, Isle of Wight, November 3, 1855

RUGBY LOCAL BOARD of HEALTH.—To BOILER MAKERS.—Notice is hereby given that the Board are prepared to receive TENDERS from parties who may be willing to PROVIDE and FIX a NEW BOILER to the engine at their waterworks at Rugby, according to the specification deposited at the Office of the Board, Church-street, Rugby. Tenders for the same, addressed to the Chairman of the Board, must be sent in to me on or before the 26th inst.

By order of the Board,
C. E. WRATISLAW, Clerk.
Rugby, 7th Nov 1855

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any lengths and EXCHANGED for OLD LEAD, at the LOWEST TERMS.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a preparation of Lead and Zinc and not requiring to be prepared, painted, or oiled as thick as Sheet Lead, is consequently very much cheaper than that material, and the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weigh about	18 oz. per foot super.		
12	"	20	"
13	"	24	"
14	"	26	"

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS,
GAS-STREET, BIRMINGHAM.
LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Lambeth, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated. Roofs fixed complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

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SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling houses, farm buildings, and fire proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE-PLACE, and LIMEHOUSE, LONDON;
BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Purposes, Gutters, Pipes, Fencing, &c.

To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON, or
BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

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Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).
WORKS GLASS-HOUSE YARD, opposite the Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process THE TOUGHNESS AND MALLEABILITY of the Iron being preserved

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

PATENT CORRUGATED IRON.
JOHN WALKER,
MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.
JOHN WALKER,
GALVANIZED IRON MERCHANT, &c.—The trade supplied Corrugating by steam power capable of doing 100 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.
JOHN WALKER,
IRON-FOUNDER AND ENGINEER.
Orders to any extent can be executed at his Works, Mill-wall, Poplar.—Apply at the Works.

BUILDER AND CONTRACTOR.
JOHN WALKER,
Having his own Saw-mills, is enabled to CONTRACT
BUILDERS' WORK,
At low prices, and of the best good work.
Apply at his Offices, Arthur-street West, London bridge.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, Gentlemen, and others, requiring roofing, to the superiority of Iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire proof. Drawings and estimates furnished.
Island Foundry and Iron works, Millwall, London.
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A. MOREWOOD and CO. (late Morewood and Rogers).
Dowgate Dock, Upper Thames street, London, and Baskerville Works, Birmingham
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets
PLAIN or CORRUGATED, and Curved, of all Gauges.
Manufactured articles always kept in stock, such as pails, scoops bowls, riddles, skips, &c. of all sizes.
Also the Patent Galvanized Tinned Bars, Gas and Water Tubing, Strained and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building at the
OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing at one stroke of the foot.
R. S. NEWALL and Co's Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.
OFFICES.—Gateshead-on-Tyne.
159, Strand London.
87, Hyde-park-street, Glasgow.
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TO BELL-HANGERS, GAS-FITTERS IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire, Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, Brass and Iron, Tin, Composition, Iron and Brass Tubing, Copper-plate Rings and Lacquered Cast Tube for Picture Rods, Desk Rods, &c.
Superior Looking Brass for Engravers, Castings in Fine and Common Brass, Iron Metal, &c. at
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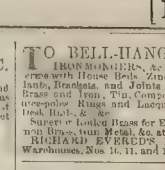
CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 15a, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler, 30 32 34 36-inch.
28s 30s. 32s 34s
Best self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 56s. 58s. 66s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 8d.
Improved New Pattern Circular Check Register, with strong Bars and Trivets, 8d per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	3	2½	3 inch.	
	11d.	1s 2d.	1s 4d. per yard.	
Cast Gutters—4 inch, 9d. per yard.				
O G Gutters	4	5	44 inch.	
	1s. 1d.	1s. 3d. per yard.		
Patent Line	3	5	6	
	44d.	8d.	7d.	9d. 1s. per knot.

6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron
Brick Moulds kept in stock. Any size made to order.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.
Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
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ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1, New Peter-street, Westminster—Contractors, Builders, &c. supplied with General Ironmongery at the lowest whole sale prices
Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 45s. each.
Register Stoves, from 3d. per inch.
Elliptic ditto, with double backs, from 2½d. per inch.

Cast-iron Rain-pipe	3	2½	3 inch.	
	11d.	1s 2d.	1s 4d. per yard.	
4-inch Eaves Gutters, 9d. per yard.				
O G Gutters	3½	4	4½	5 inch.
	1s.	1s 1d.	1s 3d.	1s 6d. per yard.
Best Cut Clasp	3½	3	2½	3 inch and larger.
and Rose	16s. 6d.	15s. 6d.	13s.	14s. 6d.
1-inch Best Cut Lath, 16s per cwt.				
Sheet Floor Brads 14s. per cwt.				
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Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 8s. per doz.; strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

IMPERIAL IRON FOUNDRY, and ECONOMIC RANGE MANUFACTORY.

Three ft. wide	£6 10
Three ft. three in.	7 0
Three ft. six in.	7 15
Three ft. nine in.	9 0
Four ft.	10 10
Four ft. six in.	12 12
Five ft.	14 14

Copper Cocks, 5s. per foot.
Fixing, 5s. per foot.

This valuable KITCHEN RANGE, the Manufacturer has much gratification in stating, has been in use several years, and gives the utmost satisfaction. It may be used either with the fire open or closed, thereby avoiding the objection so naturally felt against having the fire at all times shut up, which is well known to generate a close unwholesome vapour.

The Prize Medal and Honourable Mention was awarded to this Range at the Great Exhibition of 1851.

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J. SHERWIN, 52, TABERNACLE-WALK, FINSBURY.
Castings of every description in Loam or Sand.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.
W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Cash Weights, Pulley and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

FOUNDRY AND IRON WORKS,
88, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.
GLOVER, BROS.,
Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.
Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door, adapted for internal work.
A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.
Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.
Estimates given for Iron Buildings, Wrought-iron Roofing, Garden Entrances, Wrought-iron Girders, Fireproof Doors, Book-safes and Strong Rooms, Tanks and Boilers, and every description of ironwork to specification, and the work executed with every attention to quality and despatch.
Building at the
GLOVERS' IRONWORKS,
168, DRURY-LANE, and CHARLES STREET.

CANNON IRON FOUNDRY, 80, Goswell-street, St. Luke's, JONES and BLANDY, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Area Railing, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Fly and other Wheels, Wheel Plates, &c.
BAKERS' OVEN WORK, Force Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions may be seen, and estimates obtained on application to

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ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

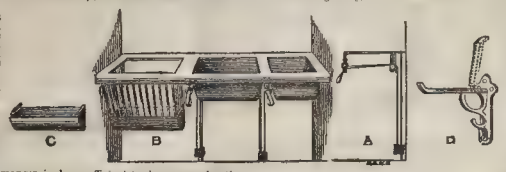
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

e made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



represents the Patent ter-piece and Collar-rein. ball of which is taken to the e of the manger-works with lion and eye up or down guide-bar, and is noiseless its operation, as also a sure centative against the most dive horse being cast in the l.

. The Patent Portable Seed- can be instantly detached n the rack without disturb- the hay. The saving of the d in a clean and useful state, er for agricultural purposes,

nixing with the food in the manger, is alone sufficient to claim general notice.

. The Seed-box detach d, made of galvanized sheet-iron, light and durable.

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COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, able, and impervious to infection. Manufactured plain, galvanized, and enamelled.

MPROVED SURFACE-DRAIN, with safety covers; Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Pre- ing Saddle and Harness Bracket, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron rk for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

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STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

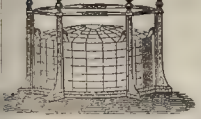
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



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Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES,

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

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PARKIN AND MARSHALL,

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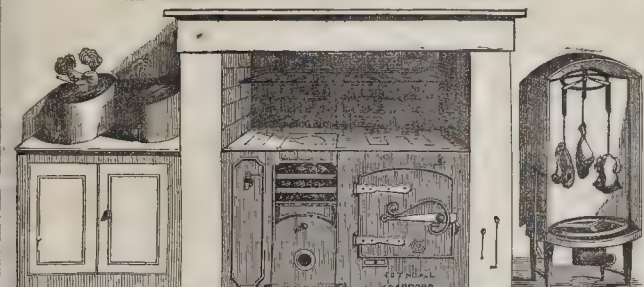
OFFICES—{NEW YORK—71, JOHN-STREET. BOSTON—25, KILBY STREET, U.S. MELBOURNE—64, COLLINS-STREET EAST.

CORPORATE MARK—XLALL.—Granted by the Cutlers' Company, 1789.



Messrs. PARKIN and MARSHALL have also pleasure in stating that they are appointed Sole Wholesale Agents for the Sale of the undermentioned Articles, manufactured by Mr. ENOCH OLDFIELD TINDALL, Iron Works, Scarborough, viz:—TINDALL'S PATENT PORTABLE MANGLES, WASHING AND WRINGING MACHINES, NAPKIN PRESSES, COOKING RANGES, LAUNDRY STOVES, SANATORY GRATE AND BRAZE, CHAFF CUTTERS, OAT, BARLEY, MALT, AND LINSEED MILLS, BEAN MILLS, CHEESE BREAKERS, PORTABLE SAW-MILLS, TURNIP CUTTERS, &c.

THE PATENT COOKING RANGES AND ROASTERS are now amongst the most complete and inexpensive before the Public, and are readily answering the highest Ranges of our country.

THE IMPROVED LAUNDRY STOVE will heat Fifteen Flats at once, occupies only 13 inches in space, is removable from one room to the other, and will be found in reliable to the Hospitals, Infirmaries, Laundries, and Private Families.

E. O. T.'S SANATORY GRATE AND TRAP is now acknowledged to be the best and most secure from effluvia (as well as not being liable to choke, and readily cleaned) that has been introduced.

THE MANGLES AND WRINGING MACHINES have been introduced into the Royal Household most of the Public Institutions, and all the Principal Families, and bear testimony to their effects and superiority over all others.

THE OAT BRUISERS AND CHAFF CUTTERS, like the above, combine cheapness with the greatest simplicity of construction, and only need to be seen to be appreciated. They are of a handsome and durable character, and are fitted with Patent Knives, &c. with Addition of Double Iron Frame, Fly Wheel, &c.

Drawings of Ranges, &c. with Addition of Double Iron Frame, Fly Wheel, &c. forwarded on application to the Retail Agents, who are appointed in almost every principal Town in the United Kingdom.

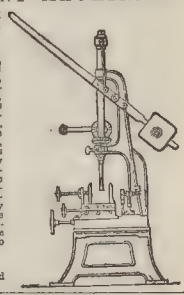
VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

PLANING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London, and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, contractors, coach and cabinet makers, railway carriage and wagon builders, machinists, agricultural implement makers, shipbuilders; and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing and turning. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee, 29, Lawton-street, Liverpool, from whom full particulars may be obtained.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.



House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', JOWLS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 36, Wardour-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

IRONMONGERY.

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THE LARGEST STOCK AT

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PATENT SASH and BLIND LINE,

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JOHN PARKIN and CO. late BLAKE and PARKIN, NEW MEADOWS STEEL WORKS, SHEFFIELD, MANUFACTURERS OF CROSS-CELLAR and MILL SAWS, IMPROVED CAST-STEEL FILES, for the use of engineers and machinists. PATENT TEMPERED MACHINE KNIVES and CUTTERS, manufactured for planing and grooving wood, for cutting paper, iron, stone, leather, &c. made to any pattern or dimensions with the utmost exactness. Warranted to work with a harder and finer edge than any other mode of temper.

INVENTORS of CORE-ANNEALED CAST STEEL for taps, piston rods, &c. MANUFACTURERS of RAILWAY SPRINGS, BLISTER, SHEAR, and CAST STEEL, &c.

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Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

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THIS IS THE ORIGINAL PATENT

for important improvements in stable-fittings, hay-box, manger, and water trough, as one fixture, including a method surpassing all others for conveying the straps and halter-weights to the back of the fittings, to prevent the horse being cast in the stall. Stable Fittings of every description, plain, enamelled, or galvanized. Also the newly invented Loose Box Fittings, Surface Gutters with moveable cover-plates, Stable Posts, Ramps, Sills, and all kinds of Stable Furniture in Stock.

JAMES BARTON, IRON FOUNDER, &c., 370, OXFORD STREET, London, MANUFACTURER of KITE'S PATENT VENTILATING and SMOKE-CHASING CHIMNEY CAPS, patronised by her Most Gracious Majesty (500 on Buckingham Palace. In use also on St. James's Palace, Windsor Castle, Government Offices, &c. &c. Zinc Cowls (not cased iron, 35s. each; the latter as durable as the building itself. Drawings and Price Lists forwarded on receipt of two postage stamps.—Address, BARTON'S Iron Works, 370, Oxford-street, London.

GREENWOOD'S PATENT INDIA-RUBBER STOPS render Doors, Windows, Show-cases, Closets, &c. perfectly air-tight, keep out Dust and Draught. Reduced price, 4d. per foot. Spring Sliders for the bottom of Doors, 4s. each.

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FENDERS, STOVES, and FIRE-IRONS.
Buyers of the above are requested, before finally deciding, to visit WILLIAM S. BURTON'S SHOW-ROOMS. They contain such an assortment of FENDERS, STOVES, RANGES, FIRE IRONS, and GENERAL IRONMONGERY, as cannot be approached elsewhere, either for variety, novelty, beauty of design, or exquisite finish of workmanship. Bright stoves with bronzed ornaments and two sets of bars, 2l. 14s. to 6l. 10s.; ditto, with ormolu ornaments and two sets of bars, 5l. 10s. to 13l. 12s.; bronzed fenders, complete, with standards, from 7s. to 3l.; steel fenders, from 2l. 15s. to 6l.; ditto, with rich ormolu ornaments, from 2l. 18s. to 7l. 7s.; fire-irons, from 1s. 9d. the set to 4l. 4s. Sylvester and all other patent stoves, with radiating hearth plates. All which he is enabled to sell at these very reduced charges

Firstly—From the frequency and extent of his purchases; and

Secondly—From those purchases being made exclusively for cash.

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The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from the various manufacturers all that is new and choice in Brackets, Pendants, and Chandeliers, adapted for dining-rooms and dwelling-rooms, as well as to have some designed expressly for him; these are ON SHOW over his SIXTEEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his ironmongery establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. (two-light) to 16l.

THE BEST SHOW of IRON BEDSTEADS in the KINGDOM is WILLIAM S. BURTON'S. He has FOUR LARGE ROOMS devoted to the EXCLUSIVE SHOW of Iron and Brass Bedsteads and Children's Cots, with appropriate Bedding and Mattresses. Common Iron Bedsteads, from 16s.; Portable Folding Bedsteads, from 12s. 6d.; Patent Iron Bedsteads, fitted with dovetail joints and patent sacking, from 17s.; and Cots, from 20s. each. Handsome ornamental Iron and Brass Bedsteads, in great variety, from 2l. 7s. 6d. to 15l. 15s.

The alterations and additions to these very extensive premises (already by far the largest in Europe), which have occupied the whole year, are now nearly completed; they are of such a character that the entire FURNISHING of HOUSES is now devoted to the display of the most magnificent Stock of GENERAL HOUSE IRONMONGERY (including Cutlery, Nickel Silver, Plated and Japanned Wares, Iron and Brass Bedsteads and Bedding), arranged in Sixteen Large Show rooms, so as to afford to parties furnishing facilities in the selection of goods that cannot be hoped for elsewhere.

Catalogues, with engravings, sent (per post) free.

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GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO., Arthur-street East, London-bridge.

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Gentlemen,—I have great pleasure in bearing testimony to the capabilities of your extensive gas Cooking Apparatus, being the largest and most perfect yet in use. Suitable for hotels, mansions, club houses, private houses, and the army, having cooked in one day 1,000 fowls, and many cwts. of ham, beef, veal, mutton, lamb, sausage, &c.; roasting in one department a baron of beef weighing 330 lbs. in nine hours, fifty-three minutes, presented by J. Banister, esq. Threadneedle-street, to the directors, for the banquet given to the foreign masters. They have been in full operation for ten months, and are now in as perfect order as when first finished. They have not cost one shilling for repairs.

I am, Gentlemen, yours respectfully,
EDWARD HORNE.

Messrs. Deane, Dray, and Co.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of roasting a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post.—DEANE, DRAY, and CO. (opening to the Monument), London-bridge. Established A.D. 1700.

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Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c.
Ornamental and Constructive Ironwork.

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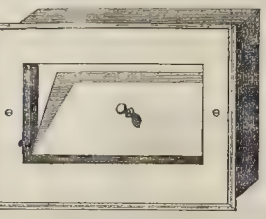
PROPRIETORS AND MANUFACTURERS OF
PITT'S PATENT SELF-ADJUSTING SPINDLED DOOR FURNITURE.
IN CHINA, GLASS, WOOD, BRASS, &c.



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Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

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MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

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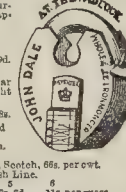
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.

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Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:

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RICH. RICHARDS and SON, 95, New Park-street, Southwark, London, Manufacturers of TRAVELLING CRANES and JENNIES, to span from 5 to 70 feet, on the latest and best principle, warranted to lift from 5 to 30 tons, or upwards. Crab A Cranes, double and single purchase; stone saws, hammered and of the best quality, suitable for Portland stone or marble, made to any length; also saws for Caen and Bath stone. Blocks of all sizes, inserts of one, two, and three sheaves, or singly. Chain, suitable for the blocks, for hoisting any weight, made of the best iron, and tested by patent machinery. Lifting or screw-jacks of all kinds, double and single purchase traversing cranes for railways, and cranes and hoisting-tackle of every description to order or by estimate.

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THE following are the PRESENT PRICE of PATENT SASH LINE:—

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At JOHN YOUNG'S, Birmingham and Wolverhampton, Age Factor, and General Ironmonger, 18, Blandford-street, Manch ter-square, running out of Baker-street, Portman-square. Eve other article equally reasonable.

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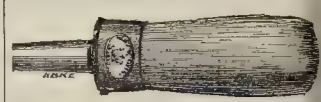

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These Pencils are prepared in various degrees of hardness a shades.

H H H for drawing on wood.	F F light and shading.
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H for sketching.	B B ditto ditto.
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BRICKS.—To ARCHITECTS, BUILDERS and OTHERS.—WHITE and RED FACING BRIC and HARD CLINKERS, for paving stables, &c. Tiles pipes every description, and every article in the trade, may be had superior quality and on liberal terms, at W. and W. WRIGHT Brick and Tile Works, Springfield, Essex.

W. W. in returning his grateful acknowledgments for t liberal support he received at Stanwell, embraces this opportuni of informing his friends and the public, that he has removed Springfield, Essex, and can supply goods as above at any goo station on the Eastern Counties Railway, or alongside in t Thames, at 10 per cent. under the usual prices.

CARR'S PATENT BRICKMAKIN MACHINE—A PORTABLE MACHINE, drawn by t horses, of the best construction, the most effective that has yet be invented. A FIXED MACHINE, on the same principle, h been working most successfully the last two years, of which te monials can be had, price 26l. A PORTABLE STEA ENGINE to accompany the same, if required, the same price. Apply to EDWARD SPENCER and CO. Carpenters a Builders, 18, Billiter-street, City.

POTTERS' CLAY FOR SALE.—A ESTATE, of nearly 400 acres, with residence, suitable for gentleman, and containing an inexhaustible deposit of Potte Clay; situate 4 miles from a port and 2 miles from a railw station.—For particulars, &c. apply, post-paid, to T. RAWLIN Esq. Solicitor, Wimborne.

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The Permanent White of the Ancient Artist.

UBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or vicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Dealers in Original Packages, each cask stamped—HUBBUCK LONDON PATENT. And if not so marked, the quality is guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint Varnish Works, opposite the London Docks, London.

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ICKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-Cement, that requires no colouring.—Sold exclusively by BAZLEY WHITE and BROTHERS, Millbank-street, minster; and Seel-street, Liverpool

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B. PEARSE and CO. beg further to give notice to conrs, that they have erected, at a considerable expense, large ngs and machinery for grinding lime and cement, so as to e genuine quality and large supply, at their extensive presituate on the Great Northern Railway, York-road, King's-

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uldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

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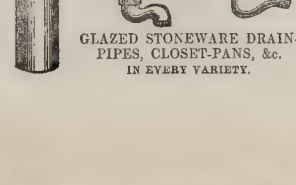

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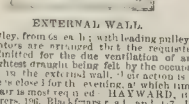

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The Builder.

VOL. XIII.—No. 667.

THE "present condition and future prospects of architecture!" was the theme, and a wide one, on which Mr. Tite, M.P. addressed the Royal Institute of British Architects on the 5th inst. when, as chairman, he opened the session. Let us, preparatory to the observations which will necessarily follow Mr. Tite's remarks, place the latter in full before our readers, at least as fully as the able chairman's habit of rapid speaking will permit.

Mr. Tite commenced by observing that it had been generally the practice, at the opening meeting of the session, for the chairman to make a few remarks on the principal subjects which had occurred during the recess: he himself had occasionally followed that course, but on the present occasion his thoughts had been turned in another direction, and he had, therefore, announced his intention of occupying their time for a few moments "on the present condition and future prospects of architecture." He had been much led to this subject by an incident which occurred at a recent meeting of a small society called the Architectural Association. At their first meeting, about three weeks since, he was a visitor. The association was a body of young men who met to prosecute their studies, and with one of whose suggestions he had been much pleased. It appeared that the members of that body felt the necessity of something like a diploma, or some other recognition of their attainments, and that they were willing to submit themselves to an examination, in order to obtain an opinion on their professional merits and attainments. He (the chairman) thought this was a step in the right direction. The association, when he attended its meeting, was addressed by the chairman, a man of considerable talent, Mr. Bailey, in a very able and suggestive address, embracing much that was wanted by young men about to embark in an anxious and arduous profession; but the suggestion he had referred to was one which had strongly commended itself to him,—and he could not but regard it as a remarkable fact that these young men should feel it so desirable that their attainments should be recognized, that they should offer themselves voluntarily for examination. It was an important step in the history of their art. As Mr. Bailey had said, if they were exposed to competition, that competition could only be met by showing that architects possessed superior attainments to those with whom they had to compete for public favour.

He proposed to divide what he had to say into two subjects,—the present position of architecture and its professors, and their future condition and prospects.

In considering the present position of architecture, he could not but advert to what it was when he first embarked in life. At that time the number of architects who had any claims to that title amounted in London to about fifty; and there were not more than four or five leading men: to one of those he was articled. It was then the custom to devote six years of a young man's life in that way,—and that was a concession of one year from the ordinary period of seven years' apprenticeship. He was accordingly articled for that period. At that time there was a fallacy, which perhaps even existed to some extent at this day, that it was necessary to send a young man who desired to be an architect into the carpenter's shop,—or, as it was technically called, he went for "three years to the bench." He could hardly conceive how three years could be more completely wasted. The idea of sending a lad from school into a workshop to be qualified at the end of the term only in a very imperfect way to put together a door or a sash, did appear to him to be a most extraordinary waste of time. Luckily for himself and his friends, he escaped the ordeal. He served his articles, he hoped, faithfully and honestly, for six long years. In the present day he believed the practice had erred in an opposite direction, and it was now the custom to article a youth for three years only,—in which time very little could be learnt. Formerly, the opportunities which an architect had for study and improvement were few and costly. There was abundance of information of great value, but it was scarcely attainable; and the first move that was made to obtain information was by means of an Architectural Association, where a few earnest young men associated themselves together to make a design or a sketch from a given subject, or to discuss a short paper read by one of its members. That association memorialized the Royal Academy for literary assistance, and the Royal Academy opened their library to them once a week; and there they had access to books which were otherwise inaccessible. On looking through his own library he found that there was no want of books at the time referred to, which would teach a man the elements of his profession; but they were costly, and in some instances somewhat scarce. In 1762, Stuart published the first volume of his "Athens:" the second volume was published in 1787, and the third in 1794: the first volume of the "Ionian Antiquities" appeared in 1769, and the second in 1797; "Palladio," by Leoni, in 1715: and Adams's "Spalatro," in 1754: Chambers's "Elements of Architecture" was published in 1759, and he was building Somerset House in 1774. The well-known work of Desgodetz, "Les Edifices Antiques de Rome," was published in 1682: but all these books were very costly, and at that time there was no institute or society by which the information which those books contained could be reached by ordinary students. With regard to Gothic architecture, there was the "Vetusta Monumenta:" Carter commenced his "Ancient Architecture" in 1795. Britton produced the first volume of his "Antiquities," in 1806; and the fourth volume in 1816; and he commenced his "Cathedrals" also in 1816. But there were no books or literature generally accessible, and the young architect had enormous difficulties to encounter. At present every kind of information was easily obtained, and at a very trifling cost. Among the earlier steps leading to this result was the Architectural Society, which was founded in 1831, under the patronage of the Duke of Sussex. The Institute was later in point of time, and it was unfortunate that the profession was separated by the existence of two institutions. He himself joined the Architectural Society, and after some years became its President, and when the proper time arrived, he did his best to promote the union of the Architectural Society with the Institute, which was eventually accomplished. The Institute was founded in 1834, and obtained its charter in 1837. In 1835 they received Sir John Soane's donation of 750*l.*: in 1842 the two societies were united; and in 1848 the Queen first granted the Royal Gold Medal. At the time of the foundation of the Institute, it consisted of twenty-five fellows and fifteen associates; and although he had to regret that they were not more numerous than they were at present, he still thought that, comparing their present with their original numbers, and considering the many eminent men who had joined them, they were justified in congratulating themselves on their present position.

The next question that occurred to him in looking at the present position of architecture, was to inquire what was the influence of the Institute at the present day. Upon the profession itself, he believed the influence of the Institute was considerable and important. At the Institute the student had access to a valuable library, to lectures and discussions, and he believed that there were advantages in connection with it for the promotion of their architectural position, which without it they would altogether have failed to obtain. With regard to its influence upon society, though it would be wrong to assume that the Institute had its proper position among the literary societies of London, it had obtained a certain amount of influence, and that had been apparent in two recent instances. The one was in reference to keeping the land on the south-east side of St. Paul's open for the public. The Institute moved in that matter, and appointed a committee, and the public attention which they were able to call to the subject, he ventured to hope, had secured that great object, almost national in its importance. This was mainly to be attributed to the influence of the Institute as a united body. The next question was the Building Act. The old Act, as they knew, was very imperfect, and had existed for ninety years; but no two men could agree in amending it. About ten years ago, however, the Government brought in another Act, which was very complex in its machinery, and under which it was very difficult to obtain a decision on any contested point. The late lamented statesman, Sir William Molesworth, had the courage to undertake the matter, and with great success. He only regretted that Sir William Molesworth had not been spared to receive the congratulations of the Institute for having combatted the difficulties which surrounded the question. In that matter the Institute had made its influence felt. He had the pleasure of being the chairman of the committee appointed on that subject, and although he began by opposing the Bill, he became so satisfied of the perfect sincerity of Sir W. Molesworth, and of his desire to make the Bill useful and workable, to adopt any reasonable suggestions, that in the end he became a warm supporter of the measure, and by a train of fortunate circumstances had the honour of becoming a member of the Parliamentary Committee itself, and to assist in passing the Bill. He did not mean to say that everything was done that might have been done, but by sweeping away the complicated machinery of the previous Act, a great deal of good would doubtless be effected. The only unfortunate part of the Bill were the clauses introduced at the instance of the builders in opposition to the architects, and those clauses he believed would lead to difficulties hereafter; but he did claim for the Institute, as a body, that their influence in the question had been felt, and the Institute was now in the position of being the examining body for the district surveyors. It was a great step in advance that their position should be so acknowledged. There had been some difficulty in passing this provision of the Act. It was strongly opposed (he knew not why) by the present Duke of Somerset (then Lord Seymour), and supported by Lord John Manners, for which courtesy he was bound to thank his lordship, and to congratulate the Institute that it was now the law of the land.

He would now pass to the effect of the Institute upon architecture generally, and in that respect he thought they had nothing to be ashamed of. In visiting the French Exhibition, he had endeavoured to ascertain whether they were behind-hand with their neighbours; and with every desire to exempt his mind from the influences of national prejudice, he thought that there was nothing to be seen in Paris, in the more recent productions of the French artists, to make English architects ashamed of

the comparison. In London, he thought that the architects had done well, and, to use a common phrase, had held their own. As very recent instances, he would quote the British Museum and the Palace of Westminster. In the latter, all that the most refined taste and anxious industry could effect had been accomplished. Those who chose the style had to answer for that choice; but the work had been carried out with taste and judgment, and Sir Charles Barry had entered most thoroughly into the feeling and spirit of the architecture of our Gothic ancestors. He (the chairman) had the same remarks to make as to German architecture. The great works of Klenze, of Munich—the Walhalla, the Glyptothek, and the Pinakothek,—were splendid specimens of modern art, but his attempts at Gothic were absurd. The Museum at Berlin was a great work of Schinkel; but his "Entwurf" for the church of St. Gertraud, was so wretched, that it was well for the city of Berlin that it remained only a project. In St. George's-hall, Liverpool, architectural decoration had been carried to a great extent, and that building was certainly quite upon a par with the works of any of the French architects.

With regard to modern Gothic architecture, it was difficult to compare that of France or Germany with that of England; perhaps because English Gothic, as seen in our best examples, such as Westminster, York, Salisbury, or Beverley, was peculiar in taste and detail, to the pointed architecture of France or Germany. But, upon the whole, he considered modern French Gothic very inferior indeed to that of England, in its general effect as well as in detail. He thought the church of St. Clothilde, on the whole, a failure; but he had seen a church in course of construction, in Paris, near the Faubourg Poissonnière, in which there were cast-iron columns and cast-iron ribs, filled in with plaster, in such a manner as would not now be tolerated for a moment in England.

He was of opinion, however, that Gothic architecture was too fashionable in England; and he sincerely regretted it, — partly, perhaps, because of early teaching, and perhaps because his recent visit to Italy had revived his old impressions. Classical architecture appeared to be almost forgotten by English students; and he had been exceedingly struck by the fact, that in a clever and well-written book, by an architect, on "The Gothic Architecture of the North of Italy," classical architecture was ignored and despised. This was a sign of the times which, as an architect, he was bound sincerely to regret. At one time English architects had been mad for Grecian architecture; but now the great works of Wren, Palladio, Inigo Jones, and the great architects of Italy were neglected; and one gentleman (Mr. Ruskin) admired to the very echo the Ducal Palace at Venice—a feeling which he regretted should exist among the architects of England. The writer of the book to which he referred had engraved, as a beautiful example, a window in the very angle of the main story of one of the principal palaces: to effect this the angle was cut through, and the upper part, of very heavy architecture, was supported on corbels only a few inches thick. He had himself been taught that the weight should be carried consistently and honestly; and so violent a departure from that rule as this and many other instances he could quote in Venice, he could not consider consistent with architectural truth. He thought that architects and architecture were much indebted to Mr. Ruskin, but he regretted that his lot had been cast in Venice; for of all the ugly types of Gothic architecture to be found on the continent, that of Venice was, in his opinion, the most ugly; and although he agreed with Mr. Ruskin and Mr. Street that the origin and progress of Gothic architecture might be traced in Venice more successfully than elsewhere, his own opinion was, that the Venetians never attained any eminence whatever in that style of architecture, and that all that could be claimed for it was a certain amount of pictorial picturesqueness. He did not know whether these views were acceptable to the meeting, — but he wished to recall the serious attention of the profession to the beautiful architecture of Italy, and its exceeding fitness to English religious observances;—its facility for accommodating large numbers, and enabling them to join conveniently in the services, and to hear the sermon. At the same time he did not undervalue our attainments in regard to mediæval architecture, of which, especially in regard to decoration, we had every reason to be proud; and which contrasted favourably with those of French architects.

He wished he could speak in similar terms of the public improvements in London, on which, it is true, enormous sums had been expended; but the French had done the same thing in a way which put English parsimony to shame. The tower of St. Jacques, as restored, and forming the centre of a large open space, constituted one of the finest objects in that magnificent street of Paris, and redeemed it from tameness and monotony. This fact, together with the noble space round the Hôtel de Ville, showed there was an amount of taste and liberality in Paris which it would be well to imitate in London. The difficulty the committee of the Institute had had to contend with to secure the vacant ground at St. Paul's was a matter for which the people ought to take shame to themselves, when contrasted with the sacrifices which the French had made for the improvement of their metropolis.

In regard to the present position of architects, it was to be observed that they were now rather in a transition state. Formerly, architects and engineers were not separated as at present. Mylne and Alexander, both architects, constructed Blackfriars bridge and the London Docks; and if the engineers had gone ahead of the architects in later times, that was the fault of the architects themselves. They were quite able to help themselves. Every gentleman present might be an engineer, an architect, a builder, a decorator, or anything he pleased. The difficulty he had referred to was to be met simply by superior attainments on the part of architects; bearing in mind that in England men would always be estimated in proportion to their practical ability.

With regard to the future prospects of architecture, the great object to be hoped for was a test, by examination of the ability of its professors; and he hoped the time would come when the Government would employ architects and engineers because they were recognized by their professional brethren, and when an architect would be honoured because he had passed an examination before the Institute of British Architects; and the more so if they went to that examination voluntarily.

Mr. Tite proceeded to read the substance of the qualifications required from architects in Prussia, who were subjected to a short examination in literature and general and technical science, including the integral and differential calculus, projection of shadows, conic sections, perspective logarithms, road and railway making, the French and Italian languages, and shorthand! the examination being public and competitive.

He believed that those who, like himself, had practised as an architect for thirty years, must feel that, after a time, most of the things included in the Prussian regulations would be demanded of English architects; and he hoped that some system of examination would be carried out, for upon that alone would depend the advancement of the art. There was no other mode of getting "the right man in the right place," than to let the right man be properly informed of what he had to do. The council had authorised him to state, that some of the topics which he had introduced to the meeting should form the subject of discussion on some future evening. In the meantime he must congratulate the profession on the progress it had made (and particularly on the offer of the younger members to submit themselves to a voluntary examination); and would urge them to consider carefully the comparative merits of Mediæval and Italian Architecture.

LONDON HOUSE-BUILDING:

CORNER SHOPS.

MR. BUILDER.—PREMISING that I have not the privilege of being a member of the honourable and useful profession of architecture, or even skilled in the ancient craft of the builder, yet I hope that I am gifted with an average share of common sense and observation, and have not for several years walked through the streets of London with my eyes shut,—I therefore venture the following observations.

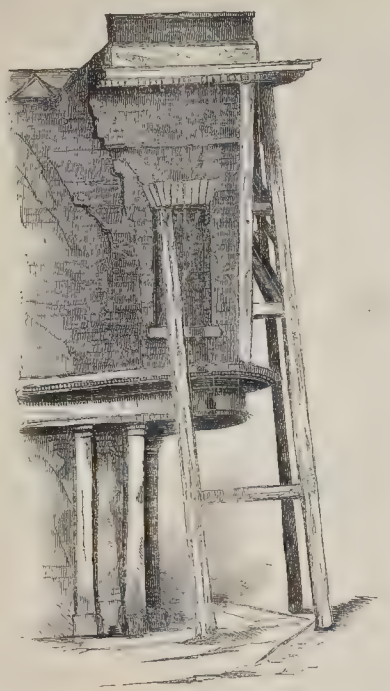
Amongst the curiosities of this great metropolis,—both human beings and the work of their hands,—I have been struck by some peculiarities of our street architecture, which seems as strange as most matters which have come under my notice.

In the first place, I hate shams, and nothing is more vexing to me than to see a church or other building set apart for a sacred purpose,—itself a cheat,—masked with Gothic forms and devices, a mere shell, behind which the natural roof, much lower than the shell itself, is distinctly visible from certain points to every passenger in the street. It seems to me wonderful that when these fronts are reared, it is not thought worth while to continue the mask to such a distance from the front, that at any rate those of small observation may be pleased with the idea of completeness.

Many of our taverns and other buildings are masked and stuccoed,—I dislike the latter almost as much as the former,—*it is in fact a mask*, which if applied with the greatest skill and taste, I can never help fancying the rough brickwork through it, and being uncomfortably impressed with the idea of premature decay, rottenness, and shiftyness, if I may be allowed to use such a word. I remember that monstrous effigy of George the Fourth at King's-cross,—a work of art which you have already noticed in your paper,—and although I never saw that *work* without a shudder, and a sort of feeling of shame and disgrace that money should actually have been expended upon such a thing in a place which we consider the metropolis of the world, and that too in the nineteenth century, I have often since regretted that it was not removed to some out-of-the-way place, where it might still be safely kept as a sort of *beacon and warning*. I would have had one half carefully skinned, showing the pantile nose, and other portions of the king, &c. in order that the finished or stuccoed part might be studied in contrast with the inward.

Paint and whitewash improperly applied I know you abominate: so do I. In the Chapel at Lambeth Palace, the carved stalls and other woodwork of richly coloured oak, is painted in imitation of maple-wood: at least, it was so a few years since. Let me hope that the paint is now scraped off. I could mention many instances of this kind of misapplication, which has caused a similar amount of painful feeling to that caused by viewing the fine Greek marble statues of a nobleman now dead, gilt from head to foot and burnished. Such work is a waste and disfigurement. I would like, in the street architecture of London, to see substantial materials skilfully and tastefully employed; brick to be known as brick, stone for stone, and stucco used, if at all, as stucco.

In our shop architecture the application of paint is often misapplied. Some years since, when Grey-street, Newcastle-upon-Tyne (in some respects as fine a street as we have in this country), was newly built, I have often heard the late Peter Nicholson say,—"It is a fine street, certainly; but when the shops are open,



LONDON HOUSE-BUILDING: CORNER SHOPS.

always have an uncomfortable feeling that se great buildings have only a glass foundaa: the piers are totally insufficient for the pport of such superstructures."

This was truthful criticism, for no building, even articles of furniture, can be entirely ceable to the eye, if associated with feelings instability.

The wish for room for display renders it ficult to remedy this fault in street architecve; yet, as we know and feel that iron is the y material which in the same space can give ength and safety, it seems to me a pity to guise the metals in imitation of woods and rbles, which if so placed could not possibly ar the weight above. What would be the ect if the pillars and girders of the Crystal lace were painted like marble? There is ore in fancy and association than may at st be supposed. I would like, however, in e street architecture of London, to see the olly glazed shops more frequently broken by re solid buildings, which might be applied to rious purposes of trade. We follow too much e same design, making rows of things the one o much like its neighbour.

There is, however, one phase of shop architecture which seems to me so inconsistent with e principles of sound construction, and is so fensive, not only to my own eyes, but also to ose of many others, that it has been the prinpal reason for this communication,—I mean e corner shops, which are still on the same an in the course of erection, in spite of the umerous failures which must be evident to ery one who walks our streets. The sketch hich I send will show better than words can escribe my meaning.

In the best cases, when the house stands ithout cracks and rents for a few years, what an be more unsatisfactory than the appearance such buildings as these. It is contrary to hat I, as a reader on the subject, consider to e the true principles of architecture, and looks oth awkward and dangerous. In many parts of London, where the houses have been built in the old and substantial brick manner, the corners on this plan have in most instances moved from the perpendicular. I have seen two corner houses of more modern and less careful work fall down, and others pulled down, to prevent a catastrophe, and rebuilt. Others, in many parts, are so cracked, warped, and propped, that few persons would like to venture past the place, much less into the shop. Now, sir, this arrangement, practised in so many instances, and with such general ill effects, is such a curiosity of London architecture, that I make no apology for submitting it to you, feeling at the same time how difficult a thing it is for even architects to get the people out of a beaten track. I have not forgotten your own observations on this same subject in previous volumes.

ONE WHO DOES NOT TRAVEL FROM DAN TO BEERSHEBA AND FIND ALL BARREN.

ON ARTISTIC METAL WORK*

IN venturing remarks and observations on artistic metal work, I propose dwelling more particularly on that portion of it which is connected with a style of architecture having its development in the Christian era, and owing much of its beauty to the aspirations, the self-denial, and the love inculcated in this faith, which has given to cathedrals the elevated roof, the pointed outline piercing the sky in its spires, which has exhibited its saints and martyrs in the dignity of sculpture, and in its frescoes and storied windows portrayed its works of mercy and of love.

It may be as well first to take that portion of it which more particularly belongs to the precious metals, and enrichments of enamel, niello, &c.; and I must express how much I owe to the writings of Mr. Wyatt and others for much historical information on these subjects. Many of the remains of the first centuries at Rome and elsewhere give evidence of the adaptation of the conventionalities of the age to the symbolism of the Christian faith. Thus, in the catacombs, the forms common to the Romans have received the impress of Christian ideas, and the Good Shepherd is represented in Roman costume, carrying his sheep. The conversion of Constantine the Great opened a vast field to the development of greater richness in the decoration of Christian churches. The fact of the removal of the seat of empire by him to Constantinople in the fourth century, joined to the vastness and beauty of his presents to the church, gave an impetus of the strongest kind to works in metal and other adornments of an ecclesiastical character.

The chalices of that period, which were large, with two handles, were frequently used, not only for the purposes of administration, but were hung in numbers near the altar. The same emperor gave to the churches he founded at Rome forty chalices of solid gold, each weighing 1 lb. and fifty of 2 lbs. each, and twenty of 20 lbs. each. At another period we find Charlemagne presenting one of solid gold, weighing the enormous quantity of 52 lbs. Again, still later, appear accounts of a circle of ten great chalices, with forty others arranged between the columns of the altar, weighing altogether 267 lbs. Time, and the subsequent refusal of the cup to the laity, have left few of these relics of the customs of the early church and the piety and liberality of these emperors. Patens of early periods were correspondingly costly,—sometimes of solid gold, at others composed of metals of various qualities enriched with gems and precious stones: they present in the descriptions ideas of costliness utterly exceeding the expenditure on these vessels in the present day. One is described, given by Constantine, of solid gold, weighing 15 lbs.; and another, given by Charlemagne, of gold and corresponding adornment, weighing 30 lbs. If at the present time it were required to produce a chalice and paten like those given by Charlemagne, the intrinsic value would be for the gold alone, without gems or workmanship, 4,200*l*. Again, the cost of the circle of chalices referred to would, in intrinsic value of metal, be no less a sum than 13,600*l*. With such an expenditure in metal unwrought, is it to be wondered at that the remains of ancient metal-work should leave immensely behind the corresponding productions of the nineteenth century, and that the goldsmiths of the present day required to emulate works of antiquity in artistic skill, and the decorative processes of enamelling and niello, &c. should find, from the small amount generally assigned for such purpose, in the result either a paucity of execution, or that the labour and care necessary to render the work perfect become on his part frequently a voluntary offering to his perception of the beautiful.

On the removal of the seat of empire by Constantine to Byzantium, Roman metal-work had engrafted on to it the peculiarities of Greek workmanship, and it is from this period we may date the rise of Christian art. In the wars by the Mahomedans upon the Eastern Christians, many of these works came to the use of Western Europe. The early Mahomedan conquerors, limited to the most hardy life by the then existing rules of their faith, sold to the Jews who flocked there vast treasures, which being purchased at a value set upon them by the children of the desert, afforded them at once a profitable speculation, and spread through the Western Church numberless models of Byzantine art.

At Santa Sophia, at Constantinople, rich mosaics and colour, and gold were to be found; vessels in gold perhaps unprecedented in quantity and richness, 6,000 candlesticks, and seven crosses of gold, each 200 lbs. in weight; also twenty-four copies of the Evangelists, with bindings of the same material, each weighing 200 lbs. and set with exquisite enamels, and covered with delicate filligree. These, and such as these, became at once the type for Moors, Persians, Russians, and Italians, while there is reason to believe the Oriental goldsmiths who continue this peculiar kind of workmanship to the present day, originally derived their knowledge from the court of Justinian and the works at Santa Sophia. Again, in Spain, a

* Read at the Architectural Museum, by Mr. F. A. Skidmore, Oct. 29th.

Moorish king of Cordova employed a Byzantine architect to construct his elaborate mosque: indeed, numberless instances might be adduced to show that Byzantine artizans and their productions were used by all those nations whose civilization was sufficiently advanced to enable them to appreciate works of art. Theophilus, who lived in the eleventh or twelfth century, speaking of the toil and weariness with which he had acquired a knowledge of the various processes requisite for the adornment of God's house, distinctly mentions having learned much from Greek teaching, and recommends his followers to study Greek ornamentation in the production of their works. As time rolled on, as in architecture, so in its accessory of metal-work, Byzantine forms and modes of working underwent a gradual change. During the twelfth to fourteenth centuries, much progress was made in works in the precious metals, aiding thus the intimate connection which sprang up between goldsmiths' work and art, and led the way to their indulgence in those aspirations which took the wider field of painting and sculpture. The early Italian painters were mostly one succession of goldsmiths, who, not relinquishing their first avocation entirely, yet devoted themselves to those works of art, commencing with Giovanni de Pisa, and continuing till the decline of art in the seventeenth century. The same also holds true of a name so well known in works of iron, Quentin Matsys, before whose painting in the Museum, and Well at Antwerp, I have lingered many hours, finding it scarcely possible to leave that which has no parallel in England.

Among the many records of the character and worth of the productions of the thirteenth and fourteenth centuries, a few will suffice to show their richness. In the year 1241 we find Henry III. directing sufficient sums of money to support the goldsmiths at work in Westminster Abbey, and an inventory informs us of various figures of gold enriching the throne that [illegible] was erecting, varying in value from 50*l.* to 300*l.*—about 3,000*l.* of our present value: the shrine was also adorned with gems of great price, among them a sapphire worth 1,000*l.* of present money: the only portion now remaining is a part of the frontal of the altar. On the tomb of William de Vallence, in Westminster, surfaces of great size are decorated with enamel.

During the reign of Edward I. great quantities of Limoges enamelled work was imported into England. The possession of Limousin and Aquenois by him will readily account for this fact. The taste of the reigns of Edward II. and Edward III. appears to have been very considerable in favour of enamelling, as in an inventory of the period mention is made of 200 vessels so enriched. In the cathedral at Aix-la-Chapelle I was much struck with the very beautiful effect produced by the use of champ-levé enamel, worked upon a gold ground, as also the use of translucent enamel, having its various tints increased or diminished by the greater or less degree of relief given in the carving of the surface of the silver or other metal on which it was fused. I found it difficult among offerings presented from so many countries and different ages (each and all anxious to pay honour to the resting-place of Charlemagne), to decide which process might claim the largest amount of careful study. The shrine of the three kings at Cologne also presents a fine example of beaten work combined with filigree, gems, and enamels.

Of changes, it may be well to remark that the bowls assumed various forms and depths: at an early period they were generally the half of a sphere: during the thirteenth and two following centuries this form became the exception, and the bowls were much deeper, the outlines following in harmony with the general characteristics of the foot and knob. The patens were made to fit the bowls, and were enriched on the outward flange by chasing, enamels, gems, and mello, and the centres by engraving.

A short account of the different kinds of enamel will more fully illustrate the character of the works referred to, and tend to show the care and thought by which these enrichments were produced. Byzantine or Cloisonné enamel was made after the following manner:—Small strips of gold were cut to the depth the enamel was intended to be inlaid, and were coiled into forms of flowers, animals, &c.; then soldered into their respective places. A preparation of silex with oxide of lead fused together, and coloured with oxide of gold, silver, iron, &c. according to the tint required, being ground to a powder, the interstices were filled with these colours, and under a strong heat fused: the whole was then ground down, exhibiting the various hues requisite in the subjects, and defined by the fine line of gold. Frequently small portions of stone were let in in addition to the enamel: among others, a choice example, protected by a thick crystal, occurs in Alfred's jewel in the Museum at Oxford.

Champ-levé enamel, which succeeded the previous, was treated differently, and afforded a greater variety of capabilities, from the fact that a subject being traced upon the metal (generally copper), the groundwork was carved out with small tools, leaving more or less of the metal standing according to the development required: the ground was then filled with powdered enamel, which, being fused, was subsequently ground off, polished, and gilt.

Another mode consisted of the surface being engraved or chased, in incised patterns, as before, filled with various opaque enamels, and among these some peculiar colours, which are only just being revived. And where spaces had been previously left, having the outline form of the figure preserved, a subject in low relief was attached on the surface of the metal. *It is here* that a large field is opened to the artistic efforts of the present day, where surfaces require enrichment. Take, for example, the plain groundwork of arcades or panels, in tombs or pulpits. A plate of copper might be incised, filled with rich hues of enamel, and on the face of this, raised groups of figures, illustrating appropriate subjects, attached in bronze or gilt.

In the fourteenth century, a style of enamel of extraordinary beauty attained perfection, and has never yet received that large revival of its use which it justly deserves. It consisted of a surface first prepared by carving groups of figures in low relief: these had enamel of various colours fused over their surfaces, giving greater or less depth of tone according to the undulations of the carving. In this class of enamel, the lines dividing the colours are boldly dispensed with, and the difficult process of fusing the colours without mixing at their edges of contact is accomplished.

I hope to be able to exhibit to the members of the Architectural Museum in a short time specimens of the revival of this class of enamel, as also of enamel on large surfaces of iron.

In the sixteenth century, enamel was used much in the same manner as a painting. A white ground was fused over the face of the metal without any incising, except such as would be sufficient to hold the ground on which, with different enamels, the subjects were painted. Some of these of a large size may be seen in most collections of antiquities, generally of grey tints: sometimes gems and stones are represented by minute lobes of enamel.

In the seventeenth century, painting in miniature became the prevailing method of using enamel.*

THE NEW PICTURE GALLERY AT DRESDEN.

Whoever has not seen the German Florence of late years, will be greatly surprised by the sight of this new building. But architecture has its strange fates. On the spot where once Duke August the Strong, of Saxony, intended to build the finest *residence* in Germany—a *temple of art* has been now erected. The court of the new Museum is formed by the two wings of the Zwinger, and the huge centenarian orange-trees impart, during the fine season, a rich southern aspect to this new building.

The plan and the first commencement of the new Dresden Museum were made by Professor Semper, then continued and completed by Messrs. Hähnel and Krüger, State's architects. The building consists of an oblong square, in the midst of which projects the mighty portal. The long northern front is towards the Elbe, the southern towards the Zwinger, to which it is connected by a large portal in the shape of a triumphal arch. According to this form of the space given, the whole plan was to be shaped. Viewing the *ensemble* of the exterior, a certain systematic, artistic idea is diffused over the whole. The *rustic* columns of the ground-floor might have been more imposing, but they fully accomplish their aim. The general plan also coincides with that of the Zwinger,—those smooth surfaces of walls with a contrasting variety of Corinthian pilasters, the round arch windows with their Ionic columns. The whole has been built of the fine-grained grit of the banks of the Elbe.

That, however, which distinguishes the Dresden Museum from all the buildings of the present time, is the number of plastic works with which the exterior is covered. They have been designed by Messrs. Rietschel and Hähnel, and a whole generation of able artists and artizans has grown up out of them. As the interior was destined for the finest bloom the human mind had ever produced, the exterior had to introduce and preface such high exertions. The middle portion of the building, the three portals, and their boldly-projecting Corinthian columns, have given, as it were, the motive for the arrangement of the bas-reliefs. On the postaments of the columns begins the representation of first culture-life, in its mighty champions, Hercules, Perseus, Jason, and Theseus. In the friezes and medallions we see the four *elements*, those conditions which encircle all human action; then the games of old Greece; the artists of a primordial world, Prometheus and Pygmalion, Orpheus and Amphion. On the upper story we perceive in the arches of the middle window Homer and Hesiod, who, foreshadowing Greek plastic art, have given it its eternal patterns. On the very top, on the columns of the principal story, stand the statues of Pericles and Phidias, by Rietschel, of Lysippus and Alexander, by Hähnel. In a similar way the southern front exhibits the images of Christian heroes, the patriarchs and prophets of the old covenant, and those of the new, apostles and evangelists. The mind of this series of plastic history resounds strongest in the two colossal statues of Raffaelle and Michelangelo, which stand in the niches beside the middle window of the upper story. After a number of similar adornments, the uppermost balustrade is crowned by the statues of Holbein, Giotto, Dante, Goethe, &c. Thus, the exterior of the Dresden Gallery exhibits that principle of employing the arts of the present time for the embellishment of a building intended to contain the art-treasures of the past.

In the interior, on the other hand, the principle of perfect simplicity has been adhered to, by letting all the spaces remain as plain as possible—spaces which receive an otherwise unattainable ornament from their very contents. Through an octagonal entrance-hall, which is large enough for carriages, we arrive on one side at the saloons, which contain the casts of ancient sculpture. Every thing here is simple and plain, and thus the error has been avoided, to shame, as it were, those monochrome works of art by the glare of marble. The other spaces of the ground-floor are occupied by the works of Canaletto and the collection of prints. The principal story contains, above the entrance-hall, a high cupola-shaped space, the walls of which are hung with the fine Raffaellean and Netherland carpets. The interior presents a sight harmonious and dignified, which is heightened by the view of the six large picture saloons, arranged in the line of the longitudinal axis. They are all well proportioned, and have a superior light from above. On the north side adjoins twenty-five smaller cabinets, which have a good lateral light, and the last of which contains the Sixtine "Madonna" of Raffaelle,—an arrangement much to be praised, as this unique art-work demands an isolated situation. The upper story contains sixteen pretty large rooms, which have each a top light. All these spaces are exclusively occupied by pictures, which appear in their full beauty and splendour. The walls are of a plain colour, and the vaults of the ceiling are merely ornamented with some relievo-paintings, grey in grey. The light is everywhere managed admirably; and as the spaces are not

ver large, the pictures are near enough to be ally viewed and examined. The former *locale* f the Dresden Gallery was above the Royal tables. This transplantation of art treasures effects great credit on a country of about ,000,000 of people. The arrangement of the ictures in the new gallery has almost entirely evolved on Director Carolsfeld, and the new atalogue was made by Professor Hübner.—*Great German Sources*.]

PROVINCIAL NEWS.

Windsor.—The local *Express* states, in reerence to the castle improvements, that the lerk of works, Mr. Turnbull, has of late been harking out the ground extending from Thamestreet, by the Dean's-mews, and up the Slopes o the North-terrace, indicating, as suggested, hat the alterations at the castle are about being ontinued in that direction. The outer works of the castle, and the new wall from Henry the Eighth's gateway to the hundred steps, were ast week inspected by Prince Albert.

Christchurch.—On Tuesday before last a ublic meeting of the inhabitants of this town as held, to take into consideration the propriety of removing the present market-house to a more eligible site. Admiral Walcott, M.P. ays the *Hampshire Advertiser*, offered a donaion of 200*l.* towards this object, and to add 100*l.* more provided the site chosen and the building erected be compatible with public conenience.

Hereford.—Water-works are being erected in his city. The pressure will be 25 or 26 feet, and many citizens, says a local correspondent, "Aqua," are anxious to have jets, fountains, &c. in their gardens, lawns, &c.; but they do not know the best way to get them cheap, good, and elegant. He asks if any of our readers could put them in the way of attaining their object.

Bath.—The new corn-market here was formally opened by the mayor on Saturday in week before last.

Birmingham.—It is proposed to erect National Schools in the parish of Aston. A piece of land has been purchased, and a design obtained from Mr. Empson, the architect selected; but the funds are very inadequate, only 500*l.* being provided, while the outlay must necessarily amount to 1,500*l.* as it is intended to provide instruction for 700 children. The committee, therefore, appeal to the inhabitants of the borough generally.

Jersey.—The base and the first stone of the obelisk of the Le Sueur Monument, says the *Jersey Times*, have now been laid; but in the intended second block some serious defects have been discovered, and the further elevation of the monument must consequently be suspended until another block can be cut.

CHURCH-BUILDING NEWS.

Norwich.—The subject of the lighting the cathedral with gas is said to be at present under consideration of the dean and chapter. The plan suggested appears to be like that at Ely Cathedral.

Bull.—The parish church of Piddington was reopened on Saturday before last, by the Bishop of Oxford. The galleries which so long disfigured portions of the edifice have been removed; arches thrown open to view, and the old-fashioned pews replaced by uniform low and open sittings.

Cubley.—The church of this place has been repaired and restored, and was re-opened for divine service on Tuesday before last. The cost of the restoration is about 70*l.*—30*l.* odds of which have been defrayed by a rate. The rector (Rev. R. W. Vevers) has restored the chancel at his own expense, and presented an oak octagonal font, &c.

Stockport.—An order has been received from the Privy Council respecting interments in the cemetery connected with the Hanover Chapel at Heaton Norris. The order provides "that interments be discontinued, except in now existing vaults in which each coffin shall be embedded in powdered charcoal and separately entombed with cement in an air-tight manner." The use of charcoal in an air-tight enclosure seems rather questionable. The chief purpose of charcoal in connection with decomposing bodies is to assist in combining the decomposing matter with the oxygen of the air itself, so as rapidly to consume it as it rises in offensive gaseous forms. If, therefore, both the charcoal and the decomposing matter be enclosed and isolated from the air by means of air tight cement, this sanitary process cannot be promoted by the charcoal, and there is, perhaps, on the contrary, risk in certain cases of an accumulation of the offensive gases till they burst out the cement which confines them. Leaden coffins, it is well known, when made air-tight, often burst from the accumulation of such gases, and they are, in fact, occasionally tapped to prevent this, allowing the offensive gases to escape continually in place of preventing such escape, as lead coffins may often be designed to do, and as the cement in the present instance must be also intended to do: should the cement cease to be air-tight, however, the charcoal may *then* be of some use in hastening the decomposition of the noxious gases. The arrangement should, nevertheless, be reconsidered, as there seems to be a want of fitness and of proper sequence in it.

Oldham.—The roof of Christ Church, Glodwick, was discovered to be on fire on Sunday before last, as the congregation was leaving church. A wooden cistern in connection with an over-heated flue was the cause. These church flues! Surely a notion must widely prevail that it is essential they should be "in connection" with some form or other of wood or timber, so many instances of this sagacious "connection" ever and anon turn up.

Leeds.—The congregation of Trinity Church, Leeds, have recently erected in that edifice a stained window in memory of a late pastor. The stonework is of the Norman period, and the window contains three double quatrefoils, interlaced with circles. The uppermost represents the cross, crown, and emblems of the Passion; the second, an angel with the Holy Book; the third, the emblems of the two sacraments, namely, the font and the holy vessels. Each of these, as well as the border, is filled in with foliage of conventional forms. At the foot is the dedication.

Kirkleatham.—On Sunday before last, the church at Kirkleatham, according to the *Darlington Times*, was re-opened for public worship. Extensive alterations and improvements have been made in it, principally at the cost of Mrs. Newcomen, of Kirkleatham Hall.

Holy Island.—A number of workmen are at present engaged removing the soil and other excrescences which, in the course of centuries, have been allowed to accumulate upon the masonry of the ancient priory in Holy Island, and which have not only concealed much of the intrinsic beauty, but were hastening the decay and annihilation of these fine relics. The work has been undertaken by the Archæological Society at Newcastle-upon-Tyne.

Alnwick.—The old churchyard of this town having been condemned, its place will be supplied by a new cemetery, comprising about six acres of a field, situate about a mile south of the town. The designs for the chapels and the laying out of the grounds, have been provided by Mr. F. R. Wilson, superintendent of the works of restoration at Alnwick Castle, the successful competitor. The buildings will consist of an arched gateway, conducting into a carriage way, forming the boundary between the consecrated and unconsecrated parts of the cemetery. On each side of the gate will be doorways in the centre of pierced walls. The keeper's lodge will be close to one of these. On either side of the carriage drive, will be the chapels, which are designed in the early decorated style of Gothic architecture, with considerable variety in the details. In the plans there is a feature said to have originated with the Bishop of Manchester, as being desirable in all cemetery chapels. This is a small projection at the west end of each building. Into this chamber the corpses will be laid during the time that the burial service is being read in the chapel. The chamber will be separated from the chapel by a screen, and thoroughly ventilated.

Glasgow.—For the new Free Church and College, the promoters have decided upon obtaining plans by competition among a certain number of architects already selected. The plans comprehend a design for a church, which it has been resolved to place beside the college, the ground purchased being large enough to admit of the erection of both buildings. At the south extremity of the new park, in Claremont-street, there is a new U.P. [United Presbyterian] church in progress, one in which, it is said, an effort is to be made to introduce an organ. Considerable progress has been made with another U. P. church in Berkeley-street, the street behind Charing-cross, on a line with Bath-street. Near this is Elgin-place Congregational Chapel. The building is now almost ready to be roofed in, and the flight of steps by which it will be approached has been laid down; but as the portico is the chief feature of the design, the work in its present condition does not give an adequate idea of the effect of the entire structure. The church will accommodate nearly 1,200 sitters, and the cost, inclusive of the site, will be 12,000*l.* It is said that in this church, also, an attempt will be made to introduce the organ. The congregation of Mr. Jonathan Anderson have obtained a site in Margaret-street, an opening off Eglinton-street. The building is to accommodate about 500, and has no gallery. At the junction of St. Vincent-street with Bothwell-street, an oblong Grecian building is in progress for the Unitarians. Mr. Rochead is said to be the architect.

Paisley.—The Free St. George's Church here was to be reopened for public worship on Sunday last. For a number of weeks past it has been undergoing a thorough internal renovation, under the superintendence of Messrs. D. Murray and Son, painters. The architecture of the church is Norman, and the decorations are in keeping with the style. The window cornices, window mullions, and tracery, ribs of the ceiling, and groined arches of the galleries, are all in polychrome. The effect of the sunk moulding is deepened by coloured lines of red and blue. The sides of the window recesses, the wall around the windows, the intersection of the ribs on the ceiling, and groined arches, are all decorated with coloured ornament. The ornament consists of the various modifications of the zig-zag and tooth ornaments. The corbels and capitals of the columns are gilded, and the sunk portions painted in deep red and green. The columns and staircase balusters are done in imitation of light artistic bronze. The pulpit bench and Gothic screen, together with the front of the galleries, are painted in white enamel, and the mouldings gilded. The panels are green, with its complementary colour, red, in the fieldings. Following the practice of the mediæval artists, the decorator has diapered over the surface of the green panels with small gold crosses. The pulpit and bench, the enrichments of which are not yet finished, are also ornamented with gilding and colour. The seats are painted of a deep dark oak colour. The lining of the area and galleries, with the vomitory doors, are of a deep red, diapered over with a black Gothic ornament, and between the lining and the walls there is run a deep gold moulding. The general effect is said to be somewhat subdued by comparison with the full emblazonment of the style adopted, in consideration of the public taste and as a transition, from the drab and whitewash style in general use throughout Scotland, towards one a little more accordant with and worthy of "the beauty of holiness."

FINE-ART EXHIBITION AT NEWCASTLE

The time for closing the Fine-Art Exhibition at Newcastle, in connection with the Northern Union of Mechanics' Institutions, has been extended, owing to the continued success of the undertaking. We observe with pleasure the sustained interest of such an exhibition, indicating as it does the settled taste and habits of a large class of the country. Architecture is largely represented by several local architects,—Mr. Dobson, Mr. Oliver, jun. and Messrs. Johnstone and Knowles. Mr. Dobson exhibits his original drawing of the Newcastle Central Station, Jesmond Cemetery, and some interior views of the old Norman Keep. Mr. Oliver has sixteen drawings, including baths and washhouses, cemetery chapels, mechanics' institutes, and several churches. Messrs. Johnstone and Knowles show cemetery chapels, design for a court-house, and the new buildings in St. Nicholas's-square.

FRENCH CONGREGATIONAL CHURCH, HALKETT-PLACE, ST. HELIER.—Messrs. Poulton and Woodman, Architects.

FRENCH INDEPENDENT CHURCH, ST. HELIER.

The church in Halkett-place, St. Helier, belonging to the French Congregationalists, having become much dilapidated, it has been taken down and replaced by a new building, which was on Friday, the 28th of September, formally opened for public worship. The church having attracted much public attention in the island, and possessing features of considerable novelty, we give views of the building, and subjoin a few particulars.

The Gothic style has been adopted, mainly of the Early Decorated period. The principal front is faced with grey native granite, in random masonry; the windows, doors, copings, turrets, &c. being formed in Caen stone. A central doorway leads to the main lobby, which opens right and left into inner lobbies communicating with the body of the chapel, with the view of preventing cold currents of air from finding access to the building. Two doorways, on the extreme sides of the front, conduct to the raised seats, and will also lead, by means of passages under the raised seats, to the schools contemplated in the rear of the church. The building is 71 feet long by 54 feet wide in the inside, and contains accommodation for 700 persons, and space for making it 1,000, when required.

The cost has been 2,500*l*. Ventilation has been aided by a shaft of considerable altitude. The light is obtained almost exclusively from a large lantern in the roof, from which the light is amply diffused through every portion of the building. Suspended from the roof is a central chandelier, containing seventy-two gas jets. The pulpit is of Caen stone, carved. The whole of the carving has been executed under the architect's directions, by Boulton, of London.

The windows are filled with stained glass, of simple character, by Mr. Lavers, of the Strand. The window in the recess behind the pulpit, has been presented to the church by Mr. Joshua Le Bailly. The communion-railing, organ-pipes, and chandelier, are decorated with white and gold. The internal woodwork is stained and varnished. The architects are Messrs. Poulton and Woodman, of Reading. Mr. Le Rossignol, of St. Helier, is the contractor.

The Greek Tombs at Paestum.—The *Illustrated News* of last week gives us engravings of some of the paintings found in one of these singular tombs, to the discovery of which we have heretofore alluded. No engravings have till now been published, in this country at least, to show the character of the paintings, and it is right we should indicate to our readers where they may be seen: they are curious, illustrating the state of ancient art and customs.

MEDALS TO BRITISH EXHIBITORS IN PARIS.

The following British Exhibitors in the classes more immediately interesting to our readers have received the prizes or honourable notices attached to their names:—

Large Gold Medal.—Sir E. Landseer, R.A.

First-class Gold Medals.—F. Grant, R.A., Sir J. W. Gordon, R.A., C. R. Leslie, R.A., C. Stanfield, R.A., G. Cattermole, R. Thorburn, R.A., J. H. Robinson.

Second-class Gold Medals.—E. M. Ward, A.R.A., D. Roberts, R.A., W. E. Frith, R.A., T. Webster, R.A., J. E. Millais, A.R.A., F. Taylor, L. Haghe S. Cousins, A.R.A.

Third-class Gold Medals.—R. Ansdell, W. Hunt (water-colours), G. T. Doo, P. F. Poole, A.R.A., John Thompson, F. Y. Hurlstone, D. Macnee, R.S.A.

Honourable Mention.—F. W. Topham, H. Warren, E. H. Wennert, J. Wilson, jun., J. Cross, F. Goodall, A.R.A., E. H. Corbould, E. W. Cooke, F. Danby, A.R.A., A. Elmore, A.R.A., J. D. Harding, J. Holland, J. C. Horsley, A.R.A., R. J. Lane, A.E.R.A., J. Nash, J. N. Paton, J. Phillip, John Pye, L. Stocks, F. Stone, H. T. Wells.

The names of Mr. Mulready, R.A., Sir W. Ross, R.A., D. Maclise, R.A., Creswick, R.A., Redgrave, R.A., Herbert, R.A., Dyce, R.A., Sir Charles Eastlake, R.A., and others among the painters were withdrawn from competition.

INTERIOR OF FRENCH CONGREGATIONAL CHURCH, ST. HELIER, JERSEY.

The following architects have received either medals or honourable mention:—

Sir C. Barry, R.A. (Grande Médaille d'Honneur), C. R. Cockerell, R.A., Owen Jones, T. L. Donaldson, P. Hardwick, R.A., G. Scott, E. Falkener, T. Hamilton, of Edinburgh; Decimus Burton, C. Fowler, Thomas Wyatt, Allom, Digby Wyatt, H. Kendall, H. Shaw.

There have been no medals awarded to British sculptors. Gibson withdrew from competition; Baily likewise.

FIFTH CLASS.—SPECIAL MACHINERY AND MATERIAL FOR RAILROAD AND OTHER MODES OF TRANSPORT.

First-class Medals.—T. Blackwell, London; J. Eastwood, Derby; Peters and Son, London; T. R. Starey, Nottingham; and W. Fairbairn, Manchester.

Second-class Medals.—J. Dunlop, Haddington; P. R. Jackson, Manchester; E. Kesterton, London; W. Lennon, Dublin; Rock and Son, Hastings; J. and G. Shipley, London; and C. Thrupp and Co. London.

Honourable Mention.—Isaac Adelbert, London; W. and G. Ashford, Birmingham; Bengough, London; R. Blythe, London; Davies and Sons, London; B. Ellam, London; H. and A. Holmes, Derby; Hooper and Co., London; J. F. Howard, Bradford; S. Hudson, Dublin; W. Langdon, London; W. Middleman, Birmingham; E. J. Rowland, Manchester; Swayne and Adny, London; W. J. Thorn, London; J. Ward, London.

SIXTH CLASS.—SPECIAL MACHINERY AND MATERIAL OF INDUSTRIAL ARTICLES.

Large Medals.—J. Whitworth and Co. Manchester.

Medal of Honour.—H. Clayton, London.

First-class Medals.—J. Buckton and Co. Leeds; J. Burch, Crag-hall, Chester; Clayton, Shuttleworth, and Co. Lincoln; R. Garrett and Son, Saxmundham, Suffolk; R. Hornsby and Son, Grantham, Lincolnshire; J. R. Johnson, London; Porter, Hinde, and Gorter, Carlisle; Robert Neate, London; W. Rodden, Montreal, Canada; Smith, Peacock, and Janet, Leeds; and J. Whitehead, Preston.

Second class Medals.—G. A. Harvey, Glasgow; G. Hurwood, Ipswich; Huxham and Brown, Exeter; J. R. Johnson, London; F. Lewis and Son, Manchester; A. Lyon, London; D. Munro, Montreal; W. Muir and Co. Manchester; B. P. Paige, Montreal; and Shepherd, Hill, and Spiuck, Leeds.

Honourable Mention.—Barrett, Exall, and Andrews, Reading, Berks; B. Corcoran and Co. London; Count and Son, London; MM. Dion and Lepage Rimouki, Canada; P. Dunn, Montreal; C. Kingsford, Cardiff; and W. H. Rice, Montreal.

EIGHTH CLASS.—ARTS CONNECTED WITH SCIENCE AND EDUCATION.

Medals of Honour.—C. Frodsham, London; and Ordnance Map Office.

First-class Medals.—Colonel James; T. Cooke, York; E. T. Loseby, London; Nicole and Capt, London; L. Obertling, London; and Smith and Beck, London.

Second-class Medals.—P. Adie, London; Aubert and Klaftenberger, London; T. D. King, Bristol; and M. Pillischer, London.

Honourable Mention.—F. B. Adams, London; P. Adie, London; T. C. Archer; Furnel, Brighton; A. Gerrard, Aberdeen; Negretti and Zambra; J. Pool, London; R. Sheepshanks, London; and Siemins.

NINTH CLASS.—INDUSTRY CONCERNING THE ECONOMICAL PRODUCTION AND EMPLOYMENT OF HEAT, LIGHT, AND ELECTRICITY.

Large Medal of Honour.—Elkington, Mason, and Co. Birmingham.

First-class Medals.—D. Bailey and Co. and Dr. E. Arnott, London; Edwards and Son, London; W. T. Henley, London; Ordnance Map-office.

Second-class Medals.—Aland; J. H. Bonham and

Son, London, Chinie, Simard, Methal, and Co. Quebec; Coal Company, Brookdale; G. E. Dering, Hertford; J. Daley and Son, Northampton; H. L. Hoole, Sheffield; W. Jeakes, London; Kuper and Co. London; R. S. Newall and Co. Gateshead; W. Pierce London; T. L. S. Prideaux, London.

Honourable Mention.—Cundy; Evans, Son, and Co. London; Feetham and Co. London; James and Co. Southampton; Sheringham; Thomas Walker, Sheffield.

FOURTEENTH CLASS.—CIVIL CONSTRUCTION.

Large Medals of Honour.—Rendel, London; Stephenson, London.

First-class Medals.—I. K. Brunel, C.E. F.R.S. London; Bunning, London, Office of Public Works, Montreal; Clarke Edwin, C.E. London; Fairbairn, C.E. F.R.S. London; M. J. Fowler, London; E. Hodgkinson, F.R.S. London, M'Donald, Aberdeen, M. J. Murray, C.E. London; Ostell and Co. Montreal; W. Thomas, Hull; Siebe, London; Saunders and Mitchell, London; Sir Proby Cautley; Board of Works, Dublin; J. Brown, St. Catherine, Canada; J. Costello, London; M. Herbert, London; James Jopez, London; C. E. Leather, London; G. Suff, Ipswich; M. B. Redmon, C.E. London; Stephen Salter, London; J. White, Portsmouth.

Honourable Mention.—Cheesewring Granite Company), Liskeard; Slaters' Company, Shipton, Canada; East-India Company; International Mining Company, Hamilton, Canada; Pierre Gauvreau, Quebec, E. P. Gribbon, Dublin; Samuel Holland and Co. London; Mont and Mitchell, New South Wales; General Penitentiary, Jamaica; Saiges and Green, London.

SEVENTEENTH CLASS.—SILVERSMITHS' ART, JEWELLERY, BRONZE WORKS.

Medals of Honour.—R. and S. Garrard, London; C. F. Hancock, London, Hunt and Roskell, London.

First-class Medals.—M. Bissau, Jersey; Cartwright, Hirons, and Woodward, Birmingham; J. R. Collis, Birmingham; Colebrooke Iron Company, Colebrooke-dale; J. Dixon and Son, Sheffield; R. and S. Garrard, London; R. Phillips, London; Watherston and Brogden, London.

Second-class Medals.—J. Goggin, Dublin; J. Higarth, Sydney, Australia; Prime and Son, Birmingham, Schaw and Fischer, Sheffield; Waterhouse and Co. Dublin.

Honourable Mention.—P. J. Brookes, Birmingham; Sanson and Davenport, Sheffield.

OPERATIVES.

First-class Medals.—J. Billcie, London; Jeannest, Birmingham; H. E. Armstead, London; Regley, London; A. Brown, London; T. Clive, London; E. Cotterell, London.

Honourable Mention.—W. Clark, London; W. Dax, London; C. Grant, London; F. Howard, London; G. Elliott, London; William Ryland, London; W. Theodorus, London, William Millewarel, London; T. Will, London.

EIGHTEENTH CLASS.—GLASS AND CERAMIC MANUFACTURES.

Large Medal of Honour.—H. Minton and Co Stoke-upon-Trent.

Collective Medal of the First Class.—Chance, Brothers, and Co. Oldbury; W. T. Copeland, Stoke-upon-Trent; J. Hartley and Co. Sunderland; T. J. and Joseph Mayer, Stoke-upon-Trent; F. Morley and Co. Shelton; Osler and Co. Birmingham; J. Ridgeway and Co. Cauldon-place, Stafford, Wedgwood and Co. Stoke-upon-Trent.

Second-class Medals.—W. Baker and Co. Stoke-upon-Trent; W. C. Copeland, Stoke-upon-Trent, Elsmore, Forster and Co. Stoke-upon-Trent; S. Green, London; J. Hardman, Birmingham; Kerr and Bins, Worcester; Pinder, Bourne, Hope, and Co. Stoke-upon-Trent; F. R. Pratt and Co. Fenton; Rose and Daniel, Colebrooke Dale; Shaw and Son, Burslem; Singer and Green, London; Swinbourne and Co. London; Walker, Podmere, and Co. Stoke-upon-Trent.

Honourable Mention.—Clark and Co. Wolverhampton, Cottam and Hallen, London; Doulton and Co. London; A. Kenrich and Son, Westbromwich; George Smith, London; T. Till and Son, Stoke-upon-Trent.

TWENTY-FOURTH CLASS.—HOUSE FURNITURE AND DECORATION.

Medals of Honour.—H. E. Hoole, Sheffield; Jackson and Graham, London; East-India Company; G. Jackson and Son; Jennens and Bettridge; T. Kurshaw, London; G. E. Magnus, London; C. Moxon, London; and G. Trollope and Son, London.

Second-class Medals.—Arbate and Clero de Clerville, London; Achima Purboo, East India; the Island of Ceylon; J. G. Crace, London; W. Drum, Quebec; Featham and Co. London; Fonseca-Mehandiram, Ceylon; Gates and George, London; J. and H. Hilton, Montreal; Holland and Son, London; Hood, Hobart-town, Australia; Lalla-Persaud, India; J. M. Levien, London; London and Penzance Serpentine Company; Manackee-Newraje, India; Mooragapah-Achary, India; Rancham-Chutteryé, East-India Company; Rhampdone-Nuatry, India; Rustenje-Nowgee, India. T. Smith, Holsham; T. Trebear, London; T. W. Wallis, Louth, Wildey and Co. London; Williams, Cooper, and Co. London; J. Woollams, London.

Honourable Mention.—J. Armstrong, London; J. Bevis, Hamilton, Canada; Cottam and Co. London; Dagnell and Tilbury, London; Finlay, Glasgow; W. Fry and Co. Dublin; Gillow and Co. London; Gewind-Hengi, India; J. and H. Hall, Derby; Jackisson-Mockerjee, East-India Company; Kowan, East-India Company; A. M'Donald, Aberdeen; O. M'Garvey, Montreal; W. Pierce, London; Rhagwan Madowpe, India; G. W. Stevens, London; Mass Widder, Toronto, Canada.

First-class Artisans' Medal.—Stevens, Sheffield.

Second-class Medals.—Messrs. Jackson and Graham, London; Priguet, London.

Honourable Mention.—A. Abercrombie, London; W. Boulton, London; J. Congden, London; Jefferies, London; James Leigh, London; Lester, London; Samuel Peel, London; Van den Brandt, London; Wills, London.

TWENTY-SIXTH CLASS.—DRAWING AND MODELLING APPLIED TO INDUSTRY, PRINTING IN TYPES AND COPPERPLATE (TAILLE-DOUCE), AND PHOTOGRAPHY.

Medal of Honour.—Lockett, Manchester.

First-class Medals.—Abaté, London, Stephen Austin, Hertford; G. Baxter, London; Francis Bedford, London; Besley, London; V. Brooks, London; Caslon, London; J. A. P. Claudet, London; Clowes, London; East-India Company; Cripps; W. Day and Son, London; Digby Wyatt; Eeles and Son, London; Fenton, Photographic Society, London; Figgins, London; M and N Hanhart, London; Harris, London; Holloway, London; J. Leighton, London; Leighton, Son, and Hodge, London; Llewelynn, Photographic Society, London; M'Queen, London; Maxuelle Lyte, Photographic Society, London; Rivière, London; Robertson, Constantinople; Sherlock, Photographic Society, London; C. H. Thompson London, Wright, London, H. White, London.

Second-class Medals.—J. Aresti, London; Black, Edinburgh; Bradbury and Evans, London; Clements, London; P. De la Motte, London; D. Diamond; W. Dickes, London; L. Gruner, London; J. K. Harvey, London; David Kilkardy; Kingsley; Lamb; Neale, London, G. Rowney and Co., Rylander, Miss Sheppart; Smith, London; Toway, London, Towsend; B. B. Turner, London; Waterloo; London; H. R. Williams, Paris; Wilson.

Honourable Mention.—Bishop, London, Bohn, London; Cole, London; J. C. Doan, Montreal; Adolphe Duperey, Jamaica; Hullmandel and Walton, London; Miss Ironside; J. Leighton; J. E. Mayal, London; Miller, Montreal, Canada; T. J. Palmer, Toronto, Canada, J. Posi, London, Reade; Ross and Thanson, Edinburgh; Sir W. Newton; Snelgrave and Thompson, Sydney; De Sulsa; T. Underwood, Birmingham; Wallis, Louth; Waugh and Cox, Sydney, West; Wilkes, H. Yates; and Young, Montreal, Canada.

THE LATE M. TAROUILLY, ARCHITECT.

WE regret to have to announce the death, on the 25th of October, at Paris, of Monsieur Paul Marie Le Tarouilly, Chevalier of the Legion of Honour, architect, and author of the admirable work on the "Palaces and Houses of Rome," which, for accuracy and beauty of execution, is, to the modern architecture of Rome, what Stuart and Revett's volumes are to the antiquities of Athens.

An intense ardour in the illustration of his theme, a deep love of his subject, a scrupulous accuracy, and all the beauty of delineation for which the French school is famous, combine to render his work one of standard authority. For the succeeding volume, he had with untiring perseverance, and at considerable cost, collected a mass of the most curious matter, derived from original drawings by the great masters in the art, and he was prepared to illustrate the history of St. Peter's at Rome by authentic materials existing, and hitherto unknown, in the archives of that church, and in the rich collections of the Roman princes.

During the last two years his health had become impaired by his unremitting application; and his brain becoming affected, he was forced to cease entirely from all occupation upon the favourite theme. He was partially recovering his former strength; but it was too late, and his shattered health has sunk in his 61st year, under his devotion to his task, worthy his ambition, but too laborious for his weak frame. The regrets and affection of all who knew him have followed him to the grave.

THE METROPOLITAN COMMISSION OF SEWERS.

ON the 8th instant, Mr. Bazalgette made a lengthened reply to the charges brought against him by Mr. Ward; and after a sitting of seven hours the following resolution, moved by Mr. Offor, and seconded by Mr. Redhead, was passed:—"That this Court, having most carefully considered the allegations and charges brought by Mr. Ward against Mr Bazalgette, the chief engineer of this Commission, and his reply to those charges, are of opinion that they have been founded on misconception, and that there is no reason to doubt the efficiency and rectitude of the chief engineer, nor of the consulting engineers of the Commission, and that they are entitled to the continued confidence of the Court, without pronouncing any opinion as to the intercepting sewer question."

Sir John Shelley had previously moved, and Dr. Lewis seconded the following as an amendment:—"That this Court, after having heard the statement of Mr. Commissioner Ward and the reply of Mr. Bazalgette, are of opinion that the objections of Mr. Ward, and the reply of Mr. Bazalgette thereto, should be referred to a committee of eminent engineers and distinguished mathematicians, for their consideration and joint report to this Court."

This however, with a second amendment adjourning the question, was negatived.

STAINED GLASS.

St. Wilfrid's Chapel, Preston.—The fresco-painting of "The Crucifixion," executed by Herr Franz Wurm, of Munich, at St. Wilfrid's Chapel, Preston, is just completed. It is placed over the high altar.

Burley Church, Leeds.—The east window of the chancel of this church has been filled in with stained glass, the work of Mr. F. Barnett, of Edinburgh. The window, as described in the *Leeds Intelligencer*, is of geometric decorated character, and consists of eight lights in breadth, divided by a strong mullion in the centre, and forming two fenestellæ: these fenestellæ carry a circle, containing four quatrefoils, the small complement being filled in with a trefoil. Each fenestella is subdivided into two smaller fenestellæ, carrying a circle enclosing three trefoils, whilst the smaller fenestellæ carry a sixfoil circle. The lower lights are trefoiled in the head. The general character of this design may be traced in the vestibule of the Chapter-house, York, and in the ruins of Tintern Abbey. The style adopted is that which prevailed about A.D. 1330. The window is 12 feet in width, by 22 feet in height. Each of the principal lights contains a full-length figure of a saint under a canopy, filled in with diapering, whilst beneath the light is completed with interlacing work, and foliage consisting of stone and maple leaves alternately. Commencing on the north or left side of the window, the figures are placed in the following order, viz.—Moses, St. Peter, St. Matthew, St. Mark, St. Luke, St. John, St. Matthias, Elias. The canopies have alternate white and gold crockets. The large circle in the head of the window encloses four quatrefoils, containing the symbol of the Trinity, the sacred monogram I. H. C. the Alpha and Omega, and the Lamb and Vexillum. The small vesica window in the gable has also been filled in with stained glass. The glass was obtained from Charleroy, in Belgium.

Harewood Parish Church.—An east window of painted glass has been put up in this church. The window, which is a large one, is divided by stone mullions into five compartments, with contracted space in each division. The lower half of the centre compartment embraces the Crucifixion, with the prostrate Magdalen at the foot of the cross; the upper half the Ascension. The lights on each side embrace the attendant figures; in the former, the Virgin, the weeping women, and the Evangelist St. John, while the

centurion and Roman soldiers on horseback complete the scene; and in the latter the Apostles gazing on the Ascension of our Lord: there are here only ten figures, however, in place of eleven. The two side compartments embrace the following six subjects, three on each side;—the Nativity, the Bearing of the Cross, the Appearance to the Two Disciples at Emmaus, the Appearance to Mary Magdalene in the Garden after the Resurrection, the Entombment, and the Baptism, with the motto "*Ecce Agnus Dei.*" Altogether there are forty-six figures. The tracery is filled with geometrical stained glass. There is little or no attempt at aërial perspective, and not much shading, the effect being obtained by strong lines and contrasts of colour, being an adaptation of the mosaics, a style characteristic of the artists, Messrs. O'Connor, of London. The late Mr. L. Brand left by will 300*l.* for this window.

Kendal Parish Church.—An east window of painted glass, given by Mr. Hilton Halhead, of Liverpool, as a memorial of his father, has been put up in this church. This window is also the production of Messrs O'Connor. The subjects are a large representation of the Crucifixion, occupying the lower half of three central main lights, and in the upper half of the same part of the window a representation on a similar scale of the Ascension. In the Crucifixion, our Lord on the Cross is attended by groups of figures, as the Virgin fainting, supported by the weeping women; also St. John, the Centurion, &c.; and in the Ascension our Lord is received in a cloud, while the Apostles are looking up with expressions of reverence. In the two outer of the main lights of the window are figures of the four Evangelists, and the subject of the tracery is the twelve Apostles. This window makes the twenty third painted window in the church, and the baptistry window, which is to be renewed from the bequest of the late Mr. Robinson, will make the twenty-fourth.

THE SCULPTURE OF THE GREEKS.

SHEFFIELD NEW SCHOOL OF DESIGN.

The first stone of the New School of Design, Sheffield, was laid on the 24th ult. by the president, Dr. Branson. Messrs. Manning and Mew are the architects, and Mr. Mycock is the contractor. In the course of his address, Dr. Branson said,—standing on this spot I see before me, a motto, carved on a neighbouring building. It is the first aphorism of Hippocrates, the great Father of Medicine. "Art is long, life is short." Now, at first sight, there is no very obvious connexion between an aphorism of Hippocrates and the building we are founding. A moment's thought, however, will show a very intimate alliance between the author of the aphorism and some of the works which will be placed within these walls. Hippocrates, according to the best chronologists, was twenty-eight years of age when Phidias, the great sculptor of the Parthenon, died. Living in Athens at that time, Hippocrates saw in all their freshness, with all the purity of the marble unsullied, with every touch of the chisel uninjured, those marvellous sculptures which will guide the taste of the student in this institution. He not only saw those sculptures, but conversed, doubtless, about their excellence with the learned of the most learned city of the world. It is just possible, therefore, taking the term "art" in its widest sense, that some thought of their excellence, some belief in their enduring fame, may have passed through his mind when he wrote the aphorism before us: at all events, the fact is proved in reference to these very sculptures by a period of between two and three thousand years, that "Art is long, and life is short." Generation after generation has passed away, nation after nation has passed away, and yet these marvellous sculptures still remain as lasting witnesses to the genius of the great sculptor who wrought them. As these sculptures will guide the taste of every student who wishes to attain to excellence in art, it is worth while for a moment to consider the conditions under which they were produced, and to see whether the opportunities which existed in Greece for the study of art bear any resemblance to the opportunities which we possess at the present day. In the first place, Greece possessed a climate of the greatest purity, which allowed the most beautiful works of art to be constantly exposed to the people. Greece, too, possessed marble quarries of abounding excellence. Next, the habits of the people led them to be constantly in the open air. Again, the state afforded every encouragement to the study of art: great generals and great civilians looked to art for their highest honours. In their games also, in the running and wrestling matches, the finest forms of muscular development were constantly to be seen, and last, though not least, the (comparatively speaking) small population which had to be educated in art. How art was taught we do not precisely know. It was probably taught as philosophy was taught: each great artist and each great philosopher had his train of followers, who listened to the great man's words with an avidity which we can scarcely appreciate.

ENGLISH PATENTS RELATING TO BUILDING.

From the lists of specifications of patents recently filed, as reported in the *Mechanics' Magazine* and elsewhere, we quote the following:—

Chance, James Timmins, of Birmingham. Improvements in the manufacture of pipes or tubes of glass, or other vitreous matter. Patent dated February 3, 1855. (No. 255.) This invention consists in forming tubes of glass, or other vitreous matter, by bending sheets or fillets of it over mandrels or otherwise, so that the edges may overlay, or come together, and be welded by pressure.

Imray, John, engineer, of Bridge-road, Lambeth, Surrey. Improvements in measuring instruments. Patent dated February 5, 1855. (No. 270.) The instrument described by the inventor consists of a graduated bar on which an inclined mirror is mounted, so as to slide rectilineally, and another half-silvered mirror is fixed opposite an eye-piece or telescope, so that when the inclinations of the mirrors are properly adjusted the distance of an object from the fixed mirror is ascertained by moving the sliding mirror along the bar a proportional distance from the fixed mirror, as determined by the coincidence of the direct and reflected images of the observed object.

Gibbons, Joseph, of Oxford-street, Middlesex. An improvement in fixing the spindles of door locks to their knobs. Patent dated Feb 5, 1855. (No. 271.) In carrying out this invention each spindle is formed with a slit or slits at one or both ends, and on one side of the spindle is fixed a plate of steel or elastic metal. The knobs as heretofore have screws which pass into their shanks, and the inner end of each screw on coming against the spring, near the end of the spring plate, bends out that end so as to enlarge the spindle. The passage in the shank of the knob is inclined or enlarged inwards, to admit of the end of the spring plate being bent outwards, so that the knob can be slided on its spindle into position, and be then fixed by expanding the size of the spindle, either by a screw or other suitable means.

Newton, Alfred Vincent, of Chancery-lane, Middlesex, mechanical draughtsman. An improved mode of constructing dry docks. (A communication.) Patent dated February 7, 1855. (No. 295.) This invention consists in making use of the natural clay foundation for the floor of the dock, the sides and back end being formed of piles, the puddling between the inner and outer piling resting upon the clay floor, and forming a continuation of it after the manner in which cofferdams are puddled.

Ransome, Frederick, of Ipswich. An improvement in the manufacture of artificial stone. Patent dated March 23, 1855. (No. 645.) This improvement consists in applying soluble silicate, obtained by first fusing the compound of silex and alkali for cementing sand and other substances, in the manufacture of artificial stone, which is subject to the action of fire to complete it.

Rimell, John, of Covent-garden, Middlesex, esquire. A substitute for the turpentine ordinarily employed in mixing paints and colours. (A communication.) Application dated March 19, 1855. (No. 607.) "I take," says the inventor, "a quantity of potatoes, and by washing, bruising, or pressing them, obtain therefrom an extract. I then add to the said extract of potatoes common salt, alum, and litharge. Having well mixed or incorporated together these said ingredients, I next add a sufficient quantity of water to the said mixture so produced, to reduce it to the required state for mixing with the paint or colour."

Newton, Alfred Vincent, of Chancery-lane, Middlesex, mechanical draughtsman. Improved machinery for forming moulds for casting. (A communication.) Patent dated March 20, 1855. (No. 630.) In carrying out this invention the sand, being placed in a chamber or piston box, is moved therein by a pattern, and piston plate surrounding the pattern, and the sand is thus caused to protrude from the piston box and enter a half flask, by which means it is, at the parting, more compressed than at the central portion of the half mould, while on the face of the mould it is sufficiently so to insure good castings and preserve an equal thickness of the metal.

Under the head of complete specifications, filed with applications, we find the following:—

Pidding, William, of Putney, Surrey. Improvements in the manufacture of building materials. Application dated July 17, 1855. (No. 1600.) This invention consists—1. In cementing together pieces of coke, pulverized pumicestone, stone, porcelain, stoneware, glass, shells, bones, and sand, and earthy or metallic matters, with a cement formed of pulverized silica dissolved in a strong or highly concentrated alkaline solution rendered caustic with lime, and combined with the above materials by powerful pressure. 2. In luting the joints of pipes with gutta-percha, caoutchouc, or both. 3. In combining coke, peat, wood, pumicestone, &c. with papier-maché pulp, the compound being pressed and dried.

Warner, Arthur, of New Broad-street, London, merchant. Improvements in coating or combining sheet-iron and steel with sheet-lead, zinc, tin, copper, or alloys of such metals. Application dated August 4, 1855. (No. 1770.) This invention consists in coating or combining sheet-iron and sheet steel with steel, lead, zinc, tin, copper, or alloys of such metals, by applying soldering metal between them, and subjecting them to heat whilst pressed together in a flat state, the heat being applied through one or both of the metals.

The following is a provisional specification not proceeded with:—

Dechauet, Jean Baptiste, iron-manufacturer, and Antoine Dominique Sisco, practical engineer, both of Paris, France. Improvements in the process of manufacturing metallic tubes and pipes, and in the machines or apparatus used for that purpose. Application dated March 26, 1855. (No. 657.) This invention consists in winding or rolling tightly round a mandril sheets of either iron, steel, or compounds of both these or any other suitable metals, as many times as is necessary to produce tubes or pipes of the required size and thickness. The layers of these rolled sheets are made to adhere together by soldering.

Provisional protection was granted on 5th ult. to François Charles Lepage, literary man, of Paris, French Empire, for a new composition or new compositions of materials, which may be employed as a substitute for wood, leather, bone, metal, and other hard or plastic substances, and the method of manufacturing the same.

SALT IN WALLS.—ACTION OF WATER ON LEAD.

The subject of *salt in walls, ceilings, &c* is one to which the attention of chemists and builders should be drawn, much more than it appears to be at present. The fault of your correspondents in general is, they do not give *the particulars* of the nuisance they are troubled with, but simply state the *fact*, and that somewhat vaguely.

Now, I am quite at a loss to account for the *salt water* in your correspondent's ceiling,—how it got there, and what he means by the term. Is the ceiling an ordinary one, and the phenomenon without apparent reason? or has sea-water or sea-sand been used in its construction? Perhaps an accident has furnished cause for the occurrence. If your correspondent will give me a circumstantial description of the matter, stating whether the salt is a deliquescent one, rendering the plaster damp, or the reverse, very probably I can assist him, otherwise, I may reason and experiment in the dark. The process I formerly recommended for *salt in walls*,* would very probably succeed in this case.

While on this important and imperfectly understood subject, allow me to appeal to such of the readers of the *Builder* as are troubled with an instance of *nitrification* of any kind. A good series of experiments, with analysis of the various salts formed, might throw a good deal of light upon the matter, and even elicit the true causes of this inconvenient phenomenon: at all events, the best methods of prevention and cure would be arrived at.

Will some of your correspondents, then (and I ask this most earnestly in the name of the many builders and house proprietors now exposed to a continuous and almost ruinous expense from the nitrification of their walls,—in the name of progressive science, and of scores of noble buildings prematurely crumbling to decay), will they send me ("care of the Royal College of Chemistry, Oxford-street") specimens of the *salt* (not *less* than half an ounce), or of the stone, brick, plaster, &c. containing it;—if the salt itself cannot be had in quantity, with accompanying remarks upon the nature of the soil built upon, the presence or absence of decomposing organic matter, &c.

The following, also, are deserving of notice, as important points in the investigation:—The situation: is it near the sea or salt springs? Is the concretion of salt affected by temperature? At what season of the year is it most abundant? Do thunder-storms produce any observable effect? &c. &c.

If I am favoured with a sample of the "*pretty white mould*," as some people call it, rest assured, sir, I

* See p 319, *ante*.

will do my part of the business. Two months will be the extent of time required for my experiments.

With reference to your paragraph upon the action of water on lead, I beg to offer a few remarks.

The oxide, chloride, and nitrate of lead, are decidedly soluble in pure, or tolerably pure water; but if a water contain sulphuric acid or a soluble sulphate, a film of insoluble sulphate of lead forms upon the surface of the leaden receptacle, and protects it from further action, therefore, I would advise all persons whose drinking water is not *very hard*, to protect themselves from the ill effects of lead poisoning by adding about once a month a little *pure* sulphuric acid to their cisterns, half a dram (fluid measure) to twenty-five gallons. Rain water forms and dissolves oxide of lead very fast, and that fallen during a thunder-storm, containing nitric acid, if brought in contact with lead, will leave a trace of that metal dissolved in it as nitrate.

Sea water attacks lead, with the production of chloride, and water highly charged with carbonic acid dissolves a large quantity. All the danger may be removed by the employment of sulphuric acid as above, at a cost of *eightpence* per annum for a fifty-gallon cistern. WENTWORTH L. SCOTT.

THE CRYSTAL PALACE AS AN EDUCATOR.

A FEW words of comment may not be deemed impertinent on the article which appears in your journal under the above heading, of Saturday last. The Crystal Palace depends for its present and future existence on its success as a commercial speculation; and its present object is evidently, in combining information with amusement, to familiarize the public eye with the noblest works of art, and by leading the thousands on whom it depends for support into a love of the grand and beautiful, to induce them to make the Palace their favourite place of resort. This is its primary object; the other—to be of illustrative use to the earnest student—although it fulfils this condition also, must be, and is, of secondary importance, seeing that a few students, however earnest, could not support the institution. Young as it is, it may be considered, even by those who admire a precocious infancy, to have done wonders for both objects, in a display of intellectual wealth and the acquirement of rich and varied means for imparting information; and its only *partial* success can hardly be attributable to the want (or supposed want) of classification, which is the only tangible objection offered in the article referred to.

The treasures of the Crystal Palace may be scattered somewhat promiscuously, presenting, as Nature does, a variety of characters at a glance; and it is of little importance to the earnest student of art that he should walk inevitably out of one art-epoch into that which followed it,—not alone that such an arrangement might be practically inconvenient to the public at large; but the student of past, and even living languages, must learn to read from left to right and right to left; and the stony record of art is not exempt from this inconvenience. Were it classified in the strictest progressive order, which every art-student knows to be an impossible feat, the contents of the Crystal Palace would STILL astonish, and the beholder would at first return from the contemplation bewildered and confused.

Nature is the alphabet of art. The Crystal Palace contains its history; and for the advantage of those who have no previous knowledge of either, a key has been furnished in the valuable handbooks from the pens of able instructors.—W. S.

BOMBAY WATER SUPPLY.

FROM the second report of Mr. H. Conybeare, published amongst the selections of the records of the Bombay Government in course of the present year, it appears that this gentleman has completely surveyed, estimated, and reported on the whole scheme for the supply of Bombay with water from surface collection in the valley of the Goper, on the main land. This valley, about sixteeen miles from Bombay, contracts, so as to afford two favourable sites for damming; while, above, it expands into a wide basin, extremely favourable for water-storing purposes. Four gaps in the hills forming the southern margin of the Vehar-basin will require to be closed by dams if the lower site for a dam be adopted. Two estimates have been prepared; the first, for a reservoir with four dams, including the whole of the Vehar-basin, and a portion of the Valley of Marole, and the second for a reservoir with three dams, excluding the lower portion of the basin. The quantity of water required for the supply of Bombay, including the villages and bungalows throughout the island, at twenty gallons per head per day, is 4,000,000,000 gallons, which the Goper valley is more than adequate to collect and store. Some of the arrangements in the second report, Mr. Conybeare informs us, he has since modified; but the main features remain unaltered. The most notable of these is the great size of the chief storage reservoir, namely, 1,300 acres, which, as he believes, is six times as large as the largest hitherto constructed in England. This reservoir will be capable of holding 9,117,514,470 gallons. The cost of the dams and waste weir will be 17,411*l.* The cost of main pipe, 41 inches in diameter, and 25,520 yards long, is estimated at 133,800*l.* (16,725 tons, at 8*l.* per ton), and the laying (at 1*l.* a yard), 25,520*l.* The cost of town distribution, including fifty-four miles of street mains, will be 43,200*l.*; and of village distribution, including 17,400 yards of masonry conduit, 4,973*l.* The total cost (including 11,710*l.* for contingencies) will be 245,916*l.* exclusive of 1,242 acres of land required, and of engineering expenses. The town distribution will be constant and at high service, with a public and gratuitous supply for the poor, within 100 feet of every house in every street.

HARTLEPOOL MARKET COMPETITION.

SIR,—If you can find room for some of the enclosed correspondence in your columns, it will explain what I think is a novel feature in competitions. The Market Commissioners at West Hartlepool offer by advertisement a *premium* of 20*l.* "for the most approved design" for their proposed market. The inducement seems a fair one enough to lead one to write for a copy of the instructions, from which it appears that the advertisement is a *mere* trap. The commissioners are too shrewd to throw away their money on a premium to encourage professional talent, for this miscalled premium is not to be paid to the successful competitor until one month *after receipt and approval of complete working drawings*, which by the instructions he is to furnish. As the proposed cost of the buildings is fixed at about 3,000*l.* the commissioners are in fact endeavouring to obtain their architect's work at less than one-third of the fair and usual professional remuneration (2½ per cent. exclusive of superintendence). As I cannot but consider this proceeding quite unworthy of a public body, I hope you will lend your aid to place it in its true light before your numerous readers.

CHARLES FOWLER, Jun.

*** It is unnecessary to print the correspondence, the above letter fully explaining the position. So long as architects respond to such invitations, the invitations will of course be given.

Notices of Books.

Brief Memoir of the late William Henry Bartlett, author of "Walks about Jerusalem," &c. By W. BEATTIE, M.D. Published by subscription.

IF this volume had been issued under ordinary circumstances, we should still have commended it to our readers, as a most interesting record of an interesting life,—calculated at once to amuse, stimulate, and instruct. But, published as it is, to supply means for the education and support of the family of the late Mr. Bartlett, who worked hard and well all his life for the advantage of the public, without reaping that pecuniary reward which ought to have followed his extraordinary labours, it has much greater claims on the consideration of the public. The biographical notices of Mr. Bartlett at the time of his decease from the pen of Mr. Britton, will have informed our readers of some of his works. Let us add that Mr. Bartlett made five distinct journeys to the East, and four to America; that the works chiefly or entirely illustrated by his pencil are, "The County of Essex," "Switzerland," "Scotland," "The Waldenses," "The Danube, "The Bosphorus," "American Scenery," "Canadian Scenery," "Scenery and Antiquities of Ireland," making, together,—

15 vols. 4to.

Next to these are,—

The Christian in Palestine	1	„	„
The Life and Epistles of St. Paul	2	„	„
Pictorial History of Scotland (in progress).....	2	„	imp. 8vo.
Castles and Abbeys, vol. ii.....	1	„	„
	21	volumes.	

[These twenty-one volumes do not include his contributions to Mr. Britton's admirable works—"English Cathedrals," and "Picturesque Antiquities of English Cities;"] and then we have,—due solely to the pen and pencil of Mr. Bartlett—

	VOL.	
1. Walks about the City and Environs of Jerusalem	1	1844.
2. Topography of Jerusalem (in folio)...	1	1845.
3. Forty Days in the Desert on the Track of the Israelites.....	1	1848.
4. Scripture Sites and Scenes from actual Survey in Egypt, Arabia, and Palestine, for the use of Schools, illustrated	1	1849.
5. The Nile-Boat, or Glimpses of Egypt	1	1849.
6. Gleanings on the Overland Route ...	1	1850.
7. Footsteps of Our Lord and His Apostles	1	1851.
8. Pictures from Sicily	1	1852.
9. The Pilgrim Fathers (of New England)	1	1853.
10. Jerusalem Revisited (in the press) ...	1	1854.
[Sketches of the "Seven Churches," 1854, MS.]	—	
Total, octavo	10	vols.
„ quartos.....	21	„
	31	

To the talents of an accomplished artist, and a pleasing and instructive writer, Mr. Bartlett united those higher qualities of mind and heart which endeared him to all who knew him.

While men remain amongst us, we do not give ourselves the trouble to remember their efforts and their good works. And this leads us to quote a passage in Dr. Beattie's Memoir with reference to one who, if he were less modest, would be oftener heard of—namely, Mr. Bonomi. When Mr. Bartlett was in the plain of Cœlo Syria, at the further extremity of which appeared the temples of Baalbec, he was seized with ague and a tendency to brain fever, and was removed to a ruinous upper chamber in a Saracenic castle, adjoining the great temple. His servant being afraid to be alone with him during the night, Mr. Bonomi, who was in Mr. Catherwood's encampment hard by, agreed to come every night and watch with him. "When the bats, rising from the vaults below," says poor Bartlett in one of his letters, "began to flit through the chamber, I used to hear the cheering cry of my friend Bonomi echoing through the winding passage. . . . And never did a sick child thrill more at his mother's voice than I at the hearty 'Well, how are you, old fellow?' which issued from his lips as he burst into the dreary apartment. Then the lamps were lighted, the pistols primed, Antonio planted on his mattress across the entrance, and every thing made snug for the night." It gives us pleasure to make prominent the kind act of a good heart still beating.

Subscriptions for the "Memoir" are still received by Messrs. Rogers, Olding, and Co. of 29, Clement's-lane, London, and we invite our readers to aid in a good deed.

Miscellanea.

SHIP-BUILDING.—A paragraph relative to tubular spars for ships in your journal for October 13th, p. 491, recalls a suggestion I made about two years ago to a nautical friend, which was of course pooh-poohed down with a gentle rebuke for a landsman's presuming to think anything nautical capable of improvement. I proposed to construct lower masts of large ships, and especially steamers, of hollow iron cylindrical tubes, the topmasts either of timber or iron, to slide within them, and being fitted at the heel with a cupped leather, like the ram of a hydraulic press, the topmast could be raised by hydraulic pressure, applied by means of a small force-pump between decks, the mast, when raised, being fidded, and the water allowed to run out. By employing a lever fid, which could be withdrawn without taking off the weight of the upper mast, it might be struck at once, the air contained in the hollow mast regulating its descent to any required speed by means of valves or cocks below.—D. W. R.

FIRE AT A TIMBER-YARD.—A fire, attended with considerable loss of property, took place on 5th inst. in premises belonging to Mr. R. Connell, in Church-street, Bethnal-green. It appears that some persons living in the neighbourhood were discharging fireworks, when a half-spent rocket fell into the veneer store on Mr. Connell's works, and his whole stock of veneers in the building, said to have been of great value, were immediately in a blaze. In a few minutes the roof fell in, and the flames soon extended to the large stage and stock in the open yard. The damage done in all is somewhat serious, but the premises and stock in trade were insured in the Phœnix Fire Office.

Sweeping and Repairing Turnpike and Township-Roads.—Our attention has been drawn by a correspondent, to the exertions of a surveyor of turnpike-roads about Harrogate and Knaresborough (Mr. Lambert Ellison), in the preservation, repair, and cleansing of roads, and also to a report by Mr. Ellison, published in a Harrogate paper, in which he urges the general substitution of broad for narrow wheels, by the imposition of a smaller toll for broad wheels throughout the country (to this point, if we mistake not, attention has already been drawn in our columns, at the suggestion of Mr. Ellison himself;) as also the uniform breaking up of old roads before laying on new metal, and rolling it in, thus preventing the pulverization of much of the new material; and the use of brushes in summer, as well as patent scrapers in winter for the cleansing of roads from dust and mud; these processes, and especially the summer brushing, tending to preserve the road from tear and wear, which proceeds with much greater rapidity when the road is covered with thick dirt, as well as for comfort both to wayfarers and to roadside householders. Mr. Ellison has tested the brushing process on fifty miles of road, and strongly recommends it. By sweeping with brushes, he remarks, all unevenness is easily and surely detected, and all defects exposed to the eye, all loose stones so dangerous and painful to horses' feet are entirely removed, and the dust so disagreeable to travellers is almost entirely got rid of, so as to be no longer a nuisance.

Sailors' Institute, Shadwell.—The foundation-stone of the new Sailors' Institute, Mercer-street, Shadwell, in connection with the British and Foreign Sailors' Society, has been laid. Mr. Searle is the architect.

"Silver from Paving Stones."—Under this title a paragraph is in circulation which announces that a French chemist, M. Plee, gives an account, in the *Siècle*, of a mode of extracting from quartzeous silex a metal so undistingnishable from silver that new tests must be devised, if possible, for the purpose of deciding which is which. The new metal, if new it be, is regarded as the metallic base of silicon, which is a brownish red powder, hitherto itself regarded as the base of silex of which common flint and quartz are composed. It would thus appear, as indeed has been long suspected, that as silex is an oxide of silicon, so silicon is still but an oxide,—a protoxide, doubtless, while silex is a peroxide,—of this new silvery metal, which may be called silicium, as the very analagous metallic base of alumina has been called aluminium, and that of magnesia, magnesium. Silicon, however, has been hitherto regarded as one of the non-metallic elements, such as carbon, boron, and sulphur, and since it would appear to have been proved to be as purely metallic as potassium, sodium, calcium, aluminium, &c. it is natural to expect that even carbon, boron, and perhaps sulphur, too, may yet be stripped of all *earthiness*, and transmuted, as it were, into pure metal. It is rather unlikely, however, that silicium is in all respects identical with silver: it will probably have, at all events, a much lower specific gravity; but it appears to be equally splendid and equally disinclined to oxidize, a circumstance exceedingly remarkable, considering the immense power with which it retains oxygen when once it is oxidized. The mode described in the *Siècle* for its attainment is briefly this:—Quartzeous silex is first converted by union with an alkali into soluble glass, and is then precipitated from the alkali into gelatinous silex, which is redissolved in a cyanuretted lixivium, so as to form a double cyanuret, in solution, wherein articles of copper, zinc, tin, or lead, may be coated with the metal silicium by the ordinary electrotype process.

Country Churchyards.—Dr. Webster, F.S.A. in reference to country churchyards, as a general means for ascertaining the salubrity of particular districts, says, in the churchyard of Ely the ages mentioned were generally much higher than at Cambridge, seventy to seventy-five being frequent; from eighty to eighty-five by no means uncommon, and one female having died at 102 years of age. Norwich likewise stands high; seventy-five to eighty and eighty-five being often observed on gravestones, although numerous individuals much younger were similarly reported. Cromer, on the northern coast of Norfolk, holds a medium place as to longevity; the ages upon churchyard gravestones were sometimes from seventy to seventy-five, but numbers were younger, while few were older. Great Yarmouth appeared to be the most salubrious of all places in the same county:—"In the extensive cemetery of that borough, eighty-five and ninety were common figures observed on the death-memorials it contained, some of the persons buried being even above that advanced age, whilst one female, it was stated, had actually lived for 111 years." Proceeding from Norfolk to Suffolk, the Doctor speaks strongly in favour of the longevity of the good folks of Southwold, on the sea-shore of that county.

New Method of Joining Iron Plates.—A patent has very recently been granted to Mr. Bertram, a practical engineer employed in the dockyard at Woolwich as foreman of the factory. His invention consists of a process of firmly joining together slabs of sheet-iron work, for boilers, building ships, and erecting bridges, &c. without the use of rivets, by fusing the two edges of the plates to be adhered, and striking them simultaneously on both sides. The structure, it is said, is thus rendered materially lighter, and much stronger. Some experiments, according to the *Times*, have been made by order of the Lords of the Admiralty, in presence of the officers of the Dockyard at Woolwich, who are authorised to report thereon. It has been hitherto considered impossible to make an unlimited surface of iron.

Sale of Mr. G. Lane Fox's Estate.—Mr. Watkinson, of York, is understood to be the purchaser of the Grimston estate, near York. The purchase is stated to be above 35,000*l*.

Chemistry of Building Materials.—I have perused with much pleasure the interesting papers read by Dr. George Wilson, at the Architectural Institute of Scotland, "On the Chemistry of Building Materials," as contained in your journal, and should be very glad to see similar useful information given on the other materials connected with and used in architectural works, by some equally competent writer; including, in iron, the quality in wrought and cast, and the brand-marks which denote the best and other descriptions useful for the various purposes which may be required My present object is, however, to notice a remark which occurs in Dr. Wilson's paper, as given in your number for September, p. 435, viz.; 1. That earth, as well as wood and snow, are especially the appliances of the savage or half-civilized man; 2. Of the subdivisions of earth (as he afterwards states) being sun-dried and kiln-burnt; and by inference I conclude also clamp-burnt bricks. Now, whatever may be thought of it in Scotland, where stone is so abundant, I do not think that in places less favoured with that material, bricks, whether clamp or kiln-burnt (nor indeed sun-dried, in places where alone they are applicable), can be fairly said to apply "especially to half-civilized or savage life;" seeing that they were largely used by the Romans, and by all civilized nations from their time to the present, in situations where stone is scarce and brick-earth plentiful.—A. B. C.

Gas.—The long talked-of Caistor Gas Company has been provisionally registered, and it has just been resolved by the shareholders, that the works shall be erected by Mr. George Bower, of St. Neots, at a cost of 1,137*l*.; and by the contract entered into by him, they are to be fully completed early in January next. ——The Barton Gas Company have concurred with their directors in a resolution that the sum of 1,300*l*. or upwards, shall be raised for the purpose of making such extensions and improvements in the company's plant as are found necessary to meet the increased consumption of gas.——The Cheltenham Gas Company have given notice of their intention to apply to Parliament next session for a new Act, for power, amongst other things, to supply the adjoining parishes of Leckhampton, Prestbury, Charlton Kings, and Swindon, with gas.——A correspondent of the *Birmingham Journal* suggests, for the better prevention of explosions, that in establishments where much gas is used, a Davy lamp should be provided for use, whenever an escape of gas is discovered. In a recent instance an ordinary lantern was used by way of precaution, but, as might have been anticipated, was of no avail, for the gas entered at the top of the lantern, and instantly produced an explosion. Gas, like its correlative fire, is an excellent servant, but a bad master. It only requires, like it, a little management and care. Naked lights, or even, as we see, common lanterns, ought never to be taken to see where the gas escapes: the nose is usually a better guide than the eye in such a case.——At Liverpool, on Wednesday evening before last, Mr. Flintoff delivered a lecture, in the Clayton-hall, to a crowded audience, "On the existing monopoly in gas, as detailed in the report of the Gas Committee of the Town Council of Liverpool, showing, in the presence of the audience, by actual experiment, how the various over-charges have been effected, and how the gas consumers may regulate their meters, to prevent the glaring impositions of the Gas Company." Much interest, and indeed excitement, was displayed by the meeting in regard to this question, which the lecturer declared to be a national one, as regarded false measure for gas, and by no means confined to Liverpool alone. A resolution was passed against a proposal that the corporation should purchase the Gas Company's stock, bonds, and general interest, or make good the large amount of capital said to have been squandered to increase the actual profits limited in per-centage by Act of Parliament, and from which the shareholders had already reaped for nearly thirty years the maximum of 10 per cent.

The Oxford University Museum.—Although the University, as a body, has voted the sum of 30,000*l*. for the erection of a new museum, the contract entered into provides for very little ornament in the interior. It was therefore proposed, that those who desired to give to the museum the most complete efficiency might do so by private contributions, by which the following additions, which would add to the scientific and artistic expression of the edifice, might be obtained:—Firstly, Shafts for the cloister, of different kinds of British rocks, useful and ornamental, selected in illustration of geological epochs; the igneous rocks to be employed in the ground-floor corridor, and the sedimentary rocks in the upper corridor. Of these there are 128, besides 64 piers, and the cost of each is estimated at 5*l*. Secondly, Capitals to the shafts and piers, illustrating the floras of various epochs, climates, and regions. Of these there are about 192, and the cost of each is estimated at about 5*l*. Thirdly, Statues of the great founders and improvers of natural knowledge, under two heads:—1. Ancients,—in the porch or entrance. The following are proposed as representing the investigators of mathematical, mechanical, and astronomical truths:—Euclid, Archimedes, and Hipparchus; and as representing the investigators of organised nature — Aristotle, Hippocrates, and Pliny. 2. Moderns,—to be placed within the quadrangle; and of these, first of all, Bacon, Galileo, Newton, Leibnitz, Oersted, Lavoisier, Linnæus, Cuvier, Harvey, Hunter, and Sydenham. It is estimated that these, executed in Caen stone, will cost about 70*l*. each. Fourthly, Illustrative inscriptions, to be worked by the architect into the mouldings or elsewhere; as, for instance, "Consider the lilies of the field." One hundred inscriptions can be appropriately placed, and the cost of each is estimated at two guineas. The donors are already numerous.

Oxford Architectural Society.—The first meeting of the term was held on Wednesday evening before last, in the society's rooms, in Holywell-street, Oxford. The president, the Rector of Exeter College, took the chair. The secretary read the report of the committee, in which much praise was bestowed upon the new front of Jesus College, and the buildings in course of erection at Exeter College, and it was hoped that the example of the latter building would lead to the general adoption of a better style of architecture for collegiate purposes. The president, after remarking that Mr. Scott and himself had lately discovered in Exeter College some evident remains of the original fourteenth-century building, called on Mr. Hingston, of Exeter College, who read a paper on the Ecclesiology of Cornwall, ancient and modern, in which the reader, having briefly described the remains of Saxon architecture at Tintagel, of Norman, First Pointed, Middle Pointed, in different churches in the county, proceeded to give some account of the old crosses, fonts, holy wells, and baptisteries. He then discussed the present aspect of ecclesiology in Cornwall, gave an amusing account of Chacewater Church, and others of the "compo" class, of the improvement manifested in St. Paul's, Penzance, and of the late restorations and new churches by various architects. The paper was illustrated by some plates of crosses from Mr. Hingston's own work on the subject, and by some drawings lent by Mr. G. E. Street, architect.

The Polytechnic Institution.—Nearly 1,100 persons filled the great theatre of the Polytechnic on the evening of Monday, the 12th inst. when a lecture was given by Mr. Godwin on the Homes of the People. We may be permitted to note, without any personal reference, but as serving to show in a gratifying manner the extent to which this important subject is now taking hold of the public mind, that this vast audience listened for an hour without a movement, beyond expressions of their sympathy.

Bells.—Since my last communication, I have recollected having read—probably in a Life of Dr. Parr—of a bell of *eighty* cwt. at a parish church in Gloucestershire. I presume rung in peal, and, if so, slightly heavier than at Exeter. Of course, heavier tenors than there specified would be found in London. The mention of "eight" in the "inventory of goods" at Tewkesbury shows that that number was known. Profounder disciples of Browne Willis might, perhaps, find further specimens. The following "note and query" may legitimately interest your antiquarian readers:—Goldsmith, in one of his works—"Citizen of the World"—gives a "Tour to Kentish-town," imitating travellers' style—not the worst of his day—and speaks of "the parish church with its *fine bells*" at "Pancras." Where and how could they have existed? Those who recollect the tower—pulled down about ten years ago,—whose little arch was at least ancient, know that it was very small—hardly sufficient for three small bells. It had one large bell about 30 cwt. now transferred, and, I was told, one *small* one before that. Was it a joke of Goldsmith's, —or could any one now ascertain whether, or how, "fine bells" existed at Pancras eighty years ago?—J. D. P.

LECTURE AT HALIFAX.—A lecture was delivered at Halifax last week to the members of the Halifax Church Sunday School Association, by the Rev W. Laycock, incumbent of Southowram. The subject was "Oriental Habitations." The lecture was illustrated by diagrams.

IMPROVED BORING TOOLS.—Patents have been obtained in America and this country for "improvements in boring-instruments, known as augers, bits, or gimlets," the invention of Mr. Ransom Cook, of the United States. The improvements consist in giving to the lips or cutting edges of boring implements a curved or gouge shape at their extremities, also in the under-cutting or back-sloping of those edges. The superiority claimed for these tools over anything hitherto known consists, first, in the ease with which the hardest woods may be bored with the largest-sized augers at any angle to the fibres, the perfectly cylindrical character of the hole, the tools neither bruising nor tearing the wood in the slightest degree. The formation of a fine-threaded female screw, by means of this instrument, on the interior surface of the boring, adds greatly to the firm hold of a "treenail" or bolt when driven home. Another valuable result is, the absence of any projecting spur, which is liable to be broken off by contact with metal when in use; while the slight exertion required in boring enables the workman to detect at once the presence of a spike or bolt. The question of sharpening may perhaps offer an objection.

SURVEYOR OF BARNSLEY LOCAL BOARD OF HEALTH.—At the fortnightly meeting of this Board, the testimonials of five parties who had been previously selected from a list of forty candidates were read, and Mr. W. Rowell, civil engineer, of Bradford, was unanimously elected. Mr. Rowell has been for some years past an assistant to Mr. Robert Rawlinson, of London.

MIDDLE-CLASS EDUCATION.—Lord Ebrington has had printed a memorandum on Middle-class Education, in reference to his prize of 20*l.* for the sons and relatives of Devonshire farmers, read at the October meeting of the Council of the Bath and West of England Society for the Encouragement of Agriculture, Arts, Manufactures, and Commerce. In this memorandum his lordship explains his object in offering the prize, to be, "not merely to give young farmers an incentive to exertion, but also to endeavour to ascertain—with a view to its amendment, if necessary—the means of education at present practically available for that class in Devonshire." There will be three successive prizes given during three consecutive years; the first to young men from eighteen to twenty-three inclusive, and a future one to younger lads. Lord Ebrington suggests that some plan of county honours and county degrees is very desirable for the promotion of Middle-class Education throughout the country, and it is by way of initiation or example, though not with the view of founding such a scheme, that he offers these prizes. Lord Ebrington's anxiety on the subject is most commendable.

SOCIETY OF ANTIQUARIES, NEWCASTLE-UPON-TYNE.—The monthly meeting of this society for November, was held on 7th instant, in the Castle of Newcastle, when, amongst other matters brought forward, Dr. Charlton reported that the Black Gate promised to be a very fine building, when completely disclosed The base was already uncovered. It would be better, perhaps, that the society should do nothing more on the subject, until the designs for the new street were sent in. The building should not only be preserved, but restored, and made subservient to some useful public purpose. The same gentleman afterwards read a paper on "Runic inscriptions from Carlisle and Falstone." The latter was noticed in the Society's Transactions forty years since. As reported in the *Gateshead Observer*, Dr. Charlton next referred to the Runic Inscription recently found in Carlisle Cathedral, surrounded by the marks of the working masons. The Carlisle Inscription is pure Scandinavian one of the few Norse records that have been discovered in the island. It was discovered in the present year, upon an ordinary wall-stone inside of the west wall of the south transept of the cathedral, by Mr. C. H. Purday, clerk of the works now in progress. It had been covered over with plaster and whitewash; and to this, in all probability, it owes its present state of preservation—for the letters are but faintly scratched with a tool. The words appear to be—"TOLF(O)HN(AR) RAITA THEKSI RUNE A THISI STAIN" (the letters between parentheses being doubtful). No proper name, known to Dr. Charlton, answers to the first word, or to any part of it; and perhaps no name is intended; but, in allusion to the masons' marks around the inscription, some waggish workman, using characters not commonly understood, may have inscribed—"Tolf (twelve) ohnar (idlers) cut these marks on these stones." And yet, in that case, the last word should be plural, *stainr*, and not *stain*; but such violations of grammar are not uncommon in Runes.

ST. GEORGE'S, SOUTHWARK.—The church of St. George the Martyr, Southwark, where considerable alterations have been effected, was reopened for public worship on Wednesday, November 7, by the Archbishop of Canterbury. The old-fashioned high pews have been removed, and others of a more modern character substituted, whereby accommodation for 263 additional persons has been obtained. Means of ventilation have been introduced, and the interior of the building has been redecorated and painted. The ceiling is divided into panels of very light blue, with white mouldings and ornaments painted upon it, in relief; and the styles between the panels are covered with a fret pattern of neutral red: a little primitive colour is introduced in the centres of the paterae, &c. The walls of the church are finished light green; the chancel, white and gold, with Sienna marble pilasters; and all the pewing and fixtures painted oak. The work has been done under the superintendence of Mr. Arthur S. Newman, architect. Mr. Willson is the contractor. The ornamental work has been executed by Messrs. Harland and Fisher.

SALE OF EXETER-CHANGE, STRAND.—On the 14th inst. Messrs. Farebrother and Co. the auctioneers, put up to auction, at Garraway's, the freehold estate, the property of the late Marquis of Exeter. The property was divided into two lots. The first comprised Exeter-Change, the arcade leading from Catherine-street to Wellington-street North, which had in it eleven houses, let at an annual rental of 311*l.* with eight other houses, in Catherine-street, Wellington-street, Exeter-street, and the Strand. These, with Exeter-Change, realized a rental of 1,146*l.* per annum. The lessees of these, as also those of the second lot, covenanted to pay land-tax, sewers-rate, and to insure from fire in the full value. That was knocked down for 21,000*l.* The second lot consisted of the premises, Nos. 343 and 344, Strand, and of Nos. 1, 2, and 3, Catherine-street. The annual rental from these was 600*l.* 4s. 10d. This lot was knocked down for 10,500*l.*

FREE LENDING AND REFERENCE LIBRARY FOR ISLINGTON.—In consequence of a requisition by eighty ratepayers of the parish of Islington, a public meeting of the ratepayers will be held at the Parochial School-room, Church-street, Islington this (Friday) evening, the 16th, at seven o'clock, to decide whether (by vote of two-thirds of the meeting in its favour) the valuable Public Libraries Act shall be applied to the parish. As there can be no ballot afterwards, it is earnestly to be hoped that all who desire to set up so commendable a rival to the gin-shop, will not fail to attend and give their vote, which cannot, under any circumstances, entail the levy of a rate exceeding 1d. in the pound, and more probably may only require one of ½d. or even ¼d.,—to a 30*l.* householder not more than 7½d. a year,—or about the price of a single pot of ale; in return for which, many who now find no amusement out of the gin-shop, may, by obtaining free and rational amusement at home, or in the library, with its books and newspapers, might thus be saved from ruin, and from being an additional burden on the heavier rates. In this way, in fact, the establishment of a free library cannot but bring about a great saving to the ratepayers of so extensive a parish as Islington, which, by the way, would thus, it appears, be the first single parish in any town which has taken advantage of the Ewart Libraries Act. This Act has in general been gladly adopted in towns by large majorities of the voting ratepayers, the City of London a—not very brilliant—exception.

SALTAIRE TESTIMONIAL.—Mr. Milnes, of London, is executing a testimonial which the numerous *employés* of Mr. Titus Salt, of Bradford (nearly 4,000 in number), are about to present to him. A broad pedestal forms the base, bearing a representation of the great factory at Saltaire, of which we some time since gave an engraving. On the top are figures of the Alpaca and Angola goat, with the cornucopia. A column springs from between the two animals, which will be surmounted by a bust of Mr. Salt.

TO CLEAN PAINT.—Smear a piece of flannel with common whiting, mixed to the consistency of common paste, in warm water. Rub the surface to be cleaned quite briskly, and wash off with pure cold water. Grease-spots will in this way be almost instantly removed, as well as other filth, and the paint will retain its brilliancy and beauty unimpaired.—*Stockport Advertiser.*

INSTITUTE OF BRITISH ARCHITECTS.—At the next Ordinary General Meeting of the Session, to be held on Monday evening, the 19th of November, the following paper will be read: "An Abridgement of M. Lance's Essay 'On a Diploma in Architecture.'* with Remarks and Suggestions by Mr. John W. Papworth." At the last meeting Mr. C. H. Smith was elected an honorary member.

* *Du Diplome d'Architecte*, par Adolphe Lance. 8vo. Paris. 1855.

BIRMINGHAM AND MIDLAND INSTITUTE.—The first stone of the new buildings will be laid by his Royal Highness Prince Albert, on Thursday, the 22nd of November. The ceremony will take place at one o'clock, when, after an address from the Council of the Institute to Prince Albert shall have been read by the president, Lord Calthorpe, his Royal Highness will reply, and the stone will be laid with the usual formalities. Immediately after the stone is laid, a luncheon will be given in the Town-hall, which the Prince will honour by his presence. The ambassadors of France, Turkey, and Sardinia, and a number of noblemen and gentlemen, distinguished in science, art, and literature, have been invited.

SOMETHING NEW IN RUSSIA.—"Lately, at the fair of Nijegorod," say the Russian journals, "an iron house was to be seen, composed of ante-chamber, bed-room, sitting-room, dining-room, and kitchen. The front was ornamented with columns, and had three windows. The walls, the roofs, the staircases, &c. were all in iron. Its weight was 800 pouds (nearly 26,000 lbs.), and its price 1,600 silver roubles (6,400 fr.) Two men could take it down in one day, and it only required two days to put it up again."

SOCIETY OF ARTS.—The opening meeting of the one hundred and second session of the Society of Arts, is fixed for Wednesday, the 21st inst. On this occasion the Rev. Dr. Booth, F.R.S. Chairman of Council, will deliver an introductory address, and the medals awarded in the last session will be presented. The papers to be read and discussed at the successive meetings, prior to the Christmas recess, are by Mr. P. L. Simonds, "On the Gums and Resins of Cornwall;" Mr. G. N. Hooper, "On the construction of Private Carriages in England, and on the Carriage Department of the Paris Exhibition;" Mr. J. Bailey Denton, "On the Progress and Results of the Under-drainage of Land in Great Britain;" and Mr. J. K. Blackwell, on "The present position of the Iron Industry of Great Britain, with reference to that of other countries."

THE IRON TRADE.—The following is a monthly statement forwarded to us from Glasgow, by Mr. Thomas Edington, of date 6th inst. showing the principal orders for castings, machinery, rails, &c. ascertained by him to be in the iron markets of Great Britain and Ireland:—1. Orders contracted for during the last few months, in the following places:—in Glasgow—railway chairs for Calcutta, 5,000 tons; Canada, 1,000 tons; Nova Scotia, 700 tons; socket pipes for Bombay, 1,000 tons; Liverpool 3,000 tons; and quantities for Sydney, Italy, Canada, Buenos Ayres, Ireland, &c.:—in Newcastle-upon-Tyne district—railway chairs for London, 4,000 tons, and a quantity for the Geelong and Melbourne railway; socket pipes for Sunderland, 500 tons; Rome, 300 tons; and quantities for London:—at Ipswich—large quantities of railway chairs for London, Calcutta, &c.:—in Staffordshire district—railway chairs for Cheshire, 4,000 tons; Liverpool, 1,200 tons; socket pipes for Copenhagen, 10,000 to 11,000 tons; Cheshire, 170 tons, and quantities for Liverpool:—in Ireland—large iron roof for a theatre at Buenos Ayres:—in London—a large cast-iron lighthouse for the West Indies. 2. New orders—300 tons lamp-posts, a steam-boiler, 400 tons sleepers and rails, for London; two steam-engines for Wolverhampton; five miles pipes, steam-engine, &c. for Heanor, Derbyshire; a portable steam-engine for South Wales. 3. Contracts in view—an English gentleman has just contracted to light the town of Constantinople with gas. The City Water Company of Edinburgh have resolved to apply to Parliament for power to bring in a further supply of water from the estate of Colziun

TENDERS

For rebuilding Ferney Hall, Salop, for Mr. Willoughby Hurt Sitwell. Mr. Norton, architect. Quantities supplied by Mr. Yeldham:—

Willcox and Sons, Bristol	£15,164	0	0
George Smith, Pimlico	12,750	0	0
Winsland and Holland, Bloomsbury	12,488	0	0
Myers, Lambeth (accepted) ...	12,386	0	0

For the Cemetery at Chatteris, Cambridge. Mr. C. Hutchinson Edwards, architect. Quantities not supplied:—

	Entrance-gates, Chapel, and Lodge.	Boundary Wall, per Rod.	Front ditto.	Drainage.
	£.	£. s. d.	£. s. d.	£. s. d.
Mills and Son	1,704	9 10 0	22 15 0	.....
Johnson and Feast...	1,553	8 15 0	9 15 0	.....
Pack and Sons	1,520	10 0 0	11 0 0	... ..
Oates	1,380	12 0 0	14 0 0	.....
Chinock and Hook ..	1,240	9 18 6	13 10 6	.....
Geen (accepted) ...	1,167	10 10 0	11 10 0	.....
Woodwalton	.....	.....	.....	147 0 0
Garrett	.....	.....	.....	140 0 0
Strickson and Padon	... ..	.....	.....	118 18 9
Brown (accepted) ...	.....	.....	.....	99 0 0

TO CORRESPONDENTS.

"*Plans for Wooden Houses*" -One about to emigrate to New Zealand asks to be referred to any existing cottages which are stamped with professional approval, being desirous, as every emigrant should be, of carrying to the land of adoption the most perfect plans which the mother country has devised. "The cottages are to be built of wood, and not two storied, on account of earthquakes: coal is difficult to be procured, and, therefore, with reference to grates, such only as burn wood can be used."

"*Cement for Wood and Metal.*"—A correspondent, "K. D. P." wishes to know of some cheap cement means of joining small pieces of wood to tin and iron, he says he has tried many things such as marine glue and cements, but has failed in all: he does not mention whether gutta-percha was amongst the means tried: we have heard of a means of uniting India-rubber with metal: can any of our readers suggest such a cement as is wanted?

"W. N. R."—"H. S."—"R. L."—"T. I. D."—"M. K."—"W. J. L."—"H and Son."—"P. D." (letters have not reached us).—"J. W."—"H. M."—"R. R."—"T. O."—"Mr. F."—"Palladio."—"P. and W."—"An Old Subscriber" (the resolutions in the Minute book are sufficient).—"E. T."—"W. S." (if delayed too long the wire will not come so well.—"T. S. S."—"J. R. R." (apply to Maudslay and Field, or any respectable maker "W G."—"W W F."—"W. T."—"J. H. H" (thanks: shall hear from us).—"W. H."—"J. R."—"E. M. B."—"J. N."—"Rev. J. G."—"W. B."—"G. L."—"T. W."—"S." (next week).—"Mr. M."—"W. H. E."—"E. H."—"C. H."—"H. F. H."—"G. W."

ADVERTISEMENTS.

TO CARPENTERS

CONSTANT EMPLOYMENT will be given to a respectable Young Man about 30 years of age, in a small shop (wages 5s 6d. per day), who is possessed of a good character for punctuality, honesty, &c. Address, by letter only, post paid, in own handwriting, stating length of time, and where last engaged, to J. B. C. Office of "The Builder."

MOULDING MACHINE-MAN WANTED.—He must thoroughly understand his work, and be able to moulds his irons. Those who can give good reference as to character and workmanship can apply to E. SIMMS, Timber-yard, Wilton-road, Pimlico.

NOTICE.—There is a VACANCY for TWO PUPILS in the Evening Classes of the Architects', Builders', Civil Engineers', and Mechanics' Drawing Classes.—For prospectuses apply to Mr. T. J. HILL, Architect, at the Offices of the Establishment, 15, Old-street, City-road.—N.B. The quarter commences from the date of joining.

TO GAS-FITTERS.

WANTED, a good hand as a GAS-FITTER. Apply at the Office of the Gas Company, Grantham

WATER-BAILIFF and CLERK of RIVER WORKS.—WANTED, a person in the above capacities, to regulate the trade and navigation of Sandwich Haven, upon which a steam tug is employed, collect the dues, and superintend the Works of re-cutting the Old Haven, and other Public Works. Salary, 80l per annum. The trade is very limited. Other occupations may be followed, not interfering with the due discharge of the duties. Applications and testimonials to be addressed to the Haven Committee on or before the 29th of NOVEMBER inst. under cover to the Town-clerk of Sandwich, Kent.

TO IRONMONGERS, PORTERS, AND PACKERS

WANTED, a YOUNG MAN.—None need apply who are not well acquainted with the trade. HAYWARD, BROTHERS, Ironmongers, 166, Blackfriars-road. Hours of business, Eight to Seven

WANTED, by an experienced JOINER, the JOINER'S WORK, in or only, of one or more houses, having had great experience in shop-fronts, &c.—Address, G. L. Mr Goodwin's, 2, Anne's lane, Whitmore road, Hoxton.

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WANTED, by a Young Man, aged 28, a SITUATION as THREE BRANCH HAND. Has been fourteen years in the trade.—Address, H. K. 118, Borough-road, Southwark.

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WANTED, an ENGAGEMENT, with an Architect (or others, as DRAUGHTSMAN and GENERAL ASSISTANT. The advertiser is a first-rate draughtsman and colourist, is acquainted with theoretic and practical architecture, and familiar with the latter. Satisfactory reference given. Terms moderate.—Address, B. J. 38, Smith-street, King's-road, Chelsea.

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WANTED, by a CLERK of WORKS, who has just completed his engagement in the country, where he has had the entire charge of everything, an ENGAGEMENT to take charge of a Gentleman's Estate for Repairs, and Building. Can be well recommended by the architect whom he has employed.—Address, J. G. G. 5, Rochampton street, Vauxhall bridge-road.

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WANTED, a SITUATION, by a practical Man, who has for the last fourteen years been in a builder's establishment as Foreman of Engineers, during which time he has had much experience in the construction and erection of most descriptions of various kinds. The last four years of the above time have been employed in erecting steam engines and machines for brickmaking on a large scale. Most satisfactory reference can be given to his present employer.—Address, D. W. Office of "The Builder."

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WANTED, a SITUATION as FOREMAN, or Managing Clerk and General Superintendent, or Clerk of Works, by a thorough practical Man, aged 27. Has been for the past two years engaged on extensive works in town and country by one of the largest firms in London, from whom the highest testimonials as to character &c can be obtained. Address, stating salary to A. C. E. at Mr. Hughes's, 16, Brewer street, Woolwich

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WANTED, a SITUATION, by a respectable Man, as a FOREMAN of a BRICKFIELD. He is practical in all its branches, in Malm Bricks, Cream or Stock, Fire and Red Close Kiln Bricks, and Tiles, such as Suffolk or Norfolk. Has had in wards of 20 years' practice in London and Suffolk. Any reference can be had that may be required. Direct to A. B. No 1, Park terrace, Lower Norwood, Surrey.

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WANTED, by a respectable young Man of business habits, a SITUATION in the above capacity; understands the general principles of surveying, and is thoroughly competent to the routine of an Architect's office. Unexceptionable references can be given; and a moderate salary only is required. Address, A. Z 59, Huntingdon street, Thornhill square, Islington.

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WANTED, a SITUATION in London, by a young gentleman of first-rate professional ability. In architecture he is capable of designing in every style, and applied to public, ecclesiastical, and domestic edifices; is thoroughly efficient as a draughtsman, in detail colouring, and perspective, and fully competent in writing specifications, measuring work, and getting out quantities; has had considerable practice in civil engineering as applied to railways, canals, water supply, sanitary measures, &c. and is a superior surveyor and ornamental plan writer. Can produce most satisfactory specimens in drawings and sketches, and, if necessary, excellent testimonials as to ability and integrity.—Apply by letter, O. G. Office of "The Builder."

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THE Advertiser, who has had considerable experience in almost every description of building, including railway work, wishes to JOIN a BUILDER, either at a salary, or to take a share of the profits. He has worked at the bench, understands taking out quantities, and can make drawings of every description. Has been engaged in architectural and engineer's offices, would be competent to take an active part in the business, and being well connected, would also be able to increase it. The highest references can be given.—Address, F. M. at Mr. S. Rowe's, Stationer, 134, Cheapside

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TEMPORARY ASSISTANCE AFFORDED to the above in making and copying out plans, specifications, quantities, &c. Terms strictly moderate.—Address, G. S. 3, 6, Exmouth-street, Clerkenwell

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AS SURVEYOR'S, ENGINEER'S, or LAND AGENT'S ASSISTANT.—A Gentleman, aged 26, a good Land Surveyor, Draughtsman and Valuer, Accountant and Correspondent, with a knowledge of Farming, is now open to an ENGAGEMENT. References to last employer, Gentleman's agent. Salary about 100 guineas.—Address, W. B. 95, Hattongarden, London.

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THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marbles, and with that careful attention to the detail and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble: bold, massive Chimney-Pieces, in Black, Black and Gold, Buralilla, Sienna, Veri Antique, Brocatella, Dove st. Anne's, and Serentine Marble, suitable for Dining Rooms, Libraries, Vestibules, and Entrance Halls; and a great variety of others to Veined, San Juan, Emperor's Red and Amber Marble, for Billiard, Breakfast-rooms, Best and Secondary Bed-Rooms, &c.; also, Monuments, Tombs, Tablets, and Pedestals for Busts and Statuary, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18, Wharf Road-side-street, North, City-road, for the sale of CHIMNEY-PIECES, and other articles, useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.
July 20, 1855. C. ADENEY, Secretary.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of the Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 29, Surrey-street, Strand.

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MR. B. FABBRICOTTI begs to inform the public that he has REMOVED from the office lately held by him at No. 3, Crescent-terrace, Millbank, to offices on his own premises, at Carrara Wharf, Thames Bank, Pimlico, where he continues to carry on the marble trade solely on his own account. Mr. Thompson being no longer his agent.
Mr. B. Fabbricotti hopes that the trade will continue to favour him as usual, as, being the absolute proprietor of the quarries at Carrara, he can supply at better advantage and quality than any one else.
N.B. The well-known qualities of Mr. Fabbricotti's marble are celebrated throughout all Italy, England, and America.

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WILLIAM W. DONNIN, London Secretary.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tenfield-place, Leeds.—To Builders and Buyers of the Best Quality.—Direct from the Quarries in truck-loads of five tons. Pavings, Landings got out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

JOHN BAZLEY WHITE and BROTHERS MARBLE MERCHANTS, MILLBANK-STREET, WESTMINSTER. Marble of all kinds and of best quality, in block and slab. Marble mortars, &c.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beetham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terraces at the Crystal Palace. Supplied by the Haytor Company under Royal Charter.—For terms, apply to Mr. C. HOAR, Haytor Granite Office, 4, Mill-bank row, Westminster.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. CHATHAN, Liskeard This Granite is selected for the New Westminster-bridge.

BATH STONE OF BEST QUALITY.
RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.
List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

PIMLICO MARBLE WORKS, BELGRAVE-WHARF, LOWER BELGRAVE-PLACE.
SAMUEL CUNDY.
THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD call the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town. W. ASPINALL begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potterne-down, Harehill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curbs and Pitching, all at the very lowest prices.
N.B. Good 2-inch Tooled Paving, at 40s. per 100 feet, cash.

AUSTIN'S ARTIFICIAL STONE.—This material (frequently confounded with Portland Cement) has now been extensively used among the highest class of residences for about twenty-five years. During that time a collection of Ornamental Work, such as Vases, Figures, and Fountains, has been accumulated, of which the public have scarcely any idea. Suffice it to say, that a single copy of each work would collectively amount to between 4,000 and 5,000. In no branch of construction from Terra-cotta, and the coarser kind of pottery there is no limitation of form by the process of baking, and, instead of the glazed surface of Terra-cotta, it has the closest resemblance to Portland Stone, having also the advantage of being waterproof.—AUSTIN and SEELEY, Nos. 1 to 4, Keppel-row, New-road, Regent's-park.
*** A large Stock of Ornamental Chimney-tops.

GROUND FLINT AND CORNISH STONE, UNADULTERATED, Manufactured by MACHINERY, which produces the greatest degree of fineness.
WILCOX & CO.
Flint Mills, Mill Wall near Scott Russell's.
CARRIAGE FREE.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, King's-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

SCAGLIOLA done on an IMPROVED PRINCIPLE.—I refer to the Gothic Arch by D. Lee, in the Great Exhibition of 1851, which gained the only Prize Medal awarded for the manufacture of the above work.—Specimens to be seen at 92, Drury-lane, two doors from Holborn, superior to any yet offered to the public, with a choice Collection of Ornaments for building purposes, Trusses for Shop-fronts, &c. &c.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Wine Model Prison, Pentonville, and other Penitentiaries, Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Pooley-street; and at Messrs. Braby's, Belvidere road, where terms may be obtained.

LLANGOLLEN FLAG and SLATE COMPANY. The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag Stone Company and the Llantysilio Slate Company, are now prepared to supply arch ticks, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney-pieces, Baths, Filters, Lariers, Mangers, Ridging, and every other article made for this beautiful material, all of superior quality. The Llangollen Slabs, from the great dimensions and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malthouses, breweries, conservatories, warehouses, &c. A cheap variety of self-faced flags for street paving, &c. can be supplied at very moderate prices.—Prices and further particulars can be had upon application to Messrs. JOHN TAYLOR and SON, 5, Queen-street-place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4, Wharf, South Wharf-road, Paddington, or to Mr. GEORGE F. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's park

TO ARCHITECTS, BUILDERS, IRONMONGERS, &c. ENAMELLED SLATE CHIMNEY-PIECES, of elegant designs and superior workmanship, in great variety, at prices from 21s. to 5 guineas. Slate Cisterns made to any size. J. HOWELL, Manufacturer, 5, Cook's-grounds, King's-road, Chelsea, Middlesex.

UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION.
PRINCIPAL OFFICES.
Unity-buildings, 8 and 10, Cannon-street, City.
BRANCH OFFICE.
1, New Coventry street, Leicester-square.
CLOSING OF THE SHARE LIST.
The directors are happy to announce that, in consequence of the large number of shares which have been allotted and paid upon, the share list will be closed on Friday, the 30th November, after which date no applications will be received
Arrangements have been made which will enable the bank to commence business early in January next
This bank, to be in operation by royal charter is established for the purpose of founding the principle of MUTUAL BANKING, whereby customers, who create the profits, become entitled to a participation in them, by way of interest on their cash balances. The principle of mutuality has been for many years acted on by fire-insurance companies and their policy-holders have participated to a very great extent in the bonuses, with much advantage to the institutions and the shareholders. By banks, however, to this period MUTUALITY has been neglected. The whole of the profits resulting from successful operations have been given to the shareholders only.
ADVANTAGES OFFERED BY THE UNITY BANK.
I. To shareholders, 5 per cent from the date of payment, on all paid up capital, as well as 5 per cent on deposits.
II. To customers in addition to the customary amount paid on deposit and current accounts, interest on their cash balances, equivalent to 5 per cent on the profits
This is the plan on which the UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION is established. By it is created, for the first time, an identification of interest between the customers and shareholders of the bank, who thus become mutually concerned in the extension of its business. It will be the means of opening up new business, preserving a connection once formed, and productive of practical benefits to the public generally.
CONDITION OF LONDON JOINT STOCK BANKS.
The success of Joint-stock Banks in London is readily admitted, as well as proved, by the statements periodically issued by these great commercial institutions. In support of this, the following table is submitted, showing the condition of each of the six metropolitan Joint-stock Banks which have published accounts, the original cost of the shares, their present market value, and the dividends payable thereon:—

Name of Bank.	Time when Bank opened.	Paid up Capital.	Amount Paid each Share.	Present Value of each Share.	Rate per Cent. of Dividend Paid.
		£.	£.	£.	Per ann.
London and Westminster	1834	1,000,000	20	47	16
London Joint-Stock	1836	600,000	10	32½	12
United Bank of London	1836	1,200,000	10	30	10
London and County	1836	250,125	20	39½	12
Commercial Bank of London	1840	500,000	20	31	10
Royal British Bank	1840	500,000	5	6	2

The above banks publish the following facts with regard to their positions:—
I. The entire amount of subscribed capital in the six joint-stock banks in London is £2,712,125.
II. The amount thereof paid up is £2,317,625.
III. The amount of deposits, or customers' balances, is 29,578,000.
IV. The total number of shareholders is 4,697.
V. The number of shares issued, 187,481.
Thus is presented proof of known quarter, extent of business, and general financial resources. These establishments hold half-yearly meetings, and lay before their connections full accounts of their progress and general operations. This course cannot fail in inspiring with confidence all who have any dealings with them, while it gives to the public the means of forming an opinion as to their responsibility.
INCREASED VALUE OF JOINT-STOCK BANK SHARES.
It is proved to demonstration, that joint-stock banking, under proper supervision, affords almost estimable and unusually profitable field for the investment of capital. The dividends paid by the banks above quoted vary from 6 per cent to 32 per cent and the latest quotations of their shares show an increase of from 55 to 225 per cent on their paid-up capital. The real increase, however, in the value of the shares may be better understood by the fact that the paid up capital of these six banks is 2,317,625 and that its present market value is 5,212,125. It has thus increased two and a half fold, so that every £1 has now become £2 15s. and there is every prospect of this amount continuing to increase in value.
COURT OF DIRECTORS OF THE UNITY BANK.
CHAIRMAN.
J. J. Mechi, esq. Tarpee Hall, Kelvedon, Essex.
William Joseph Bruce, esq. 16, Duke-street, Westminster, and 44, Hyde-park-place, Cumberland-gate.
G. L. P. Lyne, esq. (Messrs. Crosley and Eyre), 1, John-street, Bedford-row.
Thomas Carale Hayward, esq. (Messrs. Hayward and Sons), 93, Minories; and 4 Highbury park North
Major Henry Stones, L.L.B. 33, Nottingham-place, Regent's-park.
Robert Garland, esq. Phanes chambers, York-buildings, Adelphi; and Bedford-lodge, Highbury.
Thomas H. Baylis, esq. Cannon-street, City; and 4, Nottingham-terrace York-gate, Regent's-park.
Dr. Lloyd, 4, Suffolk-place, Pall-mall.
Robert James Snape, esq. 3, Stone-buildings, Lincoln's-inn.
Edward Gould Bradley, esq. Benthall-lodge, Hampstead.
Major Martin Mahoney, Ignfield House, Alop terrace, Regent's-park.
BANKERS—The London and Westminster Bank.
SOLICITOR—Thomas Taylor, esq. 37, Bucklersbury, London.
BROKERS—Messrs. R. and J. Sutton, 22, Royal Exchange, London.
GENERAL MANAGER—George Chambers, esq. (from Messrs. Barnett, Hoare, and Co.)
SECRETARY—Henry Lake, esq.
Each of the directors is duly qualified, having subscribed for twenty shares, and paid the deposit of £100 in accordance with the deed of settlement.
THE NEW PRINCIPLE INTRODUCED BY THE UNITY BANK.
Regarding the distinctive principle of the Unity Bank, it has been suggested that there must be a detraction from the profits of the shareholders, by reason of so large a percentage being given to the customers of the bank. This idea can only have arisen, however, from the want of a careful consideration of the whole subject. In the first place, it is necessary to remember from whom the profits of a bank are derived. They are not made from the share capital. The very first ingredient for the formation of profits is a customer. The amount of profit must depend, to be sure, on the amount of business transacted; and the larger the business, provided it be properly conducted, the larger will be the profits. It must be borne in mind, also, that the real receipt of the dividends must depend on the number of cents of profits; and that 5) per cent of the profits, extending over large transactions, may be far greater than 10 per cent derived from more circumscribed business. If, then, the customers of a bank constitute its profits, the customers should be induced to transact their business with the bank, and thereby the profits of the shareholder, instead of being reduced, will be augmented. The inducement held out to the customer, however, should be such as does not involve or complicate the business of banking. It should not be by the promise of some peculiar accommodation, or some particular and increased rate of interest, or by any departure from the sound system of joint-stock banking which has stood the test of years of experience, and procured so great prosperity. But it should be, as it is in the Unity Bank, an advantage which interferes in no degree with established principles, but merely allocates a portion of that which has hitherto been declared to be profit to those who have been the makers of it. Assurance companies have been accustomed to apportion certain of their profits, by way of bonus, to their assurers; and so general has become the recognition of the right of the assurer to this participation, that no assurance association would now be established without this essential to success. The justice of the principle consists in this—that as the assurers make the profits of the company, they ought to be participators in its prosperity. What is just in assurance will be found just also in banking. The customers of a bank make the profits of the bank, and they ought also to be participators in its prosperity.
It has been asserted, also, that the 50 per cent of the profits proposed to be divided, while it would detract from the profits of the shareholders, would be but a trifling benefit to the customers. It might, in the first place, be replied that no benefit is considered "trifling" by those who rightly estimate pecuniary affairs; that the benefit, if trifling, is in addition to all the other benefits usually derived by banking at a joint stock bank; and that no correct data can yet be formed of the profits which will be made. On the other hand, it must be remembered that hitherto persons have taken their banking account where personal feeling, accommodation, or convenience of locality might lead them. Now, for the first time, by the introduction of the principle of mutuality, self-interest is appealed to. And when, to the large number of the public attracted by this all powerful stimulus, is added the number of the connections of the Unity Insurance Associations in all parts of the country, who have a peculiar identification with and interest in its success, it may fairly be stated, that antecedent data are not sufficient to form an estimate of the advantages which both the shareholders and customers will derive from the Unity Bank.
Great difficulty exists in estimating the effects likely to be produced by the establishment of this new and most desirable feature in banking. It is one that must become highly popular with every commercial interest, and with every class of the public, because its simplicity and advantages are at once to be seen and appreciated.
To those great commercial bodies which are compelled to have large cash balances constantly at their bankers', it will prove to be a serious consideration, and a most important source of profit. The railway, dock, gas water, steam navigation, insurance, and other companies, professional men, merchants, brokers, gentlemen of fortune, and traders of all kinds, will duly estimate the difference in the system now proposed, from that heretofore existing. In fine, as joint-stock banks became a public necessity, as is now proved as well the principle of mutuality whereby these admirable institutions may be rendered still more serviceable to the public, and in no way less safe—demand the best consideration of the community at large.
BUSINESS TO BE UNDERTAKEN.
All the usual business of banking will be undertaken; and arrangements will be made for extending the transactions of the Bank in every desirable quarter
CURRENT ACCOUNTS will be made up half-yearly, namely—to the 30th of June and the 31st of December, and interest will be allowed at the rate of 5l per cent. on them.
DEPOSIT ACCOUNTS.—With respect to these, the rate of interest allowed on money placed at seven days' notice will be 3l. per cent. under the rate of discount on first class bills adopted by the Bank of England, resulated thereby. The bank will give receipts for the sums so deposited, or, for the convenience of depositors leaving England, promissory notes, or bills, including interest as well as principal, at not less than six months' date.
The bank will undertake the agency of country and foreign banks, whether joint stock or private, and will afford every accommodation to travellers and others, with respect to circular notes and letters of credit. It will receive all kinds of income for its customers, including annuities, dividends, military, naval, and civil officers' pay. It will undertake the sale and transfer of stock in the public funds, &c.; and will be responsible for the safe custody of title deeds and other securities belonging to its customers, to which they will at all times have convenience of access.
Applications for prospectuses and forms of application for the remaining shares, to be made to Messrs. R. and J. SUTTON, Stock Brokers, 22, Royal Exchange; or to the Secretary, at the Principal Offices, 10, Cannon-street, City.
HENRY LAKE, Secretary.

FORM OF APPLICATION FOR SHARES.
TO THE DIRECTORS OF THE UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION
GENTLEMEN,—I request that you will allot me ... shares of 100l. each in the above Association: and in consideration of such allotment, or any less number you may appropriate to me, I hereby undertake to pay the deposit, or first call of 5l. per share thereon, and 20l. at the time of incorporation. I further undertake to execute the deed of settlement when required.
Dated this ... day of ..., 185...
Reference .....
Names (in full) .....
Residence .....
Profession or trade .....
Pl. ce of business .....

UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION.
Principal Offices; Unity-buildings, 8 and 10, Cannon-street, City.
CLOSING OF THE SHARE LIST.
NOTICE is hereby given, that no further applications for SHARES in this bank will be received after Friday, the 30th of November. By order, HENRY LAKE, Secretary.
Unity-buildings, 9th November, 1855.

TO BLACKSMITHS & BELL-HANGERS. A good BUSINESS TO BE DISPOSED OF in the above line, on very advantageous terms, in a populous neighbourhood, in consequence of the advertiser being compelled to leave town, owing to a bereavement necessitating other occupations.—Apply to A. PUTTER, on the Premises, Messrs. Wills, Builders, Starcorner, Bermondsey.

TO BRICKMAKERS, BUILDERS, and OTHERS.—TO BE DISPOSED OF, a BRICKMAKING BUSINESS, working under Bearle's Patent for Perforated Bricks, now in full work, with steam-engine and machinery of the newest and best construction. The clay makes a very superior facing brick for the London market.—For particulars, apply, by letter only, A. H. L. 166, Aldersgate-street, London.

TO ENGINEERS, IRONFOUNDERS, &c. TO BE DISPOSED OF, a snug, compact FOUNDRY, in one of the midland counties, employing about twenty-five men: in full work. Is entered with every convenience for carrying on a good trade.—Address, M 134, Post office, Liverpool.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 60 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.
No. 1 quality, inches diameter, and price per yard.
¼ ⅜ ½ ⅝ ¾ ⅞ 1 1¼ 1½ 1¾ 2 2½ 2¾ 3 3 in.
9d. 11d. 1s. 1d. 1s. 3d. 1s. 5d. 1s. 7d. 1s. 9d. 2s. 2s. 3d. 2s. 6d. 2s. 9d.
No. 2.
2 2½ 2¾ 3 3 inches.
2s. 2s. 3d. 2s. 6d. 2s. 9d. 3s. per yard.
No. 3. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.
1 1¼ 1½ 2 2½ 3 inches.
9d. 10d. 11d. 1s. 1s. 3d. 1s. 6d. per yard.
The hose is Burnettized at an extra charge of 3d. per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

NOTICE TO ROAD CONTRACTORS, NURSERYMEN, AND OTHERS.
WE and J. STUDDS, Sole Proprietors of the WEST DRAYTON GRAVEL PITS, lately removed from No. 31 Wharf, Harrow-road, to 2, North Wharf-road, Paddington, have now on sale good Garden and Screened Gravel. For terms, &c. apply at the Wharf.
Contractors supplied to any extent.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK'S

Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality, Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at

131, UPPER THAMES-STREET.—WORKS: SEVRES, NEAR PARIS.

ARCHITECTURAL AND ORNAMENTAL DECORATIONS.

Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

CHEAP, LIGHT, AND DURABLE ROOFING.

CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage. 3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person. 5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small. —6th. Under slate, metal, or tiles, it is a most effective non conductor

INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

CROGGON and CO.'S PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c. and

DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel and deadening Sound.

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15 oz Sheet Glass, in crates, from 8d. per foot; C C C Crown, 16 tables, 30s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 30s 32s, 36s, and 40s per case; Ground ditto, 34d. per foot. Extra size sheet glass of all qualities for ship-fronts, &c. Estimates and price lists forwarded, post-free, on application at the Warehouse, 20, Prince's-street, Leicester-square, London.

BIRMINGHAM GLASS WORKS.—WHOLESALE BRITISH and FOREIGN WINDOW GLASS.—DALTON and Co beg to call the attention of Builders and the Trade in general to their prices of British Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15 oz Sheet Glass, in crates from 21 per foot. C C C Crown Glass, 16 tables, from 30s per crate. Foreign Sheet Glass, in cases of 200 feet each, large sizes, at 32s 36s and 40s per case; Ground ditto, 34d. per foot.—Estimates and Priced Lists forwarded post free on application at their Warehouse, 34, Grand Junction terrace, Edgeware-road.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at
The Works, Pooker Nook, St. Helen's, Lancashire.
The Warehouse, 99, Hatton-garden, London.
" 45, Piccadilly, Manchester.
Messrs. C. and J. Mallech, 30, Turner's-court, Glasgow.
" John Dix and Co. Bath street, Bristol.
" H. Sibthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ¾ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly finished POLISHED PLATE GLASS, for shop-fronts and all superior glazing purposes, and for silvering. Superior silvered Plate-glass Mirrors of all sizes.

GOOD FOREIGN SHEET-GLASS.—Thirds, 24s.; common thirds, 26s.; fourths, 28s.; in cases 200 feet each, average size, 40 by 30 English or foreign ground ditto, 34d. per foot. Crown and sheet squares, in 100 feet boxes, from 14 by 10 to 22 by 14, 2d. per foot. 12 inch rough plate tiles 11s. per dozen; C C C crown 16 tables, 30s. per crate; H 15 oz. sheet, 2d. per foot. Cast, rolled, and patent plate, ditto, ground glass, glass slates, &c. CRYSTAL WHITE GLASS, first, second, and third quality, in cases of 200 and 300 feet each, at 4d. 6d. and 8d. per foot. Cathedral glass, various tints, sheet lead, pipe, white lead, oils, turpentine, colours, &c.
G. FARMLOE and SON, 118, St. John-street, West Smithfield, London.

By Royal Letters Patent.

THE COSMOPOLITAN GLASS COMPANY, 296, Oxford-street.

REDUCED TARIFF.

CCC CROWN, 16 Tables, per crate, 30s.; H 15 oz SHEET, 2d. per foot; FOREIGN SHEET, 200 feet cases, 34s per case; CROWN or SHEET SQUARES, 100 feet boxes, 2d. per foot; HARTLEY'S PATENT ROUGH PLATE, from 6d and PERFORATED VENTILATING GLASS, 1s 6d. per foot; CRYSTAL SHEET GLASS, 4d., 6d. and 8d per foot; FLASHED RUBY, 1s. GROUND SHEET, 3½d. ENAMELLED, 8d. per foot. Sashes primed and glazed, 4d. per foot.

Catalogues free, on application to the Managers, as above.

CRYSTAL WHITE SHEET-GLASS, first, second, and third quality, in cases of 200 feet, at 3d 4d. and 6d. per foot. Price lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester-square, London.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps, Watercloset Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application at PHOS. MILLINGTON'S Warehouse, 87, Bishopsgate-street, London. Established more than 100 years.

GLASS PAN-TILES, packed in cases of fifty, one-quarter of an inch thick, 1l. 17s. 6d.; three-sixteenths, per case of sixty, 2l. 1s. 3d.; one-eighth, per case of sixty, 1l. 17s. 6d. Foreign Sheet Glass, in cases of 200 feet, 28s., 32s and 40s. per case. Crown Glass, in crates of sixteen tables, from 28s. Crystal White Glass, for pattern, at 4d. 6d. and 8d. per foot. JAMES PHILLIPS and Co. 116, Bishopsgate-street Without, London.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for coating, of unrivalled quality and finish; ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, at the lowest terms. Designs and estimates furnished for ornamental windows, either for house or church decoration.—All applications for estimates and lists of prices to be made at their warehouse, 315, OXFORD-STREET.

SHARPE and BALL, SASH-MAKERS and JOINERS to the Trade, No. 5a, White Lion-street, Norton Folgate, near the Eastern Counties Railway. Established upwards of thirty years. Every description of joiners' work at the lowest prices, packed and forwarded to all parts of the country. Estimates and lists of prices forwarded on application.

JAMES RHODES, No. 6, Macclesfield-street North, City-road, London, Manufacturer of Sashes, and Frames, Doors, &c. and every description of House Joinery. Glazed goods securely packed for the country. Prices on application at the Counting house, as above.—N.B. This is the cheapest manufactory in London, and well deserving the attention of all engaged in building.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Sash, fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned.—Workshops, 105, Broad-wall.

WOOD-CARVING and FRET-CUTTING. T. BEWETSON, Wood-Carver, and Fret-Cutter, 5, Hatton garden, London, begs to inform Architects, Builders, Ironfounders, Cabinet and Pianoforte Makers, that he is prepared to execute any kind of Architectural or Ornamental work, with accuracy and despatch.—T. B. particularly solicits the attention of Ironfounders, having had many years' experience in ornamental pattern making. Estimates furnished.

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond street, and 3, Queen-street, Hanover-square, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner:—Venetian blinds, per square foot, 9d.; best holland blinds in one piece, ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, &c.; perforated zinc blinds, in ditto, 1s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free.

WINDOW-BLINDS.—J. FULLER, Manufacturer, 29, Charlotte-street, Blackfriars-road. Established, 1850.—Venetian Blinds, from 8s. each, or 8d. per foot; Wire ditto, 7s. each, or 1s. 8d. per foot; Hollands ditto, from 5s. each, or 1s. per foot. Every other description of Blinds equally low, warranted of the best manufacture. Discount to Builders and the Trade. Fixed complete.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSS'S WHOLESALE WAREHOUSE, 22 GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

PAPER-HANGING WAREHOUSE, 3, OXFORD-STREET.—To be DISPOSED OF, at a considerable reduction, all the remaining summer STOCK of PAPER-HANGINGS, including Gold Flocks, Satins, and Machine-work, which must be clear out before the new year

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, White friars, Fleet-street, City. Sand, from mouse or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street City; FREDERICK BRABY, Whole-sale and Retail Agent, 8, Tottenham-court, New road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21 and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 19, Manchester-buildings, Westminster

TERRA-COTTA WORKS, Blackfriars-road, London. The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, to the adornment of our noblest buildings, and is the only tried material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition. A large Stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very Low prices, and worthy of notice.

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs.—Capitals, Consoles, Tracery for Parapets, Balusters, String Courses, Friezes, Bas reliefs, Vases, Statues, Chimney-shafts, and all other Architectural Enrichments, Moulded, Sunk, and Plain, and in the best manner, and warrants it to stand heat and frost, either in Buff or Red-coloured Terra-cotta.—A great variety and large stock may be seen at BLASHFIELD'S Warehouse and Show-rooms, No. 1, Pratt street, Paddington.

TO ENGINEERS, MACHINE MAKERS, AND OTHERS.

CHARLES MACINTOSH and CO. Patentees and Manufacturers of the VULCANIZED INDIA-RUBBER in all degrees of elasticity, recommend this material as capable of withstanding the action of hot or cold water, gas, steam, acids and grease. It is used extensively for valves in marine and land engines, railway buffers and springs, washers for pipe unions, hose and tubing, also for gas-holders, acid pumps, alkali cisterns, &c. &c. Articles moulded or otherwise, made to any size or figure.—Address, 3, Cannon-street West, London; and Cambridge-street, Manchester.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.

Diving dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions Inflating Portable Baths, Invalid Cushions, and Articles of this Kind made to order pattern to order.

N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR RAMANOOJAH MUDLIAR, Bart., VENKOJEE TWIGHT. Second Testimonial.—"March 10th, 1852. In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N.B From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON

AMERICAN VULCANISED INDIA-RUBBER, for Engineering, Mechanical, and Manufacturing Purposes; Steam Packing, Valves, Discs, and Joints; Washers for Hot and Cold Water Joints; Machine Belting or Driving Bands; Steam, Smoke, and Garden Hose; Drab and Gas Tubing, Printing Blankets for Steam and Hand Presses. Sole Manufacturers of India-Rubber Combs.

DODGE, BACON, and CO. 44, St. Paul's-churchyard, London.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

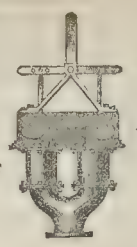
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors &c &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

AYLESFORD POTTERY COMPANY,

BELVEDERE-ROAD, LAMBETH.

MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly seven years, and having during that period executed DRAIN PIPES, &c. to some of the largest Works in and around London, viz. -The New Cattle Market, Wellington and Chatham Barracks, Deptford Dock-yard, Her Majesty's Commissioners of Works, &c. and in all instances parties using them express themselves satisfied therewith, - take this a fair test of the quality of the articles supplied by them; and as the now feel themselves established as Potters, beg to offer their goods to Contractors, the Trade, &c., of a first-rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.

HENRY MILLICHAMP,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

Whole Socket.

A LARG ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.

Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

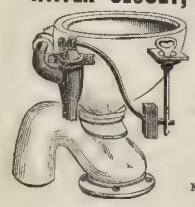
Half-Socket.

Watercloset Pan with Syphon-Trap connected, price 5s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain pipes, at greatly reduced prices. (1179)

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.



DOULTON & WATTS,

LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS,

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

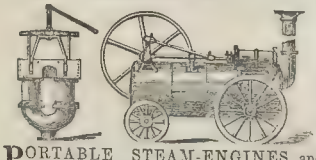
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 3s. per doz. painted.
Ditto .... 4s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

VAST IMPROVEMENT IN PUMPS.—PARSEY'S REVOLVING PUMP, all metal, without valves, leather, or packing. Linearity of working and disarrangement removed; and equally superior for hot or cold liquors. Contractors, brewers, distillers, shipowners, water and gas companies, agriculturists, and others, are solicited to see them in act on at Mr. PARSEY'S Depôt, Great Scotland-yard, where orders are received and executed.

MEDWIN'S PATENT PORTABLE PUMPING STEAM-ENGINES.

TO CONTRACTORS.

STEAM ENGINES for Pumping, Winding, Sawing, and general Builders' and Contractors' Work, FOR SALE, or TO BE LET on HIRE, by the day, week, or any time required. STRONG, SIMPLE, PORTABLE STEAM ENGINES, with and without Wheels, Reversing Gear, &c. These engines have been successfully employed for years by all the principal contractors, and for a variety of other purposes. A great number are ready for immediate delivery, of 4-horse, 6-horse, 8-horse, 10-horse, 12-horse, and HALL, Engineers, Surrey Iron Works, 92, Blackfriars-road, where they may be seen.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS, Engineers and Contractors, John's-place, Holland-street, Southwark, London.

PORTABLE STEAM-ENGINE.—A new 8 horse PORTABLE STEAM-ENGINE, with tubular boiler, for SALE. Can be seen at work at Mr. GOODWIN'S, 67, Great Guildford street, Southwark, of whom particulars may be obtained.

A FOUR-HORSE POWER PORTABLE STEAM-ENGINE FOR SALE. Apply to WM. DRAY, Swan-lane, Upper Thames street, London.

WARNER'S PATENT VIBRATING STANDARD PUMPS.—PATENT CAST-IRON PUMPS, for the use of farms, cottages, manure-tanks, and wells of a depth not exceeding 30 feet.

Diameter of Barrel.	Length of Barrel.		£ s. d.
2½ in. short	1 ft. 7 in.	Fitted for lead,	1 10 0
3 ,, long	3 3	gutta percha	1 14 0
3 ,, ditto	3 6	or cast iron	2 8 0
3½ ,, ditto	3 6	flanged pipe,	2 12 0
4 ,, ditto	3 6	as required.	3 3 0
2½ ,, short, with 15 feet of lead pipe attached, ready for fixing			2 10 0
2½ in. long ditto ditto			3 14 0

The short-barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from under-ground tanks, or in hot, forcing, and plant houses; they may be fixed, when desired, under the stage.—May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin-street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

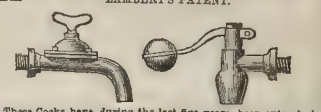
The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.

HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 180 to 450 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,

Brass and Iron Founders, Short-street, New-cut, Lambeth.

THE PERMANENT WAY COMPANY,

26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject, and to grant licenses for their use. From the facilities thus afforded to companies to negotiate for a number of inventions, much trouble and chance of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents. Applications may be made to CHARLES MAY, F.R.S. the Manager; or to

WILLIAM HOWDEN, Secretary.

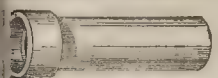
TO WORKING POTTERS.

THE Proprietor of an extensive Salt Glaze Pottery in the country is willing to CONTRACT with efficient WORKMEN for the MAKING and BURNING of SOCKETED DRAIN-PIPES, BENDS, and JUNCTIONS, the proprietor supplying steam power, pipe machines, kilns, and all materials, coals inclusive.—Address terms referring to present trade lists, to X. Y. 295, Bristol.

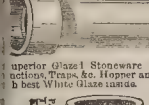
TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES.

FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.



uperior Glazed Stoneware Pipes, Bends, nctions, Traps, &c. Hopper and other Pans, h best White Glaze inside.



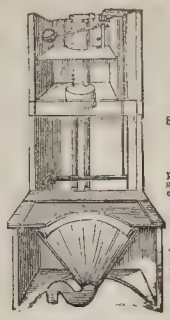
Pan, 3s. 6d.

Trap, 2s.

yphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

gistered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
B. S. HOGGART, Engineer.

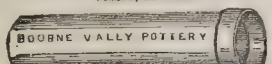
Royal Arsenal, Woolwich, June 24, 1849.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crack or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the best quality, the produce of the estate, and will bear comparison with any Pipes in the Kingdom, and can be had upon application to

THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

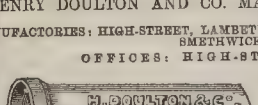
May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Rock-head, Bermondsey; Denver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; TURNER, 2, South Wharf, Praed-street, Paddington; GOLWILL, Brothers, 33, Brydges-street, Covent Garden; and at EDWARD COCK'S 91, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

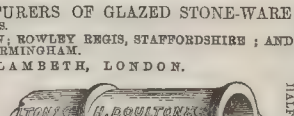
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

SOCKET.



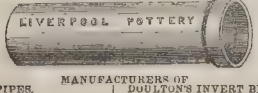


PLAIN-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.

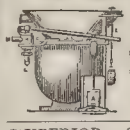


MANUFACTURERS OF

DOULTON'S STONE-WARE PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

UNDERHAY'S PATENT REGULATOR CLOSETS for constant or intermitting supply, dispense with Cistern, Service Boxes, Valve Levers, Links, Lever, &c.; much time is saved in fixing, and a better flush of water obtained in use.



Pan, Valve Siphoning, and Servants' Closets, on its principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed 5 000 of them have been sold, and no instance of failure has occurred.

These Stop Valves are cheaper, stronger, and more ornamental, than any other. Many thousands are in use, and greatly approved of.

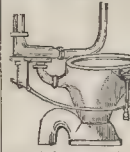
Manufactured by
CHARLES BOTTEN and SON,
Brass Founders, Crawford-passage, Clerkenwell, London.

SUPERIOR STONEWARE GLAZED PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction,—the price being also lower than many in the trade, viz. 25 per cent. off the list for Pipes, Junction Bends, &c. Pans and Traps of the first quality, Yorkshire Paving, Sinks, Sills, &c. all at low cash prices.—E. and W. STURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered after October 1, 1855.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with a stem, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronized by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 22, Old Fish-street, near St. Paul's, London.

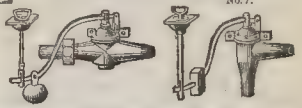
CROWN GLASS, 18 TABLES, 32s. PER CRATE.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 15s. 6d. each.

SUPERIOR LAND DRAINAGE.—AGRICULTURAL DRAIN-PIPES of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

SUPERIOR GLAZED STONEWARE DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin and Creek Wharf, Hammersmith.—J. Corbett's Depôt, Britten-street, Chelsea; and at the Pottery.

SALES BY AUCTION.

REGENT-STREET.—An eligible Plot of Building Ground, suitable for an Exhibition Room, or for any other purpose requiring a first-rate and central position at the west-end of the metropolis

MESSRS. RUSHWORTH and JARVIS are directed to announce for SALE by AUCTION, in the month of DECEMBER next, unless previously disposed of by private treaty, the CROWN LEASE of a PLOT of GROUND, about 88 feet by 65 feet, situate in the rear of Hanover Chapel, Regent-street, offering an eligible site for an exhibition, concert, or lecture room, theatre, or of any religious or scientific hall, or suites of chambers. It is held for an unexpired term of sixty-five years, and further particulars may be had at the Offices of Messrs. Rushworth and Jarvis, Saville-row, Regent-street, where a plan of the property may be seen.

CHALK FARM, HAVERSTOCK-HILL. Building Materials, Furniture, Fixtures, Bar-and-counter Fittings, and appendages of the above well-known Tavern and Tea-gardens

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES on TUESDAY, NOVEMBER 27th, and following day, at TWELVE, in lots, all the BUILDING MATERIALS, furniture, utensils, and effects, of Chalk Farm Tavern, comprising a quantity of old brickwork plain and paving tiles, excellent slating, useful timber, sashes, doors, parti ons, floor boards, stone paving, iron gutters, and 60 feet iron railing, 500 feet run wood fencing; also the furniture and tavern fittings, including the usual articles for bed-rooms and sitting-rooms, china and glass, prints and paintings in oil, clocks, mahogany-top counter, beer-engines, liquor fittings, iron tube and pipes, twenty moveable drinking boxes in the gardens, drinking tables, and seats, 100 forms, and numerous useful tavern fittings.—May be viewed the day previous. Catalogues had of Messrs. Lawson, Architects, 9, Laurence Pountney-lane; of Mr. Younger, 5, South Side, St. James's-square; and of Pullen and Son, 80, Fore-street, Cripplegate.

CANNON-STREET WEST.—Important Sale of Building Materials of extensive Warehouses and Offices, and Residences known as "St. Thomas Apostle Chambers," including 300,000 bricks.

PULLEN and SON respectfully announce that they are instructed to SELL by AUCTION, on the PREMISES, on TUESDAY, NOVEMBER 27, and following day, at TWELVE, in lots, all the capital BUILDING MATERIALS and FIXTURES of an extensive block of Warehouses, with spacious Dwelling-houses and Offices, forming a large portion of the division between Queen-street and Bow-lane, and extending in the rear to Allemanu Church-yard, comprising about 300,000 prime stock bricks; 18 tons of lead in gutters and pipes; capital oak and fir timber, in rafters, joists, and girders; 50,000 plain tiles; 100 pair of glazed sashes; modern doors, partitions, lining boards, marble chimney-pieces, and interior fittings; 200 squares of short boarded floors; hoop-iron doors, with frames and jibs; iron columns; 380 feet run of coping; stone cills and paving; cutmore cales; slate, ranges, coppers, cisterns, and a great variety of fixtures and fittings up. May be viewed two days previous, and catalogues had of Pullen and Son, 80, Fore-street, Cripplegate.

DAY of SALE ALTERED.—Bagnigge-wells-road.—Remaining Stock-in-Trade of a Builder.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, on the PREMISES, Baker-street, on TUESDAY, NOVEMBER 27th, at TWELVE, the remaining STOCK-IN-TRADE, comprising prepared well-seasoned floor-boards, deals, battens, scaffolding timber, mantels, marble chimney-pieces, Portland and other stone, and effects.—To be viewed one day previous to the sale, when catalogues may be had on the Premises, and of Mr. D. A. Ramsay, Auctioneer and Estate Agent, 79, King William street, City.

TO BUILDERS, IRONMONGERS, and OTHERS.—The entire Stock of a Furnishing Ironmonger, removed from the Bedford Pantechnicon, for absolute sale.

MR. D. A. RAMSAY will SELL by AUCTION, at Mr. Robinson's Rooms, 21, Old Bond-street, on THURSDAY, DECEMBER 6th, and following day, at TWELVE precisely each day, on account of the number of lots, without reserve, an extensive and well-selected STOCK of IRONMONGERY, comprising bell levers, ladders, carriage and fire, mortise and other cranks, brass, oak, clock, and other mortise furniture, rawhack, mortise, stock, and other locks, Norfolk and pulpit latches, bench flap, wrought, cleat, and wheel hinges, iron and brass pulleys, tea-waiter, boiler, and other cocks, cupboard and dresser hooks, bolts, flush, tower, barrel, and other bolts, an immense quantity of nails, screws, sundry brass, copper ware, files, and numerous effects. May be viewed two days previous to the sale, and catalogues had at the Rooms; of Messrs. A. and A. Jones, Solicitors, 9, Gould-square, Chancery-lane; and of the Auctioneer, 79, King William-street, City.

TO TIMBER MERCHANTS AND OTHERS.—TO BE SOLD BY AUCTION, by

MR. H. MINTER, on THURSDAY, the 22nd of NOVEMBER, 1855, at TWELVE for ONE o'clock precisely, on the PREMISES, at Fromall Farm, in the parish of Tewkesbury, Gloucestershire, NINETY PIECES of superior ELM TIMBER, containing about 2,000 feet, and twenty cords of fire-wood.—The timber may be viewed any time previous to the sale, and catalogues obtained, on application to the Auctioneer, West-street, Faversham. The whole of the timber is lying on or near a good road, and within a very short distance of Conyer Wharf, for water carriage.

TO BUILDERS, CARPENTERS, PIANOFORTE and CABINET-MAKERS AND OTHERS.

MR. LEREW will SELL by AUCTION, on the PREMISES, 42, Dunn-street, Somers-town, on MONDAY, NOVEMBER 26th, at TWELVE for ONE o'clock, about 2,000 Yellow White, and Pine Planks, Deals, and Battens, by effect dry, wide, pine board, 8,000 feet quartering, 100 squares prepared flooring, fielders, arrows, scaffolding, 10 doors, 300 pieces of paper-hangings, and other useful stock.—May be viewed the Saturday prior, and catalogues had, on the Premises, and at Mr. Lerew's Offices, 3, Carlington-road, Hampstead-road.

BROOKE-STREET, HOLBORN.—To PUBLICANS, FIXTURE DEALERS, BUILDERS, and OTHERS.

MR. SANDERS has received instructions from the Proprietor, who is about to rebuild the "Greyhound" Public House, as above, to SELL by AUCTION, on the PREMISES, on THURSDAY, NOVEMBER 22, 1855, at ONE o'clock precisely, the BUILDING MATERIALS, comprising several thousand old bricks, lead and other pipes, stables fitted with slate mangers, gas-fittings, &c. &c.; street-lamps, furniture, casks, cabinet-work, and other effects, which may be viewed on Wednesday, and catalogues had on the Premises and at the Auctioneer's Offices, 373, Oxford-street, Bloomsbury.

TO BUILDERS, MASONS, &c.—THREE HUNDRED MARBLE CHIMNEY-PIECES having been offered for SALE by AUCTION, and a portion remaining undisposed of, consisting of the larger class chimney-pieces, suitable for mansions and public buildings, they are now offered by PRIVATE SALE at a considerable reduction in price. In consequence of the death of one of the company, the accounts must be balanced by the 1st JANUARY next. An early inspection is recommended. Westminster Marble Company, Earl-street, Holywell-street, Millbank

HOUSE PROPERTY WANTED.—Money advanced by way of MORTGAGE, on freehold or leasehold properties, at 5 per cent. Wanted also to PURCHASE similar PROPERTIES to a large amount. Parties desirous of effecting an immediate sale, and having a good investment to offer, will be immediately attended to.—Apply, prepared to give full particulars, at Mr. MILLYARD SCOTT'S Offices, 19, Commercial-road East, London.

REMOVAL of OFFICES.—SCOTTISH AMICABLE LIFE ASSURANCE SOCIETY, from 43, LOMBARD STREET, to No. 3, THREADNEEDLE-STREET, Royal Exchange.

VOTES for the County.—Merton.—TWO PLOTS of FREEHOLD GROUND, for building, on the high road—no road to make—frontage 65 feet, depth, 120 feet 6 inches. Houses opposite side of the road.—Apply to W. C. 51, Queen-str et, Edgware-road.

BUILDING LAND (with advances) TO BE LET, at Burner-street, Greenwich, close to the Pier and Station. Two-thirds of the street are now built upon. Also land at Norwood, Wandsworth, Wimbledon, and Forest-hill.—For particulars, apply to JAMES COE and SON, 1, Carpenter's-buildings, London-wall.

HAVERSTOCK-HILL.—To BUILDERS. TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some commanding FRONTAGES for Shops and Private Houses. All the sewers are in on the estate, roads all formed, and now making. Terms nicely moderate. Low ground-rents. Bricks supplied at a low price and liberal cash advances. Apply to Mr. JOHN MOORE, 85, Chalton street, Euston-square.

ELIGIBLE PLOTS of GROUND TO BE LET for Building, at Castlebear-hill, seven miles from London, and ten minutes from the Ealing Station, on the Great Western Railway. For particulars, apply to GEORGE LESLIE, Upper-mall, Hammersmith.

TO BUILDERS and OTHERS. — For DISPOSAL, a PLOT of GROUND, for Building Eight Residences. May be had on very moderate terms, as a trifling ground-rent, if purchased directly. Also the Leases of Five Houses to be Sold; let to respectable tenants, and in good repair.—For terms and cards to view, apply to Messrs. HULL and MARTIN, Auctioneers and Estate Agents, 6, Chapel-street West, May-fair.

CORNHILL.—TO BE LET, on a Building Lease, the PREMISES No. 16, on the south side, facing the Bank and the Royal Exchange. Sealed Tenders addressed to the Clothworkers' Company, to be sent to the Hall, in Mincing-lane, by TUESDAY, the 27th inst. Further particulars may be obtained upon application at the Hall, or at Mr. ANGELL'S Office, 18 Gower-street, Bedford-square, between the hours of TEN and FOUR.

E. B. TOWSE, Clerk.

Clothworkers' Hall, November, 1855.

THE HACKNEY and GUILDFORD ESTATES. The CONSERVATIVE LAND SOCIETY.—Next THURSDAY, NOVEMBER 22, at the Offices, 33, Norfolk-street, Strand, London, the HACKNEY ESTATE, in Middlesex, close to the Station of the North London, or "All round the Town" Railway; and the GUILDFORD ESTATE, West Surrey, will be ALLOTTED.—For plans and all particulars in obtaining lots, apply to CHARLES LLWYD OSBORNE, Sec.

TO BUILDERS. — There is an immediate demand for several HOUSES, near an important town in South Wales. The owner of a large estate in the neighbourhood will give a builder of spirit and capital every encouragement.—Application to be made to W. BULLOCK WEBSTER, Esq. Gnoll Castle, Neath.

PREMISES WANTED.—A GROUND-FLOOR, containing seventy squares or more, wholly or partly covered, or Ground suitable for the Erection of a Factory. Address G. B. 168, Ivory-lane.

TO IRONFOUNDERS AND OTHERS

WANTED to RENT, for a limited time, in or near London, PREMISES, to be used as a foundry. Must have a steam-engine, chimney-shaft, and a dry pit 10 feet deep.—Address B. B. Watson's Printing-office, 3, Kirby-street, Hatton-garden, London.

TO BE SOLD, one or two CARCASES in the best part of Kentish Town; slated roofs, lead gutters, iron rain pipes, and well drained stonework in the front, complete, and front cemented; nine rooms, wash house, and bath-room, and all garden walls. Term, 6 years, direct from freeholder, for the next 8½. Price £60 each, or freehold 40l. Apply to Mr. WRIGHT, Baker, 6, Willow-walk, Junction-road, Kentish Town.

TO CARPENTERS, BUILDERS, &c

ONE or MORE HOUSES, in CARCASE, with Garden Walls and Wash-use, TO BE LET, on a ground-rent, or TO BE SOLD; the purchase money can stand over a given time at five per cent. Inquire of Mr. CHARLES MARSHALL, Builder and Brickmaker, Albert-terrace, Kentish-town.

TO TIMBER MERCHANTS and OTHERS. The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer to the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks, and 10 ton Cranes, Sawpits for converting Timber, &c. Freights paid on delivery.—Apply to G. NOKES and Co. as above.

TO BE SOLD, some SCAFFOLD-POLES and BOARDS (have been once used), consisting of Nos. 25 poles, each 26 feet long, and 8- to 12-inch rough Boards, 12 feet long, now lying at the Vassall road, North Brixton, Surrey.—For particulars, and to view, address, post-paid, to W. D. 1, Bride-lane, Fleet-street.

TO SEWER CONTRACTORS, BARROW MAKERS, &c.—TO BE SOLD, a large quantity of 1-inch ELM BOARDS, mill-sawn. Price 10s. per hundred feet super.—May be seen by applying to S. C. 14, Hanover-street, Walworth.

TO CARPENTERS, BOX-MAKERS, &c. A LARGE STOCK of DRY PINE and SPRUCE DEALS and PLANK, ready cut and at reasonable prices, always on hand at EDWARD SHEFFIELD'S Timber yard, Colchester-street, Whitechapel-church.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

½ inch White, 13s. 6d. per square.		½ inch Yellow, 15s. per square.	
1 ditto	15s. "	1 ditto	16s. 6d. "
1 ditto	18s. "	1 ditto	20s. "

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.

ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Panoras-road.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.

Address, E. SIMMS, SAWING, PLANING, AND MOULDING MILLS, King's-road, Chelsea, and Wilton-road, Pimlico.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY begs to inform the Trade, that he has REDUCED the PRICE of YELLOW DEALS 3l. p. 120, and solicits their attention to the following low prices:

Yellow Deals	From £24	0 p. 120
Spruce ditto	" 17	10 "
Pine Planks, 12 ft. 9 in. by 11 ft.	" 7	0 "
Spanish Mahogany, in logs	"	7½d. per ft.
Honduras Mahogany, in logs	"	4½d. "
Prepared flooring	"	3s. each.

Prepared flooring and cut stuff of every description at equally low prices. A list forwarded on receipt of postage-stamp.

Borough-road, Southwark; and Elm street, Gray's-inn-lane.

PADDINGTON TIMBER-YARD.—SAWING, PLANING, and MOULDINGS.—3, Ironside Wharf, Praed-street, Paddington, and 96, St. John's-wood terrace, St. John's-wood.—GEORGE WILLIAM FRY begs to draw attention to his large stock of SEASONED and PREPARED WOOD GOODS, at the lowest current prices. Liberal allowance for cash, and facility for immediate despatch by rail or canal, which affords every advantage to country as well as town buyers. Illustrated and priced sheets of moulding designs and several price lists of goods forwarded post free on application. Goods free to any part of town, including the various railway and canal stations.

N.B.—Sawing and planing for the trade.

EDWARD SIMMS begs to inform builders and the trade, that he has now on hand at his many factory (the first of its kind ever established), a large assortment of PREPARED FLOORINGS and MATCH BOARDING, seasoned, and ready for use, from 4-inch to 14-inches thick, in White or Yellow Deal, Oak, or Pitch Pine. Also Dry Deals, in all thicknesses. Slating Battens, Panelled Lids, Oak Cills, Plank, and Scantlings. Mouldings in clean Pine, to any design. A pattern list forwarded on application.—Address, E. SIMMS, Flooring Manufactory, Wilton road, Pimlico; and Sawing, Planing, and Moulding Mills, King's-road, Chelsea.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the public, builders, surveyors, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floor boards, mouldings, pine and fast deals, slating battens, laths, English oak plank, and sashes, at reduced prices for cash. The Monthly Price Current forwarded on application.

OAK VARNISH, 8s. 6d. per Gallon, in quantities not less than two gallons, for cash only, at C. LEFTWICH'S Lead, Glass, and Colour Warehouse, 21, Museum-street, Bloomsbury. A large quantity of PAPER-HANGINGS, CHEAP. 2s. per cwk. given for old lead.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are recommended by the principal leading architects, and those who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments, tombs, and every description of marble and stone work also manufactured on the premises, by steam machinery. NEW WORKS, No. 29, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by inclosing six penny stamps. Please note the address, 29, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns composing, at 3s. per foot superficial, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 3, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

A HANDSOME PULPIT SOUNDING-BOARD, of wainscot oak, inlaid, and carved moulding round, hexagonal, to suspend from the roof by a chain. Price 30s.—EDWD. SPENCER and CO. Carpenters, 18, Bulliter-street, City.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Prices 8s. per gallon. Varnishes for WAINSCOTS and STAIRS may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding fifty months, are readily OBTAINED from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 1s. per post.

CHARLES JAMES THICKE, Resident Secretary.

MONEY on LOAN, at 3½ per Cent. per Annum.—ARNEWAY'S CHARITY.—NOTICE IS HEREBY GIVEN, that the Trustees of this Charity are enabled to lend out the Trust Moneys to poor occupiers or traders resident within the City and Liberty of Westminster, that is to say, within the parishes of St. Margaret and St. John the Evangelist, St. Anne, Soho, St. Clement Danes, St. George, Hanover-square, St. James, St. Martin-in-the-Fields, St. Mary-le-Strand, and St. Paul, Covent-garden. The amount of each loan is not to exceed 15l., at a clear interest after the rate of 3½ per cent. per annum, and to be secured by the bond of the borrower, with two sureties. Printed Forms of Application, and all necessary information, may be obtained by applying personally, between the hours of Ten and Three o'clock in the day, at the office of the Clerk and Solicitor to the Trustees, No. 14, Great Queen-street, St. James's Park.

By order, EDWARD S. STEPHENSON, Clerk and Solicitor to the Trustees.

NOTE. The Trustees meet on the second Wednesday in every month, to consider such applications for loans as have been sent in one clear week at the least before the first day of the month.—The sureties must be unexceptionable.

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The Builder.

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BUILDERS' BENEVOLENT INSTITUTION THURSDAY NEXT.—An ELECTION of SIX PENSIONERS (four males and two females) will take place on THURSDAY, 29th instant, at the London Tavern, Bishopsgate-street. Charles Lucas, Esq. president, in the chair. Dining commences at TWELVE, and closes at THREE o'clock, precisely.

Nov. 24, 1855. A. G. HARRIS, Sec.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-Superintendent RICHARD REDGRAVE, Esq. R.A.

Head Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develop its relation to the requirements of trade and manufacture and its application to the common uses of life. Special courses are arranged for the training of Masters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects:—Free-hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still-life, &c. the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees of per session, or part of the session. For Lecture Classes only, of per session.

The Classes for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of if per session.

Students have full access to the valuable collections of the Museum and Library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session,—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

MANCHESTER MECHANICS' INSTITUTION EXHIBITION 1856.—The Directors of the Manchester Mechanics' Institution propose to inaugurate the New Building with an Exhibition of the Fine Arts, Architecture, Machine Inventions, Raw Materials, Industrial Products, Machinery at rest and in motion, and everything else in the mechanical and philosophical departments. The Exhibition will occupy a suite of rooms, with the addition of a commodious gallery 250 feet long, and 30 feet wide, for the display of the larger objects, especially those for the Fine Arts, &c. With this space at their disposal, and with the experience the directors possess of the successful working of similar Exhibitions in this Institution, they confidently hope to make the present one surpass in extent and interest that which established the reputation of the Institution in 1838, and which was attended through all the densely populated districts of which Manchester is the centre. To aid them in the undertaking, the directors earnestly solicit the loan of objects suitable for exhibition, and they will gladly assist in the packing and forwarding of such articles as may be sent. Every care will be taken of the articles confided to the Institution, and a policy of insurance will be effected on the building and its contents, sufficient to cover any damage that may be occasioned by fire. The new building is lighted with gas throughout, and it is proposed to keep the Exhibition open on Sundays as well as on other days of the week. Those gentlemen who may wish to assist the Board by the loan of objects, &c. &c. are respectfully requested to communicate as early as possible with the president of the Institution, LEVEN HEYWOOD, Esq. or with the Secretary. By order of the Board,

E. HUTCHINGS, Secretary.

Manchester, 17, Cooper-street, November, 1855.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, NOVEMBER 30, Mr. C. F. HAYWARD will read a Paper, "On the Architecture of the Nineteenth Century: Paris and London Compared."

The Committee will meet at SEVEN p.m. The Class of Design will meet DECEMBER 7. Subject for Sketch, "The Vaulting of a Space Triangular on Plan."

T. W. GOODMAN.
J. A. BUNKER.

Lyon's Inn Hall, Strand.

ARCHITECTURAL EXHIBITION, Suffolk-street Galleries, Pall-mall East.—All Articles for the Department of Materials and Manufactures connected with Architecture (for which the rooms are set apart) must be delivered on the 3rd or 4th of DECEMBER next. The Council of the Royal Institute of British Architects will appoint a jury, who will award certificates of merit as they may think proper and the committee believe that this will confer a great benefit upon exhibitors, as it will tend to bring into notice and to recommend for adoption all those things which may deserve attention. All fixing, &c. must be done by exhibitors. The committee do not charge for the space, but as an associate profit and advantage is reaped, subscriptions will be gladly received towards the necessary expenses.

JAS. EDMEST. N. Jun. 5, Crown-court, Old Broad-street, } Hon. Secs.
JAS. FERGUSSON, F.R.A.S. 20, Lancham place,

ARCHITECTURAL EXHIBITION, SUFFOLK STREET GALLERIES, PALL MALL EAST.—The following Local Honorary Secretaries are prepared to furnish every information personally in their respective districts:—

Birmingham	W. W. Bateman, esq.
Bristol	S. C. Fripp, esq.
Bury St. Edmunds	John Johnson, esq.
Chester	James Harrison, esq.
Cork	R. R. Brash, esq.
Coventry	James Murray, esq.
Derby	H. Shaw Peach, esq.
Durham, and Darlington	J. P. Pritchett, esq. of Darlington.
Exeter	Edward Ashworth, esq.
Edinburgh	W. Muller, esq. Hon. Sec. Arch. Inst. Scotland.
Glasgow	
Huddersfield	Charles Pritchett, esq.
Ipswich	Frederick Barnes, esq.
Lancaster	
Leeds	Wm. Reid Carson, esq.
Liverpool	J. Boulter, esq.
Llandaff	J. P. Seddon, esq.
Manchester	
Newark	Charles Baily, esq.
Norwich	R. Kitton, esq.
Nottingham	T. C. Hine, esq.
Oxford	T. Jacombe Seckham, esq.
Plymouth	W. H. Reid, esq.
Reading	Charles Henman, esq.
Stoke-upon-Trent	Charles Lynam, esq.
Sunderland	Thomas Oliver, e.q.
Taunton	C. E. Giles, esq.
Tunbridge Wells	M. Stevens, esq.
Wolverhampton	E. Banks, esq.
York	George F. Jones, esq.

JAMES EDMESTON, Jun } Hon. Secs.
JAMES FERGUSSON, F.R.A.S } London.

ARCHITECTURAL EXHIBITION.—All Works for Exhibition must be delivered at the Galleries on the 3rd or 4th of December.

At Eight o'clock on the Tuesday Evenings, beginning with the 8th of January, LECTURES will be delivered at the Galleries, and the Committee have to announce the following:—

Jan. 8. JAS. FERGUSSON, Esq. F.R.A.S. Hon. Sec. Architectural Exhibition, on the Architecture of Assyria.
15. GEORGE SCHARF, Jun. Esq. on Early Christian Art, as illustrated in Mosaic Paintings.
22. The Rev J. L. PETIT.
29. ROBT. WM. BILLINGS, Esq. on the Ancient Architecture of Scotland.

Feb 12. THOMAS ALLOM, Esq. on the influence of Light and Shadow upon Form, as regards Effect.
19. Will be announced for publishing the awards of the jury, and for summoning together the Articles exhibited in the Separate Rooms for Drawings, &c.

Sessional Sketch Evenings for the Students, as well as the Lectures and Sessional Subjects, will be announced in addition to the privilege of attending for study before the Lectures. Notice will be published of the time and place, in order that they may be printed in the first edition of the catalogues.

All information will be gladly given on application to

JAMES FERGUSSON, F.R.A.S.
20, Lancham place, } Honorary
JAMES EDMESTON, Jun } Secretaries.
5, Crown-court, Old Broad street.

COMPETITIONS.

PREMIUM for DESIGN.—To ARCHITECTS, LANDSCAPE GARDENERS, and Others.—The Council of the Leeds Cemetery are desirous of obtaining DESIGNS for LAYING OUT and PLANNING their BURIAL GROUND at Ore, near Bramley, containing about nineteen acres. The latter will require the addition of the requisite Chapels, Lodges, and Buildings describing their several purposes by references, &c. Plans, Sections, and Perspective Drawings of the same will be paid to the person who, in the judgment of the Council, has produced the best Design. All designs not approved will be returned. Each design is to be distinguished by a motto; and a sealed letter, containing a duplicate of such motto, and the address of the person sending it, is to be delivered at the Cemetery Office, Leeds, on or before WEDNESDAY, the 12th day of DECEMBER next, between the hours of TEN and FOUR o'clock. The Council will not be responsible for any loss or damage that may happen to the Designs, but every care will be taken of them. The Council do not bind themselves to accept the lowest or any Tender.

By order of the Council,
JOHN G. SUTCLIFFE, Town Clerk.

November 7, 1855.

SUPPLY of WATER to the town of Neath.

Twenty-five guineas will be given for the best PLAN of supplying the town with water from the Gnoll property. There is no doubt as to quantity and quality. For further particulars, apply to WILLIAM BULLOCK WEBSTER, Esq. Gnoll Castle, Neath, Glamorganshire.

CONTRACTS.

Royal Engineer Office, Portsmouth, 14th November, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer, Portsmouth, hereby gives notice, that sealed TENDERS will be received at the Office of the Director-General of Contracts, War Department, Pall-mall, London, on or before WEDNESDAY, the 12th day of DECEMBER, 1855, from persons desirous of contracting for certain ADDITIONS and ALTERATIONS to Cambridge Barracks, Portsmouth, the plans and specification of which may be seen, and all necessary information obtained, therein, and with printed forms of Tender, at the Office, between the hours of TEN and FOUR each day (Sundays excepted) until the 11th proximo. The person whose Tender may be accepted, will be required to provide two eligible securities, to be bound with him jointly and separately in a bond of 4,000l. for the due performance of the contract by the 30th NOVEMBER, 1857. The War Department reserve the right of rejecting the whole or any of the Tenders.—No notice will be taken of any Tender unless upon the printed form.

NOTICE to BUILDERS.—Royal Engineers' Office, Portsmouth, November 8, 1855.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed HOSPITAL at Winchester Barracks, county of Hants. Plans and specification may be seen at the Royal Engineers' Office, Portsmouth, where also forms of Tender may be obtained every day (Sundays excepted) until DECEMBER 3, 1855. Tenders to be delivered on or before DECEMBER 3, 1855. The War Department reserve to themselves the right to reject the whole or any of the TENDERS. No notice will be taken of any Tender unless upon the printed forms, to be obtained at the Royal Engineer Office, Portsmouth.

PLYMOUTH BREAKWATER.—Contract for Granite.—The Lords Commissioners of the Admiralty propose CONTRACTING for upwards of 25,000 TONS of GRANITE for Plymouth Breakwater, the conditions and specification for which may be seen at the Office of Messrs. WALKER, BURGE, and LAWRENCE, Civil Engineers, 24, Great George-street, Westminster; and at the Office of COMMANDER WALKER, Superintendent, Oreston, Plymouth, from the 15th to the 30th instant.

London, Nov. 8th, 1855.

NEWARK CEMETERY.—To BUILDERS and CONTRACTORS.—The Burial Board for Newark-upon-Trent hereby give Notice, that any person desirous of CONTRACTING for the ERECTION of the CHAPELS, LODGE, &c. &c. Fencing (of wood and iron), and forming Roads, Paths, and laying out the New Burial ground, may inspect the plans, specifications, and forms of Tender at the Town-hall, in the parish of Newark-upon-Trent aforesaid, after the 23rd day of NOVEMBER instant to the 1st day of DECEMBER next. Sealed Tenders for the execution of the works, endorsed "Tender for the Cemetery Buildings, &c." are to be sent to me not later than TWELVE o'clock at Noon on the 3rd day of DECEMBER next, the Board reserve to themselves the right to accept or reject any Tender submitted. Any other information may be obtained on application to me, or to Messrs. BELLAMY and HARDY, Architects and Surveyors, 5, Bridge-place, Newark.

By order, WILLIAM NEWTON, Clerk to the Board.

Kirkgate, Newark, 15th Nov 1855.

MISTLEY LOCAL BOARD of HEALTH. The Local Board of Health for the Parish of Mistley in the county of Essex, legally to receive TENDERS for SUPPLYING and LAYING DOWN about 1,400 feet or there-abouts of IRON and PIPE SEWERS, with other works in connexion therewith, according to the drawings and specification which may be seen at the Office of Mr. HENRY DOOLNCOTT, Surveyor, Ipswich, and at my Office in Mistley. Tenders sealed, addressed to the Chairman of the Board, and endorsed "Tender for Drain ge," must be sent to my Office on or before WEDNESDAY, the 5th DECEMBER next. The Board do not bind themselves to accept the lowest or any Tender.

By order,
D. MUSTARD, Clerk to the Board.

Mistley 17th November, 1855.

BOROUGH of DOVER.—To IRONMONGERS and OTHERS.—Persons desirous of CONTRACTING with the Dover Local Board of Health, for SUPPLYING and LAYING GALVANIZED IRON and other PIPES and PIPE WORK required for the sewerage of the Town, are to forward Estimates and their prices, stating the number of feet they can supply and lay down per week, to the Surveyor, Mr. HENRY T. MOXHAM, Jun. Sutherland-terrace, Dover, on or before the 30th instant, when the Tenders will be opened by the Board. Specimens of the pipes to be sent to Mr. JAS. JESSOPP, on MONDAY, DECEMBER 10, at Seven o'clock p.m. when the Board do not bind themselves to contract with the lowest or any Tender.

[For remainder of Contracts see next page.

CONTRACTS.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 27th day of NOVEMBER instant, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK SEWERS and IRON PIPES, [illegible] feet in length, or thereabouts, with other works in connection therewith in Whitehall, the Yard at Horse Guards, and the Parade-ground, Saint James's Park, and the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained, at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 23th NOVEMBER inst. The Commissioners do not bind themselves to accept the lowest or any Tender, and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.
Dated this 15th day of November, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 4th day of DECEMBER next, at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING certain intended BRICK and PIPE SEWERS [illegible] feet in length, or thereabouts, with other Works in connection therewith in North-row, Adams-mews, Carrington-street, St. James's-square, Little Chapel-street, Old Rochester-row, Devonshire-mews East, Gloucester-mews West, Ordnance-mews, and other streets and places in the county of Middlesex, and the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected, and other particulars obtained, at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 3rd day of DECEMBER next. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.
Dated this 22nd day of November, 1855.

TO CONTRACTORS.

LINCOLNSHIRE.—NEW TUNNEL, with SLUICE-DOORS, SEA RACE, LAND DOORS, &c. at Ingoldwells Outfall. All persons willing to CONTRACT for Building a New Tunnel of Brick and Stonework, with Sluice-Doors, New Channel, Sea Race, Land Doors, &c., in the parish of Ingoldwells, in the county of Lincoln, agreeable to plans and specifications thereof, which may be seen on application to Mr. LEWIN, Engineer, Boston, or at my Office in Spilsby, are desired to deliver in their proposals in writing, sealed up, at a Court of Sewers to be held at the Sessions House, in Spilsby, on MONDAY, the 17th day of DECEMBER next, at ELEVEN o'clock in the forenoon. The contractors will have to enter into agreements and bonds, with sufficient sureties, for the performance of the Contract. By order,

W. WALKER, Jun. Clerk of Sewers.

Clerk of Sewers' Office, Spilsby, Nov. 9, 1855.

N.B. The situation of the intended new works may be viewed by applying to Mr. JOHN DAVEY, of Ingoldwells, the Dikereeve, who will point out the same.

TO GAS-FITTERS.—Kingsgate Chapel, Holborn.—ESTIMATES are required for LIGHTING the above Chapel, Vestries, and school-rooms with GAS. Every information respecting the same can be obtained at the Office of the Architect, CHARLES G. SEARLE, Esq. 29, Poultry, on and after MONDAY, 19th NOVEMBER, 1855.

TO ENGINEERS.—Kingsgate Chapel, HOLBORN.—ESTIMATES are required for WARMING and VENTILATING the above Chapel on the most approved principle. The drawings can be seen at the Office of the Architect, CHARLES G. SEARLE, Esq. 29, Poultry, on and after MONDAY, 19th NOVEMBER, 1855.

TO BUILDERS.

PARTIES desirous of TENDERING for the ERECTION of a WESLEYAN CHAPEL, SCHOOLS, and RESIDENCE, to be built in Vauxhall-road, Liverpool, may see the plans and specifications at the Vestry of Brunswick Chapel, Moss-street, Liverpool; and duplicates at my Offices, on and after THURSDAY, the 29th NOVEMBER. The quantities will be supplied on application at my Office, enclosing twenty-four stamps. Tenders to be delivered to JOSEPH LEATHER, Esq. 47, Shaw-street, Liverpool, on or before the 13th DECEMBER. The lowest Tender will not necessarily be accepted.

JAMES WILSON, F.S.A. Architect.

1, Belmont, Bath, November 19, 1855.

BOROUGH of BLACKBURN.— SEWERAGE WORKS.—CONTRACT No. 1.—The Blackburn Corporation are prepared, in consequence of the parties whose previous Tender was accepted not having procured satisfactory security for the due performance of the work, to receive TENDERS from competent persons for the CONSTRUCTION of about 1,200 Lineal Yards, or thereabouts, of first-class main BRICK SEWER, 6 feet by 4 feet inside, including brick and pipe tributary sewer, junctions, gullies, side-entrances, shafts, flushing apparatus, and all other works connected therewith; also for the FORMATION and COMPLETION of a NEW ROAD of 360 Yards in length, and the deviation of a portion of the River Blakewater in connection with the above sewerage works. Drawings and specification may be seen, and forms of Tender and abstract of quantities obtained at the Borough Surveyor's Office, Sessions-room, Heaton-street, on and after the 19th instant; and all Tenders must be sent in to the Town Clerk, on or before TWELVE o'clock at noon, on the 3rd of DECEMBER, sealed and endorsed, "Tender for Sewerage Works. Contract No. 1."

By order, THOS. AINSWORTH, Town Clerk.

Town Clerk's Office, 32, Clayton-street, 17th Nov. 1855.

WANSTEAD SEWERAGE.—The Wan- stead Local Board of Health are desirous to receive TENDERS for the CONSTRUCTION and SATISFACTORY COMPLETION of certain main BRICK and PIPE SEWERS, of a total length of 17[illegible] feet or thereabouts, with certain depending [illegible], and other works in connection therewith. Specification and drawings may be seen, and forms of Tender and schedule of quantities obtained (on payment of the sum of 5s.) at the Residence of Mr. JENNINGS, Solicitor, at Wanstead, in the county of Essex; and of Mr. HAWKSLEY, Civil Engineer, 30, Great George-street, Westminster. Tenders are to be sent in, addressed to the Clerk to the Local Board of Health, Wanstead, at or before ELEVEN o'clock [illegible] WEDNESDAY, the 12th day of DECEMBER next; but the Local Board does not [illegible].

By order,
[illegible] JENNINGS, Clerk to the Local Board.
[illegible]

THE NORTHAMPTON GAS-LIGHT COMPANY.—Persons desirous of CONTRACTING with [illegible] The terms of payment, and other stipulation, [illegible] "mutatis mutandis," as those for the current [illegible] Committee of Management do not pledge themselves to accept the [illegible] tender.

WILLIAM DENNIS, Clerk.

CONTRACTS.

CONTRACTS for MAKING ROADS and DRAINS.—Parties willing to CONTRACT for MAKING ROADS and the requisite SURFACE DRAINS in connection therewith, on the White Cross Estate, Weston-super-Mare, are requested to send in sealed TENDERS, on or before the 3rd day of DECEMBER next, to the Public Library, Weston-super-Mare. The contractor will be required to provide sureties for the due performance or execution of his Contract. The proprietors do not bind themselves to accept the lowest Tender. The roads will be about a mile in length, in the first instance. Specifications may be seen, and all particulars obtained, on application to W. B. MOFFATT, Esq. Architect and Surveyor, 9, Adelaide-place, London-bridge, London; HENRY DAVIES, Esq. Solicitor, Weston-super-Mare; or to J. WHEREAT, Public Library, Weston-super-Mare.

TO BUILDERS.

PERSONS willing to TENDER for various ADDITIONS and ALTERATIONS to the Union Workhouse, at Hampstead, may see the drawings and specifications at the Office of the Architects, Messrs. W. G. and E. HABERSHON, 8, Bloomsbury-square. The Board do not pledge themselves to accept the lowest or any of the Tenders.

TO MANUFACTURERS in GLASS, POTTERY, PAPIER MACHE, METAL, ELECTRO PLATE, and SILVER.—TENDERS are required for the MANUFACTURE of various ARTICLES of HOUSEHOLD UTILITY, in the above materials, for the home and foreign trades.—Specifications, conditions of contracts, drawings and models, may be seen and full particulars obtained on application to WILLIAM BULL, Esq. 10, Adelphi-chambers, London.

HEYWOOD CEMETERY.—To CONTRACTORS and OTHERS.—The Burial Board for the Township of Heap, in the parish of Bury, in the county of Lancaster, is desirous of receiving TENDERS for the following WORKS, to be executed at the above Cemetery, viz.:—The Boundary wall, Draining, Excavations, &c.; also, an Approach-road thereto. Persons willing to Tender for any or all of the above works may see the drawings and specifications on and after MONDAY next, the 12th inst. at the Office of Mr. T. D. BARRY, 47, Bedford-street North, Liverpool; or at the House of Mr. T. WOLSTENHOLME, Clerk to the Board, St. Luke's, Heywood, and further information, if required, may be had upon application to Mr. WILLIAM GAY, Cemetery, Bradford.

N.B. Tenders to be delivered on MONDAY, the 26th, to the undersigned, not later than TWELVE o'clock at noon, the Board not being pledged to accept the lowest or any Tender.

THOS. WOLSTENHOLME, Clerk to the Board.

Town's Office, Heywood, Nov. 7, 1855.

TO BUILDERS.

TENDERS are required for BUILDING a SHOW-ROOM, &c. at No. 22, Tottenham-court-road. The drawings and specification may be seen, and further particulars obtained, at the Office, on and after MONDAY, the 26th of NOVEMBER, where Tenders are to be sent in on or before SATURDAY, the 1st of DECEMBER. The lowest Tender will not necessarily be accepted.

WILLIAM MUNT, 28, Moorgate-street, City.

TO DEALERS IN BRITISH TIMBER, CONTRACTORS FOR FENCING, AND OTHERS.

PERSONS desirous of TENDERING for the EXECUTION of PARK PALE FENCING, with GATES, &c. are requested to apply at Mr. SIMPSON'S Office, 29, Great George-street, Westminster, for particulars, &c.

PHŒNIX FOUNDRY, Derby, Sept. 1st, 1855.

JAMES HAYWOOD, Jun. begs to inform his friends and the public generally, that he has PURCHASED the whole of the STOCK of GOODS, as well as the large and valuable collection of WOOD and IRON PATTERNS belonging to the above Foundry, and has made arrangements to carry on the business on his own account from the 1st of September last. He will continue to conduct the same in all its branches as heretofore. The large and important contracts which have been executed at this foundry render it almost unnecessary for him to state that he possesses every facility for executing orders either for castings or wrought-iron work of any description whatever, upon the best terms and in the shortest possible time. He respectfully solicits a continuance of that patronage which has hitherto been so liberally bestowed upon the Phœnix Foundry.

JAMES HAYWOOD, Jun. PHŒNIX FOUNDRY and ENGINEERING WORKS, Derby. Manufacturer of every description of CASTINGS, from the smallest Ornamental Work to Castings weighing twenty tons each, railway bridges, iron roofs for railway stations and other purposes, railway chairs, machinery and sugar mill castings, conservatories, vineries, windows and stoves in great variety, cast-iron ornamental garden vases and chairs, pipes for steam and water, and every description of work required by engineers, architects, builders, ironmongers, &c. Heating by hot water or steam.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,
THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD on the LOWEST TERMS.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 11, Horseferry-road and 1, New Peter-street, Westminster. Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c. complete, from 4[illegible]s. each.
Register Stoves, from [illegible]d. per inch.
Elliptic ditto, with double backs, from 2½d. per inch.

Cast-iron Rain-pipe	2	2½	3 inch.	
	11d.	1s. 2d.	1s. 4d. per yard.	

4 inch. Eaves Gutters, [illegible]d. per yard.

O G Gutters	3½	4	4½	5 inch.
	1s.	1s. 1d.	1s. [illegible]d.	1s. 6d. per yard.
Best Cut Clasp and Rose....	1½	2	2½	3 inch and larger
	16s. 6d.	15s. 6d.	15s.	14s. 6d.

1-inch Best Cut Lath, 16s. per cwt.
Sheet Floor Brads, 14s. per cwt.
Hoop Floor Brads [illegible] per cwt.
[illegible] per doz.; [illegible] Sinks [illegible]; [illegible] Sheet Zinc, Perforated Zinc, Tubing. Estimates [illegible] for Iron Railings, Gates, Balconies, and Ironwork of every description.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No.				
No. 11 gauge weighs about			18 oz. per foot super.	
12	"	"	20	"
13	"	"	23	"
14	"	"	26	"

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

JOHN HENDERSON PORTER,
ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS,
GAS-STREET, BIRMINGHAM.

LONDON OFFICE, 1, RICHES-COURT, LIME-STREET.

SKAIFE'S GALVANIZING WORKS,
Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form.
Sheets plain and corrugated.—Roofs fixed complete.
J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.
An Allowance to the Trade.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station. A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

PATENT CORRUGATED IRON.

JOHN WALKER,
MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Millwall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.

JOHN WALKER,
GALVANIZED IRON MERCHANT, &c. The trade supplied.
Corrugating by steam power capable of doing 10 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.

JOHN WALKER,
IRON-FOUNDER AND ENGINEER.
Orders to any extent can be executed at his Works, Millwall, Poplar. Apply at the Works.

BUILDER AND CONTRACTOR.

JOHN WALKER,
Having his own Saw-mills, is enabled to CONTRACT BUILDERS' WORK,
At low prices, consistent with good work.
Apply at his Offices, Arthur-street West, London-bridge.

JACKSON and COOK, Ironfounders and Manufacturers of CORRUGATED and GALVANIZED IRON ROOFS and BUILDINGS, beg to call the attention of Architects, Builders, and others, requiring roofing, to the superiority of iron as manufactured by them for that purpose, in point of lightness, cleanliness, durability, cheapness of construction, and being fire-proof. Drawings and estimates furnished.

Island Foundry and Ironworks, Millwall, London.
Offices, 12, Fenchurch-street, City.

A. MOREWOOD and CO. (late Morewood and Rogers),
Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.
PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets.
PLAIN or CORRUGATED, and Curved, of all Gauges.
Manufactured articles always kept in stock, such as pails, scoops, bowls, riddles, skips, &c. of all sizes.
Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building, at the
OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's)
PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON; or BERKLEY-STREET, BIRMINGHAM.
Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
N.B. An allowance to the trade.
Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

PATENT GALVANIZING and CORRU- GATING IRONWORKS (Improved Process).
WORKS, GLASS-HOUSE YARD, opposite the Entrance to the London Docks.
GALVANIZED SHEET IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
A Discount allowed to the Trade.

LIGHTNING CONDUCTORS.— [illegible] R. S. NEWALL and CO. Patentees of the Copper Rope [illegible] Conductors [illegible] of the world.

OFFICES [illegible]
1[illegible], Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"18, Hyde-park Gate, Kensington, February 24, 1854.

"My dear Sir.—The Air Warmer continues to work very satisfactorily in keeping, with regard to warmth, by far the most equable I have ever had in the house, and during this weather is charming, even in the painting-room. Mrs. Redgrave is extremely pleased with it in her drawing-room, and says that she never enjoyed a winter as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,

Mr. J. Jobson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq., late M.P. for Sheffield.

"Stanhope lodge, St. John's-wood, London, January 27th, 1855

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Air Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in England, and this has increased with increasing years and decreasing strength; I therefore, had recourse, from time to time, to various stoves and other modes of warming the halls and passages of my house; but I have never succeeded till now in producing an equal temperature in every part, and having that temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature in halls which are ordinarily produced in passing from warm rooms to cold halls and passages, and save the climate of May within doors in the months of December and January. The servants, by its proper management in a few days without difficulty, and its economy in fuel as remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and I lose no opportunity of heartily advising its adoption to all who desire to protect themselves against the changes of temperature in their dwellings.—I am, dear Sirs, yours faithfully.

"JAMES SILK BUCKINGHAM.

To Messrs. Stuart and Smith, Roscoe-place, Sheffield."

M. E. HADFIELD, Esq. Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir,—We have kept the Gill Stove in full operation during the past severe weather, and have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable close and stagnant odour produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective.—I am, my dear Sir, yours faithfully,

Mr J. Jobson Smith, Roscoe-place." "M. E. HADFIELD.

WILLIAM HUTSON, Esq.

"Newby Wiske, Thirsk, 19th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house rece tly built. In spite of the severity of the weather, an unobstructed and unfurnished house with all the doors open, and the whole of the rooms at a temperature decidedly above that of the external air. It is keeping up a very genial influence even in the severest weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 10s. 8d. per ton, the rate at which it has been fired for the last two or three months, is 1l. per hour.

"I am, Sirs, yours truly, "WILLIAM HUTSON.

"Messrs. Stuart and Smith

"P.S.—Mr. Hutson, on looking again sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3s. 6d. for coke say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop-road, February 27th, 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the late severe frost, the comfort has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase, and passages, being a reservoir of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the general run of the house without the fear of a relapse. To many invalids the invention will prove invaluable, giving them the freedom of their hall, and instead of confining them prisoners to one apartment. Believe me, my dear Sir, very truly yours,

"Mr. Jobson Smith." "EDWARD MARTIN.

E. F. SANDERSON, Esq.

"West-street, Sheffield, 27th March, 1855.

"Gentlemen.—The Gill Air Warmer you put up for me last year at Penistone, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a very genial climate, my family have been painfully conscious of the damp and chilly air of this country; but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your effective plan of rendering dwelling-houses most equably comfortable in point of temperature.—I am, yours very truly,

"Messrs. Stuart and Smith, Roscoe-place." "E. F. ANDERSON.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

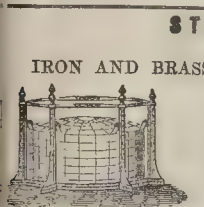
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



As Stores for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

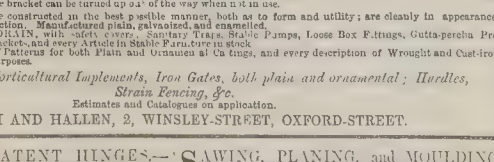
Signals for communication between Guard and Engine Driver Railway Stores and Lamps of every description

DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

have made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



This represents the Patent Hay-guide and Collar-rein, all of which is taken to the top of the manger-works with room and save up or down the guide-bar, and is noiseless in its operation, as also a sure preventative against the most vicious horse being cast in the manger.

The Patent Portable Seed-pan can be instantly detached from the rack without disturbing the hay. The saving of the hay is a clean and useful state, for agricultural purposes,

preventing with the food in the manger, is alone sufficient to claim general notice.

The Seed-box detached, is made of galvanized sheet-iron, light and durable.

The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAMS MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE DRAIN, with safety covers. Sanitary Traps. Stable Pumps, Loose Box Fittings, Gutta-percha Pressure Tube and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogues on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

COLLINGE'S PATENT HINGES.—Manufactured by CHARLES COLLINGE and Co. 24 and 25, Bridge-road, Lambeth, where a great variety are always on sale, suitable for all doors, and their cases. Doors of all small dimensions, as for wardrobes, &c., these hinges as easily as a wicket. Ornamental hinges for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting hinges. [illegible] genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron work, for [illegible] and other purposes. Engines, machinery, patent axles, sugar-mills, &c.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSNAM and COMPANY give notice that they have greatly enlarged their Premises in the Borough, and added to their Stock very extensive and [illegible] Machinery and Tools for [illegible] Wood [illegible] W. and Co. beg to state that they [illegible] of many years' experience in the trade, that their Machinery for [illegible] and [illegible] use

FENDERS, STOVES, and FIRE-IRONS.

Buyers of the above are requested, before finally deciding, to visit WILLIAM S. BURTON'S SHOW ROOMS. They contain such an assortment of FENDERS, STOVES, RANGES, FIRE IRONS, and GENERAL IRONMONGERY, as cannot be approached elsewhere, either for variety, novelty, beauty of design, or exquisiteness of workmanship. Bright stoves with bronzed ornaments and two sets of bars, 2l. 14s. to 7l. 15s.; ditto with ormolu ornaments and two sets of bars, 3l. 10s. to 15l. 12s.; bronzed fenders, complete, with standards, from 7s. to 3l.; steel fenders, from 2l. 15s. to 6l.; ditto, with rich ormolu ornaments, from 2l. 18s. to 7l. 7s.; fire-irons, from 1s. 6d. the set to 4l. 4s. Sylvester and all other patent stoves, with radiating hearth plates. All which he is enabled to sell at these very reduced charges.

Firstly—From the frequency and extent of his purchases; and

Secondly From these purchases being made exclusively for cash.

GAS CHANDELIERS and BRACKETS.

The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to select from the various manufactories, for Metal and Glass, all that is new and recherché in Brackets, Pendant, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designed expressly for him. These are ON SHOW over his SIXTEEN LARGE ROOMS, and [illegible] cent. for novelty, variety, and purity of taste unequalled by any [illegible]. They are marked in plain figures, at prices proportionate with those which have tended to make his ironmongery establishment the largest and most remarkable in the kingdom. viz. from 12s. 6d. to eight guineas.

THE BEST SHOW of IRON BEDSTEADS

in the KINGDOM is WILLIAM S. BURTON'S. He has FOUR LARGE ROOMS devoted to the EXCLUSIVE SHOW of Iron and Brass Bedsteads and Children's Cots, with appropriate Bedding and Mattresses. Common Iron Bedsteads, from 18s.; Portable Folding Bedsteads, from 22s. 6d.; Patent Iron Bedsteads, fitted with dove-tail joints and patent sacking, from 17s. 6d.; and Cots, from 30s. each. Handsome ornamental Iron and Brass Bedsteads, in great variety, from 2l. 7s. 6d. to 17l. 15s.

The alterations and additions to these very extensive premises already by far the largest in Europe, which have occupied the whole year, are now nearly completed; they are of such a character that the entire of EIGHT HOUSES is now devoted to the display of the most magnificent Stock of GENERAL HOUSE IRONMONGERY (including Cutlery, Nickel Silver, Plated and Japanned Wares, Iron and Brass Bedsteads, Bedding, arranged in Sixteen Large Show-rooms, so as to afford to parties furnishing facilities in the selection of goods that cannot be hoped for elsewhere.

Catalogues, with engravings, sent (per post) free

39, OXFORD-STREET; 1, 1a, 2, and 3, NEWMAN-STREET; and 4, 5, and 6, PERRY'S-PLACE.

CAST-IRON PIPES, IRON WORK FOR OVENS, &c.

RAIN PIPES, &c.—F. A. TIDDEMAN and CO. St. Ann's Wharf, Earl street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. half-round and O-G Gutters, Socket Pipes for Water or Gas, Plunge Pipes, Hot Water Pipes and Connexions, Cash Weights, and other castings, Iron work for Ranges of every description, fitted complete, to be had in sets or in parts. Prices equal to all competitors. Contracts taken to any extent. Goods landed. A powerful crane.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury square, respectfully invites the above Trade, to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London

Elliptic Stoves, double backs 4d. per inch, and upwards

Register Stoves, 5½d., 6½d., 7d., 8d. and 9d. per inch

Self-acting Ranges, with circular [illegible] and [illegible] set, with [illegible] ears and [illegible] doors

3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.

Improved Cottage Ranges, with oven, [illegible] and [illegible]

[illegible] Stoves, [illegible]

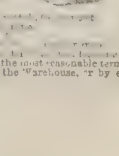
Best Kitchen Ranges, [illegible] patent [illegible]

[illegible]

[illegible]

[illegible] register [illegible] and [illegible] ironmongery, and brass-founding business on the most reasonable terms.

List of Prices and [illegible] at the Warehouse, or by [illegible] prepaid.



BRAMAH LOCKS, FIREPROOF IRON SAFES, WATER-CLOSETS, and PUMPS.—BRAMAH and CO have the pleasure to state that a first-class Silver Medal has been awarded to them by the jurors of the Paris Universal Exhibition Manufactory and Warerooms, 124, Piccadilly, London. —Every article made by BRAMAH and CO. bears their address— 124, Piccadilly

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c to his Stock of Ironmongery, Brass Foundry, Nails wrought and cut, Copper and Zinc, Patent Locks of all descriptions; China, Glass, and Wood Furniture of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s.; and the new registered Venetian Ventilator, so much admired, &c 6s. 6d. each.
J. H. BOOBBYER (late STURCH and BOOBBYER), established nearly 900 years, for the supply of Goods from the best Manufactories, at the lowest prices.
14, Stanhope street, Clare-market, London.

TO STONEMASONS, BUILDERS, RAILROAD CONTRACTORS, AND OTHERS.
RICH. RICHARDS and SON, 95, New Park street, Southwark, London, Manufacturers of TRAVELLING CRANES and JENNIES, to span from 5 to 70 feet, on the latest and best principle, warranted to lift from 5 to 30 tons, or upwards. Crab A Cranes, double and single purchase; stone saws, hammered and of the best quality, suitable for Portland stone or marble, made to any length; also saws for Carn and Bath stone Blocks of all sizes, inserts of one, two, and three sheaves, or singly. Chain, suitable for the blocks, for hoisting any weight, made of the best iron, and tested by patent machinery. Lifting or screw-jacks of all kinds, double and single purchase traversing cranes for railways, and crane- and hoisting-tackle of every description to order or by estimate

CHUBB'S LOCKS, with all the recent improvements; STRONG FIRE-PROOF SAFES, CASH and DEED BOXES. Complete lists of sizes and prices may be had on application.
CHUBB and SON, 57, St. Paul's-churchyard, London; 28, Lord-street, Liverpool; 16, Market-street, Manchester; and Horsley-fields, Wolverhampton.

FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.
This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.
The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.
The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete; so constructed that each floor becomes in effect a beam of artificial stone, with ribs of iron; the structure possessing great strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary flooring-boards, or of cement, asphalte, tiles, slate, or other material.
Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended to the notice of all who are interested in building, as it supersedes the necessity for cast-iron girders and brick arches, and as bringing the great desideratum of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.
Further information may be obtained of the Proprietor of the patent,—Mr. BARRETT, 12, York-buildings, Adelphi.

TO SMITHS, GAS-GITTERS, &c.—TO BE SOLD CHEAP, a portable FORGE and HOOD complete, anvil, hammers, vice, benches, a lever drill, 6-inch slide-rest, and sundry tools, drills, &c. To a person commencing, an excellent opportunity offers to fit up a small shop.—Apply to T. R. NASH, 1, Leigh-street, Burton-crescent.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods. Desk Rails, &c. &c.
Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.
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CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 169, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler.
30 32 34 36-inch.
23s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch.
54s. 56s. 58s. 60s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.
Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivets, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s each.

Cast Main-water Pipe	2	2½	3 inch.
	1s. 1d.	1s. 3d.	1s. 4d. per yard.
Cast Gutters—4 inch, 9d. per yard.			
O G Gutters	4		4½ inch.
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Patent Line	2	3	4 5 6
	4½d.	5d.	7d. 9d. 1s. per knot.

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An extensive stock of bar, rod, hoop, and sheet iron.
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THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT
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THE following are the PRESENT PRICES of PATENT SASH LINE—

No	3	4	5	6
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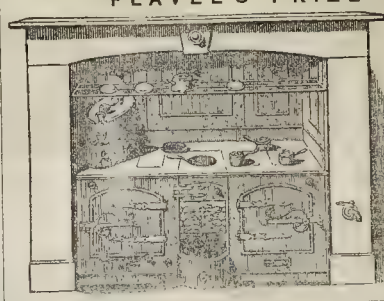
FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition 1851.
These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.
The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.
They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.
They are admirably adapted for the Cure of Smoky Chimneys.
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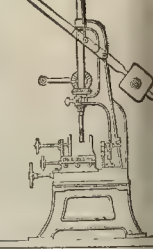

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NO CHIMNEY WANTED for RICKETS'S PATENT CALORIFERE GAS STOVES in CHURCHES, HALLS, or SHOPS;
And for Conservatories, or any close apartment, a pipe can be attached to carry away the burnt air.

RICKETS'S CHEAP GAS STOVE, Price, £1. 15s.
Made of Sheet Iron, suitable for Heating small Countinghouses, Bedrooms, Cellars, &c. &c.
MANUFACTORY,
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Liberal Discount to Builders.

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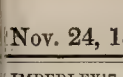

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FABBRICOTTI respectfully invites the Gentlemen connected with the Marble Trade to inspect resh STOCK, composed of statuary, vein, Sicilian, black and dove, Bardilla, Siena, and Breccia, in blocks and particularly their attention to a large quantity of his best statuary, sixty es, of all sizes, just landed.
onuments, vases, and statues, finely executed in Italy.
Carrara Wharf, Thames-bank, Pimlico.

DERBYSHIRE MARBLE, of every variety, from the original Quarries, in block, or manufactured by r power machinery, into Tablets, Mortars, and every article which marble is applicable. Supplied on the most reasonable s, by J. TWIGG and CO. Ashford-in-the-Water, Derbyshire. have just commenced business on those ancient marble ts, by whom all orders for marble, &c. will receive prompt tion.—November, 1855.

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ly 23, 1855. C. ADENEY, Secretary.

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Marble of all kinds and of best quality, in block and slab, rble mortars, &c.

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RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS.
BATH.
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BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.
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HE STOCK OF LOW-PRICED CHIMNEY PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.
RIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

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London Agents—TREGELLES and TAYLOR, 2, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard.
This Granite is selected for the New Westminster-bridge.

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N.B. Good 2-inch Tooled Paving, at 40s. per 100 feet, cash.

AUSTIN'S ARTIFICIAL STONE.—This material (frequently confounded with Portland Cement) has now been in extensive use among the highest class of residences for about twenty-five years. During that time a collection of Ornamental Work, such as Vases, Figures, and Fountains, has been accumulating, of which the public have scarcely any idea. Suffice it to say, that a single copy of each work would collectively amount to between 4,000l and 5,000l. In no stratification from Terra-cotta, and all other kind of Pottery there is no distortion of form by the process of baking, and, instead of the glazed surface of Terra-cotta, it has the closest resemblance to Portland Stone, having also the advantage of being water-proof.—AUSTIN and SEELEY, Nos. 1 to 4, Keppel-row, New-road, Regent's-park.
*** A large Stock of Ornamental Chimney-tops.

GROUND FLINT AND CORNISH STONE, UNADULTERATED,
Manufactured by MACHINERY, which produces the greatest degree of fineness.
WILCOX & CO.
Flint Mills, Millwall, near Scott Russell's.
CARRIAGE FREE.

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GREEN SLATE.—For SALE, about 200 tons of WELSH GREEN SLATE, the produce of a late discovery. The slate is well adapted to church and public buildings. For colour, grain, and capability of splitting, it is superior to any hitherto obtained. Terms, at the quarry, 60s. per ton. Apply to Mr. OGILVIE, 1, Cushion-court, Old Broad-street; or to Mr. W. G. JENNINGS, Penyr-Groes near Carnarvon.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

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PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN ORLING FOX, DODONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
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IMPROVED CHIMNEYS, in CONSTRUCTION and DRAUGHT, by the Chimney Contractor, with Horizontal Register, made of Iron, to be used at the commencement of Chimney. Made for Flues 9 inches by 9 inches, 14 inches by 9 inches, and 14 inches by 14 inches.
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REMEDY AGAINST SMOKY CHIMNEYS, unsightly and dangerous Contrivances, by using the UNIQUE CHIMNEY-POT (Multum in Parvo). Is enclosed at the top, has a division and double outlet, preserves the flue dry, and will not clog with the soot.
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Sheringham's Ventilator for the admission of pure air through an

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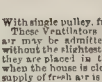
With single pulley, from 6s. each; with leading pulley, from 6s. 6d.
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draughts being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 195, Blackfriars-road, and 117, Union-street, Borough; and of all respectable Ironmongers, Builders &c.



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THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster, holding a large number of patents relating to the construction and reparation of the permanent way of railways, are at all times ready to communicate on the subject and to grant licences for exercise. From the facilities thus afforded to companies to negotiate for a number of inventions much trouble and delay of litigation is avoided. The Company undertake arrangements for bringing new inventions on the subject before the public, upon terms advantageous to the proprietors of patents. Applications may be made to CHARLES MAY, F.R.S. the Manager; or to
WILLIAM HOWDEN, Secretary.

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No. 1 quality, inches diameter, and price per yard.								
½	⅝	¾	1	1¼	1½	2	2½	3 in.
9d.	11d.	1s.	1s. 3d.	1s. 5d.	1s. 7d.	1s. 9d.	2s.	2s. 3l.	2s. 6d.	3s. 9d.

super-extra stout quality.

2	2½	2¾	3½	3 inches.
2s.	2s. 6d.	3s. 6d.	4s. 9d.	6s. per yard

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

1	1¼	1½	2	2½	inches.
9d	10d.	11d.	1s.	1s. 3d.	1s. 6d per yard

The hose is impregnated at an extra charge of 3d. per yard.
Union Joints, Branch Pipes, and Jets, are also supplied.

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W. and J. STUDDS, Sole Proprietors of THEIR WEST DRAYTON GRAVEL, Pits lately removed from No. 21 Wharf, Harrow-road, to 9, North Wharf-road, Paddington, have now on sale good Garden and Screened Gravel. For terms, &c. apply at the Wharf.
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UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION.

PRINCIPAL OFFICES.

Unity-buildings, 8 and 10, Cannon-street, City.

LEICESTER-SQUARE BRANCH.

1, New Coventry-street, Leicester-square.

CLOSING OF THE SHARE LIST.

The directors are happy to announce that, in consequence of the large number of shares that have been allotted and paid upon, the share list will be closed on Friday the 30th November, after which date no applications will be received.

Arrangements have been made which will enable the bank to commence business early in January next.

The bank, having obtained a royal charter is established for the purpose of combining the principle of MUTUAL BANKING, whereby customers, who create the profits, become entitled to a participation in them, by way of interest on their cash balances. The principle of which has been for many years acted on by insurance and other companies and their policy holders have participated to a very great extent in the bonuses, with much advantage to the institutions, and to the shareholders. In banks, however, to this period of UNITY ALLIANCE has been reflected. The whole of the profits resulting from successful operations have been given to the shareholders only.

ADVANTAGES OFFERED BY THE UNITY BANK.

I. To shareholders, 5 per cent from the date of payment, on all paid-up calls, and a bonus per cent of the profits

II. To customers, in addition to the ordinary amount paid on deposit and current accounts, interest on their cash balances, equivalent to 4 per cent, on the profits

This is the plan on which the UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION is established. By it a certain, fixed, and limited rate of interest between the customers and shareholders of the bank, who thus become mutually interested in the extension of its business. It will be the means of opening up new sources, presenting a connexion never formed, and productive of practical benefits to the public generally.

CONDITION OF LONDON JOINT-STOCK BANKS.

The success of the Joint-Stock Banks in London is readily admitted, as well as by the frequent statements recently issued by these great commercial institutions. In support of this, the following table is submitted, showing the condition of each of the six metropolitan Joint-Stock Banks which have published accounts the original cost of the shares, their present market value, and the dividends upon them:—

Name of Bank.	Date when Established.	Paid-up Capital.	Amount of Fund over Paid-up Capital.	Present Value of Shares.	Rate of Dividend Paid.
		£.	£	£	
London and Westminster	1834	1,000,000	297,000	37½	7 per cent.
London Joint Stock	1836	630,000	95,000	24½	5
Union Bank of London	1839	500,000	150	15	5
London and Counties	1836	500,000	150,000	14½	12
Commercial Bank of London	1840	250,000	70,000	31	10
Royal British Bank	1840	500,000	95,000	5	10 per cent.

The above banks publish the following facts with regard to their positions:

I. The entire amount of subscribed capital in the six joint-stock banks in London is £3,780,000.

II. The amount of paid up capital is £2,817,000.

III. The amount of deposits, or customers' balances, is £9,258,849.

IV. The total number of shareholders is 4,007.

V. The number of shares issued, 187,984.

Thus is presented proof of human security, extent of business, and general financial resources. These establishments hold half-yearly meetings, and publish their transactions, full accounts of their progress and general operations. This course cannot fail to impress with confidence all who have any dealings with them, while it gives to the public the means of forming an opinion as to their responsibility.

INCREASED VALUE OF JOINT-STOCK BANK SHARES.

It is proved to demonstration, that joint-stock banking under proper supervision, affords a most legitimate and unusually profitable field for the investment of capital. The dividends paid by the banks above quoted vary from 6 to 25 per cent and the latest quotations of their shares show an increase of from 25 to 225 per cent. on their paid-up capital. The real increase, however, in the value of the shares is by no better understood, the fact that the paid up capital of these six banks is £2,817,000 and that its present market value is £12,211,000. It has thus increased two-and-a-half fold, or by £9,394,000. It has grown since 1834, and there is every prospect of this amount continuing to increase in value.

COURT OF DIRECTORS OF THE UNITY BANK.

GOVERNOR.

J. J. Mechi, esq. Tiptree Hall, Kelvedon, Essex

William Joseph Bruce, esq. 16, Duke-street, Westminster, and 4a, Hyde-park-place, Cumberland-gate.

G. L. P. Estc, esq. (Messrs Trinder and Eyre), 1, John-street, Bedford-row.

Thomas Carisle Hayward, esq. (Messrs. Hayward and Sons), 24, Minories, and 3, Highbury park North.

Major Henry Stone, M.L.B. 53, Nottingham-place, Regent's park.

Robert Garland, esq. Thames chambers, York-buildings, Adelphi; and 1 Belfast Villas, Highbury.

Thomas H. Baylis, esq. Cannon-street, City; and 4, Nottingham-terrace, York-gate, Regent's park.

Dr. Lloyd 4 Sadoil place, Pall-mall.

Robert James, esq. 6, Stone-buildings, Lincoln's-inn.

Edward Bould Buckley, esq. Heathland-lodge, Hampstead.

Major Martin Malkern, Ightfield House, Alexander-terrace, Regent's park.

BANKERS.—The London and Westminster Bank.

SOLICITOR.—Thomas Taylor, esq. 27, Bloomsbury-square, London

BROKERS.—Messrs. R. and J. Sutton, 22, Royal Exchange, London.

GENERAL MANAGER.—George Chambers, esq. (from Messrs. Barnett, Hoare, and Co.)

SECRETARY.—Henry Lake, esq.

Each of the directors is duly qualified, having subscribed for twenty shares, and paid the deposit of 1,000l. in accordance with the deed of settlement.

THE NEW PRINCIPLE INTRODUCED BY THE UNITY BANK.

Regarding the distinctive principle of the Unity Bank, it has been suggested that there must be a deduction from the profits of the church capital, of 10 per cent. for lending given to the customers of the bank. This idea can only have arisen, however, from the want of a correct understanding of the whole subject. In the first place, it is necessary to remember from whom the profits of a bank are derived. They are not made from the share capital. The very first ingredient for the formation of profits is a customer. The amount of profits, therefore, is governed by the amount of business transacted; and the larger the business, provided it is properly conducted, the larger will be the profits. It must be borne in mind, also, that the real extent of the shareholder's deposit cannot be made. It depends [illegible] upon the profitable character of the transactions, or by any departure from that sound system of joint-stock banking which [illegible] Bank of England, and which has carried [illegible] Bank an advantage which in reference to progress with every principle [illegible] all other joint-stock banks [illegible] companies have been established to [illegible] the profits [illegible] the [illegible] prosperity. What is just in accordance will [illegible] banking. The customers of a bank make the profits of the bank, and they ought also to be participators in its prosperity.

It has been asserted, also, that the 50 per cent of the profits proposed to be divided, whilst would detract from the profits of the shareholders, would be but a trifling benefit to the customers. It might, in the first place, be replied that no benefit is considered as "trifling" by those who rightly estimate pecuniary affairs; that the benefit, if trifling, is in addition to all the other benefits usually derived by banking at a joint stock bank; and that no correct data can yet be formed of the point at which will be made On the other hand, it must be remembered that hitherto persons have taken their banking account where personal feeling, accommodation, or convenience of locality might lead them. Now, for the first time, by the introduction of the principle of mutuality, self-interest is appealed to. And when, to the large number of the public attracted by this all powerful stimulus, is added the number of the customers of the Unity Insurance Associations in all parts of the country, who have a peculiar identification with and interest in its success, it will be seen that the amount of data are not sufficient to form an estimate of the advantages which both the shareholders and customers will derive from the Unity Bank.

Great difficulty exists in estimating the effects likely to be produced by the establishment of this new and most desirable feature in banking. It is one that must become highly popular with every commercial interest, and with every class of the public, because its simplicity and advantages are at once to be seen and appreciated.

To those great commercial houses which are compelled to have large cash balances constantly at their bankers', it will prove to be a serious consideration, and an important source of profit. The railway, dock, gas water, steam vessel, insurance, and other companies, professional men, merchants, brokers, gentlemen of fortune, and traders of all kinds, will duly estimate the difference in the system now proposed, from that hitherto existing. In fine, a joint-stock banks became a public necessity, as is now proved so will the principle of mutuality—thereby rendering available institutions may be rendered still more serviceable to the public, and in no way less safe. Demand the best consideration of the community at large.

BUSINESS TO BE UNDERTAKEN.

All the usual business of banking will be undertaken; and arrangements will be made for extending the transactions of the Bank in every desirable quarter.

CURRENT ACCOUNTS will be made up half-yearly, namely—to the 30th of June and the 31st of December, and interest will be allowed at the rate of 2l. per cent. on them.

DEPOSIT ACCOUNTS.—With respect to these, the rate of interest all will on money placed at seven days' notice will be 1l. per cent. under the rate of discount on first-class bills adopted by the Bank of England, regulated thereby. The bank will give receipts for the sums so deposited, or, for the convenience of depositors leaving England, promissory notes, or bills, including interest as well as principal, at not less than six months' date.

The bank will undertake the agency of country and foreign banks, whether joint-stock or private, and will afford every accommodation to travellers and others, with respect to circular notes and letters of credit. It will receive all kinds of income for its customers, including annuities, dividends, military, naval, and civil officers' pay. It will undertake the sale and transfer of stock in the public funds, &c.; and will be responsible for the safe custody of title deeds and other securities belonging to its customers, to which they will at all times have convenience of access.

Applications for prospectuses and forms of application for the remaining shares, to be made to Messrs. R. and J. SUTTON, Stock Brokers, 22, Royal Exchange; or to the Secretary, at the Principal Offices, 10, Cannon street, City

HENRY LAKE, Secretary.

FORM OF APPLICATION FOR SHARES.

TO THE DIRECTORS OF THE UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION.

GENTLEMEN,—I request that you will allot me [illegible] shares of 100l each in the above Association: and in consideration of such allotment, or any less number you may appropriate to me, I hereby undertake to pay the deposit, or first call of 10l. per share thereon, and 40l at the time of incorporation. I further undertake to execute the deed of settlement when required.

Dated this day of 185

Reference

Name (in full)

Residence

Profession or trade

Place of business

UNITY JOINT-STOCK MUTUAL BANKING ASSOCIATION.

Principal Offices; Unity-buildings, 8 and 10, Cannon-street, City

CLOSING OF THE SHARE LIST.

NOTICE is hereby given, that no further applications for SHARES in this bank will be received after Friday, the 30th of November. By order, HENRY LAKE, Secretary.

Unity-buildings, 9th November, 1855.

EQUITY and LAW LIFE ASSURANCE SOCIETY, No. 26, Lincoln's-inn fields, London.

TRUSTEES.

The Right Hon. the LORD HIGH CHANCELLOR.
The Right Hon. LORD MONTEAGLE.
The Right Hon. the LORD CHIEF BARON.
The Hon. Mr. JUSTICE COLERIDGE.
The Hon. Mr. JUSTICE ERLE
NA SAU W. SENIOR, Esq. Master in Chancery.
CHARLES PURTON COOPER, Esq. Q.C. LL.D. F.R.S.
GEORGE CARON, Esq.

Examples of the Bonus upon Policies declared to the 31st December, 1854:—

Date of Policy	18th March, 1845	24th April, 1845	7th Nov. 1845
Age at Entry	40.	42	51.
Annual Premium	£95 7 6	£95 16 8	£49 8 4
Sum Assured	1,000 0 0	1,000 0 0	1,000 0 0
Bonus added	157 10 0	184 0 0	211 10 0

Copies of the last Report, Prospectuses, and every information may be had upon written or personal application to the Office.

GREAT BRITAIN MUTUAL LIFE ASSURANCE SOCIETY,

1, Waterloo-place, London, and 18, Brown-street, Manchester.

DIRECTORS.

THE CHAIRMAN, Chairman.
RICHARD HARTLEY KENNEDY, Esq. Alderman,
Deputy-Chairman.

This Society is established on the strict and approved principle of Mutual Assurance. The funds are accumulated for the exclusive benefit of the Policy holders, under their own immediate superintendence and control. The profits are divided annually, and applied in reduction of the next annual premiums. Policy holders participate in profits after payment of five annual premiums.

The Annual Report and Statement of this Society was held on the 24th of March last, when a Report of the business for the last year was presented, exhibiting a statement of most satisfactory progress. It appeared that during the two first years, 18 and 1854, between 600 and 700 new Assurances had been effected, producing an income of premium in one year amounting to 1l. per annum. It also appeared that, notwithstanding the extraordinary mortality which prevailed during the year, the Society possessed the assets in full to [illegible] liabilities, and a large surplus, being at the rate of 1l. per cent. per annum, to the Policy holders.

Credit is allowed for half the Annual Premiums for the first five years.

A. R. IRVINE, Managing Director.

1a, Waterloo-place, London.

LLOYD'S WEEKLY LONDON NEWS,

Edited by DOUGLAS JERROLD.

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SCOTTISH EQUITABLE (MUTUAL) LIFE ASSURANCE SOCIETY.

Established 1831

At 1st March, 1855, the amount of the accumulated Capital exceeded £910,000
And the Annual Revenue exceeded 163,000
The amount paid to the Representatives of Deceased Members was upwards of 600,000

This affords the strongest evidence of the continued prosperity of this Institution, and of the immense benefit to the families of deceased members.—For prospectuses and all information, apply to WILLIAM COOK, Agent

126, Bishopsgate-street, London.

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"Salus populi suprema lex."

μεγα βιβλιον, μεγα κακον.

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The Builder.

VOL. XIII.—No. 668.

THE sanitary movement seems to be entering into a new phasis of its development. Last year we heard of little but tubular drainage; and furiously enough the battle raged. There was the Croydon case, in which, to judge by the adverse reports, the whole system had broken down in a crash of ruin and failure. The sanitary leaders, however, rallied their forces, showing that while a few local blunders and consequent stoppages, easily curable, and easily preventible for the future, had been exaggerated into proof of failure, the Croydon pipe drainage was all the while quietly doing its work; and that so efficiently, as to bring on the Local Board more applications for house connections than they could satisfy at once; so that while the system was being trumpetted as a failure, parties were actually paying to be taken out of their turn to have their drains laid on to it.

Nevertheless, an impression against pipe-drainage was made on the public mind; and this served to enhance the suddenness and force of the re-action when Mr. Ward wrote his often-quoted letter in defence of pipe drainage, on the receipt of which letter, transmitted by Lord Palmerston, the Metropolitan Commissioners of Sewers protested by a resignation *en masse* against the espousal of these views by the Government.

Lord Palmerston appointed the writer a commissioner in the Board which succeeded, naming as his colleagues three gentlemen known to hold the same views, and (probably by way of a constitutional opposition) retaining also on the new Board the chairman and four members of the old one. These, so to speak, were the hostile armies drawn up in battle array; and the parishes nominated eight Commissioners, equally indifferent to either view, and forming a species of jury to watch the contest, and give their verdict on the side on which, in their opinion, the balance of right reason and sound economy might incline. Soon after the opening of the Commission, the advocates of pipe-drainage set forth their views on the policy which, according to them, should be pursued; and from the first this seems to have obtained the support of a majority on the main points in debate. In order to settle the pipe question, the Commissioners ordered a thorough investigation: hundreds of pipes were dug down upon and examined, including those previously reported as failures by Mr. Bazalgette, and the results, it is affirmed, proved the successful working of the pipe principle.

So very different are the two reports on the same examples, that it is scarcely possible, notwithstanding explanations given since, to view both as honest documents. There appears to be extreme difficulty in obtaining information on the subject that can be relied on. Even with personal inquiries in some of the towns drained either partly or wholly on the pipe principle, we have found it impossible to arrive at a satisfactory conclusion, so contradictory were the opinions expressed. The success of the tubular system would seem now, however, to be generally admitted, due care and judgment being employed.

The pipe battle then being fought out, Mr. Ward proceeded to settle the question as to the combined back drainage of private houses; with which view, finding the powers of the Sewers Act inadequate, he procured the passing of the House Drainage Act, to which we adverted in a recent number of this journal, and which was carried in spite of the strenuous opposition of the other Commissioners. This Act, after many delays, has been got into successful operation; large numbers of groups of houses being now in course of drainage on the new plan, with a degree of economy sufficiently proved by the fact, that cases with which it was found too costly to deal on the separate front drainage system previously in vogue, have been efficiently treated on the combined plan of drainage, under the new Act. The numerous models of combined works thus scattered through the town will, we have no doubt, bring about the complete overthrow of the old prejudices still surviving in some quarters against the combined principle, which, on the most moderate estimate, reduces the expense of house-drainage to half, often to a third, and sometimes even to a fourth, of the cost on the old mode. For a time, however, there will of course be difficulties, and individuals, rather than run the risk of suffering through the carelessness of a neighbour, will be found to protest against it.

Thus much having been accomplished, the same Commissioner, with a tenacity to which different parties of course give different names, has, within the last few weeks, transported the battle on to new ground,—supporting the Small Tunnel system in opposition to the scheme of Big Tunnels put forth by the opposite party; and declaring small tunnels to be "the logical consequence of small tubes." He proposes a reduction of more than fifty per cent. on the sectional area of the main outfalls, and an equivalent diminution, amounting to three-quarters of a million sterling, in their cost. This is for the north side only; on the south side it is considered that an economy of still larger relative amount may be effected.

Opposed to this view are Sir W. Cubitt, Mr. Stephenson, Mr. Hawksley, Mr. Bazalgette, and their engineering friends,—who maintain the old formulæ in respect of tunnels as they maintained them in respect of brick sewers. To these formulæ Mr. Ward opposes the practical experience of Mr. Roe, who passed twenty years in periodically measuring the flow of the Fleet sewer, at various points along its course, from Hampstead down to the City boundary; and whose table of sizes, published in 1852, assigns for the larger sewers nine times the amount of town area which, by Hawksley's tables, published in 1845, each size respectively was set forth as capable of draining. Mr. Roe, it appears, has put in a plan of small intercepting tunnels, in conformity with his tables, and in opposition to the tunnels of double capacity and cost designed by Messrs. Stephenson, Cubitt, and Bazalgette. Mr. Ward charges these gentlemen, in terms to which their courtesy lends a poignancy, with having resorted to unfair modes of calculation for the purpose of defeating Mr. Roe, and proving his tunnels too small.

The Commissioners of Sewers have voted against the continuance of the debate; a vote, however, which can hardly settle the question, considering the large money interests depending on the issue raised; a vote, indeed, which the minority met by a written protest against a decision, in their judgment, so premature. Mr. Ward has replied at considerable length to a coarsely worded letter (let the merits of the case be what they may) published by Mr. Bidder, and shows what certainly looks like a misquotation by Mr. Stephenson of the flood area and slope of Mr. Bazalgette's high-level sewer,—a misquotation described by Mr. Bidder as only "an apparent discrepancy," but which his opponent maintains is a real one. Mr. Stephenson's words are,—

"The high level sewer is already explained must act as a drainage sewer for seven square miles, and remove the sewage, and a portion of the storm-waters, from another seven square miles, estimated at about 45,000 cubic feet per minute. The lower portion of the sewer, designed for this purpose, would discharge 47,000 cubic feet per minute, being 12 feet 6 in. in diameter, with a fall of 1 in 600."

"Can a fall of 1 in 600 be more plainly affirmed than here?" asks Mr. Ward. "Can such language be fairly construed to imply a fall of 1 in 1,359, brought up to an equality with 1 in 600 by working the sewer under pressure, so that the sewage, accumulating in the tunnel above, would, by its hydraulic head, force a passage below?" Most persons would probably say no; but we do not propose to go into the controversy. The real point at issue is, must we have the tunnels of large size proposed by Mr. Bazalgette, or would the arrangement proposed by Mr. Roe, with a saving of three-fourths of a million sterling, on the north side of the river only, serve efficiently? Reserving our opinion, we must confess that we have more faith in Mr. Roe than in the engineer of the present Commission; and notwithstanding the evil of delay, we must earnestly exhort the new Board not to proceed with the scheme without further investigation.

THE COMING ARCHITECTURAL EXHIBITION.

WE know not that there is any necessity for adding to what has been so often said in our pages, as to the ensuing ARCHITECTURAL EXHIBITION. We are not disposed to recognise the possibility of any mere half-success, like that of last year. But, as it need hardly be said, architects do not unfrequently show themselves quite apathetic where their interests are at stake; so that some of our readers this week must even bear with what, from us, is really a "twice-told tale."

On the 3rd and 4th of next month drawings are to be received at the Suffolk-street Galleries, and we take leave to say that every architect in the United Kingdom who sets a proper value upon his art and upon his own *personal* interest, will be prepared to contribute, or to satisfy himself that he has good reason not to do so. No one can *afford* to be at all careless in this matter. With the utmost respect for the older members of the profession, we urge upon them that they are not exempt from the duty of *maintaining* a position, or the alternative which there is in all professions of being supplanted. To the young, we say, that the opportunities that an exhibition affords are the most valuable which are open to them. We see no reason why the Architectural Exhibition should not be made to supply all that can be got out of architects' competitions—with their degrading influence upon the profession, their sacrifice of much that is important to the result in art, and their confessed failure as to the attracting men of established reputations, which it is of course one of their objects to do. The main excuse for the numerous responses to any sort of offer, has been that "competing" was a means of education in the preparation of designs. The question is whether similar advantages along with others, might not be made to accrue from other sources. We know of several positive instances in which professional employment and *status* have come from the exhibitions that have already taken place—moderately successful as these have been. We may remark, that the Architectural Association has already done good service by its class of design, and might, we think, easily give all the advantages as to study, by the occasional choice of subjects of greater importance and magnitude, in connection with particular sites of ground. Committees will perhaps one day begin to doubt whether their interests are served by the present system of architects' competitions.

But we should take a very limited view of the benefits to be effected through the Architectural Exhibition, were we to say that these are such as the young members of the profession mostly are concerned with. Rather, we have all a higher personal interest than in what appears immediate and personal. It is for the interest of the profession that the public

eye should be enamoured of architectural art. It is for the interest of every architect that each one should be aware of what is being done by others.

Public interest in the art, and the position of the profession would be served by somewhat greater unanimity amongst architects, on many questions, than is at present found. Again, the ideas of the most fertile imagination, left to themselves, are soon run out, and at any time are of little worth without constant correction from comparison with the ideas of others. The gain to each is immense, the individual contribution quite insignificant. How often are the following words quoted:—"The greatest natural genius cannot subsist on its own stock. He who resolves never to ransack any mind but his own, will be soon reduced from mere barrenness to the poorest of all imitation; he will be obliged to imitate himself, and to repeat what he has before often repeated." At the same time it should be understood, that there is a right and a wrong way of using a collection of architects' designs. There is much talk about the discreditable practice of *copyism*,—the allusion being to the use of old models. There should be the same feeling as to the manner of using the advantages of the Architectural Exhibition, or it will be vain to expect that men of particular ability will contribute, merely to supply forms for others. Whether "sketching" in the rooms is to be allowed or otherwise, is not so much the question. We want both the feeling of honour, and the sense of what is due for *art*,—which together, allowing all that might be good and original in designs to be perceived and remembered, would require that every fresh design should not be traceable to an original. In short, though it may seem paradoxical, one use of an old model or a new design, should be to show the means of avoiding a copy of it.—We have learnt that there are architects, without whose works the exhibition could not be said to give an accurate reflection of the state of architecture in England, who have hitherto taken a view of the results from exhibiting, as regards their designs, which view has prevented their sending drawings in previous years. In the cases we refer to, it would be absurd to say, as we might in ordinary cases, that where persons are miserly of their ideas, they have usually few that are worth having. We simply know that nothing of this sort could be applicable. But, that there is some foundation for the view taken by these architects, we fear is too true. There are architects, both in London and the country, whose misfortune it is to be copied and re-copied,—with, of course, a falling-off at every stage. Sometimes, it is only a characteristic detail that is set up on the opposite side of a road: sometimes the general manner is caricatured: sometimes a whole house is "taken off" bodily as it were, and built afresh. And the speculative builders are not the only delinquents. Thus the original designer gets disgusted with what was at first his own work; and the result generally is like that which has been arrived at by the use of the Greek details, and which is probably approaching as to the Italian window-dressings: that is to say, the greatest beauty in forms degenerates to the greatest ugliness; and members are applied under un-artist-like combinations, until a whole style is abandoned in unreasoning disgust, for the sake of another, perhaps less copious, though more *bizarre*, and of which the new lesson has to be learned through years of misconception and failure, only at length in its turn to be abandoned. Now, if the Architectural Exhibition is to become a national institution, and to realise all that we believe it is capable of, and indeed that which we cannot obtain otherwise, it is essential that all architects should take a proper view of it, in certain points. With little individual effort, the collection may be such as to induce repeated visits, and to afford what could hardly be gained by individuals during many years of study. There should, therefore, be no mean desire to escape contributing whatever ideas each one may have. It is essential that there should be both the proper feeling, and appreciation of the their influence to be exerted without a result in any way approaching to copyism. There are some leading builders, we may say, who require a little ventilation of their opinions on the moral obligation which there is—of copyright.

Individuals such as we have referred to, will, we trust, under any circumstances, on this occasion, throw aside every feeling but that of doing their part to contribute to an exact reflection of the state of art amongst us. We shall never advance as we should, unless we know more clearly where we are. *We* should not hesitate to show that there is no profession which suffers so much as ours does, by isolation of practice and study amongst its members; or which is so little exempt from the ordinary laws of progress, as regards the necessity of interchange of ideas. It may be well to point to the Institute, and to many advantages which the architect of the present day has:—we say, that even these are incomplete and partial in their effects on art, unless there be added an annual exhibition. No one can have visited an exhibition of competition designs without feeling the full force of what we say, and of what we have indeed often before expressed.

As regards the existing state of art, it is exceedingly difficult at present to form a definite opinion. The collection of works sent to the French Exhibition was incomplete in this respect. The committee of architects, doubtless, did their best with the works presented to them; but it is beyond question that blunt refusals had been sent, by some one in authority, to offers of works of high merit which would be essential to a view of the state of architecture in England.

Whilst in one way self-interest is concerned with the success of the Architectural Exhibition, the other means—the education of the public eye and taste—is not less in every way of moment. With all the prominence of architecture—or at least, buildings—the public attention seems to require to be still made alive to the fact of the importance of architecture as an ART, and its interest as a study. We have no cause to complain of inattention to archæological study: perhaps we should rather speak of the excess of it: but it is yet, we fear, undeniable that the *art* of architecture has something of its proper position to recover, even with those who apply themselves to special branches of architecture. And it is also desirable that architectural drawing should be better appreciated, and better understood. The public would be led to a higher view of the preliminary labours which are essential to the production of a good design, could they have the opportunity of seeing more of what those preliminaries are; and the knowledge of the technical language of plans, elevations, and sections, it is most desirable should be no longer a dead language to the public. Drawings of this kind, therefore, should not be omitted: and although the rooms are not at all too large for such an exhibition as architects might be expected to get together, a small scale for the several drawings of each design, would perhaps allow space for all the works that there need be, whilst it would give ready facility for reference. We would also suggest that some attention beyond that of former years, should be paid to classification. When the writers to whom architecture is consigned in the newspapers, find a drawing of an old Gothic church occupying a central space, they are apt to walk away under the belief that modern architecture is nought, instead of being what it is,—auspicious of a glorious future.

It is important that the public eye should be led to appreciate even these works: and on every account we would have them exhibited: but if there be one object more than another which is to be kept in the foreground, it is that of the present state of art. We believe that the existing race of English architects have the capacity for great works: and we hope that for once the opportunity will be taken to show what they have done, or might do. We shall look closely to the result.

THE GLASS TRADE.—Messrs Hartley and Co. of Sunderland, says the *Darlington Times*, have received a large order from the Sardinian Government for their rough plate-glass, and have just forwarded a consignment to his Majesty the Emperor of the French for the use of his vineries at St. Cloud, &c.

ARCHITECTURAL EDUCATION AND EXAMINATION AT BERLIN.

THE following are the general abstracts of Regulations for Architectural Education and Examination at Berlin—translated from the original papers—which were referred to in the address of Mr. Tite, at the Institute of British Architects, on the 5th inst.:—

Regulations for the Royal Architectural School at Berlin, 1849.

1. Title, &c.
2. The school is under the Minister of Trade. A committee manages the details, consisting of a managing director, named by the minister, and two members of the Upper Board of Works, one for architecture proper, the other for civil engineering.
3. The regular lecturers are appointed by the minister, on a recommendation from the committee.
4. Extra professors, &c. may be appointed by the committee for special purposes.
5. Applications for admission must be made in writing four weeks before the commencement of each half-year (8th October and 8th April).
   In October of each year a new series of lectures, &c. will be commenced.
6. On application for admission the following certificates must be brought:—
   I. By those who wish to enter Government service—
      a. That they are first-class men in some approved gymnasium, &c.
      b. That they have had at least one year's practice under one or more architects.
   II. By those who only wish to become private builders—
      That they have passed the prescribed examination for masons or stone-cutters, and carpenters.
7. Foreigners will be admitted (on same terms) so far as there is room.
8. A fee of ten dollars is to be paid upon matriculation. The course of study will at first be fixed for five years, but the term may be extended by the director.
9. Relates to details about attendance of the students at the lectures (*i.e.* they must at the commencement of the half-year signify what lectures they purpose attending, and upon payment of the fees they will receive tickets of admission).
10. If there is room, the director may grant admissions (on payment of the fees) to specific lectures to any person, not a student.
11. Upon request, the students may have certificates as to the lectures they have attended.
12. The halfyearly sessions commence on the 8th October and 8th April, and close on the 20th March and 31st October. A week's holiday at Christmas, Easter, and Whitsuntide.
13. The lectures are so arranged, that the surveyors' course may be completed in two years, that of architects proper in one, and that of civil engineers in one.

Course of Lectures at the Royal Architectural School in Berlin.—Winter Session, 1851-2.

[N.B. The fees are all calculated at the rate of a three-quarter dollar (2s. 3d.) per hour of weekly instruction.]

	Hours per Week.	Fee in Dollars.
1. Stereometry, Spherical Trigonometry, Analytical Geometry	4	3
2. Simple Analysis, Differential Calculus, Law of Curves	4	3
3. Descriptive Geometry	6	4½
4. Physics, with relation to Heat, Light, Electricity, and Magnetism	4	3
5. Chemistry, with relation to simple Materials connected with Building	4	3
6. Construction of Buildings, Drawing	6	4½
7. Ancient Architecture, Application to present Time, Outline Drawing, first part	8	6
8. Line and Architectural Drawing, first part (Ornamental Drawing)	4	3
9. Dynamics, first part	10	7½

	Hours per Week.	Fee in Dollars.
10. Planning and Drawing Buildings, first part	4	3
11. Farm Buildings, with Internal Arrangements	6	4½
12. Ancient Architecture, third part (Drawing)	6	4½
13. Line and Architectural Drawing, third part	4	3
14. Elements of Road and Bridge Making, and Hydraulics, first part	3	2¼
15. Machinery	6	4½
16. History of Ancient Architecture	6	4½
17. History of Architecture when the Arts flourished in Italy	6	4½
18. Drawing from Models, &c.	6	4½
19. Plans of Public Buildings	4	3
20. Ornamental Drawing, first part	4	3
21. Doctrine of Probabilities (applied to the Theory of the Correctness of Observations)	4	3
22. Hydraulics and "Waterworks" in general	12	9
23. Railways	3	2¼
24. Machinery	8	6

The extra lectures comprise,—"Further Practice in the Differential Calculus," "Conic Sections," "Integral Calculus," "Warming and Ventilating Buildings," "History of Greek Architecture," "Coloured Decorations," "Greek Forms of Art" (Buildings, Vessels, Implements), "English, French, and Italian Languages," and "Short-hand."

Regulations for Candidates, 1849.

1. The degrees of proficiency are,—
   - I. Surveyors.
   - II. Architects.
     - *a.* Architects proper.
     - *b.* Civil engineers.
   - III. Builders.
2. Relates to the certificates to be handed in by candidates for the surveyor's examination.
3. If these certificates are found satisfactory the candidate will be examined.
   - *a.* On the scientific and technical subjects which are the basis of the further studies of building students.
   - *b.* On knowledge of land surveying (no long practice required).
4. Relates to the certificates to be produced by architects and builders.
5. If these are satisfactory, some suitable design will be entrusted to the candidates, proper time and means of assistance being afforded.
6. After this is completed the examination will take place.
7. The Royal Upper Board of Works ("Bau Deputation") constitute the Board of Examination, but the Minister of Trade may appoint additional examiners if he think fit. Their report is to be confined to the results of the particular examination, specifying each department of the subject.

   The *viva voce* examinations are public, and the drawings, &c. of the candidates are at the same time to be exhibited. Unsuccessful candidates are allowed a term, after which they may try again; failing again, no further trials will be allowed.
8. The surveyors, when sworn, are competent to manage the execution of plans, under the supervision and technical responsibility of an architect. Their statements as to size and quantities are to be relied upon (*i. e.* as evidence).
9. Surveyors who only wish to become "road inspectors" need not pass the architect's examination, if they can prove a five years' satisfactory practice in road making.
10. Architects may undertake the completion of designs, &c. on their own responsibility, and are competent to fill any suitable Government office.

    Builders may execute designs on their own responsibility, but only for simple "Country architecture" ("nur für die Gegenstände des Landbaues").

    They are not eligible for Government appointments, and may only fill a "Communal" office when that does not require attention to roads and "waterworks" (wege-und Wasser-Bau).
11. Surveyors, architects, and builders may only execute such land surveys as are immediately involved in the practice of their profession.
12. Architects may only carry on any building trade (carpenter, mason, &c.) on their own responsibility when they have passed the examination for the trade in question.

Mode of Procedure at the Examination of the Candidates.

1. Examinations for surveyors take place half-yearly after the close of the lectures at the Royal Architectural School in Berlin.
2. Candidates must prove—
   - *a.* That they come from the first class of a gymnasium, or of one of the "real-schulen," approved by the Government.
   - *b.* That after leaving school they have had one year's practice, in counting-house duties and in out-of-door building work, and that, after this—
   - *c.* They have passed through a course of two years' study at the Berlin Architectural School, or one of the affiliated establishments; in which case the course of study must be stated in detail.
3. Candidates must also hand in—
   - *d.* A plan of a plot of ground with buildings, at least 5 acres extent, to a scale of 4 rods to an inch; also a table of levels with drawings (100 rods in length will suffice).
   - *e.* Sketch of a building or a machine, slightly coloured with Indian ink.
   - *f.* Other drawings, among which the perspective of a building, or an ornament, must be clearly shown.
4. In cases where the preceding are not satisfactory, or cannot be rectified in proper time, the candidates must wait till the next half-year.
5. Relates to time for the examination.
6. The examination commences with one week's work in private; and in the succeeding week follows the *viva voce* examination, lasting two days. According to the result in unsuccessful cases, a period of six or twelve months will be fixed, after which application may be renewed.
7. See also c § 8. Relates to the swearing in of surveyors, merely provided that they are to be sworn before the Royal Building Commission, if they have not been previously examined and sworn as land surveyors.
8. Candidates for the examination for architects must prove—
   - *a.* That they have passed the surveyor's examination.
   - *b.* That they have been actively engaged under one or more architects for two years.
   - *c.* That they have passed through at least one year's course of study after their having been examined for surveyors. So that no person can become an architect within three years of his having become a surveyor.
   - *d.* That they have had proper practice and experience in land surveying. (The superficial area must not be less than 500 acres, or if difficult, at least 200, and about 1,000 rods of levelling.)
9. Candidates for the builders' examination must prove—
   - *a.* That they have passed the masons', carpenters', or stone-cutters' examination; and—
   - *b.* With respect to course of study, the same as in § 2 c.

10, 11, and 12. Relate to the time to be fixed for the examinations.

13. Candidates for examination in both branches (country and decorative architecture, and civil engineering) must in addition to the preceding (§ 8) prove—
    - *a.* That they have practically learnt the trade of a mason, carpenter, or stone-cutter.
    - *b.* And have gone through a three years' course of study after having been examined for the above trades.
14. Unsuccessful candidates will be told when they may apply again for examination. If they are unsuccessful a second time no further application will be received.

By a supplement to the above, it is enacted that the integral and differential calculus shall, after 30th September, 1851, form part of the examination of surveyors—the same being now taught in the Architectural School.

Examination Subjects.

I. Surveyors (Bau-fuhrer).

Mathematics proper—
- *a.* Algebra, analysis (simple), logarithms.
- *b.* Geometry, stereometry.
- *c.* Descriptive geometry, projection, perspective, shadow.
- *d.* Trigonometry, superficial and spherical elements of law of curves, conic sections, cycloids, proficiency in algebraic and arithmetical calculations, and in use of logarithms, and in use of the methods of descriptive geometry.

Practical Mathematics—
- *a.* Land surveying, levelling.
- *b.* Elements of statics and mechanics, acquaintance with the standards of measure, hardness, friction, strength, &c.

Natural Sciences—
- *a.* Physics and chemistry (relating to materials used in building).
- *b.* Mineralogy and geology, signs and peculiarities of minerals used in building.

Country Architecture (Landbaukunst)—
- *a.* Knowledge of materials, their peculiarities, means of obtaining and preparing them, what taken from the vegetable world, their botanical relations.
- *b.* Acquaintance with the simple construction of all buildings (Baugewerke).
- *c.* Construction and arrangement of simple dwellings, farm and factory buildings, lime and brick kilns, &c.
- *d.* Ancient architecture, forms of, and application to buildings of our time.
- *e.* Making plans and corrections (revisions-machweisungen).

Road and Railway Making; Waterworks (*i. e.* Buildings or Works in, or at, the Water)—
- *a.* Foundations in water, bridges, embankments, tide-walls, mill-races.
- *b.* General earthworks necessary in making a railway, with plans, sections, &c.

Construction of engines and machines, composition and working of those most frequently used in building,—mills, steam-engines in general.

II. Architects.

A.—For Country and Decorative Architecture.

The principal styles of architecture of all countries and ages, peculiarities, and advantages.

Laws of construction, applied to large and difficult designs, apparatus for heating, ventilation, cooking, washing, drying, filtration, &c.

Dynamics.

Decorative architecture, in all its branches, for public and private buildings.

Business arrangements, generally during progress of works.

B.—Waterworks, Roads, Railways.

Analysis (compound), law of curves, probabilities, land surveying.

Analytical dynamics (applied to Nos. 3, 4, 5).

Waterworks (Wasserbau)—
- *a.* Waterworks in general; atmospheric products; springs; irrigation; drainage; foundations, &c.
- *b.* Making canals, &c.; flow of water in beds of rivers; hydrotechnic measurements; means for regulating the current; for making rivers navigable; cleansing and deepening the channel; weirs; floodgates; rafts.
- *c.* Making dykes; drainage of embanked low lands; draining machines; sluices; breaches in the dykes.
- *d.* Land communications; ferries; bridges of wood, stone, and iron.
- *e.* Erections by the sea; succession of waves; ebb and flow; currents; strengthening or securing the shores, harbours, moles, docks, sluices; securing roadsteads and lighthouses.

Construction of Engines—

Knowledge of different forces, arrangements for their use; winches; levers; water-wheels; windmills; steam-engines; machines for rubbing, crushing, tearing, pressing, and condensing building materials, &c. &c.

Construction of railways—

Works underground with bridges over; works above ground; ascents and curves; optic and electric telegraphs; precautions against snow and quicksand; stations, with all buildings belonging; plant and rolling stock.

III. Builders.

The same II. A, 1, 2, 3, 4, and 5, reference being made when required to the points mentioned sub. I.

The examination in mathematics will not be confined to mere theories, but special cases will be given, the treatment of which will show whether these theorems are clearly understood.

One week will be devoted to exercises done in private: on the first day, a sketch must be handed in, the chief outlines of which must be adhered to afterwards.

Fall of a Large Building near Holborn.—On Wednesday in the present week a warehouse, occupied by extensive cutlers and hardwaremen in Eyre-street-hill, Holborn, fell to the ground shortly after some old houses adjoining it at the back were removed for the purpose of erecting new lodging-houses. It is said that a raking shore had been displaced contrary to the direction of the district surveyor, Mr. Legg. No one was hurt, fortunately; but much of the stock was buried in the *débris*.

THE NEW GRAMMAR-SCHOOL OF ST. OLAVE'S AND ST. JOHN'S, SOUTHWARK.

TRAVELLERS from the London bridge Railway-station will have noticed on their left hand, almost immediately after starting, an important-looking building, of red brick and stone, in the Tudor style of architecture, with gables and tower over entrance, according to rule. This is the new school of St. Olave's and St. John's, which has been erected under the direction of Messrs. Allen, Snooke, and Stock,—but mainly the latter; and on Saturday last, the 17th, the school was opened, on the occasion of the commemoration of the accession of Queen Elizabeth, whose name the school bears, and who granted its first charter of incorporation in 1571.

Let us say, in a parenthesis, because of our love for these old customs, that the proceedings commenced with the presentation of a bunch of roses to the warden and governors of the school, by the churchwardens and overseers of the parishes of St. Olave and St. John. A bunch of roses is the annual rent payable by these parishes to the governors for certain estates at Horsleydown, Meopham, in Kent, and Rudgwick, in Sussex. These estates are, from the peculiarity of the tenure under which they are held, called the Red Rose Estates.

We may get an outline of the history of the school from the address of the warden, Mr. J. W. Ledger, at the close of the proceedings.* "This being the first anniversary of Queen Elizabeth's accession to the throne which has been commemorated within these walls [said Mr. Ledger], I think it incumbent upon me to trace the history of our school from its earliest years. The first we hear of it in history is that in 1560 a benevolent and far-seeing man of the name of Leeke, a brewer in Southwark, left the sum of 8*l.* per annum for either of the parishes of St. Saviour's or St. Olave's, which should first be in a position to claim the legacy from having a school established. St. Olave's claimed it first, and the foundation of the school was laid in 1561. In 1571 it was incorporated by Queen Elizabeth. In 1579 the churchwardens of the parishes made over to the governors for the time being a piece of land of about 16 acres, called Horsleydown, which was then a field of common land where the poor could graze their cattle, dig gravel, &c. The archery butts were also placed there. The governors wishing to make the most of their property, immediately enclosed it, and were thus led into a great deal of litigation, which lasted for several years. Horsleydown was soon covered with houses, and it now forms the principal revenue of the school. This building is a part of it. The school continued to prosper. The parish of St. Olave was afterwards divided. In 1830 the old school, which was in Churchyard-alley, near St. Olave's Church, was required for the approaches to New London-bridge. The City gave a piece of ground near it, which was soon afterwards required by the London and Greenwich Railway. The ground in Bermondsey-street, upon which the school was built, was required by the railway company, who were obliged to invest the sum of 30,000*l.* in the Bank of England, unless they could find a site before three years were passed. This they could not do, and the present school was built.

The building comprises a Classical or High School, 88 feet by 40 feet, and 52 feet (a very satisfactory work, notwithstanding the windows), and an English school, 70 feet by 35 feet, 35 feet high. On the keystone of the vaulting to the entrance under the tower are the arms of Henry Leeke, the first benefactor to the school. They bear the following inscription:—"Henricus Leeke primus Inceptor. A.D. MDLX." The stone staircase, leading to the Court-room, is adorned with the arms of the Bishop of Winchester (visitor of the school), and also contains other appropriate devices. The Court-room is a spacious apartment, fitted with handsome oak panelling and having windows of stained glass, containing the arms of the present and late governor of the school. The cornice displays a series of shields on which the arms of former governors, from the first foundation of the school (as far as they could be ascertained) are emblazoned. The ceiling is panelled and ornamented with gilt pendants.

Beneath the Court-room is a library of equal dimensions and of similar character, but not so highly decorated, the only stained glass being an ancient relic preserved from the old school formerly in Churchyard Ally. It represents a Dial with a Bee, and contains the motto, "Aspice, Respice." There are, moreover, two convenient residences for the principal masters, and a neat porter's lodge.

The cost of the schools, with fittings and warming apparatus, supplied by Messrs. Haden, of Trowbridge (no small item), will be about 24,000*l.* Mr. J. Jay was the builder. We shall, probably, have occasion to return to this noble foundation.

* Full particulars of the proceedings will be found in the *South London Journal*, a very good penny just-now started, in the number for November 3; with a full and interesting article on the "Ancient History of Horsleydown," by Mr. G. R. Corner.

ARCHITECTS' CHARGES.

MAY I, a constant reader of your journal, ask you to oblige me with an answer as to what is the correct practice of architects in the following cases. In alterations and repairs of buildings, where old lead is exchanged for new, should not the commission be upon the full value of the work done, including the new lead, and not upon amount of the builder's bill reduced by the price allowed by him for the old lead?

In cases of alterations, or other works, where old materials are re-used, should not the commission be allowed upon the value of the old materials so re-used? I think the answer must be in the affirmative, but as there seems some little doubt in certain quarters, I am anxious to have the best opinions. A. E. P.

*** In answer to the first inquiry, the commission is justly chargeable upon the full value of the work done, including the value of new lead, and irrespective of deduction for old lead. As to the second, it is usual not merely to charge the commission on the value of the *old* materials as re-used, but upon the value of such materials when *new*. One moment's reflection will show the perfect correctness of such a course. Many architects charge more than the ordinary commission, and with justice, for "alterations and repairs."

FOREIGN INTELLIGENCE.

Vienna Competition. — The Vienna municipality have offered a prize of 300 ducats (150*l.*) for the best plan of a bridge over the Wien, near the Caroline Gate. Its form and arrangement are left to the architect, but it must have but one arch, be calculated for the greatest weights, and possess great durability. The plan of the site is to be had of the municipality, and a term of six months allowed for the sending in of the plans.——The well-known pyrotechnic, M. Stüver, has invented a detonating signal for railways: besides the detonation a flame of different colours is developed, which will give certain directions to the engine-drivers, &c.

The Picture of Columbus, by Moritz Rugendas.—For some time past no picture has excited such interest as the above canvas of M. Rugendas, painted by order of King Maximilian. In a lifeful and true interpretation: we see before us that historical moment when Columbus descends with his followers on the shores of a new world. The task was difficult, but has been solved well by the German painter, who possesses the advantage also, that the depicting of tropical nature (animate and inanimate) has become familiar to him by his long residence abroad.

Remuneration of German Painters.—The picture which Frederic Overbeck has lately made for the Cathedral of Cologne, is now nearly ready. It has been presented to the cathedral by the Art-Union of the Rhine Lands and Westphalia, at Düsseldorf, which transmitted to Overbeck successively to Italy the sum of 5,230 thalers. Later, the chapter of the Dom added 2,000 thalers; making altogether 7,230 thalers—upwards of 1,000*l.*—a sum rather large in Germany and Italy.

France.—Working Men's Regulations.—The institution of *livrets*—a sort of behaviour-books for all sorts of working people—has been in existence for some years past, having originated during the first Revolution. A new law of 22nd of June last modifies it to the extent that the *livrets*, which hitherto remained with the masters, are to be in the hands of the journeymen, to whom they have to serve as passports, and for legitimation of good behaviour, &c.

The Catalogues of the Munich Universal Exhibition.—This most deserving *résumé* has been compiled under the direction of States-Councillor Hermann, and is a work possessing merit, describing the subjects exhibited under the grand point of view of industrial development. The twelve parts of the catalogue answering the twelve divisions of the exhibition, are also sold separately. Amongst them are the engines by Dr. Hülse, of Dresden; on tissues and leather, by Dr. Weinling; on earthenware and glass, by Dr. Knapp, of Munich, on minerals and fuel, by Councillor Schmitz, of Munich, &c. which all deserve the attention of those interested in these pursuits.

PROVINCIAL NEWS.

Wilburton (Ely).—The new schools in this village are now completed, and form the principal buildings in the village. They occupy a central situation, and are built with residences attached, faced with red bricks, and white brick and Bath stone dressings. The funds for liquidating the expenses have been raised by subscription, and grants from Government Board of Education and National Society. The works have been carried out by Mr. Freeman, of Ely.

Ipswich.—At a public meeting here, a plan has been brought forward for erecting a new Post-office, with convenient accommodation and shelter for the public, on the site of the present Post-office and adjoining houses at the corner of King-street. It is proposed to raise the money required, estimated at 2,500*l.* in 10*l.* shares, and nearly 100 shares were taken in the room. The erection is to be of white brick, with stone facings, rusticated basement, and a loggia for the public, supported by two pillars in the centre. The design is by Mr. Woolnough

Cleveland.—The development of the mineral wealth of Cleveland, in the North Riding of Yorkshire, on the completion of the North Yorkshire and Cleveland Railway (now in course of construction), has already caused the origination of several companies to erect blast furnaces and manufacture pig-iron, as it is generally considered that pigs can be made in this district cheaper than in any other part of the kingdom. A joint-stock company of this description has just been formed at Bishop Auckland. One or two are projected at Newcastle-on-Tyne for a similar purpose, and others are being originated. It is said that one very large company is about to be formed, with a capital of 300,000*l.* to make all descriptions of iron on an immense scale.

Bradford.—The first stone of a pile of new buildings about to be erected in Well-street was laid on Thursday before last, and in the evening a dinner was given by the proprietors to the successful and unsuccessful contractors and various friends, about eighty in all. The premises will be extensive, though not specially ornamental. The length of frontage to Well-street will be 180 feet, and the height from the causeway to the top cornice, 76 feet. There will also be frontages into Swaine-street and Hall Ings. It is adapted for either one or two stuff warehouses, with market-rooms, &c. and will have fire-proof hoists and staircases, and the ground story will also have a fire-proof floor, constructed with iron girders and hollow brick arches. It will be seven stories in height, including the attic, the roof being supported from cast-iron jackings. By an arrangement with the Corporation, according to the local *Observer*, the narrower portion of the street opposite the building will be widened to the width of 15 yards (now short of 12 yards), and this arrangement causes the front to Well-street to be of the crescent form. The contractors for the masons' work are Messrs. James Burnley and Co.; carpenters and joiners' work, Messrs. J. Wilson and Son; plumbers and glaziers, Messrs.

J. Keighley and Co.; plasterers, Messrs. Smith and Dixon; and slaters, Messrs. Joshua Hill and Sons. The ironfounders' and painters' work are yet unlet. The whole will be carried out according to the plans and under the superintendence of Mr. Milnes, of Bradford, architect. It is proposed as early as possible to extend this improvement in Well-street to the bottom of Kirkgate, so as to form one of the most spacious approaches into the town.

Sheffield.—The local Board of Guardians have resolved that it is necessary to erect a new workhouse for the Sheffield Union. The ratepayers had a meeting shortly before the guardians came to their decision, but were violently opposed to it; nevertheless the guardians passed their resolution by a majority of nine to three, and they have the power to proceed independently of the decision of ratepayers on such a question.

Stockport.—At a recent meeting of the town-council of Stockport, the question of erecting a town-hall over the present court-house was referred to the General Purposes Committee of the council.——At same meeting the question of the establishment of public baths was referred to the council's Sanitary Committee.

Thurso.—At a meeting of a committee lately appointed for carrying into effect improvements at the Watermouth, according to the *John o'Groat's Journal*, a plan of a new harbour, by Mr. Magnus Tait, architect, Wick, was approved of, and Mr. Tait has been authorized to draw out a plan, in extension of the sketch already submitted, with relative specifications, with a view to advertise for contractors, so that the work may be proceeded with without any further delay. New water-works, it appears, will be commenced here in the beginning of spring.

CHURCH-BUILDING NEWS.

Dorking.—The new cemetery here has been completed, and is about to be consecrated and opened. The whole has been done, it is said, considerably below the estimated cost.

Hemel Hempstead.—The church, schools, and residences, now completing here, were opened on 13th inst. They consist of boys' and infants' schools, each 48 feet long, and 18 feet wide, with class-rooms attached, 18 feet by 15. The residences each contain living-room, kitchen, scullery, three bed-rooms, and necessary conveniences. The buildings are erected in the Decorated style, the materials used being red bricks, with dressings of Caen stone. The roofs, which are surmounted by a light spire, are open timbered, varnished. The ground is enclosed with a stone coped dwarf wall and ornamental railing. The institution has been erected by subscription, headed by Sir Astley P. Cooper, bart. of Gadebridge, and aided by a grant from the Government. The architect is Mr. George Low, of London; and Mr. Groom, of Hemel Hempstead, is the builder. The cost, exclusive of ground, is upwards of 2,000*l.*

Ilfracombe.—The new church at Ilfracombe, the completion of which has been delayed from want of funds, will, in the course of the next twelve months, it is expected, be consecrated. It is understood that a London merchant, visiting Ilfracombe, and hearing that there was no hope of carrying out the original design, has undertaken to finish the structure, to endow it, and to build a parsonage-house for the incumbent, all on condition that his own name shall not transpire. The cost of completing the church alone, it is said, cannot be less than between 2,000*l.* and 3,000*l.*; while the endowment and the erection of the parsonage-house will raise that amount to upwards of 4,000*l.*

Broadwater.—The reopening of the chancel of Broadwater Church took place on Sunday in week before last. A subscription had been started for placing an obituary window in the chancel, and during the preparation of the works necessary, Mrs. Thwaytes contributed a stone reredos, &c. The old window at the east end of the chancel selected, was in a very dilapidated state, so much so that its removal was determined upon. From further examination it was found that there formerly had been a three-light Early English window: this gave rise to the wish of adopting the present triplet of Early English character, although of somewhat later date. The window is divided by detached clustered columns, with deeply moulded arches and tooth enrichments in the heads. The spandrils are filled up with diaper work and sunk moulded trefoil panels of carved scroll foliations, intertwining initials, and the whole surrounded by an inclosing arch of zigzag ornament. This work had been set when it became apparent that the painted glass and reredos could not be fixed with safety without further and extensive repairs being first executed. An examination, therefore, was directed to be made of the roof, groining, and walls, all of which were found to be in a dilapidated and dangerous state: it was, therefore, determined to take down the groined ceiling and walls, and to restore the walls, if possible, to their original position, from their having become deflected from the perpendicular some 14 or 16 inches each side outwards, crushing the stone buttresses. After removing the groining, the righting of the walls was performed by placing on the outside at the back of the buttresses half balk timbers resting upon strutts; and through these and the openings of the side windows passing iron screw tension rods, with square outside nuts, three to each window: to two of the bolts of each set heat was applied, by covering them with lighted charcoal, supported in iron troughs running parallel with the rods. The rods thus heated expanded in length, and whilst expanded were screwed up tight, then allowed to cool and consequently to contract, the unheated bolts being preserved as safeguards. This process was repeated of course, as in previous instances, and the walls were eventually brought back to the perpendicular. The crushed buttresses were removed where necessary, and new lancet windows have been inserted on either side of the chancel, the groined ceiling renewed, and the whole newly roofed. The work which had been suspended in the inside was again resumed. The reredos, like the window, is of Early English work, and is divided into three compartments, the centre of which has three deeply mounted arches trefoiled on the inside and enriched with carved spandrils and tooth mouldings, clustered columns with shafts of polished Purbeck marble enlivened with tooth enrichment of Caen stone between the shafts. The columns rising from a high base of polished Purbeck, have caps of Caen stone, carved in foliated work, adaptations from Lincoln, St. Alban's, Winchester, and Salisbury. The whole spandrils above the arches are diapered, and have trefoil panels enclosing foliated initials. The centre compartment has an illuminated cross in gold on azure ground of diapering, dotted with stars and labelled with a text. The side compartments are surmounted with carved canopies. The side walls, on either side of the reredos, have an arched arcade running to the altar rail, with slight detached annulated Caen stone columns, with draperied spandrils above, while on either side are recesses for sedilia. The walls between the columns are lined, and the floor is laid, with Minton's encaustic tiles. The painted glass of the new window is by Mr. Willement. The centre light has the Ascension of our Lord: the upper and lower portion of each light is of tabernacle work with labelled texts, and the head above the canopy has a monogram of the Holy Trinity. There has been placed on the south side of the altar an obituary window, by Capt. and Miss Stringer.

Gloucester.—We lately gave some account of the progress made in the restoration of the cloisters of this cathedral by the introduction of stained-glass memorial windows. Further restorations are proposed for the body of the edifice, and operations have been commenced in a portion of the nave and a north aisle, in order to see what effect the restoration of the whole would have upon the interior. The white and yellow wash upon the stonework of one of the piers has been removed, and the stone painted. On removing the wash, it was found that the lower portion of the pier was calcined by the burning of the old wooden roof prior to the erection of the present vaulting. The vaulting-shafts were discovered to be of marble, and are now cleaned and polished. Remains of colour sufficient to make a correct restoration were discovered on the capitals and bases of the vaulting-shafts and the mouldings connected with them, particulars of which are preserved. On removing the bases of the pier (which is modern), and excavating below the present level of the nave, the original floor was discovered about 10 inches deeper than the present paving. It appears to have been composed of encaustic tiles, and the pier itself stood on a large square base below that which now appears. During the recent examinations which have been carried on by the chapter architect, several interesting discoveries have been made.

Presteign. — The parish church here was lately re-opened, after having been closed for about twelve months for renovation and repairs. An addition has been made to its size by doing away with galleries. The chancel has been considerably heightened. The east window is of stained glass. The pews are of pinewood, stained and varnished. The church contains now 120 large pews, in addition to which a large space, formerly called the "Little Chancel," is converted into sittings. The chancel pillars and arches have been scraped, and the stonework freed from plaster, and the walls and monuments renovated. The chancel is paved with encaustic tiles from the manufactory at Lugwardine. The window was the gift of Mrs. Evans, of Greenfield, near the town. It is formed of two divisions—upper and lower—having five compartments in each. In the lower division is represented the Saviour on the Cross, with a Mary on either side; the outer compartment on each side being filled with a border. In the upper division is represented the Ascension of the Saviour with the Apostles on either side. Arranged above all are several passages from Scripture. Mr. Page, of Leominster, was the contractor for the restorations.

Keighley.—The Burial-board of this place has instructed their clerk to borrow 4,000*l.* for the purchase of 11 acres of land at Utley, about a mile from the centre of the town, on the Skipton turnpike road.

Sheffield.—The parish church is to have its chancel thrown open, by the removal of the organ and screen from its present position, and otherwise improved, at a cost estimated by Mr. Flockton, architect, at about 500*l.*

Crosby.—The consecration of the newly-erected church at Crosby was performed in week before last by the Bishop of Carlisle. The edifice is of new red-sandstone, in the Florid Gothic style of architecture, with a round tower.

THE BIRMINGHAM AND MIDLAND INSTITUTE.

Birmingham is moving. The want of a Literary and Scientific Institution there, commensurate with the character and requirements of a town where the occupations of the great majority of its artizans demand a certain amount of mechanical, chemical, or artistic knowledge, induced a number of gentlemen, some time ago, to endeavour to supply that deficiency. In January, 1853, they obtained the sanction of a public meeting, presided over by the Mayor, to the scheme of a Literary and Scientific Institute. In 1854 the Institute was incorporated by Act of Parliament, and the town council granted a site adjoining the Town-hall for the proposed buildings, on condition that 10,000*l.* were raised and available for their erection.

The liberality of the noblemen and gentlemen of the neighbourhood, of the ironmasters of the district, and of the inhabitants of Birmingham, placed a considerable portion of the required sum in the hands of the Council of the Institute, and several friends to the undertaking having entered into a personal guarantee for the balance of the stipulated 10,000*l.* designs were obtained from ten architects, and from these, as our readers have already been informed, the design submitted by Mr. Edward M. Barry, the younger son of Sir Charles Barry, was selected. The full development of the scheme of education will require at least double the amount of the funds now in hand, and the Council appeal to the inhabitants of the town and district, and to the friends of education generally, for the means of founding this great Industrial College.

The plan of the Institute embraces a General Department and Schools of Industrial Science.

Under the former head are—1st. The Literary Branch, comprising libraries, reading-rooms, and lectures on subjects kindred to this branch. 2nd. Museums. 3rd. A Collection of Mining Records. 4th. Lectures on general Scientific Subjects. 5th. Periodical Meetings for the reading and discussion of original communications, upon the plan of the sections of the British Association; and 6th. A Gallery of Fine Arts, for the reception of examples of painting and sculpture.

The other department is a School of Industrial Science, the members of which are provided with systematic lectures and class instruction in the various branches of science, with especial reference to their particular occupations; and will also partake of the advantages of the General Department. The classes, some of which are already in operation, will include chemistry, as applied to the various manufactures and agriculture, mechanics, metallurgy, mineralogy and geology, ventilation of mines, and mining engineering. The education of artisans, practical miners, and others, in the scientific principles of their daily avocations is thus a primary object of the Institute.

The Museums will be devoted to geology, mineralogy, their economic application, such parts of natural history as illustrate these sciences; those animal and vegetable productions used as raw materials in manufactures; manufactures, particularly those of the district, comprising specimens of articles in their different stages of process, and finished articles of different dates and countries; to models and specimens of machinery, tools, furnaces, and other instrumental means and appliances used in the various manufactories.

It is evident, as the council say, that the museums will be of great utility to persons engaged in the arts and manufactures; to the ironmaster, by the exhibition of the different kinds of ores and iron, and models of furnaces and machinery used in different parts of Britain, America, and the Continent; to the architect and builder, by the exhibition of building materials, with records of their cost and durability; and to the manufacturer, designer, and modeller, by the exhibition of raw materials and finished articles, remarkable for their artistic beauty, novelty of construction, or excellence of workmanship. The collection of mining records will be of peculiar value in this district, by affording information as to the position of old workings, and the situation and peculiarities of the strata in which the minerals occur; and the classes of industrial science will confer an important benefit on manufacturers and artisans, in placing within the reach of the pupils a knowledge of the scientific principles involved in the various departments of manufactures and art.

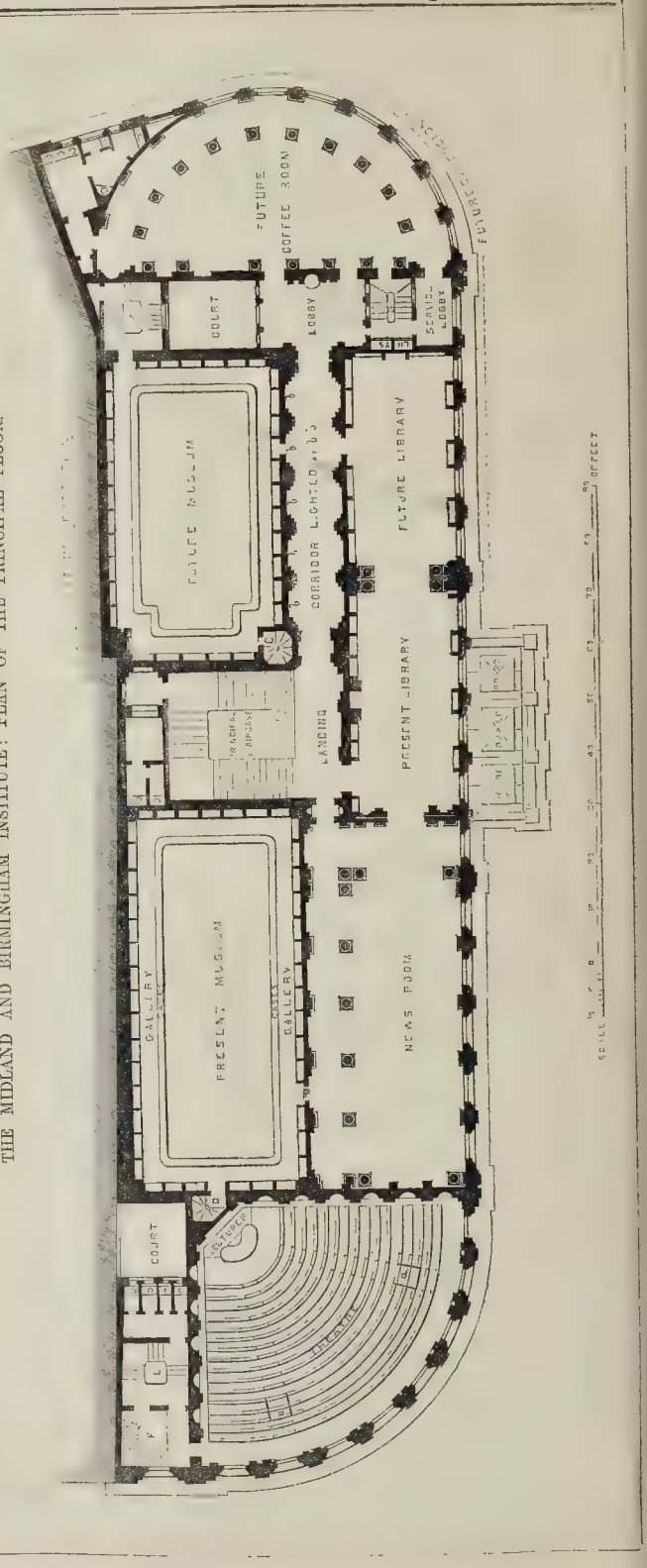
On Thursday last (the 22nd), too late for us to do more than mention the fact, the first stone of the proposed building was laid by His Royal Highness Prince Albert, and we here give a view of the building and the plan of the principal floor. A general description has already appeared, page 442, &c. The site for the building is a plot of land against a block of houses, with Paradise-street at one end of it, and Edmund-street at the other.

The chief difficulties the architect had to contend with were, first,—the peculiar shape and levels of the ground; second,—the necessity of keeping the several departments (namely, the General, the School of Art, and the Industrial) distinct and with separate entrances; third and chief,—the prescribed condition that a part only of the Institute, also prescribed, was to be erected at present, but that the remainder was to be so arranged as to be merely an extension of the present arrangements.

We may say, broadly, that the General Department occupies the ground, principal, and basement floors, and is devoted to museums, meeting-rooms, mining record-room, news-room, libraries, coffee-room, theatre, and secretary's residence.

The School of Art occupies the whole of the two-pair floor, and comprises class-rooms, master's rooms, library, &c.

The Industrial Department occupies the whole of the three-pair floor, and comprises accommodation of a similar description, but less in amount.



THE MIDLAND AND BIRMINGHAM INSTITUTE: PLAN OF THE PRINCIPAL FLOOR.

THE MIDLAND AND BIRMINGHAM INSTITUTE.—Mr. Edward. M Barry, Architect.

THE PARIS EXHIBITION.

The following English members of the International Jury are named of the Legion of Honour, in consideration of services rendered to sciences, agriculture, industry, and the fine arts: —

To be Commanders.

Lord Hertford—Encouragement given to the arts.
Lord Ashburton—Services rendered to commerce.

To be Officers.

Sir David Brewster—Discoveries and works in optics.

Mr. Thomas Graham, Grand Master of the English Mint—Services rendered to science.

Mr. Bazley, President of the Chamber of Commerce of Manchester—Extensive manufactures.

To be Knights.

Sir William Hooker, Director of the Royal Gardens at Kew—Important services rendered to natural sciences.

Mr. Wilson, Professor of Agriculture at the University of Edinburgh—Remarkable collection of English agricultural productions.

Mr. Crampton, engineer of the Submarine Telegraph—Invention of a locomotive of great speed.

Mr. Robert Willis, Professor of Natural Sciences at Cambridge.

Mr. Wheatstone, Professor of Natural Philosophy at King's College — Application of the Electric Telegraph.

Mr. Hoffman, Professor in London — Chymical operations applied to glass.

Mr. Walter Crum, manufacturer at Glasgow—Perfection of his printing on cloth.

Mr. Gibson—Services rendered to manufactures and commerce.

Mr. Digby Wyatt, architect—Services rendered to manufactures and to the arts—Establishment of Schools for Industrial Drawing.

Mr. Thomas Delarue (England) — For the importance of his manufacture of paper and his numerous inventions.

Mr. Twining—For the initiative taken by him for the exhibition of articles of domestic economy — Services rendered to the working-classes.

Lord Elcho (England)—Painting.

Rank in the Legion of Honour has been conferred also on the following gentlemen, in their character of exhibitors, or as having contributed to the success of the Exhibition, viz.:—To be Commander—Professor Michael Faraday. To be Knights—Messrs. Lawes, of Rothamstead; W. Fairbairn, London; Mr. Platt, sen. Oldham; Lord Rosse; Professor Airy, Greenwich; Mr. Brett, London; Mr. Tennant, Glasgow; Dr. Neil Arnott, London; Mr. Robert Napier, London; Mr. Brunel, London; Mr. Stephenson, London; Mr. Samuel Jackson, Sheffield; Mr. Elkington, Birmingham; Mr. Minton, Stoke-upon-Trent; Mr. Titus Salt, Bradford; Mr. Baxter, Dundee; Mr. Crossley, Halifax; Mr. Mulready; Sir Charles Eastlake; Mr. Gibson (sculptor); Mr. Cockerell (architect); and Mr. Lupton, Darnton (Vice-President of the Chamber of Commerce, Leeds).

ARCHÆOLOGICAL MEETINGS.

The Kilkenny Archæological Society.—The November meeting of this very thriving society was held in the Tholsel-rooms, Kilkenny, on Wednesday in week before last, the Dean of Leighlin in the chair, when another lot of new members, eleven in number, was elected, and various presentations made to the society, some of them by Continental and American associations, and others from the London and Edinburgh Societies of Antiquaries and other British societies. Articles of interest were also exhibited. Mr. H. O'Neill sent a paper on the Cross of Cong, and the Rev. J. Graves read a paper by Mr. J. P. Prendergast, on the Ulster Creaghts.

The Bedfordshire Archæological Society.—The public annual meeting of this society was held in the Bedford Library, on Monday before last, Capt. Stuart, M.P. in the chair. After an address by the chairman, the annual report was read by one of the honorary secretaries, and was unanimously adopted, and a list of office-bearers approved of. Mr. G. Hurst, the Mayor of Bedford, then read a paper on the "Manor-House of Cople Wood End," where Butler is supposed to have written "Hudibras." The Rev. W. Monkhouse read a paper on "The nominal Definition of Bedfordshire Villages." Several presentations were afterwards made to the society.

The Norfolk Archæological Society.—The quarterly meeting of this society was held on Thursday in week before last, at the Guildhall, Norwich, when a communication from Mr. G. Johnson was read, respecting some discoveries of Roman remains at Gooderstone. A letter was also read as to the discovery of several urns at Ditchingham. A paper was then read by Mr. Harrod, hon. secretary, on the visit of Queen Elizabeth Woodville to the city of Norwich in the ninth year of Edward IV.'s reign, as given in the City records. The same gentleman gave an account of some recent investigations by him at Burgh Castle. He had not only discovered portions of foundations similar to those he had found in 1850, but also of the wall itself, and of oak piling, on which it had been built. He had traced the foundations for 200 feet. Other discoveries were made, including an immense mass of Roman concrete. Mr. Harrod considered the foundations he had traced to have been those of the west wall of the castrum.

INSTITUTION OF CIVIL ENGINEERS.

On the 13th instant the session was opened, Mr. James Simpson, president, in the chair, with a paper "On the Construction of Buoys, Beacons, and other Stationary Floating Bodies," by Mr. G. Herbert.

Floating sea marks, as ordinarily constructed, were, it was stated, admitted to possess the defect of riding uneasily on the waves, under which they were frequently buried, so as to be scarcely visible, when most required, besides which, it was not an uncommon circumstance, in heavy weather, to find that a buoy had broken its chain and floated away. The present form of the buoys, and the fact of the mooring chains being attached to a point far below the centre of gravity, sufficiently accounted for these and other acknowledged defects, and induced the proposition of a form of stationary floating body, which should have a tendency to ride easily, and to retain its perpendicularity, whilst the point of attachment of the mooring chain would be in such a situation as to subject it to the least amount of strain, and not be liable to draw the buoy down into the trough of the waves. With this view a wrought-iron pear-shaped buoy was constructed, of a circular form in plan, and terminating above in an apex, so distributing the weight, as that the centre of gravity should be situated a little below the centre of the plane of flotation, and the bottom was made concave and raised up internally, so as to form a cone, to the internal apex of which the mooring chain was attached.

This form was found so completely to answer the purpose, that several buoys were made by Messrs. Brown, Lenuox, and Co. for the Corporation of the Trinity House, and were pronounced to be superior to any previously built.

Encouraged by the success of the first experiments, the Trinity House authorized the construction of a wrought-iron Sea Beacon on the same principle. The floating base was 20 feet in diameter, divided by radiating bulk-heads in six water-tight compartments: it drew 4 feet 6 inches water, and supported a tower, also of wrought iron, 28 feet high, 7 feet diameter at the base, and 3 feet 6 inches diameter at the top, surmounted by an iron ball of the same diameter. This beacon was moored in the overfall of the sea, at the South-Sand Head of the Godwin Sands, and was admitted to have been the best and most conspicuous sea mark ever laid down.

It was now proposed to carry out this principle of construction upon a larger scale, and to erect upon the floating base a tower sufficiently large to serve as a substitute for a lighthouse. A plan for such a structure, as submitted to the Trinity-house by Sir Charles Fox, was described. The floating base was 80 feet in diameter, and drew 20 feet water: the tower was 130 feet high, 24 feet in diameter at the base, and 14 feet at the lantern: the weight of the tower and lantern was 117 tons; and the total displacement of the whole building was 1,602 tons; the centre of gravity being 2 feet 6 inches below the surface of the water.

The new form of sea light-tower was proposed to mark the sites of shoals, or rocks, or islands, which were difficult of access.

The lighthouse on the Skerryvore rock occupied seven years in building, and cost upwards of 90,000*l.*, whereas, by means of the Sea Light Tower, the same object might be accomplished in one year, at a cost of 30,000*l.* The site of the Bell Rock could be equally efficiently marked, at a cost of about 20,000*l.* instead of 60,000*l.*; and that of the Eddystone, at about 15,000*l.* instead of 40,000*l.*; and the new form of light towers would possess the advantage of being accessible in all weathers. The observations were limited to sea marks, but if the principle of construction proved to be correct, it would evidently be applicable to floating forts, and to almost every other description of stationary floating body, several designs for which were exhibited.

The Council of the Institution of Civil Engineers have awarded the following premiums:—

1. A Telford Medal, to James Barton, M. for his paper "On the economic Distribution of Material in the Base, or vertical portion, of Wrought-iron Beacons."
2. A Telford Medal, to Edward Ellis Allen, Assoc. for his paper "On Steam and Sailing Colliers, and the various Modes of Ballasting."
3. A Telford Medal, to Richard Alexander Robinson, Assoc. for his paper "On the Application of the Screw Propeller to the larger class of Sailing Vessels."
4. A Telford Medal, to Joseph Philips, for his "Description of the Iron Roof, in one Span, over the Joint Railway Station, Birmingham."
5. A Council Premium of Books, suitably bound and inscribed, to James Leslie, M. for his paper "On the Flow of Water through Pipes and Orifices."
6. A Council Premium of Books, suitably bound and inscribed, to Peter William Barlow, M. for his paper "On some peculiar Features of the Water-bearing Strata of the London Basin."
7. A Council Premium of Books, suitably bound and inscribed, to James Brunlees, M. for his "Description of the Sea Embankments across the Estuaries Kent and Leven, in Morecambe Bay, for the Ulverstone and Lancaster Railway."
8. A Council Premium of Books, suitably bound and inscribed, to Frederick Braithwaite, M. for his paper "On the Infiltration of Salt Water to the Springs of Wells under London and Liverpool."
9. A Council Premium of Books, suitably bound and inscribed, to George James Munday, Assoc. for his "Description of the Coffer-dams used in laying the Lines of Water Pipes from Richmond to Twickenham, across the Thames."
10. A Council Premium of Books, suitably bound and inscribed, to Lavington Evans Fletcher, Assoc. for his "Description of the Landore Viaduct, on the South Wales Railway."

SYMBOLS ON THE PENNY.

I apprehend that the Mint authorities will scarcely be thankful to "Penny Royal" for his attempt at a justification of the defects which I ventured to point out in our pennies. He alleges that the Scotch saltire is verily on Britannia's shield, but that it is invisible, being overlaid by the Irish saltire,—much as Albert Smith's photographic friend assured him that, on the blank sheet triumphantly submitted to his admiring gaze, there was a highly romantic scene in the dark depicted, only it was invisible.

"Penny Royal" might in the same way justify Britannia's uneasy seat on the edge of the round shield, by assuring us that there is in fact a smooth heap of rock quite convenient just behind the shield: no doubt there may be; but we would like to see it. So Caledonia's sons want to see their national emblem on the union jack, and are not content to be put off with a paltry "fimbriation!"

"Penny Royal" appeals for justification to some article in a defunct periodical; whereas, I appeal to all the union jacks in the British navy. Are the mint authorities, or are the dockyard authorities right? *Both cannot be.*

"Penny Royal" seems quite disposed to go the whole animal, for he even defends the putting the trident into Britannia's *left* hand. Surely that is not "the right thing in the right place," anyhow.

S.

PRIZES FOR ARCHITECTS AND SURVEYORS.

The courtesy with which you give insertion to the correspondence of your subscribers makes me bold enough to ask you to give publicity to a few remarks on some advertisements that appeared on the first page of the *Builder* last week. *Lowestoft* wants a man (they say a *surveyor*). The commissioners feeling the full importance of securing a properly qualified officer, determine to make the appointment public: so far so good. And as your *Builder* is the organ or representative of surveyors, through the channels of your pages, Lowestoft makes public its *want*, and likewise its munificence. You pay your gardener 1*l.* per week. The *very* light porters and messengers would scorn a situation of less value, and also that is paid weekly. Well, Lowestoft wants a *surveyor* for a *town* and *two parishes*. A man who can *make* plans, drawings, estimates, test materials, and see to the fulfilment of conditions of contracts; arrange sewerage and paving works; attend to the highways and byeways, even to surface cleansing, and superintend the execution thereof. For these various duties 50*l.* per annum, *payable quarterly*, with the servant's qualification, three months' notice before leaving. Mr Norton, the clerk of the commissioners, has boldly signed his name as the representative of this *want;* and I think that, for the information of the present state of the profession, he should give the result of his advertisement of the candidates and their testimonials, &c. &c. In the same number of your journal, the town-clerk of Hastings appeals to architects, *in any number*, to send in drawings for laying out nineteen acres of land as a cemetery, with chapels, lodges, and buildings, and promises that *one* of the candidates shall have 10*l.*—a sum, I will venture to affirm, that will not cover the expense the lucky man has incurred in tinting

the drawings; while another burial board (Northwood, Isle of Wight) offers similar terms for similar work, unless they make it optional with themselves either to employ the architect in the superintendence, or to keep his drawings for 10*l.* 10s. This is complete robbery; for I think after all it would be better to be paid for superintending the surface cleansing at Lowestoft at 50*l.* per annum than prepare all the requisite drawings, specification for nineteen acres of land, go down to the Isle of Wight (spend two days in the journey) to properly survey the site, and receive by a lucky chance in return 10*l.* 10s. If this be the payment for high art, I think many will have to end their existence either like Haydon, or in the workhouse. In making these remarks, Messrs. Norton, Shorter, and Damant have no right to complain, for *if they are right*, the effect will be for their benefit, viz. increased publicity to their *want*. J. B.

STAINED GLASS.

Memorial to late Lord Eldon.—Mr. Oliphant, of the New-road, has just completed a fourteenth-century window, designed as a memorial of the late Lord Eldon.

Trinity Church, Coventry.—Messrs. Heaton and Butler have obtained an order (in a competition of nine artists in glass) for placing a memorial east window in Trinity Church, Coventry, in honour of the late Mr. R. S. Cox, a benefactor to that city.

St. James's, Paddington.—Mr. Warrington has recently completed an east window for his parish church,—St. James's, Paddington.

Tralee.—Messrs. Gibbs have just executed sixteen stained-glass memorial windows for the Protestant Church, Tralee, Ireland.

St. Asaph.—The same artists are engaged to execute the stained-glass memorial window to the memory of the late Rev. Rowland Williams, many years one of the canons of St. Asaph Cathedral. The memorial is to be placed in the large west window of the cathedral, and will be finished in the early part of next year.

NEWCASTLE-UNDER-LYME SCHOOL OF ART.

The annual meeting of the Government School of Art at Newcastle-under-Lyme, was held in the lecture-hall of the institution, on Wednesday before last. The meeting was most respectably attended, and included a large number of ladies. Mr. S. Child, M.P. having taken the chair, addressed the meeting in an able speech.

The present meeting, he remarked, was an educational one, but it was to promote education of a special and peculiar kind, and which, perhaps, might be looked upon as merely ornamental, and nearly superfluous. He thought, however, that the arts of design had a material value, and were of great commercial importance. He had lately read a practical book written by a very practical man, the late Mr. Loudon. It was the last work of his life, and did not savour much of romance. It was called "Self-instruction for young Gardeners." There was a chapter in it upon architectural and mechanical drawing, which might be fairly called the commercial view of the question. The author said we were indebted to architectural and mechanical drawing for that application of science and art to manufacture which had contributed to our ease and luxury, had rendered mankind more wise and more happy, and which in the present state of society was necessary to our comfort. As to the utility of beauty, the speaker urged that all beauty consisted of symmetry, and the adjustment and proportion of form which constituted symmetry, was only the source of strength and endurance. Take, as an example, a few of the familiar things used by us in common life. Of tables, chairs, cups and saucers, the ugliest were always the clumsiest and most inconvenient, for they were wanting of a due proportion of parts. On the contrary, those which were the most elegant were also the most convenient, the strongest, and the most economical. The same principle obtained in the animal world. Especially must it be apparent to us in those animals of whose physical strength man availed himself. If we wanted to buy a horse we chose the handsomest we could find or could afford to purchase, not merely because his beauty was agreeable to our taste, but because we knew full well that in his elegant proportions was the best indication of his health, vigour, speed, and endurance. And the human form furnished the same example. Almost every one was familiar, either from engravings or casts, with the beautiful statue of Apollo. It presented a perfect image of health and strength, and it did so because it was the very perfection of form;—and that was beauty. He had spoken of those who professed to be purely utilitarians, and were not disposed to regard with any interest any pursuit or occupation which did not directly produce pounds, shillings, and pence. There was a class—he hoped it was a small one—who were nevertheless disposed to look upon the arts of design as something idle and frivolous. If it was a foolish and an idle thing, however, to admire and copy the beautiful, why was the earth so beautiful? Why the gay flowers? Wherefore the bright plumage of birds? Why the sparkling stream, and the varied foliage, and the endless variety of hill and dale, and sunshine and shadow, which adorned this beautiful world? Why should not one form and colour pervade all nature, if it be foolish to admire and imitate the varied beauty with which our earth was adorned?

Mr. Wyse, M.P. Mr. James Bateman, and other gentlemen also addressed the meeting, and the report was read, which congratulated the friends and patrons of the school on the circumstance that it had maintained its position. There was an adverse balance, however, to a small amount. After these proceedings the prizes were distributed.

MEASUREMENT OF COMBE DOWN STONE.

We have received letters from the Combe Down quarry-owners, complaining of the "sweeping" nature of the assertion. The question is, is it the general custom at the Combe Down Quarries to measure what the sellers call "close," but the buyers call "fraudulently;" or is this mode restricted to particular firms? We have seen copies of a correspondence on the subject (forwarded by the original complainant in our pages), wherein the parties complained of certainly admit the truth of the complaint, but attribute it to a custom of the Downs, which they cannot alter, and state that the price is fixed accordingly; in other words, that if full measure be given, the price per foot must be increased! If this really be the mode of doing business at Combe Down, the sooner an alteration be made the better. One of the results of course must be great loss to any contractor who should adopt in his estimates the price per foot advertised by the quarry-owners.

IS TOWN DRAINAGE BENEFICIAL?

SUNDERLAND.

The corporation of the borough of Sunderland are about to drain the town at an estimated cost of nearly 100,000*l.*; and as the few existing sewers are of an imperfect construction, perhaps, with the exception of those laid within the last seven years, the whole town will thus be included in one comprehensive system. The population is rapidly increasing, buildings are extending in every direction, open spaces are being closed in, and in a few years the fresh air will have still greater difficulty in penetrating the narrow lanes of the old town, or in sweeping away the effluvia from the conveniences and ash-places attached to every house in the new town. The town is naturally well disposed for draining purposes, the gradients being uniform, continuous, and steep, and the arrangement of the leading thoroughfares convenient, running, as they do, towards the sea. Before entering into the responsibility of expending the large sum of 100,000*l.* the council have halted at the outset, and now ask the following questions:—1st. Is drainage beneficial? 2nd. If so, whether is surface or underground the most so?

A difference of opinion appears to exist on the question; in some instances probably the result of an imperfect acquaintance with the subject, or resulting from the ever-vexing question of rates; but in the main it is a difference of opinion—and an opinion held in abeyance till further information be obtained—based on the experience of other large towns as represented through their rates of disease and mortality. The discussion and settlement of this great question, in addition to the many others already discussed in the pages of your journal will be a world-wide blessing; and in order that additional weight may be conveyed to your non-professional readers, I would suggest that the names of your contributors who may be interested in the matter, and favour you with information, should in every case be given.

T. Oliver, Jun.

Notices of Books.

A Lecture on the Position of Schools of Art. By E. Potter, President of Manchester School of Art. London: Chapman, King William-street. 1855.

The lecture by Mr. Potter here announced, was read at a *soirée* given by the Manchester School, on 30th ult. It contains a pretty full development of the author's ideas as to the important question of the position and prospects of schools of art in this country. Mr. Potter differs widely from the heads of the Government Department of Practical Art as to the best mode of administration for the promotion of art-education in the provinces. He objects to this being made a mere trade question. One thing, he remarks, is certain, and in this we cannot but agree with him, that local schools of art have as yet not been established on a permanent basis. The sum annually expended by Parliament or the Government in the promotion of art-education, he thinks, ought to be more equally distributed amongst the schools, and not so much restricted to the normal and other schools in the metropolis; but were the few thousands of pounds referred to so distributed, it seems very doubtful whether any benefit worth speaking of, either general or special, would result from such a subdivision of so small a sum. It is the author's opinion that a distinct and separate ministry of art ought to be instituted, or, in other words, that the Department of Practical Art, remodelled, should be entirely separated from the Board of Trade. The example of Paris, as a centre of art, the author thinks, should be inverted in this country, not imitated; that is, art-education requires to be diffused rather than centralized, and perhaps indeed it may be time enough to concentrate when the Government has radiated or diffused such a taste and knowledge of art as may be admitted already to exist in the provinces of France. Mr. Potter, however, appears to be much more anxious to point out the shortcomings of the Government than those of the provincial manufacturers and dealers, whose more immediate pecuniary interests will be largely benefited by the cultivation of a taste for and knowledge of art amongst the people.

VARIORUM.

A portable edition of the "Nuisances Removal and Diseases Prevention Acts, of 1855," by W. G. Lumley, Barrister-at-Law, has been published by Knight and Co. (Fleet-street). It contains some useful notes, and a report of the case, Jewell *v.* Etwall and another.——The fifteenth part of the "Micrographic Dictionary"* has been issued, and still sustains the interest of its previous issues. It is to be hoped that the authors and publishers will not hurry or shorten such a work on account of any mere impatience of its purchasers to have it completed. By-and-by people will not ask how long it took in the issue, but rather how the work is done.——The "Autobiography of a Beggar-boy" (Tweedie, Strand) describes the vicissitudes and adventures of a person of active mind and no little ability, but of very questionable worldly wisdom,—a "rolling stone" that seems to have been a long time in gathering any "moss," and a great politician withal, but who appears to have seen the errors of his ways, and at last to have settled down into gentlemanly respectability. The main purpose of the publication is said to be "to stimulate young men, to an endeavour to overcome the obstacles and difficulties which may surround their early positions in the world;" but we rather think it will be useful more as a beacon for the avoidance of many such obstacles and difficulties, than as a stimulus to face them, or a guide to conduct a young man through them.——"A Plan for the Effectual Improvement of the River Thames, by Mr. H. Robinson, C.E. has been published as a tract by Johnson, of St. Martin's-lane, Charing-cross. The author proposes to run a dam, with locks, &c. across the river near London-bridge, by which means the permanent level of the water would be raised, the feculent mud and accumulations of sewage sediment drained off by degrees, without the possibility of returning; and hence the water above bridge be made comparatively clear and innoxious, notwithstanding the constant influx of sewage as heretofore. Various other supposed or actual advantages are pointed out, and disadvantages and objections considered. The objections to such a scheme are very obvious, but all such proposals have the good effect of sustaining and promoting the public deliberations on the subject of this monster nuisance, and there may be valuable suggestions in many different schemes, which may tend towards the solution of the problem when well considered and discussed.

* "The Micrographic Dictionary; a Guide to the Examination and Investigation of the Structure and Nature of Microscopic Objects." By J. W. Griffith, F.L.S. and Arthur Henfrey, F.R.S. Professor of Botany, King's College, London. J. Van Voorst, Paternoster-row.

Miscellanea.

The Society of Arts.—On Wednesday, the 21st, the inaugural meeting of the 102nd session of this society was held at the Adelphi, when the medals awarded by the council for papers read at the weekly evening meetings during the last session, and for articles submitted to the society's committees, were presented to the various gentlemen entitled to them. An introductory address was delivered by the Rev. Dr. Booth, F.R.S. Chairman of Council. In the course of it Dr. Booth said,—"The council have gone to the expense and trouble of having a Bill carefully drawn, which, if accepted by the Government, and passed into a law, will settle the question of the *rating of Literary and Mechanics' Institutions* on a satisfactory and simple basis. I cannot, however, conceal from you my own impression that the Government will scarcely, at the present juncture of public affairs, accept a Bill which would necessarily open up a very wide and complicated financial question, and one, too, on which the best friends of the institutions are by no means agreed. It will be the duty of the council, however, to urge the matter on the attention of their Parliamentary Committee and the Government, and to use their best endeavours to bring the matter to a successful issue."

Lava Gas-burners.—The corrosion or rusting and choking up of metallic gas-burners is an old grievance, of which there has long seemed but little chance of getting rid, unless, indeed, by the use of some such unrusting metal as platinum or gold,—the sulphur in ordinary gas rendering even the less costly silver ineligible, though otherwise incorrodible. Some one, however, appears to have at length hit upon, and realized, the at least feasible idea of substituting a stony incombustible substance, which had already not only passed through the fire, but had lived, as it were, in, and been nourished and matured by, the fire itself, as may be said of *lava*, above all other stony matter. The gas-fitters and others are accordingly now, it seems, in course of being supplied with burners of this description, made of a close-grained and firm lava which admits of being turned, polished, and bored, to the requisite fish-tail, batswing, Argand, or other form, and either fitted with brass sockets, or simply shaped in the material itself, for mere insertion into the extremity of the branch-pipe or pendant. They are only of recent introduction, but have now been tested in the City, we are told, by nearly a year's constant use, without being either cleaned or touched, yet continuing, all that time, to yield the same full, clean, and well-shaped flame as at first, so as to be still equal to new, and, in fact, it is said, rather improved than otherwise by the action of the heat. Should the idea thus prove to be as practically useful as it certainly is feasible, metallic burners may at length be dispensed with.

The Bells for the Houses of Parliament.—Messrs. Warner, of Jewin-street, London, are about to cast the bells for the great clock of the Houses of Parliament. The principal bell is to be 9 feet diameter and to weigh about fourteen tons, and will be the largest bell (they say) ever cast in England. It is calculated that the four quarter-bells will weigh about ten tons more. The work is to be done from the directions of our correspondent, Mr. E. B. Denison, Q.C. from whose designs the clock has been made; and the bells are to be subject to the final approval of that gentleman and the Rev. W. Taylor, F.R.S. and Professor Wheatstone.

Cambridge Architectural Society.—The first meeting of the society for Michaelmas Term was held on Wednesday evening, November 7, the Rev. W. M. Campion in the chair. On the motion of the Rev. W. M. Campion, it was agreed to take some steps towards getting the subscription-list for a memorial window to the late Dr. Mill, in St. Andrew's Church, Barnwell, filled up. Mr. Bailey, of St. John's College, then read a paper on Cologne Cathedral. He dwelt chiefly on the history of the buildings, and read some extracts from Herr Bintzer's work on the Cathedral, which is now scarce. After describing the ceremony of laying the first stone, and the works till A.D. 1163 the relics of the three kings were deposited there, he stated how spread their legion was, and mentioned that even in Carinthia their initials E. M. B. were found carved over house-doors. After giving a vivid description of the consecration of the choir in 1321, he drew attention to the dimensions of the cathedral.

Lambeth Palace Chapel.—I am not able to ease the mind of your correspondent, "One who does not Travel from Dan to Beersheba and find all barren," on the subject of the removal of the sham maple decoration on the ancient oakwork in the chapel of Lambeth Palace; but I can tell him this, and any one may see it from the steam boats on the river, that the exterior of the said chapel has just been covered with a neat puritanical coat of yellow ochre, and looks horribly ill. Alpha.

Electro-Telegraphic Progress. — The completion of the telegraph from London to Constantinople, has been announced On the 1st and 2nd of October, says the *Malta Mail*, a submarine cable was most successfully laid down between Fort Kilia, near the entrance to the Bosphorus, and Varna, by Messrs. R. S. Newall and Co. of Gateshead-on-Tyne, the same firm that completed the lines between Varna and the Crimea a few months since. A land line of telegraph crosses the hills from Kilia to Therapia and Pera, so that instant communication may be made to and from all parts of Europe and the Crimea. The length of the Varna and Constantinople line is 200 miles, and the whole has been completed within three months. Messrs. Newall and Co. are now engaged in making a line of upwards of 800 miles in length, which will unite Constantinople and Alexandria.——The telegraph from England to India—a dream but yesterday as it were—bids fair to become a reality. The submarine line having been completed across the Mediterranean, the inventor is desirous to extend it to the Indian Peninsula. As far as Suez, says the *Friend of India*, he will be supported by the British Government, and his success is certain. From that point, however, he must trust to the East-India Company for official aid, without which it is impossible to raise the required capital.——The trial of persons at Berlin, accused of unlawfully revealing telegraphic intelligence for stock-jobbing purposes, came to a conclusion on 12th inst. Jauck, the clerk, was condemned to three years' imprisonment, with loss of social rights as a citizen for five years, for having transgressed his official duties; Julius Reichenheim, for having bribed an official, to two years' imprisonment, with loss of social rights for two years; and Isidor Reichenheim, to half this term; Meyer, the banker, for being an accomplice in the bribery, to two and a half years' imprisonment, and three years' social degradation.

Waterworks.—The new waterworks for Ipswich are progressing. The great distributing reservoir at the top of Christ Church Park is finished, as also the auxiliary reservoir in St. Helen's. For months past gangs of workmen have been laying down the mains, and progress has been made with the machinery at the central works. The great reservoir holds upwards of half a million of gallons, and was filled on Thursday in last week. —— The Cheadle Waterworks were opened last week, and the completion of the works was celebrated by a public dinner. The water was got by piercing the sandstone strata at Monk's-hill, an elevated piece of ground overlooking the centre of the town. At 60 yards in depth an abundant supply of fine sparkling water was got. Reservoir buildings, and machinery for raising the water, were then formed, and the contracts for a general house supply are just completed. Service pipes have now been laid down to most of the houses. Mr. E. S. Gisborne, of Derby, is the engineer.——A committee has been formed at Taunton, for the purpose of obtaining information relative to the probable cost of supplying this town with water from the surrounding districts. ——The corporation of Oldham have begun to make a road from Ogden Chapel to Piethorn Clough, where they intend to erect their new waterworks. There are to be three reservoirs formed out of valleys in Ogden and Butterworth, near Milnrow. Each of these reservoirs will only require one single embankment, straight across a valley. The largest embankment will not exceed 400 yards.——The Selby Waterworks, under the superintendence of Mr. John Linton, will soon be completed: they now allow the inhabitants to have an abundant supply of spring water from an Artesian well 110 yards deep. Many persons have already got pipes and taps into their houses, and receive a regular supply of water.

Exhibition of Art, &c. at Cardiff. — In the early part of December, an exhibition of art, manufactures, natural curiosities, &c. is to be held, with *conversazione* and dress concerts, in the Town-hall, Cardiff, and it is hoped that this spirited project may lead to the establishment of an institute and museum for the town: at all events, of the pecuniary profit of the undertaking, there appears to be every assurance. The Bridgewater exhibition yielded 1,350*l.* of which only 500*l.* were required for expenses, so that 850*l.* remained for the church restoration, to which it was devoted.

St. Peter's Church, Notting-hill.—The first stone of a church, to be called St. Peter's, has been laid on the Kensington Park estate. We are informed that it is to be in the Italian style of architecture, and Mr. Allom is the architect. The entire cost is estimated at about 5,500*l.*; and provision is made for 1,400 sittings. The extreme length is to be 100 feet; breadth, 62 feet, and it will have a tower 110 feet high. The interior will contain galleries, and be lighted from the roof.

Thames-tunnel. — During the week ending 17th November, 20 505 passengers passed through, and paid 85*l.* 8*s.* 9*d.* in tolls.

Fire-engines in Paris Exhibition.—The trials of fire-engines in Paris appear to have been very indifferently managed. The feat most spoken of was performed by a London Brigade fire-engine, exhibited by Mr. Merryweather, of Long-acre, and named "The Emperor," worked by twenty-six men: it threw a three-fourth-inch jet upwards of 120 feet. Some of the engines produced could not be worked, because part had been mislaid.

The "Black Gate" at Newcastle-upon-Tyne.—The *Newcastle Chronicle* urges the destruction of this ancient landmark as an improvement; but chiefly because a penny rate may be requisite for its preservation, and recommends the application of such a rate, in preference, to the establishment of a free library. The *Gateshead Observer* expresses surprise that the destruction of the Black Gate, one of the most interesting archæological relics of the town should be advocated as a measure of improvement. "Great need, indeed, must there be, of free libraries in Newcastle," remarks the *Observer*, "Of the Black Gate be an eyesore to the inhabitants, and they be blind to the propriety of preserving the 'unsightly structure.'"

Statue of Lord Melville at Edinburgh.—Operations have at length been commenced for placing Mr. Steel's colossal statue of Lord Melville, in bronze, on its site in the centre of the open space in front of the County-hall. The design and execution of the pedestal, which is to be an elevated one, have been entrusted to the superintendence of Mr. Bryce, architect.

The Working Classes.—Lord John Russell, in presiding, the other evening, at the annual dinner of the Warehousemen and Clerks' School, in London, said—"It was somewhat of a misnomer to attach to any particular classes of the community the appellation of 'the working classes.' The fact was, that with the exception of a very few, all persons in Great Britain belonged to the working classes. From the Queen on her throne, who had her anxieties and cares, and who must dedicate some hours of each day to the consideration of matters connected with the public welfare, down to the humblest labourer, who was earning his few shillings per week, and including between these extremes statesmen and merchants, and landed gentry, who really did their duty to their tenantry and their labourers—they all belonged to the working classes. And shame to those who did not belong to them."

Destruction of Ancient Remains at Southampton.—Mr. Philip Brannon, in a letter to the *Hampshire Advertiser*, as to the south castle or old gaol and other remains of the town fortifications of Southampton, complains that one after another of these interesting remnants of antiquity are disappearing, and he charges the corporation formally with a determination to persevere in their destruction, and protests against such Vandalism, and urges the public and the writers for the press to lose no time in annulling such discreditable doings. The point at present in danger appears to be the south gate and castle or old gaol. A writer in the *Hampshire Independent* denies, however, that its destruction is already planned, and says he cannot believe that the town council will be such Goths as to destroy it, more especially since it may be made useful as well as ornamental by being restored.

The Proposed Free Library for St. Mary's, Islington.—It is much to be regretted that mainly on the already somewhat hackneyed, and in this case most irrelevant, plea of the war and its expenses, a veto has been put upon the useful project of a free library in St. Mary's parish, Islington, the majority at the meeting of Friday last having been against its establishment, or rather against the halfpenny or farthing rate which its establishment implied. That it would have ere long been the means of diminishing the poor-rate by much more than the full penny a pound rate which forms the maximum under the Free Libraries' Act, there can be no doubt, so that the refusal to incur the requisite outlay was, to say the least of it, very shortsighted, even as a mere pecuniary calculation of profit and loss.

Tottenham Cemetery Chapels' Competition. —In response to the advertisement of the Tottenham Burial Board, for designs for the new Burial-ground Chapels, there were forty-seven competitors. The design selected was sent under the motto, "Labor et Spes." On opening the sealed envelope, it was found to have been sent by Messrs. Pritchett and Sons, of Darlington, architects, who are, therefore, the successful competitors.

Rating Keighley.—The Local Board of Health at Keighley having advertised for tenders for the making of a valuation-book of all the rateable property within the district, the following were received:

Mr. B. Hopkinson, Keighley	£35 10
Mr. J. Smith, Bradford (accepted)	30 0
Messrs. Parker and Rendall, Leeds	23 10
Mr. J. F. Higgins, Keighley	15 0

FOUNTAINS FOR HEREFORD.—In the *Builder* of last week you give the substance of a letter from a Hereford correspondent, signed "Aqua," in which he asks your readers to put him in the way of erecting fountains in the lawns and gardens of the citizens "*cheap, good*, and *elegant*." "Aqua," before making these suggestions, should make himself acquainted with the available pressure and the quantity of water likely to be consumed by the fountains: he says "*the pressure will be 25 or 26 feet*," whereas it is nearly 60 feet. The quantity of water that is proposed to be pumped is only 40,000 gallons per hour, to serve a population of 12,000, so that a limit must be placed to the fountains; and the only fountain which is likely to be erected will be a public one in the square, the overflow from which is to be used for a swimming-bath, and will be erected under the superintendence of the engineer for the Hereford Improvement Works. —JUSTITIA.

PROPOSED EXHIBITION AT THE MANCHESTER MECHANICS' INSTITUTION.—The readers of our advertisement columns will perceive that the directors of this very useful Institution intend to inaugurate their new building with an exhibition of works of fine art and industry, and they invite those who recognise the educational value of such institutions to aid them by the loan of fitting works and specimens. We cordially second their appeal.

ARCHITECTURAL ASSOCIATION.—At a meeting of this society, held on the 16th inst. at Lyon's Inn Hall, Strand, Mr. Arthur Allom in the chair, Mr. T. R. Smith read a paper "On the Fine Art Department of the Paris Universal Exhibition, with notes on the mode of Lighting employed there." At the close, some discussion took place, in which the Chairman, Mr. Sayer, Mr. Hayward, and other gentlemen joined.

SOAP.—As every necessary is advancing in price with a prospect of continuance, I feel it to be the duty of every lover of his country, to prevent as far as in his power such an affliction, particularly to the poor. I will not enter into detail, but offer a few remarks on one article, viz. tallow: a large quantity is consumed in the manufacture of soap, and as a considerable quantity of yellow soap is used for the washing of common articles, both linen and woollen, also for scouring and cleansing tables, floors, &c. I have proved the following composition to answer in every respect, full as well as soap for these purposes, viz. Fuller's earth and common soda, prepared as follows:—Dry perfectly by a moderate heat, 7lbs. of Fuller's earth: dissolve 1lb. of soda, in two quarts of water (soft is the best), which pour upon the Fuller's earth: stir them well together, so that they become intimately mixed, and add more water till reduced to a soft paste, so that it may be rubbed smooth with a knife, or ground as colour through a mill. This used in the same proportion as soap, will be found equally efficacious, at one half the cost. Thus our consumption of Russian tallow may be considerably decreased, a further advance in tallow and soap prevented, and our enemy's means for carrying on the war partly frustrated.—AN ENGLISHMAN.

THE LEWISHAM DISTRICT. — THE QUEEN *v.* BADGER.—In this case heard at the Court of Queen's Bench, Westminster, on the 14th inst. the justices of Kent, by an order of sessions, had dismissed a surveyor from his office of surveyor under the Metropolitan Buildings Act (the 7th and 8th Victoria, chap. 84), for receiving a fee to which he was not entitled under the Act. A *certiorari* had issued to bring up the order, and motion was made to quash it, upon the ground that it was bad upon its face, as not showing that the magistrates had jurisdiction. Mr. Pashley, Q.C. Mr. Deedes, and Mr. Rose, showed cause against the rule, which was supported by Mr. Bramwell, Q.C. Mr. Horne, and Mr. F. Russell. The Court took time to consider their decision.

MONUMENT TO MAJOR DALTON.—A crocketted Gothic pinnacle and stem, so to speak, on three steps and a plinth, has been put up in Fillingham Churchyard, to the memory of Major Thomas Dalton, who fell at Inkerman. According to the *Illustrated News*, it was designed and executed by Mr. Keyworth, of Hull.

RAILWAY SLEEPERS AND CHAIRS.—"Wright's Patent Bedplate-tie-sleeper and Vice-jaw Chair Fastening" is one of the modifications of Wright's Patent Continuous Bedplate Sleeper Iron Roadway, which stretches across the way, in one casting, without transverse joints, and is composed of one compound sleeper, two vice-jaws, and four locking bolts, consisting of two nuts and two pins. The Bedplate-tie-sleeper is intended to reduce the complication and number of loose parts now existing, and to add more absolute weight to the formation of the road, to which the rails are secured at once thus dispensing with loose chairs, spikes, and keys, and superseding the punching of holes through the rails, with the application of bolts and [illegible] other advantages in connection with the vice-jaw rail fastening.

CLEANSING TUBULAR DRAINS.—My practice with tubular drains is as follows:—Flushing pipes are brought up to the surface, at convenient distances from each other, and flushed from a hose, and a circular brush is put down the pipe to stir up any sediment that may be deposited on the bottom of the pipes. If this is practised periodically, it will keep the pipes always thoroughly cleansed, and completely obviate the necessity of large tunnels to allow men to travel through them and cleanse by hand. If this system of sweeping the drains and sewers were generally carried out, there could be no danger of any nuisance arising from stoppages in pipes. I find that a gutta percha pipe, with a stiff rope drawn through the bore, with a brush fixed on the end, answers the purpose very well: it can be coiled up in 100 feet lengths, and one man can work a 100 feet brush with great ease.—WILLIAM BURNS.

THE SOUTHAMPTON SHIPWRIGHTS have been unable to obtain the extra 1s. a day, and are now working at their former wages of 5s. a day.

A "WORKING MAN'S COLLEGE" is to be tried at Durham. The instruction is to be given in evening classes. The fee will be all but nominal.

A TOWN-HALL ON FIRE.—At Sheffield, on Tuesday before last, some woodwork adjoining a passage leading to the receiving-office, at the Town-hall, was ignited by a hot-air pipe used in the heating of the building. Part of the woodwork and fittings of a water-closet, behind which the ignited wood was placed, were removed, and the flames extinguished fortunately before much damage was done

IRON BALANCE-BRIDGES. The workmen of Mr. Finch's iron foundry, at Chepstow, have just completed the ironwork of one of three balance-bridges, ordered by the Monmouthshire Railway Company, for crossing the canal at Newport. The bridge is supported by four pillars, each 2 tons 15 cwt. of cast-iron, which, with the girders and other appurtenances, of wrought-iron, will make the whole weight nearly 22 tons.

WANTED IN LONDON.—In Mr. John Simon's last Report to the Commission of Sewers for the City of London, just now printed, the writer says,—"In modes to which I have referred so much has been done, or is doing, and the promise of advantage is so great, that it seems almost invidious to point out what remains undone. Yet I hope you will allow me to remind you of one very great intended good, which hitherto exists only in intention. The City of London possesses no public baths, no public laundries, no model dwellings. These institutions which, in their relation to the poor, are beyond most things reformatory and educational, and which seem in a peculiar manner to claim support from the wealth and authority of your great municipal government, have hitherto not made a beginning within the City. But I have reason to believe that many members of the corporation feel a warm interest in their projected establishment, and, without expressing any opinion as to the degree in which such an undertaking belongs to this commission, I do very earnestly hope that, either by your agency, or through some other section of the Corporation, there may soon be bestowed upon the industrious poor of the City, east and west, the incalculable boon of baths and washhouses, and that instead of many a noisome court, and in contrast to the wretched hovels of to-day, there may soon arise some fruitful types of model dwellings, built as becomes the richest municipality in the world, thoughtful for its labouring poor, and seeking to be recorded in the monuments of a wise beneficence."

CASTINGS IN MALLEABLE IRON.—Mr. John Crowley, of York, ironfounder, has patented some improvements in the manufacture of malleable cast iron. The inventor combines chloride of sodium, carbonaceous matter, oxide of manganese, carbonate of lime, and wrought-iron scraps, and the application thereof to the manufacturing of malleable cast iron. ——Mr. J. D. Morries Stirling, who has a process for rendering cast iron tough and malleable, in a communication to the *Birmingham Journal* on the subject, states, in quoting the opinions of Messrs. Eaton Hodgkinson, Owen, Lennie, and others, founded on direct practical experiment, that the strength of his iron is very nearly double that of the average strength of the iron of Great Britain, and *not* one-fourth only or one-fifth, as had been erroneously stated. Mr. Hodgkinson's experiments are said to have proved that in transverse strength, Blaenavon iron bore a test of 1·220 lbs.; Low Moor, 1·207 lbs.; while the toughened iron, with 20 per cent. of malleable scrap, stood a resistance of 2 174 lbs. In tensile strength, the average of sixteen different kinds of iron per square inch was 6·605 tons; Mr. Stirling's, 11·502 tons. Thirty-two steels, with per square inch the average of sixteen different kinds was 35·520 tons; Mr. Stirling's second quality, 54·640 tons.

A STATUE OF THE LAT. EARL OF BELFAST has been raised at Belfast, in Ireland. It stands in College-square, and was executed by Mr. Macdowal.

LEVELLING INSTRUMENT.—A levelling instrument, under the title of an inclinometer, was recently patented by Mr. Gillespie, of Edinburgh, and is now manufactured by Messrs. Young, Peddie, and Co. of that city. It is said to be useful for measuring, finding, and adjusting the depth and outfall of drains, water courses, conduits, surface slopes of land, embankments, roads, railway gradients, and in all levelling and sloping operations required in civil engineering. It consists of a rectangular parallelogram, or frame of mahogany or oak, strengthened at the angles with metal plates. On the top is a hinged horizontal bar, mounted with a spirit level, depending from which bar is a vertical arm, graduated, and carrying a plumb line, in such manner that any slope on which the base is placed is represented on the graduated scale at top. It is said to be light and portable. There seems to be much in common between this instrument and one some years since described in our columns, but by whom invented we do not recollect.

SMOKE-CONSUMING FURNACES. — Mr. George Napier, of Glasgow, has recently patented an apparatus for the prevention of smoke from furnaces. It is stated to be of simple construction, and applicable to furnaces now in use. The improvement is effected by means of a retort, heated by the waste gases, through which the cold air, entering by an air-flue, passes, and thereby becomes heated to a high temperature, previous to entering the furnace.

MONUMENT IN CANADA WEST.—A mural monument, designed by Messrs. Smith and Beattie, architects, is being erected in the church of St. Paul, by the citizens of London, Canada West, in memory of the late Colonel Chester, and the men of his regiment, who fell at the Alma. It consists of a trefoil-headed mural panel, surmounted by a crocketted canopy, all of freestone, with a quatrefoil of marble beneath the arch, to bear the inscription. Around the quatrefoil the back of the arch is diapered. It is altogether very creditable.

ANTIQUARIAN DISCOVERIES AT LENTON PRIORY, —In the course of laying down water-pipes in the streets of Old Lenton, several discoveries of considerable interest have been brought to light by Mr. J. Froggatt, of Lenton Poplars, and others taking an interest in archæology, in the vicinity of the once extensive Abbey or Priory of Lenton; of which, besides the shell of the old church, or probably of a separate chapel, there are now only portions of two pillars remaining in a garden. The recent excavations in Old Church-street and along the main street of Old Lenton, as well as along the street specially denominated the Abbey, including an area of many acres, have, however, revealed the great extent of the Abbey grounds, and shown, by the exhumation of the bones of men and animals, of the carved and moulded architectural stones of the former ecclesiastical buildings, such as the volutes of pillars and the mullions of windows, as well as occasionally of a rare old coin, that all traces of the monks are not yet absolutely extinct. Particulars of the recent discoveries are given in the *Notts. Guardian*, at the office of which some of the remains have been exhibited.

TENDERS.

For erecting two chapels, lodge, and boundary walls, at the Hadleigh cemetery. Mr. Edwin G. Pennington, architect. Quantities supplied by Mr. R. D. Benuett:—

H. Luff	£2,350 0 0
W. Barnes	1,897 0 0
Downes and Corder	1,989 15 7
Spooner and Cook	1,791 3 0
E. Gibbons	1,703 0 0
Cornish	1,461 0 0

FOR LODGE AND BOUNDARY WALL.

Downes and Corder	£1,000 0 0
Spooner and Cook	999 9 0
E. Gibbons	863 0 0
W. Barnes	850 0 0

For the Godalming cemetery chapels. Mr. C. H. Howell, architect:—

Russell	£1,204 9 0
W. and T. Smith	1,200 0 0
Henry Moon	1,185 0 0
James Moon and Son	1,150 0 0
James Smith	1,140 0 0
William Othen	1,110 0 0
Carruthers	1,095 0 0
Constable	1,025 0 0
Ellis	998 9 8

For a pair of semi-detached villas at Sydenham, for Messrs. Thorp. Mr. Arthur S. Newman, architect. Quantities supplied by Mr. D. Campbell:—

Brown	£2,498 0 0
Payne and Cumming	2,400 18 0
Harsden	2,350 0 0
Wells	2,336 0 0
Wills	2,299 0 0
Seazel	2,156 0 0
Coleman	2,146 0 0

For the erection of a Wesleyan chapel in Westmoreland-street, Pimlico, from a competition design of Messrs. Hall and Parker, architects. The quantities were not supplied:—

	Without Galleries.	With Galleries.
Coleman, Bermondsey.....	£1,840 0 0	£2,143 0 0
McCurrey, Pimlico	1,780 0 0	2,100 0 0
Greig, ditto	1,625 0 0	1,995 0 0
Humphery	1,698 0 0	1,989 0 0
Nottle, Pimlico	1,620 0 0	1,850 0 0
Chapman and Parsons, ditto	1,517 0 0	1,794 10 0
Wilson, ditto (accepted)	1,370 0 0	1,546 14 0

TO CORRESPONDENTS.

"E. M. B."—"J. W."—"J. B."—"W. N" "E. R" "T. T" "S. H." "F. T."—"J. P." "T. W." "W S"—"F. S." (the example chosen is not a good one.)—"J. C."—"J. H. H."—"J. B. G."—"H. T. E."(a similar notice has appeared in our pages.)—"T. and Co."—"C. R. S."—"J. Y."(want of time forces us to decline.)—"F. G. P."—"Mr M."—"Canon R."—"F. B."—"G. H."—"J. S. C." "E. K." "Northern Subscriber" such a space in walls has its advantages, but can only be determined on by one who has all the circumstances before him. Trust your architect.)—"T. C."—"O. C. A."—"E. S. G."—"A Student."—"J. H."—"H. S."—"W. L."—"G. R. C." "F. C." "E. H" Manchester. —"C. L."—"H. J. W."—"G. T."—"A Constant Reader."

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor;" all other communications should be addressed to the EDITOR, and not to the Publisher.

"Books and Addresses."—We are forced to decline pointing out books or finding addresses.

ADVERTISEMENTS.

BOROUGH of HALIFAX.—To ENGINEERS and SURVEYORS.—WANTED, a SURVEYOR, fully competent to take charge of the borough waterworks, gasworks, sewerage, and other public works of the borough, besides the usual business of the Corporation, including that of the Local Board of Health. He must be familiar with the practice of engineering in connection with the above-mentioned works, able to conduct surveys, prepare plans, drawings, and estimates of works of every description, and will be required to devote the whole of his time to the duties of his office. Salary, £250 per annum. Applications, with testimonials of qualification and competency, to be addressed to the General Purposes Committee, endorsed, "Application for office of Surveyor," and to be forwarded, under cover, to the undersigned, on or before the 1st day of JANUARY, 1856.—By order,

EDMUND MINSON WAVELL, Town Clerk, and Clerk to the Halifax Local Board of Health.

Town Clerk's Office, Halifax, November 13th, 1855.

WANTED, by the Engineer of a Public Company in London, a Young Man, from 17 to 20 years of age, as DRAWING CLERK and ASSISTANT, who has before been engaged in an Engineer's or Architect's Office, and is a good draughtsman.—Address, by letter, containing particulars of previous employment, &c. to Mr. P. G. B. care of W. H. Miller, esq. 6, Bridge-road, Lambeth.

WANTED, at the Effingham Works, Rotherham, for about three months, a man to act as CLERK of WORKS in the erection of new workshops, warehouses, &c. Liberal wages will be given to one who has been accustomed to contract work, and whose character for competency and integrity is approved.—Address, YATES, HAYWOOD, and CO. Rotherham.

WANTED, a respectable Youth, as an OFFICE LAD, 16 years of age, at 5s. per week. He must write a good hand, and if acquainted with geometrical or outline drawing it will be more desirable.—Address, P. W. J. care of Mr. Blight, Stationer, Fenchurch-street.

WANTED, in a Mahogany, Deal, and Timber Yard, a SALESMAN, accustomed to the Retail Department of the above Business. Salary, 100l to 120l per annum.—Address, by letter, to A. B. Alley's Newspaper office, 89, Chiswell-street, Finsbury.

WANTED, by a Surveyor in the City, a CLERK, who perfectly understands taking out quantities for Builders, and who is a fair draughtsman. State age and salary.—Address, post-paid, to H. Y. Office of "The Builder."

WANTED, immediately, a steady, energetic Young Man of single, preferred, from 20 to 27 years of age, who thoroughly understands general TOMB-STONE WORK and LETTERING, and must be capable of managing a business in that line, twenty or thirty miles from London. References indispensible.—Apply by letter, stating terms, to Messrs. BOULTON and HARRIS, Sculptors, 191, Carlisle-street, Westminster-road, Lambeth.

WANTED, FOUR good LAND SURVEYORS and TWO DRAUGHTSMEN.—Apply by letter to A. B. 29, Camden-street North, Camden town, London.

TO BUILDERS, CONTRACTORS, &c.

WANTED, by a respectable and well-educated Young Man, aged 33, a SITUATION as CLERK, &c.; understands the measurement of timber, and would make himself generally useful. No objection to the country, or to go abroad. Good references.—Address, A. B. Post office, Sidney-place, King's road, Chelsea.

TO NOBLEMEN AND GENTLEMEN.

WANTED, by a CLERK of WORKS, who has just completed his engagement in the country, where he has had the entire charge of everything, an ENGAGEMENT to take charge of a Gentleman's Estate for Repairing and Building. Can be well recommended by the architect where last employed.—Address, J. G. C. 8, Rochampton-street, Vauxhall-bridge-road.

WANTED, EMPLOYMENT, by two Young Men, Carpenters, to do the repairs of houses, or any other kind of work, by piece, or otherwise.—Address, H. B and J. W. 9, Gilbert's-buildings, Westminster-road.

WANTED, EMPLOYMENT, by a thorough practical Bricklayer. Can be strongly recommended.—Address A. W. 9, Queen-street, Battersea.

TO ARCHITECTS, BUILDERS, &c.

WANTED, by the Advertiser, aged 25, a SITUATION; he is a fair and quick draughtsman either in detail or finished drawings; fully competent to take out quantities or keep builders' books; is a first-class surveyor by chain or instrument. Salary not so much an object as a permanent engagement, but a temporary one would be accepted. Country not objected to. Address A. B. care of Mr. Pettifer, Somerset-road, Kingsland.

TO MASTER BUILDERS.

WANTED, by a Young Man, from the country, a PERMANENT SITUATION, as a THREE-BRANCH HAND (Plumber, Painter, and Glazier). Can do lead glazing.—Address, H. D. 1, King-street, Soho.

TO PLUMBERS, BUILDERS, &c.

WANTED, a SITUATION, by a Practical Hand, aged 35. As a competent master of the three branches—plumbing, painting, and glazing. Would be found useful in paper hanging, graining, and writing. Reference from his last employer, where he held the situation of Foreman.—Appy to L. T. 10, Park street, Dorset-square.

WANTED, by a Young Man aged 20, a SITUATION in a Timber Merchant's or Broker's office. Was four years in a Broker's Office, and can give satisfactory references as to character, &c. -Address, W. B. 5, Charlotte-street, Old Kent-road.

WANTED, for a Youth, a SITUATION as OUT DOOR APPRENTICE to a Carpenter and Joiner, in the vicinity of Tottenham court-road. A small premium will be given.—Direct to Y. Z. 4, Clarence-gardens, Regent's park.

WANTED, to take JOINERS' WORK, Preparing or Fixing, or Repairs. Good references can be given.—Address, J. A. 5, Mead-place, Westminster-road.

TO PLUMBERS AND BUILDERS

WANTED, a SITUATION, by a Young Man, aged 30, who thoroughly understands his business, as a PLUMBER. No objection to fill up time with painting and glazing. Good references if required, in or near town.—Address, A. B. C. 2, Edward street, York road, Lambeth.

TO CARPENTERS, BUILDERS, AND OTHERS.

WANTED, by a Young Man, aged 28 years, a SITUATION as FOREMAN or CLERK, who has been in business for himself for six years in London, and would not object to fill up his time at the bench within three miles of the City would be preferred. Can give unexceptionable reference as to character, &c.—Address, A. B care of Messrs. Pugh, Auctioneers, &c. 6, Blackman-street, Southwark.

TO BUILDERS, MASTER BRICKMAKERS, AND OTHERS

WANTED, a SITUATION, by a respectable Man, as FOREMAN of a BRICKFIELD, who has had practice in the various branches of malm bricks, common stocks, white and red close kiln bricks, and tiles, such as Suffolk or Norfolk. Upwards of thirty years' practice in London and Suffolk. Unexceptionable references.—Address, A. B. 1, Park-terrace, Lower Norwood, Surrey.

TO ENGINEERS AND CONTRACTORS

THE Advertiser, a student and prizeman of the Engineering Department, King's College, London, is thoroughly acquainted with surveying and levelling, and all the consequent calculations, plotting, &c.; is a good mechanical draughtsman, and able to estimate and measure quantities, wishes to obtain a SITUATION as CLERK to an Engineer or Contractor. Best testimonials. Salary required, 1l. 1s. per week.—Address, W. S. 14, Charterhouse-square.

TO ARCHITECTS.

THE Advertiser is disengaged; is a good Draughtsman and Colourist, well acquainted with Mediæval and Classic Architecture; has been fifteen years in the profession; aged 30. Terms moderate, and references good.—Address, Q. E. D. 3, Bloomfield-terrace, Pimlico.

TO ARCHITECTS, CIVIL ENGINEERS, IRONFOUNDERS, AND OTHERS

THE Advertiser wishes for an ENGAGEMENT as ASSISTANT; has had nine years' experience in the office and on the works, is a first-rate draughtsman, and thoroughly acquainted with building. Terms moderate.—Address, S. W. 278, High Holborn.

TO ARCHITECTS, SURVEYORS, AND BUILDERS

THE Advertiser, aged 20, the son of a builder, desires a RE-ENGAGEMENT in either of the above offices; has been accustomed to superintend works, can make fair and working drawings, and is well acquainted with the routine of the office. Address, A. D. Mr. Bryceson's, Green's-end, Woolwich.

TO ARCHITECTS.

THE Advertiser, who is a first-rate draughtsman, and has a thorough knowledge of detail and construction, is open to an ENGAGEMENT.—Address, G. G 30, Michael's place, Brompton.

TO ARCHITECTS, SURVEYORS, LAND-AGENTS, AND OTHERS

THE Advertiser, aged 22, is open to an ENGAGEMENT: is a neat draughtsman, can assist at taking out quantities, &c. Salary a secondary consideration. Unexceptionable references. Address, E. J. W. City Newsroom, Cheapside

TO TOWN-TRAVELLERS.

THE Advertisers wish to arrange with a TRAVELLER (one in the timber trade preferred) who has a good connection with first-class builders, for the SALE on COMMISSION, of ARTICLES which are largely consumed by them, and who could undertake their agency as an addition to his present business; no others need apply.—Reply, with real name, address, and particulars, to K. L. 18, Brudenell-place, New North-road.

TO ARCHITECTS, BUILDERS, &c.

THE Advertiser, who has been carrying on the Building Business for several years, but through reverse circumstances is desirous of relinquishing it, begs to give notice that he is ready to engage himself, either in the office or as general Foreman, or Clerk of Works. Has a thorough knowledge of the business, and is quick at drawing, taking out quantities, and accounts. No objection to the country. Address, F. L. Mr. Burr's, 12, Paternoster-row.

THE ORGAN.—An Architect, who well understands this instrument and its construction, will be happy to PLAN, DESIGN, and SUPERINTEND, for those who may require such services. He also dispenses the front pipes in gold and colours, at a moderate price.—Address, T. C. L. 8, Cannon-row, Westminster.

OCCASIONAL, or PERMANENT EMPLOYMENT, WANTED, by an active, Middle-aged Man, of address, a rapid penman, accurate accountant, and well conducted with business, to put up his books that may have fallen into arrear, prepare and make out current accounts, or to assist generally in the counting-house, at a moderate salary.—Address, Z. Office of "The Builder."

TO ARCHITECTS

A GOOD and expeditious DRAUGHTSMAN, who is perfectly capable of setting up working and finished drawings, perspectives, &c. is a good colourist, and understands foreshortening, or otherwise is desirous of meeting with an ENGAGEMENT. Terms moderate. Address, C. B. R. 87, Manchester-street, Regent's park.

A CLERK of WORKS, who is practically acquainted with every department, and who has had charge of large extensive works, is required. Highest references will be given and required. Address, A. Mr. Williamson's, 17, Great Ailie-street, Goodman's-fields.

TO LAND AGENTS AND SURVEYORS.

A YOUTH is desirous of obtaining an ENGAGEMENT as an ASSISTANT in the above capacity. Is capable of drawing, plotting, printing, &c. For specimens, address A. B. Mr. Bateman's, Law Stationer, Took's court, Chancery-lane.

TO BUILDERS.

AN experienced PLASTERER wishes for EMPLOYMENT; has had the care of work in Town,—day work or contract. Security given. Finishing at a reasonable price.—Address, A. L. Office of "The Builder."

TO ARCHITECTS, &c.

A GENTLEMAN (aged 27), of first-class abilities as Draughtsman, and with great practical experience, is OPEN to an ENGAGEMENT.—Address, F. P. W. 17, Marlborough-square, Chelsea

TO BUILDERS, PAINTERS, &c.

A GOOD GRAINER, desirous of being employed, will UNDERTAKE WORK, either in town or country, at a very moderate price.—Address, W. ELLIS, No. 133, Wardour-street.

AS ASSISTANT ENGINEER, or CONTRACTOR'S AGENT.—A GENTLEMAN, 34 years of age, is open to an ENGAGEMENT. He is a good surveyor, level and draughtsman, and has also had much practice as a mechanical engineer. Has been several years upon the continent, engaged on railway and other works. Speaks the Spanish, and has a tolerable knowledge of the French language.—Address, E. H. O. Office of "The Builder."

TO ARCHITECTS.

A GOOD DRAUGHTSMAN, well acquainted with English and classic Architecture, and accustomed to the general routine of an Architect's Office, requires a SITUATION at once, in town or country.—Address, G. B. D. Office of "The Builder."

TO PLUMBERS, BUILDERS, AND OTHERS

A YOUNG MAN wishes to ENGAGE himself for twelve or eighteen months, as an IMPROVER in PLUMBING. He is willing to fill up time in painting and glazing, at which he is quite competent. No objection to the country.—Address (prepaid), C. W. 7, Walton-street, Hans-place, Chelsea.

AN ASSISTANT, who has been seven years with an Architect and Surveyor, desires a PERMANENT SITUATION.—Address, C. L. Office of "The Builder."

A COPYIST and GENERAL DRAUGHTSMAN has made arrangements to undertake the preparation of COMPETITION and DETAIL DRAWINGS, at the shortest notice practicable, and upon very reasonable terms.

N.B. Drawings traced, specifications, reports, bills of quantities, &c. copied with precision and despatch.—Address, L. H. Z. Office of "The Builder."

AS SURVEYOR'S, ENGINEER'S, or LAND AGENT'S ASSISTANT.—A Gentleman, aged 26, a good Land Surveyor, Mapper and Valuer, Accountant and Correspondent, with a knowledge of Farming, is now open to an ENGAGEMENT. Reference to last employer (a nobleman's agent). Salary about 100 guineas.—Address, W. B. 96, Hatton-garden, London.

TO ARCHITECTS.

A YOUNG MAN, who has served his time to an Architect in the City, and subsequent years' practice in other offices, is desirous of an ENGAGEMENT in a first-rate Office. Salary not so much an object as the practice. Good references.—Address, J. H. 7, Guildford-road, Greenwich.

TO BUILDERS AND TIMBER MERCHANTS.

A YOUNG MAN, who has had good practice in measuring, estimating, and preparing working drawings, is OPEN to an ENGAGEMENT as CLERK. Three years' reference can be given to present employers.—Address, T. H. 33, Bouverie-street, Fleet-street.

TO CARPENTERS, BUILDERS, &c. IN TOWN OR COUNTRY.

A STEADY YOUNG MAN, who has just left a London shop, wants EMPLOYMENT. Wages not so much import as constant work. Apply to V. Bechive Coffee-shop, 7, Cumberland-place, Newington, Surrey.

COMPETITION and other DRAWINGS coloured by an experienced Architectural Colourist on reasonable terms. Specimens produced. Drawings coloured and transmitted to the country by post.—Address, G. BATHOLME, 3, Great James-street, Bedford-row, Holborn.

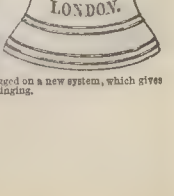
ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural, Civil Engineering, and Mechanical Drawing, Colouring, Shading and Tinting, Ornamental and Water-Colour Drawing, Perspective, Isometrical, and Geometrical Drawing, Making Finished and Working Drawings, Preparing Specifications, Taking out Quantities, Estimating, Measuring and Valuing Builders' Work, &c. &c. Terms:—Day Pupils, Three Guineas per Quarter; Evening Pupils, One Guinea per Quarter. There are no extras, the terms include the whole of the above, with the use of Drawing Boards, T Squares, Plans, Drawings, Models, &c. Prospectuses and full particulars may be had at the Offices, 24, Guildford-street, Russell-square.

MATHEMATICAL DRAWING INSTRUMENTS.—JOHN ARCHBUTT, 20, Westminster-Bridge-road, Lambeth (near the Theatre), begs to call attention to his Stock of Instruments manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality and workmanship. Rules, scales, tapes, &c. at equally low prices. An illustrated price-list will be immediately forwarded, free, on application.

N.B. A few New and Second-hand Levels and Theodolites always for Sale.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, ready in tune, true in form, and at less cost than has heretofore been accomplished.



Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, ready in tune.

TUNED BY MACHINERY.

Stocked and wheels ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the chromatic scale, with improved Clappers, and hanged on a new system, which gives a superior tone and facility for ringing.

TO ARCHITECTS, BUILDERS, CONTRACTORS, AND OTHER CONSUMERS OF GLASS.

HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

ARCHITECTURAL AND ORNAMENTAL DECORATIONS.

Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4 Russell-place Fitzroy square, 112, New-street, Birmingham, &c. &c.

THE SEVRES GLASS COMPANY.

LEGENDRE, TURPIN, AND CLARK'S

Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality; Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at 131, UPPER THAMES-STREET.—WORKS: SEVRES, NEAR PARIS.

CHARLES WM. WATERLOW AND CO.

MANUFACTURING JOINERS,

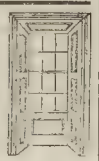
121, BUNHILL-ROW, FINSBURY, AND BOW, MIDDLESEX.

N.B.—ORDERS RECEIVED AT THE COUNTING-HOUSE, 121, BUNHILL-ROW, ONLY.

SANDS AND EMERY,

CURSITOR-STREET, CHANCERY-LANE.

MANUFACTURED JOINERS' WORK AND MOULDINGS OF EVERY DESCRIPTION ON THE SHORTEST NOTICE, AND AT THE LOWEST PRICES, PACKED AND FORWARDED TO ALL PARTS OF THE COUNTRY.



Lists of Prices and Estimates forwarded on application.

PATENT METALLIC LAVA.

A printed List of the important Works for Flooring, Roofing, Covering of Arches, &c. &c. executed from 1848 to 1862, with this Material, may be obtained at the Office of

ORSI AND ARMANI.

THEIR PATENT METALLIC LAVA IS FIFTEEN PER CENT. CHEAPER THAN THE GENUINE SEYSSEL ASPHALTE OF MESSRS. O. AND A.

OR THIRTY PER CENT. LOWER THAN ANY OTHER MATERIAL CALLED BITUMEN OR ASPHALT

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

GENUINE SEYSSEL ASPHALTE.

ORSI AND ARMANI.

THE EXCLUSIVE SUPPLY OF SEYSSEL ASPHALTE (FRANGY)

DIRECT FROM THE MINES.

REDUCTION IN THE PRICE FOR VARIOUS WORKS FIFTEEN PER CENT.

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WORK GUARANTEED FOR THREE YEARS.

Offices, No. 6, Guildhall Chambers, Basinghall-street, City.

PATENT and BRITISH PLATE GLASS.—JAMES HETLEY and CO beg to inform Architects, Builders and the Trade generally, that their new Tariff of Prices for the above will be sent on application; they will also on receipt of particulars, furnish estimates for any description of Glass now manufactured. Patent Plate, Sheet, Crown, and Ornamental Window Glass Warehouse, 35, Soho-square, London

GOOD FOREIGN SHEET-GLASS.—Thirds, 40s.; common thirds, 36s.; fourths, 28s.; in cases 200 feet each average size, 40 by 30. Extra for ground ditto, 4d. per foot. Crown and sheet squares, in 100 feet boxes, from 14 by 10 to 24 by 14, 23 per foot. Inch rough plate tiles, 31s. per dozen; C C C crown 18 tables, 30s. per crate; H 15 oz. sheet, 2d. per foot. Cast, rolled, and patent plate, fluted and stained glass, glass slates, &c. CRYSTAL WHITE GLASS, first, second, and third quality, in cases of 200 and 300 feet each, 3d, 4d, and 5d. per foot. Cathedral glass, various tints, sheet lead, pipe, white lead, oils turpentine colours, &c.

C. FARMILOE and SON, 113, St. John-street, West Smithfield. London.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White-lead, Lead, Iron and Brass Pumps Water Closet Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the finest quality, at wholesale prices. Lists on application on at THOS. MILLINGTON'S Warehouse, 87, Bishopsgate street, London. Established more than 10 years.

GLASS PAN-TILES, packed in cases of fifty, one-quarter of an inch thick, at 17s. 6d.; three-sixteenth, per case of sixty 2l. 1s. 3d.; one-eighth, per case of sixty 1l. 17s. 6d. Foreign Sheet Glass, in cases of six feet, 28s. and 24s. per case. Crown Glass, in crates of eighteen tables, from 28s. 6d. to 30s. per crate. Glass for pictures, at 4d. 6d. and 8d. per foot. JAMES PHILLIPS and CO. 176, Bishopsgate-street Without, London.

E. and W. H. JACKSON beg to call the attention of Builders and the Trade to the LOW PRICES of their PATENT PLATE GLASS, BRITISH PLATE, silvered and for glazing, of unrivalled quality and brilliancy. ROUGH PLATE, CROWN, SHEET, CoLORED, and ORNAMENTAL GLASS, in every variety, at the best manufacture, at the lowest terms. Drawings and estimates furnished for ornamental window, mates and lists of prices to be made at their warehouse, 315, OXFORD-STREET.

By Royal Letters Patent

THE COSMOPOLITAN GLASS COMPANY, 298, Oxford street.

REDUCED TARIFF

CCC CROWN, 18 Table, per crate 30s.; H 15 oz SHEET, 2d. per foot. FOREIGN SHEET, 20s. feet cases, 34s. per case; CROWN or SHEET SQUARES, 100 feet boxes 2d per foot; HARTLEY'S PATENT ROUGH PLATE from 6d. and PERFORATED VENTILATING GLASS, 18.6d. per foot; CRYSTAL SHEET GLASS 4d., 6d. and 8d. per foot; FLASHED RUBY, 1s. GROUND SHEET, 3d. ENAMELLED, 6d. per foot. Sashes primed and glazed, 1d. per foot.

Car Homes free, on application to the Managers, as above.

CRYSTAL WHITE SHEET-GLASS, first, second and third quality, in cases of 200 feet, at 3d. 4d. and 6d. per foot. Price-lists for squares cut to order forwarded on application. ROBERT METTAM and CO. Wholesale British and Foreign Window Glass Warehouse, 30, Princes-street, Leicester square, London

WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of Builders and the Trade in general to his prices of British and Foreign Glass of every description. Rough Plate, Sheet, and Ornamental Window Glass, from 6d. per foot to 1s. 6d. per foot. Shades, Globes, and Lamp Glasses, in crates, Sheet Glass, in cases of 200 feet each, large sizes, 30s. per crate; Foreign per case; Ground ditto, 34d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded post free, on application at the Warehouse, 30, Princes-street, Leicester square, London

BIRMINGHAM GLASS WORKS.—WHOLESALE BRITISH and FOREIGN WINDOW GLASS.—PATTESON and CO. beg to call the attention of Builders and the Trade in general to their extensive and well-assorted Stock of British Plate, Crown, Sheet, and Ornamental Glass, Rough Plate, Patent Plate, every description. Good 16 oz. Sheet Glass, in crates from 2d. per foot. CCC Crown Glass, 18 tables, from 30s. per crate. Foreign Sheet Glass, in cases of 200 feet each, large sizes, at 22s. 30s. and 40s. per case; Ground ditto, 3d. per foot. Estimates and Price-Lists forwarded post free, on application at their Warehouse, 64, Grand Junction terrace, Edgeware-road.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

Lists of prices may be obtained on application at
The Works, Pocket Nook, St. Helen's Lancashire.
The Warehouse, 99, Hatton-garden, London.
" 48, Piccadilly, Manchester
Messrs. T. and J. Malloch, 30, Turner's-court, Glasgow.
" John Dix and Co Bath-street Bristol)
H. Shthorpe and Son, Cork-hill, Dublin.

ROUGH PLATE-GLASS from ¼ to ½ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes and for silvering.

Superior silvered Plate-glass Mirrors of all sizes

SHARPE and BALL, SASH-MAKERS and JOINERS to the Trade, No. 30, White-lion-street, Norton Folgate, near the Eastern Counties Railway. Established upwards of thirty years. Every description of joiners' work at the lowest prices, packed and forwarded to all parts of the country. Estimates and lists of prices forwarded on application.

J. MILLS (late Shop Foreman to Messrs. Lawrence and Sons), JOINER to the TRADE, 7, Princes-street, Stamford-street, Lambeth. Shop-fronts, fittings, staircases, &c. Well-seasoned materials and superior workmanship, at the lowest possible prices. A quantity of doors and sashes always in stock.—By enclosing a postage-stamp, a full list of prices will be returned. Workshops, 100, Broadwall

WINDOW BLINDS.—TYLOR & PACE, Window Blind Manufacturers, 104, New Bond-street, and 4, Queen-street, Cheapside, London, submit the following PRICES of WINDOW BLINDS, which they can recommend as being made in the best manner—Venetian blinds, 3s. per square foot, 6d.; best holland blinds, on rollers, 6d.; best ditto, on spring rollers, 9d.; gauze wire blinds, in mahogany frames, 2s.; perforated zinc blinds, in ditto, 2s. 10d.; outside blinds of striped cloth, 2s. Transparent blinds in great variety. Engravings, with prices and discounts to builders and the trade, forwarded on application, post free

WINDOW-BLINDS.—J. FULLER, Manufacturer, 29, Charlotte-street, Blackfriars-road. Established, 1850.—Venetian Blinds, from 3s. each, or 2d. per foot; Wire ditto, 7s. each, or 1s. 9d. per foot; H hland ditto, from 5s. each, or 1.l. per foot Every other description of Blinds equally low, warranted of the best manufacture. Discount to Builders and the Trade Fixed complete.

TARPAULINS for COVERING ROOFS during Repairs, SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and Temporary Awnings on sale or hire. Orders per post receive the most prompt attention.—WILLIAM FIGGOTT, 135, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

TO WEBBING and INDIA-RUBBER MANUFACTURERS and CAPITALISTS, generally.—Whereas the Advertiser having patented an invention for an article of general utility, in which Webbing and India-Rubber is largely consumed, is OPEN to treat with Manufacturers of the same, and Capitalists generally, in reference to the said invention—Address, A. B. C. No. 100, Dean-street, Oxford-street, London.

DURABILITY of GUTTA PERCHA TUBING. Many inquiries having been made as to the Durability of Gutta Percha Tubing the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR RAYMOND JARVIS, Bart., VENTNOR, ISLE of WIGHT.—Second Testimonial.—" March 10th, 1853. In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N B From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON

AMERICAN VULCANISED INDIA-RUBBER, for Engineering, Mechanical, and Manufacturing Purposes; Steam Packing, Valves, Discs and Joints; Washers for Steel and Cold Water Joints; Machine Belting or Driving Bands; Steam, Fire-engine, Brewers' Conducting, and Garden Hose; Drain and Gas Tubing, Printing Blankets for Steam and Hand Presses. Sole Manufacturers of India Rubber Combs.

DUBUC, BACON, and CO. 44, St. Paul's-churchyard, London.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagnelle tables.

Diving-dresses of superior make, and improved Vulcanized Rubber Soup, by-pipes for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions suiting Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order

N B All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

CHAS. MACINTOSH and CO. Patentees of the VULCANIZED INDIA-RUBBER, and GENERAL MANUFACTURERS of WATERPROOF, AIRPROOF, and ELASTIC RUBBER GOODS beg to inform all persons who desire to correspond with them direct, that their SOLE ESTABLISHMENTS are No. 3, Cannon-street West, London, and Cambrdge-street, Manchester. This notice is necessary, as the term Macintosh Depôt, Macintosh Warehouse, &c is foreign, is adopted by many in London and the country by vendors of India-rubber goods, who deal in articles not of the manufacture of HAS. MACINTOSH and CO. Goods manufactured by CHAS. MACINTOSH and CO. are stamped with the name of the firm.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act up on it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in oil; also for Plaster Coatings, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK—LONDON—PATENT—and if not so stamped, the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND and ROMAN CEMENT, TERRA COTTA POTS, &c. J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that the whole of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

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NOTICE.—BLUE LIAS LIME.— L. B. PEARSE and CO. beg to inform Architects, Engineers, Builders, and Contractors generally, that they have now accepted the AGENCY for the above valuable HYDRAULIC LIME, from the original quarries, Rockton, Warwickshire, and are now ex pleting direct from the works in their own boats, at a reduced rate.

L. B. PEARSE and CO. beg further to give notice to consumers, that they have erected, at a considerable expense, large buildings and machinery for grinding lime and cement, so as to ensure genuine quality and large supply, at their extensive premises, situate on the Great Northern Railway, York-road, King's-cross.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Large Grey Stone, or Grey Chalk, free on board at Works, 1s. 6d. per ton.

Small ditto, ditto, 4d. per ton.

Barges loaded in a few minutes.

Woodham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855. CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, super ably to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GIBBS, CANNING, and CO.'S BLUE VITRIFIED BRICKS, PIPES, JUNCTIONS, BENDS, and FIRE GOODS.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

PORTLAND CEMENT.

CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

GREAVES'S BLUE LIAS LIME.

CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

BATH CEMENT.

CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

TATHAM & CO.—No. 14, SOUTH WHARF, PADDINGTON.

BRICK, LIME, and CEMENT MERCHANTS,

NORTHAM BLUE LIAS LIME DEPOT

Bath, Portland, Lias, and Roman Cements; Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewage Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in boat-loads direct from the Works in Warwickshire, to any part of the river or canal.

SOUTHAM BLUE LIAS LIME DEPOT, No. 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged for a constant supply of the above very superior BLUE LIAS LIME, which for the last two years has been extensively used at most of the large works constructed during that period or now in hand, and any orders they are favoured with will command their best attention.

Boatloads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the Rivers Thames or Lea, at a sale any wharf on canal, or by boat or rail to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to No. 14, SOUTH WHARF, PADDINGTON, will receive the best and most prompt attention.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Millwall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

ARTIFICIAL HYDRAULIC or PORT- LAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not effervesce in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. PUDENS and Co. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes for which applicable.—Orders received at Cleat's-wharf-yard, near the Works.

PORTLAND CEMENT.— FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and Others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in use among them; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers, and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT WORKS, NORTH- FLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first class quality, for the home and foreign trade. Portland Cement is manufactured at these works with special reference to its destination, whether for stuccoing, brick-work, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth

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CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied or shipment, on advantageous terms

---

PARIAN CEMENT, for Internal Use, to be painted in a few hours and covered within a couple of days. FRANCIS BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London

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GEO. & THOS. EARLE, CEMENT MANU- FACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs. Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

---

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architecture, Embellishments, &c., will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine do.	3 0 0
Coarse	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis

---

11 George-yard, Lombard-street, City

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand in added and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses These well-known hard Stuccoes dry so quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, WILD, and CO. beg to inform the public and their friends that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enables them thereby to transact and orders they may receive to any station on the line, or shipped on board any steamboat or barge they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, as printed instructions will be affixed to the head of each cask. Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

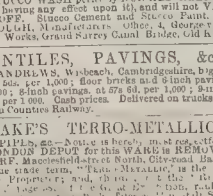
Agents in London: Messrs. GEORGE POTTER and CO. Lime Merchants, Patent Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, Jun. ROMAN and PORT- LAND CEMENT MANUFACTURER, Crown Wharf, Grent Scotland-yard, Westminster

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.

IN EVERY VARIETY.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH purifies it NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUN OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers. Office, 4, George-yard, Lombard-street Works, Grand Surrey Canal Bridge, Old Kent-road.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 50s. per 1,000; floor bricks and 6-inch pavings, at 37s. 6d. per 1,000; 8-inch pavings, at 57s. 6d. per 1,000; 9-inch pavings, at 75s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby given, that the LONDON DEPOT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road, Basin. Secondly that the trade term, "Terro-Metallic," is the exclusive right of the Proprietors; and, therefore, to the Messrs. or Mr. [illegible] Peake, [illegible] Peake, or Peakes, [illegible] Stafford Ware, &c. [illegible] the Road in the world.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 69, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. Be a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PRIZE BRICK-MAKING MACHINE.— CHAMBERLAIN'S PATENT. This portable machine will make 20,000 solid bricks per day, with 3-horse power. One man to feed the machine with clay, and boys to remove the bricks. Was awarded a silver medal by the Liverpool and Manchester Agricultural Society, at St. Helen's, September 26th; a silver medal by the Staffordshire Society at Leek, September 27th; and a prize at Worcester, October 9th, 1855. Apply for particulars to Mr. HUMPHREY CHAMBERLAIN, Kempsey, Worcester.

THE PATENT BRICK-MACHINE COM- PANY invite ORDERS for their improved machines, the only ones that manufacture solid bricks equal to hand-made. A machine, and bricks made by it, may be seen in a field near London. H. C. MOUNT, Secretary.

37, King William-street, City.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.—Grey stocks, 23s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

THE BEST HERTFORDSHIRE MALM SECONDS:

THE BEST WHITE SUFFOLK and RED FACINGS:

DEEP-RED RUBBING BRICKS.

Also COWLEY and KENT STOCKS, in any quantity.

J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY.

(Within a short distance of the five bridges).

THE BEST MALM CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity.

Also, GOOD STOCKS, OF EVERY QUALITY.

J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS

COWLEY, KENT, and ESSEX BRICKS.

Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.

KENTISH RAG-STONE of the FINEST QUALITY.

MILLS and PRICE, 5, ADELAIDE-PLACE, London-bridge.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Sewage-pipes, Closet-pans, Furnace-blocks, Fire-bricks, Gas-retorts, Crucibles, &c. &c. The completion of the Kinson Pottery Paves the Proprietors in a position to supply Builders and the Trade generally, with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found upon the estate. There is also a plentiful quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London purchasers, upon favourable terms.

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works

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GREAT NORTHERN WHARF, York-road, King's-cross. WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

Depôt, Near Wharf, King's-road, St. Pancras

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality. WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent — Mr. J. UNWIN, Private Residence, 69 Nelson-square, Blackfriars-road

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BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of a mile's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, Malm Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-and-red Paving Sand supplied in any quantity on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

TO CONTRACTORS, BUILDERS, &c.

HARD-BURNT CLAMP, 22s. 6d. per Thousand. Red Malm Bunting and Paving Bricks. Black and Red Tiles, Land Drain-pipes, &c. delivered to any station on the London and Brighton Railway. Apply to E. A. COLWELL and Co. Burgess-hill; or No. 6, Old Fish-street, Doctors' Commons, London

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BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on low terms, to any part of the Thames, the various canals, the Rave Levels, or by rail to any station on the Eastern Counties Railway, with which company they connect it with it. Also, flints for building boundary walls, stables, cottages, &c. by quoting with each order the expense of cartage. Also, lime, chalk, chalk rubble, gravel, land, and ballast. Whatever of the best quality, lime, both white and blue, bricks, fire goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex, or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

BRICKFIELD TO BE LET, most eligibly situate in Kent. Good steam and horse power on the river, with capital wharfs and plant, &c. Peculiarly worthy will be highly remunerative. Terms very low. Apply to Mr. COLLINS, Architect, &c. 34, Montague-place, Russell-square.

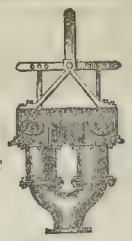
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

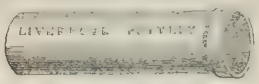
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.



MANUFACTURERS OF
DOULTON'S STONE-WARE PIPES. | DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S HALF-SOCKET PIPES. | DOULTON'S PATENT JUNCTION BLOCKS.

TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

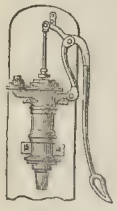
W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

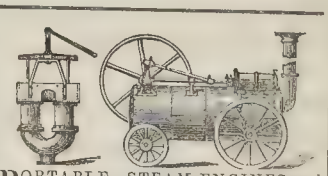
REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.



TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP,
which is recommended for the simplicity of its construction, and the ease with which it works.
By the introduction of the vibrating standard, the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than Pumps made on the old plan.
Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.
JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farmers, gardens, colleries, liquid manure, ships, barges, well-sinking, &c., adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double-barrel, i.e. double 15-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or any power.

Iron Pails [illegible] per inch, painted
Ditto [illegible] galvanized
Copper or Iron Buckets and Bridles.
[illegible]

VAST IMPROVEMENT IN PUMPS.—PARSEY'S REVOLVING PUMP, all metal, without valves, leather, or packing. Economy of working and disarrangement removed; and equally superior for hot or cold liquors. Contractors, brewers, distillers, shipowners, water and gas companies, &c. &c. &c. are invited to see them in action at Mr. PARSEY'S Depôt, Great Scotland yard, where orders are received and executed.

PORTABLE STEAM-ENGINE.—A new 4-horse PORTABLE STEAM ENGINE, with tubular boiler, for SALE; can be seen at work at Mr. GOODWIN'S, 67, Great Guildford street, Southwark, of whom particulars may be obtained.

TO BE SOLD (nearly new), a Six-motion OIL ENGINE mounted in mahogany case with brass [illegible] of about [illegible] years. SON, Conduit, 230, High-street, Lambeth.

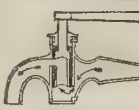
TO CONTRACTORS.
STEAM ENGINES for PUMPING, [illegible] WINDING, SAWING, [illegible] for HIRE or SALE, [illegible] SAND and GRAVEL WASHING, [illegible] by the [illegible] Also [illegible] and other PUMPS. Apply to Messrs. [illegible] and Hall, Engineers, Nursery Iron Works, 93, Black [illegible] where they may be seen.

ENGINES.—For SALE, THREE 12-[illegible] [illegible] out [illegible] of [illegible] 4 feet, 3 feet 2 inches.—Apply by letter, to No. 20, B.N. Post office, Derby.

A FOUR-HORSE POWER PORTABLE STEAM-ENGINE FOR SALE.—Apply to WILLIAM DRAY and Co. Swan-lane, Upper Thames-street, London.

A TWELVE-HORSE HIGH-PRESSURE STEAM-ENGINE and BOILER to be DISPOSED OF, for 100. It must be removed immediately by the purchaser, in order to make room for new machinery.—Apply to DOULTON and WATTS, High-street, Lambeth.

TO WATER COMPANIES AND PLUMBERS.
BURDEN'S PATENT HIGH-PRESSURE COCKS.—These cocks are remarkably simple in their construction, very durable, cheap, not liable to get out of order, and have been most successfully used for a period of three years, under a continuous test pressure, varying from 200 to 450 feet. The following is one of the latest testimonials received:—"Stirling, 4th September, 1855. At a meeting of the Water Commissioners held this day it was unanimously resolved to recommend Burden's Water Cock for general use. It has been on trial here for nearly three years. During that period it has successfully resisted the high pressure of water in Stirling, amounting to from 200 to 450 feet, about the highest pressure in the kingdom. The Commissioners confidently recommend to the public generally the above cocks, as the very best for high-pressure purposes, from the simplicity of their construction, cheapness, and durability. Owing to the entire absence of leakage, they will effect a saving of from 15 to 20 per cent. of water over the cocks that have been hitherto in use.—By order of the Commissioners, JOHN SAWERS, Provost, Chairman."



SAMUEL SHEPPARD, Sole Manufacturer.
JAMES STREET, SAINT PAUL'S, BIRMINGHAM.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London

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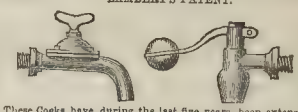
PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 300 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short street, New-cut, Lambeth.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GROSS'S WHOLESALE WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

PAPER-HANGING WAREHOUSE,
3, OXFORD-STREET.—To be DISPOSED OF, at a considerable reduction, all the remaining summer STOCK of PAPER-HANGINGS, including Gold Flocks, Sanns, and Machine-work, which must be cleared out before the new year.

A. W. FABER'S POLYGRADE BLACK-LEAD PENCILS, to which were awarded the Prize Medals from the Great Exhibitions of All Nations, London, 1851; New York, 1853; Munich, 1854. Are sold by every respectable Stationer in town and country. Sole Agent: A. HEINTZMANN, 23, Long-acre-lane, City.

PATENT DRAIN-PIPES, UNGLAZED, manufactured by ARTHUR C. FRANCIS and Co. Grays, Essex, sold by them, and by FRANCIS, BROTHERS, Nine Elms, London, and at all their Warehouses.

PRICES.

3 inch bore, in 2 ft. 6 in. lengths, at				3d. per foot.	
4	"	"	"	4½	"
6	"	"	"	6½	"
9	"	"	"	9½	"
12	"	"	"	1s. 2d.	"

Also pipes and tiles for underground drainage, of all sizes, to great [illegible] of [illegible] Also [illegible] and [illegible] Bricks, [illegible] Chimney Pots, [illegible] Flue Pipes, [illegible] Fire Bricks, and [illegible] Tiles, [illegible] Garden Pots, [illegible] Vases, [illegible] Chimney Tops, [illegible] Ridge Tiles, [illegible] Paving Tiles, [illegible] Quarries, [illegible] Tesselated Pavement, [illegible] Encaustic Tiles, [illegible] Terra-cotta Ornaments, [illegible] Fire-clay Goods, [illegible] Stoneware Pipes, [illegible] Traps, [illegible] Gullies, [illegible] Channels, [illegible] Invert Blocks, [illegible] Junction Blocks, [illegible] Half-socket Pipes, [illegible] Stoneware Goods, [illegible] Chemical Stoneware, [illegible] Filters, [illegible] Jars, [illegible] Bottles, [illegible] Carboys, [illegible] Retorts, [illegible] Condensers, [illegible] Worms, [illegible] Tubs, [illegible] Pans, [illegible] Evaporating Dishes, [illegible] Crucibles, [illegible] Muffles, [illegible] Gas Retorts, [illegible] Coke Ovens, [illegible] Lime Kilns, [illegible] Glass Furnaces, [illegible] Glass Pots, [illegible] Fire-clay Goods, [illegible] Refractory Materials, [illegible] Fire Bricks, [illegible] Tiles, [illegible] Cements, [illegible] Mortars, [illegible] Fire-clay, [illegible] Ground Fire-clay, [illegible] Ground Fire-brick, [illegible] Ground Coke, [illegible] Ground Coal, [illegible] Ground Flint, [illegible] Ground Quartz, [illegible] Ground Sand, [illegible] Ground Glass, [illegible] Ground Pottery, [illegible] Ground Stone, [illegible] Ground Marble, [illegible] Ground Slate, [illegible] Ground Granite, [illegible] Ground Basalt, [illegible] Ground Porphyry, [illegible] Ground Serpentine, [illegible] Ground Limestone, [illegible] Ground Sandstone, [illegible] Ground Chalk, [illegible] Ground Clay, [illegible] Ground Loam, [illegible] Ground Peat, [illegible] Ground Lignite, [illegible] Ground Anthracite, [illegible] Ground Bituminous Coal, [illegible] Ground Cannel Coal, [illegible] Ground Jet, [illegible] Ground Amber, [illegible] Ground Copal, [illegible] Ground Shellac, [illegible] Ground Gum, [illegible] Ground Resin, [illegible] Ground Pitch, [illegible] Ground Tar, [illegible] Ground Asphalt, [illegible] Ground Bitumen, [illegible] Ground Naphtha, [illegible] Ground Petroleum, [illegible] Ground Rock Oil, [illegible] Ground Coal Tar, [illegible] Ground Wood Tar, [illegible] Ground Peat Tar, [illegible] Ground Lignite Tar, [illegible] Ground Anthracite Tar, [illegible] Ground Bituminous Coal Tar, [illegible] Ground Cannel Coal Tar, [illegible] Ground Jet Tar, [illegible] Ground Amber Tar, [illegible] Ground Copal Tar, [illegible] Ground Shellac Tar, [illegible] Ground Gum Tar, [illegible] Ground Resin Tar, [illegible] Ground Pitch Tar, [illegible] Ground Tar Tar, [illegible] Ground Asphalt Tar, [illegible] Ground Bitumen Tar, [illegible] Ground Naphtha Tar, [illegible] Ground Petroleum Tar, [illegible] Ground Rock 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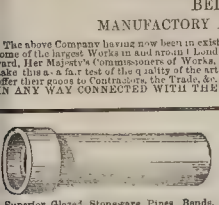
AYLESFORD POTTERY COMPANY,
BELVEDERE-ROAD, LAMBETH.

MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly six years, and having during that period supplied DRAIN PIPES, &c. to some of the largest Works in and around London, viz.: The New Cattle Market, Wellington and Chelsea Barracks, Deptford Dockyard, Her Majesty's Commissioners of Works, &c. and in all instances parties using them have expressing themselves satisfied therewith, - take this as a fair test of the quality of the articles supplied by them; and as the now feel themselves established as Potters, beg to offer their goods to Contractors, the Trade, &c. of a first-rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.



Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

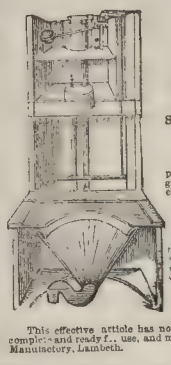
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN, Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.
HENRY J. UNDERWOOD, Architect
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.
MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

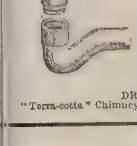
OFFICES: HIGH-STREET, LAMBETH, LONDON.

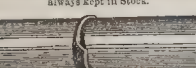
TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

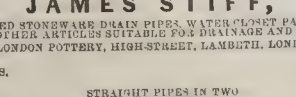
HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.





A LARGE ASSORTMENT OF STRAIGHT TUBES IN 9-FEET LENGTHS
Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.



Watercloset Pan with Syphon-Trap connected, price 5s. 6d. each.

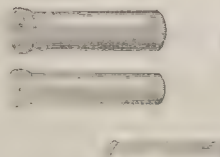
DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain pipes, at greatly reduced prices. (1179)

JAMES STIFF,
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO FEET LENGTHS



IMPROVED YARD SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which Pipes may be laid, examined, and Junctions inserted, without breaking further connection.

May be had also at Messrs. GLADDISH & LIKE WHARFS, Pedlar's Acre Wharf, Lambeth; Messrs. Wyatt's Wharf, foot of Buttesland-street, Hoxton; Messrs. Pratt Wharf, Regent's Canal, New Cut, Lambeth; Messrs. Bourne & Hall's Wharf, Back-road, Bermondsey; Barker's Wharf, foot of Buttesland-street, Hoxton; New Cut, Lambeth; J. TURNER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Brydges-street, Covent Garden; and at EDWARD COOK'S 91, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

SUPERIOR LAND DRAINAGE.—
AGRICULTURAL DRAIN-PIPES of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

LAMBERT'S SELF-CLOSING
LAVATORY AND CLOSET VALVE,
No 7

Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.
N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

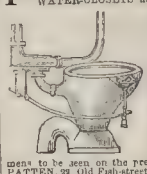
E. and W. STURGE invite special attention
to their reduced LIST of PRICES of Drain Pipes, Junctions, Pans, Traps, &c., also, to their Paving, Sinks, &c.; Stone of the best quality, wholesale and retail. Country builders and others supplied with all information, on application to E. and W. STURGE, Bridge-wharf, City-road.
N.B. The wharf is well situated for carriage by canal boats, or to the railways, to which but a small charge for cartage is made.
January, 1855

TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES.

FREEMAN ROE'S PATENT SLUICE-
VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pamphlet on hire.
W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

COLLIER'S TERRO-METALLIC and
RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled variety, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and Co. Great Northern-wharf, York-road, King's-cross.

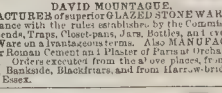
PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.



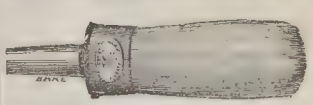
Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29 Old Fish-street, near St. Paul's, London.
CROWN GLASS, 18 TABLES, 32s. PER CRATE.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE.
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.



MANUFACTURERS of GLAZED
STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Varnished Blue Bricks as used by Her Majesty's Commissioners of Sewers, White Fire Clay, Canada Bricks, &c. &c. Agents, CHARLES RICHARDSON, No. 6, South Wharf, Paddington, London.



HAWKINS'S PATENT BRUSH
COMPANY [illegible] Common-street West, London Merchants, and [illegible] respectfully to call to their Hawkins's Patent [illegible] superiority [illegible] and [illegible] Brushes, [illegible] Agent [illegible]

O. M'CARTHY, CARMAN, [illegible] and
[illegible] Yard [illegible] Stores, [illegible] Dry [illegible] delivered per barge, in any quantity, alongside the Thames.

SALES BY AUCTION.

REGENT-STREET.—An eligible Plot of Building Ground, suitable for an Exhibition Room, or for any other purpose requiring a first-rate and central position at the west-end of the metropolis.

MESSRS. RUSHWORTH and JARVIS are directed to announce for SALE by AUCTION, in the month of DECEMBER next, unless previously disposed of by private treaty, the CROWN LEASE of a PLOT of GROUND, about 85 feet by 6. feet, situate in the rear of Hanover Chapel, Regent street, offering an eligible site for an exhibition, concert, or lecture room, bazaar, gallery of art, religious or scientific hall, or suites of chambers. It is held for an unexpired term of sixty-five years, and further particulars may be had at the Offices of Messrs. RUSHWORTH and JARVIS, Saville-row, Regent street, where a plan of the property may be seen.

TO TIMBER MERCHANTS AND OTHERS.—TO BE SOLD BY AUCTION, by

MR. H. MINTER, on THURSDAY, the 2nd of NOVEMBER, 1855, at TWELVE for ONE o'clock precisely, on the PREMISES, at Frognall Farm, in the parish of Teynham, near Sittingbourne, NINETY PIECES of superior ELM TIMBER, containing about 2,000 feet, and twenty cords of fire-wood. The timber may be viewed any time previous to the sale, and catalogues obtained, on application to the Auctioneer, West-street, Faversham. The whole of the timber is lying on or near a good road, and within a very short distance of Conyer Wharf, for water carriage.

PADDINGTON.—TO BUILDERS AND OTHERS.

MR. GEO. DEEKS begs to announce that he will SELL by AUCTION, on the PREMISES, 26, Sale-street, Edgeware-road, Paddington, on TUESDAY, the 27th day of NOVEMBER, at TWELVE for ONE precisely, THIRTY superior MARBLE and ENAMELLED CHIMNEY-PIECES, and unfinished parts of ditto, building materials, shop fixtures and fittings, and sundry items of furniture, ironwork, coal-cart, and sundries. To be viewed the day prior and morning of sale. Catalogues to be had on the Premises, and at the Offices, 26, Albion street, Hyde-park square.

NOTICE to MAHOGANY and TIMBER MERCHANTS, CABINETMAKERS, and OTHERS.—The next LIVERPOOL PERIODICAL SALE by AUCTION, of MAHOGANY and other FURNITURE WOODS, Baltic and American White Woods, will take place on WEDNESDAY, the 29th instant, at TWELVE o'clock at noon precisely, in the BROKERS' SHEDS, Brunswick and Toxteth Docks, Liverpool. Catalogues, containing full descriptive particulars, are now ready and may be seen at the Office of this paper; or may be had on application to EDWARD CHALONER, Timber and Mahogany Broker and Measurer, 6, East side, Queen's Dock, Liverpool.

TO BUILDERS AND OTHERS.—Scaffolding Poles, Putlogs, Ladders, Building Materials, &c.

MR. F. HALL will SELL by AUCTION, on WEDNESDAY, NOVEMBER 28th, at TWELVE for ONE precisely, on the PREMISES, 77, Regent-street, Westminster, near the Horseferry-road, the complete genuine STOCK of a Builder, comprising eight large workbenches, 200 nearly new scaffold poles of various lengths, twenty dozen capital boards, several hundred putlogs and cords, standard and other ladders, new timber boards, and prepared goods, large grindstone, tubs, screens, barrows, and other implements; small quantity of white lead and colours, ironmongery, 4-wheel phaeton, &c. Also a quantity of excellent fittings, shop fronts, sashes and frames, folding and other room doors, and a variety of other materials and effects.—May be viewed, and catalogues had on the Premises; and of Mr. F. HALL, Builders' and Building Materials Auctioneer, Chester street, Kennington.

MR. D. A. RAMSAY respectfully informs the Building Trade that he is prepared to make ADVANCES to any amount on all descriptions of BUILDING MATERIALS intended for SALE by AUCTION. Auction and Estate Agency Offices, No. 79, King William-street, City.
November 23rd, 1855.

DAY of SALE ALTERED.—Bagnigge-wells road.—Remaining Stock-in-Trade of a Builder.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, on the PREMISES, Baker-street, on TUESDAY, NOVEMBER 27th, and following day, at TWELVE each day, the remaining STOCK-IN-TRADE; comprising prepared well seasoned floor-boards, deals, planks, and battens, scaffolding, ironmongery, marble chimney-pieces, Portland and other stone, two brick carts, and numerous effects.—To be viewed one day previous to the sale, when catalogues may be had on the Premises, and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, 79, King William street, City.

TO BUILDERS AND OTHERS.

MR. D. A. RAMSAY begs respectfully to announce, that he will INCLUDE in the SALE at Baker street, Bagnigge-wells road (by permission), on TUESDAY, NOVEMBER 27, at TWELVE, a quantity of JOINER'S WORK and other useful MATERIAL, removed from the Ranelagh Warerooms for absolute Sale. May be viewed two days previous and morning of Sale; and catalogues had on the Premises, and of the Auctioneer, 79, King William street, City.

ABSOLUTE SALE OF BUILDERS' IRONMONGERY.

TO BUILDERS, IRONMONGERS, and OTHERS.—The entire Stock of a Furnishing Ironmonger, removed from the Bedford Pantechnicon.

MR. D. A. RAMSAY will SELL by AUCTION, at Mr. ROBINSON'S ROOMS, 21, Old Bond-street, on THURSDAY, DECEMBER 6th, and following day, at TWELVE precisely, in consequence of the number of lots, without reserve, an extensive and well-assorted STOCK of IRONMONGERY, principally of London manufacture, comprising 650 doz. mortise, patent, rim, drawback, cole, till, door, and other locks, [illegible] pairs of cross garnet hinges, various sizes, [illegible] doz. brass flush bolts in sizes, [illegible] sets of oak, ebony, bronzed, and fancy china finger plates, 80 doz. brass butts various, [illegible] doz. cupboard knobs and turns, [illegible] doz. neck plates, tower and other bolts, 5,000 gross of wood, gilt-head, lock, and other screws, 9 cwt. of best glue, 319 doz. [illegible] screws various, 7[illegible] doz. brass and axle pullies, 97,000 floor brads, 12 tons nails various, a large quantity of brass-headed and slate nails, patent brass ball and [illegible] glass paper, [illegible] ventilators, files, sash line, [illegible] and pulpit latches, shutter lifts, iron and brass sash pullies, [illegible] and other cocks, and a large assortment of [illegible] also a large quantity of [illegible] brass bell levers, 25 bundles [illegible] bell springs [illegible] check springs [illegible] together with a quantity of bell pulls, [illegible] files, and [illegible] and other effects.—May be viewed two days prior and morning of sale, and catalogues had at the Rooms, of A. A. JONES, Esq. Solicitor, [illegible] court, Chancery-lane, and of the Auctioneer, 79, King William street, City.

CHALK FARM, HAVERSTOCK HILL.—Building Materials, [illegible] Fixtures, Bar and out-door Fittings, and appendages [illegible] well known Tavern and [illegible]

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on TUESDAY, NOV. [illegible] and following day, at TWELVE, in lots, at the BUILDING MATERIALS, furniture, [illegible] Farm Tavern comprising good [illegible] work [illegible] excellent seating, useful timber, sashes, doors, partitions, floor boards, stone paving, lead gutters, 200 feet [illegible] glass, plate and [illegible] drinking boxes in the garden [illegible] numerous useful [illegible] 80, Fore-street, Cripplegate.

TO BUILDERS or SPECULATORS, with a small capital.—Several pairs of ten-roomed unfinished semi detached private VILLAS, with good gardens, close to Putney Railway Station, TO BE LET or SOLD, for 100 years' lease direct from freeholder, and purchase money may be sunk in ground rents, or total amount be allowed to remain on mortgage for years certain. From 200*l.* to 400*l.* are required per pair for finishing. The houses will be sold singly, if required.—Apply at Mr. HOOK'S Offices, 13, Great George street, Westminster.

TO BUILDING SOCIETIES, BUILDERS, &c.—TO BE LET, on a 98 years' lease, a most valuable PLOT of GROUND, between four and five acres, with a large House, Stabling, and Out-buildings, and in a very desirable neighbourhood for building, not three miles from London-bridge. Immediate application is recommended, and possession given at Christmas.—For particulars, apply to Messrs. BARKER, BOWKER, and PEAKE, Solicitors, 1, Gray's-inn-square.

ALDERSHOTT CAMP.—A desirable FRONTAGE in the very best part of the camp, affording sufficient space for a first-rate HOTEL, and eight pair of VILLAS, TO BE SOLD or LET.—Apply to Mr. DEBENHAM, Surveyor, 80, Cheapside.

HAVERSTOCK-HILL.—To BUILDERS. TO BE LET, in the MALDEN and QUEEN'S ROAD (both main roads), some commanding FRONTAGES for Shops and Private Houses. All the sewers are in on the estate, roads all formed, and now making. Term, ninety-nine years. Low ground-rents. Bricks supplied at a low price and liberal cash advances. Apply to Mr. JOHN MOORE, 83, Chalton-street, Euston square.

ELIGIBLE PLOTS of GROUND TO BE LET for Building, at Castlebear-hill, seven miles from London, and ten minutes from the Ealing Station, on the Great Western Railway.—For particulars, apply to GEORGE LESLIE, Upper mall, Hammersmith.

WANTED to PURCHASE, a PLOT of FREEHOLD LAND, not exceeding One Acre in extent, and with a frontage towards a road within 12 miles of the General Post-office. A site in the immediate neighbourhood of a town or village, and capable of good drainage, will be preferred. Full particulars to be sent to Mr. SAMUEL ANGELL, 18, Gower-street, Bedford-square, previous to the 1st DECEMBER next.

TO BUILDERS.—There is an immediate demand for several HOUSES, near an important town in South Wales. The owner of a large estate in the neighbourhood will give a builder of spirit and capital every encouragement.—Application to be made to W. BULLOCK WEBSTER, Esq. Gnoll Castle, Neath.

TO CARPENTERS, BUILDERS, &c.

ONE or MORE HOUSES, in CARCASE, with Garden Walls and Washhouse, TO BE LET, on a ground rent, or TO BE SOLD; the purchase money can stand over a given time at five per cent.—Inquire of Mr. CHARLES MARSHALL, Builder and Brickmaker, Albert-terrace, Kentish-town.

TWO CARCASES TO BE SOLD, of Eight-roomed Houses, well situated.—Apply to Mr. BRIGGS, 25, Stanley-street, Eccleston square, Pimlico.

SEVERAL FOUR-ROOMED CARCASES TO BE SOLD, cheap, in Alma-street, Kentish-town, near the Governesses' Asylum.—Inquire on the ground.

HOUSE PROPERTY WANTED.—Money advanced by way of MORTGAGE, on freehold or leasehold properties, at 5 per cent. Wanted also to PURCHASE similar SECURITIES to a large amount. Parties desirous of effecting an immediate sale, and having a good investment to offer, will be immediately attended to. Apply, prepared to give full particulars, at Mr. SHEPPARD SCOTT'S Offices, 19, Commercial-road East, London.

TO TIMBER MERCHANTS and OTHERS. The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks, 30 and 10 ton Cranes, Sawpits for converting Timber, &c. Freights paid on delivery.—Apply to G. NOKES and Co. as above.

FURTHER REDUCTION of PRICES.— SAMUEL PUTNEY begs to inform the Trade, that he has REDUCED the PRICE of YELLOW DEALS 3*l.* per 120, and solicits their attention to the following low prices:—

Yellow Deals	From	£24 0 p. 120
Spruce ditto	"	18 0 "
Pine Planks, 12 ft. 3 in. by 11	"	21 0 "
Spanish Mahogany, in logs	"	7½d. per ft.
Honduras Mahogany, in logs	"	4½d. "
Yellow Battens	"	£14 0

Prepared flooring and cut stuff of every description at equally low prices. A list forwarded on receipt of postage-stamp.
Borough-road, Southwark; and Elm-street, Gray's-inn-lane.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark bridge Wharf, Bankside.

SEASONED FLOORING.—GEO. NOKES and Co. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING prepared by machinery, always on sale, at the following reduced prices, for cash:—

¾ inch White,	13s. 6d. per square.		¾ inch Yellow,	15s. per square.	
⅞ ditto	15s.	"	⅞ ditto	16s. 6d.	"
1 ditto	18s.	"	1 ditto	20s.	"

Laths, 36s. per load.
Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.
ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.
Address, E. SIMMS,
SAWING, PLANING, AND MOULDING MILLS,
King's road, Chelsea, and Wilton-road, Pimlico.

EDWARD SIMMS begs to inform builders and the trade, that he has now on hand at his manufactory [illegible] of its kind ever [illegible] a large assortment of PREPARED FLOORS and MATCH BOARDING, seasoned, and ready for use, from ⅝ inch to 1½ inch in thickness, in White or Yellow Deal, Oak or Pitch Pine. Also Dry Deals, in all thicknesses, Sawing Battens, Pantile Laths, Oak Cills, Plank, and Scantlings. Mouldings in clean [illegible], to any design. A pattern list forwarded on application.—Address, E. SIMMS, Flooring Manufacturer, Wilton-road, Pimlico, and Sawing, Planing, and Moulding Mills, King's road, Chelsea.

ACORN TIMBER WHARF.— At RICHARD NAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of [illegible] TIMBER, [illegible] reduced prices for cash. The Monthly Price Current forwarded on application.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Cills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

NOTICE.—IMPROVED WOOD MOULD-ING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments, tombs, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No. 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps. Please note the address—20, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

FOR SALE, TWENTY RODS of 4-feet 6 inch OAK PARK FENCE, and FOUR Cannon-pattern IRON GUARD-POSTS. Also, Two handsome Pier Glasses in Gilt Frames, about 40 feet superficial, with Statuary Marble Slabs to ditto. For price, apply to ROBERT TAYLOR, Builder, Tooting, Surrey.

TO BUILDERS.

TO BE SOLD, a bargain, about NINETY 1½ INCH DEALS, 6 feet 6 inches by 2 feet 6 inches, made of well-seasoned Yellow Deals, and suitable for inside or outside. To view, apply at ANDERSON'S Commercial Saw Mills, Goulston-street, Whitechapel.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 1s. per foot super. together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; FREDERICK BRABY, Whole-sale and Retail Agent, 8, Tottenham-court, New-road. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21 and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noblest buildings, and is the only tried material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition. A large Stock of newly designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs.—Capitals, Consoles, Tracery for Parapets, Balusters, String Courses, Friezes, Bas-relievi, Vases, Statues, Chimney-shafts, and all other Architectural Ornaments modelled, finished, and burnt, in the best manner, and warranted to stand heat and frost, either in Buff or Red coloured Terra-cotta.—A great variety and large stock may be seen at BLASHFIELD'S Warehouse and Show rooms, No. 1, Praed street, Paddington.

MONEY.—A Solicitor who will shortly have several thousand pounds to invest, is desirous of entering into some arrangement with builders or others who have building land to dispose of, whereby he can obtain security for his money at 5*l.* per cent. interest, and insure a fair amount of conveyancing business to his office. Any person desirous of treating address A. B. Post-office, Tunstall, Staffordshire.

MONEY to be advanced on MORTGAGE.— A private Gentleman has 150,000*l.* at his command, and is willing to invest the same either in one or more sums, upon approved securities. No proposal for less than 1,000*l.* will be entertained, nor will agents be treated with.—Apply to C. SHERWIN, Esq. 7, South-square, Gray's inn, London.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields, and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," No. 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, November 24, 1855.

The Builder.

Architect, Engineer, Operative & Artist.

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MONT BLANC will OPEN on MONDAY EVENING, DECEMBER 3rd.—Egyptian Hall, Piccadilly

PRIZE CATTLE SHOW of the SMITHFIELD CLUB. The Annual Exhibition of Prize Cattle, Seeds, Roots, Implements, &c. commences on TUESDAY Morning, and closes on FRIDAY Evening (12th, 13th, and 14th DECEMBER — Mr. WILLIAM KING, 4, STREET, and BAKER-STREET. Open from Daylight till Nine in the Evening. Admittance, One Shilling.

BOARD of TRADE DEPARTMENT of SCIENCE and ART — INSTRUCTION in ART. — TRAINING SCHOOL, MARLBOROUGH-HOUSE, PALL-MALL, LONDON.

Art-Superintendent—RICHARD REDGRAVE, Esq. R.A.
Head-Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them, to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufactures, and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects:—Free-hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still life, &c. the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Drawing and Engraving in Wood, and Lithography in Chalk and Colour The two Last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees £1 per session, or part of the session. For Evening Classes only, £1 per session.

The Class for Practical Geometry and Perspective, or that for Modelling and Casting, may be attended separately on payment of a fee of £1 per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. Mann. Fee £2 per session,—Advanced Class, £2, and £1; Elementary Class, £1; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall mall, London.

SURVEYOR WANTED.—The Local Board of Health and the Council of the Borough of Great Yarmouth are desirous of engaging a qualified person to perform the duties of SURVEYOR and INSPECTOR of NUISANCES to the Board of Health, and Surveyor to the Town Council; to be restricted from any other occupation or employment. Total salary, £150. Applications, stating age, with testimonials, are to be addressed to the Town Clerk, not later than the 20th DECEMBER next. Great Yarmouth, 27th November, 1855.

ROTHERHAM and KIMBERWORTH LOCAL BOARD of HEALTH WANTED by the above Board, a GENTLEMAN of experience as SURVEYOR. The candidate must have a knowledge of engineering, especially in connection with works of water-supply, drainage, sewerage, and surface cleansing; competent to conduct surveys, take levels and sections, prepare plans, drawings, and estimates for works of every description, and able to superintend the execution thereof, test the materials, and see to the fulfilment of the conditions of the contracts for executing such works. He also will be required to report upon all new buildings within the district, as to their drainage, levels, and other conveniences, and also upon cases of nuisance, and generally possess a thorough knowledge of the repair of highways, and of all the duties required by the Public Health Act, 1858. The whole time of the surveyor is to be devoted to the duties assigned to him, and he is to be restricted from undertaking any other employment. Candidates are to state their age, previous occupation, and the salary they would expect to receive, but are not required to attend personally until summoned; and no canvassing will be sanctioned—Applications, with testimonials of character and competency, addressed to "The Chairman," must be forwarded to me on or before the 14th day of DECEMBER next, at TEN o'clock a.m.—By order,

JNO BARRAS, Clerk.

Public Offices, Rotherham, November 22, 1855.

BOROUGH of HALIFAX.—To ENGINEERS and SURVEYORS.—WANTED, a SURVEYOR, fully competent to take charge of the borough waterworks, sewerage, and other public works of the borough, besides the usual business of the Corporation, including that of the Local Board of Health. He must be familiar with the practice of engineering in connection with the above-mentioned works, able to conduct surveys, prepare plans, drawings, and estimates of works of every description and will be required to devote the whole of his time to the duties thus above. Salary £250 per annum. Applications, with testimonials of qualification and competency, to be addressed to the General Purposes Committee, endorsed, "Application for Office of Surveyor," and to be forwarded, under cover, to the undersigned, on or before the 1st day of JANUARY, 1856.—By order,

EDMUND MINSON WAVELL, Town Clerk, and Clerk to the Halifax Local Board of Health.

Town Clerk's Office, Halifax, November 17th, 1855.

ARCHITECTURAL EXHIBITION. Suffolk-street Galleries, Pall-mall East.—All Articles for the Department of Materials and Manufactures intended to be delivered at the Architectural Exhibition next, DECEMBER next, and Drawings of Buildings of British Architects will report upon such of the Articles exhibited as may seem meritorious and deserving of notice, and the committee believe that this will confer a great benefit upon exhibitors, as it will tend to bring into notice and to recommend to adoption all those things which may deserve attention. All Articles for must be done by each Exhibitor. The committee do not charge for the space, but as an absolute profit and a guarantee is required. subscriptions will be gladly received towards the necessary expenses.

JAS. EDMESTON, Jun.
3, Fenwick-court, Old Broad-street,
JAS. FERGUSSON, F.R.A.S.
20, Lansham place,
} Hon Secs.

ARCHITECTURAL EXHIBITION, SUFFOLK-STREET GALLERIES PALL MALL EAST. The following Local Secretaries are prepared to furnish every information necessary in their respective districts:—

Birmingham	W. W. Bateman, esq.
Bristol	S. C. Fripp, esq.
Bury St. Edmunds	J. Ru Johnson, esq.
Chester	James Harrison, esq.
Cork	R. R. Brash, esq.
Coventry	James Murray, esq.
Derby	H. Shaw Peach, esq.
Durham, and Darlington	J. P. Pritchett, esq. of Darlington.
Exeter	Edward Ashworth, esq.
Edinburgh	W. Miller, esq. Hon. Sec. Arch. Inst. Scotland.
Glasgow	
Huddersfield	Charles Pritchett, esq.
Ipswich	Frederick Barnes, esq.
Lancaster	E. G. Paley, esq.
Leeds	Wm. Reid Clapson, esq.
Liverpool	J. Boult, esq. Hon. Sec. Liverpool Arch Soc.
Llandaff	J. P. Seddon, esq.
Manchester	
Newcastle	Charles Baily, esq.
Norwich	R. Kitton, esq.
Nottingham	T. C. Hine esq.
Oxford	T. Lipscombe Seckham, esq.
Plymouth	W. H. Reid, esq.
Reading	Charles Hennan, esq.
Stoke upon-Trent	Charles Lynam, esq.
Sunderland	Thomas Oliver, esq.
Taunton	C. E. Giles, esq. Hon. Sec. Somersetshire Arch. Soc.
Tunbridge Wells	N. E. Stevens, esq.
Wolverhampton	E. Banks, esq.
York	George F. Jones, esq.

JAMES EDMESTON, Jun. } Hon. Secs.
JAMES FERGUSSON, F.R.A.S. } o don.

ARCHITECTURAL EXHIBITION.—All Works for Exhibition must be delivered at the Galleries on the 1st or 2nd of December.

At Eight o'clock on the Tuesday Evenings, beginning with the 8th of January, LECTURES will be delivered in the Galleries, and the Committee are able to announce the following

Jan. 8. JAS. FERGUSSON, Esq. F.R.A.S. Hon. Sec. Architectural Exhibition, on the Ancient Architecture of Assyria.

15. GEORGE SCHARF, Jun, Esq on Early Christian Art, illustrated by numerous Massive Drawings.

22. The Rev. J. L. PETIT, Ecclesiologian on Architecture.

29. ROBT. WM. BILLINGS, Esq on the Ancient Architecture of Scotland.

Feb. 12. THOMAS ALLOM, Esq on the influence of Light and Shadow upon Architectural Compositions.

19. Will be set apart for publishing the awards of the jury, and for some remarks upon the articles exhibited in the department for materials, &c.

Season ticket holders will be free to the lectures, as well as to the Exhibition, and also students, who will have in addition the privilege of introducing a friend to the lectures. New subscribers should send their names in good time, in order that they may be printed in the first edition of the catalogues.

All information will be cheerfully given on application to

JAMES FERGUSSON, F.R.A.S
20, Lansham-place,
JAMES EDMESTON, Jun.
5, Crown-court, Old Broad street,
} Honorary Secretaries.

TO BUILDERS.

THE ABERYSTWYTH CLOCK-TOWER. Parties desirous of TENDERING for the WORKS in connection with the above, may inspect the plans and specification at the office of Mr. WELLS, Llangibby, Usk, Mon., or at the Office of the Architect, Mr. E. TOWLIN SMITHSON, Clear Building, Birmingham, on and after the 1st DECEMBER next. Tenders will be received by Mr. WELLS, Aberystwyth, up to the 18th DECEMBER.—The committee do not bind themselves to accept the lowest Tender.

CONTRACTS.

Royal Engineer Office, Portsmouth, 14th November, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer, Portsmouth, hereby gives notice, that sealed TENDERS will be received at the Office of the Director-General of Works, War Department, Pall mall, London, on or before WEDNESDAY, the 12th day of DECEMBER, 1855, from persons desirous of contracting for certain ADDITIONS and ALTERATIONS to Clarence Barracks, Portsmouth, the plans and specifications for which may be seen, and all necessary information obtained, together with printed forms of Tender, at this Office, between the hours of TEN and FOUR each day (Sundays excepted) until the 11th proximo. The person whose Tender may be accepted, will be required to produce two eligible sureties, who must join with him in and severally in a bond of £600 for the due performance of the contract by the 30th NOVEMBER, 1856. The War Department reserve the right of rejecting the whole or any of the Tenders. No notice will be taken of a Tender unless upon the printed form.

NOTICE to BUILDERS.—Royal Engineers' Office, Portsmouth, November 8, 1855. Notice is hereby given, that SEALED TENDERS will be received at the Engineer Office, Pall-mall, London, from such persons desirous to contract for executing the UNDERMENTIONED ERECTIONS at ROYAL HOSPITAL at Windsor Barracks, country of Hants. Plans and every information may be seen at the Royal Engineers' Office, Portsmouth, at all usual hours of Office business (excepting Saturdays, which excepted) until DECEMBER 11, 1855. Tenders to be delivered on or before that day. The War Department reserve to themselves the right to reject the whole or any of the TENDERS. No notice will be taken of any Tender unless made on the printed forms, to be obtained at the Royal Engineer Office, Portsmouth.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives Notice, that sealed Tenders will be received by the Director General of the Ordnance, War Department, Pall mall, London, on or before the 12th DECEMBER, 1855, for the LIKE TENDER for a NEW BLOCK of SOLDIERS' BARRACKS, for the Welsh Militia Barracks, St. James's park. The specification and plans for the above work may be seen and forms of Tender obtained at the Royal Engineer Office, 10, New Palace Yard, Westminster, between the hours of TEN and THREE o'clock, from the 14th to the 27th of DECEMBER. The War Department reserves to itself the right of rejecting the whole of the Tenders.

Royal Engineer's Office, London District, 21st December, 1855

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS. The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court-house, No. 1, Greek-street, Soho-square, on TUESDAY, the 11th day of DECEMBER next, at ONE o'clock precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT, for the LAYING DOWN, in CONSTRUCTING, and COMPLETING, the several Sewers, certain intended BRICK and PIPE SEWERS, 15,620 feet in length, or thereabouts, with other Works in connection therewith, in Northumberland-street, Strand, Downing-street, Great George-street, Little Chapel-street, Old Pye-street, Petty-France, Westminster, Gloucester-street West, Inner-mews, and other streets and places in the parish of Middlesex, and the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, can be inspected, and particulars obtained, at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 3rd day of DECEMBER next. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted, will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho-square.
Dated this 22nd day of November, 1855.

TO CONTRACTORS

LINCOLNSHIRE.—NEW TUNNEL, with SLUICE DOORS, SEA RACE, LAND DOORS & c. at BOSTON.—ALL persons willing to CONTRACT for Building a New Tunnel of Brick and Stonework, with Sluice Doors, New Channel, Sea Race, Land Doors, &c. in the parish of Skirbeck, in the county of Lincoln, may inspect the plans and specification at the Office, which may be seen, in readiness, on Mr. LEWIN, Engineer, Boston, or at my office in Spilsby, and desired to deliver their proposals in writing, sealed up, at a Court of Sewers to be held at the Sessions House, in Spilsby, on MONDAY, the 3rd, at 11 o'clock precisely, at which time such proposals will be opened and read, with such sureties, for the performance of the Contract.

By order
W. WALKER, Jun. Clerk of Sewers.

Clerk of Sewers' Office, Spilsby, Nov. 24, 1855.

Note.—Engineering and Surveying work may be treated for by applying to Mr. JOHN DAVEY, of Ingoldmells, Dis rict, who will point out the same.

WARE LOCAL BOARD of HEALTH.—Notice is hereby given, that the Weekly Meeting of the Board of Health will be held on TUESDAY, the 18th day of DECEMBER next, proceed to ELECT a person to execute the duties of SURVEYOR and INSPECTOR of NUISANCES, at a salary of 100l. a year. Candidates are required to send their names in writing, addressed to the Board at the Board Room, Ware, on or before the day of election, to state their qualifications, and to attend the Board at the time of election. The person appointed will be required to reside in Ware, and devote his whole time to the duties of his office. He must be fully competent to prepare plans and estimates relating to the improvement of the district, and to carry out all orders in relation to such plans, and he will be sworn in as a constable.—Further information may be obtained on application to the clerk.

By order
NATH. COBHAM, Clerk to the Board.

Ware, 21st November, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

MISTLEY LOCAL BOARD of HEALTH.
The Local Board of Health for the Parish of Mistley in the county of Essex desire to receive TENDERS for SUPPLYING and LAYING about 2,000 YARDS of 9-inch BRICK SEWERS, with proper Manholes thereto, according to the plans and specifications which may be seen at the Office of Mr. HENRY WOOLNOUGH, Surveyor, Ipswich, and at the Mistley Tenderness Hall Hotel, of which information may be obtained. Tenders are to be sent to the Office of Mr. WOOLNOUGH, on or before WEDNESDAY, the 5th DECEMBER next, and not bind themselves to accept the lowest or any Tender.

D. MUSTARD, Clerk to the Board.

Mistley, 17th November, 1855.

GLASGOW CORPORATION WATER-WORKS.—LOCK KATRINE AQUEDUCT.—CONTRACT FOURTEEN.—CONTRACT FOR THE ARROCHAR CONTRACT, including tunnel, 2,335 yards in length, and other works.

The plans, specifications, and schedule of prices, and bills of quantities relative to the above Contract, may be seen at the Engineer's Office, No. 7, Exchange-court, Glasgow, after 9th DECEMBER next, in the Town Hall, at the Cross of Glasgow; entry by No. 32, Trongate-street; and also at the Inn, at Arrochar, near the head of the Loch Long. The works lie in the parish of the same name, in the district of Lochgoilhead and Kilmorich, and Loch Long and Luss, in the county of Dumbarton, about 20 miles from Glasgow. Printed copies of the bills of quantities, and of the conditions of CONTRACT and INSTRUCTION to the WORKS, sealed and marked "Tender for Blairbuchlan Cottage," may be had at the Engineer's Office, Glasgow, on or before the 3rd DECEMBER next. By order of the Board,

JOHN BATEMAN, Secretary.

Glasgow, November 1, 1855.

TO BUILDERS.

THE ENFIELD LOCAL BOARD of HEALTH are prepared to receive TENDERS for the ERECTION of a Dead-House and Mortuary, Police-Station, and Engine-House, fronting Southbury Ground with a Road Part Way into Baker's-lane, with entrance carriage gates, &c., in accordance with the plans and specifications prepared by Mr. JAMES PILBROW, C.E., of Great George-street, Westminster, Architect, to be seen at the Office of Mr. JAMES PILBROW, C.E., of Great George-street, Westminster, Architect, to be seen at the Office of Mr. SAMUEL SWIFT, Master, Lower Edmonton, Tuesday and Thursday next, and Mr. JAMES JESSOPP, Clerk to the Local Board of Health, Enfield, on MONDAY, DECEMBER 10, at which Meeting the Board will proceed to the Election of the Architect and Surveyor.

Sealed TENDERS, addressed to the Chairman of the Board, to be sent to Mr. JAS. JESSOPP, on MONDAY, DECEMBER 10, at 12 o'clock at noon, at the Board Room, where the Plans may be seen, and Forms of Tender obtained.

The Board do not bind themselves to accept the lowest Tender.

JOHN SAWYER, Clerk.

Enfield, Nov. 23, 1855.

TO BUILDERS AND IRONFOUNDERS.

THE BURIAL BOARD for the PARISH of WALTHAM HOLY CROSS, Essex, are prepared to receive TENDERS for the ERECTION of ENGINE HOUSE and REPEATING DOUBLE DIAL, in connection with Ground with a Road Part Way into Baker's-lane, with carriage gates, &c., in accordance with the plans and specifications prepared by Mr. JAMES PILBROW, C.E., of Great George-street, Westminster, Architect, to be seen at the Office of Mr. SAMUEL SWIFT, Master, Lower Edmonton, Tuesday and Thursday next, and Mr. JAMES JESSOPP, Clerk to the Local Board of Health, Enfield, on MONDAY, DECEMBER 10, at which Meeting the Board will proceed to the Election of the Architect and Surveyor.

Sealed TENDERS, addressed to the Chairman of the Board, to be sent to Mr. JAS. JESSOPP, on MONDAY, DECEMBER 10, at 12 o'clock at noon, at the Board Room, where the Plans may be seen, and Forms of Tender obtained.

The Board do not bind themselves to accept the lowest Tender.

WILLIAM JENNIS, Clerk.

TO BUILDERS.

THE BURIAL BOARD for the Parish of TEWKESBURY hereby give notice of their intention of erecting a CHAPEL, PORTICOES, VESTRIES, MORTUARY CHAPELS, PLANTATIONS, and ENTRANCE GATES, at the new Burial Ground, on the Gloucester-road, in the said parish, according to plans, elevations, sections, and further information obtained, on and after MONDAY, the 10th of DECEMBER instant, at the Offices of the Architects, Messrs. MEDLEY & MUFFETT, Clapham-street, Gloucester. Sealed TENDERS, endorsed "Tender for Tewkesbury Cemetery," to be delivered free of expense, on or before MONDAY, the 31st of DECEMBER next, addressed to Mr. CHARLES WILLIAM MOORE, Solicitor, Tewkesbury. The Board do not bind themselves to accept the lowest or any Tender sent in.

CHARLES W. MOORE, } Clerks to the said
LANCELOT W. LEWIS, } Burial Board.

Tewkesbury, Dec. 1, 1855.

TO BUILDERS AND OTHERS.

THE BURIAL BOARD for the Parish of WEST HAM, in the county of Essex, require TENDERS for the GOOD PLAIN BRICK WALLS of the West Ham Cemetery, at the Romford-road, to build such parts of the said walls as may be required, and to build a dwarf wall of about 1,600 lineal yards in length, with a coping, to range, and to form a proper building line, and also to supply new lock gates and stiles, and to repair such parts of the outer wall of the church-yard, and to supply the stone for new steps, and for any other purposes that it may be wanted, and to do and perform all the Brickwork and other work; and also to level such of the paths and other parts of the said ground as may be required, and to find all the materials, and to do all such other works incidental to the execution of the same as may be ordered by Mr. F. KNIGHTLEY, Architect, Surveyor, and Clerk of Works, until the 15th of DECEMBER, between which day of DECEMBER and FOUR o'clock in the afternoon of the 31st day of DECEMBER the Board will proceed to themselves to accept the lowest or any other Tender; and the party whose Tender shall be accepted will receive notice thereof, and have to execute a contract or agreement for the due performance of all matters therein contained. Persons attending at the meeting may tender. Each Tender to be sealed and marked "Tender for Brick Walls," and to be delivered or sent by post, addressed to Mr. JOHN SIMSON, Clerk to the Burial Board, Bakers-house, Stratford, Essex, and to be delivered by TWELVE o'clock on MONDAY, the 10th of DECEMBER now next, after which hour no Tender will be received.

Date November, 1855.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; also for water, high-pressure cocks, &c. Manufacturers of Dr. ARNOTT'S improved ventilators.—HULETT and CO., 85, High Holborn.

CASTINGS for ENGINEERS, BUILDERS, and CONTRACTORS, supplied extensively by
J. DIXON & CO.
WINDSOR WORKS, CITY ROAD, LONDON.
NB The Trade should call for a Copy of their Circular.

WILLIAM DODDS and CO. MANUFACTURE and CONTRACT for RAILWAY CARRIAGE and GENERAL IRONWORK, WROUGHT & CAST IRON BRIDGES, IMPERIAL IRON WORKS, Wenlock-road, City-road, London. Offices—23, Leicester-street.

A. MOREWOOD and CO. (late Morewood and Rogers), Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham.

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets

PLAIN or CORRUGATED, and Curved Eaves Gutters.

Manufactured articles always kept in stock, such as pails, scoops bowls, coal-riddles, &c. of all sizes.

Also the Patent Galvanized Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hurdle Pails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING PLAIN, CORRUGATED, PAINTED, or GALVANIZED. Estimates and Drawings furnished on application. Experienced Workmen sent to all parts of the Country. 3, MANSION-HOUSE PLACE, and LIMEHOUSE, LONDON; BERKLEY-STREET, BIRMINGHAM.

TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON, For Roofs, Fronts, Gutters, Pipes, Tanks, &c.

To be obtained only at TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON, or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE PLACE, CITY, LONDON.

PATENT GALVANIZING and CORRUGATING IRONWORKS Improved Process.

WORKS—GLASS HOUSE YARD, opposite the Entrance to the London Docks.

GALVANIZED SHEET IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.
GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and is not equal to 1 lb. more than one-fourth or one-fifth as thick as Sheet Lead, in consequently very much cheaper than that material, and at the reduced price, costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.

13	"	"	20	"
15	"	"	24	"
17	"	"	28	"

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed.

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR. IRON BUILDING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM.

LONDON OFFICE—1, RICHES-COURT, LIME STREET.

SAMUEL HEMMING'S PATENT much approved PORTABLE BUILDING and ROOFING MANUFACTORY, REDWOOD-lane, BRISTOL, to BOW, near London, and close to the Gas Railway Station. A large variety of buildings, iron churches, chapels, shops, lodges, lodges, manufactories, counting-houses, farm buildings, and large sheds of all sizes. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

PATENT CORRUGATED IRON.
JOHN WALKER,
MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.
JOHN WALKER,
GALVANIZED IRON MERCHANT, &c.—The trade supplied
Corrugating by steam power capable of 10 or 12 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.
JOHN WALKER,
IRON-FOUNDER AND ENGINEER.
Orders to any extent can be executed at his Works, Mill-wall, Poplar.—Apply at the Works.

BUILDER AND CONTRACTOR.
JOHN WALKER,
Having his own Steam-mills is enabled to CONTRACT
BUILDERS' WORK,
At low prices, consistent with good work.
Apply at the Offices, Arthur-street West, London-bridge.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES. Gateshead-on-Tyne.
139, Strand, London.
67, Hyde-park-street, Glasgow.
27, Dale-street, Manchester.

P. O'CONNOR'S PATENT LEVER HINGE. The most perfect and simple INVENTION for CLOSING SWING DOORS and GATES yet produced. The principle upon which a second lever, it may be easily adapted to any one door, is liable to great repair as spring hinges generally are. May be had from all Ironmongers and Factors; J. CARTLAND and SON, Manufacturers, Birmingham; or from the Patentee, P. O'CONNOR, Ironmonger, Wavertree, Liverpool.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 1	2	3	4	5	6
4s.	5s.	6s. 3d.	7s. 6d.	per gross.	

At JOHN YOUNG'S, Birmingham, and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.

Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 8d. 10d. 7d. 8d. and 9d per inch.

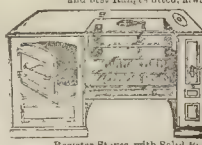
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 2l. 8s.; 4 ft., 3l. 18s.
4-feet Cottage Ranges, with ovens and back boilers, 85s. each.
3-feet self-acting ditto, ditto, 9l. each
Air Bricks, 1s. per doz
Best Town Glue, 5½. Ditto, Scotch, 6½ per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s	6s.	7s 6d.	8s. 6d.	11s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-founder trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler,

30	32	34	36-inch.
28s.	30s.	32s	34s

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars

34	36	38	40-inch.
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Sound Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Check Register, with strong Bars and Trivits, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2	3	3 inch.
	11d.	1s. 2d.	1s. 6d. per yard.
Cast Gutters—4 inch, 9d. per yard.			

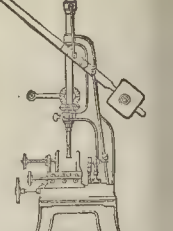
	4	4½ inch.
O G Gutters	1s. 1d.	1s. 3d. per yard.

Patent Line	2	3	4	5	6
	4d.	5d.	7d.	9d.	1s. per knot.

6-inch Rd. Ward Mortice, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each
An extensive stock of bar, rod, hoop, and sheet iron
Brick Moulds kept in stock. Any size made to order.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT Wood and BORING WOOD or IRON.



House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', JOHN JAMES, and Co.'s, Wharf, Builders and Cabinet Makers, Ironmonger, Bethlehem-st. 26, Watling-street, City, and see in action this very simple, powerful, and cheap 4-tool machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

NAILS and IRONMONGERY, from BIRMINGHAM direct. Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the LOWEST BIRMINGHAM PRICES a complete LIST of which will be forwarded upon application.
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Nail Manufacturer and General Factor,
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IRONMONGERY.
PFEIL AND STEDALL.
THE LARGEST STOCK AT
THE LOWEST PRICE,
5 AND 6, BROAD-STREET, BLOOMSBURY.

COMPACT SAW-MILL.—TO BE DISPOSED OF the MACHINERY and POSSESSION of a compact SAW-MILL, in Southwark. The machinery is quite new, and includes one deal frame circular saw-bench, 8-horse power, direct acting engine and boiler, shafting, driving gear, &c. The premises are held at 45l. per annum. The machinery will be sold in one lot, for removal, if desired.—For further particulars, apply to Messrs. FULLER and HORSEY, 5, Bitter-street, City.

TO MACHINISTS.
WANTED, a thoroughly good-conditioned, second hand VERTICAL DEAL SAW FRAME, to cut 18-inch deals, with saws, &c. complete. Address, E. JENNINGS, Surveyor, Windsor, with lowest cash price, name of maker, and other particulars.

IMPORTANT to BUILDERS, SAW-MILL PROPRIETORS, CONTRACTORS, TIMBER MERCHANTS, and OTHERS.—TO BE SOLD by PRIVATE CONTRACT, a very powerful DOUBLE DEAL FRAME, and TWO excellent CIRCULAR BENCHES, with the necessary saws and tackle for working the same; or to a respectable party wishing to open a timber and deal trade, the premises would be let, with the above machinery, now in first-rate working condition. This is an opportunity that rarely occurs having a siding on the railway, that goods come in direct from the docks or the river, and to a business man cannot fail to answer. Immediate application must be made, as the present proprietors are disposing of this branch in consequence of the rapid increase of their machine trade.—Apply at the Works, St. James's-road, Croydon; R. MATHERS and CO., Engineers, Millwrights, Ironfounders, &c. and Sole Makers of Ashby's Patent Flour Dressing and Wheat Cleaning Machine.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

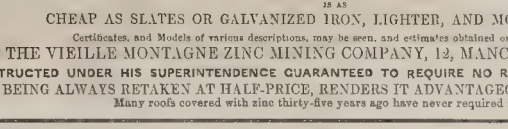
THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTION FOR STABLE REQUISITES.

COTTAM and HALLEN, of Winsley-street,

Have made important additions to their original Invention of PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, the main features of which are shown in the Engraving.



A represents the Patent Halter-guide and Collar-rein, the ball of which is taken in the back of the manger-works with freedom and ease up or down the guide bar, and is noiseless in its operation, as also a sure preventative against the most restive horse being cast in the stall.

B. The Patent Portable Seed-box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAMS MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers; Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

Estimates and Catalogue on application.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

SKAIFE'S GALVANIZING WORKS,

COMMERCIAL-ROAD, LIMEHOUSE, LONDON.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.

Patent Galvanized Iron supplied in every form. Sheets plain and corrugated. Roofs fixed complete.

J. SKAIFE is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbe Zinc, and Tiles.

AN ALLOWANCE TO THE TRADE.

ESTABLISHED 1817.

WILLIAM HARMER'S

SMITH'S WORK, STOVE AND RANGE MANUFACTORY, AND IRONMONGERY, METAL, AND ZINC WAREHOUSE,

19, HORSEFERRY-ROAD, AND 1, NEW PETER-STREET, WESTMINSTER.

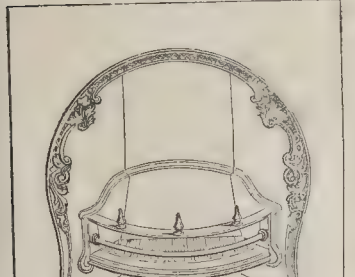
Contractors, Builders, &c supplied with general Ironmongery at prices equal to all competition.

Prices in London subject to future alterations.

Elliptic Stoves, with inside Backs, from 2½ per inch. Bright Register Stoves, from 7l per inch.

Parlour and Drawing-room ditto, ditto 4l per inch. Cottage Ranges, with Oven or Boiler, 22s. each.

Self-acting ditto, with ditto, from 25s. Self-acting Oven and Boiler Ranges, with Wrought Fittings, &c complete, from 45s. each.



Best Cut Clasp and Rose Nails

1½ in.	1¾ in	2 in.	2½ in.	3 to 6 inch.	
16s 6d	16s. 6d	16s 6d.	15s	13s 6d	per cwt.

Best Shoe Cut Floor Brads ..... per cwt.
" Hoop ditto ..... 18s. 6d. "
" Cut Lath Nails ..... 16s "
" Zinc Slate ditto ..... 40s. "
" Carpet ditto ..... 1s 6d per lb.
Very superior Glue ..... 47s. per cwt.
Best ditto, suitable for any purpose 53s. "

RAIN WATER CASTINGS, per yard.

Sizes—	3 in	2½ in	3 in	4 in.	4½ in.	5 in.
Rain Pipes	1d	1s 2d.	1s. 4d.	1s 8d	2s.	
Half-round Gutters	8d		1s 1.	9d.	1s.	1s. 2d
O G Gutters			1s.	1s. 1d	1s. 2d	1s. 5d
Ditto, with plain close cast on			1s 2d	1s. 3d	1s. 4d	1s 6d
Ditto, ditto, with Lion Bite			1s. 3d.	1s. 5d.	1s. 7d.	
Ditto, ditto, deep pattern, 8 inches.						

Heads, Shoes, and all unusual Connections to Pipes and Gutters at similar rates.

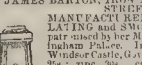
Sash Weights ..... 7s 6d per cwt.
Furnace Pans ..... 19s "
Galvanized ditto ..... 26s "
Washing Coppers ..... 1s 6d per lb.
5 inch Air Bricks ..... 8s 6d. per doz.

A large Stock of Fluctic and Register Stoves, and Kitchen Ranges at the lowest wholesale prices.

TERMS NETT CASH

Estimates given for any description of Wrought and Cast Iron Work

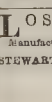
BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.



THIS IS THE ORIGINAL PATENT

Combining important improvements in stable fittings, hay-box, manger, and water-trough, as one fixture, including a method surpassing all others for conveying the straps and halter weights to the back of the fitting, to prevent the horse being cast in the stall. Stable Fittings of every description, plain, enamelled, or galvanized. Also the newly invented Loose Box Fittings, Surface Gutters with moveable cover plates, Stable Posts, Ramps, Sills, and all kinds of Stable Furniture in Stock.

JAMES BARTON, IRON FOUNDER, &c. 37, OXFORD-STREET, London.



MANUFACTURER OF KITE'S PATENT VENTILATING and SMOKE CURING CHIMNEY CAPS, patented by Mr. Kite, the ingenious Inspector of Works at Buckingham Palace. In use also on St. James's Palace, Windsor Castle, Government Offices, &c Wrought iron, 25s.; zinc, 20s.; cast iron, 35s. each; the latter as durable as the building itself.

Drawings and Price lists forwarded on receipt of two postage stamps.

Address, BARTON'S Iron Works, 370, Oxford street, London.

LOSH, WILSON, and BELL,

NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Sounds, and

STEWART'S PATENT CAST IRON GAS and WATER PIPES.

Office, No. 7, Sise-lane, London.

PHŒNIX FOUNDRY, Derby, Sept. 1st, 1855.

JAMES HAYWOOD, Jun. begs to inform

his friends and the public generally, that he has PURCHASED the whole of the STOCK of GOODS, as well as the large and valuable collection of WOOD and IRON PATTERNS belonging to the above Foundry, and has made arrangements to carry on the business on his own account from the 1st of September last. He will continue to conduct the same in all its branches as heretofore. The large and important contracts which have been executed at this foundry render it almost unnecessary for him to state that he possesses every facility for executing orders either for castings or wrought-iron work of any description whatever, upon the best terms and in the shortest possible time. He respectfully solicits a continuance of that patronage which has hitherto been so liberally bestowed upon the Phœnix Foundry.

JAMES HAYWOOD, Jun. PHŒNIX

FOUNDRY and ENGINEERING WORKS, Derby, Manufacturer of every description of CASTINGS, from the smallest Ornamental Work to Castings weighing twenty tons each, railway bridges, iron roofs for railway stations and other purposes, railway chairs, machinery and sugar-mill castings, conservatories, vineries, hot-houses and stoves in great variety, cast-iron ornamental garden vases and chairs, pipes for steam and water, and every description of work required by engineers, architects, builders, ironmongers, &c Heating by hot water or steam.

BRAMAH LOCKS, FIREPROOF IRON

SAFES, WATER-CLOSETS, and PUMPS. BRAMAH and CO have the pleasure to state that an first class Silver Medal has been awarded to them by the jurors of the Paris Universal Exhibition. Manufactory and Warerooms, 124, Piccadilly, London.—Every article made by BRAMAH and CO. bears their address—124, Piccadilly.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. BROBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Iron-mongery, Brass Foundry, Nails wrought and cut), Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, 4s; and the new registered Venetian Ventilator, so much admired, &c 6s 6d. each.

J. H. BROBBYER (late STURCH and BROBBYER), established nearly 200 years, for the supply of Goods from the best Manufactories, at the lowest prices.

11, Stanhope-street, Clare-market, London.

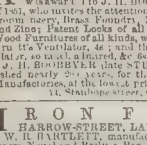
IRON FOUNDRY,

HARROW-STREET, LANT-STREET, SOUTHWARK.

W. T. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Copings, Hot Plates, Bank Plates, Area Gratings, Sash Weights, Pit and other Wheels, Pinions, Pinions, Engine and Lathe Gearings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

IMPERIAL IRON FOUNDRY, and

ECONOMIC RANGE MANUFACTORY.



Three ft wide	£6 15
Three ft. three in.....	7 0
Three ft. six in.	7 15
Three ft. nine in.....	9 0
Four ft.	10 10
Four ft. six in.....	12 12
Five ft.....	14 14

Castings, 4s per foot.
Fixing, 5s per foot.

This valuable KITCHEN RANGE, the Manufacturer has much gratification in stating is since several years, and given the utmost satisfaction. It may be used either with the fire open or closed, thereby avoiding the objection so natural by felt and so having the fire at all times shut up, which is well known to generate a close unwholesome vapour.

The Prize Medal and Honourable Mention was awarded to it as Range at the Great Exhibition in 1851.

To be seen in operation at the Manufacturer's,

J. SHERWIN, 61, TABERNACLE WALK, FINSBURY.

Castings of every description in Loam or Sand.

FOUNDRY AND IRON WORKS,

83, DRURY-LANE, and CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Ladles, all Steam engines, Hoppe and Hob-plate Metal. An improved Soot Door, and best of internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book-safes, and Strong Rooms, Pumps and Railings, every description of Ironwork to specification, and Hurdle work executed with every attention to quality and despatch.

GLOVER'S IRONWORKS,

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CANNON IRON FOUNDRY, 80, Goswell-

street, St. Luke's.—JONES and BLAXTON, having made great additions to their STOCK of PATTERNS, beg to inform the Trade that they can now supply them with Plain and Ornamental Iron Columns, Girders, Railings, Gates, Iron Coping, Balconies, Window Guards, Verandahs, Ornamental Staircase Panels, Iron Staircases, Tomb Enclosures, Trellis Panelling, Lamp and other Brackets, Cantilevers, Newel Bars, Water Closet Work, Area Gratings, Pig and other Wheels, Wrought Pinions.

BAKERS' OVEN WORK, Forge Backs and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c always in stock.

TO STONEMASONS, BUILDERS, RAILROAD CONTRACTORS, AND OTHERS.

RICH. RICHARDS and SON, 95, New

Park-street, Southwark, London, Manufacturers of TRAVELLING CRANES and PENNIES, to span from 20 to 60 feet, on the latest and best principle, warranted to lift from 5 to 30 tons, or upwards. Crab A Cranes, double and single purchase; stone saws, hammers, and of the best quality; suitable for Portland stone or marbles, made to any length; also saws for Grind and Ball stone. Blocks of all sizes, iron-bound or one, two and three sheaves, or single. Chain, suitable for the blocks, for hoisting any weight, made of the best iron, and tested by patent machinery. Lifting or screw-jacks of all kinds, double and single purchase traversing cranes for railways, and crane and hoisting-tackle of every description to order or by estimate.

TO BELL-HANGERS, GAS-FITTERS,

IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for Gas-fitting, in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Selected Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

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COLLINGE'S PATENT HINGES.—

Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridgewater-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and every description of gate hinge, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent saw-trees, sugar-mills, &c

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MACHINERY.—SAMUEL WORSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kingsland, Close, and added to their very extensive and priceless Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

FENDERS, STOVES, and FIRE-IRONS.

Buyers of the above are requested, before finally deciding, to visit WILLIAM S. BURTON'S SHOW-ROOMS, which contain such an assortment of FENDERS, STOVES, RANGES, FIRE IRONS and GENERAL IRONMONGERY, as cannot be approached elsewhere, either for variety, novelty, beauty of design, or consistence of workmanship. Bright stoves, with bronzed ornaments and two sets of bars, 2l 14s. to 5l 15s.; ditto with ormolu ornaments and two sets of bars 3l 10s. to 11l 15s.; bronzed fenders, complete, with standards, from 7s. to 3l; steel fenders, from 2l 12s. to 6l; ditto, with rich ormolu ornaments, from 2l 12s. to 7l 7s.; fire-irons, from 1s. 9d. the set to 4l 4s.; sylvester and all other patent stoves, with radiating hearth plates. All which he is enabled to sell at these very reduced charges.

Firstly—From the frequency and extent of his purchases; and Secondly—From these purchases being made exclusively for cash.

GAS CHANDELIERS and BRACKETS.

The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from the various manufacturers, in Metal and Glass, all that is new and choice in Bracket-, Pendant-, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some peculiar designs made for him; these are ON SHOW over his SIXTEEN LARGE ROOMS, and present, for novelty, variety, and purity of taste an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his ironmongery establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. two-light to 16l 16s.

THE BEST SHOW of IRON BEDSTEADS

in the KINGDOM is WILLIAM S. BURTON'S. He has FOUR LARGE ROOMS devoted to the EXCLUSIVE SHOW of Iron and Brass Bedsteads and Children's Cots, with appropriate Bedding and Mattresses. Common Iron Bedsteads, from 16s.; Portable Folding Bedsteads, from 12s. 6d.; Patent Iron Bedsteads, fitted with dovetail joints and patent sacking, from 17s. 6d.; and Cots, from 30s. each. Handsome ornamental Iron and Brass Bedsteads, in great variety, from 2l. 7s. 6d. to 25l 18s.

The alterations and additions to these very extensive premises (already by far the largest in Europe), which have occupied the whole year, are now nearly completed, they are of such a character that the entire of EIGHT HOUSES is now devoted to the display of the most magnificent Stock of GENERAL HOUSE-IRONMONGERY (including Cutlery, Nickel Silver, Plated and Japanned Wares, Iron and Brass Bedsteads and Bedding), arranged in Sixteen Large Show-rooms, so as to afford to parties furnishing facilities in the selection of goods that cannot be hoped for elsewhere.

Catalogues, with engravings, sent (per post) free

39, OXFORD-STREET; 1, 1a, 2, and 3, NEWMAN-STREET; and 4, 5, and 6, PERRY'S-PLACE. Established A.D. 1820.

ROYAL POLYTECHNIC GAS FIRE.

BACHHOFFNER and DEFRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accident-from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEFRIES'S office, 145, Regent-street, London.

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JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 9s. 6d. This advancement in heating by hot water is unprecedented.

BUILDINGS HEATED by HOT WATER.

G. B. COOPER, IRONWORKS, 124, DRURY-LANE. Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

GAS COOKING-STOVES, for large or small establishments.—DEANE, DRAY, and CO., Arthur-street East, London-bridge.

Testimonial respecting the Crystal Palace Kitchen, as fitted by DEANE, DRAY, and CO.

8, Ridgmount place, Hampstead, March 30th, 1855.

Gentlemen,—I have great pleasure in bearing testimony to the capabilities of your extended new Gas Cooking Apparatus, being the largest and most perfect yet in use, suitable for hotels, mansions, club houses, private houses, and the army; having cooked in one day 1,000 lbs. and many cwts. of ham, beef, veal, mutton, lamb, tongue, &c.; roasting in one department a baron of beef weighing 330 lbs. in nine hours, fifty-three minutes, presented by J. Baxter, esq., to the Directors of the Crystal Palace, for their banquet given to the foreign ministers. They have been in full operation for ten months, and are now in as perfect order as when first finished. They have not cost one shilling for repairs.

I am, Gentlemen, yours respectfully,

EDWARD HORNE.

Messrs. Deane, Dray and Co.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their ECONOMIC COOKING-STOVE to the notice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co.'s establishment; where may also be obtained engravings with prices, or forwarded free by post. DEANE, DRAY, and CO., opening to the Monument, London-bridge. Established A.D. 1700.

CUNDY'S PATENT PURE WARM-AIR STOVES, the only Pedestal Stove which gained a Prize Medal (Class 4 G), at the Great Exhibition in 1851, especially adapted for warming, with great economy, Churches, Chapels, Schools, Entrance Halls, Libraries, and Ware-rooms. CUTLER and SONS, Sole Licensees and Manufacturers, 16, Great Queen-street, Long-acre, London.

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ANDREW CLARK and COMPANY, PLUMBERS, THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER,

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non-conducting and vaporizing) with all the improvements, under their Quadruple patents of 1839-51-54 and 1855, including their Gunpowder Proof Solid Lock and Door (without which no safe is secure).

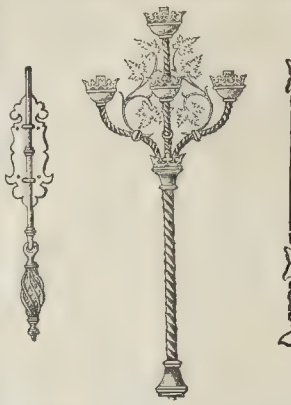
THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX and SAFE WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47a, Moorgate-street, City. Circulars free by post.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.



CHANCEL AND PEW FOR GAS OR CANDLES.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s. 6d., to be had of Hulett and Co., 53, Holborn.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than has heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.

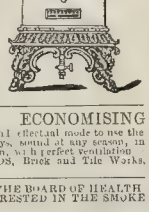
TUNED BY MACHINERY.

Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and cast on a new system, which gives a superior tone and facility for ringing.

NO CHIMNEY WANTED for RICKETS'S PATENT CALORIFERE GAS STOVES in CHURCHES, HALLS, or SHOPS;

And for Conservatories, or any close apartment, a pipe can be attached to carry away the burnt air.



RICKETS'S CHEAP GAS STOVE, Price, £1. 15s.

Made of Sheet Iron, suitable for Heating small Countinghouses, Bedrooms, Cellars, &c. &c.

MANUFACTORY, AGAR-STREET, STRAND, LONDON.

Liberal Discount to Builders.

HANDS'S PATENT ECONOMISING KILN is the only simple and effectual mode to use the heat, for drying most moulded goods, sound at any season, in time of turning and cooling the kiln, with perfect ventilation. Address to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom.

TO THE COMMISSIONERS OF THE BOARD OF HEALTH AND TO ALL PERSONS INTERESTED IN THE SMOKE QUESTION.

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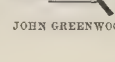

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The Rev. James Burrow, of Ashford Parsonage, Bad ewell has appointed WILLIAM S. BURTON, of 39, Oxford-street, sole Metropolitan Agent for the sale of his SMOKE PREVENTERS. They have been used under many varied circumstances with great and uniform success. They are very simple, and not liable to get out of order. Prices 5s. 12s. 6d. 20s. and 40s. each. The alterations and additions to WILLIAM S. BURTON'S very extensive premises (already by far the largest in Europe, which have occupied the whole year, are now nearly completed; they are of such a character that the entire of EIGHT HOUSES is now devoted to the display of the most magnificent Stock of GENERAL HOUSE-IRONMONGERY (including cutlery, nickel silver, plated and japanned wares, iron and brass bedsteads, and bedding), arranged in sixteen large show rooms, so as to afford to parties furnishing facilities in the selection of goods that cannot be hoped for elsewhere. Catalogues, with engravings, sent (per post) free.—39, Oxford-street; 1, 1a, 2, and 3, Newman-street; and 4, 5, and 6, Perry's-place. Established A.D. 1820.

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Will withstand the action of the Weather and Sea Breezes, and are QUITE IMPERISHABLE.

Prices not much higher than Cement.

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Erected in London upwards of 10 years since, are now as sharp and perfect as when first manufactured

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ROBERT TUCKER, Secretary.

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Examples of the Bonus upon Policies declared to the 31st December, 1854:—

Date of Policy...	18th March, 1845	24th April, 1848	7th Nov. 1851
Age at Entry ...	30	40	34
Annual Premium	£35 7 6	£35 16 8	£49 8 4
Sum Assured	1,000 0 0	1,000 0 0	1,000 0 0
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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

For further particulars, apply to

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Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

*** *Hartley and Co.'s Glass Tariff Newspaper will be forwarded gratis, on application.*

January 1, 1855.

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PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c

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LEGENDRE, TURPIN, AND CLARK'S

Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality; Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at

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CROGGON'S PATENT ASPHALTE ROOFING FELT, has been extensively used and pronounced efficient, and particularly applicable for warm climates.

1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not liable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor

INDOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths Price ONE PENNY per Square Foot.

CROGGON and CO'S PATENT FELTED SHEATHING, for Covering Ships' Bottoms, &c., and

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Samples, testimonials, and full instructions on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

SUPERIOR BRITISH PLATE-GLASS AT VERY LOW RATES.

THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take this opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

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ROUGH PLATE-GLASS from ¼ to ¾ in. thick, suitable for the windows and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly-finished POLISHED PLATE-GLASS, for shop-fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

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WHOLESALE BRITISH and FOREIGN WINDOW GLASS WAREHOUSE, established upwards of Sixty Years.—ROBERT METTAM begs to call the attention of builders and the trade in general to his prices of British and Patent Plate, Rough Plate, Crown, Sheet, and Ornamental Window Glass of every description. Good 15-oz. Sheet Glass, in crates, from 3d. per foot; C C C Crown, 18 tables, 30s. per crate; Foreign Sheet Glass, in cases of 200 feet each, large sizes, 30s. 32s. 34s. and 40s. per case; Ground ditto, 3½d. per foot. Extra size sheet glass of all qualities for shop-fronts, &c.—Estimates and price-lists forwarded, post-free, on application at the Warehouse, 30, Prince's-street, Leicester-square, London.

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Catalogues free, on application to the Managers, as above.

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These patents' system are now adopted by Companies owning several thousand miles of Railway, are approved of by most of the eminent Railway Engineers in this country and abroad, and the system of Fish jointing, in particular, has received the unqualified approval of H. M. Commissioners of the Board of Trade and their Inspecting Officers.

The Permanent Way Company are prepared to grant licenses on liberal terms to Railway Companies and Manufacturers, for the use of all or any of the Patented Inventions, which have for their object the safety and comfort of the travelling public, and economy in construction of the Road and Rolling Stock.

That the objects are accomplished, the following extracts will confirm:

"There can be no doubt that the practice of Fishing the Rails, which is becoming very general, is a great element of safety; the principle cannot be too much encouraged."—Extract from Report of Colonel Wynne, R.E. Chief Inspector of Railways to H. M.'s Commissioners of the Board of Trade, dated April 25th, 1854.

"My Lords direct me to refer you, that they trust that the remarks of the Inspecting Officer, as to the desirability of the Fished Joint be made to a greater extent upon the Railway, will receive the attentive consideration of the Directors."—Extract from letter of Captain Galton, R.E., Secretary to the Railway Department of the Board of Trade, in reference to the foregoing Report.

"Dear Sir,—In reply to your favour of the 1st instant, I beg to say that I experience no difficulty whatever in keeping the nuts of the bolts tight."—Extract from a letter by Mr. H. Woodhouse, Engineer, of the London and North Western Railway.

"I would, however, beg to state that, in point of safety, the first and most essential element of railway working the Fish Joint, on your system, is, in my opinion, indispensible. Extract from letter of Mr. J. E. McConnell, Locomotive Engineer of the London and North-Western Railway.

"On a district of about thirty miles, where the greatest length has been Fished, the saving in the item of maintenance amounts fully to thirty per cent."—Extract from Mr. R. Jacomb Hood, Engineer to the London, Brighton, and South-Coast Railway.

Among others, the Company call attention to the following Patents recently placed under its management:—Mr. William Pole's important Improvement in Fish Joints, and Mr. Paul Barnett's Improvements in Iron Railway Chairs.

Licenses, and every information may be obtained upon application to CHARLES MAY, F.R.S. Managing Director of the Company, 26, Great George-street, Westminster; or to WILLIAM HOWDEN, Secretary.

DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter. FROM RAYMOND DARVELL, Esq., VENTNOR, ISLE of WIGHT. Second Testimonial.—"March 18th, 1852. In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state with much satisfaction it answers perfectly. Many Builders, and other persons have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."

N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON

AMERICAN VULCANISED INDIA-RUBBER, for Engineering, Mechanical, and Manufacturing Purposes; Steam Packing, Valves, Discs, and Joints, Washers for Hot and Cold Water Joints; Machine Belting or Driving Bands; Steam, Fire-engine, Brewers', Conducting, and Garden Hose; Drab and Gas Tubing, Printing Blankets for Steam and Hand Presses. Sole Manufacturers of India-Rubber Combs.

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HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hose-pipe Couplings. Vulcanized Rubber Door springs, and Solid Round Rubber Cord of all sizes of any length. Bullard Cushions and Rubber Strips cut to any pattern for bagatelle tables.

Driving-bands of superior make, and improved Vulcanized Rubber Suction-pipes for ditto

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Airbeds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

TO ENGINEERS, MACHINE MAKERS, AND OTHERS.

CHARLES MACINTOSH and CO. Patentees and Manufacturers of the VULCANIZED INDIA-RUBBER in all degrees of elasticity, recommend this material as capable of sustaining the action of hot or cold water, gas, steam, acids and grease. It is used extensively for valves in marine and land engines, railway buffers and springs, washers for pipe-joints, hose and tubing, mats for gas-holders, and pumps, detail cisterns, &c. &c. Articles, moulded or otherwise, made to any size or figure.—Address, 3, Cannon-street West, London; and Cambridge-street, Manchester.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer and is about 50 per cent. cheaper than Gutta Percha Piping. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter, and price per yard.

¼	½	¾	1	1¼	1½	2	2½	3	3½	4 in.
9d.	11d.	1s.	1s.	1s.	1s.	1s.	1s.	2s.	2s.	2s.

Super-extra stout quality.

2	2½	3	3½ inches.
2s.	2s.	2s.	3s. per yard.

No. 3. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

1	1½	2	2½	3 inches.
9d.	10d.	11d.	1s.	1s. 3d.

The hose is Burnetized at an extra charge of 3d. per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

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Bee the attention of Architects, Builders, Decorators, and others, to their large assortment of ENRICHMENTS in every style, executed in the highest class of art. Enrichments for ceilings of every period, elaborate or simple, Gothic, Elizabethan, or Queen Anne or flat, Louis XIV in much variety, and to any degree of cost. Italian, and Greek, Renaissance, and many moulded characters, executed for the first houses, and from designs of architects of the highest eminence; wall dressings, rich panels of every period, rich Elizabethan and Gothic Dados, in many designs. Door-cases, mouldings, and dressings.

A large assortment of Gothic Bosses to many varied intersections of all sizes, tracery and panel headings for church works, organ dressings, of most periods, and faithfully executed to the traits of each. The general decorations of Drawing and Dining Rooms, Libraries, &c. of very considerable extent, as furniture glass frames, tables, window cornices, screens, candelabra, and the whole range of face impaniments to reception rooms of the first class, as well as more subdued

The facilities and repeated enlargement of means enable GEORGE JACKSON and SONS to announce the execution of works of the above descriptions in these advantageous materials at a cost considerably below any known method, while for quality, relief, and finish, they flatter themselves they stand unrivalled.

DESIGNS MADE FOR ANY WORKS.

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Beg respectfully to inform Architects, Builders, and Decorators, that they are prepared to execute in the above materials, all internal or external decorations, at exceedingly moderate prices. They solicit attention to their varied ENRICHMENTS of the highest class, and in every style of ornament, as suitable for the above purposes, comprising Ceiling, Panel, and Pilaster Decorations; enriched Mouldings, Bosses, Ornamental Cornices, Trusses, Caps, and every other requisite for the Decoration (either simple or elaborate) of all classes of Public or Private Buildings; also to their Stock of Glass Frames, Vases and Console Tables, Candelabra, Wind w Cornices, Candelabra and other Articles of DECORATIVE FURNITURE for GILDING, of which they have an extensive assortment executed in the highest style. They also invite attention to their Designs for DECORATIVE SHOW-CASES, and other ornamental Shop Fittings.

CEILING FLOWERS in great variety, ready for immediate use, always on hand, at prices lower than any hitherto offered.

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Vol. XIII.—No. 669.

IS the Diploma question occupies the architectural mind very considerably at this moment, and is to be further discussed at the Royal Institute of British Architects on Monday evening next, the 3rd instant, for which purpose the evening is specially set apart, we have displaced some observations on *Birmingham* and the important speeches recently delivered there by Prince Albert and Lord Ashburton, in order to insert the abstract of M. Lance's Essay "On a Diploma in Architecture," which was read at the Institute by Mr. J. W. Papworth, with remarks and suggestions,* on the 19th ult.

Legislation on public instruction has undergone, in the last few years, very serious modifications, which seem to have attracted general attention to the question of education as a whole, and also to the questions of organisation which relate to it *in France and in England*. This movement is especially observable in relation to the profession of the architect *in both countries*. Important reforms in the laws, or in the customs which regulate that profession, had been previously brought forward, *and in England had been partly adopted*. Their object *in France* was to give to the public more positive guarantees of the skill and experience of the artists whose competition that public demands; *and in England, as* well as in France, to give to the body of architects more unity, more strength, more cohesion, and a more defined, and consequently, more respectable, position; so as to ameliorate their worldly condition as managers of a very considerable branch of industry, and thereby to open to architecture, as an art and a science, a more open path in which it might proceed with more consistency, and with a firmer and more assured stride. Such, we say, was the object intended: this is not the time to discuss if the means then sought were those to lead with the greatest certainty to it *in France: it cannot be denied that the establishment of this Institute has done much in this country towards attaining it*.

The notions which were at one time subjected *in France* to searching discussions, and whose realization was pursued in vain with unusual perseverance, though never completely abandoned, appeared for a time to slumber, so much were they laid aside for others causing more general anxiety. At present, if we are not mistaken, these ideas are aroused, and the minds of our colleagues return, with marked predilection, to the study of these difficult questions. It is the general opinion that "something is to be done," and the moment seems favourable for agitating afresh these problems, and for opening the way to a definite solution, whatever that may be.

The profession of architecture is absolutely free. Whosoever likes may practise: whosoever chooses may call himself an architect: no one is compelled, in order to obtain the title, to prove before competent authorities that he possesses any of the knowledge requisite for the discharge of his duties. He is an architect by the same right that another is a manufacturer, a dealer, a speculator in any enterprise: the law supposes that clients find either in private connections, in public notoriety, or in their own discernment, sufficient guides for their appreciation of the skill of those men who represent themselves architects, and offer to direct the construction of works. An observation in the "Dictionnaire d'Architecture," by Roland le Virloys, published at Paris in 1770, is precisely applicable at the present time: "As soon as a man knows a little of drawing, he sets himself up as an architect. Draughtsmen, decorators, and others of that description, are not the only ones who are so bold. If a bricklayer has built two or three houses, he calls himself an architect; and forthwith gives plans and designs to all who are kind enough to listen to him, intimating that they will save the small but useful expenditure of the fee due to an architect; while the real object is only to withdraw from subordination, and exercise the tricks to which the building trades are but too much addicted." *It must be recollected that this is the language of French architects; the English architects have other grounds of complaint; and that the English builders profess to have grounds of counter accusation.*

Is this legal liberty of the profession a novelty? Is it peculiar to our country? Certainly not: for the quotation just given is dated, as before mentioned, in the year 1770; that is to say, at a period when the restrictive system of sworn guilds and corporate freedom, was in full vigour *in France, and apprenticeships in England*; and we know that it was not applied to architects. (*I may observe that M. Lance has not admitted the tradition of the Freemasons into his Essay; but he adds that* in fact the regulations very anciently imposed upon master builders, and the more special and later institution (*in* 1574) of sworn surveyors, cannot be considered as relating to architects.

M. Gourlier, in a report which we shall have occasion to cite presently, justly observes, "It does not appear that any measure was ever adopted to investigate the claims, more or less founded, which individuals might have to call themselves architects, and exercise their profession. Architecture, properly so called, was in this respect considered as a 'free art,' and it was permissible to any one to exercise it at his own proper risk and peril, as also at the risk and peril of those whose confidence he obtained."

Evidently unaware of the Prussian system which Mr. Tite laid before us at our last meeting, M. Lance continues to say that if we examine foreign legislation, it does not appear that it can give any answer other than that from our own country. Everywhere, with a single exception, it is "liberty." At least, the Société Centrale des Architectes, which had maturely studied this interesting question, cites only one country in which the exercise of the profession of architecture is subjected to conditions which are intended to prove the skill of the artists who dedicate themselves to it: that country is Spain; and the date of the institution is recent. The first statutes relative to architects were presented in the last century to King Ferdinand VI. by a Frenchman named Hérard, member of the Academy of Madrid; and they received the royal sanction. They were modified and renewed 29th July, 1801, by King Charles IV. on the proposition of Don Pedro de Cevallos and Isidore Bosart, also members of that academy.

From that time the following custom has existed:—No person may call himself an architect, or practise the profession, if he is not affiliated and approved by the Royal Academy of S. Fernando, and if he has not received a diploma from it. This diploma is obtained under the following conditions:—

Production of a document from some architect affiliated to the Academy, certifying that the candidate has worked under him, and is conversant with the practice of building.

Deposit at the Academy of a design, with its working details, an explanation of the proposed mode of construction, and a specification (the subject is chosen by the candidate).

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Public examination in the subsequent week, for two or three hours, on practical geometry, the theory and the practice of architecture.

Foreigners are admitted under the same conditions. When this diploma has been obtained, the artist may practise at any place in the dominions of his Catholic Majesty. Private persons need not employ an architect affiliated to the Academy, but if they do not, they have no right to enforce responsibility at law. Only architects affiliated to the Academy can be employed by the Crown.

The two systems are thus brought face to face: — the rule of unlimited liberty, without any guarantee of capacity; — the rule of freedom limited by the necessity of satisfying the conditions of skill which a public authority is charged to obtain. Which of these two rules should be preferred? Which of them presents the most security to the public? Which assures the highest consideration to the artist? Which promises the greatest development of the art? Such are the questions which we want to examine and which it is opportune now to agitate. Before entering into these questions, it will be well, and we believe, not without interest, to consider the very anxious, very elaborate, and very noteworthy inquiries which the Société Centrale des Architectes at Paris has dedicated to this subject. A simple analysis, as succinct as possible, is all we shall ask permission to place before you: *as the two countries differ much in their political institutions, so several of the questions discussed by that Society are peculiar to France, and twenty-four pages of the Essay* by M. Lance, must be condensed into as many paragraphs.

Struck with the isolation in which their fellow-labourers were living, and with the danger resulting from that isolation to the profession, some of the French architects proposed in 1840 the foundation of some central body.

At that time M. Gourlier gave his attention to the question of a diploma, which he treated in an excellent report presented on behalf of a committee to the future founders of the Société Centrale. It might even be said that the study of this subject was one of the objects of the institution. . . . . The report shows that the complaints of the architects are long standing ones. It does not ask for the restoration of guilds and corporate privileges, the revival of the defunct *Académie*, or of the corps of sworn surveyors; but it points out the existence of privileged professions, privileged, that is to say, for the public good; such as barristers, solicitors, proctors, physicians, surgeons, apothecaries, &c. The report asks if there is not an evident analogy between those professions and that of architecture, and whether there is not, consequently, a good ground for subjecting the one, like the others, to certain conditions of capacity; that is to say, to render imperative the possession of a diploma which shall be a mark of that capacity.

The report answers in the affirmative; but as to the application of the principle, it glides away into observations on that topic which are very general, but perhaps wiser ones, and more in harmony with French legislation than those which were put forward at a later time. This report supposed the Ecole d'Architecture, with an altered system of education, to be made a special college, like those of the physicians and the surgeons *in England and in France*; but making it the duty of the Ecole to give instruction, as well as to see that it was acquired; to

* The translator said:—"I have endeavoured to give the passages, which are extracted from M Lance's Essay, as nearly as possible in his own words, and have therefore only to add, that the remarks in italics are either very much abridged from the Essay by M. Lance, or are suggestions for which I am alone responsible."

examine the candidates, as well as to deliver the diploma: *it also insisted that even a formal attendance in the Ecole should be required of each candidate who had not been educated therein.* . . . . *In* 1843, *the Société was chartered.* . . . . In 1844, the Société Académique of Lyons requested the opinion of the Société Centrale as to a statement prepared for presentation to the Minister of the Interior upon the faults which existed in the organization of the profession of architecture, and on the necessary remedies. . . . .

The subject was referred to a committee, and in March and June, 1845, *Messrs. Blouet, Caristie, Duret, Gilbert, sen., Gourlier, Jay, Lebas, Ch. Rohaut, and Leon Vaudoyer, reported* unanimously in favour of the establishment of a diploma; and by a majority, that it should be imperatively required from all architects; and they also pointed out the composition of the board of examiners; the cases in which the diploma should be granted without examination, &c. The council of the Société took that report into consideration, and in June, 1845, drew up a new and excellent work, entitled "Results of the Deliberations of the Council," which was distributed to the members previously to the first meeting held on the 17th June. Both in the committee and in the council, there were some objections to the principle of the creation of a diploma: these objections were founded upon reasons that really did not want weight: a diploma seemed to compromise the freedom of art. Another ground was the difficulty in appreciating artistic acquirements, and fears were expressed lest, in consequence of that very difficulty, scientific acquirements should obtain an invidious preponderance in the examinations. This reasoning failed.

I must here point out that the reason why success did not ultimately attend the efforts of the Société towards the establishment of a diploma, was connected with the second determination to which the committee gave utterance, viz that it "should be imperatively required from all architects;" a view which was finally adopted by the Société, and which therefore required the assistance of the Government.

Upon the question of the imperative or voluntary character of the diploma, some persons alleged in favour of the more rigorous view, that not to require the diploma from every man before he was allowed to practise, was to fail in the object proposed; that such a step would allow the public to confound ignorant practitioners who usurped the title of architect, with approved artists who merited the rank; . . . . and that besides, if the diploma only authorised the possessor to adopt the title, it was not indispensable to any one in actual practice.

Others replied in favour of the voluntary system, that the profession of architecture, both as an art and as a science, had always been, and ought always to be, open to every one; that it was puerile to make the title essential, if the functions might be discharged by anybody; that in asking too much, there was the risk of obtaining nothing; and finally, that it would be sufficient to stipulate that the architects in the civil service must be possessed of a diploma. This reasoning prevailed, and the council, differing with its committee, adopted the idea of a voluntary examination; . . . *and also negatived suggestions for the creation of a secondary diploma for assistants and clerks of the works; as well for fixing an age which must have been attained by the candidates.* The council, however, adopted the suggestions of its committee as to the nature and amount of knowledge to be required; as to the composition of the board of examiners; and as to the classes of exemptions. . . . . *It also called attention to the reforms that were desirable in the system of education conducted under the auspices of the Academy, in the section of architecture at the Ecole des Beaux Arts; and noticed the necessity of improvement in the position of the Government architects.* . . . . *The memoir of the council concluded by adopting as a standard of merit the knowledge to be acquired by earnest study during a whole year in the first class of the* Ecole des Beaux Arts. . . . .

These results of the deliberations of the council, communicated, as we have said, to the Société at its meeting on the 17th June, 1845, were remitted to sub-committees, one of which carried a proposal that before a general discussion the results should be submitted to a fresh committee chosen by the Société: the new committee consisted of Messrs. de Joly, Armand, Chatillon, Chargrasse, Girard, Nourrigat, Quicherat, Vigoureux, sen. and Gounod, and it finished on 25th February, 1846, its labours, which were laid before the members at their own homes. The new report was perhaps less methodical than that of the council, but very detailed, and full of interesting and carefully studied facts, which rendered it well worthy of the attention which it received. . . . It asks, after some preliminary remarks, if the very existence of the Société Centrale did not render the creation of the diploma useless, and if the Société did not sufficiently distinguish, by its elections, the architects who really deserve the title. The report had no difficulty in giving an answer in the negative; and we are surprised that such questions were even put. Whatever opinions may be expressed upon the subject of the diploma, it is impossible to confound the public and official character which, if given by authority, the diploma would confer upon its bearer, with the truly honourable notice and the favourable inferences which a society like the Société Centrale (*or this Institute*), unshackled but possessing no official authority, can convey in the elections of its members. The new committee did not separate the character of the proposed diploma from the relation that it might have with the body, which ought (*in the opinion of the French architects as well as in my own*) to be completely distinct from it; as distinct, for example, to continue our comparisons with analogous professions, as *the Church from the universities, the Geological Society from the School of Practical Geology.* . . . *There were other difficulties into which we need not examine, as they were chiefly connected with the Ecole des Beaux Arts.* The report of the new committee contained the following recommendations, viz. the creation of the diploma as a matter of necessity; its obligatory character; no dispensation from examination in any case; transitory measures in favour of positions already acquired; the age of thirty years (which is that absolutely of admission to the Société Centrale, twenty-eight generally in the class of Fellows, to this Institute) and the delivery of the diploma by the offices of a cabinet minister. . . . .

It will be seen that as the matter progressed, the regulations became more severe. . . *Like the council, the committee* refused, as we think with great wisdom, to enter into any discussion upon details. such discussion would be fruitless, while principles are not decided. . . Before taking it to the general meeting, the report of the new committee was discussed afresh by the council, and this division gave rise to a remarkable vote, which preceding votes would not have led us to expect, and which, it might be easily foreseen, would not be approved by the body. The council turned round, abandoned its first opinion, and negatived the principle of a diploma. . . . . The discussion of the last report took place at the general meeting of the 11th June, 1846: it was continued on the 24th June and 1st July. The société did not consider itself prepared to discuss the questions relative to the formation of a board of examiners, and to the system of education! these were referred back to the council; and it was not until the 28th October, 1846, that the Société was called upon to decide on these points as treated in a final report of the council. It then resolved,—

That a diploma or certificate of capacity should be instituted, which should be indispensable in future before any person could legally take the title of architect, and practise as such either for individuals or for Government in any part of the country;

That the diploma should be delivered immediately and without examination to all architects actually engaged, and practising honourably; so that existing interests and already acquired positions should be respected;

That a programme should be adopted of the theoretical and practical acquirements which should in future be required, without any exception, for the delivery of the diploma after examinations and competitions;

That a board of examiners should be appointed, consisting of architects;

That the Ecole des Beaux Arts should be remodelled;

That the civil service should be so far reorganised as to assure better treatment to architects who entered into the service of the public. . . .

Here ended what may be called the deliberate phase of the subject: it lasted for six years: the Société had arranged and decided upon its intentions, and had only to push them to realisation. . . . .

It is only necessary to add that the Société circulated in influential quarters an essay on its wishes, accompanied by the programme; that in 1847, *the Société learnt that the previous Minister of Public Works had spoken favourably of the Société, that the acting Minister had promised his attention to the matter, and that a decree was all but signed when the events of February occurred.* . . . .

The Council, however, applied to the Provisional Government, and reported an interview to the Société on the 6th March, 1848; *whereupon another committee was appointed to produce a new edition of the essay just mentioned. Messrs. Henri Labrouste, Brunet-Debaines (replaced by Haron-Romain), Constant-Dufeux, Gounod, Jay, Adolphe Lance, Lepreux, Lucas, Tougard, and Gourlier, accordingly commenced operations, but the report submitted* 10*th November,* 1848, *contained only four articles; viz. the alteration of the Ecole; the institution of an imperative diploma; its delivery to practising architects; and the reform of the public service.* . . . .

It would be painful to enter into a statement of the new discussions which arose in the council, and at the meetings of the Société on 23*rd and* 30*th November, and on* 7*th December,* 1848, *which resulted in the adoption of the new essay, with the exception of the passages as to the public service and the Ecole; a vote which appears to have put an end for the present to the whole matter.*

The lesson which this history, as given by M. Lance, is calculated to afford to ourselves, is one of the highest importance. The Société Centrale des Architectes, having become very exacting in its requirements, was not content to put its own shoulders to the wheel, and look after the interests of the profession, as a profession, so far as its constitution allowed it; but, perhaps involuntarily,—perhaps obliged by the peculiar institutions and customs of France, it was led to interfere with the Académie des Beaux Arts and its school, to invoke the aid of the Government, and to enter into arrangements between the public service and its architectural officers.

There can be no wonder that having such different objects combined in one project, the Société has not yet gathered any fruit from its exertions.

The questions which arose naturally out of the subject, and which we have seen successively discussed by the council and by the society, were the following: we give them now collectively, *so as to concentrate attention:*—

1. Is a diploma for architecture necessary?
2. Shall the diploma be the result of a voluntary or of an imperative examination?
3. What body shall test the fitness of candidates?
4. What body shall give the diploma?
5. Is it desirable to fix any limit of age in candidates?
6. Shall the examination be open to all candidates?
7. Shall any candidates be exempt from examination?
8. What measures shall be taken to facilitate the adoption of the diploma?
9. What acquirements shall be tested in the examinations?

Does any one suppose that the diploma would take away from the profession of architecture its liberal character, and from the artist himself any portion of his independence? Can the medical man in that respect envy the architect? We think not. But it may be said that architecture should not be compared to medicine, but to its sister arts,—painting and sculpture. We think otherwise. Architecture truly is one

of the imaginative arts, but it is at the same time a positive science. The inspirations of a happy genius are not enough for it: it requires an amount of knowledge which the imagination cannot give. In practice, the architect cannot be compared to the artist, who only requires a canvass or a block of marble to show all that he can do: the architect in some respects is more than that: he is an officer in command of a regiment that does not know the precise result intended by its manœuvres: he is an agent who disposes, it may be said, arbitrarily of the fortune of his client: he is almost a magistrate, compelled to decide upon separate and generally conflicting interests, often of very considerable importance.

Whatever may be said or done, the man, whether he be an artist or not, who is likely to be invested with so much power, and whose position obliges him to accept such a responsibility, cannot pretend legitimately to the independent freedom of artists in other walks, who execute their works with their own hands and at their own risk, without having to give any account of their management. This is so true, that while the painter and the sculptor can give with impunity proofs of their unfitness, the law has a hold, and a tolerably firm one, upon the careless or unskilful, or unfortunate architect. . . .

We say that a diploma would have the advantage of adding to the consideration which the profession of architecture more or less enjoys; and, indeed, it is easily conceivable that in making a preliminary demand upon those who wish to exercise that profession for proof of some amount of acquired knowledge, the presumption of capacity resulting therefrom would place the body of diplomatized architects in a new position. . . . . Without doubt this diploma will not make a *William of Wykeham* nor a *Christopher Wren*, any more than a call to the bar makes a *Cicero* or a *Burke*; but as it would represent a minimum of the knowledge indispensable to the public, it would be at one and the same time a recommendation to its possessor, and a guarantee to the public.

We would say further to the advocates for absolute liberty in the exercise of the profession of architecture,—suppose for a moment that medicine was to become free from all obligation of this sort; that is to say, accessible, as heretofore, to horse-doctors, to farriers, to vendors of nostrums, to barber-surgeons, to all such adventurers, and to any one else who had no other skill than that of boldness and quackery —suppose that; and imagine the condition of suffering humanity under the scourge of such disguised assassins; disputing greedily for the bed's head of the patient, purging here, bleeding there, amputating one extremity, trephining another; in short, having the right to kill anybody under authority of a licence granted for 2*l.* per annum.

Yet this is very nearly the situation in which we are placed by the liberty which we enjoy;—"*an abandonment to destruction rather, in which we are left to perish.*" There is this difference, it is true: the parasites of architecture are less dangerous than those just mentioned, because they attack the purse more than the body of our fellow-citizens; but society owes protection equally to the property as to the person. . .

And, moreover, whatever may be said, the public ought not to be left to assure itself beforehand as to the capacity of architects: the public cannot possibly be a good judge of merits which it cannot itself test. We may even say that the public should in such cases be treated as a minor, and that some authority, some guardian, should exist, not to hinder it from speculating foolishly if it likes, but to give it the means of saving property if it chooses. . .

We have spoken also of the law; and, indeed, there is a relation between that profession and architecture which it is impossible to overlook, because, like the lawyers, we are employed to defend the interests of others. Still there is this difference between an advocate and an architect: the first, properly speaking, is only a counsellor, who in disputes between parties has only a deliberative voice, while the architect's is administrative. In other words, the advocate may plead more or less forcibly the cause of his client, may even be so unfortunate as to compromise the success which he seeks, but sees above him competent and enlightened judges seated to perform justice, and to give a chance that the truth may appear in spite of the ignorance or carelessness of the lawyer, who may risk the interests of his client, but cannot always sacrifice them. Our part in business has a very different importance. The architect is not merely the advocate charged to enlighten a tribunal which has to pronounce judgment; he is more, for he is a judge, who can take no opinion but his own, *and whose decisions are not open to public inspection:* now if this judge be unskilful or dishonest, we guess, and it may be boldly said, we know the abuses and dirty actions which may result from this uncontrollable power, if it is exercised without conscience and without talent. Nevertheless, incredible as it may seem, the law requires that the mere advocate shall have given proof of capacity and experience, while it demands nothing, absolutely nothing, of that arbitrator, referee, umpire, who, under cover of that quality, can commit the grossest errors, nay, even crimes, at the expense of the parties who have honoured him with their confidence.

There is evidently a gross anomaly here which it is of the highest importance to ourselves to remove: *the establishment of the Institute, and its severity in carrying out its law of expulsion, are guarantees to the public of the unimpeachable honesty of its members; but where is the guarantee of their possessing that amount of skill which only can elevate the architect above the self-assumption of uneducated persons.*

The remainder of M. Lance's essay relates to the position of affairs in France so much, as to render it less interesting than I feel certain the preceding portion has proved.

This is, perhaps (continued Mr. Papworth), the proper occasion for submitting my own views as to the practical solution of the question in England.

The necessity for a diploma is apparent from the fact that the junior branches of the profession have for many years been seeking it, as being desirable for themselves and perfectly innocuous to the elder architects. Professor Cockerell will of course support with alacrity any matured plan for securing better public appreciation of the art and its professors. Professor Donaldson has announced in this room, as a matter of self-gratulation to us, the establishment of certificates in two colleges. Sir Robert Smirke, Sir Charles Barry, and Mr. Hardwick, cannot be supposed indifferent to the wishes of their professional brethren. Mr. Sydney Smirke and Mr. Gilbert Scott equally are anxious for the improvement of our position. Mr. Tite you have already heard; and, in fact, the only opposition which the measure of establishing a diploma can encounter would arise from those who feel some hesitation as to the possibility of their deserving it.

The diploma cannot be the result of an imperative examination, without an Act of Parliament to that effect; and the Legislature will of course refuse such an Act until the profession has shown that the diploma is feasible and in operation. The Institute should never require the diploma of any candidate for election into its own body. The examination would be most honourable as a voluntary one.

The examining body should at first be composed of those who occupy a high station with the profession and with the public: hereafter those who take the highest honours would replace them as occasion shall demand.

The question of the body which should grant the diploma is a difficulty in the eyes of some. There have been three competing opinions as to the preference to be given to the universities, the examiners, or the Institute. The universities might follow our example if they found it well so to do: the examiners would be subordinate to ourselves; and therefore the Institute, especially if it should obtain an amended charter, seems to be the body which, as professional men, we should prefer.

It is hardly less desirable to fix any limit of age to candidates, than to close the examination-room against any candidate, whatever may be his position in society: if he be found fit to practise as an architect, that qualification should entitle him to the diploma.

The exemption of any candidate from examination would be a fatal error; nor should any candidate be allowed to pass upon a lower standard than that fixed for all comers.

To facilitate the adoption of the diploma, I imagine the adoption of a chairman, who should be, if possible, a president of this body. I imagine that the three professors would not refuse to accept the diploma at his hands; and then we have a board who could give to all qualified persons, who have practised legitimately during the last few years as architects, the diploma of Master in Architecture, and to those who have been so engaged for a short time only, the diploma of Bachelor. I suppose that some would be found to deserve the most honourable degree of Doctor in Architecture.

It must be evident that the severity of examination for these degrees must be relaxed for the first three years: there are men of established repute whose neglect of the diploma might be hurtful at first to its existence, and who might not choose to do more than present themselves personally to claim it; and this class must be consulted in order to facilitate the transition.

Then, when the examinations are fixed, the board would only have in the first year to verify the position held by the candidate, and his power of making before them a tinted sketch and an outline of detail, in order to hand to him their certificate of the ordinary degree of Master or Bachelor, as the case may be. While if the candidate apply for a higher degree than that which he would ordinarily claim, we should all rejoice at his being found worthy of it.

At the end of three years the examinations should be stricter, and at the end of five years they should have attained the ultimatum, for a time, of their severity: then the profession would be in such a position as it cannot at present hold; and might reasonably hope to procure the adoption by the Legislature of a Bill against quack-architects.

I shall conclude by observing that I sincerely hope the examinations will be public, i.e. will be held in the presence of any graduates who choose to attend them; and that the examiners will avoid the fault of the continental systems, and not ask questions upon formulæ and facts to test the memory of a candidate crammed for the occasion, and ready to forget all on the next day, but put such questions as a candidate may be expected to answer, by referring to works in the library of the Institute. It is not what a man can recollect, but his knowledge of how to use and where to find information, which is the great secret of the skill of the architect as a scientific man, and of his knowledge as an archæologist. His taste cannot even be a question for the examiners; but readiness with the chalk, the brush, and the pencil are, I venture to presume, indispensable to the man who lays claim to the authorised title, the honourable title, of architect.

ON ARTISTIC METAL-WORK.*

We have now to treat of another process of ornamentation, namely,—that of Niello. This art, almost in disuse for the three past centuries, was practised during many ages and in different countries. There is a singular passage in Pliny, to the effect that by an invention of the Gauls, argentiferous lead was fused into works of brass, and the effect so produced was called incoctilia; and he remarks,—"That which was marvellous to behold in the decoration of vases and articles of Roman luxury, by them was used in the decoration of their horses, the yokes of their oxen, and in their various kinds of vehicles." I have seen in Scotland remains of Scandinavian origin inlaid with the same material, proving its use by this race of people. Slightly varied in its composition it was called at its earliest period incoctile: later it assumed the name in Latin of nigellum; in Italian, niello. It was thus used. The subject intended to be delineated was first traced upon the surface of silver, and the groundwork cut with tools as in champ-levé enamel, leaving the figures raised in silver: this was frequently reversed, and the subject itself represented by the niello. In its composition, silver, lead, sulphur, &c. are combined; and it is one of the greatest difficulties of the process that in fusing, either the sulphur destroying the nature of the niello, or the silver reviving into a metallic state, covers the surface of the niello with small white spots. Another great evil frequently results from the heat necessary for its fusion, causing its combination with the silver in which it is worked, instead of forming the contrast intended. In a ruin at Rome, a silver casket of Roman workmanship was found, of about the date of the fourth or fifth century, covered with enrichments in niello, containing the requisites for the toilet of a Roman lady, and will prove the use of niello at this period. Chalices and other articles were continually

* See p. 551, *ante*.

enriched with it during the thirteenth, fourteenth, and fifteenth centuries.

Associated as it is with many ages, expressing as it does in the decorative art, the higher or lower degree of the perception of beauty attained by people so differing in habits and manners, it loses none of its interest from the fact, that it was both the forerunner and origin of the art of printing from engraving. We are informed by Vasari that Maso Finiguerra, the goldsmith, of Florence, in taking impressions in black ink from incised lines intended to hold the niello, gave to the world the first production of an art (engraving), which has developed in the present day so much talent and skill, throwing within the reach of the many those beautiful emanations of genius, otherwise confined to the collections of the rich alone. Another process, Damascening, consisted of incising fine lines of foliage, or other ornamentation into iron, copper, or any of the baser metals, and then, with gold or silver cut to the same form, filling up the cavities. It may be found in the antiquities of the Saxons, the Irish, the Romans, during the Middle Ages, and in the East.

Parcel gilding forms another mode of giving variety to the surface of any article, by fixing gold in some places, while in others the silver is allowed to remain in its natural colour. Shakspeare speaks of a chalice parcel gilt, and in ancient chalices the interior of the bowl, a slight margin down the outside of the lip, the boss, portions of the foot, and occasionally small parts of the stem, were gilt. By this means a greater beauty is attained than by whole gilding; it was in use from the twelfth to the seventeenth century.

Bronze and brass, unlike the precious metals, find their more natural expression in casting, producing a sharp line from the sand, and form a ready means of perpetuating the models made in wax by the artist. Examples are numerous of large doors of bronze, some nearly plain, as at Mayence Cathedral, while others have panels containing historical subjects and figures of saints, apostles, &c. as at Monreale, in Sicily, by Barisanses, containing twenty-eight panels, with figures in relief. They occur in numerous other places. At a later period Vasari describes the particulars of the celebrated gates, now so well known, executed by Ghiberti for the company of merchants at Florence, intended for the Baptistery of San Giovanni, which were to rival those of Andrea of Pisa. There were seven competitors, from whom Lorenzo Ghiberti carried the prize, and whose production was confessed to be the best even by those with whom he competed. Much of his success is attributed by Vasari to his early education as a goldsmith. In the various church restorations of the present day, I know no attempt to reproduce gates in bronze of artistic character. The bronze figure of Henry, by Wm. Torel is a well-known example in this material. Fonts of brass occur frequently on the Continent, and I would suggest the use of the material in combination with iron, and with subjects in enamel on the surface.

Of works in iron, if time permitted, the gradual changes might be traced of each succeeding era of architecture, assuming the conventional forms of the day, and subject to various modes of treatment.

In iron it will be evident the proper mode of working must differ as much from gold as it does from wood or stone, assuming a position about midway. Gold, from its great value and power of attenuation, is naturally used in sheet and filigree, not frequently rendered in solid masses, and many times serving as a covering to a less expensive material; while iron may be used in quantities not so massive as stone, but capable of such attenuation as to render it light and beautiful in its general conformations. Who has not been delighted abroad with the light grille dividing some portion of a cathedral, or the wondrous strength and delicacy combined in the hinges of doors, the lightness of chandeliers, and coronæ ornamented with hammered leaves?

How readily will come to mind the hinges of Merton, those of Lichfield, Notre Dame at Paris, the well at Antwerp of Quentin Matsys, and many other evidences of the application of true principles and taste to the manipulation of this material.

Suppose nothing more is done than at present, and the *artistic* use of metal makes no further progress, what, for instance, in this nineteenth century, is there on the *face* of London to vie with those works of art left, as it were, by the surges of centuries on the sands of time, indicating the tidal line which art had attained? Will the pump of Piccadilly rival the well of Quentin Matsys, each being for the same object? Will the handle on the door of the Home Office compare with that of the Seven Electors? Take the iron gas-lamp, placed probably by street commissioners near a large recent structure, in London, of fine architectural proportions, or the lamp from the large staircase of Christ Church, Oxford (what, by the way, would the founder, Wolsey, have thought of this accessory?), and compare them to the bracket, for the same purpose, of hammered iron from the Domkirk, at Innspruck.

Having now briefly glanced at metal-work and its enrichments, it becomes the question how far at present we have availed ourselves of the many advantages it offers.

I think we may, by calling to mind the various works, in brass and iron, which have been used in other ages as accessories to and portions of architectural design, and by trying to realize what has been swept away by the ravages of time, and the still greater ravages of man (even with the many energetic and laudable efforts which we have seen of late for its use), we may safely conclude, that we have not as yet reached its large application in bygone days. Where are our grilles, altars, lecterns, brasses, lamps, pulpits, crestings, vanes? where our recumbent effigies, our tombs, our fonts? where our gates of brass and bronze. Churches and domestic buildings were rich in these things, in days when metals were difficult of access: how far behind are we in this nineteenth century, essentialy the metallic age?

Compare, for instance, the few furnaces of the middle centuries blown by hand—heated by charcoal—with the thousands which now darken the air, and emit their flames in Staffordshire, in Scotland, and in Wales, aided by exhaustless supplies of coal and ore, and stupendous steam-power helping also its production. Then, however capable its inherent powers, its scarcity was an effectual bar to its extended application, now saving only its full development in Pointed architecture. It is difficult to know where to begin in citing its use. Do we look down on the map of England,—what vast and compli cated network threads its surface! unlike the great Roman roads of old, it is of iron, and not of stone.

Do we wish to span the thundering falls of Niagara? it is with iron, and not timber, the trial is made. Yet, on the other hand, do we wish to span the roof of a cathedral? wood is used,—though the forest which originally supplied the ancient ones have disappeared, and we traverse the broad Atlantic to make up the deficiency,—metallic materials in abundance lying around us. Or, again. Look at the vast covering to the terminus at Birmingham; the Crystal Palaces; the great girdle of iron and glass to encircle London, which has just been recommended to the consideration of Parliament; the roof of the British Museum; the Menai Bridge;—and let us ask ourselves if the world is not outstepping us in the appreciation of its wondrously constructive powers.

In many erections within our memory, there have been sums expended almost fabulous, in which erections artistic powers have not been united with scientific skill. Had this not been the case, and had art found its legitimate expression in the adornment of construction, we might rather have referred to the progress we had made, than have speculated upon the nearness of that period so much to be desired.

It is perhaps in our great works of national improvement, termini of railways, large central stations, and other improvements, where thousands are dealt with as units would be in private efforts, that we may expect to see some *first*—some manly struggle in a direction at present but too slightly attended to.

It may be replied to all this,—iron is not capable of beautiful expression. Have we tried its artistic powers with the same energy as other materials? What is a piece of burnt clay, a lump of stone, without architectural construction and artistic skill? Nothing more than a bar of iron. A wall of rubble has little of interest; yet a cathedral, with its clerestory and flying buttresses, is but a wall supported and enriched. All these raw materials are alike unpromising: it is genius which rears them into forms of utility, of grandeur, and of beauty.

When the Pointed arch first gained use, what new features of construction were brought into existence? what an era does it mark? The genius of the day seized it, and charmed succeeding ages with those exquisite proportions eliminated from it; but what is the arch? Not the natural or easy expression of stone: wooden framing has first to be constructed; and on this the pieces of stone are placed: without those crutches each individual piece would fall to the ground; but unlike stone, iron at once assumes the arch by only complying with its natural tendency: it needs no prop: what adhesive power in its own nature is it capable of! what ponderous weight and compression will it sustain! What is the limit of its span?

Now, let us for a moment suppose that the men who built our cathedrals, and carved out their own paths of originality and beauty, had possessed this material as we do: we should most probably have received some extraordinary relics for our antiquarian lore. In claiming for iron, then, and other metals their fair amount of importance, or urging their much more extended use, am I doing what one may be so apt to do, overrating the use of that which is more particularly one's study and province? So far from this, the Ecclesiological Society has long announced its intention of bringing out drawings for an iron church; and the late Mr. Carpenter had received instructions to prepare plans for the same. The Oxford Architectural Society has urged similar views, and the *Builder* has written forcibly upon the subject. I might quote many architects who, in their words and writings, express their convictions that sooner or later these materials must take their high rank in architectural design.

Now, by an iron church, I do not mean, nor do I suppose the Ecclesiological Society meant, having its walls made of, and no thicker than, a sheet of corrugated iron: it is essential, in construction, that its wall should be double, giving security against atmospheric changes, and at the same time imparting solidity. Again, there are various modes by which the interstices of the frameworks may be filled with ceramic art, with marbles, or stone carvings, or all three united, the arrangement of colours and combination of geometrical form giving ample opportunities to the skill of the architect. It is not as superseding the use of stone, but in conjunction, that some great effort might be made. It is in the union of the powers of the past and the present, and so availing ourselves of all the arts and materials of our day, that we may hope to accomplish great ends.

Is there any one in this his present lifetime, expects to be called upon to raise a cathedral, which might proudly rival Canterbury or York Minster—too long the process, too costly the material? But there is an extraordinary opportunity offered in the constructive facilities of the various materials, for some one to leave a house to the future, and an edifice which would more than compare with the mightiest efforts of the past—the delicacy and sharpness of its outlines standing unrivalled: its walls internally would give large scope for frescoes, glowing with rich hues of colour, and of gold—for enamels, for mosaics, and carvings of stone, affording to it solidity of character. With such constructional powers, externally its height of roof might be something marvellous, while its gilded spires, with their sharp outline, would soar brilliantly to contrast with the clear blue sky. In its nave, a span for vastness and height might be attained, compared with which many existing cathedrals would be but side aisles: its roof, internally fretted with interlacing lines of construction, would be almost lost in the gloomy grandeur and deep shadows of distance: these and its spandrils might be enriched with vigorous yet delicate manipulations in iron, crisp with foliage derived from nature: its

columns, groups of detached and illuminated shafts, would attain an altitude unprecedented. I hope and believe some vigorous intellect—some strong hand, will erect such a cathedral whose form of grandeur will loom on in the hazy mists of the great future, and succeeding generations of the human race will point to it as a noble effort of metallic and kindred arts of this *our* century. F. A. SKIDMORE.

THE ARCHITECTURE OF THE FUTURE.

LIVERPOOL ARCHITECTURAL SOCIETY.

THE fortnightly meeting of the above society was held at the Royal Institution, Liverpool, on Wednesday evening, the 14th ult. Mr. J. Hay, president, occupied the chair.

Mr. Verelst spoke highly in favour of the exhibition of architectural designs, &c. to be opened in London on the 17th inst. It had often been a source of regret to him to see how few of the Liverpool architects contributed to the public exhibitions. He alluded with much pleasure to the success of English architects in the Exhibition at Paris.

Mr. S. Huggins then read a paper on "The Architecture of the Future," of which the following is an abstract:—A notion prevailed that a new style was the thing we wanted. Our chance of a new style was dependent on the amount and importance of the new elements we had to contribute. We knew how styles had arisen aforetime: each had both a father and a mother, and owed its birth to the influence of some new principle, or the abandonment of some old one, upon the style of the day. One thing was certain, we could so use the present styles as to produce true and original works. To deny this was as absurd as to deny to the poet the power of producing a new poem without first inventing a new language. The historic association of the Gothic or Classic architecture with the spirit and character of the period of its production was an objection that should be confined to individual works. The styles might be productive of edifices that should bear the broad seal of any time, as much of the present as of a past day, and be unequivocal exponents of the mind and circumstances of the age. But individual truthfulness like this would inevitably tend to the desired expansion and ramification of the style. Something every now and then would appear that had not been seen before: if it were congenial to the style its spirit would reject it; but if otherwise, and the work in which it appeared was found to be in accordance with the unerring laws of art, and all its parts were in unison, the innovating feature would soon be absorbed into the system, and form a part of it. Thus was the system made, and thus was it to be carried on. This was the way the Classic architecture was formerly treated in one of the greatest art revolutions, viz. that which took place soon after the time of Constantine the Great in the development of Byzantine art, where originality was observable in every form in the capitals, in the mouldings, &c. They introduced new principles of decoration, such as sinking carved work of capitals beneath bounding lines of form, instead of projecting it beyond them. It was not at all important that we should leave a uniform architecture, *i. e.* an architecture all in one style, to the inspection of posterity. The object we had to set before us was to erect works such as would individually comply with the conditions of original and genuine works of art. Any mixture of style consequent upon our working in a plurality of styles was not to be feared so long as it was done by men who understood their work. No matter whence the origin of elements in the hands of the true artist; his work would be *one*, and rightly affect the mind. It did not follow that because the Greeks and other ancients had but one style for temple and theatre and other edifices, that a plurality must therefore be improper amongst us. Those who urged this forgot the difference between our civilization and that of ancient times. In Greece all was unity; everything was the emanation of a master feeling or passion, which was invariably a devotional one. It was of no use to say that this ought to be the case with us, because the architect had to do with society not as it ought to be, but as he found it. The present state of modern life might perhaps be best represented by a plurality of styles: what we had to do was to work truly in them. There would be unity and harmony in architecture if we did so; and though starting from so many different points, and traversing so many different roads, we might meet at last in one beautiful and pleasant one. A general unity in our architecture was to be secured not by our working from the same style, but by our working from the same principles, namely,—the great polar principles of art, which were founded on those of Nature herself. And whether we worked in one style or in twenty styles, there was no safety from confusion and discord but in constantly going back through all styles to their great fundamental principles, and appealing to the original elements in their constitution. It was looking to the ever-shifting clouds of fancy and fashion of the day, and in appropriating what was but temporary and local in the past, that had caused the divided action amongst architects so much complained of, and which no combination of the profession or interference of Government could remedy. Principle was not only unity of action; it was wisdom, strength, and beauty; and it would not only give unity to architecture, it would unite all the arts of decoration *to* architecture, if it were suffered to regulate them: it would unite the architect, the upholsterer, the weaver, the potter, as in all great art periods they were united, as shown by existing remains. There was not much need of quarrel, as to which style was best to be used for any given purpose or purposes. Some features and forms were thought peculiar to certain styles, and deemed admissible into no other; but there were perhaps few forms in any style that could not be translated into another. It was not style, but the intellectual and imaginative power that was to apply it, on which success depended. The dispute about styles seemed not much unlike a speculation upon the merits of different military uniforms or kinds of armour; and, indeed, to calculate upon the result of architectural doings from the character of the style or styles we adopted was as idle as to predict the issue of an encounter of warriors from the mere length of their swords or strength of their armour, without taking into account the personal force and prowess of the combatants. Notwithstanding what had been advanced, it was nevertheless true that one style was better fitted for general purposes than another, as there was much difference between them in point of scope, if not of power. He considered the Greco-Romano system was the soil most capable of yielding the multiplicity of forms which the exigencies of the future would demand from architecture. The Classic style—having been carried to perfection in but one very limited and simple class of structures, the Greek temple — afforded us more room for new and original combinations than its rival, the chief productions of which, the cathedral of the middle ages, the attempt to emulate would be hopeless. The general and dominant style of the future, he believed, would be mainly composed of the Roman arch springing immediately from the Greek or Roman column, *i. e.* the noble Byzantine and Lombardic styles, known under the general appellation of Romanesque, divested of everything like barbarism, and restored to classic purity. This did not involve the abandonment of the entablature, for with such purified ordinance could be well combined the classic colonnade or portico in its original integrity. The style so generated would be the true artistic blending of Greek architecture with Roman arcuation. It was when the column was placed under the arch as an arch pier that the marriage of the two styles was truly consummated, and artistic unity secured. By the system he had endeavoured to sketch out would be embraced every necessary feature required by our climate and state of social existence, such as sloping roof, window, portico, porch, and so forth, and this should be well observed. A true Anglo-classic building was one from the visible composition of which no needful feature was excluded, and in which the features we borrowed from classic antiquity, or derived from any foreign source, such as the portico, were fully adapted to our purpose, and cast into the new moulds that by the circumstances of time and place were prepared for it. A building, however artistic in its composition, or pure in its details, was defective in character if visually wanting the roof, which in England must play its part in the architectural drama, whatever the style; and the same might be said of the window, which for various reasons had taken such a hold on the mind and heart of the people of this country, that except in some peculiar instances we should never be allowed by public feeling and opinion to omit it. The portico was also an important feature in our future architecture; but it must assume a very different character to what it had generally assumed in England. It must be adapted to the climate, than which there is nothing more important to bear in mind. Nothing contributed so much to a national and distinctive character in our buildings and streets as a due recognition of the climate of the country. It was often suggested as a means of embellishment of public squares to erect fountains. The scheme has often been tried, but had succeeded nowhere in this country as in Italy and France; and the reason was obvious—there was no natural call for the play of fountains in a climate where the elements were so often and so bounteously playing themselves. He thought himself that a large chafing-dish, containing a good fire, would be a far more agreeable and appropriate ornament in the centre of an English place or square, for at least eight months in the year, than any fountain. He referred to St. George's Hall as an edifice well suited to the illustration of his remarks, and passed a high eulogy upon its exterior, which, whether classic or English, was in a high degree artistic and beautiful. Here eulogy, however, though qualified, must cease. The approaches to the building were a subject not merely for regret to architects, they must be an offence to every one possessed of the smallest share of taste. In conclusion, he contended that the style of the future, combining as it would greater elements than any former style, and based on everything great and glorious in the foregone, might pass beyond the range of the Greek or the Gothic, allow the fullest scope for man's intellectual energies, and be receptive of all possible elements of change for any period of time.

DEATH OF ALDERMAN LAWRENCE.

IT is with feelings of deep regret that we announce the decease of Mr. Alderman Lawrence, on Sunday, the 25th ult. at his residence, Westbourne-terrace, Hyde-park, in the 67th year of his age. He was a man of enlarged capacity, keen perception, ready eloquence, and of the highest integrity. As a public man, he opposed all jobbery, all waste of public money, and advocated the execution of public works in the most efficient way. He was the head of the well-known building firm which bears his name, and many of the erections in New Cannon-street reflect the energy and completeness which were the characteristics of his vigorous mind, being the fruits of his spirit of enterprise. In the public boards, of which he was a member, he took a leading part, and rendered great services, though his views were not always ours. He was elected alderman of Bread-street ward in 1848, served the office of sheriff in 1849, and was within one of the civic chair, being preceded only by Alderman Finnis. He has for two years suffered from deranged liver, under which he has at length sunk, in the full possession of all his faculties and energetic spirit.

FORTIFICATION OF THE ISLE OF WIGHT.

MR. JAMES FERGUSSON has brought charges of incompetency against the engineers who designed the fortifications recently erected opposite Hurst Castle, so serious as to command reply. He asserts, and he is too careful a man to do so on insufficient grounds, that the forts are constructed so as to be altogether useless, and that the affair shows "our incompetence in military matters to all Europe in a manner that makes one's blood tingle." A semi-official denial has appeared in the *Times*, where Mr. Fergusson's letter was published, but Mr. F. reiterates his charges. What *is* England coming to?

PLAN OF THE CITY OF LONDON CEMETERY, ILFORD, ESSEX.

THE CITY OF LONDON CEMETERY.

The City of London Cemetery is situated at Little Ilford, in the county of Essex, and is precisely seven miles from the General Post Office. The roads to it the whole way are level and good. The area enclosed within the boundary fencing is about ninety-one acres. On the southern side the cemetery is touched by the Eastern Counties Railway: on the northern side it is bounded by a portion of the Wellesley estate; on the western side by the Wanstead Flats; and on the eastern side by surplus land belonging to the Commission. The surrounding country is richly wooded.

The soil is principally of bright gravel, varying in depth from 10 feet to 18 feet. It has been drained to a depth of about 11 feet. The ground rising with a gentle slope from the River Roding to a height of 27 feet above the mean level of that river, affords an outfall for the drainage. The cemetery is enclosed by a strong oak close fencing, 7 feet in height on its north-east, and a small portion of its north-west sides; on the remaining portion of that side, and the southern side, by an open iron railing on a dwarf wall, the height varying from 8 feet 6 inches to 11 feet 6 inches.

The principal entrance is from the Wanstead flats (which flats, we may remark, so far from being low swamps, as is generally supposed, are about 40 feet above high-water mark, T. D. and the soil of which is a fine large gravel beneath the peat surface). It consists of an entrance archway, in the Pointed style, as are all the buildings throughout, with ornamental iron gates, and has on one side the superintendent's house, and on the other the porter's lodge. We shall give a view of this hereafter, and other illustrations.

Directly upon entering the principal gates, the Dissenting and Episcopal Chapels, although 700 feet apart from each other, are both in view, the roads to each being direct lines from the entrance. The plan of the ground was designed in reference to the surface configuration, and other conditions, and is composed partly of straight and partly of serpentine roads.

Through the middle of the ground, and running from east to west, there was a large pond. This has been used as a main valley line for drainage; and at the extreme eastern side this pond has been *deepened*, and catacombs placed in it. The catacomb valley, or basin, is about 500 feet long, and 230 feet wide, and is about 11 feet beneath the level of the adjoining ground, and enclosed by grass slopes, of 2 to 1. The tops of the slopes are planted with rows of arbor vitæ. The earth excavated from this valley, was well fitted, it appears, for disposing upon other portions of the ground for planting the shrubs in, and was so used. We give a plan of the cemetery, and a view of the Episcopal Chapel. The general surface of the ground was originally level: the whole of the undulations now upon it are artificial; that which slopes towards the pond line alone excepted.

The length of the Episcopal Chapel is 61 feet 6 inches within the walls: the Dissenting Chapel is an octagon of 34 feet in the clear, with an elongation on one face, which makes the length 45 feet 6 inches. All the buildings are faced with Kentish rag with Caen stone dressings.

The cost is estimated as follows:—

Land	£30,500
Chapels, entrance, houses, fencing, draining, earthwork, and planting.....	45,450
	£75,950

This sum, it is expected, will not be exceeded. The Commission have a surplus hundred acres, the value of which should be deducted from the 75,950*l*. They bought this large quantity because they obtained it proportionally cheaper thereby, and with the impression that it might be sold to other parishes for cemetery purposes; and as the buildings of the City of London Cemetery, the staff, and the machinery attaching to the railway, might be made to serve for the whole, the first cost to all concerned, and the charges for interment afterwards, would be made less than would otherwise be the case.

It is in contemplation to build waiting-rooms and a railway siding, and have railway accommodation for burials, if other of the eastern parishes who as yet have not provided themselves with cemeteries take the adjoining ground; but, unless the interments be numerous, it would not answer the purpose in a pecuniary point of view to do so.

The fencing, railings, some of the main drainage and earthwork, were done by Messrs. Crook and Son. The chapels, lodge, superintendent's house, and entrance archways, the drains, gullies, and the great mass of surface excavation, by Mr. William Hill, of Whitechapel. The roads and catacombs now in hand by Mr. R. T. Carlisle. The whole has been carried out from the designs and under the superintendence of Mr. William Haywood, the surveyor to the City of London Commission of Sewers.

REFERENCES TO PLAN.

A. Principal Entrance.	D. Catacombs.
B. Porter's Lodge.	E. Dissenting Chapel.
C. Superintendent's House.	F. Episcopal Chapel.

IS TOWN DRAINAGE BENEFICIAL?

SUNDERLAND.

In answering the above question, I do so (as a Scotchman) by asking another question:—*Is it beneficial to have slops removed from bed-rooms every morning?* I have just hired a house, the bed-rooms of which are up three pairs of stairs, and my wife is about to hire a chamber-maid to empty the slops and cleanse the bed-rooms every morning, at an estimated cost of nearly 45*l*. a year. Before entering upon the responsibility of spending the large sum of 45*l*. a year, I have halted at the outset, and now ask the following questions:—1. Is cleanliness in bed-rooms beneficial? 2. If so, whether is a yearly superficial cleansing or a thorough daily cleansing the most so?

A difference of opinion appears to exist on the question, and I wish to obtain the opinion of other persons who have large families, whether it is better to allow the family refuse to accumulate in the house, and have it removed yearly, when the family is from home, for the benefit of their health, or is it more *beneficial* to have it removed every day? If so, which is the best way of removing it? There is plenty of fall from the top of the house to the street, and if the slops were thrown on the floor, they would soon find their way down the stairs to the street; or would it be better to throw them out at the window? It is so very expensive these dear times to keep a servant, merely to remove the refuse and keep the house clean. The discussion and settlement of this great question must necessarily take place previous to the discussion and settlement of the Sunderland town drainage question.

WANDERING WILLIE.

VIEW OF THE EPISCOPAL CHAPEL, CITY OF LONDON CEMETERY.—Mr. William Haywood, Architect.

AWARDS IN ARCHITECTURE AT THE PARIS EXHIBITION.

As only incomplete statements have yet appeared, and the awards have not given very general satisfaction, we have thought it right to translate from the *Moniteur* the complete list of those to whom awards have been made in Class XXX.

ARCHITECTURE.

GRAND MEDALS OF HONOUR.

Barry (Sir Chas.), United Kingdom:—New Parliament House; Villa at Cliefden.
Duban (Félix-Jacques), France:—Restoration of the Château of Blois; and of the Portico of Octavius, at Rome; Studies of the different Epochs of Architecture.

FIRST-CLASS MEDALS.

SECTION I.—*Designs for Works executed, or not executed.*

Questel (Charles-Auguste), France:—Church of St. Paul, at Nismes; Restoration of the Amphitheatre, at Arles; Restoration of the Pont du Gard.

SECTION II.—*Restorations, and Projects for the Restoration of Buildings.*

Division 1.—Antique Monuments.

Caristie (Augustin-Nicolas), France:—Design for the restoration of the Temple of Serapis, at Puzzuoli; Restoration of the Triumphal Arch, at Orange.
Duc (Joseph-Louis), France:—Design for the restoration of the Colosseum.
Labrouste (Pierre-François-Henri), France:—Design for the restoration of the Temple at Pæstum.
Normand (Alfred-Nicolas), France:—Design for the restoration of the ancient Forum.

Division 2.—Mediæval Works.

Bœswilvald (Emile), France:—Restoration of the Cathedral at Laon, and other historic monuments of France.
Viollet-Leduc (Eugène-Emmanuel), France:—Design for the restoration of the Fortifications of Carcassonne and other historic monuments of France.

Division 3.—Works of the Renaissance.

Vaudoyer (Leon), France:—Municipal Buildings of Orleans; Design for the restoration of the Temple of Venus, at Rome.

SECTION III.—*Studies, original, or after existing Monuments.*

Cockerell (Charles Robert), United Kingdom:—Monument raised to the memory of Wren.*
Jones (Owen), United Kingdom:—Studies from the Alhambra, at Grenada.
Donaldson (T. L.), United Kingdom:—Study of a Temple of Victory in the time of the Emperor Adrian.

SECOND-CLASS MEDALS.

SECTION I.—*Designs for Works executed or not executed.*

D'Arnim (——), Prussia:—Design for a palatial residence; Design for a farm.
Hardwick (Philip), United Kingdom:—Goldsmiths' Hall, London; View of Lincoln's Inn Hall.
Scott (G. G.), United Kingdom:—View of the Church of St. Nicolas, in course of erection at Hamburg; View of the Hôtel de Ville, at Hamburg.
Zanth (Louis de), Wurtemberg:—"La Wilhelma," a country-house.

SECTION II.—*Restorations, and Projects for the Restoration of Buildings.*

Division 1.—Antique Monuments.

Baltard (Victor), France:—Design for a restoration of the Theatre at Pompeii.
Clerget (Jacques-Jean), France:—Design for a restoration of the House of Augustus, on the Palatine.
Lefuel (Hector-Martin), France:—Design for a restoration of the Temple of Juno Matuta, of the Temple of Piety, and of the Temple of Hope.
Pacard (Alexis), France:—Design for a restoration of the Parthenon.
Tétaz (Jacques-Martin), France:—Design for a restoration of the Erectheum, at Athens.

Division 2.—Mediæval Works.

Daly (César), France:—Restoration of the Cathedral of Alby.
Lassus (Jean-Baptiste-Antoine), France:—Restoration of the Church of Saint Aignan; Design, the Châsse de Sainte Radegonde.
Millet (Eugène-Louis), France:—Restoration of the Church of Paray-le-Monial.
Ruprich-Robert (Victor-Marie-Charles), France:—Restoration of the Church of the Abbaye-aux-Dames.

* "Monument élevé à la mémoire de Wren."

SECTION III.—*Studies Original, or after Existing Monuments.*

Falkener (E.), United Kingdom:—Studies of Monuments in Italy and Asia Minor.
Hamilton (Thomas), United Kingdom:—View of different works ["monuments"], at Edinburgh.

SECTION IV.—*Architectural Ornaments, designed or reproduced.*

Denuelle (Alexandre-Dominique), France:—Drawings of ancient Paintings; Decoration of the Choir of the Church of St. Paul, at Nismes.
Petit (Savinien), France:—Chromatic Decoration of the Chapel of Liget (Indre et Loire).

SECTION V.—*Engraving and Lithography: Architectural Subjects.*

Beau (Emile), France:—Different chromo-lithographs; Drawings of glass paintings.
Gaucherel (Léon), France:—Statues at the Cathedral of Chartres; View of the Town-hall of Sienna.
Guillaumot (Louis), France:—Engravings on wood for the Architectural Dictionary by M. Viollet-le-Duc.
Guillaumot (Claude-Nicolas-Eugene), France:—Ditto.
Huguenet (Jacques), France:—Different architectural engravings.

HONOURABLE MENTION.

SECTION I.

Bilezikdji (Pascal-Artin), Ottoman Empire:—Design for a Monument to commemorate the Alliance of France, England, and Turkey.
Burton (Decimus), United Kingdom:—Designs for Buildings ["monuments"] in London.
Fowler (Charles), United Kingdom:—Designs for Buildings in London.
Garnaud (Antoine-Martin), France:—Design for Opera-house.
Hesse (Charles), Prussia:—Additions to the palace of Sans-Souci.
Wyatt (Thomas), United Kingdom:—Church of St. Nicholas and St. Mary, at Wilton.

SECTION II.

Abadie (Paul), France:—Restoration of Buildings ["monuments"].
Merindol (Jules-Amieth de), France:—Restoration of the Church of Saint Genac.
Desjardins (Tony), France:—Doorway of the Church of Charlieu.
Durand (Alphonse), France:—Restoration of the Church of Vétheuil.
Gandara (——), Spain:—Campanile of the Cathedral of Palermo.
Laisné (Jean-Charles), France:—Restoration of the Lazaretto of Ourscamps, and of the Church of Notre-Dame d'Etampes.
Lambert (Eugène), France:—Drawing of the "Jubé" of Faouet.
Lenoir (Albert-Alexandre), France:—Restoration of the Hôtel de Cluny.
Lenormand (Louis), France:—Restoration of the Chateau de Meillant (Cher).
Mallay (Jean-Baptiste-Emile), France:—Principal Street of Monferrand.
Mauguin (Pierre), France:—Drawing of the old Doorway of Die.
Revoil (Henri), France:—Drawing of the Chapel of Saint Gabriel.
Verdier (Aymar), France:—Drawings of the Maisons de Cluny.

SECTION III.

Allom (T.), United Kingdom:—Studies for London Improvements.
Wyatt (Digby), United Kingdom:—Drawing of the Arch of Titus, and of the Upper Church of San Benedetto at Subiaco.
Kendall (H. E.):—Architectural Designs.

SECTION IV.

Delton (Etienne-Albert), France:—Glass-paintings of the Choir of Ferrière-en-Gâtinais.
Frappaz (Jules-Marc), France.—Illustrations to the Imperial Bible.
Laval (Eugène), France:—Silk tapestries of Tarascon.
Shaw (H.), United Kingdom:—Drawing of the Funeral Pall of the Fishmongers' Company, at London.

SECTION V.

Clément (Mdme. Anne-Clara), France:—Architectural Engravings.
Guillaumot (Auguste-Alexandre), France:—Architectural Engravings.
Hibon (——), France:—Architectural Engravings.
Lemaître (Augustin-François), France.—Engraved View of the Arch of Orange.
Penel (Louis-Félix), France:—Architectural Engravings.
Ribault (Auguste-Louis-François), France:—Architectural Engravings.
Sauvageot (Claude), France:—Architectural Engravings.

THE AWARDS IN ARCHITECTURE AT THE PARIS EXHIBITION.

SIR,—The jury appointed to consider the architectural works exhibited at the French Exhibition consisted of nine members; six being architects, and two of the six being Englishmen. In the distribution of rewards it must be acknowledged that these gentlemen have not from any false motives of delicacy disregarded their own interest. They have awarded themselves six gold medals; two of them being "grandes médailles d'honneur." Here are their names, and what they have given themselves:—

Sir Charles Barry.—First great medal of honour.
Duban.—Second ditto.
No other great medals given.
Caristie.—First gold medal for restoration of ancient monuments not executed.
Three others given.
Leon Vaudoyer.—Only gold medal given for Renaissance restoration.
Cockerell.—First gold medal for studies of existing buildings.
Lefuel.—Gold medal for designs for restoration of the antique.
Four others given.

One of the points which most surprised and disappointed me in this architectural exhibition, was the almost entire absence of drawings of executed and modern works by our French and Continental *confrères*, and the comparatively few designs exhibited by them. My surprise has certainly not been diminished, when I find that out of the eleven gold medals of the first class, the French have taken eight; out of the eighteen gold medals of the second class, they have taken fourteen; and of the thirty-three "mentions honorables," they have appropriated twenty-three;—leaving for English architects, seven; for Spanish architects, one; for German architects, one; and for Turkish architects, one—total, thirty-three.

I find amongst my own professional friends, that the decisions in this class are as unsatisfactory as those connected with painting and sculpture.

AN ARCHITECT.*

THE DRAINAGE QUESTION,

INVOLVING HEALTH, HAPPINESS, AND ECONOMY.

As the new legislation places the different localities forming the metropolis in more important relations to drainage than heretofore, and imposes more duties upon those who are to carry that drainage into a proper working condition, not only for the benefit of each house, but also of each locality, it behoves our readers to acquire information on the subject.

After the 1st of January next, every new house, and every house rebuilt from or below the ground-floor, in the metropolis, must have a sufficient "closet," ash-pit, &c.; and every "closet" must have a suitable water supply and apparatus, and suitable trapped soil-pan, and other suitable works and arrangements, so far as may be necessary to ensure the efficient operation thereof. Any offender in respect thereof is liable to a penalty not exceeding 20*l*. The incorporated vestries and district Boards may also in certain cases apply the above powers to any house.

As it were preparatory to such a state of things, we have the Court of Sewers proceeding with great activity to construct the requisite drains, to remove the contents of such closets, &c. and provide also for the abolition of cesspools. It may be a consideration for district Boards, before the machinery of the Court of Sewers is dispersed, to determine whether they should at once undertake the powers of the Act as to drainage, or whether they could not make a fair bargain with the Central Board to do the drainage for them under the power they have to transfer it; for it seems unreasonable that the persons who have had all the experience hitherto, should not be able to do the works required of the districts, at as fair a charge as they could get it done on their own behalf. It appears to be a matter about which

* We have received several other letters to the effect of the above.

the owners, who have to pay, might very well instruct their representatives.

As the changes to be effected under the new Acts are more of managers than of measures, it may be well to note the course adopted by our factory friends in the north of England, under such circumstances. The value of a manager there is shown by his power of drawing the foremen after him, as they value a man whom they understand and respect, and would leave any work for the purpose of serving under him as usual. On the other hand, when a new manager comes amongst those to whom he is a stranger, he tries not to disturb any one under the existing arrangements until he has had some trial of his men and their modes of business. Such also is, no doubt, the rule in large establishments everywhere. So it would be wise in the Metropolitan and other Boards to hold to some provisional arrangements, satisfactory alike to the public, their masters, and to the officers who are to manage their affairs, and not hastily to do injustice to any man's position and prospects. They may thus expect the more able and willing service.

CHURCH-BUILDING NEWS.

Datchet.—The church at Datchet being inadequate to the requirements of the parish, and much out of repair, and the churchyard filled, it has been determined to erect, by subscription, a new church, and also a new vicarage-house. The subscription-list is progressing satisfactorily, and is headed by the name of her Majesty as a subscriber for 100*l.* The Duke of Buccleuch also contributes 150*l.*; and the sum altogether promised to the present time is about 1,500*l.* The sum required amounts to 3,500*l.* It is proposed to erect the new church on the site of the present vicarage-house, and to appropriate a large portion of the vicarage garden as the new burial-ground.

Sherborne.—The Sherborne Burial-board have agreed to purchase four acres of land, in Lenthay-lane, for the formation of a cemetery or burial-ground; and the site has been approved of by the Home Secretary. They have engaged Mr. Haggett as their architect, to prepare the necessary plans and drawings for building two chapels, in the Early English and simplest style of architecture, laying out the grounds, and other works; and the plans and drawings have been approved by the Bishop of Salisbury. Mr. Haggett's estimate for building two chapels, receiving-house, lodge, and office for books, &c.; entrance-gates, making the necessary fences, and laying out and planting the cemetery, draining the same to the depth of 8 feet with a proper outfall, and also for widening and improving the road to the cemetery, amounts in the whole to 2,450*l.* which, added to the 550*l.* sanctioned for the purchase of the land, makes a total of 3,000*l.* The vestry have sanctioned the borrowing of this sum.

Bradford.—The foundation-stone of a new church was laid at Low Moor, on Monday before last, but without the usual ceremony. The church is said to be an addition to those raised in the immediate district by the late Mr. John Hardy. The site is near the highway leading to Wyke. The church will afford accommodation for about 500. The style of architecture is Geometrical Decorated of the time of Edward II. from designs by Messrs. Mallinson and Healey, of Bradford. The edifice will be dedicated to St. Mark. This will be the fifth church that has been reared in the neighbourhood within the last seventeen years, namely, Buttershaw, Wyke, Bank Foot, Shelf, and now St. Mark's.

Otley.—On Saturday evening before last, Salem (Independent) Chapel, Otley, very narrowly escaped being destroyed by fire. Alterations are being made in the chapel. One of the workmen, in order to expedite the process of drying a portion of the newly-plastered walls, had, before leaving the building, made two large fires in the recesses above the organ gallery, and for that purpose had placed on the wood floor two large flags, above which were bricks put edgeways, each fire being also fenced round with loose bricks. The bricks put upon the flags became red-hot, and the flags were also heated, so as to ignite the boards of the floor, as well as a rafter beneath: two holes had been already burnt through the floor, and particles of the burning wood were dropping into the intended class-rooms below, then being used by the joiners, and filled with dry wood, benches, &c. whilst the ground was strewed with loose shavings. Water was hastily procured, and the fires extinguished. A few minutes later and the building would have been in flames, and no one would have been told how recklessly it had been destroyed.

Leeds.—Two workmen have been severely injured by the fall of a scaffolding in course of erection for fixing the roof of St. Mary's Roman Catholic Church here. One of those injured had been sent up to fix the guy-rope to the principal, so as to make all secure; instead of which, from some unexplained reason, he loosened the block, so that the legs veered over and struck down the scaffolding. Three men fell 80 feet, and others leaped on to the adjoining buttresses.

Salford.—Trinity Church, Salford, was re-opened on Sunday in week before last, after having undergone a renovation in its interior, in accordance with the plans and suggestions of Messrs. Isaac Holden and Son, of Manchester, architects. The galleries are supported by solid pillars encased in oak, and the roof by lighter Ionic shafts, which have been painted to represent polished marble, the six pillars on each side of the church being alternately marbled in *verd antique* and *rouge roi*. The whole of the pews and fittings are of dark oak, and have been cleaned and polished. An unsightly signboard in front of the organ-gallery has been removed, and a model of the Royal arms placed there. The chief alteration has been effected in the chancel, which formerly had a dingy appearance. The style of decoration is now in accordance with the Roman architecture of the church. The painting and gilding is the work of Messrs. William Kirkham and Son, of Manchester. Some rudely-painted figures have been removed from a sort of niche in the chancel, and other ornaments substituted. Between the two halves of the double window of the chancel the sacred monogram, I. H. S. has been wrought encircling a cross. What is wanted to complete the effect of these decorations, according to the *Manchester Courier*, it is intended to supply in the form of two stained-glass memorial windows, to be furnished by private subscription. The cost of filling the two windows with stained glass in the Italian style, containing medallions and appropriate scriptural subjects, is estimated at 100 guineas, towards which 60 guineas have been subscribed. The gas-fittings have been altered by Messrs. Harrison and Son, of Salford. The mode of warming the church is still open to improvement: the two unsightly stoves, with their long chimneys in the centre aisle, still remain. The pulpit and reading-desk have been lowered from their former towering height.

ARCHITECTURE AND PUBLIC IMPROVEMENTS.

THE COMPANION TO THE ALMANAC.

THE section of the "Companion to the British Almanac,"* devoted to architecture and public improvements, is this year more than usually interesting. It occupies thirty-four pages, and affords an able *résumé* of much that has been done during the year. The writer says,—

"The increasing difficulty which there is in noticing, adequately, the important works of the year—we might say the impossibility now, of presenting even a catalogue of names—is to ourselves really one of the best pieces of testimony that could be afforded, of the widely-extending growth of art and science in architecture and public improvements. It is true that there are causes for dissatisfaction about popular views on architectural *art*; there are *cliques* amongst professors and students; and researches and theories are sometimes directly productive of error, and only indirectly herald advancement. The real point of excellence, the art, the design, the work of mind, is too frequently not detected by the public. And undoubtedly, the *art* of our time has not kept pace with the progress of mechanical invention and general science. Even in the very application of *science* to sanitary economy, it must, we fear, be allowed that some of the chief questions have not been cleared up; and that, with long arrears to be made good, yet with disaster waiting upon delay, the actual circumstances of the moment are not unalarming."

As the essay is, as yet, scarcely before the public, we give a few extracts:—

Progress.—"We know of no feature which could be more hopeful in the works of the last few years, by educated architects—we might allude even to the last twelve months—than the steadily-growing conviction of the importance of this principle,—the real value and best use of the resources of the time; and the principle to which we have referred has only to be extended to articles of furniture and household use. Many of the evidences are to be observed in the more consistent treatment of decorative ironwork. In practical architecture, the material iron is effecting the most important changes. Areas are now spanned over, which would hardly have been encountered with all the resources of scientific carpentry; and facilities for the admission of light can often be obtained, which are of great importance in a crowded city. Doubts have been raised, sometimes, as to the durability of boiler-plate girders, but the latter can be used for lengths of bearing where the adoption of cast iron would have been the height of temerity. The value as regards internal convenience is obvious, if not also that to art, which should attend the possession of any new resource. But the greatest step which is being made is in the application of cement. It is becoming obvious that the proper artistic use of this material is not in the way of imitating masonry. The employment of brickwork for decorative effect, also is extending; and tiles and glazed bricks are being introduced on many exteriors of a superior character of design. In staircase lights the use of large plates of glass is a resource of great value in such situations; whilst in decoration the material glass is being multiplied into a great number of new forms and colours. The love of decoration in interiors is extending; and the more important works manifest a growing recognition of sound principles,—even if it must be allowed that the majority of others, and private houses especially, still show that much has to be learned there in the way of those principles which, structural in their origin, should be ever found in what seeks to realise beauty in architecture, and which are the very acquisition of value which we say is gleaned from excursions into the arts of the middle ages."

Competitions.—"Advertisements have been addressed weekly to architects, inviting plans to be sent in competition; though we must say that the terms offered—sometimes as little as 5*l.* for the set of elaborate drawings which may chance to be accepted—do not seem calculated to induce much expenditure of thought by members of a profession which requires very varied attainments and a long course of study. The whole question of architects' and sculptors' competitions is one too much mixed up with that of *competition* in general, for those who are most interested to have the chance of speedily settling it; and all that can be at present said is, that competitions now involve much that is unwise as regards all persons interests, and the interests of art, if not much that is degrading or questionable in morals. This, however, is not the place to attempt to show why the best use in every way is not made of the available talent of the country, in cases where there is the necessity for a sudden and general appeal to it. But the Government and the Legislature are not less blameable than municipal and parochial authorities. We may instance the late offer of a premium by the Barrack Accommodation Committee appointed by the Minister of War, where it is stipulated that all plans sent in, rewarded or not, are to remain the property of the War Department. So that, as 180 sets of drawings are understood to have been sent, the country paying, amongst half-a-dozen competitors, 600*l.* in premiums (not a pound more than the money-worth), is to get 124 sets of drawings—involving a cost of, at the most moderate computation, 1,500*l.* to 2,000*l.*—at the expense of the unlucky authors. We have not to urge that the system—here seen in but one of its phases, and that one a comparatively favourable one—is opposed to the high English spirit of honour; we have merely to say that it is one of those matters which require reformation—as an object which, like the popular information on *art*, and the natural apprehension of respective duties and claims between artists and the public, must be attended to, if ever the desired advancement is to be effected in art, and the best use made of such resources of education and skill as may happen to await demand."

Our Statues.—"The public statues erected during the last few years have been as numerous in England, perhaps, as on the Continent; and it has been out of our power to allude to each instance. The Manchester Wellington Monument, by Mr. Noble, is one of the last completed. The hero is represented in

* Knight and Co. 90, Fleet-street. 1855.

ordinary costume, on a tall pedestal, at the base of which are grouped accessory figures. At the same town, the bronze statue of Dalton, by W. Theed, has been completed and fixed. It is placed on an angle pedestal, in the parapet wall separating the public esplanade from the grounds of the Infirmary, and is a copy, on a somewhat larger scale, of a marble statue by Chantrey, in the Royal Institution, at the same town. This principle, in works of sculpture—here carried out on the instructions of the committee—is not a judicious one,—and not merely because the value of a new work is comparatively little, if it cannot be viewed as a work of mind (which surely every public monument should be), but because it is by no means clear that the rules of art as to properties of materials do not apply as much to sculpture as to architecture and decorative art. The antique sculpture in bronze is always very different in treatment to the sculpture in marble. Proportions and details can be fashioned in the one case, which would be beyond the limits of a friable material; and these opportunities, according to all sound principles of art, are to be accepted, not passed by. Moreover, a comparative lightness of character affords the justification that is really required, for the use of a material the colour of which has some heaviness, and we believe it is to mistakes of the kind referred to, as much as the ungainliness of modern costume, that the somewhat unfortunate result in recent works—such as the statue of Sir Robert Peel, lately placed at the west end of Cheapside—is due. We are therefore disposed to suggest to the authorities at Manchester, that they should hesitate before carrying out an intention, lately expressed, of making a statue of Watt (proposed to be placed in a corresponding position to that of the Dalton statue) a copy of the marble statue in Westminster Abbey.—The statue of Sir Robert Peel just mentioned fails in another important particular. It is no exception to the common error in our public statues, of caring little about the accessories and the pedestal. There should in all cases be a proper area of platform slightly raised above the general ground; and if the latter *ascend* to the statue, it is better. Then, with subordinate objects at the angles, and some degree of *design* and decoration in the pedestal itself, not only does the whole become a satisfactory public monument, but the work of the sculptor culminates to its due effect; whereas, a common system is to take no thought about the pedestal,—to set it down where the ground is perhaps lower than that around, and to finish with an ugly railing and four street-lamps."

A Slag Church.—"A church at Oakengates, in Shropshire, by Mr. J. P. Harrison, is important as an instance of the economic use of a local material, viz. the slag from furnaces. This refuse accumulates in the iron districts in vast heaps, spoils the face of the country, and hitherto has been treated as nearly useless. At Oakengates, it was gladly got rid of by the manufacturers as a gift. There would at present be some difficulty in insuring good construction with materials of such irregular form; but if it should be worth while to run the refuse into blocks, this material might become really valuable. But since the erection of the church, a company has been formed for the conversion of the slag into various shapes; and it is found that it can receive a high polish. Considering that, in the manufacture of iron, the refuse is in the proportion of from one to three tons for each ton of iron produced, whilst in the case of lead and copper the proportion is even greater, the matter is one of some public interest."

New Palace Yard, Westminster.—"An extensive scheme has been broached. This comprises, in addition to buildings on the line of Bridge-street, the removal of the Law Courts; the erection—somewhat in advance of the present line—of a range of buildings with bay windows, and an arcade, now much needed in wet weather; of a grand gateway at the angle of New Palace Yard, thus enclosed; of the raising the roof of Westminster Hall; the removal of St. Margaret's Church to a fresh site, and of several houses in Old Palace Yard; and some other works. Thus it is believed that the present disjointed and incongruous character of the whole would be remedied; that a proper entrance would be afforded, and that the general mass would group with the Abbey; that building, with the new portion of the Palace, forming two sides of a quadrangle. The new buildings would be chiefly used for Commissions, and similar purposes; for which, as we remarked in a former year, enormous expense is now incurred. The cost of the Palace, with the works in progress or sanctioned, would come to 1,944,226*l.* (inclusive of what has been paid for houses and land), and if Sir Charles Barry's last proposals were accepted, it is believed that the total cost would be made up to 2,595,511*l.* A number of works of painting and sculpture have already been added to the building. The frescoes in the upper waiting-hall, descriptive of passages in the poets, have been some time complete: Mr. Maclise is painting the subject of his picture, 'The Marriage of Strongbow and Eva,' in fresco, in the Painted Chamber, or conference hall; and amongst the recent works of sculpture are bronze relievos in the Prince's Chamber, by Theed, and statues of Selden, by Foley, and Walpole, by Bell, in St. Stephen's Hall."

British Museum.—"The new reading-room now in progress in the inner quadrangle, will meet a want which has been long pressing. By the adoption of the circular form in combination with the other features in the new arrangement, the light in the old part is not interfered with; an effective interior will be secured; apparently ample elbow-room will be afforded to readers; and there will be a great increase of book space. Lavatories and a refreshment-room are still wanted. The entrance for readers will be through the main entrance-hall, in place of the roundabout back-way. The reading-room, or hall, will be in diameter 140 feet; and the height to the top of the central skylight will be 108 feet, taking the measurements in the clear, and before the fixing of book-cases. The dimensions nearly equal those of the Pantheon at Rome; a building between which and that we are noticing, there are points of resemblance—whilst we believe the modern work goes far beyond the ancient example, if not beyond all examples of domed structures, in the amount of skill and contrivance brought to its execution. We refer here to the manner of forming the vault itself—providing the requisite channels for ventilation, and guarding against the spread of fire from external buildings to the interior of the hall, and *vice versâ*; to the securing abundant light; taking up the minimum of space for supports, so as to give the utmost space for books; and providing the requisite counteraction to the thrust of the dome without cross-ties, or counterforts—which here would be in the way. The ingenious and elaborate structural contrivances by which all these objects are worked out, will be concealed when the work is complete; and as they really form what is of chief interest, we regret we cannot explain their nature by the required large illustrations. We may say, however, that the supports consist of uprights of cast iron (massive enough, though barely discernible on our plan) carrying a ring of girders locked together; the latter bearing the dome,—which is to be formed with iron ribs and ties, and brick and tile work, and is to be covered with copper. The hall is lighted partly on the principle of the Pantheon dome; that is, by a light at the top—here 40 feet in diameter—and partly by twenty large windows round the base. Beneath the whole floor will be a chamber for the accumulation of fresh air, moderately heated by hot-water pipes,—the air being passed into the room by numerous apertures. Arrangements for the summer ventilation are also provided. The supply of air is drawn from a vertical shaft. The reading-room is estimated to provide for 100,000 volumes of reference, and about 400 readers at tables radiating from the centre, where the superintendent's raised platform, and the catalogues in concentric cases, will be placed. The new portions (external to the circle) which have ridge and furrow top lights, are chiefly to provide additional stowage for books. The books are to stand on light racks, or cases of wrought iron. The increase of space is very great. The panels of the finished vault will be formed of *papier maché*, and may be decorated with paintings. Mr. Sydney Smirke is the architect of these works; and whether the suggestion of a conversion of the quadrangle be due to him, or to Mr. Hosking, or others, the actual design and construction do him the highest possible credit."

MAINTENANCE OF NEW ROADS.

As no one else has replied to your correspondent of a recent number, "The oldest Inhabitant," relative to the state of the road in his immediate neighbourhood,—and which having seen in the summer time, I can readily conceive to be in quite as bad a state, after some weeks' almost continuous rain, as he represents it,—I will without one word more as to the disease proceed at once to the remedy.

By a recent Highway Act, it has been, as I think, very wisely provided, that every new road opened in any parish or place shall be of good and sufficient width, and be properly formed, made, and drained; and, after due notice being given, be formally handed over, and if found to be in accordance with the Act, be accepted by the surveyors of the said parish, before two or more justices of the peace, and become from henceforth to all intents and purposes a parish road. This is the purport of the Act alluded to; but as I have not a copy at hand, I quote from memory.

Where there are several proprietors engaged on the sides of a new road, and there are many such in the neighbourhood of London, it is one of the most difficult things in the world to convince them collectively of the necessity of making the road before a brick is laid in the intended new houses; and unless all agree, the outlay of those who are wise enough to see the necessity of it, would be quite thrown away if so applied. Now the building societies which have of late sprung up in such numbers, have very wisely met this outlay in a proper manner; and the first thing they have done on their plots has been the laying out and forming the roads. True, they have the means in their own hands, because they can spread the cost equally or proportionally over the whole of the plots. In all private speculations the nuisance, notwithstanding the drawback which in some instances must be severely felt by not only proprietors but also those who have perhaps unwittingly become tenants of houses thus situated, is not likely to be remedied until the clauses of some future Act shall make it imperative on all owners in such cases to cause proper roads to be made, and as relates to the London district, for aught I know, this may have been already done.

It is very natural that people who are made to pay highway rates and the like, should grumble at not having the same accommodation as the earlier settlers in the parish; but a very little reflection will convince such parties of the injustice of such a notion. In going to and from these newly-opened roads, parties have to traverse a very large portion of the old roads of the parish; whereas the occupants of the old roads, with very few exceptions indeed, never have occasion to go on to the new road; but the Act makes them say,—Put yourselves in as good condition as ourselves, and we will take you into fellowship with us. W. Wilds.

CEMENT FOR WOOD AND METAL.

The following cement will unite porcelain, glass, and, as I have lately found, iron and other metals, to wood, most effectually. I should think it would be admirably adapted for your correspondent's purpose:

Two parts by weight of Portland cement, and the same amount of clean "silver sand," both sifted very finely, must be intimately mixed with one part of glass dust. This compound may be made in quantity, and preserved for any length of time in air-tight vessels. When required for use, it should be worked up with a little of the clear serum of blood (or white of egg, diluted with two-thirds of its bulk of water), with every fluid ounce of which have been previously incorporated twelve to fourteen drops of white vinegar.

It is better first to moisten the surfaces it is intended to unite, with this albuminous menstruum, and then apply the cement, kneaded into a *thick paste* with the same, than *at once* to employ the latter, made of a much *thinner consistency*.

Whenever possible, the points of contact should be made to dovetail into each other in some way, to ensure a perfect junction; and where the surfaces *must* be plain, they might be roughened with considerable advantage. A good deal of cement should be used, and every crack filled up, the superfluity being squeezed out by strong pressure, continued for forty-eight hours. In about four or five days the junction will bear hot or cold water and vibration with impunity. Wentworth L. Scott.

P.S. In reference to my article on "Salt in Walls," &c. I am happy to say that the Crystal Palace Company have set a good example to other subscribers to the *Builder*, by sending me several excellent specimens of "salt." The cost of adding sulphuric acid to a fifty-gallon cistern was misprinted "eightpence:" it should have been "twopence."

A DIPLOMA SOCIETY.

Whilst reading your recent leading article as to "The Architectural Association," the idea occurred to me of instituting "a general society" of the kind throughout the country, the members agreeing to submit themselves to an examination at the Royal Institute of British Architects. This, with the aid of "the Institute," and backed of course by the *Builder*, would at once put down all opposition to architectural diplomas. I am a young man myself, and feel how great a benefit such a protection would be to those who had honestly earned it; against, as it were, architectural quacks, who not only deprive the competent practitioner of business, but injure the profession generally, by the wretched buildings which are erected under their directions. Of course it would require some hard study to pass such an examination, but that would fill the mind with many good and noble ideas, and which would at some future period be the means also of filling the pockets. Such an examination would, doubtless, exclude many from passing as architects, but who would, most likely, be able to pass for surveyors, which I think every one should do. As every surgeon must pass for an apothecary, so should every architect for a surveyor. As the profession now stands any one may act as an architect; and with a fluent speech, and a large brass plate on his door, cut a very respectable figure in society; but

then, look at the structures they have designed, and carried out, of which your sketch of a "Corner Shop" is a very fair specimen, which looks as though it wanted to bow itself down to the ground in honour of its distinguished originator. A Student.

INVENTIONS AND MANUFACTURES AT THE ARCHITECTURAL EXHIBITION.

The intimation that the Council of the Royal Institute of Architects have agreed to the request that they should appoint a jury, who will award certificates of merit to such exhibitors of materials, inventions, and manufactures, connected with architecture, as they may think entitled to them, will lead, we should think, to the exhibition of a very large number of interesting objects, and render the Exhibition practically valuable to all concerned or interested in works of construction. A certificate of merit from such a committee as they will, doubtless, appoint, must prove of no small value to the recipient.

Our readers have probably observed that a *conversazione* will be held on every Tuesday evening, when papers on art will be read. These meetings will have the effect of bringing large numbers of the public to inspect the works exhibited.

Notices of Books.

A Treatise on the Stability of Retaining Walls. By John Murray, C.E. First Part. Weale, Holborn. 1855.

Some years ago an eminent foreign architect, who had examined various lines of railways then in course of construction, asserted to us that he had scarcely met during his journey with one person engaged upon the works who could explain to him mathematically the resisting power of the "retaining walls," or the thickness required in one to resist a certain pressure. Whether or not he was exaggerating we will not discuss, but certain it is that this description of knowledge is not so general as it should be. Even if we go to existing theories on the stability of retaining walls, "it will be seen," as the writer of the book before us observes, "how much the one is at variance with the other. If some of these theories be adopted, what a waste of material would be improperly applied: if practice only be followed, how much money would be spent, on the notion of obtaining strength to the structure, by placing the material where it could not be of the slightest use. In this, as in most instances connected with physics, the one must be combined with the other."

In Chapter V. Mr. Murray gives these various formulæ, which have been propounded by mathematicians; and, combining the results (!), deduces that "the thickness of the wall is one-fourth of the height. This thickness, however, is only in equilibrium with the pressure of the earth; and therefore the smallest possible." He concludes:—

"The inference on the whole is, that if we make the thickness of the wall one-third of the height, it will be ample for the average kind of earth pressing against it; but if care be not taken to place the same properly, and there be likelihood of its being saturated with water, acting with the full force of a semi-fluid, we must of course increase its thickness. Whether this should be made nearly one-half the height, as recommended by Mayniel, is however questionable. There is no doubt that it may be very much avoided by having the backing executed, for a sufficient breadth, with proper care. By so doing, a large reduction in the cost of the masonry may be advantageously applied in depositing the backing earth in layers, properly levelled, beaten, and carried up with the building of the wall. In practice this is sometimes done in a slovenly manner, without due superintendence, and is often the cause of failure in the structure."

There is a want of precise teaching in this treatise; readers are left in doubt which really is the correct formula after all: nevertheless we strongly recommend Mr. Murray's work to the consideration of our readers, and even more strongly the special branch of knowledge which the consideration of it involves.

Fall of a Railway Bridge.—On Thursday before last, a bridge over the Stockton and Darlington Railway, near Crook, fell in as six or eight horses, and three or four persons, were passing over. The bridge (made of wood) connected the lands of one farm, and had been in a rotten state for some time.

Miscellanea.

Reflector for Lights.—At the meeting of the Institution of Civil Engineers, on the 20th November, attention was directed to a new kind of reflector for lights: it was composed of silvered porcelain, and appeared to possess a very brilliant polish, which was stated to be indestructible. Hitherto reflectors of small sizes only had been produced; but by means now adopted, it was expected they could be made as large as 21 inches diameter over the mouth. If this manufacture was brought to the perfection it was anticipated, a great economy would result, as the silvered copper reflectors, at present used, were expensive originally, were liable to oxydation, and were frequently injured by the care of the attendants, in rubbing them to keep the reflecting surfaces bright.

Expanding Bridge.—At the same meeting Mr. Lavanchy exhibited a model of an expanding portable bridge, of his invention. The system had been tried at Paris, where a bridge on this principle, fixed upon a boat in the canal, had been used for permitting the passage of troops: the boat yielded considerably to the weight of the men brought upon it, but the bridge remained stiff, and the commanding officer had reported well of its properties. The principle was that of a number of strips of iron or wood, pinned together transversely at such points, as that they should form a series of equilateral parallelograms, the extension being obtained by the motion upon the connecting pins, somewhat on the principle of what was commonly called "lazy-tongs." Its construction was stated not to be at all expensive.

The Traffic of the Metropolis.—In the report of the Parliamentary Committee on metropolitan communications, it is stated that about 200,000 persons enter the city each day on foot by different avenues, and about 15,000 by the river steamers; and besides the cab, cart, carriage, and waggon traffic of the streets, the omnibuses alone perform an aggregate of 7,400 daily journeys through the city. The number of passengers arriving at and departing from the London-bridge group of railway termini, which in 1850 amounted to 5,558,000, had in 1854 risen to 10,845,000. At the South-Western Railway, during the same period, the numbers have increased from 1,238,000 to 3,308,000. The number arriving at and departing from the Shoreditch Station last year, is stated at 2,143,000; Euston-square Station, 970,000; Paddington Station, 1,400,000; King's-cross Station, 711,000; the Blackwall Station, in Fenchurch-street, 8,144,000. The committee call attention to the urgent need of plans being adopted to relieve the present over-crowded thoroughfares. They recommend the establishment of new and more direct lines of communications between the principal points of the metropolis; the connection of the various railway termini with each other, with the docks, the river, and the post-office; and the abolition of tolls on the roads and bridges within the metropolitan district.

Surveyorship.—It is stated that the office of surveyor in the Sun Fire Office is vacant. The salary is, of course, considerable.

Nottingham School of Art.—On Tuesday in last week the twelfth annual general meeting of the donors, subscribers, and friends of this school, was held in the Exchange Hall, Nottingham, for receiving the report of the committee, electing a new committee, and distributing the medals awarded to the students for works sent to the annual exhibition, Gore House, London. The drawings of the students, from Gore House, and of the pupils generally, were exhibited on the walls. The mayor was called to the chair, and the secretary read the report, in which the committee regretted that they were not able to report so favourably as they could have wished to have done upon the present position of the school. During the past year the numbers of students in attendance had been about eighty each month, which was a falling off as compared with previous years of at least thirty students. The committee were of opinion that this decrease was mainly owing to the frequent changes made in the management of schools of art by the authorities at Marlborough House, and to the want of a second master to the school. In the midst of a good deal of remark from various speakers, unfavourable to the management of the Department of Art, the chairman said he hoped that steps would be taken to represent to Government the steps which the gentlemen of Marlborough House were attempting to impose upon them, and which would soon shut up all the provincial schools of art. It was all very well to say that those interested in manufactures should support these themselves: manufacturers, both here and in other places, had always contributed *their share* and more. But the school was calculated to be of benefit not only to the manufacturers but to the town at large; and it was their duty to aid in the development of what he believed advanced the trade of the town and the commercial interests of the country generally.

Gas.—The Portsmouth Gas Company's men are busily employed, according to the local *Times*, in laying down throughout the town, new mains of a much larger diameter than those at present in use. An insufficient supply, much complained of, has been caused by leakages in the old mains.——A "perdifume" or condenser, has been patented by Mr. Edward Simons, of Dale End, Birmingham. In size and external form it resembles the ordinary shades, and it is suspended in the same manner over the flame. It has a raised and partially closed bottom, containing soda, lime, or potash, which absorbs the carbonic vapours, and thus, it is said, preserves the surrounding air in a state fit for respiration, also condensing the smoke, and retaining the unconsumed carbon, which would otherwise be deposited in more objectionable places. Where it is made of porcelain, or of opaque glass, it is said to increase the illuminating power of the gas, by acting as a reflector. The cost, it is said, is a mere trifle.——With the view of economising the consumption of gas, as well as effectually lighting the streets, an experiment is being tried at Dunbar. The same system was introduced into Haddington some time ago by Mr. D. Roughead, and abandoned before it had a fair trial. It consists of highly reflective lamps placed in elevated situations in different parts of the town, whereby a small jet of gas throws out a great flood of light. There is only one lamp at Dunbar as yet. It has been placed in a window of the top floor of Dunbar House. The lamps on both sides of the streets were put out as far as the West Port, and the street is, nevertheless, it is said, nearly as well lighted as with the present lamps altogether.

Saturday Half-holidays.—Mr. J. R. Taylor, of Chancery-lane, has compiled, under the title of "Saturday Half-holidays and the Earlier Payment of Wages," and published in the form of a pamphlet, some correspondence from the public journals on this important subject, together with the resolutions unanimously passed at the public meeting in Guildhall, London, on 15th August last,—the whole addressed to the Lord Chancellor (Cranworth), the Lords of the Treasury, the Lord Mayor of London, the legal profession, and the public in general. The object is to enable those addressed to form a just estimate of the importance of the movement in various aspects, and to point out the best means of carrying out the design.

Wooden Houses.—In a book written by me called "A Sketcher's Tour round the World" (Hurst and Blackett, 1854), at page 159, in speaking of the earthquakes in Chili and Peru, I have remarked on the danger of brick and stone houses, and that if houses were built of timber, exactly as they are in Norway and Sweden, they would be quite safe. The logs are notched into each other at the corners of the house, and the partition of the rooms fitted in the same way, through the side of the house, and each log when put up is placed on pegs previously inserted in the lower one. I think that houses built in this way would be quite safe in earthquakes that would overthrow any brick or stone ones.—R. Elwes.

Hoop-Iron Bond.—As the patentee of the bond upon which you were good enough to express a favourable opinion, I cannot permit the observations of your correspondent, "R." (who has brought forward a very old suggestion, as being a better and more easy method of preventing "longitudinal escape," than by the use of my "Patent Bond"), to pass quite unnoticed, lest those of your readers who have not yet seen the "new bond," may be prejudiced against it, and say it must, indeed, be useless, if "R.'s" suggestion be better. It will not, I think, be necessary to go fully into the defects of "R.'s" notion, as nineteen-twentieths of your readers will have at once seen its objectionable character. It is clearly not so good a method as using the hoop-iron in the ordinary manner, as it divides the building into a series of short ties, offering a kind of premium for a split, on the least settlement taking place, weakens the bond at four places, for every "raising and depressing" of the iron, causes great additional labour, as the iron must be closely dressed at each turn, and entirely destroys the end-to-end tie, so essentially necessary for proper construction. That "longitudinal escape" does now occur, there cannot, I think, be any doubt, although "R." thinks differently; the cracks to be seen in every street offer, according to my ideas, convincing proof. The methods adopted by many architects to give to the hoop-iron an additional key, and the various experiments tried by many professional men (among them I would mention one of the most celebrated late engineers), clearly prove that "R.'s" opinion is not a general one; and that hoop-iron, as at present used, is not considered perfect, and does not obtain, to the full extent, that object, for which it is especially used. It is to prevent the possibility of "longitudinal escape," that my "Patent Bond" has been designed.

F. Tyerman.

The proposed Anglo-Gallic Submarine Railway Tunnel.—Another new form of this project has been sketched out by Mr. James Wylson, C.E. in the *Illustrated News*. Mr. Wylson preludes his own modification of the tunnel, by a brief historical record of the various forms under which it has been suggested, and points out the *Builder's* early connection with the project. The names associated successively with it in this sketch are, Mr. Rettie, of Glasgow, C.E. in 1838; Mr. De la Haye, of Liverpool, in 1845; Mr. E. Pearse, of Tavistock, in 1846; M. Ferdinand, in 1848; M. Horeau, in 1851; and Dr. Payerne and M. Favre, in 1855. Mr. Wylson's peculiar modification of the idea consists mainly in the submersion, midway or more towards the bottom of the channel, of a tunnel built on pontoons at the surface, and constructed in a way analagous to that pursued in the cooper's craft, the tube being cylindrical, and consisting of a system of staves and hoops of wrought iron, with some flexible and saturated sheeting between the two, and lined interiorly with dowelled brick, to moderate the buoyancy of the whole, and steady it *in situ* below the field of storm-wave commotion altogether, where it would be moored by weights of sufficient ponderosity after being sunk to its position. The ends of the tunnel would be closed each with a hemisphere of iron, and access be had from above the surface of the water by shafting and platforms, so that the whole would float freely without any rigid attachment to the shores. There might also be shafts for ventilation here and there along the line, with bells and lights to indicate the whereabouts of the tunnel to vessels passing it, and the tunnel might be lighted by electricity, the tops and sides of the carriages being of glass. Mr. Wylson provides for various other contingencies into which we cannot enter. He estimates the total cost of his project, so far as regards the tube itself, at 15,000,000*l.* or 750,000*l.* a mile, the tube being suitable to a single line only, to be worked alternately to and fro. This estimate, as he remarks, is about two and a half times the cost of the London and Blackwall Railway. Mr. Wylson's object is merely to indicate the practicability of the project, and advance it a stage or so towards its possible future realization.

Improvement in Carlow.—A correspondent of the *Carlow Sentinel* speaks of Mr. J. D. Duckett, of Duckett's-grove, Carlow, as one who has fostered architectural taste, and to some extent been instrumental in promoting the fine arts in Ireland, especially by his collection of works of art and science. The writer then proceeds to describe the new buildings at Duckett's-grove. The mansion is said to belong to a transition period between the thirteenth and fourteenth centuries. The style is castellated domestic. It consists of a centre and wings,—the centre, composed of the principal gateway, with lodges on either side, in flanking towers to the gateway. These towers are of unequal height—the one being 50, and the other 43 feet—the taller tower having a characteristic spiral stair leading to apartments above, which are fireproof. By this staircase, which is continuous, there is an ascent to a level flat or terrace of solid masonry, composed of Carlow flags with drips, after the manner of Roslyn Castle. The pile of building is of irregular outline in plan, covering an extent of about 240 feet. The design is by Mr. J. M. Derrick, and the contractors are Messrs. Kelly and Kinsella, who have been occupied about two years in the work.

The St. Andrews School of Art.—This undertaking was formally inaugurated by Sheriff Gordon on the evening of Friday before last, as reported in the *Fife Herald*. The Sheriff delivered an address on the occasion, advocating the wide diffusion of education among all classes of the community, as the most effectual means of lessening crime, and fostering refined tastes in the country. The large hall of the Madras College (where the address was delivered) was filled with the *élite* of the city, who testified their approval of the liberal sentiments submitted to them by frequent applause. Dr. Lees gave an encouraging statement of the progress already made by the committee of management, as to lecturers and enrolments in the several classes which were to commence this week. At the close of the address, a public supper was served up in the Town Hall, and about sixty gentlemen were present.

Birmingham.—The first lecture to the members of the St. George's Instruction Society, was delivered on Tuesday evening in last week, by Mr. George Wallis, head master of the Government School of Art, in continuation of a lecture delivered last winter, "On Elementary Drawing." The special subjects selected on this occasion were light, shade, and colour; and the various points brought out in the course of the address were illustrated by diagrams of colour and paintings, together with sketches in charcoal and white chalk, executed on tinted paper in the presence of the audience.

Leamington National Schools Competition.—We understand that the Lords of the Committee of Council on Education have expressed their approval of the plans prepared by Messrs. Clarke and Worthington. The committee, we are informed, stated that they did not think the estimate (2,022*l.* 10s.) too high for such a school as that in contemplation. Their grant towards the new building will be about 6s. per foot superficial over school and class-rooms, residence for master and mistress, &c. The amount is thus divided: master and mistress's residences, with yards and offices complete, 700*l.*; school-rooms and class-rooms, 740*l.*; sheds, &c. including division-wall, 175*l.*; water-closet building to schools, and fittings, 80*l.*; boundary-wall and iron railing to front, including four gates, 170*l.*; bell and hanging, 7*l.*; grates, desks, benches, cupboards, &c. 125*l.*; add extra for tile roofs, 25*l.* 10s.: total, 2,022*l.* 10s. Mr. John Murray has published an advertisement, a column and a half long, in the *Spa Courier*, impugning the decision.

Somersetshire Archæological and Natural History Society.—The first *conversazione* of this society for the season 1855-6 took place in the Museum of the institution, at Taunton, on Monday evening before last, under the presidency of Mr. W. E. Surtees, when the large room was thronged by the *élite* of the town and neighbourhood. Nearly 200 members and their friends were present. The walls of the museum displayed various additions to the collection deposited in the curator's custody. The Rev. Mr. Warre lectured on the subject of the cathedral at Wells. Mr. Warre's remarks related to the appropriate and judicious use of sculpture and painting, as aids to architecture, but more particularly to the merits of the collection of casts from Wells Cathedral, of which the society had obtained possession since their last meeting. After some little discussion, Mr. R. Walter read a paper "On the Architectural Features of Stoke-sub-Hamdon Church;" after which the company adjourned to the refreshment-room; and when the subject was resumed, some conversation ensued on the topic of Mr. Walter's paper. Mr. Jones then addressed the meeting on "The Microscope, with some of its Uses and Revelations."

Extension of Speaking Tubes.—A fact in acoustics has just been tested at a printing establishment in Liverpool, according to the local *Journal*. Mr. Greenwood's private office is in Canning-place, his printing-office in Trafford-chambers, South John-street. The distance is about 400 feet, and a gutta-percha tube, of an inch diameter, has been carried through yards, houses, cellars, &c. and then passed up to the upper story of Trafford-chambers. A person speaking at one extremity in Canning-place is heard, it is said, as distinctly in South John-street as if he had been within a yard of the speaker. Some scientific gentlemen recommended a tube of large diameter, and one of an inch-and-a-half was tried without success: the inference is, that the smaller the tube the more distinct the words conveyed. Does this, remarks the *Journal*, suggest the possibility of a speaking-tube for miles along a railway? Is it not, we may add, corroborative of the idea that music, and even lecturing, preaching, &c. may be "laid on" in a town, like gas or water, or distributed from some central source and through different routes at one and the same time, by means of very small tubes connected with one or more "auricles," or conceutraters, of the particular sounds to be so conducted? The experiment at the Polytechnic Institution, in Regent-street, whereby music is conducted in a way somewhat analogous from one part to another of the premises is an interesting one, and might be followed up by the enterprising manager, Mr. Pepper, with another, of the kind indicated, for the transmission of some suitable lecture, or other oratorical composition, or soliloquy, from an auricle, and through several small tubes simultaneously into different apartments, or closets, prepared so as to receive the acoustic vibrations to the best advantage. The effect might at least be made exceedingly amusing in various ways, though not perhaps of much practical use.

Milton Club Competition.—We understand that the design by Messrs. Banks and Barry has been selected.

The Stained Glass for St. George's-hall, Liverpool.—The *Liverpool Albion* of Monday last mentions that a transparency prepared by Mr. F. Howard, "as a specimen design for a decorated window for St. George's-hall, will be exhibited to-day, in order to give the committee an opportunity of appreciating its effect before giving the order for its execution in stained glass." The subject represents Lord Stanley putting the crown on the head of Richmond, after the battle of Bosworth-field. It occupies the centre window of the five at the side, the size being 18 feet 7 inches by 8 feet 6 inches. It is proposed to fill the window with the single representation of the subject, and to make the outline of the group support the whole of the glass without any arbitrary lines, such as sash-framing and saddle-bars.

Associated Registrars' Committee.—The superintendent registrars and registrars of births, deaths, and marriages, considering it desirable that, as a body, they should have an organised representation, held a meeting a short time ago at the Freemasons' Tavern, at which it was resolved that a committee should be appointed, under the above title, to watch over the interests of the registrars generally, and especially in respect to any legislative enactments affecting them in their official capacity. The committee, in their prospectus which they have addressed to the registrars, inviting their co-operation, desire it to be clearly understood that they have no reason, nor any wish, to complain of the duties imposed upon them by the registrar-general under the Registration Act, but they consider that the experience acquired by the registrars since the passing of the Compulsory Vaccination Act, fully warrants that some endeavour should be made to guard them from the effects of Acts of Parliament containing clauses most difficult to be carried out, and at the same time affording very inadequate remuneration for the duties imposed. This, they are of opinion, cannot be done efficiently without the cordial co-operation of the general body of registrars. The offices of the committee are at 9, Gower-street, Bedford-square.

Architectural Society, Oxford.—At a meeting held on Wednesday evening, the 21st ult. the president, the rector of Exeter, in the chair, the secretary read the report of the committee, expressing a hope that, before any steps were taken towards the much desired restoration of St. Mary's Church, the state of the tower should be carefully considered, since great fears were entertained, from the reappearance and extension of cracks in the masonry. Afterwards the Hon. H. C. Forbes, of Oriel College, read a paper "On the best Style for Churches in the Present Day."

The Royal Institute of Architects in Ireland held its second re-union for the session on Saturday, the 24th of November, and we are informed that the members mustered pretty strongly. Mr. Jacob Owen, V.P. M.R.I.A. occupied the chair; Messrs. M'Carthy, S. Symes, Neville, M'Curdy, J. J. Lyons, James Owen, Astley, Montgomery (members); J. Kirk, Tate, Telford (associates), &c. were present. The business of the evening was chiefly of a financial character, with exception of the announcement of a donation of reports of proceedings from the Liverpool Architectural and Archæological Institute,—an evidence of that proper feeling of cordiality which should always exist between kindred institutions.

Coppin's Iron Theatre, at Melbourne.—The Sydney *Bell's Life* mentions the opening of this theatre, which was made by Messrs. Edward T. Bellhouse and Co. of Eagle Foundry, Manchester. Although erected in the short period of six weeks, it is stated to have a thoroughly substantial look. The *parterre*, having sitting capacity for 700 persons, is divided into pit and pit stalls; and the boxes will hold 450 seated. The decorations are rich and elegant, the prevailing colours being green, pink, and French white. The front of the boxes is ornamented by medallions, illustrating selected situations from the "Merchant of Venice," "Hamlet," "Othello," "Richelieu," "Richard the Third," and "A New Way to Pay Old Debts," which (as well as the general decorations) have been executed by Mr. W. Pitt, formerly connected with the Lyceum Theatre.

Board of Works.—T. Walsham Philipps, esq. who, on his retirement, has been succeeded in the situation of Secretary to the Board of Public Works by Mr. Austin, from the Poor Law Board, served upwards of forty years with ability and zeal in the public service. On the division of the establishment of Woods, Forests, Land Revenues, Works, and Buildings, on October 10, 1851, Mr. Philipps was appointed Secretary to the Commissioners of Works and Public Buildings. Previously he was official secretary to the Chief Commissioner, and clerk to the Board of Woods and Forests; also secretary to the Commissioners of Metropolis Improvements.—*Civil Service Gazette*.

Smithfield Club Prize Cattle Show, 1855.—We are asked to remove the impression which has arisen that this show has been removed from the Baker-street Bazaar, where it has been so long held, and are authorised to say that it will take place as usual on the 11th, 12th, 13th, and 14th of December, at the Bazaar. In taking the Bazaar for a term of years, the committee of the club had in view the fact that the principal supporters of the show are, on the one hand, the general public, who will not follow an exhibition, however popular, to an inconvenient locality; and, on the other, noblemen and gentlemen interested in agriculture—the principal exhibitors—who now resort to the show from day to day, from its contiguity to their London residences, as well as the farmers and graziers, who, when they come to town, like a central situation.

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"*Wooden Houses*" (Several persons have written to say, in reply to inquiry, that plans, &c. may be obtained of them. This, however, of course, was not the object of the inquirer.) "Septimus" (there is nothing to enforce it) "Water Works, Hereford" (Stock and Son, of Birmingham, profess to give designs for such works).—"J. S."—"R. M. P."—"J. F."—"H. and R."—"E. L. D."—"T. H. W."—"A. B."—"D. W."—"W. J. N." (the district surveyor is entitled to a fee).—"T. R. S."—"M. E. H."—"J. A. W."—"T. C."—"C. C. N." (thanks).—"A Banker."—"A Builder."—"H. S."—"J. C."—"P. P."—"R. E."—"W. H."—"M. L."—"J. H."—"The Clerk."—"W. S."—"H. C. L."—"Mr. R."—"E. A."—"J. M."—"P. T. B."—"T. W. T."—"J. E." "W. R."—"M. P."

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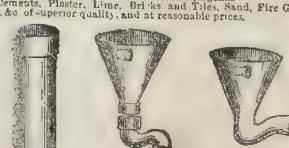

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SWISS DRAWING INSTRUMENTS, equal in quality to the very best London-made instruments, and considerably cheaper.—Apply to Mr. S. BARLOW, 3, Thavies-inn, Holborn (between 11 and 31 p.m.); or to Mr. H. B. BARLOW, Office for Patents, Ducie-place, Exchange, Manchester.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.

THOMAS JACKSON begs to draw the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured by steam power from the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of Elegant Drawing-Room Chimney-Pieces in Statuary Marble bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Serena, Verd Antique, Brocatella, Dove St Ann's, and Serrentine Marble, suitable for Dining-Rooms, Libraries, Vestibules, and Entrance-Halls; and a variety of others in Veined, Sienna, Fuan, Emperor's Red and Amber Marble, for Boudoirs Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments Tombs, Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

TO SCULPTORS BUILDERS, MASONS, &c.

B. FABBRICOTTI respectfully invites the Gentlemen connected with the Marble Trade to inspect his fresh SUPPLY composed of Statuary, Sienham, Black and Gold, dove, Bardilla, Siena, and Breccia, in blocks and particularly calls their attention to a large quantity of his best statuary, sixty blocks, of all sizes, just landed.

Monuments, vases, and statues, finely executed in Italy.

Carrara Wharf, Thames-bank, Pimlico.

DERBYSHIRE MARBLE, of every variety, from the original Quarries, in block, or manufactured by water power machinery, into Tablets, Mortars, and every article for which marble is applicable. Supplied on the most reasonable terms, by J. TWIGG and CO. Ashford-in-the-Water, Derbyshire, who have just commenced business on these ancient marble works, by whom all orders for marble, &c. will receive prompt attention.—November, 1855

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf Mason's-field-street North, City-road, for the sale of CHIMNEY-PIECES, and other articles useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fance articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

July 23, 1855. C. ADENEY, Secretary.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 29, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

MARBLE.—The Italian Marble Company, Importers of the produce of their many quarries in the province of Massa Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake Contracts for any quantity of Statuary, Veined, Sienham, Bird Ila, Dove, and other Marbles, in blocks of all dimensions, delivered in shipboard at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt. Orders for Paving Slabs, Garden and Hall Statues, Vases, Terzas, Consoles, &c. executed and delivered at reasonable rates.—For further particulars apply at the Offices of the Company, 18, Cannon-street, City.

WILLIAM W. BONNIN, London Secretary.

TO BUILDERS, &c.

SEVERAL BLOCKS of selected HEXHAM or PRUDHOE STONE TO BE SOLD a bargain, of the description used in the High Level Bridge, Newcastle, and in the Railway Bridge, Richmond, Surrey, lying at Norway Wharf, Rotherhithe.—Apply to Mr. GYDE, 396, Rotherhithe-street.

Also FOR SALE, a most powerful SCREW-PRESS.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quality. Direct from the Quarries in truck loads of five tons. Pavings, Landings cut out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

JOHN BAZLEY WHITE and BROTHERS MARBLE MERCHANTS, MILLBANK-STREET, WESTMINSTER.

Marble of all kinds and of best quality, in block and slab, Marble mortars, &c.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office: 946, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Lisard, Bee Ham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf, as above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE

RANSOME'S SILICIOUS STONE.—All kinds of ARCHITECTURAL EMBELLISHMENTS executed in a beautiful and indestructible material, at price not exceeding the ordinary cements. Full particulars furnished on application to Mr FRED. RANSOME, Whitehill wharf, Cannon-row, Westminster; or Patent Stone Works, Ipswich.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS, BATH.

List of prices at the quarries and depots, also cost for transit to any part of the Kingdom, furnished on application to Bath Stone Office, Corsham, Wilts

PIMLICO MARBLE WORKS, BELGRAVE-WHARF, LOWER BELGRAVE-PLACE.

SAMUEL CUNDY.

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terraces at the Crystal Palace.—Supplied by the Haytor Company under Royal Charter.—For terms, apply to Mr. C. HOAR, Haytor Granite office, 4, Millbank-row, Westminster.

GRANITE.—The Checsewring Granite Company, Liskeard, Cornwall.
London Agents—TREGELLES and TAYLOR, 3, Pinner's-court, Old Broad-street. Manager—JAS. J. TRATHAN, Liskeard
This Granite is selected for the New Westminster-bridge.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W ASPINALL begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Potterscream, Hare-hill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curbs and Pitching, all at the very lowest prices.

N.B. Good 2 inch Tooled Paving, at 40s. per 100 feet, cash.

AUSTIN'S ARTIFICIAL STONE.—This material frequently confounded with Portland Cement) has now been in extensive use among the highest class of residences for about twenty-five years. During that time a collection of Ornamental Work, such as Vases, Figures, and Features has been accumulating, of which the public have scarcely any idea. Suffice it to say, that a single copy of each work would collectively amount to between 4,000 and 5,000. In contradistinction from Terra-cotta, and all other kind of Pottery, there is no distortion of form by the process of baking, and, instead of the glazed surface of Terra-cotta, it has the closest resemblance to Portland Stone, having also the advantage of being waterproof. AUSTIN and SEELEY, Nos. 1 to 4, Keppel-row, New-road, Regent's-park.

*** A large Stock of Ornamental Chimney-tops.

GROUND FLINT AND CORNISH STONE, UNADULTERATED,

Manufactured by MACHINERY, which produces the greatest degree of fineness.

WILCOX & CO.
Flint Mills, Mill wall, near Scott Russell's.
CARRIAGE FREE.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, Kingscross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's-park.

ENAMELLED SLATE.—REDUCTION in PRICE. Mr MAGNUS having completed some extra machinery, is enabled to announce a further reduction in price in the size of a large and increased discount to the TRADE. His best sides are now supplied at prices below those charged by other parties for very inferior imitations of his work.—PIMLICO SLATE WORKS, 39 and 40, Upper Belgrave place, Pimlico.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works Model Prison, Pentonville, and other Penitentiaries, Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand at Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

LLANGOLLEN FLAG and SLATE COMPANY.—The present proprietors of the Quarries, formerly worked separately by the Llangollen Flag-Stone Company and the Llangollen Slate Company, are now prepared to supply architects, contractors, slate merchants, builders, and others with FLAGS, SLATES, and SLABS of every description; Cisterns, Chimney pieces, Baths, Filters, Larders, Mangers, Rilgeing, and every other article made of this beautiful material, all of superior quality. The Llangollen Slabs, from their great durability, and the extraordinary size in which they can be obtained, are peculiarly adapted for the paving of railway stations, malting-houses breweries, conservatories, warehouses, &c. A cheap variety of reft aced flags for street paving, &c can be supplied at very moderate prices.—Price and further particulars can be had upon application to Messrs. JOHN TAYLOR and SONS, 6, Queen-street place, Upper Thames-street; Mr. S. VENABLES, at the Company's Premises, 4 Wharf, South Wharf-road, Paddington; or to Mr. GEORGE F. DYKE, at the Works of the Company, Pentrefelin Wharf, Llangollen.

SCAGLIOLA done on an IMPROVED PRINCIPLE.—I refer to the Gothic Arch by D. Bolam in the Great Exhibition of 1851, which gained the only Prize Medal awarded for the manufacture of the above work.—Specimens to be seen at 192, Drury-lane, two doors from Holborn, superior to any yet offered to the public, with a choice Collection of Ornaments for building purposes, Trusses for Shop-fronts, &c. &c.

NOTICE TO ROAD CONTRACTORS, NURSERYMEN, AND OTHERS.

W. and J. STUDDS, Sole Proprietors of the WEST DRAYTON GRAVEL PITS late very removed from No 21 Wharf, Harrow-road, to 9, North Wharf-road, Paddington. Have now on sale good Garden and Screened Gravel For terms, &c apply at the Wharf

Contractors supplied to any extent.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY begs to inform the Trade, that he has REDUCED the PRICE of YELLOW DEALS, &c. p. 120, and solicits their attention to the following low prices:—

Yellow Deals	From	£24	0 p. 120
Spruce ditto	"	18	0 "
Pine Planks, 13 ft. 3 in. by 11	"	21	0 "
Spanish Mahogany, in logs	"	7½d.	per ft.
Honduras Mahogany, in logs	"	6½d.	"
Yellow Battens	"	£14	0 "

Prepared flooring and cut stuff of every description at equally low prices. A list forwarded on receipt of postage-stamp.

Borough-road, Southwark; and Elm-street, Gray's-inn-lane.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Rankside.

SEASONED FLOORING.—GEO. NOKES and CO. late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices.—For cash:—

½ inch White, 15s. 6d. per square.		½ inch Yellow, 16s. per square.	
¾ ditto	16s. "	¾ ditto	16s. 6d. "
1 ditto	18s. "	1 ditto	20s. "

Laths, 3s. per load.

Also Timber, Deals, Planks, &c. Mouldings by machinery in very large variety.

ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.

Address, E. SIMMS,
SAWING, PLANING, AND MOULDING MILLS,
King's-road Chelsea and Wilton-road, Pimlico

EDWARD SIMMS begs to inform builders and the trade, that he has now on hand at his manufactory (the first of its kind ever established), a large assortment of PREPARED FLOORS and MATCH BOARDING, seasoned, and ready for use, from ½-inch to 1½-inches thick, in White or Yellow Deal, Oak, or Pitch Pine Also Dry Deals, in all thicknesses, Slating Battens, Panelled Laths, Oak Cills, Planks, and Beadlings. Mouldings to any Plan, or any design. Pattern List forwarded on application.—Address, E. SIMMS, Flooring Manufactory, Wilton-road, Pimlico; and Sawing, Planing, and Moulding Mills, King's-road, Chelsea.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and other deals, sawing, battening, lathing, English oak plank, and sash sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and business he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged to the principal large firms, architects, and others, who have used them, to be the best ever produced by machine y. J. S. in returning thanks for the liberal patronage already bestowed, solicits him, begs to call attention to his large stock of mouldings now on hand Marble chimney-pieces, monuments tombs, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No. 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Prices will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps Please note the address—20, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished up on application.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced to this country: an extensive assortment of specimens and patterns commencing at is per foot super. together with every particular of its cost and adaptation, can be obtained of Mr BURT, 9, Charlotte-row, Mansion House; or of Messrs ARROWSMITH and CO 80, New Bond-street.

STAINING DEAL TO IMITATE ALL KINDS of WOODS. It requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 44, Jamesstreet, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.—H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.

These Pencils are prepared in various degrees of hardness and shades.

H H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
M medium.	B B B B ditto ditto.

Sold by all the principal Stationers in town or country.

ROYAL POLYTECHNIC.—UNCEASING NOVELTIES!—Lectures by J. H. Pepper, esq. on the Electric Telegraph, Chemistry, Pottery, and the New Metal, Aluminium. New Dissolving Views and Dissertation by Mr. R. Lees, on the Fashion of Ladies' Head Dresses.—New Views of the War. —Curious Photographs of the Blood Globules and Views of Cancer in the Microscope.—The unrivalled Collection of Birds in the New Room.—On THURSDAY Evening, the 8th, at Eight, a Grand Extra and Last Ghost Entertainment, by G. Buckland, esq. assisted by the following eminent vocalists:—Miss Fraser, Mr Young, Mr. Montem Smith, Mr. H. Buckland, and Mr. C. Coote, jun.

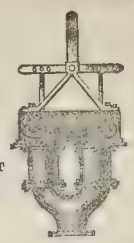
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 13s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ships, barns, brickmakers, contractors, gold lingers, brewers, chemical works, and in wrought and cast iron, copper and brass, for hot or cold liquors &c &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

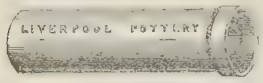
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.



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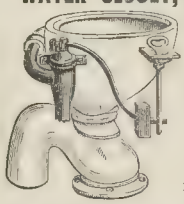
DOULTON'S STONE-WARE PIPES. DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS. DOULTON'S PATENT JUNCTION BLOCKS.
TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.



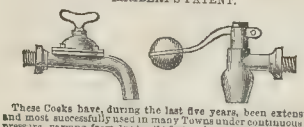
DOULTON & WATTS,
LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,
AND
LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,
With Handle, Lever, and Weight, ready for fixing,
Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS.—
LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 450 feet; their efficiency and durability is by experience established.
The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.
Enamelled iron, self acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.
THOMAS LAMBERT and SON,
Brass and Iron Founders Short-street, New-cut, Lambeth.

WARNER'S PATENT
VIBRATING STANDARD PUMPS.—PATENT CAST-IRON PUMPS, for the use of farms, cottages, manure-tanks, and wells of a depth not exceeding 30 feet

Diameter of Barrel	Length of Barrel.		£ s. d.
2½ in.	short 1 ft. 7 in.	Fitted for lead,	1 10 0
2½	„ long 3 3	gutta percha	1 14 0
3	„ ditto 3 6	or cast iron	2 8 0
3½	„ ditto 3 6	flanged pipe,	2 12 0
4	„ ditto 3 6	as required.	3 3 0
2½	„ short, with 15 feet of lead pipe attached, ready for fixing		2 14 0
2½	in. long ditto ditto		2 18 0

The short-barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from underground tanks, or in hot, forcing, and plant houses; they may be fixed, when desired, under the stage. May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c Also, Fire and Garden Engines, &c &c.—Engravings sent on application.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

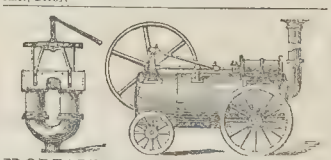
Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c; adapted for any depth. Hydraulic Pumps for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12 in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 2s 6d per doz. painted.
Ditto .... 4s. 6d. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

ENGINES.—For SALE, THREE 12-horse high-pressure horizontal ENGINES, admirably suited for winding; 12-inch cylinders, metallic pistons, either with or without boiler. Also two powerful double-purchase CRABS, capable of lifting 30 tons each. Also a Wrought-iron TANK, 20 feet by 4 feet, by 4 feet, 8 plates.—Apply, by letter, to No. 20, BOX, Post-office, Derby.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side.

TO MANAGERS OF DOCKS, HARBOURS, AND NAVIGABLE RIVERS.
FLOATING FIRE-ENGINE TO BE SOLD.

The Committee for Managing the London Fire-Engine Establishment having a lighter steam power for working their floating fire-engines, wish to dispose of the one worked by manual labour, now lying off Kings-stairs, Rotherhithe. There are three engines on board the barge, which may be worked together or separately, each engine having two 7-inch barrels, which may be worked at 8, 14, or 18-inch stroke; metallic valves, copper air vessels, &c. There are further on board six lengths of 24-inch hose, six ditto 2½ inch, with swivel coupling pans, branches, bress cocks, elbows, spanner jet and rose nose pipes, &c. &c. The engines are of the best construction. The whole is in excellent working order. For further particulars, apply to Mr. BRAIDWOOD, 68, Watling street, London.

PUMPING MACHINERY. — Lifting and Forcing Pumps, Patent Centrifugal and Double acting Pumps, deep Well Pumps, Steam-Engine transportable and fixed, Hydraulic Hoists, Water Wheels, and every description of machinery, of the most improved construction, manufactured and supplied by GWYNNE and Co. Hydraulic and Mechanical Engineers, Essex wharf, Strand, London.

PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM ENGINE, with tubular boiler, for SALE. Can be seen at work at Mr GOODWIN'S, 67, Great Guildford street, Southwark, of whom particulars may be obtained.

TO CONTRACTORS.
STEAM-ENGINES, for PUMPING, WINDING, SAWING, &c.—TO BE LET, on HIRE, by the day, week, or for any time required, strong simple PUMPING and WINDING ENGINES, made portable, with a reversing motion, pumps and driving gear complete. These engines have been successfully employed for years by all the principal contractors, and for a variety of other purposes. Are ready for immediate delivery, of 1 horse, 2 horse, 3 horse, 12th nominal horse, 25 horse, to 40 horse power. Apply to Messrs. MEDWIN and HALL, Engineers, Surrey Iron Works, 93, Blackfriars Road, where, &c., may be seen

VAST IMPROVEMENT and ECONOMY in PUMPS and PUMPING-ENGINES.—Parsey's Revolving Pump, worked by a revolving steam-engine, may be seen at his factory, Great Dedmead yard, 6 in twelve to one, and from two till dusk, every day except Saturdays.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the perniciousness of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.
The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it more weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.
The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO. and by the Company's Grinding Agents. In London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street City; the Manufacturing and Painting Agent, Mr FREDK BRADY, Putney Works, New-road. In Manchester and Liverpool by R. CLAY, 8, Mercer-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber Merchants; and in Southampton, by Mr. H J. BUCHAN. Dry OXIDES and PAINTS in kegs of 14, 21 and 28 lbs and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.
The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.
For further particulars, apply to the Company's General Agency in London, 12, Manchester buildings, Westminster

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the erection of our noblest buildings, and is the only tried material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition. A large Stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs.—Capitals, Cornices, Tracery, Fire Parapets, Balusters, String Courses, Friezes, Bas-reliefs, Vases, Statues, Chimney-shafts, and all other Architectural Ornaments modelled, finished, and burnt, in the best manner, and warranted to stand heat and frost, either in Buff or Red coloured Terra-cotta.—A great variety and large stock may be seen at BLASHFIELD'S Warehouse and Show-rooms, No. 1, Pratt street, Paddington.

HAWKINS'S PATENT BRUSH COMPANY.—Manufactory, 17, College hill, Cannon-street West, London.—Merchants, Artists, and Others, would do well to buy Hawkins's Patent and other Brushes; their superiority in every respect being now established by use. Prices and full particulars can be had, and samples seen, at any Ironmonger's under, or at the Manufactory as above.—Mr. FRANCIS FORD, 8, Lawrence Pountney-hill, Cannon-street, London, Sole Agent for London and its Vicinity

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is GREGG'S WHOLESALE WAREHOUSE, 24, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

PAPER-HANGING WAREHOUSE, 3 OXFORD-STREET.—To be DISPOSED OF, at a considerable reduction, all the remaining Summer STOCK of PAPER-HANGINGS, including Gold Flocks, Satins, and Machine-work, which must be cleared out before the new year.

AYLESFORD POTTERY COMPANY,
BELVEDERE-ROAD, LAMBETH.

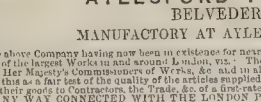
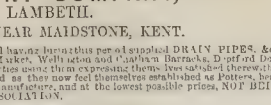
MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly six years and having during this period supplied DRAIN PIPES, &c to some of the largest Works in and around London, viz.:—The New Cattle Market, Wellington and Chatham Barracks, Deptford Dockyard, Her Majesty's Commissioners of Works, &c and in all instances parties using them expressing themselves satisfied therewith,—take this as a fair test of the quality of the articles supplied by them; and as they now feel themselves established as Potters, beg to offer their goods to Contractors, the Trade, &c. of a first-rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

SOCKET.   HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

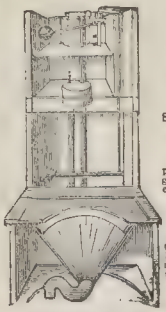
Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS
TO THE EFFICIENT WORKING OF
STEPHEN GREEN'S
PATENT SYPHON FLUSHING BASIN,
AND
SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAN, Engineer.

Royal Arsenal, Woolwich, June 24, 1852

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

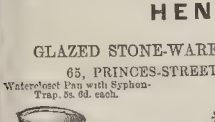
I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

JAMES STIFF,

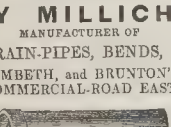
MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

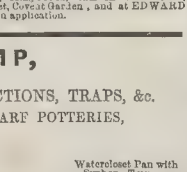


Pan, 3s. 6d. Trap, 2s.

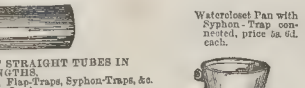
STRAIGHT PIPES IN TWO-FEET LENGTHS.



IMPROVED YARD-SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

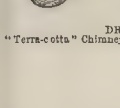


May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; GOLWELL, Brothers, 32, Brydges-street, Covent Garden, and at EDWARD COCK'S 91, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

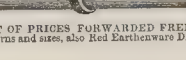
HENRY MILLICHAMP,

MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

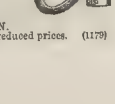
Watercloset Pan with Syphon-Trap. 3s. 6d. each.



Whole Socket.



Watercloset Pan with Syphon-Trap connected, price 3s. 6d. each.



A LARG ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.
Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

Half Socket

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

SUPERIOR GLAZED STONEWARE
DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

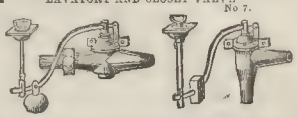
W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Northen's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in its manufacture, which is equal to glass, and rendering it proof in the highest possible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Marton and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea: and at the Pottery.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE
No 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many families are in use under existing pressure of 10 to 200 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Woodstock-sheds by the Patentees,
THOS. LAMBERT and SON,
Brass Founders and Engineers,
Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 14s. 6d. each.

TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES

FREEMAN ROE'S PATENT SLUICE-VALVES,
acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulic organs. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,
BENDS, JUNCTIONS, and SYPHONS. This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE
WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved power-ful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 28s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 23, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 33s. PER CRATE.

VICTORIA POTTERY, LEIGH,
NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE,
MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackfriars. Orders executed from the above places, from Faccom-wharf, 30, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

SUPERIOR LAND DRAINAGE.—
AGRICULTURAL DRAIN-PIPES of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to L. B. PEARSE and CO. Great Northern wharf, York-road, King's-cross.

SUPERIOR STONEWARE GLAZED
PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction,—the price being also lower than many in the trade, viz. 25 per cent. discount off the list for cash. Junctions, Bends, &c. Pans and Traps of the first quality. Yorkshire Paving, Sinks, Sills, &c. all at low cash prices.—E. and W. STURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered. October 1, 1855.

PAVING, 2s. 9d. per SQUARE YARD.—
Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.

Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.

N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

SALES BY AUCTION.

KNIGHTSBRIDGE, adjoining the Barracks.—Building Materials of several Houses.

PULLEN and SON are directed to SELL by TENDER on MONDAY, DECEMBER 3, in Two Lots, the BUILDING MATERIALS of the LIFE GUARDSMAN PUBLIC HOUSE, and TENEMENTS adjoining, situate in the Barracks, Knightsbridge, comprising sash and brick work, in the hall, 2 cases, Knightsbridge, comprising sash and brick work, boarded and timber doors and roofs, plain and pan tiles, lead gutters and pipes, sashes, doors, wainscoting, shop-fronts, paving, and useful fittings on. May be viewed, and particulars had of PULLEN and SON, 80, Fore-street, Cripplegate, where TENDERS may be sent before FIVE o'clock on MONDAY

DUKE STREET, ST. JAMES'S.—Capital Building Materials of extensive range of Stabling and Coach Houses.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on WEDNESDAY, DECEMBER 12th, at TWELVE, in 2 lots, all the excellent BUILDING MATERIALS and FITTINGS UP of extensive stabling and coach houses with dwellings over, at the back of 14 Duke street, Saint James's square (at the back of Lillie Hotel), comprising cast & stock brick work, prime oak and fir timber, tiles, slates and slating, boards, glazed sashes, doors, partitions, flooring and lining boards iron racks and mangers, divisions of stalls, large folding gates, York pebble, and clinker paving, iron girders, stone staircase, a large lead tank, 72 feet by 10, and a capital slate tank, 10 feet square; lead gutters and pipes coping and cills, stoves, grates, gas fitting and useful fittings up.—May be viewed on TUESDAY Cat-louses had at Mr. HARDWICK'S Office, 21 Cavendish-square; and of PULLEN and SON, 80, Fore-street, Cripplegate.

HAMPSTEAD-ROAD.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 8, Edward street, Hamstead-road, on MONDAY, DECEMBER 10th, and following days, at ELEVEN for TWELVE each day, the excellent STOCK IN-TRADE, comprising about 3,000 yellow, white, pine, and spruce planks, deals, and battens; 20,000 pine boards, 100 squares of prepared flooring, 30,000 feet wide pine board, 10,000 feet mahogany, 3,000 feet 1 inch sycamore and rosewood, 4,000 feet dry walnut, mat, spray, and rosewood veneers, 15,000 feet quartering, 3 loads of cherry-tree, dry ash, dry cut stuff, 50 9-inch and 11-inch 4-panel and sash-doors, 500 pieces of paper-hanging, iron mongery, 10 work-benches, go-bar frame, packing cases, 12 hand-screws, 3 cramps, wrought-iron jib crane, a few scaffold-poles ladders and sundries. The desirable Premises to be Let. May be viewed the SATURDAY prior and mornings of Sale, and catalogues had on the Premises, and at the Auction Offices, Cardington-street, Hampstead-road, near the Euston Station.

SYDENHAM-HILL.—A Secure Investment. Long Leasehold Ground-rents, and a Plot of Building Land.

MR. CHADWICK is instructed to SELL by AUCTION, at GARRAWAYS, by order of the Executors of the late Thos Hunt, esq. on TUESDAY, DEC. 11, at TWELVE, in one lot, a well-secured GROUND-RENT of 47l per annum; and a PLOT of BUILDING LAND, commanding one of the most delightful views in the county of Kent.—For particulars, apply at the Offices of Messrs. DAVIDSON and BRADBURY, Solicitors, 22, Basinghall-street, City; of the Auctioneer, 35 St. Martin's-lane; and at Garraway's.

SYDENHAM, KENT.—Bell-green. Leasehold Investment, 100l per annum.

MR. CHADWICK will SELL by AUCTION, at GARRAWAY'S, on TUESDAY, DECEMBER 11, at TWELVE, by order of the Executors of the late Thos Hunt, esq. a LEASEHOLD, comprising a Dwelling-house and Shop, let on lease at 20l per annum, and Eight semi-detached Cottages, with front and back gardens, securing a weekly income, let to respectable tenants, the whole producing 100l per annum.—For particulars, apply at the Offices of Messrs DAVIDSON and BRADBURY, Solicitors, 22, Basinghall-street; of the Auctioneer, St. Martin's-lane, Charing-cross; and at Garraway's.

WILLOW ROAD SYDENHAM.—Eight Long Leasehold Cottages and a Ground-rent of 6l per annum.

MR. CHADWICK will SELL by AUCTION, by order of the Executors of the late Thomas Hunt, esq. at GARRAWAY'S, on TUESDAY, DECEMBER 11, at TWELVE, EIGHT COTTAGES, held on lease for fifty-three years, at a ground-rent of 6l per annum, producing a weekly income and a yearly ground rent, together 50l per annum. For particulars apply at the Offices of Messrs. DAVIDSON and BRADBURY, Solicitors, 22, Basinghall-street, City; of the Auctioneer, 35, St. Martin's-lane; and at Garraway's.

LOWER SYDENHAM, KENT, five minutes' walk from the Sydenham Railway Station.—A Freehold Villa Residence, with large garden, yard, and stable; three Dwelling-houses and Shops; Eight Cottages, gardens, and wheelwright's yard, 70l per annum.

MR. CHADWICK will SELL by AUCTION, by order of the Executors of the late Thomas Hunt, esq. at GARRAWAY'S, on TUESDAY, DECEMBER 11, at TWELVE, a DETACHED COTTAGE RESIDENCE, with garden and greenhouse and stable; Three Dwelling-houses and Shops in the high road; Wheelwright's Yard and Shops; Eight Cottages and Gardens. The whole held on lease at a small ground-rent. Producing the annual rent of 70l.—For particulars apply at the Offices of Messrs. DAVIDSON and BRADBURY, Solicitors, 22 Basinghall-street, City; of the Auctioneer, 35, St. Martin's-lane, Charing-cross; and at Garraway's.

UPPER SYDENHAM, KENT.—A Freehold Estate, Wells-road, a short distance from Forest Hill and Sydenham Railway Stations.—Two substantially-built Dwelling-house and Shops, further set of Building Land, worthy the notice of Builders and Bricklayers.

MR. CHADWICK will (unless previously disposed of by private treaty, submit to COMPETITION, at GARRAWAY'S, on TUESDAY, DECEMBER 11, at TWELVE, TWO substantially-built FREEHOLD DWELLING-HOUSES and SHOPS, producing 80l. per annum; seven plots of building ground, and about four acres of eligible building land, of most picturesque and desirable aspect, offering an opportunity for realising a large sum by brickmaking, and most eligible estate for building villas.—For particulars, apply at the Offices of Messrs. DAVIDSON and BRADBURY, Solicitors, 22, Basinghall-street, City; at the Offices of the Auctioneer, 35, St. Martin's-lane, Charing-cross; and at Garraway's.

MR. EDWIN WHITE begs to announce that in consequence of the Dissolution of Partnership, he will unreservedly SELL by AUCTION, on the PREMISES, 67, Watling-street, City, on WEDNESDAY and THURSDAY, 5th and 6th DECEMBER, at ONE exactly each day, about 25,000 pieces of excellent PAPER-HANGINGS, comprehending Blocks, Satins, Damasse, Decorative, Marbles, Grenades, Oaks, Glaciers, and others, in numberless modern designs; also several thousand pieces of white and colored ground.—On the new Tuesday morning and mornings of Sale, when catalogues may be had on the Premises; and at the Auctioneer's, 170, Bishopsgate-street Without.

17, FASHION-STREET, DOCKHEAD, SOUTHWARK.—To TIMBER MERCHANTS, BUILDERS, BOX MAKERS and OTHERS.—The genuine Surplus Stock of a Timber Merchant, who has now more extensive premises.

MR. PEAKE is ordered by the proprietor to SELL by AUCTION, as above, on MONDAY, the 10th of DECEMBER, 1855, at TWELVE for ONE precisely, his SURPLUS STOCK, comprising about 4,000 capital dry wide pine planks, yellow planks, deals, and battens, saws and unsaws; also 2,000 lbs of oak plank and scantling, prepared flooring boards, match lining, &c. The sale stock is of an excellent description, dry, and well-seasoned, and there is every facility for removal by water or by railway.—Catalogues had at Mr PEAKE'S Offices, 24, Tooley-st. Southwark. Approved bills at three months taken from purchasers of 20l. and upwards.

SALES BY AUCTION.

TO WHEELWRIGHTS, COACH BUILDERS, IRONMONGERS AND OTHERS.

MESSRS. FULLER and HORSEY will SELL by AUCTION, on MONDAY, DECEMBER 10th, 1855, at ELEVEN o'clock, at ST. ANNS WHARF, Upper Brickfields, Bermondsey, without reserve, twelve tons spring steel (Fisher and Bramall), four tons tire bars, three tons hoops, twelve bars coach-screws, 100 gross ditto papered six dozen spades and shovels, two tons screwed bolts and nuts, six bags shovel rivets, sixty bags wrought nails and spikes, thirty dozen bolts thirty dozen locks and latches, fifty dozen hinges, assorted; crow bars, iron pails, beam scales and weights, three carpenters' cramps, five cwt. chain, an excellent wrought iron strong room door, counting house furniture, eighty volumes of standard medical works, and numerous other effects.—To be viewed on Saturday previous to the Sale, when catalogues may be had on the Premises; and of Messrs FULLER and HORSEY, Billiter-street, City

TO IRONMONGERS AND OTHERS.

MESSRS. FULLER and HORSEY will SELL by AUCTION, on WEDNESDAY, DECEMBER 12, at ELEVEN on the PREMISES, No. 34, Aldgate High street, the ENGINEERS' TOOLS and STOCK in TRADE; including nine three-quarter steam engines (each of three horse power) one 8-horse power steam-boiler; one 12-inch centre self-acting screw-cutting lathe, with bed 25 feet long; strong surfacing lathe; one 7 inch self-acting screw-cutting lathe, by Oldham; one 4-inch hand-gravel-dog lathe, two foot-lathes, one half-inches plain-machine, a new planed iron circular saw-bench, 300 feet wrought iron shafting, 12 cog and 3 spur gear, one 36" facing and planing machine, one wall-drilling machine, two benches sets of stocks, taps, and dies; a large quantity of steel tools, 10 cwt cast steel, bar and rod iron, fifty dozen new files, one ton copper and brass fittings, locks and falls, double purchase crab, cranes and triangles, smith's fires, two anvils and tools, pattern-maker's lathe and benches, circular saw-bench, 300 feet leather straps, portable forge, fly press, a valuable assortment of patterns, two good mill, quantity of new brewing apparatus, counting-house fittings, and numerous other effects. To be viewed on TUESDAY previous to the sale when catalogues may be had on the Premises; and of Messrs. FULLER and HORSEY, Billiter-street, City.

SHOREDITCH, near the Eastern Counties Railway Station.—To CONTRACTORS CARVEN, BUILDERS and Others

MR. J. W. WARD is instructed to SELL by AUCTION, under a bill of sale, on the PREMISES, 98, Holywell-row, Shoreditch, on MONDAY DECEMBER 3, at ELEVEN, without reserve, the STOCK of a TIMBER CARTER, &c. comprising eighteen draught horses, waggon and cart harness, new and old waggon wheels, two pair new waggon and cart bodies, spring vans, swing vans, timber carriages, an excellent railway-truck, nearly new, with machinery quite complete, light spring carts, &c; two chaff-cutting machines, one by horse-power; the building materials, including new and old ash, elm, battens, rafters, Portland and York stone, slates, &c.; and several tons of old iron. May be viewed Friday and Saturday preceding and morning of Sale. Catalogues had on the Premises; and of the Auctioneer, &c. 7, Dean's-row, Walworth-road.

ABSOLUTE SALE OF BUILDERS' IRONMONGERY.

TO BUILDERS, IRONMONGERS, and OTHERS.—The entire Stock of a Furnishing Ironmonger, removed from the Bedford Pantechnicon

MR. D. A. RAMSAY will SELL by AUCTION, at Mr ROBINSON'S ROOMS, 21 Old Bond-street on THURSDAY, DEC 6 and following day, at ELEVEN for TWELVE precisely, in consequence of the number of lots with it is proposed to offer an extensive and well-assorted STOCK of IRONMONGERY, principally of London manufacture, comprising 850 doz. mortice, rabbet, rim, drawer-lock, cabe, till, door and other locks, 800 pairs of cross and T hinges, 12 gross blind hinges, 36 gross flush bolts in sizes, 100 sets of oak, ebony, bronzed, and fancy brass finger plates, 60 doz. brass butts various, 150 doz. cupboard knobs and furniture, 40 doz. patent cut of bolts, 5,000 gross of wood, gilt-head, lock, and other screws, 9 cwt. of best brass and iron sash cords, 71 doz brass and iron axle pulleys, 97,000 floor brads, 12 tons nails various, a large quantity of brass-headed and slate nails, patent brass ball and cock, glass pewer, patent registered stove, sash line, door knobs, Norfolk and pulpit latches, shoulder latches, iron and brass sash pulleys, copper, boiler, tub, basin, gas, and other cocks, and a large assortment of useful ironmongery; also a large quantity of bellwork, including 100 house bells, 500 bell-pulls and handles (copper and wire), 24 bell pendulums, 96 doz bell springs (in cross bell staples, 12 gross check springs, together with a quantity of bell-pulls, mortise bell cranks, levers, flues, and cranks, and other effects.—May be viewed two days prior and morning of sale, and catalogues had at the Rooms; of A. A. JONES, Esq. Solicitor, 9, Quality-court, Chancery-lane; and of the Auctioneer, 79, King William-street, City.

CHELTENHAM.—Important Sale of 120 ELM TIMBER TREES, felled and now lying in the yards of the Alstone and Great Western Coal Wharfs, Cheltenham

MR. BENJAMIN LEACH will offer for SALE by AUCTION, at the above Wharfs, on MONDAY, the 3rd day of DECEMBER, 1855, at TWELVE o'clock at noon by direction of the proprietor in lots, subject to conditions to be then and there produced. The Timber will be found, on inspection, to be sound and of very superior quality; many of the elms are of long and large dimensions.—Purchasers will appear in hand bills to be had at the office of the Auctioneer, High-street, Cheltenham, ten days prior to the sale.

N.B. The timber is in a most convenient situation close to the stations of the Great Western and Midland Railways, and can be loaded from where it now lies on to the trucks. Approved bills will be taken from purchasers of 20l. and upwards

TO BUILDERS, TIMBER MERCHANTS, PIANOFORTE-MAKERS, CABINET-MAKERS, WHEELWRIGHTS, and OTHERS.—Important Sale of the first portion of the excellent dry, and well-seasoned Stock of the late Mr. Harris, Timber Merchant, of the Kennington road, Southwark

MR. F. HALL has been favoured with instructions to SELL by AUCTION on the PREMISES, on TUESDAY, DECEMBER 11, and following day, at ELEVEN for TWELVE each day, the excellent STOCK as above comprising several hundred dry scantling, planks, and battens, wide pine planks, deals, and battens, a very large stock of cut goods of every description, 50 bundles of Venetian blind laths, several Cuba and feet of Spanish and Honduras mahogany, 25 loads of dry ash plank, 12 cwt crown oak staves, 20 loads of oak plank and quartering, 20 loads of dry birch sycamore, and lime tree board and plank, 2,000 ash beech fellies, several thousand oak spokes and wedges, 200 dry ash handspikes, oak and elm stocks, 20 loads of oak planking, ash and beech bolts, 24 strong cart wheels 2 small anchors, 100 yards of strong chain cable; an excellent four-pump, excellent timber carriage, and other important effects.—May be viewed, and catalogues had two days previous to the premises; in Elephant and Castle, Newington; Dover Castle, Deptford; Plough, Clapham; Angel, Islington; White Lion, Paddington; Black Lion, Bayswater; and of Mr. F. HALL, Timber and Building Material Auctioneer, Chester street, Kennington.

TO METAL MERCHANTS, ZINC WORKERS, AND OTHERS.—SALVAGE SALE.

MR. NOBLE is instructed to SELL by AUCTION, at GARRAWAYS, COFFEE HOUSE, Cornhill, on WEDNESDAY, DECEMBER 5, 1855, at TWELVE o'clock, about THIRTY TONS of MALLEABLE ZINC, in sheets, 8 lb. by 3 lb. Nos. 8, 9, 10, 11, and 12 gauge, removed from the work of Messrs. Jackson and Co. Bunhill-row, and 10, Duke's-road.—May be viewed two days prior to the day of sale, and catalogues had at Garraway's Coffee-house, Cornhill; and at Mr. NOBLE'S Offices, 18, Bucklersbury, and London-street, Greenwich.

ROMAN TESSELATED PAVEMENT.—Beautifully-wrought tesselated pavement, the ancient Roman remains at Box, which has excited much interest, will be SOLD by AUCTION, on TUESDAY, the 9th DECEMBER next on the PREMISES, near the church, at Box, by Messrs. HOOPER and SON, of Bath. Particulars may be obtained of the Auctioneers' Offices, 5, Bladud-buildings, Bath

*** Box is distant from Bath ten minutes' ride by Great Western Railway, and is about five minutes' walk from the station.

GUILDHALL, November 29, 1855.—The Committee for Letting the City's Lands will meet at Guildhall, on WEDNESDAY, the 12th DECEMBER next at ONE o'clock precisely, to receive PROPOSALS for BUILDING LEASES for 80 years from Christmas, 1855 of several PLOTS of GROUND on the north side of Wormwood-street, Bishopsgate. Also to receive Proposals for a Lease of a House, No. 54, on the north side of Featherston-street, Finsbury, for 12 years (less three days), from Christmas, 1855. Plans of the property may be seen, and further particulars and forms of Tender obtained at the Architect's Office, Guildhall.

FERDINAND BRAND, Comptroller.

WANTED to PURCHASE, a PLOT of FREEHOLD LAND, not exceeding One Acre in extent, and with a frontage towards a road within 12 miles of the General Post-office. A site in the immediate neighbourhood of a town or village, and capable of good drainage, will be preferred. Full particulars to be sent to Mr. SAMUEL ANGELL, 18, Gower-street, Bedford-square, previous to the 1st DECEMBER next.

TO WHARFINGERS, COAL MERCHANTS, OR OTHERS REQUIRING WATERSIDE PREMISES

TO BE LET, BEAUFORT WHARF, Carting-lane, Strand; all that capital wharf, with waterway for eight barges, with standing for twenty horses, extensive sheds and warehouse, &c.; with a neat dwelling and counting-house, and every convenience for carrying on an extensive business.—Apply to Mr. PREST'N, Jun. Appraiser, 16, Wych-street Drury-lane.

TO BUILDERS AND OTHERS.

TO BE LET or SOLD, a most eligible plot of FREEHOLD GROUND, land-tax redeemed, near Clapham-road, sufficient for about forty-two houses and shops of the fourth-rate and good corner for a public-house.—For particulars apply to R. G care of Mr. Doyle, 4, Maze-pond, Borough

TO TIMBER MERCHANTS and OTHERS.

The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks 30 and 10 ton Cranes, Steam for converting Timber, &c. Freights paid on delivery. Apply to G. NOKES and Co. as above.

ABOUT ONE ACRE and a HALF of GROUND To BE LET, wholly or in parts, on the south side of Deverel street New Kent-road, adapted for contractors, timber merchants, buildingt material yards, letting off in plots, or any building space New Kent 52.—For particulars inquire of Mr DAVIDS, 6, Portland place New Kent-road.

PUBLIC-HOUSE.—An eligible SITE for a PUBLIC HOUSE at HACKNEY, TO BE LET on Building Lease, at a moderate ground-rent Advances will be made to a respectable builder —Apply to Mr. GEORGE MORGAN, Architect and Surveyor, 8, Chancery-lane.

FREEHOLD LAND TO BE LET, on Building Lease for ninety-nine years Money advanced to responsible parties Freehold Land to be Sold for building purposes in eligible situations —Apply at the Offices of Mr GEORGE MORGAN, Architect, 8, Chancery-lane.

TO BUILDERS AND OTHERS

TO BE SOLD, a valuable FREEHOLD PLOT of GROUND, in Bateman's-row, near the High-street, Shoreditch, having a frontage of 54 feet, by a mean depth of 95 feet upon which are two brick-built and tiled dwelling-houses, with workshops, together with a three-stall stable, open to a paved yard.—For terms, apply to Messrs PRICKETT and SON, Auctioneers and Surveyors, 34, Southampton buildings, Chancery-lane.

WATERLOO-BRIDGE WHARF, Commercial-road, Lambeth.—Those spacious PREMISES, with ten lofty arched warehouses under the Waterloo bridge-road, TO BE LET on LEASE. There are two capital houses, with crane and scaffolding on the wharf, and the premises, which have been used as a timber-yard for nearly forty years, are in good repair.—For terms, apply to HENRY MOTT, Esq. Solicitor, 4, King's road, Bedford-row.

HOUSE PROPERTY in the METROPOLIS.—WANTED to PURCHASE, FREEHOLD or LEASEHOLD PROPERTY, to pay a good per centage.—Send full particulars to A. B. Mr. Rogerson's, 157, Penchurch-street.

WANTED, within a short distance of London, FREEHOLD PREMISES, suitable for a school to accommodate about Sixty Boys. It will be desirable to have a few acres of ground attached.—Address, with full particulars and price, to Mr. E. ROBERTS, 16, Holles-street, Cavendish-square.

TO BARGE-BUILDERS and OTHERS.—WATERSIDE PREMISES, with good River Frontage, TO BE LET or SOLD.—Apply to PEARLE and SONS, 8 augate Lambeth.

TO BUILDERS.—There is an immediate demand for several HOUSES, near an important town in South Wales. The owner of a large estate in the neighbourhood will give a builder of spirit and capital every encouragement.—Application to be made to W. BULLOCK WEBSTER, Esq. Gnoll Castle, Neath.

TO CARPENTERS, BUILDERS, &c.

ONE or MORE HOUSES, in CARCASE, with Garden Walls and Washhouse, TO BE LET, in a ground-rent, or TO BE SOLD; the purchase money can stand over a given time at five per cent.—Inquire of Mr. CHARLES MARSHALL, Builder and Brickmaker, Albert-terrace, Kentish-town.

TWO CARCASES TO BE SOLD, of 8-roomed HOUSES, well situated.—Apply to Mr. BRIGGS, 25, Stanley-street, Eccleston-square, Pimlico

TO BUILDERS and OTHERS.—A very favourable opportunity offers to any gentleman having the control of about 500l. with skill and energy, to finish a SPACK of BUILDINGS, the freehold of which can be obtained upon very reasonable terms. A Plan and Book may be required. A small substantial person need apply. A portion only of the purchase-money would be required.—Letters to J. R. Post-office, Brighton.

TEMPORARY CHURCH REQUIRED.—TENDERS, with designs, are required for an Iron or Timber-built CHURCH, to be erected in Camden road. Londinopolis Printing-office of COX (Brea) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the Fields, and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, December 1, 1855.

The Builder.

AN ILLUSTRATED JOURNAL FOR THE

Architect, Engineer, Operatives & Artist.

VOL. XIII.—No. 670 | DECEMBER 8, 1855. | PRICE FOURPENCE *Stamped 5d.*

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THE BUILDERS' BALL,

ST VALENTINE'S DAY.
WILLIS'S ROOMS, ST JAMES'S.
Honorary Steward, MR. JOSEPH BIRD,
10, HANOVER COTTAGES REGENT'S-PARK.

BUILDERS' BENEVOLENT INSTITUTION.

—An ELECTION of SIX PENSIONERS, four males and two females, was held on Thursday, the 29th of November, at the London Tavern. The result of the poll was as follows:—

SUCCESSFUL CANDIDATES.

W. S. Evans	3,044	H. Chirnside	733
W. Liddiard	2,977	Thos. Paxton	4,161
G. Richards	1,764	Jane Sanders	3,333

The others were:

J. G. Miller	627	R. Trethewey	92
E. St. George	275	J. Martin	48
Wm. Goodfellow	128	Ann Buckingham	963

Dec. 7, 1855. A. G. HARRIS, Sec.

ARCHITECTURAL ASSOCIATION.

—At the next Ordinary Meeting, DECEMBER 14, Mr G. J. VIGLEY will read a paper "On Archæological Studies in Jerusalem." The Class of Design will meet, DECEMBER 21, subject for sketch a "Bridge" 20 feet span from bank to bank.

T. W. GOODMAN, } Hon. Secs.
J. A. BUNKER, }

Lyon's-inn-hall, Strand.

ARCHITECTS' BENEVOLENT SOCIETY.

PATRONS.
Sir Robert Smirke, R.A. | George Stanley Repton, Esq.
PRESIDENT—Sydney Smirke, A.R.A.
TRUSTEES.
Sir Charles Barry, R.A. | Charles Robert Cockerell, Esq. R.A.
Philip Hardwick, Esq. R.A. |

TREASURER—William Tite, Esq. F.R.S.

The List of Subscribers and Annual Report may be obtained of the Hon. Secretary. Subscriptions will be received by WILLIAM TITE, Esq. St. Helen's-place, the Treasurer; or by Mr. GOULD, the Collector, 8, Craig's-court, Charing-cross.

J. TURNER, Hon. Secretary, 15, Wilton-street.

ARCHITECTURAL EXHIBITION,

Suffolk-street Galleries, Pall-mall East, will OPEN to the public on the 10th DECEMBER. Lectures will be delivered on Tuesday Evenings, by Jas. Fergusson, Esq. F.R.A.S.; Geo. Godwin, Jun. Esq.; the Rev. J. L. Petit; R. W. Billings, Esq.; Thos. Allom, Esq. &c. Season tickets, admitting at all times to the exhibition, and to all the lectures, half-a-crown each, to be had, with all particulars, of

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
20, Langham-place, }
JAS EDMESTON, Jun. }
5, Crown-court, Old Broad-street. }

THE ARCHITECTURAL MUSEUM,

Cannon-row, Westminster.—Autumn Session, 1855.—On Monday next, December 10th, a LECTURE will be delivered in the Rooms of the Institution, "On the Formation of a National Museum of Architectural Art." By C. BRUCE ALLEN, Esq.

Hour of admission, Seven o'clock. The chair to be taken at Eight o'clock.

The Committee desire to notify to Art workmen, that the Museum will continue open on Monday and Wednesday Evenings (except during Christmas week) until further notice.

December 6, 1855. HENRY CLUTTON, Hon. Sec.

SURVEYOR WANTED.—The Local Board

of Health and the Council of the Borough of Great Yarmouth are desirous of engaging a qualified person to perform the duties of SURVEYOR and INSPECTOR of NUISANCES to the Board of Health, and Surveyor to the Town Council; to be restricted from any other occupation or emoluments. Total salary, £200. Applications, stating age, with testimonials, are to be addressed to the Town Clerk, not later than the 24th DECEMBER next.—Great Yarmouth, 27th November, 1855.

ROTHERHAM and KIMBERWORTH

LOCAL BOARD of HEALTH.—WANTED, by the above Board, a GENTLEMAN of experience as SURVEYOR. The candidate must have a knowledge of engineering, especially in connection with works of water-supply, drainage, sewerage, and surface cleansing; competent to conduct surveys, take levels and sections, prepare plans, drawings, and estimates for works of every description, and able to superintend the execution thereof, test the materials, and see to the fulfilment of the conditions of the contract for executing such works. He also will be required to report upon all new buildings within the district, as to their drainage, levels, and other conveniences, and also upon cases of nuisance, and generally possess a thorough knowledge of the repair of highways, and of all the duties required by the Public Health Act, 1848. The whole time of the surveyor is to be devoted to the duties assigned to him, and he is to be restricted from undertaking any other employment. Candidates are to state the exact previous occupation, and the salary they would expect to receive; but are not required to attend personally until summoned; and no canvassing will be sanctioned.—Applications, with testimonials of qualification and competency, addressed to "The Chairman," must be forwarded to me on or before the 14th day of DECEMBER next, at TEN o'clock a.m.—By order,

JNO. BARRAS, Clerk.

Public Offices, Rotherham, November 22, 1855.

BOROUGH of HALIFAX.—To

ENGINEERS and SURVEYORS.—WANTED, a SURVEYOR, fully competent to take charge of the borough water works, sewerage, and other public works of the borough, besides the usual business of the Corporation, including that of the Local Board of Health. He must be familiar with the practice of engineering in connection with the above mentioned works, able to conduct surveys, prepare plans, drawings, and estimates of works of every description, and will be required to devote the whole of his time to the duties of his office. Salary £300 per annum. Applications, with testimonials of qualification and competency, to be addressed to the General Purposes Committee, endorsed "Application for Office of Surveyor," and to be forwarded, under cover, to the undersigned, on or before the 1st day of JANUARY, 1856. By order,

EDMUND MINSON WAVELL, Town Clerk, and
Clerk to the Halifax Local Board of Health.

Town Clerk's Office, Halifax, November 15th, 1855.

WARE LOCAL BOARD of HEALTH.—

Notice is hereby given, that the Ware Local Board of Health will, on TUESDAY, the 18th day of DECEMBER next, proceed to ELECT a person to execute the duties of SURVEYOR and INSPECTOR of NUISANCES, at a salary of £1 a year. Candidates are requested to send their testimonials, addressed "The Chairman of the Local Board of Health, Ware," on or before the 14th day of DECEMBER next, and to state their age. The person obtaining the appointment must reside in Ware, and devote his whole time to the duties of his office. He must be fully competent to prepare plans and to superintend the drainage of the probable cost of any works which they may require to be done, and he will be sworn in as a constable.—Further information may be obtained on application to the clerk.

By order,

NATH. COBHAM, Clerk to the Board.

Ware, 21st November, 1855.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.

TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL MALL, LONDON.

Art-Superintendent—RICHARD REDGRAVE, Esq. R.A.
Head-Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develope its relations to the requirements of trade and manufacture and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other Schools to teach Elementary Drawing as a part of the general education entrusted to them.

The Instruction comprehends the following subjects:—Freehand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, Objects of Still Life, Figure from the Antique and the Life, and the Study of Anatomy as applied to Art. Also, Classes for instruction in the technical processes of Chromatic Enamel Painting, Etching and Engraving on Steel, and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees if per session, or part of the session. For Evening Classes only, if per session.

The Fees for Practical Geometry and Perspective, or that for Modelling and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students in the Training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session,—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 1s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall mall, London.

DARLINGTON BURIAL BOARD.—The

BURIAL BOARD for the Township of DARLINGTON, are prepared to receive DESIGNS, SPECIFICATIONS, and ESTIMATES, for ERECTING TWO CHAPELS, ENTRANCE LODGE, GATES, FENCING, and LAYING OUT the proposed NEW BURIAL GROUND twelve acres in extent, the total amount not to exceed £2500. Premiums will be given for the two designs most approved, viz.: £25 for the first, and £15 for the second, the plans, &c. for which they are given to be the property of the Board. Competitors must state the amount of Architect's charges required over and above the premium, for furnishing all working drawings necessary, and superintending the work, if the Board should require their services. The designs, estimates, &c. must be sent to me, at No. 8, Arden-street, Darlington (where a plan of the site may be seen), on or before the 24th DECEMBER.

By order,
H. LUNN, Clerk to the Board.

Darlington, November 29, 1855.

CONTRACTS.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives Notice, that sealed Tenders, addressed to the Director General of Contracts, will be received at the War Department, Pall-mall, on or before the 17th DECEMBER, 1855, for the ERECTION of a New BLOCK of SOLDIERS' BARRACKS, at the Wellington Barracks, St. James's-park. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's Office, 31, Jamesstreet, Pimlico, between the hours of TEN and THREE o'clock, from the 3rd to the 17th of DECEMBER. The War Department reserves to itself the right of rejecting any or all of the Tenders.

Royal Engineer's Office London District, 1st December, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer, Portsmouth, hereby gives notice, that sealed TENDERS will be received at the Office of the Director-General of Contracts, War Department, Pall-mall, London, on or before FRIDAY, the 14th day of DECEMBER, 1855, from persons desirous of contracting for IMPROVING the APPROACHES to, and for WIDENING and RENEWING the POINT BRIDGE, Portsmouth, county of Hants, the plans and specification for which may be seen, and all necessary information obtained, together with printed forms of Tender, at the Office, between the hours of TEN and FOUR each day (Sunday excepted) from the 6th to the 13th instant. The person whose Tender may be accepted, will be required to provide two eligible securities, to be bound with him jointly and separately in a bond of 400l. for the due performance of the contract by the 15th day of MARCH, 1856. The War Department reserves the right of rejecting the whole or any of the Tenders. No notice will be taken of any Tender unless upon the printed form.

Royal Engineer Office, Portsmouth, 1st December, 1855.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives notice, that sealed TENDERS, addressed to the Director-General of Contracts, will be received at the War Department, Pall Mall, on or before the 20th DECEMBER, 1855, for the ERECTION of SOLDIERS' BARRACKS and CANTEEN, at the Wellington Barracks, St. James's-park. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's Office, 31, James-street, Pimlico, between the hours of TEN and THREE o'clock, from the 12th to the 22nd DECEMBER. The plans, &c. for the Erection of a block of Soldiers' Barracks known as No. 5 on the Royal Barrack Ground, and 22nd DECEMBER, instead of the 17th DECEMBER as previously advertised. The War Department reserves to itself the right of rejecting any or all of the Tenders.

Royal Engineer's Office, London District, Dec. 6, 1855.

CONTRACT for GRAVEL.—The Committee of the REGENT'S CANAL COMPANY are desirous of receiving TENDERS, on or before the 20th DECEMBER next, from parties willing to CONTRACT for MEASURING the TOWING PATH of the CANAL, with GRAVEL. The specification may be seen at the Company's Office. Tenders to be closed in a cover, sealed and marked, "Tender for Gravel." By order of the Committee,

EDM. L. SNEE, Secretary.

Regent's Canal Office, No. 29, City-road Basin,
Nov. 24, 1855.

CONTRACT for DREDGING.—The Committee of the REGENT'S CANAL COMPANY are desirous of receiving TENDERS, on or before the 20th DECEMBER next, from parties willing to CONTRACT for CLEANSING the CANAL, &c. for a Term of Three Years. The specification may be seen at the Company's Office. Tenders to be closed in a cover, sealed and marked, "Tender for Dredging"—By order of the Committee,

EDM. L. SNEE, Secretary.

Regent's Canal Office, No. 29, City-road Basin,
Nov. 28, 1855.

TEMPORARY CHURCH REQUIRED.—TENDERS, with designs, are required for an Iron or Timber-built CHURCH, to be erected in Camberwell, London, capable of accommodating 1000 persons. Further particulars may be had on application to Mr ABRAHAM LOCKEN, 1 Castle-st Buildings, Cheltenham, on or before the 14th day of December, 1855, stating a price for purchase, and also for rental for two years certain.

GLASGOW CORPORATION WATER-WORKS.—LOCK KATRINE AQUEDUCT.—CONTRACTORS WANTED FOR THE ARRHUILDARAN CONTRACT, including a tunnel, 2 1/2 miles in length, and other works. The plans, sections, and specification of the said contract for the execution of these works, will be ready for inspection on and after 5th DECEMBER next, in the Town Hall, at the Cross of Glasgow, entry by No. 12, Trongate street; and also at the Inn, at Aberfoyle, near the site of the Contract. At these different places, as well as from the subscriber in Glasgow, any necessary information will be obtained. The works to form the first of the contract will extend from Loch Katrine to the valley of the Duchray Water, being a length of about eight miles and will include all tunnelling, masonry, and arched culverts requisite, and every other work connected with the same. The whole, together with the formation of about 2 miles of road from the head of Loch Katrine to the road leading from Inversnaid on Loch Lomond to Stronachalchar, on Loch Katrine. Further information may be obtained from Mr. J. F. BATEMAN, at Manchester, his Offices, in John Dalton-street, Manchester; and from Mr G. H. HILL, the Assistant Engineer, at Inversnaid on Loch Ard, near Aberfoyle, who will accompany intending Contractors over the ground. The CORPORATION of the WORKS, sealed and marked "Tender for Ruaich Head Contract," will have to be delivered to the subscriber, Mr. BURNET, at his office, Council-chambers, Glasgow, on or before 3rd JANUARY next.—By order of the Committee,

JOHN BURNET, Secretary.

Glasgow, Nov. 22 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TYNEMOUTH CEMETERY.—The Burial Board for the Parish of Tynemouth hereby give notice, that they are prepared to receive TENDERS from parties willing to contract for the execution of the following works:—

CONTRACT No 2.—For providing Materials, and Building about 1,274 Lineal Yards of Rubble Stone Wall eight feet in height, round the proposed Cemetery, also a Dwarf Wall, 2 0 yards in length, to receive Palisading.

CONTRACT No 3.—For providing and fixing 900 Lineal Yards of Cast-iron Palisading, five feet six inches in height.

CONTRACT No 4. For Cutting and Levelling the Surface, providing Material and Forming about 12,850 Square Yards of Gravel or Ash Paths within the Cemetery. Also for Excavating and Laying about 4,600 Lineal Yards of Drain Pipes.

The plans may be examined and duplicate copies of specification and form of Tender may be had, on payment of 1s 6d for each Contract; and any further information obtained, on application at the Office of Mr. THOMAS PENWICK, Borough Surveyor, Northumberland-street, North Shields. Sealed Tenders to be delivered at the Town Clerk's Office, North Shields, before TWELVE o'clock on FRIDAY, the 21st day of DECEMBER, 1855, endorsed "Tender for Contract, No. 2, 3 or 4," as the case may be. The Board are not bound to accept the lowest or any Tender.

THOMAS C. LEITCH, Town Clerk.

North Shields, Nov. 28, 1855.

NORTH-EASTERN RAILWAY.—The Directors of the North-Eastern Railway Company are prepared to receive TENDERS for the undermentioned ARTICLES, in such quantities as they may require from the 1st of JANUARY to the 30th JUNE, 1856, delivered at the Company's Storehouses at Newcastle, Gateshead, York, Leeds, or Hull. Payment for each month's delivery at the end of three months, or cash deducting 5 per cent. discount.

1. Timber, Deals, &c
2. Best English Oak Waggon Wood.
3. Sleepers, Keys, Fence Railing, and Posts.
4. Wrought and Cast Iron, Chairs, and Switches.
5. Nails
6. Chains and heavy Iron-mongery.
7. Steel, Files, and Springs.
8. Tire Hoops.
9. Tallow and Oils.
10. Varnishes and Paints.
11. Brushes.
12. Wire Ropes and general Hemp Cordage.
13. Leather
14. Coke Baskets.
15. Glass.

Forms of Tenders may be had on application to Mr. BARNES, Stores, Gateshead, on and after MONDAY, the 10th of DECEMBER; and Tenders must be sent in addressed to the Secretary, at York, sealed, and marked "Tender for Stores," on or before MONDAY, the 24th DECEMBER. The Directors do not bind themselves to accept the Lowest Tender or any other.

York, November 24, 1855. W. O'BRIEN, Secretary.

TO BUILDERS AND OTHERS

THE BURIAL BOARD for the Parish of WEST HAM, in the county of Essex, require TENDERS from parties willing to CONTRACT to REPAIR the WALLS of West Ham Churchyard, and to pull down and rebuild such parts of the said Walls as may be required, and to build a new wall, of about 300 feet in length, for placing thereon a 5-feet iron railing, and to provide the said railing, as well as to supply new iron gates and such additional iron railing as may be deemed necessary to be placed upon the coping-stone of the outer walls of the churchyard, and to provide the stone for new steps, and for such other purposes that may be wanted, and to do and perform all the iron and stone work; and also to level such of the paths and other parts of the said churchyard as may be required, and to supply all the materials, and to perform all the work, according to the specification to be seen at the Office of Mr. T. E. KNIGHTLEY, Architect, No. 25, Cannon-street, City, until the 15th of DECEMBER, between the hours of TEN a.m. and FOUR p.m. The iron work may be Tendered for separately. The Board do not bind themselves to accept the lowest or any other Tender; and the party whose Tender shall be accepted will receive notice thereof, and have to execute a contract or agreement for the due performance of all matters therein stipulated. Personal attendance will not be required. Every Tender is to be sealed and marked "Tender for Repairs, &c. to West Ham Churchyard," and to be addressed to Mr. JOHN SUTTON, Clerk to the Burial Board, Rokeby House, Stratford, Essex; and to be delivered by TWELVE o'clock on MONDAY, the 17th of DECEMBER now next; after which hour no Tender will be received.

Dated Nov. 26, 1855

TO IRONFOUNDERS AND OTHERS

THE NEWTON-IN-MACKERFIELD IMPROVEMENT COMMISSIONERS are prepared to receive TENDERS for the SUPPLY of 1,500 YARDS of GAS MAINS, with socket-joints, and with bearings bored and turned, also, seventeen Gas Pillars, and twelve Wall Brackets for Lamps. Specifications and further particulars may be obtained on application to the Surveyor to the Commissioners, Millstone, Newton, near Warrington, Lancashire, or to us, the undersigned. Tenders to be addressed to us, under cover, endorsed "Tenders for Gas Mains," and delivered at our Office on or before the 15th inst. The Commissioners do not bind themselves to accept the lowest or any Tender. KING and BROOMHEAD WARD,

Clerks to the Commissioners.

St. James's Chambers, South Rin.-street, Manchester.

TO BUILDERS AND OTHERS

NATIONAL SCHOOLS, Horsington, near Wincanton, Somerset. The Committee are prepared to receive TENDERS for the ERECTION of NEW SCHOOLS and TEACHER'S RESIDENCE, and persons desirous of Contracting for the same, in whole or in part, may inspect the drawings, specification, and conditions, at the Office of Messrs. MESSITER, Wincanton, on and after MONDAY, the 10th day of DECEMBER, or at the Office of the Architect, Mr. HENRY HALL of, Thornhill-square, Islington, of whom further particulars may be obtained. The Tenders are to be forwarded to the Rev. E. L. MATHER, Horsington, on or before the 8th day of JANUARY, 1856. The Committee do not bind themselves to accept the lowest or any Tender.

THE NORTHAMPTON GAS-LIGHT COMPANY.—Persons desirous of CONTRACTING with the above Company for the PURCHASE of their COKE for the Year commencing on the 1st day of JANUARY, 1856, are hereby informed that sealed Tenders, at per Ton for the same, may be delivered at the Company's Works, Northampton, up to the 19th day of DECEMBER next, addressed to Mr. JNO. EUNSON, Gas Manager. The terms of payment, and other stipulations, will be the same "mutatis mutandis" as those for the current year, and will be produced on application to Mr. EUNSON. The Committee of Management do not pledge themselves to accept the highest Tender. WILLIAM DENNIS, Clerk.

TO BUILDERS

RUCKLAND RECTORY, LINCOLNSHIRE. The design, specification of works, and conditions of CONTRACT for BUILDING an entirely NEW RECTORY HOUSE and OFFICES at RUCKLAND, in the county and diocese of Lincoln, may be seen at our rooms in Louth, by builders desirous of submitting Tenders for the execution of the Works, from WEDNESDAY, the 12th, to THURSDAY, the 20th days of DECEMBER instant. Tenders to be delivered to us on or before FRIDAY, the 21st day of DECEMBER.

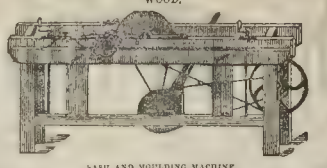
MAUGHAN and FOWLER, Architects.

Louth, Dec 4, 1855.

The contractor will have the privilege of making his own bricks for the works, on land immediately contiguous to the site.

BUILDING CONTRACT for FIVE HOUSES Millwall, for F. WALTERS, Esq.—Drawings and specifications at the Office of FRANCIS H. FOWLER, Esq., Architect, 4, Garden-court, Temple, from the 11th to the 15th inst. on which day TENDERS are to be delivered by TWELVE o'clock. Lowest Tender not necessarily accepted.

VALUABLE PATENT MACHINES FOR WORKING IN WOOD.

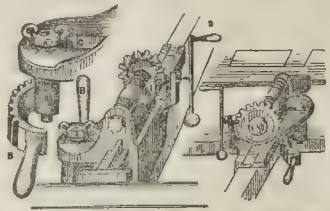


SASH AND MOULDING MACHINE.

PRIZE MEDALS have been awarded to these celebrated machines, both by the Great Exhibition in London and many scientific institutions. They are extensively used throughout the United Kingdom, by joiners, cutmakers, coach and cabinet makers, railway carriage and waggon builders, machinists, agricultural implement makers, shipbuilders: and also by the British and French Governments for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing, and boring. Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.—Sold only by WILLIAM FURNESS, Patentee, 36, Lawton-street, Liverpool, from whom full particulars may be obtained.

PATENT CRAMP FOR FLOORS, DOORS, AND SASHES

W. BISSELL, PATENTEE, WOLVERHAMPTON, Manufacturer of Rein and Mortise Locks and Builders' Ironmongery.



AA. A set screw and pin moving in slab C, to regulate for any thickness of joist, from 2 to 4 inches.

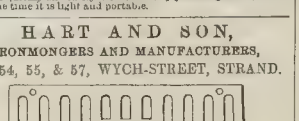
B. An eccentric notched lever, to be turned and pressed against the joist.

Lay the cramp upon the joist close up to the board, move the set screw in the slab up to the side of the joist, then fix the set screw FIRM. Turn the notched lever B against the joist, then, by turning the handle D, the lever will gradually get fixed and hold the cramp firm: the greater the strain, the more tightly, by its eccentric action, will the lever bind. The Patentee, in asking the attention of Builders and others, assures them that his cramp possesses great advantages. It is a BENCH cramp of the best kind, and as well-suited for doors and sashes as for floors. From its superior mechanical principles, it has greater power, and will be found to be more quickly and safely used than any yet brought out, and at the same time it is light and portable.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.

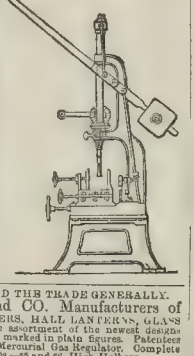


SLIDING VENTILATORS, IN IRON, BRASS, AND ZINC.

JOHN PARKIN and CO. late BLAKE and PARKIN NEW MEADOWSTEEL WORKS, SHEFFIELD, MANUFACTURERS of CIRCULAR and MILLING SAWS, IMPROVED CAST-STEEL FILES, for the use of engineers and machinists. PATENT LIMBERED MACHINE KNIVES and CUTTERS, manufactured for planing and grooving wood, for cutting paper, iron, stone, leather, &c. to any pattern or dimensions with the utmost exactness. Warranted to work with a harder and finer edge than any other made of temper.

INVENTIONS of CORE-ANNEALED CAST-STEEL for tape, piston-rods &c. MANUFACTURERS of RAILWAY SPRINGS, BLISTER, SHEAR, and CAST-STEEL, &c.

NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.



House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to call at the Patentees', DOWIE, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongers' Establishment, 295, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is finally one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show—every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—55 and 56, High Holborn.

SKAIFE'S GALVANIZING WORKS, Commercial-road, Limehouse, London.

Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated—Roofs fixed complete.

J. Skaife is also Agent for Morewood and Rogers's Patent Galvanized Tinned Iron, Plumbic Zinc, and Tiles.

An Allowance to the Trade.

PATENT GALVANIZING and CORRUGATING IRONWORKS (Improved Process).

WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.

GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.

A Discount allowed to the Trade.

TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.			
12	"	20	"
14	"	24	"
16	"	36	"

Full particulars and the reduced price sent by post on application to

A. MOREWOOD and CO. DOWGATE-DOCK, LONDON, to whom all letters must be addressed

JOHN HENDERSON PORTER, ENGINEER AND CONTRACTOR, IRON BUILDING AND ROOFING WORKS, GAS-STREET, BIRMINGHAM.

LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

SAMUEL HEMMING'S PATENT much improved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station. A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trusses, and carriages made to any plan on the shortest notice.

PATENT CORRUGATED IRON.

JOHN WALKER,

MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.

Works—Mill-wall, Poplar.

Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.

JOHN WALKER,

GALVANIZED IRON MERCHANT, &c. The trade supplied Corrugating by steam power capable of doing 100 tons per day, at the lowest remunerative prices, for bulk.

IRON-FOUNDER, &c.

JOHN WALKER,

IRON-FOUNDER AND ENGINEER.

Orders to any extent can be executed at his Works, Mill-wall, Poplar.—Apply at the Works.

BUILDER AND CONTRACTOR.

JOHN WALKER,

Having his own Saw-mills is enabled to CONTRACT BUILDERS' WORK,

At low prices, consistent with good work.

Apply at his Offices, Arthur-street West, London-bridge.

CASTINGS for ENGINEERS, BUILDERS, and CONTRACTORS, Supplied on reasonable terms by DODDS and CO.

WINDSOR WORKS, CITY ROAD, LONDON.

N.B. The execution of all orders promptly attended to.

WILLIAM DODDS and CO. MANUFACTURE and CONTRACT for RAILWAY CARRIAGE and GENERAL IRONWORK, WROUGHT and CAST IRON BRIDGES, IRON ROOFS, &c.

IMPERIAL IRONWORKS, Wenlock-road, City-road, London.

Offices—28, Leadenhall-street.

A. MOREWOOD and CO. (late Morewood and Rogers), Dowgate Dock, Upper Thames-street, London, and Baskerville Works, Birmingham

PATENT GALVANIZED TINNED IRON, and GALVANIZED IRON, in Sheets

PLAIN or CORRUGATED, and Cut to Flat Gauges.

Manufactured articles always kept in stock, such as pails, scoops boilers, riddles, skips, &c. of all sizes.

Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Stamped and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.

Estimates given for Roofs, and every description of Galvanized Building, at the

OFFICES and WAREHOUSE, DOWGATE DOCK, LONDON.

TUPPER and CARR, Contractors and Manufacturers of all sorts of IRON ROOFING.

PLAIN, CORRUGATED, PAINTED, or GALVANIZED.

Estimates and Plans furnished on application.

Experienced Workmen sent to all parts of the Country.

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TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON.

For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Pencing, &c.

To be obtained only at

TUPPER and CARR'S WAREHOUSES, REGENT'S CANAL DOCK, LIMEHOUSE, LONDON, or BERKLEY-STREET, BIRMINGHAM.

Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.

N.B. An allowance to the trade.

Address all letters to TUPPER and CARR, 3, MANSION-HOUSE-PLACE, CITY, LONDON.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

NEW PATENT INVENTIONS FOR STABLE REQUISITES.

PARIS EXHIBITION AWARD TO

COTTAM and HALLEN, of Winsley-street,

The Original Inventors of the PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, and to which they have made important additions, the main features of the same being explained in the following description and Engraving.

A represents the Patent Halter-guide and Collar-rein, the ball of which is taken to the back of the manger-works with freedom and ease up or down the guide-bar, and is no seless in its operation, as also a sure preventative against the most restive horse being cast in the stall.

B. The Patent Portable Seed-box can be instantly detached from the rack without disturbing the hay. The saving of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached, made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bracket combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized, and enamelled.

IMPROVED SURFACE-DRAIN, with safety covers; Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Pre-serving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

The New Illustrated Catalogue for 1856 gratis on application. Estimates and Designs.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service-Pipes, Lamp-Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.

Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York.

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Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description

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FLAVEL'S PRIZE KITCHENER.

The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

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LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at one shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is now used by architects, engineers, and scientific men in all parts of the world.

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THE following are the PRESENT PRICES of PATENT SASH LINE:—

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4s.	5s.	6s. 3d.	7s. 6d. per gross.

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Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

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COMPACT SAW-MILL.—TO BE DISPOSED OF, the MACHINERY and POSSESSION of a compact SAW-MILL, in Southwark. The machinery is quite new, and includes one deal frame circular saw bench, 8 horse power, direct acting engine and boiler, shafting, driving gear, &c. The premises are held at 30*l.* per annum. The machinery will be sold in one lot, for removal, if desired.—For further particulars, apply to Messrs. FULLER and HORSEY, Billiter-street, City.

ROYAL POLYTECHNIC GAS FIRE. BACHHOFFNER and DEBRETT'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this unique and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes, and accidents from fire are effectually prevented; whilst it presents all the comfort and appearance of an open coal fire, securing, at the same time, perfect ventilation. To be seen in action at DEBRETT'S Office, 145 Regent-street, London.

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JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS of Messrs. Weeks' establishment, an apparatus with one foot of fire seen day and night in full operation, heating two buildings covering 1 rod feet in depth, at the small expense per day in fuel and labour of 1s 6d. This achievement in heating by hot water is unprecedented.

ECONOMIC COOKING-STOVE.—DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE, the choice of the public. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. On view daily in the stove and fender department of Deane, Dray, and Co.'s establishment, where may also be obtained ranges with pipes, or forwarded free by post.—DEANE, DRAY, and CO., opposite to the Monument, London-bridge. Established A.D. 1700.

CUNDY'S PATENT PURE WARM-AIR STOVES, the only Patent Stove which gained a Prize Medal (Class 4th), at the Great Exhibition in 1851, especially adapted for warming, with great economy, Churches, Chapels, Schools, Entrance-halls, Libraries, and Warerooms. CUTLER and SONS, Sole Licensees and Manufacturers, 9 Great Queen-street, Long-acre, London.

DR. ARNOTT'S SMOKE-CONSUMING FIRE-GRATE is manufactured by T. EDWARDS, SON, and CO. 42 Poland-street, Oxford-street, where one may be seen in daily use. The advantages of this grate consist in the smoke being perfectly consumed, no chimney sweeping being required, and a saving of from 40 to 50 per cent. being effected in the cost of fuel.—Prospectuses, with testimonials, sent on application.

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CHUBB'S LOCKS, with all the recent improvements. STRONG FIRE-PROOF SAFES, CASH and DEED BOXES.—Complete lists of sizes and prices may be had on application.

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FIRE-PROOF CONSTRUCTION.—FOX and BARRETT'S PATENT.

This improved system of fire-proof construction has been most extensively adopted, and its application has been extended to nearly EVERY DESCRIPTION OF BUILDING, whether public or private.

The system combines ECONOMY, with great simplicity of construction, perfect security from fire, increased durability, and many other important advantages.

The floors and roofs are formed by a combination of joists of wrought or rolled iron with concrete or cement, so constructed that each floor becomes in effect a beam of considerable strength and rigidity, and forming a fire-proof foundation adapted to receive a finished surface, either of the ordinary boarding or tiles, or of cement, asphalte, tiles, slate, or other material.

Some of the largest and most important buildings in the kingdom are now in course of erection upon this principle, which is recommended by the most eminent architects and engineers in building, both as superseding the necessity for fire-proof girders and brick arches, and as being the cheapest system of fire-proof construction, even for ordinary dwelling-houses and domestic buildings, within the reach of every one.

Further information may be obtained of the Proprietor of the patent, Mr. BARRETT, 12, Turk-street, Adelphi.

BRAMAH LOCKS, FIREPROOF IRON SAFES, WATER-CLOSETS, and PUMPS. BRAMAH and CO. have the pleasure to state that a first-class Silver Medal has been awarded to them by the Jurors of the Paris Universal Exhibition. Manufactory and Warerooms, 124, Piccadilly, London.—Every article made by BRAMAH and CO. bears their address—124, Piccadilly.

A PRIZE MEDAL for SUPERIOR LOCKS was awarded to J. H. DOBBIE BEARDER, at the Great Exhibition of 1851, who invites the attention of builders, &c. to his Stock of Ironmongery, Brass Founding, Nails, Wrought and Cast, Copper and Zinc; Patent Locks of all descriptions; China, Glass, and Wood Furnitures of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, so much admired, &c. &c. &c.

J. H. DOBBIE (late STURCH and DOBBIE), established nearly 30 years, for the supply of Goods from the best Manufactories, at the lowest prices.

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ESTABLISHED 1817

WILLIAM HARMER'S Smiths' Works, Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 19, Horseferry-road, and 1 & 2, Peter-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven, 1 boiler, complete, 52s. each.

Self-acting Oven and Boiler Ranges, with wrought bottoms, &c. complete, from 4l. 4s. each.

Register Stoves, from 6d. per inch.

Elliptic ditto, with double backs, from 8d. per inch.

	2	3	4	5
Cast-iron Rain pipe	7d.	10d.	1s. 3d.	1s. 6d. per yard.

4-inch Eaves Gutters, 1l. per yard.

	3½	4	5 inch.
O G Gutters	1s.	1s. 1d.	1s. 3d. per yard.
Best Cut Clasp and Rose	1½	2	2½ 3 inch and larger.
	16s. 6d.	18s. 6d.	1l. 1s. 1l. 8s. 6d.

1-inch Best Cut Lath, 18s. per cwt.

Sheet Floor Brads, 14s. per cwt.

Hoop Floor Brads, 20s. per cwt.

Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 6s. per doz.; strong 6-inch Chairs, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc, and Tinning. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"18, Hyde-park Gate, Kensington, February 24, 1854.

"My dear Sir.—The Air Warmer continues to work very satisfactorily indeed, with regard to the main body of the house, and during this weather is charming, even in the painting-room. Mrs. Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,

"RICHARD REDGRAVE.

"Mr. J. Jobson Smith."

JAMES SILK BUCKINGHAM, Esq. late M.P. for Sheffield.

"Stanhope-lodge, St. John's-wood, London, January 27th, 1855.

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of cold since my residence in England, and this has increased with increasing years and decreasing strength; I have, therefore, had recourse, from time to time, to various stoves and other modes of warming the hall and passages of my house; but I have never succeeded till now in producing an equal temperature over every part, and having that temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and have the climate of May within doors in the months of December and January. The servants learnt its proper management in a few days without difficulty, and its economy in fuel is as remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall lose no opportunity of heartily advising its adoption to all who desire to protect themselves against the changes of temperature in their dwellings.—I am, dear Sirs, yours faithfully,

"JAMES SILK BUCKINGHAM.

"To Messrs. Stuart and Smith, Roscoe-place, Sheffield."

M. E. HADFIELD, Esq. Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir.—We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable oppressive odour produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective. I am, my dear Sir, yours faithfully,

"M. E. HADFIELD.

"Mr. J. Jobson Smith, Roscoe-place."

WILLIAM RUTSON, Esq.

"Newby Wiske, Thirsk, 15th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the disadvantages incident to an unfinished and unfurnished house, with all the doors open into the adjacent rooms, it is keeping up a very genial influence over the temperature, even during this severe weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 16s. 8d. per ton, the rate at which it has been fired for the last two or three months, is 1d. per hour.

"I am, Sirs, yours truly,

"WILLIAM RUTSON.

"Messrs. Stuart and Smith.

"P.S.—Mr. Rutson, on looking again, sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3l. 6d. for coke—say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop-road, February 27th, 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the late severe frost, the comfort has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase, and passages, being a reservoir of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the general run of the house without the fear of a relapse. To many invalids the invention will prove invaluable, giving them the freedom of their habitation instead of confining them prisoners to one apartment.—Believe, me, my dear Sir, very truly yours,

"EDWARD MARTIN.

"Mr. Jobson Smith."

E. F. SANDERSON, Esq.

"West-street, Sheffield, 27th March, 1855.

"Gentlemen.—The Gill Air Warmer you put up for me last year at Endcliffe, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been painfully sensitive of the damp and chilly air of this country, but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your effective plan of rendering dwelling-houses most equably comfortable in point of temperature.—I am, yours very truly,

"E. F. ANDERSON.

"Messrs. Stuart and Smith, Roscoe-place."

CLARK and HUNT'S IRONMONGERY, STOVE, and METAL WAREHOUSE, 139, Shoreditch.
A great variety of Elliptic, Register, and other Stoves, Cottage and best Ranges fitted, always in Stock.

Improved Self-acting Cottage Ranges, with Large Oven and Boiler.
20 22 24 26-inch.
28s. 30s. 32s. 34s.
Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—
34 36 38 42-inch
54s. 56s. 58s. 60s.
Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 9d.
Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Cheek Register, with strong Bars and Trivits, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.
Cast Rain-water Pipe { 2 2½ 3 inch. 1½d. 1s. 2d. 1s. 4d. per yard.
Cast Gutters—4 inch, 9d. per yard.
O G Gutters ..... { 4 5 inch. 1s. 1d. 1s. 3d. per yard.
Patent Line { 2 3 4 5 6 6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. 4d. 6d. 7d. 9d. 1s. per knot.
Light Elliptic and Register Metal, 14s. per cwt.
Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

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J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior manner in form, and at less cost than has heretofore been accomplished.
Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, singly or in peals.
TUNED BY MACHINERY.
Stocked and wheeled ready for fixing. Old Bells recast or taken in exchange.
MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

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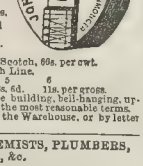
JOHN DALE, 18 and 19, Chiswell-street, Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 3½d. 4½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 19s.
3-feet Cottage Ranges, with ovens and back boilers, 38s. each.
3-feet self-acting ditto, ditto, 38s. each.
Air Bricks, 4s. per doz.
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Best Patent Sash Line.
1 2 3 4 5 6
4d. 6d. 5s. 6d. 7s. 6d. 8s. 6d. 11s. per gross.
And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

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THE BEAR GARDEN LEAD WORKS, SOUTHWARK,
Sole Manufacturers of Delhruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of
UNITING LEAD TO LEAD WITHOUT SOLDER.
Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.
PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

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Castings Warehouse removed from 81 to 68, Upper Thames-street.

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PFEIL AND STEDALL.
THE LARGEST STOCK AT
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Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and
STEWART'S PATENT CAST-IRON GAS and WATER PIPES.
Office, No. 7, Rise-lane, London.

PHŒNIX FOUNDRY, Derby, Sept. 1st, 1852.

JAMES HAYWOOD, Jun. begs to inform his friends and the public generally, that he has PURCHASED the whole of the STOCK of GOODS, as well as the large and valuable collection of WOOD and IRON PATTERNS belonging to the above Foundry, and has made arrangements to carry on the business on his own account from the 1st of September last. He will continue to conduct the same in all its branches as heretofore. The large and important contracts which have been executed at this foundry render it almost unnecessary for him to state that he possesses every facility for executing orders either for castings or wrought-iron work of any description whatever, upon the best terms and in the shortest possible time. He respectfully solicits a continuance of that patronage which has hitherto been so liberally bestowed upon the Phœnix Foundry.

JAMES HAYWOOD, Jun. PHŒNIX FOUNDRY and ENGINEERING WORKS, Derby, Manufacturer of every description of CASTINGS, from the smallest Ornamental Work to Castings weighing twenty tons each, railway bridges, iron roofs for railway stations and other purposes, railway chairs, machinery and sugar-mill castings, conservatories, wineries, windows and stoves in great variety, cast-iron ornamental garden vases and chairs, pipes for steam and water, and every description of work required by engineers, architects, builders, ironmongers, &c. Heating by hot water or steam.

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W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Coping, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Riggers, Pinions, Engine and Lathe Castings, Forge Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

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THE STRONGEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.
MILNER'S PHŒNIX (212°) SAFE-WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord street, Liverpool. London Depôt, 47A, Moorgate street, City.—Circulars free by post.

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Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. &c.
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COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axletrees, sugar-mills, &c.

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THERE is an IMPROVEMENT to introduce to the public in BOILERS for Steam or circulating for Bath Work, &c. Any gentleman wishing to work the same, may apply for further particulars to W. S. 30, St. James-terrace, Clarendon-road North, Notting-hill.

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RICH. RICHARDS and SON, 95, New Park-street, Southwark, London, Manufacturers of TRAVELLING CRANES and JENNIES, to span from 5 to 70 feet, on the latest and best principle, warranted to lift from 3 to 30 tons, or upwards. Crab A Cranes, double and single purchase; stone saws, hammered and of the best quality, suitable for Portland stone or marble; made to any length; also saws for Oasen and Bath stone. Blocks of all sizes, in sets of one, two, and three sheaves, or single. Chain, suitable for the blocks, for hoisting any weight, made of the best iron, and tested by patent machinery. Lifting or screw-jacks of all kinds, double and single purchase traversing cranes for railways, and cranes and hoisting-tackle of every description to order or by estimate.

SAWING, PLANING, and MOULDING MACHINERY.—SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the King's-road, Chelsea, and added to their very extensive and first-class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

FENDERS, STOVES, and FIRE-IRONS.

Buyers of the above are requested, before finally deciding, to visit WILLIAM S. BURTON'S SHOW-ROOMS. They contain such an assortment of FENDERS, STOVES, RANGES, FIRE-IRONS, and GENERAL IRONMONGERY, as cannot be approached elsewhere, either for variety, novelty, beauty of design, or exquisiteness of workmanship. Bright stoves, with bronzed ornaments and two sets of bars, 2l. 14s. to 5l. 10s.; ditto, with ormolu ornaments and two sets of bars, 5l. 10s. to 12l. 12s.; bronzed fenders, complete, with standards, from 7s. to 2l.; steel fenders, from 2l. 15s. to 6l.; ditto, with rich ormolu ornaments, from 2l. 15s. to 7l. 7s.; fire-irons, from 1s. 9d. the set to 4l. 4s. Sylvester and all other patent stoves, with radiating hearth-plates. All which he is enabled to sell at these very reduced charges.
Firstly—From the frequency and extent of his purchases; and secondly—From those purchases being made exclusively for cash.

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The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from the various manufactories, in Metal and Glass, all that is new and choice in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have some designed expressly for him; these are NOW SHOWN over his SIX TEEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his ironmongery establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. (two-light) to 16l. 16s.

THE BEST SHOW of IRON BEDSTEADS in the KINGDOM is WILLIAM S. BURTON'S. He has FOUR LARGE ROOMS devoted to the EXCLUSIVE SHOW of Iron and Brass Bedsteads as: Children's Cots, with appropriate Bedding and Mattresses, Common Iron Bedsteads, from 10s.; Portable Folding Bedsteads, from 12s. 6d.; Patent Iron Bedsteads, fitted with dovetail joints and patent sacking, from 17s. 6d.; and Cots, from 30s. each. Handsome ornamental Iron and Brass Bedsteads, in great variety, from 2l. 7s. 6d. to 15l. 15s.
The alterations and additions to these very extensive premises (already by far the largest in Europe), which have occupied the whole year, are now nearly completed; they are of such a character that the entire of EIGHT HOUSES is now devoted to the display of the most magnificent Stock of GENERAL HOUSE IRONMONGERY (including Cutlery, Nickel Silver, Plated and Japanned Wares, Iron and Brass Bedsteads and Bedding), arranged in Sixteen Large Show-rooms, so as to afford to parties furnishing facilities in the selection of goods that cannot be hoped for elsewhere.
Catalogues, with engravings, sent (per post) free.
39, OXFORD-STREET; 1, 1A, 3, and 3, NEWMAN-STREET; and 4, 5, and 6, PERRY'S-PLACE. Established A.D. 1820.

TO MACHINISTS.

WANTED, a thoroughly good-conditioned, second-hand VERTICAL DEAD SAW-FRAME, to cut 18-inch deals, with saws, &c. complete.—Address, E. JENNINGS, Surveyor, Windsor, with lowest cash price, name of maker, and other particulars.

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

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January 1, 1855.

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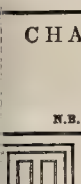

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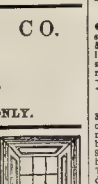

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The Builder.

Vol. XIII.—No. 670.

TWO qualities are imperatively demanded of all architects who would improve the aspect of our streets, and remove from English shoulders a portion of that burden of invidious comparison between London and Paris which each day augments: the one is the power to create good new buildings, and the other is to make the very best of what we have. It would be easy at this moment to point to many really satisfactory evidences of our architects' possession of a fair share of the former, but the present condition of our leading thoroughfares stands in even more immediate need of the latter. The reason why the quality of successful origination has been better developed than the faculty of amelioration is, doubtless, that when new buildings of importance are required, the assistance of the architect cannot be dispensed with; whereas the popular prejudice runs strongly in favour of entrusting repairs of houses, new shop-fronts, and street-painting generally, to tradesmen uncontrolled by the supervision of any educated artist. Need we go further than Regent-street to lay bare this sore place, and to view the results to which the practice leads. Unfortunately the malady may be said to principally affect the skin, and the various forms of eruption which from time to time break out, are of the most irritating description. Nash, poor man, confiding on a greater amount of Communist tendency than is ever likely to animate the breasts of any four or five neighbours, grouped many a set of four or five houses, so as to make believe that they were each of them denizens of so many Egyptian, Greek, Roman, or Italian palaces. It is no use now, so far as Regent-street is concerned, discussing whether such make-believe combinations were wise or not: they exist, and must for the present be accepted as "*faits accomplis*." Let us suppose Brown, Jones, and Robinson, to whom we may add Smith and Green, to be in occupation each one of a fifth of one of these Palazzi or Propylons, as the case may be, and then let us trace what becomes of what no doubt Nash described to George IV. as a capital idea for obtaining a "grand unity of effect." Brown, No. 1, is a model tradesman, who puts scarcely anything in the windows, who accepts his tenement *in toto*, and whose pride it is to maintain it in exactly the same stone-coloured condition in which he received it from the "party" of whom he took the business some twenty years ago. Jones, No. 2, is of quite a different stamp: he only took his present house in the fancy trade some two years since. The little windows of the propylon would not do for his goods, not they; so the first step is to put in a new front, chosen regardless of expense, with plenty of gilding, plate, and looking-glass, and abundance of Louis Quinze scroll-work, with a blazing inscription, recording the name of Jones and the articles he deals in, such as may be read nearly from one end of the street to the other.

Robinson, No. 3, is known in the street as a business man: he despises what he calls Jones's flash: his new front is all substantial and serious,—no putty and gilding, but all solid brass and mahogany, with the heaviest Roman mouldings. Poor Smith held No. 4 for a few months only. After the first few weeks he commenced those "alarming sacrifices" which filled his shop with customers for a month or two, and after a month or two with creditors. His affairs go into the lawyers' hands; his shutters are shut; and his landlord's affairs having become deranged, owing to his having advanced Smith money, so they have remained for the last two or three years,—dirt, dinginess, and "melancholy having marked" No. 4 "for their own." No. 5 is Green's "well-known Emporium of Commerce." As a corner house, it stands conspicuous in the street, and bristles with activity. Green's own establishment is a little bit of the Boulevards suddenly dropped amongst us. Has not the clever Celestine Dentelle made the most of the first floor, with her "modes" and "bric-a-brac," her neat little muslin blinds, and conspicuous bonnets? Are not the rooms above, the celebrated "billards," to which London and foreign flats and sharps resort to waste their money in mysterious communications on the subjects of "le sport" et "les sweepstakes?" Thus, while our friends Brown, Jones, Robinson, Smith, and Green struggle with the world, what becomes of poor Mr. Nash's palace or propylon? and by multiplication of ditto dittoes, what becomes of the aspect of Regent-street and our unfortunate street architecture altogether?

To palliate, if not to remedy so anomalous a condition of things, two measures only are necessary on the part of the London householders—to be a little less egotistical, and to act jointly with their neighbours under the advice of any accomplished artist. Should any half-dozen occupants of adjoining houses, for instance, agree to lay out a couple of hundred pounds apiece upon their houses, under the auspices of a man who has made the laws of harmonious decoration a special study, can any one doubt that a wonderful improvement upon the Brown, Jones, and Robinson system to which we have alluded, would be effected? We have been led to these conclusions by observing how much Mr. Owen Jones has done recently and notably in the case of Mr. Jay's new shop in Regent-street. His problem in that instance was a difficult one. Forced to retain structural forms and fittings of the most antagonistic description, his vocation has been to harmonize as far as possible the warring elements, by connecting them in a general system of coloured decoration, external and internal. The manner in which he has subdued all that could interfere with the effect of the goods, and made gay and attractive all the surfaces against which they were not to be relieved, is exceedingly judicious, and our London tradesmen will do well to take a hint from this exterior, not only in this respect, but in the taste with which the ornamental lettering of all the titles is carried out. Every inscription is clear and well spaced out, without any vulgarity or undue prominence. Unfortunately, a solitary house, however successfully treated, does not sufficiently forcibly exemplify what happy results a judicious use of colour may be made to produce in our London streets, and therefore it is that we should much like to see Mr. Jones's or any other properly educated artist's skill tried upon a larger scale; as, for instance, upon the whole of either of the fine circuses, could they but be handed over to a good colourist, to try how much could be done to restore that breadth of effect at which Nash so boldly aimed, and which supineness and accident have hitherto so sadly marred.

Proposed Statue of the late Mr. E. Baines at Leeds.—There have been on view three models of the proposed statue to the late Mr. Edward Baines, by Mr. Behnes, Mr. Noble, and Mr. Milnes. The committee have decided against the model by Mr. Milnes, as being the least successful, but they were unable to decide as to the other two. Ultimately the committee resolved to present Mr. Milnes with a sum of 20*l.* and to request Messrs. Behnes and Noble to make such alterations as they may please in their models, or produce entirely new ones, this to be done prior to 6th February, 1856, when the committee, according to the *Leeds Intelligencer*, will give their final decision.

NASH AND SCHINKEL: EDUCATION OF ARCHITECTS.

THE RECENT HISTORY OF ARCHITECTURE.*

Any merit to be credited to *revivalism* in Germany, would have to be looked for in the works of the class of artists—painters—with whom it originated; and the discovery of these merits, though they may be unquestionable, is not free from difficulties. We need but allude to paintings without back-grounds, or with gold back-grounds, and to the preference for outline in book-illustration, as amongst the peculiarities which are at variance with English ideas; although some of these, it should be said, have been widely imitated by artists in England; and others have been loudly held up to notice.

In architecture then, the popular taste tended towards the revival of old forms. It is *generally* not within the scope of an individual, at once to substitute expression of private opinions for the popular taste,—partly by reason of the inevitable position, that each individual member is not free from influences which colour the opinions of the public, and partly because isolated opportunities may be limited in their effects, as well as slow in producing the impression. This appears to us to hold good in modern Germany. Still we find as we have found before, that there is really much within the *power* of individuals. Indeed, the great changes in the expression of art at various periods, are, in a singular manner, traceable to some individual. Now, the meritorious elements in German architecture, seem clearly due to such distinct source; and as there is a parallel case in the architecture of England of about the same period, with very different results, it may be well to give a little attention beyond what we have already done, to the lives of the respective architects—the schools in which they were nurtured, and the opinions which they may have had the opportunity to form. The greatest contrast is that which is presented whilst London was under the *régime* of John Nash. Of the biography of this noted architect, as in the case of James Wyatt, few particulars have been given. That he was born in 1752, of Welsh parents, and that for some time he practised as a miniature painter; that he died at East Cowes, in the Isle of Wight, in 1835, at the age of eighty-three,—thus adding another to the number of octogenarian architects,—and that after all his gains by his profession, and speculations in connection with it, he left little property, forms about the whole of the information that is supplied to us in print. Some persons have viewed him as a speculative builder rather than an architect; whilst others do not hesitate to attribute to what they call his *sycophancy* of character all the opportunities which he had. But those who were his pupils at his house in Regent-street, speak feelingly of him for his constant gentlemanly and considerate demeanour, in a kind of relation which most of all brings out the dispositions of men.

What remains of his gallery, and of other pieces of internal distribution—which was that in which he succeeded better than in his exteriors—together with some of the characteristics of his work in other respects, go to justify what is said by Mr. Gwilt,—that the "late Mr. Nash was beyond doubt a person of great taste." The fitting up of his office, where each assistant or pupil had his private desk and compartment, we have heard praised for commodiousness and comfort, by those who had experience of it. Still, that Nash failed in some of the essentials of good architecture, is unquestionable,—indeed obvious. Now, here it is that we think the biography of architects might be made to come in, to speak to us in lessons for the guidance of the future. Whatever faltering pen *we* bring to a new task, certain we are that all pages of architectural history and biography must be previously conned over, and the right deduction grasped, if ever we are to hail the institution of a systematic and recognised system of architectural education. It is not that there is no learning—no assiduity amongst the members of the profession: those exist in abundance; but system and direction are wanted. For the lack

* See p. 517, *ante*.

of these, a man may be very arduous all his life, and yet leave no sign—no work of mind or hand. There is far more in any profession than a lifetime can accomplish: and long before any knowledge can be completed, there is work calling to be done. To approach the task at the right entrance, and after the bird's-eye range of elementary knowledge, is half the battle. Whenever our professional brethren do bring their minds to this great question,—so momentous both to the interests of the profession, and to those of art,—certain we are again, that the true principle of an institution will be found in wide comprehensiveness as to subjects of study, and in the recognition of the importance in each case, of a commencement. That "a little learning" is *dangerous*, is perfectly true; but not so the erroneous deduction which follows in the line of a poet,—elsewhere more deserving of the architect's study. Surely the reasoning is unsound which would view even superficial knowledge as "dangerous" in contrast to *ignorance*. The danger is that of ever allowing the idea of limit to investigation. With a proper start, self-sufficiency lessens every day as the expanding field opens into view. The universal fault of all education, professional or otherwise, in England, is that it developes in one channel and totally *neglects* others. This is the cause of existing prejudice. Were it not so, should we meet with leaders of the bar ignorant of the simple truths of science and contumelious of its votaries, and members of the government and legislature possessed with a sort of *imbecility* in all art-questions? Would—not mere antiquarian lore, but—professional teaching in architectural ART, be absent from our universities; and would it take the bulk of the lifetime of one of us, to bring home to men's convictions the facts in sanitary science, which observed or neglected, go to lengthen or to shorten lives? The most valuable part of a man's education is doubtless that which he makes for himself; but there is a wonderful value in seeing what it is you have to do. There are professions which have sought to lay out a scheme of education, and there are others which with an ill grace only half perform that duty. The latter class are accordingly tending downwards in position and influence. It rests with *our* profession to say to which class it will have itself assimilated. As we are at present, a large proportion of the acquired experience of individuals is lost with them, and might as well pass to some "rubbish-heap,"—not of the Renaissance. With the proper comprehensive elementary knowledge, and the further course sketched out, a man *may* continually be educating himself, — as all who would maintain any position are necessarily required to do. But, without the index to open the book of learning, a lifetime will pass ere it will be discovered; and the particular demand upon ability which rendered necessary, further study, will be supplied by no possible labour, but will be merely the occasion of falling back on what we call empiricism. Yet, if all be true that it is the habit of writers to say,—writers of a certain class,—those to whom we referred some months since in speaking of Perrault and others—*we* are wholly in the wrong; neither youthful study nor matured experience is of any use; and John Nash stippling on ivory will make as good an architect as any of us, or James Wyatt preparing his drawings in his carriage going to the works, or Sir Joseph Paxton on a sheet of blotting-paper, to be framed and glazed for the contemplation of artists yet unborn, will be taking all-sufficient means to produce a good result. Many such a prodigy as Nash, or Wyatt, has been saved in reputation by his workmen, or his assistants, or by the absolute incapacity of his judges. We have to think for ourselves, and not take too much note of contemporary fame. What, then, were the relative positions of the architects whom we select as of marked reputation in the period commencing about the year 1815. The *details* in the works of Nash are sufficient to show that he had received no adequate professional training, though he had the eye of an artist. Some of his fellows in their early career were absorbed in the practice of building. What is the history of the life of a *German* architect? One of the number, Weinbrenner, of Carlsruhe, who died in 1825, left his autobiography. This, however, we pass over for the sake of observing the development of a genius better known to fame.

Karl Friedrich Schinkel was born at Neu Ruppin, in Brandenburgh, in 1781, and died in 1841, in his sixty-first year. At fourteen, at Berlin, he was the pupil of David Gilly, who was not only a practical architect, but the author of several literary works relating to architecture. Here the direction of Schinkel's life was greatly influenced by the enthusiasm of Friedrich Gilly, who returned from his travels filled with the purpose of doing something to elevate his art from the comparatively low position which in Germany it then retained. The German architects, then, like those of a later date in England, were progressing, so far as regards better knowledge of the Greek orders; but the mere attainment of the character of these was not all that was required. Friedrich Gilly, however, died before he was thirty years of age, or in 1800. Soon after this, Schinkel's connection with David Gilly appears to have terminated. Thereupon, although, from the practical experience which he had acquired during the execution of works, with the superintendence of which he was entrusted by Gilly, he is thought to have been by no means unfitted for practice, he wisely attached himself for a time to other pursuits. It was then that he devoted himself to ornamental design, in which his name has some celebrity. His collection of designs for furniture in the classical taste is well known. We know not whether there is any instance in this country of an architect's following the same branch of art with similar energy and success: but it would be most fortunate for art just now, could it be so. In the mediæval school, the name of Pugin may, however, occur to every one.

By 1803, Schinkel had earned enough to enable him to set out for Italy. He went by way of Dresden, Prague, and Vienna. In the early part of 1805 he returned to Berlin. 1806 was the year which we have named as a disastrous one for Prussia. Public works were necessarily suspended. Schinkel turned his attention to landscape painting, in which he attained great skill. He also prepared a large panorama of Palermo from his sketches,—a work which excited considerable attention; and like Inigo Jones, Servandoni, and some other architects, he made designs for scene-painters. His scenes for the operas of "The Bride of Messina" and "The Zauberflote" were published, though, we confess, they do not seem quite worthy of his later reputation.

All this, however, was valuable as the training for the course which he afterwards took up, and which procured for him the designation of the Luther of Architecture. We hardly know whether the expression of such a view will meet with universal approval in England. Professor Cockerell, to whom we have often referred—always with pleasure as well as advantage—has every year spoken in deprecation of such "pretty drawings" as are found on the walls of the Academy; and it is not to be denied that such "polychromatic decoration" of foregrounds, as we find indulged in by some who are engaged to colour architects' drawings, may blind those who can be deceived by these substitutes, to the poverty which there may be in the real subject. On the other hand, we have hardly ever known an architect himself clever with the brush, who was not also gifted in design; and so apparent to our mind is this connection of the two sorts of talent, that we should feel disposed to *recommend* the practice of landscape painting in water-colours (objects of architectural art being of course made the chief accessory) for far more important reasons, than those of mere convenience, or economy, as to preparation of drawings,—the reasons generally urged in favour of what we refer to. It is impossible to attain skill in landscape painting, without deep study of atmospheric effect, and of that grouping of objects, and massing of shade, which most of all go to produce what constitutes "breadth." This quality in a work of art, so plain to the understanding of one who has once perceived it, yet so difficult to explain in words, is that very quality in which a poor style of architecture, and we much fear, our modern English no less, is usually deficient. Any architect who has books at his elbow, can cover the surface of elevations with mouldings or ornament; and many may have the wit to do so with some consistency of style and character. But, it requires the same eye that groups the lights and shadows of a picture,—realizing *chiar-oscuro*, or "effect,"—it requires the eye of an *artist* to accomplish that which is the chief source of expression of *art* in architecture. Artists are not wanting in England, who have considerable excellence in the treatment of light and shade in landscape drawings: just as we have *architects* far more learned than John Nash in the grammar of architecture. But it would be well if the two qualifications were more frequently combined. Now, whilst Schinkel had the advantage of training as an artist, combined with acquired knowledge of what had been practised in architectural details, Nash seems to have been almost destitute of the latter reserve of knowledge. Consequently, with an eye for effect, and that regard for novelty as a necessary object, for which we have already contended, his efforts often resulted in the display of uncouth forms, of disproportionate mouldings, and violations of essential laws of architectural art. Thus, having apprehended that projection of mass was necessary, in a particular case, no other mode of effecting this presented itself than by the familiar Palladian portico,—which he would place on the level of the upper stories, without any reference to the question whether the lines of windows at the back might be inconsistent with it, or it with them, or whether there was a way into it, or, in short, whether it possessed, in any respect, that structural union with the art-element, which we repeat makes up the art of *architecture*.—Perhaps, however, we should state that whilst it is not an uncommon notion that Nash was the architect of everything in Regent-street, if not the Regent's-park, he was in some cases only in the position of a surveyor to an estate,—a functionary who often gets the credit of what he has no means of preventing. Still, the bulk of what was done under the influence of Nash is singularly even, in what we may call its demeritorious characteristics. So far from carrying out his attention to breadth and grouping—as an artist-*architect* would have done, by differences in the widths of fronts,—some of Nash's grandest designs are mere rows of ordinary houses, of equal frontage, with porticoes added on. In his Hanover-terrace, Regent's-park, which may be an exception, and still more in Mr. Decimus Burton's Cornwall-terrace, the advantage of introducing a few houses on a plan varied from that of the general number, is apparent. It is difficult to realize all that may be required in street architecture of uniform narrow fronts; but Nash was not always so restricted.

He also did much to induce a continuance of erroneous principle in cementitious architecture, almost everything done during his time presenting the imitation of forms originally designed for, and expressed in stone. Here, however, he had been preceded by Palladio. The truth is, that the application of materials in forms characteristic of—or, more correctly, consistent with, their physical properties—has been a thing of modern elucidation in principles of art, deduced from the study of Gothic architecture,—although in that style even, the principle referred to is modified in some exceptional cases,—as in the use in woodwork of forms rather characteristic of stone construction. Much of the lath-and-plastered work on the exterior of the house at Strawberry-hill, is just now showing the manner of construction, and exemplifies the change that has taken place. Principles as to consistent application of cement are, however, still open to discussion, although recent works of rather superior character show that it is being felt that the material should not be treated in imitation of stone. We may also remark, that the exact reason of the inferiority of the effect which it will be admitted there is, even where a good cement has been used, has not been precisely explained. Much of the defect in point of art is due doubtless to inferiority *proclaimed* wherever the design recalls the forms of stone architecture,—the very aspect of *inferiority* being repulsive to the sense of excellence in art: part of the impression may be due to a leaden, or otherwise objec-

tionable colour: whilst to many minds an imitation of one material by means of another is positive mendacity,—no less than spoken falsehood. Still there is something which we cannot wholly reconcile with these impressions.

If, in point of art, the use of cement, as applied by Nash, involved grave errors, a coating of this sort is often a protection to brickwork—especially in damp situations—for which there would be no sufficient substitute. It is therefore important not to cast aside the material, but to discover the proper æsthetic use of it, with recognition of its especial physical properties; and this is a matter still open to demonstration. The best kinds of cement for general use, would be those which do not usually require colouring, or painting, such as the blue lias lime, and the recently introduced Portland cement. Roman cement and mastic, however, seem to be what were chiefly used by Nash, and the results are objectionable on many grounds.

The greasy look of a painted surface; the gradual obscuration of the sharpness of ornaments and mouldings, by the successive coatings; and the entire contradiction of an evenly-coloured front, to the natural weather-stained stone, and to the varying nature tints, and lights and shades, are common to all the cemented fronts of Nash's school of taste,—which, moreover, did much to induce carelessness in bricklayers' work, such as the use of cement is, it must be allowed, at all times liable to lead to. And it is really a very serious defect as regards the result, that the painting or colouring can never be done simultaneously. In Regent-street, as we have already said, *motley* is always "your only wear," and were the architectural details ever so good, the eye could not fail to be offended, and prevented from detecting any merit that there might be, by contrasts of white and drab—of paint and dirt—which are constantly warring against the architecture. We suppose no one would be able to realise the due effect of the proportions of a column, having one half white and the other half black, divided from each other down the middle; and this is what may be seen any day during the painting season in Regent-street; and we should require strong evidence of the æsthetic value of cement, to be reconciled to what seems to militate so decidedly against such value. The facility of using ornaments which may be ready cast, also, is of very questionable advantage: the temptation to save the trouble of thought is often not to be resisted, whereas the regular process of design is *favourable* to the discovery of a good and proportionate form. Since the date of the architecture af Regent-street, the suburbs of London, and the watering places of the south coast, have been studded with houses, rich in all the variations of plasterers' architecture. Corinthian capitals are placed indifferently on shafts of six, or of sixteen diameters in height; and every other beautiful form is applied in such positions, that we acquire involuntarily a distaste for those very ornaments, which, as once designed, seemed likely to excite admiration, as all forms of real beauty should do, throughout ages; and to this cause of dissatisfaction amongst others, we owe that constant tickling of the palate of taste with strong drink and fresh sensations, by which we strive to supply the omission of beauty and true art. However necessary for a result in art, have we considered the pursuit of novelty, that country is in a low stage where novelty becomes the sole, or main end in view. Some have urged that if we cannot get what is best (as in this case—stone), art is advanced by our using what there may be. But, clearly whilst we refuse no material, and no contrivance, we shall realise better art by making each thing the exponent of its distinctive capabilities, than by allowing the same thing to proclaim a failure. We would prefer even *not* to educate the public eye in the matter of taste, than to educate it downwards. Of these downward steps, public taste has of late made many; and it requires strong faith in our progress to believe that the good realised during the time outbalances the evil. The neither good nor evil of Baker-street architecture, may be more desirable than the active vitiation, ocular and intellectual, by a mile of Brighton terraces.

BIRMINGHAM AND ITS PROGRESS.

INTERIOR OF GREAT CENTRAL STATION.

The condition of the streets of Birmingham, when Prince Albert went there to lay the first stone of the Midland Institute, afforded proof that the corporation have not given notice of their intention to apply to Parliament for increased power as to forming, flagging, paving, sewering, and maintaining roads and footways, before it was needed. Every place on that occasion was positively *flooded* with liquid slimy mud: the air itself was foul, and the thousands who thronged the streets must have been literally steeped in dirt. Leland, in the account he gives of Birmingham in the reign of Henry VIII. says;—"I came through a pretty street as ever I entered, into Birmingham town. This street, as I remember, is called 'Dirtey.'" He would certainly have extended the appellation if he had revisited it on the day we are speaking of.

The application on the part of the corporation seeks also for power to make a new street, to straighten and widen old ones, and to enforce sanitary regulations. They have our best wishes in all such good works. As we have before said,—

To drain and pave
Is to raise and save.

The Birmingham Society of Artists quote on the title-page of their catalogue this year a well-known suggestion by Goëthe,—"We should do our utmost to encourage the beautiful, for the useful encourages itself;" and if we might say so without being considered impertinent, we would urge the town-council to keep this teaching prominently before them.

Very remarkable has been the progress of Birmingham. William Hutton wrote truly of the town a hundred years ago;—"Comparatively small in her size, homely in her person, and coarse in her dress. Her ornaments wholly of iron, from her own forge. But now her growth will be amazing, her expansion rapid,—perhaps not to be paralleled in history. . . . . She will add to her iron ornaments the lustre of every metal that the whole earth can produce, with all their illustrious race of compounds, heightened by fancy and garnished with jewels."* Iron, however, is still her staple, and no more extraordinary instance will the visitor find than that which meets his view on arriving at the Great Central Station, New-street, the roof of which has a span at the widest part of 212 feet, and is 840 feet long. A detailed description of this extraordinary piece of construction has been given in our pages, and here is a small view of it, showing the bridge which passes over the lines for the use of the Queen's Hotel. This roof contains 1,050 tons of iron, and cost 32,274*l.* at a time when prices were lower than they now are.

THE TOWN HALL.

The Town-hall, wherein the banquet was given to the Prince, is another great feature of the town. You know it, doubtless: if not, the engraving will suggest it to you. The interior, our readers will remember, has been recently decorated and lighted at a cost of 2,500*l.* (we described the works not long ago, p. 402), and we may now add that the effect of the ceiling is certainly very satisfactory and agreeable. The walls, perhaps, are somewhat too light for it. The organ-pipes are blue, with a gold diaper.

Another work, which has been going on for some time, namely, the restoration of the tower

* Quoted in "The Land we Live in."

of St. Martin's, the mother church, and concerning which much has been said, is now so far completed that on the morning of Prince Albert's visit the churchwarden bravely mounted aloft, and placed the crowning stone of the spire in its proper place. The decorative portions of the spire will have to be completed as the workmen come down. The scaffolding, of square timber nearly up to the top, is of peculiar strength and massiveness, enforced probably by circumstances not now obvious. What is to be done with the ugly, misshapen building to which the tower is attached? Having built a steeple to the church, the parish must now certainly build a church to the steeple. The regard which the parishioners appear to entertain for their vicar, the Rev. J. C. Miller, M.A. one who has fought his way from the forms of the Brompton Grammar School to his present gratifying position, will probably lead them to further exertions.

Some additions are being made to Queen's College, under the direction of Mr. Bateman, and a new lecture theatre hard by is spoken of. The principal new building now in progress is the Birmingham Music Hall, a lofty building in the Pointed style, with open timber roof, and calculated to accommodate 2,000 persons. This hall is 112 feet long and 71 feet 6 inches wide, and has two tiers of galleries round three sides of it: the orchestra of course occupies the fourth. The architect, Mr. Cranston, contemplates more than an ordinary amount of decoration with colour, and hopes to do this before the building is opened to the public. Including the organ, which is to cost 1,230*l.* more than 7,000*l.* will be spent here. Externally no show is attempted, as, with the exception of the entrances, which will probably be made more striking than they are at present, the whole will be masked by buildings next the street.

Some vacant ground adjoining has been spoken of as a site for a building for the permanent exhibition of Birmingham manufactures.

Looking in at the Exhibition of Fine Arts, now open, we found 472 works of more than average goodness, including, of course, pictures already known to Londoners, such as Maclise's "Sleeping Beauty," Mulready's "Barber's Shop," and Rankley's touching chapter, written with the brush, called, "Old School-fellows." Artists may usefully reflect on the lines which Mr. Cave Thomas attaches to an earnest picture exhibited here by him:—

> "Matter is stamped deformed or beautiful
> According as the die from which 't is struck:
> Trifle not, therefore, but think well on this.
> The highest art is that which fashions mind,
> Graves and entempers it with utmost skill,
> That all its issues may be coined just,
> And bear the impress of the sovereign good."

The picture to which the Eastlake prize of fifty guineas has been awarded is by W. T. Roden, "Christ Healing the Man sick of the Palsy." The figures have a stumpy aspect, but for sentiment and expression the picture is very praiseworthy. The prize of sixty guineas offered by the Committee of the Prize Fund Association, has been adjudged to Mr. W. H. Knight, for his clever work of the Webster school, "The Broken Window — who threw the Stone?"

Birmingham has a deep interest in the progress of the fine arts amongst her population—no town deeper, and should seek to imbue with love of them the thousands who throng her manufactories. And what factories these are! Some of them small towns; Messrs. Winfield's, for example, who have established schools, and reading-room, and sick-club; or Messrs. Elkington and Mason's Electro Plate Works, where about 700 people are employed. Look, too, at Mr. Gillott's manufactory, where steel pens are made in millions. The growth of this trade in thirty years is one of the marvels of Birmingham.

GILLOTT'S STEEL-PEN MANUFACTORY.*

Works for the prosecution of an entirely new branch of industry have been opened by Mr. Chance, about five miles from the town,—the manufacture of architectural decorations and adjuncts in *Basalt*. The rag-stone of the neighbourhood is melted, and cast in hot moulds, and cornices, doorheads, and other architectural enrichments are produced, of very lasting quality. When cast in cold moulds a glassy lava, known as *obsidian*, is produced, an interesting fact in a geological point of view. "In all our operations," said Prince Albert, in his most admirable address, "it is not we who operate, but the Laws of Nature, which we have set in operation. It is, then, of the highest importance that we should know these laws, in order to know what we are about, and the reason why certain things are, which occur daily under our hands, and what course we are to pursue with regard to them." And again, —"No human pursuits make any material progress until science be brought to bear upon them. We have seen, accordingly, many of them slumber for centuries; but from the moment that Science has touched them with her magic wand, they have sprung forward, and taken strides which amaze, and almost awe, the beholder. Look at the transformation which has gone on around us since the laws of gravitation, electricity, magnetism, and the expansive power of heat, have become known to us! It has altered our whole state of existence—one might say, the whole face of the globe! We owe this to Science, and Science alone; and she has other treasures in store for us, if we will but call her to our assistance."

Lord Ashburton's speech, although it took too low a view of English industry and skill, is full of admirable teaching. He sketched the uneducated workman (restricted, in consequence, to a limited mechanical task), rebelling against the drudgery which leaves undeveloped faculties of which he is conscious, and expending his energy and power in a pursuit altogether alien to his business. And then he contrasted with him one enabled by such an institution as they were engaged in founding, to reconcile the aspirations of an intellectual being with the worldly duties of a husband and a parent. "Where before he moved hoodwinked and indifferently, he has now presented to his sharpened and inquiring senses wonders such as the book-worm in his closet, nay, such as even the chemist in his laboratory has never conceived. Instead of endeavouring, by fruitless efforts, to raise himself above the mechanical calling which drags him down, he now has the satisfaction of raising his calling into an art, an art worthy of all the interest that an intellectual being has to bestow; and if he attain excellence, there is a higher career opened to him in which he may distinguish himself, serve his family, and benefit his country." And then the speaker warned England, in weighty words, that she had not maintained her position in the arts of peace since 1851, because the people are inferior in that scientific knowledge which cheapens and facilitates the application of labour.*

If the country be thoroughly awakened to the necessity for effort, and will put forth its strength, all danger will vanish: if we pause in the race we shall be trampled under foot.

THE DIPLOMA QUESTION.

This subject was discussed at the Institute of Architects, on Monday evening last, as announced, and was ultimately adjourned for further consideration. We must leave for a future occasion reference to the opinions expressed. The elder members of the profession, we suppose, do not consider the question of much importance, few of them being present. A memorial, addressed to the council by the Architectural Association, was read, urging that the Institute should undertake the examination of such as would voluntarily come before them, and grant diplomas of fitness to those who passed it satisfactorily. The propriety of acceding to this should receive the fullest consideration: much may be said, and has been said, in favour of it. The proposal to make the acquirement of a diploma by all who would practise compulsory, is a different matter. Mr. Papworth is not correct when he says, "the only opposition which the measure of establishing a diploma can encounter would arise from those who feel some hesitation as to the possibility of their deserving it." It is unnecessary to tell the readers of the early volumes of the *Builder* that this is not by any means a new question. If its advantages and desirability had been unquestionable, we may suppose steps would have been taken before now to carry it into practice. We have long thought over the matter, and must confess we should not look for any great advantage to the art from the requirement of a diploma, whatever aid it might prove to the artist. Academic rules and diplomas follow upon the doings of genius—they do not produce it. In Prussia the system must be considered a failure: it has made red-tapists instead of architects. Men are crammed with useless and eccentric knowledge, to meet the demands, prejudices, and caprices of a board of examiners, and so neglect essentials: all minds must be pressed into the same mould, all wheels must run in the same groove. Be it noted, too, the demand for a diploma is not from without; it is the architects themselves who ask to be protected. "Protection" in the nineteenth century!

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* We derive our cuts from the "Guide to the London and North Western Railway," by Mr. George Measom, just now published by Collins, of Paternoster-row, and Smith and Son, of the Strand: it is richly illustrated, and will be found a very useful hand-book. We may use the opportunity to mention a fresh issue of Mr. Measom's "Illustrated Guide to the Brighton and South Coast Railway, and its Branches" (by Waterlow and Sons, London-wall), with new matter.

* The words of an ode written for the occasion by Mr. W. Bartholomew, and which was sung at the end of the Prince's address, will bear repetition,—

> *Women.* "Is glory only won
> By deeds of valour done?
> *Men.* Though glory's brightest rays
> Adorn the victor's bays,
> Its purest beams alight
> On all who take delight
> In wisdom's ways.
> *Women.* Is glory, then, the meed
> Of every noble deed?
> *Men.* It is: and they who strive
> To see their country thrive
> In arts, that civilise
> And make the untaught wise,
> In glory live."

At all events, they deserve to do so.

Surely it will require that a strong case should be made out first; and this must be done with great care to give it the least chance of success. As the matter was put by one of the speakers on Monday night, probably unintentionally, it sounded very much like a summons from the younger members of the profession to the elders to come up before them and learn how incompetent they, the said elders, were. We have great hopes of the rising architects, but we must not forget that there is at all events one very important quality in which the elders are superior, and that is *experience:* experience which teaches, amongst other things, that what seems at first most desirable is not always so; and which, by making evident one's own limited capabilities, induces due consideration for the opinions of others. What we have most to desire and strive for is the education of the public.

GIOTTO AND EARLY ART.

THE collection which has been brought together in the Arundel Court of the Crystal Palace consists of monuments of painting and of sculpture.

The earliest as well as most important of these were executed by an artist of the name of Giotto da Bondone, who was born about the year 1276, according to Vasari, or about 1270 according to some of his commentators—a comparatively archaic period for art in Italy—nearly corresponding in English history with the advent to the throne of Edward I. and with the time at which the Chapter House of Salisbury Cathedral was built. He was the friend of Dante and of Petrarch, and was known and admired by Boccacio, Sacchetti, Villani, and all the great Italian poets and writers of that period. Rarely, indeed, has there been an artist who so completely identified himself with the psychological and literary characteristics of his age. Of him, Dante says, in a well-known passage,—

> "Credette Cimabue nella pintura
> Tener lo campo ed ogri
> Ha Giotto tutto il grido
> Siche la fama di colui oscura." *

In these words, Oderigi d'Agobbio, the celebrated illuminist, addresses the Florentine and Mantuan poets, drawing a parallel between his own position and that of Franco Bolognese, by whom he had been surpassed, and those of Cimabue and Giotto:—"You believed," says he, "Cimabue to hold the field against all comers in painting, and to-day Giotto has all the public voice, so that his fame o'ershadows."

Petrarch boasts, in the fifth book of his "Familiar Letters," that he had the honour of knowing two painters—"egregios nec formosos,"—one being Giotto, and the other Simone Memmi, of Sienna; and so much did he value Giotto's works, that in his will he bequeathed to Francisco da Carrara, the podesta and chief magistrate of Padua, a painting by that artist of the Madonna, which, he says, "the ignorant will not appreciate, but to those learned in art it will be a matter of admiration."† Again, Giovanni Villani, the historian, speaks of him as a man who was the first painter of all time. Lorenzo Ghiberti says that "he changed art from top to bottom, making that Latin which had been Greek." Boccacio declares that there was nothing human that he could not imitate; and Cennini confirms the testimony of Ghiberti in the same enthusiastic terms, and with especial reference to technical manipulation. His very tomb is graced by an elegant and eulogistic inscription from the pen of the learned Politian.

Now there must be something in these works of Giotto—representations of which are in the Court referred to—or else all these great men must have made some fatal error of judgment.

The first step by which we may hope to test the accuracy of a verdict, against the justice of which no single voice has yet been raised, and to appreciate fairly what is in these works, must obviously be by realising to ourselves the position in which Giotto stood at the time in which they were executed. I cannot better paraphrase my impression of his relation to his age, than by thinking of this present gloomy day, and of the influence which a ray of sunlight would exercise, should such beam amongst us at this moment. Just such an influence was exerted by Giotto over the clouded state of art, at the time his great light dawned upon its horizon.

In order that you may appreciate what he introduced into the theory and practice of art, and the completeness of the changes he effected, I will now run briefly over its leading characteristics previous to his time.

You will probably remember that the ordinary painting of the catacombs was assimilated to that of the ancient Romans, with the difference that the subjects were almost exclusively Christian instead of Pagan, and that they were represented in a symbolical rather than a dramatic form. This was necessary, because, being obviously contrary to the faith of the ruling powers, it was not safe, in those days of persecution, to express openly the facts to which they bore testimony.

This symbolical mode of representation lasted from necessity for the first three centuries in Italy, and subsisted from choice for several more. On the translation of the empire, with all its pomp, and the majority of its leading workmen, to Greece, these transplanted artists and artificers preserved at Constantinople the practice and traditions of classic ages. Thus it was, that until the time of Justinian, about the year 500, the workmanship, both in the technical processes (principally of mosaic and the other modes of executing pictorial works) as well as in design, were almost identical in the old and new countries. It was not till a period shortly preceding the time of the iconoclastic troubles, about A.D. 726, when it was considered that the Greeks were becoming too idolatrous in their representations, that any difference between the Latin or Western and the Greek or Eastern styles became manifest. I shall show how the divergence took place; but at all events, it was not till towards the end of the ninth century, when a reaction took place against the movement of destruction, that Greece created an independent system of types for the portrayal of Scripture history at all. It was then that in the celebrated Monologion of the Emperor Basil, one of the capital MSS. of the Vatican Library, that a complete series of illustrations was given to the world, both of Sacred History and of the Acts of the Martyrs. In them it is to be observed, that the sufferings of the saints are depicted directly in the actual circumstances belonging to martyrdom; whereas, in the works of Latin origin, they are either represented in some symbolical manner, or altogether set aside, leaving only the aspirations, the triumphs, and glories of the Church upon record.

This art of Byzantium assumed, then, an entirely independent and individual character about the year 900; and as it became more completely developed towards the era of our Norman Conquest, it far outstripped all competitors, feeding the West with its inspirations and technicalities.

It is curious that a movement of independent organization appears to have taken place in the north; and, dating from the middle of the sixth century, about the time when the early Irish saints,—St. Colombanus, St. Columbkill, St. Kilian, St. Gall, St. Fridolin, and St. Fiacre,—went forth as missionaries to the other countries of Europe, and propagated the faith from Ireland, a corresponding change certainly did take place abroad. It is most probably to the impetus thus given that we may trace the origination of what was generally called by ancient writers on art the "German," as opposed to the Roman manner. It was begun by Irish and Anglo-Saxon missionaries to Germany, where, especially upon the banks of the Rhine, considerable remnants of the old Roman occupation existed. This mixture of Northern and Celtic with Latin art made that independent creation which eventually led to the Pointed style.

Greek painters and architects were, for a long while, almost exclusively employed in Italy; but as the year 1200 approached, there descend, a certain artists from the north. - no effect - a considerable modification p-- what w- practised previously to their -me in th- country. Thus, almost all the -ildings in -taly, up to the year 1200, w- construc-d with round arches, and in that Byzantine or Romanesque style which has been illustrated in the Byzantine Court of the Crystal Palace. Soon after the year 1220, however, we find in the Church of Sant' Andrea, at Vercelli, built by a Frenchman, that a regular Gothic treatment is introduced; and at a later period the Pointed style was carried to a still more perfect development in the Church of San Francisco, at Assisi, built by Magister Jacobus, who is supposed to have been in the service of the Emperor Frederic II. of Germany.

Now, this Church of St. Francis draws our attention also to several vital principles, which stimulated art into a more energetic existence at this time. It was built to commemorate the canonisation of St. Francis. You will remember that the Church obtained a powerful influence over the minds of men previous to the year 1000, by sharing secretly, if not openly encouraging, the popular belief that in that year the end of all things was at hand. The greatest sinners of those days (and they were many and rich) gave their possessions to the Church, in order that they might propitiate the inflictor of the calamity, and, if possible, avert it. Abundantly provided as the Church was, through this means, with funds to carry out great works, the heart of the people was not livelily stirred up to acts of devotion; and, it appears, that for at least 150 years there was a general laxity of faith, both among laity and clergy,—the obvious reaction from their previous state of terrorism of those who felt themselves relieved from the pressure of immediate peril. Theology at that time being almost entirely confined to the schoolmen, had but little affinity with, and could speak but indirectly to, the minds of the great mass of the population.

This creeping mortification, in some degree fostered by the Ghibelline party, was beginning to sensibly affect the heart of Rome, when, fortunately for the existing Church, there arose two extraordinarily gifted men,—St. Dominic and St. Francis, who, themselves and their followers, became the media of translating the leading doctrines of the scholastic theology, which had been systematised by Albertus Magnus and St. Thomas Aquinas, to the minds of the people—spiritualising their intelligence of doctrine, and, at the same time, bringing down that doctrine to the level of the popular comprehension. From this time forward two distinct modes of representing subjects of faith became prevalent,—that which had been imported from Byzantium by the Greeks, representing the legends of the old Eastern rather than the then existing Western Church—and that which was summoned into being to assist the advocates of the formulæ of monastic theology, in procuring a more lively adhesion to the spiritual faith they taught. That is why, when the first Italian artists who possessed originality were urged by the Dominican or Franciscan monks to depict subjects either in writing, or painting, or sculpture, a difference made itself at once perceptible between their productions and those which would have been given to the world had either the Byzantines done it, or the Italian artists themselves worked upon Latin traditions, independently of the influence of the propagators of the new views.

Great revolutions in faith rarely fail to evoke great poets, and the intellectual movement we have been attempting to describe found its first and noblest bard in Dante. In the "Divina Commedia" he realised those forms of suffering and beatitude which entranced the fervour of such saints as Francis of Assisi and Catherine of Sienna; while, at the same time, he effected an entire revolution in the Italian language, which he raised from a common dialect into a beautiful system of phraseology, calculated to give expression to the loftiest and most tender thoughts. A parallel revolution his friend, Giotto, effected in painting, altogether departing from the mannerism then in vogue; enriching it with new types, and creating forms more spiritual, and yet far more human, than any which had previously existed. At the same time we can scarcely assert with truth, that Giotto was the father of painting in Italy, since we know that many preceded him, and that paintings of a much earlier period than his exist

* Purgatorio. Canto xi.

† "In cujus pulchritudinem ignorantes non intelligunt, magistri autem artis stupent."

in the Gallery of Sienna. One amongst them bears the inscription,—

"Me Guido de Senis diebus depinxit amenis,
Quem Christus lenis nullis velit agere penis,
Anno D.MCCXXI."

That is, "Guido of Sienna, on whom may God have mercy, painted me in the pleasant days of 1221." Now Guido da Sienna, Margharitone d'Arezzo, and Giunta da Pisa—respectively of Sienna, Arezzo, and Pisa—were the founders of the Greco-Italian school. These painters worked altogether after the manner of those Greek masters whom we know to have been residing at Venice, Florence, Rome, and Pisa, and engaged in the execution of the mosaics of the churches in those places. There were also numerous Byzantine artists, who wandered about Italy, like Solsernus, who put up the great mosaic on the façade of the Cathedral at Spoleto, about 1230; Couxolus, who painted in fresco at Subiaco; and Apollonius, the master of Andrea Tafi, who also worked in mosaic at Florence at the same period. These artists all wrought according to the rigid Greek system.

The researches of the industrious Von Rumohr have only brought to light the name of one artist who was employed by the municipality of Florence previous to the time of Cimabue, and he may therefore be properly regarded as the founder of the new school in that city. He was born about 1230, and was the first of the Florentines who began to diverge from the manner of the Greek artists: he learnt from them, but differed from them. It is, however, as the master of Giotto that he becomes most interesting in our inquiry into the merits of the latter artist. When Cimabue was yet a young man, he executed for the Florentines a picture now in the gallery of the Uffizii at Florence; and in that may be seen how closely he imitated the Greeks in his youth: they, as you are doubtless aware, worked principally in mosaic. Now, in order to adapt a pictorial subject for successful execution through this medium, it was necessary to break up all broad surfaces into little parts, so that the mortar lines should not become too conspicuous, and disturb that aspect of perfect technical manipulation to which the Greeks mainly aspired. The pages of their sketch-books, their studies, their manuscripts, were all drawn over with the lines fit for a mosaic rendering duly inserted. When artists began to paint in other media—in tempera and fresco—they still retained the mosaic outlines and cartoons which formed their stock in trade. Thus the system of breaking the draperies into little folds was preserved, and in the first paintings of Cimabue you see the whole of the garments of our Saviour and the Virgin are treated in that style. At a later period in life he painted a second picture—that celebrated one which was carried in grand procession from the house he lived in at Florence, in the "borgo" he had rendered so "allegro," to the church of Sta. Maria Novello, in which it is now preserved.*

M. Digby Wyatt.

A WORD IN SEASON.

Those who have wandered through the desert human waste of London, and witnessed the helpless and almost hopeless condition of a vast multitude, will hail as the traveller would water in the desert, the institutions (some of them very humble) which by the exertions of earnest and well-intentioned individuals, are beginning to be planted here and there, and all of which confirm the opinion we have long since formed of a class of our population, whose condition has to a considerable extent been produced by the unfitness of their dwellings and other neglect.

We have stated, and experience confirms the opinion, that amongst the worst parts of the population of our large towns a great good is to be effected by properly directed exertions, and the necessity for work has been shown by the formidable company of *roughs*, as have been called, who assembled for several days in Hyde-park. We have spoken to many this lawless and dangerous class, and have also inquired of those whose opportunities enable them to form a just opinion on the subject, and find that a large per-centage have been driven to their lost condition by the want of opportunity.

An institution has been open for four or five years in Great Smith-street, Westminster, through which some hundreds of the worst thieves in London have passed a probation of twelve months: in many instances, when the chance opened to them, they have become useful members of society. The history of this institution, and of the remarkable exertions of Mr. Nash, its founder, is both curious and encouraging.* The number of very poor children who attend the ragged schools shows the wish for education amongst this part of the population. A gentleman well acquainted with a distressed district says,—"Afford the poor an opportunity of attending divine worship, where they will not be exposed to the contrast of 'Dives and Lazarus,' and you will get large and thankful congregations: in fact, we want many *ragged churches*."

Dr. Stebbing had been called frequently into a shocking neighbourhood, which has been described in this journal. Something, he said, led him, on a dark dismal evening, when he saw sad groups of idlers sauntering about, to take a back room that happened to be to let, and to cause it to be made known that he would on certain nights call and read useful lessons, and see what could be done in teaching some of the most ignorant to read. Next morning, the Doctor said he thought of his undertaking with no little apprehension, but having embarked, determined to go forward. In this bad neighbourhood classes were formed, teachers volunteered, and in a short time it was necessary to move from the back room to one of larger dimensions; and now, from this small beginning, a large well-ventilated school, capable of accommodating some hundreds of boys and girls, with space for a school of industry, has been formed, which produces a large amount of good. We are led to direct attention to these particulars in consequence of the pressure which the times cause just now on many of these most important institutions, and which calls for liberal exertions on the part of those who have the power. We would ask those interested to visit places of this description in their respective neighbourhoods, judge of their usefulness, and see what can be done. By an accident we looked in a few days since at the North London Industrial Home, No. 16, Brian-street, Islington, and there found a number of inmates picked off the streets. Here, on a small scale, we found the same gratifying results as at the Reformatory, in Great Smith-street, Westminster. Some of the boys here sheltered must but for this have become Roughs. Now a few of them go out to the neighbouring tradesmen, and bring their wages weekly to the Home.

One boy has been for some time in the employment of an optician in Pentonville, and is paid 6s. per week; and it is satisfactory to know that his master is so well satisfied with him that he is about to teach him his business. Those not fit for out-door employment are kept at work in different ways at home,—learning shoemaking, tailoring, wood-chopping, &c. The evenings are occupied by schooling and other good exercises. This place has been established two years, and the managers could, in the large and well-ventilated dormitory, accommodate forty youths. Want of sufficient funds, however, limits them to half that number, and the means are unfortunately falling off even for these.

There is a Ragged School attached to this Home, where upwards of 140 boys are daily taught. This room is also open in the evenings, and many who are employed in the daytime avail themselves of these means in order to get the better of the evils of a neglected education. A Sunday School has not been forgotten. Such establishments as this, and proper attention to the homes of the poor, will do more for the reformation of the tottering than jails or the staves of policemen.

It is our own fault if we have any "*roughs*."

* These observations, hitherto unpublished, formed part of Mr. Wyatt's address, delivered in the Crystal Palace on the occasion of opening the exhibition of drawings and ivories issued by the Arundel Society. The whole address is about to be published.

* The colony established at Mettray, in France, for the reformation of young criminals, confirms the experience of Mr. Nash's of Jamaica. The accounts in the reports, made up to the 1st January, 1854, show that 533 colonists have gone out into the world. Of these, 774 had conducted themselves well, 18 were lost sight of, and 103 had relapsed into bad ways, while 533 maintained excellent characters, 53 were models.

EPIDEMICS AND OVERCROWDING.

Dr. Southwood Smith has been lecturing at the Philosophical Institution, Edinburgh, on Epidemics, and their relation to Civilization. He said the causes of epidemics were of two classes—the predisposing and primary causes. Of a hundred persons subjected to the primary causes, perhaps not more than ten would be seized. Of the chief predisposing causes, want of time would prevent him, on this occasion, from alluding to more than one—*overcrowding*. Dr. Smith then alluded to the overcrowding which had been discovered in the dwellings of the poor, and in some of the workhouses in England. In a parish in London there had been discovered a house in which five families all ate, drank, and slept within the four corners of one room. On this state of matters being discovered, one of the gentlemen on the Statistical Committee asked an old woman in the house:—"How can you exist in such a place?" "Och, your honour," she replied, "we all did well enough till the gentleman in the middle took in a lodger." The doctor proceeded to show that the atmospheric changes which prepared the way for the epidemic constitution of atmosphere—came within the range of science. There was an augmentation of pressure in the air, an unusual alternation of heat and cold, an unusual prevalence of haze, mist, and fog, of stillness in the air, and a deficiency of electricity. This heavy, warm, moist, and stagnant atmosphere promoted the decomposition of all organic matter. Where these conditions exist, we know that epidemics exist; where they do not exist, epidemics do not exist; and where they have existed, but have been removed, epidemics have been removed. It was necessary, however, that all the predisposing causes be removed. The doctor next referred to the various theories which had been entertained regarding the primary causes of epidemics—stating that the opinion now generally received was, that the primary cause was of the nature of a fermentation. The practical matter, however, was that the predisposing causes were within our own power and control, and could be removed. We have it in our power to remove the overcrowding, to remove the filth. We can supply the people with light, and air, and water in their dwellings. We can supply them with cleanliness. To the full extent that all this is in our power, to that extent it is in our power to prevent epidemics. We have now lived in the world together for some six thousand years, and we have not yet learned to make our habitations healthy. At last we are beginning to learn, and when we shall have learned this, we shall have learned to conquer epidemics.

EARLY IRONWORK.

DOOR OF THE ABBEY CHURCH OF ST. JEAN-DES-CHOUX.

Near the town of Saverne, in France (about twenty miles from Strasbourg), there is an old abbey dedicated to St. John. M. Daly, in the "*Revue de l' Architecture*," where the door was first illustrated, says the abbey was founded in 1126, and the church dedicated in 1127. The door shown in our engraving is probably of this same date, and affords a very admirable and curious specimen of the ironwork of that period. The door is 3·700 *mètres* high, and 2·350 *mètres* wide. We give a portion of the ironwork drawn to a larger scale, and some of the details half the full size.

Opening of the Victoria Docks.—These new docks, illustrated in our pages some time ago, which have been excavated and formed on the western division of Plaistow-marshes, near Blackwall, have been opened for the reception of shipping. The entrance locks are of enormous proportions: they are upwards of 325 feet long, and 80 in width, with wrought-iron gates worked by hydraulic power, the depth of water at the entrance being 28 feet high at high water. The water area of the first dock is very nearly 100 acres, while on the south side there is nearly a mile of water frontage. There is a tidal basin, accessible by night as well as by day, for mail steamers and other vessels requiring despatch. The basin occupies sixteen acres, and varies in depth from 27 feet 6 inches to 24 feet: that of the main basin is 28 feet.

EARLY IRONWORK: DOOR OF THE ABBEY CHURCH OF ST. JEAN-DES-CHOUX.

THE TEMPLE-GARDEN.

Passing not many weeks ago through the beautiful and truly English woodland and meadows of Bushy-park, it struck us while looking at the silver-edged clouds relieved by deep and clear blue sky,—the golden and deeper orange colours of the various autumn leaves,—the clear window-glass, the snow-white curtains, and groups of healthy-looking noisy school children,—how great the advantages of London life should be to atone for the absence of so many charms, and the ingredients of robust health.

The cottages, many of date older than the time of Queen Elizabeth, are small, it is true, in proportion, particularly in height, and not very convenient for persons of somewhat long proportions. Still, here, notwithstanding the limited means of many, we find none of the grim and dingy courts of the metropolis, and the temptations which offer on all sides. On the hedges close to the cottages of the humblest in the country, in the spring, the hawthorn blossoms, and in the winter it is brilliant with scarlet berries. Here are the roses in their season—showing that, notwithstanding the defects in sanitary measures, which lead to bad results in even the most salubrious neighbourhoods,—here, but for such neglect, are the materials, so far as the atmosphere is concerned, for both animal and vegetable health.

Walking in these country lanes, one cannot help comparing the colours of the fields and vegetation with those produced under difficult circumstances in our large cities, and recollection is recalled to certain plants of the same kind in London and places immediately adjoining. There are hawthorns of different ages in the neighbourhood of Manchester-square, and some other parts of the metropolis. A few years ago they showed blossoms in the season, and even towards winter there seemed some show at times of the fruit.

During the last few years the effort to throw off even a blossom has not been attended with much success.

Time was, however, when the strawberries of Ely-gardens were famous, and when both red and white roses flowered in the Temple-gardens.

Of the various classes who compose this great multitude, those who have been bred in London have as warm a love for the green fields and pleasant places as any other, and it is a pleasant sight to see the attempt made here and there at vegetation under difficulties that would puzzle the Horticultural Society. Much has been said respecting the gardening of our squares, many complaining of want of skill on the part of those engaged. Doubtless much more might be done, although the circumstances are difficult. We should like to see a society formed for the encouragement of floriculture in the London squares and other places of greenery within a certain radius of Bow bells.

In the Temple-gardens—a favourite spot with many Londoners—there was at the time of writing these notes a show of chrysanthemums in fine flower. This collection is creditable alike to the gentlemen of the Temple and Mr. Broome, the gardener, who has filled his difficult post here for upwards of twenty-three years. Many of these flowers this season are remarkable for their excellent form, size, and strength of foliage; and it is well worthy of remark that Mr. Broome considers that at no time in his experience has the vegetation of these venerable gardens been so healthy as during the present year. Some old hawthorns have flowered rather vigorously—a circumstance he has not before noted; and he has been able to rear two or three white roses,—no red ones. He thinks it is owing, in some measure, to the steam-packets and manufactories near the river *not sending us so much of their smoke now as formerly*. Perhaps when we get more completely rid of the metropolitan smoke the red and white roses may once more bloom in the Temple.

There is a venerable-looking sycamore-tree, carefully railed round, a little to the east of the sun-dial in the Temple-gardens. "It was not far from this tree, sir," said an old gentleman, "that the famous historical circumstance of the plucking of the red and white roses took place." Did it occur there at all? Never mind: Shakspeare says so. And although this tree might not have flourished at the time of the supposed incident, no doubt this picturesque object was there in Shakspeare's days. A print of the gardens, re-engraved in 1770, from an older one of the date of 1671, shows three trees on the site of the present one; and the gardener says, that in digging he has come to the roots of two more similarly placed to the full-grown ones in the old print. In this print is shown a brick terrace, faced with stones, with flights of steps running along the north side, where the chrysanthemums now are. This terrace is probably still remaining, filled in with earth, which slopes to the river. In the centre of the grass-plat is a sun-dial on a pedestal of good design: this was made, as the inscription states, by "Henricus Wynne, Londini, A.D. 1770." A little distance towards the river, from the dial, a part of this grass, not so well grown as the rest, marks the old river wall, which has, since the year 1670, been encroached on in parts fifty or sixty yards. Part of this was exposed at the time of the rebuilding of Paper-buildings, a few years ago, and was of great strength.

PROVINCIAL NEWS.

Lynn.—There is a prospect of the proposed quay along the Boal being now commenced, as the committee have expressed their readiness to accede to the contract proposed by Messrs. Grissell for the execution of the works, at the sum of 4,076*l.* The quaying of what is called the "Marine Parade," according to the *Norfolk Chronicle*, will, in all probability, be executed simultaneously. The whole of the east side of the harbour will then present a respectable front, and, in conjunction with the railway, afford greater facilities for the landing and embarking of goods.

Newark.—The Assembly-room in the Town-hall here has recently been redecorated under the superintendence of Mr. Crossley, of Newark. The room is of the composite order, its shape longitudinal, having circular ends intersected by four fluted columns. The ceiling, which is oval, is composed of circles and panels, and surrounded by fluted mouldings. The general tone of the colouring is a warm yellow, inclining to fawn. The panels in the ceiling are of an aërial tinted blue, the styles yellow, the mouldings white, and the under parts of the fretwork are coloured with the two primaries red and blue: the ground of the frieze is blue, the ornaments white and yellow, and the under parts of the enrichments red: the capitals are white, the shafts of the pilasters have a Roman ornament upon a green drab ground, and the flutes between are of a very pale blue, the bases ornamented with Roman fretwork upon a maroon ground.

East Dereham.—On Friday in the week before last, a meeting of owners and occupiers was held at East Dereham, to promote the establishment of a Corn-hall in that town.

Isle of Grain.—The Martello Tower, off the Spit Isle of Grain, erected by Messrs. Kirk and Parry, of Sleaford, is completed, and given up to the Ordnance. The construction of this tower gives it the capability of firing guns of largest calibre, on traversing centre pivots, so as to do execution in the fair-way of the rivers Thames and Medway. With the latter river this tower forms a crossfire with the Sheerness battery guns, sufficient, it is said, to sink any ships attempting to pass. The tower is struck from seven different centres, in order to give stability to the assailable parts. The average thickness of the solid masonry is 12 feet. The outer dimensions are 63 feet by 71 feet. Underneath is a barrack-room capable of accommodating thirty gunners, and an officers' private room. The basement story contains ordnance store, provision store, barrack store, regimental store, and magazine, the latter being encased with a coat of asphalte. The whole of this basement is lined with 9-inch brickwork, all being within a 12-feet wall of masonry. The estimated cost of the tower is about 14,000*l.* exclusive of its foundation of piles, which support solid balks of timber, with York landings, being filled in to a depth of 6 feet with cement. The extreme height of the tower is 41 feet 6 inches.

Worcester.—Mr. Hawksley's plans and sections of the proposed mode of carrying out the drainage and water supply in this city were to lie for inspection at the Guildhall till the 4th inst. It appears that the tank or reservoir, to be placed at the top of Rainbow-hill, will be entirely covered in, and will consist of a series of arched galleries, 123½ feet long by 100 feet broad, and capable of holding 750,000 gallons of water. The earth excavated will be disposed in terraces, and the ground made a promenade. The engine-house will contain a steam-engine of thirty-horse power.

Harlech Castle.—The ancient castle at Harlech, on the coast of Merioneth, in North Wales, is undergoing repairs by the Government. This is one of the numerous castles built by Edward I. to overawe the Welsh, and is in the keeping of the Commissioners of Woods and Forests. This is the third of the old castellated ruins of Wales which the Government has repaired within the last few years.

Droitwich.—Mr. J. H. Galton, of Hadzor, has recently erected schools and school-house on his estate at Oddingley, from the designs of Mr. J. Smith, architect, of this town. The schools, which are now open, will accommodate fifty children, and are of an ornamental character. The carriage of the materials was provided by the tenantry.

Chester.—The Music Hall, reared on the area of the Old Theatre in Northgate-street, was inaugurated on Monday in last week. "Just previous to the opening," says the *Chester Chronicle*, "a mischievous report got abroad that the north and south galleries were insecure, as it was asserted they were not properly supported." The design of Mr. James Harrison, the architect, was that they should rest on brackets, clamped with iron, as pillars would be an obstruction to sight, and when the area is used for a *salle de danse* might be inconvenient to the dancers, if not dangerous. "Before these galleries could move," it is added, "the external fabric must be dragged down with them, and no sane person entertained any alarm." The wood-work in front of the galleries, and of the orchestra, is painted with floral and fancy designs, by Mr. Morris. The chandelier was made by Mr. S. Box, from the designs of Mr. Harrison, and is of itself sufficient to light the hall, but besides this there is a sun-light over the orchestra, another in the upper gallery, and brackets from the walls underneath the galleries. Mr. J. D. Williams was the contractor. In the building and decoration none but Chester workmen have been employed.

Blackburn.—A plan of the proposed public park has been prepared by Mr. Henderson, of Birkenhead, landscape gardener. Fifty acres between Preston new-road and Revidge have been arranged ornamentally, including cricket, recreation, bowling, and other grounds. The plan, if approved of, will be carried into execution immediately afterwards. Public baths, to be erected in or near the proposed park, are under consideration.——The foundation stone of the Bank-top schools was laid on Monday before last, by a son of the architect, Mr. T. Walsh, jun. of Blackburn. The building will include a boys' school and girls' school.

Barnsley.—A pile of new buildings is in course of erection here, at the bottom of Market-hill. The architects are Messrs. Lockwood and Mawson, of Bradford, under whose superintendence it is being erected. The design comprises the re-erection of two hotels, and the construction of six shops, giving a total frontage when completed of 200 feet, in one of the most public situations in the town. The style of architecture is Italian of the Roman school, and the building consists of a rusticated basement, surmounted by a story with arched windows, with archivolts and pilasters within an architrave, and having carved spandrils and cornices. The upper windows are moulded and terminated with trusses, the whole being crowned by a block cornice. The whole work is executed in stone from neighbouring quarries. The contractor for the mason work is Mr. Robinson, and for the joiner and carpenter's work, Mr. Smith. It is proposed to extend at some future period the line of buildings to the bottom of Graham's orchard, which will form one of the best approaches into the town.

Newcastle-upon-Tyne.—Mr. R. Stephenson, C.E. has undertaken to discharge one-half the debts of the Literary and Philosophical Society of Newcastle, which amount to 6,200*l.* if his fellow-members will subscribe the other portion.

Shipley.—The opening of a new lecture-hall and news-room here took place on Saturday in week before last. The building is conveniently situated in the centre of the village, and will seat 700 persons. It will also accommodate public meetings, and be used for concerts, &c. The room is lighted from the ceiling.

CHURCH-BUILDING NEWS.

Pinchbeck.—The parish church here was re-opened on Thursday in last week. The expense incurred in the present alteration amounts, we understand, to about 2,000*l.* Other alterations, estimated at 150*l.* are required before the whole is completed. The most important restorations effected are the chancel, which has been rebuilt, under the superintendence of Mr. Butterfield, and a stained glass window, by Mr. O'Connor, behind the altar: the latter represents, in the centre, our Lord surrounded by St. Peter, St. Paul, St. John the Baptist, and St. Stephen: these form the leading figures, but there are various small designs.

Northampton.—The reopening of St. Giles's Church took place on Thursday in week before last, with some ceremony. The church has been greatly enlarged, by the extension of the entire edifice two bays to the west, and the addition of a north aisle. The connection between the nave and chancel, which had been almost entirely cut off, has been in a great measure restored by the opening of the east and west Norman arches that support the tower. The old galleries have been cleared away. The whole church has been re-seated in oak. The body of the church has been new roofed, and the windows are new. There are 281 additional sittings, 171 free, besides 100 children's seats; in all 901. The church before accommodated but 420 persons and 100 children, the arrangements being besides very incommodious. The alterations cost nearly 5,000*l.* The architect was Mr. E. F. Law. By the opening of the tower arches, the proportions of the building are displayed to much greater advantage. A glance, however, from nave to chancel shows that the work of the parish is not yet complete. The large chancel window is not parallel with the tower arches and the nave, and on this becoming apparent to the observer, the mind is disagreeably impressed with the incongruity. In the oak re-seating, a simple chemical agency, it is said, has been employed, to bring out the natural graining of the wood. The gas-fittings are new.

Kingston-upon-Thames.—The foundation-stone of a new congregational church and schools was laid last week at Kingston-upon-Thames, by Sir Culling Eardley, bart.

Chipstead.—On 22nd November, the Bishop of Chichester preached at the parish church of Chipstead, Surrey, on the re-opening of the nave, which has recently been restored. Before the repairs now in question were undertaken, the rector had restored the choir and rebuilt the south transept, and the north transept had also been entirely restored by Mr. J. Cattley, of Shabden-park, in the parish.

Newport (Isle of Wight).—The whole of the workmen and labourers employed in erecting the new Church of St. Thomas (says the *Hampshire Independent*) were treated to a substantial supper at the Newport Arms, on Tuesday evening, provided by the builders, Messrs. Dashwood, and the friends of the undertaking, to celebrate the rearing of the north and south roofs of the chancel, the centre portion of which will soon be ready for its covering.

Tolpuddle.—On Tuesday before last, Tolpuddle Church, which has undergone repair, was re-opened. The restorations, according to the *Dorset Chronicle*, have been executed by Mr. J. Wellspring, of Dorchester, builder, under the superintendence of Mr. T. H. Wyatt, the diocesan architect. The floor of the chancel has been laid with Minton's encaustic tiles. The roofing is open carved work of stained deal. The foot space for the altar is raised with Purbeck marble, filled in with encaustic tiles. The font is of Caen stone. The whole of the church has been re-pewed with open sittings, for the accommodation of upwards of 200 persons. The benches in the chancel are of open tracery, with carved finials.

Chichester.—A tablet is about to be put up in Chichester Cathedral to the memory of a Crimean hero, Captain Drummond, of the Scots Fusilier Guards (a son of Mr. Drummond, the banker). A short time before he fell, his father received a note from him in pencil, stating that, in case of his death, he should like a plain tablet put up in this cathedral, with his name, age, rank, and where and how he fell; "for," added the writer, alluding to Chichester, "in no place was I ever more jolly."

Shrewsbury.—In the churchyard of St. Alkmond, while excavating a grave on the north side of the church, a discovery was made of a portion of the walls of the ancient structure, which was indebted for its origin to Elfleda, daughter of Offa, king of Mercia, and queen of Kenwolf, who governed this portion of the island at the beginning of the ninth century. In 1788, in consequence of the fall of St. Chad's church, says the *Shrewsbury Chronicle*, in reference to this discovery, the inhabitants of St. Alkmond became alarmed for the safety of their own structure, and it was determined to build a new church, which was opened in 1795. The old church appears to have stood further north than the present edifice.

Preston.—The parish church of Preston has been reopened. We have occasionally noticed the several improvements made as they proceeded, but we may here state that a new window of stained glass has been placed in the chancel, representing our Saviour crucified between the two thieves, with, underneath, Mary, Martha, and some of the disciples,—that the windows on the south side are also of stained glass,—that the church is heated by a hot-water apparatus, and that the pews are all new—of deal, stained in imitation of wainscot, the chancel paved with tile composed of various colours and diamond shaped. The belfry has been repaired, and the old bells put in order, the aisles paved with Purbeck stone, the entrance improved, and the walks in the grounds, &c. newly laid out.

Bolton.—One of the town-council has sent a memorial to the Home Secretary, requesting him to withhold his sanction to the site recommended by the council for the new cemetery, on the ground that the situation is too low, the strata unsatisfactory, the price enormous, and that one far preferable could be procured at 200*l.* per acre. The burial board have given the memorialist an opportunity of proving the truth of his statements by authorizing him to find a more eligible site at 80*l.* less per acre. He has accordingly advertised for land within one to two miles from the borough suitable for a cemetery, at a price not exceeding 200*l.* per acre.

WORCESTER GOVERNMENT SCHOOL OF ART.

THE spacious Music-hall, at Worcester, according to the local *Chronicle*, was, on Friday night in last week, crowded in every part by gentlemen, ladies, and every class of citizens who feel an interest in their flourishing School of Design; so that many persons remained standing during the whole of the proceedings. Lord Ward took the chair. The report stated that the school continued to extend its operations and to give promise of most satisfactory results. 287 students had attended the central school during the past year, and 406 children of four public schools had received regular instructions in elementary drawing, being an increase of 229 over the previous year.

The Rev. John Pearson, in moving the adoption of the report, remarked that it was absolutely necessary, in a commercial and manufacturing point of view, that schools of design should be generally established in this kingdom. The report, generally speaking, was most satisfactory. But there was generally some bitter drop in every cup, and this report was no exception, for it told them that though the school was prospering in every point of view but one, and was doing the work for which it was established admirably, yet it was in debt upon the year, 15*l.* and he could not but feel that the prosperity of the school, in a financial point of view, very much depended on the support and liberality of one noble individual (Lord Ward). But this ought not to be. There were a great number of tradesmen and gentlemen living in this city and neighbourhood, who ought to be deeply interested in the welfare of this school, and, if they would look into its operations, they would find that Worcester was more interested in its being sustained than they seemed to think.

The meeting was addressed by Sir C. Hastings, Sir E. H. Lechmere, the Mayor, Canon Wood, and other gentlemen; and

Lord Ward, in replying to a vote of thanks, said he did not ask for a surplus, but he should be satisfied if the receipts and expenditure just balanced every year. It was, perhaps, scarcely fair to take the first year as a matter of comparison, because then there were extraordinary efforts made to start the school, yet he might mention that they did then receive 433*l.* 13s. 6d. in donations and subscriptions, while in the present year these only amounted to 181*l.* 15s. 6d. They had expressed their thanks to Government for their grant, but he should be sorry that that grant should be diminished or withdrawn: they must not look for any increase of it; but they must keep the income up to the expenditure, that so they might with clean hands require Government to continue their present aid. The manufactures of a city like Worcester must, of course, be made subservient to practical purposes, and must be made to pay, and he might justly direct them to the Potteries of Staffordshire, where he first got his idea that Worcester should have its own school of design. These were represented in the Paris Exhibition by such an admirable display of articles bearing the stamp of the maker's own peculiar mind, that they were all eagerly bought up, and Mr. Minton came home with orders which would take him eighteen months to execute. He had been told, indeed, that he had work cut out for him that would more likely occupy him eighteen years than eighteen months. And if Mr. Minton could make it answer so well to go to so liberal an outlay, ought not the manufacturers of this town long ago to have taken steps to provide themselves with really artistic and original workmen?

SUBJECTS FOR ESSAYS.

AMONGST the subjects for essays for which the Institution of Civil Engineers offer premiums, are the following —

On the chemical constitution, the method of preparation, and the use of artificial cements, to be employed either as "Béton," for forming foundations under water, or on dry land, and for stuccoing the exterior of houses.

The history and practical results of timber and iron piling, for foundations, or other purposes, and for wharf and dock walls; with notices of mechanical modes of driving, and of other modes of inserting the piles.

Accounts of the failure of large structures consisting of one or more arches, with the presumed or ascertained causes.

On brick and tile making, and the capability of introducing new hollow or solid forms, for engineering and architectural purposes; with the processes most useful to emigrants and settlers.

The laws of the strength of cast and wrought iron, under the various conditions of tensile, compressive, transverse, tortional, impulsive, and other strains; with examples illustrative of the co-efficients employed by eminent practical authorities in the construction of works.

The construction of girder-bridges, whether of trussed timber or wooden lattice; of cast-iron, trussed, or plain, or combined with wrought-iron, in simple, or compound triangulation; of wrought-iron lattice-work; or of plate-iron riveted sides, with or without cellular top and bottom; with the comparative results, and cost of the various systems.

The construction of suspension-bridges with rigid platforms; their adaptation to railways, and the modes of anchoring the stay-chains.

The arrangement and distribution of the workshops at the principal repairing station of a railway, for the repairs and maintenance of the locomotives, passenger and other carriages, &c. derived from existing examples.

The drainage and sewerage of large towns; exemplified by accounts of the systems at present pursued, with regard to the level and position of the outfall, the form, dimensions, and material of the sewers, the prevention of emanations from them, the disposal of the sewage, whether in a liquid or solid form, and of the arrangements for connecting the house drains with the public sewers.

On agricultural land drainage.

On the application of machinery, combined with mechanical power, and the means of transporting manure and produce, on large farms and agricultural establishments; and on improvements in the plan of

the works and buildings, and the "plant" employed.

Description of cast or wrought iron cranes, scaffolding, and machinery employed in large works, in stone quarries, hoists, or lifts on quays, in warehouses, &c. especially where either steam or water is used as a motive power.

Improved processes of sawing timber or stone.

On the improvements which may be effected in the buildings, machinery, and apparatus for producing sugar from the cane, in the plantations and sugar-works of the British colonies, and the comparison with beet-root, with regard to quantity, quality, and economy of manufacture.

THE DECORATION OF GUILDHALL.

Under the direction of Mr. Bunning, the Guildhall of London was effectively fitted up, and with extraordinary rapidity, for the reception of the King of Sardinia, on Tuesday, the 4th inst. A very handsome throne, with a canopy, supported in part by gilt caryatides, was placed against the south side of the hall, and on either side of this, galleries, reaching high up, were erected to receive more than 2,000 guests. At the west end of the hall, above the gallery, were suspended portraits of the allied Sovereigns: above these the soldiers of each nation, with implements of war and flags; and, surmounting the whole, an allegorical representation of a burning altar, over which the Angel of Peace hovers, while at the sides stand figures representing England, France, Sardinia, and Turkey, above a Latin motto, which said,—

No power can overcome those who are united, nor can any break the covenant of true friendship.

At the other end was a painting of the Piazza de San Carlo, where stands Marochetti's equestrian statue of Emanuele Filiberto, the founder of the House of Savoy,—the perspective of which was somewhat awkward.

Extempore portraits of members of the Royal House of Sardinia, were scattered over the side walls; flags and banners were tastefully disposed; and a brilliant gas illumination lent its aid.

We must not omit to mention that the walls of the crypt, wherein part of the visitors took luncheon, were hung with a representation of the well-known Bayeux tapestry,—a good idea.

Messrs. Fenton, Absolom, and Coke Smythe, as we understand, were the artists employed.

When will the City of London provide a proper reception-hall, adorned in a style of art worthy of its position and the age?

ROMNEY MARSH.

The tract of land generally known under this name consists of four several divisions under separate jurisdictions, and contains altogether about 52,000 acres, varying in value from 2*l.* to 4*l.* per acre, the latter being obtained for portions under peculiar circumstances: the former is only applicable to certain wet lands hitherto insufficiently drained, and some thinner breeding-lands with heavier rates, as forming portions of the hill parishes, which are generally more heavily burdened.

Romney Marsh (proper) is the eastern portion of this tract, comprising about 24,000 acres, and is protected from inundations of the sea by an embankment known as Dymchurch Wall, nearly two miles long and 20 feet in height, crossing the ancient estuary or mouth of the Lemen, either the Rother itself or its principal arm. On the safety of this wall depends the security of a large portion of this tract of land, and large sums have formerly been annually expended in its maintenance. An engineer is always resident on the spot, who has only recently been able to undertake the general superintendence of the drainage of this district. Under the management of Mr. James Elliott, the wall has been covered with a pavement of Kentish rag, rising in a parabolic curve, so that the sea, in tempestuous weather, is thrown back into its own bosom. This piece of work has only recently been completed, and we understand it has well withstood the tempests of the last fortnight, only a few yards having been displaced, which have been as promptly restored.

The part of this marsh adjoining the uplands, and known as Appledore Dowells, is nearly 10 feet below the level of the rest of this marsh: it has evidently been part of the channel separating the marsh from the main land: it discharges its waters most inefficiently through the adjoining marsh at Jury's Gut.

Walland-marsh, adjoining Romney-marsh, contains about 12,800 acres, and is separated therefrom by the Rhee wall, formerly a channel supposed to have been cut by the Romans, which discharged the waters of the Rother into Romney-haven. This is now filled up, and forms the high road to New Romney. Recently the commissioners who manage this level, in their efforts to economise their expenditure, have taken the construction of a new sluice out of the hands of their officer, Mr. Elliott, who would not undertake the construction of a work he could not recommend. The contractor had cut through the inner sea wall to construct his work: the hurricane of Friday before last drove the sea over the falls, through this cutting, inundated several hundred acres of land, and destroyed the works, we are told, to the damage of 1,000*l.*; thus showing the impolicy of trusting works of such importance to inexperienced hands.

Denge-marsh, the third level of about 11,700 acres, comprising the peninsula of Dunge Ness and Lydd, is a separate jurisdiction of more elevated land, a large portion being shingle.

Guildford, or Guldeford, Level, contains 3,200 acres of land, lies close to Rye, and comprises a tract of very superior pasture and arable land, discharging its waters into the Rother.

The lords of Romney-marsh, acting under the advice of their resident engineer, Mr. Elliott, are now carrying a new sewer 15 yards wide, and emptying itself at the lowest spring tide, by which they hope effectually to drain the whole marsh, and particularly the low lands before alluded to, called the Dowells. When completed (and it is to be hoped no unnecessary economy will be introduced to delay this great work), Romney-marsh will be conspicuous as a well-protected and well-drained tract of reclaimed land.

VENTILATION OF THEATRES.

Every frequenter of a theatre must be uncomfortably affected by the great heat and closeness which generally exist, broken though they be by occasional gusts of the coldest and most cutting draughts of fresh air. It used to be the fashion with the managers in announcing the reopening of the theatre after the recess, to add that, in addition to a superb redecoration, it would also be well warmed and ventilated (generally by a new and improved system, it was added). This was repeated so often and so variously, that one was always looking for the results of the promised improvement. The house had certainly been repainted; it was decidedly warm, whether warmed or not; but as to the promised ventilation, it was "nowhere." We must suppose that the managers have all given it up in despair, as the subject has quite dropped, and people must breathe as well as they can under the circumstances.

The great difficulty is of course to get the air in, or at least to get it in at a comfortable temperature: it will readily escape by the chandelier and the top outlet. Eventually all the air comes from the street: if then we can convert the passages leading to the pit into a series of locks, the same as applied to rivers and canals, by the proper position of doors, and that by closing the door leading to the pit, we open that communicating with the street, we shall have our air-lock charged with a fresh and tolerably pure atmosphere. Having charged the passage, let us close the outer street door, and open the pit door: the enclosed air will flow forward to supply the interior demand, while it may have been warmed by a stove placed in the passage. We shall of course have leakage by this as by any other plan, but we stand a much better chance of getting what we want comfortably by taking advantage of necessary passages in this way, and by warming our passages, than leaving everything to chance and draughts. H. C. Lloyd.

THE BUILDERS' BENEVOLENT INSTITUTION.

On Thursday, 29th ult. a special general meeting of the friends and supporters of this charity was held, for the purpose of electing four males and two females (instead of two, as previously announced) from a list of twelve candidates. Mr. G. T. Keyes (in the absence of the president) took the chair.

There are now on the funds twenty-nine persons, sixteen males and thirteen females, making, with those elected on 29th ult. thirty-five. Since the late dinner, 200*l.* stock had been added,—100*l.* to the relief, and 100*l.* to the building fund.

The Chairman, in opening the proceedings, stated that he had been requested to mention, that owing to the success which had attended the late anniversary festival,—producing, as it did, a large amount to the funds, and increasing their means in hand,—they were enabled to elect six instead of two persons, as previously announced. That showed that when they got a windfall they made the best use of it, and, instead of making the balance at their banker's larger, they gave the candidates the benefit of it, at the same time increasing their funded stock.

Mr. George Bird (the treasurer) said he hoped that the builders would soon put it in the power of the committee to purchase land for the erection of the almshouses. He had little doubt that if a commencement was made, by the purchase of the freehold ground, the almshouses would soon be completed. He trusted that the builders would no longer allow it to be said that they had a benevolent institution without almshouses, and that they would at once come forward and remove that stigma by subscribing liberally to the fund.

The result of the ballot will be found in our advertising columns.

THE CONCERT-ROOM, ST. GEORGE'S HALL, LIVERPOOL.

The form of the apartment will be seen in the plan we gave of St. George's Hall some time ago. It is an oval, of 72 feet by 77 feet, while a recess behind the stage of 30 feet by 12 feet, adds much in the points of effect and convenience. Connecting this recess with the room is a spacious arch, 25 feet in width and 37 feet high. An ample stage or orchestra fills this space, and projects into the room: it is capable of accommodating an orchestra of sixty performers, and a semi-chorus of seventy.

The seats for the audience are arranged to hold about 1,100.

A gallery runs round the room, omitted, of course, at the stage: the face of it forms a series of projections or bows, on plan, forming a wavy outline. Pilasters, or pedestals, with a sculptured figure or Caryatides, on the front face of each, act as supports and ornaments to the gallery.

The walls are divided, by broad pilasters, into fifteen bays or compartments. The pilasters run from the floor, through the gallery, up to the cornice, which breaks round it and forms a crowning cap, supported by consoles in pairs, having festoons of bay-leaves from one to the other. Between them is a bust of Apollo, and a sculptured lyre, in each alternate capital. The wall space between the pilasters is panelled in wood, fixed free of the wall, the whole of the wall surface acting thus as a sounding-board to the speaker or singer on the stage. Continuing round the room, and underneath the main cornice, is a handsome frieze,—a manifest ornament to the room. In each wall compartment, griffins, eagle-winged, guard a circular shield, on which are inscribed, in raised letters, gilt, the names of celebrated musical composers.

In the recess at the back of the proscenium are eight fluted Corinthian columns, 21 feet in height, decorated with gold. Between each column is an immense plate of silvered glass, repeating the ceilings and part of the walls. The arched ceiling over this recess is perforated for ground-glass panels, which, with a window of elliptic form in the wall underneath, gives light during the day. A cove of bold outline springs from the cornice which runs round the room: this is panelled in circular and diamond-shaped compartments. Above this cove is a decorated band, and from this, at 37 feet from the floor, stretches the flat ceiling, with open latticed panels, radiating. In the centre of this flat ceiling is an oval opening for light, about 14 feet by 11 feet 6 inches, surrounded by a band of sculptured fruit and flowers, and further ornamented with oak-leaves, &c. with mouldings and minor ornaments.

The panelling of the cove and flat ceiling has two margins: the principal one is tinted buff, the secondary one blue: the mouldings and all the carved work are of cream colour, edged with gold. The cornice is of cream colour, with some small mouldings gilt: the dentils and the sculptured frieze have a background of gold. The wall panelling, of deal, is painted in imitation of ornamental woods.

ENGINEERING WORKS AT ENFIELD.

On the 27th ult. the newly-constructed works of the Enfield Local Board of Health were publicly opened, including the artesian wells, steam-engines, and pumping apparatus. The fire-hose was affixed to the hydrants at several parts of the district, when it was demonstrated that a volume of water by jets could be thrown over the highest house, in case of fire, without the presence of a fire-engine. The "compensating reservoir" is situated at a distance of three miles from the pumping-engines, and at an altitude of 173 feet above the pumps.

A system of sewerage has been carried out by Mr. Pilbrow, the engineer, contemporaneously with the waterworks.

The steam-engines are from the works of Headly and Mawing, Cambridge. The contractors for the erection of the engine-house were Messrs. Patman, of Enfield, who also constructed the summit reservoir on the "Ridgway," and the outfall brick sewer. The contractor for laying both water as well as the sewer pipes was Mr. D. Dowel, of Hammersmith.

Old Water-Colour Society.—Mr. John Lewis has been elected president of this society, in place of Mr. Copley Fielding, deceased.

NEW ENGINEERING AND BUILDING PATENTS.

The following are extracted from a list of specifications of patents recently filed, as given in the *Mechanics' Magazine*:—

Hays, William Bennett, of Cambridge-street, Pimlico, Middlesex, civil engineer. An improved breakwater. Patent dated April 7, 1855. (No. 769.) The inventor constructs his breakwater by placing platforms one over the other, with intervals between them, and so inclined to the horizon as to present the lower part of each platform to the sea, and to cause the water when in motion to pass between the platforms in a sloping upward direction.

Devy, Philippe Amedee, of Old Jewry-chambers, Old Jewry. Improvements in the construction of coke ovens. (A communication.) Patent dated April 11, 1855. (No. 808.) This invention has for its object a peculiar construction of coke oven, with a view constantly to carry on the process of coke-making, partly by the aid of external heat applied to the mass of a coke-oven, by the ignited products which pass off from the coal in the oven, and by introducing air at an opening or openings over the charging door.

Bellford, Auguste Edouard Loradoux, of Essex-street, London. Improvements in pumps. (A communication.) Patent dated April 9, 1855. (No. 783.) This invention consists in "the combination of an air chamber communicating with the pump above all the valves with a vacuum chamber communicating with the pump below all the valves."

Oudry, Leopold, electro-metallurgist, and Alphonse Oudry, Imperial Government engineer, both of Paris, France. Certain improvements in preserving wood, metal, and other substances. Patent dated April 11, 1855. (No. 795.) Claims.—1. The covering of articles of cast or sheet iron with a layer of metal to protect them from destruction. 2. The application of electro-metallurgy to covering the wooden hulls of vessels, and the wood-work for gates of sluices, jetties, and reservoirs. 3. "The partial application of a thick layer of zinc, by means of electricity, upon non-zinced rivets uniting pieces zinced in a bath of molten zinc."

The following is from a list of provisional specifications not proceeded with:—

Hemming, Frederick Shand, of Birkenhead, Chester, engineer. Improvements in the construction of buildings, which improvements are particularly applicable to military and other hospitals. Application dated April 11, 1855. (No. 798.) The inventor proposes to line the walls of buildings with a material which possesses the property of absorbing noxious and deleterious effluvia. The non-conducting and absorbent material which he prefers employing is peat charcoal, but any other suitable solid deodorizing agent may be used.

Provisional protection was granted on 5th November, 1855, in the following amongst other instances:—

2,478. Henry Clinton Page, of Commercial-road, South Pimlico, Middlesex, sculptor. An improved method of indurating marble and stone, and of permanently fixing colours therein, when colouring matters are applied thereto for producing a variegated pattern or device on the surface thereof.

BUENOS AYRES GAS-WORKS.

The contract for these works has been undertaken by Messrs. Bellhouse and Co. of Manchester, who have shipped nearly all the iron work connected with the manufacture and distribution of the gas. The excavation and brickwork are in a forward state, and it is expected that the contract will be completed in six or seven months. The designs and specifications have been prepared by Mr. Wm. Bragge, civil engineer. The amount of the contract is nearly 47,000*l.* and it is expected that about twelve months will be required, from date of contract, for its completion. The following tenders of schedule prices, were received from six firms, for the work connected with the tanks for gasometers, which will show that "wide tenders" are not confined to our hemisphere:—

	Excavation.	Puddling.	Concrete.	Brickwork in Cement.	In Mortar.	Plastering in Cement.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Planella	6 6	2 3½	16 10½	35 7½	30 0	2 9½
Knight	2 3½	0 11½	28 6	59 7	25 10½	2 7½
McVicker	1 6	3 9	16 10½	31 10½	27 2½	1 6
Deberle	1 8½	1 3½	22 1	23 10	17 7½	2 5½
Traynor	2 3	1 10½	18 0	27 4	25 0	2 5½
Tobin	1 0½	0 4½	9 9	25 0	23 0	1 1 3½

The Board of Public Works.—We understand that the salary of Mr. Austen, the newly-appointed secretary to the Board of Public Works, will be 1,250*l.* per annum.

Notices of Books.

The Life of Luther, in Forty-eight Historical Engravings. By Gustav Kœnig. London: Longman and Co.

We have looked through these admirable illustrations with unmixed pleasure and satisfaction. The letter-press, too, which accompanies them, by Archdeacon Hare and Susanna Winkworth, is of superior character, and gives an impressive view of the great Reformer's life and labours. Herr Kœnig's designs are pictures in little, full of story and expression, and display the most careful industry, with no small amount of genius. One version of these illustrations, engraved on wood, was published by Mr. Cooke in 1853, with a translation of Professor Gelzer's notes to the German edition, but this gave a very insufficient notion of the originals, as presented in the edition now before us.

A more admirable gift-book for Christmas-day, birth-day, wedding-day, or any day, could not be pointed out.

VARIORUM.

"Decimals without displacing the Penny," is a twopenny tract by Mr. William Shirrefs (Bulman, Paternoster-row), in which the legislature is strongly urged to beware of displacing the penny from our coinage. Considering the ignorance and prejudice amongst the lowest order of the community, and the tenacity and firmness with which the all-pervading penny and its halves and quarters are rooted in the habits of the country, it is certainly most desirable to avoid the displacement if possible of any one of these three copper coins. They constitute the very basis of the whole of our monetary system, and it would be preferable to alter the higher and less universal coins, should the decimal system be introduced, of which there now appears, from the recent appointment of the Royal Commission on the subject, to be more probability than before. While, on the one hand, there is risk of the ignorant, either as buyers or as sellers, imagining that they are injured or robbed by displacement of the copper coinage, or by any change whatever in its value, and even precedent for the fear of riot under such circumstances, and of its even being made a political handle of by revolutionists; we know, on the other hand, that the gold coinage has been changed without any such risks. Those familiar with the guinea circulation, for instance, never imagined, so far as we have heard, that they were cheated of a shilling out of every guinea when the sovereign was substituted, but any such tampering with the penny might have a very different fate. Why not make the penny the decimal unit, and retain the halfpenny as the half and the farthing as the fourth part of that unit,—at all events until the whole of the apex of the pyramid be changed? In such case, the half-crown and crown pieces would be the next full decimal elements in our present coinage, the half-sovereign the next, and the sovereign the next, and probably the intrusion of a tenpenny and a fivepenny piece, while withdrawing the other old silver coins, might be all the alteration requisite to complete the elements of change.——"Hygiene, or the Handbook of Health," by Mr. H. W. Lobb (Simpkin, Marshall, and Co.), is a small volume, consisting of two parts, which would have been better separate. The first is more particularly designed for "members of district boards under Sir Benjamin Hall's 'Local Management Act,' magistrates, clergymen, &c." to whom in fact the whole is addressed, as well as to the public generally; and the other a kind of "Mother's own Book," relating chiefly to the management of infants. As regards the latter part, "district boards," "magistrates," &c. may wonder why such hints should be addressed to them: as to the former, mothers will be somewhat mystified with disquisitions on "local legislation by the parish authorities," "paving and lighting," "extra-mural burials," &c. mixed up with what they will doubtless regard, and rightly so, as useful information about the best treatment for babies. The author says, he "shall make no apology for the large extracts" he has "made from the authors he has consulted," as he does not pretend to produce an original work; but in respect to the first part he might at least have indicated some of the chief sources whence he drew his information. Either he does not know the real workers in the sanitary movement, or he ignores them, the only two persons to whom anything like justice in this respect is done being Mr. Dickens and Mr. Simon.——Mr. James Cuthill, the Camberwell horticulturist, has had published by Hamilton and Co. of Paternoster-row, a little "Treatise on the Vine Disease," which is "now destroying the crops of grapes throughout the vineyards of Europe." Mr. Cuthill offers various practical suggestions as to training, pruning, soil, manure, &c. It will be a sad circumstance if the vine is about to die out. It was planted by Noah, at "the foundation of the world that now is," when "the world that then was perished." Was it intended as a kind of secular timepiece, whose running out was to indicate the expiry of the present state of things, and the advent of a better, in the coming reign of "the spirit of Truth," and the return of "the true Vine." The millenarians might make something of this suggestion. What will Dr. Cumming say?—— The last issue of Longman's "Traveller's Library," is a "Narrative of the Niger, Tshadda, and Binue Exploration," by Mr. T. J. Hutchinson, Consul for the Bight of Biafra, in two parts. Mr. Hutchinson speaks with great admiration of the energy and courage of Dr. Barth.

Miscellanea.

The Iron Trade of Middlesborough-on-Tees.—During the last few months large excavations of ironstone have been made in Middlesborough. Recently the ironstone has been discovered in such quantities as to lead to the establishment of extensive and successful smelting works. The ironstone is said to be only slightly inferior to the Scotch, and more valuable in several important branches of trade.

Organs in Presbyterian Churches. — The Presbytery of Lancashire has held a special meeting at Manchester, for the purpose of deciding whether organs should have any *locus standi* in Presbyterian churches within their bounds. After full discussion by a full court on the merits of the case, it appeared, on a division, that fifteen members were in favour of organs, four members being the minority. This decision ends the question locally till the synod meets next April, in St. George's, Myrtle-street, where the first organ has been introduced.

A Hint.—As you frequently notice the efforts which are being made to improve the dwellings of the labouring classes by societies, will you be kind enough to allow the following method of helping themselves to appear in your pages. There is in this immediate neighbourhood (Edgware-road) a very dirty and squalid-looking court misnamed Paradise-place. It consists of about a dozen very small houses of two rooms each, one over the other, without any opening at the back. The poor people who inhabit them have only one dust-bin for the whole of them, and two filthy closets at the further end of the court, and which latter are within a foot of the two last houses. It happened that a few years ago two of the inhabitants of this place heard a lecture such as are often now-a-days given by kind gentlemen to the humbler classes, and the advice then offered to them seemed so easy to be put in practice that they immediately adopted it. It was simply *to buy what they wanted to eat or drink entirely at a chandler's shop, or at a butcher's or baker's.* It was promised that by so doing they would be enabled to pay for wholesome apartments, and so it proved. In a very few weeks one of them removed to a clean neighbouring street, and the other has ever since been found in a decent cottage at Kensal New-town.—W. H.

City Baths and Washhouses.—The subject of public baths and washhouses for the city of London is at the present time engaging the attention of a sub-committee of the corporation. Nothing at present, as far as we are informed, has been definitely determined; but we believe we may state, that in all probability the report of the committee will include a recommendation to the Court of Common Council to appropriate the western portion of Farringdon-market for such an establishment.

Sebastopol brought to London.—A Paris correspondent of a continental contemporary says, "They tell me that an Englishman has left London for Sebastopol, with a little vessel of his own, to carry out an idea which is thoroughly English. He goes out to obtain stones from the fortifications of the place, with which he intends building a house in the environs of London. This original is expected to arrive with his cargo very shortly."

Fall of a Cornice.—Mr. Brent, the deputy-coroner for Middlesex, held an inquest on Saturday last at the Middlesex Hospital, touching the death of Mr. James Howe, a master builder, residing in Marylebone, who was killed by the overturning of a large overhanging cornice. It appears that the deceased Mr. Howe had been building a house in Foley-place, and on the day of the accident had been on the scaffolding, superintending the fixing of the cornice. On the 27th ult. just as the work was on the point of being finished, the huge blocks of stone turned over, and fell upon the scaffold, breaking away the platform, and snapping off the supporting poles like so much matchwood, eventually falling on the pavement of the street, to the imminent danger of passers by. The deceased, with two of his workmen, was precipitated to a depth of 50 feet. Mr. Howe was so severely injured that he died in a few days; the two workmen were also injured, but recovered. The jury returned a verdict of "Accidental death."

Accidents.—At the Fulham Gas Works on Monday in last week, a workman was at work on a scaffold, at a height of nearly 30 feet, when by some mishap he lost his footing, and fell to the ground. He was taken to St. George's Hospital, where he remains in a precarious state.——At Wednesbury, an inquest was held on Thursday in last week, on the body of a workman who had been at work in the brickfield of Messrs. Stubbs and Birch, at Goscote, on the preceding Tuesday, and on crossing the ground the projecting part of a horse machine, used for grinding clay, struck him on the head with such violence as to deprive him of life in about twenty minutes. The jury returned a verdict of "Accidental death."——At Birmingham, on Wednesday before last, an accident occurred to a bricklayer, employed on some building at the Proof-house: while standing on the scaffolding, he missed his footing, and fell to the ground, a distance of some 12 feet. He was seriously injured on the head, and contused in various parts of the body.

Falling in of a Well, and extraordinary Escape.—At Mildenhall, in Suffolk, on Monday in last week, some men were engaged in putting a new "vat" at the bottom of a well, about 30 feet deep, in the yard of a currying office, next the churchyard, a man named Charles Webb being below, and another named Jackson at the crank. Webb had placed a part of the segments forming the vat, and Jackson was cautioning him to bring the edges closer together in order to secure the pinning, when he observed two or three bricks falling. Webb seized the rope, and called "Pull up!" when instantly the brickwork, from the very top of the well, with a large quantity of the soil behind it, fell in a mass, burying him beneath full 20 feet of materials. All idea that his life could be preserved was abandoned, for the surface appeared as closely covered as a filled-up grave; and it was some time before anything was done, the men at first deeming it too hazardous to venture down, so loose and friable was the soil, and so hollowed out were the sides, whilst the wall of a neighbouring out-house actually overhung the cavity. After some little delay, however, assistance was procured, and the wall having been taken down, the men worked most diligently in removing the fallen materials, but with little, if any, hope of more result than the recovery of the poor fellow's body. At length, however, to the astonishment of all interested, Webb was found not only alive, but without a single broken bone. He was very slowly and cautiously extricated; and after being thirteen hours buried he was at length got out little the worse. He was found standing close to one side of the well, which was a little skewed back from the perpendicular, to which cause, humanly speaking, he owed his life, and was so wedged in with the crowbar which he had been using, and some pieces of timber, that it was only by a brick at a time, or a handful of earth, that the work of extrication could be proceeded with.

National Gallery. — Among the plans and notices, says the *Times*, deposited at the Private Bill-office of the House of Commons, for Bills to be brought before Parliament next session, is one for a large hotel, on the plan of the Hotel du Louvre, Rue de Rivoli, Paris, to be built on the site of the National Gallery (a committee of the House of Commons having recommended the removal of the Gallery), and also on the ground in the rear, now chiefly occupied by the barrack-yard and St. Martin's work-house.

The Leeds Wellington Statue.—This statue, by Marochetti, arrived in Leeds during last week. The artist was to have been there, but being desirous of greeting his sovereign, the King of Sardinia, on his arrival at Dover, he wrote to say that he must postpone his visit to another occasion. It has been decided to erect the statue forthwith, in front of the Town-hall, after which it will be covered, and so remain till its inauguration, which will probably not be until the opening of that building.

Carlisle School of Art.—The annual meeting of the subscribers to this school was held at the Town-hall, Carlisle, on Tuesday evening before last. The secretary read the report, from which it appeared that the school was opened in October, and has been since in operation, and that the average number of students at the central school during the past year had been fifty-nine. Various public and private schools had availed themselves of the services of the master, and an exhibition at the central school had been visited by above 2,000 persons. Mr. Davidson, the treasurer, stated that the number of pupils at present receiving instruction was greater than it had ever been before, and he had no doubt it would go on increasing. He was sorry, however, that the institution was in debt; but that arose from the large expenditure in fitting up the central schools and filling them with the necessary casts. The state of accounts showed that there was a debt of 125*l.* to be made up; but that balance was entirely for preliminary expenses. He was happy to say that the current expenses had hitherto been met, at least, almost so, by the receipts. To clear off the debt the amount already received was 52*l.* 4*s.* so that they only wanted about 70*l.* more.

The Amateur Musical Society.—This well-known society of instrumentalists inaugurated their tenth season on Monday last, at the Hanover-square rooms, by an attractive concert before a crowded audience. Composed of the best executants in London, and conducted by one of the first non-professional musicians in England, the progress of this society has a claim upon the interest of art-lovers in general. The particular feature of this concert was Mr. S. W. Waley's performance of a new pianoforte concerto, with orchestral accompaniments, written expressly for the society, and played in a masterly manner by himself. It is a grand work for an amateur, and was enthusiastically applauded. The "*London Deutscher männer chor*,"—a parallel society of German residents in London,—for the practice of German vocal concerted music, under Herr Pauer, sang with great precision some part-songs of Mendelssohn and Spohr.

The Salford Museum and Library. — The seventh annual report of the committee of the Royal Salford Museum and Library to the town-council has just been issued. The libraries now contain 16,205 volumes (without enumerating separate tracts and pamphlets), the increase during the past year, by purchase and donations, having been 3,818 volumes. The reference library contains 11,371, and the lending library 4,834 volumes. The reference library has been opened 307, and the lending library 297 days during the year, and the total number of volumes issued from both has been 115,457. "The reading-room," continues the report, "has been regularly supplied with the London *Times* and all the Manchester papers, and in addition, with copies of the *Illustrated News*, *Athenæum*, *Builder*, *Gardener's Chronicle*, *Punch*, and *Household Words*, weekly; *Blackwood*, *Frazer*, and *Tait's Magazines*, *Bentley's Miscellany*, *Hong's Instructor*, *Sharp's London Journal*, *Chamber's Journal*, *Leisure Hour*, and *Zoologist*, monthly; the *Edinburgh and Quarterly Reviews*, and a few other papers and periodicals. In the lending library there has been a great increase in the issues of books, and it is gratifying to your committee to be able to state, that the books applied for by the frequenters of this library are of a better class of literature than those which it circulated for the first six months after its opening. The demand for books in this department has been so great, that your committee calculate that nearly the whole of the library has been in circulation *ten times* during the past year. The number of visitors to the Museum during the past year has been considerably more than on any previous year. In concluding their report your committee have the greatest satisfaction in stating that the conduct of the visitors to the Museum and Libraries has been orderly and commendable, and that no wilful damage has been done to any of the specimens in the Museum; nor, with one unimportant exception in point of value, have any of the books been stolen, lost, or damaged."

The Application of "Peat Gas" to Towns. —An Irish correspondent of a London contemporary states that one of the country towns is about being supplied with the illuminating gas extracted from peat, and adds, that the fact that this gas can be produced in country towns in Ireland at about one-third of the cost of coal gas, and that it is equal in brilliancy to the latter—as attested by hundreds of parties who have seen it burned—are quite sufficient to prove the value of the invention, viewed commercially or nationally; and that it is calculated that a ton of charcoal can be obtained from about four tons of peat; so that, independent of the gas-tar, oil, &c. the manufacture of charcoal alone would be a source of large profit, considering the small outlay that would be required to fit up the necessary apparatus, owing to the simplicity of the invention.

Institution of Civil Engineers.—At a meeting, November 27th, Mr. James Simpson, president, in the chair, the paper read was "On the Application of Volute-springs to the Safety-Valves of Locomotive and other Boilers," by Mr. J. Baillie, communicated by Mr. R. Stephenson, M.P. In order to commence the discussion on the paper, a "Description of an improved form of Safety-Valve, for Steam Boilers," by Mr. J. Fenton, M.I. was read by the secretary. The object of this valve was the prevention of accidents, arising from the liability of the ordinary mush-room-shaped safety-valves to stick fast: this was effected by making the valve spherical, with a hemispherical seat and a hemispherical cup bearing upon the ball valve: this cup was connected to the valve lever by a spherical joint; all the other joints of the lever and attachments being also on the ball and socket construction, so that all were free to move in any direction and no sticking of any part was possible. An illustration was given of the adaptation of the volute springs to hydraulic safety-valves for equalizing the pressure on watermains, and obviating the injurious effects of the concussion caused by the oscillation of the column of water. This system, which had been introduced by Mr. Croker, for the Amsterdam Water Works, was easily adjusted to a head of 170 feet, respresenting a pressure of 39·2 lbs. per square inch, or a total load of 1,970 lbs. on the valve: it had been in use for six months, and might be perfectly relied upon. The arrangement was very simple, consisting merely of a vertical branch of 8 inches diameter springing from the horizontal main-pipe of 6 inches diameter. On the top of the branch pipe was fixed a valve and set of gun metal, so arranged, that upon the lugs were fixed the wrought-iron bolts holding the cross-bar, between the under-side of which and the top of the valve was placed a volute spring of about 2¼ tons pressure: the exact pressure was regulated by adjusting bolts provided with stop-nuts, and the apparatus could be accommodated to the required head with great facility and precision.

Lectures on Architecture. — Mr. Edward Hall, F.S.A. known by his writings to most of our readers, delivered (Nov. 30th and Dec. 4th), at Westbourne College, Bayswater, two lectures,—the first on "Architecture, its Purpose and Origin;" the second, on the "Principles of Practical Art, as applied to House Decoration and Furniture." Mr. Hall possesses the great recommendation of thorough knowledge of his subject.

Lecture on Architecture at Clevedon.—On Monday before last, a lecture was delivered at the Public Hall, Clevedon, by Mr. C. E. Davies, F.S.A. on "Architecture." There was a full and attentive audience. The lecturer reviewed chronologically the peculiarities of Saxon, Norman, Early English, Decorated, and Perpendicular architecture; illustrating his subject by drawings and diagrams on the black board.

Strikes.—The carpenters employed by ship-builders at Goole and Grimsby have struck work for a rise of wages. The present rate of wages at Grimsby is 4*s.* 6*d.* a day, with constant work. The Goole carpenters urge that they ought to receive the same wages as the Hull and other carpenters are receiving. Hence they demand 6*d.* a day additional. The masters do not appear to be inclined to accede to the demands made on them.

Modern Building.—Allow me, as a constant reader of your valuable paper, to say that it gives me much pleasure to find that it is your unvaried and steady aim, to promote strength and durability in the construction of every building. As I am a builder of fifty years' standing, my experience has proved the fact, that for many years there has been a constant tendency to cut and pare down the expense of erection, even by the architects themselves; and then (what is called) the successful candidate, in order to make the best out for himself, has shaved off a little more; so the result proves a discredit to all the parties concerned. In other cases there has been an attempt to erect large massive buildings without any apparently adequate support. I was forcibly reminded of this by your recent paper, which represented a corner shop propped up to prevent an accident. Surely the present learned generation may find a useful lesson in comparing modern fancy work with the more substantial building of past centuries. According to my mind, new principles in architecture are a rare occurrence, and I should feel obliged to some of your correspondents to show what is really new, which combines strength, durability, and ornament, so that the present race of architects and builders may have the full credit due to them; but I am afraid after all that you can do, many plans will be made by those who do not understand their practical bearing; and also that there are too many (gentlemen) contractors, who know but little of that work which they profess to do.—An Old Builder.

TENDERS

For eight houses at Peckham. Mr. James Sheppard Scott, architect. Quantities not supplied :—

Thorp	£3,760	0	0
Stredder	3,300	0	0
Tarrant	3,000	0	0
Ellis	3,000	0	0
Needham	2,800	0	0
Harding	2,750	0	0
Simmens	2,750	0	0
Hyatt	2,440	0	0
Collins	2,375	0	0

TO CORRESPONDENTS.

"R. H."—"H. L."—"W. L. S."—"Mr. G."—"B. G."—"Readers" [the discrepancy at Dover has been already alluded to. We wait the report of the committee].—"C. F. H."—"J. B."—"J. P."—"H. R."—"Cushing."—"J. W. B."—"Messrs. G."—"W. B."—"H."—"F. P."—"T. P. G."—"W. H."—"J. G."—"G. B."—"C. F. jun."—"A Subscriber."—"J. P."—"E. G. B."—"S. H."—"W. B."—"J. R. M."—"A. B."—"W. G. D."—"E. L. T."—"A Reader."—"P. W."—"Truscott."—"Another Englishman" (shall appear)—"W. S." (ditto).—"P. R."

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

"Books and Addresses."—We are forced to decline pointing out books or finding addresses.

MR. ALBERT SMITH'S MONT BLANC, HOLLAND UP THE RHINE, and PARIS, is now open every evening (except Saturday) at Eight o'clock. Stalls (which can be taken from a plan at the Box-office every day, between Eleven and Four, without any extra charge 3s.; Area 2s.; Gallery, 1s. The Morning Representations take place every Tuesday, Thursday, and Saturday, at Three o'clock.

PRIZE CATTLE SHOW of the SMITHFIELD CLUB. The Annual Exhibition of Prize Cattle, Seeds, Roots, Implements, &c. commences on TUESDAY Morning, and closes on FRIDAY Evening, 11th, 12th, 14th, and 14th DECEMBER. BAZAAR, KING-STREET, and BAKER-STREET. Open from Daylight till Nine in the Evening. Admittance, One Shilling.

ROYAL POLYTECHNIC.—During the CATTLE-SHOW week, from the 10th to the 15th, there will be a great increase in the Lectures on Chemistry and Electricity, and also in the general entertainments and unrivalled Dissolving Views—Open from Twelve to Five; Evenings, Seven to Ten. Admission, One Shilling.

TO LAND SURVEYORS.

AN excellent opportunity presents itself to any Young Gentleman wishing to embark in the above business, in consequence of the death of a highly respectable Land Surveyor, whose papers, maps, &c. might be handed over to a successor, upon payment of a reasonable premium. The business has been carried on by the late proprietor for nearly twenty years; is in a borough and market town to the west of England, and at present there is no other resident land surveyor either in the town or immediate neighbourhood.—Address, pre-paid, Mr. H. KENT NORRIS, Solicitor, Devizes Wilts.

MANAGING and CONFIDENTIAL CLERK.—WANTED a clever, active Man, to take principal charge of the whole of a firm's books, with cash account. He must be a thorough accountant, and have held a similar position for from three to five years. In a house of respectability in London, and in a concern, such as a builder's or engineer's, where time and materials have to be accurately booked, prime costs kept, &c. None but a person who has held a position as stated need apply. A clever responsible man is wanted.—Address, with salary and references stated, to F. G. care of Messrs. Dewey and Dale, Shoe-lane, Fleet-street.

TO SILVER PLATERS.

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SHOP FOREMAN.

WANTED, by a Builder, at the west end of London, a person to act as SHOP FOREMAN. He must be a first-rate joiner, and have had a large experience in the management of men, and in executing a superior description of work.—Address, by letter, stating qualifications, to J. T. 15 South-street, Grosvenor-square.

WANTED, by an ARCHITECT and SURVEYOR in the City, holding appointments, an OUT-DOOR PUPIL, to whom will be afforded peculiar advantages for learning the profession.—Address, S. E. Office of "The Builder."

TO ARCHITECTS.

WANTED, immediately (in the Country), an ASSISTANT, thoroughly competent to prepare all requisite drawings, specifications, get out quantities, and to undertake the superintendence of works if necessary. The appointment must state terms, and furnish satisfactory references and testimonials as to ability and general character.—Address, A. A. Mr. James Wheatley's, Stationer, Huddersfield.

WANTED, for the Stockport Borough Gas-works, a MANAGER, whose age shall not exceed fifty years. He will be required to devote the whole of his time to the duties of his office, and to enter thereon on the 1st January, 1856. Sealed applications, with testimonials enclosed, stating age and present occupation, to be addressed to the Chairman of the Gas Committee, Millgate Works, Stockport, on or before WEDNESDAY, the 26th DECEMBER instant, endorsed, "Application for Gas Manager." Salary, 250l per annum.

JOHN VAUGHAN, Town-clerk.

Stockport, December 4, 1855.

WANTED, a clever, practical Man, to SUPERINTEND the CONSTRUCTION and ERECTION of a PUBLIC MARKET of Iron and glass. One who has had experience in such work will be preferred. Apply, if by letter, stating full particulars and wages required, to J. NELSON and SONS, 47, Briggate, Leeds.

TO PLUMBERS, BUILDERS, &c.

WANTED, by a thorough practical Plumber, a SITUATION as FOREMAN, or to MANAGE a BUSINESS; can keep the accounts, understands gasfitting, zinc working, &c. Satisfactory references.—Address, J. S. 5, Wilson-street, Finsbury.

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WANTED, a SITUATION, by a practical Man, who has for the last fourteen years been in a builder's establishment as Foreman of Engineers, during which time he has had much experience in the construction and erection of machinery of various kinds. The last four years of the above time have been employed in erecting steam engines and machines for brickmaking on a large scale. Most satisfactory reference can be given to his present employer.—Address, D. W. Office of "The Builder."

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WANTED, by a steady, experienced Young Man, aged 23, a permanent SITUATION as CARPENTER and JOINER. Good reference can be given.—Apply by letter, stating wages, &c. to A. B. No. 22, Bedford street, Bedford-row.

TO ARCHITECTS

WANTED, by a Young Man, a SITUATION as DRAWING CLERK to an Architect or Engineer.—Address by letter, post-paid, to W. L. 10, Belgrave-street, Argyle-square, King's-cross.

WANTS a SITUATION, as ENGINE-DRIVER, and to take charge of machinery, or to drive and stoke, a steady Man, who has had much experience in sawing and other machinery, and can have ten years' character from his last place.—Address, W. M. Keen's Newspaper Office, Stratford, Essex.

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WANTED, by a Young Man, aged 24, a SITUATION with either of the above. Is well acquainted with the routine of both offices, a good draughtsman, can superintend and measure up work, make specifications, take dilapidations, &c. and has been accustomed to look-keeping. Good references. Address, R. B. S. care of Mr. George Wallis, 3, Pleasant-row, Old Kent-road.

TO BUILDERS &c.

WANTED, a SITUATION as CLERK, by a Young Man, aged 24. Has just left a builder's office (previously with an architect); a good draughtsman, accustomed to superintend measurements, measure work, book-keeping, &c. and has a good knowledge of building materials. Can be well recommended.—Address, W. J. care of Mr. Clifford, Stationer, London-street, Greenwich.

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WANTED, ENGAGEMENTS for an expert DECORATIVE DESIGNER and MODELLER, for the above materials; also, for an ARCHITECTURAL MODELLER, in the Mediæval Renaissance, Modern Italian, and other styles, and who executes models of buildings to scale. Terms moderate for continued employment. Engagements preferred in London, Liverpool, Manchester, Birmingham, Wolverhampton, or Sheffield, for which places he can immediately leave.—Address, for work, or from manufacturers in brass, iron, and bronze.—Apply, by letter or personally, to F. T. No. 78, The Bield's-road, Red Lion-square, London.

WANTED, by an experienced, respectable Man, EMPLOYMENT as TIMEKEEPER, WHARFKEEPER, or COLLECTOR.—Address, X. Office of "The Builder."

WANTED, by an experienced BOOK-KEEPER and ACCOUNTANT, temporary EMPLOYMENT in any department of the Counting House: has studied Companies, contractors, and others requiring assistance, will find the advertiser a person of intelligence and ability.—Address, W. Office of "The Builder."

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WANTED, a SITUATION as FOREMAN of PAINTERS, or as Painter, Grainer, and Writer. Is perfectly acquainted with taking out quantities.—Address, J. B. 5, Pickering-place, Bayswater.

TO ARCHITECTS BUILDERS, &c.

WANTED, by a Person of considerable experience, a SITUATION, as FOREMAN of PLASTERERS' WORK in general. Has been accustomed to superintend extensive works, and can model if required. First-rate reference can be given as to fitness, integrity, &c. No objection to the country.—Direct to F. G. 36, York-road, Lambeth, Surrey.

WANTED to APPRENTICE, two respectable Youths, aged respectively 13 and 14 years, one of whom has a decided taste for sketching. Branches of the building trade preferred.—Communications, prepaid, to be addressed to Mr. THOMAS, 1, Alma terrace, Stockwell Private Road, Clapham.

WANTED, by a Young Man, a constant SITUATION as PLUMBER. Is a thorough good workman. Liberal wages would be expected, and country would be preferred.—Address, A. B. 16, Princes street, Portman-market.

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WANTED, by a steady Man, a SITUATION as LETTER-CUTTER on STONE, MARBLE, &c. and GENERAL MASON. Is an experienced draughtsman and colourist.—Address, M. N. 6, Evans-street, Upper North-street, Poplar, London.

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WANTED, by a respectable Young Man, a SITUATION as a good plumber, and will fill his time up in painting if required. Good references can be given.—Address, post paid, J. G. at Mr. Guthrie's, 18, Paradise street, High-street, Marylebone, London.

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PLUMBING.—EMPLOYMENT WANTED by a respectable, experienced Man. Does not profess painting and glazing, but willing to make himself useful. Respectable reference.—Address, W. T. 1, Three Falcon-court, Fleet-street, City.

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TO ARCHITECTS, SURVEYORS, AND BUILDERS.

AN ARCHITECTURAL DRAUGHTSMAN accustomed to prepare finished, working, and detail drawings, measure architects' work, take out quantities, &c. is desirous of a RE-ENGAGEMENT, either as CLERK of WORKS or in an Office. Good testimonials. Salary moderate.—Address, A. B. 2, Melbourne-terrace, Worcester.

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A CLERGYMAN of moderate means, wishes to place his son in the FAMILY and OFFICE of a CIVIL ENGINEER, where the health and morals, as well as the professional instruction, of a pupil will be religiously attended to. Any friend who will kindly mention such a situation will greatly oblige the advertiser.—Address, prepaid, Rev. S. G. Post-office, Bath.

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A CLERK of the WORKS, who is about completing extensive works, is open to a RE-ENGAGEMENT; has first-rate testimonials.—Address, A. B. No. 16, St. Swithin's-lane, City.

AS ASSISTANT SURVEYOR.—A Young Man of respectability is desirous of obtaining an ENGAGEMENT in an Office of a Surveyor or Land Agent. He is a good draughtsman, and capable of print ng titles, &c. Satisfactory references. Address, A. B. Mr Bateman's, Law Stationer, Took's-court, Chancery-lane.

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A SITUATION WANTED by a BRICKLAYER of industrious and steady habits. Understands his business in the building and jobbing line. Wishes to meet with constant employment. Wages on the usual terms. No objection to a country job. Can have a good character from his late employers.—Address, A. A. 1, Charlton King's-road, Kentish-town.

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AN ARCHITECT'S ASSISTANT, who has been nine years in the profession, and has recently been engaged upon several first-rate building, is open to an ENGAGEMENT. He is a good designer, and thoroughly understands detail and construction.—Address, G. G. 39, Michael's-place, Brompton.

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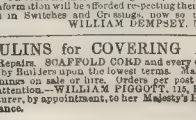

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TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the usual prompt attention.—WILLIAM PIGGOTT, 118, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

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STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

Is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 2s. 6d.

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Large Grey Stone, or Grey Chalk, free on board at Works, 1s. 8d. per ton.
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Barges loaded in a few minutes.
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ROMAN, PORTLAND, FARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, FAVIORS', STOCKS, and other BRICKS.

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TATHAM & CO.—No. 14, SOUTH WHARF, PADDINGTON.
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Bath, Portland, Lias, and Roman Cements; Farian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewers Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in boat-loads direct from the Works in Warwickshire, to any part of the river or canal

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No. 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged a constant supply of the above very superior BLUE LIAS LIME, which for the last two years has been extensively used at most of the large works constructed during that period or now in hand, and any orders they are favoured with will command their best attention.

Boatloads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the Rivers Thames or Lee, alongside any wharf on canal, or by boat or hall to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to No. 14, SOUTH WHARF, PADDINGTON, will receive the best and most prompt attention.

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BATH, PORTLAND, and ROMAN CEMENTS, GROUND and LUMP HYDRAULIC BLUE LIAS LIME.

THE LONDON and WEST of ENGLAND CEMENT COMPANY can offer to the trade the best Hydraulic Cements, at reduced prices, the material being excavated in its pure and unadulterated state, from quarries on their own property. The company particularly recommend a trial of their XXXX Bath Cement, as far superior to any article now in the market. These cements can be sent by rail or shipped from their wharf, direct to all parts.—Agents required, and a liberal discount allowed. Orders received by RICHARD WINTER (Manager to the Company), Cement Works, Dunball, Bridgewater.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the ever increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements (read at the Institute of Civil Engineers), to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent N.B. These Cements supplied or shipment, on advantageous terms.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL.—Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs Fire-bricks, Grindstones, Cement Chimney-tops, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Coarse	2 10 0

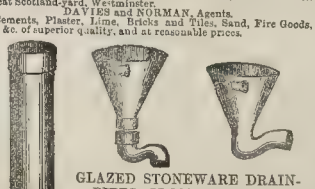
Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H BOORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their continuity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask. Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London:—Messrs. GEORGE PORTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.
G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.
DAVIES and NORMAN, Agents.
Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c.
IN EVERY VARIETY.

11, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENOUGH, Manufacturers.—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 65, King William-street, City, London. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Ivelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PRIZE BRICK-MAKING MACHINE.—CHAMBERLAIN'S PATENT.—This portable machine will make 20,000 solid bricks per day, with 3-horse power. One man to feed the machine with clay, and boys to remove the bricks. Was awarded a silver medal by the Liverpool and Manchester Agricultural Society, at St. Helen's, September 5th; a silver medal by the Staffordshire Society at Leek, September 27th; and a prize at Worcester, October 5th, 1855.—Apply for particulars to Mr. HUMPHREY CHAMBERLAIN, Kempsey, Worcester.

THE PATENT BRICK-MACHINE COMPANY invite ORDERS for their improved machines, the only ones that manufacture solid bricks equal to hand-made. A machine, and bricks made by it, may be seen in a field near London. H. C. MOUNT, Secretary.
37, King William-street, City.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.—Grey Stocks, 25s. per thousand; Grizles, 20s. per thousand; Rough Stocks, 20s.; Place, 16s.—Terms, cash on delivery.—Apply to Mr. G. SMEED, Sittingbourne, Kent.

THE BEST HERTFORDSHIRE MALM SECONDS;
THE BEST WHITE SUFFOLK and RED FACINGS;
DEEP-RED RUBBING BRICKS.
Also COWLEY and KENT STOCKS, in any quantity.
J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY
(Within a short distance of the five bridges).
THE BEST MALM-CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity.
Also, STOCKS, of FIRST QUALITY.
J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS.
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE, 8, ADELAIDE-PLACE, London-bridge.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Stoneware Pipes, Closet pans, Furnace-blocks, Fire-bricks, Gas-retorts, Crucibles, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, upon favourable terms.

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.
London Agent: J. COX, 2 and 3, High street, Lambeth.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B PEARSE and CO Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 39, Nelson-square, Blackfriars road

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and fire, bricks fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wichwood, Cambridgeshire, begs to offer pantiles at 58s. per 1,000; floor bricks and 6-inch pavings, at 37s 6d. per 1,000; 8-inch pavings, at 57s 6d, per 1,000; 9-inch pavings, at 72s. 6d. per 1,000. Cash prices. Delivered on trucks in London on Eastern Counties Railway.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "Reasons of the Jurors," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c.; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Covings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had, in great variety at their Warehouse, 9, Albion-place, Blackfriars-bridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster.

The Second Edition of this Company's Circular, just published, is now being forwarded, post free, to Directors, Engineers, Managers, and others interested in Railways.

The Circular contains Engravings, detailed Estimates of cost of construction, and descriptions of many valuable Patents, with the latest results of experience in the working of the various patented systems of Permanent Way, either the property of, or worked by the Permanent Way Company.

These patents (a selection) are now adopted by Companies owning several thousand miles of Railway, are approved of by most of the eminent Railway Engineers, in this country and abroad, and the system of Fish jointing, in particular, has received the unqualified approval of H. M. Commissioners of the Board of Trade and their Inspecting Officers.

The Permanent Way Company are prepared to grant licenses on liberal terms, to Railway Companies and Manufacturers for the use of all or any of the Patented Inventions, which have for their object the safety and comfort of the travelling public, and economy in construction of the Road and Rolling Stock.

That the objects are accomplished, the following extracts will confirm:—

"There can be no doubt that the practice of Fishing the Rails, which is becoming very general, is a great element of safety; the principle cannot be too much encouraged."—Extract from Report of Colonel Wynne, R.E. Chief Inspector of Railways to H. M.'s Commissioners of the Board of Trade, dated April 27th, 1854.

"My Lords direct me to observe, that they trust that the remarks of the Inspecting Officer, as to the desirability of the Fished Joint being adopted to a greater extent upon the Railway, will receive the attentive consideration of the Directors."—Extract from letter of Captain Galton, R.E., Secretary to the Railway Department of the Board of Trade, in reference to the foregoing Report.

"Dear Sir,—In reply to your favour of the 1st instant, I beg to say that I experience no difficulty whatever in keeping the nuts of the bolts tight."—Extract from letter of Mr. H. Woodhouse, Engineer, London and North-Western Railway.

"I would, however, beg to state that, in point of safety, the first and most essential element of railway working, the Fish Joint, on your system, is in my opinion *indispensable*—Extract from letter of Mr. J. E. M'Connell, Locomotive Engineer of the London and North-Western Railway.

"On a district of about thirty miles, where the greatest length has been Fished, the saving in labour of maintenance amounts fully to thirty per cent."—Extract from Mr. R. Jacomb Hood, Engineer to the London, Brighton, and South-Coast Railway.

Among others, the Company call attention to the following Patents recently placed under its management:—Mr. William Pole's important Improvement in Fish Joints, and Mr. Paul Prince's Improvements in moulding Railway Chairs.

Licenses, and every information, may be obtained upon application to CHARLES MAY, F.R.S., Managing Director of the Company, 26, Great George-street, Westminster; or to WILLIAM HOWDEN, Secretary.

THE PERMANENT WAY COMPANY.—The attention of the Permanent Way Company has been called to claims made by Mr. C. M. PARSONS, of No. 2, Duke-street, Adelphi, to the "Fishing" of Rails, of the action usually known as the "Contractors' Rail," and the use of fishes in all cases where the joints of Railways are supported by sleepers.

Although the Company deem their rights to be indisputable, they have, in order to satisfy any doubt that may exist, arrangements may exist, submitted the subject to the best legal authorities, and have received the united opinion of Sir F. Thesiger, Mr. Sergeant Channell, Mr. Hindmarch, and Mr. Webster, that the adoption of "Clamps, splicing plates, alias fishing plates," as claimed by Mr. Parsons, in his patent of the 26th February, 1850, which is nearly two years subsequent to the original patent, the property of the Permanent Way Company, would be an infringement of the latter, patent, and that the Permanent Way Company have the exclusive right to apply what are usually called "Fishes" to the sides of Rails at their joints, whether they are called by that or any other name. Whatever may be the section of the Rail to the side channels of which the fishes may be applied, by whatever means they may be fixed thereto, and whether a sleeper be placed under the joint or not.

The Permanent Way Company give notice to their licensees, that they will protect them against the claims set up by Mr. Parsons, if such claims be persisted in.

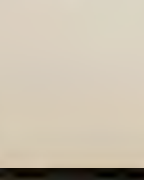
By order, WILLIAM HOWDEN, Secretary.

26, Great George-street, Nov 30, 1855.

NOTICE to BUILDERS and OTHERS.—Whereas Mr. TROUP has been informed that a person named MORING has recently pretended to be owner of the Warrior-square Building Estate in the centre of the borough of Hastings, Sussex—This is to give Notice, that the said Moring is a trespasser, and unknown to Mr. Troup, and all persons are hereby cautioned against treating with the said Moring or his agents. N.B. The Mayor of Hastings has further information, which may be examined on application to the Inspector of Police.

NO CHIMNEY WANTED for RICKETS'S PATENT CALORIFERE GAS STOVES in CHURCHES, HALLS, or SHOPS;

And for Conservatories, or any close apartments, pipe can be attached to carry away the burnt air.



RICKETS'S CHEAP GAS STOVE, Price, £1. 15s.

Made of Sheet Iron, suitable for Heating small Countinghouses, Bedrooms, Cellars, &c. &c.

MANUFACTORY, AGAR-STREET, STRAND, LONDON.

Liberal Discount to Builders.

HANDS'S PATENT ECONOMISING KILN is the only simple and effectual mode to use the heat, for drying moist moulded clays, sound at any season, in time of burning and cooling the kiln, with perfect ventilation.—Address to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom.

TO THE COMMISSIONERS OF THE BOARD OF HEALTH, AND TO ALL PERSONS INTERESTED IN THE SMOKE QUESTION.

HANDS'S PATENT is the only simple and certain remedy for the SMOKE NUISANCE; it has combined, where necessary, the advantages of a drying process and perfect ventilation, without a particle of complicated machinery. Address to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom.

DRAUGHTS ROUND DOORS and WINDOWS.—GREENWOODS PATENT INDIA-RUBBER STOPS, to supersede flat or leather, for the purpose of keeping out dust and draught round doors, windows, closets, show-cases, &c., making the same air-tight. Price 4d. per foot. Spring Slides for bottom s of doors, 4s. each.

JOHN GREENWOOD, Carpenter, 10, Arthur-street West, London-bridge.

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by BUTTER'S PATENT WIND-GUARD.—This Guard allows free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

IMPROVED CONSTRUCTION, and SMOKY CHIMNEYS PREVENTED.

The Chimney Contractor, with Horizontal Register made of Iron, to be use; for the formation at the commencement of Chimney. Made for Flues 9 inches by 9 inches, 14 inches by 9 inches, and 14 inches by 14 inches.

The UNIQUE CHIMNEY-POT, Multum in Parvo, a Remedy against Smoky Chimneys, unsightly and dangerous Contrivances, is inclosed at the top, has a diagonal and double outlet, prescribes the flue dry, and will not clog with the soot.

Sold at No. 3, Princes-street, Bedford-row.

THE PATENT DRAUGHT and DUST EXCLUDER (BOURELET'S COMPRESSIBLES) not apparent when fixed in the angles of doors, windows, and glass-cases, the cheapest and most effectual invention for the purpose.—At R. HELBRONNER'S, Sole Patentee, 307, Regent-street, next the Circus, Oxford street. Depôt at BURGESS and KEY'S, 103, Newgate-street, City.

TO BUILDERS AND OTHERS.

AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH-BOARDING of all descriptions. Also an extensive stock of White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Cills, &c. Timber of all kinds, Planks, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

FURTHER REDUCTION of PRICES.—SAMUEL FUTNEY begs to inform the Trade, that he has REDUCED the PRICE of YELLOW DEALS 3l. p. 120, and begs their attention to the following low prices:—

Yellow Deals	From £24	0 p. 120
Spruce ditto	" 18	0 "
Pine Planks, 11 ft. 3 in. by 11	" 21	0 "
Spanish Mahogany, in logs	" 7½d	per ft.
Honduras Mahogany, in logs	" 6½d	"
Yellow Battens	" £14	0 "

Prepared flooring and cut stuff of every description at equally low prices. A list forwarded on receipt of postage-stamp.

Borough-road, Southwark; and Elm-street, Gray's-inn-lane.

ALFRED ROSLING begs to inform his Customers and the Building Trade generally, that he is enabled to allow a discount of 15 per cent. upon his list prices for Mouldings.—A large stock of dry flooring at low prices.—Southwark-bridge Wharf, Bankside.

TO PIANOFORTE-MAKERS, CABINET-MAKERS, AND THE TRADE GENERALLY.

THE cheapest and best Stock in London of WALNUT VENEERS and SOLID WOOD, is at WILLIAM MARSHALL'S Timber-yard, Vincent-street, Old-street-road.

SEASONED FLOORING.—GEO. NOKES and CO. (late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

¼ inch White, 13s. 6d. per square.		¼ inch Yellow, 15s. per square.	
½ ditto	18s. "	½ ditto	16s. 6d. "
1 ditto	18s. "	1 ditto	30s. "

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.

ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.

Address, E. SIMMS, SAWING, PLANING, AND MOULDING MILLS, King's-road, Chelsea, and Wilton-road, Pimlico.

EDWARD SIMMS begs to inform builders and the trade, that he has now on hand at his manufactory (the first of its kind ever established), a large assortment of PREPARED FLOORS and MATCH BOARDING, seasoned, and ready for use, from ¼-inch to 1¼-inches thick, in White or Yellow Deal, Oak, or Pitch Pine. Also Dry Deals, in all thicknesses, Slating Battens, Pantile Laths, Oak Cills, Plank, and Scantlings. Mouldings in clean Pine, to any design. A pattern list forwarded on application. Address, E. SIMMS, Flooring Manufactory, Wilton-road, Pimlico; and Sawing, Planing, and Moulding Mills, King's-road, Chelsea.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, slating battens, laths, English oak plank, and sash sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

WYBURG, 3 feet by 7 inches, and 9-inch Redwood, Deals, and 3½ feet by 7-inch Battens, imported two years ago, and now in capital condition.—Apply to J. W. HOLDERNESS and CO. Exchange-buildings, Hull, December 1, 1855.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments tombs, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No. 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about two yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by an enclosing postage-stamps.—Please note the address—No. BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Fulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country: an extensive assortment of specimens and patterns commencing at 1s. per foot super, together with every particular of its cost and adaptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or at Messrs. ARROWSMITH and CO 80, New Bond-street.

FOR SALE, a PAIR of COACH-HOUSE DOORS, 2-inch, 10 feet high, 7 feet wide, 3 feet 6 inches Collinge's hinges.—Apply, 3, London-street, Paddington.

PARTNER.—An Architect and Surveyor, holding salaried appointments, and established in good practice, in a leading thoroughfare near Temple-bar, wishes to arrange with some gentleman to join him as PARTNER. A premium required.—Address, C. Q. Mr. Ockerby's, Law Stationer, 16, Castle-street, Holborn.

SCOTTISH EQUITABLE (MUTUAL) LIFE ASSURANCE SOCIETY.
Established 1831.

At 1st March, 1855, the amount of the accumulated Capital exceeded	£910,000
And the Annual Revenue exceeded	163,000
The amount paid to the Representatives of Deceased Members was upwards of	500,000

This affords the strongest evidence of the continued prosperity of this Institution, and of the immense benefit to the families of deceased members.—For prospectuses and all information, apply to WILLIAM COOK, Agent.

126, Bishopsgate-street, London.

EQUITY and LAW LIFE ASSURANCE SOCIETY, No. 26, Lincoln's-inn-fields, London.

TRUSTEES.

The Right Hon. the LORD HIGH CHANCELLOR.
The Right Hon. the LORD MONTEAGLE.
The Right Hon. the LORD CHIEF BARON.
The Hon. Mr. JUSTICE WIGHTMAN.
The Hon. Mr. JUSTICE ERLE.
NASSAU W. SENIOR, Esq. Master in Chancery.
CHARLES PURTON COOPER, Esq. Q.C. LL.D. F.R.S.
GEORGE CAPRON, Esq.

Examples of the Bonus upon Policies declared to the 31st December, 1854:—

Date of Policy	18th March, 1845	24th April, 1845	7th Nov. 1845
Age at Entry	45	51	31
Annual Premium	£23 7 6	£35 16 8	£49 8 4
Sum Assured	1,000 0 0	1,000 0 0	1,000 0 0
Bonus added	257 10 0	164 0 0	311 10 0

Copies of the last Report, Prospectuses, and every information may be had upon written or personal application to the Office.

GREAT BRITAIN MUTUAL LIFE ASSURANCE SOCIETY,
14, Waterloo-place, London, and 30, Brown-street, Manchester.

THE CHISHOLM, Chairman.
RICHARD HARTLEY KENNEDY, Esq. Alderman, Deputy-Chairman.

This Society is established on the tried and approved principle of Mutual Assurance. The funds are accumulated for the exclusive benefit of the Policy-holders, under their own immediate superintendence and control. The profits are divided annually, and applied in reduction of the current premiums. Policy-holders participate in profits after payment of five annual premiums.

The Annual General Meeting of the Society was held on the 30th of May, 1855, when a Report of the business for the last year was presented, exhibiting a statement of most satisfactory progress. It appeared that during the two last years, 1853 and 1854, between 500 and 600 new Assurance had been effected, producing an increase of premium income amounting to 1l. 0s. per annum. It also appeared that, notwithstanding the extraordinary mortality which prevailed during the last year in consequence of the visitation of the cholera, it had not been found necessary to reduce, in the slightest, the allowance of 3½ per cent. previously awarded to the Policy-holders.

Credit is allowed for half the Annual Premiums for the first five years.

A. R. IRVINE, Managing Director.

14, Waterloo-place, London.

IMPERIAL LIFE INSURANCE COMPANY, 1, OLD BROAD-STREET, LONDON, Instituted in 1820.

WILLIAM R. ROBINSON, Esq. Chairman.
HENRY DAVIDSON, Esq. Deputy-Chairman.

The SCALE of PREMIUMS adopted by this Office will be found of a very moderate character, but at the same time quite adequate to the risk incurred.

FOUR-FIFTHS, or 80 per cent of the profits, are assigned to policies every fifth year, and may be applied to increase the sum insured, or an immediate payment in cash, or to the reduction and ultimate extinction of future premiums.

ONE-THIRD of the premium on insurances of 500l. and upwards, for the whole term of life, may remain as a debt upon the policy, to be paid off at convenience; or the Directors will lend sums of 50l. and upwards, on the security of policies effected with this Company for the whole term of life, when they have acquired an adequate value.

SECURITY.—Those who effect insurances with this Company are protected by its subscribed capital of 750,000l. of which 140,000l. is invested, from the risk incurred by members of Mutual Societies.

The satisfactory financial condition of the Company, exclusive of the subscribed and invested capital, will be seen by the following statement:—

At the close of the last financial year, the sums assured, including bonus added, amounted to	£2,500,000
The premium fund to more than	800,000
And the annual income from the same source, to	100,000

Insurances, without participation in profits, may be effected at reduced rates.

SAMUEL INGALL, Actuary.

FOWLER'S
IMPROVED FARM AND
COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 1l. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE
SINGLE
PUMPS,
BARRELS
AT SHORTEST
FOR HAND
STEAM

AND HIRE,
AND DOUBLE
3 in. to 15 in.
to any depth,
NOTICE,
OR
POWER.

FOWLER'S
PORTABLE PUMPS,
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.

DOULTON'S STONE-WARE PIPES.
DOULTON'S HALF-SOCKET PIPES.

MANUFACTURERS OF
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.

W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.

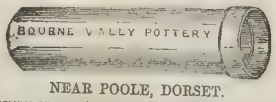
SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

REDUCTION IN THE PRICE OF
CLOSET-PANS.

DOULTON AND WATTS,
LAMBETH POTTERY, HIGH-STREET, LAMBETH,
Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to
5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

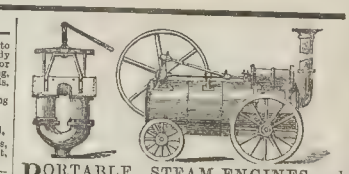
These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Plants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS—
Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;
Where a large stock is always kept on hand.

STEAM PUMPING ENGINES.—
PATENT PORTABLE STEAM-ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c. &c.

Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
Engineers and Contractors,
John's-place, Holland-street,
Southwark, London.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

ENGINES.—For SALE, THREE 12-horse high-pressure horizontal ENGINES, admirably suited for winding; 12-inch cylinders, metallic pistons, either with or without boiler. Also two powerful double-purchase CRABS, capable of lifting 30 tons each. Also a wrought-iron TANK, 30 feet by 4 feet, by 4 feet, 2 plates.—Apply, by letter, to No. 20, BOX, Post-office, Derby.

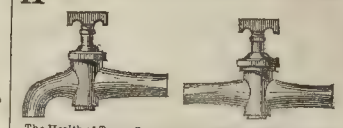
PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM-ENGINE, with tubular boiler, for SALE. Can be seen at work at Mr. GOODWIN'S, 67, Great Guilford-street, Southwark, of whom particulars may be obtained.

PUMPING MACHINERY. — Lifting and Forcing Pumps, Patent Centrifugal and Double acting Pumps, deep Well Pumps, Steam-Engines; portable and fixed; Hydraulic Rams, Water Wheels, and every description of machinery, of the most improved construction, manufactured and supplied by GWYNNE and CO., Hydraulic and Mechanical Engineers, Essex-wharf, Strand, London.

WANTED, a strong, well-made Three, Four or Six-horse Power High Pressure STEAM ENGINE for driving a Saw mill. An Oscillating Engine would be preferred. Also, a Circular Saw Table, with Saws to be driven by the above.—Answers, stating lowest price and full particulars, to be addressed to W. B. G. Post-office, Blandford.

PUMPING and WINDING ENGINE.—TO BE LET on HIRE, or for SALE, a nearly new strong and simple PUMPING and WINDING STEAM ENGINE, of 10-horse power, by Medwin and Hall, with a pair of 11-inch pumps and all the driving gear complete. The contractor for whom it was fitted up will make a considerable sacrifice on the cost price, or let the whole on hire.—Apply to Messrs. MEDWIN and HALL, Engineers, Surrey Iron Works, 82, Blackfriars-road.

TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

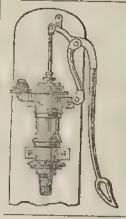
PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 28s. per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.



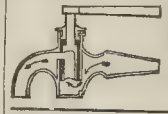
TO BUILDERS AND PLUMBERS.
The attention of the Trade is called to JOHN WARNER & SONS'
PATENT VIBRATING STANDARD PUMP,
which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive levers and guides are unnecessary, rendering the price considerably less than Pumps made on the old plan.

Lifting and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.

TO WATER COMPANIES AND PLUMBERS.
BURDEN'S PATENT HIGH-PRESSURE COCKS.—These cocks are remarkably simple in their construction, very durable, cheap, not liable to get out of order, and have been most successfully used for a period of three years, under a continuous head pressure, varying from 200 to 450 feet.



SAMUEL SHEPPARD, Sole Manufacturer,
JAMES STREET, ST. PAUL'S, BIRMINGHAM.

DRAINING PIPES for 200 acres of land to be delivered at WORCESTER-PARK, near Kingston, Surrey, in the months of JANUARY and FEBRUARY next. TENDERS for the SUPPLY of the PIPES, stating price per thousand of 3-inch pipes, with and without collars, to be sent to Messrs. THINDER and EYRE, 1, John-street, Bedford-row, London.

SUPERIOR STONEWARE GLAZED PIPES of a quality not to be surpassed.—S. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction, the price being also lower than many in the trade, viz. 25 per cent. discount off the list for cash. Junction Bends, &c. Pans and Traps of best quality. Yorkshire Paving, Sinks, Slabs, &c. all at low cash prices.—S. and W. STURGE, Bridge Wharf, City-road.

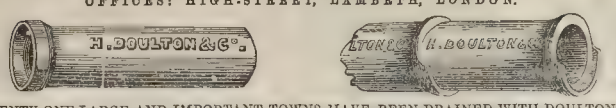
N.B. A small extra charge is made upon goods required to be delivered.—October 1, 1855.

TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES.
FREEMAN ROE'S PATENT SLUICE-VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.
W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.



TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

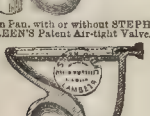
STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Fans, with best White Glaze inside.

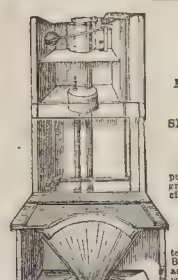
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



This effective Article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.

R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,

Your obedient Servant,

WILLIAM CARTWRIGHT.

HENRY MILLICHAMP,

MANUFACTURER OF

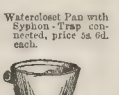
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

Whole Socket.

Watercloset Pan with Syphon-Trap connected, price 5s. 6d. each.



A LARGE ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS,

Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

Half Socket

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

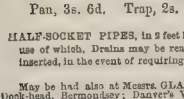
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET, PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danyer's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 3, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 23, Bryden-street, Covent Garden; and at EDWARD COOK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

AYLESFORD POTTERY COMPANY,

BELVEDERE-ROAD, LAMBETH.

MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly six years, and having during this period supplied DRAIN PIPES, &c. to some of the largest Works in and around London, viz.—The New Cattle Market, Wellington and Chatham Barracks, Deptford Dock-yard, Her Majesty's Commissioners of Works, &c. and in all instances parties using them expressing themselves satisfied therewith,—take this as a fair test of the quality of the articles supplied by them; and as they now feel themselves established as Potters, beg to offer their goods to Contractors, the Trade, &c. of a first-rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.

MANUFACTURERS of GLAZED STONEWARE PIPES, Bends, Junctions, &c.; also FIRE BRICKS, Vitrified Blue Bricks as used by her Majesty's Commissioners of Sewers, White Fire Clay, Facing Bricks, &c. &c. Agents, CHARLES RICHARDSON, No 6, South Wharf, Paddington, London.

BY HER MAJESTY'S ROYAL LETTERS PATENT, APRIL 27, 1855.

JAS. LEWIS'S PATENT STENCH-TRAP.

FOR STREET USE.

Price, with Gutter Plate, 15 inches by 13 inches, each 23s.; weight about 3 cwt. Larger sizes made, if required.

FOR AREAS, &c.

Price, with Back Plate, 6 inches by 7 inches, each 6s.

FOR COURTS, YARDS, &c.

10 inches by 8 inches, each 10s.

The above articles are protected for the Patentee by the British Government, on account of their simple construction, for the advantages they possess, being a perfect trap for preventing smell proceeding from itself or the drain, should there be water in the pan. When stench-traps are laid down generally speaking no attention is ever paid to them afterwards, this renders them useless. The above, therefore, are a desideratum, as they require no attention. It is well known when cholera has visited this country, it commences and leaves last those places where the air is vitiated by obnoxious gases proceeding from drains, &c.

Any inhabitant sufferer by the said nuisance, is entitled, by the Sanitary Act to lay a complaint before the public or private authorities of the property, to lay down stench-traps where they are required. Any persons interested in this advertisement will be kind enough to write to the patentee for drawings and if wishful, testimonials. Please order from any respectable ironmonger contractor, or the Patentee, JAMES LEWIS, Ironfounder, Aleyarreny. Specimens to be seen in the Court of Inventions, Crystal Palace, Sydenham

PATENT DRAIN-PIPES, UNGLAZED,

manufactured by ARTHUR C. FRANCIS and CO. Grays, Essex. Sold by them, and by FRANCIS, BROTHERS, Nine Elms, London, and at all their Warehouses.

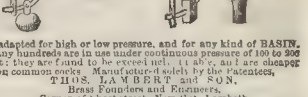
PRICES.

3 inch bore, in 9 ft. 6 in. lengths, at	3d. per foot.
4 " " " "	4d. "
6 " " " "	6d. "
9 " " " "	9d. "
12 " " " "	1s. 3d. "
15 " " " "	2s. 0d. "

These pipes are made under steam pressure and burnt to great hardness, and are capable of bearing nearly double the hydraulic pressure of ordinary glazed pipes. The prejudice against red-ware is overcome by the manufacture. And it is well known that good earthenware, UNGLAZED, is the oldest material discovered in a perfect state in Rome, Babylon, Nineveh, &c. &c.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE.

No. 7.



Is adapted for high or low pressure, and for any kind of BASIN. Many hundreds are in use under continuous pressure of 100 to 300 feet: they are found to be exceedingly durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,

Brass Founders and Engineers,

Corner of Short-street, New Cut, Lambeth.

N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

SUPERIOR LAND DRAINAGE.

AGRICULTURAL DRAIN-PIPES of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,

BENDS, JUNCTIONS, and SYPHONS—Pipe-wares allowed by all to be of the best manufacture, of the unparalleled quality, combined with cheapness will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

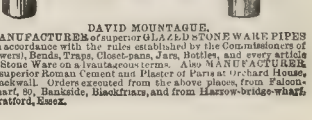
PATTEN'S PATENT HIGH-PRESSURE WATER-CLOSETS and WATER REGULATORS,

manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c. Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals. Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 25s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 27, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 32s. PER CRATE.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.



DAVID MOUNTAGUE,

MANUFACTURER of superior GLAZED STONE WARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Bisckfriars, and from Harrow-bridge-wharf, Stratford, Essex.

SALES BY AUCTION.

TO WHEELWRIGHTS, COACH BUILDERS, IRONMONGERS, AND OTHERS

MESSRS. FULLER and HORSEY will SELL by AUCTION, on MONDAY, DECEMBER 10th, 1855, at ELEVEN o'clock, at ST. ANN'S WHARF, Earl street, Blackfriars, in lots, without reserve, Twelve tons spring steel (Fisher and Bramall's, four tons tyre-bars, three tons hoops, twelve bags coach-screws, 1 cwt. each ditto pointed, sixty dozen spades and shovels, two iron screwed bolts and nuts, six bags snap-head rivets, sixty bags wrought nails and spikes, thirty dozen bolts, thirty dozen locks and latches, fifty dozen hinges, assorted; crowbars, iron pails, bench-mill, scales and weights, three carpenters' cramps, five cwt. chain, an excellent wrought-iron strong-room door, counting-house furniture, eighty volumes of standard medical works, and numerous other effects. To be viewed on Saturday previous to the Sale, when catalogues may be had on the Premises; and of Messrs. Fuller and Horsey, Billiter-street, City.

TO ENGINEERS AND OTHERS

MESSRS. FULLER and HORSEY will SELL by AUCTION, on WEDNESDAY, DECEMBER 12, at ELEVEN, on the PREMISES, No. 34, Aldgate High street, in lots, ENGINEERS' TOOLS and STOCK in TRADE; including three steam-engines, each of 4-horse power; one 8-horse power steam-boiler; one 18-inch centre self-acting screw-cutting lathe, with bed 25 feet long; strong surfacing lathe; one 7-inch self-acting screw-cutting lathe, by Oldham; one 8-inch back-geared slide-lathe; drilling-machine; vertical grinding-machine, a new planed iron circular saw-bench, 100 feet wrought-iron shafting, rigsers and driving gear, one self-acting drilling-machine, one wall-drilling machine, vices and benches, sets of stocks, taps, and dies; a large quantity of steel tools, 10 cwt. cast steel, bar and rod iron, fifty dozen new files, one ton copper and brass, fittings, blocks and falls, double purchase crab, crane and trammels, smith's forge, two anvils and tools, pattern-maker's lathe and benches, circular saw-bench, 800 feet leather straps, portable forge, fly-press, a valuable assortment of wrought-iron and brass, a small quantity of new brewing apparatus, counting-house fittings, and numerous other effects. To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises; and of Messrs. Fuller and Horsey, Billiter-street, City.

TO FURNISHING IRONMONGERS, TINMEN, MERCHANTS, AND OTHERS.

MESSRS. FULLER and HORSEY will SELL by AUCTION, on WEDNESDAY, DECEMBER 19th, at ELEVEN, on the PREMISES, No. 32, Banner-street, St. Luke's, in lots, by direction of Messrs. Ring, Brothers, who are declining the business, the STOCK of TINWARE, including water-pots, long and short spouts, candlesticks, fish-kettles, fire-baskets, police lanterns, horn planterns, batchelors' kettles, coffee-pots, block tin stew-pans, square and round pudding-pans, coffee filterers, tea-kettles, stomach warmers, dripping-pans, harvest cans, oval kettles, round sugar boxes, tea canisters, saucepans, coal scoops and hods. American ovens, four dozen laths, slipper, hip, and open, cinder shovels, toilette cans, spring covered cart, chaff-cutting machine, stable utensils, and other effects.—To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises, and of Messrs. Fuller and Horsey, Billiter-street, City.

Gas Lamps and Chandeliers, Candelabra Minors, and Articles of Taste.

MESSRS. FULLER and HORSEY are instructed to SELL by AUCTION, at the SALE ROOMS, 91, Old Bond-street, on TUESDAY, DECEMBER 11, at ELEVEN, the REMAINING STOCK of GAS LAMPS and CHANDELIERS, Manufactured by Mr. Potts, of Birmingham, who has disposed of his manufactory, and is retiring from business, including one magnificent 15-light gas lamp, 7 feet diameter, most elaborately finished and decorated, adapted for a club or assembly room; three 12 and 15-light gas lamps, of bold and artistic effect, elaborately finished; five minor frames, of large size, with gas-lights attached; 100 3 and 4 light lamps, adapted for the dining and drawing room; gas brackets, &c.; candle-arms fitted for gas, 2, 3, 4, 5, and 10 lights; mantel-pieces, gaslights, pianoforte lights, inkstands, paper-weights, chandeliers, bronzes, and other works of art; the whole of the Stock in manufacture, and of the newest patterns.—To be viewed on Monday previous to the Sale, when catalogues may be had at the Rooms; and of Messrs. Fuller and Horsey, Billiter-street, City.

HYDRAULIC PRESS.

MESSRS. FULLER and HORSEY will SELL by AUCTION, at No. 34, ALDGATE HIGH-STREET, on WEDNESDAY, DECEMBER 12th, at TWELVE, an HYDRAULIC PRESS, with 14-inch ram and pumps, made by Bramall and Robinson.—May be viewed at the Sugar House, in Jamaica-row, Whitechapel; and Catalogues had of Messrs. Fuller and Horsey, Billiter-street, City.

DEAN STREET, SOHO. The valuable Stock of Moulds and Plaster Casts of Messrs. Scoular and Edwards, late Searle.

MESSRS. EVERSFIELD and HORNE are instructed to SELL by AUCTION, on the PREMISES, No. 7, Dean-street, Soho, on FRIDAY, DECEMBER 14th, at TEN for ELEVEN, in consequence of the number of lots without reserve, the valuable and extensive STOCK of MOULDS and CASTS, of all the principal works of sculpture, modern and antique, comprising groups, figures, busts, and reliefs, amongst which will be found the following full-sized examples, viz.:—A coarse cast of the Barberini Faun, Dying Gladiator, Apollo Belvidere, Dans, Mr ury in repose, Atalantes, Bacchus, Achilles, Borghese, Laocoon, Apollo de Medici, &c. Also numerous pedestals, brackets, figures for lamps, and other effects.—May be viewed one day previous, and catalogues had on the Premises; of G. K. Pollock, Esq. 54, Bedborough-street, Belgrave-road; and of the Auctioneers, 46, Parliament-street, Westminster, or Coal Exchange.

DEAN STREET, SOHO.—Fixtures, &c.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, 9, Dean-street, Soho, on SATURDAY, DECEMBER 15, at TEN for ELEVEN, the FIXTURES on the premises, masons' and sculptors' tools, and a portion of the STOCK of Messrs. SCOULAR and EDWARDS, on view two days previous, and catalogues had of the Auctioneers, 46, Parliament-street, Westminster.

KING'S CROSS. Important Sale of Marble Slab.

MESSRS. EVERSFIELD and HORNE have received instructions to SELL by AUCTION, on the PREMISES, Great North-ern Marble Wharf, Canal-road, Kingscross, on TUESDAY, DECEMBER 18, at ELEVEN for TWELVE, 20,000 feet of MARBLE SLAB, comprising statuary, vein, Sicilian, dove, black and gold, Sienna, black, Bardilla, griotte, Emperor's red, green, and Languedoc, which will be arranged in suitable lots, ready for delivery after the Tuesday and Monday sessions; and catalogues had on the Premises, and of the Auctioneers, 46, Parliament-street, or Coal-Exchange.

TO BUILDERS, TIMBER MERCHANTS, CARPENTERS, CONTRACTORS, AND OTHERS.

MR. MARSH has received instructions to SELL by AUCTION, on the PREMISES, Marlborough-street, Cut-throat, Blackfriars-road, on TUESDAY, DECEMBER 18th, at TWELVE o'clock, by order of the Trustees of Mr. T. Aslow, the extensive and well-selected STOCK of TIMBER and DEALS comprising about—

2,000 Feet dry Spanish and Honduras Mahogany and English Oak, planks and boards.
1,500 Feet Quebec Birch Boards and Planks.
1,000 Feet dry clean St. John's Yellow Pine Boards.
400 Feet Quebec Ash Planks.
3,000 Feet Pine and Spruce Deals, Battens, and Planks.
600 Feet English Ash.
200 Cubic feet ditto.
8,000 Feet Elm, in various thicknesses.
140 Cubic feet Ash Half-halvings.
2,700 Feet Beech Planks and Quarters; various.
3,000 Feet Scantlings.
12 Beech Screws.

Cart, pony, 2-wheel truck, harness, saws, implements, and useful miscellaneous articles. May be viewed the day prior and morning of Sale, and catalogues obtained on the Premises, and at Mr. Marsh's Offices, 2, Charlotte-row, Mansion House.

SALES BY AUCTION.

TO METAL MERCHANTS, ZINC-WORKERS, AND OTHERS.—SALVAGE SALE.

MR. NOBLE is instructed to SELL by AUCTION, at GARRAWAY'S COFFEE-HOUSE, Cornhill, on TUESDAY, DECEMBER 11, 1855, at TWELVE o'clock, about THIRTY TONS of SHEET ZINC, in sheets, 8 feet by 3 feet, Nos. 8, 9, 10, 11, and 12 gauge, removed from the wreck of the ship *Enchantress* and now lying at Berry's Wharf, Dockhead. May be viewed two days prior to the day of sale, and catalogues had at Garraway's Coffee-house, Cornhill; and at Mr. Noble's Offices, 18, Bucklersbury, and London-street, Greenwich.

DUKE-STREET, ST. JAMES'S.—Capital Building Materials, of extensive range of Stabling and Coach-houses.

PULLEN and SON are directed to SELL by AUCTION, on the PREMISES, on WEDNESDAY, DECEMBER 12th, at TWELVE, in lots, all the excellent BUILDING MATERIALS and FITTINGS-UP of extensive stabling and coach-houses, with dwelling-rooms and offices in Duke street, Saint James's-square (at the back of Lichfield House), comprising capital stock brickwork, prime oak and fir timber, tiles and slates, glazed sashes, doors, partitions, flooring and lining boards, iron racks and slate mangers, divisions of stalls, large folding gates, granite and clinker paving, iron girders, stone staircase, a large lead tank, 16 feet by 10, and a capital slate tank, 10 feet square; lead and copper gutters and pipes, coping and cills, stoves, presses, gas fittings, 60 feet run of iron railing, and useful fittings up.—May be viewed on TUESDAY. Catalogues had at Mr. Hardwick's Office, 21 Cavendish-square, and of Pullen and Son, 80, Fore-street, Cripplegate.

HAMPSTEAD-ROAD. Early Sale on account of the number of Lots.

MR. LEREW will SELL by AUCTION, on the PREMISES, No. 6, Edward-street, Hampstead-road, on MONDAY, DECEMBER 17th, and following day at ELEVEN for TWELVE each day, the excellent STOCK in TRADE, comprising about 3,500 yellow white pine and spruce planks, deals, and battens, 400 sawn pine planks, 100 squares of prepared flooring, 10,000 feet wide pine board, 10,000 feet mahogany, 3,000 feet 1 inch sycamore and rosewood, 4,000 feet dry walnut, mahogany, and rosewood veneers; 15,000 feet quartering cherry-tree, dry ash, dry cut stuff, 8/8 2-inch and 1¼-inch 4-panel and sash-doors, 800 pieces of paper-hangings, ironmongery, 10 work-benches, 40-bar frame, packing-cases, 10 hand-screws 3 cramps, wrought-iron jib crane, a few scaffold-poles, ladders, and sundries. The desirable Premises to be Let.—May be viewed the SATURDAY prior and mornings of sale, and catalogues had on the Premises, and at the Auction Offices, Carrington-street, Hampstead-road, near the Euston Station.

ROMAN TESSELATED PAVEMENT.—

Beautifully wrought tesselated pavement, the ancient Roman remains at Box, which have excited so much interest, will be SOLD by AUCTION, on TUESDAY, the 18th DECEMBER next, on the PREMISES, near the church, at Box, by Messrs. Hooper and Son, of Bath.—Particulars may be obtained at the Auctioneers' Offices, 6, Bladud-buildings, Bath.

*** Box is distant from Bath ten minutes' ride by Great Western Railway, and is about five minutes' walk from the station.

Superior Chimney pieces of Statuary Marble, some richly sculptured; and of Dove and Vein Marble in great variety.

MESSRS. ROBINS will SELL by AUCTION, at their ROOMS, Great Piazza, Covent-garden, on THURSDAY next, DECEMBER 13th, at TWELVE, STATUARY MARBLE CHIMNEY-PIECES, some richly-sculptured, suitable for first-class drawing-rooms, others of a less expensive character, with trusses; black and Sicilian marble for dining-rooms and library, several of dove and Sienna marble, and a great variety of fine marble of smaller size.—Now on view at the Auction rooms in Covent-garden

SURREY ZOOLOGICAL GARDENS.—Extensive Sale of Building Materials, to clear the ground preparatory for the erection of the new Mansion.

MR. AND C. PUGH are instructed by W. W. Tyler, Esq. to SELL by AUCTION, at the SURREY ZOOLOGICAL GARDENS, on THURSDAY, 13th DECEMBER, 1855, at TWELVE, the whole of the extensive and costly ERECTIONS on these well-known premises, comprising the large circular glazed house, with hot water heating apparatus, capable of conversion into one or more conservatories, the three extensive and nice cow-houses, carnivorous house, monkeys' house, aviary, and small aviaries, iron bars, brick and timber buildings, water-closets and fittings, and numerous other erections, the whole of which are of recent date. May be viewed the day preceding and morning of sale, or previously, by written order, to be had of the Auctioneers, W. and C. Pugh, 6, Blackman-street, Southwark.

TO TIMBER MERCHANTS AND OTHERS.

The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks, as and let in Frames, Saw-pits for converting Timber, &c. Freights paid on delivery.—Apply to G. Nokes and Co. as above.

GUILDHALL, November 29, 1855.—The Committee for letting the City's Lands will meet at Guildhall, on WEDNESDAY, the 12th DECEMBER next, at ONE o'clock precisely, to receive PROPOSALS for BUILDING LEASES for 61 years, from Christmas, 1855, of several PLOTS of GROUND on the north side of Wormwood-street, Bishopsgate. Also to receive Proposals for a Lease of a House, No. 34, on the north side of Featherstone-street, Finsbury, for 12 years less three days, from Christmas, 1855. Plans of the property may be seen, and further particulars and forms of Tender obtained at the Architect's Office, Guildhall.

FERDINAND BRAND, Comptroller.

TO WHARFINGERS, COAL MERCHANTS, OR OTHERS REQUIRING WATERSIDE PREMISES.

TO BE LET, BEAUFORT WHARF, Carting-lane, Strand; all that capital wharf, with waterway for eight barges, with stabling for twenty horses, extensive lofts and warehouse, &c.; with a neat dwelling and counting-houses, and every convenience for carrying on a large business. Apply to Mr. Preston, J.n. Appraiser, 19, Wycl.-street, Drury lane.

PUBLIC-HOUSE.—An eligible SITE for a PUBLIC-HOUSE, at HACKNEY, TO BE LET on Building Lease, of a Corner Plot of Ground. Advance will be made to a respectable builder.—Apply to Mr. George Morgan, Architect and Surveyor, 3, Chancery-lane.

FREEHOLD LAND TO BE LET, on Building Lease for ninety-nine years. Money advanced to responsible parties. Freehold Land to be Sold for building purposes in eligible situations.—Apply at the Offices of Mr. George Morgan, Architect, 3, Chancery-lane

WATERLOO-BRIDGE WHARF, Commercial-road, Lambeth. These spacious PREMISES, with ten dry arched warehouses under the Waterloo-bridge-road, TO BE LET on LEASE. There are two capital houses, with cranes and scaffolding on the wharf, and counting-house which has been used as a timber yard for nearly forty years, are in good repair.—For terms, apply to HENRY MOIT, Esq. Solicitor, 4, King's-road, Bedford-row.

FOUNDLING HOSPITAL, Dec. 7, 1855.—The Committee of Governors will meet at the HOSPITAL, on SATURDAY, the 22nd instant, at TEN o'clock, to receive PROPOSALS for a LEASE of PREMISES, in Sugar-loaf-court and Garlick-hill, Upper Thames-street. Plans of the property may be seen, and further particulars obtained, at Mr. HENRY CURREY'S Office, No. 4, Lancaster-place, Strand.

HOUSE PROPERTY in the METROPOLIS.—WANTED to PURCHASE, FREEHOLD or LEASEHOLD PROPERTY, to pay a good per centage.—Send full particulars to A. B. Mr. Rogerson's, 157, Fenchurch-street.

TO BUILDERS.

WANTED, to EXCHANGE a FREEHOLD HOUSE at BRIGHTON, in a first-rate situation, and fit for a family of distinction, for a good residence, in an eligible part of the west-end of London, or for house property of the first-class also in London.—Apply, with full particulars, to B. N. care of Mr. Draper, 6, Little Tower-street, City.

A VALUABLE PLOT of BUILDING LAND, near to a railway station, on the London and Epsom line, TO BE DISPOSED OF, with a frontage of about 300 feet by 200 feet.—For particulars apply to Mr. W. B. SHAW, 40, King William street, London-bridge.

TO BUILDERS.—TO BE DISPOSED OF, a well-established, steady, and flourishing BUILDING BUSINESS, in the south of Hampshire, which has been successfully carried on by the proprietor for fifteen years. The annual returns are about 5,000l. The premises, including workshops, yards, saw-houses, sheds, and foremen's houses, will be let at a moderate rent. A genteel Dwelling-House may be rented near. The stock-in-trade and the building plant to be taken at a valuation, in the usual way, but the amount of stock which is at present considerable, may be reduced to suit the convenience of the purchaser. Possession may be had at Christmas or Lady-day next. A foreman of bricklayers, and a foreman of carpenters, both of whom have been in the proprietor's employ for twelve to fifteen years each, together with a capital staff of experienced, steady, sober workmen, may be secured, as the business is in full work, the proprietor declining this portion of his business in consequence of increased professional duties in which he is engaged. No one need apply who cannot furnish unexceptionable references. The whole of the books will be open for the in-spection and examination of any party whose references are approved. All communications to be addressed to Mr. CHARLES PINK, Surveyor, Wood-end, near Fareham, Hants.

TO ARCHITECTS, &c. — TO BE DISPOSED OF, an old-established PRACTICE, in the south of England.—Address, DELTA, Ivy House, Albion-place, Southampton.

TO ENGINEERS.—TO BE DISPOSED OF, by order of the Executrix, a moderately large ENGINEERING BUSINESS, now in full work, which has been successfully carried on by the late proprietor for twenty years past. The capital required will be about 10,000l.—Address, for particulars, to Messrs. EDWARDS and SMITH, Accountants, 15, Great Carter-lane, Doctors'-commons.

TO BE DISPOSED OF, a BUSINESS in the BUILDING LINE, with convenient Premises, &c.—For further particulars address S. S. Post-office, Knockholt, Kent.

TO BUILDERS. — TO BE SOLD, a BUSINESS as above, five miles eastward of the Bank. For stock, implements, and business, together with the unexpired term of nineteen years of three houses (if taken at Christmas), price 250l. Part of purchase money can remain unpaid if preferred, for three months.—Direct to G. A. Office of "The Builder."

TO BRICKLAYERS.

TO BE DISPOSED OF, an old-established BUSINESS in the above line, doing a good jobbing trade. This genuine concern is well worth the attention of parties wishing to commence in the above trade, as ill-health is the sole cause of its disposal.—Full particulars given on application by letter, or personally, to Mr. HENRY BURCHETT, Bricklayer, Clobham, Bagshot.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, mixed with the VM mark—in Hull by Messrs. BLENDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents in London—Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street City; and by the Manufacturing and Publishing Agent, Mr. FREDK. BRABY, Putney Works, Newroad. In Manchester and Liverpool, by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. in London, by Messrs. H. ANDERSON and CO., Timber-dealers, and in Southampt n, by Mr. H. J. BUCHAN. The OXIDES and PAINTS, in kegs of 14, 21, and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Wade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, for the adornment of our buildings, and as the only true material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition. A large Stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs—Capitals, Consoles, Tracery for Parapets, Balusters, String Courses, Friezes, Bas-reliefs, Vases, Statues, Chimney-shafts, and all other Architectural Ornaments modelled, moulded, and burnt, in the best manner, and warranted to stand heat and frost, either in Buff or Red-coloured Terra-cotta.—A great variety and large stock may be seen at BLASHFIELD'S Warehouse and Show-rooms, No. 1, Praed-street, Paddington.

TO MOULDERS.

WANTED, MOULDS for every description of TERRA-COTTA WORK.—Apply by letter to Z. Post-office, Belper, Derbyshire.

London: Printed by Charles Wyman, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing office of Cox (Bros.) & Wyman, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said Charles Wyman, at the Office of "The Builder," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, December 8, 1855

The Builder.

AN ILLUSTRATED WEEKLY MAGAZINE FOR

Architect, Engineer, Operative & Artist.

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ARCHITECTURAL EXHIBITION, Suffolk-street Galleries, Pall-mall East, will OPEN to the public on the 19th DECEMBER. Lectures will be delivered on Tuesday Evenings, by Jas. Fergusson, Esq. F.R.A.S.; Geo. Scharf, Jun. Esq.; Wyatt Papworth, Esq.; J. L. Petit; R. W. Billings, Esq.; Thos. Allom, Esq. &c. Season tickets, admitting at all times to the exhibition, and to all the lectures, half-a-crown each, to be had, with all particulars of

JAS. FERGUSSON, F.R.A.S. } Hon. Secs.
30, Langham-place, }
JAS. BONNER, Jun. }
5, Crown-court, Old Broad-street, }

BOROUGH of HALIFAX.—To ENGINEERS and SURVEYORS.—WANTED, a SURVEYOR, fully competent to take charge of the borough waterworks, easworks, sewerage, and other public works of the borough, besides the usual business of the Corporation, including that of the Local Board of Health. He must be familiar with the practice of engineering in connection with the above-mentioned works, able to conduct surveys, prepare plans, drawings, and estimates of works of every description, and will be required to devote the whole of his time to the duties of his office. Salary, 250l. per annum. Applications, with testimonials of qualification and competency, to be addressed to the General Purposes Committee, endorsed, "Application for Office of Surveyor," and to be forwarded, under cover, to the undersigned, on or before the 1st day of JANUARY, 1856.—By order,

EDMUND MINSON WAVELL, Town Clerk, and Clerk to the Halifax Local Board of Health.

Town Clerk's Office, Halifax, November 15th, 1855.

BOARD of TRADE DEPARTMENT of SCIENCE and ART.—INSTRUCTION in ART.—TRAINING SCHOOL, MARLBOROUGH HOUSE, PALL-MALL, LONDON.

Art-Superintendent—RICHARD REDGRAVE, Esq. R.A.

Head-Master R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufacture, and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects :—Free-hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still-life, &c, the Figure from the Antique and the life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE ; Evening, SEVEN to NINE, daily, except Saturdays. Fees 4l. per session, or part of the session. For Evening Classes only, 2l. per session.

The Class for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students, in Sloane-terrace, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian Fees per session,—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

WANTED to PURCHASE, in good condition, "THE BUILDER," the Volume only for 1853, either bound in cloth, or in separate numbers.—Apply (stating price) to Mr. CHADWELL, Bookseller, Peterborough.

COMPETITIONS.

DARLINGTON BURIAL BOARD.—The BURIAL BOARD for the Township of DARLINGTON, are prepared to receive DESIGNS, SPECIFICATIONS, and ESTIMATES, for ERECTING TWO CHAPELS, ENTRANCE LODGE, GATES, FENCING, and LAYING OUT the proposed NEW BURIAL GROUND (twelve acres in extent), the total amount not to exceed 2,200l. Premiums will be given for the two designs most approved of, viz.: 90l. for the first, and 11l. for the second, the plans, &c for which they are given to be the property of the Board. Competitors must state the amount of Architect's charges required, over and above the premium, for furnishing all working drawings necessary, and superintending the work, if the Board should require their services. The designs, estimates, &c. must be sent to me, at No. 8, Arden-street, Darlington (where a plan of the site may be seen), on or before the 24th DECEMBER.

By order, H. DUNN, Clerk to the Board.

Darlington, November 29, 1855.

TO ARCHITECTS.

THE FEOFFEES of the COMMON LANDS of ROTHERHAM, in the county of York, are desirous of receiving DESIGNS for a GRAMMAR-SCHOOL and RESIDENCE for the Master, to be erected in a close of land containing near an acre, adjoining the Moorgate road, near Rotherham, belonging to the feoffees. The school, which should not be under the same roof with the master's residence, must be sufficient to accommodate 150 boys. The cost of the school alone (exclusive of the site and of the master's residence), to be about 2,000l., and the cost of the master's residence to be about 600l. The design should be such as to allow of the school being built previously to the residence. Plans, each bearing some motto, accompanied by a sealed envelope, containing the name and address of the architect using such motto, to be sent to the undersigned, on or before the 21st day of JANUARY, 1856. The plans and envelopes of the unsuccessful competitors will be returned. The successful competitor will be required to superintend the erection of the building at the usual commission of 5l. per centum on the outlay. Should the master's residence not be built at the same time as the school, the successful competitor will receive the sum of 10l. in addition to the commission on the outlay upon the school, and 5l. will be given for the second best plan. A lithographed plan of the site, and all further information may be obtained on application to Mr THOMAS BADGER, Greave of the Feoffees, Rotherham.

December 10th, 1855. THOS. BADGER.

RUGBY TOWN-HALL COMPANY.—The Directors are prepared to receive DESIGNS and ESTIMATES for a TOWN-HALL and Public Building, at Rugby, and hereby offer a premium of 20l. for the best of Plans, Elevations, and specifications; and a further sum of 10l. for the second best. The selected designs to become the sole property of the directors; and the successful competitor will, if duly qualified to the entire satisfaction of the directors, be entrusted with the carrying out of the design at the usual commission, in which case the first-mentioned premium will merge in the commission. All the drawings to be on a scale of one-eighth of an inch to a foot. The drawings and estimates must be delivered at the Offices of Messrs. WRATISLAW and FULLER, Solicitors, Rugby, on or before TEN o'clock a.m. on the 31st day of JANUARY next, addressed to the Secretary, from whom a plan of the site, and a lithographed plan of the proposed site, can be obtained on payment of 2s. 6d. The designs not accepted will be returned, but beyond the above-mentioned premiums no allowance will be made to any other competitor.

Rugby, December 6, 1855.

CONTRACTS.

CONTRACT for GRAVEL.—The Committee of the REGENT'S CANAL COMPANY are desirous of receiving TENDERS, on or before the 24th of DECEMBER next, from parties willing to CONTRACT for the GRAVELLING of the CANAL, &c. for a Term of Three Years. The specification may be seen at the Company's Offices. Tender to be inclosed in a cover, sealed and marked, "Tender for Gravel," By order of the Committee,

EDM. L. SNEE, Secretary.

Regent's Canal Office, No. 20, City-road Basin, Nov. 28, 1855.

CONTRACT for DREDGING.—The Committee of the REGENT'S CANAL COMPANY are desirous of receiving TENDERS, on or before the 24th of DECEMBER next, from parties willing to CONTRACT for CLEANSING the CANAL, &c. for a Term of Three Years. The specification may be seen at the Company's Office. Tender to be inclosed in a cover, sealed and marked, "Tender for Dredging." By order of the Committee,

EDM. L. SNEE, Secretary.

Regent's Canal Office, No. 20, City-road Basin, Nov. 28, 1855.

METROPOLITAN COMMISSION of SEWERS.—To BUILDERS, CONTRACTORS, and OTHERS.—The Metropolitan Commissioners of Sewers hereby give Notice, that they will be ready at the Court House, No. 1 Greek-street, Soho-square, on TUESDAY, the 18th day of DECEMBER inst. at ONE o'clock p.m. precisely, to receive sealed TENDERS from parties who may be willing to CONTRACT for the LAYING DOWN, CONSTRUCTING, and COMPLETELY FINISHING a certain intended BRICK SEWER, 1,700 feet in length, or thereabouts, with other Works in connection therewith, in Park Village East, Regent's park, in the county of Middlesex, and the maintenance of such works in complete repair for twelve calendar months. Plans, sections, and a specification of the above works, together with the form of Tender, may be inspected and their particulars obtained, at the principal Office of the Commissioners, No. 1, Greek-street, Soho-square, between the hours of NINE a.m. and FOUR p.m. until the 17th day of DECEMBER inst. The Commissioners do not bind themselves to accept the lowest or any Tender; and the party whose Tender shall be accepted will be required to provide two sureties for the due performance of the works. No Tender will be received after the hour above mentioned.

E. H. WOOLRYCH, Secretary.

No. 1, Greek-street, Soho square
Dated this 11th day of December, 1855.

CONTRACTS.

NOTICE to BUILDERS.—The Commanding Royal Engineer of the London District hereby gives notice, that sealed TENDERS, addressed to the Director-General of Contracts, will be received at the War Department, Pall-Mall, on or before the 22nd DECEMBER, 1855, for the ERECTION of SOLDIERS' BARRACKS and CANTEEN, at the Wellington Barracks, St. James's-park. The specification and plans for the above service may be seen, and forms of Tender obtained, at the Royal Engineer's office, 11, Jame-street, Pimlico, between the hours of TEN and THREE o'clock, from the 12th to the 22nd DECEMBER. The plans, &c. for the Creation of a block of Soldiers' Barracks, can be seen at the Royal Engineer's Office, till the 22nd DECEMBER, instead of the 15th DECEMBER, as previously advertised. The War Department reserves to itself the right of rejecting the whole or any of the Tenders.

Royal Engineer's Office, London District, Dec 6, 1855.

NOTICE to BUILDERS.—Royal Engineers' Office, Portsmouth, November 8, 1855.—Notice is hereby given, that TENDERS will be received at the Ordnance Office, Pall-mall, London, from such persons as may be desirous of entering into a CONTRACT for the ERECTION of proposed HOSPITAL at Winchester Barracks, county of Hants. Plans and specification may be seen at the Royal Engineers' Office, Portsmouth, where also forms of Tender may be obtained every day (Sundays excepted) until DECEMBER 1, 1855. Tenders to be delivered on or before DECEMBER 3 1855. The War Department reserve to themselves the right to reject the whole or any of the TENDERS. No notice will be taken of any Tender unless made on the printed forms, to be obtained at the Royal Engineers' Office, Portsmouth.

NOTICE to EXCAVATORS and CONTRACTORS for EARTHWORKS, ORDNANCE WORKS. The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Office of the Director-General of Contracts, Pall-Mall, London, on or before TUESDAY, the 1st day of JANUARY, 1856, from persons desirous of CONTRACTING for EXCAVATING and REMOVING GROUND at DOVER CASTLE, to form a Site for the Erection at a future time of an Officers' Barrack; also for the Out-buildings, Terraces, Yards, and Roads of approach to the same. A plan, sections, and specification of the Excavations to be executed, may be seen by persons fully competent to undertake the work (none others need apply), and forms of Tender obtained at the Royal Engineer's Office, Dover Castle, between the hours of TEN and FOUR o'clock, from MONDAY, the 17th of DECEMBER, to MONDAY, the 31st of DECEMBER, 1855, Sundays and Christmas Day excepted. A person belonging to the Royal Engineer Department will attend each day, from Ten to Twelve o'clock, to point out the ground to be excavated. The party whose Tender may be accepted will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 1,000l. for the due performance of the Contract for the above work. Tenders to be addressed to the Director-General of Contracts, Pall-Mall, London, and endorsed "Tender for Excavations at Dover Castle." The War Department reserve to themselves the right of rejecting the whole or any of the Tenders.

Royal Engineer Office, Dover. December 8th, 1855.

WIGAN NEW WORKHOUSE. — To BUILDERS. — The Guardians of the Wigan Union hereby give Notice, that they are prepared to receive TENDERS, for the whole or any of the respective WORKS required to be performed in the ERECTION of a NEW WORKHOUSE. The drawings and specifications may be seen at the Guardians' Boardroom, in Wallgate, in Wigan, on and after MONDAY, the 17th inst. until MONDAY, the 7th of JANUARY next, where also printed lists of the quantities can be obtained, together with any further information that may be required. The Tenders are to be sealed and endorsed, "Workhouse Tenders," and delivered to me free of postage, at the said Board-room, on or before the 8th day of JANUARY next. It is to be understood that the Guardians do not pledge themselves to accept the lowest Tender. TRAVIS and MANGNALL, 3, Norfolk-street, Manchester, are the Architects, from whom all information may also be obtained.

WILL. ACKERLEY, Union Clerk, Wigan.

Wigan, December 6 1855.

BUILDING CONTRACT for FIVE HOUSES. Millwall, for E. WALTERS, Esq.—Drawings and specifications at the Offices of the Engineer, Mr. DAVID HOSKINS, Esq. Architect, 4, Garden-court, Temple, from the 14th to the 18th inst. on which day TENDERS are to be delivered by TWELVE o'clock. Lowest or any tender not necessarily accepted.

GLASGOW CORPORATION WATER-WORKS LOCH KATRINE AQUEDUCT.—CONTRACTORS WANTED for the Line BLAIRHILLACHAN CONTRACT, including tunnel, 2,625 yards in length, and other works. The plans, sections, and specification of the first contract for the execution of these works will be ready for inspection on and after 5th DECEMBER next, in the Town Hall, at the Cross of Glasgow entry by No. 12, Trongate-street, and also at the Inn, at Aberfoyle, near the west of the Contract. At these different places, as well as from the subscriber in Glasgow, all necessary information will be obtained. The works to form the subject of this contract will extend from the entrance to the valley of the Duchray Water, being a length of about eight miles and will include an immediate, and, say, next year's supply of from 4 to 5 millions gallons, and every other work connected with this portion of the aqueduct, together with the formation of about 25 miles of new road from the local of Loch Chon to the road leading from Inversnaid on Loch Lomond to Stronachlacher, on Loch Katrine. Further information may be obtained from Mr J. F. DAMANT, the Engineer, at his Offices, in John Dalton-street, Manchester; and from Mr. G. H. HILL, the Assistant Engineer, at Blairhuchlachan, on Loch Ard, near Aberfoyle, who will accompany contractors over the ground. TENDERS for the WORKS DESCRIPTION of the WORKS, sealed and marked "Tender for Blairhuchlachan Contract" will have to be delivered to the undersigned, Mr. BURNET, at his Office, Council Chambers, Glasgow, on or before 3rd JANUARY next.—By order of the Committee,

JOHN BURNET, Secretary

Glasgow, Nov. 22, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TYNEMOUTH CEMETERY.—The Burial Board for the Parish of Tynemouth hereby give notice that they are prepared to receive TENDERS from parties willing to contract for the execution of the following works:—

CONTRACT No. 1.—For preparing Materials, and Building about 1,734 Lineal Yards of Rubble Stone Wall, eight feet high, round the proposed Cemetery; also a Dwarf Wall, 400 yards in length, to receive Palisading.

CONTRACT No. 3.—For providing and fixing about Lineal Yards of Cast-iron Palisading, five feet six inches in height.

CONTRACT No. 4.—For Cutting and Levelling the Surface, providing Material and forming about 12,850 Square Yards of Grave, or Ash Paths within the Cemetery. Also, for Excavating and Laying about 4,200 Lineal Yards of Drain Pipes.

The plans may be examined at Lupton's, and copies of specification and form of Tender may be had, on payment of 1s. 6d. for each Contract; and any further information obtained, on application at the office of Mr. THOMAS PENNICK, Borough Surveyor, North Shields. North Shields Sealed Tenders to be delivered at the Town Clerk's Office, North Shields, before TWELVE o'clock on FRIDAY, the 21st day of DECEMBER, 1855, endorsed "Tender for Contract No. 2, 3 or 4," as the case may be. The Board are not bound to accept the lowest or any Tender.

THOMAS C. LEITCH, Town Clerk.

North Shields, Nov. 28, 1855.

SALISBURY CEMETERY.—To BUILDERS and CONTRACTORS.—The Burial Board for the parishes of St. Thomas, St. Edmund, and St. Martin, Salisbury, are desirous to receive TENDERS for the several WORKS required to be done in ERECTING a PORTER'S LODGE and ENTRANCE BUILDINGS, the BOUNDARY ENCLOSURES and TWO CHAPELS, and in LAYING OUT and FORMING the ROADS and FOOTPATHS of the new cemetery on the London road. The plans and specification of the works may be seen at the Rev. Mr HENRY E. COX, Architect, of No. 3, Adelaide-place, London bridge; or at the Office of the undersigned, any day between the hours of TEN a.m. and FOUR p.m. until the 8th JANUARY next. The Burial Board will not be subject to receive Tenders for the separate Tender, or for the whole works; but they do not bind themselves to accept the lowest or any Tender. A separate Tender for laying out and forming the roads and footpaths will be required. The Tenders are to be forwarded to me on or before the 8th day of JANUARY next, and marked on the outside "Tender for Salisbury Cemetery," and if for either of the trades, stating which. The contractor or contractors will be required to give such security as the Board may require for the due performance of the works, agreeably to the plans general conditions, and specifications, such security to be prepared at his or their expense.

G. SMITH, Clerk to the said Board.

Salisbury, December 10, 1855.

TO BUILDERS.

RUCKLAND RECTORY, LINCOLNSHIRE.—The design, specification of works, and conditions of CONTRACT for BUILDING an intended NEW RECTORY HOUSE and OFFICES at RUCKLAND, in the county and diocese of Lincoln, may be seen at our Offices in Louth, by builders desirous of submitting Tenders for the execution of the Works, from WEDNESDAY, the 12th, to THURSDAY, the 20th days of DECEMBER instant.—Tenders to be delivered to us on or before FRIDAY, the 21st day of DECEMBER.

MAUGHAN and FOWLER, Architects.

Louth, Dec. 4, 1855.

The contractor will have the privilege of making his own bricks for the works, on land immediately contiguous to the site.

THE NETHERLANDS LAND ENCLOSURE COMPANY CONTRACT for ENCLOSURE WORKS.—The Directors are prepared to receive TENDERS for the CONSTRUCTION of a POLDER BANK, situate at BATH ZEELAND. Plans and specifications may be seen on and after the 20th day of DECEMBER instant at the Contractor's Office, at Bath, and at the Engineer's Office, 24, Great George street, Westminster, where all necessary information may be obtained from Messrs. BIDDER and GEORGE ROBERT STEPHENSON. Tenders to be addressed, under seal, to the undersigned, at No. 2, Moorgate-street, London, on or before the 15th JANUARY, 1856. The Directors do not pledge themselves to accept the lowest or any Tender.

By order of the Board,

GEORGE FASSON, Secretary.

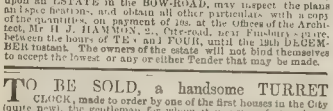
2, Moorgate street, London, December 11, 1855.

N B.—The plans for the canal are now completed, and when approved by Government, the contract will be offered to public Tender.

ROADS and SEWERS.—Contractors desirous of TENDERING for the ROADS and SEWERS upon an ESTATE at the BOW-ROAD, may inspect the plans and specifications, and obtain all other particulars with regard to the quantities, on payment of 10s. at the Offices of the Architect, Mr H. J. HAMMON, 2a, Otto-road, near Finsbury-square, between the hours of TEN and FOUR, until the 18th DECEMBER instant. The owners of the estate will not bind themselves to accept the lowest or any or either Tender that may be made.

TO BE SOLD, a handsome TURRET CLOCK, made to order by one of the first houses in the City (quite new), the gentleman for whom it was manufactured not having occasion to put it up. For particulars, apply to THOMAS EVANS, Land Agent and surveyor, 9, Brunswick street, Barnsbury-road, Islington.

IMPORTANT TO BUILDERS.



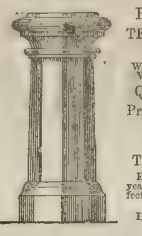
REGISTERED CAST-IRON CHIMNEY-HOPPER and CHIMNEY BAR COMBINED, ensuring a perfect form of the Flue, and rendering smoky chimneys impossible. Quiet at all times and safe in every building. Price from 8s. 6d. each according to size.

IRON SHOOLS and CHIMNEY MODEL DRAWING IRON PIPES and connections for gas, water, and liquid manure.

RAIN WATER PIPE and EAVE GUTTERING at wholesale prices. Also, iron letters, Sashweights, STABLE FITTINGS, pumps, trough, cattle and pig troughs, and COLUMNS with cap and base of every kind of timber section in stock, at LYNCH WHITE'S Iron Wharf, Upper Ground-street, London, near Blackfriars bridge.

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTCH'S PATENT WIND-GUARD.—The Guard allows free egress to the smoke, even in the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders, and of the Patentee at his office, 63, Fenchurch street, London.



H. DOULTON & CO.'S TERRA-COTTA CHIMNEY-TOPS

Will withstand the action of the Weather and Sea Breezes, and are QUITE IMPERISHABLE.

Prices not much higher than Cement.

DOULTON & CO.'S TERRA-COTTA POTS, &c.

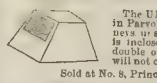
Erected in London upwards of 20 years since, are now as sharp and perfect as when first manufactured.

Drawings on application to

H. DOULTON & CO. High-street, Lambeth.

IMPROVED CONSTRUCTION, and SMOKY CHIMNEYS PREVENTED.

The Chimney Contractor, with Horizontal Register made of Iron, to be used for the formation at the commencement of Chimney. Made for Flues 9 inches by 9 inches, 14 inches by 9 inches, and 14 inches by 14 inches.



The UNIQUE CHIMNEY-POT (Multum in Parvo), a Remedy against Smoky Chimneys unsightly and dangerous Contrivances. Is inclosed at the top, has a division and double outlets, preserves the flue dry, and will not clog with the soot.

Sold at No. 8, Princes-street, Bedford-row.

NO CHIMNEY WANTED for RICKETS'S PATENT CALORIFERE GAS STOVES in CHURCHES, HALLS, or SHOPS;

And for Conservatories, or any close apartment, a pipe can be attached to carry away the burnt air.

RICKETS'S CHEAP GAS STOVE, Price, £1. 15s.

Made of Sheet Iron, suitable for Heating small Countinghouses, Bedrooms, Cellars, &c. &c.

MANUFACTORY,

AGAR-STREET, STRAND, LONDON.

Liberal Discount to Builders.

THE PATENT DRAUGHT and DUST EXCLUDER (BOURRELET'S COMPRESSIBLES) not apparent when fixed in the angles of doors, windows, and glass-cases, the cheapest and most efficient invention for the purpose.—At 41, HELBRONNERS, Sole Patentee, 205, Regent-street, near the Circus, Oxford-street. Depôt at BURGESS and KEY'S, 103, Newgate-street, City.

TO BUILDERS, CARPENTERS, UPHOLSTERERS, &c.

THE following are the PRESENT PRICES of PATENT SASH LINE:—

No. 3	4	5	6
4d.	5d.	6s. 3d.	7s. 6d. per gross.

At JOHN YOUNGS, Birmingham and Wolverhampton, Agent, Factor, and General Ironmonger, 18, Blandford-street, Manchester-square, running out of Baker-street, Portman-square. Every other article equally reasonable.

HART AND SON,

IRONMONGERS AND MANUFACTURERS,

53, 54, 55, & 57, WYCH-STREET, STRAND.

BELL-PULLS, BAR-HANDLES, HINGES, &c.

Illustrated Price-catalogues on receipt of four postage-stamps.

TO SAW-MILL PROPRIETORS, BUILDERS, CONTRACTORS, and OTHERS.—I. ROGERSON having been appointed the Sole Agent and Manufacturer of GRAVES'S PATENTED IMPROVED WOOD-PLANING MACHINES, begs to call the attention of Saw-mill Proprietors, Builders, and others to the following advantages obtained by the use of them:—1st. The entire saving of waste usually paid to strippers, combined with better finished work; 2nd. The saving of time and room consequent upon the goods being finished, and loaded away, if required, at one operation; 3rd. The facility with which the machine can be changed from one class of work to another, and the boards finished with either sawn or chipped edges, as may be required. The Patented improvements can be applied to most of the planing machines now in use.—CREEK IRON-WORKS, Bridge-street, Greenwich.

FOR SALE, a THREE-TON CRANE, nearly new. Also, a Pair of large Folding Gates, built of Teak wood, with all appendages, as now hung in the Royal Arsenal, Woolwich.—Apply to Mr. MURRAY, Contractor, Beresford-street, Woolwich.

CONTRACTORS' RAILS.—WANTED, 200 to 300 Tons of flat-bottomed CONTRACTORS' RAILS, weighing 35 to 40 lbs per yard. Cash payment.—Apply by letter, stating particulars, to Mr SWAN, 18, Great George-street, Westminster, London.—Dec 12 1855.

TO BUILDERS AND WHEELWRIGHTS.

WANTED, a good SPRING-CART, suitable for Builders' work. Send particulars to W. Sugar Loaf, Queen-street, Cheapside, City.

TO MANUFACTURERS.

SKINNERBURN IRON-WORKS, Newcastle-upon-Tyne, FOR SALE by PRIVATE CONTRACT. These works are situated on the west side of the Forth banks, and contiguous to the River Tyne and the Railways at Newcastle. They consist of a commodious Foundry, an excellent and powerful forge-hammer, with arrangement for making almost every description of forged work for steam-engines, iron ship-building purposes, and machinery generally, with steam-engines, cupolas, furnaces, stoves, cranes, pattern and smiths' shops, &c. requisite for carrying on an extensive business both in the foundry and forge department. In addition to the above, there are some spacious open yards and other buildings, consisting of a five-stalled stable, with coach-house and harness rooms adjoining, and two dwelling-rooms above, four convenient cottages, and a square of cottages, containing six rooms, counting-house, &c.; the whole of which, together with the works, is Freehold Property. The works are in full operation, and the term for which they have been leased is about expired. The property may be purchased with or without machinery.—For particulars, apply to Messrs. INGLEDEW and DAGGETT, Solicitors, Newcastle-upon-Tyne.

COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view and in use, for park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

COMPACT SAW-MILL.—TO BE DISPOSED OF, the MACHINERY and POSSESSION of a compact SAW-MILL, in Southwark. The machinery is quite new, and includes one deal frame circular saw-bench, 8 horse power, direct-acting engine and boiler, shafting, driving gear, &c. The premises are held at 35l. per annum. The machinery will be sold in one lot, for removal, if desired.—For further particulars, apply to Messrs. FULLER and HORSEY, Billiter-street, City.

IRONMONGERY.

PFEIL AND STEDALL.

THE LARGEST STOCK AT

THE LOWEST PRICE,

5 AND 6, BROAD-STREET, BLOOMSBURY.

LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

Manufacturers of Bar Iron, Railway Bars, Forge and Engine Work, Cast-iron Goods, and

STEWART'S PATENT CAST-IRON GAS and WATER PIPES.

Office, No. 7, Bise-lane, London.

IRON FOUNDRY, HARROW-STREET, LANT-STREET, SOUTHWARK.

W. R. BARTLETT, manufacturer of Girders, Columns, Cantilevers, Newel and Railing Bars, Panels, Iron Copings, Hot Plates, Tank Plates, Area Gratings, Sash Weights, Fly and other Wheels, Rockers, Pinions, Engine and Lathe Castings, Force Backs, Furnace Bars, Kilns, Pans, and other castings, to patterns or drawings.

212° MILNER'S HOLDFAST and FIRE-RESISTING SAFES (non conducting and vaporizing) with all the improvements, under their Quadruple patents of 1840-51-54 and 1855, including their Gunpowder Proof Solid Lock and Door (without which no safe is secure).

THE BEST, BEST, AND CHEAPEST SAFEGUARDS EXTANT.

MILNER'S PHŒNIX 212° SAFE WORKS, LIVERPOOL, the most complete and extensive in the world. Show-rooms, 6 and 8, Lord-street, Liverpool. London Depôt, 47A, Moorgate-street, City.—Circulars free by post.

LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 6d. each, shilling the foot.

R. S. NEWALL and CO.'s Patent Copper Rope Conductor is being used by architects, engineers, and scientific men in all parts of the world.

OFFICES.—Gateshead-on-Tyne.
139, Strand, London.
67, Hyde-park-street, Glasgow.
97, Dale-street, Manchester.

TO BELL-HANGERS, GAS-FITTERS, IRONMONGERS, &c. &c.—The Trade supplied on the best terms with House Bells, Zinc, Tube, and Copper Wire. Gas Pendants, Brackets, and Joints of all descriptions for fastening in Brass and Iron; Tin, Composition, Iron and Brass Tubing, Cornice-poles, Rings and Lacquered Case Tube for Picture Rods, Desk Rails, &c. &c.

Superior Rolled Brass for Engravers, Castings in Fine and Common Brass, Gun Metal, &c. at

RICHARD EVERED'S, Brass and Bell Foundry and Metal Warehouses, Nos. 10, 11, and 12, Charles-street, Lower-road, London.

JOHN WARNER and SONS, Patentees of IMPROVEMENTS in the MANUFACTURE of LARGE BELLS.

J. W. & SONS having of late years devoted much time and study to the long neglected art of Bell Casting, have recently invented and patented a new process connected therewith, by which they are enabled to manufacture Bells of any size, note, or weight, of superior tone, truer in form, and at less cost than had heretofore been accomplished.

Bells for Churches, Chapels, Colleges, Schools, Turret Clocks, &c. cast for any size, note, or weight, angly or in peals.

TUNED BY MACHINERY.

Stocked and wheeled ready for hanging. Old Bells recast or taken in exchange.

MUSICAL HAND-BELLS tuned to the Chromatic Scale, with improved Clappers, and pegged on a new system, which gives a superior tone and facility for ringing.

ZINC ROOFING, INCLUDING TIMBER OR IRON FRAMEWORK,

IS AS

CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

Certificates, and Models of various descriptions, may be seen, and estimates obtained on application to

THE SURVEYOR OF THE VIEILLE MONTAGNE ZINC MINING COMPANY, 12, MANCHESTER BUILDINGS, WESTMINSTER.

ROOFS CONSTRUCTED UNDER HIS SUPERINTENDENCE GUARANTEED TO REQUIRE NO REPAIRS FOR AT LEAST TEN YEARS.

THE OLD METAL BEING ALWAYS RETAKEN AT HALF-PRICE, RENDERS IT ADVANTAGEOUS FOR ALL TEMPORARY BUILDINGS.

Many roofs covered with zinc thirty-five years ago have never required repairs.

STEVENS AND SON,

ENGINEERS,

IRON AND BRASS FOUNDERS AND MANUFACTURERS;

CONTRACTORS

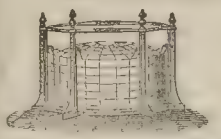
FOR THE

ERECTION OR ALTERATION OF GAS-WORKS FROM TWENTY LIGHTS UPWARDS,

With Buildings, Mains, Meters, Service Pipes, Lamp Posts, Lamps, and Gasfittings

WATERWORKS FOR THE SUPPLY OF TOWNS,

WITH BUILDINGS, STEAM-ENGINES, PUMPS, MAINS, SERVICES, &c.



Gas Stoves for Heating Churches, Chapels, Lecture Halls, and Public Buildings of all kinds; these have been recently fixed at New College, Oxford; St. George's Catholic Cathedral, Southwark; and numerous Churches, Chapels, &c.

Gas Cooking Stoves and Ranges on the most improved principles.

GAS-FITTING IN ALL ITS BRANCHES.

GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

DEVICES FOR GAS ILLUMINATION.

IMPROVED REGISTERING TURNSTILES FOR TOLL-BRIDGES, EXHIBITIONS, PUBLIC GARDENS, BATHS AND WASHHOUSES, &c.

These Turnstiles have been selected for the Entrances of the Great Exhibition, New York

PATENTEES OF THE SEMAPHORE RAILWAY SIGNAL.

Signals for communication between Guard and Engine Driver. Railway Stores and Lamps of every description.

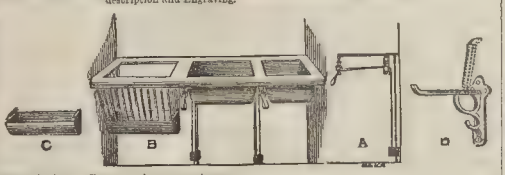
DARLINGTON WORKS, 16 to 19, SOUTHWARK-BRIDGE ROAD, LONDON.

NEW PATENT INVENTIONS FOR STABLE REQUISITES.

PARIS EXHIBITION AWARD TO

COTTAM and HALLEN, of Winsley-street,

The original Inventors of the PATENT ENAMELLED MANGER, RACK, and WATER-TROUGH AS ONE FIXTURE, and to which they have made important additions, the most features of the same being explained in the following description and Engraving.



A represents the Patent Halter-guide and Collar-iron, the ball of which is taken to the back of the manger-works with freedom and rise up or down the guide-bar, and is noiseless in its operation as also a sure preventative against the most vexatious horse being cast in the stall.

B. The Patent Portable Seed-box can be taken and detached from the rack section at disturbing the hay. The easing of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

C. The Seed-box detached made of galvanized sheet-iron, light and durable.

D. The Patent Saddle and Harness Bin for combined, can be used with great advantage in harness-rooms, where space is an object, as the long portion of the bracket can be turned up out of the way when not in use.

COTTAM'S MANGERS are constructed in the best possible manner, both as to form and utility; are cleanly in appearance, durable, and impervious to infection. Manufactured plain, galvanized and enamelled.

IMPROVED SURFACE-DRAIN, with safety cover; Sanitary Traps, Stable Pumps, Loose Box Fittings, Gutta-percha Preserving Saddle and Harness Brackets, and every Article in Stable Furniture in stock.

An extensive Assortment of Patterns for both Plain and Ornamental Castings, and every description of Wrought and Cast-iron Work for building and other purposes.

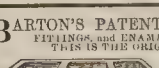
Agricultural and Horticultural Implements, Iron Gates, both plain and ornamental; Hurdles, Strain Fencing, &c.

The New Illustrated Catalogue for 1855 gratis on application. Estimates and Designs.

COTTAM AND HALLEN, 2, WINSLEY-STREET, OXFORD-STREET.

BARTON'S PATENT SAFETY STABLE FITTINGS, and ENAMELLED MANGERS.

THIS IS THE ORIGINAL PATENT



for important improvements in stable-fittings, hay-box, manger, and water-trough, as one fixture, including a method surmounting all others for conveying the straps and halter-weights to the back of the fittings, to prevent the horse being cast in the stall. Stable Fittings of every description, plain, enamelled, or galvanized. Also the newly invented Loose Box Fittings, Surface Gutters with movable cover-plates, Stable Posts, Ramps, Sills, and all kinds of Stable Furniture in Stock.

JAMES BARTON, IRON FOUNDER, &c. 370, OXFORD-STREET, London.

MANUFACTURER OF KYLE'S PATENT VENTILATING and SMOKE-CURING CHIMNEY CAPS, part used by her Most Gracious Majesty—200 on Buckingham Palace. In use also on St. James's Palace, Windsor Castle, Government Offices, &c. Wrought iron, 25s.; zinc, 20s.; cast iron, 35s. each; the latter as durable as the building itself.

Drawings and Prices lists forwarded on receipt of two postage stamps.

Address, BARTON'S Iron Works, 370, Oxford-street, London.

THOMAS EDINGTON,

PURCHASER and INSPECTOR OF

CASTINGS on COMMISSION,

17, GORDON-STREET, Glasgow.

TO MANUFACTURING CHEMISTS, PLUMBERS, BUILDERS, &c.

ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

Sole Manufacturers of Delbruck's Patent Autogenous Soldering Apparatus, invite the attention of Manufacturing Chemists to their Patent method of

UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimensions, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

WARMING LARGE BUILDINGS.—

CUTLER and SONS respectfully state that they are prepared to Contract for the Erection of their Improved Powerful Apparatus for effectually and economically Warming Churches &c which they undertake in every instance to guarantee. It may be seen in constant use at their Premises, 16, Great Queen-street, Longacre, London.

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BACHHOFFNER and DEPRIES'S PATENT.—The public is respectfully informed that arrangements have now been made for the supply of this simple and beautiful mode of warming private houses, shops, public buildings, &c. Smoke, dust, ashes and accidents from fire are effectually prevented by its use, while it presents all the comfort and appearance of an open coal fire securing, at the same time, perfect ventilation.—To be seen in action at DEPRIES'S Office, 14, Regent-street, London.

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JOHN WEEKS and CO. King's-road,

Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with one boiler can be seen daily in full operation, heating buildings measuring 1 mile 1 foot in length, at the small expense per day in fuel and labour of 4s. 6d. This achievement in heating by hot water is unprecedented.

BUILDINGS HEATED by HOT WATER.

G. B. COOPER, IRONWORKS, 11, DRURY-LANE.

Ranges, Hot Plates, Gas Cooking Apparatus, Baths, &c. Ornamental and Constructive Ironwork.

ECONOMIC COOKING-STOVE.—

DEANE, DRAY, and CO. recommend with confidence their IMPROVED COOKING-STOVE to the notice of Republic. It is cheap in first cost, simple in construction, easy of management, capable of doing a large amount of work with a comparatively small consumption of fuel, and is manufactured in sizes suitable for large or small families. In operation daily in the stove and fender department of Deane, Dray, and Co's establishment, where may also be obtained engravings with prices, or forwarded freely post. DEANE DRAY, and CO opening to the Monument, London-bridge. Established A.D. 1700.

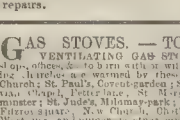
CUNDY'S PATENT PURE WARM-AIR

STOVES, the only Pedestal Stove which gained a Prize Medal (class 478), at the Great Exhibition in 1851, especially adapted for warming, with great economy, Churches, Chapels, Schools, Entrance halls, Libraries, and Warerooms. CUNDY and SONS, Sole Licensees and Manufacturers, 16, Great Queen-street, Long-acre, London.

GAS STOVES. — TOZER'S PATENT

VENTILATING GAS STOVES, for churches, halls, shops, offices, &c. to burn with or without chimney. The following churches are warmed by these stoves:—St. Pancras Old Church; St. Paul's, Covent-garden; St. Mark's, Hornsey; Moravian Chapel, Fetter-lane; St. Mary's, Bourne-terrace, Westminster; St. Jude's, Molemay-park; St. John's, Charlotte-street, Fitzroy-square; New Church, Chatham; and Christ Church, Westminster, and numerous other public buildings. All Stoves, from 5s. each. A prospectus, with drawings, will be forwarded on receipt of a postage stamp, by THOMAS TOZER, Manufacturer, 55, Dean-street, Soho.

IMPERIAL IRON FOUNDRY, and ECONOMIC RANGE MANUFACTORY.



Three-feet Range	£6 11
Three-feet Oven	7 0
Three-feet Kitchener	7 15
Three-feet Register	9 6
Four-feet	10 10
Four-feet Kitchener	12 12
Five-feet	14 14

Oven Boiler, Hot Plate, Bronze & Steel Fenders, &c. &c.

This valuable KITCHEN RANGE, the Manufacturer has found, after long experience in Gas Cooking Apparatus for years, and given the utmost satisfaction. It may be used either with the fire open or closed, thereby avoiding the objection that the Register Grate is the first fall thrown out when the kitchen is required to be used free from unwholesome vapour.

The Prize Medal and Honourable Mention awarded to the Range at the Great Exhibition.

To be seen in operation at 60, Margaret-street, Cavendish-square.

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Cash, and two per cent. discount for Ready Money.

CANNON IRON FOUNDRY, 80, Goswell-

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BARKER'S OVEN WORK, Force Pumps and Troughs, Rain Water Pipes and Gutters, Sash Weights, Furnace Bars, Stoves, Ranges, &c. always in stock.

FOUNDRY AND IRON WORKS,

68, DRURY-LANE, and 1, CHARLES-STREET, DRURY-LANE.

GLOVER, BROS.,

solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either Structural or Ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Chairs, Park Gates, Lamp and Newel Posts, Tombs, Pipes, Wheels, Pinions, Lattices, and Screw Cramps, Flange and Hoop-plate Metal. An improved Hook Bolt, adapted for internal uses.

A large Stock of Rain-water Pipes, Plain and Ogee Gutters, Air-bricks, Grates, Weights, Sash Weights, Sweet Gratings, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 30 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Verandahs, Staircases, Cast-iron Girders, Fire-proof Doors, Book-safe and Strong Rooms, Tanks and Boilers, and every description of Ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,

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NEW PATENT MACHINE for MORTISING and TENONING HARD or SOFT WOOD and BORING WOOD or IRON.

House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to look at the Patentees', POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongers' Establishment, 58, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

P.S. Steam Engines and Machinery contracted for.

TO IRONMONGERS AND THE TRADE GENERALLY.

D. HULETT and CO. Manufacturers of

GAS CHANDELIERS, HALL LANTERNS, GLASS LUSTRES, &c. &c. A large assortment of the newest designs always on show, every article marked in plain figures. Patentees and manufacturers of the Mercurial Gas Regulator. Complete pattern-book and price list, 10s.—35 and 5% High Holborn.

BRAMAH LOCKS, FIREPROOF IRON SAFES, WATER-CLOSETS, and PUMPS.—BRAMAH

and CO. have the pleasure to state that a two-inch Silver Medal has been awarded to them by the Jurors of the Paris Universal Exhibition. Manufactory and Warerooms, 124, Piccadilly, London. Every article made by BRAMAH and CO. bears their address—124, Piccadilly.

A PRIZE MEDAL for SUPERIOR LOCKS

was awarded to J. H. BOOBBYER at the Great Exhibition of 1851, who invites the attention of Builders, &c. to his Stock of Ironmongery, Brass Founding, Nails wrought and cut, Copper and Zinc, Patent Locks of all descriptions; China, Glass, and Wood Furnishers of all kinds, with Patent Shifting Spindles; Dr. Arnott's Ventilator, &c.; and the new registered Venetian Ventilator, much admired, &c. &c. &c. &c.

J. H. B. BOOBBYER (late STURGE) and BOOBBYER, established nearly 50 years, for the supply of Goods from the best Manufactories, at the lowest prices.

14, Stanhope-street, Clare-market, London.

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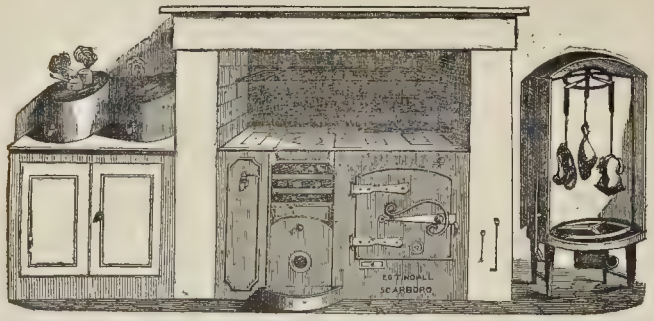
GENERAL MERCHANTS, AND MANUFACTURERS OF

TABLE CUTLERY, PEN and POCKET KNIVES, SCISSORS, RAZORS, ELECTRO-PLATED WARES, FILES, SAWS, EDGE and JOINERS' TOOLS, AUGURS, STEEL, &c. &c.

TELEGRAPH WORKS, SHEFFIELD.

OFFICES—{NEW YORK 71, JOHN-STREET. BOSTON 25, KILBY-STRLET, U.S. MELBOURNE—94, COLLINS-STREET EAST.

CORPORATE MARK—XLALL.— Granted by the Cutlers' Company, 1789.



Messrs. PARKIN and MARSHALL have also pleasure in stating that they are appointed Sole Wholesale Agents for the Sale of the undernamed Articles, manufactured by Mr. ENOCH OLDFIELD TINDALL, Iron Works, Scarborough, viz:—TINDALL'S PATENT PORTABLE MANGLES, WASHING and WRINGING MACHINES, NAPKIN PRESSES, COOKING RANGES, LAUNDRY STOVES, SANATORY TRAP AND GRATE CHAFF CUTTERS, OAT, BARLEY, MALT, AND LINSEED MILLS, BEAN MILLS, OILCAKE BREAKERS, PORTABLE SAW-MILLS, TURNIP CUTTERS, &c.

THE PATENT COOKING RANGES AND ROASTERS are now amongst the most complete and inexpensive before the Public, and are rapidly superseding the old-fashioned Ranges of our country.

THE IMPROVED LAUNDRY STOVE will heat Fifteen Flats at once, occupies only 12 inches in space, is removeable from one room to another and will be found invaluable in Public Hospitals, Infirmaries, Laundries, and Private Families.

SEATON'S SANATORY GRATE AND TRAP is now acknowledged to be the best and most secure from effluvia (as well as not being liable to choke, and easy to clean) that has been introduced.

THE MANGLES AND WRINGING MACHINES have been introduced into the Royal Household, most of the Public Laundries, and also into many thousand Private Families, who bear testimony to their efficiency and superiority over all others.

THE OAT, BRUISERS AND CHAFF CUTTERS, like the above, combine cheapness with the greatest simplicity of construction, and only need to be tried to be appreciated. They effect great saving and should be in every stable.

Drawings of Mangles, &c. with Testimonials can be had on application at Telegraph Works, Sheffield, or of the Retail Agents, who are appointed in almost every principal Town in the United Kingdom.

ESTABLISHED 1817.

WILLIAM HARMER'S Smiths' Works,

Stove and Range Manufactory, and Ironmongery, Metal, and Zinc Warehouse, 10, Horseferry-road, and 1, New Peter-street, Westminster.—Contractors, Builders, &c. supplied with General Ironmongery at the lowest wholesale prices.

Cottage Ranges, with oven or boiler, complete, 22s. each.
Self-acting ditto, with ditto, from 25s.
Self-acting Oven and Boiler Ranges, with wrought fittings, &c.
complete, from 15s. each.

Register Stoves, from 5d. per inch.
Elliptic ditto, with double backs, from 2½d. per inch.

	2	2½	3 inch.
Cast-Iron Rain-pipe	11d.	1s. 2d.	1s. 4d. per yard.

4-inch Eaves Gutters, 9d. per yard.

	3½	4	4½	5 inch.
O G Gutters	1s.	1s. 1d.	1s. 3d.	1s. 6d. per yard.
Best Cut Clasp	1½	2	2½	3 inch and larger.
and Rose	16s. 6d.	18s. 6d.	15s.	14s. 6d.

1-inch Best Cut Lath, 16s. per cwt.
Sheet Floor Brads, 14s. per cwt.
Hop Floor Brads, 18s. 6d. per cwt.

Sash Weights, 7s. 6d. per cwt.; 9-inch Air Bricks, 3s. 6d. per doz.; 6-inch Sink Traps, 9s. per doz.; strong Coal Plates, with hooks, 20s. per doz. Sheet Zinc, Perforated Zinc and Tubing. Estimates given for Iron Railing, Gates, Balconies, and Ironwork of every description.

SAWING, PLANING, and MOULDING

MACHINERY. SAMUEL WORSSAM and COMPANY give notice that they have lately greatly enlarged and improved their Premises in the Kingsroad, Chelsea, and added to their very extensive and first class Steam Machinery and Tools for making all kinds of Machines for Sawing, Planing, Grooving, and Moulding Wood. They have constantly on hand Machinery either wholly or partly made, so that they can at all times on short notice supply them. S. W. and Co. beg to state that they confine their attention to this sort of machinery, and have had the honour lately of supplying some of the most distinguished companies and contractors in the world with their Machines for home and foreign use.

FENDERS, STOVES, and FIRE-IRONS.

Buyers of the above are requested, before finally deciding, to visit WILLIAM S. BURTON'S SHOW-ROOMS. They contain such an assortment of FENDERS, STOVES, RANGES, FIRE-IRONS, and GENERAL IRONMONGERY, as cannot be approached elsewhere, either for variety, novelty, beauty of design, or exquisitely of workmanship. Bright Stoves, with bronzed ornaments and two sets of bars, 2l. 14s. to 5l. 10s.; ditto, with ormolu ornaments and two sets of bars, 5l. 10s. to 12l. 12s.; bronzed fenders, complete, with standards, from 7s. to 3l.; steel fenders, from 2l. 15s. to 8l.; ditto, with rich ormolu ornaments, from 3l. 13s. to 7l. 7s.; fire-irons, from 1s. 9d. the set to 4l. 4s. Sylvester and all other patent stoves, with radiating hearth plates. All which he is enabled to sell at these very reduced charges.

Firstly—From the frequency and extent of his purchases; and Secondly—From those purchases being made exclusively for cash.

GAS CHANDELIERS and BRACKETS.

The increased and increasing use of gas in private houses has induced WILLIAM S. BURTON to collect from the various manufactures, in Metal and Glass, all that is new and choice in Brackets, Pendants, and Chandeliers, adapted to offices, passages, and dwelling-rooms, as well as to have one designed expressly for him; these are ON SHOW over his SEVEN LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his ironmongery establishment the largest and most remarkable in the kingdom, viz. from 12s. 6d. two-light to 16l. 16s.

THE BEST SHOW of IRON BEDSTEADS

in the KINGDOM is WILLIAM S. BURTON'S. He has FOUR LARGE ROOMS devoted to the EXCLUSIVE SHOW of Iron and Brass Bedsteads and Children's Cots, with appropriate Bedding and Mattresses. Common Iron Bedsteads, from 16s.; Portable Folding Bedsteads, from 12s.; Patent Iron Bedsteads, fitted with dovetail joints and patent sacking, from 17s. 6d.; and Cots, from 20s. each. Handsome ornamental Iron and Brass Bedsteads, in great variety, from 2l. 7s. 6d. to 15l. 15s.

The alterations and additions to these very extensive premises (already far the largest in Europe), which have occupied the whole year, are now nearly completed; they are of such a character that the entire FIGHT HOUSES is now devoted to the display of the most magnificent Stock of GENERAL HOUSE IRONMONGERY (including Cutlery, Nickel Silver, Plated and Japanned Wares, Iron and Brass Bedsteads and Bedding), arranged in Sixteen Large Show-rooms, so as to afford to parties furnishing facilities in the selection of goods that cannot be hoped for elsewhere.

Catalogues, with engravings, sent free by post.

39, OXFORD-STREET; 1, 1a, 2, and 3, NEWMAN-STREET; and 4, 5, and 6, PERRY'S-PLACE. Established A.D. 1820.

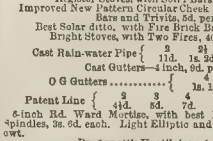
TO STONEMASONS, BUILDERS, RAILROAD CONTRACTORS, AND OTHERS.

RICH. RICHARDS and SON, 95, New

Park-street, Southwark, London, Manufacturers of TRAVELLING CRANES and JENNIES, to span from 5 to 70 feet, on the latest and best principle, warranted to lift from 5 to 30 tons, or upwards. Grab A Cranes, double and single purchase; stone saws, hammered and of the best quality, suitable for Portland stone or marble, made to any length; also saws for Caen and Bath stone. Blocks of all sizes, in sets of one, two, and three sheaves, or single. Chain, suitable for the blocks, for hoisting any weight, made of the best iron, and tested by patent machinery. Lifting or screw-jacks of all kinds, double and single purchase traversing cranes for railways, and cranes and hoisting-tackle of every description to order or by estimate.

CLARK and HUNT'S IRONMONGERY,

STOVE, and METAL WAREHOUSE, 159, Shoreditch. A great variety of Elliptic, Register, and other Stoves, Cottage and Seat Ranges fitted, always in Stock.



Improved Self-acting Cottage Ranges, with Large Oven and Boiler, 20 22 24 26-inch. 22s. 30s. 32s. 34s. Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34	36	38	42-inch
54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 3½d.

Register Stoves, with Solid Bars, per inch, 5d.
Improved New Pattern Circular Cheek Register, with strong Bars and Trivets, 5d. per inch.
Best Solar ditto, with Fire Brick Back, per inch, 10d.
Bright Stoves, with Two Fires, 40s. to 100s. each.

	2	2½	3 inch.
Cast Rain-water Pipe	11d.	1s. 2d.	1s. 4d. per yard.

Cast Gutters—4 inch, 9d. per yard.

	4	4½ inch.
O G Gutters	1s. 1d.	1s. 3d. per yard.

Patent Line	2	3	4	5	6
	4½d.	6d.	7d.	9d.	1s. per knot.

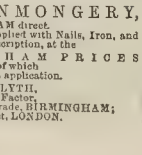
6-inch Rd. Ward Mortise, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

Dr. Arnott's Ventilators, 4s. 6d. each.
An extensive stock of bar, rod, hoop, and sheet iron.
Brick Moulds kept in stock. Any size made to order.

TO BUILDERS, CARPENTERS, CABINET-MAKERS, &c.

JOHN DALE, 18 and 19, Chiswell-street,

Finsbury-square, respectfully invites the above Trade to the inspection of his immense stock of ironmongery, which cannot be surpassed in variety, quality, and cheapness by any house in London.



Elliptic Stoves, double backs, 3d. per inch, and upwards.
Register Stoves, 5½d. 6½d. 7d. 8d. and 9d. per inch.
Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—
3 ft., 2l. 18s.; 3 ft. 6 in., 3l. 5s.; 4 ft., 3l. 18s.
3-feet Cottage Ranges, with ovens and back boilers, 35s. each.
3-feet self-acting ditto, ditto, 36s. each.
Air Bricks, 4s. per doz. Best Town Glue, 56s. Ditto, Scotch, 66s. per cwt.
Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	9s. 6d.	12s. per gross.

And every material required in the building, bell-hanging, upholstery, and brass-foundry trades on the most reasonable terms.
List of Prices had on application at the Warehouse, or by letter prepaid.

NAILS and IRONMONGERY,

from BIRMINGHAM direct.
Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the
LOWEST BIRMINGHAM PRICES
a complete LIST of which will be forwarded upon application.
FREDERICK BLYTH,
Nail Manufacturer and General Factor,
Regent-parade, BIRMINGHAM;
or at 16, Gresham-street, LONDON.

TO IRONMONGERS, BUILDERS, &c.

PATENT WROUGHT-IRON WELDED

TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

PATENT CORRUGATED IRON.

JOHN WALKER,

MANUFACTURER OF ROOFS, BUILDINGS, &c. &c.
Works—Mill-wall, Poplar.
Offices—Arthur-street West, London-bridge.

PATENT GALVANIZED IRON.

JOHN WALKER,

GALVANIZED IRON MERCHANT, &c.—The trade supplied Corrugating by steam power capable of doing 100 tons per day, at the lowest remunerative prices, for bulk.

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Orders to any extent can be executed at his Works, Mill-wall, Poplar.—Apply at the Works.

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Having his own Saw-mills, is enabled to CONTRACT BUILDERS' WORK,
At low prices, consistent with good work.
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TO ARCHITECTS, BUILDERS, AND THE TRADE.

PATENT PLUMBIC ZINC.

GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No.			
11	gauge weighs about	18 oz.	per foot super.
12	" "	20	"
13	" "	23	"
14	" "	26	"

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ENGINEER AND CONTRACTOR,
IRON BUILDING AND ROOFING WORKS,
GAS-STREET, BIRMINGHAM.
LONDON OFFICE—1, RICHES-COURT, LIME-STREET.

SAMUEL HEMMING'S PATENT much

approved PORTABLE BUILDING and ROOFING MANUFACTORY, REMOVED from BRISTOL to BOW, near London, close to the Bow Railway Station.—A large variety of buildings always on view, churches, chapels, shooting boxes, lodges, bazaars, ornamental villas, dwelling-houses, farm buildings, and fire-proof stores. Also, railway stations, trucks, and carriages made to any plan on the shortest notice.

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Commercial-road, Limehouse, London.
Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where Iron not liable to rust is required.
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Sheets plain and corrugated.—Roofs fixed complete.
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An Allowance to the Trade.

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WORKS—GLASS-HOUSE YARD, opposite the Entrance to the London Docks.
GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.
ESTIMATES given for IRON ROOFS, Corrugated Sheds, Houses, &c.
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PLAIN or CORRUGATED, and Curved, of all Gauges
Manufactured articles always kept in stock, such as pails, scoops bowls, riddles, skips, &c. of all sizes.
Also the Patent Galvanized Tinned Iron Tiles, Gas and Water Tubing, Steamed and Moulded Gutters, Wire, Wire Netting, Hooping, Nails, Rivets, &c.
Estimates given for Roofs, and every description of Galvanized Building, at the
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TUPPER and CARR, Contractors and

Manufacturers of all sorts of
IRON ROOFING.
PLAIN, CORRUGATED, PAINTED, or GALVANIZED.
Estimates and Drawings furnished on application.
Experienced Workmen sent to all parts of the Country.
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PATENT GALVANIZED IRON,
For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.
To be obtained only at
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Sheets, Bars, Rods, Hoops, Nails, Rivets, Screws, Wire, and Manufactured Articles, Pails, Coal-scoops, Buckets, Pumps, &c. always in Stock.
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1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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JAMES HARTLEY AND CO. SUNDERLAND; AND PURFLEET WHARF, EARL-STREET, BLACKFRIARS, LONDON.

Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

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January 1, 1855.

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Architects and the Trade are respectfully invited to inspect specimens of the

PATENT VITREOUS MARBLES AND CONSOLIDATED GLASS,

Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

Show-rooms, 40, Broad-street-buildings, City; 4, Russell-place, Fitzroy-square; 112, New-street, Birmingham, &c. &c.

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Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality; Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at

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1st. It is a non-conductor.—2nd. It is portable, being packed in rolls, and not unable to damage in carriage.—3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 42 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor INODOROUS FELT, for damp walls and for damp floors, under carpets and door cloths. Price ONE PENNY per Square Foot.

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DRY HAIR FELT, for Covering Steam Boilers, Pipes, &c., preventing the radiation of Heat, saving 25 per cent. of Fuel, and deadening Sound

Samples, testimonials, and full instructions, on application to CROGGON and CO. 2, DOWGATE-HILL, LONDON.

CHEAP AND DURABLE ROOFING.

By Her Majesty's Royal Letters Patent.

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THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronized by

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ROYAL BOTANICAL GARDENS, REGENT'S PARK,

And by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing; also used for under slates at the Royal Agricultural Society's House, in Hanover square. Its advantages are lightness, warmth, durability, and economy. It is impervious to rain, snow, and frost, and a non-conductor of heat and sound. The Felt can be cut to any length, by 39 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its uses and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen, and Gentlemen who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Boilers, &c. is also manufactured, by which a saving of about 25 per cent in fuel is effected. The TRADE are respectfully enjoined to APPLY DIRECT to this the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their roofs. They are likewise CAUTIONED AGAINST MISREPRESENTATION as THE ONLY WORKS in Great Britain where the above roofing is made are F. McNEILL and Co's Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW. Roofs covered with the Felt to be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the New Houses of Parliament.—A Liberal Discount allowed to the Trade.

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STUFFS for HANGINGS, in simple Worsted Damask, in Silk; also in Tapestry of Bauderkin.
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PAPER-HANGINGS of various kinds.
OAK CABINETS, Buffets, Octagon Library and Occasional Tables, Benches, Chairs, and other useful and appropriate Furniture
The whole of the above-mentioned Furniture, &c. is designed by the late Mr. A. W. PUGIN, Architect.
To render this Furniture generally available, a considerable portion has been arranged in the simplest manner, consistent with its ancient character.

14, Wigmore-street, January, 1853.

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THE UNION PLATE-GLASS COMPANY having recently completed very considerable improvements and additions to their works, take the opportunity of informing their friends that they will now be able to supply orders without delay; and respectfully invite the attention of the trade generally to the low rates at which their now much-esteemed manufacture is sold.

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Messrs. C. and J. Mallock, 30, Turner's-court, Glasgow.
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ROUGH PLATE-GLASS from ¼ to ¾ in. thick, suitable for the warehouses and roofs of mills, mechanics' shops, market halls, railway stations, &c.

Beautiful and highly finished POLISHED PLATE-GLASS, for shop fronts and all superior glazing purposes, and for silvering.

Superior silvered Plate-glass Mirrors of all sizes.

FOREIGN and English Sheet, Crown, Plate, Patent Plate, Patent Rolled, and Cast Glass of all sorts. Sheet lead, Pipe, White lead, Lead, Iron and Brass Pumps, Water closet Cocks and Plumbers' Brasswork, Paints, Colours, Oil, and Turpentines of the first quality, at wholesale prices. Lists on application at HIGGS and MILLINGTON'S Warehouse, 37, Bishopsgate-street, London. Established more than 100 years.

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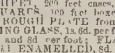
By Royal  Letters Patent

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WINDOW-BLINDS.—J. FULLER, Manufacturer, 93, Charlotte-street, Blackfriars-road. Established, 1850.—Venetian Blinds, from 8s. each, or 8d. per foot; Wire ditto, 7s. each, or 1s 9d. per foot; Hand ditto, from 5s. each, or 5d. per foot. Every other description of Blind equally low, warranted of the best manufacture. Discount to Builders and the Trade. Fixed complete.

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N.B. All communications and orders punctually attended to, and repaired at the Manufactory, JAMES LYNE HANCOCK, Goswell-road, Gowell-road, London.

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N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.

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AMERICAN VULCANISED INDIA-RUBBER, for Engineering Mechanical and Manufacturing Purposes, Steam Packing, Valves, Pump and Piston Washers for Hot and Cold Water Joints; Machine Belting or Driving Bands; Steam, Fire, Garden, Brewers' Suction, and Garden Hose; Draw and Gas Tubing, Printing Blankets for Steam and Hand Presses. Sole Manufacturers of India Rubber Combs.

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PAPIER MACHE, COMPOSITION, CARTON PIERRE, AND CEMENT WORKS.

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Beg respectfully to inform Architects, Builders, and Decorators, that they are prepared to execute in the above materials all internal or external decorations, at exceedingly moderate prices. They select them in the purest PARISIAN MATERIALS of the highest class, and in every style of ornament, as suitable for the above purposes, comprising Ceiling Panels, and Pilaster Decorations; enriched Mouldings, Bosses, Trusses, and Consoles; Trusses, Friezes, and every other requisite for the decoration of the interior or exterior of all classes of Public or Private Buildings; also to their stock of Glass Frames, Looking Glass Plates, Cornices, Cut Cornices, Window Cornices, Curtain and Bed Furniture Articles of DECORATIVE FURNITURE for GILDING, of which they have an extensive assortment executed in the highest style. They also invite attention to their Designs for DECORATIVE SHOW-CASES, and other ornamental Shop Fittings.

GILDING FLOWERS, a great variety ready for immediate use, always on hand, at prices lower than any hitherto offered.

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Early in January will appear

THE THIRD VOLUME OF MODERN PAINTERS.

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WITH ILLUSTRATIONS ON STEEL, FROM DRAWINGS BY THE AUTHOR.

*** The FOURTH Volume will be published in February, and the FIFTH and CONCLUDING Volume in the course of the year.

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LLOYD'S WEEKLY LONDON NEWS,

Edited by DOUGLAS JERROLD.

AVERAGE WEEKLY CIRCULATION, TWO MILLIONS OF COPIES—A GREAT FACT FOR ADVERTISERS)

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MONEY on LOAN, at 3½ per Cent. per Annum.—ARNEWAY'S CHARITY.—NOTICE IS HEREBY GIVEN, that the Trustees of the said Charity are enabled to lend out the Trust Money to poor couples or traders resident within the City and Liberty of Westminster, that is to say, within the parishes of St. Margaret and St. John the Evangelist, St. Mary, Savoy, St. Clement Danes, St. Giles-in-the-Fields, Upper parish of St. James, St. Martin-in-the-Fields, St. Mary-le-strand, and St. Paul, Covent-garden. The amount of any Loan is not to exceed £10 to any one person. Loans daily between the hours of Ten and Three o'clock in the day, at the office of the Clerk and Solicitor to the Trustees, No. 14, Great Queen-street, St. James's Park.

By order, EDWARD STEPHENSON
Clerk and Solicitor to the Trustees

NOTE. The Trustees meet on the second Wednesday in every month, to consider such applications for loans as have been sent in one clear week at the least before the first day of the month.—The sureties must be unexceptionable.

LOANS from 25*l.* to 1,000*l.* upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding twenty months, to credit obtained from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be had, and an application for the first Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6*d.* each copy, by per post.

CHARLES JAMES THICKE, Resident Secretary

SWISS DRAWING INSTRUMENTS, equal in quality to the very best London made instruments, and considerably cheaper.—Apply to Mr. S. BARLOW, 9, Thavies-inn, Holborn (between 1 and 3 p.m.); or to Mr. H. B. BARLOW, Office for Patents, Dante-place, Exchange, Manchester.

THE ARCHITECTS, BUILDERS, CIVIL ENGINEERS, and MACHINISTS DRAWING ESTABLISHMENT, Offices, 16, Old-street, City-road, Conducted by Mr. T. J. HILL, Architect. Gentlemen intending to join the above classes next quarter which commences 1st January, 1856, are requested to forward their names at once. Prospectuses to be had at the Offices.

THEODOLITES, LEVELS, &c.—JOHN ARCHBUTT, 20, Westminster-bridge-road, Lambeth, near Astley's Theatre, has to offer the following superior SURVEYING INSTRUMENTS FOR SALE:—Troughton's Theodolite, by Archbutt, 18 guineas; Dumpy Level, by Archbutt, 9 guineas; 14-inch Dumpy Level, by Ruthergill, 12 guineas; 20-inch Y Level, by Jones, 7 guineas; 12-inch Y Level, by Harris 6 guineas; also several Box Sextants, Prismatic Compasses, &c all warranted.

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The Builder.

VOL. XIII.—No. 671.

AS the diploma question is to be again brought before the Institute of Architects, it is desirable that we should return to the proceedings of the last meeting, and give briefly the opinions of some of the speakers on that occasion. In connection with the Institute, however, let us first mention a very liberal donation of books, with a volume of drawings of antique ceilings and plans, purchased at the sale of Adams' effects, and the sum of five guineas, from Mr. W. J. Booth, fellow; and, further, give publicity to the intimation on the part of the council, that there are still fifteen editions of "Vitruvius" wanting to complete their collection, and that members who possess them, and may feel disposed to present them to the library, or may be able to afford information at any time where they may be procured, will render an essential service to the Institute by so doing. Six copies have been added since the publication of the list at the beginning of the past session, and they now possess between forty and fifty copies of various editions.*

Mr. Tite, M.P. who was in the chair, on the 3rd inst. opened the proceedings, by stating that the council had received a Memorial from the Architectural Association, in favour of a professional examination and diploma; and, further, that the syllabus of the course of examination to which the members of the Institute of Actuaries had voluntarily agreed to subject themselves, had been forwarded to him by Mr. Cates. The list of scientific pursuits in which a system of examination was adopted had thus been completed—with the exception of architecture and engineering,—for it appeared that, under the sanction of the authorities of Lincoln's-inn, a severe system of examination had also been established for barristers, which it was expected would hereafter be legally enforced.

The following is the text of the memorial:—

"Your memorialists, representing the younger members of the architectural profession, beg to lay before the Royal Institute of British Architects, their desire for the establishment of an examination, which should eventually serve as the basis for the issue of such a diploma as shall certify that the holder thereof is fully qualified to practise as an architect.

They have been induced to take this step, from the consideration of th edifficulties which, in the present day, beset the early stages of architectural education.

In preparation for entrance upon their articles, in studies during the period of their sojourn in an office, and in the critical interval from the completion of their articles to the moment of commencing practice, the students of architecture are without sufficient guidance. In no case have they that important and valuable direction given to their several studies, which is found to be so successful an inducement to the complete mastery of other professions, and this evil produces its more important effects when students of architecture, having completed their articles, commence practice on their own responsibility.

The want of proper knowledge on the part of the architect, combined as it is with a want of information on the part of the public, leads to many of the anomalies which are now so frequently observable in the practice of the profession, and to the presence in its ranks of many who have not the power, and in some cases, of those who have not the will, to uphold its credit.

So much attention has been lately turned towards the necessity of testing by examination the competency of all candidates for public employment, that your memorialists are led to submit that the present is a highly opportune period for bringing the subject under your consideration. They feel that they are addressing those who represent the architectural profession, and by whom only an authoritative step towards the establishment of an examination, or the granting of a diploma, could be taken. They are also assured, that the senior members of the profession could hardly take the initiative till the necessity for that course had been brought before them by those who have more recently entered the profession.

Your memorialists do not feel themselves called upon to enter into further details, because they are convinced that the members of the Institute must, from their position, be fully cognizant of the evil results of the present system; and, therefore, do not doubt, that the council will take an early opportunity of organizing an examination, such as shall be found best calculated to aid and direct the student, and to bring the real qualifications of the architect before the public."

The memorial having been read, Mr. Papworth proceeded to recapitulate his observations on a previous occasion, which we have already published. He showed, by a letter, that, "the mode of application to be admitted as an ordained surveyor in Scotland, is by petition to the town-council, stating what branch of the profession the petitioner is desirous to be examined upon, and requesting that the council would take him on trial with a view to his being ordained if found qualified. On receiving the petition, the council then generally remit to their Superintendent of Works, with one or more ordained surveyors, whom they name to take the petitioner on trial, to report to them on his qualifications, which being done, the petitioner is then requested to appear (if found qualified), on a certain day named, before one of the magistrates, when he is sworn to do justice, and has to find caution that he will do so. This latter part is a mere form; and, indeed, the whole proceedings have got to be a matter of form altogether. The examination is usually gone over in the course of two or three hours, and there are but few, if any, instances of an individual having been rejected."

The speaker considered that admission to the Institute was not a sufficient guarantee of skill—that it was a club, so to speak, chiefly of London architects. As such a club, the Institute could not do more than constitute a Board of Examiners, with the control and consideration which their possession of the principal architects in England, as a chartered body under royal patronage, could give to a committee of themselves. The exemption of any candidate from examination would be a fatal error. The Institute, he thought, should never require the diploma of any candidate for election into its own body.

Mr. Bailey, associate, made some remarks on the part of the Architectural Association. In reference to the kind of examination which they contemplated, the Association had been very careful not to presume to dictate to the Institute in any way. He might, however, observe, that the qualifications required in the Spanish system, which had been submitted by Mr. Burnell, were of so low a standard, that it seemed impossible that the system should succeed. On the other hand, the qualifications required on the Prussian system were too high. The latter, however, was part of the academical system at Berlin. The Prussians possessed many highly qualified and scientific architects, but the public did not appreciate or place confidence in them. Thus, in Berlin, nobody was heard of but Schinkel, or in Munich, but Klenze: in the small towns there was merely the court architect and no one else; a great number of highly qualified young German architects remaining in what might be termed a state of armed neutrality. Mr. Papworth had said that the fact of passing an examination ought not to constitute a qualification as a member of the Institute, but on that point he differed with him. At present, no previous examination as to ability being necessary, but merely respectability, the personal acquaintance of three architects, fellows, and sufficient wealth to be able to pay the annual subscription,—no honour was attached to the fact of being an associate. On another point raised by the last speaker he entirely differed with him. To ask a fellow of the Institute to pass an examination was absurd and impracticable; as it would in that case be impossible to draw the line between the examiners and the examined. If among the elder members of the profession there were any wanting in some of the necessary qualifications, they would gradually die off, and their places would be filled by younger men.

Mr. G. R. Burnell, visitor, read a statement of the qualifications required for the examinations in the School of Mines and the School of Engineers, in Spain. Having resided for eight years on the continent, he (the speaker) had ample experience of the diploma system, and it appeared to him that it had signally failed, and he believed if adopted compulsorily in England it would not produce any good result. The system in fact compelled those who aspired to public situations to go to the schools in which the particular education required for the diploma was given, and thus the tyranny of schools was substituted for the former tyranny of corporations. Moreover, a species of monopoly was established which was fatal to originality and individual character. The experience of the present war was not in favour of the system of examination in our own and other great military academies; indeed, the only really great general—Omar Pacha—had not gone through the discipline of the schools. Again, the French engineers were, perhaps, the most learned and scientific body in Europe, but (with the exception of the improvement of the light-house introduced by Fresnel) none of the great modern improvements in engineering had originated in France. The application of cast and wrought iron to buildings, the improvements in suspension-bridges, railways, docks, the electric telegraph, locomotive and other steam-engines, gas lighting, &c. had all originated in England or America, where the profession was open to all comers and without monopoly; and this system, he was convinced, would be the safest and the best for the public.

Mr. Pocock, Fellow, observed that in a profession embracing both art and science, a system of examination must involve uncertainty and difficulty. One individual, with great natural talent, might possess small yet sufficient acquirements in science and practice. Another, with a small but sufficient modicum of art, might possess so large an amount of science as to make a better display than he whom nature had endowed with more of the talent of the artist. The great difficulty in the question, indeed, would be in dealing with the distinction between the architect as compared with the mere builder, and in conferring a diploma which should properly point out the qualifications of each. Even *a priori* he concurred in the *a posteriori* conclusions of Mr. Burnell, that the diploma system would lower rather than raise the standard of professional ability. There would be a great difficulty in fixing the exact standard for the examination. Unless it were sufficiently high, a great many men who now aspired only to rank as builders would be able to pass it, and the modesty which now restrained them from passing off as architects would not be felt if they could obtain a diploma as being properly qualified. A diploma would doubtless be valued by a young man, whom the public might hesitate to employ without it; but if the title of architect was reduced in value by this proceeding, as he thought it would be, the young architect would no longer be thankful for it.

Mr. H. H. Burnell, Associate, stated that he had received communications from Professor Forster, and other foreign architects, warning the profession against the contemplated step as tending to trammel enterprise in every way. It appeared to him also somewhat ungracious that any professional body should seek for an examination for themselves. In the other professions such a system had been adopted by the Legislature, or enforced by society finding the

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necessity of protection. He did not think society felt that want very much as regards architects; and, moreover, it should be remembered that before examination came instruction, and it would be necessary to have schools in which to instruct pupils in the subjects of examination, because at present in an architect's office the pupil only learnt experience and business.

Mr. Penrose, V.P. thought it was most desirable that the subject should be fully discussed. The danger pointed out of the tyranny of schools would be a serious evil if not obviated, and this danger the adoption of anything like the Prussian system would peculiarly involve. In the analogous case of the universities the authorities, in preparing young men for the different pursuits of life, did not point out any particular line of study as fitted for any one profession; yet in the recent examinations for the East-India Company's and other appointments, the Universities, and especially Oxford, had been very successful. He considered this an argument in favour of an examination for a diploma, if it were not granted in an exceedingly concrete form, or as pointing out one particular cut and dry line of architectural practice. The danger which Mr. Pocock had mentioned of rendering the diploma too easily attainable, would, in his opinion, be more likely to ensue if the artistic principle were introduced in the examination; but this was a matter of detail which he would merely suggest for consideration. If the diploma merely ensured that the person holding it was duly qualified in certain indispensable studies, it would do much good, and would probably be better than a more decided architectural examination.

Mr. C. Barry, Fellow, considered it was the bounden duty of the profession to take such steps as might assure the public against malpractices, but he thought their labours should end there. The born artist would make his way with his natural endowments, which could not be taught, and which no examination could bring out. At the same time there were artists highly capable of influencing generations by their ideas of art and beauty, but perfectly incompetent to be entrusted with the execution of buildings. It was desirable, therefore, that such artists should be either associated with practical men, or themselves become practical, if any kind of examination could make them so. A compulsory examination would contain the germ of failure, because it involved a degree of trammel and hindrance to original effort and exertion; and certainly it would be quite impossible to make it imperative on the old as well as on the younger members of the profession. The only object of an examination was to prove competency, and the fact that the older members of the profession had attained a high station was sufficient proof to the world that they were perfectly competent, and independent of any kind of examination that could be organized.

Mr. T. H. Lewis, Fellow, referred to the objection that without a stiff examination builders would be able to practise as architects also. His knowledge of first-rate builders convinced him that they would be able to pass a stiff examination; but a very slight qualification or undertaking would be sufficient to prevent their taking a diploma as an architect. They should declare before examination that they did not intend to practise as architects. He should be happy to see builders come forward and pass an examination, but it should be as builders, and as builders only.

Mr. I'Anson, Fellow, said that the question before them was, how far the public would benefit by the plan proposed, and he did not think it would be worth anything to the public. The public would go to clever men, no matter how they got into the ranks. Sir Joseph Paxton, the originator of the Crystal Palace, was a striking instance of this; as he had now considerable practice as an architect. Rennie and Stephenson had risen, by their own genius only, to be among the greatest of modern engineers; and numerous other instances might be cited. A diploma would not keep out unqualified men. A builder with a little more pride than his fellows might become an architect, and, if he possessed talent, as good an architect as those who had gone through a professional career. A diploma might give confidence to young men, but they had already a diploma in having gone through an architect's office, and in having their articles endorsed. Upon the whole he did not see how a diploma could benefit either the public or the profession.

Mr. A. J. Baker, associate; Mr. Henman, associate; and others, having spoken briefly,

The Chairman stated that so far as he was concerned, there had been no idea of subjecting architects already in practice to an examination. They would otherwise have to examine the examiners. The object he had in view was to elevate the profession. They were often told that English architects had no chance as compared with those of France. That he believed was a mistake; but if true, it was from the want of architectural education, and that education would be promoted by a system of examination. He did not ask the council of that Institute and the examiners who might be appointed to examine *builders*,—let the Builders' Society do that if it thought proper,—the real object was to raise a body of scientific *architects*. He could perfectly understand a man ceasing to practise as a builder, and becoming an architect, but the custom of practising both as a builder and an architect was a grave blot upon this country, and he believed it was unknown in others. A distinct line of professional education should be required, and about which there could be no mistake; and the only way to effect that, was enabling students, after leaving an architect's office, or after a course of study, to come to a body willing to recognise them, and inquire into their attainments, and to see that they had been directing their studies in the right course. The public would then know that the candidate had been well taught, and was competent to undertake their business. It was said the French system did not work well; but *there* a system of minute classification had been adopted which trammelled the mind. All such mistakes were easily avoided, and the whole plan should be as free as it could possibly be made. The majority of course would bind the meeting; but when the Government advocated an examination for district surveyors, when one learned profession after another desired to institute examinations, and when the younger members of their own profession came to them and asked them for an examination, he put it to the meeting whether they ought not to adopt it.

On the motion of Mr. Ashpitel, the discussion was then adjourned.

We have received several letters assenting to the view we expressed last week, and we insert two communications on the question. The second of these was written before the appearance of our last number.*

THE DIPLOMA QUESTION.

I GATHER from the observations in your last number respecting the discussion at the meeting of the Institute a few days previously, that this question has now assumed the form of a specific proposal, offered by the Architectural Association, as representing the students of the profession, to the Institute of Architects, as representing the practitioners, to the effect that if the latter will provide the examiners, the former will provide the candidates; and some adventurous orator seems to have hinted the idea that the process of investigation then to be conducted would probably, in an incidental way, astonish the investigators by showing them so much of what the architect ought to be, as to awaken comparisons odious to themselves.

Although I was not present at the discussion alluded to, so that the views I happen to hold may have been already argued, I cannot help venturing to say what I think, if only in this view of the matter, that if every one who has anything to say were to say it, and every one who has nothing to say hold his peace, we should speedily come to some conclusion; upon other questions as well as the present.

This proposal of the students to submit themselves to examination for a diploma of proficiency ought to be received with extreme caution. It is a desirable preliminary that we should know first that the proposal is really authorised by a sufficient number of students to be entitled to respect; and secondly, we should be satisfied that the memorialists themselves are actually qualified to pass a respectable examination.

Much mention has been made of "quackery" in this matter, and the very whisper of the word is always a host of argument in itself: the diploma is to send the quack to the workhouse, and to bestow upon the "educated practitioner" his carriage and pair. Those who argue thus mean well, I know; but let them think a little more closely before they say much more of this quackery. For what is a quack? An unscientific practitioner of science, one who has not been adequately, systematically, *scientifically* taught. And, beyond all dispute, in this age we ought to countenance no such practitioner in any profession; rule of thumb ought to be lying quiet underground with the occult influences of old times before Newton saw the apple fall. Some of our friends know very well, if others may not, that the proposal of a diploma implies the existence of a curriculum. If we are to have a diploma to mark the perfect man, of course we have a recognised adequate scientific process of education to refer to. Alas! we have none. We are in the odd position of a scientific profession with no curriculum at all—not even the form of such a thing—every one picking up at random what knowledge he can, and where and how he can; that is to say, *we are all quacks*. It may be an unpleasant idea, but let us look it fairly in the face.

It is not sufficient to reply that we have office pupilage and private study. Neither the one nor the other is what scientific men recognise in these days as scientific education. Self-education can never be dispensed with, it is true; but I need scarcely observe, that if regularity be the soul of anything, it is the soul of professional training, the foundation without which private study is universally considered to build up but a crazy structure. Surely it must be a poor sort of learning in this nineteenth century, if the learner is to find his own way as he can. Suppose the subject medicine, for instance, and let the student follow our desultory current of office work and private reading, even under the most favourable auspices; what would he be at the end of it all in the eyes of the M.D., F.R.C.S., L.A.S.? In common phraseology, a quack. And the profession whose mode of training is of such a kind, would be styled a profession of quacks, and must make the best of it.

This diploma question can only be practicalized by being amplified into the education question. A diploma is nothing in itself but the certificate of a complete instruction, and examination but the concluding test of a curriculum. With no means of adequate education to refer to, examination would be a farce, and the diploma a mockery. When these means are provided, the diploma will follow as a natural appendage, and be honoured as a genuine certificate; in present circumstances, it would be inevitably disregarded as a fictitious pretence, an insult to the spirit of scientific progress.

The course of instruction essentially necessary for the architect, is not such as to dishearten the student, although it must not be supposed to be trivial; and I would remark, that essentials only can properly be insisted

* We have to thank Mr. J. J. Hirst, architect, for a translation of additional "Regulations for the Education and Examination of those who devote themselves to the profession of Architect," in Prussia. Also of "Proceedings at the Examinations for Clerk of Works," &c.

upon, inasmuch as the duties of the office (which cannot safely be interrupted for even a single year), leave but little time at the pupil's disposal for study. The Berlin programme is but a mystification of the matter, and scarcely deserves to be carefully perused. It is only surprising that there is nothing of the *Ego* and *Non-ego* in it, of Kant, and Fichte, and Jean Paul. In England, we may arrive at the desired goal, by both a shorter and a plainer road. For there is nothing prodigious about it, nothing marvellous or mystical; nothing but a little practical science, perfectly well understood, and easily taught;—mathematics to a certain point; general physics; geology, mineralogy, chemistry, and the like, in relation to building; the whole science of building and its materials; estimating; drawing in its various branches; the design of plan; and, lastly, architectural art, historically, æsthetically, and practically: there seems nothing more than what can be reasonably brought within these few departments of knowledge, and the student who proves himself familiar with such a course as this, and is provided with evidence of proper pupilage in the office, and on the works, would be fairly worthy to be declared an architect. Seven years or more, including two of trifling at the beginning, and two or three of salaried clerkship at the end, would be, in my idea, the term of study for this course, keeping up office work continuously throughout, and leaving travel to be part of that private self-education which no academical curriculum can properly include.

The Institute of Architects has now been sufficiently long in existence to be entitled to consider itself as having safely passed through its preliminary and probationary stage. The mere establishment by William IV. in the seventh year of his reign, of a particular confederation for the profession of architects, is no complete and final measure in itself. It is the initiative only of a much more extensive and a progressive process through which a profession like ours in an age like the present must inevitably pass.

The present discussions point to a further step in the progress of the movement, of which the establishment of the Institute was the commencement. The profession is now confederated and consolidated; its place in the social scheme is known to itself, and known to the public at large: it is in a position now *to act*. Its very first act must of necessity be (whether the step be taken at present or not), an act of education. Confederation does not educate; the existence of the Institute is no evidence of our profession being a properly educated one; it is but the preliminary measure by which any profession, inadequately educated, proceeds presently to improve itself in knowledge.

At a time when the press and platforms of the country are boiling over with nothing but war; when even a poet laureate sings in vague measures the beauties of blood-thirstiness and the ennobling tendencies of the tomahawk; when an Exhibition of the Industry of all Nations is closed with an oration upon "the all-absorbing theme," it is refreshing to plain unchivalrous men of study who hope to die in their beds, or at all events without a bayonet in their bowels, to read the calm philosophy and sterling wisdom of the SPEECH at Birmingham. A word for every one, it is a word for us especially. *We* require to examine into the question whether our branch of knowledge and endeavour is yet reduced to scientific form, or rather to inquire how so to reduce that which we all know is perfect chaos with us. "No human pursuits make any material progress until science be brought to bear upon them: from the moment that science has touched them with her magic wand, they spring forward." The profession of the architect, like the rest, will make no real progress until science or systematic knowledge is brought to bear upon it; and from the moment that this is done, it will spring forward as others have done.

I should like to see the Institute now expand itself (for the time is ripe) into a national College of Architects, with an established curriculum of education, and a diploma at the close, and perhaps some one who can make as good a speech as that at Birmingham for the practical patron.

It is not necessary to discuss the details of the question of the practicability of such a suggestion. These are not to be guessed at hastily, but deliberately devised; if the end be approved, the means can be found.

It is to be hoped, at all events, if the diploma discussion is to be renewed, that men of influential standing will feel it their duty to contribute their opinions; and that the Institute will appoint a committee to consider the whole subject, and report upon it. The question is evidently one in which it is advisable, not only to endeavour to further the real progress of our art and profession, but to avoid a conflict which may presently assume, if unregarded, an unpleasant aspect.

In matters of importance there ought to be as little anonymous discussion as possible. I therefore venture to subscribe myself openly, your old correspondent, ROBERT KERR.

OBJECTIONS TO A DIPLOMA IN ARCHITECTURE.

I HAVE read with great attention Mr. Papworth's statement to the Institute, without failing to observe—I doubt not in common with many of your readers—that his tone, as well as that of M. Lance and Mr. Tite, is eminently apologetic; that not one clear, commanding reason has been urged to clench the question; and it is not even attempted to be shown that where diplomas exist, the skill of the recipients is consequently superior to our own, and that they enjoy a higher degree of the respect of the public at large. These are points which have been avoided with a care that reflects little credit on the prominent actors in the matter. The position of English architects is not now very distinguished, and the public will not entertain a higher opinion of them from such childish talk as that about "bachelors, masters, and doctors in architecture." There were days when architects did not require an artificial stimulus to exertion, or to take refuge in a diploma certifying their "elementary knowledge,"—days when the genius of Phidias stamped its impress on a temple worthy of the goddess whose name it bore; when Giotto raised that fair tower of which the Signoria were so proud; when, before the stern and lofty Angelo, pontiffs rose and princes stood uncovered; and when William of Wykeham toiled in the art he loved so well. Against these revered names the present certified architects of Spain and Prussia are set up. Heaven save the mark! If we are reduced to this, much lower we cannot fall. The pride and boast of Berlin is the Brandenburgh Gate; and if the result of a diploma is to encourage the erection of *facsimiles* of ancient structures, this alone is a sufficient reason against it. Diplomas, sir, will never manufacture an architect. True, the medical and legal professions have their certificates, but there is a vast difference between these and that of the fine arts; all the difference between callings whose technicalities may be mastered by rules, and one that cannot be so acquired. The lawyer and the surgeon, too, will rest very slightly on a document which can inspire but little confidence in the more intelligent public. Restrictive measures are, I believe, inimical to the spirit of the age; above all, they are repulsive to artists and men of science. They compromise the freedom of art, and will not make architects more respected; for whenever they proved their competency by their works, they were absolutely reverenced. That a diploma *will make* them more thoughtful and skilful is an obvious fallacy, if we reflect that constructive ability is not their peculiar deficiency, and that the great wants are appropriate expression, taste, and common sense. These a diploma will never secure; for, observe, its object is to guarantee a certain amount of elementary constructive knowledge. We are at the turning-point which decides the question. The proper construction of a boiler is a far more legitimate ground for demanding a certificate from its manufacturer. Construction is the child's-play of architecture, in which many builders have most skill: that knowledge in the architects I have named was subsidiary to their talent as painters and sculptors. True, French arches and other absurdities of construction are perpetuated, but it is not because architects do not know better, but because they *will not* know better; and, instead of reforming themselves and the art, waste their time in foolish twaddle about ancient structures; in measuring this old building, in writing about that, in talking of the dignity of the profession and the desirability of exclusive diplomas, to render them more *genteel* in the eyes of the world, while entirely neglecting to shadow forth the spirit of the present life in their erections. This *is* their chief requirement; for so long as our structures are inexpressive of our civilization,—an unintelligible jumble of other men's tangible thoughts, and a dishonest repetition of past ideas and effete mythological symbols; so long as glaring anachronisms, misplaced adaptations, and unmeaning ornaments are perpetuated, so long will architecture be deemed a dry, false, and tasteless art, and its professors be despised and underrated. In works requiring considerable mathematical knowledge, the architect has been properly displaced; and the civil engineers, as a body, are a triumphant proof that a diploma is an unnecessary encumbrance; brilliantly as they have overcome, without precedents and without guides, the almost superhuman obstacles in their way. If a diploma be not required in construction, in expression and taste no architect is qualified to grant one. This is allowed; and Mr. Papworth himself says, that "Taste cannot even be a question for the examiners."

"On a diploma *alone*," remarks Mr. Tite, "depends the advancement of the art." The causes, sir, of its present decline lie too deep to be remedied by diplomas; and as to the gratuitous assumptions that "the *only* opposition which the measure of establishing a diploma *can* encounter, would be from those who feel some hesitation as to the possibility of their deserving it,"—the modesty of the insinuation is as remarkable as the unfair begging of the question. If such be Mr. Papworth's usual mode of treating those who differ from him in opinion, I am unable to compliment him upon it. The special pleading of Messrs. Tite and Papworth will settle the whole question; and, further, I believe that the institution of a diploma will tend to *retard* the progress of the art. Such questions are to be put as "a candidate may be expected to answer on referring to the works in the library of the Institute." It is the undue importance attached to these precious books, these everlasting authorities, which has contributed above any other cause to foster the copying spirit of the age. An architect cannot be manufactured by books,—by being taught that certain models are perfect, and he has but to copy, and, as he now does, attempt to repeat them. The great men mentioned were not educated by books: they went to Nature herself; and, exercising their *own* minds, and using their *own* eyes, thence drew their stores of information. We must expect that few architects of independent spirit, fairly established in the honourable practice of their profession, will ever condescend to recall the schoolboy learning of which they have long since carefully disencumbered themselves, in order to obtain the inestimable advantage of a certificate of their elementary knowledge.

The architects of France seem to have been very anxious for a diploma. Six years were consumed by the *Société* in the statement and discussion of the case. A good cause may be very briefly put, and its justice is obvious; but the French architects, at the end of their deliberations, were just as confused as at first. I trust that those of England will take warning, that while they are *talking* about their qualifications, the time for *action* is passing away.

EDWARD L. TARBUCK.

THE ARCHITECTURAL EXHIBITION:—ITS PROSPECTS.

A WRITER in the *piquant* columns of *Blackwood's Magazine*, discoursing upon the notions of Mr. Ruskin, and his "*umbra*," Mr. Street, and the valuable contributions to art-literature by Mrs. Jameson, Mr. Leslie, and others, discovers that architecture holds a leading place amongst subjects of present interest. We hope that the fact is so. Truly, the writer seems to apprehend that the mere antiquarianism in, or at best, the history of, architecture is that which is occupying attention,—that the influence of societies called archæological, ecclesiological, or architectural, and the teaching of writers prejudiced in one direction, or untried by the test of *practice*, are not exactly all that is to be desired. Moreover, and we thank this non-professional writer for saying it, there are sources of expression in, and delight from, the works of our art, quite apart from the antiquarian value, or from the adjuncts, sculpturesque and pictorial, to which the *architecture* has been strangely viewed, by some of its supposed admirers, as mere framework. For the proof, see any building of recognised merit: the writer in *Maga* instances the Gothic cathedral.

Now, what the eye of every lover of art, sensibly or insensibly, is more or less impressed by, in old works, we architects must bring to be the usual and prominent means of delight in the works of our own time. The idea of "education of the eye" is founded upon simple facts. If the eye could take in, the untutored mind could not possibly retain, all that is presented to

it in this beautiful world. Accordingly, special preparation of some kind is required in each branch of natural history, or other field of application of the observing faculties, to the end that the full use may be made of the mere organs of sight. What is the exact process undergone between the mirror of the object,—the *retina*,—and the brain, is so far beyond our power to discover. The object is even depicted upside down, yet by the mind is seen aright. It, however, may be concluded that the "knowledge of objects" begins with a vague presentment of the form, fills in the leading features, and proceeds to microscopic observation according as the mind may be *interested* or not. Everything before the eye is not at once seen: and every artist knows this from his individual case, and from his experience of what occurs with the public.

In architecture, now, chiefly marked and striking features succeed in arresting the attention, and the consequences are disadvantageous to the rapid progress of art. An architect who would gain the public eye, or succeed in competitions, is tempted towards the picturesque, or the polychromatic, or anything so that it be strong and striking; for, the results of the higher qualities of design are slow in the impression they produce. Nothing like the keenness of observation which is to be deduced from the fact of the Greek details would seem to be, under present circumstances, possible. Novelty—though an object we are not disregarding—has a better chance than studied design,—than proportion of parts, or profile of mouldings. However, these are not inoperative on the public eye,—even where not separated from the general impression; and we believe the safer course to be in the study of them, and in the gradual elevation of public taste, rather than in the working down to the level of it, and the following temporary fashions as some architects seem still disposed to do.

Some familiarity with the class of forms, and higher knowledge being required for the mere sight and memory, it is useless to expect speedily that indispensable condition of development of art in architecture—an appreciating public — under circumstances as they are. "Familiarity" has its disadvantages—though we will not quote the proverb; and if *buildings* are things which must stand forth to the public eye, they have got to be viewed as every-day objects, noticeable only when they manifest some little eccentricity. There may be excuse for this, from the low position which our art held for a century until recent years; for, even the works of the school of Burlington and Kent seem to us hardly to equal what art in architecture should effect, and that of which we believe existing architecture is capable. The public eye has been so long offered the stone in place of bread—plainness or deformity, or mere fashion, where there should be *art*—that it is slow to credit the existence of the higher quality.

Quite apart then from its *obvious* use, and effect on general taste,—THE ARCHITECTURAL EXHIBITION has a distinct field of valuable influence on the public,—by showing the fact, that certain elements of buildings *are* the subjects of deep study and design, and so leading to the more frequent recognition of them in the building itself. And it is worthy of remark, how many obstacles there are, and, sad to say, perhaps will be, to the effect of the building upon the public. We have a climate and atmosphere at best unfavourable, during great part of the year, to the enjoyment of anything out of doors, or to the very sight of architectural detail. We have not discovered, or at least practised, means of freeing the mouldings and ornaments of our structures from what clogs up their interstices and distorts their profiles. The new stonework of the Carlton Club House is already darkened, by comparison with the newly-cleaned front of that portion of the building which has a few years older date; whilst some stones crumble and disintegrate before a building is finished; and we have not discovered the means of preserving the beauty of details in many other cases. The practical architect, if sometimes he carp at forms, where he should appreciate beauties, *can* realize what another observer often would not penetrate to, by reason of the impediments. But in an exhibition, architectural drawings, whether merely geometrical or perspective, should afford the means of learning much that the building itself could afford only under several different circumstances of observation. Therefore, although the sum of effect from mere drawing is in no degree equal to what is conveyed by a building itself, the drawing has a value of its own, both with reference to the profession and the public. On all accounts, it is to be desired that the language of plans, elevations, and sections should become familiar to the public. It is also desirable that the exact use of a perspective view should be better understood, than we might suppose it to be, judging from works exhibited of late years. That use is not on the one hand to show a mere outline of the architecture, and on the other, it is not to represent the building as it might be seen under some one atmospheric effect. The use of an architectural perspective view is, in short, just that of every other picture,—namely, something different from the mere reflection of an actual scene. Beyond the representation of all natural effects, the artist has to present a complete description. The use of an effective drawing is not to be forgotten; but there is a higher use in the *drawing* than that of mere atmospheric effect.

As we have striven—and we apprehend not wholly without result—to draw the attention of some architects to the importance to them of the Architectural Exhibition, so are we anxious thus early to speak of its importance and interest to the public. The works which will be found in the Suffolk-street Gallery, when it is thrown open to the public on Wednesday next, include about 600 drawings (with a few photographs), and an important collection of specimens of decorative art, materials and manufactured articles, and new inventions. The walls of the rooms, the screens and tables, could hardly contain more works, to allow them to be seen: the existing state of architecture is more efficiently represented than last year: the drawings of old buildings are comparatively few in number, and those of merit: and it seems that if the Exhibition progresses as it may be expected to do, the rooms will next year be too small, as was by some persons apprehended. The restriction against the admission of works previously exhibited, seems to have operated favourably rather than otherwise. Some of the series of drawings of the different competition designs (of which several are shown), had, indeed, to be rejected. In design for, and specimens of, wall and ceiling enrichment, from scroll and floral decoration to the higher class of art in oil and fresco vehicles, there are some meritorious productions, which will be serviceable both to the executant and the architect, by giving the opportunity for a better knowledge of each other. It appears to us, after inquiry, that much might be done in the way of decoration in interiors, at less cost than such work often entails; and the knowledge of those who are the practical artists is one of the advantages of this exhibition. Structural principles, however, in some of the works which are meritorious in execution, are not always observed. There are also a few good designs for furniture. In future years more in this department may be hoped for. Last year, the coldness of the gallery was a source of inconvenience: this year Mr. Pierce has contributed one of his stoves to each of the rooms. Passing through the rooms, before publication of a catalogue, we were able to discover contributions by Messrs. Fowler, Sydney Smirke, A.R.A.; Clutton, Decimus Burton, E. I'Anson, Charles Barry, E. M. Barry, Ashpitel and Whichcord, D. Brandon, Lamb, T. H. Wyatt, M. D. Wyatt, J. J. Cole, Goodchild (one compartment of St. George's Hall, Liverpool, as completed by Professor Cockerell), W. and J. W. Papworth; Scott, A.R.A.; Richardson, Kerr, H. Horeau, W. P. Griffith; Weightman, Hadfield and Goldie; Gabriel and Hirst; Dollman, Truefitt, Walters, Murray, Billings, W. G. and E. Habershon, Rev. J. L. Petit, Allom, G. Aitchison, and by many of the rising members of the profession. Some of the designs for the Oxford University Museum, and the Birmingham and Midland Institute, will afford interesting matter for comparison; Manchester warehouses, and those of New Cannon-street are both represented; and designs for some of the Government Schools of Art may be found, which may be thought to realise consistent treatment, and some considerable advance in taste.

It is evident that the consistent application of materials is occupying increased attention, and some of the designs which exemplify this have much originality; although in some cases, as in the treatment of decorative brickwork, the taste for external colour is carried to excess. There are one or two good designs for gates in wood and iron.

When we were at the gallery, the hanging was hardly complete, so that many important names may be amongst the exhibitors which we have not noticed. Our suggestion for classification of the drawings has not been entirely followed; but we admit that it involved some difficulties.

The lectures which will be given on Tuesday evenings, commencing January 8th, will doubtless be well attended, a considerable number of tickets, which it will be seen are season-tickets for both exhibition and lectures, having been sold. We could have wished, indeed, that the subjects of the lectures had been chosen, at this juncture, more immediately with a view to the education of the public, and the dissemination of principles of taste. Mr. Fergusson would surely have been pleased to treat of the Principles of Beauty in Architecture. If the lectures seem likely to draw sufficient audiences, perhaps even yet some change or addition might be made as to the scheme. We must look to the merits of individual designs after the opening *conversazione* next week. Meanwhile, let us say, that the rooms should be visited by every one interested in art.

CONSIDERATIONS UPON SOME OF THE OBJECTS CONNECTED WITH ARCHITECTURE IN THE PARIS EXPOSITION, 1855.*

THE *service du Bâtiment* comprehended the design and general arrangement of the buildings externally and internally. The chief names which appear in the official list under that head, are those of MM. Vaudoyer, as commissaire; Rossigneux, as commissaire adjoint, with the special care of the decoration; De Crémont, as architect, with the maintenance and decoration; and Trélat, as architect engineer, with the maintenance and decoration of the gallery (the annexe) on the quay. But I cannot suppose that it was owing to these gentlemen that so many architectural models and designs were not in the Exposition des Beaux Arts; an arrangement which caused several meritorious productions to be lost in the crowd of manufactures, and too many of them in the darkness which prevailed under the galleries. Very few market prices were affixed in the Exhibition, although information of that sort was invited; and it was impossible not to observe, that where articles were marked with prices, and as "sold," they chiefly belonged to one of three categories—cheapness, trifling prettiness, and direct imitation of natural objects. Thus, the cheaper objects produced by the electrotype process, although not in good taste—the library chairs (upon English models) from Hamburgh—and the English flower-stands, fenders, scrapers, umbrella-stands, knockers, and hat-stands, were so marked; as well as a majority of the pretentious littleness which was to be seen throughout the building. It seemed that nearly all objects of direct imitation (as sculpture) from nature were sold, however they might be coloured, or whatever their material might be; for instance, a bundle of blue canes as an earthenware garden-seat, or three apparently leather cushions piled one upon another, in the same material; as well as umbrella-holders of birds, cupids, and dogs; plates of leaves; heads of animals as brackets, and many more.

The display of natural resources in stones, limes, bricks, slates, and woods, from Australia and Canada, was too important to be passed unmentioned, although I had no opportunity of studying them. I cannot refrain from expressing a hope that our Government will see that it is its duty to endeavour to place those collections in England.

* The following must be considered as extracts only from a paper read by Mr J. W. Papworth, Fellow, at the meeting of the Royal Institute of British Architects, November 8th.

Putting aside the rich and numerous Australian collections of Mr. Clark and of Mr. Macarthur, and the good collections of small specimens of marbles from Portugal and Tuscany, it will be found that Greece and France produced the chief specimens of marbles. Porphyrite from Crocœa; rosso-antico from Damaristica and Cynopolis; agate-breccia from Xilokeratia; breccia from the Taygetus; the amygdaloidal marble of Parori (Sparta); cipollino from Pyrgari in Lageia; the black marbles of Mantineia and Laconia; the green marbles of Tænus; the red marbles of Cape Tænarus; marbles and breccias from Nauplia; and alabastroidal marble (of which it is said that antique lachrymatories were made) from the island of Psythalia (Piræus); are the names found in the collection forwarded by the Greek Government.

Dervillé and Cie sustained the honour of the French marbles by the collection of fine specimens, of no small size, shown in 1851; and their efforts were seconded by those of Maillardet and Cie and of more than forty private exhibitors, of whom ten showed marbles worked up as chimney-pieces. This number does not include an interesting collection of the marbles of Corsica; a translucent onyx-marble from ancient quarries at Aïa-Teébalek, near Tlemcen (Algeria); a fine marble table of the grey red-veined marble, called rouge-royale, from the quarries at Franchismont; another of a marble from the quarries of S. Hubert, at Roquefort (Luxembourg); nor the ornamental columns supplied by Geruzet. Two productions should have stepped out of the pale of manufactures into the domain of art; one was a clock-case, 18 inches by 18 inches, with three groups, costing 80*l.* by Dubois: the other was a white marble vase, 24 inches high, and 12 inches in diameter, at the same price, by Margas: it was a beautiful, yet bold, Roman design, with flowers extremely well executed. A chimney-piece from the same firm was of nearly equal merit, and was the best of the French chimney-pieces, which were of a higher class than those sent to this country in 1851; and showed that the mouldings of Vignola are the best suited to the coloured French marbles. There were also some very good second-rate chimney-pieces, especially one which was marked as the pattern approved for the Mediterranean steamers. Besides the works of three other Belgian exhibitors, there were several chimney-pieces exhibited by Leclercq, which were sold—in marbre Napoleon, a grey marble from Boulogne; in brocatelle brun from Dinant, and in Siena (at 84*l.*); the two last being better than a white Carrara marble (at 360*l.*). The green Connemara marble, exhibited in the English division, appeared to advantage. Tuscany, as might be expected, stood first in the display of the inlaid work, called Florentine Mosaic. Mention should be made, for its size, of the great vase, 5 feet in diameter, and 12 feet high with its pedestal, sent from Bagnères de Bigorre; and a stone, called Portland stone, from the estate of Portland, in Jamaica, was shown, as turned by common wood-cutting tools: there is a similar stone in that island called Southampton stone: the even texture and extremely clean arris which work in this material presents, would indicate the probability of its introduction here for decorative work. Wurtemburg sent a fine collection of building stones; Cologne Cathedral some work out of the mason's yard over-laboured and refined; and Austria a machine for making tubes of stone, a fallacy exploded here fifty years ago. Fourteen establishments contributed specimens of slate raised in France. There was nothing in these collections remarkable; but I was unprepared for an exhibition of Italian slating: the slates from Sweden seemed of good quality. The English enamelled slate was a specialty. The French division contained about thirty exhibitors of cement and artificial stone: Portland and Roman cements would seem to be equally well known by name on both sides of the channel; and it is remarkable that only half that number exhibited limes, while only five showed plaster. The French scagliola work appeared paler than such work in England; and I may add, that my hearers will find that this paleness, the effect of white, is common to every branch of coloured continental manufactures. The vases, 30 inches high, and 14 inches wide, in a Greek taste, made of chunam in India, were very remarkable.

To say that the twenty French and two or three other exhibitors failed miserably in their painted and stained glass, is only to express the opinion generally pronounced: it is easy to dismiss a whole class with a contemptuous sneer, but it is the duty of those who pronounce such a decision to be able, if not willing, to give the grounds of their decision. The following reasons guided my own judgment. In the class of flashed glass simply, the glass was washy: if there was any pot metal it had the same defect. The artists of the mediæval ages were so far fortunate that their material, *even when unstained*, was translucent, but only semi-transparent, and therefore looked substantial: their followers enamel the present transparent glass in imitation of the dirt of ages, which they seem to fancy gives that *solidity* to ancient glass: the fallacy will be evident when it is considered that they seek a "transparent dirt;" and that the semi-transparency of ancient glass is easily ascertainable. As a general rule, the modern works in the Exposition were too much paintings in the strict sense of the word: those artists who age their glass are obliged to cover it with enamel, to put shadows, hatchings, anything that will break the washy appearance of their material, or else to paint it entirely in enamel: this accounts for the prevalence among the exhibitors of imitations of the glass painting style of the fifteenth and sixteenth centuries, and the grisaille-work of succeeding times; but the public says "This is not the lustrous effect of old glass:" those artists who do not age their glass are told by the same public, "This is tame in comparison with old glass," and the public, without knowing why, is right in both cases. The host of ecclesiologists who besiege our glass-painters, torment them fairly enough with the dilemma; from which some of the painters have ingeniously relieved themselves by the expedient of servilely copying some celebrated examples, which are of course irreproachable, and then retaliating upon their critics, "This is an exact copy of your ideal, can you object to it?" The critics, unless prepared to say that the painter cannot even copy, dare not raise a further objection: there is no blame to be thrown upon novelty of design, or excellence of drawing; and thus we may account for the prevalence among the exhibitors of imitators of the stained glass of the earlier periods. Coloured glass windows, to be really effective, require few qualities, yet they are hardly to be obtained. Solidity of material I have already mentioned: purity of colour remains to be achieved; and when that part of the restoration is accomplished, good drawing will have to combat with the prejudices of this enlightened age, which praises Pre-Raffaellism and manufactures Pre-Cimabuity. What does the friend of Raffaelle and the pupil of Michelangelo say? Cimabue was a pupil of the Greek masters, who executed "figures with senseless eyes, outstretched hands, standing on the points of their feet." He departed from the dry formal manner of his instructors, giving "more life and movement to the draperies, vestments, and other accessories, and rendering all more flexible and natural than was common to the manner of those Greeks, whose works were full of hard lines and sharp angles—and this rude, unskilful, and commonplace manner the Greeks had acquired, not so much from study or for settled purpose, as from having servilely followed certain fixed rules and habits, transmitted through a long series of years by one painter to another down to those times, while none ever thought of the amelioration of his drawing, the embellishment of his colouring, or the improvement of his design or invention." But Cimabue drew from nature—a new thing in those times, says Vasari; and I may say, almost unheard of in glass painting at present. It must suffice to say that some glass painting, executed for the church of Notre Dame, at Montbrison, having good modern figures with the drawback of bad colour, was exhibited; that the grisaille work was not bad; that an English modern window had the good idea of a lace glass, with medallions of arabesque and Renaissance ornament; and that the prices of one manufacturer were, per foot square, Grisaille and Byzantine work, 4s. 9d.; modern pictures, 8s.; twelfth and fifteenth century work, 9s. 6d.; sixteenth century work, 12s.; partly modern and partly ancient, 10s.; glazing, 7½d. or 8d.

The terra-cotta adjuncts to building purposes were numerous. Fine sharp architectural ornaments in this material were sent from Westphalia, Winterthaim, and Wagram. Large terra-cotta articles, 24 inches square and good, were sent from Karandis in Belgium; and the largest figures in the exhibition of this material were sent with ornamental works, by Gossin Fils, of Paris. Thiry, of Paris, and Miesbach, of Vienna, occupied places for figures, vases, balustrades, &c. only inferior to Follet, who sent excellent vases in a Moresque Greek style; and to Garnaud, who showed architraves, pretty vases, and balustrades: his pattern-book is worth inspection. Besides Clayton's brick and tile machine (bought by a member of the jury), which attracted great attention, and that sent by Whitehead, of Preston, there were twelve similar machines in the French division: five exhibitors sent French bricks, and small cement and beton blocks; and there was a large collection of Dutch bricks. Earthenware pipe tubes were not very numerous. The façade, built up of his own bricks and tiles, by Borie, made a very pretty architectural display, and was a good lesson in ornamental brick-work. The Florentine tiles appeared to be very good. Madrid sent some pretty and large tiles: there were also very large tiles from Holland; foot tiles, double with cross holes, and earthen sieves. France possessed fourteen exhibitors of tiles in different materials, as clay, glass, iron, and cement, and of varied manufacture, encaustic, and in low relief, for paving, &c. for stoves, &c. in the old Renaissance style, and for roofing in many patterns.

There were many pretty portions of ironwork in the Exposition; for example, the standards to the Coalbrook Dale Company's stalls; and the signboards, &c. sent by Bouilliant, Dupont, and Cie, of Evreux; but the first rank in ornamental ironfounding was occupied by a cast-iron pyramidal monument, in a good German taste, sold for 140*l.*; and by the gratings, the fans costing 3*l.* each, and the castings from embossed lace papers, exhibited by Count Stolberg Wernigerode. Next in rank would be the Eisenwerk Lauchammer, Saxony; the works of Barbezat and Cie, for iron and bronze castings, of Colas Frères, and of Muhl Wahl and Cie, whose works in the Place de la Concorde are so well known, stood highly in my estimation for taste and execution: with them may be named Eck and Durand, who exhibited, besides a kneeling figure of a princess of no great merit, several fine lamp-posts; and Calla, who also sent six fine lamp-posts. I particularly name the last two firms, because a member of our profession, whose name I have forgotten, was asking me before my visit the name of a manufactory in which he might find a good selection of handsome patterns for that extreme difficulty—a street lamp-post. The best piece of plain French ironwork, on a large scale, was a field-gate, in the open air out in a corner of the exhibition precincts: iron gates, also in the open air; an iron fountain in the mixed styles of Nature and the Renaissance; and a pretty railing, claimed particular attention; but their interest was much inferior to the wonderful wrought-iron hinge-work, and similar productions, especially a piece belonging to M. Viollet Leduc, which, if modern, was the best of the sort that ever came under my inspection: the name of the producer is Boulanger, of S. Denis.

The Intendance Royale des Mines et Forêts du Hartz, Hanover, exhibited statuettes, 24 inches high, of the Apostles, for 15*l.* the set; and also a Caminofen, modelled by Halzemann, which were as excellent of their kind as the other productions from the same establishment were poor. Hanover also sent iron tubing, in lengths of 56 inches each, glazed externally as well as internally. The Swedish iron and steel work was fine, and the castings from Liège were superb in style and execution. Belgium showed iron plate, stamped with excellent effect, as in 1851; but the ironwork from the Netherlands was neither well modelled nor sharply and

cleanly cast. The same bad taste as in its jewellery prevailed in the stamped iron plate from Prussia, which, mechanically speaking, was good. I was surprised to find Florence in the list of cities distinguished for iron casting: two turnscrew staircases, one with wooden treads, a superb balcony-cantiliver, a lamp-bracket, and a handsome railing, were all of at least the second rank. In 1851 notice was taken of Austrian iron post paper, in the shape of remarkably thin sheet iron, and of Prussian zinc, not thicker than common writing-paper. This year France has added brass as thin as tissue-paper. It may be a question whether covering woodwork, for example a cornice, as at Berens and Blumberg's, in St. Paul's-churchyard, with these substances, would be in conformity with the use of fireproof materials required by the Metropolitan Buildings Act. The collection of English ironwork was not satisfactory. The design of some of the Canadian stoves, and the carving of their patterns, with castings by Rodden, of Montreal, were superior—but their joiner's ironmongery inferior—to the average specimens in England. Some of the English firms which ranked highest in 1851, did not support their previous fame. The chairs exhibited by the Coalbrook Dale Company, in a sort of Moresque Renaissance style, were tolerably good; and the pair of gates, priced by Cottam and Hallen at 240*l.* were fair, but flat. The best of this class was Bailey's fine grille. About a dozen plates of iron produced among seven exhibitors by various processes were from $\frac{1}{12}$ to $\frac{1}{8}$ in. thick; from 1 ft. 4 in. to 6 ft. 6 in. wide, and from 14 ft. to 39 ft. 8½ in. long; between 65 ft. and 136 ft. 9 in. superficial, and from 692 lbs. to 3,417½ lbs. in weight.

In zinc work, France was chiefly represented by the Vieille Montagne Company and by Baudoin. The latter firm exhibited a handsome hipknob, 4 feet high, price 16*l.*; sashes, ornamental roof-work, vases, &c.; but the Prussian zinc-work was, as heretofore, more agreeable to me. The pretty—whatever a great English authority might think of the application of certain outlines and details—gilt and painted zinc Mauresque stall belonging to De Diebitsch, of Berlin, was full of apparently pretty things. The minor works in metal deserving mention consisted of wire seats and tables for use in gardens; square-bodied patent metal tubes; the imitation of bronze articles submitted by Dubois and Soulais, which were good in execution, but selected with less taste than was desirable; and the electrotyped frames of the productions sent by the Austrian Imperial Printing Office.

The collections of useful and ornamental woods were numerous and magnificent: Tuscany, the Papal States, Spain, Venezuela, the United States, Sweden, and Canada, were among the minor exhibitors; Greece and Australia were among the largest. Among various treatments of wood were injection; anti-corrosive coating; large panels rendered invariable for painting, coach-making, and furniture; and thin sawn wood (*feuilles de carton bois*); and Bavaria showed pine-wood cut into thirty leaves in the inch, and mahogany cut into eleven leaves in the half-inch. The number of exhibitors of wood carved as decoration or furniture was very considerable (214). England sent the greatest number, 56; France, 47; Holland, 18; Denmark, 15; Tuscany, 15; Sardinia, 14; Sweden, 10; Norway, 7; Prussia, 7; Belgium, 6; Bavaria, 4; Switzerland, 5; Spain, 5; Austria, 2; Baden, 2. The carving bestowed upon these works was in general mechanically good: the taste of the ornament is all I shall have to mention after noticing the delicate workmanship of Knecht, Planson, Lagnier, of Bordeaux, Guéret, Tweedy, of Newcastle, and Wallis, of Louth.

The eighteen French, six English, and some Genevese manufacturers of paper-hangings, did not present anything which seemed peculiarly meritorious: for mere paper, Pirie, of Aberdeen, was considered by some French connoisseurs to show the pearl of the Exhibition. The specimens of parquetted floors, from all parts of the Continent, at about 10d. per foot superficial, were numerous as might be expected. It is hardly safe, perhaps, to judge from the examples exhibited, but those made of small bits split terribly: large bits stood better. The employment of caoutchouc, which was honoured by a medal in 1851, has considerably increased. The taste displayed in picture-frames and pretty ornaments, polished like jet, was of a high order, and creditable to the exhibitor Charles Goodyear. Ivory, as a material for carving, appears to excite much attention in France: the large Renaissance casket, by Moreau, deserves much praise; as did the Renaissance casket, 9 by 4, in one piece, by Hebert, costing 40*l.* In ivory turning no difficulties seem to exist: unless a mistake has been made, one cup was 6 feet 7½ inches high, by 1 feet 11½ diameter. At least ninety-eight exhibitors in wood or ivory turning, and thirty-six others in fans, canes, sticks, parasols, and umbrellas, sent their productions: among them Collette was really conspicuous for the artistic merit of his sticks, finely carved and headed, at the price of 8*l.* each. There was one remarkable exhibition of leather for decoration. Dulun asserts his enrichments to be 200 per cent. cheaper than wood: his hangings cost from 5s. 6d. to 12s. 6d. per yard, according to their richness; and chair coverings 4s. to 7s. each. An imitation of these hangings was charged at 1s. 6d. per yard. The imitations of wood in graining from Toronto were excellent, from France good, but both Moxon and Kershaw stood in the first rank for marbling and graining. Two French tradesmen observed that the work of the latter (grained and imitation inlaid doors) had no chance against so much that was real, and that the work of the former only required patience, which no Frenchman would condescend to give to the work. Two hydro-fuges, besides Claudell's coating for decoration and fresco painting (apparently excellent); mastic hydraulique, Laurent-Machabée, 45, Rue de Vaugirard (also apparently excellent), and the process of Lebrun of Moissac, namely, — "ineffacable colouring on stucco" were worthy of observation.

Seven French exhibitors supplied draining instruments and tools: seven others exhibited sawing and mortising machines. The great crane employed in the execution of the building, and two machines for breaking stones (*mortier concasseur*) for roadways, were simple and ingenious. The *psalizometer* was a sort of bevel equally useful in the *coupe des pierres*, or in the *coupe des draps*, for which last it was invented. The Austrian carpenter's bench was not a bad one: it would be worth the trouble of some society to have one in England for exhibition to the builders, the price of one highly finished being 1*l.*: it was exhibited by Wertheim, of Vienna, whose collection of tools was very complete and interesting; his catalogue should be obtained, for everything seemed of the most improved shape, and of good quality. The Prussian tools were far inferior in appearance. All the American moulding planes were sold. The profiles would have been good, if they had not been so very mean: this is a vice which seems prevalent in the modern buildings at Paris: I mean those erected since 1840, as they appear to be treated with less boldness of projection in details every year: this may account in some degree for the mania of polychromatization. The Canadian joiner's work looked at first sight fair, but on consideration it was machine-work to a considerable extent; and the material required to be cleaned, according to our notions, before the priming coat could be laid. The stuff seemed rasped, with little hairs of the grain of the wood standing out. A 1¼ four-panelled door with ogee moulding on one side, and a 5-inch two-faced bead ogee and square architrave with plinth, was marked at 15s. which has been called very cheap by some periodicals, ignorant that a better article, under the same conditions, can be got here for the same price. The two best examples of French joinery were contributed in a window, by Bernard Hoen: the other in a ratchetted bookcase, made by the pupils of the Institut Impérial des Sourds-muets at Paris. Three French manufacturers had given their attention to scouring papers: granite, lava, emery, glass, flint, silica, and porcelain are the articles employed upon cloth or paper for polishing. As to large bellows, the only specimens I saw were made in England. The door-springs by Renaud of Paris (rue Pétrelle, 22) appeared to me to deserve the attention of our manufacturers: they occupied only the position and the usual appearance of the hinges. The merits of the different French systems of sashes and sash-fastenings, with sun shades, both internal and external, were beyond the passing observation of a stranger to their usual mode of manufacture.

There were considerable novelty and merit in the seven systems proposed for the construction of wooden pulpit staircases or vices. They were on three principles, viz. with a solid newel, like the usual iron ones; with an open well-hole, the carriage being an iron plate; and with a continuous writhed string, which was much the most curious and the best looking: the steps had no risers shown in the full-size specimen exhibited. A double staircase was, if I remember rightly, also exhibited.

The prices of old bells recast seemed to be 3½d. per lb.; of new bells, 14d. and 2d. additional for their mountings. There were several expensive contrivances of wheels and pinions for facilitating bell-ringing; but Besson's bells were very remarkable on several accounts. He claims the merits which follow on the adoption of the late improvements of the bell being turned in a lathe; on the power of lengthening or shortening the clapper, and on the details of hanging the bell; but the portion which most engaged my attention was the gudgeon and its seat. The seats, *coussinets articulés*, as he calls them, from 1*l.* per pair upwards, are a variety of the knife-edge balance: the case which they give to the ringer is such, that with one finger on a whipcord fastened to the wheel, he rings a bell of about 6 cwt.; and on asking him the number of men requisite to raise a bell of 15,000 lbs. he answered that two could do it if the bell were on these seats. Bells mended by Delcroix Mangin, of Chalons-sur-Marne, and bells cast of steel at 8d. per lb. attracted much notice.

The employment of resin in making artificial stone; paper covered with composition to imitate slate, stone, &c.; and calico soaked in marine glue for roof covering—were French inventions; while asphalted millboards, said to be incombustible, and artificial slate for drawing-board, were Austrian productions. Publicans' fittings and asphalted felt were only forwarded from England. A cap for smoky chimneys from Poitiers; thirteen French water-closets, which I did not examine, as they were in the division of Pharmacy and Surgery; three fire-escapes, in the shape of ladders, and one in that of a box of carbonic acid gas; two street-sweeping machines; as many chimney-sweeping machines; and speaking-tubes (which appeared to be a novelty and source of amusement to the French public), complete the subjects of this class which I have to name.

There seems to be no good reason why all the architectural drawings, if not the models, should not have formed part of the Exposition des Beaux Arts. The design of a college at some place in Canada, by Kivas Tully; Welland County Court-house, by J. Gillespie; and the City-hall, at Toronto, which give evidence of the existence of a really good school in Canada, were hardly distinguishable in the darkness under the galleries of the Exposition de l'Industrie. The architectural models were almost entirely from France and England. The former, from the stores of the Ministère de l'Agriculture, du Commerce, et des Travaux Publics, contributed Pont Napoleon over the Seine at Berry, built by Couche, for a railway as well as for carriages and passengers; Pont d'Arcole over the Seine at Paris, built by Oüdry; Viaduct Bridge at Dinan, over the Rance, designed by Reynard, built by Mequet and de Gayffier; Railway Viaduct Bridge at Tarascon, over the Rhone, built by Talabot; another at Arles, over the Durance, built by Talabot; another over the Bouzanne, built by Borrel; another at Asnières, over the Seine, built by Flachat; and the Aqueduct of Roquefavour over the Are, built by Montricher. Private exhibitors contributed the model of the metal Cupola of the Observatory at Paris, as in 1851; the Viaduct of five arches, each 131 feet 3 inches span over the Rhone at Lyons; Marseilles and Toul Cathedrals; the Church of

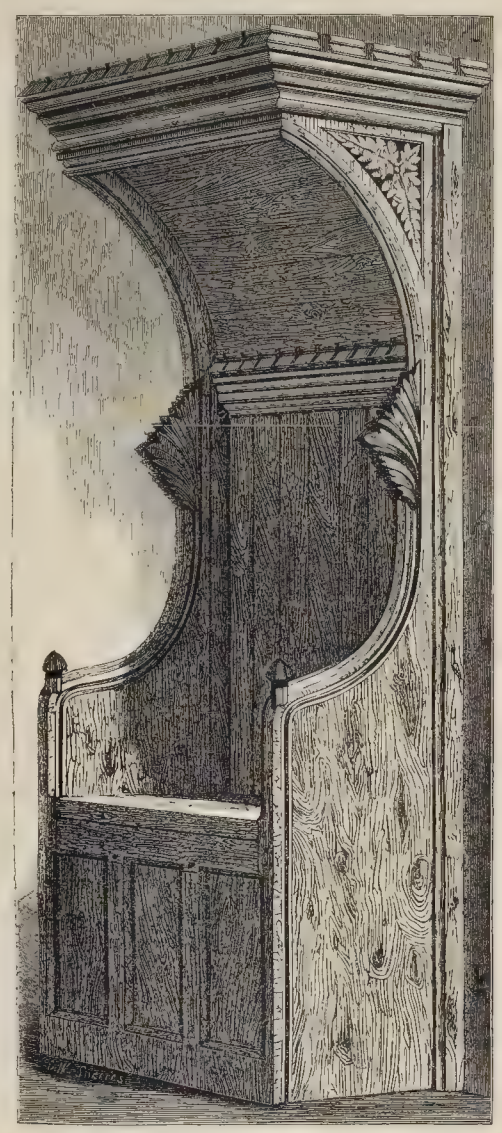
S. Jean des Vignes at Soissons; and Polonceau's Roof over the Station at Versailles, of the Rive Gauche Railway. From Switzerland there were some pretty models of chalets. In the English department there were models of the New Market at Holloway, by Bunning; the Victoria Bridge (stone) over the Clyde, at Glasgow, five arches, 1851-54, by Walker and Burgess; the Suspension Aqueduct at Stanley, near Wakefield, and a Bridge at Leeds, by Messrs. Leather; the moveable Viaduct at Ulverstone, and a Bridge by Brunlees; and Mr. Lassell's iron revolving Observatory Dome, at Bradstones, near Liverpool. India sent the model of the Roofmuttee Mosque, at Ahmedabed (A.D. 1499). From Canada there were several models, viz. the Brock Monument, on Queenstown Heights, Western Canada, 185 feet high, which is a composite column, by William Thomas, architect, at Toronto; the Court-house at Montreal; and the celebrated Victoria Box-bridge across the River St. Lawrence, at Toronto. Besides these, there were several specimens of ingenuity —such as an idea of ventilation by means of ceilings decorated with deep girders; a balustrade and stirrup for an iron bridge; a design for a railway station roof, made with trellised baths caught in by rods everywhere, apparently good for iron construction; and the fine model of the roofs, 60 feet square, over the workshops of Nepveu and Co. at Clichy. This model, presented to the Conservatoire des Arts et Métiers, where it should be studied by travellers, was the only example in the Exhibition of the modern style of framing roofs as practised usually in England.

It may be asked, what good has been derived by our profession from these exhibitions? Whatever may be the tenor of the awards of the juries, I believe that two things are clear results. Our employers have had the opportunity of seeing, in that France which is supposed to be their leader in fashionable knowledge, that architecture is not a trade, but one of the beaux arts; and ourselves have had the opportunity of making such acquaintance with the French architecture of the present day, as to demolish much of the tendency to self-abasement before it, which has been too common in this Institute.

WOODWORK, CHICHESTER CATHEDRAL.

THE accompanying engraving represents an "old arm-chair," at Chichester Cathedral: it is a good specimen of woodwork, the design being simple. Some imagine (see some of Pugin's woodwork, for instance) that a Gothic seat must be very elaborate and very expensive,—open panels below, groining and crocket-work above.

We have several times engraved hints from Chichester, which is a building visited by architects less than it should be: there is much to be seen there valuable and interesting.



WOODWORK, CHICHESTER CATHEDRAL.

METROPOLITAN COMMUNICATIONS.

MR. GYE'S PLAN FOR A GLASS STREET.

OUR professional readers are doubtless by this time pretty well acquainted with the various plans proposed for the improvement of the metropolitan communications, as set forth in the report of the House of Commons' committee, which investigated that subject during the last session of Parliament. It appears, however, that more than thirteen years since, Mr. Gye, the director of the Royal Italian Opera, Covent-garden, projected a scheme for connecting the different parts of the metropolis by means of a gigantic arcade; and in the month of November, 1845, read to Sir Charles (then Mr.) Barry, in the presence of Mr. Manby, secretary to the Society of Civil Engineers, a paper explanatory of this scheme. The following brief extracts are made from that identical document which has been submitted to us. After stating the acknowledged necessity for some relief being given to the overcrowded traffic in the main thoroughfares of the metropolis, the projector says:—

"The arcade will extend from a point near the Bank of England to another at Trafalgar-square, taking the line north of Cheapside, Fleet-street, and the Strand. It will be constructed entirely on arches of sufficient height to pass the numerous streets, without presenting any obstacle to the ordinary traffic, entrances being made at the principal cross streets. The width of the arcade itself, besides the space occupied by the shops, will be nearly that of King William-street, City, from house to house. The roof of glass will be 70 feet in height. The structure will not be in one straight line, but will present a series of direct arcades, crescents, and rotundas, forming one uninterrupted covered promenade, accommodating itself to the various churches and public buildings by which it will have to pass. To these buildings it will serve as a most convenient approach, and will have branch avenues to many of the most important, such as the proposed railway stations, the theatres, &c.

As in some parts of the line, property of comparatively inconsiderable value will be passed through, the dimensions of the structure will, in places, be greatly increased; the arcade, on its way, expanding into several magnificent galleries or halls.

Portions of the arcade will be appropriated to reading-rooms, exhibition-rooms, concert-rooms, large apartments for public meetings, baths, cafés on the Paris plan, &c. as well as to shops of every variety of trade, except such as might from their nature be unfitted to the place. An extensive flower market, constructed entirely of glass, will occupy one portion of the line. In

fact, it is intended that the whole shall form a splendid avenue, combining the grand desideratum of a covered communication with a spacious and luxurious promenade."

With the exception of the brick arches, Mr. Gye proposed that iron and glass should be the chief material employed. His prospectus also sets forth a plan for conveying letters and parcels inside iron tubes, and propelled by atmospheric pressure, in the same manner as Mr Vallance proposed to propel passengers many years since at Brighton. Mr Gye conceived his scheme to be a remunerative investment as well as a great metropolitan improvement. He says the property to be purchased would embrace few or no frontages, that the construction would be inexpensive, and that the vast concourse of customers would enable the shopkeepers and stand-holders to pay high rentals.

The prospectus further says, "The objects of the projector are not confined to this one line, east to west, his proposal being to carry out a system of arcades throughout the metropolis."

It certainly appears from the above extracts that Mr. Gye has the merit of priority over many of the plans lately proposed, if not that of having shadowed forth a gigantic Crystal Palace some years before that now celebrated building was thought of.

NINETEENTH-CENTURY ARCHITECTURE.

PARIS SEEN WITH LONDON EYES.

Amidst the absorbing questions of the present moment, as to the state of the *profession* of architecture,—the means of education in it, and its position in the world, I venture to call attention to the position of the *art* itself.

And in so doing, I have adopted a title which may seem high sounding and pretentious for the few remarks I am about to make, but it has struck me, and I now throw out the suggestion as worthy of consideration, that if this heading were adopted for a series of papers, in illustration of the various points bearing upon the condition of architecture in this, the nineteenth century, to be followed by earnest discussions thereon, not only comparing our nation with the world, but ourselves with one another, we might obtain a knowledge of the position of our art, of the resources at our command, of the efforts being made, of the end to look forward to, which would materially assist in the advance of those great principles which can alone form a firm basis for a true and lasting development of the art of our times.

For as far as the well-being and onward progress of the art of architecture exceeds in importance the puny interests of its professors at any given time, so far does the consideration from time to time, of the state of sloth or activity of the healthy or sickly condition of the *art*, exceed in importance the consideration of the architects' position in the world, and of the estimation of his profession by others. * * * Far be it from me to undervalue that eighth lamp of architecture, which some one picked up and trimmed [in the *Builder*], when Mr. Ruskin had forgotten it, "the lamp of getting a living!" especially at the present time, when our choice seems to be between nothing and the militia. Far be it from me to give aught but my best encouragement to efforts now being made to improve ourselves in the knowledge of our art, and to place us in a higher position with the public; but, amidst all our debates, examinations, and diplomas, let us keep our chief object in view, adopting anything which seems capable of assisting, and rejecting everything which may seem to retard the onward progress of our art.

The race-course of nineteenth-century architecture is before us, and as we have cast aside the trammels of "authority" with which the last century bound itself, we have said to the copyists and soulless imitators of the Palladian and every other school of art, to use the words of *the* poet of the age,—

> "It is time, oh men of the copying hand and mocking eye,
> Your old historical, dead-alive art should die."

If the proposed examinations will assist in the development of the plant, which I believe is flourishing in the soil of England, a healthy school of architecture; if, as I am inclined to believe, extra requirements will lead to extra exertions, then let them be established by all means, and let us trust to the public appreciation of our efforts for part of our reward; but if, as some fear, such increased cultivation should draw the nourishment from our young plant to give it to others of a less valuable nature, and it thereby becomes sickly and unfruitful, then I would be the first to oppose such dangerous undertakings.

However, I confess, that unless for such a mighty genius as a Giotto, Michelangelo, or Raffaelle, or even our own Wren, there is a limit to the range of an architect's studies (with all due deference to the ancient Vitruvius, and I wonder what he would have made of Gothic architecture if he had to learn how to proportion that as well as his orders of temples); there is a limit if he wish to excel the works of the better times, or even to keep pace with those of the present; and it seems that precisely in those countries where these limits have been passed, architecture flourishes least in a healthy state; but is stunted and dwarfed by excessive care and extreme attention, not to the plant itself, but to the wheelbarrow which brought the earth, and the shovel which planted it. Now it is the general acknowledgment of the vantage ground which the English school of architecture occupies in the Exposition Universelle which has given rise to the preceding remarks. We have unexpectedly found ourselves leaders in the art in which we were supposed to be so far behind our neighbours, and sad must be the disappointment of those who, despising our efforts at home, and thinking them "utterly bad," find that others are worse,—that it is altogether vanity—no art, no design, no life anywhere.

But if we do occupy that proud position, we must strive hard and unceasingly if we would retain it; for France, at least, is close on our heels, if she does not actually occupy the post of honour. Let us glance at the Exposition. From the kind of works exhibited, and the manner of showing them, with the peculiar style of drawing, I should infer that the plan of art education in France, and the want of it in England, had most to do with the style of art produced, and the expression actually given to that style in execution.

Academies, examinations, certificates, and medals, doubtless are excellent machinery, as affording opportunities for, and incentives to labour, rewards from time to time, and encouragement to the end.

The practical advantages of travel are secured by the means instituted for that purpose. Yet what system can count its advantages without a corresponding series of disadvantages? what balance can be struck unless the losses be taken into account as well as the profits?

May not this machinery have a tendency to support precedent, weigh down thought with authority, cramp the youthful freedom of design, and put down the rising aspirations after progress? Nay, is not the very word "Académie" synonymous with adherence to rule, and generally expressive of a decided want of imagination.

The collective power with which the French proceed in all their works, whether it be the power of the state, of the municipality, of an academy, or a society, in opposition to the private enterprise of the English, may produce works of a grander and more magnificent character, but cannot be so successful in works of originality; yet where the individual mind has play in a bit of detail, this originality is evident, and as we shall have occasion to see in some entire buildings. It is our reproach that we offer so few solid encouragements for students in the art of architecture compared with France; yet the result seems that more self-dependence is produced—more freedom and fewer honours.

We have nothing in the English Architectural Gallery, in the Exposition Universelle, to compare with the series of drawings for the "*Archives des Monuments Historiques*;" studies which must have an immense effect on the art of our times. Elaborately-executed, full of accurate measurements, they are historical documents of which France may be justly proud. The delicacy of drawing, and the preponderance of classic studies, have led to a taste for delicacy of execution in buildings and a delight in "flat" classic forms, though the mixture of Gothic feeling is evident in the disposition of these forms, and there is little doubt that the elaborately beautiful works of M. Viollet le Duc will help still further to develope this latter element in future designs.

It must be acknowledged that the precedence which the English seem to take in the Exposition in a measure arises from the fact that we exhibit chiefly works actually executed or in progress, while the French seem content to rest their architectural fame on the before-mentioned drawings of students. Hence no real comparison could be made, judging merely from the walls of the Exposition; but Paris itself was around, drawn full size, and coloured, and backlined by the sun itself; and so I imagine the French architects presumed their buildings wanted no further illustration; the English drawings serving to remind one what there was at home to prevent one being carried away by the charming points of French detail.

Time would fail, and it would be beyond the purpose of the present paper to speak of any but the most recent works; and it were useless to search in Paris for a great dome like St. Paul's, or in London for a small one like the Invalides.

Where, in the one city, is the balance for our grand series of smaller Wren churches, or in the other for Arcs de Triomph, and the grand plots of architectural "Places?" Our Royal Exchange may not quite balance their Bourse, yet the Bank of England more than makes up the deficiency, even with the Banque de France and its new gateway as a counterpoise. The Madeleine and Chamber of Deputies must weigh down our British Museum and University College. The Louvre is without a counterpart, and I know of none to our Somerset House, except we take the Hôtel de Ville. The Boulevards are thoroughly French; our "squares" most truly English. In public monuments, behold our latest offering to the memory of Sir Robert Peel, and groan aloud!

We have to compare (on our parts) our Palace at Westminster, our clubs, our streets, and our churches, with the latest Parisian efforts.

The chief characteristics of the Paris school seem to be delicacy of detail everywhere; free but sparing application of columnar and trabeative classic art, combined with a frequent and happy system of arcuation; everything in low relief; mouldings of a flat Greek character, often applied with the spirit of Gothic freedom; and constant use of ornamental carving.

A Parisian façade seems to be a drawing in stone, full size, literally an immense lithograph. A large, flat mass of stone wall, with few slightly projecting blocks, is carried up in the street line, and on it is engraven with the chisel the design of the architect, to scale, the projection of the pilasters and strings being about the proportion of the thickness of the ink lines on the paper design. The carving is relieved about as much as a good back line would indicate, and altogether the work will repay the trouble, if you stop close to it to examine it; but it is deficient in boldness and almost in outline at any distance.

Some of the Paris façades engraved in the *Builder* will illustrate my idea. There is the Mairie, third arrondissement (1848), by M. Gerard:* it exhibits a beautiful series of arches on the ground-floor, simple in detail and in excellent proportion, but with a mixture of pilasters, tall and short, in the upper floors, crowned by a bell-turret formed of two pilasters and entablature over a flat segmental arch. There is a freshness and beauty of proportion about this which pleases me much, and it seems peculiarly adapted to its position in a street.

The Timbre Impérial (Stamp-office), in the same street, possesses much novelty and appropriate treatment.† But, what in these buildings seems appropriate, becomes out of place in those which are detached and capable of being viewed from a distant point. Thus, the façade of the new Bibliothèque Ste. Geneviève looks poor and

* See No. 629, p. 91, *ante*.
† See *Builder*, August 23rd, 1851.

flat from one side of the "Place" in which it is situated, and the want of a bold entrance is painfully felt. At the same time, there is much beautiful detail which would tell to advantage in a street. This building has a basement of Florentine character (*i. e.* with small round-headed windows done in flat,—the Strozzi Palace planed smooth), carrying a series of nineteen arches on piers, and a deep and rich cornice without much projection.*

Even the façades of the Palais de l'Industrie as well as that of the Palais des Beaux Arts, are open to the same remarks. The round arches in the former are very charming; and there is a solemn dignity in the simplicity of the hemicycle of the entrance to the latter. The carving and broad architraves around those seven fine arches almost compensate for the general want of boldness and depth of shadow.† The single archway to the Palais de l'Industrie is fine, and the sculptured figures give a great charm to it; but I say nothing about the columns and entablature which surround it, except that as they cannot pretend to be "correct," they might have formed the subject for a little more design.

This centre block in the façade, however, seems to be brought too forward to exhibit the full length of the building to advantage, and confuses the perspective,—*here* a little less projection would have been a benefit. The most beautiful portions of the building, and indeed I may say of any I know in Paris, are the staircases. Elegance and delicacy seem quite in place here, and whether we take the round arches themselves, with the charming vistas seen beyond, or the balusters, with their finely-drawn ornaments, or the plaster work of the ceilings, all seems to me as it should be. Large vases and stained-glass windows help the general charming effect.

There is, however, a gateway just added to the Banque de France (with the name of M. Gabriel Cretin, architect, inscribed thereon) which cannot be said to be deficient in boldness, and is, I think, a very pretty example of the French school. On each side of a deep hollow-moulded round archway, stand two Roman-Doric columns, which carry an entablature, raking over the top of the arch and forming a hollow pediment.

While the French have thus worked out a system, or at least struck out a path in the direction of arcuation, we seem hitherto to have retained in our public (and in many private) buildings chiefly the Palladian grandeur of columnar architecture, although, in many of our club-houses, this has been replaced by an Italian style, which has been aptly termed "fenestral," as the window is the chief feature in the design. Yet our Gothic tendencies have begun to work out something altogether different to what Paris can produce in the Great Houses of Parliament, and the new Rolls Court, of Fetter-lane. It seems we shall have to work much before we *adapt* Gothic to present uses, though it seems to me we might *design* it suitable for every modern purpose; our well-grounded studies in this our old national style, and our successful results in church architecture, *must* lead to some development of it in our mansions and our streets. The want of breadth and repose in the Downing-street offices is, to my mind, much worse than the French flatness, of which I have spoken; but the last result of our club-house style, the introduction of noble coloured materials nobly placed, is more satisfactory.

Our idea of arcuation seems generally confined to a rustic basement—as in the fine arches which form the entrance to the Army and Navy Club—but the application of it, as in the Museum of Economic Geology (although a copy from Venice, as in the instance of the Carlton Club), shows a taste for more massive, deeper, and more relieved members, than prevails in Paris. There is a force of outline in this building and its details, which is a marked contrast to the shallowness of the French examples alluded to.

If the public buildings of Paris are deficient in boldness in the line of street, much more may we expect the general houses and shops to be so; yet, on the whole, what with the play of fancy in the details of windows and doors, shop-fronts, balconies, and often much surface decoration, there is great interest in the new Rue de Rivoli, many new parts of the Boulevards, houses in the Rue Faubourg Poissonier, and elsewhere in Paris where architects are at work, though there is of course plenty of shop-keepers' art as well. The collective system in which the French like to dwell, many in one house, affords an opportunity which the architects have not lost of making a handsome entrance—doorway and hall, with a tasteful *conciergerie* at the end, and staircase to match. Here the imaginative and delicate hand of the draughtsman displays its skill to advantage, and the decorator often is required to complete the work. Indeed, it is a day's work to look at the various portals, on either side of the Rue de Rivoli.

They are, however, mostly of one character, and as might be expected, exhibit the peculiarities of the style more than any other parts. A flat segmental arch, 8 to 9 feet wide, between two fluted pilasters carrying an entablature,—the mouldings of which butt in some way against (or some even run over, under, or round) a central shield which bears the number of the house. All is of the greatest freedom of design as to proportion, but the mouldings can all be referred to a Greek feeling,—a near relationship to the Doric cyma and echinus,—while they are often shown in section, without any "return," in a way the Goths would, but the Greeks would not, have adopted. This is remarkably illustrated by the lamp-posts at the door of Ste. Geneviève, and in nearly every example.

The corona of the architrave,—if it be a regular entablature,—also is supple as a Gothic string, under the influence, we may suppose, of the Gothic shield, for its composition is as rigid as a Greek could wish. Foliage and flowers occupy every available nook in a charming manner. Windows, after the usual Italian form, are treated in the same way. One house in this street is conspicuous as having a sun-dial on the front, with four figures in low relief, representing the four seasons, hovering above, below, and on either side.

If we cannot have carved house front, we can have contrast and colour in the use of brick and stone together; and, in fact, I prefer a groundwork of yellow, or red and black brick, to a mass of white staring, and almost dazzling stone. Thus, the great warehouses in St. Paul's Churchyard and New Cannon-street, to my mind, contrast favourably as to general tone with those of Paris. Many are well designed, and may serve to show our taste; but there is a portion of the Ordnance-Office, Pall-Mall, lately erected by Mr. Pennethorne, in which the ground-floor, at least, will serve as a standard of boldness, and it possesses also a cornice which it delights me to see a more common feature every day: that is, a real cornice to the *roof*, not above the last story but two beneath the attic. The new shops at the corner of Chancery-lane, have more novelty, perhaps, but less beauty.

The doorways in *our* highway architecture serve to break the general outline of the building, are proportioned to it,—if made features of at all,—and are generally hooded in porticos; they have little design about them, and less in the passages and the door,—a common four or six panel affair—is generally shut. There is some design, however, in that already mentioned on the south side of St. Paul's.

Of Domestic architecture we have *none*, if we except such palatial edifices as Bridgewater, Dorchester, and Hertford houses, or that of Mr. Hope, &c.

It is melancholy to think what miles of stucco-fronted terraces, squares, places, and crescents, have been erected for the nobility and gentry,—the educated classes,—without one spark of life, one single gleam of the spirit of original art. Almost all the villas and country residences have a greater deficiency of art than a city pin-warehouse, or a national school.

The French do surpass us in this point, and many fine instances might be mentioned.*

I have not time to strike the balance between those "great" railway works in which both we and the Parisians have done great things, yet I am inclined to believe the same conclusion would be arrived at as in our street architecture, that we hold the palm for successful daring construction, and the French for beauty in decoration and finish of surface.

But it is in our ecclesiastical art that I feel we are pre-eminent, and which induces me to look forward with confidence to the time when, having completely mastered the principles of Gothic art, and shown our power of original design, we shall be permitted as a body—as individuals now are encouraged—to *design* our buildings for domestic as well as ecclesiastical purposes, with a view to convenience, propriety, and every-day requirement, without being questioned as to the correctness of our archæology, or called upon to pronounce the exact hour when our details were first produced. The only example of a new Gothic church I saw in Paris was St. Cecilia, with cast-iron columns, cast-iron galleries, cast-iron window-tracery, with a plain and somewhat ugly exterior of stone. Our churches I need not mention,—every one knows the beauty of that at Vauxhall-bridge, of St. Stephen's, in the same direction, and the novel works in Margaret-street, and complains of their inconvenience. That, however, will be remedied sooner or later.

Our last remarks shall be of Restorations, and here we give unqualified praise to the liberality of our neighbours. Notre Dame, the Sainte Chapelle, the Louvre, the Palais de Justice, and the Hôtel de Ville, Tower of St. Jacques—all will bear witness to the spirit which never visits us in so magnificent a form. If France had our buildings, our highways, our parks, and our great men, we can imagine how differently they would be treated.

In conclusion, I infer from general observation that in our public buildings and street architecture we are beyond our neighbours in possessing the groundwork of a lasting phase of art, while they have an unsubstantial novelty of detail, from which, however, we may learn to polish and adorn our rough-hewn surfaces, and "design in beauty," while we "build in truth." In Domestic citizen architecture we are worse than behind, but in the true spirit of Gothic Revival, and in the comprehension and successful practice of mediæval art, we are unrivalled and alone.† C. F. HAYWARD.

MODERN IMITATIVE ARCHITECTURE.

A SHORT paragraph, in a recent number of the *Builder*, forcibly recalled to my memory some of the eminently suggestive remarks lately addressed by Mr. Tite to the Institute of British Architects at the opening meeting of the session. The paragraph in question informs us that "Mr. Oliphant, of the New-road, has just completed a fourteenth-century window, designed as a memorial of the late Lord Eldon." Stated in this simple matter-of-fact way, the absurdity of the thing seems really self-evident. A work, designed, no doubt, as closely as possible, in the style of the *fourteenth* century, is to be set up as a memorial of an eminent man of the *nineteenth*: the only portion of that work answering to and indicating its intended purpose is probably an inscription. But it will perhaps be said the window is to be inserted in a building in the style of the period chosen, and any other style would be inharmonious. Is this the way in which our ancestors in any period preceding the eighteenth century acted? I think the numerous monuments, which their actively pious zeal has left for our admiration and emulation, distinctly prove the contrary. There is scarcely one of our beautiful cathedrals which has been carried out in one uniform style: the successive generations of earnest men who laboured at the completion of these noble piles have each left

* See *Builder*, February 19th, 1853.

† With regard to these two latter works (Bibliothèque St. Geneviève and Palais de l'Industrie), I may remark, that as both have a series of names inscribed on the exterior, we may, on that account, excuse a comparatively shadowless surface,—as we desire a smooth paper to write upon. This idea of fitness may overcome the idea of dulness of surface.

* One broad window and much carving on the route going towards the Arc de l'Etoile; and a large French Gothic mansion, near the Palais des Beaux Arts in which all the detail of the period is carried out in the ornamental (though extravagant) hip knobs, &c. while the walls are dull and plain. A house near it in the Arabian or Oriental style, with some pretty detail as well as queer, may be mentioned.

† Read at a meeting of the Architectural Association.

the impress of their own labours in the good work, and I venture to think that the successive portions of those buildings are generally so well fitted together as to produce a harmonious result, greatly as the individual parts may differ in style and treatment. The bold self-reliance of the architects of the Middle Ages enabled them to continue for several centuries steadily progressing in a course of development of successive modifications of style, each, in some respect at least, original and beautiful, and differing from its predecessor.

In the early period of the Renaissance and revived Classical style, the same self-reliance of the architects is apparent in their works: though employing classical *details*, probably to the best of their knowledge, they were not afraid to recast them in their own mould; and the originality of their works has procured them an amount of admiration which will never be allowed to the most perfect *copy*. We are constrained to admire the master-mind in an original work, even where it does not coincide with our own taste.

The want of self-reliance appears to be the great characteristic shown in the works of the architects of the present century: with but few exceptions, our buildings are at best but imitations, often admirably and beautifully correct in detail, but originality of thought is sought for in vain. With means of study immeasurably superior to those of former ages, we are unable to do more than *imitate* their works. We have now happily become alive to the great beauty of the monuments their skill has left us, but we appear so lost in the admiration of them that we have not the courage to emulate their originality.

In constructive science we feel our own power, and boldly use it; but then, as if ashamed of our temerity, we are careful to hide our skill, and clothe our work in a dress for which there is a *precedent*. Our construction is, in fact, an *original reality*, our architecture an *imitated sham*.

Charles Fowler, Jun.

"FIREPROOF FLOORS."

As the letter of "C. E." on the above subject in the *Times* of the 6th inst. is calculated to lead to very erroneous impressions as to a system of construction very generally admitted to be a great improvement in building, I beg you will do me the favour of inserting a few lines in reply.

1. The system in question, although the subject of a patent, is *not* subject to high royalty charges. In very many instances (by far the majority), no charge whatever is made, although the expenditure of thousands of pounds in the introduction of the system might well justify such a charge.

2. Insurance companies *cannot* make any allowance from so low a premium as the ordinary one of 1s. 6d. per cent.; but the proprietor has the remedy in his own hands by insuring for a fourth or a fifth of the amount he would otherwise insure for, and this is what is done.

3. It is a great error to say that the system is not economical in cost as compared with the old plan of girders and arches, to say nothing of economy of space, absence of lateral thrust, and thicker walls generally required by the latter mode; and though it is certainly more expensive than ordinary wood floors, the difference in a well-built house amounts to an extremely small per centage on its cost, even when a boarded surface of floor is applied to the fireproof foundation.

4. If "C. E." had known the difficulty originally experienced in meeting with *any* firm willing to prepare the requisite rolls for the manufacture of the iron joists, he would cease to wonder at there being "but one firm" prepared to roll them of all the requisite sizes; but as this does not in the slightest degree enhance their price, and moreover secures excellence of quality and rapidity in the execution of orders, it is a decided advantage; were this really an evil, it is one which in the nature of things would speedily correct itself.

5. The oxidation of the plaster ceiling arises from the rapidity with which houses are too generally finished, and would not occur if sufficient time were allowed for buildings to dry. It admits, however, of a very simple and efficacious remedy, by which much more perfect ceilings than the ordinary ones may be secured.

6. As to any "practical difficulty" in laying a wooden surface on the fireproof construction, it is wholly imaginary, this surface being employed in nine out of every ten floors so constructed, with perfect facility and the most satisfactory results; and so far from the system inducing dry-rot, it happens, curiously enough, that in the recent examination of a large building erected several years ago, those floors which were fireproof were quite free from it, while *others in the same building not so constructed were extensively affected by this evil!*

This system, like everything else, may be subject to abuse from the want of ordinary care and attention; but to argue from this against its proper use is certainly not in accordance with the ideas of progress which you, sir, labour so hard to inculcate. I trust to your well-known desire to assist in obtaining truth to insert this reply to objections which must, I think, have arisen from a very imperfect acquaintance with the system commented upon, and which the writer erroneously speaks of as identical with the French floors, from which it differs in several particulars.

The Proprietor of the Patent.

THE CRYPT OF ST. PETER'S CHURCH, AT OXFORD.

It is now several years since we paid a first visit to Oxford, and yet the circumstances of it ring like pleasant music in the memory. The clean and picturesque streets, the long and varied rows of collegiate and other buildings, the spires, the tower and quadrangle of Christ Church, the dinner in its noble hall, the interior of the cathedral in the gloom of twilight, which, casting a shade over injudicious modern alterations, added to the grandeur of the general proportions; the walk through sculptured archways; gardens with old trees; structures, rendered doubly interesting and picturesque by the hand of time, and coverings of ivy and other foliage; peeps into libraries and halls, in which were ranged portraits of kings, queens, and men of learning—some grim and dark with age, others of brighter hues, the work of Reynolds, Lawrence, and the painters of modern date; rare manuscripts; original sketches by Raffaelle, and other magnates in art; and many a relic of former times: here and there, mixing most fittingly with the buildings, sauntered the professors, students, and other grades of the university, in their varied costumes: the clear and beautiful Isis, overshadowed by trees (a pleasant contrast to the stream with another name at London), gay with smart boats and cheerful boatmen; the chiming of bells; the occasional sounds of organs and choristers in the chapels, and other incidents, cause a summer's day to be much too short to get even a slight glimpse of the beauties of far-famed Oxford.

The sun set during our ramble, almost without our missing it, and many a choice picture was formed in the moonlight, shining as it did on figured niches, on turrets, into traceried windows, and behind fine examples of architecture, relieving the masses in broad and distinct shapes. However, a more minute examination of Oxford gives an increased amount of interest to the scholar, architect, artist, and antiquary. Passing over many other matters of the highest interest, and pondering over the great celebrity of Oxford at the present time as a school, the mind goes back to days when the great men of the land depended on the might of force rather than the cultivation of the brains. Even in the fifteenth century, in what was the early period of the university, the city of Oxford appears to have abounded in schools for preliminary instruction, some of which were in the houses of the burghers, and others attached to the religious institutions. But the first establishment to which the title of *schools* appears to have been particularly appropriated was erected in the year 1439, by Thomas Hooknorton, abbot of Osney: this is marked in the map by Ralph Aggas. The multiplication of books, by printing and otherwise, led to the increase of schools and the founding of libraries.

Wise men prepared the way (which by the present results seems to have been but a humble one) for the great library of Oxford. Some of these worthies, who did not see their intentions carried out during life, left money to do it. Some disputes between the University College and the Oriel College, respecting the site of the library, prevented the final and regular application of the fund till the year 1480, when the books were added to the collection of Henry IV. his four sons, Henry, Thomas, John, and Humphry, Thomas Arundel, archbishop of Canterbury, Philip Ripindon, bishop of Lincoln, Edmund, Earl of March, and Robert Curtney, chancellor of the university, in whose time, and by whose labour, it was brought to perfection. Humphry, Duke of Gloucester, "who," says the historian, "was surnamed the Good, and well deserved the title, is justly considered as the founder of the library and of the divinity school, which was completed and opened for public use in 1480." Warton describes the books given by him as the most costly copies that could be procured, finely written on vellum, and elegantly embellished with miniatures and illuminations. A single specimen only of these valuable volumes was suffered to remain. It is a beautiful MS. in folio, of Valerius Maximus, enriched with the most elegant decorations, and written in Duke Humphry's age, evidently with a design of being placed in this sumptuous collection. All the rest of the books were destroyed by the *visitors* to the university in the reign of Edward VI. A great number of classics were condemned on this occasion as anti-Christian. From the year 1555 the library *remained empty*, until it was restored by Sir Thomas Bodley. Books soon became numerous in Oxford, and with them fine works of art.

So many things suggest themselves, that it is no easy matter to jump over them to the ancient church of St. Peter's, the crypt of which forms the subject of the annexed engraving.

Respecting the history of the church there is some doubt. The crypt has been considered Saxon, but this opinion rested solely on the authority of a MS. transcribed by Camden, and which it is supposed had been tampered with. Judging from the architecture, it may safely be referred to the Norman period. Mr. Britton, in his fifth volume of "The Architectural Antiquities," gives an outline of the arguments, with a plan and other illustrations.

At the time of the Domesday Book, a church in this parish is mentioned as belonging to the Conqueror, and by him it was transferred to Robert d'Oilly, the founder of Oxford Castle, from whose heirs it returned to the Crown by escheat. Henry III. gave the perpetual advowson to the Society by which it is still held.

The exterior of St. Peter's Church is exceedingly picturesque, and in the interior of the chancel, are some characteristic details. The tower is peculiar, tapering towards the top, like the Old Castle of Oxford, and exhibits interlaced arches. The church has been altered at various periods, and contains some good details of perpendicular architecture. The engraving of the crypt, with its circular arches and varied capitals, prevents the necessity of particular description.

The crypt is 36 feet in length and 21 feet in width.

In Sir J. Peshall's "Ancient and Present State of the City of Oxford," collected from the MSS. of A. à Wood, p. 78, will be found an account of St. Peter's, containing, among other particulars, a list of the several chantreys founded within it, and an extract of an indulgence granted A.D. 1320, by a Bishop of Lincoln, to all persons within his diocese who shall attend the sermons there preached before the university in this church during Lent. The auditors in consequence became so much increased that the church could no longer contain them, and a stone pulpit was erected in the churchyard for the purpose of haranging the congregation there. The pulpit has long since vanished.

B.

Rise of Wages.—The Southampton journeymen painters have had their wages raised to 4s. a day throughout the town.

THE CRYPT OF ST. PETERS CHURCH, AT OXFORD.

WALTHAM FOREST.

ORIGINALLY this forest covered a large portion of Essex, which was, up to the sixteenth century, like most counties of England, overgrown with timber. Hainhault and Epping Forests were comprehended in the chase of Waltham; and, according to Evelyn, the first onslaught upon the forests was made by Henry VIII. when he suppressed the monasteries, converting the property to his own use, and disposing of the oak timber.

Antecedent to that period but little oak was used in buildings, sallow and the commonest woods sufficing for ordinary habitations, until the general clearance brought more substantial materials into demand.

The second great clearance took place in the reign of James I. when Sir Julius Cesar, his Chancellor of the Exchequer, first caused minute surveys to be made, the profits whereof must have been welcome to his embarrassed treasury, for the price of oak timber is recorded to have been then 10s. a load (of 50 cubic feet), and firewood, 2s. the cord. This, if the relative value of money is taken into account (as having increased at least eightfold), will stand nearly on a parity with the rates of the present day. The redundance of standing oak timber of that age could not have been less than tenfold the present growth; but the imperfect state of roads and total want of canals and other means of transport, added much to the prime cost of the article.

Subsequently, during the Civil Wars, the waste and devastation of timber was such, that according to Evelyn (who wrote about 1704), "nothing less than a *universal plantation* could supply the defect." He himself, at his beautiful estates at Wotton and elsewhere, planted largely, practically exemplifying the views laid down in his "Sylva," as he saw clearly the solidity of such investments, shrewdly calculating the value of long-deferred profits; "for who," added he, "would not preserve timber, since within a few years the price has been quadrupled?"

The metes and bounds of Waltham Forest were settled under a statute of Charles I. by inquisition and perambulation made 8th September, 1640. At that time, twelve entire parishes, and parts of nine others, were comprehended within the limits of the forest. The insulated parishes were, Wanstead, Layton, Walthamstow, Woodford, Loughton, Chigwell, Lambourne, Stapleford Abbots, Waltham, Epping, Nasing, and Chingford: in point of fact, the forest took a range of at least fifteen miles square or 225 square miles, extending from Romford on the east, to Waltham Holy Cross on the west, and from Nasing on the north, to Ilford on the south. Of that enormous tract, doubtless very extensive private estates constituted a part, subject to rights of forest and chase; and the greater portion of the residue had been granted or sold by Henry VIII. and succeeding sovereigns.

It is hard to suppose that no maps were laid down under that inquisition: none, however, have been suffered to come before the public; but the computation was, that this forest then consisted of 60,000 statute acres (rather a small remnant from 400,000), of which 48,000 were private property, and 18,000 unenclosed and waste.

It is clear that after the Great Fire of London, 1660, the abundance of timber, and probably the expediency of the occasion, caused a vast consumption of oak; for a sort of Metropolitan Building Act (by anticipation) was then first launched, enjoining that certain timbers and scantling should be used and observed in all new structures, and thus London arose fortified from her ashes.

The early historical accounts of Epping and Hainhault are scant, but such as they are, they exhibit, like all the other forests and their traditions, a long series of encroachments, malversations, and wholesale plunder, which seems only to have been narrowed with the diminished extent of forests, and freebooting chases in general. Every commission issued by the Crown made the system of Governmental mismanagement the more palpably notorious: even to the time when the hero Nelson was commissioned to inspect the Forest of Dean—anxious about the oaken bulwarks of his fame, as for the glory of his country, he, in the year 1803, deplored the "abuses suffered to be perpetrated by *favoured people*;" and here it may be pardonable to repeat his words, as given before in the *Builder*—"Those shameful abuses are probably known to those high in power! but knowing the abuses, it is for the serious consideration of *every lover of his country* that they should be done away."

To refer to the inclosures or alienations now going on in the Forest of Dean (said by Nelson to contain 23,000 acres of the *finest timber-producing land in the country*) is not the object of *this* paper, but the misapplication of resources throughout the whole of the forests appears to be carried out in perfect consistency with usage, and with the practice of Governmental officials in all ages.

As to Waltham, a report of the Crown Commissioners made so lately as 1792, stated "that such had been the mismanagement pursued since the beginning of the century" (from 1700 to 1800) "that old management should be altered, and new regulations established, so that the forest might be useful nurseries for the Navy; or *that they should be sold*, and be converted to tillage or pasture, *so as to add to the produce* and population of the kingdom." Here, then, is the solemn declaration of commissioners delegated by the Crown, as set forth in the second paragraph of their report; and what effect has this, ay, or any of the reports achieved for all the other forests?—reports emanating from high authorities, paid dearly for by the nation, duly printed, and as duly forgotten! What has become of Lord Colbourn's Parliamentary Commission as to the New Forest, containing 100,000 acres? The result of all that expenditure of senatorial time, of material, and national revenue is, that some sixty-seven acres were lately advertised for sale! Some 60,000 acres lie waste and wholly unproductive!! What has become of the late reforming (but perhaps too dictatorial) commissioner, Mr. Kennedy, and of his report and recommended treatment of *Epping Forest?* Why, just that matters are as they were, if not worse. In 1849-50 the expenses of management exceeded the income by 1,396*l.* 6s. 10d.; in 1850-51, by 164*l.* 15s. 4d.; and in 1851-2, by 400*l.* 9s. 9d. What progress or amendment may have been made by the great State new brooms we may possibly know as soon as the result is in print.

If Mr. Kennedy, as commissioner, did not give perfect satisfaction to his *political* superiors, it was not because of supineness nor incapacity: no, his labours were incessant, and terminable only with his vocation: his report has, at least, facts and truisms which cannot be confuted. And first, as to Epping Forest, they are these, viz.:—

1. "Nothing can be more unsatisfactory than its condition.

2. A most lawless state of affairs exists in it, and innumerable encroachments have been made!

3. The only resident officers that exist in it (in the department of the Lord Warden) are most inefficient!

4. *The Crown has in Epping no right to the soil*, but only that of *Forest*; so it cannot be justifiable, on the part of the Crown, to resist encroachments by expensive litigations; but measures ought to be taken to compel parties to purchase up the value of their encroachments, *as regards the rights of the Crown!* But it seems very desirable that, so near London, and amidst a vast mass of residences of parties who value the lengthy open space of Epping Forest, *encroachments should be put a stop to?*"

Now, here is the case made out by the astute commissioner, and it might be generalized, as to most of its details, in describing the condition of all the Forests. In Epping the Crown has no right to the soil or freehold: not so in Hainhault Forest. In the latter, which was most favourable to the growth of oaks, the Crown had rights; therefore that Forest, containing near 4,000 acres, was inclosed, and 2,000 acres (the best of it) has been fenced off, and appropriated by the Crown. This, too, is more vicinal to London,—extending from Ilford to Chigwell-row; and, moreover, the standing timber at the time was worth, if not more than the freehold, at least as much. In 1852, 27,000*l.* worth was sold off: how much more remains, it would require an actual survey to tell, but probably 50,000*l.* yet to be realized,—a pretty windfall this to the Crown!

An attempt was made to inclose and appropriate the whole extent to the Crown: that was, however, resisted by the holders of ancient tenures in Chigwell-row,—such as the lord of the manor of that ilk, Mr. Smith, of Sooketts Hall; Mr. Shillibeer, of the Grove, and numerous others; so that haply, as yet, the glorious woodlands and glades of that charming locality are still open to the but too unfrequent visits of smoked and kippered Londoners, who are for the most part unconscious of the sylvan privileges in store for them,—the swelling combe of Chigwell, the wide and verdant slopes, its massive gnarled oaks and native bosquets; but most the enchanting views,—from Highgate with its lofty spire, seen dimly over mantling smoke, the City and its towers are faintly sketched, to make a softened background for the flood which here reveals itself,—a thousand masts with countless spreading sails, in favouring hours (which seldom bless our clime) disclose the silver stream of Father Thames,—and then the banks and docks and Greenwich piles, till Woolwich and its crowning hill lead back the wandering vision to the wavy plain.

So far, a reserve has been made for the people of 1,000 acres. Oh! let not the destroying axe molest a branch of the royal oaks, the growth of ages: spare them for the sake of age—of youth—of the toiling classes, whose property they are: spare them for the present generation, and their posterity: already have they witnessed many a pic-nic—many a love-sick tale. Our host Smith, at the rural *brewery*, is the best jurisconsult as to the property in those trees, as well as to the benign influence of simple agrestic revels in their shade.

As to Epping Forest, even now, some 12,000 acres, *the Crown has no property in that*,—the soil is not so favourable for timber: it is, nevertheless, clothed in wood and verdure, stands high, with swelling hills. To whom does that belong? To the people. If required for the recreation of crowding millions, surely royal forest rights could not interpose. And yet it is astounding how little is known of this fine expanse, so fit for the recreation of multitudes. The high beeches and other eminences command wide and enchanting prospects; and that so few (comparatively) should frequent the place, is marvellous, seeing that it is but seven miles from the centre, and only five from Mile-end to the hither fag end of the forest: the extent, however, ranges ten miles from end to end, and what will this be when the rail shall be laid down along the whole length? At present but a Sabbath day's journey there and back,—it will hereafter be scarce two hours!—just the distance of the Crystal Palace.

There are too few places of resort for the business population to rusticate, while the encircling towns and cities, yearly spreading round the metropolis, make occasional excursions a necessity: the advantage to public morality and taste, as well as to health, points out that reserves must be made for the inhabitants of a city grown to excess of agglomeration. How few can go to Richmond? still fewer to Windsor Park. Hyde Park is too close, too fashionable; Primrose-hill and the Regent's are encircled with houses; Victoria Park (it is so called) has no inviting characteristic other than its name. But to talk of a *fête champêtre*, or even a junketting party, thither, would be ridiculous: there is enough of the artificial in the exquisitely floral, and highly ornate arcades of the Crystal Palace. What the people want is liberty,—simple liberty, to enjoy the fair face of Nature; and that, uncared and untortured by the artist or gardener. Leave, then, Epping to Nature, and Nature to the people.

It is quite clear, and we have argued it often, that the wide extent of forests in England is a waste, a profligacy, and a crime. They create an erratic, freebooting, and lawless population—they stint the resources of an enormously swollen people; and whilst they demoralize the poor, they are a snare for the greedy rich, who push their borders dishonestly onward, encroach-

ing on the lands they covet (qy. is *Snareslrook* aptly named?)—yet as said before, those wastes ought to be enclosed with discretion, and ample spaces should always be left in the vicinages of great towns for the exercise and refreshment of such populations: industry is recompensed by the indulgence. If health is before wealth, that of the multitude should be studied: an apophthegm current 2,000 years ago is as applicable to our times as it was then: "*Salus populi*," &c. Attention is sometimes paid to the "*Vox populi*," more particularly when backed by demonstrations: without these even published remonstrances are but the still small voice of—

QUONDAM.

CHURCH-BUILDING NEWS.

Albury (*Herts*).—The chancel of the church here has been restored at the cost of upwards of 400*l*. by Mr. Wm. Brown, of Lynn, under the direction of Mr. Pritchett, architect; the whole expense defrayed by the Venerable Archdeacon Jones.

Moulton.—There is talk of a restoration of the parish church here.

Langley.—About two years since the Rev. W. B. Pusey, rector of Langley, being desirous of erecting a new church in the parish, in place of the old structure, undertook the entire work at his own charge. The consent of the parishioners having been obtained, the work has since made due progress till its completion, and the edifice was consecrated by the Archbishop of Canterbury, on Tuesday before last, and opened for public worship. The building is in the Pointed style, consisting of a nave of three bays, a large chancel, a steeple, and spire, with a porch on the south side. The interior of the building is elaborately decorated. The entire roof and walls are highly coloured, and all the windows are filled with stained glass. The entire church is paved with encaustic tiles; these being alternated in the chancel — which rises by easy grades of low steps towards the communion-table, with slabs of grey Sicilian marble. The "altar" railing is of metal, elaborately designed and wrought; and a couple of sedilia are placed near the table, with a niche above to hold the bread and wine till required for the Sacrament. One of the bays is stalled for a choir, with a seat partitioned off for a reading-desk. The pulpit is placed just below the chancel step, but there is no desk or seat set apart for the parish clerk. The sittings are all of massive oak, open, and intended by the rector to be left free and unappropriated—females occupying one side of the church, and males the other,—an arrangement, however, which, according to the *South-Eastern Gazette*, the parishioners have refused to sanction. The windows are fitted with pictorial representations of sacred history, embracing the Fall of Man, the Expulsion from Eden, the Deluge, the Offering of Isaac, the Annunciation, the Nativity, and the principal events in the life of our Saviour, with the Crucifixion, Entombment, Resurrection, Descent of the Holy Spirit, and several incidents in the lives of the Apostles, with a representation of the Last Judgment; the whole in a high style of ornamentation.

Bristol. — St. Nicholas Church was to be re-opened on Sunday last. The edifice has been painted and coloured throughout, the windows stained, new stairs made to the gallery, the organ repaired, and the gas turned into the old chandeliers. Portions of the heavy cornices, it was found on examination, had got loose, and it is wonderful, says a Bristol paper, that they had not fallen before.

Carmarthen.—The district church of St. David, Carmarthen, has recently been enlarged in anticipation of its becoming a parish church, so as to afford accommodation to every parishioner free of expense. The addition consists of a nave of four bays, with a clerestory, north and south aisles, and south porch. The length of the nave and aisles is 50 feet 6 inches, and width, 25 feet and 11 feet respectively. The height from the floor to the apex of the nave roof is 60 feet. The aisle windows are of three lights, and at the west end is a large four-light window, 35 feet in height. The clerestory contains windows of two lights, and cinque-foiled circular windows alternately. The roofs are covered with dun-coloured tiles, with an ornamental crest. The walls are built with stone from the neighbourhood in random coursed work, with dressings of Combe Down stone. The area of the nave and aisles is seated with open benches, stained and varnished. The arcades separating the nave and aisles are of Bath stone, with moulded capitals and bases. Colour has been introduced in the roofs, which are constructed on carved ribs resting on stone corbels. The floor, with the exception of that part occupied by seats, is paved with black and red tiles. The style of the addition is of the Early Decorated period, and as it in no respect resembles the original building, it is to be hoped that the time is not far distant when a chancel and transept, with a central tower and spire, as designed by the architect, may be carried into execution, and a greater harmony of effect produced than at present exists in the two portions of the church. The additional accommodation amounts to 1,000 sittings, making altogether 1,500. The work has been carried out by Mr. J. James, of Narbeth, from the design of Mr. R. K. Kenson, architect. The plastering was done by Mr. Thomas, of Carmarthen.

Derby.—A monument has just been placed in the Cemetery, Nottingham-road, Derby, to perpetuate the memory of Captain Thorold, of the First Regiment of Derbyshire Militia. It consists of an obelisk, 15 feet high, worked in Yorkshire stone, and weighing 6 tons. The base has a moulded pedestal, with a carved wreath: surmounting this is the obelisk, with the flag of the regiment, together with the sword, scabbard, and sash of the deceased officer, represented on the front side. The inscription is on the pedestal.

Wakefield.—The foundation-stone of a new "Wesleyan Reform" chapel, for Brunswick-street, Thornes-lane, was laid on Tuesday before last.

Leeds.—The consecration of the district church of St. Barnabas, Brewery-field, Holbeck, took place on Wednesday before last. The church is situated on the north side of Sweet-street, on a vacant piece of ground presented by Mr. T. Benyon and Mrs. H. Benyon. The church is in the Middle Pointed style of architecture. There are 700 sittings, with stalls in the chancel, and a great proportion of the seats are free. The windows are glazed with tinted or cathedral glass, and after daylight the building is lighted up by sun-lights in the centre roof, under the direction of the Leeds New Gas Company. This, according to the *Leeds Intelligencer*, is the first instance in which this mode of lighting has been applied to an ecclesiastical building in this part of the country. The following were the contractors for the work, in their several departments:—Mr. T. Whitely, Woodhouse, mason; Mr. T. Hunter, joiner; Mr. Preston, slater; Mr. Garlick, plasterer; Mr. Bollands, Bradford, plumber; and Mr. Boyle, of Burmantofts, the tiles for the floor. The warming apparatus and the bell were supplied by Messrs. Singleton and Tennant. Mr. Chantrell, the inspecting architect of the Incorporated Society, reports favourably of all the work.

Thorner (*Leeds*).—On Wednesday in week before last St. Peter's Church, Thorner, which has been considerably enlarged and improved, was re-consecrated by the Bishop of Ripon. The church has been almost entirely taken down and rebuilt. The roof, chancel, vestry, and all the pews, stalls, and sittings in the church, as well as the pulpit, reading-desk, organ, and font, and the whole of the windows and stone work on the north side, have been removed. A new and enlarged chancel and a new vestry have been built, and the other parts of the church have been rebuilt and restored. In the restoration the original style (Perpendicular) has been followed. The wall of the south aisle and the porch have been rebuilt, and suitable windows inserted in the north aisle. The old arcade has been repaired. The nave roof, of ancient design, being found too decayed for restoration, has been replaced by a new one identical in design. The floor has been reseated with low open seats, affording accommodation for nearly 500 persons. The tower has been opened to the nave by a new arch (screened across); a useless west doorway blocked up, a new west window added, and the ringers' floor raised. Eastward of the nave the whole is new. The chancel is co-extensive with the old one, with the addition of north and south aisles, under separate gables, each opening into the adjacent nave aisle by one, and into the chancel by two arches, enclosed by oak screens. The chancel roof is divided into five bays by principals, with arched braces, and tracery above the collar beams. The bays are panelled up to the ridge, with bosses at the intersections, and an embattled cornice at the eaves. The chancel fittings are of oak. The floor is of encaustic tiles, those in the sacrarium being of a richer pattern. The glazing of the east window is of plain quarries, but a stained glass window is contemplated. Under the vestry is a hot-water warming apparatus, supplied by the Low Moor Company. Externally the old portions of the fabric have been repaired, and the soil has been lowered. The whole of the alterations have been made from designs prepared by Mr. Healey, of the firm of Messrs. Mallinson and Healey, of Bradford, architects.

Gateshead.—The new Wesleyan chapel at Low Team, Gateshead, was opened on Sunday in week before last. The contractor was Mr. W. Elliott, of Low Team. The building was designed by the contractor, who is also, it seems, a local preacher. The total number of seats is about 200, of which one-half are free; and the entire cost of the structure will be about 300*l*. It is intended to light the chapel with gas.

Edinburgh.—The Lord Provost's committee of the town-council have agreed to a report, recommending as the most desirable of three proposed sites for the restoration of Trinity College Church, the space of ground at the south end of Waverley-bridge, and immediately to the west of Warriston-close-stairs, if it can be obtained at a reasonable price. The other sites considered by the committee were the ground originally purchased for the rebuilding of the church at the steps of the Calton-hill, and the site near Burns' Monument, where the stones of the ancient edifice are piled. The committee are said to recommend that a report should be taken from Mr. Bryce as to the probable expense of the foundation.

Glasgow.—The interior renovation of the cathedral is now proceeding with more than usual activity; and in the course of two or three months it is expected that the Principal will take up his position in it once more.

Ayr.—On Friday evening before last, says the *Ayr Advertiser*, the inhabitants in John-street, Wallacetown, in the vicinity of the Territorial [Free] Church in course of erection there, were greatly alarmed by a heavy fall of masonry, which shook the ground around, and which was rapidly succeeded by a second fall of a similar nature; and it was found that the southern gable of the church, which was entirely completed, had given way and fallen towards the river. It had been observed two or three days previously that the foundation had sunk, and that this end of the building—which, being at the foot of a slope, was very lofty and heavy—was much rent. We understand, adds our authority, that the loss will not fall on the builders (Messrs. Fergus and Clark), who executed their work according to specification. A bazaar was held in Ayr last summer to assist in raising funds for the erection of this edifice, and it was expected that the building would be opened in the spring, entirely free from debt.

RECOLLECTIONS OF PETER NICHOLSON.

Few men have done more to extend useful knowledge amongst those multitudes who are engaged in building operations, than the gentleman whose name heads the present article. Before the author of the "Architectural Dictionary" undertook to apply the rules of mathematics, and simplify them for the use of the ordinary mechanic, the waste of materials and uncertainty of various operations in carpentry, masons' work, bricklaying, &c. was very great; and it was a step in progress when the works of Peter Nicholson, on the "Geometrical Construction of Staircases," &c. rendered matters which before could only be managed with great difficulty, by a few rules, easy to all of common comprehension. At the time of the publication

of these books the great body of our building workmen, and many of the so-called architects in the provinces, used what is sometimes called "the rule of thumb;" the saving, therefore, in materials, by the application of certain rules, it is difficult to calculate. It was in many other respects a great benefit to English architecture when Nicholson reviewed generally the application of mathematical principles. I have heard more than one architect say how much they owed to the hints of this useful instructor.

The writer of these brief notes, then a youth of about sixteen years of age, well remembers, twenty-three years since, his first interview with Peter Nicholson, who was then a man seemingly about sixty years of age. He was of middle size, rather stoutly built; his countenance pale, and the face full of intellectual expression: the perceptive organs were largely developed, and projected in a great ridge over the eyes, which were still further shadowed by iron gray, shaggy eyebrows: the head was well covered with hair of the same colour. It was a remarkable face, particularly the upper part of it, and one which the painters of the old school would, in the character of an alchemist or philosopher, have delighted to place in breadth of light and shadow, spectacles on nose, a loose-fitting blue dress-coat, with bright brass buttons, and of that particular cut in which the pockets were made outside of the tails, horizontally, behind: roomy nankeen pantaloons, and ordinary hat, completed the outward of the mathematician, as he was introduced to me by my kind and worthy teacher in the art of engraving. This took place at Newcastle-upon-Tyne. At that time the employment of the engraver was of a very miscellaneous character, and consisted of the cutting of door and coffin plates, lettering brass moulds for casting bottles, dog-collars, ladies' thimbles, crests and cyphers on plate, invoice-heads, card-plates, plans of estates, &c. illustrations of natural history, rough views of places, and twenty other matters. Mr. Thomas Bewick, the famous naturalist and engraver on wood, carried forward a business similar to this in the same town, and particularly prided himself on his skill in engraving clock-dials, many of which were at that time cut on brass, and elaborately chased;* nor were the varieties of engraving the only craft followed, for when the copper-plate printers, who then were not a very steady lot, took to drinking for a few days, the master engravers would doff their coats, tuck up their shirt-sleeves, and manfully throw off the impressions needed for pressing use.

Mr. Nicholson added to the already numerous branches of our business by producing rough drawings of cubes and other mathematical forms, which, with descriptive letters, he wished to have engraved on copper plates, and the construction of which he proceeded with great clearness to explain. This was the beginning of many works which I myself and a fellow apprentice engraved at intervals during five or six years. These consisted of illustrations of isometrical and common perspective, the projection of shadows, the construction of skew-bridges, conic sections, spiral lines, elliptic arches, &c. Many of them were most complicated affairs, and I have often since wondered at the quiet patience with which he would put up with the difficulty of making us understand. He seldom got out of temper, and if he did, it was almost worth putting up with it, in order to see the simple and kind way in which he would afterwards atone for it. Generally, he was in manner very mild and affable, and always willing to give information if it was asked for or required.

Many still alive well remember much useful knowledge and excellent advice in the principles of art which they have received from Peter Nicholson, who, like several other men of genius, was particularly modest and diffident of his ability.

The profits derived from the numerous editions of Mr. Nicholson's works must have been very great: the copyrights, however, had got into other hands, and the man who had conferred such decided benefits on the community by the publication of his useful practical knowledge, saved thousands, and so much advanced constructive art, was left in declining years to still labour hard and with but scanty provision.

By the leading architects and scientific men of Newcastle-on-Tyne and the neighbourhood, Mr. Nicholson was held in high esteem, and a public meeting was held in the town to endeavour to smooth his latter days, and press the just claims which his services had upon the Government. Many a warm eulogium was passed at this meeting on the venerable mathematician. An architect to whom the town and district has been indebted for several noble buildings, and who at the commencement of life was an assistant to his father, who was a common cartwright in a little Northumbrian village, said;—"I, gentlemen, would never have been an architect had I not fortunately become possessed of the works of Mr. Nicholson." Some good resulted from the meeting, and the kind feeling manifested must have been cheerful to the old man. The statement of his claims was listened to with seeming attention and much civility by the Government, and promises were held out of consideration: the case, however, would seem to have, like many other deserving ones, got tied up with *red tape*, and a change of ministry having taken place, it was lost sight of altogether.

There may, in a certain way, be advantage in squeezing as much as possible out of a man of genius: it is, however, very wrong to drive the willing steed to death, and it was painful to me, on visiting Newcastle after an absence of a few years, to find Mr. Nicholson still fagging on with private teaching, and the production of fresh books: the mind was willing, but the faculty was impaired, and although the compasses trembled in the hands, and the instruction to the young men was not so distinct as formerly, he was still obliged to battle on.

Peter Nicholson was not a man possessed of much of the poetry of art or architecture, but few have been more useful in their generation.

AN ARTIST.

* When Bewick's fame was widely-spread, many celebrated persons who called to visit him were surprised to find painted on a board, "Thomas Bewick's Workshop."

PROVINCIAL NEWS.

Spalding.—At the "roof rearing" of the new Corn-Exchange here, the contractors, Messrs. Sharman, on Friday evening before last, treated the men engaged in the erection, to the number of between fifty and sixty, to a substantial supper at the Red Lion Inn.

Wisbech.—Arrangements are being made for procuring a site for the proposed waterworks for Wisbech. There are two sites, of about eight acres each, available, one at 120*l.* an acre, and the other, nearer Wisbech, but without so much clay, at 100*l.* an acre. The plans and specifications for the waterworks were received by the local board at the meeting last week, announcing the proceedings as to site, but the consideration of them was postponed.

Harwich.—The re-opening of Harwich National Schools took place on Wednesday evening before last. They have been re-erected from the design and under the superintendence of Mr. H. Darken, of Harwich. The boys' room, on the ground floor, occupies an area of 1,000 superficial feet, and is of proportionate height: it is approached by a porch from the churchyard. The girls' room is of same dimensions, with a canopy roof and ornamental girders, &c. and is approached by a staircase from another porch, which forms a wing to the western gable, and is carried up in the form of a tower, upon which a bell turret is erected. The staircase is lighted by an ornamental stone window, glazed with quarry lights in coloured glass. The windows to the schools are in imitation of oak, and are glazed with fluted glass, with swing casements for ventilation. The master's house is placed at the eastern end of the schools, and contains six rooms and cellar. The outlay has been between five and six hundred pounds, principally raised by voluntary contributions, and by a ladies' fancy bazaar.

Windsor.—The new buildings erected for the purposes of the House of Mercy, at Clewer, were formally opened on Thursday before last, by the Bishop of Oxford, assisted by the Provost of Eton, chaplain to the House of Mercy, the Bishop of Barbadoes, and upwards of 100 others of the clergy, with a numerous miscellaneous assemblage of ladies and gentlemen. According to the local *Express*, an amount not far short of 6,000*l.* has been expended in the erection of the buildings, and it is said to be in contemplation to erect an additional wing for the accommodation of fallen women who at one period belonged to the superior classes of society. This is estimated to cost an additional 1,200*l.* of which a portion has already been subscribed. The altar was covered with embroidered cloth, and behind it was a cross, artistically designed in flowers, while on each side were two ornamental candlesticks.

Wingham.—Sir Walter James, bart. has announced his intention to give, through means of the Nonington, Wingham, Ash, and Eastry Agricultural Association, two prizes—one of 10*l.* for the best plan, tender, and specification for a set of cottages to accommodate the families of agricultural labourers, the cost to be limited to 100*l.* per family; and the other a premium of 5*l.* for the best short essay, on the accommodation required for lodging and boarding single men, being farm servants.

Portsmouth.—The new bridge at the Landport and Southsea end of the Milldam-road will shortly be completed. It is being built upon seven stone piers, laid on a concrete foundation. The roadway is formed by a layer of concrete upon oaken planks bolted to the ribs underneath; the ordinary material for roads being laid above all. On its completion, a commodious thoroughfare will be formed between Portsea and Southsea.

Rugby.—At a meeting of the Rugby Town Hall Company on Tuesday in week before last, it was resolved to name 2,500*l.* as the highest cost of the new building; and it was at the same time resolved, that plans and estimates should be advertised for in the *Builder*.

Liverpool.—It is said that the foundations of one of the Albert Dock warehouses are giving way under the heavy loads packed into it.

Manchester.—The new public hall in Peter-street is making progress. A report by Mr. Walters states that the large hall is nearly roofed in. The elevation in Peter-street is now above two-thirds its height, ready for the floors over assembly-room, and the work generally is in a forward state for roofing over this portion of the building. The roof of the hall has been slated and glazed since the date of the report.

Salford.—It is expected that the new market, erected by the corporation, in Chapel-street, Salford, will be opened next Saturday. It is 120 feet long by 30 feet wide, and contains an area of 400 yards. An equal extent of open land behind the market can be used for open stalls, should the accommodation be required. There are also five lock-up rooms for the use of the occupants of the market. The shops which front Chapel-street will have plate-glass windows, and the others sliding shutters. Gas has been introduced, not only for lighting but heating stoves. Water is supplied to each shop or stall: the shops are each 10 ft. by 8 ft.: they will be occupied by butchers, fishmongers, and greengrocers. The market front is in the Tuscan style, with arches crowned by vases, medallions of the Queen and Prince Albert, figures of Britannia and Justice, the borough arms, &c. Mr. James Evans, the Salford district surveyor, designed the building, and it has been erected under his superintendence. The cost will be about 1,200*l.*

Leeds.—Notice has been given, that application is to be made to Parliament in the next session for an Act (among other things) to enable the corporation of Leeds to "secure to the public, places of public resort or recreation, and for that purpose to purchase, by compulsion or otherwise, and to dedicate to the public use and enjoyment for ever, the whole of the commons, moors, or wastes, with the cottages or tenements thereon, at or near Hunslet, in the township of Hunslet and parish of Leeds."

Sheffield.—The Sheffield poor-law guardians having proposed, as already noted, to provide a new workhouse for the union, a rate-payers' memorial has been sent to the Central Board, praying them to withhold their sanction to the proposal; but this the Central Board, on consideration, have declined to do.

Dronfield.—Contracts have been entered into for the erection of gasworks and completing

the undertaking, in accordance with plans by Mr. Cashin, architect, and Mr. Hedley, engineer. The contract for the building of works, &c. has been let to Mr. Gibson, of Green-hill, for 606*l.*; and that of supplying and fixing machinery, apparatus, and pipes, to Mr. Howard, of Rochdale, for 710*l.*—both sums being considerably below the estimates submitted by Mr. Cashin to the promoters. The capital of the company is 2,000*l.* subscribed in 400 shares of 5*l.* each. The whole works, however, will, according to the contracts entered into, be completed for a sum which will leave a balance of 400*l.* or 500*l.* in hand, to meet any extension of pipes, &c. beyond those included in the contracts. The contracts are to be completed in March next.

West Hartlepool.—At a recent meeting of the Local Improvement Act Commissioners, according to the *Gateshead Observer*, the design most approved for the new market was that of Mr. Thomas Oliver, jun. architect, Newcastle. A sum of 1,685*l.* was ordered to be paid for the new-market site. Mr. Smith, the surveyor and inspector of nuisances, sent in his resignation, which was accepted.——Building operations in West Hartlepool, it appears, proceed with vigour—the demand for houses continuing fully equal to the supply. In a month or two Church-street will be completed.

Jarrow.—The docks here are going on satisfactorily, the contractors (Messrs. Jackson, Dean, and Gow), having about 600 men engaged in preliminary operations; and in the course of two months they expect to have 2,000.

Edinburgh.—Complaint was made last week to the city council, that the Queen's-park, which is public property, was being encroached on by the erection of an ironfounder's yard on the actual turf of the park. The council resolved to request the Lord Provost, who was in London, to obtain some explanation of the circumstance from Sir B. Hall, or otherwise to memorialize the Commissioners of Woods and Forests on the subject.

Aberdeen.—The buildings of a reformatory on an extensive scale, and intended as a model institution as well as for local benefit, have just been commenced at Old Mill, about two miles from the city of Aberdeen. The estate of Old Mill, consisting of about eighty acres, was bequeathed by the late Dr. Watt, of Newdeer, for a reformatory of this character, and, the county having come forward to some extent to supplement the funds, it is expected that the new institution will become a most efficient one.

THE CRYSTAL PALACE AS AN EDUCATOR.

As I think it possible that your correspondent, "W. S." may be the representative of many who misunderstood my previous communication under the above heading, perhaps you will allow me to enter into a further explanation of my objection to the present classification and arrangements at the Crystal Palace, expressing as I know that I do, the sentiments of a very large number of the visitors to that establishment who look upon its contents in a moral point of view, and regard it as having some ultimate bearing upon the character of the nation generally, as well as upon that of its visitors in particular.

In the first place, then, I fear that the expression I made use of, that "the Crystal Palace must either become a School of Art," &c. has been interpreted as though, using it in a particular sense, I meant to say that it would become a studio for the education of young artists, exclusively, as the schools of art in London and other places. This would be obviously absurd, as no possible number of students would support the institution, even if it were fitted (which is not the case) to become such an academy. But it is admirably well fitted for a school of art in a general sense, *i.e.* one in which every human being who enters it becomes a student, eager for instruction, and who finds sufficient recreation in the material by which that instruction is imparted. These are the students who will make the Crystal Palace successful, as a commercial speculation, and they must consist of every man, woman, and child, in the kingdom. The majority of these will enter the building ignorant of history and of art, ignorant of most of the manufactures of their country, unacquainted with the processes by which the commonest articles are produced, and without being able to see what is beautiful in nature, and is there reproduced in many versions by the artist; but I assert, that it is the fault of the managers and classifiers of the Exhibition if they depart still ignorant of either. This may seem a bold thing to assert, yet who, knowing the influence of public exhibitions, and remembering the capabilities of the Crystal Palace, can venture to deny that under a liberal and judicious management of the Institution such might be the case. Why should not the arrangement of the courts be a modelled history, and the classification of the sculpture inculcate morality? One valuable feature of the Exhibition in Hyde Park, was the large number of manufactures which were explained, both by the actual working of the machines and by examples of the raw material in various stages of its progress until it became the manufactured article. This is a phase of industry not sufficiently represented at Sydenham, and is an immense loss.

Your correspondent allows that the contents of the Crystal Palace are "scattered somewhat promiscuously, presenting," he adds, "as nature does, a variety of characters at a glance." Now, though nature from one point of sight may be seen in many characters, and though the object by which any general effect is produced may be heterogeneous, yet a student of nature knows that each part contributes what is required for the completion of the whole, and by filling its own proper position only, results that unity which is characteristic of the works of the Creator. Though nature has not placed the Circassian and the Nubian side by side, and though the "stony records of the past," the Apollo and the Sphinx, are widely severed, yet when we search and drain every country of its treasures for illustration of the epochs of past ages, and bring them altogether under one roof for comparison, it is not positively necessary that the distance which geographically separates them in reality, should be represented on a smaller scale by their relative position in the Crystal Palace. A man goes to it, and expects to find its contents readable, like a book in his own language, a history of past and present times, and not a map indicating position, or a wrongly-bound volume with its pages not running in consecutive numbers. He expects to find there an illustrative index to the contents of the whole earth, and naturally supposes it is arranged chronologically in historical order.

We know that it is only by comparison and analysis we may hope to arrive at rational conclusions concerning the true and the beautiful; and if there is no opportunity of ascertaining either by these means, how are the thousands to be led into that love of the beautiful which your correspondent says must be the result of, and result in, the success of the Exhibition?

Doubtless, to a professional student (which I take to be the meaning of the expression of an earnest student), it matters little whether the Apollo be placed in the Sheffield court or the Grecian. He knows who produced it, and the period in which it was produced. Not so those for whom expressly the Palace was created, and they go there to learn such things. A London mechanic who visits the Exhibition, learns only by the pedestal which is the Dr. Johnson from St. Paul's, and which the Farnese Hercules from Rome. There they both stand in the nave of the building, the former a nude, the latter a seminude, but both muscular figures, and both reclining in much the same position. One, the latter, is the embodiment of physical force, which, though rather diagrammatical in its treatment, is a fine piece of modelling, and a magnificent development of muscular strength. This is the impression the artist intended to convey to the mind. The former is an awkward piece of obesity, badly designed, and badly modelled, anatomically developed in order to give an idea of greatness, overlooking the fact that Johnson's greatness was his Herculean *mind*, and not his Herculean *muscles*. Nevertheless, here they both stand, and nearly side by side. Does their position in any way indicate their history, or is that left to the pedestal? Is the public to look upon both as examples of the "grand and beautiful," or regard them rather merely as epochs in the history of sculpture?

It is said by your correspondent that the handbooks furnish a key to the history of art as seen in the contents of the Crystal Palace. They are certainly admirable essays on their respective subjects; but to call them handbooks, is a cruel mockery. To call them *pocket*-books would more correctly represent their locality after being purchased by the visitor, who can seldom read argumentative compositions on the details of a subject when the reality is before his eyes, and so much more attractive. Compare—both in price and character—the handbooks of the Crystal Palace with the first part of a handbook to the Museum of Ornamental Art at Marlborough House. The latter has 108 pages of descriptive matter, concise in its character, and full of information, and contains nearly eighty artistic engravings: its price is sixpence. Suppose three more parts to follow this with the same amount of text and the same number of illustrations: a very valuable catalogue will be the result, for the comparatively moderate amount of two shillings. Even this is a large sum for working people to pay,—but turn from this handbook to those of the Crystal Palace: each court has its special little volume, with its special price, so that a complete handbook of the whole collection is an expensive work, of little use except to the well educated, having scanty and bad engravings, and essaical descriptions.

These handbooks are a grand and fundamental error. There is in them too apparent evidence of the commercial character of the Crystal Palace, and this portion of the speculation does certainly detract from the popularity and usefulness of the whole.

Let liberality be used. A handbook worthy of the name should be of a tolerable size, say octavo (the size of the catalogue at Marlborough House, before referred to), its contents classified in divisions, which again should be divided into historical groups; the principal, or representative objects in each group be enumerated, with a concise and clear description; and, as a *sine qud non*, each of the more important objects should have a well-drawn outline appended to the description. Such a book might be published in two parts; the first, containing all that related to ancient and modern history and art, with their accompanying illustrations; and the second be explanatory and illustrative of the strides of civilization, the present state of commerce, the processes of manufactures in this and other countries, with the other contents of the Exhibition not enumerated in the former part. They might each of them reach the dimensions of 200 pages, and contain the same number of illustrations. These parts, strongly stitched, enclosed in a loose leather cloth cover, I would have sold for not more than a shilling each. Every visitor would find it necessary to possess a copy, which would be really a handbook whilst at the Palace, and a delightful memento of the Exhibition ever afterwards.

It need not usurp the place of the present books,—they are valuable to the professional student and the scholar,—but should supply to the uneducated what nothing else can, viz. the information required to understand the Exhibition. It may at first sight appear doubtful in a commercial point of view, but if carried out in a spirited manner, I am convinced that it would be anything but a loss to the company, whilst its convenience and influence would be inestimable and immeasurable.

The mistake is, that the management of the Crystal Palace is not sufficiently comprehensive. It is treated too much as the speculation of individuals, or at most, as a national toy, to be amusing on holidays. This is not its mission. It may be the means of enlightening an ignorant nation, of educating an uneducated people, of elevating public morals, of leading and guiding public taste, and enabling it to appreciate private talent; of eliciting latent genius, and encouraging the persevering; and thus, by benefiting every class of society, improve the whole character of the nation.

WALTER SMITH.

THE ROYAL ACADEMY MEDALS.

On Monday, the 10th instant, the medals of the Royal Academy were presented to the several successful candidates. The students in architecture appear to be deficient in energy. For the gold medal there was but one design, and this the academicians considered did not deserve the medal. The medal was offered for the best design for an edifice for the exhibition of works of art, science, and industry. The author of the design exhibited had evidently taken the Exhibition building as a model, adding a Grecian elevation, very roughly done. Worse still; for the silver medal, offered for the best accurately figured drawing of the Great Hall of Hampton Court Palace, plan, longitudinal and transverse sections, and details, there were no candidates!

The following medals, together with Reynolds's "Discourses" and Lectures, by Professors Barry, Opie, and Fuseli, suitably bound and inscribed, were awarded:—Gold medal for the best historical picture—subject, Death of Alcibiades, Timandra being present,—to Mr. Joseph Powell. Gold medal for the best composition in sculpture—subject, Eve supplicating forgiveness at the feet of Adam,—to Mr. John Adams. Silver medal for the best study from the living draped model, size of life, to Mr. White Brown. Silver medals for the best from the Life School, to Mr. Philip Richard Morris, and to Mr. James Waight. Silver medals for the best drawing from the antique, to Mr. Samuel John Carter, and to Mr. George Augustus Reson. Silver medal for the best models from the antique, to Mr. Henry Purcell: an accident happening to this model, and through ill-health of the author, it was not done in time to be admitted for competition, but by a praiseworthy act on the part of his opponents, who signed a memorial to the academicians for the model to be admitted, it was so, and became successful. For the second best to Mr. Samuel

on; for the third best to Mr. George James ller. Silver medal for the best drawing of perective to Mr. Thomas Sich. Silver medal for the st drawing in sciography, to Mr. Augustus Henry rker. Silver medal for the best medal die to Mr. seph S. Wyon. The proceedings terminated with address from the President, Sir Charles L. stlake.

AUSTRALIAN NEWS.

THE Adelaide Australians, happy mortals, have thing to think of but "What shall we do with our rplus?" This is literally the leading question of e day by last accounts. The *Adelaide Observer*, in aling with it, remarks that "it is altogether unnessary to retain such huge balances: it is not the stom in England, and there is nothing in the situaon of this colony," it adds, "to justify such an extraordinary procedure. . . . There are, doubtless, any public works of importance loudly demanding e attention of the Executive: why should not our are money be usefully employed in such works?" irst of all, it recommends the development of colonial ads. And then a Quarantine Hospital and a Health stablishment might be erected on the peninsula or me other convenient locality. An electric telegraph, continues, should be immediately constructed beween the city and the port. A couple of powder agazines, it is conceived, are much needed: and so a. The surplus in question amounts to no less than 86,822*l.* besides 30,700*l.* invested in port railway onds, and, continues the editor of the *Observer*, the agent-general in England has a cash balance in and of 29,131*l.* 7s. 3d.; the secretary of state olds; 'for agent in England,' whom we presume to e the colonial architect, now absent on leave, the am of 36,000*l.*; and the agent-general holds, in ddition to cash balance, Exchequer-bills to the amount f 40,594*l.* 8s. 10d. Here we have a sum amounting o 105,726*l.* 16s. 1d. in the hands of one, two, or hree persons—it is not clear which—described as 'agent' and as 'agent-general.'"

On the subject of roads, the same writer calls ttention to "the enormous sums of money that are eing consumed in the formation of public roads, and o the comparatively small results which appear to be chieved thereby." During the last two or three ears this "road question," it appears, has been rising teadily to greater importance, and it is urged that ome decisive steps now must be taken to meet it. After some strictures on the constitution of the Road Board, the writer of a leading article on the subject ays,—"One thing is clear,—money must be forthoming: if the colonists want good roads, they must urnish the funds for making them. And how to get hese funds—there is the knot of the question." Hence the reference to the roads in considering what should be done with the really handsome and enviable surplus.

At the port improvement progresses. A large saw-mill establishment is about to be built there, and patent vertical saw-mill machinery of 20-horse power had lately arrived, in July last, from Glasgow, being an improvement on some Great Exhibition prize machinery.

Amongst other new works about Adelaide, we note the opening of the new city market; the erection of a proposed church at Glen Osmond, for which operations were commenced in June last; the erection of an extensive building about 100 miles from Adelaide, tenders for the masonry and the carpentry of which were advertised for about the same time by Mr. W. Weir, architect; and a memorial stained-glass window for Christ Church, Adelaide. This window had been designed and executed by Mr. E. Brooks, of Poole-street, North Adelaide, and was fixed in its place just before the last despatches were sent off in August. It is placed in the east end of the church and is described as being in the Norman style, and consisting of three geometrical forms. The centre contains a decorated monument of three sides, with representations of Faith, Hope, and Charity at the several angles. It is this central portion of the window which is executed in stained glass. It is of a rich gold colour, with frosted glass for the background, and surrounded by a border of deep blue. There is on the opposite side of the church a blank window, in which the rev. incumbent was desirous to have inserted a stained-glass window to the memory of the first colonial chaplain, the late Rev. Mr. Howard.

The *Banner of Belfast*, in the colony of Victoria, of date 28th July, gives a description of a "Church of England" recently erected there from a design by Mr. Nathaniel Billing, of Belfast. The stonework had been completed as far as then contemplated, the tower being only built so far as its connection with the nave rendered necessary. The style is Early English, of the lancet period. The material is blue stone in irregular courses, with dressings of freestone from near the river Merri, on the Belfast side of the Punt. The plan is cruciform, with the tower at south-west angle, fully developed chancel (the only one, it is believed in the colony), and with vestry on the north side. The windows are of three and two lights, with heads carved by a resident carver. The clear internal length from west to east, including chancel is 116 feet, the internal width from north to south, including transepts, 82 feet. The chancel is 31 feet long inside, connected with the nave by a lofty arch of 17 feet space: similar arches, but somewhat lower, connect the transepts with the nave. The clear width of nave is 28 feet. The buttresses project 3 feet on each side-wall. The height to top of spire will be 127 feet. The roof is open to the ridge, making a clear internal height of about 39 feet. The architect also furnished a design for the Roman Catholic Church of Geelong, but declined to accept the second prize (75*l.*) awarded to him for it.

A resident of Melbourne says,—"in our literary world two new candidates for public favour have just appeared. The Australian *Builder* promises to supply a want that is more felt here than in the old country, where such a publication has long been deemed a necessity. The Melbourne *Punch* is an old friend with a *new face*, in which the lineaments of his English sire are sufficiently preserved to excite our hopes that the merry monarch of Fleet-street will become naturalized in Australia."

THE ARCHITECTURAL MUSEUM.

THE autumn session was terminated on Monday, the 10th instant, with a lecture "On the Formation of a National Museum of Architectural Art," by Mr. C. Bruce Allen, which, in spite of the cold weather, was well attended. At its close, Mr. Lomax announced to the meeting that the Museum would be shut during Christmas week, but that it would afterwards continue open on Monday and Wednesday evenings till further notice; that the *award* of the prizes would take place early in January, but that the *presentation* would be deferred till the spring, when a special meeting would be held for the occasion; that the committee hope shortly to announce the course of lectures for the Midsummer session of 1856, together with the particulars relative to the prizes for that year; and that amongst the subjects of competition, metal-work will have place.

Art workmen were reminded that they could secure all the advantages of the Institution, including admission to the lectures, and the annual meeting of the members, by a subscription of 5*s.* a year; and their attention was called to the present moment, as being a good time for entering their names, as the subscriptions become due on January 1st in each year.

On the whole the session has been very successful, and the lectures have been very well attended.

WHAT ARE WE TO DO?

DO, pray, come to my assistance. I am quite bewildered with the various ideas and theories now put forth, as connected with the architectural world. A certain set—call them, if you please, the Anti-Restorationists—tell us, that no old work should be restored; that the ancient stone should, above all things, be respected; that the design of a beautiful building may perish from off the face of the earth,—it may become like a blank page, or as devoid of architectural appearance as an old stone quarry to the general observer; but it must not be touched,—no matter if every line and feature can be sworn to, the restoration is not *the* thing, and all interest is consequently gone.

"A thing of beauty is a joy for ever," as you very truly observed some time ago; but the Anti-Restorationist says, all beauty is gone if the object be restored, from which I conclude that the beauty is artistical rather than architectural: the tints and colours on the stone, the romance connected with a bygone age, the identical stone itself, and not the architectural features, are the *desiderata*: the thing of beauty of the fourteenth century is not such if repeated in the nineteenth century. How am I to reconcile this apparent anomaly?

I most thoroughly appreciate and delight in the appearance of an old building, and am fully aware that, however beautiful the design of new work, or a strict copy from old, may be, many years must elapse before it assumes the charming effect which age alone can give; but I cannot understand that excessive sympathy with old stone which will sacrifice a splendid composition, and be content with a crumbling and unintelligible mass, in lieu of what all acknowledge to be beautiful,—will, in fact, care nothing for the picture so long as they can retain the canvas. Pray enlighten me, and let me know if our much-abused friend, "Common Sense," has any hand in this movement, or whether it is simply a whim and fashion of the day.

In glass-painting, again, we have one set of artists going one way, another in a directly opposite course. The first say, Let us have nothing but repetitions of old work, the human figure humpbacked, wry-necked, with distorted limbs; animals and architectural arrangements that are simply impossible; and absurd things, which, taken as a whole, might be creditable to *Charivari*, and the only point in which is, that the second commandment has not been broken; many of them copied from subjects which have been the best efforts of their originators, and carried out with the highest feeling, but without the necessary knowledge of drawing. How one of these ancient men would laugh at our folly, could he arise and find us copying his defects, rather than from his models; defects, too, which he would have gladly remedied had his opportunities been such as are now afforded.

How many years is necessary to establish the great interest? Would one of the most energetic copyists go back to the time of Watt for a steam-engine, and take his first production for a pattern, as being most mediæval? And would he not, when questioned as to his absurdity in so doing, flourish aloft the shield of "authority?" that dreaded word, at sound of which all unbelievers are bound to hold their peace.

The other set of glass-painters are the antipodes of those I have just been speaking of. If they wish to represent a man or an angel, they make them unmistakably what they are intended for; and all objects taken from nature are made to look as natural as possible. This treatment is surely correct?

I do trust that this letter may call from you or some of your well-informed readers a reply or replies, that may help to settle these very troublesome questions, and release us from such slavish notions; and you will thereby benefit many, by teaching them what to avoid and what most to seek for—amongst others, yours,

P.

STAINED GLASS.

St. Paul's Church, Brighton.—A three-light window, representing the Annunciation, Resurrection, and Feast of Pentecost, and tracery, with censing angels, has just been put up here, executed by Mr. Lavers, from drawings by Mr. Alfred Bell.

Leigh Church, Surrey.—A window, by the same artist, representing the Descent from the Cross, has just been put up in this church, which was reopened on Monday, the 10th inst.

Buttermere Church, Surrey.—Two windows have been erected here, of Lavers's printed quarries and borders, under the directions of Mr. R. J. Withers, architect.

St. Andrew's Church, Plymouth.—Through the liberality of the Mudge family, the interior of this church has been further embellished by the erection of another stained-glass window (in memory of the late Admiral Mudge, and his wife). The work has been executed by Messrs. Wailes, of Newcastle-on-Tyne, whose reputation is considered to be well sustained by it. The centre bay of the tracery of the window contains a shield, with the motto of the family, and "All's well," emblazoned on it. The two side bays indicate the profession of the deceased officer. Beneath, in the upper part of the four bays, is a row of four shields, with the family arms, quartered with others, and below the figures of the Evangelists. Beneath there are additional coats of arms, terminating with the inscription.

Preston Church, Weymouth.—Messrs. Gibbs have just executed, in stained glass, the east window of Preston Church, Weymouth. It consists of a large pictorial subject of the Crucifixion. The window is of three openings. The artists have introduced the two thieves, one in each side opening. In the grouping of the subject, they have avoided the cutting of the figures by the mullions. Perspective drawing has been introduced, with rich colouring, in the treatment of the window, the tracery as angels, bearing the monograms on shields. The window is the gift of some members of the family of the vicar, the Rev. Talbot Baker, and carried out according to their wishes.

Trinity Church, Weymouth.—The new window of stained glass in the chancel of this church is now completed. This work has been erected at the cost of the Rev. H. and Mrs. Cheales, of Ringwood, in memory of the late Mrs. Offley, mother of Mrs. Cheales. The tracery is filled with angelic symbols and angels bearing scrolls, on which are written texts of Scripture. In other parts are placed full-size figures of the Apostles, and the crucifixion and ascension of our Lord. Underneath is the inscription.

Magdalen College Chapel, Cambridge.—It has been determined to erect a stained glass window in the chapel of Magdalen College, in memory of the late Dean of Windsor. It was at his particular instance that the college chapel was restored and beautified. The expenses of the proposed window, which it is proposed shall be of the highest class, will be chiefly defrayed by the members of the college.

Weeton Church.—The internal appearance of this church has recently been enriched by the addition of two stained glass windows in the chancel, which have been subscribed for and presented to the church by a few tradesmen, from respect towards the Earl and Countess of Harewood, by whom the church has been erected and endowed. The subject of the window nearest the east end is "The Two Sacraments:" in one light there is a figure of John the Baptist baptising our Lord, and in the other light there is a representation of the institution of the Lord's Supper. The other window, immediately above the seat occupied by his lordship, contains a figure of St. Barnabas, St. Barnabas's day being not only the birthday of his lordship, but the name of the saint to whom the church is dedicated. The windows have been executed by Messrs. Wailes.

Carlisle Cathedral.—The remains of Archdeacon Paley being interred in the north aisle of Carlisle Cathedral, and the plain marble tablet, recording his name, &c. having recently been removed, it is suggested that a favourable opportunity is now afforded for the erection of a memorial window of stained glass, in honour of the renowned divine and moralist. Already offers of subscriptions have been made, and there is little doubt that contributions would be forwarded from all parts of the kingdom if the project were fairly set afloat under proper auspices.

Kendal Church.—Touching our mention of a new window in Kendal Church, a correspondent, "Arthur Billing," writes as to the other twenty-two windows in the building:—"The church consists of a nave, two aisles, chancel, and side chapels: the nave has a clerestory of sixteen windows: these were subscribed by some of the gentlemen forming the committee, the vicar, his wife, and the builder. Two windows at the west end of the north aisle are memorials: one window in the Bellingham Chapel is the same, by a gentleman of the committee. The great west window is also a memorial, to his son, by Mr. James Gandy, of Heaves Lodge. The window of the Lady Chapel, at the side of the east window, is a memorial to the ancient family of Chambre, by Major Chambre and his son; and there is one other of little pretensions. These will be found to make up the number alluded to. The two memorials at the west end of the north aisle, four of the clerestory windows, and the latter were executed by Mr. Pilkington, of St. Helens. Twelve of the clerestory windows, the great west window, that in the Bellingham Chapel, and the Chambre memorial, were executed by Mr. Warrington, of London.

GOLD.

INSTITUTION OF CIVIL ENGINEERS.

At the meeting on the 4th inst. the paper read was "On the Vertical Structure of the Primary Rocks, and the general Character of their Gold-bearing Varieties," by Mr. Evan Hopkins. In the course of it, the writer said it was commonly imagined that the diggers were obtaining great riches, and, therefore, that public companies ought to make great profits; but according to the author, this idea was founded in misconception. The diggers, on an average, barely obtained an amount of gold equal in value to 2*l.* per man per week; whereas the companies paid upwards of 3*l.* per week for similar labour: this fact, coupled with that of the companies not being able to procure productive gold ground, would, to some extent, account for their ill-success in the colonies.

The following statement was given, to show the value of gold obtained since 1851, chiefly by ordinary digging and washing, from two of the most productive gold regions in the world—California and the colony of Victoria:—

CALIFORNIA.

In 1851.	Value in round numbers	£6,898,500
1852.	" "	9,155,800
1853.	" "	10,781,400
1854.	" "	10,302,000
1855.	Estimated (on 9 months' produce).....	8,644,000

THE COLONY OF VICTORIA.

Part of 1851 and 1852.	Value in round numbers	£14,000,000
1853.	" "	11,500,000
1854.	" "	8,300,000
1855.	Estimated (on nine months' produce)	8,000,000

The author expected, that by granting more liberal terms to systematic companies of diggers, increasing the facilities for obtaining and accumulating water, adopting improved modes of washing, &c. the produce of gold, from the colony of Victoria alone, would not fall much below the value of 6,000,000*l.* per annum for some years to come, which was about double the amount of gold now obtained from the Ural or Siberian gold-fields.

GAS FOR THE MILLION, *VERSUS* RUSSIAN TALLOW.

In a recent number "An Englishman" called attention to a substitute for the Russian tallow used in the manufacture of soap. The consumption of it may also be much diminished by the extended use of gas, to the great and permanent benefit of this country, and of vital interest at the present time. The use of gas may be increased to an enormous extent, as there are many small towns and villages entirely without it, in which works might be erected at little cost, and prove a most lucrative investment. I would suggest the formation of a national company, or of one say for each county, to supply such places with gas at a moderate price. By obtaining a General Act of Parliament, much preliminary expense would be avoided, and afterwards a great saving in management, &c. would be effected. Each place to be supplied could have a certain number of shares allotted, with the option of taking its own works when complete, at cost price. The Limited Liability Act might be made of service for this purpose. A very great increase in the consumption of gas could also be effected in towns where it is at present supplied, if the companies would provide all fittings complete, charging a moderate rent for the use of them, holding a deposit from each party supplied, allowing interest thereon, and returning the same when the fittings are returned, or arrangements made with the succeeding tenant.

I should be a consumer at present; but as I must leave my present abode within a year, I might have to remove fittings to a place where there is no gas, or submit to a great sacrifice, which would not be the case with the companies, as they could remove them to another house, or keep them in stock, with a certainty of their being wanted, and of course the prime cost to them would be much less than to me.

I have reason to believe there are thousands in London alone, similarly situated to myself, so you will see the importance of the matter, which must be my excuse for trespassing so much on your space.

ANOTHER ENGLISHMAN.

TESTIMONIAL FROM THE SMITHFIELD CLUB.

At the annual dinner of the Smithfield Cattle Club, held at the Freemasons' Tavern, on the 12th inst. under the presidency of the Earl of Richmond, a very handsome testimonial was presented to Mr. Brandreth Gibbs, for his valuable services during a number of years as honorary secretary. It consisted of a candelabrum for six lights, representing an oak tree, with spreading branches and foliage. In the centre is a trellis-work frame, to support a crystal bowl. Around the foot of the tree are grouped a short-horned ox and other cattle, modelled from nature, and standing upon a chased tripod base, with three panels properly ornamented and inscribed. Also a pair of chased wine-coolers, or flower vases, with demi-horses as handles, standing on square plinths, in the panels of which are represented various prize animals. All were manufactured by Messrs. J. W. and F. B. Thomas, of New Bond-street.

The chairman, in presenting it, gave some well-deserved praise to Mr. Gibbs, who responded in a singularly good speech of considerable length. One of his suggestions—that the improvements or discoveries made by the prizeholders, should be published annually, in the shape of a pamphlet,—should be adopted forthwith.

Miscellanea.

EASTERN COUNTIES RAILWAY AFFAIRS.—There is a "tremendous blow-up" in the management of the affairs of this railway, the shareholders and manager being at sixes and sevens, the former voting the latter's instant dismissal, and the latter (Mr. Waddington) insisting on his right to maintain his position till February next. An adverse report by a "Committee of Investigation" is the moving cause of this explosion; but as Mr. Waddington demands time for his reply, and as Englishmen are celebrated all the world over for "fair play," and for "hearing" before they "strike," it is to be hoped that the shareholders will not rashly persist in carrying out their vote of condemnation before hearing, especially as a house so divided against itself cannot well stand, and a disputed authority will assuredly lead to much mischief, both to themselves and to the public, whose lives will be additionally risked on their line, so long as such a state of things continues.

ENFIELD WATERWORKS.—In a notice of the opening of the above works in your last week's impression, it is stated that the engines "are from the works of Headly and Mawing, Cambridge." Will you please correct the mistake this week, and allow us to say that the engines, boilers, and pumps were erected by HEADLY and MANNING.

OXFORD ARCHITECTURAL SOCIETY.—On 28th ult. the members of this society, and others from Oxford and its vicinity, attended a *conversazione* given in the society's rooms by the president, the Rev. Rector of Exeter College. The Rev. T. James read a lecture on "Church-work for Ladies." The paper referred chiefly to the works of the needle, but also called the attention of ladies to many other departments in which they might be usefully employed in forwarding the objects of architectural and ecclesiological societies, and in promoting the greater comeliness of our churches. Later in the evening, Mr. G. E. Street gave a description of some of the pieces of work which were exhibited in the room. A special general meeting had taken place on the 27th, for the purpose of electing officers for the ensuing year. The last meeting of the society for the term was held on Wednesday before last.

LECTURE AT OXFORD, BY COLONEL RAWLINSON.—A lecture on recent discoveries in Assyria and Babylonia was delivered in the Sheldonian Theatre by Colonel Rawlinson, C.B. Hon. D.C.L. on 5th inst to an audience calculated at 1,500 persons. The lecture was mostly extempore. The lecturer traced briefly the progress of cuneiform discovery from the beginning of the century to the present time, giving a graphic account of his own adventures in procuring copies of some of the chief inscriptions. The lecture was illustrated by diagrams and views, and by a large map of the Mesopotamian valley, from Korsabad to Mugheir, by paper casts taken from the rock inscriptions of Hamadan, by transcripts of these inscriptions in a clear large type, by a full-sized cast of the famous black obelisk, lent for the purpose by Dr. Acland, and by other means. At the conclusion of his lecture, which was applauded very warmly throughout, and for which the lecturer was formally thanked, Colonel Rawlinson called special attention to the importance of the subject, not only as filling up a great blank in history, but especially as confirming and authenticating the historical truth of Scripture, which many persons at the present day — more perhaps on the continent than in England—were seeking to call in question.

THE COLD IN WESTMINSTER ABBEY CHURCH.—Can nothing be done to render the Abbey Church of Westminster as fit to receive a congregation in the *cold* weather as the other churches generally in this metropolis? With whom does the matter rest? The same method of raising the funds for warming the church as was adopted in respect of the stained glass in the south transept windows, might surely be rendered available. See what has been done in the way of warming at St. Paul's. Go and feel what remains undone at St. Peter's. Much has otherwise been done of late to accommodate the public in the Abbey Church, under the skilful superintendence of their present architect; "*raison de plus*" that the public should be enabled to avail themselves of the advantage, without the drawback of perishing for two mortal hours in what is, *quoad* temperature, an ice-house.—A. B.

THE LIVERPOOL MASTER MASONS.—The annual dinner of the master masons and builders of Liverpool was served up on Tuesday evening before last, at the Durham Ox, Brownlow-hill. Mr. George Bowers occupied the chair, and Mr. Barker, of West Derby, supported him in the vice-chair. Amongst the tradesmen present were Messrs. Wells, Wilson, Thornton, Glaister, Yates, Tomkinson, J. Hook, Hargreaves, Buerley, Nuttall, Woodward, of Ruabon, Arthur Holme, &c. The proceedings of the evening were pleasingly enlivened by amateur singing.

EXPLOSION OF A STATUE.—An odd sort of gas-explosion took place at the Royal Exchange, Edinburgh, last week, while a workman was examining a large plaster cast of a female figure, about 7 feet high, which stood in a niche of the lobby, and through which a gas-pipe passed to a branch in the hand. The statue exploded with a loud report, and burst into a thousand pieces.

NEW BUILDING MATERIALS.—The French talk of a recent crotchet (a beer-house building speculation, probably) of some one said to be on the way to Sebastopol for stones to build with near London,—as being peculiarly English. The genius which suggested the rearing, or, at least, the plastering of an edifice near Paris with buttons, was certainly as peculiarly French; but what shall we say of the following, which is going the usual "round of the press?"—"An ingenious hatter of Paris has constructed a house of felt, made out of 24,000 old hats. This house contains parlours, dining and bed rooms, and a kitchen. It is erected on a platform upon the plain of St. Denis, and can be transported from place to place!" Our immortal friend *Punch* might allegorize such an edifice by "tiling" the inventor himself with an endless turreted series of old hats, ever affording him "a roof above his head" wherever he may go. Holywell-street, however, is completely eclipsed by the Frenchman's "tile of tiles."

Society of Antiquaries, Newcastle-upon-Tyne.—The monthly meeting of this society was held Wednesday before last, in the Castle of Newcastle,—Mr. J. H. Hinde in the chair, when several donations to the society were presented; and Dr. Bruce intimated to the members that Mr. Roach Smith's catalogue of the Faussett Collection would shortly be ready, and, through the liberality of Mr. Mayer, of Liverpool, it would be published at a price (two guineas) that would simply defray the cost of production. It was resolved that the society should take a copy; and also subscribe to Mr. Smith's "Roman London," Mr. Clayton remarking, that anything of Mr. Roach Smith's was worth having. Dr. Bruce then read his paper "On the recent Explorations at Tremenium, on the Roman Wall," carried on during the summer at the instance of the society. The *Gateshead Observer* gives a report of this paper and the entertaining account of the miscellaneous collection of remains, ancient and less ancient, found during the explorations, and comprising Roman fibulæ and "Egyptian" teakettle-spouts, amphoræ and cannon-balls, Samian ware and oyster-shells,—which latter, though rifled by the Romans, were doubtless "natives."

Important to House-owners.—Much uncertainty having existed as to the legal nature of the agreements on paper between landlords and tenants, the following communication to the proper authorities, and their reply, will be interesting to all concerned:—"To the Commissioners of Inland Revenue, Somerset House, London.—Middlesbro', Aug. 18th, 1855.—Sirs: The seaport town of Middlesbro', in the county of York, contains about 14,000 inhabitants, and many dwelling-houses and shops are let from quarter to quarter, and from year to year, upon written memorandums of agreement, where the rents be under 20*l.* a year; and as some difference of opinion exists respecting the proper stamp-duties to be laid on such agreements, your opinion is requested, whether the common lease-stamp for such an agreement will be sufficient, or what other stamps (if any) all such memorandums require?—Your most obedient servant, Wm. Myers, Solicitor."——*Answer.*—Inland Revenue, Somerset House, London, 27th August, 1855.—Sir: The Board having had before them your letter of the 18th inst. I am directed, in reply, to state that the documents therein referred to will be chargeable with stamp-duty as leases, whether the tenancy be from quarter to quarter, or from year to year.—I am, sir, your obedient servant, Thomas Tingle.—W. Myers, Esq."

The Royal Scottish Academy.—The twenty-eighth annual report of the council of the Royal Scottish Academy of Painting, Sculpture, and Architecture has just been issued. The council begin their Report by congratulating "their constituents on the continued prosperous condition, and still opening prospects of the society." They allude to the establishment of the academy in the new building, and refer to the opening of the exhibition in the new gallery, to the works of art it contained, and "the full-dress reception on the evening of the 30th of April, when upwards of 1,200 ladies and gentlemen accepted the invitations issued. The popularity of the exhibition," it continues, "may be inferred from the fact, that the number of visitors exceeded that of any previous year by a full fourth. Of these, large numbers were attracted from the now neighbouring city of Glasgow, and other surrounding localities. The evening exhibitions, notwithstanding the enlarged accommodation, were, during the whole season, even more crowded than before. Considerable purchases were made by the Committee of the Royal Association for Promotion of Art in Scotland, by the Art-Union of Glasgow, and by private individuals—though many works of a high character remained unsold." The council advert to a gratifying communication from the Art-Union of London, stating that "the exhibition of the Royal Scottish Academy," along with that of "the Royal Hibernian Academy," is added to the list of exhibitions from which prizeholders are allowed to make their selections.

Wanted, a "Surveyor and Constable."—I notice a curious advertisement in your last number, from the Ware Local Board of Health. After advertising for a person to execute the duties of surveyor and inspector of nuisances, it goes on to say: "He must be fully competent to prepare plans, and give estimates to the Board of the probable cost of any works which they may require to be done, and he will be sworn in as a *constable*, which, I suppose, means that he must take upon himself the office and duties of a policeman, &c. Surely a person must have been respectably educated, and must well understand his business, to be able to prepare plans and make estimates for whatever works may be required in a district of about 5,000 inhabitants; and will such a person feel himself "honoured" when sworn in as a "constable," and called upon to act as such?—X.

Accident on the North Kent Railway.—On the evening of 7th inst. an alarming accident occurred to the up-train from Woolwich, near New-cross station, where the train was divided at one of the switches, breaking the coupling-chains, crushing several of the carriages against the dwarf wall, and seriously contusing many of the passengers, particularly of the third class. From subsequent inquiries, there appears to be reason to suspect that the switchman is to blame, by having introduced a piece of wood at the switch at a critical time, and in an endeavour to correct his own error.

Prizes for Architects.—Your correspondent, "J. B." (Nov. 24) is justly indignant at the miserable premiums offered for laying out the cemeteries at Hastings and at Northwood. But there is one point which he has overlooked, and which merits particular attention. It is that whereas the Burial Board of Northwood offer ten guineas for laying out their cemetery, and require likewise ground-plans, sections, and elevations, with estimates for the chapels, lodges, and other buildings,—that of Hastings offers 10*l.* merely for laying out the cemetery: the design is required to show the site only of the chapels, &c. This is a most important distinction. If architects *will* send in elevations, sections, and other drawings of buildings when it is merely required that the ground be properly laid out (and how often is this entirely disregarded as being of little or no importance),—can it be wondered at that burial boards and other public bodies should form so low an estimate of the services of architects?—C.

Proposed Industrial School.—On the motion of Mr. Antrobus, seconded by Mr. Turner, the Court of Justices have ordered that the sum of 7,500*l.* be raised on the security of the county rate for the purchase of land whereon to erect an industrial school for the juvenile offenders of the county of Middlesex, &c. The committee have selected a site at Feltham, within the county, about fourteen miles from the metropolis.

Metropolitan Bridges.—It has several times occurred to me in crossing London-bridge, that a great improvement might be effected in this crowded thoroughfare by erecting an elevated footway for foot-passengers, right over the centre of the carriage-way, the structure being supported at each side and in the centre by columns, and then adding the present footways to the carriage-way, reserving only some 2 feet on each side for the use of carmen. This would afford space for a regular concourse of four trains of carriages crossing, two on one side, in one direction, and two on the other in the opposite direction,—carts and slow-moving vehicles forming the two outside trains, and carriages and fast-moving vehicles the two inside trains. Two stairs at each end of the bridge, one on each side of the carriage-way, would afford access to and from the footway above.—W. B.

Trisection of Angles.—The importance of geometry to builders, architects, surveyors, and engineers, is of paramount consequence, and need not be dilated upon here. The letters on trigonometrical surveys, which lately appeared in your journal, gave great satisfaction to several of your readers to my knowledge, and awoke in many latent thirstings after science. I may mention that, at a Literary and Scientific Institution to which I belong, they led to much mathematical discussion on the object of such studies, the use and application of them to various arts and sciences, and also as to the limits of human knowledge, as instanced in the unwearied attempts of mathematicians to solve the problem of the quadrature of the circle, the duplication of the cube, and the trisection of angles. In connection with this subject, on referring to an encyclopædia, we found the following information:—"Trisection.—This term is chiefly used in geometry for the division of an angle into three equal parts. This is one of the great problems whose solution has been so much sought by mathematicians for above 2,000 years, being in this respect on a footing with the quadrature of the circle and the duplication of the cube. The problem of the trisection of an angle is ascribed to the responses of the Delphian oracle, and its solution has frequently called forth the powers of the most able mathematicians, both of ancient and modern times. In order to *construct* the problem, Nicomedes proposed the conchoid; and an elegant solution is given by Newton, in his 'Universal Arithmetic,' by means of the hyperbolic curve. Leslie, however, instead of attempting a solution in which so many had signally failed, thus expresses his opinion:—'Such are the final conditions on which the trisection of angles depend, that to fulfil them in general exceeds the powers of elementary geometry.'" It would appear, then, that the solution of this problem has not as yet been satisfactorily achieved. If, however, any of your readers and correspondents know of any solution, and will send it to you for insertion, it will oblige and confer a favour upon great numbers of your subscribers.

Constant Reader.

Norfolk and Norwich Fine Arts' Association.—The statement of receipts and disbursements for the recent exhibition, shows that more than 300*l.* have been paid to artists, and that after defraying all expenses, there is a surplus of 21*l.* 11s. in the hands of the committee. Mr. Claude Nursey, the headmaster of the Government School of Art, acted as hon. secretary. The numbers in the classes in connection with the Norwich School of Art, are at the present time—Central school pupils, 148; pupils in out-door classes, 728; total, 876.

Glasgow Athenæum Soiree.—On Thursday evening, the 6th, the third *soirée* of the Glasgow Athenæum was held in the City Hall, Glasgow. The meeting was a crowded one, notwithstanding the great size of the hall. The Earl of Eglintoun was in the chair, and delivered a practical and sensible speech, in which he called upon the rich and the influential of Glasgow to put their shoulders to the wheel, to leave no stone unturned, to leave no means untried which are calculated to have the effect of providing good and adequate instruction for their poorer fellow-citizens. The assemblage was afterwards addressed by the Lord Advocate, Sir M. S. Stewart, Professors Swinton, Blaickie, and Nichol, Mr. A. Hastie, M.P. Sir Archibald Alison, and others, and various appropriate resolutions passed.

The Adulteration of Annatto.—A paper has been read, at the rooms of the Pharmaceutical Society, Bloomsbury-square, by Dr. Hassall, on the subject of the Adulteration of Annatto, a vegetable colouring matter much used by dyers, painters, and soap-makers, and also employed to colour cheese, milk, and butter. The following substances were detected entering into its composition: very large quantities of wheat, rye, and barley flours in fourteen specimens, turmeric powder in several, chalk in a great many, this in some instances amounting to over 60 per cent.; sulphate of lime or gypsum in several, salt in a great many, an alkali in several, red earths, as Venetian red and reddle in a great many, lead in three samples, and copper in others.

Ball-taps.—I think there are few but will agree with me that the ordinary metallic ball-cock in water cisterns is exceedingly objectionable, if not positively dangerous. The use of lead pipes for the conveyance of water is universally condemned, but the constant contact of our water with such poisonous metals as copper and brass, has scarcely been noticed. The corrosion of these cocks is not only dangerous, but it renders them unserviceable, proving a source of inconvenience where no waste pipe is attached. I would suggest the employment of glass or earthenware cocks, with gutta-percha balls or floats. They could not convey any impurity to the water, would be as cheap, or cheaper, than the ordinary cock, and of course would prove valueless to depredators, on the look out for old metal.—W. G.

The Society of Antiquaries of Scotland.—The seventy-sixth anniversary meeting of this society took place on Friday in week before last, in its hall, George-street, Edinburgh. Dr. L. Alexander, as senior vice-president, occupied the chair, and delivered an introductory address, of which the meeting requested that he would furnish an outline to the secretary for preservation. The secretary then read a report of the society's transactions during the past session. The treasurer reports that the funds are now in a better position than they have been for many years. The fourth volume of the "Archæologia" is forthwith to be completed, and there is reason to expect that the "Proceedings" of the society will hereafter become more attractive, as the funds enable the council to add to its illustrations and bulk. The removal of the museum to the new buildings on the Mound is now not far distant. During the past year various objects of interest have been added to the museum, both by purchase and donations. The visitors during the past eleven months have amounted to 16,909; being more than 3,000 above the numbers in the previous year.

Mr. Bunning has been presented with a handsome diamond ring, by the Marquis D'Azeglio, by order of his Majesty the King of Sardinia, as a memorial of his Majesty's approbation of the decorations at Guildhall on the 4th of December.

The new Clock of Canterbury Cathedral.—The new clock and bells at the Cathedral of Canterbury have been completed. The clock was supplied by Mr. W. H. Trimuell, and the frame is 9 feet 4 inches long; weight of clock, two tons; weight of pendulum ball, 460 lbs. (spring suspension), which is said to be heavier than any yet supplied. The clock will strike the quarters on the first and fourth bells, and hours on the old bell "Dunstan," hanging upon the top of the Oxford steeple, above the leaden roof, and weighing 7,500 lbs. Two of the bells which were cracked have been recast; and such means of strengthening the tower have been resorted to as will permit the bells being rung again, as of old. There will be ten bells.

MODEL OF TIPTREE-HALL FARM. — Among the novelties which Mr. Pepper has lately added to the attractions of the Polytechnic Institution, is a large model of Tiptree-hall Farm, the scene of Mr. Mechi's well-known experiments in agriculture. The size of this model is such as to enable the system of housing and feeding cattle which Mr. Mechi has pursued to be understood at a glance; and to facilitate the examination, the modellist (Mr. Merrett, architect and surveyor, Fetter-lane) has made the roofs of the buildings removeable. Everything, therefore, is plainly seen—the steam-engine, the cattle-sheds, the pig-geries, the corn-stacks, and all the accessories of the farmyard.

MONSTER GLAZED STONE WARE TUBES. — Engineers have long felt the want of something to form conduits for waterworks, which should carry water pure and sweet to their reservoirs. A correspondent states, that some pipes are being made at the manufactory of Mr. J. Cliff, 4 feet 6 inches diameter, 3¼ inches in substance, and 4 feet long, for an engineer in Lancashire.

WATERLOO-BRIDGE COMPANY. — At the ordinary half-yearly meeting of the proprietors, the report of the directors stated that the total income of the company for the half-year amounted to 10,858*l.* 16s. 11d. and the expenses of management and for keeping the structure in repair, to 1,432*l.* 11s. 6d.; leaving a balance of 9,426*l.* 5s. 5d.; from which there was to be deducted 489*l.* 18s. 3d. income-tax; 1,245*l.* 15s. 3d. interest on bonds; and 7,500*l.* the amount of a 4s. in the pound dividend on 37,500*l.* annuities, leaving 190*l.* 10s. 11d. to be carried to the reserve, making it 1,690*l.* 8s 4d.

NEW IRON SHOT-TOWER.—A tower formed of cast iron, for the manufacture of shot, has just been erected in New York, by Mr. J. M'Cullough, a shot-manufacturer, the designer and builder being Mr. James Bogardus, who is called the first projector of iron houses. The foundation of the tower is of solid masonry, 4½ feet thick, on a basis 18 feet below the surface of the ground, and 25 feet diameter: on this is bolted the first portion of the iron structure, through twenty holes, 18 inches apart, by wrought-iron bars 2 inches diameter, to which the lower tier of cast-iron pillars are keyed. This tier of cast-iron columns supports the entire superstructure, and they are said to be of sufficient strength to sustain a weight of 28,000 tons. Upon the tops of the first tier of these columns there rests a cornice, made in ten sections, each pair meeting over the centre of a column. Upon the lines of junction stand the next tier of columns, then another cornice, succeeded by more columns, all made to break joint, and firmly bolted together. These are carried up to the height of 174 feet above the ground. The tower tapers from 25 feet outside diameter to 15½ feet, the inner compartment being 2 feet less. The metal employed in the construction is something under 100 tons, less than 170th part of what the first tier of columns would sustain. Mr. M'Cullough estimates that this tower is capable of making 5,000 tons of shot per annum.

SELF-CONTAINED HOUSES. — Having lived in Edinburgh several years, I have necessarily seen a better class of houses for the poorer classes than is common in London. A number of small houses under the same roof—*self-contained* houses as they are called—are more comfortable than a large single house divided into several houses, and let to separate families. There is great need of improvement in this way in London. But capitalists are not likely soon to build better houses for the labouring classes. They must be stimulated to it. Probably a London Building Society would stimulate them. Such a society, beginning with a moderate capital, and taking advantage of the Act of Limited Liability, might build small, comfortable, elegant houses, after plans of your suggestion. A very good per-centage would be realized on the outlying capital, and the present style of houses would speedily give place to a better. *It is possible to give a comfortable dwelling-house for a small rent, and yet realize a good per-centage on the capital.* Capitalists acknowledge this; but of course they must have as large profits as possible—the larger the better. For this reason London houses are what they are; and I see no hope of improvement unless a society begin it.—J. M.

OLD LEATHER.—A correspondent urges the use of old and waste leather, and cuttings of every description, as a substitute for *papier mâché* in the manufacture of architectural ornaments. He says: "This material by itself, or in combination with ordinary *papier mâché*, is admirably adapted for the manufacture of various useful and ornamental articles, now made from gutta-percha or *papier mâché* exclusively; at the same time it would reduce the present cost of such articles in no inconsiderable manner, old leather being at present next to valueless. I have deposited various specimens at the Society of Arts, in the hope that some encouragement will be given to this invention."

PATENT DOVETAILED ARCH-BLOCKS. — These blocks, designed by Mr. W. Austin, of Holywell-street, Westminster, for the construction of tunnels, arches, drains, &c. when once united in a complete ring, are said to be inseparable and indestructible. The blocks can be made to unite so closely and uniformly in their joints, that little or no cement or mortar is required. The blocks being prepared to any size, from 1 to 100 cubic feet, in iron moulds, insures their uniformity and regularity, internally and externally; and no labour beyond that of fixing or setting is required. Considerable facility is afforded for this by the orifices through the blocks, which form grip-holes for sling-chains in lowering into the works, or for hoisting, if used vertically; but the principal intention of the orifices is to strengthen the works by forming dowels, or vertical ties, for grout or bolts to pass through, each block breaking bond. The principle is also applicable for straight walls of masonry, and can be used in horizontal positions; such as railway-tunnels, sewers, and aqueducts, &c.

FALLING IN OF A SEWER. — Thomas King, a labourer, lost his life by the falling in of a sewer, in Union-row, Walworth, on Wednesday, the 28th ult. when he was buried with four other men, who providentially were not killed.

TENDERS

For St. Luke's Church, New-road. Mr. J. Johnson, architect. Quantities not supplied:—

Rowland and Evans	£6,541	0	0
Carter	6,409	0	0
Dove, Brothers	5,978	0	0

For the erection of a warehouse for Messrs. Dent, Allcroft, and Co. Wood-street, Cheapside. Messrs. Tillott and Chamberlain, architects. The quantities supplied:—

Piper and Son	£5,156	0	0
Brown and Co.	5,106	0	0
Haynes and Eyre	5,077	0	0
Rider	5,085	0	0
Holland and Co.	4,897	0	0
Lawrence and Son (accepted)	4,849	0	0

TO CORRESPONDENTS.

"J. M. M."—"W. V." (employ an architect).—"D. D and Co."—"Ilkeston."—"H. S."—"W. L. S."—"L. M." (it is not the custom to make any deduction from the amount of the tender, but to charge commission on the whole. Although in strictness this is incorrect, it must be remembered that the amount of the lowest tender does not *always* show the fair value of the work done.—"J. W. C."—"W. G." (the plug would be liable to stick).—"Mr. B."—"J. G."—"H."—"J. B."—"W. H. H."—"Nature and Art" he may surely find an opportunity to show on paper what he can do).—"W. H."—"F. D."—"H. C."—"Aquila."—"J. C."—"J. S. M."—"M. J. L."—"J. E."—"J. A. N."—"J."—"F. H."—"W. F." (we are unable to advise).—"J. T."—"A. L." (next week).—"A. S. G." "J. W. L."—"W. F. H."—"A Hampshire Builder" (no settled rule: the *largest dimension* is usually taken first).

NOTICE. — All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

ADVERTISEMENTS.

TO BUILDERS' CLERKS.

A CLERK WANTED, in the Office of a London Builder. He must be well versed in accounts, accustomed to take out quantities, make estimates, and measure up extra works. First rate references will be required.—Address, stating salary required, to R S Office of "The Builder."

MR. FRANCIS BEDFORD, Lithographic Artist, has a VACANCY for an OUT-DOOR PUPIL. A premium required, and a taste for drawing indispensable.—23, Rochester-road, Camden New-town.

WANTED, as FOREMAN, a Man who is fully understands the Carpentry and Joiner's business, and can draw plans &c. Good references required.—Address, W. WAGHORN, Plumber, Tunbridge Wells.

WANTED, by an ARCHITECT and SURVEYOR in the City, lofding appointments, an OUT-DOOR PUPIL, to whom will be afforded peculiar advantages for learning the profession.—Address, S. E. Office of "The Builder."

WANTED, for the Stockport Borough Gas-works, a MANAGER, whose age shall not exceed fifty years. He will be required to devote the whole of his time to the duties of his office, and never thereon on the 1st January, 1856. Sealed applications, with testimonials enclosed stating age and present occupation, to be addressed to the Chairman of the Gas Committee Bridge Works, Stockport, on or before WEDNESDAY, the 26th DECEMBER inst. and endorsed, "Application for Gas Manager." Salary, 250*l.* per annum.

JOHN VAUGHAN, Town-clerk.

Stockport, December 4, 1855.

WANTED, immediately, in a Builder's Office in the country, a PERSON, who has been accustomed to take out quantities, and fully understands the general business of a builder; as permanent employment will be offered, a person of middle age preferred, and who can give unexceptionable references and security.—Applications in the handwriting of the applicant, stating last employment and salary expected, to be addressed, in the first instance, to Y Z Messrs. M'Kewan and Co. Printers, 47, London-wall, City.

WANTED, a CLERK of the WORKS, to superintend the completion of a STONE RESERVOIR, at Llanelly.—Applications, with testimonials, may be addressed to J. H. TAUNTON, Esq. C. E. Brimscombe House, Stroud, Gloucestershire.

WANTED, in a Mahogany, Rosewood, and Hardwood Yard, a YARD-SALESMAN, acquainted with the retailing of these woods. Must have had application as yard-salesman or foreman in a retail mahogany yard for not less than five years. If found suitable, the terms of the engagement will be on a liberal scale. Address, by letter, A. B. Alley's Newspaper Office, 89, Chiswell-street.

WANTED, a SHOEING-SMITH, recently out of his apprenticeship, who is clever at the wheelbench. He would live and work in a large establishment.—Address, J. SIMPSON, Park-place, Petersham, Surrey. A teetotaller preferred.

TO PLUMBERS AND GLAZIERS.

WANTED, in the country, a good PLUMBER and GLAZIER. One accustomed to the general work of an estate, possessing a knowledge of pump and water-closet apparatus, glazing, &c. A steady, useful man, may meet with permanent employment.—Apply by letter, to C. B. A. care of Mr Holden, Builder, Windsor, stating age, wages required, and references.

TO ARCHITECTS.

WANTED by the Advertiser, a SITUATION as DRAWING CLERK or DRAUGHTSMAN.—Address by letter (post-paid) to W. L. 10, Belgrave street, Argyle square, King's-cross.

TO ARCHITECTS AND SURVEYORS.

WANTED, by the Advertiser, in an Architect's Office, a SITUATION as ASSISTANT. Can make all drawings and superintend works, and is acquainted with the different styles. Has had some experience in specifications and quantities. Salary moderate. Good testimonials. Country not objected to.—Address, E. T. 5, Selwood-terrace, Brompton.

WANTED, a SITUATION, by the Advertiser, as JUNIOR ASSISTANT in a Surveyor's or Engineer's Office; is a good draughtsman, and has a thorough knowledge of land surveying, as well as a little of engineering. Unexceptionable references.—Address to F. F. Office of "The Builder."

TO CARPENTERS AND BUILDERS.

WANTED, to APPRENTICE a YOUTH, 16 years of age, in-doors, to the above business. He has served two years, and only left in consequence of his master's bankruptcy.—Apply to W. T. at Mr. Pratt's, No. 16, Smithfield-bars. Country preferred.

TO ARCHITECTS AND BUILDERS.

WANTED, by the Advertiser, a Young Man, aged 23, a SITUATION, as CLERK, in an Architect's or Builder's Office. Is a fair draughtsman, and understands the practical part of the building business generally.—Address, F. C. 17, Heathbrough-place, Belgrave-road, Pimlico.

WANTED, a SITUATION as IN-DOOR APPRENTICE to a CARPENTER, by a lad of 16, at Lancaster, Liverpool, Manchester, Wakefield, Leeds, Derby, Nottingham, Leicester, Loughborough, Norwich, Bristol, Bath, or Stourbridge. 20*l.* premium will be given.—Address, J. R. H. Mr. Joseph Coates, High-street, Hampstead, London.

TO PLUMBERS AND BUILDERS.

WANTED, by the Advertiser, a SITUATION as PLUMBER and GAS-FITTER. Is well experienced either in the jobbing or building trade. References if required.—Direct Y. Z. at Mr. Broad's, No. 29, Church-street, Camberwell.

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WANTED, a SITUATION as CLERK, by a Young Man in his 25th year, who has been regularly brought up in a Land Agent's Office, and well experienced in mapping, drawing, &c. and for the last three years has been constantly employed by a first-rate London Architect.—Satisfactory references may be obtained, and further particulars, by letter to T. G. Office of "The Builder."

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WANTED, by the Advertiser, aged 25, an ENGAGEMENT (either temporary or permanent, in town or country. He is a good draughtsman and colourist, can make out specifications, take out quantities, and keep builders' books; is also an excellent land surveyor and leveller. Small salary only required.—Address, A. B. care of Mr. Sapwell, grocer, 86, Dean street, Soho.

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THE friends of a respectable YOUTH wish to place him in town as IN-DOOR APPRENTICE, where he can learn the joiner's branch of the trade.—Address, C. B. 2, Dartmouth-street, Westminster.

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TO BUILDERS, &c.

TO Persons requiring work measured and carried into bill, estimates made, or the yearly accounts arranged, the ADVERTISER OFFERS his SERVICES; he has had several years' experience in all matters relating to building, and may be engaged on advantageous terms, either in town or within fifty miles.—Address, E. W. L. Office of "The Builder."

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THE Advertiser, an experienced ARCHITECTURAL and MECHANICAL DRAUGHTSMAN, is open to an ENGAGEMENT; is competent to superintend works, and is a good land surveyor and leveller. Speaks the English, French, German, and Italian languages. Satisfactory references will be given.—Address, C. SLINN, 9, City-terrace, City-road.

CLERKSHIP WANTED.—To MECHANICAL ENGINEERS, MANUFACTURING FIRMS, and OTHERS.—A well-educated and highly respectable Young Man, 23 years of age, of good address and active business habits, desires a RE-ENGAGEMENT as CONFIDENTIAL CLERK, COLLECTOR, or TRAVELLER. He writes a fine hand, and is an excellent accountant, being perfectly competent to take the entire charge, or any separate department of a Mechanical Engineer's or Manufacturer's Counting-house. Four-teen years' experience. First-class references as to ability and integrity. Address, F. A. care of Joseph Fallows, Esq. Solicitor, 198, Piccadilly.

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A PRACTICAL SURVEYOR offers his ASSISTANCE in measuring, estimating, or the making up of builders' accounts. Terms moderate and per agreement.—Address, X. Y. Office of "The Builder."

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A YOUNG GENTLEMAN of first-rate ability and practical knowledge is desirous of an ENGAGEMENT, in London or the provinces. He is thoroughly efficient as an architect in the design and execution of every approved style, and well acquainted with civil engineering in its several applications; is capable of taking the entire management of an office, and is a superior surveyor, leveller, and ornamental draughtsman. Satisfactory specimens and testimonials can be produced.—Address, PERICLES, Office of "The Builder."

AN ARCHITECTURAL ASSISTANT, having a good knowledge of construction, design, perspective, and the general practice of an architect and surveyor, is desirous of a RE-ENGAGEMENT. — Address, J. G. No. 20, Bouverie-street, Fleet-street.

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A GOOD DRAUGHTSMAN and GENERAL ASSISTANT, accustomed to the routine of the office is now open to an ENGAGEMENT. Salary moderate.—Address, A. B. 59, Huntingdon-street, Barnsbury-road, Islington.

AN Architect's Assistant, having fifteen years' experience in the office and out working, besides in competitions, is also an artist, and having the highest testimonials, is now desirous of a PERMANENT ENGAGEMENT.—Address, ARCHITECT, Office of "The Builder."

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A RESPECTABLE Young Man requires a SITUATION in one of the above Offices at Christmas. He served his time with a Builder and Surveyor, and has since been two years in a Builder's office in town. Salary required, 35s. per week.—Address, S S. Office of "The Builder."

PARTNERSHIP WANTED.—A thoroughly experienced and practical Surveyor, aged 31, who has just completed a foreign engagement, is open to make arrangements with any Architect, Land-agent & &c of established business, who would wish to add Surveying thereto, to take upon himself that department, and to have a share in the business, or not, according to agreement. Good references given and required. A country business preferred.—Address, A. B. Messrs. Dawson's News-office, Cannon-street, London.

TARPAULINS for COVERING ROOFS during Repairs, SCAFFOLD CORD and every description of ROPE used by Builders on the lowest terms. Marquees and temporary Awnings on sale or hire. Orders per post receive the most prompt attention. WILLIAM PIGGOTT, 125, Fore-street City, Manufacturer, by appointment to her Majesty's Honourable Board of Ordnance.

O. MCARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, White friars. Fleet-street, City. Sand from above can be delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Try rubbish delivered per barge, in any quantity, alongside the Thames.

VENTILATION.—PURE AIR.

With single pulley, from 6s. each; with leading pulley, from 8s. 6d. These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—JAMES SHERINGHAM, SOLE Manufacturers, 156, Blackfriars-road, and 47, Union-street, Borough; and of all respectable ironmongers, builders, &c.

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Yellow Deals	From £94	0 p. 120
Spruce ditto	" 15	0 "
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Prepared flooring and cut stuff of every description at equally low prices. A list forwarded on receipt of post-ace-stamp.
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Also Timber, Deals, Planks, &c. Mouldings by machinery in ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.
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FOREIGN PARQUET FLOORS.—Handsome and thoroughly-seasoned floors, of one-inch wainscot, in pattern, one shilling per foot.—HIGGS and CULLINGFORD, 59, Davies-street, Berkeley-square.

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Monumental and Vase Statues, finely executed in Italy
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July 25, 1855. C. ADENEY, Secretary.

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Marble of all kinds and of best quality, in block and slab, Marble in stears, &c.

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LOWER BELGRAVE-PLACE.
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*** A large Stock of Ornamental Chimney-tops.

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W. and J. STUDDS, Sole Proprietors of the WEST DRAYTON GRAVEL Pits, lately removed from No. 81 Wharf, Harrow-road, to 3, North Wharf-road, Paddington, have now on sale good Garden and Screened Gravel. For terms, &c. apply at the Wharf.
Contractors supplied to any extent.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot walks, Malt houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN PILKINGTON, PULONCEAUS BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents, and Railway Engineers and Contractors, supplied with the best Bitumen for covering Bridges and Arches.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped HUBBUCK, LONDON—PATENT. And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

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PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works, in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland Cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere road, Lambeth.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural Cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vegetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements, read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied or shipment, on advantageous terms.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS BROTHERS, Manufacturers of Roman, Parian (under patent, and all other Cements in use for building purposes. Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Fire-bricks, Grindstones, Cement Chimney-pots, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Coarse	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, WILD, and CO. beg to inform the public and trade generally, that they have completed their works for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them directly to transmit any orders they may receive to any station on the before-mentioned line, and consequently they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

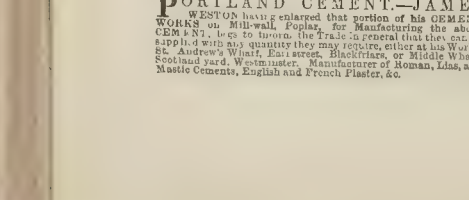
Agents in London—Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland-yard, Westminster.

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.



GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c. IN EVERY VARIETY.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, East street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Mastic Cements, English and French Plaster, &c.

BATH, PORTLAND, and ROMAN CEMENTS, GROUND and LUMP HYDRAULIC BLUE LIAS LIME.

The LONDON and WESTERN of ENGLAND CEMENT COMPANY can offer to the trade the best Hydraulic Cements, at reduced prices, the material being excavated in its pure and unadulterate state, from quarries on their own property. The company particularly recommend a trial of their XXXX Bath Cement, as far superior to any article now in the market. These cements can be sent to rail or shipped from their wharf, direct to all ports.—Agents required, and a liberal discount allowed. Orders received by RICHARD WINTER (Manager to the Company), Cement Works, Dunball, Bridgewater.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLACKFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that remains in colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

NOTICE.—BLUE LIAS LIME.—L. B. PEARSE and CO. beg to inform Architects, Engineers, Builders, and Contractors generally, that they have now accepted the AGENCY for the above valuable HYDRAULIC LIME, from the original quarries, Stockton, Warwickshire, and are now supplying direct from the works in their own boats, at a reduced rate.

L. B. PEARSE and CO. beg further to give notice to consumers, that they have erected, at a considerable expense, large buildings and machinery for grinding lime and cement, so as to ensure genuine quality and large supply, at their extensive premises, situate on the Great Northern Railway, York-road, King's-cross.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

Large Grey Stone, or Grey Chalk, free on board at Works, 1s. 8d. per ton.
Small ditto, ditto, 4d. per ton.
Barges loaded in a few minutes.
Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester, March 31, 1855.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GIBBS, CANNING, and CO.'s BLUE VITRIFIED BRICKS, PIPES, JUNCTIONS, BENDS, and PIER GOODS.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS, STOCKS, and other BRICKS.

PORTLAND CEMENT.
CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

GREAVES'S BLUE LIAS LIME.
CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

BATH CEMENT.
CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

TATHAM & CO.—No. 14, SOUTH WHARF, PADDINGTON.
BRICK, LIME, and CEMENT MERCHANTS,
SOUTHAM BLUE LIAS LIME DEPOT.

Bath, Portland, Lias, and Roman Cements; Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewage Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in boat-loads direct from the Works in Warwickshire, to any part of the river or canal

SOUTHAM BLUE LIAS LIME DEPOT,
No 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged for a constant supply of the above very superior BLUE LIAS LIME, which for the last two years has been extensively used at most of the large works constructed during that period or now in hand, and any orders they are favoured with will receive their best attention.

Boatloads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the River Thames or Lee, alongside any wharf on canal, or by boat or rail to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to No. 14, SOUTH WHARF, PADDINGTON, will receive the best and most prompt attention.

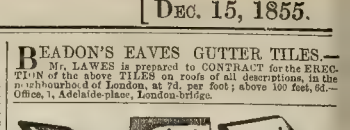
11, George-yard, Lombard-street, City

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent. ROMAN and PORTLAND CEMENT of the best quality manufactured at the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

TO LIGHTERMEN and OTHERS.—Persons willing to UNDERTAKE the DELIVERY of a quantity of SHELLS and SAND, are requested to apply for particulars to Mr. LOTT, 123, Warwick-street, Pimlico.

BEADON'S EAVES GUTTER TILES.—Mr. LAWES is prepared to CONTRACT for the EXECUTION of the above TILES on roofs of all descriptions, in the neighbourhood of London, at 7d. per foot; above 100 feet, 6d.—Office, 1, Adelaide-place, London-bridge.



BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of tiles, slate, or tile), and other structures. Sole agent, J. B. LAWES, 1, Adelaide-place, London-bridge. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvertoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PRIZE BRICK-MAKING MACHINE.—CHAMBERLAIN'S PATENT.—This portable machine will make 20,000 solid bricks per day, with 3-horse power. One man to feed the machine, and two boys to remove the bricks. Was awarded a silver medal by the Liverpool and Manchester Agricultural Society, at St. Helen's, September 6th; a silver medal by the Staffordshire Society at Leek, September 27th; and a prize at Worcester, October 5th, 1854.—Apply for particulars to Mr HUMPHREY CHAMBERLAIN, Kempsey, Worcester.

THE PATENT BRICK-MACHINE COMPANY invite ORDERS for their improved machines, the only ones that manufacture solid bricks equal to hand-made. A machine, and bricks made by it, may be seen in a field near London. H. C. MOUNT, Secretary.
37, King William-street, City.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz: Grey Stocks, 23s. per thousand, Grizzles, 24s. per thousand; Rough Stocks, 20s.; Place, 16s. Terms, cash on delivery.—Apply to Mr. G SMEED, Sutton-lane, Kent.

THE BEST HERTFORDSHIRE MALM SECONDS;
THE BEST WHITE SUFFOLK and RED FACINGS;
DEEP-RED RUBBING BRICKS.
Also COWLEY and KENT STOCKS, in any quantity.
J. EASTWOOD and SONS, Belvidere road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY
(Within a short distance of the five bridges).
THE BEST MALM-CUTTERS, SECONDS, PICKINGS, and PAVIORS, in any quantity.
Also, STOCKS, of FIRST QUALITY.
J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY
MILLS and PRICE, 5, ADELAIDE-PLACE, London-bridge.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Ginger's sewage-pipes, Closet pans, Furnace-backs, Fire-bricks, Gas retorts, Crucibles, &c. &c. The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, upon favourable terms.

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.
London Agent: J. COX, 2 and 3, High street, Lambeth.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants, Builders, contractors, and others supplied with every description of building material at the lowest market prices.

Depôt, Acar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent.—Mr. J. UNWIN, Private Residence, 59, Nelson square, Blackfriars-road.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests customers to favour him with a visit, in order to inspect his stock, and judge for themselves.

Malm Face, half washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO., at the Counting house, Hoxton Brickfields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of a proved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c. &c.—Messrs. MEESON and CO. supply at cost prices, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, drain for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, fine chalk, chalk rubbish, gravel, loam for foundations, &c. &c. Whiting (the best quality lime, both white and fine, bricks, fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

BRICKFIELDS, in good working order, TO BE LET, about half a mile from the Croydon Station, Sydenham.—Apply to Mr. C. PERCEVAL LITT, Solicitor, 1, Angel-court, Throgmorton-street, London.

THE FARNLEY IRON COMPANY, WORTLEY, NEAR LEEDS,

MANUFACTURERS OF

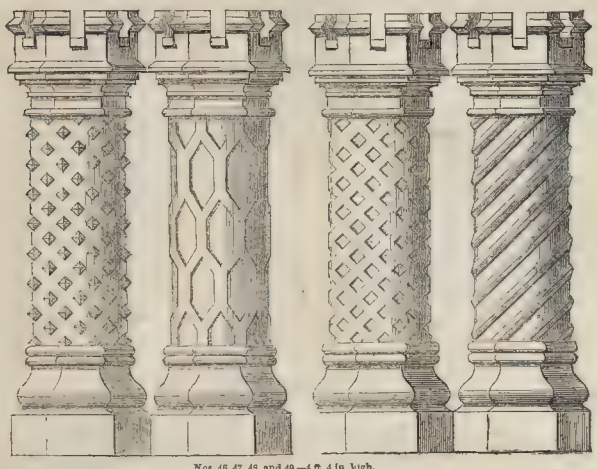
FIRE-BRICKS, PATENT GLAZED STONEWARE DRAIN PIPES, CLOSET PANS, ORNAMENTAL TRUSSES, BRACKETS, MODILLIONS, PEDESTALS, VASES, &c.;

ALSO OF

TERRA COTTA CHIMNEY-TOPS,

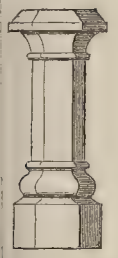
In upwards of One Hundred Patterns, of various dimensions and of first-rate design, a few of which are given below,—scale half an inch to a foot.

No. 67.—Wind-guard. 2 ft. 6 in.



Nos. 46, 47, 48, and 49.—4 ft. 4 in. high.
" " 6 ft. 0 in. "
" " 9 ft. 0 in. "

No. 65.—3 ft. 6 in.



No. 38.—3 ft. 6 in. 4ft. 3 in.

No. 18.—Oblong or Square. 2 ft. 3 in. 2 ft. 6 in. 2 ft. 9 in.

No. 24 Wind-guard. 3 ft. 6 in.

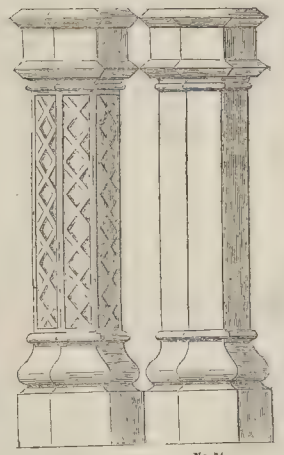
No. 3.—2 ft. 0 in. 2 ft. 6 in.

No. 14.—2 ft. 6 in. 2 ft. 10 in. 3 ft. 8 in.

No. 13.—3 ft. 1 in.

No. 66.—Plain or Wind guard. 3 ft. 10 in. 4 ft. 2 in. 4 ft. 8 in.

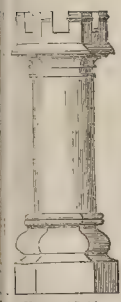
No. 76 (round).—1 ft. 10 in. high.



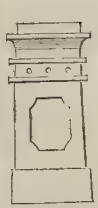
No. 73. 6 ft.

No. 74. 6 ft.

No. 75 (square).—1 ft. 10 in.



No. 50.—4 ft. 3 in. 6 ft. 9 in.



No. 34. 2 ft. 9 in.

No. 12. 2 ft. 9 in.

No. 21. Oblong or Square. 2 ft. 6 in. 3 ft. 0 in. 3 ft. 6 in.

No. 4. 2 ft. 8 in.

No. 70. 4 ft. 3 in.

ARCHITECTS' DESIGNS CAREFULLY EXECUTED, AND WITH QUICK DESPATCH.

Prices quoted are delivered free in Leeds, on Boat or Rail, for any part of the Kingdom.

OFFICES AND STORES.

LONDON..... No. 14, York Chambers, York Buildings, Adelphi; No. 16, Bath-place, New-road; St. Ann's Wharf, Limehouse.
BIRMINGHAM.. No. 7, Bissy-row; also 22, Cambridge-street, and Lawley street.
BRISTOL ..... No. 14, Nelson-street.
LIVERPOOL .... No. 9, Russell street; 83, Renshaw-street; and Slipping Wharf, Leeds-street.
NEWCASTLE.... W. B. Wilkinson and Co. Prudhoe-street.
GRIMSBY..... F. G. Skipworth.
MANCHESTER .. No. 46, Travis street, and 23, 24, and 25, Birmingham-street, London-road.
HULL..... No. 60, Queen-street, and Wellington-street.
BRADFORD..... Horton-road.
LEEDS ..... Wellington street, adjoining the Midland Station, and Shipping Wharf, Victoria Works, Hunslet.
SUNDERLAND.. W. R. Wilkinson and Co. Queen street.
WARE ..... G. E. King, Stone Merchant.

WHERE DRAWINGS, WITH PRICES, &c. MAY BE OBTAINED.

FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, p. 158.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE AND HIRE,

SINGLE AND DOUBLE

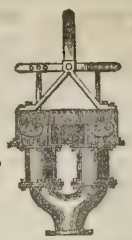
PUMPS, 3 in. to 15 in.

BARRELS to any depth,

AT SHORTEST NOTICE,

FOR HAND OR

STEAM POWER.



FOWLER'S
PORTABLE PUMPS,

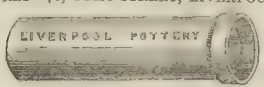
3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

JOHN DOULTON, BROTHERS, AND CO.
LIVERPOOL POTTERY,
ST. HELEN'S.
STORES—70, SOHO-STREET, LIVERPOOL.



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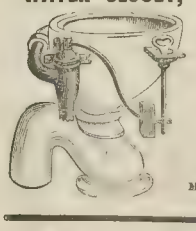
DOULTON'S STONE-WARE PIPES, DOULTON'S HALF-SOCKET PIPES. | DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS. DOULTON'S PATENT JUNCTION BLOCKS.
TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.
DOULTON & WATTS,
LAMBETH POTTERY, LONDON.

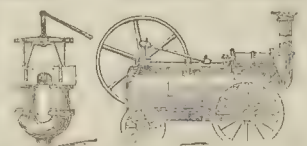


DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,
AND
LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,
With Handle, Lever, and Weight, ready for fixing,
Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as by far the CHEAPEST yet manufactured.

WARNER'S PATENT VIBRATING STANDARD PUMPS.—PATENT CAST-IRON PUMPS, for the use of farms, cottages, manure-tanks, and wells of a depth not exceeding 30 feet.

Diameter of Barrel.	Length of Barrel.		£ s. d.
2½ in. short	1 ft. 7 in.	Fitted for lead,	1 10 0
2½ „ long	3 „	gutta percha	1 14 0
3 „ ditto	3 „	or cast iron	2 8 0
3½ „ ditto	3 „	flanged pipe,	2 12 0
4 „ ditto	3 „	as required.	3 3 0
2½ „ short, with 16 feet of lead pipe attached, ready for fixing			2 14 0
2½ in. long ditto ditto			3 18 0

The short-barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from underground tanks, or in hot, forcing, and plant houses; they may be fixed, when desired, under the stage. May be obtained of any Ironmonger or Plumber in town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin-street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c. Engravings sent on application.



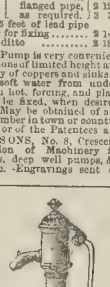
PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.



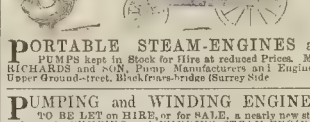
N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 28s per doz. painted.
Ditto .... 48s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

PUMPING and WINDING ENGINE.—TO BE LET on HIRE, or for SALE, a nearly new strong and simple PUMPING and WINDING STEAM ENGINE, of 10-horse power, by Medwin and Hall, with a pair of 10-i ch pumps and all the driving gear complete. The contractor for whom it was fitted up will make a considerable sacrifice on the cost price, or let the whole on hire.—Apply to Messrs. MEDWIN and HALL, Engineers, Surrey Iron Works, 92, Blackfriars-road.

TO WATER COMPANIES AND PLUMBERS
HIGH-PRESSURE COCKS & CLOSETS.



The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

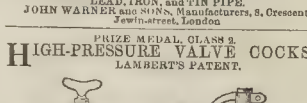
LEAD, IRON, and TIN PIPE.
JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London

ENGINES.—For SALE, THREE 12-horse high-pressure horizontal ENGINES, admirably suited for winding; 12-inch cylinders, metallic pistons, either with or with out boiler. Also two powerful double-purchase CRABS, capable of lifting 30 tons each. Also a wrought-iron TANK, 20 feet by 4 feet, by 4 feet, ¾ plates—Apply, by letter, to No. 20, BOX, Post-office, Derby.

PUMPING MACHINERY. — Lifting and Forcing Pumps, Patent Centrifugal and Double acting Pumps, deep Well Pumps, Steam-Engines portable and fixed, Hydraulic Rams, Water Wheels, and every description of machinery, of the most improved construction, manufactured and supplied by GWYNNE and CO. Hydraulic and Mechanical Engineers, Essex wharf, Strand, London.

PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM-ENGINE, with tubular boiler, for SALE. Can be seen at work at Mr. GOODWIN'S, 67, Great Guildford-street, Southwark, of whom particulars may be obtained.

PRIZE MEDAL, CLASS 9.
HIGH-PRESSURE VALVE COCKS.—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 350 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster.

The Second Edition of this Company's Circular, just published, is now being forwarded, post free, to Directors, Engineers, Managers, and others interested in Railways.

The Circular contains Engravings, detailed Estimates of cost of construction, and descriptions of many valuable Patents, with the latest results of experiments in the working of the various patented systems of Permanent Way, either the property of, or worked by the Permanent Way Company.

These patented systems are now adopted in Companies owning several thousand miles of Railway, are approved of by most of the eminent Railway Engineers, in this country and abroad, and the system of Fish jointing, in particular, has received the unqualified approval of H. M. Commissioners of the Board of Trade and their Inspecting Officers.

The Permanent Way Company are prepared to grant licenses on liberal terms, to Railway Companies and Manufacturers for the use of all or any of the Patented Inventions, which have for their object the safety and comfort of the travelling public, and economy in construction of the Road and Rolling Stock.

That the objects are accomplished, the following extracts will confirm:—

"There can be no doubt that the practice of Fishing the Rails, which is becoming very general, is a great element of safety; the principle cannot be too much encouraged."—Extract from Report of Colonel Wynne, R.E. Chief Inspector of Railways to H. M.'s Commissioners of the Board of Trade, dated April 27th, 1854.

"My Lords direct me to observe, that they trust that the remarks of the Inspecting Officer, as to the desirability of the Fished Joint being adopted to a greater extent upon the Railway, will receive the attentive consideration of the Directors."—Extract from letter of Captain Galton, R.E., Secretary to the Railway Department of the Board of Trade, in reference to the foregoing Report.

"Dear Sir,—In reply to your favour of the 1st instant, I beg to say that I experience no difficulty whatever in keeping the nuts of the bolts tight."—Extract from a letter by Mr. H. Woodhouse, Engineer, of the London and North Western Railway.

"I would, however, beg to state that, in point of safety, the first and most essential element of railway working, the Fish Joint, on your system, is, in my opinion indispensable. Extract from letter of Mr. J. E. M'Connell, Locomotive Engineer of the London and North Western Railway.

"On a district of about thirty miles, where the greatest length has been Fished, the saving in labour of maintenance amounts fully to thirty per cent." Extract from Mr. R. Jacomb Hood, Engineer to the London, Brighton, and South-Coast Railway.

Among others, the Company call attention to the following Patents recently placed under its management:—Mr. William Pole's important Improvement in Fish Joints, and Mr. Paul Prince's Improvements in moulding Railway Chairs.

Licenses, and every information, may be obtained upon application to CHARLES MAY, F.R.S. Managing Director of the Company, 26, Great George-street, Westminster; or to WILLIAM HOWDEN, Secretary

THE PERMANENT WAY COMPANY.—The attention of the Permanent Way Company has been called to claims made by Mr. P. M. PARSONS, of No. 6, Duke-street, Adelphi, to the "Fishing" of Rails, of the section usually known as the "Contractors' rail," and the use of fishes in all cases where the joints of Railways are supported by sleepers.

Although the Company deem their rights to be indisputable, they have, in order to satisfy any doubt that Mr. Parsons's advertisement may have created, submitted the subject to the best legal authorities, and have received the united opinion of Sir F. Thesiger, Mr. Sergeant Channell, Mr. Hindmarch, and Mr. Webster, that the adoption of "Clamps, splicing plates, alias fishing plates," as claimed by Mr. Parsons, in his patent of the 29th February, 1848, which is nearly two years subsequent to the original patents, the property of the Permanent Way Company, would be an infringement of the latter patent, and that the Permanent Way Company have the exclusive right to apply what are usually called "Fishes" to the sides of Rails at their joints, whether they are called by that or any other name. Whatever may be the section of the Rail to the side chairs of which the fishes may be applied, by whatever means they may be fixed thereto, and whether a sleeper be placed under the joint or not.

The Permanent Way Company give notice to their licensees, that they will protect them against the claims set up by Mr. Parsons, if such claims are persisted in.

By order, WILLIAM HOWDEN, Secretary.

26, Great George-street, Nov. 30, 1855

THE NORTHAMPTON GAS-LIGHT COMPANY.—Persons desirous of CONTRACTING with the above Company for the PURCHASE of their COKE for the Year commencing on the 1st day of JANUARY, 1856, are hereby informed that sealed Tenders, at per Ton for the same, may be delivered at the Company's Works, in Northampton, up to the 15th day of DECEMBER next, addressed to Mr. JNO EUNSON, Jun. Manager. The terms of payment, and other stipulations, will be the same, "mutatis mutandis," as those for the current year, and will be produced on application to Mr. EUNSON. The Committee of Management do not pledge themselves to accept the highest Tender. WILLIAM DENNIS, Clerk.

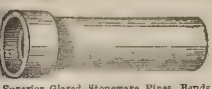
THE RAILWAY SWITCH and CROSSING COMPANY.—Directors of Railways, Engineers, and Manufacturers, are informed that the Offices of the Company are removed to 103, St. Martin's lane, Charing-cross, where, on application, every information will be afforded respecting their Patented Improvements in Switches and Crossings, now so universally adopted. WILLIAM DEMPSEY, Manager.

DRAUGHTS ROUND DOORS and WINDOWS.—GREENWOOD'S PATENT INDIA-RUBBER STOPS, to supersede list or leather, for the purpose of keeping out dust and draught round doors, windows, closets, show-cases, &c. making the same air-tight. Price 2d. per foot. Spring Sides for bottoms of doors, 4s. each.

JOHN GREENWOOD, Carpenter, 10, Arthur-street West, London-bridge.

SUPERIOR LAND DRAINAGE.—AGRICULTURAL DRAIN-PIPES of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



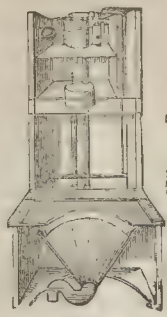
Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

HENRY MILLICHAMP,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

Whole Socket.

Watercloset Pan with Syphon-Trap connected, price 5s. 6d. each.

A LARG ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.

Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

Half Socket

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

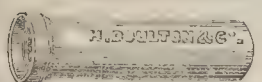
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

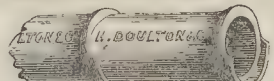
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

SOCKET.





HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

AYLESFORD POTTERY COMPANY,

BELVEDERE-ROAD, LAMBETH.

MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly six years, and having during this period supplied DRAIN-PIPES, &c to some of the largest Works in and around London, viz.:—The New Cattle Market, Wellington and Chatham Barracks, Deptford Dockyard, Her Majesty's Commissioners of Works, &c. and in all instances parties using them expressing themselves satisfied therewith,—take this as a fair test of the quality of the articles supplied by them; and as they now feel themselves established as Pottery, beg to offer their goods to Contractors, the Trade, &c. of a first-rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 32, Bryd ges-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

SUPERIOR STONEWARE GLAZED

PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their made pipes, which they are confident are such as must give great satisfaction,—the price being also lower than many in the trade, viz 25 per cent. discount off the list for Bends, Junction Bends, &c. Pans and Traps of the first quality. Yorkshire Paving, Sinks, Sills, &c., all at low cash prices.—E. and W. STURGE, Bridge Wharf, City road.

N.B. A small extra charge is made upon goods required to be delivered.—October 1, 1855.

SUPERIOR GLAZED STONEWARE

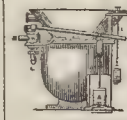
DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharfs, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.



UNDERHAY'S PATENT

REGULATOR CLOSETS for constant or intermitting supply, dispense with Cisterns, Service Boxes, Valves, Levers, Cranks, Levers, &c. &c.; much time is saved in fixing, and a better flush of water obtained in use.

Pan, Valve, Self-acting, and Servants' Closets, on this principle, may be seen at the Works. They are very cheap, their efficiency is guaranteed. 5,000 of them have been sold, and no instance of failure has occurred.

These Stool-valves are cheaper, stronger, and more ornamental, than as other Many thousands are in use, and greatly approved of.

Manufactured by CHARLES BOTTEN and SON, Brass Founders, Crawford-passage, Clerkenwell, London.

COLLIER'S TERRO-METALLIC and

RED EARTHENWARE SOCKET DRAIN PIPES, BENDS, JUNCTIONS, and SYPHONS.—This ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. R. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

PATTEN'S PATENT HIGH-PRESSURE

WATER-CLOSETS and WATER REGULATORS, manufactured upon an improved principle, dispensing with cistern, cranks, wire, lead trap, &c Any number of Closets can be supplied from one main.

Also PATTEN'S improved powerful FLUSHING LOW-PRESSURE WATER-CLOSETS, patronised by the Board of Health, Government, and other large public establishments, in addition to numerous private individuals.—Drawings, testimonials, and references of the highest respectability forwarded by post. PRICE for Closet and Apparatus COMPLETE FROM 22s. and perfect action guaranteed. Fixed specimens to be seen on the premises of the Patentee, WILLIAM PATTEN, 29, Old Fish-street, near St. Paul's, London.

CROWN GLASS, 18 TABLES, 32s. PER CRATE.

TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES.

FREEMAN ROE'S PATENT SLUICE-

VALVES, acknowledged to be the best in use; hydrants or fire-plugs; wells sunk and bored; the hydraulic ram; fountains; pumps of every description. Estimates prepared for all works connected with hydraulics or gas. Pumps let on hire.

W. F. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 73, Strand, London.

PATENT DRAIN-PIPES, UNGLAZED,

manufactured by ARTHUR C. FRANCIS and CO. Grays, Essex. Sold by FRANCIS, BROTHERS, Nine Elms, London, and at all their Warehouses.

PRICES.					
3 inch bore, in 2 ft. 6 in. lengths, at				3d. per foot.	
4	"	"	"	4d.	"
6	"	"	"	6d.	"
9	"	"	"	9d.	"
12	"	"	"	1s. 5d.	"
15	"	"	"	2s. 6d.	"

These pipes are made under steam pressure, and burnt to great hardness, and are capable of bearing nearly double the hydraulic pressure of ordinary glazed pipes. The prejudice against red ware is overcome by this manufacture. And it is well known that good earthenware, UNGLAZED, is the oldest material discovered in a perfect state in Rome, Babylon, Nineveh, &c. &c.

VICTORIA POTTERY, LEIGH,

NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE.

MANUFACTURER of superior GLAZED STONEWARE PIPES (in accordance with the rules established by the Commissioners of Sewers), Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

SALES BY AUCTION.

TO FURNISHING IRONMONGERS, TINMEN, MERCHANTS, AND OTHERS.

MESSRS. FULLER and HORSEY will SELL by AUCTION, on WEDNESDAY, DECEMBER 19th, at ELEVEN, on the PREMISES, No. 33, Banner-street, St. Luke's, in lots, by direction of Messrs. Ring, Brothers, who are declining the business, the STOCK of TINWARE, including enter-pots, long and short spouts, candlesticks, fish-kettles, fire-baskets, police lanterns horn lanterns, hatchelors' kettles, coffee-pots, block tin stew-pans, square and round pudding-pans, coffee filterers, tea-kettles, stomach warmers, dripping-pans, harvest cans, oval kettles, round sugar boxes, tea canisters, saucepans, coal scoops and hods, American ovens, four dozen baths, slipper, hip, and open, cinder shovels, toilette cans, spring covered carts, chaff cutting machine, stable utensils, and other effects.—To be viewed on TUESDAY previous to the sale, when catalogues may be had on the Premises, and of Messrs. FULLER and HORSEY, Billiter-street, City.

SOHO.—Fixtures and Remainder of Stock

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, 92, Dean-street, Soho, on SATURDAY, DECEMBER 15, at ELEVEN, the SHOP FIXTURES, CRANE, &c.; also the remaining STOCK of MOULDS and CASTS, of Messrs. SCOULAR and EDWARDS, including those in the Show-room.—40, Parliament-street.

ON SATURDAY.—Remaining Stock of Plaster Casts in the Show-room of Messrs. Scoular and Edwards

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on the PREMISES, in the large Show-room, Dean street Soho, on SATURDAY, the 15th of DECEMBER, at ELEVEN (after the Sale of the Stock at No. 92), the valuable CASTS, mostly full-sized, of the finest Ancient and Modern Works of Sculpture.—May be viewed, and catalogues had, on the Premises, and of the Auctioneers, 40, Parliament-street, or Coal-Exchange.

KING'S CROSS.—Important Sale of Marble Slab.

MESSRS. EVERSFIELD and HORNE have received instructions to SELL by AUCTION, on the PREMISES, Great Northern Marble Wharf, Canal-road, King's-cross, on TUESDAY, DECEMBER 18, at ELEVEN for TWELVE, 20,000 feet of MARBLE SLAB; comprising statuary, vein, Sicilian, dove, black and gold, Sienna, black, Bardilla, grootte, Emperor's red, green, and Languedoc, which will be arranged into suitable lots. May be viewed on Saturday and Monday previous; and catalogues had on the Premises, and of the Auctioneers, 40, Parliament-street, or Coal-Exchange.

ROMAN TESSELATED PAVEMENT.—Beautifully-wrought tesselated pavement, the ancient Roman remains at Box, which have excited so much interest, will be SOLD by AUCTION on TUESDAY, the 18th DECEMBER next, on the PREMISES, near the church, at Box, by Messrs. HOOPER and SON, of Bath. Particulars may be obtained at the Auctioneers' Offices, 5, Bladud-buildings, Bath.

*** Box is distant from Bath ten minutes' ride by Great Western Railway, and is about five minutes' walk from the station.

MR. D. A. RAMSAY respectfully informs the Building Trade that he is prepared to make ADVANCES to any amount on all descriptions of BUILDING MATERIALS intended for SALE by AUCTION.—Auction and Estate Agency Offices, No. 79, King William-street, City.

BAGNIGGE-WELLS-ROAD.—The second portion of the Stock-in-Trade of a Builder.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, on the PREMISES, Baker-street, on THURSDAY, DECEMBER 20, at ELEVEN o'clock, the second and final portion of the STOCK of a Builder; comprising yellow and white deals, cut pine planks, a quantity of 10 ners' work, mahogany doors, Portland Quoin Stones, Batten and Deal Flooring, an immense quantity of excellent new Joiner's Work, in Doors, Sashes, Frames, Linings, and Shutters; Marble and other Chimney-pieces, Stone Coping, Blocks and Jambs, and various effects.—To be viewed one day prior and morning of Sale, when Catalogues may be obtained on the Premises; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

BAGNIGGE-WELLS-ROAD.

MR. D. A. RAMSAY will include in the SALE at BAKER-STREET (by permission), on THURSDAY, DECEMBER 20th, at ELEVEN o'clock, a handsome Italian Ornamental Portland Quoin Stones, Batten and Deal Flooring, an immense quantity of excellent new Joiner's Work, in Doors, Sashes, Frames, Linings, and Shutters; Marble and other Chimney-pieces, Stone Coping, Blocks and Jambs, and various effects.—To be viewed one day prior and morning of Sale, when Catalogues may be obtained on the Premises; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

TO BUILDERS, TIMBER MERCHANTS, CARPENTERS, CONTRACTORS, AND OTHERS.

MR. MARSH has received instructions to SELL by AUCTION, on the PREMISES, Marlborough-street, Charlotte-street, Blackfriars-road, on TUESDAY next, DECEMBER 18th, at TWELVE o'clock, by order of the Trustees of Mr. T. Anslow, the extensive and well-selected STOCK of TIMBER and DEALS, comprising about:—

2,000 Feet dry Spanish and Honduras Mahogany and English Cedar, in boards and planks.
1,200 Quebec Birch Boards and Planks.
1,000 dry clean St. John's Yellow Pine Boards.
400 Feet Quebec Ash Planks.
3,000 Feet Pine and Spruce Deals, Battens, and Planks.
2,600 Feet English Ash.
200 Cubic feet ditto.
8,000 Feet Elm, in various thicknesses.
3,000 Feet Scantlings.
140 Cubic feet Ash Hall-shavings.
3,700 Feet Beech Planks and Quarters.

VARIOUS.

1,200 Beech Spokes.
12 Loads of FIR Timber.

Cart, pony, 3-wheel truck, harness, saws, implements, and useful miscellaneous articles. May be viewed the day prior and morning of Sale, and catalogues obtained on the Premises, and at Mr. MARSH'S Offices, 3, Charlotte-row, Mansion House.

TO TIMBER-MERCHANTS, BUILDERS, CONTRACTORS, MASONS, SAW-MILL PROPRIETORS, and others requiring spacious Business Premises.

MR. MARSH has received instructions to LET, with immediate possession, capital BUSINESS PREMISES, situate in Apollo buildings, East-street, Walworth, with residence attached.—For particulars apply to Mr. MARSH, Charlotte-row, Mansion-house.

EXTENSIVE SALE OF BUILDING MATERIALS AT WALWORTH. To BUILDERS, CONTRACTORS, STONE-MASONS, FARMERS, FIRE-WOOD CUTTERS, and OTHERS.

MR. F. HALL will SELL by PUBLIC AUCTION, on TUESDAY, DECEMBER 18, on the PREMISES, Sun-place, Walworth, an extensive assortment of capital BUILDING MATERIALS, to the highest bidders, no reserve as usual, comprising about 25,000 feet of long floor, lining, feather, and other battens, 30,000 feet of oak and fir joists, rafters, quartering, scantling, &c. and 10,000 feet of new featheredge boards, new cut stuff, sticks of timber, girders, breast-summers, stout plates, sidings in dressers, six, four, and two-panel doors, sashes and frames, 5,000 feet of panel and glazed partition, wainscoting, dadoing, stone in blocks, vein marble blocks and slabs, 41,000 feet of capital York and Portland paving, coping, steps, stairing, portals, sunks, jambs, and hearths, 1,000 pan, plain, and ridge tiles, slates, stacks of bricks, firewood, old iron, &c.—On view one day before sale; catalogues on the Premises; the various lots in the neighbourhood; and of the Auctioneer, Chester-street, Kennington.

SALES BY AUCTION.

STRATFORD, ESSEX.—Stock-in-trade of a Builder.

MR. W. H. DEAN will SELL by AUCTION, on THURSDAY, DECEMBER 20th, 1855 at ELEVEN o'clock precisely, without reserve, on the PREMISES, near Rowbridge, the STOCK-IN-TRADE and BUILDING MATERIALS, comprising dry yellow and white deals, quartering, Dantzic timber, dry cut stuff, scaffold-poles, paper-hangings, a 6-inch wrought-iron pump, a timber vice, eight carpenters' benches, a capital double counting-house press, with two pairs of folding doors, and fitted with shelves, &c. a nearly new two-knife chaff-cutter, grindstone and frame, a quantity of ironmongery, a nearly new cart, on springs, three brick-carts, a six-inch-wheel cart, a narrow wheel cart, a four-wheel phaeton, in good condition, a useful chaise, a handsome chestnut gelding, a useful cart-horse, chaise, harness, sundry sets of cart harness, and a variety of useful effects.—May be viewed two days prior to the sale, and catalogues had of the Auctioneer, Stratford, Essex.

TO CABINET, CHAIR, AND LOOKING-GLASS MAKERS, AND OTHERS.

MR. EDWIN WHITE will SELL, without reserve, on the PREMISES, in Brownlow mews, Grayinn road, in consequence of the expiration of the lease, on TUESDAY next, DECEMBER 18, at ELEVEN for TWELVE punctually, the well-seasoned STOCK of a CABINET-MAKER, who is declining manufacturing, consisting of mahogany, cedar, rosewood, zebra, and walnut, in logs, planks, and boards, several thousand feet of rosewood, mahogany, and walnut veneers, about 400 dry pine planks, work-benches, pit-screws, crowbars, and sundry effects.—On view the day previous and morning of sale, when catalogues may be had on the Premises; and at the Auctioneer's, 170, Bishopsgate-street Without.

GREENWICH HOSPITAL BURIAL GROUND.—Notice is hereby given that the Commissioners of Greenwich Hospital are prepared to receive TENDERS, or OFFERS of FREEHOLD LAND, from Six to Ten Acres, eligible for the purposes of a Burial Ground for that Institution. The Tenders must state whether the land offered is freehold, the situation and extent thereof, and the price for which the same will be sold. The Tenders must also be signed by the persons having legal authority to sell the land therein referred to, and must be addressed to the Commissioners of Greenwich Hospital, and sent to them on or before WEDNESDAY, the 19th of DECEMBER instant.—By order of the Commissioners,

J. W. NICHOLLS,
Secretary of Greenwich Hospital.

FOUNDLING HOSPITAL, Dec. 7, 1855.—The Committee of Governors will meet at the HOSPITAL on SATURDAY, the 22nd instant, at TEN o'clock, to receive PROPOSALS for a LEASE of PREMISES, in Sugar-loaf-court and Garlick-hill, Upper Thames-street.—Plans of the property may be seen, and further particulars obtained, at Mr. HENRY CURREY'S Office, No. 4, Lancaster-place, Strand.

By order of the Committee,

J. BROWNLOW, Secretary.

GUILDHALL, 6th December, 1855.—The Committee for Letting the City Lands will meet at GUILDHALL, on WEDNESDAY, the 19th day of DECEMBER instant, at ONE o'clock precisely (instead of the 12th instant, as previously announced), to receive PROPOSALS for BUILDING LEASES, for 31 years, from Christmas, 1855, of several PLOTS of GROUND on the north side of Wormwood-street, Bishopsgate. Also to receive proposals for Leases of a House, No. 35, on the south-west side of Houndsditch, and Two Houses, Nos. 47 and 54, on the north side of Featherstone-street, Finsbury. Plans of the property may be seen, and further particulars and forms of Tender obtained, at the Architect's Office, Guildhall.

FERDINAND BRAND, Comptroller.

HOMERTON-ROW.—Within Three Minutes' Walk of the Hackney Station North London Railway, within Two Minutes of the Bank, with Omnibus communication.—TO BE LET, BUILDING FRONTAGES, suitable either for Fourth-rate Shops, or Private Houses, of not less value than 30l. each. The present opportunity is well worthy of attention by Builders, as there will be a sale (immediately) contiguous to the property of Old Materials, well adapted for building purposes.—For further particulars apply to Mr. FRANCIS CROSS, Architect, 33, Moorgate-street, City.

TO BUILDERS, SOCIETIES, NURSERYMEN, &c.—TO BE SOLD, TEN ACRES of FREEHOLD LAND, for 1861, situate at Farnham, Surrey, adjoining a Nursery and an allotted Estate of a nearly completed road, and within mile from the Government. The land is a flat, of a peaty soil, and well adapted for American and nursery plants. To be let on Lease, or purchase money paid by instalments. To agent not liable. Any of those requiring an answer are requested to inclose a directed stamped envelope to M. M. Office of "The Builder."

FREEHOLD LAND TO BE LET, on Building Lease for ninety-nine years. Money advanced to responsible parties. Freehold Land to be Sold for building purposes in eligible situations.—Apply at the Offices of Mr. GEORGE MORGAN, Architect, 5, Chancery-lane.

TO BUILDERS.—TO BE DISPOSED OF, a well-established, steady, and flourishing BUILDING BUSINESS, in the south of Hampshire, which has been successfully carried on by the proprietor for fifteen years. The annual returns are about 5,000l. The premises, including workshops, yards, saw-houses, sheds, and foremen's houses, will be let at a moderate rent. A genteel Dwelling-House may be rented near. The stock-in-trade and the building plant to be taken at a valuation, in the usual way, but the amount of stock (which is at present considerable), may be reduced to suit the convenience of the purchaser. Possession may be had at Christmas or Lady-day next. A foreman of bricklayers, and a foreman of carpenters, both of whom have been in the proprietor's employ from twelve to fifteen years each, together with a capital staff of experienced, steady, sober workmen, may be secured, as the business is in full work, the proprietor declining this portion of his business in consequence of increase of personal duties in which he is engaged. No one need apply who cannot furnish unexceptionable references. The whole of the books will be open for the inspection and examination of any party whose references are approved.—All communications to be addressed to Mr. CHARLES PINK, Surveyor, Wood-end, near Fareham, Hants.

TO BUILDERS. — TO BE SOLD, a BUSINESS as above, five miles eastward of the Bank. For stock, implements, and business, together with the unexpired term of nineteen years of three houses (if taken at Christmas), price 250l. Part of purchase money can remain unpaid if preferred, for three months.—Direct to G. A. Office of "The Builder."

TO BUILDERS and OTHERS.—TO BE LET, on a repairing lease, a desirable HOUSE, near the Adelphi. For terms, apply to Mr. BRAY, Jun. Surveyor, 16a, King's-road, Bedford-row.

TO TANNERS and OTHERS.—TO BE LET, or SOLD, the old-established TAN-YARD, HOUSE, and PREMISES, situate at Greenhill, Gateshead, Durham. The tan-yard has been for a great many years, and still continues, in full work, with a good supply of raw goods and English oak bark from the surrounding neighbourhood. An introduction to the business connexion, with immediate possession, can be given. The yard, stock, implements, &c. to be taken at a valuation, or time agreed upon to allow the proprietor to "tan out." A few acres of first-rate grazing land adjoining the premises, may be had with the tannery, if desired; also, a cottage and garden The premises can be seen by applying to the foreman, Mr. JOHN WALSH; and further particulars obtained of J. F. BURBIDGE, Esq. Grantham; WILLIAM MUSSON, Esq. Peterborough; and Messrs. MANT and ROBERTSON, Solicitors, Bath.

WATERLOO-BRIDGE WHARF, Commercial-road, Lambeth. These spacious PREMISES, with ten dry arched warehouses under the Waterloo-bridge-road, TO BE LET on LEASE. There are two capital houses, with cranes and scaffolding on the wharf, and the premises, which have been used as a timber-yard for nearly forty years, are in good repair.—For terms, apply to HENRY MOTT, Esq. Solicitor, 4, King's-road, Bedford-row.

TO TIMBER MERCHANTS and OTHERS. The Proprietors of Lett's Wharf, Commercial-road, Lambeth, offer the most convenient Wharf for landing all sorts of English Timber, &c. Spacious Dry and Drawing Docks, 30 and 10-ton Cranes, Sawpits for converting Timber, &c. Freights paid on delivery.—Apply to G. NOKES and Co. as above.

TO PAINTERS AND PAPERHANGERS TO BE REPAIRED, the private HOUSE, No. 129, Piccadilly, according to a specification, which may be seen on the premises, on 15th, 17th, and 18th DECEMBER inst. from TEN to FOUR o'clock.—Tenders to be sent, on or before the 21st DECEMBER, to the Architect, G. GORDON, Esq. 17, Cambridge-road, Hammersmith.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innoxious and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark—in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B. MORLEY and CO. and by the Company's Grinding Agents in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street, City; and by the Manufacturing and Painting Agent, Mr FREDK. BRABY, Pitzroy Works, Newroad. In Manchester and Liverpool by R. CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-bush; and in Southampton, by Mr. H. J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21 and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

For further particulars, apply to the Company's General Agency in London, 13, Manchester-buildings, Westminster.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP in TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noblest buildings, and is the only tried material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition. A large Stock of newly-designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs.—Capitals, Consoles, Tracery for Parapets, Balusters, String Courses, Friezes, Bas-reliefs, Vases, Statues, Chimney-shafts, and all other Architectural Ornaments modelled, finished, and burnt, in the best manner, and warranted to stand heat and frost, either in Buff or Red coloured Terra-cotta. A great variety and large stock now for sale at BLASHFIELD'S Warehouse and Show-rooms, No. 1, Praed-street, Paddington.

HOSE PIPING.—WAITHMAN'S PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 60 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter, and price per yard.

¼	⅜	½	⅝	¾	⅞	1	1¼	1½	2
9d.	11d.	1s.1d.	1s.3d.	1s.5d.	1s.7d.	1s.9d.	2s.	2s.3d.	2s.6d.	2s.9d.

Super-extra stout quality.

2	2½	3	3 inches.
2s.	2s.3d.	2s.6d.	2s.9d.	3s. per yard.

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

¾	1	1¼	1½	2	2½	3 inches.
9d.	10d.	1s.	1s.3d.	1s.6d.	1s.9d.	2s. per yard.

The hose is Burnettized at an extra charge of 3d. per yard. Union Joints. Branch Pipes, and Jets, are also supplied.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 28s. 6d. per 1,000; floor bricks and 6 inch pavings, at 37s. 6d. per 1,000; 4 inch pavings, at 27s. 6d. per 1,000; plain tiles, at 35s. per 1,000, delivered Cash prices. Delivered on trucks in London on Eastern Counties Railway.

PEAKE'S TERRO-METALLIC TILES, &c.—Notice is hereby most respectfully given, that the LONDON DEPÔT for this WARE is REMOVED to No. 21, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, rank the Manufactories known so long as "The Pileries," Tunstall, Staffordshire, as the first of the kind in the world.

HANDS'S PATENT ECONOMISING KILN is the only simple and effectual mode to use the heat, for drying most moulded clays, sound at any season, in time of burning and cooling the kiln, with perfect ventilation.—Address to MR. JOHNSON HANDS, Brick and Tile Works, Epsom.

TO THE COMMISSIONERS OF THE BOARD OF HEALTH, AND TO ALL PERSONS INTERESTED IN THE SMOKE QUESTION.

HANDS'S PATENT is the only simple and certain remedy for the SMOKE NUISANCE: it has combined, where necessary, the advantages of a drying process and perfect ventilation, without a particle of complicated machinery. Address to MR. JOHNSON HANDS, Brick and Tile Works, Epsom.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Bros.) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, December 15, 1855.

The Builder,

Architect, Engineer, Operative & Artist.

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BOROUGH of HALIFAX.—To ENGINEERS and SURVEYORS.—WANTED, a SURVEYOR, fully competent to take charge of the borough water works, sewerage, and the public works of the borough, besides the usual business of the Corporation, including that of the Local Board of Health. He must be familiar with the practice of engineering in connection with the above-mentioned works, able to conduct surveys, prepare plans, drawings, and estimates of works of every description, and will be required to devote the whole of his time to the duties of his office. Salary, 250l per annum. Applications, with testimonials of qualification and competency, to be addressed to the undersigned, not later than endorsed, "Application for Office of Surveyor," and to be forwarded, under cover to the undersigned, on or before the 1st day of JANUARY, 1856.

EDMUND MINSON WAVELL, Town Clerk, and Clerk to the Halifax Local Board of Health.

Town Clerk's Office, Halifax, November 19th, 1855.

ARCHITECTURAL ASSOCIATION.—At the next Ordinary Meeting, DECEMBER 26, Mr. B. A. C. HERRING will read a Paper on Portland Cement, illustrated by Specimens and Sketches. The Class of Design will meet on JANUARY 8th, 1856. Subject for Sketch, "The Capital of a Pilaster, of which the upper diameter is 9 inches."

T. W GOODMAN, } Hon. Secs.
J. A. BUNKER, }

Lyon's Inn hall.

ARCHITECTURAL EXHIBITION and COLLECTION of PATENTS and MANUFACTURES connected with BUILDING, NOW OPEN at the Galleries of Suffolk-street, Pall-mall East, from Nine till dusk. Admission, One Shilling; or at all times to the Galleries, and to all the Lectures by season-tickets, Half-a-crown each.

First Lecture on Light on Tuesday Evening, January 8, "Ancient Assyrian Architecture," by Jas. Fergusson, esq. F.R.A.S.

Lists of Lectures, tickets, and all particulars, to be had at the Galleries.

MUSEUM of PRACTICAL GEOLOGY, Jermyn-street.—NOTICE.—During Christmas week and henceforth the Museum will be opened FREE to the Public every day but FRIDAY. By order,

TRENHAM REEKS, Curator.

BOARD of TRADE DEPARTMENT of SCIENCE and ART. — INSTRUCTION in ART. TRAINING SCHOOL, MARLBOROUGH HOUSE, Pall-mall, LONDON.

Art-Superintendent, RICHARD REDGRAVE, Esq. R.A.
Head-Master—R. BURCHETT, Esq.

The Courses of Instruction pursued in the School have for their object the systematic training of the hers, male and female, in the practice of art and in the knowledge of its scientific principles, with the view of qualifying them to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufacture, and its application to the common uses of life. Special courses are arranged in order to qualify Schoolmasters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects:—Freehand, Architectural and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of Still-life, &c, the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees 4l. per session, or part of the session. For Evening Classes only, 2l. per session.

The Class for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. M'Ian. Fees per session,—Advanced Class, 2l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall-mall, London.

ARCHITECTURAL EXHIBITION, 9, SUFFOLK-STREET, PALL-MALL EAST. Architects and Builders are specially requested to examine the specimens of BATH and CAEN STONE, inserted by BARRETT'S PATENT PROCESS, now to be seen, No. 47, in the Department for Materials at the above Exhibition.

COMPETITIONS.

TO ARCHITECTS.

THE FEOFFEES of the COMMON LANDS of ROTHERHAM, in the county of York, are desirous of receiving DESIGNS for a GRAMMAR-SCHOOL and RESIDENCE for the Master, to be erected in a portion of land now forming near an acre adjoining the Moorgate road, near Roller Iron, belonging to the Feoffees. The school, which should not be under the same roof with the master's residence, must be so arranged as to accommodate 100 boys. The cost of the school at present appears to be 1,000l, and the cost of the master's residence 700l. The designs should be such as to allow of the school being built previously to the residence. Plans, each bearing some motto, accompanied by a sealed envelope, containing the name and address of the architect using such motto, to be sent to the undersigned, on or before the 21st day of FEBRUARY, 1856. The plans and drawings of the successful competitor will be returned. The successful competitor will be required to superintend the erection of the building at a certain commission of 2½ per centum on the outlay upon the school, and 5 will be given for the second best plan. A lithographed plan of the site, and all further information may be obtained on application to Mr. THOMAS BIGELL, Greave of the Feoffees, Rotherham.

December 10th, 1855. THOS BADGER.

TO ARCHITECTS AND OTHERS.

THE BURIAL BOARD for the PARISH of LOUGHBOROUGH, in the county of Leicester, is desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising ground-plans, sections, and elevations for laying out a new BURIAL-GROUND, of about 7 acres, planting and draining the ground, building a receiving-house, curator's dwelling, with entrance gates and two suitable chapels, the expense of the buildings not to exceed 1,500l. The party whose plans, designs, and estimates may be approved, will be paid 5l. for the same, which will become the property of the Board; and all designs not approved will be returned. All plans, &c., must be delivered at the Offices of Messrs. HAND, WALLIS, and SON, in Loughborough, carriage and free of expense, without the author's name, but with a motto, on or before the 1st day of JANUARY next, addressed to me and endorsed, "Designs, &c. for Loughborough Burial-ground." A sealed letter, containing real name and address, should accompany each design. The Board do not bind themselves to accept any design. A plan of the ground can be seen, the depth of draining required ascertained, and any further information may be had on application at the said Offices of Messrs. Hand and W. H. Toone. By order,

W. H. TOONE, Clerk to the Board.

Loughborough, December 12, 1855.

RUGBY TOWN-HALL COMPANY.—The Directors are prepared to receive DESIGNS and ESTIMATES for a TOWN-HALL and Public Building, at Rugby, and hereby offer a premium of 20l. for the best set of plans, elevations, and specifications; and a further sum of 10l. for the second best. The selected designs to become the sole property of the directors; and the successful competitor will, if duly qualified to the entire satisfaction of the directors, be entrusted with the carrying out of the design at the usual commission, in which case the first-mentioned premium will merge in the commission. All the drawings to be on a scale of one-eighth of an inch to a foot. The drawings and estimates must be delivered at the Offices of Messrs. WRATISLAW and FULLER, Solicitors, Rugby, on or before TEN o'clock a.m. on the 31st day of JANUARY next, addressed to the Secretary, from whom particulars, together with a lithographed plan of the proposed site, can be obtained on payment of 3s. 6d. The designs not accepted will be returned, but beyond the above mentioned premiums no allowance will be made to any other competitor.

Rugby, December 6, 1855.

DARLINGTON BURIAL-GROUND.—The TIME for sending in Designs is EXTENDED to the 14th of JANUARY. Each design to be sent in under a motto, By order, H. DUNN, Clerk to the Board.

Darlington, December 19, 1855.

CONTRACTS.

GLASGOW CORPORATION WATER-WORKS—LOCK KATRINE AQUEDUCT.—CONTRACTORS WANTED for No. 1, or BLAIRHULICHAN CONTRACT, including tunnel, 2,785 yards in length, and other works. The plans, sections, and specification of the first contract for the execution of these works, will be ready for inspection on and after 4th DECEMBER next, in the Town Hall, at the Cross of Glasgow; entry by No. 13, Trongate-street; and also at the Inn, at Aberfoyle, near the site of the Contract. At these different places, as well as from the subscriber in Glasgow, all necessary information will be obtained. The works to form the subject of this contract will extend from Lock Katrine to the valley of the Duchray Water, being a length of about eight miles, and will include all tunnelling, masonry, cast and wrought iron aque ducts, and every other work connected with this portion of the aqueduct, together with the formation of about 20 miles of new road from the head of Loch Chon to the road leading from Inversnaid on Loch Lomond to Stronachlachar, on Loch Katrine Further information may be obtained from Mr. J. T. BATEMAN, the Engineer, at his Offices, in John Dalton-street, Manchester; and from Mr. G. H. HILL, the Assistant Engineer, at Blairhulichan, on Loch Ard, near Aberfoyle, who will accompany contractors over the ground. TENDERS for the CONSTRUCTION of the WORKS, sealed and marked "Tender for Blairhulichan Contract," will have to be delivered to the subscriber, Mr. BURNET, at his Office, Council Chambers, Glasgow, on or before 3rd JANUARY next.—By order of the Committee,

JOHN BURNET, Secretary

Glasgow, Nov. 22, 1855.

CONTRACTS.

NOTICE to EXCAVATORS and CONTRACTORS for EARTHWORKS, ORDNANCE WORKS. The Commanding Royal Engineer of the Dover District hereby gives notice that he will RECEIVE TENDERS until noon, at the Office of the Director-General of Contracts, Pall Mall, London, on or before TUESDAY the 1st day of JANUARY next, from persons desirous of CONTRACTING for EXCAVATING and REMOVING GROUND at DOVER CASTLE, to form a Site for the Erection at a future time of an Officers' Barrack; also Sites for Regimental Buildings, Terraces, Inward Roads of Approach to the same. A plan, sections, and specification of the Excavations to be carried out may be seen by persons duly competent to undertake such important Works, and Forms of Tender obtained at the Royal Engineer Office, Dover Castle, between the hours of TEN and FOUR o'clock, from MONDAY, the 17th of DECEMBER, to MONDAY, the 31st of DECEMBER 1855, Sundays and Christmas Day excepted. A person belonging to the Royal Engineer Department will attend each day, from Ten to Two o'clock, to point out the ground to be excavated. The party whose Tender may be accepted for the work will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 1,000l. for the due performance of the Contract. Tenders for the above work to be addressed to the Director-General of Contracts, Pall Mall, London, and delivered at the Office of Contracts at Dover Castle.

N.B. The War Department reserve to themselves the right of excluding the whole or any of the Tenders.

Royal Engineer Office, Dover Castle, December 8th, 1855.

TO BUILDERS and OTHERS. — Sealed TENDERS for the following SERVICES on the coast of Cornwall, viz.:—

No. 1. At Pendennis—Construction of a 24-gun Battery and Side-arm Shed, as well as an extension of the present Magazine, &c.

No. 2. At Pendennis—Construction of a 24-gun Battery, Magazine, Side-arm Shed, &c.

No. 3. At Pendennis—Bitts, buttresses, &c.

No. 4. At St. Mary's—Construction of a 9-gun Battery and Side-arm Shed, and Repairs and Alterations of the old Magazine, &c.

Prospective plans, &c., will be received by the War Department, Pall-mall, London, on or before 12th JANUARY, 1856, at noon. Detailed specifications and estimates Nos. 1 and 2 may be seen at Oliver's Hotel, Dunstan, on the 7th instant; and Nos. 3 and 4, at Crumble's Hotel, Hayle, on the 9th instant, between the hours of TEN and FOUR at each place. An Officer will attend on the 7th and 9th instant at the above-named Hotels, to explain the plans to such persons as may appear to be desirous of tendering, and to leave the whole of the two days specified for inquiry and examination.

The Engineer-in-Chief's Office, 23rd December, 1855.

THE NETHERLANDS LAND ENCLOSING COMPANY. CONTRACT for ENCLOSURE WORKS. TENDERS are prepared to receive TENDERS for the CONSTRUCTION of a BOLDER BANK, situate at BATH ZEELAND Harbour, according to plans now open to inspection at the Office of the Company, No. 4, Great Queen-street, Westminster, where all necessary information may be obtained, from Messrs. BIDDER and GEORGE ROBERT STEPHENSON. Tenders to be addressed, under seal, to the undersigned, at No. 2, Mount-street, Londonderry, on or before the 15th JANUARY, 1856. The Directors do not pledge themselves to accept the lowest or any Tender.

By order of the Board,

GEORGE PASSON, Secretary.

2, Mount-gate-street, London, December 11, 1855.

N.B. The contract for the above work is completed, and when approved by Government, the contract will be offered to public Tender.

TO BUILDERS.—KNIGHT'S BRIDGE.—The Magistrates of the counties of Berks and Hants, are this day receiving TENDERS for RE-BUILDING KNIGHT'S BRIDGE, over the River Kennet, on the road from Kingsclere to Newbury. Persons desirous of contracting for the same, may see the plan, specification, and particulars, at the Offices of the County Surveyors, Messrs. BIDDLE and BROADSTONE, Reading; or Mr. T. STOPHER, St. 18 Swithin-street, Winchester, on and after WEDNESDAY next, between the hours of TEN and FOUR. Sealed Tenders, endorsed "Tenders for Knight's Bridge," to be sent to me at Reading or Winchester, on or before TUESDAY, JANUARY 15, 1856. The lowest Tender will not necessarily be accepted. By order of the Committee of Management,

J. B. CLACY, } County Surveyors for Berks and
T. STOPHER, } Hants.

39, Broad-street, Reading, St. Swithin's street, Winchester.

December 18, 1855.

TO BUILDERS.

NATIONAL SCHOOL at KINGSKERSWELL, near Newton Abbot, South Devon.—All parties willing to TENDER for the ERECTION of a SCHOOL and HOUSE, in separate Tenders, may see the plans at the offices of Mr. MASLEN, S. of the parish of Ilsington, between the hours of 9 and 4 daily; and tenders must be sent, sealed, to the Secretary of Building Committee, Parsonage, Kingskerswell, on or before the 1st JANUARY, 1856. Further particulars may be obtained by application to Mr. J. W. HOOKER, Architect, Cheltenham, where a copy of the plans and specifications may likewise be seen.

CONTRACT for AFRICAN MAHOGANY. Notice is hereby given to all persons who may be desirous of CONTRACTING for the SUPPLY of 100 LOADS AFRICAN MAHOGANY, that proposals addressed to "The Director-General of Stores, War Department, Pall-mall," with the outside "Tender for African Mahogany," will be received on or before the 24th instant. Parties tendering are requested not to use any form but that which can be obtained on application to the above officer, any day previous to that date (Sunday excepted), between the hours of TEN and FOUR.

War Department, Pall-mall, Dec. 14, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TO BUILDERS. — The ERECTION of a NEW UNION WORKHOUSE. — Persons desirous of Contracting for the Erection of the Workhouse for the Union of the West Ward of the City of Canterbury, and Worcester for the ERECTION of a NEW UNION WORKHOUSE, consisting of separate accommodation for 600 inmates, together with the several offices, buildings necessary to be connected therewith, at Lathom, in the parish of West Derby, may inspect the drawings and specifications thereof, at the Offices of Messrs. [illegible] Architects, No. 2, Bedford-row, Holborn, and Mr. [illegible] Architect, Liverpool, on and after the 22nd day of DECEMBER inst. and may obtain Forms of Tender, where full particulars of the Contract may be seen, on payment of Two Guineas, each. Tenders must be sent in, and addressed to each of the parties, not later than One o'clock on THURSDAY, the 3rd day of JANUARY next. The contractors will be required to give such security as the Board may require for the due performance of the said works according to the plans, and the general conditions, specifications, and schedule of prices to be prepared as to the same. The Board will not bind themselves to accept the lowest or any other Tender.

By order of the Board,
CHARLES STRINGER, Clerk.

West Derby Union Office, December 15, 1855.

SALISBURY CEMETERY.—To BUILDERS and CONTRACTORS.—The Burial Board of the Parishes of St. Thomas, St. Edmund, and St. Martin, Salisbury, are desirous to receive TENDERS for the several Works required to be done in LAYING OUT and FORMING the BURIAL GROUND, recently added to the Cemetery, and for ERECTING a PORTER'S LODGE, and BURIAL CHAPELS, and in PAVING OUT and FORMING the ROADS and FOOTPATHS of the new cemetery on the Wilton-road. Copies of the plans and specifications may be seen at the Rev. J. M. HENRY E. COLE, Architect, of No. 2, Adelaide-place, London-bridge; or at the Office of the undersigned, with whom Tenders are to be left on or before the 5th JANUARY next. The Burial Board will not object to receive Tenders for the separate Works for the whole or any part of the Works, except the lowest or any Tender. A separate Tender for laying out and forming the roads and footpaths will be required. The Tenders are to be forwarded to me on or before the 31st of JANUARY next, addressed to the undersigned, Solicitor to the Salisbury Cemetery, and for other of the bodies, at my office. The contractor or contractors will be required to enter into such security as the Board may require for the due performance of the works, agreeably to the plans, general conditions, and specifications, such security to be approved by the Board.

G. SMITH, Clerk to the said Board.

Salisbury, December 10, 1855.

HOLLOWAY and NORTH METROPOLITAN FREEHOLD LAND and PERMANENT BUILDING SOCIETY.—To CONTRACTORS.—The Committee of the above Society are desirous of receiving TENDERS for MAKING ROADS, ERECTING SEWERS, &c., on their Estate at Holloway. The plans, etc., may be seen, and information, applied for to CHARLES BARLOW, the Surveyor, No. 31, Bloomsbury-place, Southampton-row, Holborn, on Saturday, the 22nd inst., between the hours of Ten and Two o'clock. Tenders are to be addressed to the Secretary, at Belle Vue-villa, Holloway, on or before the 31st of DECEMBER instant. All parties tendering are requested to attend the Committee-room on WEDNESDAY, the 2nd day of JANUARY, 1856, at SEVEN o'clock p.m. at the Office of the Solicitor, E. C. SEAMAN, Esq. No. 12, Panoras-lane, Cheapside.

TO IRON FOUNDERS.

FILEY WATERWORKS.—CONTRACT for CAST-IRON PIPES.—The Filey Water Company are prepared to receive TENDERS from parties willing to CONTRACT for the SUPPLY of about FOUR MILES of CAST-IRON MAIN PIPES. The specification may be seen at the office of W. JOSIAH P. FAIRBANK, of South Parade, the Company's Engineer, on and after MONDAY, the 24th instant. A printed form of specification, with form of Tender, will be forwarded on receipt of 2s. 6d. Sealed Tenders, addressed to the Directors of the Filey Water Company, and endorsed "Tender for Cast-Iron Pipes," must be forwarded, free of carriage, to the Engineer of the Company, on or before the 1st day of JANUARY, 1856.

JOSIAH F. FAIRBANK,
Engineer and Secretary to the Filey Water Company.

South-parade, December 15, 1855.

MIDDLESEX and ESSEX TURNPIKE-ROADS.—To ROAD CONTRACTORS and OTHERS.—The Trustees of these Turnpike-roads will meet at the Office on FRIDAY, JANUARY 11th next, at TEN o'clock in the morning precisely, to receive TENDERS in writing, for the PURCHASE of the Value of GRAVEL, BALLAST, to be used in the reparation of that part of these roads which is between North-street, Whitechapel, and Bow-bridge. The Trustees require that such gravel be first screened, and then carted for spreading and carriage on such portion of the line of road, and be once sifted through screens 2½ inches and ¾ inches in the mesh, and containing three bushels to the Trustees to load liberty at their own expense to cart such gravel ballast through screens of 2½ inches diameter, and for the carriage and spreading of the gravel ballast as aforesaid, until the 25th of MARCH, 1856. Payment will be made with three months' credit for each stock of such gravel ballast as may be delivered, and carted and spread as aforesaid. The Trustees do not bind themselves to accept the lowest or any Tender.

GEORGE DARE,
Clerk and Solicitor to the Trustees.

Turnpike Office, Bow, Middlesex, December 15th, 1855.

TO BUILDERS.

PERSONS desirous of TENDERING for the ERECTION of a new CHAPEL and VESTRIES at Camberwell, can see the drawings and specification at the Office of the Architects, Messrs. W. G. and E. HABERSHON, on Bicester-square. Tenders to be delivered on MONDAY, the 31st DECEMBER, at FOUR o'clock precisely. The Committee do not bind themselves to accept the Lowest Tender.

A QUANTITY of BRICKWORK to BE LET, the Contractor to find mater ials and scaffolding. Plans may be seen, and all particulars known, at 5, Burnford place, Caledonian-road.

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

The Earl Verney and Roseberry.
The Right Hon. Earl Feather, M.P.
Right Hon. R. Chris Nisbet Hamilton, M.P.
J. C. Colthild, esq., M.P.

TO ROAD CONTRACTORS, &c. — The Executive Committee are prepared to receive TENDERS for COMPLETING the ROADS, DRAINS, GARDEN, FENCES, &c. on the Clarence Estate, Putney. The Estate is situate on the high ground to the south of the Suburban, on and after WEDNESDAY, DECEMBER 26, between the hours of ELEVEN and TWO. Tenders to be delivered between TWELVE and ONE o'clock, on FRIDAY, JANUARY 4, 1856, addressed to the Surveyor, and endorsed "Tenders for Completion of Roads, Putney Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, New Bridge-street, Strand, December 8, 1855.

TO BUILDERS.

HEANOR WATERWORKS. — Contract No. 2. — The Local Board of Health for this district are ENGINEER thereto, to contain a 15-horse power steam engine, a BOILER HOUSE, to contain two 12-ft. by 6-ft. boilers, and a STEAM CHIMNEY, 60 feet high. The drawings and specifications may be seen at the office of Mr. JAMES NORRIS, of Nottingham, the Engineer to the Local Board. The Tenders are to be delivered on or before TUESDAY, the 1st day of JANUARY next.

H. B. SPENCER, Clerk to the Board.

Board-room, December 17, 1855.

IRONMONGERY.—Builders and the Trade generally will effect a considerable saving by purchasing IRONMONGERY (CLOSE and ROSE, Wolverhampton Factory and Stove and Range Manufacturers, 35, Gay-road, corner of Tabernacle-row). A large stock kept of every description of builders' ironmongery; china, glass, and ebony lock furniture and finger plates. Iu and all bell-hanging materials. Lists forwarded by post on application.

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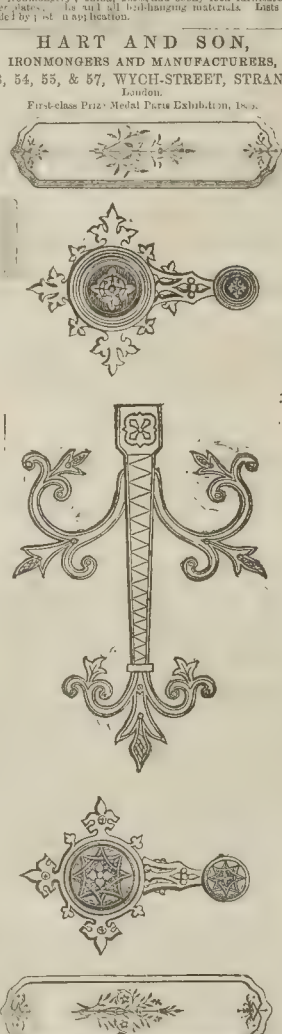

Specimens from Paris Exhibition to be seen at the Architectural Exhibition, Pall mall.

Illustrated Priced Catalogue to be had on application.

JOHN PARKIN and CO. late BLAKE and PARKIN, NEW MEADOW STEEL WORKS, SHEFFIELD, MANUFACTURERS of CIRCULAR and MILL SAWS, IMPROVED CAST-STEEL FILES, for the use of engineers and machinists, PATENT TEMPERED MACHINE KNIVES and CUTTERS, manufactured for planing and groving wood, for cutting paper, iron, stone, leather, &c. made of any pattern or dimensions with the utmost exactness. Warranted to work with a harder and finer edge than any other mode of temper.

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LIGHTNING CONDUCTORS.—R. S. NEWALL and CO. Patentees of the Copper Rope Lightning Conductor, beg to inform the nobility, clergy, &c. that they supply Lightning Conductors, with the point and all staples complete for fixing, at 6s. shilling the foot.

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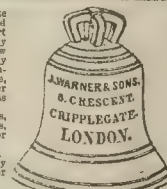

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FOR SALE, a horse-power CIRCULAR-SAW-MILL, with circular saw-bench, saws, shafting driving bands &c all complete, and nearly new, price 50l. Also a hand-power CIRCULAR-SAW BENCH and SAWS, complete, price 5l. To be seen at work at No. 6, Tree's street, Lambeth.

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WATERWORKS FOR THE SUPPLY OF TOWNS,

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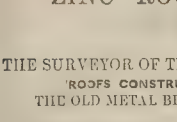

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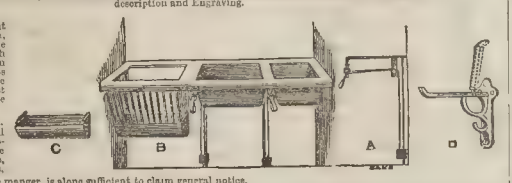

A represents the Patent Halter-guide, and C the rein, the ball (which is taken to the back of the mangers works with freedom and can up or down the guide-bar, and is noiseless in its operation, and is a sure preventative against the most restive horse kicking out in the stall.

B. The Patent Portable Seed-box can be instantly detached from the Rack without disturbing the hay. Cleaning of the seed in a clean and useful state, either for agricultural purposes, or mixing with the food in the manger, is alone sufficient to claim general notice.

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WARMING LARGE BUILDINGS, &c.—CUTLER and SONS respectfully state that they are prepared to Contract for the Erection of their Improved Powerful Apparatus for effectually and economically Warming Churches, and all other public or private buildings, which they undertake in every instance to guarantee—It may be seen in constant use at their Premises, 16, Great Queen-street, Longacre London.

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JOHN WEEKS and CO. King's-road, Chelsea, solicit the attention of architects, &c. &c. to their superior APPARATUS. At Messrs. Weeks' establishment, an apparatus with a coil of iron can be seen daily in full operation, heating buildings measuring 1,000 feet in length, at the small expense per day in fuel and labour of 6s. 8d. This achievement in heating by hot water is unprecedented

BUILDINGS HEATED by HOT WATER. G. B. COOPER, IRONWORKS, 121, DRURY-LANE. Ranges, Hot Plates, Gas Cooking Apparatus, Bells, &c. Ornamental and Constructive Ironwork

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Firstly—From the frequency and extent of his purchases, and

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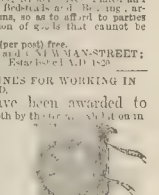
PRIZE MEDALS have been awarded to these celebrated Machines both by the Jurors who sat on it in London, and many scientific institutions. They are extensively used throughout the United Kingdom by carpenters, cabinet-makers, coach and wagon builders, wheelwrights, agricultural implement makers, shipbuilders, and also by the British and French Governments, for planing and squaring up, moulding, tenoning, mortising, grooving, rebating, sawing and turning.



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Their operations are in every respect perfect, either in hard or soft wood, and will perform all the ordinary descriptions of work required in the above trades in a very rapid and superior manner, and at a greatly reduced cost.

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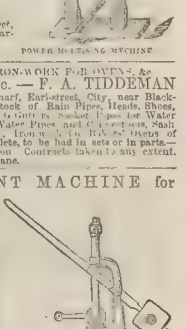
RAIN PIPES, &c.—F. A. TIDDEMAN and CO. 68, Ann's Wharf, Earl-street, City, near Blackfriars-bridge, keep a large stock of Rain Pipes, Heads, Shoes, Elbows, &c. suitable for Gutters to Sunken Pipes for Water or Gas, Syphon Pipes, Hot Water Pipes, and Cisterns, Sash Weights, and other castings, from 1 cwt. to 5 tons. Quotes of every description, fitted complete, to be had in sets or in parts.—Prepared to all competitive Contracts, taken to any extent. Goods landed. A powerful crane.

NEW PATENT MACHINE for MORTISING and PUNCHING HARD or SOFT WOOD and BORING WOOD or IRON.



House and Coach Builders, Joiners, Cabinetmakers, and others, doing similar work, are invited to come at their earliest convenience, to Messrs. JAMES, and CO., Wholesale Builders and Patent Machine Makers, Ironmongers, Establishment, No. 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out for performing those three separate kinds of work by one machine; and as it is self-feeding, it does not require any skill or care in using like the other mortising machines. It can either be worked by a boy, or made to go by steam power.

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No. 3	4	5	6
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At JOHN YOUNGS, Birmingham, and 19, Bloomsbury-square, Agent, Factor, and General Ironmonger, &c. to Manufacturers, Manchester-terrace, Manchester-street, Manchester-square, and Baker-street, Portman-square. Every description of Patent Sash Line on sale.

STUART AND SMITH'S
PATENT GILL AIR WARMER.

TESTIMONIALS.

RICHARD REDGRAVE, Esq. R.A.

"16, Hyde-park Gate, Kensington, February 24, 1854.

"My dear Sir,—The Air Warmer continues to work very satisfactorily indeed, with regard to the main body of the house, and during this weather is charming, even in the painting room. Mrs. Redgrave is extremely pleased with it in her domain, and says that she never enjoyed a winter before as she has done this, since the apparatus was fixed.—I remain, my dear Sir, yours sincerely,

"Mr. J. Jobson Smith." "RICHARD REDGRAVE.

JAMES SILK BUCKINGHAM, Esq. late M.P. for Sheffield.

"Stanhope-lodge, St. John's-wood, London, January 27th, 1855.

"Dear Sirs,—I am happy to be able to report to you most favourably as to the operation of your Patent Gill Air Warmer, which has exceeded the expectations I had formed of it. From a residence of many years in tropical climates, I have always been peculiarly susceptible of colds on my residence in England, and this has increased with increasing years and decreasing strength; I have, therefore, had recourse, from time to time, to various stoves and other modes of warming the hall and passages of my house; but I have never succeeded till now in producing an equal temperature over every part, and having that temperature completely under control, which your Air Warmer so effectually gives me. By its use we are really insensible to those changes of temperature and chills which are ordinarily produced in passing from warm rooms to cold halls and passages, and have the climate of May within doors in the months of December and January. The servants learnt its proper management in a few days without difficulty, and its economy in fuel is so remarkable as the many other good qualities it possesses. Indeed, I cannot speak too highly of it, and shall lose no opportunity of heartily advising its adoption to all who desire to protect themselves against the changes of temperature in their dwellings.—I am, dear Sirs, yours faithfully,

"JAMES SILK BUCKINGHAM.

"To Messrs. Stuart and Smith, Roscoe-place, Sheffield."

M. E. HADFIELD, Esq. Fellow of the Institute of British Architects.

"Sheffield, March 6, 1855.

"My dear Sir,—We have kept the Gill Stove in full operation during the past severe weather, and I have much pleasure in saying the result has been most satisfactory. The temperature of the house has been pleasant and equable, and the atmosphere perfectly free from the disagreeable oppressive odour produced usually by Hot Air Stoves. I can conscientiously recommend the principle to my friends as cheap and effective.—I am, my dear Sir, yours faithfully,

"Mr. J. Jobson Smith, Roscoe-place." "M. E. HADFIELD.

WILLIAM HUTSON, Esq.

"Newby Wiske, Thirsk, 15th February, 1855.

"Sirs,—I wish to tell you what promise of comfort as well as of economy I have in the Gill Stove placed in the staircase of my house recently built. In spite of the disadvantages incident to an uninhabited and unfurnished house, with all the doors open into the adjacent rooms, it is keeping up a very genial influence over the temperature, even during this severe weather. The manner in which the air is admitted gives perfect control over the combustion; and I find, with coke at 16s. 6d. per ton, the rate at which it has been fired for the last two or three months, is 1d. per hour.

"I am, Sirs, yours truly, "WILLIAM HUTSON.

"Messrs. Stuart and Smith.

"P.S.—Mr. HUTSON, on looking again, sees the cost of coke for his Gill Stove, burning nine hours per diem, from 31st October to 9th February, for six days each week, was 3l. 6d. for coke—say about 5d. per day."

EDWARD MARTIN, Esq. M.R.C.S.

"Sheffield, Glossop-road, February 27th, 1855.

"My dear Sir,—I have now had the Patent Gill Air Warmer in operation during two winters, and the result has been extremely satisfactory. During the late severe frost, the comfort has been so great that I scarcely know how we could have done without it. Instead of the hall, staircase, and passages, being a reservoir of cold air, a genial warmth has been everywhere diffused; and when recovering from colds, my children have had the general run of the house without the fear of a relapse. To many invalids the invention will prove invaluable, giving them the freedom of their habitation instead of confining them prisoners to one apartment.—Believe me, my dear Sir, very truly yours, "EDWARD MARTIN.

"Mr. Jobson Smith."

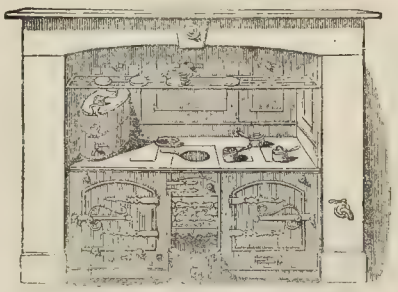
E. F. SANDERSON, Esq.

"West-street, Sheffield, 27th March, 1855.

"Gentlemen,—The Gill Air Warmer you put up for me last year at Endcliffe, and which I regarded with some distrust and doubt, has been thoroughly tested during the past unusually cold winter. Having been accustomed to a dry climate, my family has been painfully sensitive of the damp and chilly air of this country; but by the happy effects of your Air Warmer the house has been kept at a most agreeable temperature by a continued ventilation of pure, warm, fresh air. This excellent apparatus must be invaluable to invalids and delicate persons. I most cordially offer my testimony in approbation of your effective plan of rendering dwelling-houses most equably comfortable in point of temperature.—I am, yours very truly,

"Messrs. Stuart and Smith, Roscoe-place." "E. F. ANDERSON.

FLAVEL'S PRIZE KITCHENER.



The only Kitchen Range which obtained a Prize Medal and special approbation at the Great Exhibition, 1851.

These Ranges are strongly recommended for their simplicity of construction and their economy and cleanliness in use.

The top forms a Hot-plate, and the open fire removes many of the objections which are felt to close Ranges.

They are made in all sizes, from 3 feet to 18 feet in width, suitable for large or small establishments.

They are admirably adapted for the Cure of Smoky Chimneys.

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PATENT WROUGHT-IRON WELDED TUBE for GAS; galvanized ditto for water; high-pressure cocks, &c. Manufacturers of Dr. Arnott's improved ventilators.—HULETT and CO. 55, High Holborn.

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Corrugating by steam power capable of doing 100 tons per day, at the lowest remunerative prices, for bulk.

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Orders to any extent can be executed at his Works, Mill-wall, Poplar.—Apply at the Works.

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Having his own Saw-mills, is enabled to CONTRACT BUILDERS' WORK,

At low prices, consistent with good work.

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GREAT REDUCTION IN PRICE.

PLUMBIC ZINC is a perfect combination of Lead and Zinc, and not requiring to be more than one-fourth or one-fifth as thick as Sheet Lead, is consequently very much cheaper than that material, and at the reduced price costs but little more than Sheet Zinc.

No. 11 gauge weighs about 18 oz. per foot super.				
13	"	"	20	"
13	"	"	23	"
14	"	"	26	"

Full particulars and the reduced price sent by post on application to

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SKAIFE'S GALVANIZING WORKS,

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Skaife's process is the most effectual preventive against rust, and is extensively used for all purposes where iron not liable to rust is required

Patent Galvanized Iron supplied in every form.

Sheets plain and corrugated.—Roofs fixed complete.

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GALVANIZED SHEET-IRON and WIRE of every description superior in all respects to that produced by any other process. THE TOUGHNESS AND MALLEABILITY of the Iron being preserved.

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For Roofs, Flats, Cisterns, Gas Tubing, Gutters, Pipes, Fencing, &c.

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Improved Self-acting Cottage Ranges, with Large Oven and Boiler.

30 33 34 36-inch.
28s. 30s. 32s 34s

Best Self-acting Ranges, with Oven and Back Boiler, Bright Wrought Bars—

34 36 38 42-inch.
54s. 56s. 58s. 60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 3½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivits, 5d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe { 2 2½ 3 inch. 11d. 1s. 2d. 1s. 4d. per yard.

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6-inch Rd. Ward Mortice, with best Furniture and Patent Spindles, 3s. 6d. each. Light Elliptic and Register Metal, 14s. per cwt.

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An extensive stock of bar, rod, hoop, and sheet iron.

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Elliptic Stoves, double backs, 3d. per inch, and upwards.

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Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

3 ft., 3l. 13s.; 3 ft. 6 in., 3l. 6s.; 4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

3-feet self-acting ditto, ditto, 36s. each.

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Best Town Glue, 60s. Ditto, Scotch, 66s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s. per gross.

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Builders, Contractors, and Others, supplied with Nails, Iron, and Ironmongery of every description, at the

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 3 lbs. to the foot; 3-16ths, or 5 lbs.; and 1-4th or 4 lbs. is now universally used for

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The Builder.

VOL. XIII.—No. 672.

THE opening *conversazione* of the Architectural Exhibition took place on the evening of Tuesday last, and was attended by about 700 persons, amongst whom were many ladies and some of the chief members of the profession. Sir Charles Barry, Professors Cockerell and Donaldson, Messrs. Scoles, C. C. Nelson, T. H. Wyatt, Poynter, Lamb, Papworth, and Kerr, were amongst those whom we happened to see. Professor Cockerell, on taking the chair, expressed the pleasure which, as a member of the Royal Academy, and a veteran professor of the art, he had in seeing so large an assemblage of persons interested in the subject of architecture. Such exhibitions as were here placed before them could not fail to have a very important effect upon general knowledge of the subject.

Mr. Ashpitel then gave a sketch of the objects and progress of the undertaking; in the course of which he excused the Academy for the inadequate attention paid by them to architecture, on the ground, as regards their exhibition, that the painter was an exhibitor for the direct object of selling his productions. In adverting to the works now displayed to the visitors, he spoke of the importance of the department of materials and manufactured articles; observing that the architect had a duty supplementary to his calling of artist,—that of preserving the purse of his client,—an object even more than usually important just now, by reason of the excessive dearness of labour in this country. He believed, however, that the promoters of the exhibition were at work towards the prevalence of a general good taste; and in seeking this, they consulted no *cliques* nor parties having peculiar views in reference to the art—confident that the ultimate result of discussion and popular interest, would be the attainment of the real object. He further made an appeal, not quite unneeded, to the representatives of the general press, believing that the objects of the undertaking had been somewhat misunderstood. After alluding to the pecuniary question, and the importance of taking the *balance* from the wrong side of the account—where it has hitherto been—he expressed the hope, that shortly a more suitable place of exhibition, and a more desirable period of the year might be open to selection,—although the requisite premises for the purposes of art should be provided by Government. Were that latter advantage gained, the architect would have a right to a chief place.

After some further remarks by the chairman, and a vote of thanks to the honorary secretaries and the committee, Mr. Godwin, at the request of the committee, moved a vote of thanks to Professor Cockerell, who, he said, was found always ready with his kindly feeling, and his matured experience and scholarship, to aid in promoting the advancement of the art, and there were many members of the profession who owed him much. The speaker said he would take the opportunity to ask for the attention of the public, through those who were present, to the works exhibited, and to the art which these works helped to illustrate. Till lately, indeed even yet, architecture as a study was, it might be said, wholly neglected,—so that people who would have been perhaps ashamed to confess ignorance of other extensive subjects, were not ashamed to plead entire ignorance of architecture,—though the practical architect was one of those who were writing, in enduring form, the history of their time. Hitherto, drawings, where buildings were represented, had required to be mere views, or something pictorially attractive; but it was very desirable that the public should understand and take interest in the architect's ordinary methods of representation, and for the perception of the true pictorial *result*. Information, also, it might be hoped, would become so far diffused, that it would be seen there had been many ways of reaching a beautiful whole, —whilst, as regards the future, our architecture might come to be—if not what was called by the name of this or that old style—at least the expression of original art, working upon all materials, new or accumulated,—whilst it might not be censured, should it perchance be different to all that had been done before.—Professor Cockerell, in conclusion, expressed his belief, formed after an experience of half a century, that our art was passing to an improved position. The productions of the architect had been under disadvantages—placed in conjunction with paintings, and the present Association would have the merit of originating a course of permanent improvement; and he wound up the more formal business of the evening by urging the necessity of full devotion to the art, in order to realize the hoped-for advancement in position.*

We spoke, in our last number, of the general character of the display, and gave the names of some of the exhibitors. We shall now be able to examine the principal drawings. In ecclesiastical architecture the number of works is considerable, by reason of the exhibition of many designs for cemetery chapels. In either these, or churches proper, we cannot say that progress has been made, such as we are glad to recognize in buildings of a different class. There is quite enough in the Exhibition -we may instance the extraordinary display of metal-work by Messrs. Hart—to show how much gain there has been to the general art, by the study of the Gothic principles. But churches continue to present themselves—with an odd exception or two, universally—not simply as "Gothic,"—which might be excusable, or some may say, commendable,—but under a constant *incubus*—as oppressive upon thought and progress, as any ever imposed by absolutism or priestcraft. There are many works exhibited marked by accurate knowledge of old buildings and details: there are those even which show skill in the arrangement of plan, and in grouping; but there are hardly any of the works where the *architect* has not been apparently deferring to some prejudice of his own, or on the part of an employer. Surely, if any fair effort is to be productive of a work of *art*, the mind of the artist must not be under the present trammels,—resulting, be it observed, not from some crotchet in taste, but rather from views originating altogether irrespectively of *art*. That there is the desire amongst architects to do something different from the old models is, indeed, shown by some of the works exhibited: these, however, seem to us to go not far enough: they depart from the beauty of the best old works, only to fall into somewhat of the uncouthness for which there may be also precedent; whilst it would be better just now to start from a different point, —though from one where constant reference should be made to the uses of the structure,—a point which, indeed, we are very doubtful about—as to its being fairly considered under the present system. This view has, however, been continually advanced, both in these pages and elsewhere, of late.

In spite of what we observe, there is still great merit in many respects in some of the designs for churches and chapels in the present exhibition. Messrs. Gabriel and Hirst's "View of proposed Church, Sneed Park, Durdham Down, Bristol" (18), shows a "Decorated" church, with tower and spire. The pinnacles are supported on corbels; and their great height, though required for one object, occasions a defective structural appearance—also not wanting in parts of the ornamentation of the spire. We once had occasion to advert to similar treatment in parts of a design for a more important public building. It may be not without precedent; but what may constitute part of general good effect in works tinged with the flattering hue of antiquity, should not necessarily be repeated. In speaking of ancient *models*, the artist should understand works valuable for the *lessons* which they can afford, and not things that are to stand instead of the results to which modern æsthetics point; and which modern elucidation has its own value, although one hitherto little wrought on. Notwithstanding the peculiarities referred to, however, the grouping of the tower and spire is very good.—— Mr. E. Christian's new church at Tiptree, Essex, shown by plan and views (24 and 55), is a plain, cheap-looking building, to seat 500 persons, at the cost of 1,897*l*. Red brick, with dark bands, and tiles for the roof, are the chief materials, the bell-turret being of wood. The interior has square piers, and a boarded ceiling, simply but tastefully decorated, the roof principals being merely tie-beam and posts,—and there is an octagon apse. The design exemplifies a change which is evidently taking place, in opinions as to the proper proportion of length and width. The plan here is square, as indeed are more of the old churches than some authorities once understood. Mr. Brakspear's "Bridgwater Church from the south-east, showing the recent Alterations, and their proposed Completion by the rebuilding of the Tower and Spire, and the addition of a new Vestry" (46), informs us that the last-named addition will take the octagonal plan, which is most characteristic of cathedral and collegiate churches. The flying buttresses against the *sides* of the spire, form an arrangement which it may have been right to restore; but which again, would be questionable in new works, on the score of structural propriety and beauty. Mr. E. B. Lamb, indeed, adopts the octagon vestry plan, and some of the more doubtful characteristics we are referring to, in his churches, which, however, are all marked by laudable endeavours to enter upon a new path. Some of his churches, amongst the subjects scattered on a sheet and photographed to a small scale by Mr. Bedford, from the Lithographs (312), illustrate our remarks. The design which more immediately attracted attention is (47) that of "All Saints Church, Thirkleby, York," recently erected as a monument to the lat. Sir Robert F. Russell, Bart. where the octagonal vestry roof is crocketted, and the pinnacles of the tower are set inward from the angles.—No. 45 is the "Interior View of St. Mary's Church, Lancaster." This church is remarkable for the beauty of its woodwork, casts of which are at the Architectural Museum. In the case of such exhibited drawings, some information should be given as to the alterations intended,—for, the title in this case is hardly correct in saying "showing the proposed restorations." Mr. E. S. Paley is the architect engaged. —— "The New Parish Church of Blaina, Aberystwith" (49), by Mr. J. Norton, is to accommodate 500 to 600 persons, and will cost about 3,000*l*. and is being built of stones of varied tints. It is in the Norman style.—— In Hatford Church, Berks, to be restored by Mr. J. Brookes, the interior view (58), shows a chancel arch, filled in with geometrical tracery, supported by shafts of red stone or marble.——

* The lighting on these occasions requires amendment. We would also suggest that if "the committee" again "request the honour of the company" of So and So, and *friends*," charges for refreshments should be avoided.

In the large drawing of numerous "works in hand, or recently completed," by Messrs. A. Ashpitel and J. Whichcord (60), there are several churches, chiefly of plain character. Considerable skill is required in combining so many buildings effectively in a drawing.——By Messrs. W. G. and E. Habershon, in "the Baptist Chapel now erecting at Hackney" (73), at a cost of 6,200*l.* the Italian style has been adopted, with a tetrastyle Roman Doric portico; and the interior (77) has an arched ceiling, and a semi-circular apse.——"A Design for a Church" (75), L. De Ville, deserves examination. It is a cross church, with aisles and central tower,—the details being exceedingly simple, and of Italian Romanesque character. There are square buttresses to the aisles and tower, and the latter has a sloping roofed set-off and diminished stage: this upper feature and all the pinnacles being terminated by lofty red-tiled cappings, also square on plan, and by iron crosses.——"St. Stephen's Church, Devonport, in course of erection," of which the south-east view is shown (84), by Mr. J. P. St. Aubyn, is in the Decorated style, with tower and spire; and like the majority of the works exhibited in the same class, is well studied from the old "models," and by no means wanting in effect,—yet withal not displaying much that we could single out as new.——The particulars which the authors of different designs supply in the catalogue, should be very useful to architects visiting the exhibition. We need not copy them all. Mr. R. J. Withers, who is rebuilding the church at Buttermere, diocese of Sarum, adding a chancel (93), informs us that the contract is 450*l.*; the number accommodated being eighty persons.——Of "St. Mark's Church, Albert-road, Regent's-park," Mr. T. Little exhibits an exterior and interior view (101 and 132). This building is one of the best of the architect's works, the site having led to some novelty of effect. The aisles are lighted by two ranges of windows; the upper range being spherical-triangular. The style is Early English. The boundary wall, with ironwork *chevaux-de-frise*, is well managed; but the entrance-gateway is heavy, and challenges inquiry whether it fulfils any use.——Although now confining our attention to new works, we will not pass by the "View of the Church of San Lorenzo, Florence" (105), by E. A. Gifford,—since it is one of the best drawings in the exhibition. It is accurately perspectived and carefully coloured.——Mr. C. Gray's "Church of St. Paul, Tottenham, about to be erected," is illustrated by an exterior and interior view (112 and 113). The design exemplifies the progressive spirit which is to be noticed—with whatever temporary effect—in the efforts of the rising talent of the day. The style, though allied to the Early English, is *founded upon* the Gothic, rather than precisely that which we have alluded to in former remarks as apparently reproduced from old models. The effort after novelty, however, is not carried to excess. The character is given mainly by the use of cusped arches throughout the interior as well as exterior, and of red brick in the window voussoirs. Twisted shafts are used in the windows and porch. There is a circular apse, and that slated spire rising from eaves, which, since Mr. Butterfield erected one in Margaret-street, or since the continental examples have become known, has been a favourite form of innovation upon the usual English character. Square "tabernacles," supported on shafts, are at the base of the spire. The nave arches, cusped, have a slight chamfer, with ornament therein. The roof is boarded and panelled.——In the "Competition Design for the New Church, Peterborough" (124), its authors, Messrs. W. W. Deane and T. Hill, have hardly done their best. The spire would look stumpy, and one buttress belongs to that class of architecture practised in old country churches, when "churchwardens" required "Hints."——We have been much pleased with Mr. S. S. Teulon's Design for the proposed Church of St. Luke, King's-cross (142). Red brick, with dark bands, and stone tracery are the materials employed,—the spire, however, consisting of "a framework of iron, roofed in with slate, having bands of rough plate-glass,—the spirelets of wrought iron, galvanized and enriched with gold." Both tower and spire are octagonal, the former having lofty transomed and traceried windows; the lower stage or base of the tower being of somewhat greater area of plan; and the several faces of the octagon there, being terminated by gables over windows, and pinnacles.——Another of the competition designs for the same building is exhibited by Mr. J. Clarke, F.S.A. (159). It is Early Decorated in style; and the novelty which we noticed, was the crocketting of the upper part only of an ogee-canopy; and that would rather illustrate the danger of pursuing novelty apart from other considerations which are equally important with it.——Mr. J. L. Pedley's exterior and interior views (151 and 153) of Messrs. Scott and Moffat's "St. Giles's Church, Camberwell," also deserve praise as drawings.——The designs for country churches (166 and 171) have surely got their present conspicuous position from other considerations than high merit as designs. We have received many complaints as to the hanging; and though few who make such statements are aware of the difficulty and trouble undertaken by those who kindly accept the duty, there is reason for one complaint, namely, as to the separation of different parts of the same design, in some instances.*——Mr. A. Bailey exhibits another of the designs for the church at Peterborough (176 and 208), and he also uses the slated spire, and the red brick voussoirs to arches,—the latter derived by him, perhaps, from his recollection of the Saracenic architecture of Sicily and Southern Italy. There is good proportion in the tower and spire,—albeit Mr. Bailey's fondness for blank space has a tendency to degenerate into the appearance of poverty.——Mr. Truefitt, in the "Church of St. John, about to be erected at Hulme, Manchester" (198), shows the prepossession for the slated, or lead-covered spire, with clustered lucarnes, and for the unbuttressed wall surface, which he also has. The design has a solidity of character which is highly effective; and which is partly derived from the use of tracery flush with the face of the wall,—but the windows have the appearance of giving too little light. The treatment of the tower and spire is novel and good. Amongst Mr. Truefitt's other works, is a design (197) for a church,—where, in place of ordinary piers for the support of nave arches, short coupled iron columns are used,—set transversely to the length of the building. We notice the influence of Mr. Truefitt's published designs and continental sketches, in many of the executed works of the day.——Mr. T. D. Barry's "Tulse Hill Church" (186), belongs to the other, or what some may call the purer school of Gothic, and we will not take any exception to its merit. That it has,—as in the grouping of the tower and spire.——Mr. R. Kerr, who seems to devote himself to brickwork as a material for the expression of design, has amongst some works which may deserve further notice, one or two ecclesiastical buildings. His "Design in Ornamental Brickwork" (229), shows a church with two western towers, terminating with octagons and tiled spires with eaves. The general subject of brick architecture is too important to be entered into at present; otherwise, Mr. Kerr's works would afford some points for discussion.——Some lithographic views (311-313-316), of St. Patrick's Cathedral, Dublin, show the works carried out by the late R. C. Carpenter, or projected by him for that interesting structure. The woodwork is later in character than the early Gothic of the building.——Rochdale Parish Church (327), one of the late Gothic buildings which are common in South Lancashire, is being restored under Mr. J. Clarke's direction, who exhibits a large drawing of it.——Mr. L. Stride's drawing (330), entitled "Decorative Brickwork applied to the Exterior of a Building without disturbing the Lines of Architectural Design," is a design for a cross church with octagonal tower and spire, with the plain wall surface in yellow and red brick, disposed in patterns. Though these last are excellent in themselves, and do not *constructively* disturb the "lines" of the main angles of the building, and those of gables and apertures, we fear this system of enrichment—expressed in striking colours—is precisely what does disturb the most desirable part of the effect.

We have not named the whole of the meritorious works in the class of churches; and there are several designs for cemetery and for Dissenters' chapels,—which, with such illustrations as there are of the really valuable part of the architecture of the day—the class of public buildings—with other portions of the exhibition—we must reserve for another opportunity.

* You have so worthily and with so much energy advocated with your accustomed zeal, the cause of the Architectural Exhibition, that I think it cannot be to you otherwise than to some of the exhibitors, a source of extreme regret to observe the great want of judgment discernible in the hanging of the various drawings sent for exhibition. Many designs of considerable merit are placed in positions almost inaccessible to the ordinary visitors to the rooms, while others of very inferior pretensions are hung in the most conspicuous positions. It is not my wish to ascribe to the hanging committee (whoever they may be) any personal or selfish motives, but their incapacity to fulfil the duties they undertook cannot fail of being observed by every person in the slightest degree conversant with the subject. Supposing the statement I have made to be correct, and I have no doubt whatever that it is so, it is so obvious that those persons (of whom there must be many) who feel themselves aggrieved, who would on future occasions exhibit, will shrink from supporting an undertaking from which they would expect to derive only infamy, if not absolute disgrace; and thence would follow the dissolution of a society which possesses within itself, if properly managed, all the requisites to establish a permanent and valuable annual exhibition, calculated to advance in a proper direction the public taste, and at the same time to be of advantage to those who would, in such circumstances, render most willing assistance to the excellent cause.—Yours, &c. Another correspondent complains with justice of the manner in which some sets of drawings are divided—"the elevations in one part, the plans and sections in others, instead of being so placed that the various component parts of a design can be seen and judged of *as a whole*. If it is not rectified, it is clear the character of the exhibition will alter, and take the *mere pretty drawing* form, so objectionable at the Academy and elsewhere."

FOREIGN INTELLIGENCE.

The German National Museum.—This recently-founded Museum, and which at present is established in Nuremberg, bids fair to become a sterling affair. By the exertion of meritorious men from all ranks of society, it now already counts 50,000 specimens. The last yearly meeting consisted of men perfectly capable of understanding the wide bearing of such educational establishments on a large scale, as are Messrs. Bergmann, Bluntschly, Förster, &c. The editing of works and engravings was added to the former sphere of activity, and a systematic arrangement of the society laid down. The geographical limits of its activity were fixed within the extent Germany had about the year 1200, the *chronological* epoch to comprise all the ante-Christian times, with the exclusion of the Roman era, except what especially referred to Germany. While last year the Museum had only an income of 2,000 florins, it now reaches already 6,000 florins; and it is hoped that thus the sum of 20,000 florins a year, which would be required to carry out this national undertaking in greatest perfection, will be forthcoming. It is only the four *free* towns of Germany (Hamburg, Bremen, Lübeck, and Frankfort) which have settled a funded revenue on this national school for the people.

Regensburg.—The Dome.—The Royal Villa.—The restoration of the dome of Regensburg is a work of King Ludwig, and it well deserves that attention. Whilst most other Gothic buildings are stretched upwards, which, although it may proceed from strictly scientific principles, creates a sense of limitation and narrowness; here, on the contrary, the proportions of breadth are so mighty, that they counterpoise the former anomaly without encroaching on the

VESTIGES OF THE GREY FRIARS', NEWGATE-STREET.

fundamental principle of Gothic architecture, which is that of an upward elevation. The sculptures of the dome, of the thirteenth and fourteenth centuries, belong to the finest of the period, and prove that domes had always been the nursery of extensive sculpture schools, in Suabia, on the Rhine, &c. If Regensberg presents still the image of a mediæval town, the building of the Villa of King Max will add novelty to its features. It will occupy a place close to the Danube, and is building under the direction of Architect M. Toltz. The plan exhibits a right angle, the sides of which are looking towards the city and the river. The corners of the building consist of turrets, and the fenestration has round arches, and an attic over the chief cornice. This, with one of the finest views, extending up to the heights of the Walhalla, imparts to the building a very serene, romantic character.

Vienna.—New Explosive Apparatus.—The Major of Engineers, M. Ebner, has laid a report before the Austrian Academy of Sciences. It relates to the solving of the question, "whether electricity or voltaism is preferable for the exploding of mines in quarries, &c." The report gives preference to the former, because the amount of effect of the voltaic battery depends on the quality of the conductor through which it has to act; and whenever a great effect (force) is required, the alternative presents itself either to use colossal batteries, or costly conductors, outrunning the usual dimensions.

Munich.—Celebration of Overbeck's Sojourn in Bavaria.—It was the corporation of the Bavarian capital which lately gave an entertainment to the veteran Overbeck. It was observed on that occasion that this great painter never enjoyed nor courted any official patronage, but merely relied on his sturdy talent. When he came as a young man to Vienna, the Academy expelled him as troublesome; and his first works, in the Casa Bertholdi, and the Villa Massimi, he had to make for nothing, thinking himself fortunate that even a bare wall was conceded to him. Now Overbeck is in the possession, not of an European, but of a world-fame.

Saxony.—The Werra Railway Line.—The railway activity in Germany, far from relaxing, increases, for which an ample territory affords a wide scope. There is sitting at Jena a committee on the project of a new line from Weimar through Jena, Gera, Chemnitz to Dresden, which would afford great facilities to the traffic of those lands. But it is the Werra line which has occupied for years the time of the legislatures and engineers. It would transect one of the very centres of German communication, and connect Paris, Basle, Breslau, &c. by the shortest cut.

REMAINS OF THE GREY FRIARS' MONASTERY, IN CHRIST-CHURCH YARD.

IT is to be regretted that so many remains of Old London which, after being buried for centuries, have been brought to light, from time to time, should have been in many instances either demolished, or again hidden from the view, without record. If the city authorities had only applied a moderate sum yearly towards the collection and preservation of metropolitan antiquities, and for the purpose of making drawings and plans of such as could not be preserved, we should, instead of the few fragments at present in the Guildhall library, have had a gallery of antiquities, of which any city in the world might have been proud. Although much has been lost by this neglect, which future historians and persons of taste will not fail to regret, it would be better to begin late than never: let the London corporation only show a little interest in the art-works of bygone days, and many objects of value will, before long, be in their hands.

All means failed to preserve the beautiful crypt of Gerrard's-hall. The materials were presented to the Crystal Palace Company, who, it appears, intended to have put them together again in some part of their grounds: the stones, however, have been lost, or otherwise appropriated. If the city authorities had put it together for themselves, it might have formed an apartment for the preservation of London antiquities. The corporation of Newcastle-upon-Tyne have, at a considerable cost, restored the old Norman castle, and placed it at the disposal of the Newcastle Society of Antiquaries, who have brought together from the adjoining counties, a most valuable collection of national antiquities. Small space is devoted to the British antiquities in the British Museum, and that seems to be too much. The want of a place of proper size and consequence in London for the reception of our antiquities in the metropolis is evident.

Enough, however, of complaint,—a complaint we have often made before. Let us rather continue our endeavours to illustrate and preserve the memory of such portions of underground London as fall before us. When the Grey Friars came to London in the thirteenth century, they established themselves on the north side of what we now call Newgate-street. Here, aided by the citizens, they built first a chapel, then a church, and then again a much larger church,—the latter between 1301 and 1327. In 1539 they surrendered to King Henry VIII. with an admission, willingly or unwillingly made, that their customs were not consistent with "the perfecion of Christian livyng." The house remained in the hands of the king for some time. Just before his death, he provided that the church of the Grey Friars should become the parish church of "Christ's Church within Newgate." Passing rapidly on,—when Edward VI. was moved by a sermon from Bishop Ridley to do something for the poor of the City, with the co-operation of the citizens the old conventual buildings of the Grey Friars were repaired and set apart to rescue, feed, clothe, and educate destitute children; and Christ's Hospital was founded. In 1553, the children, in a livery of russet, were received into the place.

The good example of Edward VI. was followed from time to time by his royal successors. King Charles II. founded a mathematical school and ward for the instruction of forty boys in mathematics, especially in that part of the science that respects navigation, and liberally endowed it with 1,000*l.* per annum, paid out of the Exchequer for seven years, for the founding thereof.

Sir William Chester, knight and alderman of London, and another citizen of the same city, at their own charge, made the brick walls and way on the back which leads from Christ's Hospital to St. Bartholomew's, and also covered and vaulted the town ditch from Aldersgate to Newgate, which was before very loathsome and infectious to the said hospital.

We must not neglect to mention, that when the hospital was erected and put into good order, there was one Richard Castel, *alias* Casteller, shoemaker, dwelling in Westminster, a man who was very assiduous in his craft with his own hands, and was called the Cock of Westminster, because both winter and summer he was at work by four o'clock in the morning. This man, thus steadily and honestly labouring for his living, purchased lands and tenements at Westminster, worth 4*l.* per annum; and having no child, with the consent of his wife, who survived him, gave the same lands wholly to Christ's Hospital, and for the "succour of the miserable sore and sick harboured in other hospitals about London."

Sir John Moore, in 1694, was also a benefactor to Christ Church: he built the writing-school at a cost of 5,000*l.* Wren being the architect. After the Fire, Sir John Frederick, alderman of London, built the great hall, at a cost of 5,000*l.*

Chamberlain says:—"On the north side of the cloisters are two doors: one opens into the town ditch, which is now a fine open area, with several good houses built and well inhabited: the other opens a way into St. Bartholomew's Hospital and Smithfield; and close to this door or gate, on the west side, is a burial-ground, where are interred such as die in Newgate, &c. The principal gate into this hospital is on the west, and almost at the south-west corner of

the old building, from the court which to this day is called the Grey-friars. In Queen Mary's days there was in this place a stinking, loathsome dungeon, where it was usual to confine and punish vagabonds; and in the Marian persecution, it served for the imprisonment of such as fell under the displeasure of the popish ministry, amongst whom we read of one Thomas Green, servant to John Wayland, a printer, who was confined and cruelly whipped in this dungeon, for being concerned in printing a book called 'Antichrist.'

Returning, however, to the present. On the north side of Newgate-street some new houses are being erected; and in the course of excavating for them, three arches, as shown in our engraving, were exposed under Christ-church Yard. They are 10 feet in span, and are covered with masses of chalk and concrete to within 3 feet of the surface, the rest being earth.*

We have here, of course, some vestiges of the old buildings of the Grey Friars', and, as such, have thought it desirable to preserve a record of their appearance and position.

THE LATE MR. ARTHUR JOHN GREEN.

We have to announce with great regret the very sudden and unexpected death of a most amiable man and very promising young architect, Mr. Arthur John Green. He was in his thirty-fifth year, and though he had complained of slight indisposition for a few days, there was nothing that gave his family or his physician the least uneasiness. He was looking extremely well, and was at a small family dinner-party on the evening of the 12th instant, when in a moment he was seized with hemorrhage of the lungs, and died instantly.

Mr. Green was articled to his maternal uncle, Mr. W. Tite, M.P.; and after completing his studies in London, travelled for some time in Italy and Greece. On his return home he was appointed to personally superintend the works of the new Royal Exchange, then building. In this and in the other extensive engagements of his near relation he was employed for some years, during which period he filled the office of honorary secretary to the Wykeham Society; and in that capacity made some communications, which were much admired at the time. Some of the illustrations in the "Architectural Dictionary" are from his drawings and sketches.

A few years since, Mr. Green commenced business on his own account, and soon obtained the appointment of architect to the East-India Company, and surveyor to the Globe Insurance. For the former he was engaged in considerable works at the time of his lamented death. Mr. Green was a good scholar and linguist, an amiable and excellent man, and a charming companion: his death will be deeply deplored by a large circle of friends and contemporaries. He was buried at the Norwood Cemetery, in a vault under the Episcopal Chapel, on the 19th inst. and his funeral was attended by many members of the profession.

THE LATE MR. J. W. GRIFFITH.

We mention, with great sorrow, the death of Mr. John William Griffith, of St. John's-square, which occurred on the 27th of November,—a worthy member of the architectural body, and a good man. Although in the profession for half a century, he was never led to place himself prominently before the public.

He was surveyor to the parish of Aldersgate for some years, during which period he added to and decorated the Church of St. Botolph. Amongst other competitions, he obtained the Islington parochial schools, which were designed and erected by him, and in that parish, in Hornsey, Highgate, Kentish-town, and in various parts of the country, he erected numerous villas and houses, from the year 1816 to the time of his decease.

He was for many years surveyor to the London estates belonging to St. John's College, Cambridge; but he will be better remembered for his benevolence and kind heart. His sons have made the name more widely known.

* For the particulars from which the sketch was made, we are indebted to a correspondent, "R. S. P."

ON FORM, LIGHT, AND SHADE IN ARCHITECTURAL FOLIAGE.

It is a mere truism for me to say that the formation of a collection such as is found in the Architectural Museum, cannot fail to be of great use to the art-workman; but there may be such a thing as his not knowing sufficiently well how to take advantage of it. He may continue studying and imitating the mere form, and acquire an aptitude in copying some of the most beautiful works which he may see around him, but without proceeding upon any other principle than that of simple imitation,—following merely that which has been done already.

But this is not the proper use to make of this collection. I conceive that it is altogether beyond this, for here we see around us beautiful examples of what has been done in ornamentation in times long passed away; and the use we should make of these is not simply to copy them, but to proceed onwards from the point at which they have arrived. To stand still as if we had reached perfection, and only to copy and rearrange old materials, no matter how beautiful, is to go back.

The object, then, I have in view is to endeavour, to the best of my ability, to point out the manner of studying and observing architectural carving, with reference to the principles of form, light, and shade. In order, however, to study for real improvement and advancement in his art, the carver must also at the same time study nature. For nature is the source of all beauty, and modern carving, carving of the nineteenth century, should not be a *literal* copying of any particular style or example. We may adopt the principles and conventional treatment of any, but it should be drawn fresh from nature. It may be rendered in a variety of ways; every artist may have his own particular style, or it may be rendered in the conventional manner of the early English period, or the Decorated, or it may be in the Greek or Roman manner. But whatever is done, in whatever style, it should partake of that life and beauty which we see in nature. But a person may say, "How am I to find this beauty in nature? You say I must not *copy* nature. What is the use of telling me to go into the fields, and into the woods? I can see nothing particular there,—in fact, I do not see of what use it is. Put a piece of carving before me, and I can understand that; I can admire it, and learn to copy it."

No doubt you can. But what is the value of a mere dead copy? We can admire the original, because we see the man's mind through his work; but in the copy we can only admire the original through the copy: the life of the original is vanished, and nothing belongs to the person who made the copy except his mere mechanical skill. But the copyist may say, "I do not see how to obtain assistance from nature: what is there in thistles, and docks, and buttercups? I can see nothing in them that is beautiful, and they are not very beautiful to the farmer, who would be glad to exterminate them all." What! Can you not see beauty in these lowly outcasts, nature's homely clothing? No beauty in the thistle, with its sturdy stem, its varying form of leaves, its beautiful variety of light and shade? Look at its flower, set like an amethyst among its green ray of spines. And the common creeping crowfoot, too, that pest of the farmer, that insinuates its roots unseen beneath the ground to throw up its elegantly formed leaves in every vacant space, to teach a simple lesson of beauty. We see not the elegance in these homely things, because we look at them as if we were blind. * * * *

Nature teaches us a useful lesson in decoration, for where she is not prevented by man, she enriches and decorates nearly every portion of the earth with beautiful foliage of some description or other, while we extend our miles of brickwork, covered with nothing but a monotonous coating of dingy-coloured cement, with nothing but long plain-run cornices, architraves, and facias, which we term decoration. Why do we not imitate nature in this, and cover some of our plain spaces with some species of design taken from the vegetation of nature? Instead of imitating colossal blocks of stone by scratching a few lines on the surface, how much more elegant it would be, and what an agreeable relief to the eye, if the plain surfaces were enriched by some simple flat application of natural foliage. In quoins of buildings, arch and keystones, instead of picking them out in careful and elaborate representations of rockwork, how many pleasing arrangements might be made in well-conceived foliated design.

In classic architecture, the artist, in designing foliage, seldom refers to nature. He looks upon Greek foliage as the perfection of architectural foliage, consequently he rests satisfied in taking it as he finds it,—merely copying, or at the most recombining and rearranging, until we see Greek honeysuckles in every possible situation, and the anthemion ornament made to answer every purpose, from a frieze to an iron railing,—enriched ogees, cymas, egg and tongue, and bead and button, used over and over again by the aid of the plaster caster, from one end of London to the other, without the remotest attempt at improvement.

They are looked upon as perfection, and any alteration would be considered as sacrilege. Cement has spread over the whole of our island like a plague, and the same plasterer's moulds appear to be used in every town in the kingdom.

There are but few rules which can be laid down for the treatment of foliage,—such as I know I will endeavour to explain,—but it is the beauty, the thought, the feeling which must be sought for—there are no rules for these; these must be brought out by study. The student must go forth, as the poet says, into—

> "The populous solitude of bees and birds,
> Those fairy fram'd and many colour'd things,
> Who worship Him with notes more sweet than words,
> And innocently open their glad wings,
> Fearless and full of life; the gush of springs,
> And fall of lofty fountains, and the bend
> Of stirring branches, and the bud that brings
> The swiftest thought of beauty."
>
> *Byron.*

Flowers and foliage are among the most beautiful objects in nature, and have all the requisites which pure and true, or perfect art should have, colour and form, with light and shade. Now, the carver has little to do with colour, except as it exists in the colour of the material itself, upon which he is working: his art, therefore, is so far simplified; he has, after form, which is of the greatest importance to him, merely to study light and shade.

Form is often made use of without light and shade, merely developed by the aid of two colours, as in flat painted diapers, encaustic tiles, and the like, and very beautiful combinations may be formed in this way. In a similar manner this is also carried out in carving, the form being developed simply by sinking the portions between the ornament, that is, the ground, below the surface of the stone. This mode of ornamentation is common in Romanesque work, and often the interstices are beautifully filled in with coloured marbles. The graceful wall diapers from the Alhambra, are carved in this manner, the surface ornament gilded, and the recessed portions filled in with colour. The Grecian fret is upon the same principle. This may be considered the most simple of all carving, as it depends entirely upon its form, the shadow being simply for the purpose of producing a different tone or colour to develope the form, in the same manner as in tiles one colour is used merely to develope the form in the other. Now, although great beauty may be produced by this simple mode of recessed surfaces, yet this cannot be called perfect carving, since it consists almost entirely of form, with very little assistance from light and shade. But it serves most particularly to show one thing, that there is great beauty in mere form.

But there is the opposite extreme; we may have carving which is nearly all nothing but light and shade, with scarcely any form. The most perfect carving is that which embraces and amalgamates both these extremes in the greatest degree, without destroying the good effect of either. The most perfect carving is that which developes the greatest amount of elegant form, with the most perfect light and shade. It shall not be so flat as to give only bright light, and deep shade, and not so enveloped in light and shade, as to lose

the beauty and simplicity of the forms and outlines of the foliage. There is such a thing as producing in carving, agreeable and disagreeable light and shade, that is, that the forms of the foliage may, although good, be so arranged as to produce a bad effect when viewed from the distance intended. The high lights may too much over-balance the shadows, or, as is more frequently the case, the shadows may be so numerous as to completely destroy the lights, and therefore producing nothing but blackness.

In modern carving the outline is often very slightly attended to, and the workman, in order to get boldness, thinks that he cannot cut up the surface of the leaves too much. This is a mistake that cannot be too strongly pointed out. In striving after effect, the modern carver fills his leaves with innumerable lines, and when he observes that they produce but little effect, he proceeds to cut some of them in much deeper, which, by destroying the lights, probably only makes the matter worse. This is a mistake, too, which is not confined to the workman of the present day. I was observing a short time since the carving in the interior of St. Paul's Cathedral. Some of the bosses there in the ceiling, are so cut away, and are so full of minute parts, that they look but masses of shadows. There is plenty of shade in them, but very little light.

The guilloche in the arch bands, which is in connection with the bosses, shows by contrast how well ornament looks when properly relieved by shadow; for here, simply by the ornament being surrounded by shade, it comes out boldly and effectively. The same fault may be observed in the acanthus-leaves of the Corinthian capitals; they are so full of lines that they are completely put in shade. It is a very beautiful leaf when seen on paper, and you have the advantage of seeing it as closely as you choose; but place it 30 or 40 feet high, and its effect is lost. The innumerable lines upon its surface produce, at the distance from which it is viewed, quite a dark tint, having anything but the effect intended. Thus, when the capital is made up of such leaves, you have a mass of intricate lines all in shade, with scarcely room left for the play of a single light broad enough to be seen from below.

In the architectural foliage of the best periods, the outline of the leaves and general or leading lines in the design were carefully attended to and studied, as in examples which may be seen from Southwell Chapter-house, the stalls at Winchester, &c. casts of many of which are in the Museum. The surface carving upon the leaves was made quite secondary, and never sufficient for the light and shade upon the surface to destroy the outlines. But in later and in modern work, things are completely reversed, the outline is lost in the depth of light and shade produced on the leaves themselves. Carving should always have a rich sparkling effect, and to produce this, you must have some sharp high lights. I would say, avoid lineyness or weediness. Remember that the high lights require a sufficient amount of breadth, regulated according to their position, to make them tell. It is of no use to get a great amount of depth and shadow without light. The light and shade should be studied in the same manner that a painter studies them in a picture. First, the broad masses; next, the breaking them up by secondary ones, but taking care not to interfere with the general breadth; and, finally, the minute picking out of the smaller parts, giving richness and finish to the detail and variety and tone to the whole. There must be harmony of form and harmony of light and shade, arranged with order without confusion, yet with negligent freedom and without stiffness. The carver should constantly keep in view the height at which his work is intended to be placed; it must necessarily follow, that an ornament, if intended to be placed 30 feet high, should have fewer lines than when placed near the eye; and also, if intended to be placed 70 or 80 feet high, it should have fewer lines still. The want of attending to the simplification of ornament when placed at a height, is one reason why the carving has so little effect in St. Paul's Cathedral. There is the same fault to be seen in many other modern buildings. And why is it? It is simple enough: for upon the most common law in optics, those things appear smaller the farther they are removed from us; and as all ornament in a building is designed to be seen from the ground the higher it is up, and the more it is removed from us the smaller it becomes, therefore the more it should be simplified, upon the same principle that we should leave out a great number of the lines if we were making a drawing of it upon a small scale.

The treatment will also require to be different for the interior of a building to what it is for the exterior, for the reason that we have less positive light in the interior of a building. Sometimes in vaulting and groining there is but a very feeble light. In such cases the ornament should be of the very simplest character; the foliage should be simple, but extremely bold, producing what would be in a strong light extreme suddenness, that is, plenty of relief and undercutting of the foliage, so as to gain, in the absence of a perfect light, as much contrast as possible.

When a carver places a piece of carving before you, he takes care to put it in as good a light as possible; but remember what light it is to receive, and the height at which it is to be placed when it is put in its position, and let it be designed to have the intended effect, when placed in its situation. This is one of the most important studies in the carver's art, and should never be lost sight of. The kind of foliage, too, which will suit one material will not suit another. For instance, if the stone be a very rough one, such as a coarse sandstone, the design must be very much simplified, and the light and shade be made more sudden; while in a fine material, as white marble or alabaster, if the same treatment were followed, the foliage would have a crude and unfinished look. In the rough stone minute shadows exist, from the inequalities of the material, even in the brightest lights, which considerably reduce the amount of contrast between the complete shade and the high lights; but in the fine material none of these exist; the high lights are therefore much brighter than in the coarse stone, consequently, an undulation and breaking up of the surface of the foliage is often necessary to soften the high lights, and to produce a more harmonious tone in combination with the shadows. A difference in the outline is also often necessary when without a background, as when placed against the sky. Small objects against the sky are usually seen dark, and their outline is most distinctly seen. This is also the case when only without a background, but of course in a lesser degree. The outer form will therefore require great care and study, while surface-carving will be scarcely at all required. Great distinctness and simplicity is indispensable to its good effect; it therefore becomes a matter of great importance to determine the exact size and form of crockets and finials, and the distance they should be placed apart; also the form and size of gable crosses, and what amount of carving should be introduced upon the surface.

Many of the old crosses are perfectly flat, and depend entirely upon their form for their effect. In some, carving is introduced upon the surface, but it is generally lost.

It should be remembered that the smaller an object is when opposed to the sky, the darker it appears; directly you increase its breadth you can begin to see light upon its surface. This may be seen in a spire very distinctly when it has a bright sky behind it. In the upper part it will be difficult to distinguish anything but the outline of the finial and upper crockets, while down below, near the base of the spire, everything upon the surface, with the foliage of the crockets, will be easily seen. Artists, in tinting views of churches, take advantage of this, and usually make the upper part of the spire darker than the lower. Small objects, being darker when opposed to the light, may be detected in another way: for instance, if you are in the interior of a building, and you catch a finial or other small object, having one of the openings of the windows for a background, it will look perfectly black, and you will distinguish nothing but the outline; but move your position, so as to bring the object against some of the dark shadows of the building, and the finial will become light, and you will see the light and shade of the carving upon it.

This, then, is a fact that should be remembered when engaged upon carving, which is to occupy such positions. This also applies to ironwork, such as crestings, vanes, and such like; work upon the surface of such portions being merely so much labour lost, as the piercings and general form are usually all that can be seen.

The form and arrangement of foliage, more especially in Gothic architecture, are often very skilfully based upon geometrical figures, as the circle, triangle, square, pentagon, or hexagon; the leaves themselves also are sometimes geometrical in form. The form is often suggested by the enclosing lines; for instance, in small spandrils, the space being triangular, nothing is more natural than to adopt a triple arrangement. The hollow of a moulding suggests a square flower or leaf.

The intersection of the ribs of panelling, as in ceilings, gives rise to the square boss or rose, so well known as belonging to the Perpendicular period. The Tudor rose also is a familiar example of the use of the pentagonal form. Nor is such treatment at all inconsistent with nature. Geometrical forms are constantly found in nature most surprisingly perfect. The artist, however, must beware of falling into this treatment to too great an extent. This was one of the great mistakes which the carvers of the fifteenth century fell into. They cut their carvings to the very lines, which gave a certain stiffness to most of their work; one may even call it primness—like persons when they are too particular in the arrangement of their dress: everything must be cut to the exact line—neither over nor under. This precision is one of the main causes of the loss of that beauty which they would otherwise most undoubtedly possess; for we have had some most masterly carving handed down to us by artists of this period, especially in woodwork, as may be seen by the many excellent casts of wooden panelling in the Museum. Foliage was constantly geometrical in arrangement during the previous periods, but it was more as in nature; it often overstepped the line, and purposely varied the form which obviated that prim effect, and prevented the geometrical lines from becoming too apparent. A beautiful mode of composition of ornament is by radiation, or the star form,—that is, radiating from a centre, as in flowers. The end of the lilac branch, when viewed upon the top, gives a very good natural composition in this manner of four leaves; very possibly this may be the natural type of the four-leaved flowers of the Decorated period.

This arrangement in the lilac arises from the plant bearing what is called opposite leaves, and may be seen again in the maple, and other plants which bear leaves in this manner. One of the most elegant arrangements, and which was at all times a favourite one in the Classic as well as in the Gothic, is that of arranging the stems of the foliage in graceful spiral lines. This was perhaps carried to the greatest perfection during the Early English period. In continuous mouldings in the Norman and Early English periods the zig-zag arrangement was a common one. In the later styles this was softened into the wave line, and double scroll or spiral, and gave scope for excellent varieties of arrangement, which was often beautifully carried out in the hollows of large mouldings. The foliage of capitals of the Early English period was arranged often in the zig-zag manner with good effect, that is, the bunches of foliage were arranged alternately up and down, although all spring alike from the necking. In selecting leaves from nature for the purpose of carving, the most simple of all leaves, the common heart shape may be often used most artistically, but usually those are best adapted which are compact and regular in their form, and are cut into deep bold lobes,—as the ivy, maple, vine, and such like. The triple leaves are also beautifully formed leaves for the carver's purpose, such as the clover, crowfoot, hepatica, and water avens: the last is said to be the type of the foliage of the thirteenth century, and was anciently called "herba benedicta," or holy herb. The triple principle is most beautifully seen in the common single parsley. It is a very compound leaf, but all the divisions are in

trees. Some leaves are perfectly irregular, as, for example, the oak and hawthorn, and are more difficult to arrange in an agreeable manner than those which are regular. I do not know any leaf which is more difficult in this respect than the oak. But in rendering foliage from nature, the carver must be very careful how he follows some of the intricacies which he finds in nature. It is perfectly legitimate to omit the more minute parts and cuttings,—leaves may be made more regular and uniform if it suit his purpose, or the position his work is intended to occupy.

For boldness of treatment and masterly effects of light and shade, perhaps no foliage has ever equalled that of the Early English period. The general lines are usually very good and full of elegant drawing,—but in the foliage, the leafage itself, there is a sameness, a want of that beauty and variety in the forms which we see so happily developed in the style which immediately followed it,—that is, the Early, or Geometrical Decorated. Here, although the leafage is beautiful, there is sometimes a neglect and a want of decision in the leading lines, and later in the style we lose nearly all the general or leading lines in the very abundance of the leafage. In short, in the Early English, much of the beauty was in the treatment of the stalks of the foliage, which were arranged in a graceful and elegant manner; in the Decorated, the stalks were partially lost, and the leaves became most marvellously developed. In the later Decorated there was a great richness and fulness—a bossiness—in the ornament; but frequently a neglect of outline. Some of the finest carving of this period is that from the Percy shrine, and the adjoining altar screen at Beverley Minster.

In conclusion, I would impress upon all the necessity there is for improvement and the cultivation of a better taste in carving and decoration generally; for is it not lamentable when we look around us and observe the gaudy patterns of our carpets and room papers,—the miserable carving on our furniture and picture-frames? What can possibly be in worse taste than some of the elaborately gilded frames of our showy looking-glasses? yet these things all find ready purchasers, plainly indicating that the public, even among the humbler classes, have a decided taste for carving and decoration; it only requires correcting and educating in a proper manner.*

James K. Colling.

PROVINCIAL NEWS.

Winchester.—The additions to the barracks here are progressing. With regard to the new hospital, a Hampshire paper states that it is the intention of the Board of Ordnance to purchase a piece of land in St. James's-lane, whereon to erect it. The contract for the building of it has been taken by Mr. Bull, the builder of the new gaol at Southampton. The whole of the alterations will not be completed under two years and a half.

Tunstall.—The authorities here have authorised the preparation of drawings and estimates for alterations to the town-hall, on a plan proposed by Mr. Robinson, the architect of Burslem new town-hall, according to which almost the whole of the present outer walls will be removed, and various other works done, and the exterior rendered more architectural in appearance by the use of cement; the whole cost to be 300*l.* to 350*l.* The architect does not think it advisable to expend a larger sum on the present building.

Pembroke.—It is rumoured that permanent barracks for 5,000 men are to be erected here. The ground, it is said, has been purchased.

North Shields.—At a recent meeting of the town council of Tynemouth, it was unanimously resolved to forward memorials to the Lords of the Admiralty and the River Tyne Commissioners, in favour of the proposed North Shields and Tynemouth Dock. The proposed dock will now, instead of running from a south-east angle from Clifford's Fort to the Black Middens, commence at the north-east end of the fort, thereby, it is contended, removing all possible danger to the shipping in harbour.

Edinburgh.—Various improvements in Holyrood Park, according to the *Scotsman*, are about to be carried out, comprising,—in addition to the new approach from Abbeyhill to the palace and park, for which 1,000*l.* were voted last session of Parliament,—a great extension of the palace garden-ground, the formation of a small loch or serpentine in the low marshy ground below the ruins of St. Anthony's Chapel, the erection of two lodges of stone at the park entrances, and other improvements. A carriage-drive is also to be formed through the park to Duddingstone and Portobello.

NEW MUSIC-HALL, COVENT-GARDEN.

Our engraving represents the singing-room of a tavern, neither more nor less,—the singing-room attached to what is widely-known as "Evans's Hotel," though now in the hands of Mr. Green,—and is surely an evidence of progress. It has been built from the designs of Mr. William Finch Hill. It is 72 feet long, forming, with the old room, through which it is approached, a music-hall 113 feet in length, and 56 feet in width. The new room is formed into three divisions by columns and arches: the clear width of the central compartment is 33 feet: the height from the floor to the ceiling is also 33 feet. One of the side aisles has a gallery, under which are arranged some of the necessary offices. The columns between the nave and aisles, let it be noted, are of Bath stone, fluted, with wreathed Ionic caps and Bath stone entablature. Over each of the eight pilasters there are figures modelled in plaster, representing Poetry, Drama, Music, &c. The ceiling is executed in plaster, with octagonal coffers within square compartments, the four centre octagons being perforated for ventilation. The columns upon the orchestra (which is formed at the end of the room), as well as the moulding round the various arched recesses, are to be executed in scagliola. Colour on the whole of the ceiling and walls is to be brought to aid the effect, in connection with which several surfaces are left plain for arabesque ornaments. The coved octagonal coffers of ceiling are to be painted to appear as those perforated for ventilation in the centre. The lighting is effected by ten cut glass gaseliers, with 120 lights, and a range of jets running round the main cornice for ventilation. The cold air is admitted from a series of descending shafts to a channel under the floor running all round the hall, containing four hot-water pipes, and thus passes into the room, warmed; the vitiated air passing off through the apertures in the ceiling into the roof, which has open louvres, round the entire length upon each side. The total cost of these works, including certain alterations in the hotel, will be nearly 7,000*l.* This hall, which may fairly be called a very handsome one, was opened to the public, upon Monday, the 10th instant, having been completed through the exertion of the contractor, Mr. W. Jackson, within four months from the date of the contract, notwithstanding many difficulties to be contended with, amongst which may be mentioned the excavation; and the necessity for underpinning the adjoining properties; the floor line of the new hall being about 14 feet below the old surface level.

The object was to open the room during the week of the Cattle Show, when a large proportion of the provincial visitors think it necessary to go to "Evans's." On the present occasion, the number of visitors averaged, we are told, about one thousand a night.

Messrs. Hood and Son put up the hot-water apparatus; Messrs. Defries and Son, the glass gaseliers; Mr. Jeakes provided the cooking apparatus; Mr. Bentley the pewterer's work; and Mr. Remmington the gas fittings.

The house was originally built for Russell, Earl of Orford, who, as Admiral Russell, defeated the French fleet off Cape La Hogue, in 1692. The staircase, a fine one, is formed of part of the vessel Russell commanded, and exhibits in the carvings anchors, ropes, and the initial letters of Lord Orford. James West, the great collector of books and prints, lived here. At his death, the collection was sold, and occupied the auctioneers six weeks. The sale commenced, March 29th, 1773. After the sale, the house was used as an hotel, when the first family hotel in London was established in Covent-garden, in 1773, by a person of the name of David Low.

About 1790, Mrs. Hudson became proprietor, and advertised "stabling for one hundred noble-men and horses." Mr. Richardson succeeded the above. Mr. Joy followed; and the late Mr. W. C. Evans, of Covent-garden Theatre (who died in September, 1854), resigned it into the hands of the present proprietor in 1844.

Several actors have been inhabitants of this house. Amongst others, "Little Knight," as he was called, and Mr. Charles Kemble: it is even asserted that Mrs. Fanny Kemble was born in the room which forms the gallery to the new Music-hall.

We may add to these memoranda concerning Evans's Hotel, that the Institute of British Architects held their meetings here when first established: here the first medal awarded by them was presented by the president, Earl de Grey, to the successful candidate in 1836.

THE DIPLOMA QUESTION.

In your last number you have inserted two very able letters on this subject, the arguments in which seem to me to fail, from the very cause suggested by Mr. Tite during the recent discussion, namely, "ignorance of the kind of diploma sought for." Messrs. Kerr and Tarbuck, without absolutely stating it, evidently imply that the object desired is a *compulsory* examination, and this impression seems to be shared by Messrs. Pocock, I'Anson, and Burnell. I have also heard it stated, that the present agitation for a *voluntary* examination is nothing more than a preliminary to an agitation for a compulsory one, for which the voluntary system will be taken as an instalment. I am not now raising a giant for the purpose of slaying it, because I am quite certain that this monster exists, invisible perhaps to mortal eyes, but with a presence and club very perceptible. To make therefore the diploma a matter of legal enactment, a sort of bill of pains and penalties for protection to British architects would obviously defeat its own object, besides being unjust and tyrannical towards the public. On this very important starting-point, I am quite sure Mr. Tite, Mr. Papworth, and the young memorialists, agree. Then I have often heard it argued, that a voluntary examination may become so general, so popularly received a method of testing an architect's qualifications, that this examination will become a professional necessity, and therefore a moral tyranny, if not a legal one. I hope it may be so, with all my heart. A tyranny of knowledge and capacity, progressing and developing itself only by its own justly appreciated value, and totally unaided by any compulsory enactments, would be a great and glorious thing of which any profession might reasonably boast. When Mr. Tarbuck complains of "special pleading," I cannot help referring to some of his own. As is useful in such cases, he defends the present system by referring to the great men who have flourished in spite of the system; but even these he refers to times not in the least analogous to our own. His illustrations are singularly unfortunate. When Giotto, "raised that fair tower," he was the great painter of his age, and the *only* Florentine architect, Arnolfo, was in his grave; Orcagna, Taddeo Gaddi, and Niccolo di Pisa, unborn, or in their infancy. He therefore required no diploma to make his genius recognised. William of Wykeham held a confidential position near his sovereign. Could he fail in finding employment for his talents? Had "the stern and lofty Angelo" lived in these days, neither "pontiff nor prince would have stood uncovered;" but he might have been considerably bullied by an English House of Commons. It is worse than idle to measure the wants and opportunities of the present day by a mediæval standard.

The Brandenburgh Gate, "the pride and boast of Berlin," (?) was erected before the present Prussian diploma system was established. That argument, therefore, falls to the ground. "The Berlin programme," says Mr. Kerr, "scarcely deserves to be carefully perused." I fancy he forgets that the Berlin examination is part of that very collegiate system of education which is his own dear hobby. Nay more, his own programme of "a little practical science easily taught," does betray a most singular resemblance in its requirements to the Prussian one. Talk of German mystification! the English *Ego* and *Non Ego* have a strong family likeness. The great blot in the Prussian examination seems to be the fallacy of connecting a diploma with any particular system of study. Hence the objection of "tyranny of schools," which has been so often thrown in our

* Read at the Architectural Museum, Cannon-row, Westminster.

NEW MUSIC-HALL, COVENT-GARDEN.—Mr. W. Finch Hill, Architect.

teeth; but this very tyranny forms a prominent part of Mr. Kerr's system. For the establishment of an extensive system of architectural collegiate education I am as great an advocate as Mr. Kerr. This, if combined in due proportion with the present office system, would prevent practice from degenerating into English "rule of thumb," and theory from mounting into German transcendentalism. To establish a system of education is, as Mr. Kerr well knows, no easy task. He has been labouring at it for years; but, as yet, with no results. To set on foot a voluntary examination is a comparatively easy matter. "But," says Mr. Kerr, "you begin at the wrong end. Qualify your candidates first; then get them an examination." Now, if the present body of candidates for examination be not sufficiently qualified (and that is more than possible), what will exhibit the fact better than the proposed examination? and then Mr. Kerr has a stronger argument than ever in favour of a more extended system of education.

There appear to me to be many and grave reasons why a diploma examination should be totally independent of any educational system. That a college should grant certificates, prizes, or honours is undoubtedly right, but these are simply incentives to study: they are the "little goes" preparatory to the great one; but to no college would I give the power of granting a diploma. An independent examination would be most valuable as a test of educational systems. The upholders of the present office pupil system are both numerous and respectable: an independent examination would show if the views of these gentlemen be right or wrong.

Another reason for entirely disconnecting the diploma and the college is this: the former would act as a most salutary check on the latter. In all educational establishments abuses continually creep in: the diploma would tend to expose these. Again, experience has told us that there are many men

educated on a bad system who have attained great knowledge in spite of it, and, as Mr. I'Anson observed, there are even instances of men who have obtained their knowledge heaven knows where, but who undoubtedly possess it. To neither of these classes should a diploma be refused: to neither could it be given if it were connected with any educational system.

In the true spirit of "special pleading," both Mr. Tarbuck and Mr. Kerr have insinuated that a diploma is by its advocates set forward as a remedy for every evil of the present system; in fact, that a diploma will make an architect. I need only refer to Mr. Papworth's recent remarks to settle that matter.

A very grave impression seems to have gone abroad that the Architectural Association have undervalued the qualification of professional experience. I am very anxious to remove this idea. The practice which experience alone can teach, no diploma can touch, but the theory, without which experience is only a mockery, may form a fitting subject for an examination.

With these views alone, the memorialists have, I think, not inopportunely, and I hope not disrespectfully, presented their petition to the Institute.

Alfred Bailey,
President of the Architectural Association.

Suppose it settled that we are to have a diploma (which, by the bye, we shall not have, or anything so useless), how are *we* to be dealt with? One of us is a first-rate hand (excuse vanity) at the artistic part of the profession, but knows *nothing* of the practical part: the other is a capital practical man,—in fact, once a bricklayer, then a clerk of works, a builder, and now "architect," but cannot even handle a pencil. The former is certain of passing one half of the examination, the latter of getting through the other half. We can point to works executed, well carried out, and of good design, so of course we shall each be entitled to *half a diploma*. What say you, Mr. Editor?

Yours, &c. Jones and Jones.

P.S. By the bye, if the members of the Architectural Association were individually asked to agree to be examined, we wonder how many would become candidates for the diploma? About six or eight, we should think; and they would probably be turned back, unless they "crammed" well first.

J. and J.

THE HISTORY OF THE ORGAN.

Intimately connected with the study and practice of architecture, especially that important section of its extent and influence included under the comprehensive term "ecclesiastical," are the history and design of an instrument, which, for extent of power, elaboration of construction, capacity as a vehicle for architectural effect, and volume and variety of tone, of quality peculiarly adapted for sacred music, is justly entitled to rank as the monarch of musical instruments, and demands more consideration and study on the part of architects than has yet been extended to it.

We hail with pleasure an elaborate work upon the organ just now published, as a service to the architect as well as the musician, as supplying an acknowledged deficiency in music history by affording valuable facts and data in connection with the subject, and in opening a wide field for further investigation and advancement in knowledge upon one or two important particulars connected with church construction.*

We purpose offering, principally from the volume before us, a brief disquisition upon the subject in question, divided into two leading heads, viz.—the history of the organ, and its position in churches; and for a more elaborate and detailed account, will refer our readers to the work itself, and the authorities that have been consulted in its compilation.

Dr. Rimbault divides the history of the organ into four grand epochs: first, before the invention of the key-board; second, after the invention of the key-board; third, the first appearance of organ-builders by profession; fourth, the founders of modern organ-building.

The Greek ὄργανον—Latin *organum*—were the origin of the scriptural term "organ," but by no means indicated the existence of the noble instrument that now bears the name. The Greeks applied the term generally to an instrument or a machine, whether musical or other, and thus *organic* became a term applied to music when *instrumental*. Vitruvius, in his tenth book, describes the difference of the words *machina* and *organum* as applied to machinery. The organ (*ougab*) is first mentioned in Genesis, where Jubal is described as the father of all such as handle the harp and organ. The type of the latter instrument was doubtless here furnished, and was probably nothing more than the rude syrinx or pipe of the god Pan:—

"Pan primus calamos cerâ conjungere plures
Instituit."—Virg. Buc.

Which, with the lyre, are alike the acknowledged instruments of heathen mythology and holy writ. Indeed, the well-known representation of a series of gilt tubes of progressive lengths upon the front of a modern organ recalls so forcibly and immediately the form of the humble invention of the Sylvan deity, that it is impossible to avoid recognizing whence originated the first thought.

But perhaps no better argument can be adduced of the worthlessness of interpretations of ancient terms, where the equivalent is only surmise, than the rendering by different nations of the Hebrew *nablion* and *ougab* in the above passage. The Septuagint has it ψαλτηριον και κιθαρα; the Syriac, *cithara et fides;* the Chaldean, *cithara et organum;* the Arabic, *tympanum et cithara;* the English, harp and organ; and the French, *le violon et les orgues!*

To improve upon this rude and imperfect instrument was the labour of centuries. Inserted into the top of a wooden chest—the *wind-chest*—the pipes were now placed; into this they blew through a reed—the *wind trunk*—but as all the pipes now spoke simultaneously, they were forced to stop with the fingers the tops of those pipes intended to be silent,—which by the increase of the number of pipes soon became impossible. The *valve* was now placed under each pipe either to admit or exclude the wind. Kircher, in his "Musurgia," gives a drawing to illustrate the instrument at this stage. The valves were in an inclined position, and to open them, levers were added, connected with them by cords,—whence the modern *pull-downs*. A further increase of pipes caused an enlargement of the pipe-chest, and a better contrivance for the production of wind was devised. Thus arose a new class of instrument, called by the Greeks ὄργανον πνευματικόν.

The lines commencing—

"Et cum multifori Tonius cui tibia buxo
Tandem post epulas, et pocula, multicolorem
Ventriculum sumpsit," &c.

and quoted by two or three authors, as well as Dr. Rimbault, as from Virgil (but that is an error), describe the performance upon the πιθαυλη, or *tibia utricularis*,—an instrument closely allied, as justly argued by M. Fetis, to the modern bag-pipe, but, as *we* consider, quite distinct from the *organum pneumaticum*, which doubtless is a term applying only to the early development of the instrument known to us as the organ, and not to the mere *tibia*, or *fistula*, or *calamus*, played upon by the ancient shepherds.

The enlargement of the pipes and wind-chest demanded an increase in the wind-tube; and the want of more wind occasioned the invention of bellows; and in the "Musurgia" is a drawing of an instrument thus advanced. Many portions of the modern organ being thus established, "we may," says Dr. Rimbault, "justly assign the invention of the organ to this period, and though no precise date can be given, thus much may be stated with certainty, that all these inventions date from a period before the birth of Christ."

A new power was now put in use to remedy the unsteadiness in the wind, and consequent inequality of tone caused by the smallness of the bellows, and this was the *organum hydraulicum*, or water-organ.

The account Vitruvius (lib. x.) gives of this invention, though highly interesting, leaves the subject enveloped in mystery. From the description it would seem that the water which forced the air into the pipes was pumped by men; and many argued, that as *fingers* are alluded to, *keys* must have been used. The description of Claudianus, some think, hints at the same conclusion, where he says,—

"Intonat errante digito;"

but keys were not invented for ages afterwards. The "Musurgia" contains a long description of this instrument, according to the account of Vitruvius, and is accompanied by a drawing explanatory of same. Probably the most authentic account of this instrument is by Athenæus, who ascribes its invention to Ctesibius, of Alexandria (B.C. 200). A Contorniate medal of Valentinian, in the Vatican, bearing the head of Nero, shows, on the reverse, one of these instruments: no performer appears, but two men are engaged pumping the water by which it is worked. These contorniates were struck only from the age of Constantine to that of Valentinian, so that a higher antiquity is not thereby proved.

The mechanical operation of the water-organ is unintelligible, but that it was provided with pipes and wind-chest, and registered like the wind-organ, is certain. The water was not supposed to have produced the wind, but merely to have given it equality and power by means of counter-pressure. Burney doubts if these water-organs were any better than the remains of the invention still existing in the grottos of vineyards in Italy; but Dr. Rimbault considers they in no ways resembled each other.

To return to the pneumatic organ, M. Fetis denies its claim to extreme antiquity, proving that the early instrument to which that high-sounding title was given was nothing more than a bagpipe! nor does he discover anything to the contrary in the epigram of Julian the Apostate, in the "Anthologia Græca." The scant antiques that show this rude instrument, are but four in number, viz.: a fawn with bagpipe on an engraved cornelian, shown in Ficcaroni; a *bas relief* in Palazzo Santa-croce; a bronze in the Villa Albani; and a small statue of a shepherd in museum of the Marchese Venuti. Scaliger's derivation of πιθαυλη is not quite satisfactory; that of ασκαυλης is perfectly so; ασκος—*uter*, αυλος—*tibia*. It is worthy of remark that the sculptures upon the Arch of Titus, representing, as is supposed, the various musical instruments found in Jerusalem at its siege, do not contain among them that of the organ, which some think conclusive that they had it not.

It was probably in the fourth century that the keyboard was invented; but the early history of the organ, like that of the violin, is shrouded in uncertainty, the bow of the one and the keyboard of the other being the starting points of their after perfection; and from their invention may be traced the progress of both instruments.

At the beginning of the eighth century, the organs of the Anglo-Saxons appear to have resembled those now in use. The organ was early used in the public service of the church. Platina says Pope Vitalian first used it in 666; but Julianus says it was in use 200 years earlier. It was some time before they became common in the churches of Europe. Pepin, father of Charlemagne, first introduced singing and church ceremonies into France, and finding the want of an organ, asked one of the Byzantine emperor Constantine Copronymus, who sent him a large one, with leaden pipes, which was erected in the church of Compeigne. Soon afterwards we find them common in England. Saint Dunstan, in the reign of Edgar, erected one, described by William of Malmesbury.

Four chapters upon the construction of organs, from a treatise on "Divers Arts," by the monk Theophilus, ascribed to about the eleventh or twelfth century, and hitherto unknown to musical writers, are here given, with a translation by Mr. Hendrie; and from this account one important fact is deduced, namely, the organ described *had no keyboard*.

The first keys were few in number, and very wide,—6 or 7 inches,—and were struck down by the fist. Years of labour and patience were devoted to their improvement, and that of the bellows; and manuscripts and drawings of the period are interesting to a high degree. The first conventual and monastic organs were very small, and used only for simple melody (not harmonised), and were called "regals," from *rigabello*, and even at close of last century an officer of the Chapel Royal was termed "tuner of the regalls." Another term for it was the "portative," from its lightness; in contradis-

* "The Organ: its History and Construction." By Edward J. Hopkins, Organist of the Temple Church. preceded by a "New History of the organ." by Edward F. Rimbault, LL.D. London: Cocks and Co. New Burlington street. 1855.

tinction to which was the "positive," from its weight. This latter had a keyboard of full compass.

The expression, "a pair of organs," has taxed the ingenuity of many to explain, and amongst them Mr. Ashpitel, the architect, who makes it consist of "two organs conjoined with two sets of keys, one above the other: one small and called the 'choir,' the other the 'great' organ," &c. The doctor conceives Mr. Ashpitel's explanation to be the most erroneous yet given, yet, strange to say, he himself unwittingly gives weight to this explanation of the term when he speaks of "the 'small' organ which is placed before the 'great' organ in all churches where there is an organ sufficiently large to be divided into two parts," &c. This custom, then, of having *two* organs of different uses and effects would seem to be the most likely origin of a term which long prevailed after the use of the actual pair was abolished by improved construction: whence the terms, "pair of regals," "pair of virginals," &c.

Before the end of the fourteenth century all our churches and chapels were supplied with organs. The keyboard was now extended to nearly three octaves, the keys being played by the fingers, and the pedal was invented or greatly improved.

An elaborate account of native and foreign builders, instruments and improvements will be found in the history, and, amongst many "curiosities," an amusing account of the absurdities perpetrated on the exteriors, and a lament for the want of good designs.

One era in organ history must not be forgotten, — the great rebellion. An ordinance having passed in 1644 that no music but plain psalm-singing should be allowed in divine worship, and the cathedral service in short utterly abolished, the collegiate and parochial churches were stripped of their organs and ornaments: some were sold to private persons, who preserved them, some were partially, some totally destroyed, some secreted by the clergy, and a few suffered to remain!

So complete was the devastation caused by this fanaticism, that it took half a century to supply our parish churches with organs after the restoration, and but very few of the old English organs escaped the universal destruction.

A sufficient number of workmen to supply the demand for fresh organs not being obtainable in the country, it was thought expedient to invite foreign builders to settle amongst us; and the two celebrated workmen, Smith and Harris, were induced by the premiums offered to come over from Germany, and their establishment in this country commences epoch the fourth, in Doctor Rimbault's History.

Bernard Smith, commonly known as "Father Smith," brought with him from Germany two assistants, Gerard and Bernard, his nephews, and to distinguish him from them, he received the name of "Father." His first organ here was for the Chapel Royal, Whitehall, which, being hurried in the construction, was a partial failure. He afterwards made a vow never to accept work at short notice, or under price! The excellence of his organs is attested by their long duration and sweet tone. Burney, who supplies the foregoing, says nothing about his birth, parentage, and apprenticeship; nor the exact date of his arrival.

Smith was certainly in England the first year of the Restoration, and his works included some of the finest organs in the kingdom. He held the appointment of "organ-maker in ordinary" to the king, and had apartments assigned him in Whitehall, called in consequence "the Organ builder's Workhouse." He had, however, a formidable rival to oppose in Renatus Harris, who arrived from France soon after his own settlement here. His reputation appears to have been almost as great as that of Smith; and in their famous competition for the Temple organ—the decision in which case occupied nearly a twelvemonth, party feeling was carried to the extremest lengths.

Burney must be consulted for the details of the occurrence.

Smith's success in this competition procured him the order for the organ for St. Paul's Cathedral. The work was long delayed, owing to a contention between Sir Christopher Wren and the Dean and Chapter; the former wishing the organ to be placed on one side the choir, so as not to impede the view of the building; the latter insisting on its being put up at the west end of the choir, where it was ultimately placed, Sir Christopher declaring the beauty of his building spoilt by "the d—d box of whistles!"

A list of the most important works of Smith, Harris, and the other great organ-builders of the time, both English and German, concludes Dr. Rimbault's introductory essay. We have not quoted many passages from it, as we do not observe any observations absolutely new; but we can recommend it as a useful historical sketch forming a guide to a more elaborate study of the subject.

The treatise of Mr. Hopkins is essentially a practical work, the details of which it would be impossible to enter into here.

The four great divisions, or *departments*, of the instrument, namely, the great organ, the pedal organ, the choir organ, and the swell organ, are separately and distinctly considered; and the three great divisions in which the structural portions are classed, namely,—first, the machine for the collection of the wind, and the channels for its conducting and distribution; second, the mechanism, by which the several departments are brought into use, and their stops brought under perfect control; and, third, the sound-producing parts, namely, the pipe-work, are elaborately and fully described.

We purpose in a future number to speak more particularly as to the position of organs.

A LAYMAN ON ARCHITECTURE.

ARCHITECTURAL INSTITUTE OF SCOTLAND.

At the annual meeting of the Architectural Institute of Scotland, held on the 29th ult. the report of the council showed that the number of members now amounts to 481. It concluded by referring to the death of their late secretary in Glasgow, Mr. William Guthrie, the duties of whose office have been efficiently discharged by Mr. James Salmon, architect, Glasgow, and to the resignation of Mr. J. J. Parker, secretary in Edinburgh. The council have appointed Mr. William Miller as Interim Honorary Secretary.

The Right Rev. Bishop Terrot then delivered an interesting introductory address, of considerable length and scope.

Speaking of the hesitation with which he addressed them, the speaker said:—

"I have, however, in some degree quieted my misgivings by the consideration that, as there exists a common sense by which thousands who know nothing of formal logic do contrive, in a rough way, to arrive at true conclusion, so there may be, and I think there is, a common taste, whereby the minds of educated and thinking men do generally agree in approving or condemning any architectural work to which their attention is directed, though they may be all ignorant of the mechanical laws or the æsthetic principles which guided the architect. The existence and the workings of this common taste, the architect is bound to take into consideration, both for the sake of the public and for his own; and it is in the belief that I possess just my individual share of this common quality, and nothing more, that I now attempt to comply with the wishes of your council. I have just mentioned two points which the professional architect must have studied carefully,—1st. The necessary laws of matter; and, 2nd, Æsthetics, or the principles of the beauty of form. Of the first of these, as applied to architecture, the class of which I profess myself to be a member, is confessedly very ignorant. We do not, for example, know the strength of the various materials employed in a building, nor consequently can we say what width may safely be given to an aperture surmounted by a horizontal lintel of sandstone, of marble, of wood, or of iron. We do not know what lateral pressure a flattened or segmental arch impresses upon its abutments; and, consequently, are ignorant what force of counter-pressure, what width and solidity of buttress, is requisite for the security of the arch. But, then, it ought to be remembered by the architect that though very ignorant, we are not entirely ignorant. We know that there is a limit beyond which a horizontal beam, even of the strongest material, cannot support even itself; and, therefore, we feel a painful sense of insecurity when we have any suspicion that this limit has been approached. We know that a flattened arch of heavy materials could not be supported but by a sufficient counter-pressure; and, therefore, we feel uncomfortable under such an arch, unless we see that the means of counterpressure have been provided. Such architectural discomforts I have myself experienced. I recollect being many years ago in a concert-room at York, then newly erected, the ceiling of which was horizontal, and ostensibly composed of slabs of various richly-coloured marbles. These, if they had been what they pretended to be, could have been kept in their place only by some very powerful mechanism, of whose existence no sign appeared; and thus the effect was a painful feeling of incongruity and insecurity, while if the ceiling had really been what it assumed to be, and had been transferred to the floor, the effect might have been rich and pleasing."

As to the forms of buildings, he considered that if an architect be called upon to produce a plan for a church to contain, say a thousand sitters, and in the Pointed style, he is not confined by the rules of his art to any one form—nay, he may produce a form absolutely new, provided it be consistent with the principles of the style adopted. With reference to this point the reader continued,—

"In Blackfriars-road, London, there stands a large octagonal brick chapel, once celebrated as the station of the eccentric Rowland Hill. No one in search of the picturesque would look at it twice, for it is certainly very ugly; but then, on a comparatively small area, it is seated, I have been told, to accommodate four thousand persons, and a voice of ordinary strength is audible throughout the whole of it. Now, might not the style of the ancient chapter-house be adapted to produce all this convenience without any of this deformity? I suppose one difficulty would be the necessary expanse of roof, but what is there which cannot be effected by the judicious use of iron? If, again, the Greek or Roman style should be adopted, and I see no reason why they should be proscribed, it has struck me that the Greek cross, whether with or without a dome at the intersection, is a form well suited for our purposes, capable of much external and internal beauty, in harmony the one with the other. If built without side arches, and consequently without pier or pillars, all the congregation, in three at least of the arms, would see and hear the preacher without obstruction. As employed by the Episcopal Church, the fourth arm would be devoted to the purpose of a chancel. I know no instance of such a church in this country, but you have all seen drawings of the Isaac's Church at St. Petersburgh—that is the form to which I am now alluding; and it does appear to me that something of the kind, though, of course, on a very reduced scale, would suit our purposes in the erection of our larger city churches."

The shops in Glasgow, he thought, showed that the architects employed there must have been dealing with much more wealthy clients than the architects of most of the modern works in Edinburgh.

"Upon the whole, the effect is striking; but there appears to me some want of completeness and congruity—first, between the ostensible purpose of the building and its elaborate decoration; and next, between the nakedness of the mere shop-front, and with the plain fenestration of the intermediate parts, and the profuse richness of the upper portion. They are much superior to the variety of plaster trifles exhibited in Regent-street, London, but inferior in dignity to the mercantile buildings in New Cannon-street. These are of well-coloured brick, with white stone-facings, of good design, to the doorways and windows. This variety of material and colour, where there is a necessary and manifest break of continuity in the structure, is both reasonable and pleasing; and, upon the whole, I know not that I have seen any new range of street architecture which I prefer to New Cannon-street, between London-bridge and St. Paul's. My holiday leisure is generally spent in London, with a few visits in the country coming or going; and after inquiries after old friends, and visits to such picture galleries as are accessible, my next inquiry is for anything new in the way of architecture. And here there is something which I have in vain studied to account for—namely, that while private individuals, or commercial companies, or parochial committees, can generally get a good design for their money, Government, with the collective wealth of the country at its command, appears almost always to fail."

Speaking of the architecture of London, the Right Rev. gentleman observed:—

"Two of the largest clubs—the Carlton and the Naval and Military—suggested to me some considerations not foreign I hope to the purpose of this

address. In the Carlton there is a very striking variety of colour in the materials. The wall-face is of the ordinary building-stone, while the ornamental columns are of red granite. This appears to me a case in which variety of colour is not merely allowable, but commendable. There is here a structural discontinuity, a sudden passing of the eye from one structural form to another, and in such cases there is nothing objectionable when the change in form is accompanied by a change of colour. The effect is very different when, as in Mr. Hope's new house in Piccadilly, the red granite is introduced in unnecessary and unmeaning patches upon the flat wall. The Military and Naval presents two very extensive and richly-ornamented fronts—one towards Pall-Mall, and the other towards St. James's-square. In the elevation, we have first a rusticated basement story rising from the level of the street; then an *entresol*; and above that, a Corinthian colonnade, with a very rich frieze and cornice. But the basement and *entresol* being all above the level of the spectator, occupy one-half of the whole elevation of the building; and this, I feel assured, is far too large a portion to devote to such purposes. The effect produced is that of one complete edifice placed upon the top of another. Though I thus conclude my remarks upon the new street architecture of London with an adverse criticism on a particular case, I feel, and all must feel, that art is advancing; and that, looking only to the productions of the Georgian and Victorian ages, the architects and the public of the present day have no reason to be ashamed. And if in this department the appearance of improvement is undeniable, much more have we reason to rejoice at the still more marked advance in ecclesiastical architecture. And in reference to this, the hope for the future rests not more upon the skill and feeling exhibited by our architects, not in London only, but in every province of Great Britain, than upon the attention which is paid to the subject by all classes of the community, and the large amount even of technical knowledge possessed by many who are actively employed, but not absorbed, in other professions."

At the conclusion of his address, the Bishop urged the importance of forming an Architectural Library, containing those works which a young architect would require to consult, but which from their price he could not at the commencement of his career purchase without inconvenience and imprudence, and especially foreign works of merit, particularly of the French and German schools.

THE GLASGOW ARCHITECTURAL ASSOCIATION.

A LECTURE on the "Preparatory Training of an Architect" was delivered on the 14th ult. to the members of this association by Mr. C. H. Wilson, in which the lecturer dwelt on the necessity of education in the sister arts to all destined for or following out the architectural profession, more especially in skilful drawing, and on the advantage, indeed, of education generally, in all such branches of science as those of geology, ethnology, chemistry, and natural history. The study of landscape gardening was also pressed upon the attention of architects, and such excuses for bad or vulgar forms in architecture as the parsimony of employers was very properly reprobated.

The annual *conversazione* had been previously held on the 2nd of the month, when the retiring president, Mr. Hamilton, made the opening address, in which he directed attention to the advances in architecture effected even since the last annual meeting of the same kind. One great disadvantage under which the profession labours was dwelt on, namely, imperfect art-education amongst the people. The local Architectural Exhibition was pointed to as one of the most effectual agencies at work in the removal of this obstacle. Some strictures, however, were passed on the objects in that exhibition; but the lowering of the price of admission to the general public was approved of.*

The report was then read by the secretary, and the meeting was afterwards addressed at some length by Mr. Gildard, who, while bringing under notice the uses of glass and iron in the art, expressed a doubt that architecture is not legitimately meeting the exigencies of the age.

* Mr. Hamilton is reported to have made the following remark in allusion to the *Builder*, as one of the chief means of advancing a knowledge of architecture:—"The *Builder*, on the other hand, treated any notices of our meetings, &c. we sent, with silent contempt, not deigning to give any reason for its conduct, in its notices to correspondents or otherwise." Now there must be something incorrect in this: we do not neglect such notice when really sent to us. If it be simply meant that a newspaper containing a report was posted to us, it may have either been overlooked in the midst of the never-ending flood of newspapers which do reach us, or may not have reached us at all. Our Scottish brethren may be assured that we have the advancement of architecture and the profession too much at heart, ever willingly to neglect communications from them of public interest.

BOARD OF EXAMINERS FOR DISTRICT SURVEYORS.

SECTION 33 of the new Building Act, sets forth that

"The Institute of British Architects may from time to time cause to be examined, by such persons and in such manner as they think fit, all candidates presenting themselves for the purpose of being examined as to their competency to perform the duties of district surveyor, and shall grant certificates of competency to the candidates found deserving of the same; and no person who has not already filled the office of district surveyor, or has not already obtained a certificate of competency in pursuance of the said Act of the eighth year of the reign of Her present Majesty, chapter eighty-four, shall be qualified to be appointed to that office, unless he has received a certificate of competency from the said Institute of British Architects, or has been examined in such other manner as the said Metropolitan Board may direct, and been found competent in such examination."

At a special general meeting of the Institute of architects, held on Monday evening, the 17th, the following gentlemen, on the recommendation of the Council, were appointed to be the Board of Examiners for 1856,—the vice-presidents, the honorary secretaries, and Mr. C. Fowler, Mr. Godwin, Mr. Hesketh, Mr. Inman, Mr. Pennethorne, Mr. Pownall, and Mr. Sydney Smirke.

THE METROPOLITAN BOARD OF WORKS.

THE first sitting of the Metropolitan Parliament was held on the 19th, at Burlington House, Piccadilly, when it was resolved that the salary of the chairman should be fixed at 1,500*l.* a-year, and that he be required to devote the whole of his time to the duties of the office. The names of gentlemen desirous of becoming candidates for the office were to be received until Saturday, the 22nd inst. at twelve o'clock. The following is understood to be a list of the members of the Board:—

Edward Harrison, 82, Cornhill.
H. L. Taylor, 10, Queen-street, Cheapside.
T. H. Hall, 48, Finsbury-square.
J. A. Nicholay, 82, Oxford-street.
Thomas D'Ifanger, jun. 5, Melina-place, St. John's-wood.
William Corrie (police magistrate), 10, Gloucester-terrace, Regent's-park.
Josiah Wilkinson, 2, Paper-buildings, Temple.
F. Doulton, High-street, Lambeth.
Robert Taylor, 3, Lambeth-terrace.
H. A. Hunt, 57, Eccleston-square.
Major William Lyon, 22, Park-lane.
John Savage, 54, Thornhill-square, Islington.
W. Dennis, Twyford-villa, Caledonian-road.
W. A. H. Hows, 99, Kingsland-road.
John Ware, 2, Trafalgar-place West, Hackney-road.
Henry Burslem, 14, Kensington-gardens-terrace.
T. H. Bevan, 5, Elizabeth-terrace, Hackney-road.
Ambrose Boyson, 28, Newington-place, Kennington.
A. L. Irvine, Smyrren-lodge, Park-road, Old Kent-road.
Sir John V. Shelley, M.P. 25, Park-lane.
James Pascall, 1, Queen's-row, Pentonville.
F. Chalmers, Cheyne-row, Chelsea.
W. Hawkes, 21, High-street, Kensington.
Joseph Moreland, 18, Old-street, St. Luke's.
Edward Collinson, 95, Blackman-street.
Bernah Drew, Bermondsey-street.
Phillip Crellin, 198, Ratcliff-highway.
W. H. Dalton, 28, Cockspur-street.
W. E. Snow, 28, Tredeger-square, Mile-end.
Lewis Davis, Plumstead.
Thomas Turner, Hampstead.
G. S. Wallis, 16, Mansell-street, Goodman's-fields.
A. Wright, 55, Milbank-street, Westminster.
John Thwaites, 61, High-street, Southwark.
W. Carpmael, Streatham-hill.
George Offor, Grove-street, Hackney.
Captain Barnett, R.N. 14, Woburn-square.
R. B. Seeley, 54, Fleet-street.
Charles Few, 5, Henrietta-street, Covent-garden.
Valentine Stevens, 26, Bell-yard, Temple-bar.
Benjamin Dixon, 3, Norway-place, Commercial-road East.
Simon Knight, Blackwall.
Charles Atkins, Rushey-green, Lewisham.
William Miskin, Lower-road, Rotherhithe.

WOOLWICH ROYAL ARSENAL.

SEVERAL extensive works are being carried on here. Among them may be noticed those contracted for by Messrs. Lucas, Brothers, including the new paper factory; but what attracts most especial notice at this moment is the rapidity with which the octangular chimney-shaft has been carried up.

The bottom diameter of the shaft, which is carried up with picked stocks, and the splayed angles, with cutters, is 10 feet 9 inches from out to out: the top diameter is 4 feet 9 inches.

The shaft is surmounted with a moulded massive stone capping, 3 feet 9 inches high, worked from the Hare-hill Quarries. The batter of the shaft is 1 inch in every 3 feet 2 inches. The height from the top of the die to the summit of the shaft is 104 feet 6 inches;—making a total height from the ground line of 121 feet, and from the bottom of footings, 126 feet 6 inches. The first 25 feet 3 inches of shaft is 1 foot 10½ inches thick in mortar: the second 25 feet 3 inches of shaft is 1 foot 6 inches thick in mortar: the third 25 feet 3 inches of shaft is 1 foot 2 inches thick in mortar: the remainder is carried up in one brick, in cement.

The work was commenced on the 24th of October, and completed on the 11th of December, on which day the scaffolding was commenced to be struck. The scaffold was erected independently of the shaft, and without a putlog hole. The actual number of working days, allowing for bad weather and Sundays, was thirty-nine. The work is said to be unprecedented in the Royal arsenal, and entitles Jacobs, the foreman of the bricklayers (amongst others), to a word of praise.

THE TEMPLE GARDENS.

"A TEMPLAR" writes us that he is not so well satisfied with the treatment of the floral kingdom here as we were led to be. He says,—"Notwithstanding the smoke from the river boats, I have had an existence in the Temple for the last dozen and more years, and I have witnessed the hawthorn, the lily of the valley, and other odoriferous flowers enjoying the same privilege, and blooming much more abundantly than in the present year. I have also seen the laurus, in former years, flourishing "like a green bay-tree;" but, alas! its verdure has now faded. It is true, the rose in question (which, by the way, is a *red* one) has had to struggle for life in a confused forest of Chinese weeds with very heathenish names, supported by timber sufficient to fit out a Baltic fleet, and annexed to the said timber with strips of Joseph's coat, or other rags, the colours being so various that a casual observer might have taken the whole for an encampment *en masse* of the allied army, under a canopy of chimney-sweepers' bags;—yet, with all these disadvantages, "the red rose has not ceased to blow." If, however, they are to continue under the treatment they have hitherto received, I will not answer for their well-being. I fear they will very much resemble the old sycamore-tree, under which, it is said, was plucked the York and Lancaster, which rose, although striving for a miserable existence among a group of alien exotics, may yet be seen blooming annually in the garden of the Middle Temple. The beautiful moss-rose also is there, and, with all the *barbarous* treatment it receives, it still asserts that "England triumphant will display her proud rose," even among a host of Chinese mandarins. Now that the foreigners are cut down, I venture to say that the Christmas rose—the *helebora negra*—will be in flower in the Middle Temple Garden by the 25th instant."

MANAGEMENT OF THE INSTITUTION OF CIVIL ENGINEERS.

SIR,—Will you allow me a small space, in order to draw the attention of the members and associates of the Institution of Civil Engineers to the admirable manner in which the papers read at the Royal Institute of British Architects are published. Every member of the Institute of Architects receives, a few days after each meeting, a copy of the paper which has been read, and the discussion thereon, with the names of the speakers. The report of one evening's meeting of this session consisted of twenty-two quarto pages. At the end of each session these papers are reprinted and delivered to the members in one volume. The volume for the last session comprised 124 pages, and was illustrated with several lithographic plates. The two last reports of the Institute of Architects show a total expenditure of 700*l.* per annum, and that of the Institution of Civil Engineers amounts to upwards of 2,000*l.*; and with this expenditure the engineers have had no minutes of the proceedings of their institution for four years. I have been induced to address you on this subject in consequence of having yesterday received from the secretary of the Institution of Civil Engineers a list of the subscriptions to a Publication Fund, raised pursuant to the resolution of a meeting in December, 1853; and although by this list it appears that more than 1,300*l.* have been subscribed, no publication has yet been

issued, and the secretary now impresses upon those who have not hitherto contributed, the necessity of doing so, in order to provide funds for completing the publications now in arrear!

It appears to me that, as the architects are able to carry on their institute and publish their proceedings with an expenditure of 700*l.* per annum, the Institution of Civil Engineers might well publish their proceedings out of an expenditure of three times that sum; and you, Sir, will, I think, be conferring a great benefit on the country members of the Institution of Engineers by showing them, through your valuable publication, what is now being done by the Institute of British Architects.

ONE OF THE INSTITUTION OF CIVIL ENGINEERS.

THE FOUNTAIN FOR BATH.

VERILY there is need of some alteration in the present position of architects, for at present there is enough to keep a man of education from choosing a profession which can give him no protection against quacks and pretenders. Among the many instances which one constantly meets with which show this grievance, I would state that an application was made some months since to architects and "others," *i. e.* "men of taste," to submit designs for a fountain in Bath. About twenty-eight were sent in, principally, I conceive from amateurs, which might have been expected, as every one who can hold a pencil, thinks he can draw dolphins, tazzas, and sea gods, in endless variety. One was decided on, sent in by a cabinet-maker. I have not seen it, but of course it combines high classic feeling, with economy of outlay, and is marked with that genius which requires no education to refine or labour to develop. After some alterations and improvements have been made to it, the committee, composed as usual of those so well qualified to decide on the æsthetics of architecture, have decided, I see by a paragraph in the paper, to employ an architect "to make the working drawings and specifications, at 2½ per cent. upon the ultimate outlay, with a view to advertising for tenders," and the other 2½ is to be allowed to the author of the design; or in other words, they want an architect so far to forget himself as to do what they, with their chosen adviser, are unable to do. And so, a man who has qualified himself by study and years of labour, to practise a profession, is to be solicited to carry out the design of a tradesman, and share with him the direction and superintendence. Yet there are men "calling themselves" architects, who for the sake of a paltry 6*l.* or 7*l.* will degrade their profession, and encourage committees and others in such a shameful and unsatisfactory mode of proceeding, by undertaking the business. It remains to be seen in this case whether any man of character and respectability will be willing to place himself in such a position. A.

ACTION FOR OBSTRUCTION OF LIGHT AND AIR IN LONDON.

MERCHANT TAILORS' COMPANY *v.* TRUSCOTT.

THIS action, tried in the Court of Exchequer on the 10th, was to determine the question, whether a stack of warehouses built by the defendant opposite to the Merchant Tailors' School, in Suffolk-lane, Upper Thames-street, materially and sensibly interfered with and obstructed and diminished the light and air of the school and the residence of the head master, so as to render those premises more gloomy, less airy, and less enjoyable than previously. That all these effects had resulted from the erection in question, was established by the testimony of the masters and late masters of the school.

On the part of the defendant it was urged, that he was perfectly justified in erecting this building, which was 97 feet high, whilst that of the school was not more than 37 feet, under an ancient custom and right conferred upon all citizens building in the City of London, under a certificate from the Recorder, such custom authorising the owners of land in the City to build to any height they might think fit, with a due regard to safety.

The Lord Chief Baron told the jury that they had but one question to try, namely, did this building of the defendant's obstruct and diminish the light and air of the school? All the evidence was one way, and in the affirmative, too; therefore, upon that point, they would have no difficulty. Whether the defence as to the ancient right and custom would avail the defendant, it would be for another tribunal to determine; and, in all probability, in the end, the question would be carried up to the House of Lords, who would have to decide whether such ancient right and custom was set aside and abrogated by a recent Act.

The jury at once returned a verdict for the plaintiffs. Damages, 40*s*.

UNITED OPERATIONS FOR ENGLAND.

SIR,—I once before suggested the idea of improvements in each county, by operations for that purpose, the population of the country being so unequally distributed, some parts being almost stationary in improvement. The county of Rutland, although half the size of Middlesex, has only two small towns, and so little is its importance, that it has scarcely an event to record, the population being only equal to a large market-town. Huntingdonshire, the third in size, having 50,000 more acres than Middlesex, has a population only equal to Brighton; and so seldom do events of interest occur, that it does not require a local journal. It is not necessary that all the towns should be as large as London, or those in the manufacturing districts; but if the capital of each county was made capable of accommodating not less than 10,000 inhabitants,—care being taken to provide them with suitable residences, and a proportionate number of those institutions which conduce to the welfare of society, with other improvements in the county, the effects would probably be apparent in the improved habits of the people, and would add to the general interests of the neighbourhood and the country, by making better markets for the sale of agricultural produce, and the trade and manufactures of the country. County societies might do much that individuals cannot or will not attempt; and were they only to improve one town occasionally, or add a public building annually, it would in time produce an effect, and bring out of the present obscurity such counties as Rutland and Huntingdon. H.

Notices of Books.

VARIORUM.

Mr. LOWER has published "A Supplement" to his edition of the new "Metropolitan Building Act," containing first a series of notes on the provisions relating to party structures, dangerous structures, chimneys, &c.; and, secondly, a large portion of the City of London Sewers Acts, 1848 and 1851.*. We shall find an opportunity hereafter to refer to some of the opinions expressed: in the meanwhile let us say that all who desire to master the new Act will find Mr. Lower's supplement an assistance. ——"Ships' Compasses" is a contribution by Mr. Thomas Allan, C.E. of Edinburgh, towards arriving at the best mode of preventing the disturbance of the compass by the iron in the ship, and other causes.——Mr. Gilbert French, of Bolton, known to many of our readers, has published, in the shape of a pamphlet, "Parallel Passages from Two Tales, elucidating the Origin of the Plot of Guy Mannering." The passages (which were first made public by Mr. French so long ago as 1840, in the *Gentleman's Magazine*), show that the outline of the story was taken from a novel called "The Memoirs of an Unfortunate Young Nobleman."——Gutch's "Literary and Scientific Register for 1856" (Bogue), contains a large amount of condensed information about everything in the world, and something more.

* London: Waterlow and Sons, Parliament-street. 1855.

Miscellanea.

FALL OF A WALL, AT BOSTON. — On Thursday week, the gable end of a house — the sole remains of a block of six tenements, in Innocent-street, which have long been suffering under what may be called the Chancery blight, suddenly fell to the ground. Next evening, some men employed in removing the *débris*, unexpectedly discovered under them the mangled body of a little boy, whose mother resides in the same street. The houses in question had long been a nuisance. The dilapidated state of the buildings had been represented to the Court of Chancery, and an estimate forwarded; but nothing whatever had been done, beyond intimation that the Court had no means of procuring the required outlay.

FALL OF PART OF A MILL, AT OLDHAM. — On Monday before last, the end of a new mill at present in course of erection in New Radcliffe-street, off Henshaw-street, Oldham, fell down. The building was originally a hat manufactory, but was being converted into a cotton manufactory, and enlarged. The old foundations and part of the walls were allowed to remain, and at the end facing Radcliffe-street a new front was run up, and it is supposed to have been too slight to support the weight of the cornice and roof, for on the beams of the latter being attached, it gave way and fell into the street. The workmen got clear of the building without injury. The damage done is estimated at about 60*l.* or 70*l.*

CONTAMINATION OF WATER BY LEAD.—A Manchester correspondent informs us that he has just had a serious case of illness in his family, arising, medical men say, from the water used in the house being impregnated with lead. He has had the water tested since by analytical chemists, and the fact is thus confirmed. Our correspondent is anxious to know what to do to prevent such contamination. At present his family use rain water, collected in a large leaden cistern at the top of the house, and conveyed thence to a boiler at the back of the kitchen grate and up to another leaden cistern called a hot-watern cistern, from which it is conveyed to all parts of the house. He is recommended to have slate cisterns built within the leaden ones; but he does not know how he can avoid the use of lead pipes to convey the water to where it is required. Were it not that hot water is conducted through a portion of the pipes, leaden pipes lined with gutta percha, such as we lately noticed, might have done, and indeed, with this exception, would obviate the risk so far as regards all but the hot-water pipes. Slate cisterns within the leaden ones are unobjectionable, but the roof also must be looked to, if the rain water runs along leaden gutters; and perhaps some such coating as that invented by Mr. Wentworth Scott, and described by him lately in our columns, would do both for the cisterns and the gutters. In respect to the hot water, unless our correspondent can obtain some of those leaden pipes lined with tin, of which we also lately gave some account, we know not what he can substitute for the lead unless it be iron or tin tubes. This case, we may here note, is just another of those various instances which militate against the idea of some chemists, and in favour of that of others, and particularly of Dr. Christison, in respect to the relative danger apt to be incurred by the contact of soft water and of hard with lead.

FIRES AT ALDERSHOTT. — As was distinctly anticipated in our columns on 19th May last, where even the want of water was foretold, as well as other aggravating circumstances, such as the pitch on the roofs of the otherwise but too combustible huts pointed out,—a serious fire broke out at the Aldershott Camp, on 8th inst. when one whole block was speedily destroyed, and no water supply whatever being at hand, nor other preparations made against so imminent and perpetual a risk to wooden huts from overheated stoves, &c. sparks from the burning block set the pitched roofs of another block on fire, and the whole was also shortly in a blaze. The mischief originated in a lieutenant colonel's hut, where the stove had been overheated. It is to be feared this is not the only conflagration of the kind we are fated to hear of. One cannot but anxiously trust that better arrangements exist in the Crimea, for which Aldershott should be the teacher and exemplar.

THE WALWORTH WORKING MEN'S LECTURE AND READING ROOMS will have been in existence twelve months on the 2nd of January (Wednesday), when it is proposed to hold the annual and general meeting at the Clayton Schools, York-street. The president, Mr. W. A. Wilkinson, M.P. will take the chair. This institution has been opened to provide intellectual resources and educational aids for the adult working-classes, by means of a comfortable reading-room, open every evening (except Sunday), supplied with newspapers and periodicals; also by the delivery of lectures, on subjects of interest and utility, weekly. Classes for the study of various branches of useful knowledge are to be established. Upwards of 160 working men have become members, and the reading-room is attended by a large number of persons every evening.

A STONE COFFIN.—The sexton of the parish of Govan, near Glasgow, while digging a grave lately, came in contact with a stone coffin of large dimensions, 3 feet beneath the surface, but in a part of the churchyard not used for interment. It is about 7 feet long, the length of the cavity being 6 feet, and the width 16¼ inches, depth nearly 2 feet. The exterior has been decorated with elaborate sculpture, divided into different compartments. The figures of a horseman, as if hunting, and of large quadrupeds in singular attitudes, have been traced. Some people think that this coffin may have once enclosed the remains of Constantine, King of Cornwall, who is represented in the ancient chronicles of Scotland to have been buried, in the sixth century, in a monastery built by himself at Govan!

PHOTOGRAPHIC PICTURES TAKEN AFTER THE FALL OF SEBASTOPOL.—Mr. Kilburn is exhibiting, at his gallery, in Regent-street, a number of deeply interesting photographs made by Mr. Jas. Robertson, of Constantinople, at Sebastopol, immediately after its fall. We see, for example, the interior of the Malakoff Battery, the interior of the Redan, and other of the hotly-contested points, and get clear views of the expedients to which the Russians resorted in their desperate defence. There is an interesting series of sun pictures in India, too, by Mr. Fiebig.

Railway Matters.—Several experiments have been lately tried on the Northern Railway of France, in suddenly stopping trains. One of the plans consists of a break acting by means of a heavy weight falling when a certain spring is touched, and instantly impending the progress of all the wheels. When the train has to resume its course, the weight is immediately raised by a simple piece of machinery, and the apparatus is again in a position to act. No decision had as yet been come to as to the superiority of any of these various modifications of the principle tried. ——A second experiment to test Chevalier Bonelli's apparatus for establishing a telegraphic communication between trains in motion, took place on the 7th, on the Paris and St. Cloud section of the Western Railway of France. M. Bonelli's system consists of a thin iron bar running parallel to the rails, and fixed edgeways upon insulators of earthenware, which raise it about three inches above the surface. A combination of springs establishes a communication between this bar (which the inventor calls a *line-bar*) and a telegraphic apparatus fitted to one of the waggons. In the present instance, says *Galignani*, telegraphic communications were exchanged with perfect success, and the experiment was considered to have been successful.

Stained Glass.—The following on a brass tablet, is about being put up on the east wall of St. Michael's Church, Coventry, according to the local *Standard*:—"The three easternmost windows of this apse have been filled with stained glass, to the glory of Almighty God and in memory of Adelaide, Queen Dowager, widow of his Majesty King William the Fourth. The centre window was the gift of the Right Hon. E. Ellice, M.P. as a memorial of his long connection with the city of Coventry, as one of its representatives in Parliament."——A memorial window, in St. Michael's Church, in the same city, is decided on as a mark of respect to the late Colonel Hood, who fell in the trenches before Sebastopol.——There has just been placed in the collegiate church at Wolverhampton, a memorial stained glass window to the late Duke of Wellington. The window is about 11 feet wide, and 18 feet high from the sill to the point. It is placed over the western entrance, and there are four lights. The principal portion of each is filled respectively by full-length figures of Moses, Joshua, Gideon, and David. Below the figures a leading event in the life of each is delineated. The bottom of the window presents, in mediæval letters, the inscription, together with such passages of Scripture, as "He raised up a deliverer;" "The land had rest forty years;" "He died in a good old age, full of days, riches, and honour." The window was designed and constructed by Messrs. Wailes, of Newcastle-upon-Tyne, and has been erected by subscription made in Wolverhampton.

Metropolitan Commission of Sewers.—A special court of the Metropolitan Commissioners of Sewers was held on 11th inst. on the subject of the Metropolis Local Management Act, when a deputation from the vestry of St. Pancras waited upon the commissioners, to consult them relative to arrangements for carrying on works, the management of which would in a short time be transferred from the Commissioners of Sewers to the vestry. It was the opinion of Mr. Chalmers that the district authorities could limit their own duties to the house drainage, leaving the sewerage to the Central Commissioners, but the chairman of the commission appeared to doubt this interpretation of the Acts (the Sewers Act and Metropolis Management Act), which, Mr. Garvey, one of the deputation, observed, were awkwardly dovetailed together. Mr. Sayer pointed out that while the staff required for each of the thirty-eight district localities would not fall short of 1,000*l.* the maximum expense of any central commission had never been more than 25,000*l.* instead of 38,000*l.* per annum. Ultimately, the commission resolved to instruct their officers to render any information to any committee appointed by the district boards of works under the new Act as to carrying on drainage without public injury.

A Swindling "Contractor."—At the Town-hall, Little Bolton, says the *Manchester Courier*, a fellow, named Charles Collins, supposed to have recently come from the neighbourhood of Coventry, has been brought up on a charge of obtaining 22*l.* 5*s.* from Mr. Henry Edge, of Blackrod, under false pretences. He appeared at the tunnel at Blackrod as a person of consequence, one about to supply bricks for the undertaking, and on the 22nd of November made a contract with a farmer in the neighbourhood for the carting of bricks, from New Springs to the tunnel of the Liverpool Waterworks, at Blackrod, for 9*s.* per 1,000; the contractor guaranteeing to convey not less than 2,000 per day. Mr. Edge, an innkeeper, who was patronised by the "great contractor," was thus deceived, and induced on a false pretence to lend the money alluded to. The prisoner was remanded.

Another Submarine Channel Railway Project.—Mr. R. Turner, of Dublin, and Mr. T. Turner, of London, propose to cross the Channel between England and France by a tube, laid on a level bed, 96 feet under low-water, in continuation of existing lines of railway; the level bed to be made by excavating the shallows adjoining the shores, and filling in the deepest portions with the ballast found on the coasts; the tube to be secured by gravitation, and covered by a mound of ballast, after being made in docks on land, in lengths from 10 to 1,500 feet, with temporary stopped ends, and on wheeled carriages, and each rolled forward successively to its destination along the level surface, prepared for its reception. The tube is to be semi-circular, of cast and wrought iron plates, and to have a double roadway having an exterior and interior shell or case of iron, the intermediate space between being cellular, filled with a flexible bituminous substance, and the interior of the roadways to be lined with brick-work, thoroughly lighted, ventilated, and drained. The projectors are making models and plans to develope their views more fully and explain the details of their scheme.

Statue of James Watt, at Manchester.—A meeting was held at the Town-hall, Manchester, on Tuesday in last week, to originate a subscription to erect a statue to James Watt, the inventor of the steam-engine. The statue is to be a copy of the one by Chantrey, in Westminster Abbey, and is to be placed in the large area in front of the Infirmary, in company with the statues of Wellington, Peel, and Dalton. Most of the leading men of Manchester were present, and appeared to enter most heartily into the project, which originated in a suggestion from the Manchester Literary and Philosophical Society. The mayor presided. The subscriptions announced at the meeting were nineteen of 10*l.* and ten of 5*l.* each.

Monument to the late Mr. Alderman Thompson.—A monument has been erected in the parish church, Kirkby Lonsdale, to the late Mr. William Thompson, M.P. of Underley Hall. It is the work of Mr. B. Jennings, sculptor, London. The design is Grecian, and consists of a tablet supported by two brackets carved in imitation of acanthus-leaves.

The Under Drainage of Land.—The paper read at the Society of Arts on 14th inst. was "On the progress and Results of the Under Drainage of Land in Great Britain," by Mr. J. B. Denton. After the reading of the paper, some considerable discussion took place on its very important subject, and the chairman, in summing up, said that it might be considered as established that under-draining a wet soil gave a rapid descent to the water, and secured the dryness of the subsoil. No one, he thought, would deny that although shallow drainage might answer locally, the operation of deep drains had been uniformly successful; and that, although shallow drains were often taken up, there was no instance of deep ones being disturbed. No doubt there were peculiar geological formations that enabled the drainer to accomplish his object at a less expense. He trusted the subject would be taken up on another evening, and that as many would attend as possibly could, as the question would bear much further discussion. Mr. Denton, in acknowledging a vote of thanks, said that as he did not wish them to separate with an impression that he was an advocate of one universal system of draining for all soils, and under all circumstances, he must take that opportunity of repeating that he only acknowledged *one* fixed rule, and that was the *principle of depth*.

Stoves.—R. J. Stainton and E. C. Davey, of Holland-street, Blackfriars-road, have recently patented a stove, said to economise the combustion of coke, coal, or other combustible material, including inflammable gas. Excepting in the stove referred to for the combustion of gas, a fuel chamber is immediately above the grate firepan or basket, which can be charged with fuel to last a given time, according to the capacity of the stove.

Kensington Conversazioni.—We are glad to hear that these meetings are to be resumed. The directors of the proprietary school in Kensington-square having placed their large room at the disposal of the council of the society, and the latter having satisfied themselves of the fitness of the room for the effective exhibition of pictures and other works of art entrusted to their care, have determined to hold four *conversazioni*, namely, on the 10th January and 27th March, 1856, and the 8th January and 16th April, 1857. The only objection to this is the long period over which the meetings are spread. Members are now being looked for. The council list contains some excellent names.

Delaroche's Painting at the School of the Fine Arts, Paris.—It is said that the fine painting of the hemi-cycle, by M. Delaroche, has been greatly injured by a fire caused by the overheating of one of the pipes of the *calorifère*.

Cardiff Exhibition of Fine Arts, &c.—The opening of this exhibition took place on Monday week, in presence of about 300 persons. The bishop of Llandaff took the chair, and Mr. Bruce, M.P. delivered the first or introductory discourse of a series, to be given in course of the exhibition.

"Curiosities of London."—An advertisement points out Mr. Timbs's "Curiosities of London," as "ye boke for Christmas Tyde," and we take the opportunity of saying that lengthened examination of this book, so far from lessening the good opinion we first formed of it, has shown us even more forcibly the value of the immense amount of information concerning the metropolis, its buildings, antiquities, customs, and past inhabitants, which it contains. It is put together in an agreeable as well as a scholarly manner, and forms a volume of never-ending interest.

The Trade Unions, we much fear, have done great mischief, and, conducted as they now are, will do more. Hundreds of thousands of pounds have been injuriously squandered, trade has been diverted to other countries, and the advance of the working-ing classes has been retarded. They would even prevent men from working as long as they please. Take, for example, the following notice lately received, according to a local journal, by a mason in Leicester, because, being employed upon work where he had the advantage of light during only a few hours in the day, he committed the very heinous offence of filling up his time by working in his employers' yard at other times:—"This his to inform you that if you, Insisting of going to Work Gaslight after you have been working out all day, you will be consider no longer a member of the Mason Society, but buide by the consequenc.—We remain yours, In the Bond of Uneon, the Masons of Leicester."

Institution of Civil Engineers.—On the 11th inst. Mr. James Simpson, president, in the chair, the evening was occupied by a discussion upon Mr. Evan Hopkins's Paper, "On the Vertical Structure of the Primary Rocks, and the General Character of their Gold-bearing varieties."

Self-contained Houses.—A man's house should be his castle, but this will never be the case until *self-contained* houses are the order of the day. There can be no proper pride, self-respect, and cleanliness among the industrious classes, till each head of a family has a "castle" of his own. Houses can be built having two, three, four, and more rooms each. The thing is quite possible. A society must build the houses in the first place, but the industrious classes must give a hearty support. It is seldom that any of these classes possess the means of buying or building a snug house of their own, so they knock about from one street to another, and this is no good habit to acquire. If you want to make a good citizen of a man, give him a piece of land or house of his own, and you "fix" him, as the Americans say; he must become settled and respectable, whether he will or no. One of the greatest evils in London is the same as that which prevailed to such an extent in the Crimea lately. Good wages are earned, but there is a difficulty as to the mode of disposing them. A trifle might be saved weekly, but it is troublesome to put it in a savings' bank, and the interest is very small at the best. Instead, therefore, of accumulating their savings, the industrious classes too often squander them. On the contrary, give a motive; give an opportunity to save money; put a self-contained house before the eye, and you will soon find the number of thrifty citizens increasing. There is room for a grand social reform in London, and I hope to see the same begun in earnest ere long.—J. M.

The Torbanehill Mineral.—The Queen's palace, says the *Border Advertiser*, has been for some time lighted by means of this valuable substance, gas from the Torbanehill mineral being destitute of sulphur. Last year 10,000 tons of the mineral were sent to London alone. Not long ago the French Government published a report regarding this substance, which had previously lighted up the whole of the Hôtel des Invalides. This Torbanehill mineral, adds our authority, is the means now resorted to for illuminating many foreign capitals, and it is sent to the most distant parts of the globe. A ship loaded with blocks of this mineral conveys an enormous quantity of a peculiar oil, the source of the illuminating power, in the smallest possible bulk; 75 per cent. or three-fourths of the substance being latent oil, and the rest pure clay.

A new Air-pump.—An air-pump of great simplicity has just been invented and constructed by Mr. James Laing, draughtsman, Dundee. The material of which the pump is composed is cast-iron, and it dispenses with valves.

Brunetti's Model of Ancient Rome.—The Liverpool corporation have agreed to take possession of this model, which for some time past has been lying unclaimed, though the owners were advertised for both in England and America.

A BLIND MASON, JOINER, AND MECHANICIAN.—The *Journal de Chartres* gives an account of a water-mill, near Chartres, built entirely by a blind man, without either assistance or advice from any one. The masonry, carpenter's work, roofing, stairs, paddle-wheels, cogs,—in a word, all the machinery pertaining to the mill has been made, put up, and set in motion by him alone. He has also, the above journal asserts, made his own furniture. When the mill does not work, the blind miller becomes a joiner, and also a turner, on a lathe of his own invention. In 1852, this blind genius was awarded a medal by the agricultural society of the arrondissement, for a machine serving the double purpose of winnowing corn and separating the best grains from the common sort.

THE MEASURE OF CEMENT-CASKS. — I have recently completed some works in which a large quantity of Roman cement was used, and on looking through my prime cost was surprised at the number of bushels of cement which had been consumed. This led me to measure several casks, which had been charged as five-bushel casks, and I find less than four bushels will fill any of them. I then tried the sacks, and I find that two and a quarter bushels will fill a "three-bushel sack." The manufacturer's answer is, "that it is compressed." I, however, venture to trespass on your valuable space, and hope to elicit the opinions of my brother builders as to how many bushels of saud a "five-bushel" cement-cask should be capable of containing.—J. M. M.

FONT AT KEYMER.—It is not always the church-wardens, or low church party, who destroy the body or ornaments of the churches. At Keymer, near Brighton, the old Norman font, a very peculiar, and, therefore, valuable one, has been taken down, and is now lying amid the rubbish and coals in the belfry, and a new font erected *under the chancel arch*, which resembles nothing so much as that agaric called *Phallus impudicus*. This was done about six or seven years ago, by the Venerable Archdeacon Garbett. I call the old font Norman from its being in a church with a circular east-end.—AN ARCHÆOLOGIST.

TENDERS

For house and offices, for J. W. Freshfield, Esq. M.P at Leigh, Surrey; Mr H. Currey, Architect. Quantities supplied by Mr J. Welch: –

Bothwell	£9,050	0	0
Cubitt and Co.	8,588	0	0
Sherbourn	8,213	0	0
Hayward and Nixon	8,047	0	0
Piper	7,984	0	0
Nicholson and Sons	7,975	0	0
Holloway	7,966	0	0
Lucas, Brothers	7,745	0	0
Ashby and Horner	7,300	0	0
Myers	6,793	0	0

For St. Jude's Schools, Mildmay-park, Newington; Mr. A. D. Gough, architect. Quantities not supplied: –

Carter	£2,587	0	0
Nash	2,437	0	0
Dove, Brothers	2,400	0	0

TO CORRESPONDENTS.

"W. A."–"F. T."–"G. W."–"W. H. B."–"J. H."–"J. M."–"Mrs. P."–"M. E. H."–"J. S."–"J. E. H."–"M. I. B."–"J. L."–"J. L. B."–we do not know of any such.–"J. G."–"Capt. N."–"W. H."–"R. P."–"G. J. R."–"R. C."–"W. T."–"H. N. G."–the subject for medal at the Royal Academy is usually suspended in the Hall.–"Sir F. G. M."–"W. N."–"G. B."–"*Pro Bono Publico*" (may justly charge for the first set of drawings).–"H. W."–"W. B."–"C. W."

"*Books and Addresses.*"—We are forced to decline pointing out books or building addresses.

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ADVERTISEMENTS.

A SOLICITOR, in extensive practice in an active and improving town in the Midland Counties, has a Vacancy for a well-educated Youth, as an ARTICLED PUPIL.–Address, K. L. M. "Advertiser" Office, Warwick.

TO PARENTS AND GUARDIANS.

AN ARCHITECT, in practice at the West-end, has a VACANCY in his Office for a well-educated Youth, with a natural taste for drawing.–Address, DELTA, Office of "The Builder."

CLERK of WORKS.—Wanted immediately, in an office, a CLERK. A middle-aged man would be preferred. The situation is first-class and will be a comfortable and permanent one. Wages to commence at 25s per week. Application to be made in writing, stating how employed. Address, C. H. 29, St. John-square, Clerkenwell.

CEMENT TRADE.—WANTED, a TOWN-TRAVELLER, who has a connexion among buyers and a knowledge of the trade. Applications, by letter only, to be addressed to A. Z. V. care of Messrs. Pottle and Son, 14, Royal Exchange.

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THE ARCHITECT and SURVEYOR to two first-class Building Estates in the suburbs of London, has a VACANCY in his Office for a well educated, gentlemanly Youth as PUPIL; one of sufficient ability to be able, after a few years, to become associated in the business, will be preferred. Address, S. K. Estate Office, Prince Albert's New road, Kensington-gore.

TO PARENTS AND GUARDIANS.

MR. JAMES SOPPITT, Architect and Surveyor, Shaftesbury, Dorset, has an opportunity to receive into his office, a respectable, well educated YOUTH, as IN DOOR PUPIL, for such a term, to be agreed upon for a Loudon office, in order to give to one having some theoretical knowledge, a more intimate experience of practical surveying, valuing, and estimating. Detailed particulars of building trades and construction, the preparation of round sections, working drawings, specifications, and a methodical system of conducting the Clerk-part of office Facilities would be afforded for private study, and for visiting, and sketching from objects of architectural interest in the neighbourhood.—Premium moderate.

WANTED, for the Stockport Borough Gas-works, a MANAGER, whose age shall not exceed fifty years. He will be required to devote the whole of his time to the duties of his office, and enter thereon on the 1st January, 1856. Sealed applications, with testimonials and such references as to present occupation, to be addressed to the Chairman of the Gas Committee, Millgate Works, Stockport, on or before WEDNESDAY, the 26th DECEMBER instant, endorsed, "Application for Gas Manager." Salary, 250l per annum.

JOHN VAUGHAN, Town-clerk.

Stockport, December 8, 1855.

WANTED, a CLERK of the WORKS, to superintend the completion of a STONE RESERVOIR, at Llanelly.—Applications, with testimonials, may be addressed to J. H. TAUNTON, Esq. C.E. Brunswome House, Stroud, Gloucestershire.

WANTED, a respectable Young Man as FOREMAN, to take the management and keep the accounts of a Building Business and Timber Yard. Reference required for the last two or three years.—Apply to Mr. J. SUDBURY, Jun. Walstead, Essex.

WANTED, by the Woolwich Equitable Gas Company, a SUPERINTENDENT. He must be thoroughly qualified to take charge of the works, and superintend the laying of mains and services, and to inspect gas fittings; he will also be required to take the meters. Salary, 180l, with residence, coals and gas. Applications, with testimonials, to be sent on or before the 22nd JANUARY next, to the Secretary of the Company, Mr. G. HUDSON, Brewer-street, Woolwich.

WANTED, by an ARCHITECT and SURVEYOR in the City, holding appointments, an OUT DOOR PUPIL, to whom will be afforded practical advantages for learning the profession.—Address, S. E. Office of "The Builder."

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A GENTLEMAN, who has been two years out of his articles, engages as an Assistant, is anxious to enter the office of an Architect and Surveyor, having a good practice, where he could extend his knowledge of the professsion Good references given as to ability, &c.—Address, D C L. 20, Bouverie street Fleet street.

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WANTED, by a practical and experienced Man a SITUATION, as GENERAL or SHOP FOREMAN. No objection to the country.–Address, R. J. Office of "The Builder"

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A YOUNG GENTLEMAN of first-rate ability and practical knowledge, desirous of an ENGAGEMENT after Christmas, in London or the provinces. He is thoroughly efficient as a surveyor, and well acquainted with civil engineering in its general application, is a superior surveyor, leveller, and segmental draftsman. Highly satisfactory references can be given. As employment in a good office is an object, a salary of four guineas per month will be accepted.—Address to Mr. FRIEND'S, Hambledon, Hampshire.

A FIRST-RATE ARCHITECTURAL DRAUGHTSMAN and SURVEYOR will shortly terminate his present engagement, and would be glad to meet with a gentleman requiring efficient assistance, or to take the active management of an office with a view to a partnership. The advertiser is excellent in design, perspective, and detail; practically conversant with the manipulation of wood, iron, and stone work; is a capital artist; thoroughly efficient in land and building surveys, taking off quantities, &c. and is a good accountant. Address, X. Y. P. No. 2, Bouverie street, Fleet-street

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A PERSON who has had great practical experience in setting out, levelling, and the construction of railways church building as clerk of works, as well as prison, infirmary, and other public buildings, will be disengaged in a week, and will be glad to serve any of the above gentlemen in the same profession.—Address, E. F. G. Office of "The Builder."

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A GENTLEMAN, aged 27, a good land surveyor and valuer, accountant and correspondent, with a good knowledge of farming, is now OPEN to an ENGAGEMENT. Reference to last employer (a nobleman's agent). Liberal salary expected. Address, W. B 96, Hatton-garden.

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THE Advertiser desires temporary EMPLOYMENT in town or country, in making up books and accounts, estimating, &c. Not averse to assisting in decoration, or the painting of glass. References as to capacity and character, if required.—Address, B. Mr. Peerman's, Hermitage, Emsworth, Hants.

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TO BUILDERS, SURVEYORS, AND CIVIL ENGINEERS.

THE Advertiser, aged 22, is open to an ENGAGEMENT, as a neat draughtsman, accustomed to assist in preparing parliamentary working drawings, taking out quantities, and the ordinary routine of an office, and has a knowledge of surveying and levelling. A moderate salary only expected, if in an office where opportunities of improvement would be afforded.–Address, E. S. City News-room, Cheapside.

A PRACTICAL MAN, who is an accurate DRAUGHTSMAN, accustomed to the management of workmen will be shortly disengaged and requires a SITUATION as GENERAL FOREMAN to a BUILDER, or Clerk of Works, or General Superintendent on an Estate.–Address, A. Z. 4, Carthus-street, Charter House square, City No objection to a country town, or to go abroad

N B Good testimonials.

TO SUB-CONTRACTORS or OTHERS possessed of a small capital.—A person who has an extensive sub-contract in the country, comprising earthwork, masonry, brickwork, &c. is wishful for some one to join him as partner or otherwise who can advance for instance the sum of three hundred pounds or upwards. Respectable references will be given and required.—Address to G. R. care of Mr. HARRISON, 32, Clifton-crescent, Asylum road, Old Kent-road, London

HANDS'S PATENT ECONOMISING KILN is the only simple and efficient mode to use the Lead, for drying moist moulded clays, sound in any season, in time of burning and cooling the kiln, with perfect ventilation — Address to Mr. JOHNSON HANDS, Brick and Tile Works, Epsom.

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The UNIQUE CHIMNEY-POT (Multum in Parvo), a Remedy against Smoky Chimneys, unsightly, and danger in Contrivances. Is inclosed at the top, has a division and double outlet, preserves the flue dry, and will not clog with the soot.

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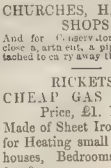

SMOKY CHIMNEYS CURED EFFECTUALLY for TEN SHILLINGS, by SUTER'S PATENT WIND-GUARD. This Guard allows a free egress to the smoke, prevents the wind blowing down the mouth of the chimney, and is not liable to be injured by the most boisterous weather.

To be had of Ironmongers and Builders; and of the Patentee, at his Office, 65, Fenchurch-street, London.

NO CHIMNEY WANTED for RICKETS'S PATENT CALORIFERE GAS STOVES in CHURCHES, HALLS, or SHOPS;

And for Nurseries, or any close apartment, a pipe can be attached to carry away the burnt air

RICKETS'S CHEAP GAS STOVE, Price, £1. 15s. Made of Sheet Iron, suitable for Heating small Countinghouses, Bedrooms, Cellars, &c. &c.

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Liberal Discount to Builders.

DAMP WALLS.

STENT'S COMPOSITION FOR PREPARING NEWLY-PLASTERED OR DAMP WALLS FOR PAPERING,

is the result of practical experiments and long experience; it is unfailing in its application. Entire houses have been papered a few days after plastering. In repairs of old plastering it is invaluable. A moderate room can be papered for 3s. 6d.

Prepared only by W. J. STENT, Warminster.

London Agents: Messrs. GEO. and THOS. WALLIS, 64, Long-acre. Agent for Ireland: Mr. S. BOYD, 46, Mary-street, Dublin.

HUBBUCK'S PATENT WHITE ZINC PAINT,

The Permanent White of the Ancient Artist.

HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. This Powdered White Zinc may be had for grinding in Oil; also for Plaster fine rations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK, LONDON—PATENT. And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

N.B. OLD ZINC AND ZINC CUTTINGS BOUGHT TO ANY EXTENT.

PORTLAND CEMENT WORKS, NORTHFLEET, KENT.—Messrs. ROBINS and CO. with much pleasure announce to their Friends and the Public, that they have completed the enlargement of their works in order to meet the great increasing demand for their Cement; and are now prepared to supply any quantity of the very best PORTLAND CEMENT, manufactured by them for all the purposes Cement is applicable.—Orders received at Great Scotland-yard, and at the Works.

PORTLAND CEMENT.—FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the British and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and CO. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

Dated St. Mary-street, Bridgewater, July 26th, 1854.

PORTLAND CEMENT WORKS, NORTHFLEET, Kent.—KNIGHT, BEVAN, and STURGE, Manufacturers only of first-class quality, for the home and foreign trade. Portland cement is manufactured at these works with especial reference to its destination, whether for stuccoing, brickwork, blocks for breakwaters, tidal work, or otherwise.—London Wharf, Belvedere-road, Lambeth.

ARTIFICIAL HYDRAULIC or PORTLAND CEMENT combines the valuable qualities of the natural cements with the additional advantage that it greatly excels them in its cementitious properties; that it is not affected by frost, and does not vecetate in damp situations. Account of COMPARATIVE EXPERIMENTS on the strength of this and other Cements read at the Institute of Civil Engineers, to be obtained from the Makers, JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster, who prepare one quality only of Portland Cement.

CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, can be had in any quantity, Wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent. N.B. These Cements supplied on shipment, on advantageous terms.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BREESE, and TREE, Manufacturers of Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

GEO. & THOS. EARLE, CEMENT MANUFACTURERS, HULL, Light and Dark, equal to any made. Manufacturers also, and Dealers in Plaster, Paris White, Mastic, Hair, Lias Lime, Laths, Slates, and Slate Slabs, Firebricks, Grindstones, Cement Chimney-pots, ditto Vases, Ridging, &c. Paints, Stucco, &c. Marble Merchants and Importers of Pozzolano.

NOTICE.—M. H. BLANCHARD, 74, Blackfriars-road, London, Manufacturer of PLASTER of PARIS of a superior quality, suitable for Sculpture, Architectural Embellishments, &c.—will not twist, warp, or give after set, but will retain its hardness and strength.

Superfine, per ton	£7 0 0
Fine	3 0 0
Coarse	2 10 0

Delivered for Cash to any of the Metropolitan Railway Stations, or within the Metropolis.

KEENE'S and PARIAN CEMENTS and FRENCH PLASTER, for internal uses. These well-known hard Stuccoes dry quickly, and can be painted upon within a few days.—Made and sold by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster.

MEDWAY LIME and CEMENT WORKS, LOWER HALLING, near Rochester.—T. H. BOORMAN, M.I.C.E., and CO. beg to inform the public and trade generally, that they have completed their new feature for the manufacture of PORTLAND CEMENT, and from their contiguity to the river Medway, as well as the branch line of the South-Eastern Railway from Strood to Maidstone, a siding from which will be carried into their works, enabling them thereby to transmit any orders they may receive to any station on the before-mentioned line, and confidently hope they shall be able to supply the public with a first-rate article, in both cement and lime, on moderate terms. Persons sending orders for cement, are respectfully requested to say for what purpose it is required, and printed instructions will be affixed to the head of each cask.—Orders to be addressed to Mr. THOMAS WEEKES, Agent at the Works.

Agents in London:—Messrs. GEORGE POTTER and CO. Lime Merchants, Purfleet Wharf, Blackfriars; and 19, North Wharf-road, Paddington.

TO BUILDERS, CONTRACTORS, SHIPPERS, and Others.

G. BURGE, JUN. ROMAN and PORTLAND CEMENT MANUFACTURER, Crown Wharf, Great Scotland yard, Westminster.

DAVIES and NORMAN, Agents.

Cements, Plaster, Lime, Bricks and Tiles, Sand, Fire Goods, &c. &c. of superior quality, and at reasonable prices.

GLAZED STONEWARE DRAIN-PIPES, CLOSET-PANS, &c. IN EVERY VARIETY.

PORTLAND CEMENT.—JAMES WESTON having enlarged that portion of his CEMENT WORKS on Mill-wall, Poplar, for Manufacturing the above CEMENT, begs to inform the Trade in general that they can be supplied with any quantity they may require, either at his Works, St. Andrew's Wharf, Earl street, Blackfriars, or Middle Wharf, Scotland-yard, Westminster. Manufacturer of Roman, Lias, and Zastic Cements, English and French Plaster, &c.

BATH, PORTLAND, and ROMAN CEMENTS, GROUND and LUMP HYDRAULIC BLUE LIAS LIME.

The LONDON and WEST of ENGLAND CEMENT COMPANY can offer to the trade the best Hydraulic Cements, at reduced prices, the material being excavated in its pure and unadulterated state, from quarries on their own property. The company particularly recommend a trial of their XXXX Bath Cement, as far superior to any article now in the market. These cements can be sent by rail or shipped from their wharf, direct to all parts.—Agents required, and a liberal discount allowed. Orders received by RICHARD WINTER (Manager to the Company), Cement Works, Dunball Bridgewater.

PORTLAND and ROMAN CEMENT, TERRA-COTTA POTS, &c.—J. M. BLASHFIELD begs to acquaint the Public that he has entirely CLOSED his Establishment on the Surrey side of the Thames, and that Articles of his manufacture can only be obtained at his Works, Mill-wall, Poplar, or at his Warehouse, Praed-street, Paddington.

ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring.—Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool.

NOTICE.—BLUE LIAS LIME.—L. B. PEARSE and CO. beg to inform Architects, Engineers, Builders, and Contractors generally, that they have now accepted the AGENCY for the above valuable HYDRAULIC LIME, from the original quarries, Stockton, Warwickshire, and are now supplying direct from the works in their own boats, at a reduced rate.

L. B. PEARSE and CO. beg further to give notice to consumers, that they have erected, at a considerable expense, large buildings and machinery for grinding lime and cement, so as to ensure genuine quality and large supply, at their extensive premises, situate on the Great Northern Railway, York-road, Kings-cross.

GREY STONE LIME WHARFS, 12, UPPER GROUND-STREET, Blackfriars (Surrey side), 7, NORTH WHARF-ROAD, Paddington.

WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, per barge direct from the kilns.

Large Grey Stone, or Grey Chalk, free on board at Works, 1s. 9d. per ton.

Small ditto, ditto, 4d. per ton.

Barges loaded in a few minutes.

Wouldham-hall Grey Stone Lime Works, on the Medway, near Rochester. March 31, 1855.

NOTICE.

GREAVES'S BLUE LIAS LIME and CEMENT, 6, South Wharf, Paddington-basin, London, March 20, 1855.—CHARLES RICHARDSON hereby informs his friends he has taken another Wharf adjoining, especially to keep a LARGER STOCK of the above valuable HYDRAULIC LIME always on hand, that in future all orders may be punctually attended to. Orders for export, or alongside rivers, canals, or railway stations, should be given a few days before required.

GIBBS, CANNING, and CO.'s BLUE VITRIFIED BRICKS, PIPES, JUNCTIONS, BENDS, and FIRE GOODS.

ROMAN, PORTLAND, PARIAN, ANSTON, and LIAS CEMENTS of the best quality.

SECONDS, PAVIORS', STOCKS, and other BRICKS.

PORTLAND CEMENT.

CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

GREAVES'S BLUE LIAS LIME.

CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

BATH CEMENT.

CHARLES RICHARDSON,
6, SOUTH WHARF, PADDINGTON.

TATHAM & CO.—No. 14, SOUTH WHARF, PADDINGTON,
BRICK, LIME, and CEMENT MERCHANTS,
SOUTHAM BLUE LIAS LIME DEPOT.

Bath, Portland, Lias, and Roman Cements; Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewage Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

N.B. Lump and Ground BLUE LIAS LIME delivered in barge loads direct from the Works in Warwickshire, to any part of the river or canal.

SOUTHAM BLUE LIAS LIME DEPOT, No. 14, SOUTH WHARF, PADDINGTON.

TATHAM & CO. have arranged for a constant supply of the above very superior BLUE LIAS LIME, which for the last two years has been extensively used at most of the large works constructed during that period or now in hand, and any orders they are favoured with will command their best attention.

Boatloads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the Rivers Thames or Lee, alongside any wharf on canal, or by boat or rail to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to No. 14, SOUTH WHARF, PADDINGTON, will receive the best and most prompt attention.

31, George-yard, Lombard-street, City.

ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality, manufactured on the above works. Also STOCK and KILN-BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cement and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, 4, George yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

BEADON'S EAVES GUTTER TILES.—Mr. LAWES is prepared to CONTRACT for the ERECTION of the above TILES on roofs of all descriptions, in the neighbourhood of London, at 7d. per foot; above 100 feet, 6d.—Office, 1, Adelaide place, London-bridge.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 1, Adelaide-place, London-bridge. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

PRIZE BRICK-MAKING MACHINE.—CHAMBERLAIN'S PATENT.—This portable machine will make 20,000 solid bricks per day, with 3 horse power. One man to feed the machine with clay, and boys to remove the bricks. Was awarded a silver medal by the Liverpool and Manchester Agricultural Society, at St. Helens, September 6th; a silver medal by the Staffordshire Society at Leek, September 27th; and a prize at Worcester, October 5th, 1855.—Apply for particulars to Mr. HUMPHREY CHAMBERLAIN, Kempsey, Worcester.

THE PATENT BRICK-MACHINE COMPANY invite ORDERS for their improved machines, the only ones that manufacture solid bricks equal to hand-made. A machine, and bricks made by it, may be seen in a field near London.

H. C. MOUNT, Secretary.

37, King William-street, City.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 23s. per thousand; Grizzles, 26s. per thousand; Rough Stocks, 30s. Place, 15s.—Terms, cash on delivery. Apply to Mr. G. SMEED, Sittingbourne, Kent.

THE BEST HERTFORDSHIRE MALM SECONDS;
THE BEST WHITE SUFFOLK and RED FACINGS;
DEEP-RED RUBBING BRICKS.
Also COWLEY and KENT STOCKS, in any quantity.
J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY
(Within a short distance of the five bridges).
THE BEST MALM-CUTTERS, SECONDS, PICKINGS, and FACINGS, in any quantity.
Also, STOCKS, of FIRST QUALITY.
J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS,
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE, 8, ADELAIDE-PLACE, London-bridge.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Sewage-pipes, Closet-pans, Furnace-blocks, Fire-bricks, Gas-retorts, Crucibles, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the pipes are made by the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-bricks have been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London markets, upon favourable terms.

Lists of price and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.

London Agent: J. COX, 2 and 3, High street, Lambeth.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—L. B. PEARSE and CO. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

Depôt, Agar Wharf, King's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c. Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent—Mr. J. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good and sound quality, constantly on sale at H. DODD'S Brickfields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brickfields, entrance-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKFIELDS, in good working order, TO BE LET, about half a mile from the Forest-hill Station, Sydenham.—Apply to Mr. C. PERCEVAL TITT, Solicitor, 1, Angel-court, Throgmorton-street, London.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c.—Messrs. MEESON and CO supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk chalk rubbish, gravel, loam for foundries, &c. &c. Whiting of the best quality, lime, both white and flare, bricks, fire goods, &c. can be obtained at Messrs. MEESON'S Wharf Kilns at Bow-bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 52s. 6d per 1,000; floor bricks and 6 inch pavings, at 37s 6d. per 1,000; 8-inch pavings, at 37s 6d, per 1,000; plain tiles, at 35s. per 1,000, delivered Cash prices. Delivered on trucks in London on Eastern Counties Railway.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin. Also that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 581, of the Great Exhibition, runs for Manufactories known so long as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

MINTON and CO.'S ENCAUSTIC and other PATENT TILES, for Churches, Entrance Halls, Conservatories, Balconies, &c; Antique, Geometrical, and Alhambric Mosaics, manufactures of a highly decorative character, and extreme durability, Slabs and Tiles for Fireplaces and Hearths, Copings for Grates, Door Furniture, White Glazed and Ornamental Tiles for Baths, Dairies, and Kitchen Ranges, may be had in great variety at their Warehouse, 9, Albion-place, Blackfriarsbridge, London; and at their Manufactory, Stoke-upon-Trent, Staffordshire.

THE RAILWAY SWITCH and CROSSING COMPANY.—Directors of Railways, Engineers, and Manufacturers, are informed that the Offices of the Company are removed to 101, St. Martin's-lane, Charing cross, where, on application, every information will be afforded respecting their Patented Improvements in Switches and Crossings, now so universally adopted.
WILLIAM DEMPSEY, Manager.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster.
The Second Edition of this Company's Circular, just published, is now being forwarded, post free, to Directors, Engineers, Managers, and others interested in Railways.
The Circular contains Engravings, detailed Estimates of cost of construction, and descriptions of many valuable Patents, with the latest results of experience in the working of the various patented systems of Permanent Way, either the property of, or worked by the Permanent Way Company.
These patented systems are now adopted by Companies owning several thousand miles of Railway, are approved of by most of the eminent Railway Engineers, in this country and abroad, and the system of Fish jointing is in particular, is now nearly the only sanctioned approval of H. M. Commissioners of the Board of Trade and their Inspecting Officers.
The Permanent Way Company are prepared to grant licenses on liberal terms, to Railway Companies and Manufacturers for the use of all or any of the Patented Inventions, which have for their object the safety and comfort of the travelling public, and economy in construction of the Road and Rolling Stock.
That the objects are accomplished, the following extracts will confirm:—
"There can be no doubt that the practice of Fishing the Rails, which is found to answer so well, is a great addition to safety; the principle cannot be too much encouraged."—Extract from Report of Colonel Wynne, R.E. Chief Inspector of Railways to H. M.'s Commissioners of the Board of Trade, dated April 27th, 1854.
"My Lords direct me to observe, that they trust that the remarks of the Inspecting Captain Galton, R.E., Secretary to the Railway Department of the Board of Trade, in reference to the foregoing Report.
"Dear Sir,—In reply to your favour of the 1st instant, I beg to say that I experience no difficulty whatever in keeping the nuts of the bolts tight."—Extract from a letter by Mr. A. Wood-house, Engineer, of the London and North Western Railway.
"I would, however, beg to state that, in point of safety, the first and most essential element of Railway working, Fish Joints, on your system, is in my opinion *indispensable*.—Extract from letter of Mr. J. E. M'Connell, Locomotive Engineer of the London and North-Western Railway.
"On a district of about thirty miles, where the greatest length has been Fished, the saving in labour of maintenance amounts fully to thirty per cent."—Extract from Mr. R. Sinclair Hood, Engineer to the London, Brighton, and South-Coast Railway.
Among others, the Company call attention to the following Patents recently placed under its management:—Mr. William Pole's important Improvement in Fish Joints, and Mr. Paul Prince's Improvements in moulding Railway Chairs.
Licenses, and every information, may be obtained upon application to CHARLES MAY, F.R.S, Managing Director of the Company, 26, Great George-street, Westminster; or to WILLIAM HOWDEN, Secretary.

CHAS. MACINTOSH and CO. Patentees of the VULCANIZED INDIA-RUBBER, and GENERAL MANUFACTURERS OF WATERPROOF, AIR, and ELASTIC RUBBER GOODS beg to inform all persons who desire to correspond with them direct, that their SOLE ESTABLISHMENTS are No. 3, Cannon-street West, London, and Cambridge-street, Manchester. This notice is necessary, as the term Macintosh Depôt, Macintosh Warehouse, &c is frequently adopted both in London and the country by vendors of India-rubber goods, who deal in articles not of the manufacture of CHAS. MACINTOSH and CO.—Goods manufactured by CHAS. MACINTOSH and CO. are stamped with the name of the firm.

HANCOCK'S PATENT VULCANIZED INDIA-RUBBER TUBING, HOSE-PIPES, WASHERS, ENGINE-PACKING, both round and flat, and SOCKET-RINGS, for Hot-water-pipes. Vulcanized Rubber Door-springs, and Solid Round Rubber Cord of all sizes of any length. Billiard Cushions and Rubber Strips cut to any pattern for bagatelle tables.
Diving-dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.
Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.
N.B. All communications and orders punctually attended to, addressed to the Manufactory, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

DURABILITY of GUTTA PERCHA TUBING.—Many inquiries having been made as to the Durability of Gutta Percha Tubing, the Gutta Percha Company have pleasure in giving publicity to the following letter:—FROM SIR RAYMOND JARVIS, Bart., VENTNOR, ISLE of WIGHT.—Second Testimonial.—"March 10th, 1852. In reply to your letter, received this morning, respecting the Gutta Percha Tubing for Pump Service, I can state, with much satisfaction, it answers perfectly. Many Builders, and other persons, have lately examined it, and there is not the least apparent difference since the first laying down, now several years, and I am informed that it is to be adopted generally in the houses that are being erected here."
N.B. From this Testimonial it will be seen that the CORROSIVE WATER of the ISLE of WIGHT has no effect on Gutta Percha Tubing.
THE GUTTA PERCHA COMPANY, PATENTEES, 18, WHARF-ROAD, CITY-ROAD, LONDON.

TIMBER.—TO BE SOLD, 3,000 cubic feet of ELM, of large scantling and good quality; also 2,000 cut in feet of LARCH, of large dimensions. Carriage by rail very convenient; water carriage close at hand. Apply to Mr. LANGFORD, Mapledurham, Reading

NOTICE.—WILLIAM MARSHALL solicits the attention of Pianoforte, Cabinet Manufacturers, and the Trade generally to inspect his fine and well-selected STOCK of WALNUT, R. SEWOOD, and MAHOGANY VENEERS, and SOLID WOOD, at his Timber-yard, Vincent-street, Old-street-road, London.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY begs to inform the Trade, that he has REDUCED the PRICE of YELLOW DEALS 3/. p. 120, and solicits their attention to the following low prices:—

Yellow Deals	From £24	0 p. 120
Spruce ditto	" 18	0 "
Pine Planks, 18 ft. 3 in. by 11	" 24	0 "
Spanish Mahogany, in logs	" 7½d.	per ft.
Honduras Mahogany, in logs	" 4½d.	"
Yellow Battens	" £12	10 "

Prepared flooring and cut stuff of every description at equally low prices. A list forwarded on receipt of postage stamp
Borough-road, Southwark; and Elm-street, Gray's-inn-lane.

SEASONED FLOORING.—GEO. NOKES and CO. late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

½ inch White, 13s. 6d. per square.		½ inch Yellow, 10s. per square.	
¼ ditto 15s.	"	¼ ditto 16s. 6d.	"
ditto 18s.	"	ditto 20s.	"

Laths, 3/6 per load.
Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.
ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.
Address, E. SIMMS,
SAWING, PLANING, AND MOULDING MILLS,
King's-road, Chelsea, and Wilton-road, Pimlico.

EDWARD SIMMS begs to inform builders and the trade, that he has now on hand at his manufactory (the first of its kind ever established), a large assortment of PREPARED FLOORS and MATCH BOARDING, seasoned, and ready for use, from 5-inch to 14 inches thick, in White or Yellow Deal, Oak, or Pitch Pine. Also Dry Deals, in all thicknesses, Slating Battens, Double Lids, One Cills, Plank, and Scantlings. Mouldings in clean Pine, to any design. A pattern list forwarded on application.—Address, E. SIMMS, Flooring Manufactory, Wilton-road, Pimlico; and Sawing, Planing, and Moulding Mills, King's-road, Chelsea.

A CORN TIMBER WHARF.—AT RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Kingsland-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floor boards, mouldings, pine and fir cut deals, slating battens, laths English oak plank, and sash sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble imitation for chimney-pieces, tombs, and every description of marble and stone work also manufactured by patent machinery. NEW WORKS, No. 26, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, near the 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps.—Please note the address 26, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

MACHINE CARVING, JOINERY, and MOULDING WORKS Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the Building, Joinery, Cabinet, Builders, Cabinet-makers, and others generally requiring Carved and Moulded Works, that he is now enabled to execute any orders (if at once he entrusts it to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed in the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished upon application.

FOREIGN PARQUET FLOORS.—Handsome and thoroughly seasoned floors, of one-inch wainscot, in pattern, one shilling per foot.—HIGGS and CULLINGFORD, 59, Davies-street, Berkeley-square.

TO BUILDERS AND OTHERS.
AT the LOWEST PRICES.—TIMBER, DEALS, MAHOGANY, and WAINSCOT. A large assortment of seasoned prepared FLOORING and MATCH-BOARDING of all descriptions. Also an extensive stock of Dry White, Yellow, and Pine Cut Stuff, Slating, Battens, Pantile Laths, Oak Plank, Sash Cills, &c. Timber of all kinds, Deals, and Battens, fetched from the docks, sawn by patent machinery in the best manner, and delivered at the shortest notice.—THOMAS JACKSON, Sawing and Planing Mills, Commercial-road, Pimlico, London.

FRENCH POLISH and SPIRIT VARNISHES made from Methylated Spirit, 60 over proof.

Best French Polish	6s. 6d. per gallon.
Spirit Varnish	6s. 6d. "
White French Polish	10s. 6d. "
Methylated Finish	6s. 6d. "

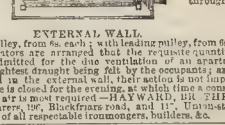
By JAMES SLIPPER, 87, Leather-lane, and 14 and 15, Dorrington-street, Holborn, London.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country—an extensive assortment of specimens and patterns commencing at 1s. per foot superficial, or with every part clear of its cost and adaptation, can be obtained of Mr. BURT, 8, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO. 80, New Bond-street.

PAVING, 2s. 9d. per SQUARE YARD.—Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.
Apply to JOHN PILKINGTON, PORTLOCK'S BITUMEN PAVEMENT OFFICE, MONUMENT CHAMBERS, 14, FISH-STREET-HILL.
N.B. Country Agents and Railway Engineers and Contractors, supplied with the best bitumen for covering Bridges and Arches

CROGGON and COMPANY, Manufacturers of PATENT ASPHALTE ROOFING, BOILER, RAILWAY, SHEATHING and INODOROUS FELT, For Damp Walls, and Lining Iron Houses, 2, DOWGATE-HILL, LONDON

VENTILATION.—PURE AIR.



With a single pulley, from 6s. each; with leading pulley, from 6s. 6d
These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants; and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BRAIRE, sole Manufacturers, 196, Blackfriars road, and 11, Union-street, Borough; and of all respectable ironmongers, builders, &c.

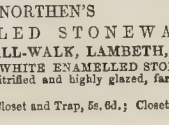
TO DRAUGHTSMEN AND CIVIL ENGINEERS.
H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 148, Fleet-street, London.
These Pencils are prepared in various degrees of hardness and shades.

H H H for drawing on wood.	F F light and shading.
H H H for architectural use.	F for general use.
H H for engineering.	B black for shading.
H for sketching.	B B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
	B B B B ditto ditto.
M medium.	

Sold by all the principal Stationers in town or country.

TARPAULINS for COVERING ROOFS during Repairs. SCAFFOLD CORD and every description of ROPE used by Builders upon the lowest terms. Marquees and temporary Awnings on sale or to hire. Orders per post receive the most prompt attention.—WILLIAM PIGGOTT, 115, Fore-street, City, Manufacturer, by appointment, to her Majesty's Honourable Board of Ordnance.

TO WATER COMPANIES AND PLUMBERS.
BURDEN'S PATENT HIGH-PRESSURE COCKS. These cocks are remarkably simple in their construction, very durable, cheap, not liable to get out of order, and have been most successfully used for a period of three years, under a continuous head pressure, varying from 30 to 150 feet.



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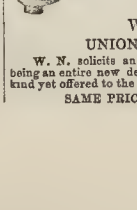
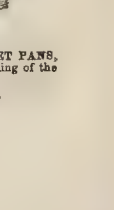
STEAM PRESSURE GUAGES.



The most approved and suitable Instrument for Colliery, Railway, and other Boilers, is

WEBSTER'S PATENT,

MANUFACTURED ONLY BY GRAY AND BAILEY, BIRMINGHAM,
From whom the fullest information may be obtained.
Orders from Collieries should be given without delay, as the new law in respect to Coal-mines comes into operation the 31st December instant.



WILLIAM NORTHEN'S
WHITE ENAMELLED STONEWARE,
UNION POTTERY, 14, VAUXHALL-WALK, LAMBETH, LONDON.
W. N. solicits an inspection of his IMPROVED WHITE ENAMELLED STONEWARE CLOSET PANS, being an entire new description of stoneware, perfectly vitrified and highly glazed, far surpassing anything of the kind yet offered to the public.
SAME PRICE AS BROWN STONEWARE—Closet and Trap, 5s. 6d.; Closet, 3s. 6d.; Trap, 2s.

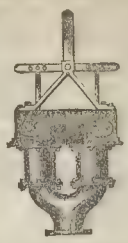
FOWLER'S
IMPROVED FARM AND COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, at 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks, and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM



AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction.

Wrought-iron Pails, Galvanized or Painted.

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly.

HENRY MILLICHAMP,

MANUFACTURER OF

GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.

65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES, COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-Trap, 5s. 6d. each.

Whole Socket.

A LARG ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.

Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock

Half Socket

Watercloset Pan with Syphon-Trap connected, price 8s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.

"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthanware Drain pipes, at greatly reduced prices. (1179)

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

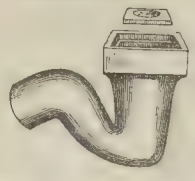
LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.

Pan, 3s. 6d. Trap, 2s.

STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.



HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Danver's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, Kings-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brickers, 2, Bryden-street, Covent Garden; and at EDWARD COCK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

THE FARNLEY IRON COMPANY, WORTLEY, near LEEDS.

Manufacturers of FIRE BRICKS, TILES, QUARRIES, &c., White Building Bricks, Fire-clay CHIMNEY-TOPS, in Norman-Egyptian, Saxon, Tudor, Grecian, Gothic, and Elizabethan styles

TERRA COTTA

Fountains, Vases, Pedestals, Capitals, Trusses, Brackets, &c., in great variety, which for beauty and elegance of design are unequalled The designs of Architects modelled with the greatest exactness.

Also of PATENT GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, &c., well adapted for pressure, being made extra pressed under "Spencer's Patent." Superior White Glazed CLOSET PANS, TRAPS, &c.

The Works of the Company are situated in the immediate vicinity of the well known bed of WORTLEY FIRE-CLAY, and their manufacture of BRICKS, for the use of Forges, Gas Companies, Foundries, Potteries, and Glassworks, is confidently recommended for all purposes where extreme heat is required. Their GROUND CLAY is also particularly adapted for the manufacture of CRUCIBLES, MELTING POTS, &c.

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LONDON .....No. 14 York chambers, York-buildings, Adelphi; No. 16, Bath-place, New-road, St. Ann's-wharf, Lambeth-e.
BIRMINGHAM..No 7, Easy-row; also 22, Cambridge-street, and Lawley-street.
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LEEDS .....Wellington-street, adjoining the Midland Station; and Shipping-wharf, Victoria-works, Hunslet;
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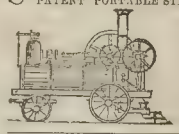
Where Drawings, with Prices, &c. may be obtained.

ENGINES.—For SALE, THREE 12-horse high-pressure horizontal ENGINES, admirably suited for winding; 12-inch cylinders, metallic pistons, either with or with out boiler. Also two powerful double-purchase CRABS, capable of lifting 30 tons each Also a wrought-iron TANK, 30 feet by 4 feet, by 4 feet, 3/8 plates. Apply, by letter, to No. 30, BOX, Post-office, Derby.

PUMPING MACHINERY. — Lifting and Forcing Pumps, Patent Centrifugal and Double acting Pumps, Deep Well Pumps, Steam-Engines portable and fixed, machinery of the most approved construction, manufactured and supplied by GWYNNE and Co. Hydraulic and Mechanical Engineers, Essex-wharf, Strand London.

STEAM PUMPING ENGINES.—PATENT PORTABLE STEAM ENGINES, from four to ten-horse power, always ready to let on hire, by the week or month, for pumping, sawing, pile-driving, raising materials, &c &c



Contracts taken for pumping any quantity of water.

JAMES BURTON & SONS,
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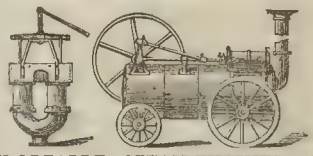
PORTABLE STEAM-ENGINE. — A new 8-horse PORTABLE STEAM ENGINE, with tubular boiler, for SALE.—Can be seen at work at Mr. GOODWIN'S, 67, Great Guildford street, Southwark, of whom particulars may be obtained.



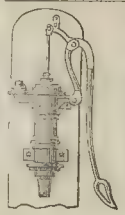
PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

PUMPING and WINDING ENGINE.—TO BE LET on HIRE, or for SALE, a nearly new strong and simple PUMPING and WINDING STEAM ENGINE, of 10-horse power, by Medwin and Hall, with a pair of 10-inch pumps and all the driving gear complete The contractor for whom it was fitted up will make a considerable sacrifice on the cost price, or let the whole on hire.—Apply to Messrs. MEDWIN and HALL, Engineers, Surrey Iron Works, 92, Blackfriars-road.

TO BUILDERS AND PLUMBERS.

The attention of the Trade is called to JOHN WARNER & SONS'

PATENT VIBRATING STANDARD PUMP,



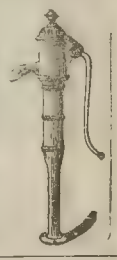
which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard, the cumbrous carriage and expensive cranes and rails are unnecessary, rendering the price considerably less than Pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 25 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS,
8, Crescent, Jewin-street, London,
Manufacturers and Patentees.

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.



Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pumps for deep wells.

PUMPS ON HIRE.

Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B The above can be worked either by hand, horse, or engine power.

Iron Pails 28s. per doz. painted.
Ditto .... 48s. per doz. galvanized

Upper Ground-street, Blackfriars Bridge, Surrey Side.

TO WATER COMPANIES AND PLUMBERS.

HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

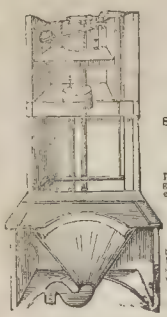
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.

Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1852

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

AYLESFORD POTTERY COMPANY,

BELVEDERE-ROAD, LAMBETH.

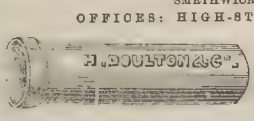
MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly seven years, and having from this period supplied DRAIN PIPES, &c. to some of the largest Works in, and around London, viz.—The New Cattle Market, Wellington and Chatham Barracks, Deptford Dock yard, Her Majesty's Commissioners of Works, &c. and in all instances parties using them expressing themselves satisfied therewith,—take this as a fair test of the quality of the articles supplied by them; and as they now feel themselves established as Potters, beg to offer their goods to Contractors, the Trade, &c. of a first-rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.

HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

SOCKET. 

HALF SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

REDUCTION IN THE PRICE OF CLOSET-PANS.

DOULTON AND WATTS,

LAMBETH POTTERY, HIGH-STREET, LAMBETH,

Have reduced the Price of their PATENT ENAMELLED CLOSET-PANS WITH TRAPS, to

5s. 6d.

These Pans, therefore, which have a strong Vitrified Body, as well as a White Interior Glaze, may now be obtained at the price of the commonest description of Closet-pans.

JOHN DOULTON, BROTHERS, AND CO.

LIVERPOOL POTTERY,

ST. HELEN'S.

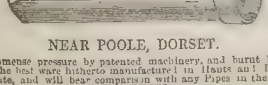
STORES—70, SOHO-STREET, LIVERPOOL.

MANUFACTURERS OF

DOULTON'S STONE-WARE PIPES.
DOULTON'S HALF-SOCKET PIPES.
DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS.
DOULTON'S PATENT JUNCTION BLOCKS.

TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

SALT-GLAZED STONEWARE PIPES, BENDS, JUNCTIONS, CLOSET-PANS, TRAPS, &c. at the



NEAR POOLE, DORSET.

These Pipes being made under immense pressure by patented machinery, and burnt by intense heat to an unusual degree of hardness, are very far superior to the best ware hitherto manufactured in Hants and Dorset; they are made of clay of the finest quality, the produce of the estate, and will bear comparison with any Pipes in the kingdom, and can be had upon application to

THE AGENTS:—

Mr. G. S. WHITTON, 17 and 18, Princes-street, Lambeth, London;
Mr. J. S. HUDSON, the Pottery, Bournemouth, Poole;

Where a large stock is always kept on hand.

LAMBERT'S SELF-CLOSING LAVATORY AND CLOSET VALVE. No. 7.

Is adapted for high or low pressure and for any kind of BASIN. Many hundreds are in use under pressures of from 30 to 300 feet, they are found to be extremely durable, and are cheaper than common cocks. Manufactured solely by the Patentees,

THOS. LAMBERT and SON,
Brass Founders and Engineers,
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N.B. No. 7, combined with a DOULTON'S PAN and TRAP, is the CHEAPEST COTTAGE CLOSET yet produced. Price, complete, 13s. 6d. each.

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9	"	"	"	"	8d. "
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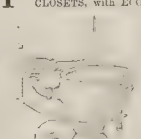

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Monuments, vases, and statues, finely executed in Italy.

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July 23, 1855. C. ADENEY, Secretary.

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WILLIAM W. BONNIN, London Secretary.

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This Granite is selected for the New Westminster-bridge.

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The Builder,

AN ILLUSTRATED WEEKLY PAPER FOR

Architect, Engineer, Operative & Artist.

VOL. XIII.—No. 673 | DECEMBER 29, 1855. | PRICE FOURPENCE Stamped 5d.

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Head-Master, R. R. TIETJEN.

The Course of Instruction pursued in the School have for their object the systematic training of teachers, male and female, in the practice of Design, and the principles of its scientific principles with the view of qualifying them to impart to others a careful Art-education, to develope its relation to the requirements of trade and manufacture and its application to the common uses of life. Special courses are arranged in order to qualify School-masters of Parochial and other Schools to teach Elementary Drawing as a part of General Education concurrently with Writing.

The Instruction comprehends the following subjects: Free-hand, Architectural, and Mechanical Drawing, Practical Geometry and Perspective, Painting in Oil, Tempera and Water Colours, Modelling, Moulding, and Casting. The Classes for Drawing, Painting, and Modelling include Architectural and other Ornament, Flowers, objects of still life, &c, the Figure from the Antique and the Life, and the study of Anatomy as applicable to Art. Also, Classes for instruction in the technical processes of China and Enamel Painting, Drawing and Engraving on Wood, and Lithography in Chalk and Colour. The two last classes for female students only.

Hours of Study—Morning, TEN to THREE; Evening, SEVEN to NINE, daily, except Saturdays. Fees 4l. per session, or part of the session. Evening Classes, 2l. per session.

The Class for Practical Geometry and Perspective, or that for Moulding and Casting, may be attended separately on payment of a fee of 1l. per session.

Students have full access to the valuable collections of the museum and library, either for consultation or copying, as well as to all the public lectures of the Department.

The school for female students not in training, is at 37, Gower-street, Bedford-square. Superintendent, Mrs. Mann. Fees per session,—Advanced Class, 3l. and 4l.; Elementary Class, 1l.; Evening Class, 10s.

Other information may be obtained on application at the Office of the Head Master, Marlborough House, Pall mall, London.

COMPETITIONS.

TO ARCHITECTS AND OTHERS.

THE BURIAL BOARD for the PARISH of LOUGHBOROUGH, in the county of Leicester, is desirous of receiving PLANS, DESIGNS, and ESTIMATES, comprising ground-plans, sections, and elevations, for laying out a new BURIAL-GROUND, of about 7 acres, planting and draining the ground, building a reception-house, curator's lodge, with entrance-gates and two suitable chapels, the expense of the buildings not to exceed 1,500l. The party whose plans, designs, and estimates may be approved, will be paid 10l. for the same, which will become the property of the Board; and all designs not approved will be returned. All plans, &c. must be delivered at the Offices of Messrs. H. and W. H. TOONE, in Loughborough aforesaid, free of expense, without the author's name, but with a motto, on or before the 10th day of JANUARY next addressed to me, and endorsed, "Designs, &c. for Loughborough Burial-ground." A sealed letter, containing real name and address, should accompany each design. The Board do not bind themselves to accept any design. A plan of the ground can be seen, the depth of draining required ascertained, and any further information may be had on application at the said Offices of Messrs. H. and W. H. TOONE. By order,

W. H. TOONE, Clerk to the Board.

Loughborough, December 13, 1855.

RUGBY TOWN-HALL COMPANY.—The Directors are prepared to receive DESIGNS and ESTIMATES for a TOWN-HALL and Public Building, at Rugby, and hereby offer a premium of 50l. for the best set of plans, elevations, and specifications; and a further sum of 10l. for the second best. The selected designs to become the sole property of the directors; and the successful competitor will, if duly qualified to the entire satisfaction of the directors, be entrusted with the carrying out of the design at the usual commission, which on the first-mentioned premium will merge in the commission. All the drawings to be on a scale of one-eighth of an inch to a foot. The drawings and estimates must be delivered at the Offices of Messrs. WRATISLAW and FULLER, Solicitors, Rugby, on or before TEN o'clock a.m. on the 31st day of JANUARY next, addressed to the Secretary, from whom particulars, together with a lithographed plan of the proposed site, can be obtained on payment of 2s. 6d. The designs not accepted will be returned, but beyond the above-mentioned premiums no allowance will be made to any other competitor.

Rugby, December 6, 1855.

THE LUTON LOCAL BOARD of HEALTH, in the County of Beds, are desirous of receiving PLANS, PARTICULARS, and ESTIMATES, for INTERCEPTING from the River LEA, and for DEODORIZING, FILTERING, or otherwise DISPOSING OF the SEWERAGE of the TOWNSHIP, and hereby offer a premium of 30l. for the most approved set of plans, &c. for such purpose, and a further sum of 10l. for the second best, all plans to be delivered, free of expense, addressed to the Chairman, on or before FRIDAY, the 1st day of FEBRUARY next, with a motto accompanied by a sealed envelope containing the name and address of the author. All plans not approved will be returned.—Printed particulars and information, with a plan, showing the course of the river and adjoining land, may be had on application to the Surveyor, but each party will have to take their own section, as the Board leave the site for the works to the judgment of the competitors.

T. L. EVANS, Surveyor.

Luton, December 26th, 1855.

CONTRACTS.

TO BUILDERS.—KNIGHT'S BRIDGE.—The Magistrates of the counties of Berks and Hants, are desirous of receiving TENDERS for REBUILDING KNIGHT'S BRIDGE, over the River Lambourne, on the road from Kingsclere to Newbury. Persons desirous of contracting for the same, may see the plan, specification, and particulars, at the Town Hall, County Surveyors, Mr. J. B. CLACY, 99, Broad-street, Reading; or Mr. T. STOPHER, 38 Saint-Swithin-street, Winchester, on and after WEDNESDAY next, between the hours of TEN and FOUR. Sealed Tenders, endorsed "Tenders for Knight's Bridge," to be sent to me at Reading or Winchester, on or before THURSDAY, JANUARY 7, 1856. The lowest Tender will not necessarily be accepted.—By order of the Committee of Management

J. B. CLACY, } County Surveyors for Berks and
T. STOPHER, } Hants.

99, Broad-street, Reading; 38, Saint-Swithin-street, Winchester,
December 15, 1855.

TO BUILDERS. — The ERECTION of a NEW UNION WORKHOUSE. — Persons desirous of CONTRACTING with the Guardians of the Poor, of the West Bromwich Union, in the counties of Stafford and Worcester, for the ERECTION of a NEW UNION WORKHOUSE, capable of affording accommodation for 600 inmates, together with the several buildings and offices, proposed to be connected therewith, at Lyndon, in the parish of West Bromwich, may inspect the drawings and specifications thereof, at the offices of Messrs. BRIGGS and EYRALD, Architects, No. 328, Bradford-street, Birmingham, on and after the 31th day of DECEMBER inst. until the 31st day of JANUARY next, where full particulars required therewith may be obtained. Sealed Tenders, endorsed "Tender for Workhouse Building Contract," must be sent in, addressed to me through the Post-office, on or before the 1st day of FEBRUARY next. The contractor or contractors will be required to give such security, as the Board may require for the due performance of the works according to the plans, and the Tender can be obtained upon application to me here, where the Tender, sealed and addressed to the Commissioners, are to be delivered at TWO o'clock precisely, on WEDNESDAY, the 9th day of JANUARY, 1856.

By order of the Board,

FRANCIS ADAMS, Clerk to the Commissioners.

1, Whitehall place, Dec. 22, 1855.

TO SCAVENGERS, DUSTMEN, &c.—The Crown Estate Paving Commissioners hereby give Notice, that they will be ready to receive TENDERS from persons willing to enter into a CONTRACT for the REMOVAL of DEBRIS, DIRT, ASHES, CINDERS, &c. from the several houses, &c within the district under their jurisdiction for a period of one year, from the 16th day of JANUARY, 1856. Specifications and Forms of Tender can be obtained upon application to me here, where the Tenders, sealed and addressed to the Commissioners, are to be delivered at TWO o'clock precisely, on WEDNESDAY, the 9th day of JANUARY, 1856.

FRANCIS ADAMS, Clerk to the Commissioners.

1, Whitehall place, Dec. 22, 1855.

GRAVESEND.—CLEANSING STREETS. The Commissioners for the town of Gravesend are ready to receive TENDERS from persons willing to CONTRACT for TAKING UP and CARRYING AWAY the DIRT and REFUSE swept up in the various streets and public places in the town; and also the dust, ashes, dirt, and filth, from the houses and premises in the town, for three years from JANUARY next. The dust, ashes, dirt, and filth will be the property of the contractor. A copy of the contract and particulars of the works to be performed may be seen at my Office, King-street, Gravesend, where TENDERS are to be delivered on or before the 31st day of DECEMBER inst. The Commissioners do not bind themselves to accept the lowest Tender. The contractor must give security by the bond of a surety or sureties in 50l. for the due performance of the contract. By order of the Commissioners,

FRANCIS SOUTHGATE, Clerk.

Gravesend, Dec. 13, 1855.

CONTRACTS.

NOTICE to EXCAVATORS and CONTRACTORS for EARTHWORKS, ORDNANCE WORKS. The Commanding Royal Engineer of the Dover District hereby gives Notice, that sealed TENDERS will be received at the Office of the Director-General of Contracts, Pall Mall, London, before TUESDAY, the 1st day of JANUARY, 1856, from persons desirous of CONTRACTING for EXCAVATING and REMOVING GROUND at DOVER CASTLE, before a Site for the Erection at a future time of an Officers' Barrack, also Sites for the Artillerists' Terraces, Yards, an Road of Approach to the same. A plan sections and specification of the Excavations to be executed, may be seen, by persons fully competent to undertake the work (none others need apply), at the Office of Tenders obtained at the Royal Engineer Office, Dover Castle, between the hours of TEN and FOUR o'clock, from MONDAY, the 17th of DECEMBER, to MONDAY, the 31st of DECEMBER, 1855, Sundays and Christmas Day excepted. A person belonging to the Royal Engineer Department will attend each day, from Ten to Twelve o'clock, to point out the ground to be excavated. The party whose Tender may be accepted for the work will be required to enter into a bond, with two eligible securities, jointly and separately, to be bound under a penalty of 1,000l. for the due performance of the Contract. Tenders for the above work to be addressed to the Director-General of Contracts, Pall-Mall, London, and endorsed "Tender for Excavations at Dover Castle."

N.B. The War Department reserve to themselves the right of reducing the whole or any of the Tenders.

Royal Engineer Office, Dover, December 8th, 1855.

TO BUILDERS and OTHERS. — Sealed TENDERS for the following SERVICES on the coast of Cornwall, viz.—

No. 1. At Fowey.—Construction of a 9-gun Battery and Side-arm Shed, as well as an extension of the present Magazine, &c.

No. 2. At Padstow.—Construction of a 2-gun Battery, Magazine, Side-arm Shed, &c.

No. 3. At Penzance.—Ditto, ditto, ditto

No. 4. At St. Ives.—Construction of a 3-gun Battery and Side-arm Shed, as well as Repairs and Alterations of the old Magazine, &c.

for specific sums, will be received by the War Department, Pall-mall, London, on or before 10th JANUARY, 1856, at noon. Detailed specifications of services Nos. 1 and 2, may be seen at Trouble's Hotel, Hayle, on the 26th instant; and Nos. 3 and 4, at Trouble's Hotel, Hayle, on the 28th, between the hours of TEN and FOUR at each place. An officer will attend on the day preceding that of the above dates, to deliver specifications to such persons as may appear to be competent, and will leave the whole of the two days specified for inquiry and explanation.

Royal Engineer Office, Devonport, 14th December, 1855.

NOTICE to BUILDERS.—ORDNANCE CONTRACT.—Commanding Royal Engineer's Office, Dublin, 21st DECEMBER, 1855.—The Commanding Royal Engineer in Ireland hereby gives Notice, that he will receive Proposals for the following CONTRACT, viz.:—For the WORKS required in the ERECTION of BRICK BUILDINGS with other Fire-places, to the Officers' Huts, &c. at the Temporary Barracks, Curragh of Kildare, in the Dublin District. Persons desirous of tendering for the same will receive every information on application at the Commanding Royal Engineer's Office, Lower Castle yard, Dublin; or at the Royal Engineer Office, at the Curragh, where they may see the Drawings, Plans, and Specifications, with the terms of contract. One half of the work to be completed within three months, and the whole within six months of the date of acceptance of the Tender. The letters of Tender to be sealed and transmitted under cover to "The Commanding Royal Engineer in Ireland, Lower Castle yard, Dublin," so as to be delivered on or before the 8th day of January, 1856, and to be marked on the outside, "Tender for Work at the Curragh of Kildare." Parties may Tender for the whole (about 8 Officers' Barracks, or for those in the Right or Left Division, or for the total number in detached departmental blocks, with Artillery Stores, &c.

TO BUILDERS.

SEALED TENDERS for BUILDING BARRACKS, at Bull Point, near Devonport, for a SPECIFIED SUM, will be received by the Director-General of Contracts, War Department, Pall Mall, London, on or before 12 o'clock, on SATURDAY, 12th January, 1856, at Noon. Detailed drawings and specifications of the above, with every requisite information, may be obtained at the Royal Engineer Office, Bull Point, daily (Sundays excepted), between the hours of TEN and FOUR o'clock, from the 14th to the 21st JANUARY, 1856, inclusive.

Royal Engineer Office, Devonport, 27th Dec. 1855.

SALISBURY CEMETERY.—To BUILDERS and CONTRACTORS. The Burial Board for the parishes of St. Thomas, St. Edmund, and St. Martin, Salisbury, are desirous to receive TENDERS for the several WORKS required to be done in ERECTING a PORTER'S LODGE and ENTRANCE, BUILDINGS, the BOUNDARY ENCLOSURES, and TWO CHAPELS, and in LAYING OUT and FORMING the ROADS and FOOTPATHS of the new cemetery, on the London road. The plans and specification of the works may be seen at the office of Mr. HENRY E. POE, Architect, No. 9, Ashfield-place, London-bridge, or at the office of the undersigned, any day between the hours of TEN a.m. and FOUR p.m. until the 8th JANUARY next. The Burial Board will not obliged to accept Tenders for the separate portions of the works; but they do not bind themselves to accept the lowest or any Tender. A separate Tender for laying out and forming the roads and footpaths will be required. The Tenders are to be forwarded to me on or before the 8th day of JANUARY next, and marked on the outside "Tender for Salisbury Cemetery," and for either of the trades, stating which. The contractor or contractors will be required to give such security as the Board may require for the due performance of the works, according to the plans, general conditions, and specifications. Such security to be prepared at his or their expense.

G. SMITH, Clerk to the said Board.

Salisbury, December 19, 1855.

[For remainder of Contracts see next page.

CONTRACTS.

TO NURSERYMEN AND OTHERS.

PARTIES willing to CONTRACT for PLANTING, MAKING WALKS, and SETTING OUT as PLEASURE-GROUNDS and SHRUBBERIES, certain Plots of Land, as marked out on the "White Cross Estate," Weston super-Mare, comprising about Seventeen Acres, are requested to send in PLANS and ESTIMATES on or before the 7th day of JANUARY, 1856, to the Public Library, Weston-super-Mare. The Advertisers do not bind themselves to accept the lowest Tender.—Specifications may be seen, and all particulars obtained, on application to W. B. MOFFATT, Esq. Architect and Surveyor, 3, Adelaide-place, London-bridge, London; HENRY DAVIES, Esq. Solicitor; or to J. WHEREAT, Public Library, Weston-super Mare

MIDDLESEX and ESSEX TURNPIKE-ROADS.—To ROAD CONTRACTORS and OTHERS.—The Trustees of these Turnpike-roads will meet at this Office on FRIDAY, JANUARY 11th next, at TEN o'clock in the morning precisely, to receive TENDERS, in writing, for the PURCHASE of 5,000 YARDS of GRAVEL BALLAST, to be used in the repairing of that part of these roads which lies between North-street, Whitechapel-road, and Bow-bridge. The Trustees require that such gravel ballast be conveniently situated for resifting and carting; also a portion of the line of road and to once sifted through a sieve 2½ inches diameter in the clear, and containing thirty-nine wires. The Trustees to be at liberty at their own expense to resift such gravel ballast through sieves of 2½ inches diameter, having forty-one wires, and to pay only for such quantity when resifted and carted away by the Trustees, who are to have the use of the land whereon the said resifted gravel ballast is stacked, until the 25th of MARCH, 1857. Payment will be made within three months after each stack of such gravel ballast is carted away. The Trustees do not bind themselves to accept the lowest or any specific Tender. GEORGE DACRE,

Clerk and Solicitor to the Trustees.

Turnpike Office, Bow, Middlesex, December 11th, 1855

THE CONSERVATIVE LAND SOCIETY.

TRUSTEES.

The Lord Viscount Ranelagh.
The Hon. Col Lowther, M.P.
Right Hon R. Chris Nisbet Hamilton, M.P.
J. C. Colquhoun, esq. M.P.

To ROAD CONTRACTORS, &c.—The Executive Committee are prepared to receive TENDERS for COMPLETING the ROADS, DRAINS, GARDEN, FENCES, &c. on the Cedars Estate, Putney. The drawings and specification may be seen at the Offices of the Surveyor, on and after WEDNESDAY, DECEMBER 26, between the hours of ELEVEN and TWO. Tenders to be delivered on or before TWELVE o'clock, on FRIDAY, JANUARY 4, 1856, addressed to the Surveyor, and endorsed "Tenders for Completion of Roads, Putney Estate." The Executive Committee do not bind themselves to accept the lowest or any Tender.

CHARLES LEWIS GRUNEISEN.

33, Norfolk-street, Strand, December 8, 1855.

THE TOTTENHAM LOCAL BOARD of HEALTH are prepared to receive TENDERS from persons willing to execute either of the following CONTRACTS, being a portion of the Works necessary for the "Waterworks Extension" in their district, viz.

CONTRACT No. 20.—For CAST-IRON PIPES and CASTINGS.
CONTRACT No. 20.—For WELL BORING, &c.
CONTRACT No. 21.—For LAYING the IRON PIPES, CONSTRUCTING a BRICK CULVERT, &c.

Specifications and conditions of contract can be obtained on payment of 5s. each, by application to J. PILBROW, Esq. C.E. Engineer to the Board, at the Board Room Offices, Tottenham, where also further particulars may be had and drawings inspected. Sealed Tenders, properly endorsed, must be sent in on or before FRIDAY morning, the 11th of JANUARY next, addressed to the Local Board of Health, Tottenham.

By order of the Board, WM. HEATH, Clerk.

Tottenham, Dec 21, 1855

TO CONTRACTORS.

THE LOCAL BOARD of HEALTH for the District of DEWSBURY, are prepared to receive TENDERS for the EXCAVATING and LAYING DOWN, about 19,263 yards of water-tight CONDUIT, between the termination of Contract No. 4, in the Township of SHELLY, in the parish of Kirkburton, in the county of York and the BOUNDARY FENCE, between the Townships of WHITLEY LOWER and THORNHILL, both in the county of York. Plans and sections of the above works may be seen at the Offices of Messrs. MORGAN and HORN, C.E. Westgate, Huddersfield, on and after the 20th instant, and copies of the specification and conditions may be obtained there, or at my Office, on payment of five shillings each, on and after the above date. Tenders sealed and endorsed, "Tenders for Conduit, &c." to be sent under cover to me, on or before the 8th day of JANUARY next. The Board does not bind itself to accept the lowest, or any Tender, nor will any allowance be made for estimates.

ICHAS. OLDROYD, Clerk to the said Local Board of Health.

Dewsbury, December 24, 1855.

CONTRACT for BUILDINGS for LOCOMOTIVE DEPOT.—MONMOUTHSHIRE RAILWAY and CANAL COMPANY. The Directors of the above Company invite TENDERS for the ERECTION, on the town of Newport of STABLES, FITTING SHOPS, OFFICES, SMITHY, COKE-SHED, WATER-TANK, &c. &c. adapted for twenty-two engines. Drawings and specifications may be seen at the Engineer's Office, Dock-street, Newport, and after the 31st DECEMBER instant. The quantities will have to be taken out by the parties Tendering. Sealed Tenders, properly endorsed, and addressed to the Directors, are to be sent to the undersigned not later than the 19th day of FEBRUARY next, and the parties tendering are to be in attendance at the Office in the afternoon of the following day, when the Tenders will be opened. The Directors do not bind themselves to accept the lowest or any Tender.—By order,

GEORGE HARRISON, Secretary.

Newport, Monmouth, December 21, 1855.

AMBER GATE, NOTTINGHAM, and BOSTON and EASTERN JUNCTION RAILWAY and CANAL.—CONTRACTS for WORKS.—Notice is hereby given, that the Directors of the above Company will meet at the Offices, SAINT PETER'S GATE Nottingham, on TUESDAY, the 15th day of JANUARY next, to receive TENDERS for the ERECTION of a BRIDGE, from the Nottingham Flood-road, opposite Station-street, over the Nottingham Canal, into the Easterolt Meadow, with a retaining Wall by the side of such canal. Also for the Earthwork and other Works required in the formation of the New Station on part of the said Easteroft Meadow, with Approach Road to the Station, and to the Hermitage-road at Sneipton.—Plans and specifications may be seen, and further particulars obtained, with forms of Tender, on application to Mr. UNDERWOOD, the Engineer, at the Offices of the said Company, on and after the 5th day of January next. All Tenders must be sealed and addressed to the Secretary. No Tender will be received after TWELVE o'clock at noon on the said 15th day of January.

By order, JNO. GOUGH, Secretary.

Company's Offices, Nottingham, 27th Dec. 1855.

O. M'CARTHY, CARMAN, and SAND and CEMENT MERCHANT, Whitefriars Wharf, Whitefriars, Fleet-street. Sand, from above or below bridge, delivered by the yard or per barge. Ballast screened or unscreened, by the yard or per barge. Stocks, lime, and old bricks. Dry rubbish delivered per barge, in any quantity, alongside the Thames

LOANS from 25l. to 1,000l. upon approved personal or other security, repayable by easy instalments, extending over any period not exceeding fifty months, are readily OBTAINABLE from the BRITISH MUTUAL SUBSCRIPTION LOAN ASSURANCE CLASSES. Prospectuses, reports, and every information may be obtained on application at the British Mutual Life Office, 17, New Bridge-street, Blackfriars. Rules 6d. each copy. 1s. per post.

CHARLES JAMES THICKE, Resident Secretary.

TO BUILDERS, CABINET-MAKERS, &c.

Mahogany, dry, 6d. per ft.; F. walnut, 7d.; Yellow Deals, 4s. 9 by 21 Yellow Battens, 13l. 10s. per 120; Sprage Deals, 3s. 9 by 11 Fine Planks, 9s. 9d. each. Cartage free to any part of town.

T. FORMAN, 1, Walnut Tree-walk, Lambeth-walk.

FURTHER REDUCTION of PRICES.—SAMUEL PUTNEY begs to inform the Trade, that he has REDUCED the PRICE of YELLOW DEALS 3d. p. 12ft., and solicits a careful attention to the following low prices:—

Yellow Deals	From	28l. 0 p. 120
Sprage ditto	"	16 0 "
Fine Planks, 13 ft. 3 in. by 11	"	34 0 "
Spanish Mahogany, in logs	"	7½d. per ft.
Honduras Mahogany, in logs	"	9d. "
Yellow Battens	"	12l. 10 "

Prepared flooring and cut stuff of every description at equally low prices. A list forwarded on receipt of postage-stamp.

Borough-road, Southwark; and Elm-street, Gray's-inn-lane.

SEASONED FLOORING.—GEO. NOKES and CO., late Archbutt and Atkinson), beg to acquaint builders and the trade, that they have a large STOCK of DRY, WHITE and YELLOW FLOORING, prepared by machinery, always on sale, at the following reduced prices, for cash:—

½ inch White, 13s. 6d. per square		½ inch Yellow, 11s. per square.	
1 ditto	15s.	"	1 ditto 16s. 6d. "
1 ditto	18s.	"	1 ditto 20s. "

Laths, 3s. per load.

Also Timber, Deals, Planks, &c. Mouldings by machinery in very great variety.

ST. PANCRAS SAW-MILLS, Cambridge-street, Old St. Pancras-road.

MOULDINGS by MACHINERY, to any Design, carefully packed and sent to all parts of the country.

Address, E. SIMMS,

SAWING, PLANING, AND MOULDING MILLS, King's-road, Chelsea, and 1 Wilton-road, Pimlico.

EDWARD SIMMS begs to inform builders and the trade, that he has now on hand at his manufactory (the first of its kind ever established), a large assortment of PREPARED FLOORINGS and MATCH BOARDING, seasoned, and ready for use, from 4-inch to 1½-inches thick, in White or Yellow Deal, Oak, or Pitch Pine. Also Dry Deals, in all thicknesses. Pitched Battens, Pantile Laths, Oak Cills, Plank, and Scantlings. Mouldings in clean Pine, to any design. A pattern list forwarded on application.—Address, E. SIMMS, Flooring Manufactory, Wilton-road, Pimlico; and Sawing, Planing, and Moulding Mills, King's-road, Chelsea.

ACORN TIMBER WHARF.—At RICHARD MAY'S extensive Waterside Premises and Saw-mill, Canal Bridge, Old Kent-road, builders and others can be supplied with all kinds of FOREIGN TIMBER; planks, deals, and battens on sale, direct from the importers; prepared floorboards, mouldings, pine and cut deals, sliding battens, laths, English oak plank, and sash-sills, at reduced prices for cash. The Monthly Price Current forwarded on application.

NOTICE.—IMPROVED WOOD MOULDING MILLS and MARBLE WORKS.—J. SIMMONS begs to acquaint his customers and friends that in consequence of the increased trade and patronage he is continually receiving, he has found it necessary to have larger premises for the manufacture of his IMPROVED WOOD MOULDINGS, which are acknowledged by the principal large firms, architects, and others, who have used them, to be the best ever produced by machinery. J. S. in returning thanks for the liberal patronage already bestowed upon him, begs to call attention to his large stock of mouldings now on hand. Marble chimney-pieces, monuments tombs, and every description of Stone Work also manufactured by patent machinery. NEW WORKS, No. 20, BRIDGE-TERRACE, HARROW-ROAD, PADDINGTON, about 100 yards from the Great Western Railway Bridge. New Price Lists will shortly be ready; to be had on application, or if forwarded, by enclosing six postage-stamps. Please note the address 20, BRIDGE-TERRACE, HARROW-ROAD, Paddington, near the Great Western Railway Bridge.

PATENT SOLID SWISS PARQUETERIE. This beautiful, unique, economical, and elegant description of Flooring, so extensively used in Paris and other continental cities, is now introduced into this country; an extensive assortment of specimens and patterns commencing at 1s. per foot super together with every part cular of its cost and adoptation, can be obtained of Mr. BURT, 2, Charlotte-row, Mansion House; or of Messrs. ARROWSMITH and CO 89, New Bond-street.

MACHINE CARVING, JOINERY, and MOULDING WORKS, Belvidere-road, Lambeth.—The Proprietor of the above works begs respectfully to apprise the nobility, clergy, architects, builders, cabinet-makers, and trades generally requiring Carved and Moulded Works, that he is now enabled to execute any orders that may be entrusted to him with the utmost promptitude. Every description of Carved Work and Tracery, roughed out by the machines for the trade only. Pulpits, Lecterns, Reading-Desks, Screens, Altar-Rails, Tables, Chairs, &c. executed at the shortest notice. Specimens of Carved Work, suitable for various purposes, can be seen at the Works, and Estimates furnished up on application.

FOREIGN PARQUET FLOORS.—Handsome and thoroughly seasoned floors, of one-inch wainscot, in pattern, one shilling per foot.—HIGGS and CULLINGFORD, 29 Davies-street, Berkeley-square.

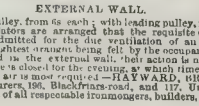
FRENCH POLISH and SPIRIT VARNISHES made from Methylated Spirit, 62 over proof.

Best French Polish	6s. 6d.	per gallon.
Spirit Varnish	6s. 6d.	"
White French Polish	10s. 0d.	"
Methylat d Finish	6s. 6d.	"

By JAMES SLIPPER, 97, Leather-lane, and 14 and 15, Dorrington-street, Holborn, London.

STAINING DEAL TO IMITATE ALL KINDS of WOODS (it requires NO SIZING, and will stand the exposure to the weather. Price 6s. per gallon. Varnishes for W. NAYLOR'S Stains may be had at the Factory, 44, James-street, Oxford-street; also Manufacturer of Improved Knotting and Decorative Varnishes

VENTILATION.—PURE AIR.



With single pulley, from 6s each; with leading pulley, from 6s 6d. These Ventilators are arranged that the requisite quantity of air may be admitted for the due ventilation of an apartment without the slightest draught being felt by the occupants, and as they are placed in the external wall, their action is not impeded when the house is closed for the evening, at which time a constant supply of fresh air is most required.—HAYWARD, BROTHERS, sole Manufacturers, 186, Blackfriars-road, and 117, Union-street, Borough; and of all respectable ironmongers, builders, &c.

TO IRONMONGERS AND THE TRADE GENERALLY.

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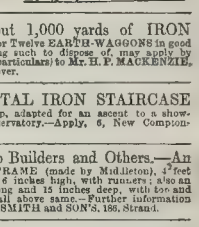

House and Coach Builders, Joiners, Cabinet-makers, and others, doing similar work, are invited to call at the Patentee's, POWIS, JAMES, and Co. Wholesale Builders and Cabinet Makers, Ironmongery Establishment, 26, Watling-street, City, and see in action this very simple, powerful, and expeditious machine, which is the only one yet brought out, for performing these three separate kinds of work by one machine; and as it is self feeding, it does not require any skill or care in using like the older inventions introduced. It can either be worked by a boy, or made to go by steam power.

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CHEAP AS SLATES OR GALVANIZED IRON, LIGHTER, AND MORE DURABLE.

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Many roofs covered with zinc thirty-five years ago have never required repairs.

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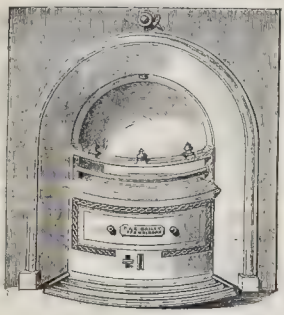

For the manufacture of which D. and E. BAILEY obtained the SILVER MEDAL at the PARIS EXHIBITION. The above excellent invention has been carefully modelled and manufactured by D. and E. BAILEY, 272, Holborn, who having experienced great difficulty in keeping pace with the increased demand for the above Stoves, have now made such arrangements as will enable them to supply their customers with the Smokeless Grates, of ordinary dimensions, from their stock on hand, which consists of various designs in black, bright, and polished steel, richly decorated with ormolu ornaments.

The great advantages of these Stoves over all others are—

1st. The entire absence of smoke.

2nd. An immense saving in fuel.

3rd. A cheerful fire, with simple means for regulating the heat.

4th. Will burn night and day, requiring only to be supplied with fuel twice in twenty-four hours.

For invalids' bed-rooms, these stoves will be found invaluable.

Prices and Prospectuses may be obtained on application, where the Smokeless Grates may be seen in daily use.

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GAS CHANDELIERS OF ALL SIZES, IN BRASS OR IRON, FROM TWO TO TWO HUNDRED LIGHTS.

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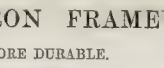
THIS IS THE ORIGINAL PATENT



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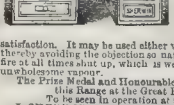

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Three ft. three in.	7 0
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Four ft. six in.	12 12
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Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

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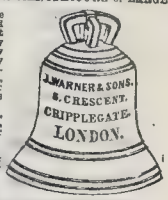

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No. 11 gauge weighs about 18 oz. per foot super.			
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TUPPER and CARR'S (Craufurd's) PATENT GALVANIZED IRON,

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30	33	34	36-inch.
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54s.	56s.	58s.	60s.

Strong Elliptic Stoves, with Extra Back and Solid Bars, per in. 2½d.

Register Stoves, with Solid Bars, per inch, 5d.

Improved New Pattern Circular Check Register, with strong Bars and Trivits, 5d. per inch.

Best Solar ditto, with Fire Brick Back, per inch, 10d.

Bright Stoves, with Two Fires, 40s. to 100s. each.

Cast Rain-water Pipe	2	2½	3 inch.
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	4	4½ inch.
O G Gutters	1s. 1d.	1s. 3d. per yard.

Patent Line	2	3	4	5	6	
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Self-acting Ranges, with circular ovens and back boilers, best wrought bars and bright fittings:—

2 ft., 3l. 18s.;	3 ft. 6 in., 3l. 5s.;	4 ft., 3l. 18s.

3-feet Cottage Ranges, with ovens and back boilers, 35s. each.

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Best Town Glue, 50s. Ditto, Scotch, 60s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6	
4s. 6d.	5s.	6s.	7s. 6d.	8s. 6d.	11s.	per gross.

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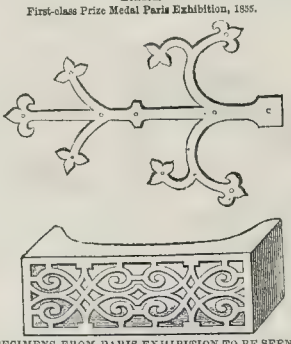

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ESTABLISHED 1817.

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Self-acting ditto, with ditto, from 25s.

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	11d.	1s. 2d.	1s. 4d. per yard.

4-inch Eaves Gutters, 9d. per yard.

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	1s.	1s. 1d.	1s. 3d.	1s. 6d. per yard.

Best Cut Clasp and Rose	1½	2	2½	3 inch and larger.
	10d. 6d.	12s. 6d.	16s.	14s. 6d.

1-inch Best Cut Lath, 16s. per cwt.

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Hoop Floor Brads, 13s. 6d. per cwt.

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ANDREW CLARK and COMPANY, PLUMBERS,

THE BEAR GARDEN LEAD WORKS, SOUTHWARK,

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UNITING LEAD TO LEAD WITHOUT SOLDER.

Leaden Chambers, or any leaden vessels, made or repaired by this process, making them complete, without the introduction of any foreign metal.

PLUMBERS and BUILDERS can be SUPPLIED with SHEET LEAD and PIPE, cut to any dimension, and EXCHANGED for OLD LEAD, on the LOWEST TERMS.

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HARTLEY'S PATENT ROUGH PLATE GLASS,

1-8th of an inch thick, or 2 lbs. to the foot; 3-16ths, or 3 lbs.; and 1-4th or 4 lbs. is now universally used for

RIDGE AND FURROW ROOFS, GREENHOUSES, RAILWAY STATIONS, MILLS, MARKET HALLS, BATHS AND WASH-HOUSES, FACTORIES, WORKSHOPS, SHIP-BUILDING SHEDS, AND OTHER EXTENSIVE BUILDINGS.

By a carefully prepared Estimate, it has been ascertained that FOUR-FIFTHS of the ROUGH PLATE, or non-transparent Glass, consumed in the United Kingdom in 1854, was manufactured by HARTLEY'S PATENT—thus affording the most incontestable evidence of its superiority over every other article of the kind, and as being the only description of Glass suitable for the purposes above named. It combines size and strength with economy of cost, and is manufactured in sizes expressly for RIDGE and FURROW ROOFS, giving a SPAN of TWELVE FEET, at a price not exceeding, weight for weight, that of Common Crown Glass. Its non-transparency renders BLINDS UNNECESSARY, and no scorching occurs in Greenhouses glazed with it; hence the preference given to this Glass for all Horticultural purposes.

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Sole Manufacturers of Lockhead's Patent Perforated Glass for Ventilation.

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January 1, 1855.

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Applicable for Piers, Pilasters, Chimney-pieces, Shop Facias, Table-tops, Panels, &c. &c.

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LEGENDRE, TURPIN, AND CLARK'S

Establishment for the supply of Crystal White Sheet Glass, First, Second, and Third Quality; Window Glass, Shades, Potiche, Lamp Glasses, Bottles, and other Articles in White Glass, at

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1st. It is a non-conductor. 2nd. It is portable, being packed in rolls, and not liable to damage in carriage. 3rd. It effects a saving of half the timber usually required.—4th. It can be easily applied by any unpractised person.—5th. From its lightness, weighing only about 49 lbs. to the square of 100 feet, the cost of carriage is small.—6th. Under slate, metal, or tiles, it is a most effective non-conductor 7. INODOROUS FELT, for damp walls and for damp floors, under carpets and floor cloths. Price ONE PENNY per Square Foot.

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Superior silvered Plate-glass Mirrors of all sizes.

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Will withstand the action of the Weather and Sea Breezes, and are

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Prices not much higher than Cement.

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Diving-dresses of superior make, and improved Vulcanized Rubber Supply-pipes for ditto.

Vulcanized Rubber, in sheets, from three to four feet wide, and of any thickness. Air-beds, Pillows, and Cushions inflating Portable Baths, Invalid Cushions, and Articles of this kind made to any pattern to order.

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The Builder.

VOL. XIII.—No. 673.

THE importance of placing architectural competitions on a proper footing, of making clear what are the rights of architects in such cases, and of obtaining a proper recognition of them on the part of the public, is so great that we deem it right to give all the publicity in our power to the particulars of a case which was tried before the Lord Chief Justice Campbell, on Friday, the 14th instant, in the Court of Queen's Bench, at Guildhall. It was an action brought by Messrs. Weightman, Hadfield, and Goldie, of Sheffield, against the Rev. Evan Lewis, a clergyman residing near Bangor, under the following circumstances:—In June, 1853, Mr. Lewis applied by letter to the firm above named, to inquire if they would consent to be one of three competitors to send plans for a church to be built near the Penrhyn slate quarries, on the stipulation that the successful party only should be remunerated. The other competitors, he stated, were Mr. Street, of Oxford, and Mr. Kennedy, of Bangor. The plaintiffs consented; one of their firm visited the place; designs were prepared and were sent in on the 27th of August, 1853. On the 19th of November, the plaintiffs not having heard anything of the progress of the affair, wrote to Mr. Lewis to know how matters stood, and received a reply a few days after from that gentleman to the effect, that a fourth candidate, Mr. T. H. Wyatt, who, in passing through the town, had been informed of the competition by a friend of his connected with an important subscriber to the funds, had been allowed, *without any communication being made to the plaintiffs*, to send a design, and that he was the successful competitor.

Under these circumstances the plaintiffs wrote to Mr. Lewis, protesting that as the agreement had been broken by the admission of a fourth competitor, they should expect, unless the committee reconsidered their decision, to be paid for their services. After some further correspondence, wherein the plaintiffs had offered to accept a nominal sum, but of which no notice was taken, their plans were returned. They then sent in their claim,—45*l.* odd, and after repeated applications for payment, commenced the action. The charge made, it is not uninteresting to notice, was 1¼ per cent. on the estimated cost of the church, 3,200*l.* and the expenses of the journey to the site. The plaintiffs were represented by Mr. Overend, Q.C. and Mr. Quain; the defendants by Mr. Bramwell, Q.C. and Mr. Prentice. The case for the plaintiffs was established by the evidence of Mr. Hadfield, and the production of the correspondence. The conductor of this Journal was called to confirm Mr. Hadfield's evidence as to the practice of the profession regarding competition; but in consequence of an intimation from the judge, to the effect that a *contract* had been established, and that the question of practice was superseded, the plaintiffs' counsel did not deem it necessary to take his evidence.

The defendant was called as a witness on his own behalf, but failed to establish any answer to the case; and, Lord Campbell having summed up, the jury almost immediately gave "*a verdict for the plaintiffs for the full amount claimed.*"

We have reason to believe that the plaintiffs in this case were mainly actuated in their proceedings by desire to assert the rights of the profession, and that they are entitled to the thanks of all architects. If they had failed to obtain a verdict through any of the hundred chances which beset such a case, the loss to them would have been very considerable. One difficulty arose during the progress of the cause: the contract was made out, the judge said, by the correspondence, but no one of the letters was stamped, and he ruled that the penalty must be paid,—a hard case, surely, since the contract was only conditional, and might have been worth nothing. Mr. Bramwell, the counsel for the defendant, showed either reprehensible ignorance of the position of an architect, or something worse, when he talked of "the custom of the *trade*," by his insinuations as to the value of the time employed upon the drawings, and his supposition that when the architect was applied to for a design he had merely to go to "a pigeon-hole," and take one out cut and dried.

Let architects learn from this case the necessity for having a clear engagement on the part of committees and others seeking competition designs. If architects are wise they will never compete, unless it be agreed, amongst other things, that at any rate *one* of the competitors shall be fairly remunerated for his skill and labour: the remainder of the competitors will afford quite sufficient evidence in aid of the popular belief that an architect's designs are worth nothing.

We are glad to be able to close our volume for 1855 with the record of such a case as the above, so decided. We sincerely hope that it may have the effect of making clearer to committees and others seeking designs the rights of competitors, and further lead architects to insist on having a clear understanding—a specific contract, in fact—with those who seek to benefit by the exercise of their skill and knowledge, laboriously and expensively gained. In the coming year no effort shall be wanting on our part to aid in placing competitions on a proper footing, as desirable for the interests of the art as for the sake of the artists, and to advance otherwise the interests of the architectural profession, of the building trades, and of the public. There will be much to demand our attention. The Metropolitan Board of Works is an experiment of no common character, involving an enormous expenditure, and results of the gravest kind. We shall watch with the greatest solicitude the proceedings of the Board. Much will depend on the choice of proper officers.

The new Metropolitan Building Act will, we fear, raise many questions. It will be our duty to assist in solving these, and to aid in obtaining such an acceptance of its clauses as may meet the requirements of the Legislature, conduce to the safety of the public, and prevent litigation. Art, in its widest sense, constructive science, and archæology, will have full attention; and we shall seek, as we have always done, to interest the general public in our specialty, and so to gain for architects a larger and more discriminating audience than might otherwise be the case. We hope, however, it is now scarcely necessary to make promises for the future. Suffice it to say we shall meet our readers in the new year with a determination to leave no means unattempted to render our Journal more and more useful—more and more worthy the confidence the public are good enough to place in it.

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THE LATE MR. THOMAS CUBITT.

WE record with sincerest sorrow the loss of a great builder and a good man,—Mr. Thomas Cubitt, late of Thames Bank and of Belgravia. Mr. Cubitt was born at Buxton, near Norwich, on the 25th of February, 1788, and died at his house, Denbies, Dorking, on the 20th instant, so that he had not completed his sixty-eighth year. At an early age he was thrown upon his own resources, and early learnt to have trust in them. His great success through life may be traced to the possession of a clear mind, untiring energy, and unswerving integrity.

At the death of his father, when he was in his nineteenth year, he was working as a journeyman at the business of a carpenter. The uncertainty attending such a position made a deep and lasting impression on his mind, and stimulated him to unceasing exertion, in order to obtain a more independent position. He shortly afterwards, with a view to improve his circumstances, took one voyage to India and back as captain's joiner. On his return to London, then about twenty-one years of age, with the savings he had put by, he commenced a small business in the metropolis as a carpenter. After about six years, appearances of success manifesting themselves, he took a tract of ground from Lord Calthorpe in Gray's-inn-road, upon which he erected large workshops, and carried on a very considerable business. This establishment was afterwards relinquished to his brother, now Mr. Alderman Cubitt, who had been for many years associated with him. One of his earlier works, while there, was the London Institution, in Moorfields, where he met and overcame great difficulties.

About the year 1824 he entered into engagements with the Duke of Bedford and Lord Southampton for tracts of ground, on which Tavistock-square and Gordon-square, with Woburn-place and other streets around, now stand. Towards the close of the same year and the beginning of 1825 he engaged with the late Marquis of Westminster and Mr. Lowndes to cover large portions of the "Five-fields," and grounds adjacent. Of this engagement, Belgrave-square, Lowndes-square, Chesham-place, and other ranges of houses, are the results.

He subsequently further engaged to cover the vast open district lying between Eaton-square and the Thames, now known as South Belgravia. He has also carried out similar extensive operations in Clapham, Kemp-town, Brighton, and other places. Shortly after the commencement of these great undertakings, a monetary panic occurred which caused much general ruin, but his undaunted courage and perseverance carried him through the difficulties which arose from it.

One of the first plans for a general drainage of London was published by him in the shape of a pamphlet for private circulation many years ago, and afterwards, when the subject began to attract general attention, it was embodied in a letter to the *Times*, the principle advocated being that now at last conceded of carrying all the sewage-matter some distance below London before it is allowed to mix with the river water. He was a warm advocate for the appropriation of large spaces, in the environs of London, as parks for the recreation of the public, before the increase of building should make the land of too great value. In the Smoke Bill also he took a great interest, and before the new law passed, had already made successful endeavours to prevent the escape of smoke at his own factory at Thames-bank.

At a late period Mr. Cubitt had the honour of being sent for by her Majesty (entirely without solicitation), to advise upon the reconstruction of Osborne, in the Isle of Wight; and the new palace which has grown up there has been erected and designed by him. He has also been employed as builder in other works of great magnitude connected with the Crown. And if it were not delicate ground, we could mention more than one incident affording evidence of the consideration in which the subject of this memoir was held by her Majesty and Prince Albert.

Mr. Cubitt had the honorary appointment, under the Buildings Act, as the examiner of candidates for district surveyors. In the Exhi-

bition of 1851 he naturally felt much interest, but, from the great attention required by his own business, he declined taking an active part in the management, though, when the pecuniary prospects of the undertaking became uncertain, he was one of those who guaranteed a sum of money to enable it to proceed; and when the commission for appropriating the surplus remaining in its hands assumed a permanent shape, he undertook gratuitously, at a considerable sacrifice of time, to assist in negotiating for the purchase of the land from the different owners at Kensington-gore, for which he was particularly well qualified, by his great experience. He continued to the last to feel a deep interest in the success of the scheme.

The works and establishment where Mr. Cubitt's business was carried on at Thames-bank, Pimlico, displayed, as our readers know, many admirable arrangements, and were visited by many persons.

Through life he has been the real friend of the working man; and among his own people he did much to promote their social, intellectual, and moral progress. He established a workman's library; school-room for workmen's children; and by an arrangement to supply generally to his workmen soup and cocoa at the smallest rate at which these could be produced,—assisted in establishing a habit of temperance, and superseding, to a great extent, the dram-drinking which previously existed among them. Although his kindness was appreciated by many, yet at times his motives have been misconstrued, and unkind remarks have been made. In alluding to these, he has often said to one who was about him and possessed his confidence, "If you wait till people thank you for doing anything for them, you will never do anything: it is right for me to do it, whether they are thankful for it or not." To those under him, and holding responsible situations, he was most liberal and kind. His position as master (we have it from the parties themselves) seemed to be blended and lost in that of a friend. His kind inquiries and the interest which he manifested in everything connected with their comfort, with his many acts of kindness, trivial in themselves, yet valuable for the manner in which they were performed, will endear his memory to them. He was a liberal benefactor at all times to churches, schools, and charities, in those places with which he was connected, and always valued in a peculiar degree the advantages resulting to the poor from the London hospitals.

Mr. Cubitt was much respected by the builders of London, and for a short time was president of the Builders' Society. A large number of the builders, in the year 1845, subscribed to have his portrait painted, which they presented to his family,—first distributing an engraving of it. He was a man of unassuming demeanour, and bore his great prosperity with becoming modesty. One instance of his equanimity occurred when his premises were unfortunately burnt down last year. He was in the country at the time, and was immediately telegraphed for to town. The shock to most minds on seeing the great destruction which occurred, attended with pecuniary loss to the amount of 30,000*l.* would have been overpowering: Mr. Cubitt's first words on entering the premises, however, were, "Tell the men they shall be at work within a week, and I will subscribe 600*l.* towards buying them new tools."

There are few men, perhaps, having so large an intercourse with the world who have made so few enemies, and who may be said to be so generally respected. Mr. Cubitt leaves a widow and a large family, and had the consolation in his last trying illness of being surrounded by all his children and grand-children, to whom he was deeply attached. He has two brothers surviving,—Mr. Alderman Cubitt, M.P. for Andover, and Mr. Lewis Cubitt, the architect of the Great-Northern Railway Terminus. Sir William Cubitt, the eminent engineer, though a native of the same county, is not related.

It may be worthy of remark that the large engagements as to Belgrave-square, begun in 1825, have been completed in the present year, and Mr. Cubitt's own dwelling-house on his estate at Denbies, in which he died, is only just finished, as the future residence of his family. As an illustration of the uncertainty of life, it may be usefully mentioned that at one of the last meetings on the Embankment of the Thames, there were present, Mr. Cubitt, Sir Robert Inglis, Sir William Molesworth, and Mr. Philipps, of the Office of Works; and in the brief space which has since elapsed, these four men have all been removed by death!

As we said at starting, we have lost a great builder and a good man. He will be lamented by all who knew him, and most by those who knew him best.

WINDOWS FROM ASSISI.

The first sketch is the central rose window of the façade, at San Rufino, and is of the same character and detail generally as the side windows.* It is considerably larger, however, and, from comparison, I should judge it (not having been able to measure it) to be about 12 feet 6 inches to 13 feet in diameter. The perforated pattern, in pleasing flowing lines, which separates the concentric rings of arches, is very happy in effect, and contrasts well with the more open parts. The moulded rib on which this pattern or tracery rests is also carved with a four-leaved flower, very similar to that so commonly employed in Late Norman and Early English periods. The leaves are separated by a small angular moulding, however, and the section is the reverse to that used in England in the styles before named.

The inner circle of arches only has dentils, and the central stone ring, or eye, is ornamented with a band of mosaic.

The second sketch is from the west façade of the church at Assisi, dedicated to Santa Chiara, and has a great mixture of the Gothic character, whilst it retains the olden Romanesque forms, and may be regarded as a transitional specimen. It is highly enriched with mosaic (or rather was, for scarcely any now remains to give an idea of its appearance as finished), of which a narrow strip or band was inserted round all the arches, rings, and raised pattern on jamb, and extended even to the small circles in the centre. It is also to be noted that the arched shafts, &c. are doubled in the thickness of the wall,—in fact, being as two windows, one behind the other, and the glass inserted on the inner surface of the wall. From the confusion and complexity occasioned thereby it does not look so well as the more simple windows of the Duomo. This is the only window in the façade, and is placed over a central doorway, and on a string course of purely Romanesque character, and would seem to be an insertion. The church was built in 1253, but this west doorway is certainly of older date.

The façade is faced with bands of marble, unequal in height, alternately red and white, which stop against outer moulding; and on the inside of it the plain outer rim is of red marble, and the rest of the window of white. F.

WORKS AT THE ARCHITECTURAL EXHIBITION.†

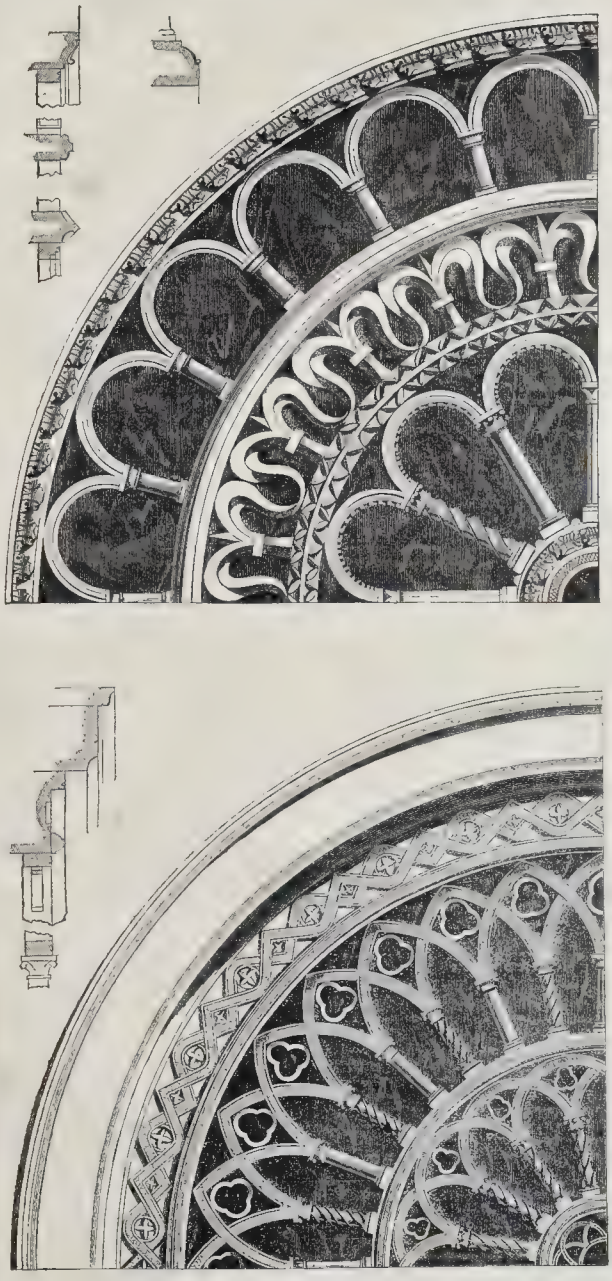
We all know now, that it is no easy matter to set down, in words, the items of a recipe for an architectural design. Of whatever class of building be the *project* to be concocted, some very knotty questions there are to be unravelled, if we would hope to settle affairs of *art* by prescribed line and written rule. Parenthetically, indeed, we may throw out the doubt whether anything of this mechanical prescription be either fully possible, or to be desired,—though much seems to have been at times attempted. The upshot of all that has been written, or attempted, explanatory of certain questions in the useful science of æsthetics, is that old phraseology is inadequate to express the nice shades of thought which occupy the artist-mind, —whilst new phrases—if they have sometimes been introduced with advantage—where they are such as some writers feel themselves called upon to employ, it is seen, are not necessarily better adapted to generals or particulars, and if adopted, might increase confusion of ideas.

But, such ought to be the position of advancing *art*,—perhaps, indeed, should be ever characteristic of the "march of intellect." The pursuit and practice of *art* involves a process of reasoning,—although the artist, like every searcher into the infinite world of ideas — like every worker with its materials — can perfect the very nomenclature which might have aided induction, only *after* the ideas shall have taken defined shape.

It is, therefore, not in our power to settle exactly what should be done to remedy all the defects which are admitted, in the existing practice of art—as applied to designs for particular classes of buildings,—to say to what extent the uses of a structure can be expressed in the architectural design,—with what limitations any old style should be imposed;—or, in the case of churches, what form should result from consideration of existing ritual, or otherwise what is the exact value of traditional dictation. Could the points last named be settled by those who, more than architects, might be looked to for a decision on those particular points, the structural arrangements of churches would be easy and straightforward, compared with those of any other class of buildings. For, comparing the plan of a house with that of a church, there can be no question as to which of the buildings involves the largest amount of skill.

The history of the production of all great works of art shows again and again, that it is quite possible for the true artist to go through some process which is essentially an operation of logic, but which it may be wholly beyond his power to describe to others, by understood words. Some such process, however, there always should be. Give to him whom we refer to, paper and pencil; and with these, his proper organs, he should speak the results of his thought. Mr. J. Murray, by his power of drawing, and skill in perspective, is just one of those who are qualified for the expression of ideas, by possessing what corresponds with knowledge of language and aptitude for the construction of sentences. It is possible, however, to mistake means,—which after all stand somewhat in the same relation to thought as does skill in penmanship,—for the chief end. Similarly, the knowledge of languages or styles—or even the ability to penetrate sources of expression in the thoughts of others—is but the apparatus of the artist for the production or evolution of original art. Those, therefore, who possess the instruments of success, must not mistake the admired facility in their use, for the whole of what is demanded from them as artists. Mr. Murray's designs for churches, however, whilst they have not the novelty, or perhaps eccentricity, which may be found in some cases, and whilst they are consistent with the expression of old styles, are not wanting in freshness and in certain valuable results of thought. Unity of character and grouping are studied with success, and there is considerable variety in the several designs. We may instance (451) another of the designs for the church at Peterborough, and (475) "Church intended to be erected in Worcestershire." The design by another architect, entitled, "Study for a Church" (533), illustrates the different manner to which we alluded in our last. The truth is, that the separate items for attention in the production of a design for a church *are* to be found in works exhibited, — but scattered about designs of somewhat different schools. We have the design where precedent and propriety of *style*, according to the views of archæological societies, are paramount,—though some higher qualities of art may be not wanting. We have the design which tries to emancipate itself from this *servility*, as it is, perhaps, considered,—which sometimes succeeds in attaining the beautiful, and sometimes sets too high value on the merely singular. We have designs for Dissenters' chapels; and in these alone the particular ritual seems to receive something like independent judgment. It is to be regretted that the different essential points for attention are not more frequently found combined in one work. In looking at former exhibitions, we have referred to the growth of a distinct school of chapel architecture—as giving what we thought was some hope of a result higher in the scale of art, than that to which Gothic church architec-

* See p. 495, *ante*. † See p. 617, *ante*.



WINDOWS FROM ASSISI.

ture appeared to be tending. Whilst, however, we recognise independence of opinion, and some regard for uses of the structure, it is too frequently apparent that the architects in the same cases, have not paid such attention,—as should be never lost sight of, to the old models. Could the appearance of old style be at once wholly forsaken, deficiencies might, perhaps, not be discovered; but as it is hardly within the power of individual architects to accomplish this, we are offended by the obvious want of knowledge which there is of recognised beauties. Still, there are many recent designs for such buildings which deserve unprejudiced examination, and which would be found both clever and instructive,—even those which may be faulty in mouldings and detail.

Amongst the class of Dissenters' chapels, Messrs. Lander and Bedells exhibit (8 and 10) an exterior and an interior view of "The Independent Chapel at Islington, shortly to be erected." It is to hold 950 persons, and the same general building provides school-rooms for 650 children,—the estimated cost being 2,890*l*. An octagon is the main feature in the plan, and it is lighted from the centre,—the half trusses appearing in the view, and being connected at the lantern, by strutting in iron, which also supports a *corona*, or chandelier. The exterior has two spirelets over the side doorways.——The "Congregational Chapel about to be erected at Folkestone" (15), by Mr. J. Messenger, is of very simple character, with the tower and spirelet at the angle, and has greater resemblance to a church; whilst Messrs. Foster and Wood, in "Arley Chapel, Bristol, erected 1854-5" (96), have adopted the Italian style,—though their "Independent Chapel, in course of erection at Clevedon, Somerset" (102), follows the character of "Decorated" Gothic. The former building (96) has a semi-circular porch at the end, formed by arches and three-quarter columns,—beyond which appears the end of the main roof, whereon is a well-designed turret. The angles of the building at the same end are quadrant-shaped: this lessens the effect. The designers being anxious to avoid internal columns, arranged the roof trusses (which are open-timbered), with cantilever brackets, which last were retained in position by iron bolts passing to the base of the wall. It would be well to know, in the course of some years hence, whether this plan has succeeded. We have heard of a few failures in attempts with similar means. A range of small circular apertures appears in the roof, in the position of a clerestory, externally. The cost was 3,500*l*.; and the sittings provided were 750. In the other chapel (102), where the contract sum is 1,200*l*. for 500 sittings, the cruciform plan is adopted, with deeply-recessed traceried windows, and a turret.——Messrs. Wetten and Harris exhibit some views of the "Free Christian Church, Clarence-road, Kentish-town" (141), erected by them for 500 persons, at a cost of 4,000*l*. Red brick is employed externally. A good stone pulpit is shown. "The chief peculiarities of the structure" are said to be "its loftiness, the facing of the walls internally with white bricks, tuck pointed," &c.; "the open moveable benches," &c. Some of these are pleasing evidences that the lessons which will be derived from the Gothic style, have extended to buildings of a class where they have been considered as much needed. The height of the building, in proportion to the width, is perhaps excessive in the exterior. We may take this opportunity to drop a word of caution (required, indeed, in the case of most recent designs for churches) against the use of collar-beam roofs, without very careful consideration. The force of the wind in some situations, we have found far too great to be resisted by roofs such as in many cases lately, have been erected. There are other causes of failure, also.——The "Design for a Baptist Chapel" (305), of which a west elevation is shown by the same architects—to accommodate 700 persons—is more satisfactory, and manages the difficulty of stories, and the materials, red brick and stone, with good result. The style is Early English.——There are some good parts in Mr. T. D. Barry's "Design for a Baptist Chapel, London" (433), as in the arcade, but the turrets are less pleasing.——We mentioned in our last, a Baptist chapel where a portico of the Roman Doric order was adopted. A design by Mr. W. Mumford (213), apparently for the same building (at Hackney), also uses a Roman Doric portico, which here has the appearance of being attached to a three-story building.——Mr. H. Hodge exhibits (271) his "Congregational Chapel, Kentish-town," a building in the Perpendicular style, with angle turrets, and of somewhat more than average merit.——The same architect's "Welch Chapel, Islington" (455), in the Norman style, is very inferior.——Mr. G. J. Wigley has adopted the Italian-Gothic style in his "Church of the Most Holy

Redeemer, Rome; now in course of erection for the Redemptorist Fathers, in the Villa Caserta, Via di San Vito, near Sta. Maria Maggiore and the Arch of Gallienus" (367). Externally, the end of the building has a circular window beneath a low-pitched roof, and has a projecting porch. The interior has plain square piers; but is made effective in the drawing. The same architect, in a photograph (483), gives his "Design for the Façade of the Church of St. Mary, in Ara Cœli, Rome; as a Monument in honour of the Immaculate Conception: presented to his Holiness Pope Pius IX." and also shows the present state of the building. The style—Romanesque—is of very singular character.——We should not omit to mention the collection of clever sketches (528) by Mr. T. W. Goodman,—showing a design for a cross church, with the interior and the principal fittings.——The late Mr. R. C. Carpenter's works, executed and proposed, at Sherborne Abbey Church, are shown in 389 and 390; and Mr. E. Ashworth has lately rebuilt and enlarged Dulverton Church, Somerset, and erected a workhouse and register office (400); and has also in hand, works at the interesting church at Tiverton, Devonshire (399).

The designs for cemetery buildings are numerous. The chapels in course of erection at the Deal Cemetery, by Mr. J. Messenger (16), show two gable ends in the Decorated style, with an arcade in woodwork connecting them with a central arch. One of the buildings has a square turret, with louvre and square capping. ——Mr. E. B. Lamb's "Design for a Cemetery Chapel" (36), is commendable for the study, which it displays. Its main features consist in the roofing of the main portion of the plan (which there, may be described as square with the angles cut off)—the roof being hipped all ways and supporting a louvre turret—and in the porch, or archway, which forms the end of the oblong portion of the plan. The head of the main arch is filled with tracery, and there is a picturesque turret at the angle, corbelled out and supported by a buttress. The details have both novelty and beauty of effect.—— Mr. Lamb's design for "Entrance-gateway and Lodge, for a Cemetery" (333), is treated as a gate-house, with room over, and has a massive character.——Messrs. Gabriel and Hirst have a clever sketch (215) of their proposed Chapels at the Chepstow Cemetery, with other buildings, in which the picturesque decorated Gothic manner is followed, the chapels being placed in corresponding positions,—one having a square tower and square shingled capping. In No. 310, the same architects exhibit what seems to be a different design for the same buildings. Here the buildings are grouped together on an irregular plan (that is, L shaped), with an archway between. ——In Messrs. Walter and Blackett's "Design for Marylebone Cemetery" (227), otherwise not inferior, the spire strikes us as having somewhat too much importance,—even allowing for its use as a landmark. In the "Design sent in competition for an Episcopal and Dissenters' Cemetery,—Chapel attached" (241), by Mr. J. L. Pedley, there is what looks like an Early English cross church,—with a western turret, and a building attached in the position of a district chancel or eastern chapel, and of a different style; and the result is not quite satisfactory.——Mr. R. R. Rowe, in his Designs for the Ely Burial-ground Chapels (238, 248, 258, and 267), has tried different arrangements for connecting the buildings with the entrance-way,—some of which seem to us to bring the chapels too close together for convenience.—— Mr. A. Billing's "Design for the Tottenham Cemetery Buildings" (174), has a central arch and bell-turrets, with the chapels one on each side; whilst Mr. R. W. Wright's design for the same buildings (296) has two nearly similar octagons, similarly joined by a corridor; an entrance-archway also occupying the centre. ——Mr. T. Little's "Chapels for the Parish of Paddington" (308) have been engraved in the *Builder*; and in 309 he shows the Entrance Lodges.——Mr. S. W. Tracy has some good views (346) showing the buildings which he has erected at the Margate Cemetery.——Mr. C. Baily's designs for the Cemetery Buildings at Newark-on-Trent (412—417 and 418), are good and novel in character. One of the buildings is a gate-house with lofty hipped roof and bold buttresses, and has a picturesque spire-capped turret.——Mr. G. W. Lloyd's design for the Tottenham Cemetery Chapels (476) has a central gate-house structure, with hipped roof terminated by a bell-turret.——Messrs. Lufkin and Irvine's designs for the Colchester Buildings (523 and 525) may be mentioned; but, with some few exceptions, the designs in this class—all in the Gothic style—display no very marked advance in our art from the opportunities afforded—such as they are,—and certain drawings (some of them in prominent positions) the committee would have exercised a wise discretion to reject.*

LODGING-HOUSES FOR OPERATIVES.

In the improvements now rapidly progressing and transforming the whole metropolis, how little thought has been expended on a provision of suitable abodes for those who toil, and are dependent upon their earnings for their support.

The cry is, make wide your ways, aggrandise your structures, imitate the magnificence of Paris, reform and blot out for ever the slums of filth, the dwellings of poverty,—and but few are the instances of model lodging-houses, or other structures being erected in substitution for the demolished lairs. One thousand tottering and festering dens are removed: these have accommodated (no, hived) 10,000 settlers, and one single foundation is projected to shelter four or five hundreds! Where then are the extra 9,500 souls to find a refuge? Why in slums more distant. These must be obtained one or more miles farther off, at a dearer rate, perhaps, and certainly at the expense of increased labour and loss of time.

Recent experiments have made it manifest that investments in communist dwellings, on the lodging-house plan, are amply remunerative; that they pay, in fact, little under 10 per cent: but that is, as yet, the result only of the humbler class of models: those built on the Scotch plan, or rather somewhat assimilating to it, as exemplified in Victoria-street, have been to this time a failure. They are too magnificent, too expensive, for they range from 80*l.* to 160*l.* a year; but nothing has been attempted to house the middling classes,—the officials, clerks, and other tributaries to business or commerce: there is nothing to meet the requirements of men earning incomes of from 70*l.* to 150*l.* a year.

If houses were subdivided in adaptation to the wants of families dependent on the latter class of operatives, they would be eagerly sought after: in point of fact, the model lodging-house near King's-cross harbours many of them, and were smaller houses, even of an ancient description, new modelled (as before expressed in the *Builder*), and divided into flats, containing three, four, or five rooms, none of them would, at a moderate rent, remain one fortnight untenanted.

Let us point out to the experimentalist, or cobbler in old buildings, that there are very numerous central localities, most suitable for the purpose, where old and moderately substantial houses, now and for a long time vacant, might with great advantage be thus converted. In Great Newport-street, at the end of Long-acre, there are several; but in any of the bye-streets, where two houses may be had together, there the facility exists by cutting away one staircase and connecting the houses, by utilising the basement for general purposes of kitchen, laundry, and offices only; then every floor of the united houses might lodge two families.

To the poor, however (and every family is poor that expends the weekly wages or earnings, weekly), the grand desideratum is to obtain their provisions and essentials at the cheapest possible rate. That they cannot so obtain them by retail purchase (that is, every parent or manager purchasing for their charge only), is but too evident. No, the pay received late on Saturday, and spent in a crowded market, cannot be so economically laid out by each purveyor individually, as if the whole community of a house were to combine for their collective suttling.

The principle of feeding numbers by the agency of one who caters for all, must assure not only a serious reduction of cost, but a correspondent improvement in the quality of the viands. It is owing to such a system that whole regiments of soldiers can be, and are, well fed, at a cost much lower, and in a style much more tolerable than the scanty, ill cooked, and worse assorted meal of the isolated room-keeping family.

To repeat the fact is almost unnecessary, yet it cannot be too prominently urged, that the poor pay dearly for their poverty — 2s. 6d. and 3s. a room, according to the size — say 10 by 12 feet, or 12 by 16 feet—that is the rent ordinarily charged for the most questionable apartments; dirty, ill ventilated, except at the gaping joints of doors, open chimneys, and shaky (if not broken) windows: these are the homes of metropolitan industry — the resting-places to recruit the wasted sinew and muscle of London operatives. How many cower together in each room? On an average four persons. It needs truly, that the clime be tempered to the shorn lambs; the infancy of London!

Again, let us say, 1s. per week for each room is quite sufficient to requite the builder in a lodging-house speculation: two rooms and small adjuncts for 2s. 6d. would give 10s. or 12s. a week, or 26*l.* or 31*l.* 12s. per annum for every story of only four or five rooms: this for a house of only four stories, would therefore pay 126*l.* 8s. a-year, and that, too, for a house but *plainly finished*, containing only twenty rooms, with the adjuncts necessary for chambers.

Now, it is notorious that highly finished residences of the same capacity may be rented, in *good situations*, at an equal rate. Why not then build also for the poor, and give them the softening influences, as well as the comforts of civilized life, as the community now exists, in advanced and advancing improvement?

Well, it would appear that if the poor are to profit by advances in luxury, which are the result of *their* labour, they themselves must combine for the attainment—they must communise and club together, even as to their *hearths* and *homes*.

But for provisions,—to live well and cheaply, there is no other mode of compressing that, than for the families resident in a house, or neighbouring houses, to combine and collectively to contribute, not only for the purchase of meat and vegetables, and of bread, but more especially to have joint-stock kitchens; and as the *Times* advised recently, to buy their flour and to bake it, to lay in their coals, and cook their own meat.

If the editor of the *Builder* will permit, I will give a plan of a lodging-house, to be built in a substantial and plain, although not wholly inornate style, calculated to afford a good English house (it might be now fair to call it Scotch, from their earlier adoption of the plan) for 500 or 1,000 souls.

The evidence that such an object could be carried out might influence benevolent and wealthy men to invest in sure foundations, without the incentive of a name to be transmitted to posterity on *stone tablets*, as the founders of this or that almshouse: every county and parish, and town in England, testifies the boundless extent of British charity: our magnificent institutions of London, dedicated to God and the poor (*but too many of them now appropriated by and for*

* Sir,—As being officially connected with the Architectural Exhibition, I should feel it very bad taste not to leave the defence of the committee, or of any else connected with them, to other hands than mine, or to the general verdict of the public; but I think there can be nothing wrong in mentioning facts which must be unknown to "Veritas," whose allegations are not quite so moderate as to give him a perfect right to the title he assumes. I was present at the Galleries almost constantly during the ten days consumed in the "hanging," and I observed that the "hanging committee" had their labours very much complicated and increased by exhibitors themselves, and it is a fact that most of the best drawings came many days after the proper time, so that continual alterations and changes were necessary, and the labour of all concerned was much prolonged and increased; while some good things came even so late that they could not be hung at all (Mr Owen Jones's, for example). A knowledge of all this would perhaps have given "Veritas" reasons apart from the one which he suggests, and have saved the "hanging committee" a little rigour in the exhibition he administers. I know of one very unfortunate instance where "drawings are divided," and I will urge no reasons in defence; still exhibitors will do well to avoid *large scale* plans and sections to illustrate their views, since a set of competition drawings of this class, all shown together, would occupy more than a fair allowance of space; and a dozen such would half fill our large room. For instances where exhibitors have so managed as to enable the various parts of a design to be seen "as a whole," I would mention Nos. 50, 76, 81, 83, 97, 116 117, 141, 185 241, 245, 248, 258, 337, 341, 340, 375, 377, 379, 429, 430, 512.—Jas. Edmeston, Jun.

the rich and their offspring), testify it. The spirit is alive and active as ever: wealth abounds still more: poverty, too, is more extensive, and more desolate.

A conviction overrules many minds of the danger imminent upon the state, arising from the extravagant disparity in the condition of men: enlightenment cannot be restricted to the rich only, nor can education. Some power from within, or from without, must come to the rescue; for if *municipal care* does not interpose to elevate the physical as well as the moral state of the poorer classes, they must *see* and *feel* that their condition is unequal to our age, and that the world and its law takes no account of them.

There remains still to be elicited from establishments of the kind set forth, an effect not as yet developed in London, namely, a social regeneration of the inmates classified therein. Already in some instances they have been housed in a state befitting humanity; and in one case (the single men's lodging-house, Bloomsbury), a room has been set apart for a reading or club room; but the saloon, or social assembly-room, has been nowhere provided: without that, any material advance in the amenities of life, as regards intercommunion, can hardly be expected. Such an apartment need not be of dimensions to increase much the cost of the institution: it must, however, be proportioned to the numbers accommodated; as, for instance, in a building calculated for 100 families (or 500 souls), then it should be adequate to the easy reception of 200.

In this, school might be held during the day, and being duly warmed by fire and lighted with gas in the evenings, it should always be open without restriction to the whole *resident* community; being furnished with papers, a few periodicals, and some well-chosen books. There are few men who, having such an opportunity for domestic comfort, but would frequent it in preference to the public-house,—it being always understood that the renters or subscribers, here, as in a club, might order their refreshment (under limitation) from their common cellar.

On occasions, lectures ought to be given on useful knowledge and practical subjects; so that, as a *place of instruction*, that respect not ordinarily shown to a tap-room should invest the saloon with regard and deference which could not fail to engender feelings of mutual respect; while such habitudes would elevate the nature and soften the manners of multitudes now left to the unbiassed riot of rude nature. This is the innovation most to be desired, and so much needed by those who, under its benign influence, could not much longer be called *the lower classes*.

QUONDAM.

"ON THE FUTURE RENAISSANCE."

THIS was the title of a paper read by Mr. J. M. Hay, at a meeting of the Liverpool Architectural Society, on the 28th ultimo. In the course of it he said,—Some forty or fifty years ago, Britton, struck with the beauty of the old examples of Gothic art so bountifully scattered over this country, set himself to investigate their merits, and published them to the world. But during this same period of fifty years, as if to exhibit the undecided mind of the nineteenth century, we have buildings erected in every known and unknown style of architecture. Is an architecture of this kind the legitimate exponent of the nineteenth century? Does it adequately express the requirements, the scientific attainments, of the present age? It does not. It indicates an uncertainty of thought and unsettledness of opinion. We are mere copyists: what has been done before we reproduce. If science discovers something new for us, we cannot give it architectural form: ventilation, for example, is universally a bungle. If chimneys are to be provided for a house in the Greek style, we try every method to conceal them, because, forsooth, the Parthenon and Erectheum have them not. And these are your gods, O Grecians! These temples are the patterns by which ye would clip out the mansions of modern times! If we require a Protestant or Dissenter's church, we copy a Roman Catholic one. Our invention seems to be solely occupied in pinching and paring down our wants to suit old architecture, and not in making architecture the artistic and intelligent embodiment of present wants and necessities. Were it possible to obtain the unanimous consent of the profession to the adoption of one style to the exclusion of all others, I believe it would be a step in the right direction, and would tend to the ultimate prosperity of architecture. Were this style not too rigidly confined within the boundaries circumscribed by precedent; were it permitted and encouraged to expand and develope itself; were the forms, features, and details of other styles carefully examined and judiciously incorporated with it—modified, of course, according to the principles of art and the genius of the style adopted—we should speedily arrive at a style of architecture that would be essentially national. But this unanimity does not exist; this universal consent is not to be expected. Every past style arrived at perfection from a congregation of minds all working in one direction. *Sed tempora mutantur*, and an Act of Parliament itself could not confirm the present age to one only style. Where formerly the clergy were the great patrons of art, we have now that patronage shared in by the people. Each individual considers he has a right to build as he likes: the architect indulges the whim; and hence the multiplicity of styles: and from the growing importance of the people, they will still maintain this right. The highest art was formerly consummated on temples and ecclesiastical structures: and these gave the key-note to other contemporary buildings. The attention of the architect now is not engrossed with such structures; the greatest wealth is not now expended on temples, churches, and cathedrals. We have, instead, municipal buildings, institutions of various kinds, and villas by the million. These are erected by private enterprise, by companies and corporations,—by the people, in fact. This is a peculiar feature in the present question, and, coupled with the fact that architects themselves cannot agree as to the best style for modern adoption, has no small influence in the continuance of a number of styles: divided in opinion, it is not likely that the *vox populi* should be the *vox Dei*. The decisions arrived at by committees are not always the best. Each member has some whimsical notion, and the most ignorant not unfrequently outvote the more intelligent. The language of dictation, and not that of suggestion, is that in which the architect is sometimes addressed. I readily admit that valuable suggestions have often been made by non-professional men, and all the more valuable as occurring to those unbiassed by professional routine; but sometimes the greatest absurdities have been enforced upon him, and he must either withdraw his services in disgust, or linger them out to an unsatisfactory termination. It is a lamentable fact that architects must often ignore their better judgment and pander to a corrupt taste, or, like that eminent historical painter, the high-minded but unfortunate Barry, live in poverty, and die in neglect. Under such circumstances the architect is bound to be intimately acquainted with every style, and competent to practise them. Where, then, is the prospect of a national character being imparted to architecture?

* * * * *

The Gothic architect should closely study Italian design, for it contains numerous features translatable into that style, and suggestions for its improvement. The Greek architect ought to do likewise. Italian stands midway between these two opposite styles: while one is the type and perfection of the arcuated, and the other of the trabeated system, Italian partakes of both.

It is a charming idea that the good, the true, and the beautiful never die; though they disappear for a time, it is only to rise again in greater freshness and beauty. This is a ray of light which, flashing across the desponding mind of the artist, kindles within him new hope, and urges him on to renewed exertion. Why should not all the beauties of past styles reappear in harmonious union—not a heterogeneous mixture of old lifeless forms, but fused and melted down as it were in the crucible of the artist's brain, filtered from the grosser particles with which they were formerly combined, endowed with all the comeliness and bloom of youth, and worthily blended with new beauties which the exigencies of the time will call forth?

THE METROPOLITAN BOARD OF WORKS.

THE Board met on Saturday, the 22nd, in Burlington House, and proceeded to the election of a chairman. Each candidate having been proposed and seconded, the Board determined to abide by the resolution passed at their former meeting, namely, to put the whole of the candidates to a show of hands, then striking off the list the man who had the least number of votes, and so repeating that process until the list was reduced to two, when, on a final show of hands, the candidate having the highest number of votes was to be elected. A show of hands was taken seven different times, and the following was the result:—

	1st show.	2d.	3d.	4th.	5th.	6th.	7th.	Final
Mr. John Thwaites	26	25	26	23	26	21	26	30
Mr. Deputy Harrison...	17	15	16	16	16	16	13	
Mr. J. Roebuck, M.P.	17	19	18	17	17	13		
Mr. Thomas Turner ...	14	13	12	12	11			
Mr. Richard Jebb	14	11	13	11				
Mr. William Corrie.....	12	13	11					
Mr. T. Hawes	9	8						
Hon. J. Percy, M.P. ...	4							
Mr. G. F. Carden.....	0							
Mr. Arthur Rose	0							

The election of chairman therefore fell upon Mr. Thwaites.

At the chairman's suggestion, a committee, consisting of Mr. Nicholay, Mr. Offor, Mr. Collinson, Mr. H. L. Taylor, Mr. Wilkinson, Mr. Hows, Mr. Corrie, and Mr. Deputy Harrison, was appointed to make certain preliminary arrangements.

Sir John Shelley, M.P. gave notice that he should place his resignation, as a member of the Board, in the hands of the chairman, at the first sitting of the Board in January. The worthy baronet's proceedings in this matter have not advanced his position in the eyes of the Westminster electors.

ART AND INDUSTRY.

ON the 18th, 19th, 20th, and 21st of the present month, Mr. Digby Wyatt delivered an interesting course of lectures in the Theatre of the Literary and Philosophical Society, in the Hull Royal Institution.* In these the subjects of art and industry, both ancient and modern, were treated in their co-relation to one another, and the co-extension of fine-art principles with the development of technical dexterity was succinctly traced. In the first of the series Mr. Wyatt considered successively the peculiarities of the principal monuments of Egypt, Assyria, Persia, Asia Minor, Greece, Rome, Byzantium, Mediæval Europe, and the ultimate Italian revival of the antique, elucidating the correctness of the axiom with which he commenced his observations, "That the noblest effects which have ever been attained in each style have only been achieved when the sister arts have been united to assist one another in winning the eye of the observer, and in adding the greatest intensity to his pleasurable emotions." This theme in the second lecture was amplified and analyzed in its relation to the condition and prospects of contemporary art. The ill consequences which have invariably attended efforts made for the revival of any one branch of art by isolation from its fellows, and special cultivation, were traced in a lucid review of the vicissitudes of all the great modern schools, from the days of Raffaelle to the present. Italy, France, Germany, and England were in turn cited, as illustrating, in the works of their greatest men, the absolute necessity for an independent recognition of first principles. The nature of those original views which have breathed new life into the expiring art of the

* The Hull Society now meet in the new buildings, which have lately been erected for its use, at a cost of between 7,000*l.* and 8,000*l.* The theatre will hold upwards of 700 persons; and the museum, which is an extremely valuable one, is about to receive considerable additions, through donations from Prince Albert the patron of the society; Sir Roderick Murchison, Sir Wm. Jardine, Mr Gould (the ornithologist) and others. The buildings were erected at the same time with those of the excellent Hull Library, founded in 1775, and consisting of 500 proprietor members. The facade Corinthian, and not inelegant, is in common to the two societies. The Literary and Philosophical Society's half is on the left hand, and that of the Library, whose buildings have cost upwards of 6,000*l.* on the right. In the reading-room there is a full-length portrait of Mr. Charles Frost, the president of the institution, which was painted by subscription, and presented to that gentleman at a public breakfast, on the laying of the foundation-stones of the two buildings, by the Earl of Carlisle as to the Library, and Lord Londesborough as to the Literary and Philosophical Society. The joint buildings have, since the Queen's visit to this town, been called, by her command, the *Hull Royal Institution*.

south, through the great artists of the north; through sculptors, such as Carstens, Thorwaldsen, Rauch, Swanthaler, and Rietschel; through architects, such as Schinkel, Ziebland, Gärtner, and Von Klenze; through painters, such as Overbeck, Cornelius, Schnorr, Lessing, and Kaulbach, was earnestly pointed out, and their leading works were described. Numerous illustrations of progress, and auguries of a most hopeful character, were derived from observations made on the tendencies manifested by the principal nations of Europe, as represented in the Paris "Exposition des Beaux Arts." In the third lecture, the close connection between the best art and the best industry was insisted on, as consequent upon elements inherent in the nature of each, and, therefore, common to both. By the division of his illustrations of the industry of the past, into sections corresponding with those through which he had traced the leading features of the history of ancient fine art, the lecturer was enabled to draw an interesting parallel between the progress of technical and æsthetical tendencies, amongst all the great nations of antiquity. In his last address, the present of industry was contrasted with its past, and the moral of the Paris Exhibition was drawn, so far as modern manufactures of all kinds were concerned. The social and national importance of a conscientious study of the precise condition and prospects of both our staple and decorative trades was warmly dwelt on; and the principal features of each, their fine art affinities, and their technical necessities, were elaborately pointed out. The lecturer concluded his course by urging the conviction upon his hearers, that the worthiest effort of industry should be to emulate that exquisite adaptation of means to ends which characterizes every manfestation of the Creator's skill, while the true artist and student of art should be led to a recognition of the identity of the loftiest conceivable beauty with the attributes of divinity itself.

FOREIGN INTELLIGENCE.

Architectural Documents.—A collection of architectural drawings has been made in the town-hall of Brünn, in Moravia, which deserves extensive imitation. For years past, whenever any old building, or one otherwise characteristic, came to be demolished, an accurate and fine sketch was made thereof to be deposited in the above collection. The Museum of Cologne possesses a similar collection of drawings, bequeathed by the late art-amateur M. de Noel,—but an exhibition in a town-hall seems preferable.

Old Germanic Tombs.—There have been found near Wefelsburg, in the circle of Büren, Prussia, some old tombs. One of them measured 25 paces in length, and 15 paces in breadth, and was formed by about a dozen slabs, each 12 feet long and 3 or 4 feet broad. They were disposed in parallel rows, with an interstice of about 2 feet. Bones and skulls were also found. This locality seems particularly rich in these old Teutonic remnants, as, one mile further, at Kirchborken and Brenken, similar gigantic tombs have been found.

Restoration of Luther's Wartburg.—This old restored German castle promises to become one of the art-jewels of modern times. The medallions, which adorn the gallery leading from the chapel to the main building of the castle, form a cycle of paintings executed by Moritz Schwind, and contain the works of piety of St. Elizabeth, the once owner of this castle. The figures of the relievo-medallions are of the greatest simplicity, and possess much quiet feeling. They have been lately engraved by Julius Thäter. The church built over the grave of the saint is also to be restored.

Rome.—M. Antonio Bianchini, one of the best artists in the mediæval style, has completed the restoration of the old frescoes which adorn the church of St. Benedict and its vault at Subiaco. He has been now called by the municipality of Orvieto to restore the paintings of Luca Signorelli, and other old masters, in the famous Dome of that city. The commissioners of the Papal palaces spend considerable sums in the cleaning and refreshing (!) of the brescoes in the Raffaellian Loggie of the Vatican. M. Bianchini has already restored the paintings and the geographical maps; and M. Montovani, a superior artist in perspective and decoration, is engaged in the restoration of the ornaments. The *ambulacri* of the above palace, which have hitherto open towards the court, are now protected by large curtains.—Antonio Cappi, the continuator of the annals of Muratori, has published a new history of the house of Colonna, which contains many new documents relating to history.—The great bulk of the new five Bajochi copper pieces are generally complained of: they resemble some of the Spartan coins, in a time very little Spartan.

The Last Supper.—That famous fresco, by Leonardo da Vinci, in the refectory of Santa Maria delle Gracia, has been undergoing for the last three years a process, the success of which becomes now pretty palpable. It had been neglected for centuries past, and especially during the French occupation of Lombardy, the former dining-hall of the friars had been used as a cavalry stable. Thus the saltpetre entered the already damp walls on which the fresco is painted, and much impaired its condition. The plaster on which the oil painting had been made, and afterwards repeatedly retouched, was nearly converted into powder, and even entire pieces had fallen off. This partial destruction of the colours and its substratum made it impossible to take the painting off, and transfer it to another ground, a process of which many samples are to be seen in the peristyle of the Brera galleries. Nothing, therefore, remained but to try the fixing of the shaky pieces on the wall by a new connecting medium,—certainly a most hazardous procedure. Now the result may be pretty nearly guessed, as the whole picture, from the figure of Judas to the right, has been already uncovered. The operation has so far succeeded, that one may rub the picture with his hand, all being firmly fixed.

CRIMEAN HUTS.

The timber huts sent out to the Crimea are much complained of. The roofs are not water-tight, the sides are not wind-tight, and the stoves do not give heat enough. At Aldershott there have been two fires in these timber huts. As this is a model camp, we presume the fires were model fires also: a warm look out this cold weather for our men in the Crimea.

The huts in use at Aldershott and in the Crimea have many faults. The framing is clumsy, the boarding is faulty, and when once put up the whole must become mere firewood if removed, as rusty nails cannot be drawn out of thin boards, twisted and warped by sun, rain, and wind. Crimean weather deals with the boarding on the huts as a warm fire deals with parchment if placed near to it: this ought not to be. The uses of a hut are to afford shelter and protection to the men. There should be means of warmth, means of ventilation, and easy means of removal without destruction. Let government advertise for a model hut, having these arrangements:—

1st. All the parts shall be duplicates.

2nd. The parts must be arranged for easy packing and carriage.

3rd. The roof, sides, &c. shall be double, and may be of boards, or light frames covered with prepared canvas, felt, or other material.

4th. Sides and roof shall fit and be secured in place without nails: screws, pins, or hinges may be used.

5th. There shall be bed-floors raised from the ground.

6th. There shall be doors and windows, as also means for ridge ventilation.

7th. The parts shall be capable of making huts of any required length, and be complete for the least.

8th. The eaves shall project to give shade to the sides, from ten to four o'clock, midday.

9th. Portions of sides and ends should be removable, so as to form open verandahs in hot weather.

10th. Means of warmth should not endanger fire.

11th. The colour of the materials should be light.

12th. Seats, tables, and shelves, should pack with the huts.

Huts having these or analogous means of arrangement may be portable and enduring: ordinary soldiers may put them up or take them down: they should be warm and healthy in winter, and cool and healthy in summer. The huts, as first sent out, proved mere fever-traps: the huts as now in use are either cold or fire-traps. They are neither handy nor useful, portable nor durable. A nation which can make metal tubes of any form, rolling shutters of any dimensions, cloths and felts of any strength or consistency, ought not to make and send out wretched pine-timber huts, to be blown through by the wind, rained through by the rain, and burned by the fire necessary to existence. We recommend government to try again: something better may be done.

WROUGHT-IRON HINGES, NOTRE DAME, PARIS.

In a recent notice of the cathedral of Notre Dame, some account was given of the ironwork on the two doors in the west front of the south tower,—the doorway of St. Anne (see p. 537); and we promised to add an illustration of one of them. This we now supply, in order that it may be in the same volume as the description.

We have engraved it from Didron's "Annales Archéologiques." Some writers, as we have already said, attribute this ironwork to the thirteenth century; others to Biscornette, a famous smith of the sixteenth century. We are disposed to think that the doors include work of both these periods; Biscornette having apparently reinstated such of the hinges as were missing or damaged with work of his own.

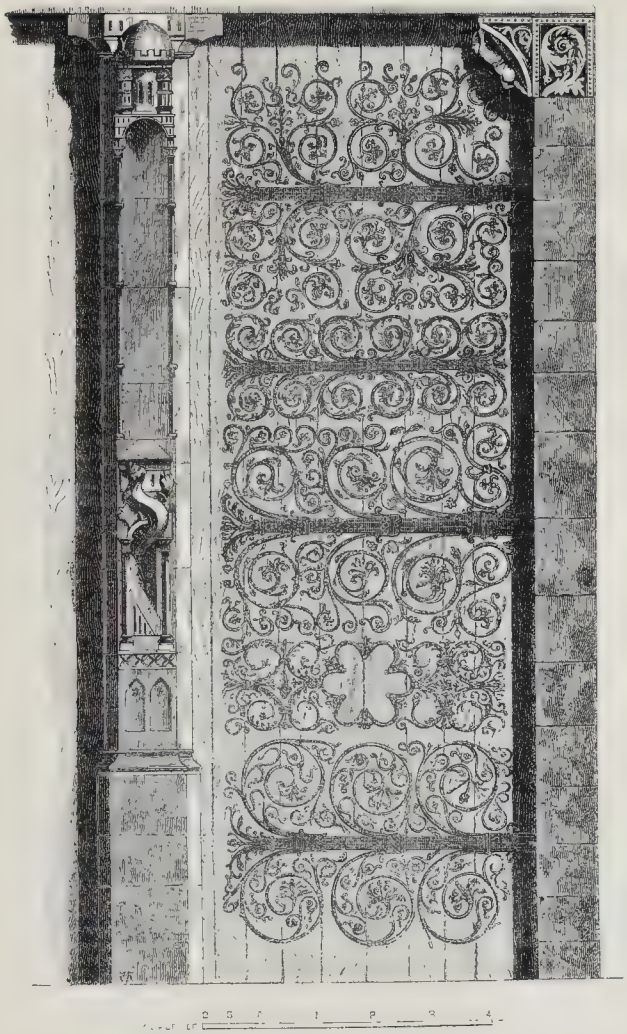
CHURCH RESTORATION IN SUSSEX.

Your correspondent, "An Archæologist," very justly calls your attention to the want of care and proper feeling in the preservation of our ancient and time-honoured fabrics, alluding to the font of Keymer Church, near Brighton. It is much to be regretted that the noble examples of fervour and piety which we have left us should be sacrificed to the feeling for effect almost selfish, and to which many of our clergy and architects of the present day are too much addicted.

An antiquarian feeling should be natural, pure, and earnest, zealous for the integrity of the past; and those entrusted with the care and restoration of our churches would do well to learn the alphabet (if I may be allowed to use the expression) before attempting to work out a subject, as nearly every building of merit has one more or less complete in spirit and detail. I have myself at different times visited many of the churches on the coast of Sussex, and it was with a great deal of pleasure I found the work of preservation and restoration had commenced; for, beautiful as many of them are, they had been much neglected. I have within the last few months again visited some of them. Old Shoreham has for many years been under the hands of various workmen; but as the "higher cast," as it has been termed, than that which I can subscribe to has worked here, I am content to admire it, as I feel fully persuaded that it gave the impetus from which many others have benefitted.

Augmering, a few miles westward, has been enlarged and beautified, at the cost of one of the parishioners, and a noble work it is to leave as a monument. I honour the feeling that has accomplished it; but, as a village church, it is too much decorated, and I fear the moral effect is greatly lost in the effort. The old sexton who shows you the church shows it you as he would a drawing-room, and the lessons the subjects on the beautiful windows should teach are in a great measure lost upon him, and I dare say most of his fellow-parishioners, by a feeling of worldly pride, inconsistent with what it should be. The texts and lettering round the arches are not easily read; but, on the whole, these faults lean to virtue's side, and it is a work of merit nobly accomplished.

Between Shoreham and this lie the parishes of West Tarring, Sompting, and Broadwater. The two former churches have been very



ANCIENT IRONWORK, NOTRE DAME, PARIS.

recently restored. West Tarring is a truly noble church, and the restoration has been completed with much feeling and good taste. In the large space within its walls the font and reredos form prominent features, as they should do, and are both works of merit. Sompting Church, which is well known from its interesting Saxon tower, has also been very carefully restored, and the church, though irregular, is well arranged. The old font is well placed in a baptistery as you enter. The roof is primitive, but a good effect is produced by the largeness of the timbers. These two churches are of a tone and character well suited to the villages, and are what parish churches should be, fitted to the solemnity of our beautiful service. The chancel of Broadwater Church has been much altered, which we have much to regret. A great deal of money appears to have been spent, which in better hands might have been beneficially employed. The new reredos and works round the altar are elaborate, but impure, and appear the work of a house-decorator rather than an architect. The centre is raised abruptly, shortening the east window, which has a very unpleasing effect. This chancel was one of the finest in the county,—and how much better the public would have been served and the time spent in studying and giving the truth of those perishing remnants of majestic thought, than in perpetuating the ill-digested fancies of the hour! The chancel itself is late Norman. The east window has rich Perpendicular work over the subject, which is "The Ascension:" a side window, however, is a very good one.

An old Gothic church, it has been said, is the petrifaction of our religion. They are our standard works and the landmarks of our history, hallowed by the veneration of ages, endeared by the tribute of our forefathers. All that in this world enlarges the sphere of our affections and inspirations is to be reverenced; and those circumstances enlarge it most which quicken our perception of the past. A due contemplation of the past best fits us for the due consideration of the future; and those historic types from which we have learnt so much should be preserved for those who may follow us. It is no light thing to destroy anything that is historically old. If novelty be required, there is space enough to commence anew, and scope enough for the imagination of all; but I would rather witness our consecrated piles moulder under the hand of time and tempest than their vitality destroyed by the renovator.

A BROTHER ARCHÆOLOGIST.

CHURCH-BUILDING AND PROVINCIAL NEWS.

East Retford.—Gamston Church has been restored by Mr. Scott, architect. The restoration originated with the Duke of Newcastle, the owner of the parish. The duke has contributed two-thirds to the restoration of the nave, aisle, and tower, and the rebuilding of the porch; the parishioners one-third. The chancel has been restored by the rector, the Rev. John Twells. The whole building has had new roofs, and the walls have been put into thorough repair, and renewed in many places. The windows have been new glazed by Welch, of Retford; the nave and aisle repaved with small black and red tiles, and the chancel floored with decorated tiles from Minton's manufactory. The sittings are open and plain, composed of oak. The pulpit is of oak, on a stone basement, and placed at the north-east corner of the nave. The chancel-seats are placed stall-wise. The altar-rails were executed by Mr. Skidmore, of Coventry, who has also supplied the chancel corner for nine lights, and the standards for the nave, each containing three lights. The edifice has been warmed with hot air by Mr. Haden, of Trowbridge, at the joint expense of the parish and the rector. The two tables of the Commandments have been placed on a large space of wall above the chancel arch, in old English characters, by Mr. Cassells, of London. The restoration has been conducted under the superintendence of Mr. J. M. Johnston. Messrs. Lee and Webster were the contractors for the restoration. The whole expenses have been about 1,200*l.* for the restoration of the church; 400*l.* for the chancel: in all, about 2,050*l.*

Gravesend.—A new infirmary is being added to the Union-house, from the plans of Mr. John Gould, of which the Poor-Law Inspector speaks well.

Lymington.—On Thursday before last, says the *Hampshire Independent*, the singular and almost unique old church at Boldre—a rude, massive, and irregular structure—erected shortly after the Conquest, in the anglo-Norman style of architecture, having undergone a thorough repair, was re-opened for public worship. It is generally believed that this remarkable old church was built at different periods, the western end appearing to claim the highest antiquity, and the northern portion being stated to bear marks of having been added in the reign of King John. Situated on the summit of a hill at the entrance of the forest, and concealed by a belt of ancient trees, Boldre Church has escaped the ravages so prevalent among the British ecclesiastical edifices during the more unsettled and turbulent periods of our eventful history, and thus remains intact.

Salisbury.—A monumental brass is about to be placed in Salisbury Cathedral, in memory of Lieut. Greathed, one of the Crimean heroes. The inscription on it has been engraved by Mr. Bennett, of Southampton.

Aberavon.—The new church at Cwmavon proceeds towards completion. The contractors, Messrs. James and Price, Cardiff, have obtained the contract for two dissenting chapels which are to be built in the same valley.

Bridge-end (Wales).—On Sunday before last, the new Roman Catholic Chapel was opened for celebrating mass. It is built in the Italian style. The builder is Mr. John Jenkins, of Bridgend. It is said the chapel will not be consecrated before the chancel is built and the altar added to the building—the altar-piece fitted up now being only temporary: the sittings also are not yet fixed. The flooring is made of bricks, and laid herring-bone wise. The whole undertaking has been done at the expense of Mr. Illtyd Nicholl and Misses Nicholl, of Merthyrmawr.

Weymouth.—The local Burial Board held a meeting on Monday before last, when Messrs. Crickmay and Thomas's contracts for building the cloister and wall in the cemetery were signed. It is understood that the cemetery will be consecrated early in the spring.

Boston.—The restorations of Sibsey Church approach towards completion. New roofs have been put upon the nave and aisles, the north aisle has been entirely rebuilt, the plaster and whitewash stripped from the walls, and, generally, the decayed places of the church have been restored. The lay rector, Mr. Gape, rebuilt the chancel on the old foundations, and in it Messrs. Waite and Saul, the churchwardens, have each erected a memorial window of stained glass; while a third window has been placed at the west end of the church by the Rev. T. L. Edwards, curate. All three windows are by Mr. Ward, of London. A further subscription has been entered into, and aid obtained from the Society for Building and Enlarging Churches, to reseat the whole of the interior with open benches, and considerably to enlarge the accommodation for public worship. The work has been done under the superintendence of Messrs. Parry and Kirk, of Sleaford, by Mr. Whitworth, of Boston, and Mr. Webster, of Wyberton; the former having executed the chancel, and the latter all the rest of the work. A view of the church, from the south-east corner of the churchyard, has been published to commemorate these restorations; the profits of its publication to be devoted to the restoration-funds.

Rotherham.—At a recent meeting of the feoffees of the common lands of Rotherham, they resolved upon the erection of a new and more commodious grammar-school, with schoolmaster's house attached. The new school is to be adequate to the accommodation of 100 pupils, and a plot of land adjoining the lower part of Moorgate-road has been selected for the site. The building is to front towards Moorgate, but to be placed sufficiently backwards to admit of lawn and flower-garden intervening. The style of architecture has not yet been decided upon, but it is believed that the Gothic style will be preferred. The buildings are expected to cost somewhat more than 1,000*l.* The feoffees are already in communication with architects on the subject.

Burnley.—The intended new cemetery for this town comprises an area of 18 acres: 12 acres only are fenced in at present: the remainder is so arranged as to be readily added when required. The works are making progress. There are three chapels, entrance-lodge, &c. being erected from designs furnished by Mr. Worthington, architect, Manchester. The cemetery is to be opened on the 1st of April next.——The company of proprietors of the existing market-place having advertised for designs for a new market, have awarded the first premium of fifteen guineas to Mr. G. T. Robinson, architect, Leamington; and the second premium of ten guineas to Messrs. Davies and Tow, architects, Chesterfield. There were nine competitors. The contemplated outlay is 2,500*l.* or 3,000*l.*; the old materials in the existing market-place being used as far as practicable.

Masbro'.—It is proposed to erect a large school-room in Masbro', for behoof of the operatives and labouring classes in that locality.

Durham.—From plans deposited in the public offices of the county of Durham, it appears to be in contemplation to apply to Parliament, in the coming session, for further powers for acquiring lands, over which runs a portion of the Stockton and Darlington Railway, and extending that line a further distance to the east, in the township of Middridge, St. Andrew's Auckland, Heighington, Witton-le-Wear, Newlandside, and Shildon.

Glasgow.—The accommodation in the Upper Court-house, Jail-square, in this city, having been long complained of by the Lords Justiciary as quite unsuitable in respect both of accommodation and ventilation, the Lanarkshire Prison Board have inspected plans for a new hall. The plans were approved, and directions given that the work should be proceeded with. According to the plans, the portion of the Justiciary-buildings facing the Clyde, formerly occupied by debtors, but at present out of use, is to be gutted, and reconstructed much on the same plan as the lower court-house.

Dundee.—St. Paul's Episcopal Church was opened on Thursday before last by the Bishop of Brechin, assisted by the Bishop of Moray, and a large assemblage of episcopal clergymen. The form of opening was not that of consecration, in consequence of the edifice not yet being fully made over to the Episcopacy. The foundation-stone of the chapel, which stands on the site of the old Castle of Dundee, was laid on the 23rd July, 1853. The design was furnished by Mr. Scott. The spire is 210 feet in height, and like the whole building, has been executed in the Middle Pointed style of architecture. The building itself is cruciform; the length of the nave 84 feet, and its width 24 feet; the width of each of the side-aisles, 10½ feet. The length of chancel is 35 feet, and its width 24 feet. The height from floor to apex of roof of nave is 67 feet. The building is seated for 600 persons, and will cost, exclusive of site, about 11,000*l.* There are seven stained-glass memorial windows, illustrative of scriptural subjects, presented by Sir John Ogilvie, the family of Dean Horsley, the relations of the late Rev. J. Hetherington, the Misses Clayhills of Invergowrie, Miss Guthrie of Taybank, and the Misses Guthrie of Guthrie. The pulpit, an octagonal work of Caen stone and granite, was presented by Mr. Clayhills of Invergowrie; and the centre-block of the front, presented to the bishop by the Rev. Dr. Anderson of Newburgh, is believed to have belonged to the old Abbacy of Lindores. The brass lectern was presented by the Dowager Duchess of Argyle. The Castle-hill rising abruptly from the north and west, the foundation of the church approaches the tops of some of the neighbouring houses; and the height of the edifice itself—thrown up on such an elevation—renders it conspicuous in every distant view of the town. The tower is the chief feature of the exterior of the building. It is said to have been imitated, with some modifications, from the old steeple of the town's churches, with the addition of a spire, making the church, it is believed, the highest in Scotland. At the north-west corner there is a semi-octagonal turret, capped with a pinnacle, and forming one of the characteristics of the tower. There are two adjacent belfry-windows under the transome: they are each of a single light, above which there are in each two trefoil-lights, with a foliated circle in the head. In the lower stage of the tower there is properly but one window on the western side: it is two-lighted, and with two more trefoils in the head. The style in the interior is modified by some peculiarities of the ancient architecture of Scotland. The plan comprises a nave and two side-aisles, north and south transepts, chancel, and chancel-aisles, the chancel being terminated by an octagonal apse. The great height of the transept is one of the most striking features inside the building. The windows, north and south, are of four lights, in two divisions. One of the chief features in the church is the belfry-arch. Itself of three orders, it carries half-way up its height a projecting balustrade of quatrefoils for a kind of gallery, above which, from the interior, the west window is visible. To the south of this belfry is the vestry, lighted by a skylight, with wooden mullions.——The Panmure-street Congregational Chapel was opened on Friday in week before last. The church, says the *Northern Warder*, is in a style in keeping with the New Exchange in the neighbourhood, and is from a design by Mr. David Bryce, of Edinburgh, and has been erected under the superintendence of Mr. Scott, the town architect. It is seated for 600.

Arbroath.—On Wednesday morning, says last week's *Arbroath Guide*, one of the turrets on the south side of our steeple was seriously injured by the gale. The top part was blown down, injuring in its descent the roof of the Old Church. The turret itself continued to oscillate so much, that it was deemed necessary to stop all communication through the Kirk Wynd.

Middlesex Archæological Society.—On Friday, the 14th instant, the inaugural meeting of this new society was held at Crosby Hall, in the City. Indisposition having prevented the attendance of Lord Londesborough, the president of the society, the chair was taken by the Rev. Thomas Hugo. The Marquis of Salisbury, K.G., Lord-Lieutenant of Middlesex, was elected patron. The Lord Mayor, Lord Robert Grosvenor, M.P., Mr. A. B. Beresford Hope, and several other gentlemen were elected vice-presidents; and with these twenty other gentlemen were associated to form the "council" by whom the affairs of the society should be conducted. The society purposes to devote its energies to the investigation of the history and antiquities of the metropolis and metropolitan county.

ILLUSTRATED BOOKS.

Maclise, Mulready, E. M. Ward, Cope, Creswick, Horsley, Millais, Egg, Stone, Creswick, Frost, Frith (misprinted Forth in the list), and Sant,—mostly well engraved by W. Holl, F. Holl, Wallis, L. Stocks, and others,—have been called in to illustrate Moore's Irish Melodies,"* and have aided in producing a volume which must have place amongst the most elegant gift-books of the season. Maclise's frontispiece, Frith's "Love's Young Dream," Creswick's "Vale of Avoca," and Ward's illustration of the lines beginning "One fatal remembrance," may be especially mentioned. Mr. Sant's contribution is not a fair specimen of the artist's skill.

Mr. Simpson's truthful drawings at the Seat of War, of which we have already spoken more than once, have been reduced in size to form an illustrated volume called "The Campaign in the Crimea," and have descriptive letterpress and an historical sketch by Mr. George Brackenbury. It forms a charming drawing-room book, and a deeply interesting record.

The first series of the views at large is now completed, and comprises forty subjects. A second series is to be commenced forthwith.

The new edition of Otto Speckter's illustrated "Puss in Boots" (Murray, 1856), was bought largely at the publishers' trade sale, and the juvenile public will doubtless ratify the opinion of the booksellers. The illustrations are varied, characterful, and funny: the expression of the cat throughout admirable. Long may it be, ere Puss in Boots, Jack the Giant-killer, the Seven Champions of Christendom, and the other mythic heroes of early days, be deprived of their dominion in the nursery of babyhood and the memory of old age!

AMERICAN PATENTS.

The following are selected from a list of recent patents published in the *Journal of the Franklin Institute of Philadelphia*:—For an Improvement in Brick Machines: G. W. B. Gedney, City of New York. Claim.—"The off-bearing boards as applied. Also, the fingers for placing the board from the mould on to the endless apron."——For an Improved Sawing-mill: Dean S. Howard, Lyonsdale, New York. Claim.—"The method of setting the log forward after each board is severed, by mechanical devices operated by the weight of the log. 2. The method of cutting from either end of the log with a circular saw, by hanging the saw in a vibrating frame, or its equivalent, so that the axis of the saw may be above the log when cutting from one end, and beneath it when cutting from the other end, so as to cut either way against the grain of the wood. Also, the self-setting arrangement, whether in connection with the circular saw or the single or double-edged reciprocating saw, as equally applicable to either."——For a Dovetail Key Cutter: Amos P. Hughes, Philadelphia, Pennsylvania. Claim.—"The combination of two angular V shaped and adjustable cutters with the guiding tube, or its equivalent."——For an Improved Plane Bit: Horace Harris, Gorham, New York. Claim.—"The adjustment of the cap and bit with the grooves at each side, and of the thumb-screw at the top of the cap and bit for the regulation of the cut of the bit, while the iron is held fast in the stock by the wedge fastening."——For a Dovetailing Machine: John J. Haley, Philadelphia, Pennsylvania. Claim.—"The forming of a dovetail either as a mortise or a tenon at a single operation, by angularly-placed reciprocating chisels, in combination with horizontally placed chisels, arranged substantially as set forth. I claim giving a reciprocating motion to the chisels, by the snail cam or shaft, in combination with chisels, gear, and pitman rods, for the purpose of actuating the chisels in unison with each other, in the manner described. Also, the arrangement of the angular guides, in combination with the guide, for the purpose of effecting the undercut or sides of the dovetail. Also, the arrangement and combination of the angular guides and chisels on stocks, with the horizontal chisels and guides and snail on shaft for producing the dovetail and completing the mortise in the manner set forth."——For an Improved Farm-gate: Smith A. Skinner, Derby, Vermont. Claim.—"The manner of making the gate, viz. of a series of bars or chains, and upright chains, connected and arranged so as to fold into, and unfold out of, a recess below the sill. Also, the combination and arrangement of the latch bar and the cords, the same being constructed and applied to the windlass."

* Longman, Brown, Green, and Longmans. 1856.

THE PRACTICAL OPERATION OF THE "NUISANCES REMOVAL AND DISEASES PREVENTION ACT."

This Act empowers the various sanitary committees appointed under it to inspect existing houses, and to summon the owners, so as to compel them to make such alterations in the construction and ventilation of the houses, sewerage, &c. as shall induce proper sanitary arrangements. If need be, in extreme cases, magistrates are empowered absolutely to close, as dwelling-houses, such tenements as, owing to dilapidated condition or fault of original construction, cannot be rendered habitable within the meaning of the Act. The first instance in which the recent Act has been brought into forcible operation is in the borough of Salford, where attention has been drawn to a block of buildings in Jackson's-square, Greengate, Salford. The tenements in question consist of nine double-roomed houses, and twenty-two single. It almost seems as if every possible provision had been made to render them uncomfortable and unhealthy. Some of the houses are built on the ground: others are built on raised platforms, and have at various times had sheds attached to them for the reception of horses, donkeys, and cattle. Twenty-seven of these hovels were inhabited up to the time of proceedings being taken,—twenty of the single-roomed and seven of the double-roomed, making in all thirty-four rooms. The population numbered ninety-six. The owner was summoned before the Salford magistrates to show cause why the houses should not be rendered fit for human habitation. The owner did not appear, but Mr. Newton, the mortgagee, set up as a defence that the magistrate had no jurisdiction. Several adjournments were taken, and recently an order was made that the tenements should be forthwith vacated by the occupiers, which order is now in process of being carried out. The practical effect of the order will be to lead to the absolute demolition of the whole.

ARCHITECTURE OF PARIS.

ARCHITECTURAL INSTITUTE OF SCOTLAND.

At a meeting of the Architectural Institute of Scotland, held on the 17th inst. Mr. David Cousin, city architect, read a paper on "the Domestic Architecture of Paris," in the course of which, after describing Paris houses, he said, the French deal greatly less in dinner-parties than the people of the same class in this country, and, as a rule, they sit a much shorter time at the dinner-table. The dining-room, therefore, in the middle-class houses, is a less important room than it is with us. The saloon or drawing-room is the living room of the family, where they receive their evening social parties. The floor of the dining-room, often without a carpet, is either glazed tiles or polished oak boarding. The kitchen is generally a very small apartment as compared with those of our own houses, and but sparingly supplied with closets or scullery accommodation. From the peculiar construction of the kitchen-range, little heat, dust, or smell is created in cooking. The cooking apparatus of ordinary houses consists of a series of small choffers, heated by charcoal, raised on a platform about the height of an ordinary table, on which kettles or pots of various sizes are placed for boiling or stewing meat. They have besides a small portable fireplace and oven, so light as to be easily lifted about, for roasting meat, which is placed on the same platform when in use. A projecting hood envelops the whole platform, and carries off all vapour or smoke into the chimney. Charcoal is always used in the kitchen, and generally wood for the room fires, though coal is now getting more into use than formerly. The elegance of the interior decoration of the cafés and restaurants of Paris must have struck every one who has visited that tasteful capital. The same quality of decoration pervades the private dwellings, varying in extent according to the means of the occupants. The wood-work of the drawing-room is generally painted in a light shade, nearly white — the smaller members of the mouldings being gilded. Oil paint is seldom used for the walls: when it is so, the shades of colour are generally light, of a grey drab, or green hue, formed into panels, and ornamented with stencilling in a light shade. More frequently the walls are papered, which is generally of a low tone; the ornaments flat, of the same shade as the ground. Green, grey, or French white are the prevailing colours, finished with an ornamental gold border. We rarely find those gaudy papers, with garlands of roses and other imitations of natural flowers, which pass here for French papers. These gaudy designs are, I fear, prepared by the manufacturers to meet the demands of their customers on this side of the Channel. The ceilings are generally white, the plaster ornaments hatched with gold, the smaller members of the enrichments being done in solid gilding, which is distributed with great judgment, so as to bring out the detail of the ornament, rather than to obscure it by a dazzling display of gold on the prominent features. Mirrors are introduced in great profusion. Mr. Cousin alluded to the multiplicity of royal palaces in and around Paris. These stupendous architectural works, he said, all serve as the repositories of the kindred arts of sculpture and painting; and all are freely thrown open to the people. The gilded halls and corridors of these imperial mansions are crowded with the artisan and the peasant, on their oft-recurring holidays, enjoying the highest works of the chisel or the pencil. There is no crowding, no jostling or elbowing past each other. The greatest politeness prevails. The art education thus afforded to the masses has done its work effectually in refining the manners, and inducing that outward decorum which in this country is looked upon as the characteristic of the upper classes only. The amount of rational and elevating enjoyment thus afforded to the great bulk of the people by these places of public recreation is cheaply purchased if they have in any degree aided in leading to those habits of politeness and sobriety which form such a marked characteristic of the French people. In comparison of the treasures of art everywhere displayed in and around Paris, nothing whatever has been done by the Government of this country for the encouragement of rational amusement, or the refinement of taste in the great body of the people.

BRIGHTON.

The works of the old Water Company being inadequate for the supply of Brighton, a new company was brought into operation at the commencement of the present year, and has extended the works very considerably. The editor of the *Brighton Gazette* gives an account of a visit to them, from which we learn that the new engine, by Messrs. Easton and Amos, is of 100-horse power, working two pumps, each capable of throwing 1,000 gallons a minute. The engine presents a combination of the high-pressure and the condensing engine. The two cylinders adapted to these objects are connected on the same end of the beam by a parallel motion. The steam, of the force of 30 or 35 lbs. to the square inch, having passed through the high-pressure cylinder, enters, at a temperature reduced to 14lbs., the condensing cylinder nearer the fulcrum of the beam. It is well known that a large quantity of cold water is rendered hot in the process of condensation. This water, as well as that for the supply of the town, which it is the special object of the works to provide, has to be raised by machinery. Instead, then, of allowing this heated water to run to waste, it is thrown by the successive strokes of the engine into a trough, whence by a plane gently inclined it finds its way into what we may call a cooling reservoir, so that the water is continually worked over and over again.

Descending a shaft 130 feet deep, the scene and the sounds which there met the eye and the ear were of the strangest kind. On either hand was an irregular excavation in the chalk rock, extending, horizontally, beyond the reach of the eye, lighted as it was with here and there an excavator's candle, vertically, some 30 feet or more, the roof being only here and there visible by its more prominent irregularities. The old works had consisted of a tunnel or driftway, some 200 feet in length, in width 6 feet, occasionally bulging into larger dimensions, of depth varying from 16 feet upwards, and ending in a well. The dip of the strata is in Brighton towards the sea; but the strata are broken into masses approaching the irregular cubic in form by fissures. The rain which falls on the surface is absorbed by the chalk, and gradually percolates or infiltrates downward till it meets fissures, in which it collects in larger or smaller quantities, and thus proceeds more rapidly in its downward and southerly course. The object of driving these driftways is to intercept these fissures, and thus divert the water which they contain from their natural into an artificial channel leading to a well, whence it can be lifted and disposed of by machinery.

The old works have been lowered some twenty feet; and, from the descent-shaft, the new Company have carried similar tunnelling westward at a depth of some 150 feet, to near the Lewes Railway. It was intended to extend the excavation to the boundary; but the water has lately been met in such abundance as to necessitate an abandonment of further progress.

The total length of the tunnelling is 900 feet; and the area will, it is estimated, contain upwards of a million gallons of water.

The competition for the proposed workhouse at Brighton has led to much trouble and useless expenditure. We have at different times received communications on the subject, but did not see our way to a useful interference.

Mr. Collins, the successful competitor, brought an action against the Board of Guardians for the recovery of 309*l.*, the amount of his charge for making out the working drawings, &c., after the design had

been approved by the Poor-Law Board. According to the local *Herald*, the cause was defended on the ground that the charge was exorbitant, and the trial was to come off at the Court of Common Pleas on Tuesday, but the matter was compromised by Messrs. Edwin James, Creasy, and Johnson, defendant's counsel, agreeing to pay the sum of 50*l.*, which sum the plaintiff agreed to take in full of all demands. When the decision was laid before the Board of Guardians last week, the manner in which the compromise had been entered into, without any member of the Board being present, was condemned by various members.

ALNWICK CASTLE.

Works of architectural improvement and interior decoration are in progress at Alnwick Castle. The absence of a great central keep has been regretted. This desideratum the new "Prudhoe Tower" will supply, and it will form a culminating point to the architectural and picturesque grouping of the whole, corresponding in this respect to the Round Tower of Windsor Castle. This new tower is already raised about 20 feet above the surrounding building, and it forms a prominent object from whichever side the castle is viewed. Its exterior foundations project considerably into the outer ward, and its junction with the main body of the castle, through which it entirely passes, is formed by the removal of one of the semicircular towers. Its style of architecture is Edwardian.

With the erection of the Prudhoe Tower, the principal part of the interior is undergoing a rearrangement and restoration. The new buildings occupy the site of the old staircase tower, and project into the inner court, where space has been found for the erection of a groined carriage-porch, leading into a spacious entrance-hall, out of which rises the grand staircase (which is new), commencing at a width of more than 20 feet, and continuing to the principal place at a width of 12 feet. At the head of the staircase is a large vestibule, out of which visitors will pass into an ante-room, from which leads the great new library in the Prudhoe Tower on the one hand, and the saloon, drawing-room, and dining-room on the other. These three last rooms will still retain nearly their former position, but will be materially altered and improved in size, form, and ornamentation. Another improvement obtained by the architect, Mr. Salvin, in the new arrangement, is a corridor or gallery, skirting these rooms, giving a separate entrance to each. In the decoration of the new library and state-rooms, Italian artists are engaged. The roofs and walls are to be decorated with wood carvings, which are now in progress under the eye of the Duke himself.

Nearly 250 men are constantly engaged in different parts of the work. The general superintendence is under the direction of Mr. F. R. Wilson, the resident architect, who, at the request of the Duke, in addition to his other duties, instructs a large class of skilled workmen and senior scholars in the practical elements of scientific drawing in his Grace's school.

WATERWORKS.

Chester.—The works approaching completion by the canal side, Boughton, render a greater main than the present one of eight inches necessary; and accordingly one of twelve inches is being laid down in Boughton. This main will be brought to the Cross, and from it all the branches will be supplied, except that to Newtown. For this suburb the present 8-inch pipe will be used.

Cambridge.—The new works are now in full operation, and the water has already been introduced into many houses and several colleges. A house under 5*l.* a year, including a water-closet, will be supplied for 1s. 1d. per quarter; one not exceeding 8*l.*, for 2s.; not exceeding 10*l.*, for 2s. 6d.; not exceeding 15*l.*, for 3s. 9d. per quarter: and if there be a private bath, 1s. extra; and so on in proportion. The supply will be constant: no cisterns will, therefore, be necessary for domestic use, except for supplies of a peculiar kind. With large consumers special agreements will be made; and the company engage to fix and maintain, at their own cost, water-meters at a certain rate of charges. In case of fire, they will furnish an abundant supply without charge.

Bradford.—Preparations are being made for carrying out the proposed new works. The project comprises, in addition to a small extension of the present works, a comprehensive scheme for bringing a large supply of pure water from the neighbourhoods of Bolton, Bardon, and Burnsall, in Wharfedale. The quantity estimated is eight millions of gallons per day, yielded by springs and streams, none exceeding three degrees in hardness. It is also proposed to intercept the waters of several streams in Airedale, at points where the aqueduct from Wharfedale to Bradford crosses them. These sources, with the present works, will supply about two millions of gallons per day more, making a total of ten millions of gallons per day. The Wharfe millowners agreed to leave the question of compensation to some eminent engineer; and Sir William Cubitt was selected, his duty being to fix what should be the capacity of a compensation-reservoir. The 27th ult., at chambers in Westminster, was fixed by the referee to commence his hearing. Besides counsel, &c., there appeared for the Wharfe millowners Mr. J. McLandsborough, civil engineer, Bradford; and for the corporation, Mr. J. W. Leather, civil engineer, Leeds. In addition to these gentlemen, the following witnesses were examined:—Mr. Simpson, president of the Institution of Civil Engineers; Mr. Hawksley, C.E.; Mr. Bateman, C.E.; and Mr. Glaisher, of the Greenwich Observatory. The inquiry terminated on 1st December, when the referee adjourned to make his award.

Glasgow.—For the Glasgow water supply, a dam is to be constructed at the outlet of Loch Katrine, at its east end, so as to raise the water of the loch four feet. Power is also taken to lower the present level three feet. There will thus be a depth of seven feet of water over the whole surface, available for the supply of the city. As a compensation to millowners for the water abstracted from Loch Katrine, two lochs are to be raised by dams—Loch Venacher 5 feet 9 inches, and the small Loch Drunkie 25 feet up its precipitous sides. From Loch Katrine the water for Glasgow is to be led in a covered aqueduct, by a tolerably direct route, to near Mugdock Castle, in the neighbourhood of Glasgow, where a great reservoir is to be constructed, from which the city will be supplied by means of iron pipes. The great aqueduct is to be eight feet wide and eight feet high to the centre of the arched roof, and covered throughout. On starting, the aqueduct will be 350 feet above the high-water level of the Clyde at Glasgow. The descent of the conduit is only to be at the rate of 1 in 6,336, or 10 inches per mile. The surface of the Mugdock reservoir will be 312 feet above that of the Clyde at high water. A pressure will thus be afforded, on the gravitation principle, sufficient to send the water to the highest floors of the highest houses in Glasgow. To Glasgow Bridge the total length from Loch Katrine is 34¼ miles. Heavy engineering-works will be required in the formation of the Loch Katrine aqueduct. In many parts even roads will have to be constructed for the conveyance of material.

Notices of Books.

TRAVELS IN THE EAST.

Himalayan Journals: Notes of a Naturalist in Bengal, the Sikkim and Nepal Himalayas, the Khasia Mountains, &c. By Joseph D. Hooker, F.R.S. A new edition, in two volumes. Murray, London. 1855.

A Lady's Second Journey round the World: from London to Cape of Good Hope, Borneo, Java, Sumatra, Celebes, Ceram, the Moluccas, &c.; California, Panama, Peru, Ecuador, and the United States. By Ida Pfeiffer. In two volumes. Longman and Co. London. 1855.

The great "plateau," as it has been called, of Tibet, rising 9,000 to 12,000 feet above the sea, with its still more elevated Himalayan, mountainous, and precipitous border, southward and seaward, rising to a towering height, as some of its mountains do, even to the extent of 28,000 feet, and far beyond the level of all other earthly footing,—seeming, in its linear range, as if it were the geological remains of some tremendous sea-coast cliffs, protective of an ancient table-land of Titans, rising, all alone, above what was once an almost universal ocean, —constitutes, in all, a district of the globe replete with geological, ethnological, and general interest; and it is a district almost as new to us western nations, as it is thus, naturally or physically, wonderful; although its inhabitants, according to such recent travellers as Messrs. Huc and Gabet, and Dr. Hooker, exhibit but as it were the wreck of ancient grandeur, and, as it appears to us at least, of almost antidiluvial civilization. That the extreme east, comprising Tibet as its ethnological fountain-head, and spreading still farther eastward, down into the rich and fruitful territories of the Chinese, and southward into Cochin China, Burmah, and India, and even westward through the gates of the Hindoo Koosh into the Plateau of Iran or Persia, and as far even as Arabia and Egypt, constituted a vast region of civilized human life at a period when we, in the far west, were still in a comparatively wild and barbarous state, or at least but as the rude and sturdy emigrants, backwoodsmen, and outposts, of this very human family,—there seems to be very good reason to believe; although, in the course of time, the more enterprising western emigrants (if such they were) got so far "ahead" of their more stagnant forefathers, that the "old fogies" of the far east at length began to be regarded as the true barbarians, and became ultimately almost all confounded under the vague, general, and ignorant denomination of Scythians, Tartars, Goths, and other disreputable cognomens. Ethnological progress now appears to point to the high land of Tibet as the fountain-head even of eastern emigration, as into China, Cochin China, and Burmah. There is a complete radiation of important rivers, which arise from the eastern portion of the Tibetan high land, and which all spread eastward and southward, down into "the flowery lands" of China, Cochin China, and Burmah; and it is an interesting circumstance, that ethnological progress in the east appears to have pursued the very same course along these rivers, so that the less ancient eastern forms of human language are found downwards near their efflux, and the more ancient upwards near their source. However, it is not our purpose here to enter on any learned discussion on the origin and routes of human language or progress: we merely wished to indicate the great and special interest of the general field of Dr. Hooker's researches, though these were mainly as a naturalist. What we desire more particularly to do in this article is to glean a few architectural and other details from his very pleasant volumes, in connection with others, of a kindred order, from the new work by that extraordinary lady, Mrs. Ida Pfeiffer.

While engaged in his researches on a spur from a fir-clad shoulder of the great and "holy" Kinchinjinga, the monarch of mountains, which towers to a height of 28,174 feet above our present sea level, Dr. Hooker stumbled on a flat covered with temples, chaits (or regular old-fashioned but tasteful churchyard monuments, shaded by the beautiful funeral cypress), and other buildings connected with an establishment of those singular archetypes, or precursors, as we may call them, of the Popish priesthood, the *Lamas* of "the holy land" of Tibet, or Bhot,—the contemplative devotees of Boodh, Bhud, or Phut. Illustrations of these temples are given by the author. The temples, three in number, stand about fifty yards apart, but are not parallel to one another, although their general direction is east and west. Each is oblong, and narrowed upwards, with the door at one end. The middle (and smallest) faces the west, the others the east: the doorways are all broad, low, and deep, protected by a projecting carved portico. The walls are immensely thick, of well-masoned slaty stones: the outer surface of each slopes upwards and inwards: the inner is perpendicular. The roofs are low and thickly thatched, and project from 8 to 10 feet all round, to keep off the rain, being sometimes supported by long poles. There is a very low upper story, inhabited by the attendant monks and servants, accessible by a ladder at one end of the building. The main body of the temple is one large apartment, entered through a small transverse vestibule, the breadth of the temple, in which are tall cylindrical praying-machines.

The carvings round the doors of the temples described are said to be very beautiful, though, to Dr. Hooker's taste, gaudily painted and gilded. The northern temple is quite plain. The middle one is simply painted red, and encircled with a row of black heads, with goggle eyes and numerous teeth, on a white ground. It is said to have been originally dedicated to the evil spirits of the Lepcha creed,—a sort of heathen engrafture on the more orthodox and intellectual Lama or Bhoodist creed, that also reminds one forcibly of Romish practices. The southern, which contains the library, is the largest and best, and is of an irregular square shape. The inside walls and floors are plastered with clay, and painted with allegorical representations of Boodh, &c. From the vestibule the principal apartment is entered by broad folding-doors, studded with circular copper

bosses, and turning on iron hinges. It is lighted by latticed windows, sometimes protected outside by a bamboo screen. Owing to the great thickness of the walls (3 or 4 feet), a very feeble light is admitted. In the principal temple, called 'Dugang,' six hexagonal wooden columns, narrowed above, with peculiar broad transverse capitals, exquisitely gilded and painted, support the cross-beams of the roof, which are likewise beautifully ornamented. Sometimes a curly-maned gilt lion is placed over a column, and it is always furnished with a black bushy tail: squares, diamonds, dragons, and groups of flowers, vermilion, green, gold, azure, and white, are dispersed with great artistic taste over all the beams; the heavier masses of colour being separated by fine white lines. The altars and idols are placed at the opposite end; and two long parallel benches, like cathedral stalls, run down the centre of the building: on these the monks sit at prayer and contemplation, the head Lama occupying a stall (often of very tasteful design) near the altar. The principal Boodh, or image, is placed behind the altar) under a canopy like a Moorish arch, or behind a silk screen: gaily dressed and painted effigies of sainted male and female persons are ranged on either side, or placed in niches around the apartment, sometimes with separate altars before them; whilst the walls are more or less covered with paintings of monks in prayer or contemplation. All are placed on rude pediments, so painted as to convey the idea of their rising out of the petals of the pink, purple, or white lotus. None are in any way disagreeable: on the contrary most have a calm and pleasing expression, suggestive of contemplation. The great or south temple contained a side altar of very elegant shape, placed before an image encircled by a glory. Flowers, juniper, peacock's feathers, pastiles, and brass cups of water were the chief ornaments of the altars. In this temple was the library, containing several hundred books, in pigeon-holes, placed in recesses.

"The effect on entering these cold and gloomy temples," says Dr. Hooker, "is very impressive: the Dugang in particular was exquisitely ornamented with painting, and the vista from the vestibule to the principal idol, of carved and coloured pillars and beams, was very picturesque. Within, the general arrangement of the colours and gilding is felt to be harmonious and pleasing, especially from the introduction of slender white streaks between the contrasting masses of colour, in the same manner as was adopted in the Great Exhibition building of 1851. It is also worthy of remark that the brightest colours are often used in broad masses, and when so, are always arranged in the sequence of the rainbow's hues, and are hence never displeasing to the eye. The hues, though bright, are subdued by the imperfect light. The countenances of the images are all calm, and their expression solemn. Whichever way you turn, the eye is met by some beautiful specimen of colouring or carving, or some object of veneration. The effect is much heightened by the incense of juniper and sweet-smelling herbs which the priests burn on entering,—by their grave and decorous conduct,—and by the feeling of respect demanded by a religion which inculcates and adores virtue in the abstract, and those only amongst men who practise virtue. To the idol itself the Boodhist attaches no importance: it is an object of reverence, not of worship, and no virtue or attribute belongs to it *per se*: it is a symbol of the creed, and the adoration is paid to the abstraction which it represents."

The temples and convents of this establishment were founded upwards of 300 years since, by Lamas, who emigrated from Tibet to Sikkim.

Various other temples, and many chaits, &c. are described by the author in the course of his excursion, but what we have already said affords a fair idea of the whole. There are indications, in some of the engravings which illustrate Dr. Hooker's very interesting volumes, of a curious similitude in symbolical forms between the figures of some Lama priests and sculptured figures of the god-priests of Assyria, as discovered by Mr. Layard, at Nineveh. Thus, one Lama priest wears a mitre with something very like the shape of the scrolls, or "horns," as they have been (erroneously, we think) called, on the sides of the head-dress of the Assyrian priest, and he holds a trident in his hand, which was also a distinguished Assyrian symbol. What is very notable, too, in reference to the mitre just referred to, is the fact that in a prominent position on its frontal part, there is a cross and also a crescent! Some of the Lama priests wear complete cardinals' hats, bands and all, and of scarlet colour too. In another engraving, an exact similitude of the ring-glory round the heads of saints in stained-glass windows, and other ecclesiastical depictures amongst Christians, appears in the form of the ordinary head-dress of the Lepcha or Sikkim young women. The glory, as it is called, is made of plaited hair, and rises from the back of the head into a wide and open ring clear above the head. How curiously this reminds one of a rather obscure passage in the New Testament, where St. Paul speaks of a woman's hair being her glory, "because of the angels!" Dr. Hooker remarks, in respect to some of the national games and amusements of children in Sikkim, that they strangely reminded him of his own early associations, and in a way that convinced him the coincidence was not merely accidental.

At Nurtiung, in the Jyntea hills, Dr. Hooker came upon a very striking kind of Stonehenge, with "head-stones," some of them no less than 30 feet high, 6 feet broad, and 2 feet thick, standing erect, and sunk probably 5 or 6 feet more in the ground, beside others of a circular form, like seats or chairs, to which the head-stones are the backs. These seat-slabs are 10 to 20 feet broad, and supported, 5 feet from the ground, upon other blocks. They are now mostly buried in brushwood and nettles, and all stand within the shade of a fine grove of fig and banyan trees still existing. One of the banyan-trees has a trunk 5 feet in diameter clear of buttresses, and numerous small trees of celtis grow out of it.

We must now turn to Mrs. Pfeiffer's new work. This lady, as every one knows, has travelled amongst all sorts of nations and tribes of men, from the most civilized and moralized to the most savage and ferocious,—and it is a sad corollary which she draws from all her vast experience,—that some of the worst sort of people she was ever amongst were called "Christians,"—and she had just before been on the point of being eaten up by cannibals on an East-Indian island, only she was rather old and tough, as she herself suggested, to their astonishment, in their own native language, thus securing a brief interval of good-humoured hilarity, before the subsidence of which she made her escape.

At Kotto Godong, in the interior of Sumatra, Mrs. Pfeiffer saw towns with houses rather original and curious in style. They are of wood, painted in bright colours, and very much longer than they are broad; and each end runs together into a peak, which rises above the central part, so as to give them more the appearance of ships than of houses. The roofs are sometimes made in two or three slopes, each slope being provided with two peaks, and looking very much like a Turkish saddle. The front and side walls are decorated—often quite covered—with finely and elaborately carved arabesques. The houses stand upon piles; but these are invisible, being covered with bamboos or boards, and the whole effect is very peculiar and pretty.

The interior of these ornamental-looking houses consists of one large apartment, which takes in the whole length and three-quarters of the breadth of the house; and at the extremity of it is a small raised compartment that looks as if it had been added after the house was built, which is furnished with mats, carpets, cushions, &c. and is intended as a place of honour for the most distinguished woman present. The back of the house is divided into little rooms for the fires and sleeping-places, but these are pitch dark, as the back wall of the house has no windows.

At Magelang, in Java, she met with a countryman of her own, Mr. Wilsen, of Austria, who had been engaged by the Dutch Government to take drawings of the innumerable arabesques, statues, &c. of the Bhoodist temple, of Boro-Budoo, a work which occupied him for four years. How greatly photography might have facilitated such labours! In the architecture of the temple of Boro-Budoo there appears to be nothing very remarkable. It rises in four terraces, on the highest of which are three more, the whole crowned by something like a great bell, with a Buddha beneath, left unfinished "because the Holy one cannot be completed by human hands." The height of the whole is 120 feet.

On the highest terrace stand twenty-four bells of stone filigree work; on the second, twenty-eight; on the third, thirty-two; and each has a sitting image of Buddha. In the entire temple are 505 great statues of Buddha, and 4,000 bas-reliefs cut on the internal and external surfaces of the galleries. Not a single vacant spot is to be seen on the walls, which are entirely covered with human figures or arabesques.

To draw this enormous number of statues, reliefs, arabesques, &c. as noted, Mr. Wilsen only took four years. The entire temple, with all its details, he has drawn with a pen upon 400 sheets of vellum. On the bas-reliefs may be found the entire Hindoo history of the creation; the formation of the first man, the progressive sanctification of Buddha, &c. In many points, the history strikingly resembles our own.

The sculptures here, both figures and bas-reliefs, are described as being much more accurate and tasteful in their execution than those at the temples of Elora, Adjunta, and others in British India; but the arabesques, bells, &c. are finer there, as well as more colossal in size. The architecture of the building itself, can certainly not be compared with that of the grander specimens in Hindostan. In the mode of building without mortar, and the formation of a kind of arch by the projection of one stone beyond another, they appear to be the same.

From the extreme east Mrs. Pfeiffer crossed the Pacific to the extreme west, and visited California, Oregon, and many other parts of America. While in Lima and Peru she examined the ruins of a great temple of the sun at Pachacamac, of which and of others she gives some brief particulars. This journal of a remarkable woman will be read with interest.

VARIORUM.

MR. C. REED, F.S.A. has had issued by Messrs. Walton and Maberly, of Upper Gower-street, a sixpenny pamphlet, titled, "Why not? A Plea for a Free Public Library and Museum in the City of London, established Without Taxation." The "plea" is addressed to the Lord Mayor, and the author advocates the establishment of a free library and museum in the City by voluntary contributions, as at Manchester, where the thing was done at once by twenty-six merchants subscribing as many hundred pounds for the purpose, and 20,000 working-class subscribers also lending a hand towards its accomplishment. Manchester thus raised 12,000*l.* and Mr. Reed proposes that 20,000*l.* should be aimed at for the London library and museum, or more if need be, and "*why not?*"——The "Third Annual Report to the Council of the City of Manchester on the Working of the Manchester Free Library," has been printed. From this document it appears that this excellent institution is making steady progress. The issues in the lending department have increased since the first year from 77,232 to 81,321, and those in the reference department from 61,080 to 66,261. A very important addition has been made to, or rather a new foundation established in, this popular institution, by the librarian, Mr. Edwards,—namely, a library of publications having reference to the history and local affairs of the Manchester district,—an idea which it would be well for other towns to adopt.——The seventh annual report on the Salford or Peel-park Museum and Library has also been issued, but of this we have already spoken, and we only recur to it to notice the scheme of a statistical chart of the monthly fluctuations or rise and fall of the demands on the library and attendance at the museum, prepared by Mr. J. Plant, the curator. ——A tract by Mr. H. Whitehead, M.A. curate of St. Luke's, Berwick-street,—and an active philanthropist in his own district, as those acquainted with the history of the cholera at Golden-square may remember—has been published by Hatchard, of Piccadilly, "On the Position and Prospects of the London Reformatory Institutions." It comprises a sermon on

behalf of the Belvedere-crescent Reformatory, Hungerford-bridge, Lambeth, and which was preached, without collection, at All Saints' Church, Lambeth.——"A Manual of the Domestic Practice of Medicine," by Mr. W. B. Kesteven, a Fellow of the Royal College of Surgeons of England, has been issued by Messrs. Longman and Co. For emigrants, pastors, missionaries, ship captains, and intelligent and discreet heads of families, this volume, so far as we can judge, will be a valuable acquisition where no skilful physician is at hand, or towards the furtherance of measures which such a physician may adopt when his services do become available. At the same time, systematic private dabbling in drugs is by no means advisable, but there are many heads of families who have really far too little knowledge of medicine, even though within reach of the best of medical advice. Their ignorance is frequently an annoyance and a hindrance to physicians themselves, and to such persons, where there is general intelligence and discretion, the present appears to be a good substitute for the now somewhat antiquated "Buchan's Domestic Medicine." The arrangement of the volume is excellent, and renders the whole easily accessible, either with or without the index which accompanies it.——Mr. C. P. Smyth, the Astronomer-Royal for Scotland, has published a pamphlet containing a "Description of new or improved Instruments for Navigation and Astronomy," such as were exhibited by him at the Paris Exposition of 1855. Some of the instruments referred to must be useful to engineers, as in measuring the rapidity of the flow of streams, and their depth, &c.——Adcock's "Engineer's Pocket-Book for 1856" (Simpkin and Marshall), is addressed specially to a class, as its title shows, and contains information, tables, and formulæ with reference to mensuration, strength, and weight of materials, machinery, mechanics, hydraulics, chemistry, &c. It comprises, further, a memoir of Brigadier-General Sir Samuel Bentham, written by an accomplished lady, who appears to devote her life to making known the abilities and good works of Sir Samuel,—and these were not few.

Miscellanea.

The Inventor of Iron Puddling and Grooved Rolling.—The iron trade of this country received its grand development upwards of half a century since from the puddling process and the invention of grooved rollers, both due to the ingenuity of one man,—the late Mr. Henry Cort; who, in return for this immense good done to his countrymen, millions of whom may be said to have since earned a livelihood through these inventions, had his patents and his business, almost at the outset of his prospects of remuneration through his own industry, locked up and annihilated at the instance of the Government for the time being, for a debt due by a partner rather than by himself, so that he died in poverty, in place of making an immense fortune, as he well deserved to have done, and as so many others, by means of these very inventions of Mr. Cort's, have since done. The only fortune, inherited, therefore, by his son, Mr. Richard Cort, was his father's misfortune, and his title to the gratitude and the recompense of his countrymen, and, indeed, of his fellow men of almost every nation, although one or two miserable pensions were given to his sisters, thus acknowledging the father's merits and his rights, while in reality denying them a fitting recompense. It is satisfactory to find, however, that now an effort is being made to remedy this great grievance and this still greater wrong, and we trust that the result will be in some degree commensurate with the merits of the case, although the heir of Mr. Cort will never receive what his father was prevented from himself earning by the working of his own inventions, far less what he was entitled to for the benefit done to his country. It is Mr. David Mushet's opinion that 300,000,000*l.* have been saved to this nation alone by the working and the use of Mr. Cort's inventions. The iron-masters themselves are believed to have profited by them during the last sixty-six years to the extent of no less than twenty-five millions. Surely, then, these masters, above all others, will now show some gratitude to the giver of such benefits, by subscribing largely to the "Cort National Annuity Fund," set agoing by an honorary committee, which already contains some names of eminence in this and other branches of science. Subscriptions, we observe, are received at the office of the *Mining Journal* of London in the meantime.

Berlin Waterworks, says the *Times*, are the largest ever erected at once, if they are not actually larger than the largest existing in London. The following particulars will show their magnitude:—Twelve boilers under one roof, and in one row, feed eight engines of 1,280 total horse-power, driving sixteen pumps: these latter engines and pumps are contained in one building, the engine-room immediately abutting on the boiler-room. In addition to a large reservoir, about 80 feet deep, on a hill called Windmill-hill, outside the town, these engines fill four filtering-basins, each 382 feet long by 88 feet broad, and 4 feet deep, and a reserve or storage reservoir connected with them, 352 feet long by 142 feet broad, and 8 feet deep. From the works, which lie outside the town, on the banks of the Spree, the water is forced along a main of 3 feet 6 inches diameter to a point in the town where it branches off into two mains of 2 feet 6 inches in diameter each, and these are further ramified into branch pipes, extending over 107 miles of ground. Of the engineering difficulties to be overcome, perhaps the greatest was conveying the water across the Spree: this was accomplished by laying a main down below the bed of the river 300 feet long in one firm length, *i. e.* composed of a number of lengths of pipe firmly jointed together and floated, from the factory up to the spot required, on pontoons, and then sunk to the necessary depth.

Victory's Machinery for Marking Out, Boring, and Sawing Hand-rails, &c.—Mr. J. J. Victory, carpenter, of Henrietta-street, London, patented, on 25th April last, according to the *Mechanics' Magazine*, apparatus for marking out curved lines upon wood and stone, specially adapted to the marking out of hand-railings, together with improved machinery for boring and sawing wood. The invention consists, firstly, of an apparatus for marking out upon the wood for forming "wreaths" for handrails such cylindrical forms and delineations as the wood has afterwards to be cut or reduced to by the ordinary methods now practised. The piece of wood when marked out is cut either by hand or by a saw frame described, after which it is fixed at the required angle in the bench, and the marking apparatus applied for delineating the cylindrical curve or form, both concave and convex, to which the wood has now to be reduced for completing the wreath. After the wood has been cut to the curves delineated, it is brought back to the bench, and a rod or rods passed through the sockets of both the arms, whereby the correctness of the work is proved. When the pieces have been shaped and proved, it is necessary for forming the wreath that they should be accurately fitted together. This is accomplished by a centre screw and a couple of dowels, one on each side of the screw. Mr. Victory has invented a machine, which forms the second part of his invention, and consists of an improved clamp and guide both for holding the wood firmly in its place, and for accurately directing the bit into the end of the wood. The invention has reference, thirdly, to an improved saw-frame, for squaring or cutting out the hand-rail wreaths and other forms in wood.

German Lutheran Church, Champion Park.—The members of the German community resident in Camberwell and its vicinity have erected a church for the celebration of their services, which have hitherto been performed in a school-room in the neighbourhood. The church, which was dedicated on the 16th inst. is capable of containing about 200 worshippers, and consists of a nave 43 feet by 28, with an apsidal chancel, attached vestry, with an organ-loft, which also affords accommodation for a choir. The nave is divided into five bays, and is lighted by eight double lancet-lights with quatrefoil heads, under hoodmoulds with carved bosses. The centre bay contains an engaged doorway on the south side, and the north side has an arched organ-loft with wood screen under, from which access is obtained to loft and vestry. The western front has a bell-cot formed in the thickness of the wall, and a large window filled with three sexfoil lights. The chancel has three narrow tracery-headed windows filled with stained glass, by Ward. The roof to nave, which is of sharp pitch, is constructed with collars and curbed ribs under pitching on to hammer beams and curved braces on stone shafts with carved corbelled terminations. The roof to chancel consists of carved ribs resting on shafts similar to those in nave. The roofs throughout are of deal, lightly stained. The benches, which are entirely open, are of deal, lightly stained and varnished. The font is of stone, by Cundy, and is situate near the south entrance. The church is of Early Decorated date, and is built of Kentish rag and Bath stone quoins and dressings. Mr. George Myers is the builder. The gas-fittings are by Skidmore. The pulpit, altar-table, and altar-rail are of oak, by Rattee. The entire cost is nearly 2,000*l.* Mr. George Low is the architect.

The Paris Exhibition Medals.—It appears that, by the original Imperial decree, the value of high prizes to be awarded at the French Universal Exhibition, was fixed at a certain sum. As the great gold medals of honour fell short in intrinsic value of that amount, a supplementary remittance has been forwarded to the parties, to whom the medals, which are of handsome size, and already worth about twenty guineas each, had been awarded. Sir Charles Barry has received the difference between it and 5,000 francs: bonds for 200 francs have been remitted to Messrs. Cockerell, Donaldson, and Owen Jones, of the first class; and to Mr. Hamilton, of Glasgow, and other second-class medallists, 100 francs. The first and second class medals are precisely the same, and have no other distinctive difference than the words *1re* and *2de classe* respectively inscribed on them.

General Art Studio at Birmingham.—A meeting was held at Mr. Underwood's Fine Art Repository, Union Passage, Birmingham, on Wednesday before last, in connection with this project, when there was a good attendance; Mr. W. C. Aitken presiding. The main object of the meeting was to decide upon a set of rules for the government of the studio. The object of the institution was stated to be simply to provide for astists, artisans, and others employed in manufactures, the means of improving themselves in art, and the members would be those who had studied art previously. Casts would be provided for modellers, and those who drew from the round; pictures and drawings for artists; and an art library for all belonging to the society. The 2nd of January was fixed for the opening of the studio.

Water and Lead.—The paragraph on the subject of the "Contamination of Water by Lead," in the last number of the *Builder*, has just caught my eye. As you justly remark, my "coating for lead" would be quite applicable in this case. The addition of small quantities of pure sulphuric acid from time to time, would also prove beneficial; but a plan superior to all I have yet proposed has just struck me. I have not tried its operation, but am morally certain of successful applicability to cases like the present. To every 100 square feet of lead surface let there be firmly attached 1 square foot of sheet zinc, cut up into about sixteen or twenty pieces, and disposed equally over the "flat," or superficies of the cistern, gutter, &c.; or let the lead be studded with broad-headed zinc nails, say eight for a square foot. Where "pipes" have to be dealt with, zinc wire or thin strips of the metal should be inserted a little way, having a perfect contact with the lead at some part. The efficacy of this suggestion depends upon the fact, that zinc is always electro-positive to lead when these metals are brought together in the presence of moisture; consequently the lead could never be dissolved, its office being to conduct away the electricity developed by the slow action of water upon zinc. Both metals should be kept tolerably clean, by washing them three or four times a year with weak brine. To prevent the ill effects of water impregnated with lead upon the animal economy, four or five drops of sulphuric acid in half a pint of *aqua pura* may be taken now and then. White of egg (*not* boiled, but) mixed with warm water, is the best antidote in severe cases of lead poisoning.—W. L. S.

Northwood Burial-Ground Competition.—Twenty-six designs were sent in for the above. The committee selected one bearing the motto "Cavendo tutus," 1,427*l.* According to the *Hampshire Advertiser*, the authors of it are Messrs. Manning and Mew, architects, London.

Adams's Suspended Girder Rail.—Experiments have recently been made with a new system of permanent way, invented by Mr. W. B. Adams. It was laid down under the direction of Mr. Joseph Cubitt, C.E. on part of the up-line of the Great Northern Railway, over which the heavy coal traffic passes to the goods station at Maiden-lane. The whole of the new way is constructed of wrought iron, and it consists of four parts—viz. the rails, brackets, bolts, and tie-bars. The rails were made at the Ebbw Vale Works, and are 18 feet in length, and the angle brackets are 9 feet in length. The various parts are said to be so contrived that no mistake can occur in putting them together, and they can also be laid down with great facility. By this plan of rail the bearing surface is brought within about 2½ inches of the tread of the wheels, and the consequence is, that the rail is prevented from rocking, the lower part of the rail forming a kind of keel; and the brackets constitute bearers on each side, which impart a steadiness to the rail and a smoothness in passing over it. The rails and bearers form one continuous piece from end to end of the line. The portion of the Great Northern line upon which the new way is laid has a gradient of 1 in 110, and the coal-trains and the heaviest engines pass over it about sixty times a day. It has been laid down about a month, and is reported to have appeared in excellent condition.

THE FOUNTAIN FOR BATH.—Being the architect employed by the Fountain Committee to carry out the accepted design, I feel called upon to reply to your correspondent "A.'s" most personal letter on the subject. Such a letter could only be written by a disappointed competitor, and such can be the only excuse for a letter so full of personalities. His remark of a divided superintendence is decidedly false: such an arrangement was never thought of. I was asked by the committee to make the working drawings and superintend the work, to which I assented, conceiving that it was not for me, a young and humble member of the profession, to refuse their offer, with the example before me of architects, men of respectability and character, scrambling for small competitions, and submitting to all sorts of conditions rather than lose a chance of success. I think it is most unjustifiable and unfair that my conduct should be attacked in such a manner by a correspondent whose malicious style of writing shows his want of the common courtesies of society. Should he again appear in your columns, I hope he will drop the initial, and append his name.—H. HICKES.

PATENT FOR STONE-CUTTING MACHINERY.—Messrs. J. and G. Hunter, of Leysmill, Forfar, patented, on 24th April last, an arrangement of stone-cutting machinery which comprises certain improved tools, and an improved table for carrying the stone to be cut. The tools consist of a saw, or circular disc of iron, fitted on its periphery with holders for the reception of teeth, in such manner that the teeth, or any of them, may be turned or removed, and fresh teeth substituted for them during the working of the machinery. The teeth are circular (or of such other form as will permit of their being turned round), at their cutting edge, and hollow for some distance up their stem. They fit into holders, and are prevented from falling out by a spring, or other suitable contrivance. When the under edges of large blocks are to be preserved, a similarly constructed and smaller tool is caused to cut an inch or two in advance of the main tool, but below the stone. Rotary motion is communicated to the tools from any prime mover. The table is furnished with brackets for fixing the stone, and with bars for steadying its motion, and connected to it is a hand or foot-wheel for drawing it back. It is also provided with rollers to travel upon.—*Mechanics' Magazine.*

THE BELLE ISLE NUISANCES.—In the case of the varnish manufacturers of Belle Isle, Islington, summoned at the instance of the Secretary of State for the Home Department, Mr. Corrie, the magistrate, gave the following judgment:—"These cases are of very great importance to all persons interested. On the one hand the inhabitants of Islington, the population of which has within the last ten years nearly doubled, having increased from about 50,000 to 90,000, complain that their lives are rendered miserable by the nuisances in Belle-isle, while, on the other hand, the numerous manufacturers—the varnish-makers alone being eleven in number—say that it will be ruin to them if they are not allowed to continue their business. There are various degrees of offensive effluvia. Mr. Bodkin does not put this forward as a noxious effluvium, but he says that he has clearly proved that it is offensive; and the defendants' own witnesses admit that, though it is not what they call offensive in a manufacturing sense, yet that it would be so if the effluvia were to enter their houses. Now, that is the question which I have to decide. That the nuisance complained of can be prevented has been proved to me at the manufactory of Messrs. Noble and Hoare, near the Victoria Theatre. No doubt the question of expense is a very important consideration. There must be a formal conviction, and I will direct the judgment to stand over to make the Crown proceed against these nuisances, which are both noxious and offensive; and the varnish-makers must, in the meantime, call in the assistance of their men of science, who, I doubt not, can suggest arrangements that will very much mitigate the evils complained of, so as to render it unnecessary for the inhabitants of the neighbourhood to take any further proceedings against these particular defendants."

TO CORRESPONDENTS.

"*Steel Bells.*"—Can any of your readers inform me how the experiments succeeded on these bells; and whether there is any manufactory of them at present in England? A. A.

"New Buildings Act."—"A. F."—"T. M. P."—"J. E. Jun."—"L. V."—"W. L. S." (next week). "C. F." (ditto). —"W. W."—"W. S."—"G. T."—"Architect," (Islington.)—"Fair Play."—"J. W."—"C. V."—"O. R. S."—"T. S. R."—"G. C."—"L. P."—"J. S. S."—"N. W. L."—"J. T."—"W. P. G."—"G. T. R."—"G. L."—"J. D. P."—"S. E. M."—"W. R." (we should measure the centre square first, and the four semi-circles as parallelograms).—"G. D."—"T. L. D."—"W. M. F."—"T. E. W. K."—"T. S. C. R." (it is not usual.)—"T. G." "S. W."—"C. F. R."

"*Merchant Tailors' Company* v. *Truscott.*"—We are asked to mention that the height of Mr Truscott's new building in Suffolk-lane is 63 feet 6 inches, and not 97 feet, as reported.

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and not to the Publisher.

INSTITUTED 1837.

INCORPORATED BY ROYAL CHARTER, 10TH VICTORIA, 1846.

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PLAN FOR THE CURRENT YEAR.

THE LIST IS NOW OPEN, AND EVERY SUBSCRIBER OF ONE GUINEA WILL BE ENTITLED TO—

I. An Impression of a Plate, by J. T. WILLMORE, A.R.A. from the original important and well-known picture by Sir EDWIN LANDSEER, R.A. and Sir AUGUSTUS CALLCOTT, R.A. "HARVEST IN THE HIGHLANDS;" and

II. The chance of obtaining one of the Prizes to be allotted at the general meeting in April, which will include—

THE RIGHT TO SELECT FOR HIMSELF A VALUABLE WORK OF ART FROM ONE OF THE PUBLIC EXHIBITIONS.
STATUETTES IN BRONZE OF HER MAJESTY ON HORSEBACK, by T. THORNEYCROFT.
COPIES IN BRONZE, from an original Model in relief by J. JEFFERSON, of "The Entry of the Duke of Wellington into Madrid."
STATUETTES IN PORCELAIN OR PARIAN.
PROOF IMPRESSIONS OF A LARGE LITHOGRAPH, by T. H. MAGUIRE, after the original Picture by W. P. FRITH, R.A. "The Supper Scene," from Molière's "*Bourgeois Gentilhomme.*"

The Prints of "Harvest in the Highlands" will be ready in February next. A subscription of Ten Guineas entitles to a Proof of the Plate, before letters, on India paper, and Ten Shares in the distribution of Prizes. A subscription of Five Guineas, to a lettered Proof on India paper, and Five Shares.

The Prizes consist of the right to select, by the Prizeholder himself, a Work of Art of the value of Ten Pounds to Two Hundred Pounds or more, from the Public Exhibitions of the current year, under certain regulations; also of Statuettes and other Works in Bronze, Iron, and Porcelain, produced expressly for the Society, and of Impressions of Fine Works engraved or lithographed solely for distribution as prizes. A General Meeting of the Members is held on the last Tuesday in April, at which the Prizes are publicly distributed by lot, by two ladies then chosen, and each Member who gains a Prize receives intimation of it by the same night's post. The Council select Works of Art for such Prizeholders as desire it, and for all those residing in distant parts of the world who may not have delegated the selection to friends in this country.

GEORGE GODWIN, } *Honorary*
LEWIS POCOCK, } *Secretaries.*

444, West Strand, Nov. 1, 1855.

ADVERTISEMENTS.

METROPOLIS LOCAL MANAGEMENT ACT. APPOINTMENT of OFFICERS.—The Lewisham District Board of Works hereby give Notice that they will meet at the Vestry room of Lewisham Parish Church on THURSDAY, the 3rd of JANUARY, 1856, at SIX o'clock p.m. to consider APPLICATIONS for the following APPOINTMENTS under the above Act, namely:—

Clerk.—Salary, 200l. a year. Duties as prescribed in the Act.

Treasurer.

Surveyor.—Salary, 200l. a year. To devote his whole time to the duties of the office

Medical Officer of Health. To receive a fee of 5 guineas for each report. To report on the sanitary condition of the district monthly, or oftener, if required by the Board.

Two Inspectors of Nuisances.—Salary, each 80l. a year. Duties as prescribed by the Act, and to be likewise Assistant Surveyors, devoting their whole time to the office, and residing in the district.

Scavengers.—Duties as prescribed in Act; to be Dustmen also.

Applications in writing to be addressed to Mr. O. C. T. EAGLETON, Vestry Clerk, Lewisham, on or before the 1st of JANUARY next.

Dated this 21st December, 1855.

BUILDER'S CLERK WANTED.—A young man acquainted with the routine of the office, and capable of making simple drawings and tracings. A good testimonial will be required.—Apply by letter, prepaid, stating terms, to G. W. Messrs. Waterlow and Sons, Parliament-street, Westminster.

TO PARENTS AND GUARDIANS.

THE ARCHITECT and SURVEYOR to two first-class Building Estates in the suburbs of London, has a VACANCY in his Office for a well educated, gentlemanly Youth as PUPIL; one of sufficient ability to be able, after a few years, to become assistant in the business, would be preferred.—Address, S. R. care of Mr. Walls, Estate Office, Prince Albert's New-road, Kensington-gore

TO GRAINERS.

WANTED, a first-rate GRAINER. Persons applying will be required to produce specimens of their own work. Liberal wages will be given, and none but superior workmen need apply.—HUMMERSTON, Brothers, 68, Albion-street, Leeds.

TO GAS FITTERS.

WANTED, a thoroughly clever Workman in the above line, who must also be able to do brass finishing and lacquering. No one need apply who cannot be recommended by his former employers for honesty, ability, and attention to his duties.—Apply by letter, pre-paid, to J. B. care of Mr. Simpson, 84, London-road, Southwark.

TO ARCHITECTURAL DRAUGHTSMEN.

WANTED, in a Provincial Office, a competent and experienced CLERK, in getting up Italian and Gothic designs, and working plans.—Address, INDIGO, 89, High Holborn, London.

WANTED, by a Statuary Mason, with good reference in town and country, of many years' experience, a SITUATION as FOREMAN, or to take the management of a Statuary Mason's Jobbing Business, who well understands it in every branch, and would do all he could to the interest of his employer.—Direct, M. J. 41, Basing-place, Waterloo-road, London.

TO ARCHITECTS, BUILDERS, AND SURVEYORS.

WANTED, by the Advertiser, aged 25, an ENGAGEMENT, in either of the above Offices. He is a good draughtsman, capable of making out detail or highly-finished drawings, in colour or sepia, competent to take out quantities, or keep builders' books, is a first-class land surveyor, by chain or instrument. Salary not so much an object as a permanent engagement.—Address, A. B. Mr. Pettifer's, Post-Office, Southgate-road, Kingsland

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WANTED, by a Young Gentleman, who has had six years' experience, principally in London offices, a SITUATION with an Architect. He could take charge of an office, if required, and execute all drawings, and can work up designs in any style. Can direct works. Understands land surveying. Salary moderate.—Address, A. W. Office of "The Builder."

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WANTED, by a Middle-aged Man, a SITUATION as COLLECTOR, TIME-KEEPER, or FOREMAN; is acquainted generally with smiths' work, and can give good reference. Salary required, 25s. per week.—Address, S. S. Office of "The Builder."

WANTED, a SITUATION as CLERK of WORKS, or GENERAL FOREMAN, by a middle-aged Man, well qualified by practical experience in the above duties. Well recommended.—Address, A. R. 37, East-street, Walworth.

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WANTED, a SITUATION as FOREMAN, by a Young Man of considerable experience, in the most eminent firms in London, capable of keeping books, making working drawings, setting out work, or superintending a building or joiner's shop. No objection to being employed by a country master, or going to a country job. Satisfactory testimonials as to ability, sobriety, &c. can be given.—Address, O. A. K. Mr. Jones, Stationer, Leather-lane, Holborn.

TO BUILDERS AND PLUMBERS.

WANTED, by a Young Man, aged 28, a SITUATION as PLUMBER, PAINTER, and GLAZIER. Address T. T., Mr Elkins', 26, Gray-street, Weber-street, Blackfriars-road.

TO BUILDERS AND OTHERS.

WANTED, by a respectable Young Man, a SITUATION as Plumber, Painter, and Glazier. A respectable reference can be given, if required.—Address, R. M. Office of "The Builder."

TO ARCHITECTS, &c.

THE Advertiser, who has been four years in an Architect's office, and can produce satisfactory testimonials as to character and ability, is desirous of an ENGAGEMENT.—Address, A. B. 8, Thornhill-crescent, Islington.

TO ARCHITECTS.

THE Advertiser, who has just completed an engagement in a first-class office, is desirous of a SITUATION. Can make out working, detail, and perspective drawings, and is well acquainted with Gothic.—Address, K. 17, Hill-street, Knightsbridge.

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TO BUILDERS AND OTHERS.

A PRACTICAL SURVEYOR offers his ASSISTANCE in measuring, estimating, or the making up of builders' accounts. Terms moderate and per agreement.—Address, X. Y. Office of "The Builder."

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A NEAT and expeditious DRAUGHTSMAN is desirous of a RE-ENGAGEMENT in town; accustomed to the getting out of perspective, finished, working, and detail drawing, &c. Salary, moderate.—Address, A. B. No. 9, Elizabeth-street South, Pimlico.

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A YOUNG MAN, aged 21, is in want of EMPLOYMENT in a CARPENTER'S and JOINER'S SHOP, where he would have an opportunity of improving himself. Has been at the trade seven years.—Address, H. J. 18, Upper Boston-place, Dorset square.

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AN ARCHITECT'S ASSISTANT, of fifteen years' experience in the profession, is also an artist, possesses a thorough knowledge of construction, details, and perspective, accustomed to assist in competitions, designing ornamental details, and having the highest testimonials, is desirous of a RE-ENGAGEMENT, permanent or otherwise remunerative.—Address, A. Architect, Office of "The Builder."

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A BUILDER'S CLERK, aged 26, is open to an ENGAGEMENT. Good references. Salary moderate. Address, C. J. W. care of Mrs. Oldershaw, Bricklayer, 30, Brunswick-street, Dover-road.

TO ARCHITECTS, &c.

AN Assistant, accustomed to prepare finished and working drawings, and superintending works, making surveys of dilapidations, &c. wishes for an ENGAGEMENT either temporary or permanent.—Address, A. B. care of Mr. Butcher, 278, High Holborn.

TO ARCHITECTS, SURVEYORS, &c.

AN Architectictural Draughtsman, accustomed to prepare finished, working, and detail drawings, measure architectural work, take out quantities, &c. is desirous of a RE-ENGAGEMENT. London preferred. Salary moderate. Good testimonials.—Address, A. B. 3, Harvey-square, Folkestone.

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A SURVEYOR at the West-end, having a mixed practice, is desirous of meeting a gentleman who would be willing to EXCHANGE SURVEYING for ARCHITECTURE, on terms to be agreed upon. The Advertiser wishes to continue the former profession only, but would not object to join an Architect (without partnership) on mutually advantageous terms.—Address, A. B. 27, Manchester-street, Manchester-square.

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A GENTLEMAN (a good Surveyor), of industrious, persevering habits, is now prepared to accept of a CLERKSHIP, or would treat for a share in a thriving business, as JUNIOR WORKING PARTNER. Unexceptionable references.—Address, W. B. 96, Hatton-garden.

A PRIVATE GENTLEMAN is anxious to meet with some practical Mechanical Draughtsman, competent to take down from description, both roughly, and to scale his ideas of machinery, and if able to instruct him verbally in the mixed and applied sciences during the term of his engagement, it would be a strong recommendation. But should he be asking for a *rara avis*, he would content himself with either, although he is sceptical of the existence of the one without the other. The advertiser would offer the comforts of a home, to a moral, social companion, a middle-aged one preferred. All applicants to state reference and terms, and must be willing to dwell with a stranger for from one to three months, and if he is anxious, much longer. The advertiser would prefer paying either for complete design, or in any way but by time, and will promise to keep the fullest hand fully employed.—Address, X. Y. Z. Post-office, Ripon.

GORE-HOUSE, KENSINGTON. — The ANNUAL EXHIBITION of STUDENTS' DRAWINGS from the Metropolitan and Provincial Schools, in connection with the Department of Science and Art, will be OPENED to the Public on and after Monday, the 31st December, between Ten and Four. Admission free. A private view, to which the students of the Normal and District Schools will be admitted, on showing their tickets, on Saturday, the 29th.

CHEMICAL and METALLURGICAL LABORATORIES.—The Royal College of Chemistry (the Laboratory of the Metropolitan School of Science, applied to Mining and the Arts) is open under the direction of Dr. HOFMANN, F.R.S. and the Metallurgical Laboratory under the direction of Dr. PERCY, F.R.S. At both these Laboratories, there are three terms annually of twelve weeks each. Students for working every day in the week is 5l. per term. The next term will commence on TUESDAY next, the 1st day of JANUARY, 1856, when pupils may be entered. For further particulars apply at the Museum of Practical Geology, Jermyn-street, or at the Royal College of Chemistry, Oxford-street.

TRENHAM REEKS, Registrar.

DRAWING CLASSES.—The Architects, Builders, Civil Engineers, and Machinists' Drawing Class set, conducted by THOMAS J. HILL, Architect. Offices, 15, Old-street, City-road. Subjects taught—Architectural, Mechanical, Ornamental, and Perspective Drawing; Taking out Quantities, Abstracting and Valuing the same, Preparing Finished Drawings in Water Colour, &c. &c. Detail prospectuses to be had at the Offices. The Classes re-open on Tuesday, 1st of January, 1856.

MECHANICAL and ENGINEERING DRAWING CLASSES, conducted by Mr FREDERICK WOODALL, at 26, Wardour-street, Oxford-street, and 126, Clarence-road, Kentish-town. Evening instruction in model, mechanical, and outline drawing, given in a course of Class Lectures upon Orthographic Projection. Fee for the term, one guinea, commencing first Monday in January, terminating third Monday in March. Prospectuses to be obtained at either address.

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EXHIBITION and COMPETITION DRAWINGS, coloured or tinted, and superior LITHOGRAPHY in its various branches, executed by Mr. T. J. RAWLINS (Author of Elementary Drawing Classes, adopted at Marlborough House, Outlines of Sculpture, Modern Architecture, &c.), 38, University-street, University College, London.

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N.B. A few New and Second-hand Levels and Theodolites always for Sale.

ARCHITECTURE, CIVIL ENGINEERING, and SURVEYING CLASSES. Established by Messrs. HYDE, SMITH, and LEWIS, Architects, Civil Engineers, Surveyors, &c. For Preparing Gentlemen for Architects, Builders, Engineers, Surveyors, Draughtsmen, Measurers, &c. and for giving EVENING INSTRUCTION in Architectural, Civil Engineering, and Mechanical Drawing, Colouring, Shading and Tinting, Ornamental and Water-Colour Drawing, Perspective, Isometrical, and Geometrical Drawing, Making Finished and Working Drawings, Preparing Specifications, Taking out Quantities, Estimating, Measuring and Valuing Builders' Work, &c. &c. Terms:—Day Pupils, Three Guineas per Quarter; Evening Pupils, One Guinea per Quarter. There are no extras, the terms include the whole of the above, with the use of Drawing Boards, T Squares, Plans, Drawings, Models, &c. Prospectuses and full particulars may be had at the Offices, 24, Guildford-street, Russell-square.

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HUBBUCK and SON, the Original Manufacturers, are enabled, by a process which is patented, to supply their Pure White Zinc Paint at the price of White Lead. Neither exposure to heat, nor tropical climates act upon it. It is entirely free from any poisonous or pernicious property. Those direful maladies, paralysis and painters' colic, will be entirely avoided. The Powdered White Zinc may be had for grinding in Oil; also for Plaster Decorations, and where it is used with Size, Varnish, &c. Sold by the Wholesale Paint-dealers in Original Packages, each cask stamped—HUBBUCK—LONDON PATENT. And if not so marked the quality is not guaranteed. Full particulars may be had of THOMAS HUBBUCK and SON, the Original Wholesale Manufacturers, Paint and Varnish Works, opposite the London Docks, London.

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PORTLAND CEMENT.—THE FULLWOOD THOMPSON and CO. beg to request the attention of Contractors, Merchants, and others, to the quality of their Roman, Portland, and Bath Cement, which they are manufacturing at their works, situate on the Bristol and Exeter Railway, two miles north of Bridgewater, and adjoining the Dunball Wharf, on the river Parrett.

These Cements are, they believe, the best for any purpose now in the market; they will set under water in a few minutes, and are insensible to extremes of heat or cold. The material used is such as will produce a certain and unvarying cementitious power, and a consequent regularity, the want of which is so obvious in Cements manufactured in the ordinary method.

FULLWOOD THOMPSON and Co. will be happy to forward prices by post on application, and can offer favourable terms to large purchasers and exporters.

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CEMENT.—ROMAN and PORTLAND CEMENTS, and PLASTER of PARIS, manufactured by C. J. HILTON, and to be had in any quantity, wholesale and retail, at his wharf, 6, Upper Thames-street, London; and also at the manufactory, Faversham, Kent.—N.B. These Cements supplied or shipment, on advantageous terms.

PARIAN CEMENT, for Internal Use, to be painted in a few hours, and papered within a couple of days. FRANCIS, BROTHERS, Manufacturers of Roman, Parian (under patent), and all other Cements in use for building purposes, Nine Elms, London.

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Superfine, per ton	£7 0 0
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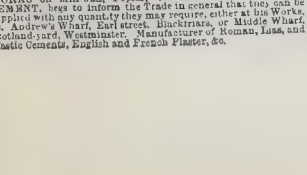

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ATKINSON'S CEMENT, so long known and esteemed in London for plastering purposes, is a quick-setting Cement, that requires no colouring. Sold exclusively by JOHN BAZLEY WHITE and BROTHERS, Millbank-street, Westminster; and Seel-street, Liverpool

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WILLIAM PETERS begs to inform the trade he is in a position to supply the best GREY STONE LIME in any quantities from the above wharfs, or per barge direct from the kilns.

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Barges loaded in a few minutes.

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Bath, Portland, Lias, and Roman Cements; Parian and Keene's Cements, Plaster of Paris, Glazed Stoneware Sewage Pipes, Fire Goods, Vitrified Blue Bricks, White Building Bricks, White Enamelled Pans and Traps, and every description of Building Material.

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Boatloads of either Lump or Ground Lime can be delivered direct from the Works in WARWICKSHIRE to any part of the Rivers Thames or Lea, alongside any wharf on canal, or by boat or rail to any part of the kingdom.

PORTLAND CEMENT.—TATHAM & CO. are enabled to offer a very superior quality of this valuable Cement at a moderate price, and all orders addressed to No. 14, SOUTH WHARF, PADDINGTON, will receive the best and most prompt attention.

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ELMLEY CEMENT WORKS, ISLE of SHEPPEY, Kent.—ROMAN and PORTLAND CEMENT of the first quality manufactured on the above works. Also STOCK and KILN BURNT BRICKS, hand moulded and machine made, for shipment or otherwise.—Apply to G. BOOTH, Agent, as above.

JOHNS and CO.'S PATENT PERMANENT STUCCO WASH perfectly NON-ABSORBENT (no quantity of rain having any effect upon it), and will not VEGETATE or RUB OFF. Stucco Cements and Stucco Paint. CLARK and BENGOUGH, Manufacturers.—Office, 4, George-yard, Lombard-street. Works, Grand Surrey Canal Bridge, Old Kent-road.

BEADON'S EAVES GUTTER TILES.—Mr. LAWES is prepared to CONTRACT for the ERECTION of the above TILES on roofs of all descriptions, in the neighbourhood of London, at 7d. per foot; above 100 feet, 5d.—Office, 1, Adelaide place, London-bridge.

BEADON'S PATENT EAVES GUTTER TILES, for ROOFS of HOUSES (either old or new, whether of thatch, slate, or tile), and other structures. Sole agent, J. B. LAWES, 1, Adelaide-place, London-bridge. Having been appointed by the Patentee SOLE AGENT for the SALE of this ARTICLE, I beg to call attention to its merits. By a peculiarity of construction, the last tile is made to form a cheap and lasting water-trough; and by means of an open and angular half-joint for the reception of cement, a solid and compact gutter is obtained. The invention has been tested by four years' extensive use, with unfailing success. It supersedes the present expensive and imperfect modes of conducting rain from the roofs of houses. It is cheap and permanent, and removes all drip. It merits the attention of the landlord, the agriculturist, the owner of house property, the philanthropist, and the economist. Delivered free on rail or canal, at the works, Yelvetoft, near Rugby; or in London, Gloucester, or Bridgewater.

Price 4d. per Tile, of about 13 inches long. Stop-ends and Outlets, 6d.

THE PATENT BRICK-MACHINE COMPANY invite ORDERS for their improved machines, the only ones that manufacture solid bricks equal to hand-made. A machine, and bricks made by it, may be seen in a field near London.

H. C. MOUNT, Secretary.
37, King William-street, City.

TO BUILDERS and OTHERS.—BRICKS delivered at any part of the River up to Battersea-bridge, at the following prices, viz.:—Grey Stocks, 26s. per thousand; Grizzles, 20s. per thousand; Rough Stocks, 20s.; Place, 18s.—Terms, cash on delivery.—Apply to Mr G. SMEED, Sittingbourne, Kent.

THE BEST HERTFORDSHIRE MALM SECONDS;
THE BEST WHITE SUFFOLK and RED FACINGS:
DEEP-RED RUBBING BRICKS.

Also COWLEY and KENT STOCKS, in any quantity.
J. EASTWOOD and SONS, Belvidere-road, Lambeth; and Surrey-canal-bridge, Old Kent-road, Surrey.

BRICK-FIELDS, QUEEN'S-ROAD, PECKHAM, SURREY

(Within a short distance of the five bridges).

THE BEST MALM CUTTERS, SECONDS, PICKINGS, and FACINGS, in any quantity.

Also, STOCKS, of FIRST QUALITY.
J. EASTWOOD and SONS, Belvidere-road, Lambeth.

WHITE SUFFOLK and RED FACING BRICKS.
COWLEY, KENT, and ESSEX BRICKS.
Also Yellow and Pale Malm Seconds, Cutters, Paviors, Shippers, &c.
KENTISH RAG-STONE of the FINEST QUALITY.
MILLS and PRICE, 8, ADELAIDE-PLACE, London-bridge.

THE KINSON CLAY-WORKS, POTTERIES, and FIRE-BRICK ESTABLISHMENT, near Poole, Dorset, Manufacturers of every description of Sanitary Glazed Sewage-pipes, Closet-pans, Furnace blocks, Fire-bricks, Gas-retorts, Crucibles, &c. &c.—The completion of the Kinson Pottery places the Proprietors in a position to supply Builders and the Trade generally with any quantities of the above description of Articles at moderate prices. The pottery is situate about a mile and a half from the town and port of Poole. It is worked by steam-power, and the clay is prepared by one of the most approved patent machinery, and will bear favourable comparison with any manufactured in the kingdom. The fire-clay is also been tested, and are found fully equal in all respects to those manufactured at Stourbridge and Newcastle. All articles are made from the clays and materials found on the estate. There is an inexhaustible quantity of all descriptions of Dorsetshire Clay, used for pottery purposes, which can be supplied to the Staffordshire, North Country, and London potters, upon favourable terms.

Lists of prices and all other information will be furnished, upon application to Mr. T. W. GREEN, at the Works.
London Agent: J. COX, 2 and 3, High-street, Lambeth.

GREAT NORTHERN WHARF, York-road, King's-cross.—WHITE BRICK and TILE DEPOT.—[illegible] and Co. Brick, Tile, Lime, and Cement Merchants. Builders, contractors, and others supplied with every description of building material at the lowest market prices.

Depôt, Agar Wharf, Hope's-road, St. Pancras.

VITRIFIED STAFFORDSHIRE BLUE BRICKS, Paving, Roofing, and Ridge Tiles, Sanitary Pipes, &c Stourbridge Fire Goods, &c. of all descriptions, and of best quality.—WOOD and SON, Manufacturers, Portway, Oldbury, near Birmingham. Agent — Mr. UNWIN, Private Residence, 59, Nelson-square, Blackfriars-road.

BRICKS.—Malm Cutters, Yellow and Pale Seconds, Paviors, and Pickings, of good sound quality, constantly on sale at H. DODD'S Brick-fields, which are only a quarter of an hour's walk from the City. H. D. earnestly requests purchasers to favour him with a visit, in order to inspect his stock, and to judge for themselves.

Malm Place, half-washed Stocks, and Place Bricks, also on sale. These bricks are sound, well burnt, and unusually free from defects; a very large proportion of the stock being suitable for external facing.

Apply to HENRY DODD and CO. at the Counting-house, Hoxton Brick-fields, Grange-walk, near the Rosemary Branch, Hoxton.

N.B. Light-coloured Pit Sand of approved quality constantly on sale upon reasonable terms. This Sand, from not containing any saline matter, is acknowledged to be preferable to river sand.

BRICKS, LIME, WHITING, TILES, FLINTS, GRAVEL, &c Messrs. MEESON and CO. supply stocks, pickings, rough stocks, place, red kiln bricks, paviors, &c. &c. on low terms, to any part of the Thames, the various canals, the River Lea, &c. or by rail to any station on the Eastern Counties line, or any railway connected with it. Also, flints for building boundary walls, stables, cottages, &c. by using which one-third of the expense may be saved. Also, lime, chalk, chalk rubbish, gravel, loam for foundries, &c &c. Whiting of the best quality, lime, both white and flare, bricks, fire-goods, &c. can be obtained at Messrs. MEESON'S Wharf situs at Bow bridge, Stratford, Essex; or from the Works at Gray's, Essex.—Orders, by letter, to Messrs. MEESON and CO. Gray's, Essex, executed with despatch.

PANTILES, PAVINGS, &c.—J. H. ANDREWS, Wisbeach, Cambridgeshire, begs to offer pantiles at 32s. 6d. per 1,000; floor bricks and 6 inch pavings, at 37s 6d. per 1,000; 9-inch pavings, at 57s 6d. per 1,000; plain tiles, at 35s. per 1,000, delivered Cash prices. Delivered on trucks in London on Eastern Counties Railway.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c.—Notice is hereby most respectfully given, that the LONDON DEPOT for this WARE is REMOVED to No. 31, WHARF, Macclesfield-street North, City-road Basin. Secondly, that the trade term, "TERRO-METALLIC," is the exclusive right of the Proprietor; and, thirdly, that the "REPORTS OF THE JURIES," page 881, of the Great Exhibition, rank the Manufactories known as "The Tileries," Tunstall, Staffordshire, as the first of the kind in the world.

FOWLER'S
IMPROVED FARM AND
COTTAGE PUMPS.

To be had of any Ironmonger or Plumber, 11. 15s.

The usual allowance to the trade.

PUMPS of SUPERIOR CONSTRUCTION, in various plain and ornamental patterns, for squares and market-places, roads, conservatories, liquid manure, ship, barge, brickmakers, contractors, gold diggers, brewers, chemical works, and in wrought and cast-iron, copper and brass, for hot or cold liquors, &c. &c. Long barrel and hydraulic lift-pumps, with handles on planks; and engines of various powers, for wells of any depth.

ON SALE SINGLE PUMPS, BARRELS AT SHORTEST FOR HAND STEAM

AND HIRE, AND DOUBLE 3 in. to 15 in. to any depth, NOTICE, OR POWER.

FOWLER'S
PORTABLE PUMPS,

3-inch to 9-inch Barrels, Plain or Sliding Telescope Suction,

Wrought-iron Pails, Galvanized or Painted,

Pulley Blocks of every description.

BENJ. FOWLER, WHITEFRIARS-ST. FLEET-ST. **NOT DORSET-ST.** as formerly

AYLESFORD POTTERY COMPANY,
BELVEDERE-ROAD, LAMBETH.
MANUFACTORY AT AYLESFORD, NEAR MAIDSTONE, KENT.

The above Company having now been in existence for nearly six years, and having largely supplied DRAIN PIPES, &c. to some of the largest Works in and around London, viz.: The New Cattle Market, Wellington and Cavalry Barracks, Deptford Dockyard, Her Majesty's Commissioners of Works, &c. and in all instances parties using them expressing themselves satisfied therewith,—offer their goods to Contractors, the Trade, &c. of a first-rate quality and manufacture, and at the lowest possible prices, NOT BEING IN ANY WAY CONNECTED WITH THE LONDON POTTERS' ASSOCIATION.

HENRY MILLICHAMP,
MANUFACTURER OF
GLAZED STONE-WARE DRAIN-PIPES, BENDS, JUNCTIONS, TRAPS, &c.
65, PRINCES-STREET, LAMBETH, and BRUNTON'S WHARF POTTERIES,
COMMERCIAL-ROAD EAST.

Watercloset Pan with Syphon-trap, 8s. 6d. each.

Whole Socket.

A LARG ASSORTMENT OF STRAIGHT TUBES IN 2-FEET LENGTHS.
Bends, Elbows, Urinals, Gully-Traps, Flap-Traps, Syphon-Traps, &c. always kept in Stock.

Half Socket.

Watercloset Pan with Syphon-Trap connected, price 8s. 6d. each.

DRAWING AND LIST OF PRICES FORWARDED FREE ON APPLICATION.
"Terra-cotta" Chimney-pots of various patterns and sizes, also Red Earthenware Drain-pipes, at greatly reduced prices. (1179)

STEAM PRESSURE GUAGES.

The most approved and suitable Instrument for Colliery, Railway, and other Boilers, is

WEBSTER'S PATENT,

MANUFACTURED ONLY BY GRAY AND BAILEY,
BIRMINGHAM.

From whom the fullest information may be obtained.

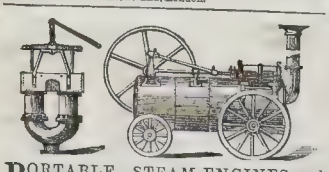
Orders from Collieries should be given without delay, as the new law in respect to Coal-mines comes into operation the 31st December instant.

ENGINES.—For SALE, THREE 12-horse high-pressure horizontal ENGINES, admirably suited for winding; 12-inch cylinders, metallic pistons, either with or without boiler. Also two powerful double-purchase CRABS, capable of lifting 30 tons each. Also a wrought-iron TANK, 30 feet by 4 feet, by 4 feet, ⅜ plates.—Apply, by letter, to No. 20, BOX, Post-office, Derby.

PORTABLE STEAM-ENGINE.—A new 8-horse PORTABLE STEAM-ENGINE, with tubular boiler, for SALE.—Can be seen at work at Mr. GOODWIN'S, 67, Great Guildford-street, Southwark, of whom particulars may be obtained.

PUMPING and WINDING ENGINE.—TO BE LET on HIRE, or for SALE, a nearly new strong and simple PUMPING and WINDING STEAM ENGINE, of 10-horse power, by Meiklam and Hall, with a pair of 15-inch pumps and all the drivin gear complete. The contractor for whom it was fitted up will make a considerable sacrifice on the cost price, or let the whole on hire.—Apply to Messrs. MEDWIN and HALL, Engineers, Surrey Iron Works, 92, Blackfriars-road.

PUMPING MACHINERY. — Lifting and Forcing Pumps, Patent Centrifugal and Double-acting Hydraulic Rams, Water Wheels, and every description of machinery, of the most improved construction, manufactured and supplied by GWYNNE and CO. Hydraulic and Mechanical Engineers, Essex-wharf, Strand, London.



PORTABLE STEAM-ENGINES and PUMPS kept in Stock for Hire at reduced Prices. M. A. RICHARDS and SON, Pump Manufacturers and Engineers, Upper Ground-street, Blackfriars-bridge (Surrey Side).

M. A. RICHARDS and SON, PUMP MANUFACTURERS and ENGINEERS.

Pumps in Wrought and Cast Iron and Brass, bored by machinery, and fitted in the best possible manner, suitable for excavators, roads, brickmakers, farms, gardens, stables, liquid manure, ships, barges, well-sinking, &c. adapted for any depth. Hydraulic Pump for deep wells.
PUMPS ON HIRE.
Pumps of any size, single or double barrel, up to double 12-in. diameter, kept ready for use at reduced prices.

N.B. The above can be worked either by hand, horse, or engine power.

Iron Pails 28s. per doz. painted.
Ditto .... 42s. per doz. galvanized.

Upper Ground-street, Blackfriars Bridge, Surrey Side.

WARNER'S PATENT VIBRATING STANDARD PUMPS.—PATENT CAST-IRON PUMPS, for the use of farms, cottages, manure-tanks, and wells of a depth not exceeding 30 feet.

Diameter of Barrel.	Length of Barrel.		£ s. d.
2½ in.	short 1 ft 7 in.	Fitted for lead,	1 10 0
2½ „	long 3 3	gutta percha	1 14 0
3 „	ditto 3 6	or cast iron	2 8 0
3½ „	ditto 3 6	flanged pipe,	2 12 0
4 „	ditto 3 6	as required.	3 3 0
2½ „	short, with 15 feet of lead pipe attached, ready for fixing		2 14 0
2½ in.	long ditto ditto		2 18 0

The short barrel Pump is very convenient for fixing in situations of limited height and space, for the supply of coppers and sinks in washhouses with soft water from underground tanks, or in hot. forcing, and plant houses; they may be fixed, when desired, Ironmonger or Plumber in Town or country, at the above prices, or of the Patentees and Manufacturers, JOHN WARNER and SONS, No. 8, Crescent, Jewin-street, London.—Every description of Machinery for Raising Water, by means of wheels, rams, deep well pumps, &c. Also, Fire and Garden Engines, &c. &c.—Engravings sent on application.

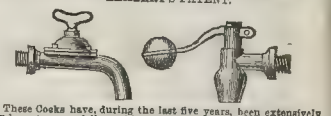
TO WATER COMPANIES AND PLUMBERS.
HIGH-PRESSURE COCKS & CLOSETS.

The Health of Towns Commissioners having recommended the adoption of the high-pressure principle in all towns, WARNER'S HIGH-PRESSURE COCK is recommended as a Cock free from leakage, and applicable for all purposes and situations. Patent Closets and Basins with supply-valve for attaching direct to main pipes without a cistern, cocks, or wire.

LEAD, IRON, and TIN PIPE.

JOHN WARNER and SONS, Manufacturers, 8, Crescent, Jewin-street, London.

PRIZE MEDAL, CLASS 2.
HIGH-PRESSURE VALVE COCKS,—LAMBERT'S PATENT.



These Cocks have, during the last five years, been extensively and most successfully used in many Towns under continuous high pressure, varying from 100 to 330 feet; their efficiency and durability is by experience established.

The Equilibrium Ball-valve is simple and certain in its action, and is cheaper than the common Cocks now in use.

Enamelled iron, self-acting, and other closets, upon economic arrangements, suitable for public buildings, cottages, asylums, &c.

THOMAS LAMBERT and SON,
Brass and Iron Founders, Short-street, New-cut, Lambeth.

THE VIEILLE MONTAGNE ZINC MINING COMPANY'S PURE PATENT WHITE ZINC PAINT is unequalled for permanency of colour, hardness, and brilliancy of surface; it is unaffected by sulphureous or any other vapours or emanations. Being completely innocuous and free from the pernicious effects of white lead, it may be employed in all apartments whilst in use without any inconvenience to the inmates.

The greatest caution is recommended to avoid any spurious compounds that might be sold at cheap rates as Pure Oxide of Zinc. If any adulteration has taken place in the oxide, either in consequence of impurity in the material primarily made use of to produce it, an imperfect mode of production, or by mixing with the oxide certain substances calculated to give it increased weight, it then produces a very inferior instead of a very superior paint, and the economy realised by the purchasers of such oxides becomes a very expensive result to the owner of the premises painted with them.

The VIEILLE MONTAGNE'S ZINC OXIDES, dry or ground in oil, are sold with the VM mark in Hull by Messrs. BLUNDELL, SPENCE, and CO.; when ground and dry, by Messrs. T. B MORLEY and CO. and by the Company's Grinding Agents in London, Messrs. CHARLES DEVAUX and CO. Wholesale Agents, 62, King William-street City; and by the Manufacturing and Painting Agent, Mr. FREDK. BRABY, Fitzroy Works, New-road. In Manchester and Liverpool by R CLAY, 8, Mersey-street, who is the acknowledged Painter to the Company for Zinc Paints, and undertakes painting ships, warehouses, dwelling-houses, &c. In Leith, by Messrs. R. ANDERSON and CO. Timber-merchants and in Southampton, by Mr. H J. BUCHAN. Dry OXIDES and PAINTS, in kegs of 14, 21 and 28 lbs. and upwards, to be had of the Company's Agents in Birmingham, Newcastle, Glasgow, Bristol, Plymouth, Portsmouth, Norwich, Ipswich, Poole, and the Isles of Jersey, Guernsey, Man, and Wight; also in Dublin, Cork, and Belfast.

The Company also employ an acknowledged Painter in London, who will undertake any description of painting with Zinc Paint by contract.

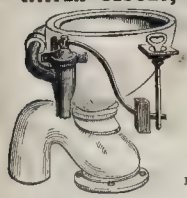
For further particulars, apply to the Company's General Agency in London, 12, Manchester-buildings, Westminster.

TERRA-COTTA WORKS, Blackfriars-road, London.—The PRIZE MEDAL for MATERIAL and WORKMANSHIP to TERRA-COTTA to M. H. BLANCHARD, late of Coade's Original Works, and successor to them in the manufacture of this invaluable material, that has been so successfully adopted for nearly a century in this country, by our eminent architects and others, in the adornment of our noblest buildings, and is the only tried material that is capable to stand the ravages of time unimpaired. Groups, Statues, Vases, Fountains, and Architectural Embellishments, at prices and quality that will defy competition. A large Stock of newly designed Chimney Shafts and Pots, to suit the various styles of buildings, at very low prices, and worthy of notice.

BLASHFIELD'S PATENT TERRA-COTTA, Manufactured at Mill-wall, Isle of Dogs.—Capitals, Consoles, Tracery for Parapets, Balusters, String Courses, Friezes, Bas relievi, Vases, Statues, Chimney-shafts, and all other Architectural Ornaments modelled, finished, and burnt, in the best manner, and warranted to stand heat and frost, either in Buff or Red-coloured Terra-cotta.—A great variety and large stock may be seen at BLASHFIELD'S Warehouse and Show-rooms, No. 1, Praed-street, Paddington.

PAPER-HANGINGS.—The CHEAPEST HOUSE in London for every description of PAPER-HANGINGS is CROSSS'S WHOLESALE WAREHOUSE, 22, GREAT PORTLAND-STREET, Oxford-street, where you can select from the LARGEST and MOST EXTENSIVE Assortment in the Kingdom, THIRTY PER CENT. CHEAPER than any other house in the trade. Builders, Decorators, Dealers, and large consumers will do well to visit this establishment.

WATER-CLOSET, WITH APPARATUS COMPLETE, FOR 13s. 6d.



DOULTON & WATTS,

LAMBETH POTTERY, LONDON.

DOULTON'S NEW ENAMELLED CLOSET-PAN, REGISTERED,

AND

LAMBERT'S PATENT HIGH-PRESSURE VALVE-COCK,

With Handle, Lever, and Weight, ready for fixing,

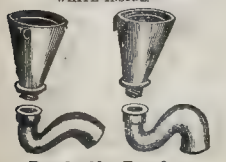
Making the most COMPLETE, DURABLE, and EFFICIENT APPARATUS, as well as far the CHEAPEST yet manufactured.

JAMES STIFF,

MANUFACTURER OF GLAZED STONEWARE DRAIN PIPES, WATER-CLOSET PANS, SINK TRAPS, INVERT BLOCKS, AND ALL OTHER ARTICLES SUITABLE FOR DRAINAGE AND OTHER PURPOSES,

LONDON POTTERY, HIGH-STREET, LAMBETH, LONDON.

IMPROVED WATER-CLOSET PANS AND TRAPS, WHITE INSIDE.



Pan, 3s. 6d. Trap, 2s.

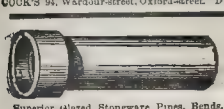
STRAIGHT PIPES IN TWO-FEET LENGTHS.

IMPROVED YARD-SINK.

HALF-SOCKET PIPES, in 2 feet lengths, at usual prices, by the use of which, Drains may be readily examined, and Junctions inserted, in the event of requiring further connections.

May be had also at Messrs. GLADDISH'S LIME WHARFS, Pedlar's-acre, Westminster-bridge, City-road Wharf, City Basin; Dock-head, Bermondsey; Deaner's Wharf, foot of Battersea-bridge, Chelsea; Pratt Wharf, King's-road, Camden New Town; J. TURNER, 2, South Wharf, Praed-street, Paddington; COLWILL, Brothers, 33, Bryd ges-street, Covent Garden; and at EDWARD COOK'S 94, Wardour-street, Oxford-street. Drawings and List of Prices will be forwarded free on application.

STEPHEN GREEN, IMPERIAL POTTERIES, LAMBETH.

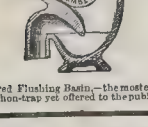


Superior Glazed Stoneware Pipes, Bends, Junctions, Traps, &c. Hopper and other Pans, with best White Glaze inside.

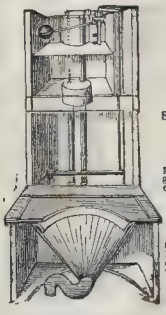
Pan, 3s. 6d.

Trap, 2s.

Syphon Pan, with or without STEPHEN GREEN'S Patent Air-tight Valve.



Registered Flushing Basin,—the most effective Syphon-trap yet offered to the public.



IMPORTANT TESTIMONIALS

TO THE EFFICIENT WORKING OF

STEPHEN GREEN'S

PATENT SYPHON FLUSHING BASIN,

AND

SELF-ACTING CLOSET CONNECTIONS.

Oxford, November, 1849.

GENTLEMEN,—Sixteen of your Closets having been put into operation at Christ Church College, I have great pleasure in giving you my testimony as to their efficiency and simplicity.

HENRY J. UNDERWOOD, Architect.
R. S. HOGGAR, Engineer.

Royal Arsenal, Woolwich, June 24, 1853.

GENTLEMEN,—I have much pleasure in giving my testimony in favour of your Patent Syphon Flushing Basin, with Self-acting Closet Connections. There are several fixed here, which have been in use for upwards of twelve months, giving perfect satisfaction.

I am, Gentlemen,
Your obedient Servant,
WILLIAM CARTWRIGHT.

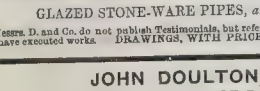
This effective article has not any Crank or Wire to get out of order, and is all complete and ready for use, and may be seen in operation at STEPHEN GREEN'S Manufactory, Lambeth.

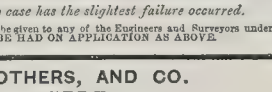
HENRY DOULTON AND CO. MANUFACTURERS OF GLAZED STONE-WARE DRAIN-PIPES.

MANUFACTORIES: HIGH-STREET, LAMBETH, LONDON; ROWLEY REGIS, STAFFORDSHIRE; AND SMETHWICK, NEAR BIRMINGHAM.

OFFICES: HIGH-STREET, LAMBETH, LONDON.

SOCKET.





HALF-SOCKET.

TWENTY-ONE LARGE AND IMPORTANT TOWNS HAVE BEEN DRAINED WITH DOULTON'S GLAZED STONE-WARE PIPES, *and in no case has the slightest failure occurred.*

Messrs. D. and Co. do not publish Testimonials, but references can be given to any of the Engineers and Surveyors under whom they have executed works. DRAWINGS, WITH PRICES, MAY BE HAD ON APPLICATION AS ABOVE.

JOHN DOULTON, BROTHERS, AND CO.

LIVERPOOL POTTERY,

ST. HELEN'S.

STORES—70, SOHO-STREET, LIVERPOOL.

MANUFACTURERS OF

DOULTON'S STONE-WARE PIPES, DOULTON'S HALF-SOCKET PIPES.

DOULTON'S INVERT BLOCKS FOR SEWER BOTTOMS. DOULTON'S PATENT JUNCTION BLOCKS.

TERRA-COTTA CHIMNEY-TOPS, FIRE-CLAY FLUE-PIPES, RIDGE & PAVING TILES, &c.

SUPERIOR GLAZED STONEWARE

DRAIN PIPES, invented and manufactured by WILLIAM NORTHEN, UNION POTTERY, No. 14, VAUXHALL-WALK, LAMBETH.

W. NORTHEN begs to inform surveyors, contractors, builders, water companies, &c. that he has completed "Spencer's" new patent machinery for making GLAZED STONEWARE DRAIN PIPES, JUNCTIONS, BENDS, ELBOWS, SYPHON-TRAPS, &c. &c. Amongst the many advantages of pipes made by this machinery over all others may be mentioned, that it insures perfect uniformity in form and size, both of pipes and sockets, the dies being of a different and better construction than any others now in use; and the pipes and sockets being made by one process are secure from separation.

W. N. invites particular attention to the superior quality of the glaze used in his manufacture, which is equal to glass, and rendering stoppage in the drains impossible.

W. NORTHEN'S PIPES MAY BE INSPECTED AT THE FOLLOWING PLACES, WHERE ORDERS ARE RECEIVED:—

Martin and Wood's Market Wharf, Regent's-park Basin.—J. C. Hilton's, Crown and Horse-shoe Wharf, No. 6, Upper Thames-street.—Millwood and Co.'s Wharf, Kensington Basin, and Creek Wharf, Hammersmith.—J. Corbet's Depôt, Britten-street, Chelsea; and at the Pottery.

SUPERIOR LAND DRAINAGE.—

AGRICULTURAL DRAIN-PIPES of all sizes, and in any quantities, can be SUPPLIED, either by water or land carriage, at a reduced rate, by applying to L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

SUPERIOR STONEWARE GLAZED

PIPES of a quality not to be surpassed.—E. and W. STURGE respectfully invite attention to the very superior character of their stone pipes, which they are confident are such as must give great satisfaction,—the price being also lower than many in the trade, viz. 25 per cent. discount off the list for cash. Junction Bends, &c. Pans and Traps of the first quality. Yorkshire Paving, Sinks, Sills, &c. all at low cash prices.—E. and W. STURGE, Bridge Wharf, City-road.

N.B. A small extra charge is made upon goods required to be delivered.—October 1, 1855.

COLLIER'S TERRO-METALLIC and RED EARTHENWARE SOCKET DRAIN PIPES,

BENDS, JUNCTIONS, and SYPHONS.—This well known, and long established ware, allowed by all to be of the best manufacture, by the unparalleled quality, combined with cheapness, will be found to meet the approbation of consumers.—Sole Agents, L. B. PEARSE and CO. Great Northern-wharf, York-road, King's-cross.

TO LOCAL BOARDS OF HEALTH AND GAS AND WATER COMPANIES.

FREEMAN ROE'S PATENT SLUICE-

VALVES, acknowledged to be the best in use; hydrants or fire plugs; wells sunk and bored; the hydraulic ram; forcing pumps of every description. Estimates prepared for all works connected with hydrantes or gas. Pumps let on hire.

W. P. ROE, late FREEMAN ROE, Hydraulic and Gas Engineer, 70, Strand, London.

PATENT DRAIN-PIPES, UNGLAZED

manufactured by ARTHUR C. FRANCIS and Co. Grays, Essex. Sold by them, and by FRANCIS, BROTHERS, Nine Elms, London, and at all their Warehouses.

PRICES.

3 inch bore, in 2 ft. 6 in. lengths, at					3d. per foot.
4	"	"	"	"	4d. "
6	"	"	"	"	6d. "
9	"	"	"	"	9d. "
12	"	"	"	"	1s. 3d. "
18	"	"	"	"	2s. 6d. "

These pipes are made under steam pressure, and burnt to great hardness, and are capable of bearing nearly double the hydraulic pressure of ordinary glazed pipes. The prejudice against red-ware is overcome by this manufacture. And it is well known that good earthenware, UNGLAZED, is the oldest material discovered in a perfect state in Rome, Babylon, Nineveh, &c. &c.

VICTORIA POTTERY, LEIGH, NEAR SOUTHEND, ESSEX.

DAVID MOUNTAGUE.

MANUFACTURER of superior GLAZED STONEWARE PIPES in accordance with the rules established by the Commissioners of Sewers, Bends, Traps, Closet-pans, Jars, Bottles, and every article in Stone Ware on advantageous terms. Also MANUFACTURER of superior Roman Cement and Plaster of Paris at Orchard House, Blackwall. Orders executed from the above places, from Falcon-wharf, 80, Bankside, Blackfriars, and from Harrow-bridge-wharf, Stratford, Essex.

PATENT SELF-ACTING WATER-

CLOSETS, with ECONOMIC WATER-REGULATORS, manufactured on the most simple principles, distributing with powerful flush over the surface of the basin, a smaller quantity of water than is usually needed, and effectually preventing waste. Admirably adapted for RAILWAY STATIONS, HOSPITALS, WORKHOUSES, and all public establishments. Also HIGH and LOW-PRESSURE powerful FLUSHING WATER-CLOSETS. Drawings, testimonials, and references of the highest respectability can be had on application. Specimens of each can be seen fixed upon the Premises of the Patentee, W. PATTEN, 22, Old Fish-street, near St. Paul's, London.—Price for Closet and Apparatus complete, from 25s. and perfect action guaranteed.

HOSE PIPING.—WAITHMAN'S

PATENT FLAX HOSE PIPING will sustain a greater pressure, is lighter, less bulky, will wear longer, and is about 66 per cent. cheaper than the leather hose pipe. Manufactured only by WAITHMAN & CO. Bentham, Lancaster.

No. 1 quality, inches diameter, and price per yard.

½	¾	1	1¼	1½	2	2½	3	3½ in.
9d.	11d.	1s.1d.	1s.3d.	1s.5d.	1s.7d.	1s.9d.	2s.3d.	2s.6d. 2s.9d.

Super-extra stout quality.

2	2½	3	3½	4 inches.
2s.	2s.3d.	2s.6d.	2s.9d.	3s. per yard.

No. 0. A cheaper hose, to bear a low pressure for gardens and agricultural purposes, at greatly reduced prices.

½	¾	1	1¼	1½	2	2½ inches.
8d.	10d.	11d.	1s.	1s.3d.	1s.6d.	per yard.

The hose is Burnetized at an extra charge of 3d. per yard. Union Joints, Branch Pipes, and Jets, are also supplied.

SALES BY AUCTION.

BUILDING MATERIALS.—CHANCERY-LANE.

PULLEN and SON will SELL by AUCTION, on the PREMISES, on WEDNESDAY, JANUARY 2, at TWELVE, by order of the Hon. Commissioners of Sewers, all the valuable BUILDING MATERIALS and FIXTURES of TWO HOUSES, Nos. 11½ and 12½, Chancery-lane, comprising sound brickwork, plain and pan tiles, boarded and timber floors and roofs, sashes, doors, shop-fronts, lead cutters and pipes, counters, drawers, shelves, show cases, office desks, gas fittings, stoves, coppers, cisterns, &c.—May be viewed the day previous, and catalogues had of PULLEN and SON, 90, Fore-street, Cripplegate.

The valuable Materials of the Borough Compter, Tooley-street.

PULLEN and SON respectfully announce that they are directed to SELL by AUCTION, on the PREMISES, on WEDNESDAY, JANUARY 9, at TWELVE, in lots, the whole of the capital BUILDING MATERIALS and FITTINGS-UP of the BOROUGH COMPTER, in Mill-lane, and Counter-street, Tooley-street; comprising about 500,000 excellent stock bricks, slates, and slating boards, prime oak and fir timber in stout roofs and floors, 2,500 feet of York paving, stone staircases, sills and window dressings, and 300 feet run of coping, glazed sashes, doors, and fittings of the governor's house, capital oak floor-boards, massive iron gates, spiked guards, fences, and railings, strong doors with locks and fastenings, iron bedsteads, and all the fittings of cells and dormitories, several tons of lead in gutters and pipes, water-tanks, copper-rs, baths, stoves, and numerous useful fittings-up. May be viewed the day previous. Catalogues had at the Architect's Office, Guildhall; and of PULLEN and SON, 90, Fore-street, Cripplegate.

LOCOMOTIVE ENGINES for SALE.—TO BE SOLD by PUBLIC AUCTION, at the RAILWAY STATION, on the north side of the river, at Stockton-on-Tees, on WEDNESDAY, the 16th day of JANUARY, 1856, SIX LOCOMOTIVE ENGINES and TENDERS, belonging to the Stockton and Darlington Railway Company. The engines may be seen, and further particulars obtained, on application to Mr. WILLIAM BOUCH, Shildon Works, near Darlington. By order,

THOMAS MAC NAY, Secretary.

Railway Office, Darlington, November 30th, 1855.

Capital Building Materials, Fixtures, and Fittings.

MR. ELLIS is directed to SELL by AUCTION, at 34, LIME-STREET, Fenchurch-street, on TUESDAY, 8th JANUARY, at TWELVE, in lots, to be taken down by the purchaser, the MATERIALS of two Premises; comprising about 30,000 stock bricks, 25 squares of capital slating, fir and oak timber, 75 squares of flooring, a quantity of glazed sashes, wooden doors, and moulded partitioning; stone coping, cills, slabs, and paving; about six tons of lead in flats, gutters, and pipes. The fixtures comprise wrought-iron safe, 6 feet 8 inches by 4 feet 7 inches by 6 feet; Chubb's mahogany pulpit, double and single desks, counters framing, sample cases, mahogany closets, gas-fittings, and a quantity of wrought-iron bins; also, register and other stoves, ranges, coppers, and sinks; large cisterns, with services and wastes. May be viewed the day preceding and morning of sale, and catalogues had of G. ATCHISON, Esq. Architect, Muscovy-court, Tower hill; and at the Offices of the Auctioneer, 150, Minories, City.

TO BUILDERS AND OTHERS.—Important Sale of Marble Chimney Pieces.

MESSRS. EVERSFIELD and HORNE will SELL by AUCTION, on TUESDAY, JANUARY 15, 1856, a very extensive assortment of MARBLE CHIMNEY-PIECES of every variety of style, plain and sculptured. Further particulars will shortly be published.—Auction Offices, 40, Parliament-street.

THAMES BANK.—MARBLE SLAB.

MESSRS. EVERSFIELD and HORNE have received instructions from the Consignees to SELL by AUCTION, at LLOYD'S WHARF, Thames Bank, Pimlico, early in JANUARY, a consignment of MARBLE SLAB, of superior quality, comprising Vein, Sicilian, Statuary, &c. which will be put into suitable lots, and for which approved Bills will be taken in payment.—40, Parliament-street.

Building Materials on the Hackney Estate of the Conservative Land Society.

MESSRS. EVERSFIELD and HORNE have received instructions from the Directors to SELL by AUCTION, on the PREMISES, Lower Clapton, near Hackney Church, on WEDNESDAY, JANUARY 2nd, 1856, at TWELVE, the excellent MATERIALS and FITTINGS of the MANSION and OFFICES, comprising several lots of slated and copper, slated and tiled roofs, sound timber, girders, joists and flooring, floor-boards, Spanish mahogany door, plate-glass sashes, statuary marble and other chimney-pieces, polished grates, kitchen range, coppers, and other fittings; also, the materials about the grounds, including two very excellent rustic summer-houses, erection of a temple with Doric stone columns, large cast-iron vase, several hundred feet of stout park railing, erection of greenhouses with heating apparatus, groups timber, range of stabling and coach-houses, pond-brick, stone paving, iron balconies, and other effects.—May be viewed, and catalogues had on the Premises; also of Messrs. MOSELY, Pell, Surveyors, Chancery-lane, at the Offices of the Society, Norfolk-street, Strand; and of the Auctioneers, 40, Parliament-street, Westminster; or Coal Exchange.

BAGNIGGE-WELLS ROAD. TO BUILDERS, MATERIAL BUYERS, AND OTHERS.

MR. D. A. RAMSAY is instructed to SELL by AUCTION, on the PREMISES, Baker-street (by permission), on WEDNESDAY, JANUARY 2, 1856, and following day, at ELEVEN o'clock, on account of the number of lots, removed from the Bedford Pantechnicon, Cambridge Depository, Brixton and Kennington road, for convenience of sale, capital BUILDING MATERIALS, comprising yellow and white deals, a quantity of joiners' work, marble slabs, chimney-pieces, Portland, York, and Caen stone, navvy's ware, scaffolding, carpenters' benches, ladders, register-stoves, drain-pipes, office furniture, copying machine, compo casks, blocks and falls, a handsome Italian carving mirror, iron wagon, gig harness, &c. together with a large quantity of builders' ironmongery, and numerous effects.—To be viewed one day prior to the Sale, when catalogues may be obtained, on the Premises; and of Mr. D. A. RAMSAY, Auctioneer and Estate Agent, No. 79, King William-street, City.

CAPITAL SHOP FIXTURES AND FITTINGS.

MR. GEO. ROBINSON will SELL, on the PREMISES, 21, OLD BOND-STREET, on TUESDAY next, JANUARY 1st, 1856, at ONE o'clock, SIX UPRIGHT BOOK or SHOW CASES, with sundry other Fittings. May be viewed the day prior, and catalogues had

KENT.—Stanstead-lane Brickfield, Brockley-park, between Forest-hill, Sydenham, and Catford-bridge, Lewisham.

MR. ARMITAGE will SELL by AUCTION, on the PREMISES, as above, under writs of "fieri facias" from the Sheriff of Kent, on THURSDAY, JANUARY 3rd, 1856, at TEN o'clock precisely, about 600,000 excellent STOCK and PLACE BRICKS, 3000 hundreds of breeze-chalk, wash and pug-mills, crowding and other barrows, 50 wheeling plates, troughs, planks, paving stone, three superior brick-carts, and two powerful cart-horses and harness. May be viewed any time previous and at sale; and catalogues had on the Premises; at the Foresters, Forest-hill; at the Ravensbourne Arms, Lewisham, and most of the Inns in the neighbourhood; and of Mr. FREDERIC CHAPMAN; and of the Auctioneer, Florence-terrace, New-cross-road, Deptford, Kent.

NOTICE TO ROAD CONTRACTORS, NURSERYMEN, AND OTHERS.

W. and J. STUDDS, Sole Proprietors of the WEST DRAYTON GRAVEL PITS, lately removed from No. 21 Wharf, Harrow-road, to 9, North Wharf-road, Paddington, have now on sale good Garden and Screened Gravel. For terms, &c. apply at the Wharf.

Contractors supplied to any extent.

THE LIZARD SERPENTINE COMPANY manufacture and sell in block and slab, the beautiful Stone now raised from the lower beds of their Quarries. Chimney-pieces, Columns, Fonts, and ornamental works on view, at 29, Surrey-street, Strand.

HENRY COX, Manager at the Lizard.
F. W. RUFFLE, Agent in London.

THE LONDON and PENZANCE SERPENTINE COMPANY having just opened an extensive SHOWROOM, at No. 18 Wharf, Moorfields-street North, City-road, for the sale of CHIMNEY PIECES, and other articles, useful architectural, and ornamental, invite Architects, Builders, and the trade generally, to inspect the same. A large assortment of fancy articles are also always on sale at the Company's Stall in the Mineral Manufactures Court, in the Crystal Palace, Sydenham. Estimates given, and orders promptly executed.

July 25, 1855. C. ADENEY, Secretary.

TO SCULPTORS, BUILDERS, MASONS, &c.

B. FABBRICOTTI respectfully invites the Gentlemen connected with the Marble Trade to inspect his fresh STOCK, composed of statuary, Sicilian, black and gold, Devonshire, Bardilla, Siena, and Breccia in slabs, and particularly calls their attention to a large quantity of his best statuary, sixty blocks, of all sizes, just landed.

Monuments, vases, and statues, finely executed in Italy.
Carrara Wharf, Thames-bank, Pimlico.

MARBLE.—The Italian Marble Company, Importers of the produce of their own quarries in the province of Massa Carrara, Italy, beg to inform the general marble trade in the United Kingdom that they are prepared to undertake Contracts for any quantity of Statuary, Veined, Sicilian, Bardilla, Dove, and other Marbles, in blocks of all dimensions, delivered on shipboard at Leghorn, or in dock, London. A constant stock is always kept at the London Depôt, Messrs. Farmer and Brindley's Garden and Hall Statues, Vases, Tazzas, Consoles, &c. executed and delivered at reasonable rates. For further particulars apply at the Offices of the Company, 18, Cannon-street, City.

WILLIAM W. BONNIN, London Secretary.

BRINE, BROTHERS, Marble and Stone Merchants, Great Northern Wharf, Canal-road, King's-cross, London, continue to supply the trade with all descriptions of Marble, in Block and Slab, at the lowest prices.—N.B. A good stock of Statuary Slab on hand, suitable for shelves.

MARBLE WORKS by PATENT MACHINERY, Commercial-road, Pimlico, London.

THOMAS JACKSON begs to call the attention of the public to the most extensive stock of Marble Chimney-Pieces in the Metropolis; consisting of a selection of upwards of two hundred, and manufactured of statuary, pure Italian, the finest Italian and other marble, and with that careful attention to the details and finish so necessary in good marble work. The Stock consists of elegant Drawing-Room Chimney-Pieces in Statuary Marble; bold, massive Chimney-Pieces, in Black, Black and Gold, Bardilla, Sienna, Verd Antique, Brocatella, Dove, St. Ann's, and Serpentine Marble, suitable for Dinner-Rooms, Libraries, Vestibules, and Entrance-Halls; and a great variety of others in Veined, San Juan, Emperor's Red and Amber Marble, for Boudoirs, Breakfast-Rooms, best and secondary Bed-Rooms, &c.; also, Monuments, Tomb-Tablets, and Pedestals for Busts and Statues, and Slabs for Cabinet Work, &c.; the whole executed from the most classical designs, and in all the varieties of the finest Italian and British Marble, at the lowest remunerative prices.

THOMAS TILNEY, YORKSHIRE STONE MERCHANT, Tanfield-place, Leeds.—To Builders and Buyers of the Best Quarry. Direct from the Quarries in truck-loads of five tons. Pavings, Landings got out to sizes, Steps, Copings, &c. &c. supplied on most advantageous terms by railway, and with despatch. Prices sent on application.

JOHN BAZLEY WHITE and BROTHERS, MARBLE MERCHANTS,
MILLBANK-STREET, WESTMINSTER.

Marble of all kinds and of best quality, in block and slab. Marble mortars, &c.

CAEN and AUBIGNY STONE.—P. FOUCARD, Stone Merchant and Quarryman. Cargoes shipped to order from Caen to any port. Contracts taken for any quantities. Depôts: Granite Wharf, East Greenwich; Lett's Wharf, Waterloo-bridge. Office, 246, High-street, Southwark, near the Townhall.

CAEN and AUBIGNY STONE.—GATES and GEORGE (late Luard, Beedham, and Co.), Caen-wharf, Rotherhithe, London, General Stone Merchants and Quarrymen, continue to supply from their Wharf and above, CAEN, AUBIGNY, PORTLAND, and YORKSHIRE STONE.

RANSOME'S SILICIOUS STONE.—All kinds of ARCHITECTURAL EMBELLISHMENTS executed in this beautiful artificial material, at prices not exceeding the ordinary cements. Full particulars furnished on application to Mr. FRED. RANSOME, Whitehall-wharf, Cannon-row, Westminster; or Patent Stone Works, Ipswich.

BATH STONE OF BEST QUALITY.

RANDELL and SAUNDERS, QUARRYMEN AND STONE-MERCHANTS,
BATH.

List of prices at the quarries and depots, also cost for transit to any part of the kingdom, furnished on application to Bath Stone Office, Corsham, Wilts.

PIMLICO MARBLE WORKS,
BELGRAVE-WHARF,
LOWER BELGRAVE-PLACE.

SAMUEL CUNDY,

THE STOCK OF LOW-PRICED CHIMNEY-PIECES ARE WELL AND CAREFULLY MANUFACTURED OF THE BEST MATERIAL.

PRIZE MEDAL IN 1851 FOR A MONUMENTAL WORK.

GUERNSEY GRANITE.—Contractors and Others supplied, from a single cargo upwards.—Apply to C. D. BENNETT, Quarry Proprietor and Granite Merchant, St. Sampson's, Guernsey; or 54, Lower Thames-street, London.

GRANITE.—King William and Nelson Monuments, Plinth and Steps of the Royal Exchange, and Terraces at the Crystal Palace.—Supplied by the Haytor Company under Royal Charter.—For terms, apply to Mr. C. HOAR, Haytor Granite Office, 4, Millbank-row, Westminster.

GRANITE.—The Cheesewring Granite Company, Liskeard, Cornwall.

London Agents—FREGELIS and TAYLOR, 3, Pinner's court, Old Broad-street. Manager—JAS. J. THATHAN, Liskeard.

This Granite is selected for the New Westminster-bridge.

NORTH-WESTERN STONE DEPOT, Hampstead-road Bridge, Camden-town.—W. ASPINALL begs to call the attention of Contractors, Builders, and Masons, to his Stock of Portland, Park Spring, Bolternewton, Hare-hill, Bath, Caen, and other Block Stone; York Paving, Landings, Steps, Sinks, Sills, &c.; Park Spring, Robin Hood, Hare-hill Landings and Slabs. Also, Aberdeen, Guernsey, and Haytor Granite Curbs and Kitching, all at the very lowest prices.

N.B. Good 3-inch Tooled Paving, at 40s. per 100 feet, cash.

ANCASTER STONE, so remarkable for its free working quality, combined with colour and durability. Price, and cost of transit to any part, may be obtained, upon application, at Mr. W. THOMPSON'S Office, Elmer-street, Grantham.

MARKET-WHARF, REGENT'S-PARK-BASIN.—WEST-END DEPOT, for Yorkshire Paving, Portland and Derby Stone, Bangor Slates, Slabs, &c. Also Bricks, Lime, Cement, Plaster, Tiles, Laths, and Fire Goods. SCOLES and WOOD invite the attention of Builders, Masons, and others, to their Stock as above, where everything will be charged at the lowest prices. Headstones, Ledgers, Steps, Landings, &c. cut on the shortest notice. Country orders promptly attended to.

PARIS EXHIBITION.—ENAMELLED SLATE.—TWO FIRST-CLASS MEDALS!—Mr. MAGNUS is the only exhibitor whose productions received this double honour; also the Prize Medal at the Great Exhibition of 1851, and Society of the Society of Arts in 1854. This beautiful material, handsomer and more durable than marble, is now finding its way into palaces, into the mansions of the nobility at home and abroad, into the highest class of public buildings, as well as into humbler dwellings. The cost is immeasurably below that of any other production that can at all compete with it. It is applicable to a variety of useful and ornamental articles, too numerous to be separately specified. Among the chief are chimney pieces and ornamental stoves for all apartments; plain and exquisitely decorated slabs for the tops of lavatables, chiffoniers, consoles, &c.; baths baptistries, altar-tablets, pilasters, columns, vases, pedestals, and brackets; wash-stand tops, billiard tables, linings to halls, and mantles, and dados.—Price lists can be had on application to Mr. MAGNUS, 38 and 40, Upper Belgrave-place, Pimlico.

N.B. Plain slate work executed from a single article to the most extensive contracts, for home and abroad.

TO BUILDERS and Others in Town or Country.—For PRICES of BANGOR SLATES, apply to SCOLES and WOOD, Market Wharf, Regent's-park.

VALENTIA SLATE SLABS.—The Valentia Slab Company invite attention to their Slabs now supplied, of very large dimensions and of superior quality. They have been used at the British Museum, National Gallery, Bethlem Hospital, various Lunatic Asylums, the Ordnance Works, Model Prison, Pentonville, and other Penitentiaries; Malting Floors in Bedfordshire and Hertfordshire, Breweries, the Race Stand, Brighton, Portsmouth Barracks, and are kept in stock in large quantities by Messrs. FREEMAN, Millbank-street; also by Messrs. Sharpe, Tooley-street; and at Messrs. Braby's, Belvidere-road, where terms may be obtained.

AUSTIN'S ARTIFICIAL STONE.—This material frequently confounded with Portland Cement has now been in extensive use among the highest class of residences for about twenty-five years. During that time a collection of Ornamental Work, such as Vases, Flutes, and Fountains, has been accumulating, of which the public have scarcely any idea. Suffice it to say, that a single copy of each work would collectively amount to between 2,000 and 3,000. In contradistinction from Terra-cotta, and all other kind of Pottery, there is no distortion of form by the process of baking, and, instead of the glazed surface of Terra-cotta, it has the closest resemblance to Portland Stone, having also the advantage of being waterproof.—AUSTIN and SEELEY, Nos. 1 to 4, Keppel-row, New-road, Regent's-park.

*** A large Stock of Ornamental Chimney-tops.

GROUND FLINT AND CORNISH STONE, UNADULTERATED.
WILCOX & CO.
FLINT MILLS, MILLWALL, POPLAR.

THE RAILWAY SWITCH and CROSSING COMPANY.—Directors of Railways, Engineers, and Manufacturers, are informed that the Offices of the Company are removed to 103, St. Martin's-lane, Charing-cross, where, on application, every information will be afforded respecting their Patented Improvements in Switches and Crossings, now so universally adopted. WILLIAM DEMPSEY, Manager.

THE PERMANENT WAY COMPANY, 26, Great George-street, Westminster.

The Second Edition of this Company's Circular, just published, is now being forwarded, post free, to Directors, Engineers, Managers, and others interested in Railways.

The Circular contains Engravings, detailed Estimates of cost of construction, and descriptions of many valuable Patents, with the latest results of experience in the working of the various patented systems of Permanent Way, either the property of, or worked by the Permanent Way Company.

These patented systems are now adopted by Companies owning several thousand miles of Railway, are approved of by most of the eminent Railway Engineers, in this country and abroad, and the system of Fish-jointing, in particular, has received the unqualified approval of H. M. Commissioners of the Board of Trade and their Inspecting Officers.

The Permanent Way Company are prepared to grant licenses on liberal terms, to Railway Companies and Manufacturers for the use of all or any of the Patented Inventions, which have for their object the safety and comfort of the travelling public, and economy in construction of the Road and Rolling Stock.

That the objects are accomplished, the following extracts will confirm:—

"There can be no doubt that the practice of Fishing the Rails, which is becoming very general, is a great element of safety, the principle cannot be too much encouraged." Extract from Report of Colonel Wynne, R.E. Chief Inspector of Railways to H. M.'s Commissioners of the Board of Trade, dated April 9th, 1854.

"My Lords direct me to observe, that they trust that the remarks of the Inspecting Officer, as to the desirability of the Fished Joint being adopted to a greater extent upon the Railway, will receive the attentive consideration of the Directors."—Extract from letter of Captain Galton, R.E., Secretary to the Railway Department of the Board of Trade, in reference to the foregoing Report.

"Dear Sir,—In reply to your favour of the 1st instant, I beg to say that I experience no difficulty whatever in keeping the nuts of the bolts tight."—Extract from a letter by Mr. H. Woodhouse, Engineer, of the London and North Western Railway.

"I would, however, beg to state that, in point of safety, the first and most essential element of railway working, the Fish Joint, on your system, is, in my opinion *indispensable*—Extract from letter of Mr. J. E. M'Connell, Locomotive Engineer of the London and North-Western Railway.

"On a district of about thirty miles, where the greatest length has been Fished, the saving in labour of maintenance amounts fully to thirty per cent."—Extract from Mr. R. Jacomb Hood, Engineer to the London, Brighton, and South-Coast Railway.

Among others, the Company call attention to the following Patents recently placed under its management:—Mr. William Pole's important Improvement in Fish Joints, and Mr. Paul Frances Improvements in moulding Railway Chairs.

Licenses, and every information, may be obtained upon application to CHARLES M. MAY, F.R.S. Managing Director of the Company, 26, Great George-street, Westminster; or to WILLIAM HOWDEN, Secretary.

LONDON: Printed by CHARLES WYMAN, of 13, Hunter-street, Brunswick-square, in the Parish of St. George, Bloomsbury, Printer, at the Printing-office of COX (Brad) & WYMAN, 74 & 75, Great Queen-street, Lincoln's-inn-fields, in the Parish of St. Giles-in-the-Fields; and published by the said CHARLES WYMAN, at the Office of "THE BUILDER," 1, York-street, in the Parish of St. Paul, Covent Garden, all in the County of Middlesex.—Saturday, December 29, 1855.

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